ORGANICS
Raw Data

Quantitation Report (QT Reviewed)

Data File : M:\THOR\DATA\T191028\1029T35.D Vial: 35
Acq On : 30 Oct 19 3:50 Operator:
Sample : BA01828W01 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 31 10:57 2019 Quant Results File: TGAS1026.RES

Quant Method : M:\THOR\DATA\T191028\TGAS1026.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 28 12:08:31 2019
Response via : Initial Calibration
DataAcq Meth : T8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	6.59	TIC	301512	25.00	ppb	0.00
3) Chlorobenzene-D5 (IS)	9.74	TIC	377405	25.00	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	12.06	TIC	392134	25.00	ppb	0.00

System Monitoring Compounds

Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\THOR\DATA\T191028\1029T35.D Vial: 35
Acq On : 30 Oct 19 3:50 Operator:
Sample : BA01828W01 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 31 10:58 2019 Quant Results File: TSUR1023.RES

Quant Method : M:\THOR\DATA\T191028\TSUR1023.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:27:29 2019
Response via : Initial Calibration
DataAcq Meth : T8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	6.59	96	143872	25.00	ppb	0.00
4) Chlorobenzene-D5 (IS)	9.74	117	132352	25.00	ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	12.06	152	71056	25.00	ppb	0.00
System Monitoring Compounds						
2) Dibromofluoromethane(S)	5.79	111	66906	24.13	ppb	0.00
Spiked Amount 25.000			Recovery =	96.504%		
3) 1,2-DCA-D4(S)	6.17	65	74812	24.09	ppb	0.00
Spiked Amount 25.000			Recovery =	96.372%		
5) Toluene-D8(S)	8.30	98	229164	23.19	ppb	0.00
Spiked Amount 25.000			Recovery =	92.744%		
6) 4-Bromofluorobenzene(S)	10.92	174	88978	22.74	ppb	0.00
Spiked Amount 25.000			Recovery =	90.960%		

Target Compounds Qvalue

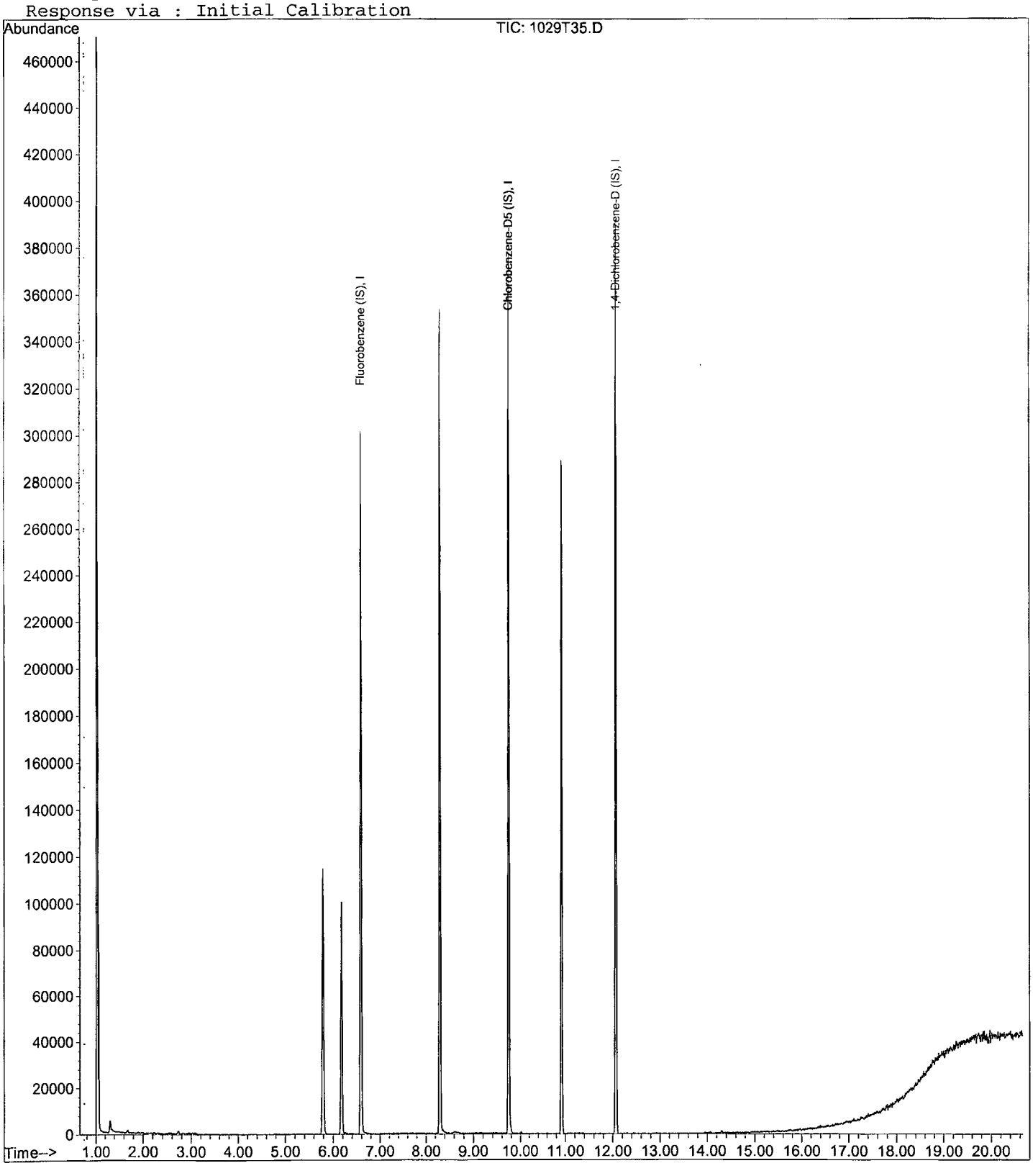
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\THOR\DATA\T191028\1029T35.D Vial: 35
Acq On : 30 Oct 19 3:50 Operator:
Sample : BA01828W01 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 31 10:57 2019 Quant Results File: TGAS1026.RES

Method : M:\THOR\DATA\T191023\TGAS1026.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 28 12:08:31 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\THOR\DATA\T191028\1029T37.D Vial: 37
Acq On : 30 Oct 19 4:47 Operator:
Sample : BA01829W01 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 31 10:57 2019 Quant Results File: TGAS1026.RES

Quant Method : M:\THOR\DATA\T191028\TGAS1026.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 28 12:08:31 2019
Response via : Initial Calibration
DataAcq Meth : T8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	6.59	TIC	294557	25.00	ppb	0.00
3) Chlorobenzene-D5 (IS)	9.74	TIC	364441	25.00	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	12.06	TIC	383426	25.00	ppb	0.00

System Monitoring Compounds

Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\THOR\DATA\T191028\1029T37.D Vial: 37
Acq On : 30 Oct 19 4:47 Operator:
Sample : BA01829W01 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 31 10:58 2019 Quant Results File: TSUR1023.RES

Quant Method : M:\THOR\DATA\T191028\TSUR1023.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:27:29 2019
Response via : Initial Calibration
DataAcq Meth : T8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	6.59	96	141376	25.00	ppb	0.00
4) Chlorobenzene-D5 (IS)	9.74	117	127264	25.00	ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	12.06	152	69216	25.00	ppb	0.00
System Monitoring Compounds						
2) Dibromofluoromethane(S)	5.79	111	66792	24.51	ppb	0.00
Spiked Amount 25.000			Recovery = 98.040%			
3) 1,2-DCA-D4(S)	6.17	65	70617	23.14	ppb	0.00
Spiked Amount 25.000			Recovery = 92.572%			
5) Toluene-D8(S)	8.30	98	223581	23.53	ppb	0.00
Spiked Amount 25.000			Recovery = 94.100%			
6) 4-Bromofluorobenzene(S)	10.92	174	86497	22.99	ppb	0.00
Spiked Amount 25.000			Recovery = 91.960%			

Target Compounds Qvalue

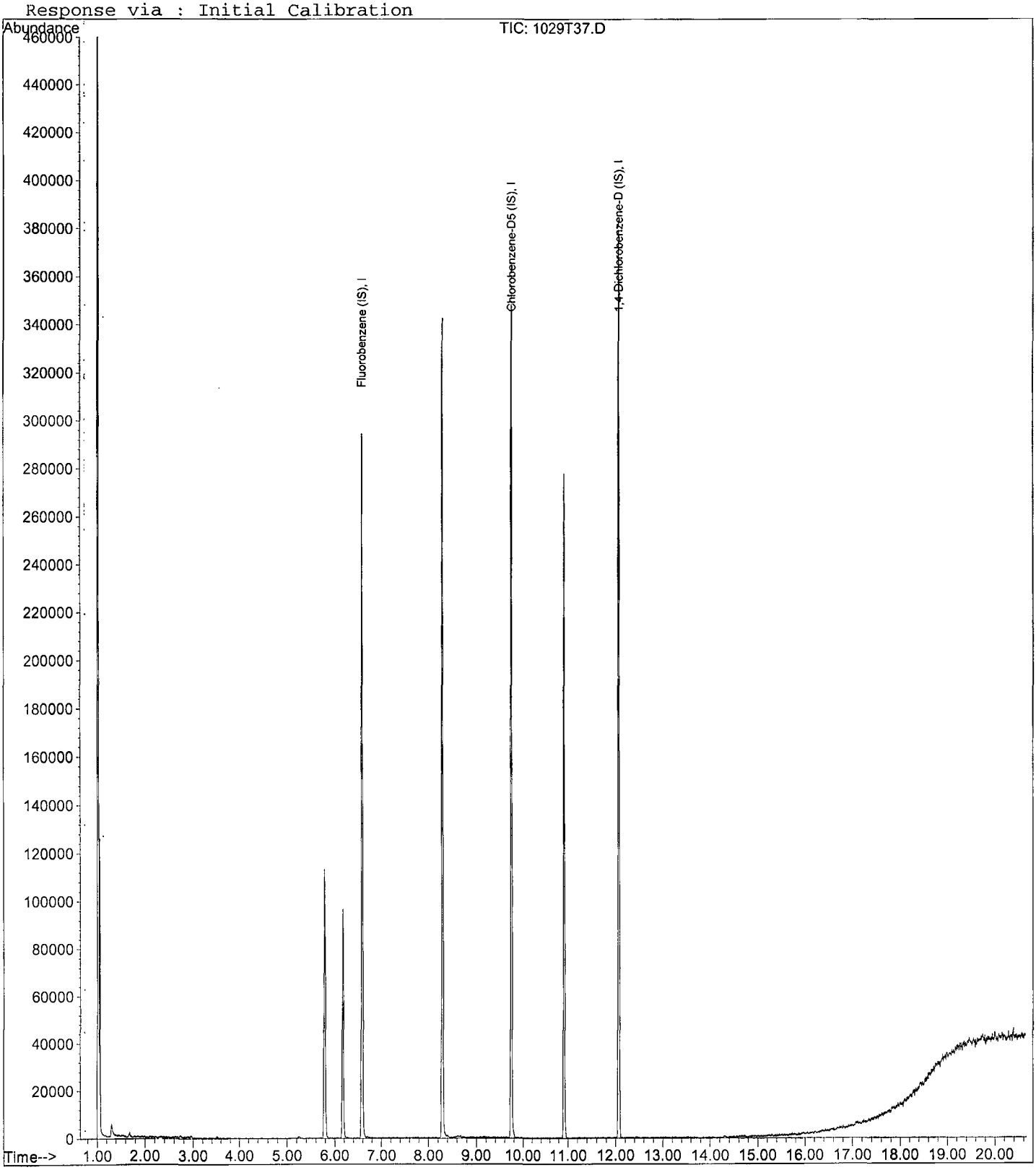
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\THOR\DATA\T191028\1029T37.D Vial: 37
Acq On : 30 Oct 19 4:47 Operator:
Sample : BA01829W01 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 31 10:57 2019 Quant Results File: TGAS1026.RES

Method : M:\THOR\DATA\T191023\TGAS1026.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 28 12:08:31 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\THOR\DATA\T191028\1029T40.D Vial: 40
Acq On : 30 Oct 19 6:12 Operator:
Sample : BA01830W01 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 31 10:58 2019 Quant Results File: TGAS1026.RES

Quant Method : M:\THOR\DATA\T191028\TGAS1026.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 28 12:08:31 2019
Response via : Initial Calibration
DataAcq Meth : T8260

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene (IS)	6.59	TIC	281430	25.00 ppb	0.00
3) Chlorobenzene-D5 (IS)	9.74	TIC	356348	25.00 ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	12.06	TIC	365067	25.00 ppb	0.00

System Monitoring Compounds

Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\THOR\DATA\T191028\1029T40.D Vial: 40
Acq On : 30 Oct 19 6:12 Operator:
Sample : BA01830W01 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 31 10:58 2019 Quant Results File: TSUR1023.RES

Quant Method : M:\THOR\DATA\T191028\TSUR1023.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:27:29 2019
Response via : Initial Calibration
DataAcq Meth : T8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	6.59	96	133760	25.00	ppb	0.00
4) Chlorobenzene-D5 (IS)	9.74	117	126440	25.00	ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	12.06	152	66240	25.00	ppb	0.00
System Monitoring Compounds						
2) Dibromofluoromethane(S)	5.78	111	63727	24.72	ppb	0.00
Spiked Amount 25.000			Recovery =	98.868%		
3) 1,2-DCA-D4(S)	6.17	65	71064	24.62	ppb	0.00
Spiked Amount 25.000			Recovery =	98.464%		
5) Toluene-D8(S)	8.30	98	219690	23.27	ppb	0.00
Spiked Amount 25.000			Recovery =	93.068%		
6) 4-Bromofluorobenzene(S)	10.92	174	84894	22.71	ppb	0.00
Spiked Amount 25.000			Recovery =	90.844%		

Target Compounds Qvalue

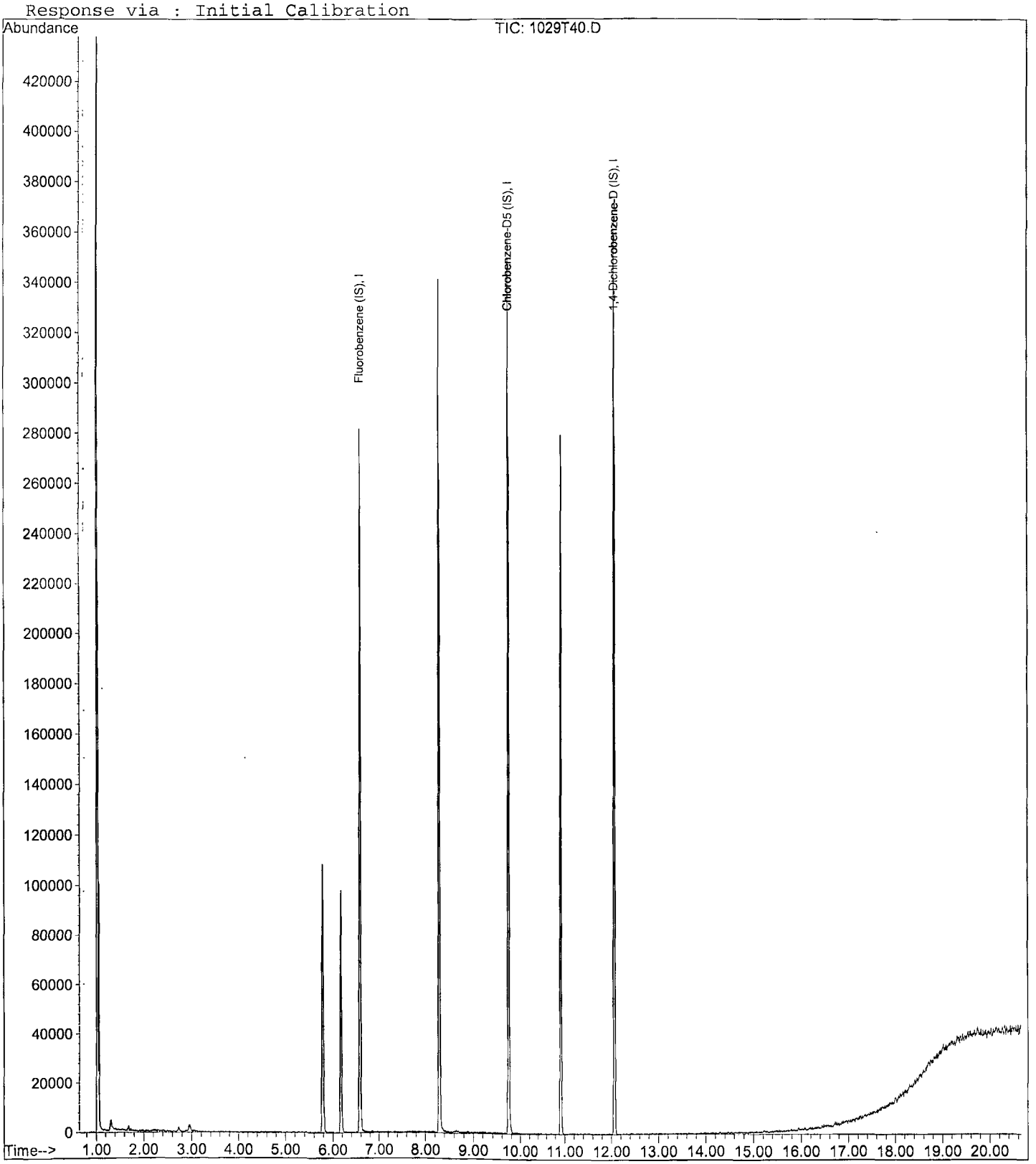
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\THOR\DATA\T191028\1029T40.D Vial: 40
Acq On : 30 Oct 19 6:12 Operator:
Sample : BA01830W01 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 31 10:58 2019 Quant Results File: TGAS1026.RES

Method : M:\THOR\DATA\T191023\TGAS1026.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 28 12:08:31 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\THOR\DATA\T191028\1029T38.D Vial: 38
Acq On : 30 Oct 19 5:15 Operator:
Sample : BA01831W01 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 31 10:57 2019 Quant Results File: TGAS1026.RES

Quant Method : M:\THOR\DATA\T191028\TGAS1026.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 28 12:08:31 2019
Response via : Initial Calibration
DataAcq Meth : T8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	6.59	TIC	289314	25.00	ppb	0.00
3) Chlorobenzene-D5 (IS)	9.74	TIC	362805	25.00	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	12.06	TIC	370269	25.00	ppb	0.00

System Monitoring Compounds

Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\THOR\DATA\T191028\1029T38.D Vial: 38
Acq On : 30 Oct 19 5:15 Operator:
Sample : BA01831W01 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 31 10:58 2019 Quant Results File: TSUR1023.RES

Quant Method : M:\THOR\DATA\T191028\TSUR1023.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:27:29 2019
Response via : Initial Calibration
DataAcq Meth : T8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	6.59	96	139200	25.00	ppb	0.00
4) Chlorobenzene-D5 (IS)	9.74	117	125728	25.00	ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	12.06	152	65480	25.00	ppb	0.00
System Monitoring Compounds						
2) Dibromofluoromethane(S)	5.79	111	64616	24.08	ppb	0.00
Spiked Amount 25.000			Recovery =	96.328%		
3) 1,2-DCA-D4(S)	6.17	65	72787	24.23	ppb	0.00
Spiked Amount 25.000			Recovery =	96.908%		
5) Toluene-D8(S)	8.30	98	229681	24.46	ppb	0.00
Spiked Amount 25.000			Recovery =	97.848%		
6) 4-Bromofluorobenzene(S)	10.92	174	86465	23.26	ppb	0.00
Spiked Amount 25.000			Recovery =	93.048%		

Target Compounds Qvalue

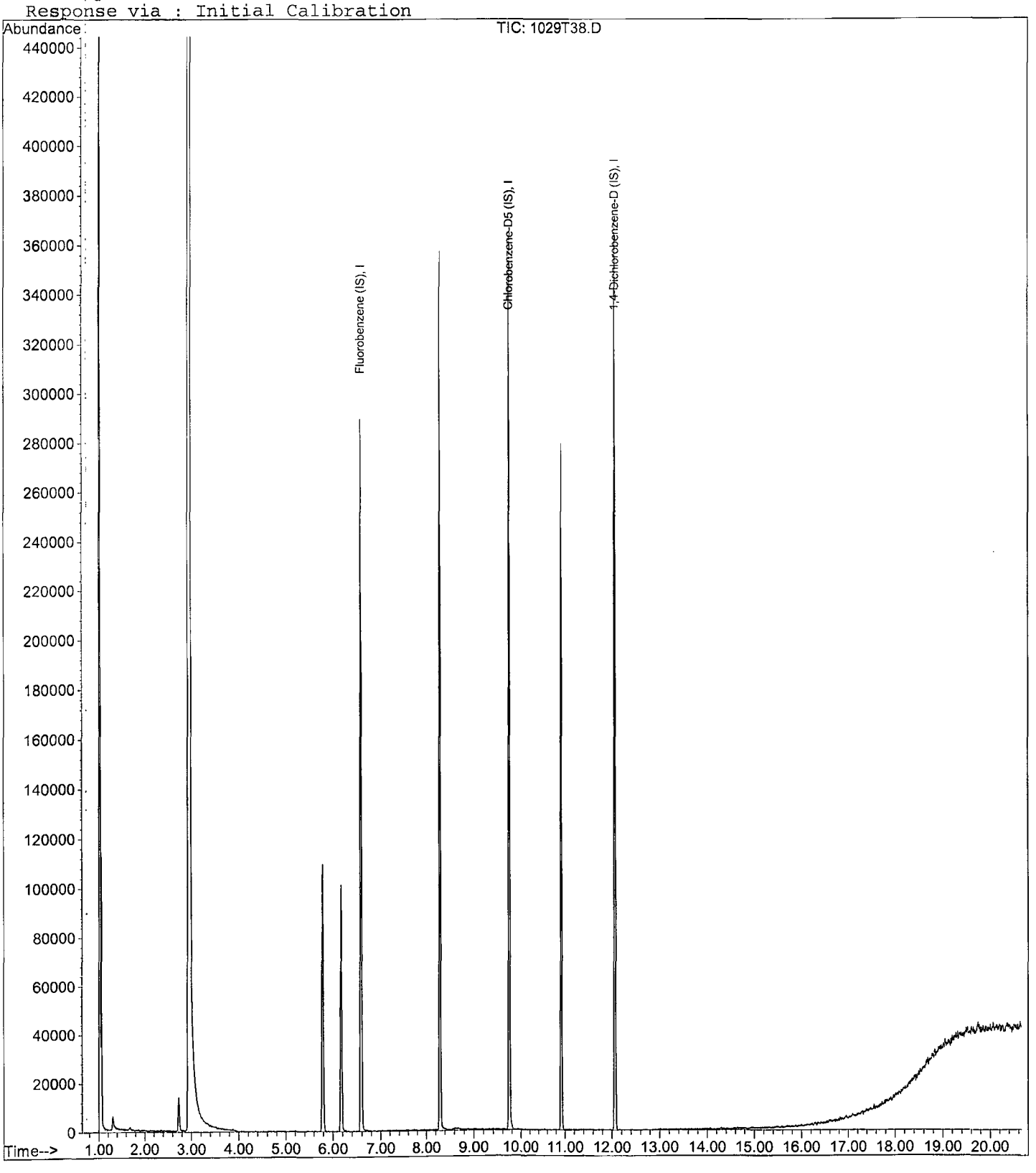
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\THOR\DATA\T191028\1029T38.D Vial: 38
Acq On : 30 Oct 19 5:15 Operator:
Sample : BA01831W01 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 31 10:57 2019 Quant Results File: TGAS1026.RES

Method : M:\THOR\DATA\T191023\TGAS1026.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 28 12:08:31 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\THOR\DATA\T191028\1029T36.D Vial: 36
Acq On : 30 Oct 19 4:18 Operator:
Sample : BA01832W01 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 31 10:57 2019 Quant Results File: TGAS1026.RES

Quant Method : M:\THOR\DATA\T191028\TGAS1026.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 28 12:08:31 2019
Response via : Initial Calibration
DataAcq Meth : T8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	6.59	TIC	279457	25.00	ppb	0.00
3) Chlorobenzene-D5 (IS)	9.74	TIC	350625	25.00	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	12.06	TIC	363636	25.00	ppb	0.00

System Monitoring Compounds

Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\THOR\DATA\T191028\1029T36.D Vial: 36
Acq On : 30 Oct 19 4:18 Operator:
Sample : BA01832W01 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 31 10:58 2019 Quant Results File: TSUR1023.RES

Quant Method : M:\THOR\DATA\T191028\TSUR1023.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:27:29 2019
Response via : Initial Calibration
DataAcq Meth : T8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	6.59	96	133504	25.00	ppb	0.00
4) Chlorobenzene-D5 (IS)	9.74	117	120008	25.00	ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	12.06	152	65888	25.00	ppb	0.00
System Monitoring Compounds						
2) Dibromofluoromethane(S)	5.79	111	65276	25.37	ppb	0.00
Spiked Amount 25.000			Recovery = 101.464%			
3) 1,2-DCA-D4(S)	6.17	65	71582	24.84	ppb	0.00
Spiked Amount 25.000			Recovery = 99.372%			
5) Toluene-D8(S)	8.30	98	226347	25.26	ppb	0.00
Spiked Amount 25.000			Recovery = 101.024%			
6) 4-Bromofluorobenzene(S)	10.92	174	87033	24.53	ppb	0.00
Spiked Amount 25.000			Recovery = 98.124%			

Target Compounds Qvalue

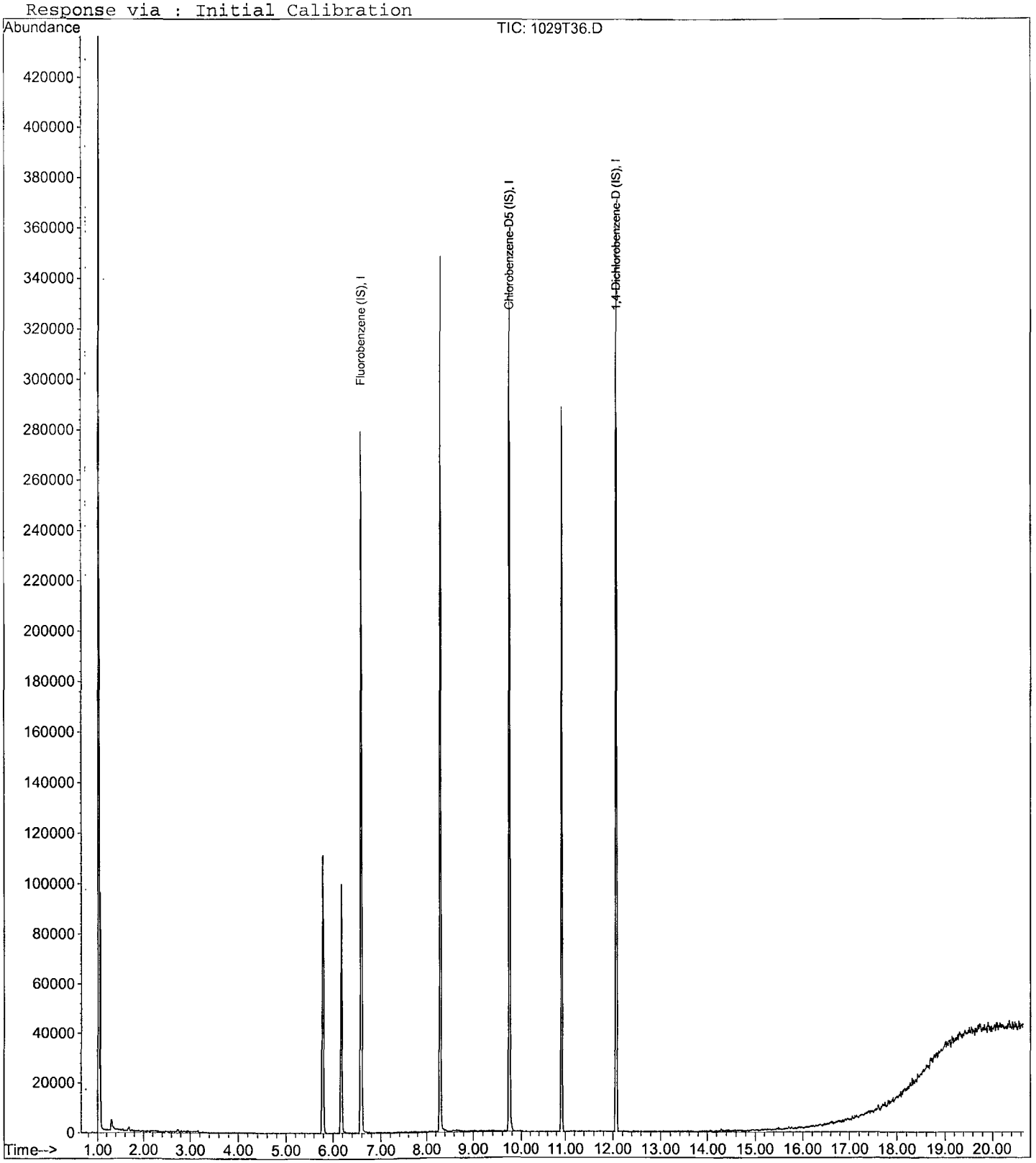
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\THOR\DATA\T191028\1029T36.D Vial: 36
Acq On : 30 Oct 19 4:18 Operator:
Sample : BA01832W01 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 31 10:57 2019 Quant Results File: TGAS1026.RES

Method : M:\THOR\DATA\T191023\TGAS1026.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 28 12:08:31 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\LOKI\DATA\191023\1030L28.D Vial: 28
Acq On : 31 Oct 19 2:44 Operator:
Sample : BA01833W03 Inst : Loki
Misc : IS&S:10/7/19, 10/23/19 Multiplr: 1.00

Quant Time: Oct 31 8:42 2019 Quant Results File: LGAS1026.RES

Quant Method : M:\LOKI\DATA\191023\LGAS1026.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 28 12:53:48 2019
Response via : Initial Calibration
DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene (IS)	5.42	TIC	564008	25.00 ppb	0.00
3) Chlorobenzene-D5 (IS)	8.99	TIC	729792	25.00 ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	11.53	TIC	667534	25.00 ppb	0.00

System Monitoring Compounds

Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\LOKI\DATA\191023\1030L28.D Vial: 28
Acq On : 31 Oct 19 2:44 Operator:
Sample : BA01833W03 Inst : Loki
Misc : IS&S:10/7/19, 10/23/19 Multiplr: 1.00

Quant Time: Oct 31 8:42 2019 Quant Results File: LSUR1023.RES

Quant Method : M:\LOKI\DATA\191023\LSUR1023.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 10:20:57 2019
Response via : Initial Calibration
DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	5.42	96	269248	25.00	ppb	0.00
4) Chlorobenzene-D5 (IS)	8.99	117	261184	25.00	ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	11.53	152	125680	25.00	ppb	0.00
System Monitoring Compounds						
2) Dibromofluoromethane(S)	4.50	111	85688	25.85	ppb	0.00
Spiked Amount 25.000			Recovery = 103.396%			
3) 1,2-DCA-D4(S)	4.95	65	99108	27.83	ppb	0.00
Spiked Amount 25.000			Recovery = 111.300%			
5) Toluene-D8(S)	7.38	98	258811	27.23	ppb	0.00
Spiked Amount 25.000			Recovery = 108.932%			
6) 4-Bromofluorobenzene(S)	10.28	95	85098	25.28	ppb	0.00
Spiked Amount 25.000			Recovery = 101.120%			

Target Compounds Qvalue

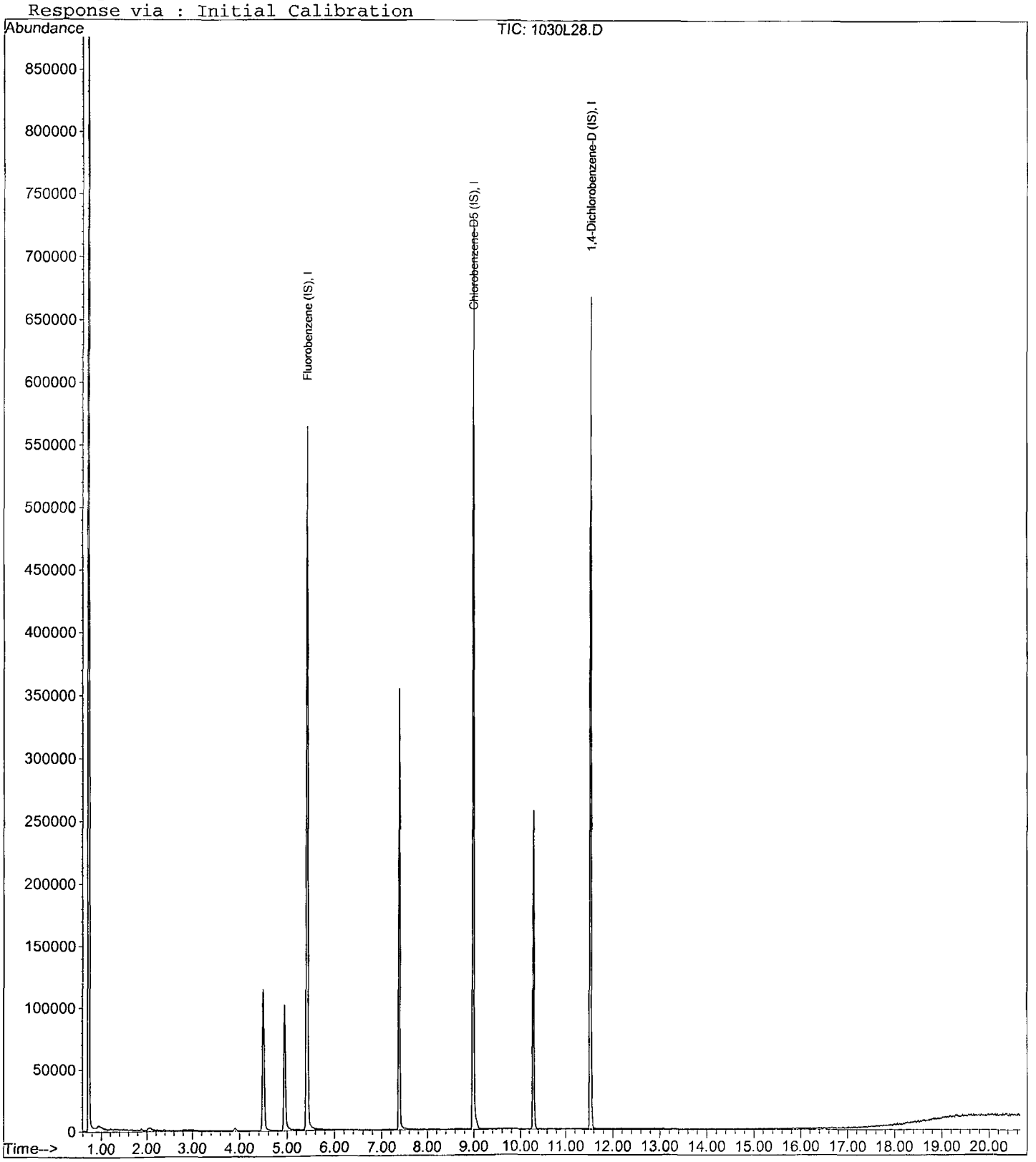
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LOKI\DATA\191023\1030L28.D Vial: 28
Acq On : 31 Oct 19 2:44 Operator:
Sample : BA01833W03 Inst : Loki
Misc : IS&S:10/7/19, 10/23/19 Multiplr: 1.00

Quant Time: Oct 31 8:42 2019 Quant Results File: LGAS1026.RES

Method : M:\LOKI\DATA\191023\LGAS1026.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 28 12:53:48 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\THOR\DATA\T191028\1029T39.D Vial: 39
Acq On : 30 Oct 19 5:43 Operator:
Sample : BA01833W01 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 31 10:57 2019 Quant Results File: TGAS1026.RES

Quant Method : M:\THOR\DATA\T191028\TGAS1026.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 28 12:08:31 2019
Response via : Initial Calibration
DataAcq Meth : T8260

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene (IS)	6.59	TIC	378771	25.00 ppb	0.00
3) Chlorobenzene-D5 (IS)	9.74	TIC	462164	25.00 ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	12.06	TIC	494413	25.00 ppb	0.00

System Monitoring Compounds

Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\THOR\DATA\T191028\1029T39.D Vial: 39
Acq On : 30 Oct 19 5:43 Operator:
Sample : BA01833W01 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 31 10:58 2019 Quant Results File: TSUR1023.RES

Quant Method : M:\THOR\DATA\T191028\TSUR1023.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:27:29 2019
Response via : Initial Calibration
DataAcq Meth : T8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	6.59	96	181504	25.00	ppb	0.00
4) Chlorobenzene-D5 (IS)	9.74	117	160128	25.00	ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	12.06	152	90624	25.00	ppb	0.00
System Monitoring Compounds						
2) Dibromofluoromethane(S)	5.78	111	65752	18.79	ppb	0.00
Spiked Amount 25.000			Recovery = 75.176%			
3) 1,2-DCA-D4(S)	6.17	65	74856	19.11	ppb	0.00
Spiked Amount 25.000			Recovery = 76.436%			
5) Toluene-D8(S)	8.30	98	229167	19.16	ppb	0.00
Spiked Amount 25.000			Recovery = 76.656%			
6) 4-Bromofluorobenzene(S)	10.92	174	89358	18.88	ppb	0.00
Spiked Amount 25.000			Recovery = 75.504%			

Target Compounds Qvalue

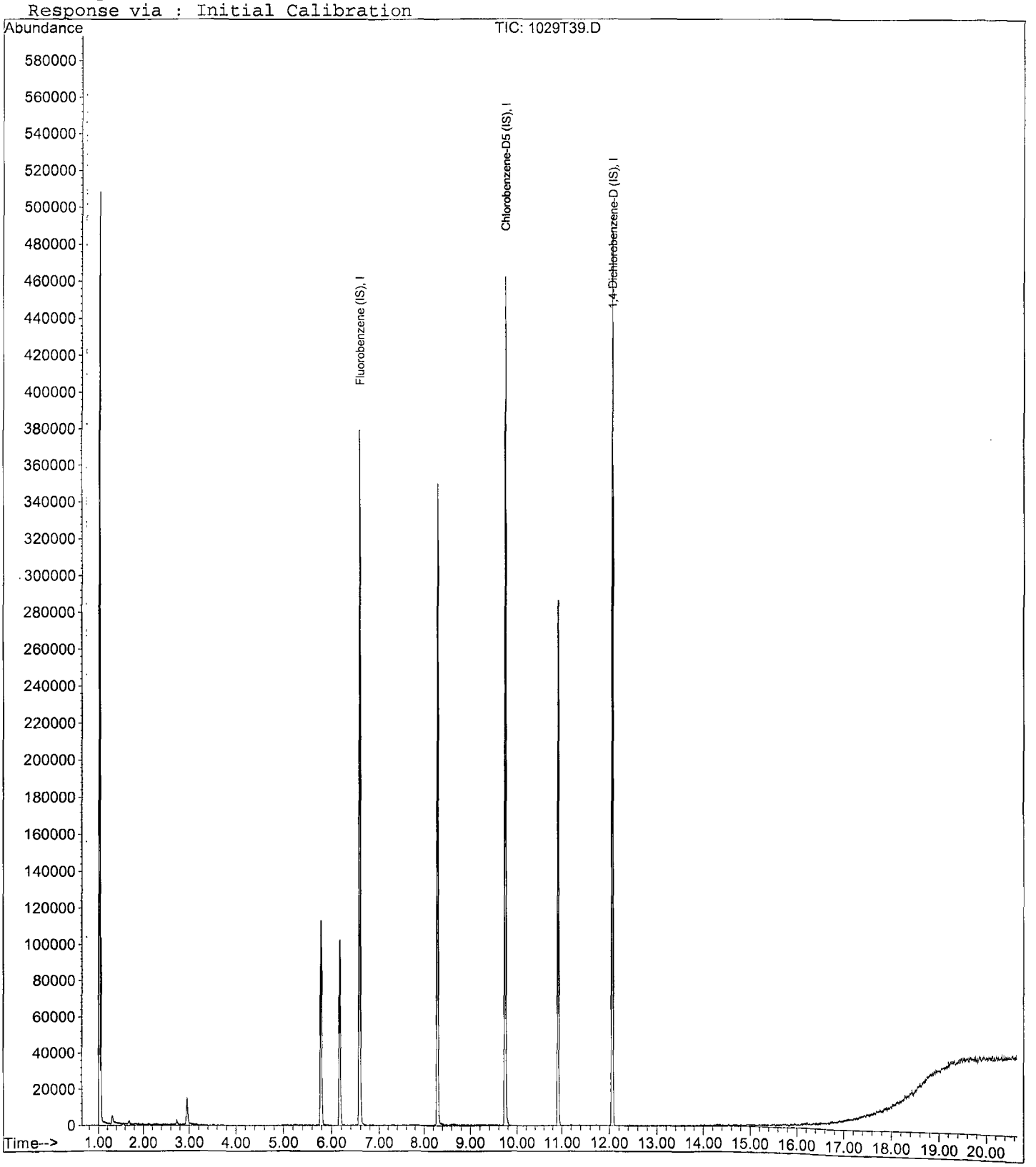
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\THOR\DATA\T191028\1029T39.D Vial: 39
Acq On : 30 Oct 19 5:43 Operator:
Sample : BA01833W01 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 31 10:57 2019 Quant Results File: TGAS1026.RES

Method : M:\THOR\DATA\T191023\TGAS1026.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 28 12:08:31 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\THOR\DATA\T191028\1029T34.D Vial: 34
Acq On : 30 Oct 19 3:22 Operator:
Sample : 191029B BLK Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 31 10:57 2019 Quant Results File: TGAS1026.RES

Quant Method : M:\THOR\DATA\T191028\TGAS1026.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 28 12:08:31 2019
Response via : Initial Calibration
DataAcq Meth : T8260

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene (IS)	6.59	TIC	289468	25.00 ppb	0.00
3) Chlorobenzene-D5 (IS)	9.74	TIC	367755	25.00 ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	12.07	TIC	391992	25.00 ppb	0.00

System Monitoring Compounds

Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\THOR\DATA\T191028\1029T34.D Vial: 34
Acq On : 30 Oct 19 3:22 Operator:
Sample : 191029B BLK Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 31 10:58 2019 Quant Results File: TSUR1023.RES

Quant Method : M:\THOR\DATA\T191028\TSUR1023.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:27:29 2019
Response via : Initial Calibration
DataAcq Meth : T8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	6.59	96	137792	25.00	ppb	0.00
4) Chlorobenzene-D5 (IS)	9.74	117	126768	25.00	ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	12.07	152	71344	25.00	ppb	0.00
System Monitoring Compounds						
2) Dibromofluoromethane(S)	5.78	111	67916	25.57	ppb	0.00
Spiked Amount 25.000			Recovery = 102.284%			
3) 1,2-DCA-D4(S)	6.17	65	74617	25.09	ppb	0.00
Spiked Amount 25.000			Recovery = 100.360%			
5) Toluene-D8(S)	8.30	98	230020	24.30	ppb	0.00
Spiked Amount 25.000			Recovery = 97.192%			
6) 4-Bromofluorobenzene(S)	10.92	174	87273	23.29	ppb	0.00
Spiked Amount 25.000			Recovery = 93.148%			

Target Compounds Qvalue

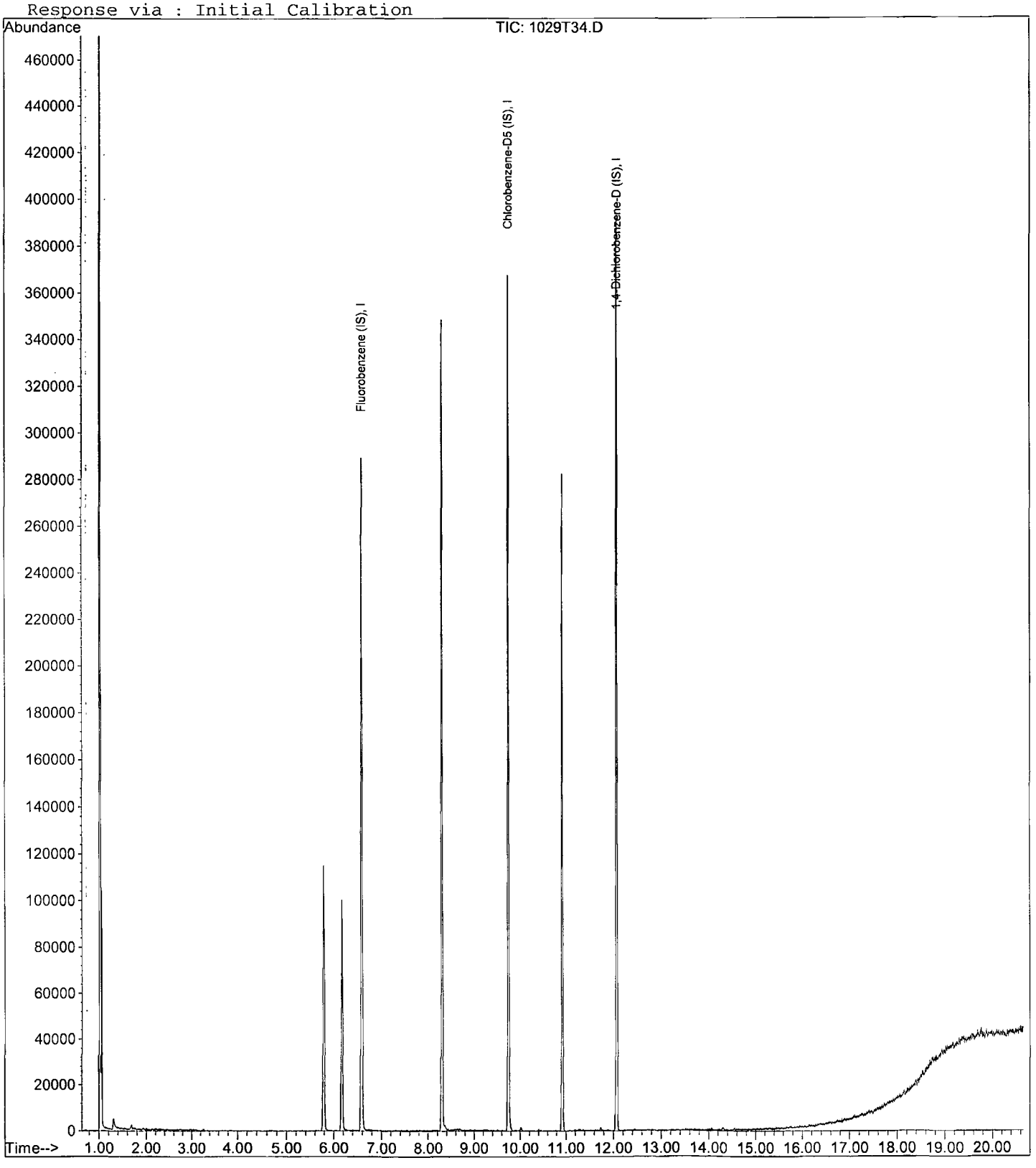
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\THOR\DATA\T191028\1029T34.D Vial: 34
Acq On : 30 Oct 19 3:22 Operator:
Sample : 191029B BLK Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 31 10:57 2019 Quant Results File: TGAS1026.RES

Method : M:\THOR\DATA\T191023\TGAS1026.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 28 12:08:31 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\THOR\DATA\T191028\1029T32.D Vial: 32
Acq On : 30 Oct 19 2:25 Operator:
Sample : 191029B LCSD 300ug/L Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 31 11:00 2019 Quant Results File: TGAS1026.RES

Quant Method : M:\THOR\DATA\T191028\TGAS1026.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 28 12:08:31 2019
Response via : Initial Calibration
DataAcq Meth : T8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	6.59	TIC	314637	25.00	ppb	0.00
3) Chlorobenzene-D5 (IS)	9.74	TIC	398481	25.00	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	12.06	TIC	448503	25.00	ppb	0.00

System Monitoring Compounds

Target Compounds						Qvalue
2) Gasoline C6-C10	9.74	TIC	4364505m	340.19	ppb	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\THOR\DATA\T191028\1029T32.D Vial: 32
Acq On : 30 Oct 19 2:25 Operator:
Sample : 191029B LCSD 300ug/L Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 31 10:58 2019 Quant Results File: TSUR1023.RES

Quant Method : M:\THOR\DATA\T191028\TSUR1023.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:27:29 2019
Response via : Initial Calibration
DataAcq Meth : T8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	6.59	96	152256	25.00	ppb	0.00
4) Chlorobenzene-D5 (IS)	9.74	117	138432	25.00	ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	12.06	152	81952	25.00	ppb	0.00
System Monitoring Compounds						
2) Dibromofluoromethane(S)	5.78	111	66124	22.53	ppb	0.00
Spiked Amount 25.000			Recovery =	90.124%		
3) 1,2-DCA-D4(S)	6.17	65	73131	22.25	ppb	0.00
Spiked Amount 25.000			Recovery =	89.020%		
5) Toluene-D8(S)	8.30	98	235802	22.81	ppb	0.00
Spiked Amount 25.000			Recovery =	91.240%		
6) 4-Bromofluorobenzene(S)	10.92	174	93675	22.89	ppb	0.00
Spiked Amount 25.000			Recovery =	91.556%		

Target Compounds Qvalue

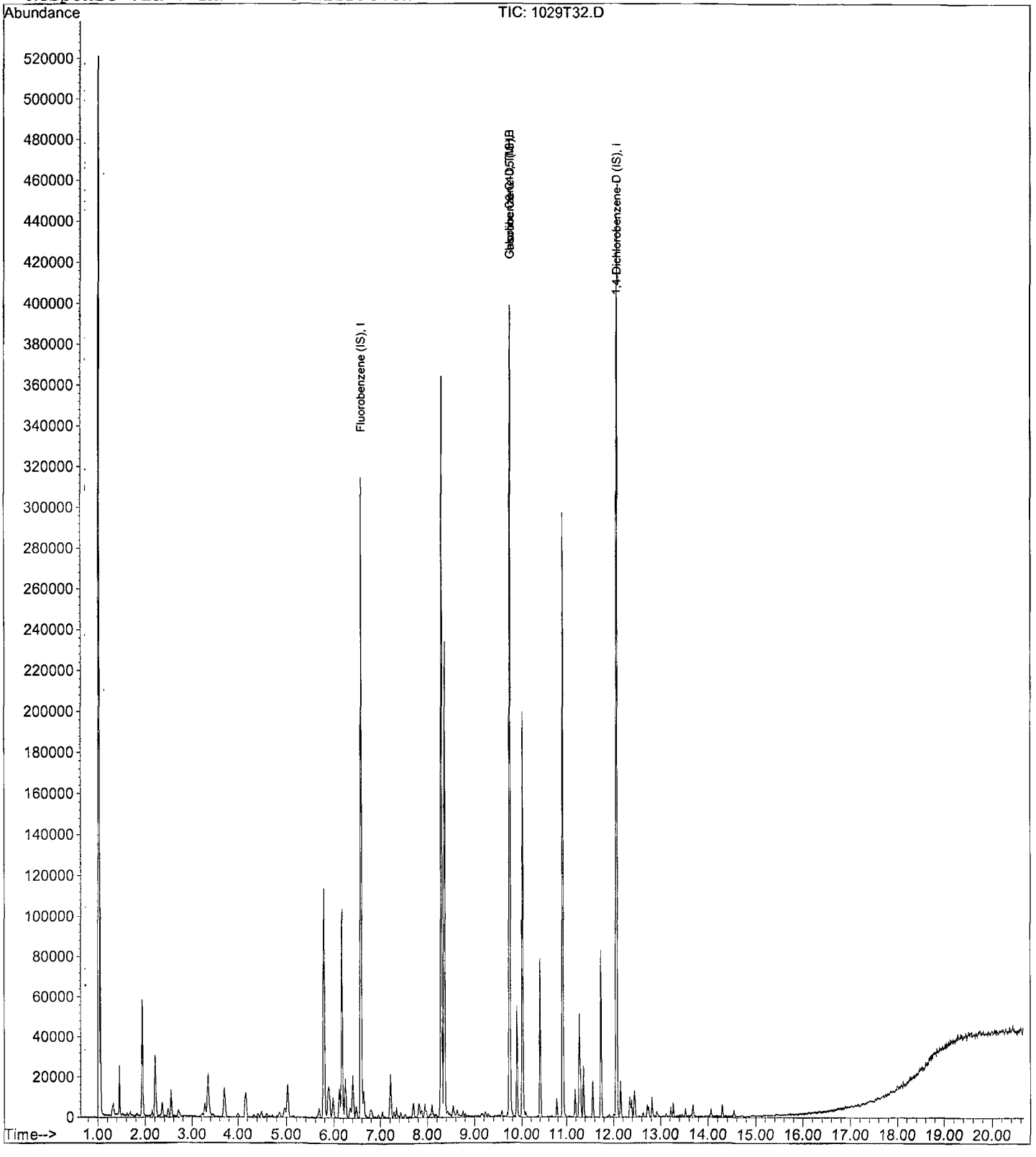
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\THOR\DATA\T191028\1029T32.D Vial: 32
Acq On : 30 Oct 19 2:25 Operator:
Sample : 191029B LCSD 300ug/L Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 31 11:00 2019 Quant Results File: TGAS1026.RES

Method : M:\THOR\DATA\T191023\TGAS1026.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 28 12:08:31 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\LOKI\DATA\191023\1030L24.D Vial: 24
Acq On : 31 Oct 19 00:50 Operator:
Sample : 191030 BLK Inst : Loki
Misc : IS&S:10/7/19, 10/23/19 Multiplr: 1.00

Quant Time: Oct 31 8:38 2019 Quant Results File: LGAS1026.RES

Quant Method : M:\LOKI\DATA\191023\LGAS1026.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 28 12:53:48 2019
Response via : Initial Calibration
DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	5.42	TIC	533845	25.00	ppb	0.00
3) Chlorobenzene-D5 (IS)	8.99	TIC	703076	25.00	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	11.53	TIC	676062	25.00	ppb	0.00

System Monitoring Compounds

Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\LOKI\DATA\191023\1030L23.D Vial: 23
Acq On : 31 Oct 19 00:22 Operator:
Sample : 191030 LCSD 300ug/L Inst : Loki
Misc : IS&S:10/7/19, 10/23/19 Multiplr: 1.00

Quant Time: Oct 31 8:37 2019 Quant Results File: LSUR1023.RES

Quant Method : M:\LOKI\DATA\191023\LSUR1023.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 10:20:57 2019
Response via : Initial Calibration
DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	5.42	96	274816	25.00	ppb	0.00
4) Chlorobenzene-D5 (IS)	8.99	117	265088	25.00	ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	11.53	152	135104	25.00	ppb	0.00
System Monitoring Compounds						
2) Dibromofluoromethane(S)	4.50	111	83818	24.77	ppb	0.00
Spiked Amount 25.000			Recovery = 99.088%			
3) 1,2-DCA-D4(S)	4.95	65	98003	26.96	ppb	0.00
Spiked Amount 25.000			Recovery = 107.832%			
5) Toluene-D8(S)	7.38	98	263021	27.27	ppb	0.00
Spiked Amount 25.000			Recovery = 109.076%			
6) 4-Bromofluorobenzene(S)	10.28	95	92437	27.06	ppb	0.00
Spiked Amount 25.000			Recovery = 108.224%			

Target Compounds Qvalue

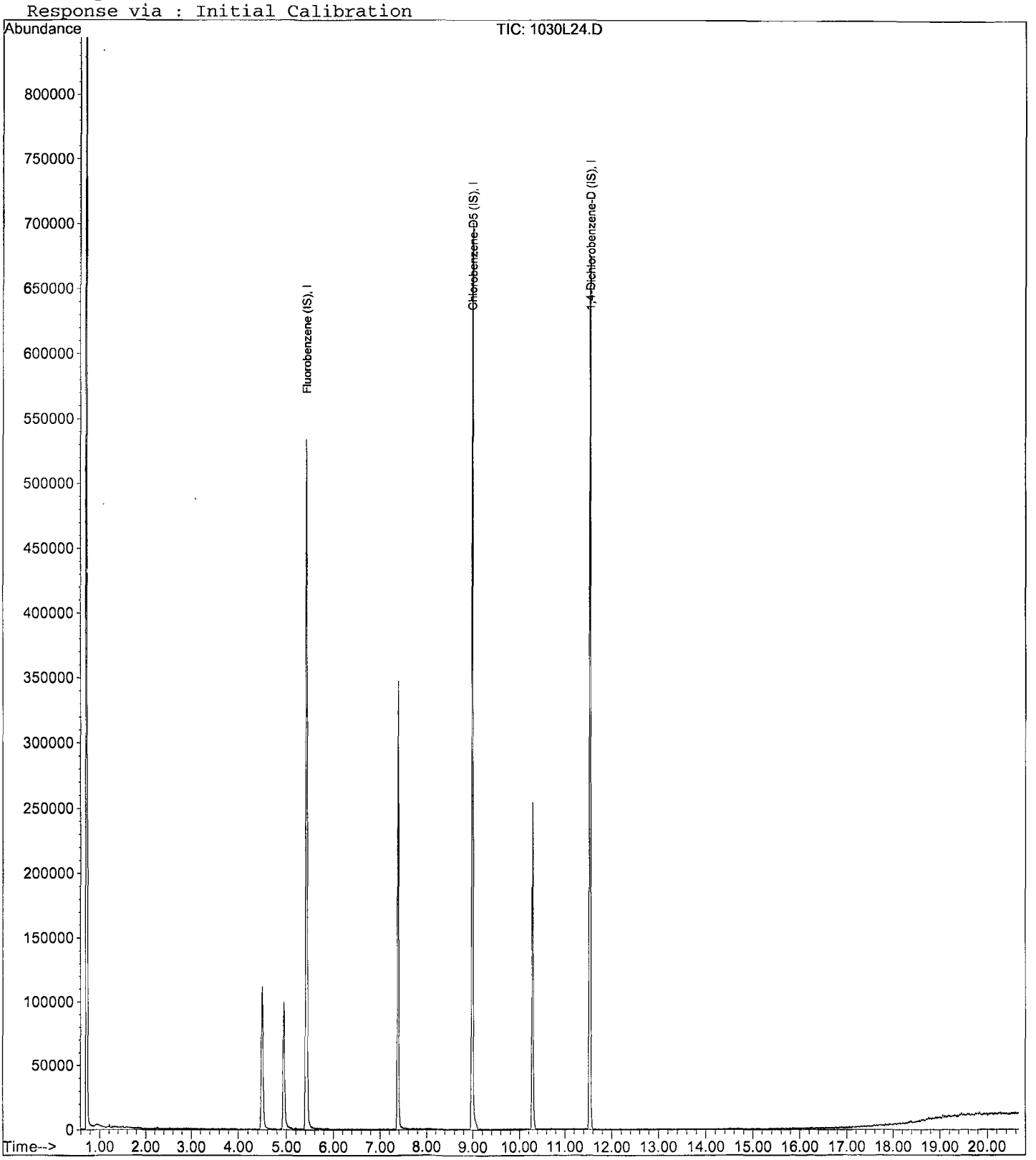
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LOKI\DATA\191023\1030L24.D Vial: 24
Acq On : 31 Oct 19 00:50 Operator:
Sample : 191030 BLK Inst : Loki
Misc : IS&S:10/7/19, 10/23/19 Multiplr: 1.00

Quant Time: Oct 31 8:38 2019 Quant Results File: LGAS1026.RES

Method : M:\LOKI\DATA\191023\LGAS1026.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 28 12:53:48 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\LOKI\DATA\191023\1030L22.D Vial: 22
Acq On : 30 Oct 19 23:53 Operator:
Sample : 191030 LCS 300ug/L Inst : Loki
Misc : IS&S:10/7/19, 10/23/19 Multiplr: 1.00

Quant Time: Oct 31 8:37 2019 Quant Results File: LGAS1026.RES

Quant Method : M:\LOKI\DATA\191023\LGAS1026.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 28 12:53:48 2019
Response via : Initial Calibration
DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	5.42	TIC	568298	25.00	ppb	0.00
3) Chlorobenzene-D5 (IS)	8.99	TIC	772917	25.00	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	11.53	TIC	733820	25.00	ppb	0.00

System Monitoring Compounds

Target Compounds						Qvalue
2) Gasoline C6-C10	8.99	TIC	5951352m	300.22	ppb	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\LOKI\DATA\191023\1030L24.D Vial: 24
Acq On : 31 Oct 19 00:50 Operator:
Sample : 191030 BLK Inst : Loki
Misc : IS&S:10/7/19, 10/23/19 Multiplr: 1.00

Quant Time: Oct 31 8:38 2019 Quant Results File: LSUR1023.RES

Quant Method : M:\LOKI\DATA\191023\LSUR1023.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 10:20:57 2019
Response via : Initial Calibration
DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	5.42	96	257024	25.00	ppb	0.00
4) Chlorobenzene-D5 (IS)	8.99	117	249472	25.00	ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	11.53	152	123784	25.00	ppb	0.00
System Monitoring Compounds						
2) Dibromofluoromethane(S)	4.50	111	83670	26.44	ppb	0.00
Spiked Amount 25.000			Recovery = 105.760%			
3) 1,2-DCA-D4(S)	4.95	65	95429	28.07	ppb	0.00
Spiked Amount 25.000			Recovery = 112.268%			
5) Toluene-D8(S)	7.38	98	251875	27.75	ppb	0.00
Spiked Amount 25.000			Recovery = 110.992%			
6) 4-Bromofluorobenzene(S)	10.28	95	84431	26.26	ppb	0.00
Spiked Amount 25.000			Recovery = 105.040%			

Target Compounds Qvalue

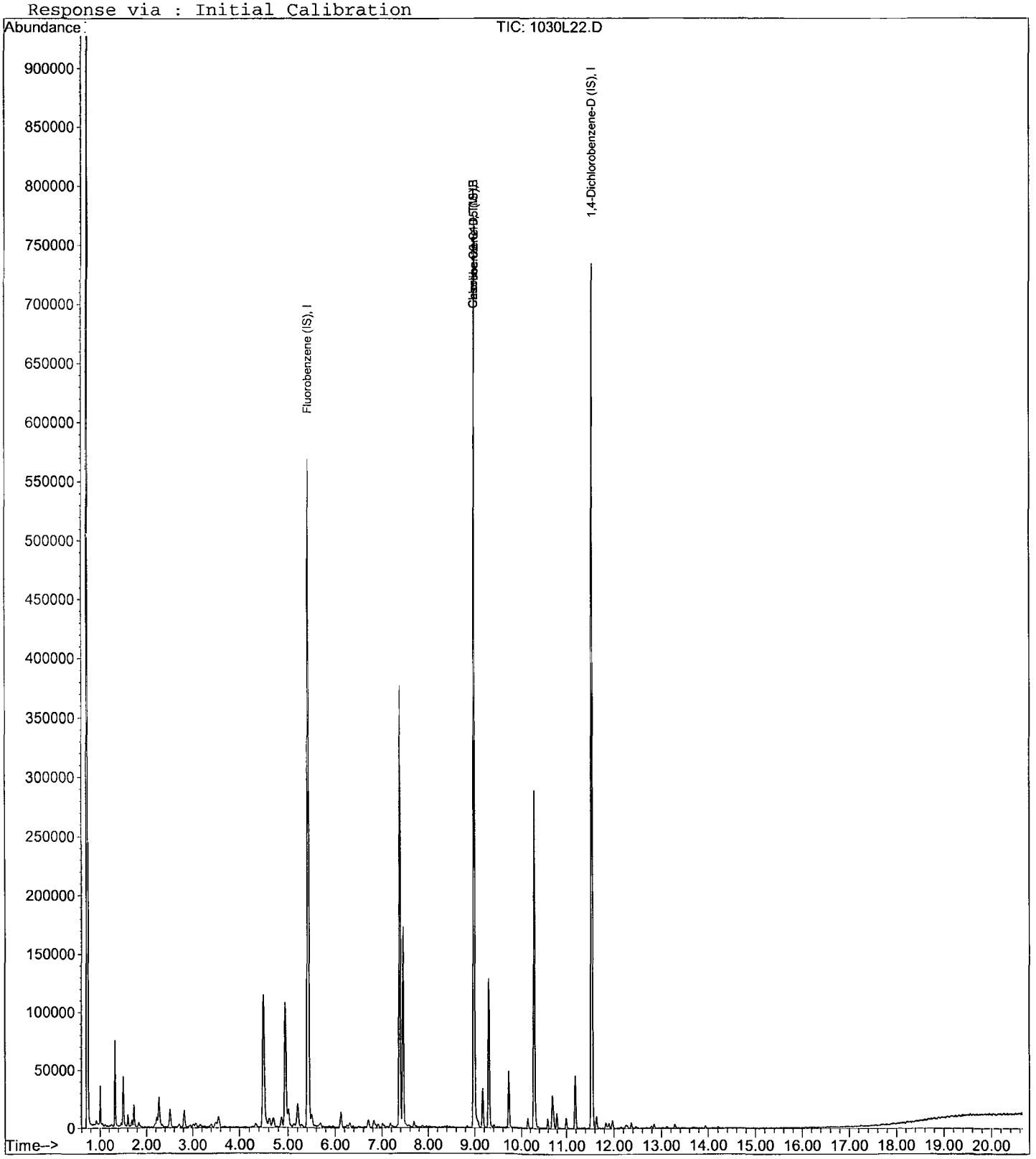
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LOKI\DATA\191023\1030L22.D Vial: 22
Acq On : 30 Oct 19 23:53 Operator:
Sample : 191030 LCS 300ug/L Inst : Loki
Misc : IS&S:10/7/19, 10/23/19 Multiplr: 1.00

Quant Time: Oct 31 8:37 2019 Quant Results File: LGAS1026.RES

Method : M:\LOKI\DATA\191023\LGAS1026.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 28 12:53:48 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\LOKI\DATA\191023\1030L23.D Vial: 23
Acq On : 31 Oct 19 00:22 Operator:
Sample : 191030 LCSD 300ug/L Inst : Loki
Misc : IS&S:10/7/19, 10/23/19 Multiplr: 1.00

Quant Time: Oct 31 8:37 2019 Quant Results File: LGAS1026.RES

Quant Method : M:\LOKI\DATA\191023\LGAS1026.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 28 12:53:48 2019
Response via : Initial Calibration
DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	5.42	TIC	572534	25.00	ppb	0.00
3) Chlorobenzene-D5 (IS)	8.99	TIC	749746	25.00	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	11.53	TIC	736815	25.00	ppb	0.00

System Monitoring Compounds

Target Compounds						Qvalue
2) Gasoline C6-C10	8.99	TIC	5874300m	277.60	ppb	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\LOKI\DATA\191023\1030L25.D Vial: 25
Acq On : 31 Oct 19 1:19 Operator:
Sample : BA01847W01 Inst : Loki
Misc : IS&S:10/7/19, 10/23/19 Multiplr: 1.00

Quant Time: Oct 31 8:38 2019 Quant Results File: LSUR1023.RES

Quant Method : M:\LOKI\DATA\191023\LSUR1023.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 10:20:57 2019
Response via : Initial Calibration
DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	5.42	96	270976	25.00	ppb	0.00
4) Chlorobenzene-D5 (IS)	8.99	117	256384	25.00	ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	11.53	152	123784	25.00	ppb	0.00
System Monitoring Compounds						
2) Dibromofluoromethane(S)	4.50	111	83618	25.06	ppb	0.00
Spiked Amount 25.000			Recovery = 100.252%			
3) 1,2-DCA-D4(S)	4.95	65	97903	27.31	ppb	0.00
Spiked Amount 25.000			Recovery = 109.248%			
5) Toluene-D8(S)	7.38	98	256737	27.52	ppb	0.00
Spiked Amount 25.000			Recovery = 110.084%			
6) 4-Bromofluorobenzene(S)	10.28	95	84984	25.72	ppb	0.00
Spiked Amount 25.000			Recovery = 102.876%			

Target Compounds Qvalue

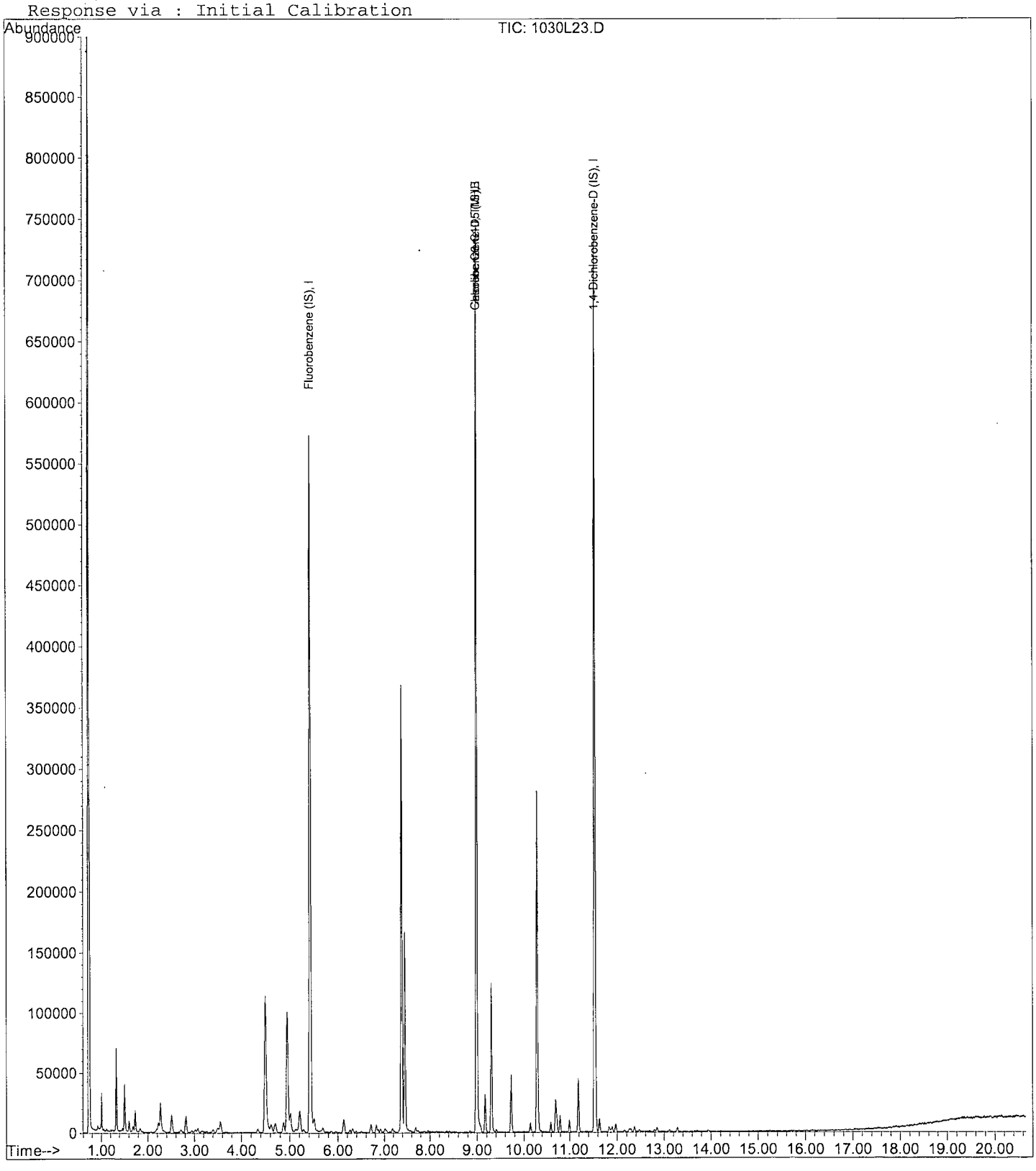
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LOKI\DATA\191023\1030L23.D Vial: 23
Acq On : 31 Oct 19 00:22 Operator:
Sample : 191030 LCSD 300ug/L Inst : Loki
Misc : IS&S:10/7/19, 10/23/19 Multiplr: 1.00

Quant Time: Oct 31 8:37 2019 Quant Results File: LGAS1026.RES

Method : M:\LOKI\DATA\191023\LGAS1026.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 28 12:53:48 2019
Response via : Initial Calibration



Injection Log

Directory: M:\THOR\DATA\T191023\

Vial	FileName	Multiplier	SampleName	Misc Info	Injected
6	1023T06.D	1	0.3ug/L VOC STD 10/23/19	IS&S 9/23/19	23 Oct 19 19:32
7	1023T07.D	1	0.5ug/L VOC STD 10/23/19	IS&S 9/23/19	23 Oct 19 20:01
8	1023T08.D	1	1.0ug/L VOC STD 10/23/19	IS&S 9/23/19	23 Oct 19 20:29
9	1023T09.D	1	2.0ug/L VOC STD 10/23/19	IS&S 9/23/19	23 Oct 19 20:58
10	1023T10.D	1	5.0ug/L VOC STD 10/23/19	IS&S 9/23/19	23 Oct 19 21:26
11	1023T11.D	1	10ug/L VOC STD 10/23/19	IS&S 9/23/19	23 Oct 19 21:55
12	1023T12.D	1	20ug/L VOC STD 10/23/19	IS&S 9/23/19	23 Oct 19 22:23
13	1023T13.D	1	40ug/L VOC STD 10/23/19	IS&S 9/23/19	23 Oct 19 22:52
14	1023T14.D	1	100ug/L VOC STD 10/23/19	IS&S 9/23/19	23 Oct 19 23:20
2	1026T02.D	1	20ug/L GAS 10/26/19	IS&S 9/23/19	26 Oct 19 12:41
3	1026T03.D	1	50ug/L GAS 10/26/19	IS&S 9/23/19	26 Oct 19 13:09
4	1026T04.D	1	100ug/L GAS 10/26/19	IS&S 9/23/19	26 Oct 19 13:37
5	1026T05.D	1	300ug/L GAS 10/26/19	IS&S 9/23/19	26 Oct 19 14:06
6	1026T06.D	1	600ug/L GAS 10/26/19	IS&S 9/23/19	26 Oct 19 14:34
7	1026T07.D	1	800ug/L GAS 10/26/19	IS&S 9/23/19	26 Oct 19 15:03
1	1028T01.D	1	(SS) 300ug/L GAS 10/28/19	IS&S 9/23/19	28 Oct 19 15:43
31	1029T31.D	1	191029B CCV/LCS 300ug/L	IS&S 9/23/19	30 Oct 19 1:57
32	1029T32.D	1	191029B LCSD 300ug/L	IS&S 9/23/19	30 Oct 19 2:25
34	1029T34.D	1	191029B BLK	IS&S 9/23/19	30 Oct 19 3:22
35	1029T35.D	1	BA01828W01	IS&S 9/23/19	30 Oct 19 3:50
36	1029T36.D	1	BA01832W01	IS&S 9/23/19	30 Oct 19 4:18
37	1029T37.D	1	BA01829W01	IS&S 9/23/19	30 Oct 19 4:47
38	1029T38.D	1	BA01831W01	IS&S 9/23/19	30 Oct 19 5:15
39	1029T39.D	1	BA01833W01	IS&S 9/23/19	30 Oct 19 5:43
40	1029T40.D	1	BA01830W01	IS&S 9/23/19	30 Oct 19 6:12
48	1029T48.D	1	Ending CCV 300ug/L 10/29/19	IS&S 9/23/19	30 Oct 19 9:58

Injection Log

Directory: M:\LOKI\DATA\191023\

Vial	FileName	Multiplier	SampleName	Misc Info	Injected
6	1023L10.D	1	0.3ug/L VOC STD 10/23/19	IS&S:10/7/19, 10/23/19	23 Oct 19 19:30
7	1023L11.D	1	0.5ug/L VOC STD 10/23/19	IS&S:10/7/19, 10/23/19	23 Oct 19 19:59
8	1023L12.D	1	1.0ug/L VOC STD 10/23/19	IS&S:10/7/19, 10/23/19	23 Oct 19 20:27
9	1023L13.D	1	2.0ug/L VOC STD 10/23/19	IS&S:10/7/19, 10/23/19	23 Oct 19 20:56
10	1023L14.D	1	5.0ug/L VOC STD 10/23/19	IS&S:10/7/19, 10/23/19	23 Oct 19 21:24
11	1023L15.D	1	10ug/L VOC STD 10/23/19	IS&S:10/7/19, 10/23/19	23 Oct 19 21:53
12	1023L16.D	1	20ug/L VOC STD 10/23/19	IS&S:10/7/19, 10/23/19	23 Oct 19 22:21
13	1023L17.D	1	40ug/L VOC STD 10/23/19	IS&S:10/7/19, 10/23/19	23 Oct 19 22:50
14	1023L18.D	1	100ug/L VOC STD 10/23/19	IS&S:10/7/19, 10/23/19	23 Oct 19 23:18
50	1026L50.D	1	20ug/L GAS 10/26/19	IS&S:10/7/19, 10/23/19	27 Oct 19 6:07
51	1026L51.D	1	50ug/L GAS 10/26/19	IS&S:10/7/19, 10/23/19	27 Oct 19 6:36
52	1026L52.D	1	100ug/L GAS 10/26/19	IS&S:10/7/19, 10/23/19	27 Oct 19 7:04
53	1026L53.D	1	300ug/L GAS 10/26/19	IS&S:10/7/19, 10/23/19	27 Oct 19 7:32
54	1026L54.D	1	600ug/L GAS 10/26/19	IS&S:10/7/19, 10/23/19	27 Oct 19 8:01
55	1026L55.D	1	800ug/L GAS 10/26/19	IS&S:10/7/19, 10/23/19	27 Oct 19 8:29
56	1026L56.D	1	1000ug/L GAS 10/26/19	IS&S:10/7/19, 10/23/19	27 Oct 19 8:58
9	1028L09.D	1	(SS) 300ug/L GAS STD 10/28/19	IS&S:10/7/19, 10/23/19	28 Oct 19 13:58
21	1030L21.D	1	191030 CCV 300ug/L	IS&S:10/7/19, 10/23/19	30 Oct 19 23:25
22	1030L22.D	1	191030 LCS 300ug/L	IS&S:10/7/19, 10/23/19	30 Oct 19 23:53
23	1030L23.D	1	191030 LCSD 300ug/L	IS&S:10/7/19, 10/23/19	31 Oct 19 00:22
24	1030L24.D	1	191030 BLK	IS&S:10/7/19, 10/23/19	31 Oct 19 00:50
28	1030L28.D	1	BA01833W03	IS&S:10/7/19, 10/23/19	31 Oct 19 2:44
43	1030L43.D	1	Ending CCV 300ug/L 10/29/19	IS&S:10/7/19, 10/23/19	31 Oct 19 9:49

ORGANICS
Calibration Data

RSK 175

RSK 175

Form 6
Initial Calibration

Lab Name: APPL, Inc. SDG No:

Case No: Initial Cal. Date: 10/02/19

Matrix: Instrument: 7890

Initials:

			1002R02.D	1002R03.D	1002R04.D	1002R05.D	1002R06.D	1002R07.D	1002R08.D								
		Compound	1	2	3	4	5	6	7				Avg	%RSD	Type	r^2	Q
1	ATM	Methane	63820	40452	36215	45202	48427	44031	45774				46274	19	ATM		
2	ATM	Ethane	42546	31037	26553	34655	37738	32771	32974				34039	15	ATM		
3	ATM	Ethene	32900	24299	20841	27689	29847	25551	26297				26775	15	ATM		
4																	
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34																	
35																	

1.377886

Quantitation Report (Not Reviewed)

Data File : G:\ROCKY\DATA\191002RS\1002R02.D Vial: 2
Acq On : 2 Oct 19 17:45 Operator: GA
Sample : RSK STD 1 10/2/19 Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 2 18:11 2019 Quant Results File: RSK1002.RES

Method : G:\ROCKY\DATA\190929RS\RSK1002.M (Chemstation Integrator)
Title : RSK 175
Last Update : Wed Oct 02 18:14:49 2019
Response via : Multiple Level Calibration

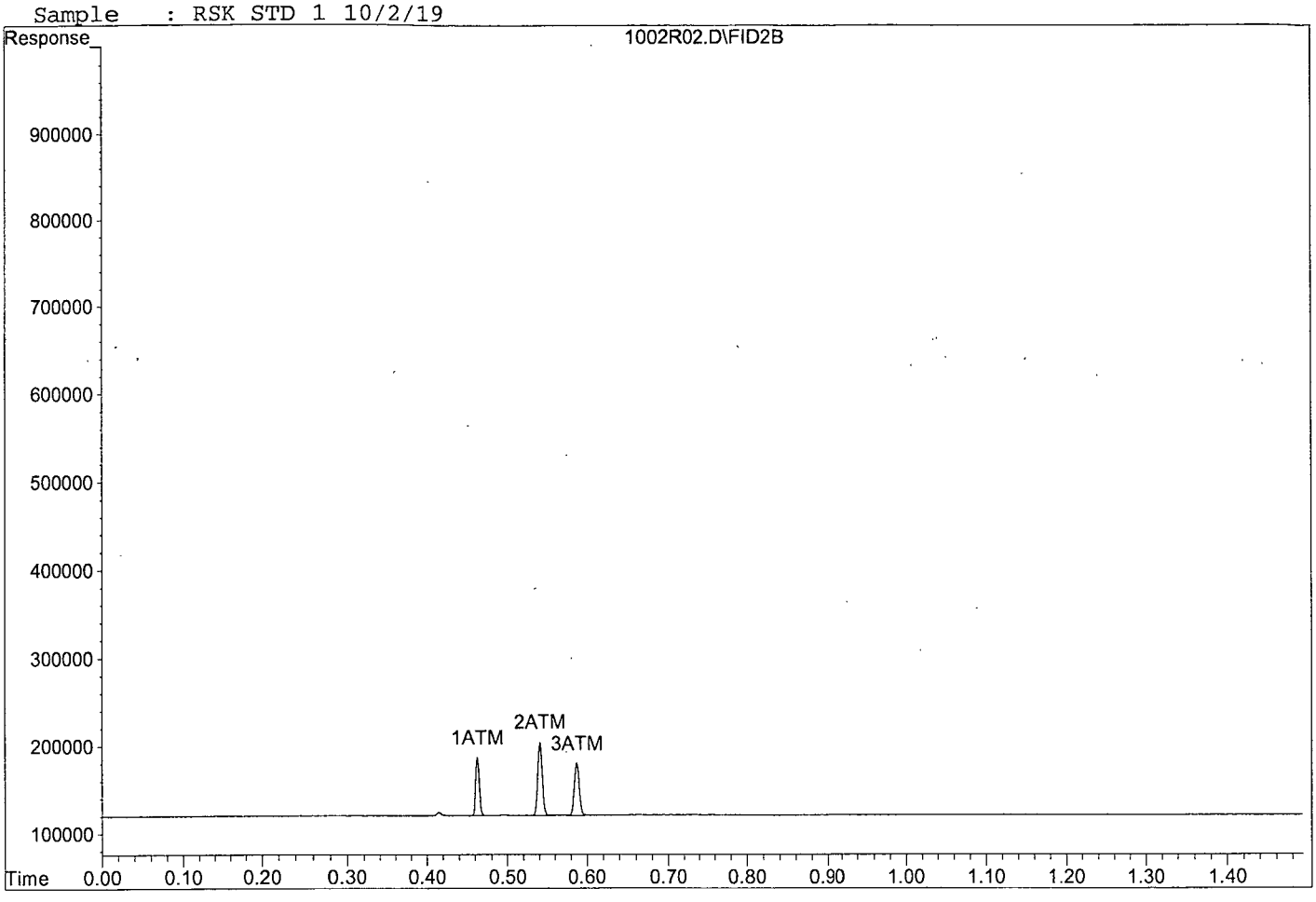
Volume Inj. : 0.500 mL
Signal Phase : CARBOPACK
Signal Info :

Compound	R.T.	Response	Conc Units
Target Compounds			
1) ATM Methane	0.46	66373	8.306 ppb
2) ATM Ethane	0.54	83177	6.216 ppb
3) ATM Ethene	0.59	60042	5.640 ppb

Target Compounds

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: G:\ROCKY\DATA\191002RS\1002R02.D
Sample : RSK STD 1 10/2/19



Quantitation Report (Not Reviewed)

Data File : G:\ROCKY\DATA\191002RS\1002R03.D Vial: 3
Acq On : 2 Oct 19 17:50 Operator: GA
Sample : RSK STD 2 10/2/19 Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 2 18:11 2019 Quant Results File: RSK1002.RES

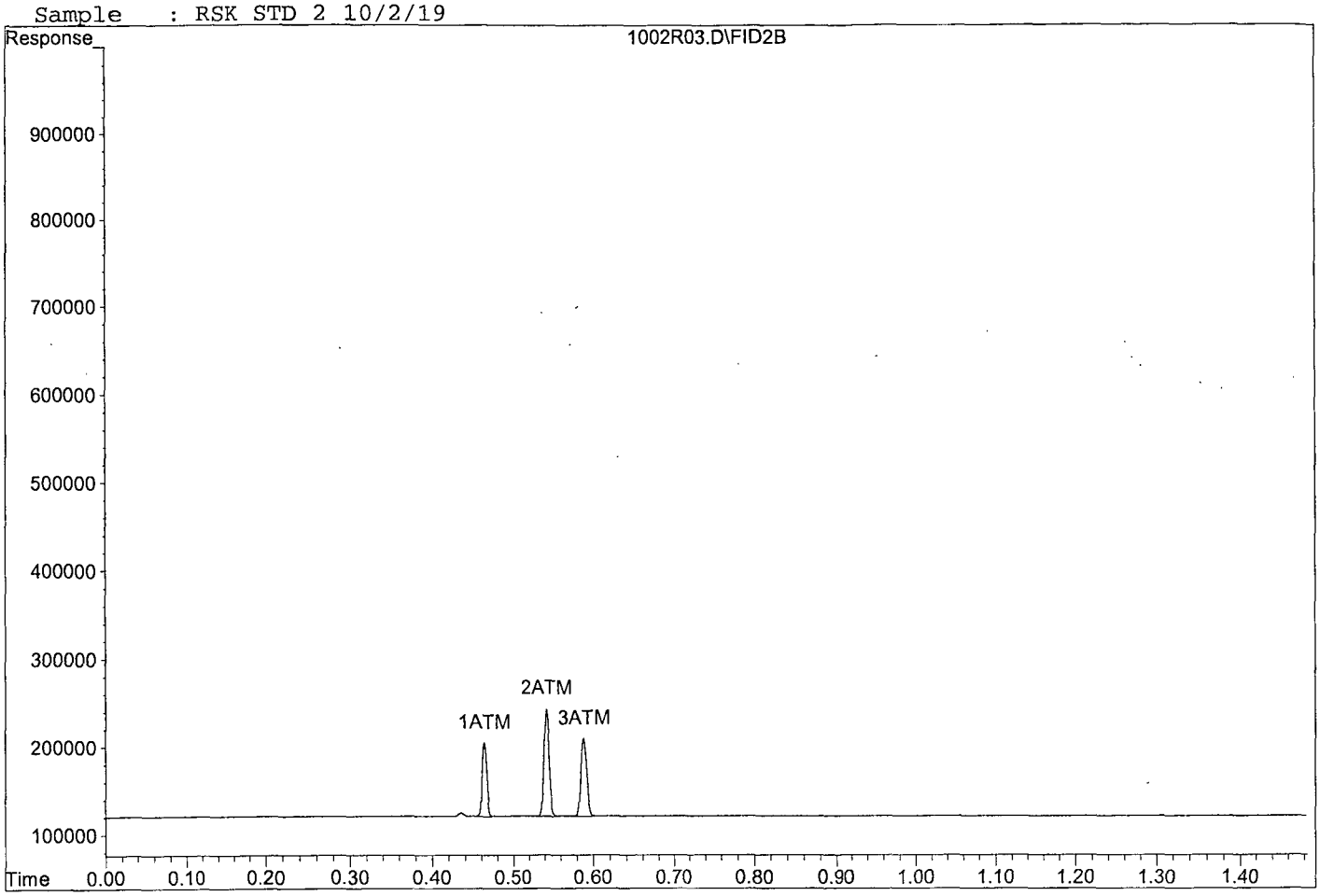
Method : G:\ROCKY\DATA\190929RS\RSK1002.M (Chemstation Integrator)
Title : RSK 175
Last Update : Wed Oct 02 18:14:49 2019
Response via : Multiple Level Calibration

Volume Inj. : 0.500 mL
Signal Phase : CARBOPACK
Signal Info :

Compound	R.T.	Response	Conc Units
Target Compounds			
1) ATM Methane	0.46	84140	9.332 ppb
2) ATM Ethane	0.54	121200	9.058 ppb
3) ATM Ethene	0.59	88693	8.332 ppb

Target Compounds

Data File: G:\ROCKY\DATA\191002RS\1002R03.D
Sample : RSK STD 2 10/2/19



Quantitation Report (Not Reviewed)

Data File : G:\ROCKY\DATA\191002RS\1002R04.D Vial: 4
Acq On : 2 Oct 19 17:52 Operator: GA
Sample : RSK STD 3 10/2/19 Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 2 18:11 2019 Quant Results File: RSK1002.RES

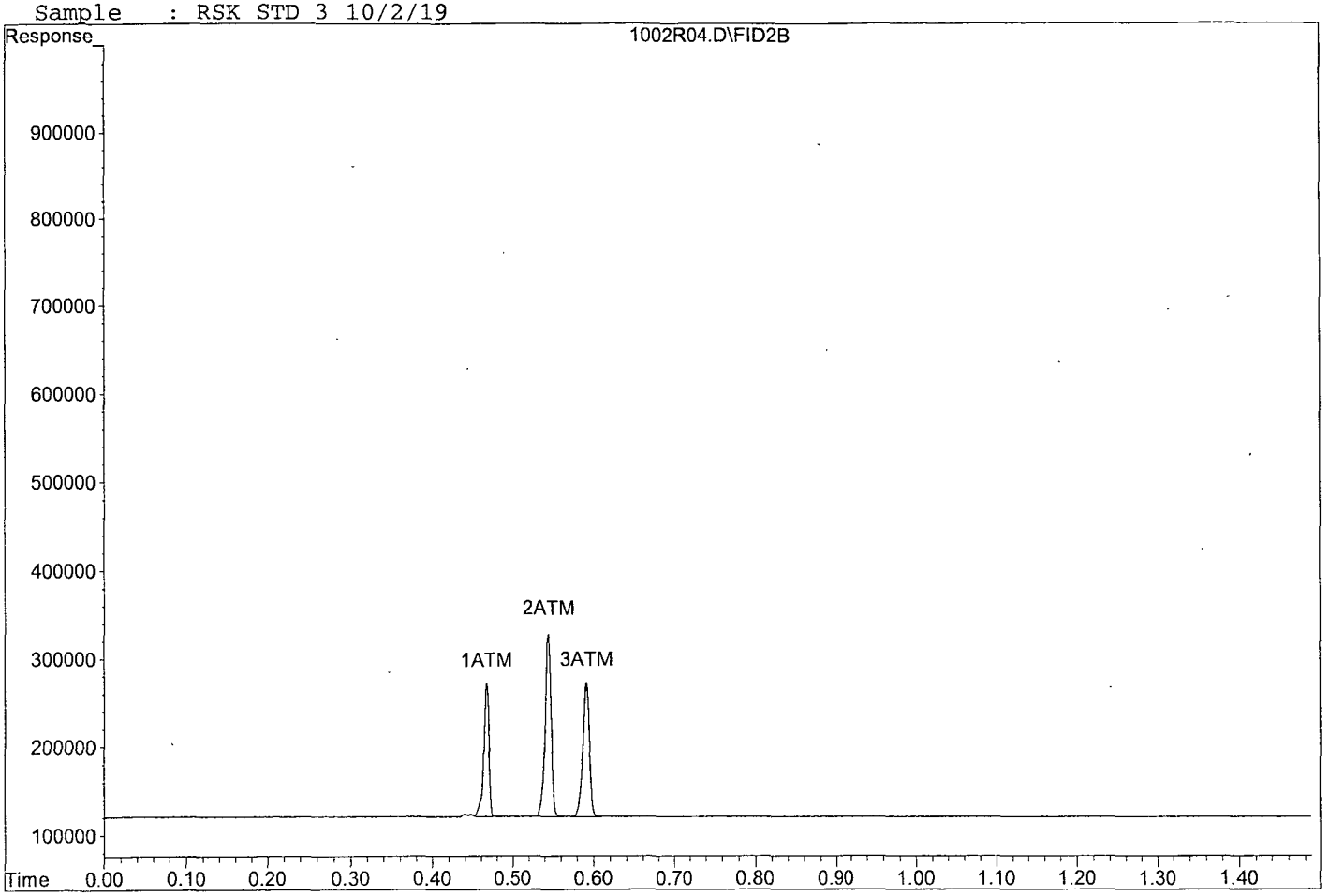
Method : G:\ROCKY\DATA\190929RS\RSK1002.M (Chemstation Integrator)
Title : RSK 175
Last Update : Wed Oct 02 18:14:49 2019
Response via : Multiple Level Calibration

Volume Inj. : 0.500 mL
Signal Phase : CARBOPACK
Signal Info :

Compound	R.T.	Response	Conc Units
Target Compounds			
1) ATM Methane	0.47	151018	13.195 ppb
2) ATM Ethane	0.55	207113	15.479 ppb
3) ATM Ethene	0.59	152138	14.292 ppb

Target Compounds

Data File: G:\ROCKY\DATA\191002RS\1002R04.D
Sample : RSK STD 3 10/2/19



Quantitation Report (Not Reviewed)

Data File : G:\ROCKY\DATA\191002RS\1002R05.D Vial: 5
Acq On : 2 Oct 19 17:57 Operator: GA
Sample : RSK STD 4 10/2/19 Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 2 18:11 2019 Quant Results File: RSK1002.RES

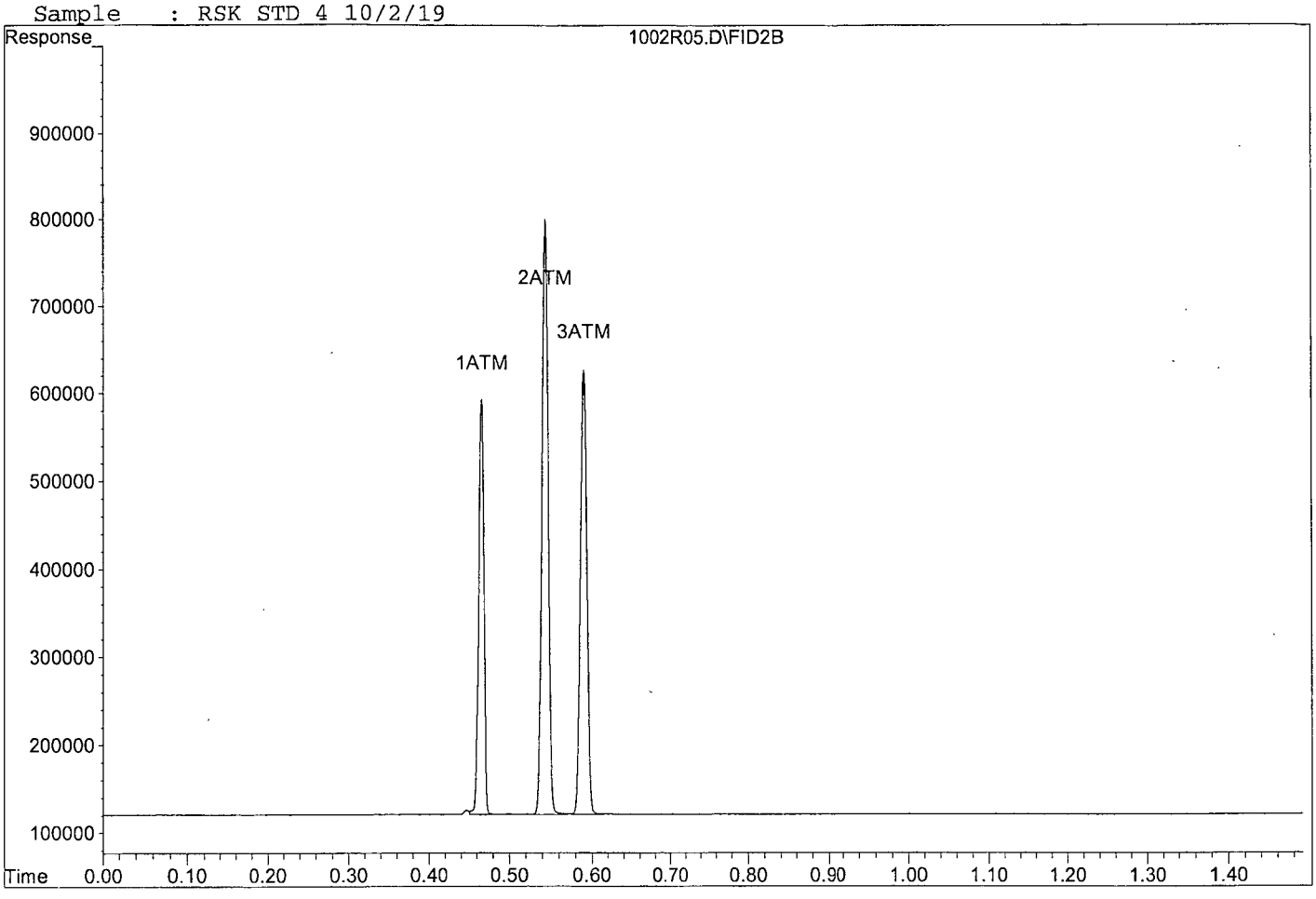
Method : G:\ROCKY\DATA\190929RS\RSK1002.M (Chemstation Integrator)
Title : RSK 175
Last Update : Wed Oct 02 18:14:49 2019
Response via : Multiple Level Calibration

Volume Inj. : 0.500 mL
Signal Phase : CARBOPACK
Signal Info :

Compound	R.T.	Response	Conc Units
Target Compounds			
1) ATM Methane	0.47	471234	31.689 ppb
2) ATM Ethane	0.54	677330	50.623 ppb
3) ATM Ethene	0.59	504779	47.419 ppb

Target Compounds

Data File: G:\ROCKY\DATA\191002RS\1002R05.D
Sample : RSK STD 4 10/2/19



Quantitation Report (Not Reviewed)

Data File : G:\ROCKY\DATA\191002RS\1002R06.D Vial: 6
Acq On : 2 Oct 19 17:59 Operator: GA
Sample : RSK STD 5 10/2/19 Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 2 18:11 2019 Quant Results File: RSK1002.RES

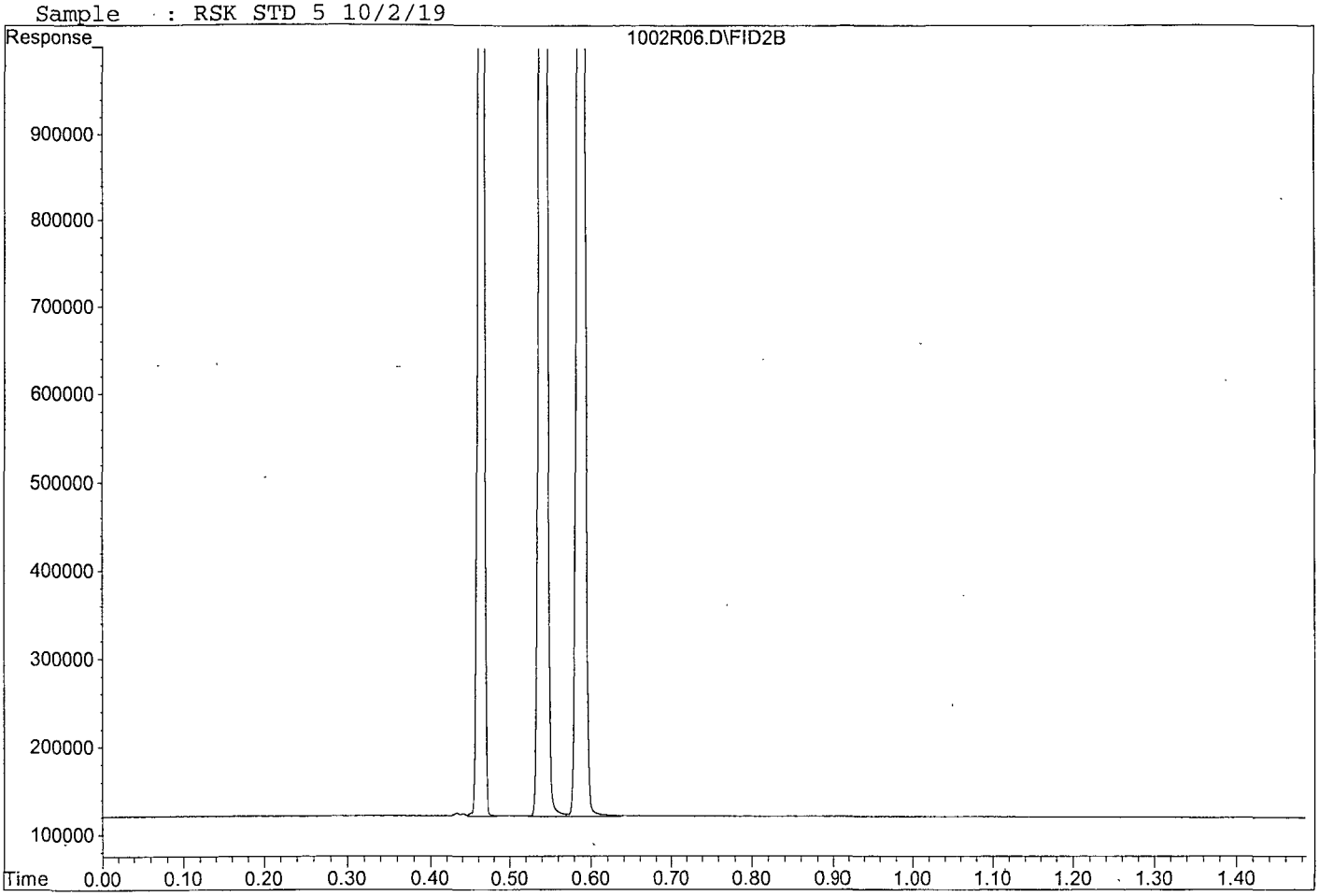
Method : G:\ROCKY\DATA\190929RS\RSK1002.M (Chemstation Integrator)
Title : RSK 175
Last Update : Wed Oct 02 18:14:49 2019
Response via : Multiple Level Calibration

Volume Inj. : 0.500 mL
Signal Phase : CARBOPACK
Signal Info :

Compound	R.T.	Response	Conc Units
Target Compounds			
1) ATM Methane	0.46	2019402	121.105 ppb
2) ATM Ethane	0.54	2950189	220.492 ppb
3) ATM Ethene	0.59	2176445	204.454 ppb

Target Compounds

Data File: G:\ROCKY\DATA\191002RS\1002R06.D
Sample : RSK STD 5 10/2/19



Quantitation Report (Not Reviewed)

Data File : G:\ROCKY\DATA\191002RS\1002R07.D Vial: 7
Acq On : 2 Oct 19 18:05 Operator: GA
Sample : RSK STD 6 10/2/19 Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 2 18:11 2019 Quant Results File: RSK1002.RES

Method : G:\ROCKY\DATA\190929RS\RSK1002.M (Chemstation Integrator)
Title : RSK 175
Last Update : Wed Oct 02 18:14:49 2019
Response via : Multiple Level Calibration

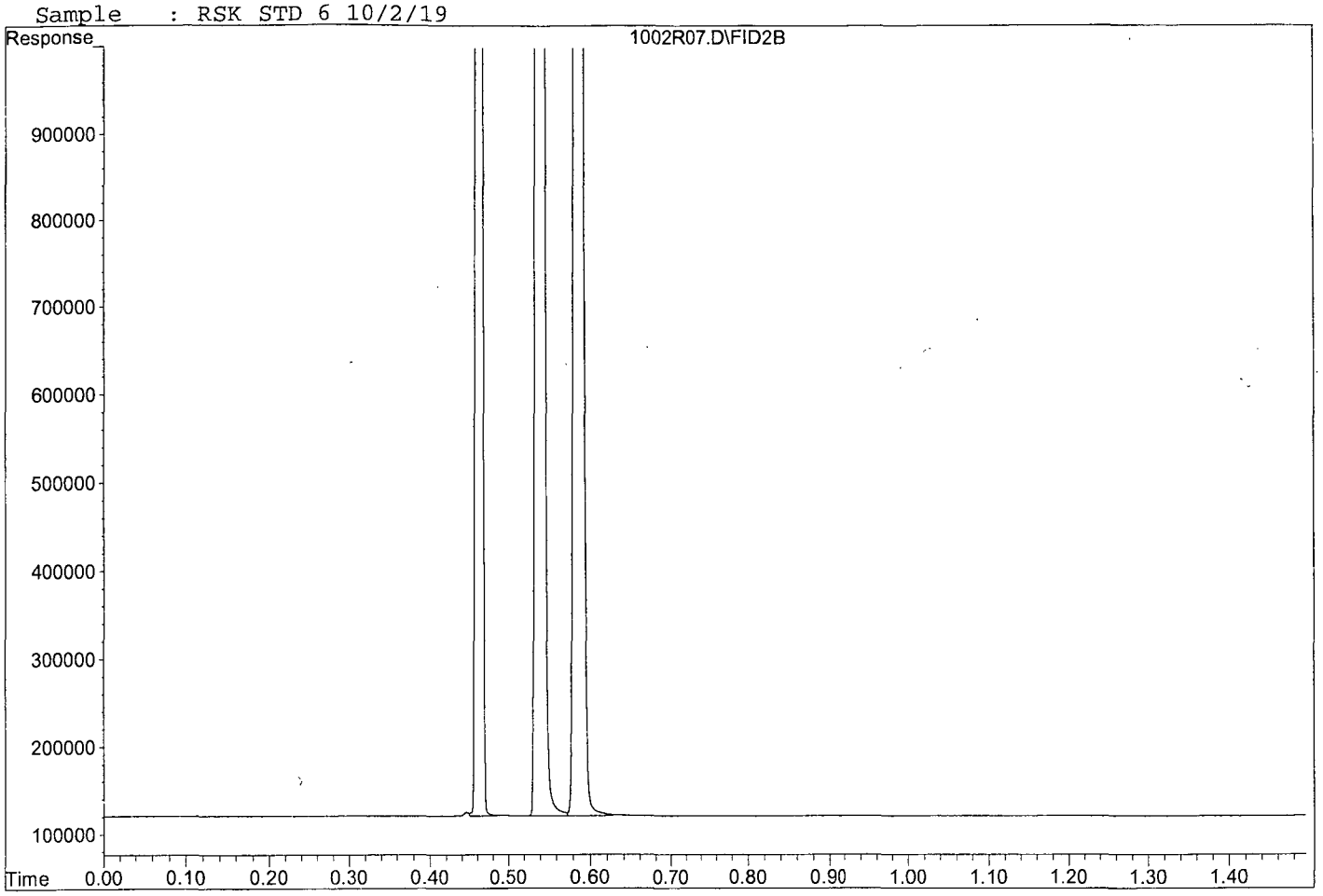
Volume Inj. : 0.500 mL
Signal Phase : CARBOPACK
Signal Info :

Compound	R.T.	Response	Conc Units
Target Compounds			
1) ATM Methane	0.46	4590194	269.583 ppb
2) ATM Ethane	0.54	6405030	478.702 ppb
3) ATM Ethene	0.59	4657966	437.567 ppb

Target Compounds

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: G:\ROCKY\DATA\191002RS\1002R07.D
Sample : RSK STD 6 10/2/19



Quantitation Report (Not Reviewed)

Data File : G:\ROCKY\DATA\191002RS\1002R08.D Vial: 8
Acq On : 2 Oct 19 18:07 Operator: GA
Sample : RSK STD 7 10/2/19 Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 2 18:11 2019 Quant Results File: RSK1002.RES

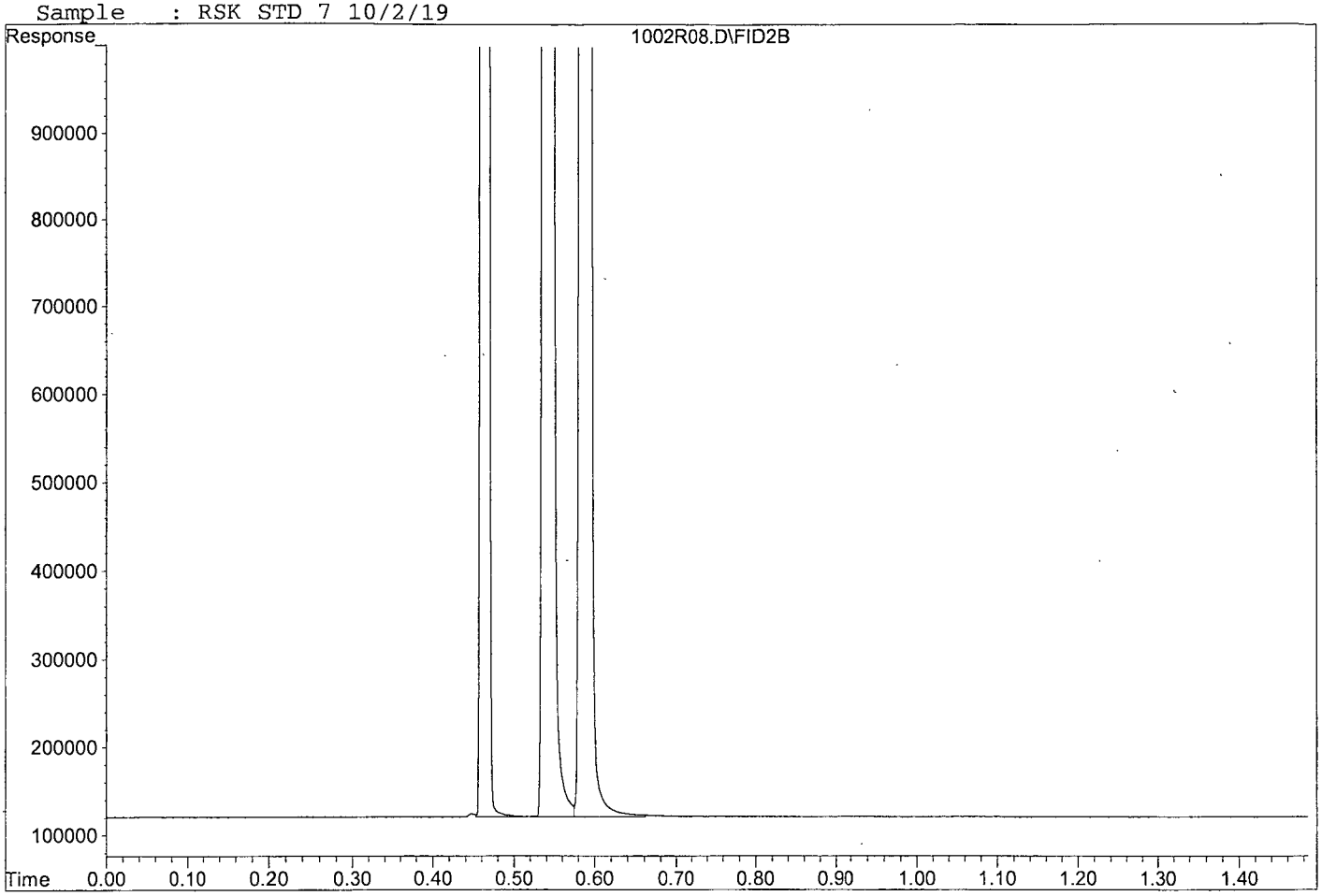
Method : G:\ROCKY\DATA\190929RS\RSK1002.M (Chemstation Integrator)
Title : RSK 175
Last Update : Wed Oct 02 18:14:49 2019
Response via : Multiple Level Calibration

Volume Inj. : 0.500 mL
Signal Phase : CARBOPACK
Signal Info :

Compound	R.T.	Response	Conc	Units
Target Compounds				
1) ATM Methane	0.46	19087907	1106.909	ppb
2) ATM Ethane	0.54	25777712	1926.584	ppb
3) ATM Ethene	0.59	19176068	1801.389	ppb

Target Compounds

Data File: G:\ROCKY\DATA\191002RS\1002R08.D
Sample : RSK STD 7 10/2/19



RSK 175
RSK 175

Form 7

Second Source Calibration

Lab Name: APPL, Inc.
Case No:
Matrix:

SDG No:
Date Analyzed: 2 Oct 19 18:24
Instrument: 7890
Initial Cal. Date: 10/02/19
Data File: 1002R10.D

		Compound	MEAN	CCRF	%D		%Drift
1	ATM	Methane	46275	50203	8.5	ATM	
2	ATM	Ethane	34039	37011	8.7	ATM	
3	ATM	Ethene	26775	28699	7.2	ATM	
4							
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40							
		Average			8.1		

Quantitation Report (Not Reviewed)

Data File : G:\ROCKY\DATA\191002RS\1002R10.D Vial: 10
Acq On : 2 Oct 19 18:24 Operator: GA
Sample : SS RSK STD 5 10/2/19 Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 2 18:27 2019 Quant Results File: RSK1002.RES

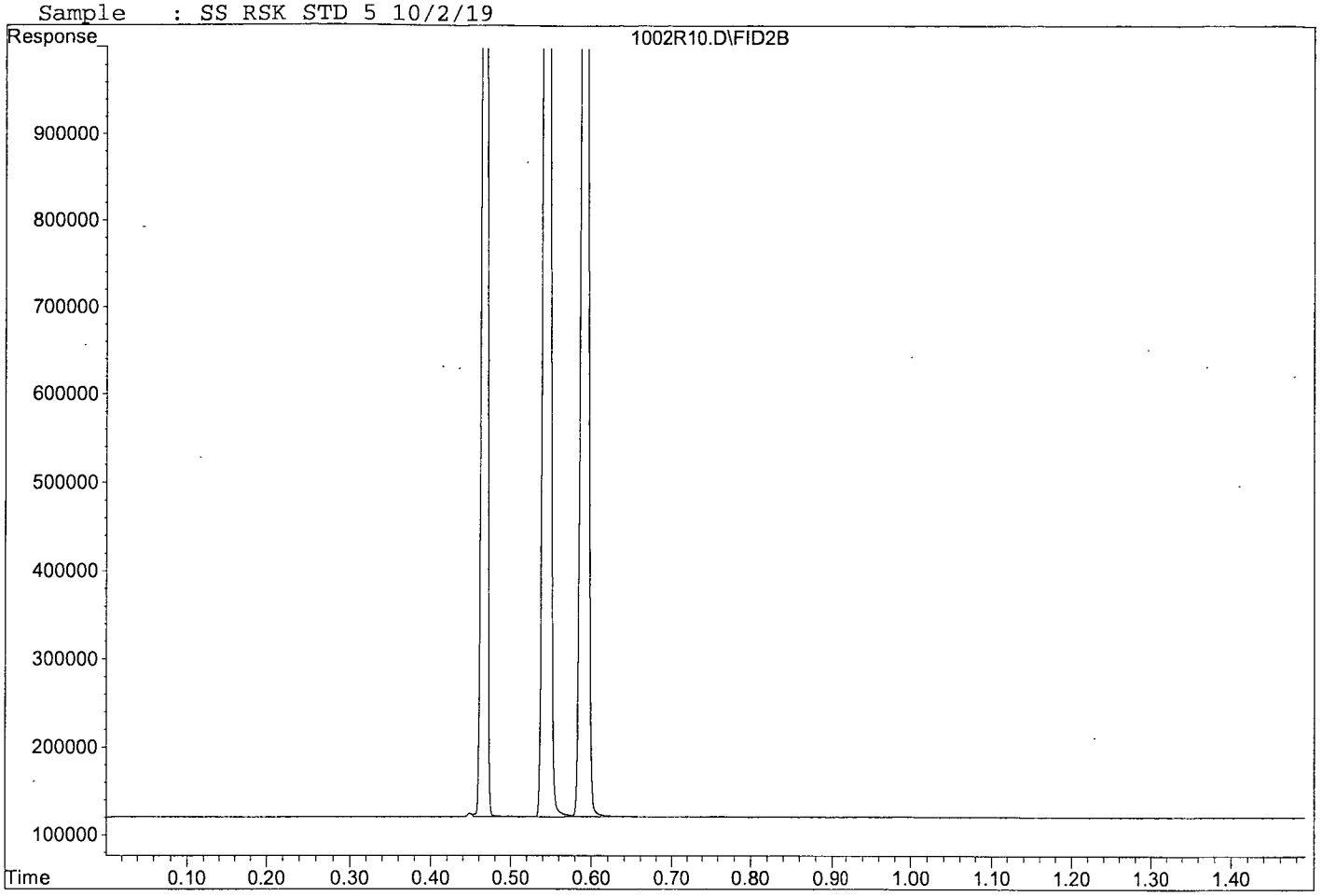
Method : G:\ROCKY\DATA\190929RS\RSK1002.M (Chemstation Integrator)
Title : RSK 175
Last Update : Wed Oct 02 18:14:49 2019
Response via : Multiple Level Calibration

Volume Inj. : 0.500 mL
Signal Phase : CARBOPACK
Signal Info :

Compound	R.T.	Response	Conc	Units
Target Compounds				
1) ATM Methane	0.47	2093456	90.480	ppb
2) ATM Ethane	0.54	2893356	170.002	ppb
3) ATM Ethene	0.59	2092707	156.318	ppb

Target Compounds

Data File: G:\ROCKY\DATA\191002RS\1002R10.D
Sample : SS RSK STD 5 10/2/19



Form 7

Continuing Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Date Analyzed: 10/29/19
Matrix: Instrument: 7890
Initial Cal. Date: 10/02/19
Data File: 1029R04.D

		Compound	MEAN	CCRF	%D		%Drift
1	ATM	Methane	46275	44336	4.2	ATM	
2	ATM	Ethane	34039	34507	1.4	ATM	
3	ATM	Ethene	26775	26285	1.8	ATM	
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40							
		Average			2.5		

Quantitation Report (Not Reviewed)

Data File : G:\ROCKY\DATA\191002RS\1029R04.D Vial: 4
Acq On : 29 Oct 19 17:17 Operator: GA
Sample : 191029A LCS/CCV RSK STD 5 Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 29 17:37 2019 Quant Results File: RSK1002.RES

Method : G:\ROCKY\DATA\190929RS\RSK1002.M (Chemstation Integrator)
Title : RSK 175
Last Update : Mon Oct 28 16:28:47 2019
Response via : Multiple Level Calibration

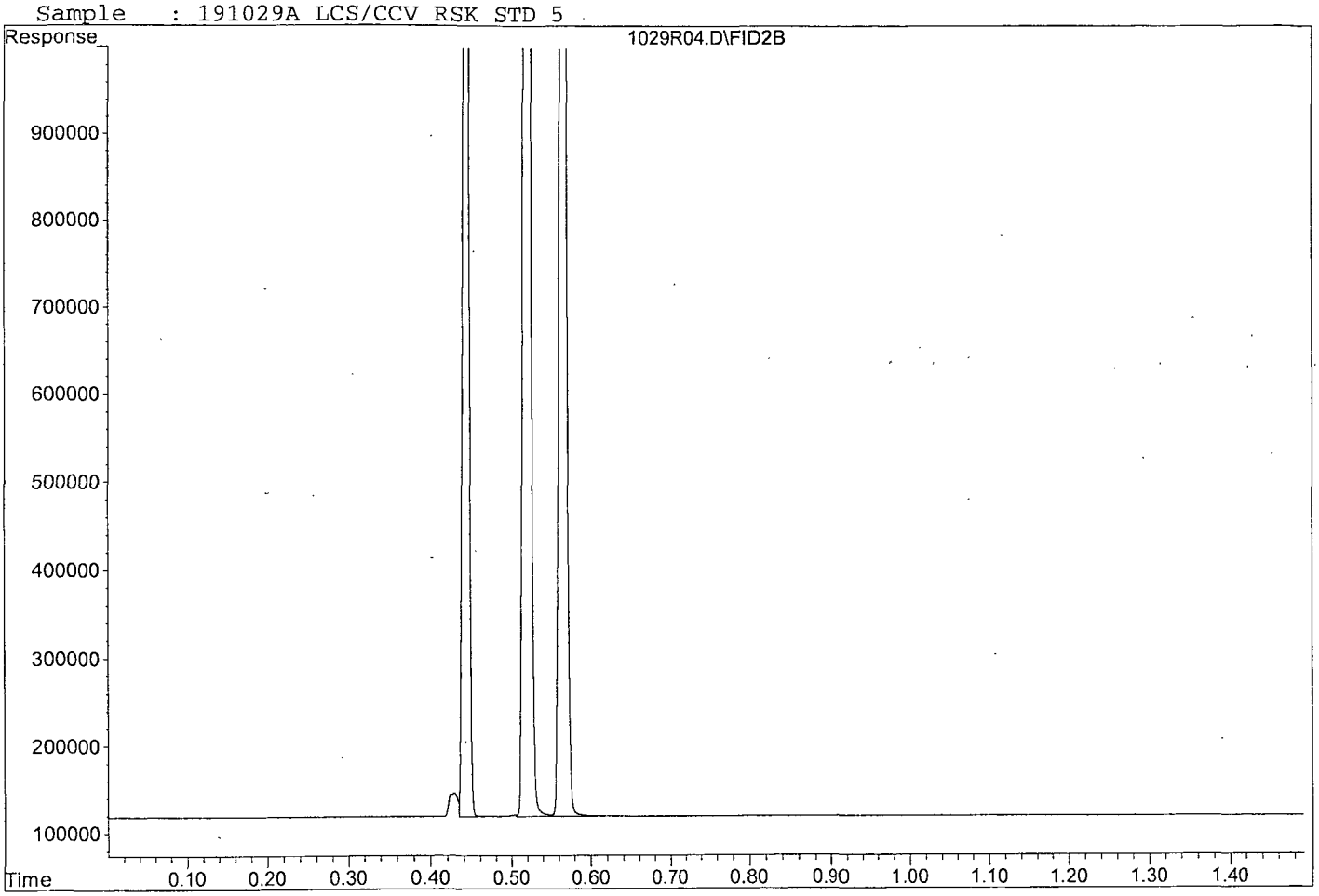
Volume Inj. : 0.500 mL
Signal Phase : CARBOPACK
Signal Info :

Compound	R.T.	Response	Conc	Units
Target Compounds				
1) ATM Methane	0.44	1848809	79.906	ppb
2) ATM Ethane	0.52	2697562	158.498	ppb
3) ATM Ethene	0.57	1916665	143.168	ppb

Target Compounds

Quantitation Report

Data File: G:\ROCKY\DATA\191002RS\1029R04.D
Sample : 191029A LCS/CCV RSK STD 5



Form 7

Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix:

SDG No:
Date Analyzed: 10/29/19
Instrument: 7890
Initial Cal. Date: 10/02/19
Data File: 1029R19.D

		Compound	MEAN	CCRF	%D		%Drift
1	ATM	Methane	46275	35934	22	ATM	
2	ATM	Ethane	34039	28783	15	ATM	
3	ATM	Ethene	26775	21497	20	ATM	
4							
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40							
		Average			19.0		

Quantitation Report (Not Reviewed)

Data File : G:\ROCKY\DATA\191002RS\1029R19.D Vial: 19
Acq On : 29 Oct 19 18:45 Operator: GA
Sample : ENDING CCV RSK STD 5 10/29/19 Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 29 18:49 2019 Quant Results File: RSK1002.RES

Method : G:\ROCKY\DATA\190929RS\RSK1002.M (Chemstation Integrator)
Title : RSK 175
Last Update : Mon Oct 28 16:28:47 2019
Response via : Multiple Level Calibration

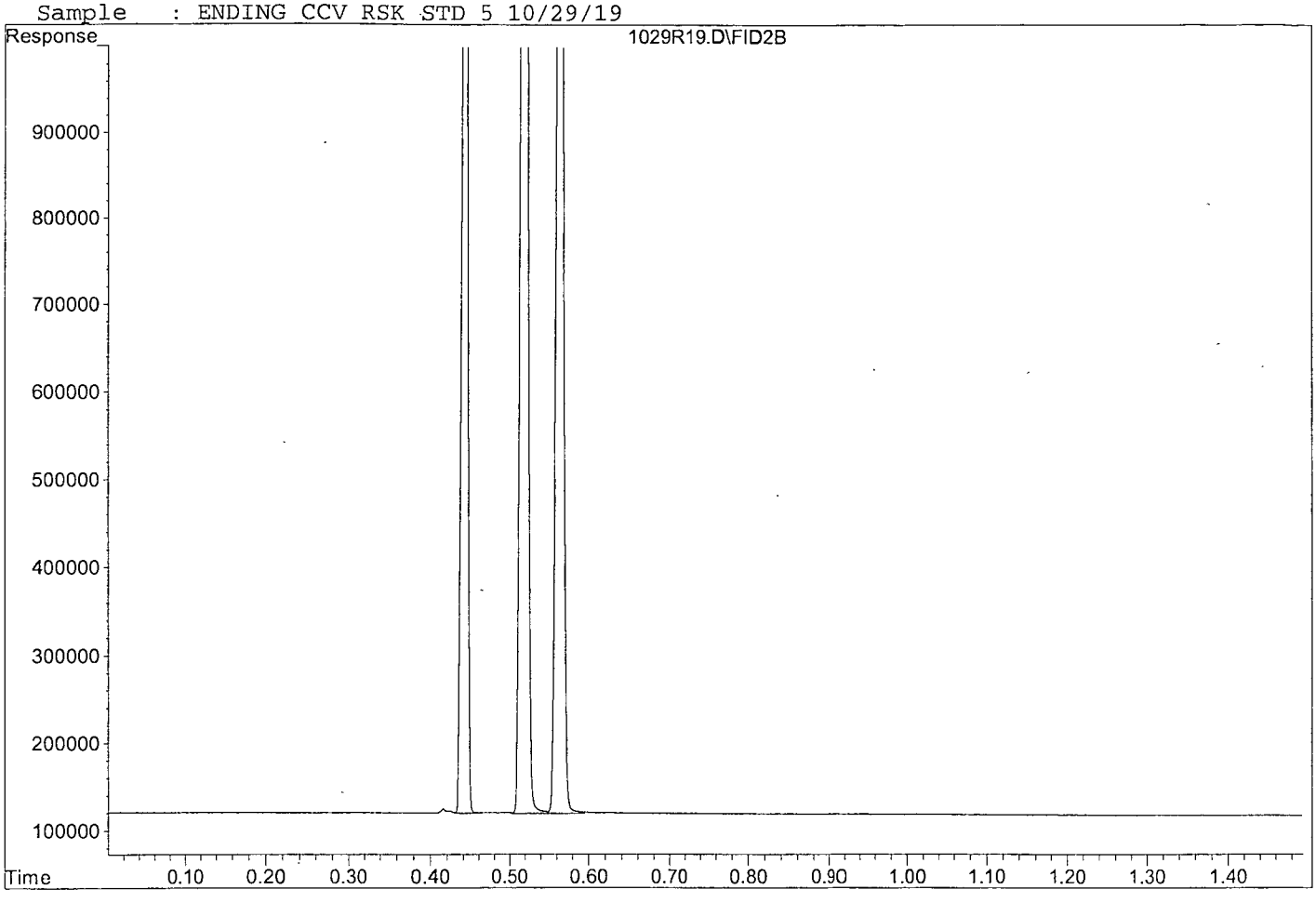
Volume Inj. : 0.500 mL
Signal Phase : CARBOPACK
Signal Info :

Compound	R.T.	Response	Conc Units
Target Compounds			
1) ATM Methane	0.44	1498442	64.763 ppb
2) ATM Ethane	0.52	2250092	132.206 ppb
3) ATM Ethene	0.56	1567558	117.091 ppb

Target Compounds

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: G:\ROCKY\DATA\191002RS\1029R19.D
Sample : ENDING CCV RSK STD 5 10/29/19



Form 7

Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix:

SDG No:
Date Analyzed: 10/31/19
Instrument: 7890
Initial Cal. Date: 10/02/19
Data File: 1031R03.D

		Compound	MEAN	CCRF	%D		%Drift	
1	ATM	Methane	46275	47978	3.7	ATM		
2	ATM	Ethane	34039	43042	26	ATM		*
3	ATM	Ethene	26775	32709	22	ATM		
4								
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		Average			17.2			

Quantitation Report (Not Reviewed)

Data File : G:\ROCKY\DATA\191002RS\1031R03.D Vial: 3
Acq On : 31 Oct 19 17:03 Operator: GA
Sample : 191031A LCS/CCV RSK STD 5 Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 31 17:06 2019 Quant Results File: RSK1002.RES

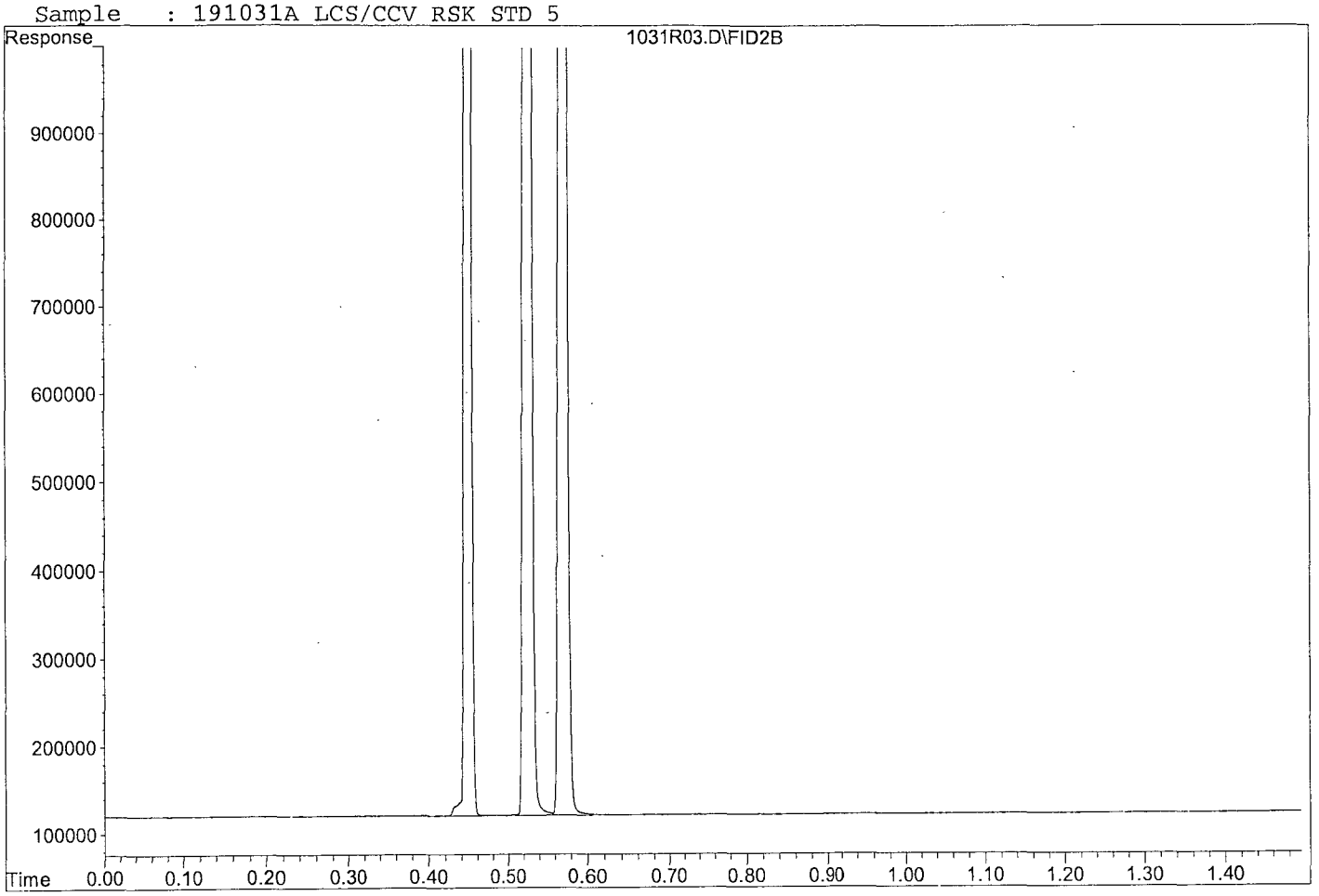
Method : G:\ROCKY\DATA\190929RS\RSK1002.M (Chemstation Integrator)
Title : RSK 175
Last Update : Wed Oct 30 17:49:29 2019
Response via : Multiple Level Calibration

Volume Inj. : 0.500 mL
Signal Phase : CARBOPACK
Signal Info :

Compound	R.T.	Response	Conc	Units
Target Compounds				
1) ATM Methane	0.45	2000669	86.470	ppb
2) ATM Ethane	0.53	3364804	197.702	ppb
3) ATM Ethene	0.57	2385102	178.159	ppb

Target Compounds

Data File: G:\ROCKY\DATA\191002RS\1031R03.D
Sample : 191031A LCS/CCV RSK STD 5



RSK 175
RSK 175

Form 7

Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix:

SDG No:
Date Analyzed: 10/31/19
Instrument: 7890
Initial Cal. Date: 10/02/19
Data File: 1031R15.D

		Compound	MEAN	CCRF	%D		%Drift	
1	ATM	Methane	46275	52604	14	ATM		
2	ATM	Ethane	34039	43002	26	ATM		*
3	ATM	Ethene	26775	32348	21	ATM		
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		Average			20.3			

Quantitation Report (Not Reviewed)

Data File : G:\ROCKY\DATA\191002RS\1031R15.D Vial: 15
Acq On : 31 Oct 19 17:42 Operator: GA
Sample : ENDING CCV RSK STD 5 10/31/19 Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 31 17:44 2019 Quant Results File: RSK1002.RES

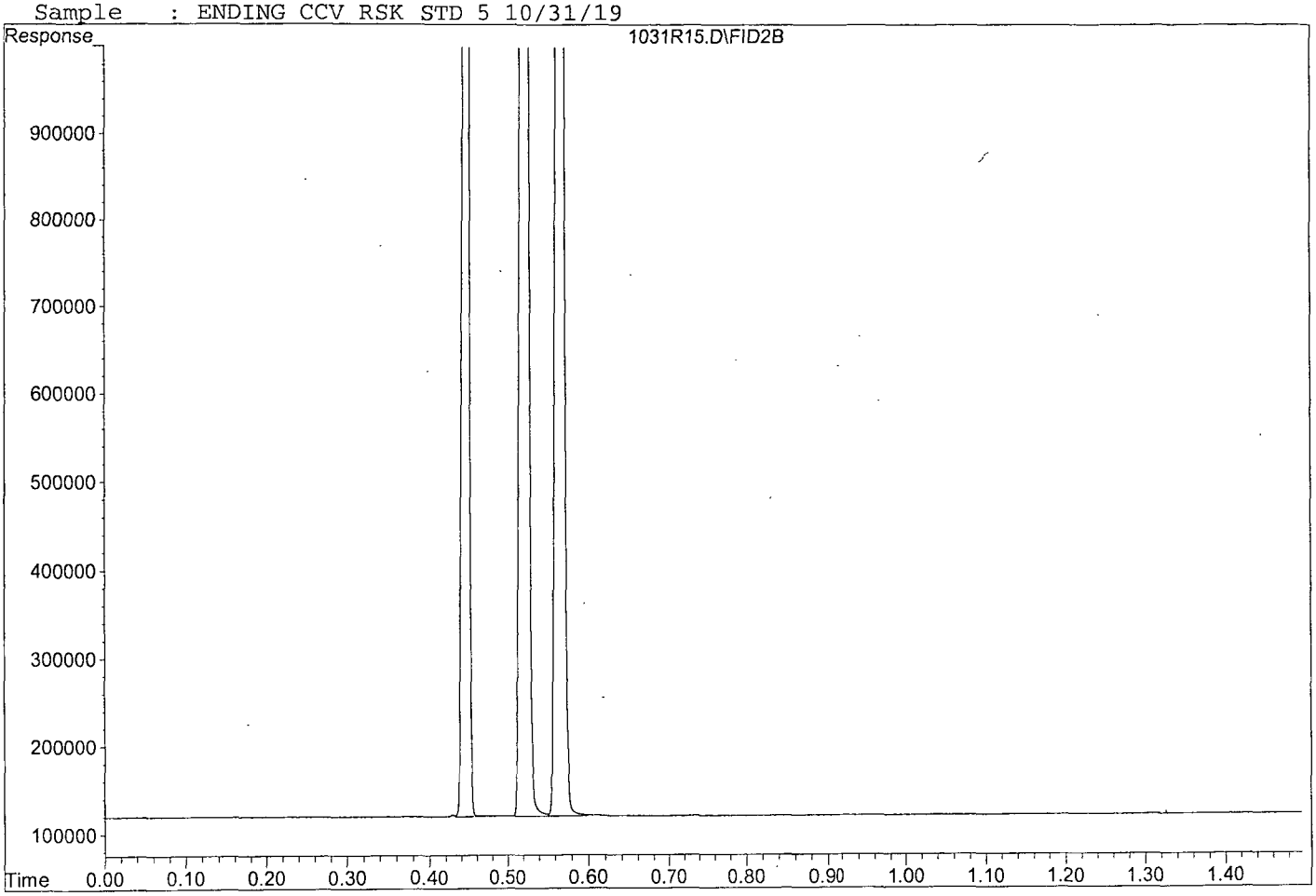
Method : G:\ROCKY\DATA\190929RS\RSK1002.M (Chemstation Integrator)
Title : RSK 175
Last Update : Wed Oct 30 17:49:29 2019
Response via : Multiple Level Calibration

Volume Inj. : 0.500 mL
Signal Phase : CARBOPACK
Signal Info :

Compound	R.T.	Response	Conc Units
Target Compounds			
1) ATM Methane	0.45	2193578	94.807 ppb
2) ATM Ethane	0.52	3361712	197.521 ppb
3) ATM Ethene	0.57	2358813	176.195 ppb

Target Compounds

Data File: G:\ROCKY\DATA\191002RS\1031R15.D
Sample : ENDING CCV RSK STD 5 10/31/19



ORGANICS
Raw Data

Quantitation Report (QT Reviewed)

Data File : G:\ROCKY\DATA\191002RS\1029R15.D Vial: 15
Acq On : 29 Oct 19 18:29 Operator: GA
Sample : BA01828W04 Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 29 18:32 2019 Quant Results File: RSK1002.RES

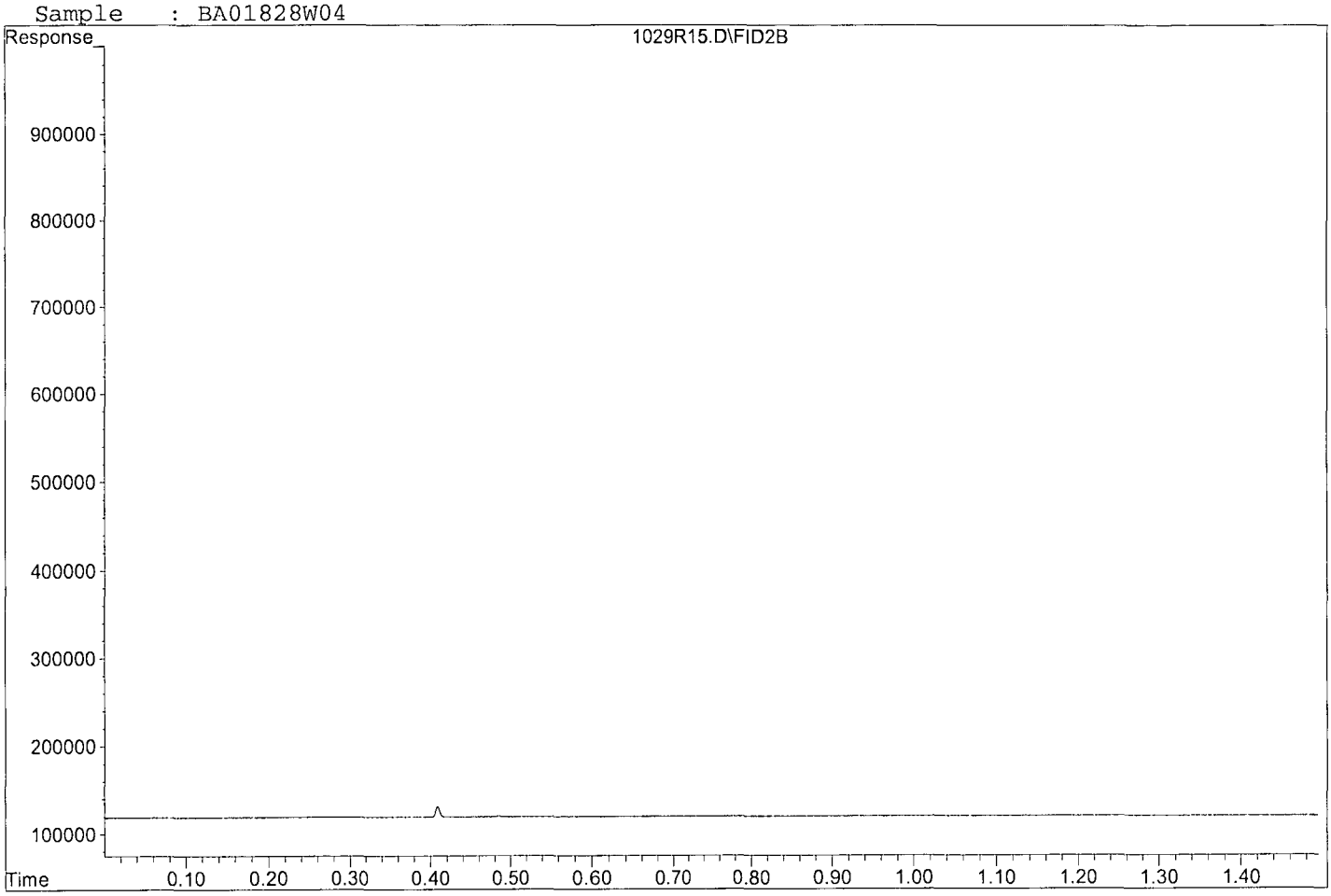
Method : G:\ROCKY\DATA\190929RS\RSK1002.M (Chemstation Integrator)
Title : RSK 175
Last Update : Mon Oct 28 16:28:47 2019
Response via : Multiple Level Calibration

Volume Inj. : 0.500 mL
Signal Phase : CARBOPACK
Signal Info :

Compound	R.T.	Response	Conc	Units	
Target Compounds					
Target Compounds					
1) ATM Methane	0.00	0	N.D.	ppb	d
2) ATM Ethane	0.00	0	N.D.	ppb	d
3) ATM Ethene	0.00	0	N.D.	ppb	d

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: G:\ROCKY\DATA\191002RS\1029R15.D
Sample : BA01828W04



Quantitation Report (QT Reviewed)

Data File : G:\ROCKY\DATA\191002RS\1029R16.D Vial: 16
Acq On : 29 Oct 19 18:32 Operator: GA
Sample : BA01829W04 Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 29 18:35 2019 Quant Results File: RSK1002.RES

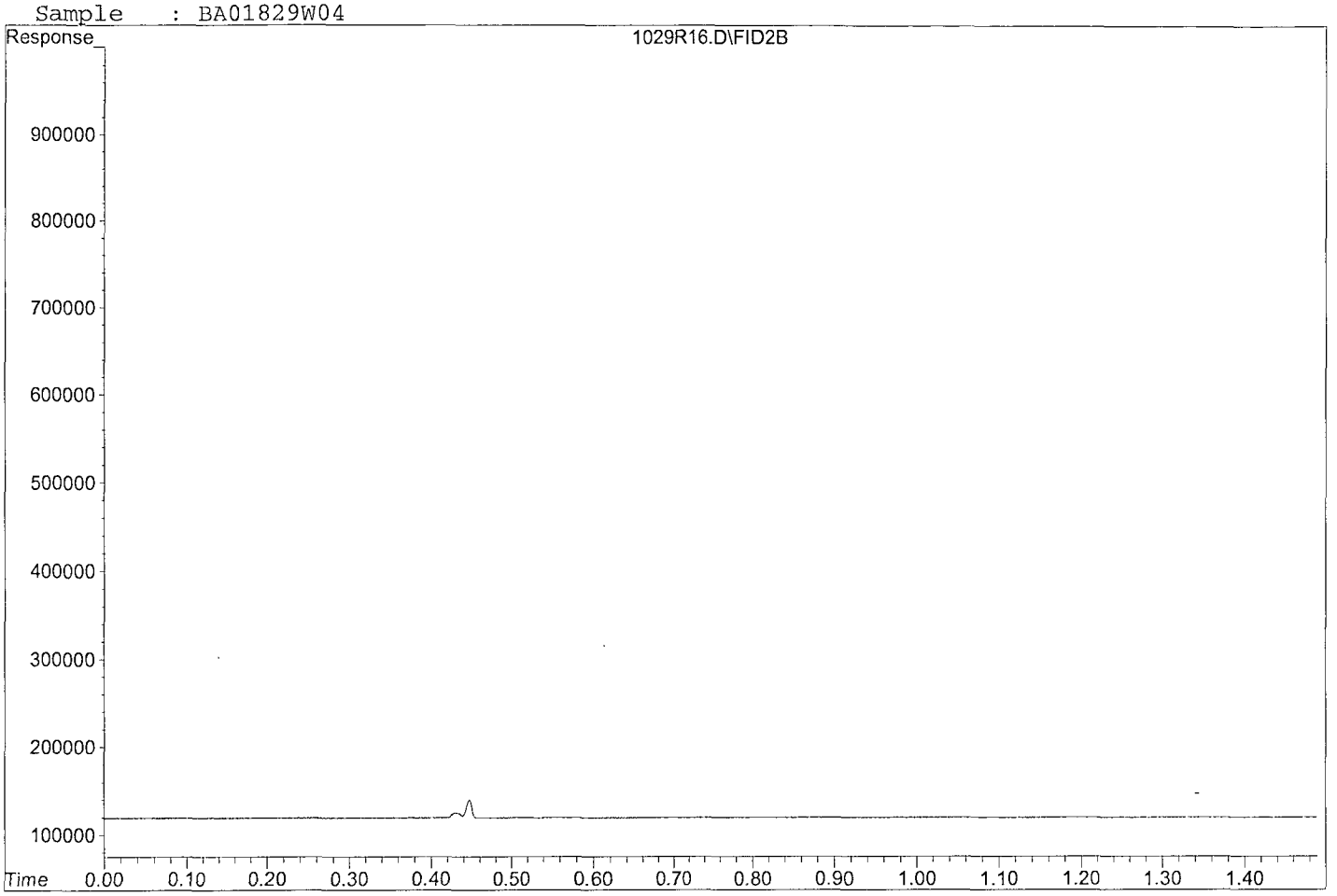
Method : G:\ROCKY\DATA\190929RS\RSK1002.M (Chemstation Integrator)
Title : RSK 175
Last Update : Mon Oct 28 16:28:47 2019
Response via : Multiple Level Calibration

Volume Inj. : 0.500 mL
Signal Phase : CARBOPACK
Signal Info :

Compound	R.T.	Response	Conc	Units	
Target Compounds					
Target Compounds					
1) ATM Methane	0.00	0	N.D.	ppb	d
2) ATM Ethane	0.00	0	N.D.	ppb	d
3) ATM Ethene	0.00	0	N.D.	ppb	d

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: G:\ROCKY\DATA\191002RS\1029R16.D
Sample : BA01829W04



Quantitation Report (QT Reviewed)

Data File : G:\ROCKY\DATA\191002RS\1031R06.D Vial: 6
Acq On : 31 Oct 19 17:15 Operator: GA
Sample : BA01830W04 Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 31 17:19 2019 Quant Results File: RSK1002.RES

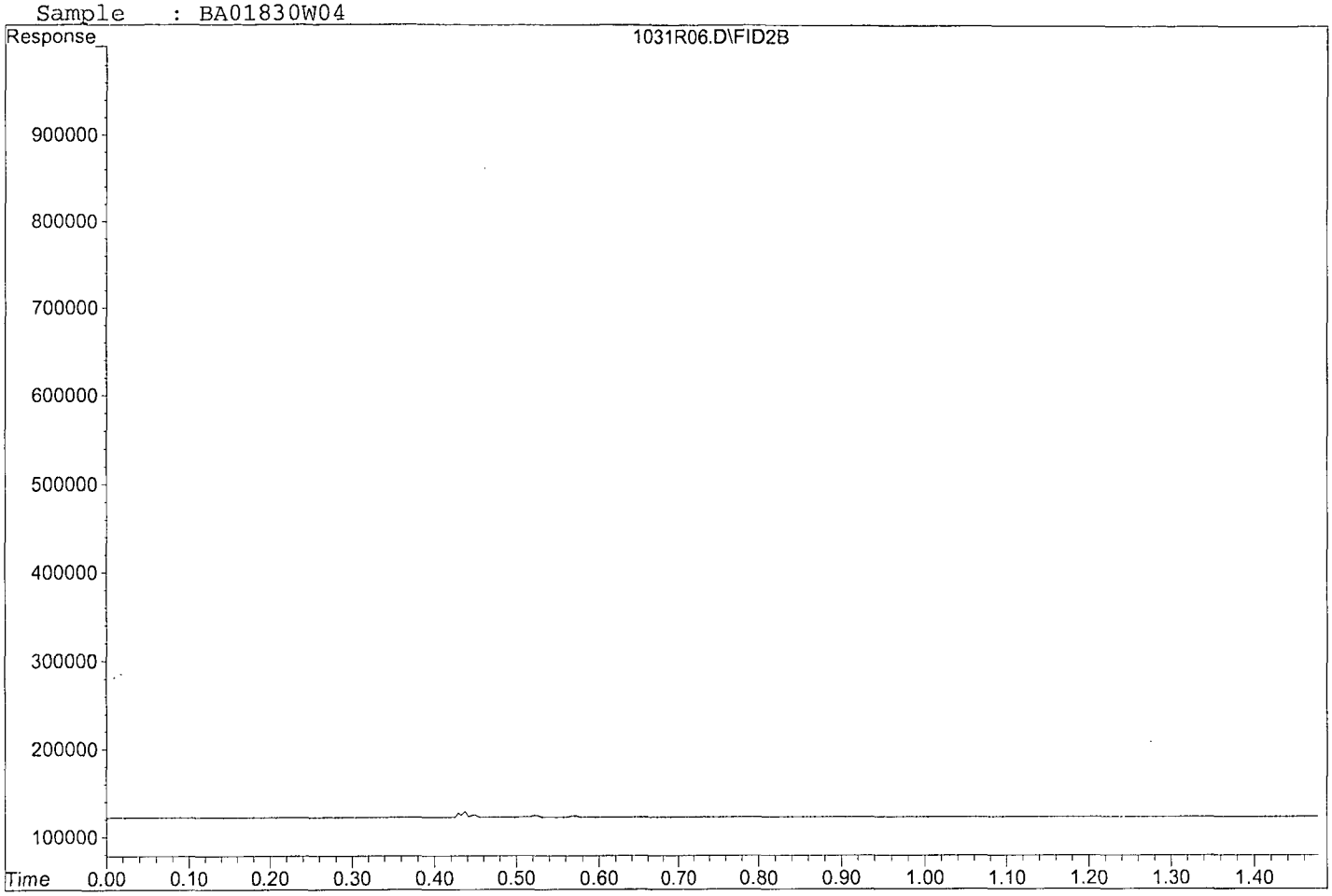
Method : G:\ROCKY\DATA\190929RS\RSK1002.M (Chemstation Integrator)
Title : RSK 175
Last Update : Wed Oct 30 17:49:29 2019
Response via : Multiple Level Calibration

Volume Inj. : 0.500 mL
Signal Phase : CARBOPACK
Signal Info :

Compound	R.T.	Response	Conc	Units	
Target Compounds					
Target Compounds					
1) ATM Methane	0.00	0	N.D.	ppb	d
2) ATM Ethane	0.00	0	N.D.	ppb	d
3) ATM Ethene	0.00	0	N.D.	ppb	d

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: G:\ROCKY\DATA\191002RS\1031R06.D
Sample : BA01830W04



Quantitation Report (QT Reviewed)

Data File : G:\ROCKY\DATA\191002RS\1029R17.D Vial: 17
Acq On : 29 Oct 19 18:35 Operator: GA
Sample : BA01831W04 Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 29 18:40 2019 Quant Results File: RSK1002.RES

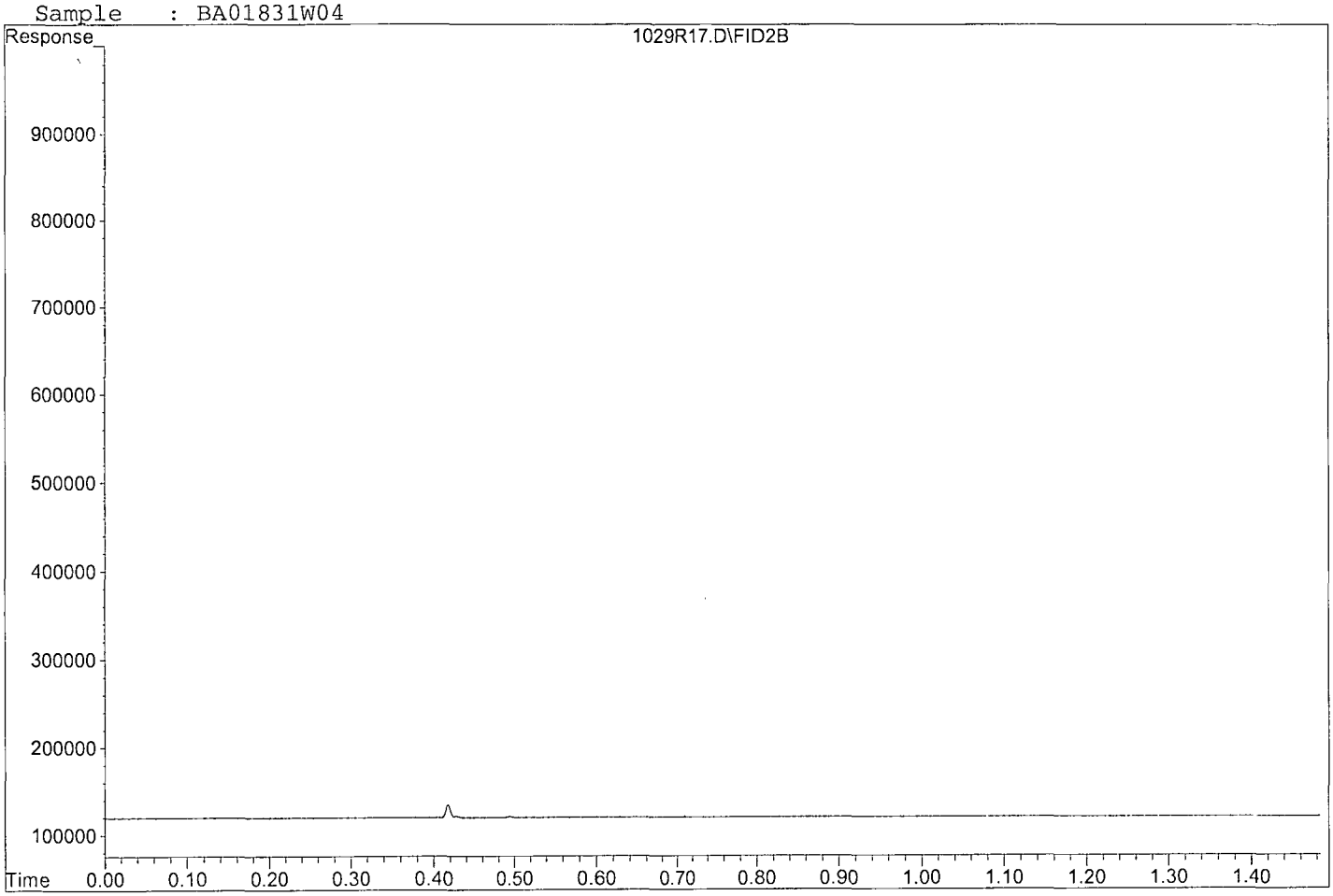
Method : G:\ROCKY\DATA\190929RS\RSK1002.M (Chemstation Integrator)
Title : RSK 175
Last Update : Mon Oct 28 16:28:47 2019
Response via : Multiple Level Calibration

Volume Inj. : 0.500 mL
Signal Phase : CARBOPACK
Signal Info :

Compound	R.T.	Response	Conc	Units	
Target Compounds					
Target Compounds					
1) ATM Methane	0.00	0	N.D.	ppb	d
2) ATM Ethane	0.00	0	N.D.	ppb	d
3) ATM Ethene	0.00	0	N.D.	ppb	d

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: G:\ROCKY\DATA\191002RS\1029R17.D
Sample : BA01831W04



Quantitation Report (QT Reviewed)

Data File : G:\ROCKY\DATA\191002RS\1031R07.D Vial: 7
Acq On : 31 Oct 19 17:17 Operator: GA
Sample : BA01832W04 Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 31 17:21 2019 Quant Results File: RSK1002.RES

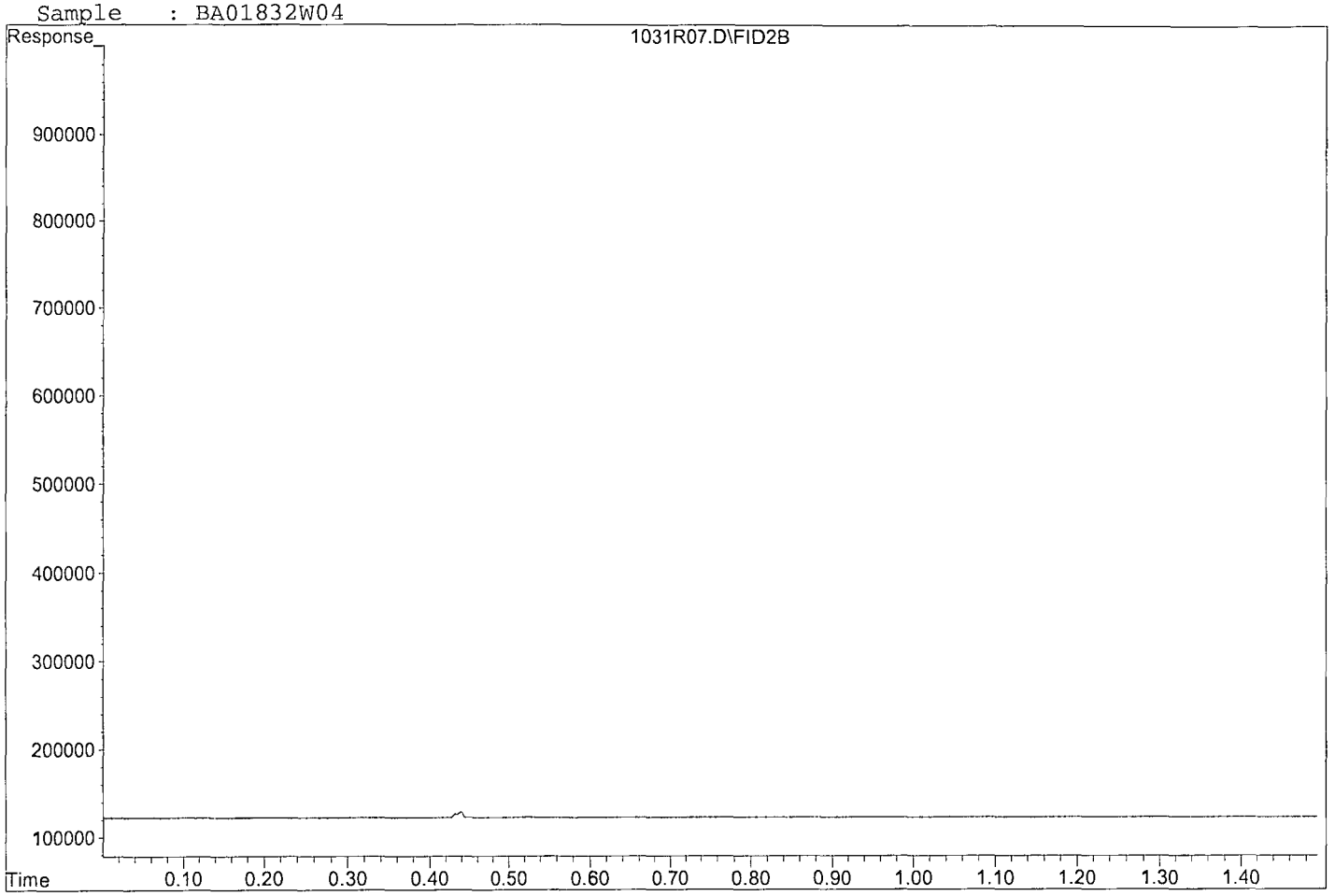
Method : G:\ROCKY\DATA\190929RS\RSK1002.M (Chemstation Integrator)
Title : RSK 175
Last Update : Wed Oct 30 17:49:29 2019
Response via : Multiple Level Calibration

Volume Inj. : 0.500 mL
Signal Phase : CARBOPACK
Signal Info :

Compound	R.T.	Response	Conc	Units	
Target Compounds					
Target Compounds					
1) ATM Methane	0.00	0	N.D.	ppb	d
2) ATM Ethane	0.00	0	N.D.	ppb	d
3) ATM Ethene	0.00	0	N.D.	ppb	d

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: G:\ROCKY\DATA\191002RS\1031R07.D
Sample : BA01832W04



Quantitation Report (QT Reviewed)

Data File : G:\ROCKY\DATA\191002RS\1029R18.D Vial: 18
Acq On : 29 Oct 19 18:41 Operator: GA
Sample : BA01833W04 Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 29 18:44 2019 Quant Results File: RSK1002.RES

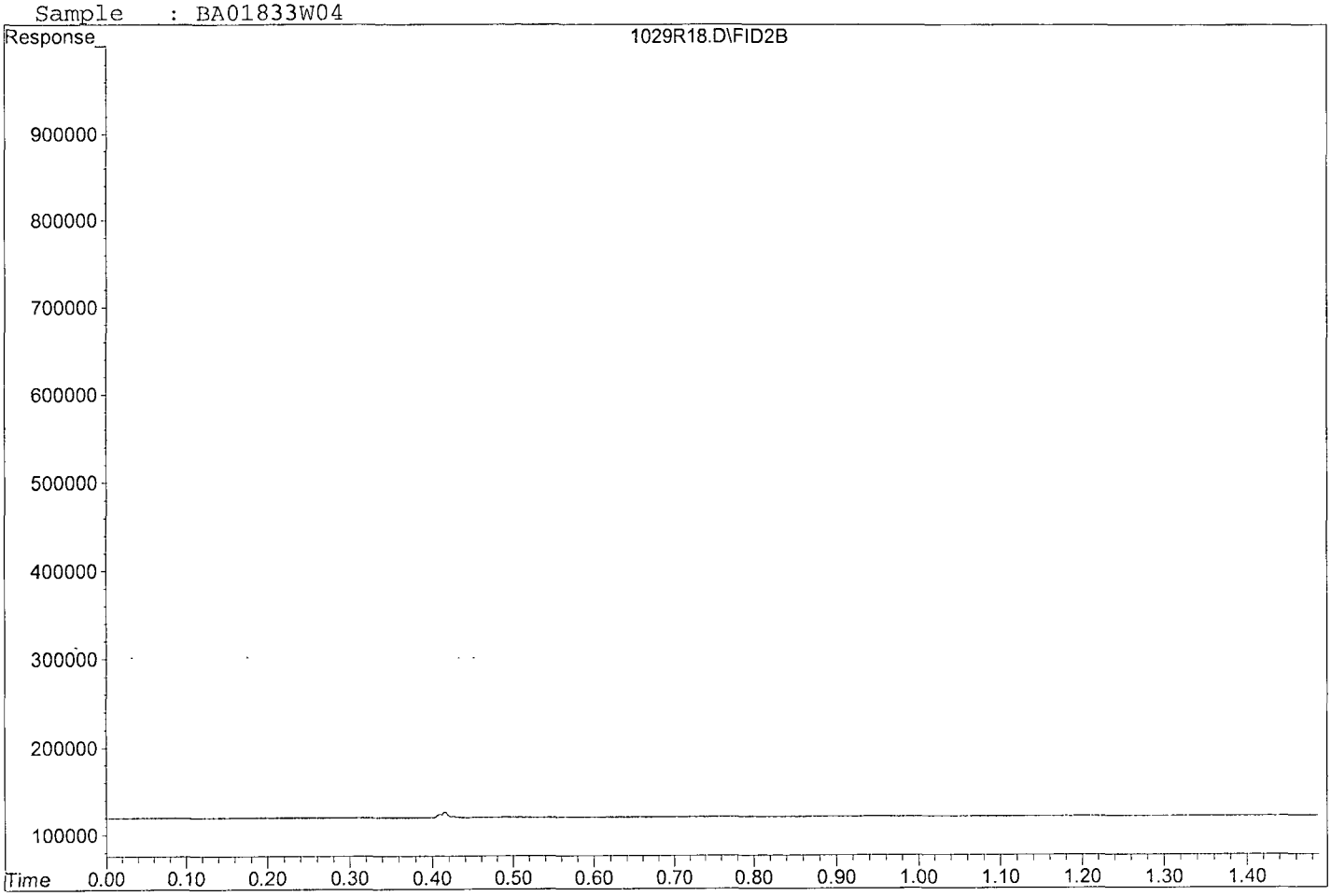
Method : G:\ROCKY\DATA\190929RS\RSK1002.M (Chemstation Integrator)
Title : RSK 175
Last Update : Mon Oct 28 16:28:47 2019
Response via : Multiple Level Calibration

Volume Inj. : 0.500 mL
Signal Phase : CARBOPACK
Signal Info :

Compound	R.T.	Response	Conc	Units	
Target Compounds					
Target Compounds					
1) ATM Methane	0.00	0	N.D.	ppb	d
2) ATM Ethane	0.00	0	N.D.	ppb	d
3) ATM Ethene	0.00	0	N.D.	ppb	d

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: G:\ROCKY\DATA\191002RS\1029R18.D
Sample : BA01833W04



Quantitation Report (QT Reviewed)

Data File : G:\ROCKY\DATA\191002RS\1029R06.D Vial: 6
Acq On : 29 Oct 19 17:42 Operator: GA
Sample : 191029A BLK Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 29 17:53 2019 Quant Results File: RSK1002.RES

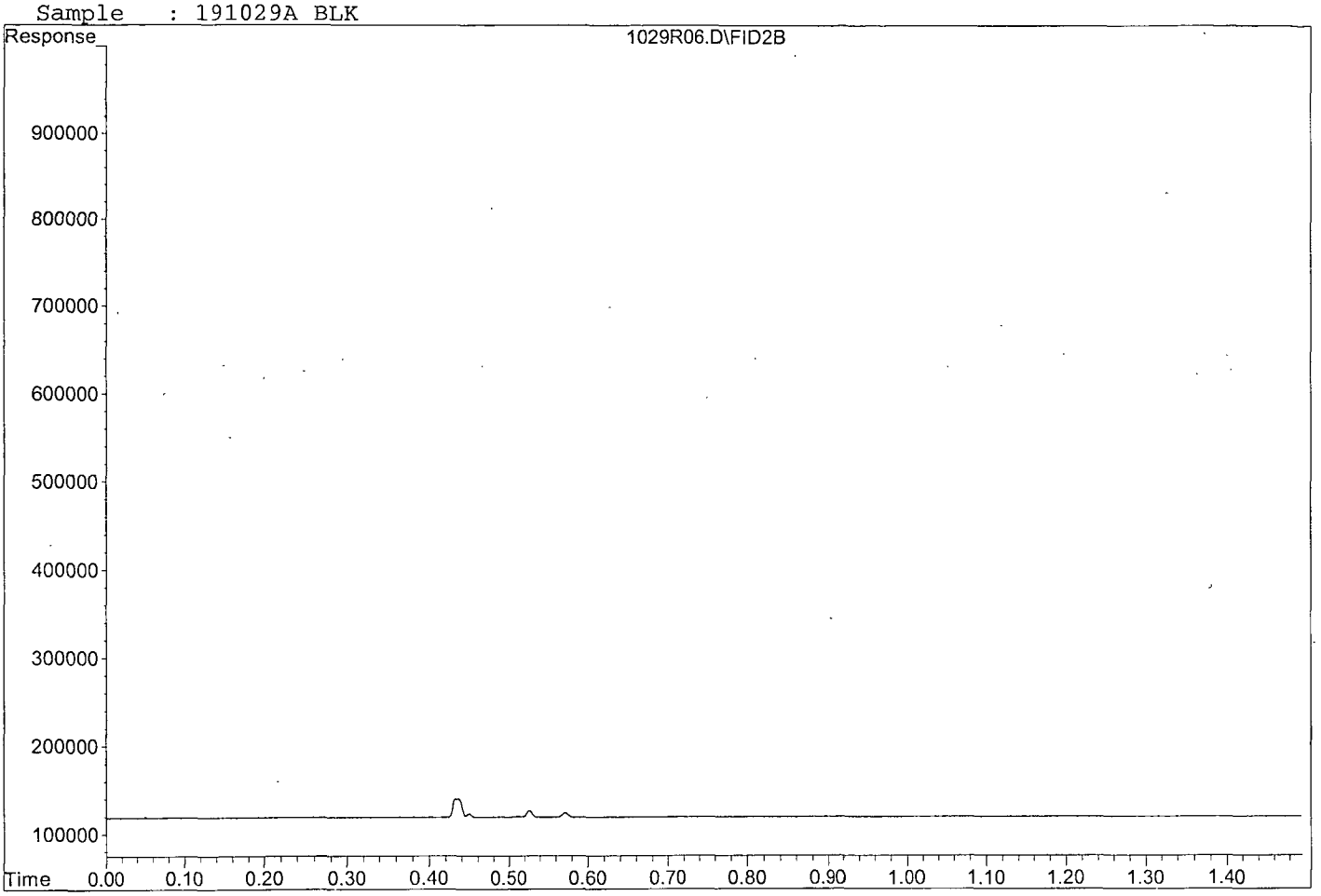
Method : G:\ROCKY\DATA\190929RS\RSK1002.M (Chemstation Integrator)
Title : RSK 175
Last Update : Mon Oct 28 16:28:47 2019
Response via : Multiple Level Calibration

Volume Inj. : 0.500 mL
Signal Phase : CARBOPACK
Signal Info :

Compound	R.T.	Response	Conc	Units	
Target Compounds					
Target Compounds					
1) ATM Methane	0.00	0	N.D.	ppb	d
2) ATM Ethane	0.00	0	N.D.	ppb	d
3) ATM Ethene	0.00	0	N.D.	ppb	d

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: G:\ROCKY\DATA\191002RS\1029R06.D
Sample : 191029A BLK



Quantitation Report (QT Reviewed)

Data File : G:\ROCKY\DATA\191002RS\1031R05.D Vial: 5
Acq On : 31 Oct 19 17:12 Operator: GA
Sample : 191031A BLK Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 31 17:14 2019 Quant Results File: RSK1002.RES

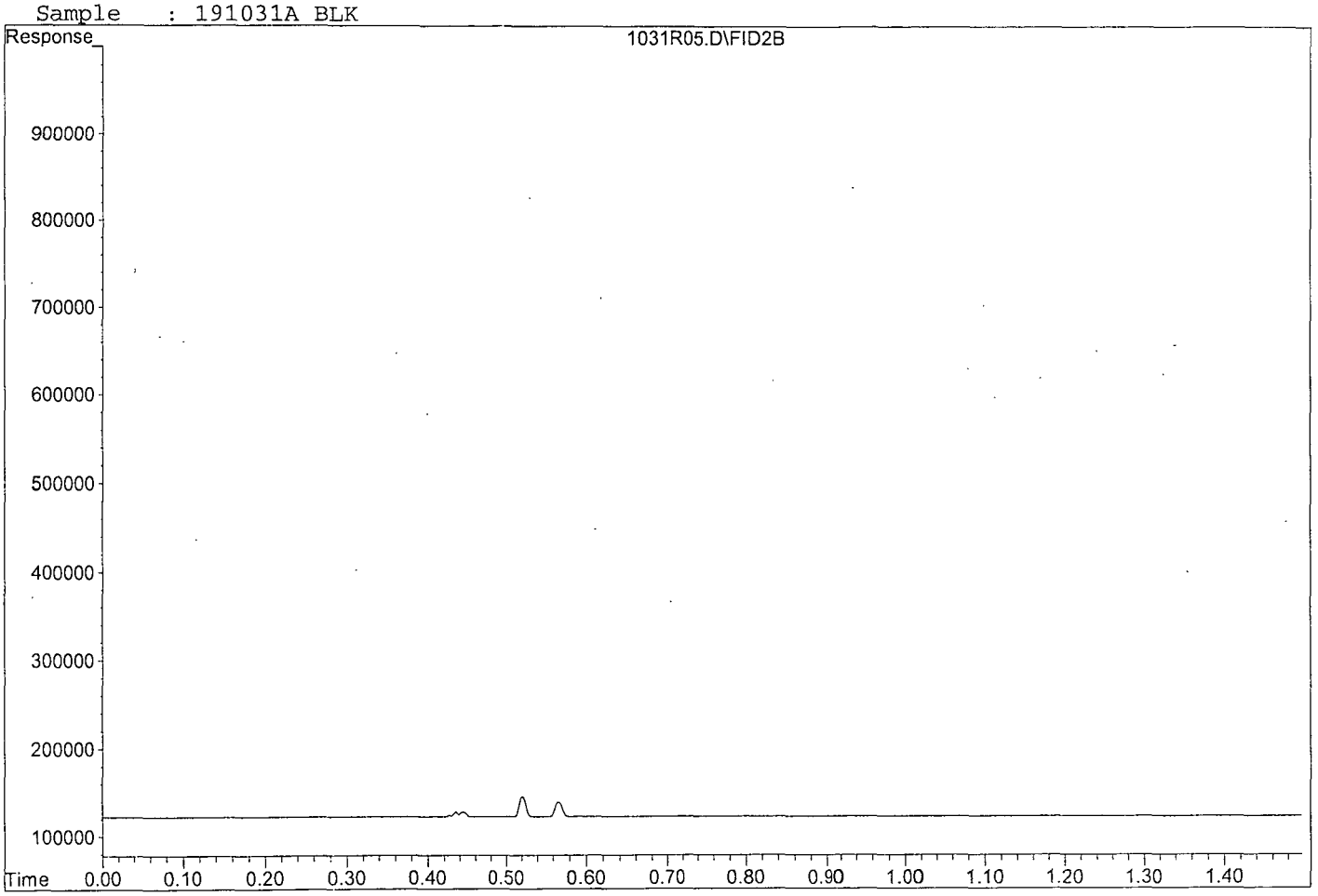
Method : G:\ROCKY\DATA\190929RS\RSK1002.M (Chemstation Integrator)
Title : RSK 175
Last Update : Wed Oct 30 17:49:29 2019
Response via : Multiple Level Calibration

Volume Inj. : 0.500 mL
Signal Phase : CARBOPACK
Signal Info :

Compound	R.T.	Response	Conc	Units	
Target Compounds					
Target Compounds					
1) ATM Methane	0.00	0	N.D.	ppb	d
2) ATM Ethane	0.00	0	N.D.	ppb	d
3) ATM Ethene	0.00	0	N.D.	ppb	d

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: G:\ROCKY\DATA\191002RS\1031R05.D
Sample : 191031A BLK



Quantitation Report (Not Reviewed)

Data File : G:\ROCKY\DATA\191002RS\1029R04.D Vial: 4
Acq On : 29 Oct 19 17:17 Operator: GA
Sample : 191029A LCS/CCV RSK STD 5 Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 29 17:37 2019 Quant Results File: RSK1002.RES

Method : G:\ROCKY\DATA\190929RS\RSK1002.M (Chemstation Integrator)
Title : RSK 175
Last Update : Mon Oct 28 16:28:47 2019
Response via : Multiple Level Calibration

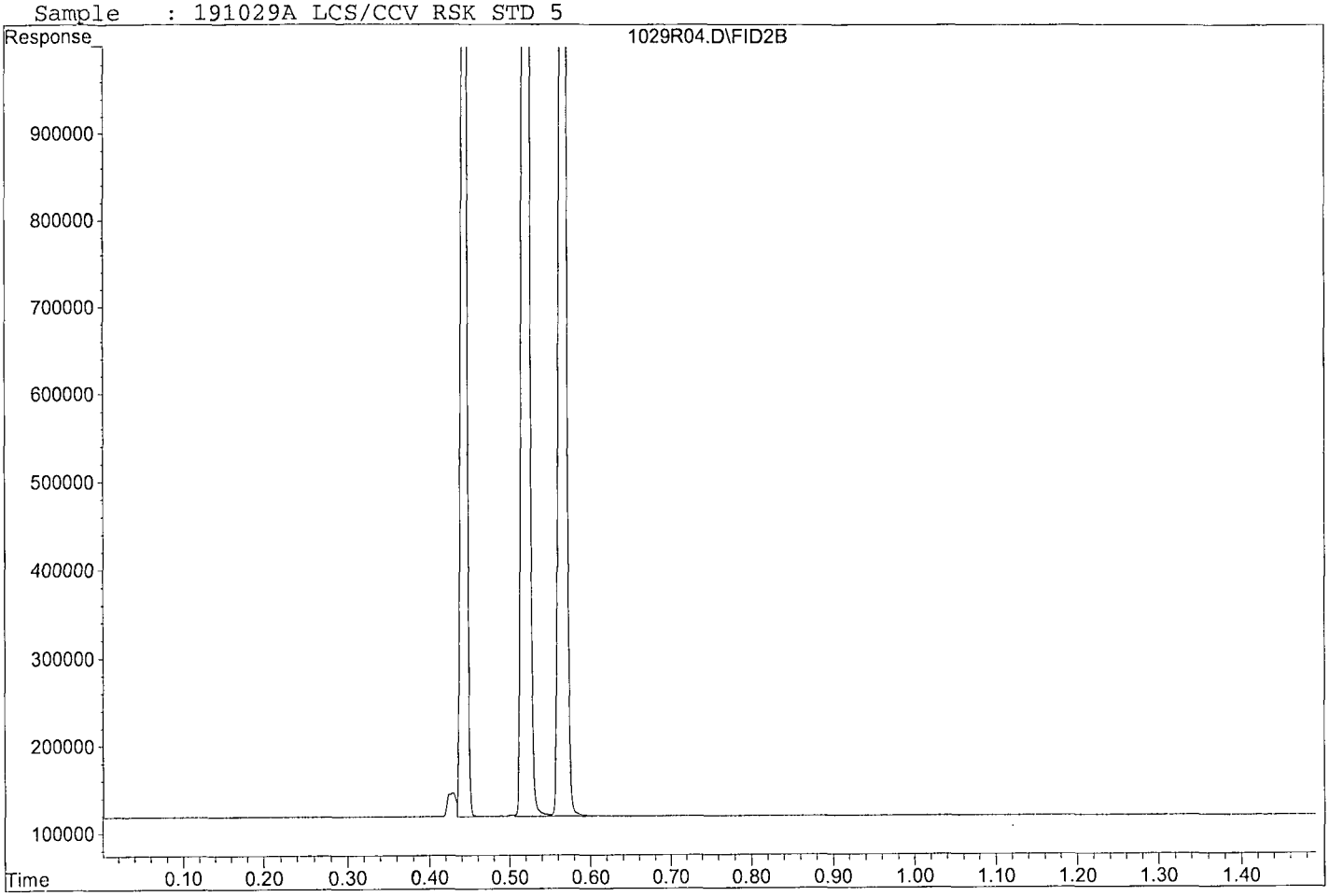
Volume Inj. : 0.500 mL
Signal Phase : CARBOPACK
Signal Info :

Compound	R.T.	Response	Conc Units
Target Compounds			
1) ATM Methane	0.44	1848809	79.906 ppb
2) ATM Ethane	0.52	2697562	158.498 ppb
3) ATM Ethene	0.57	1916665	143.168 ppb

Target Compounds

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: G:\ROCKY\DATA\191002RS\1029R04.D
Sample : 191029A LCS/CCV RSK STD 5



Quantitation Report (Not Reviewed)

Data File : G:\ROCKY\DATA\191002RS\1031R03.D Vial: 3
Acq On : 31 Oct 19 17:03 Operator: GA
Sample : 191031A LCS/CCV RSK STD 5 Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 31 17:06 2019 Quant Results File: RSK1002.RES

Method : G:\ROCKY\DATA\190929RS\RSK1002.M (Chemstation Integrator)
Title : RSK 175
Last Update : Wed Oct 30 17:49:29 2019
Response via : Multiple Level Calibration

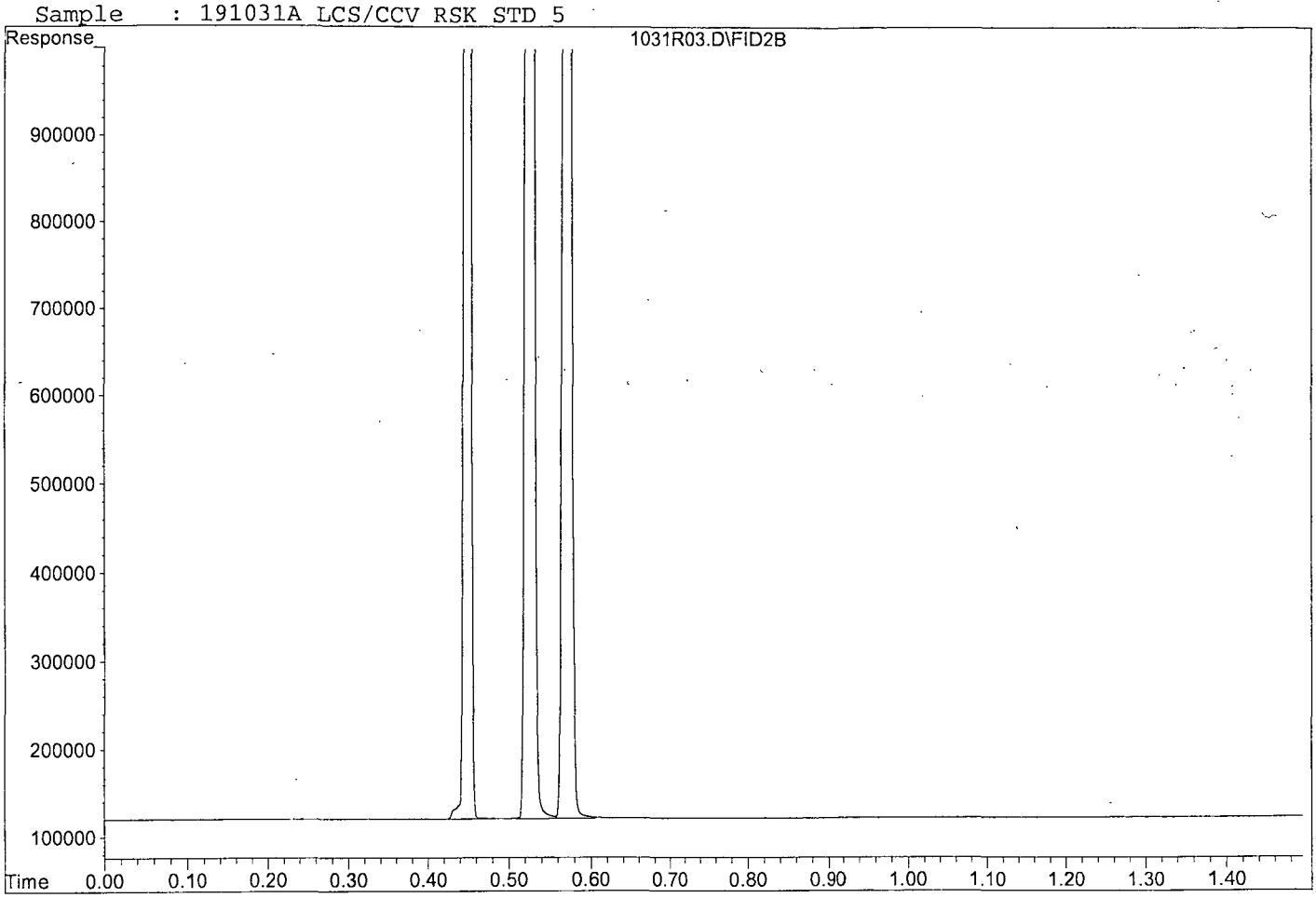
Volume Inj. : 0.500 mL
Signal Phase : CARBOPACK
Signal Info :

Compound	R.T.	Response	Conc	Units
Target Compounds				
1) ATM Methane	0.45	2000669	86.470	ppb
2) ATM Ethane	0.53	3364804	197.702	ppb
3) ATM Ethene	0.57	2385102	178.159	ppb

Target Compounds

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: G:\ROCKY\DATA\191002RS\1031R03.D
Sample : 191031A LCS/CCV RSK STD 5



Quantitation Report (Not Reviewed)

Data File : G:\ROCKY\DATA\191002RS\1029R05.D Vial: 5
Acq On : 29 Oct 19 17:37 Operator: GA
Sample : 191029A LCSD Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 29 17:41 2019 Quant Results File: RSK1002.RES

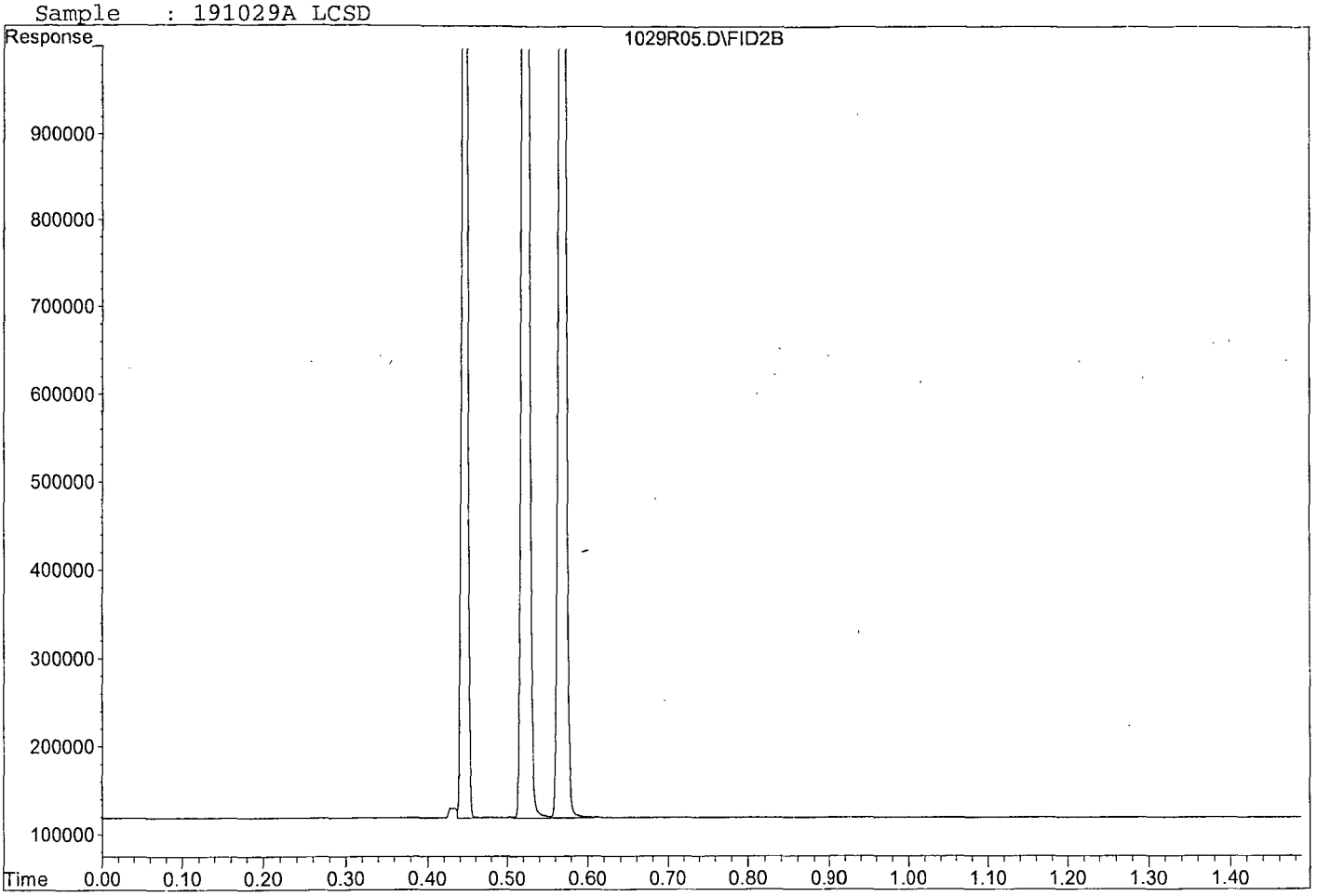
Method : G:\ROCKY\DATA\190929RS\RSK1002.M (Chemstation Integrator)
Title : RSK 175
Last Update : Mon Oct 28 16:28:47 2019
Response via : Multiple Level Calibration

Volume Inj. : 0.500 mL
Signal Phase : CARBOPACK
Signal Info :

Compound	R.T.	Response	Conc Units
Target Compounds			
1) ATM Methane	0.45	1637915	70.791 ppb
2) ATM Ethane	0.52	2458546	144.454 ppb
3) ATM Ethene	0.57	1746105	130.428 ppb

Target Compounds

Data File: G:\ROCKY\DATA\191002RS\1029R05.D
Sample : 191029A LCSD



Quantitation Report (Not Reviewed)

Data File : G:\ROCKY\DATA\191002RS\1031R04.D Vial: 4
Acq On : 31 Oct 19 17:08 Operator: GA
Sample : 191031A LCSD Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 31 17:10 2019 Quant Results File: RSK1002.RES

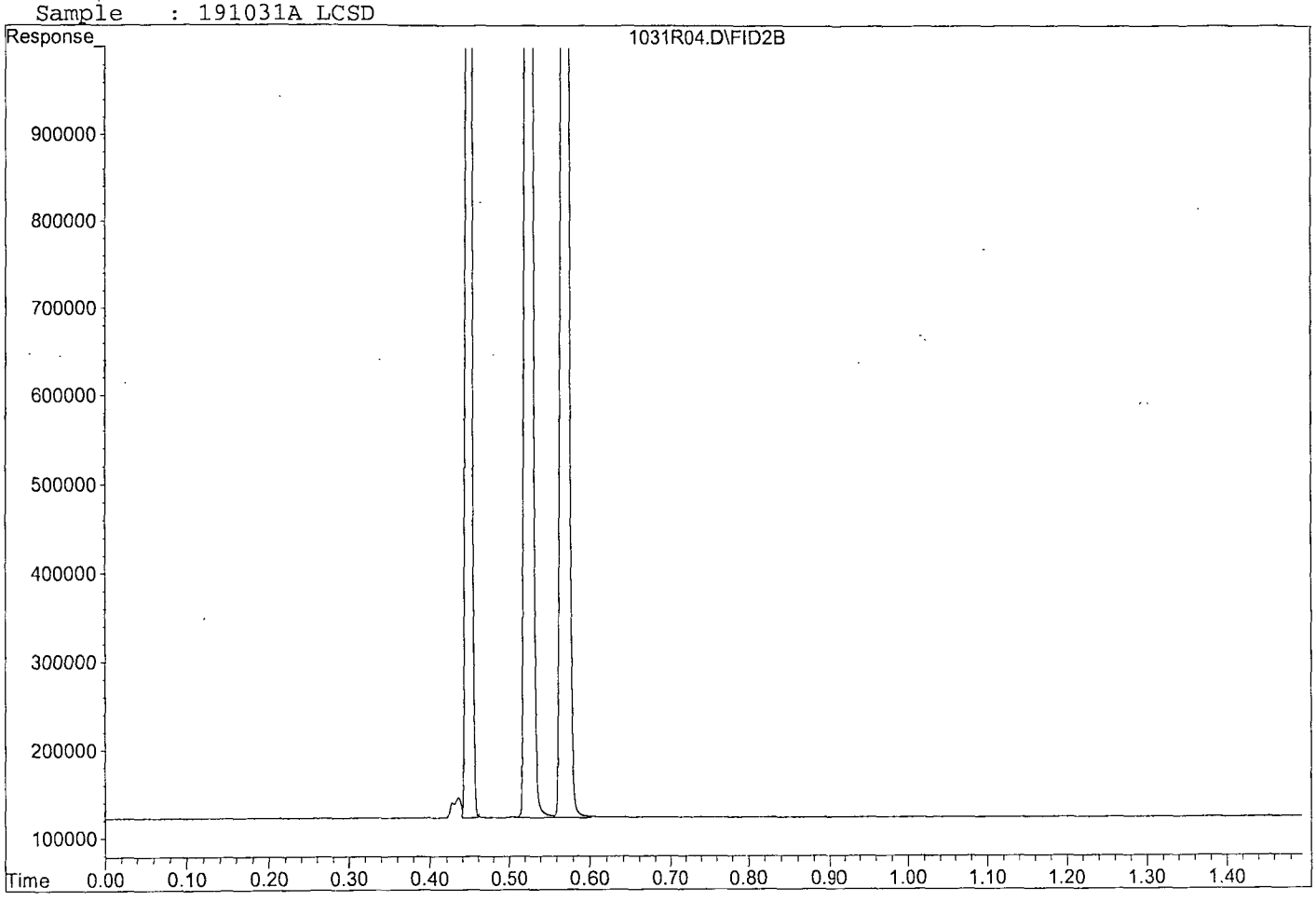
Method : G:\ROCKY\DATA\190929RS\RSK1002.M (Chemstation Integrator)
Title : RSK 175
Last Update : Wed Oct 30 17:49:29 2019
Response via : Multiple Level Calibration

Volume Inj. : 0.500 mL
Signal Phase : CARBOPACK
Signal Info :

Compound	R.T.	Response	Conc Units
Target Compounds			
1) ATM Methane	0.45	2041583	88.238 ppb
2) ATM Ethane	0.53	3245936	190.718 ppb
3) ATM Ethene	0.57	2292409	171.235 ppb

Target Compounds

Data File: G:\ROCKY\DATA\191002RS\1031R04.D
Sample : 191031A LCSD



Primary Stock Source

10,000ppmV **Manufacture Expiration:** 09/21/21

RSK Gas Mix (Scott Specialty Gas) CAT#X04NI97CP140001 LOT#160-401558175-1

1% Gas Concentration Moles = 10,000ppmV Methane, Ethane, Ethene

RSK Calibration Curve (prepared in 1.0 L Tedlar Bags at room temp) **01/02/19** **10/02/19**

Analyte	Conc Std 1 (1/2 = LOD) (ug/L)	Conc Std 2 (LOQ Chk) (ug/L)	Conc Std 3 (ug/L)	Conc Std 4 (ug/L)	Conc Std 5 (ug/L)	Conc Std 6 (ug/L)	Conc Std 7 (ug/L)
Methane (MW 16.04)	2.08	4.16	8.34	20.85	83.40	208.5	834.0
Ethane (MW 30.07)	3.91	7.81	15.6	39.09	156.35	390.9	1563.5
Ethene (MW 28.05)	3.65	7.30	14.6	36.46	145.84	364.6	1458.4
Stock Source	160-401558175-1	160-401558175-1	160-401558175-1	160-401558175-1	160-401558175-1	160-401558175-1	160-401558175-1
Stock Conc (ppmv)	10,000 ppmV	10,000 ppmV	10,000 ppmV	10,000 ppmV	10,000 ppmV	10,000 ppmV	10,000 ppmV
Stock Aliquot (mL)	0.010	0.020	0.040	0.100	0.400	1.00	4.00
Final Volume P&T Water	32 mL	32 mL	32 mL	32 mL	32 mL	32 mL	32 mL

Second Source Stock Standard 10,000ppmV **Manufacturer Exp date 9-21-2021**

RSK Gas Mix (Scott Specialty Gas) Cat.# 23452, Lot # 160-401303032-1-39774

1% Gas Concentration Moles = 10,000ppmV Methane, Ethane, Ethene

Second Source **Expires 10/03/19** **10/02/19**

2.0mL of SS from tank into 980 mL Nitrogen

final conc: 13.3ug/L Methane, 25.0 ug/L Ethane, and 23.3 ug/L Ethene

CCV/LCS/LCSD **GA 10/29/19**

Spike 0.400mL of 10,000ppmV into 32mL DI water, with 8mL Nitrogen headspace
final conc: 83.40ug/L Methane, 156.35ug/L Ethane, and 145.84ug/L Ethene

CCV/LCS/LCSD **GA 10/31/19**

Spike 0.400mL of 10,000ppmV into 32mL DI water, with 8mL Nitrogen headspace
final conc: 83.40ug/L Methane, 156.35ug/L Ethane, and 145.84ug/L Ethene

Injection Log

Directory: G:\ROCKY\DATA\191002RS\

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	2	1002R02.D	1	RSK STD 1 10/2/19		2 Oct 19 17:45
2	3	1002R03.D	1	RSK STD 2 10/2/19		2 Oct 19 17:50
3	4	1002R04.D	1	RSK STD 3 10/2/19		2 Oct 19 17:52
4	5	1002R05.D	1	RSK STD 4 10/2/19		2 Oct 19 17:57
5	6	1002R06.D	1	RSK STD 5 10/2/19		2 Oct 19 17:59
6	7	1002R07.D	1	RSK STD 6 10/2/19		2 Oct 19 18:05
7	8	1002R08.D	1	RSK STD 7 10/2/19		2 Oct 19 18:07
8	10	1002R10.D	1	SS RSK STD 5 10/2/19		2 Oct 19 18:24
9	4	1029R04.D	1	191029A LCS/CCV RSK STD 5		29 Oct 19 17:17
10	5	1029R05.D	1	191029A LCSD		29 Oct 19 17:37
11	6	1029R06.D	1	191029A BLK		29 Oct 19 17:42
12	15	1029R15.D	1	BA01828W04		29 Oct 19 18:29
13	16	1029R16.D	1	BA01829W04		29 Oct 19 18:32
14	17	1029R17.D	1	BA01831W04		29 Oct 19 18:35
15	18	1029R18.D	1	BA01833W04		29 Oct 19 18:41
16	19	1029R19.D	1	ENDING CCV RSK STD 5 10/29/19		29 Oct 19 18:45
17	3	1031R03.D	1	191031A LCS/CCV RSK STD 5		31 Oct 19 17:03
18	4	1031R04.D	1	191031A LCSD		31 Oct 19 17:08
19	5	1031R05.D	1	191031A BLK		31 Oct 19 17:12
20	6	1031R06.D	1	BA01830W04		31 Oct 19 17:15
21	7	1031R07.D	1	BA01832W04		31 Oct 19 17:17
22	15	1031R15.D	1	ENDING CCV RSK STD 5 10/31/19		31 Oct 19 17:42

METALS

Calibration Data

A.P.P.L. INC.

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: A.P.P.L. INC. Contract: AECOM

ARF No: 90559 SDG: 90559

Analysis Date: 11/18/19 Concentration Units: ug/L

Analyte	Initial Calibration			Continuing Calibration						M
	True	Found 8:53	%R(1)	True CCV1	Found 13:33	%R(1)	True CCV2	Found 14:41	%R(1)	
Calcium (Ca)	12500	11990	95.9	25000	25060	100	18750	18510	98.7	P
Potassium (K)	12500	11630	93.0	10000	9735	97.3	7500	7180	95.7	P
Magnesium (Mg)	12500	12350	98.8	25000	25530	102	18750	19240	103	P
Manganese (Mn)	500	492	98.4	500	499.8	100	375.5	370.5	98.7	P
Sodium (Na)	12500	11830	94.6	12500	12280	98.2	9375	9114	97.2	P

(1) Control Limits: Metals 90-110

ILM02.0

A.P.P.L. INC.
3
BLANKS

Lab Name: A.P.P.L. INC. Contract: AECOM

ARF No.: 90559 SDG: 90559

Preparation Blank Matrix (soil/water): water

Preparation Blank Concentration Units (ug/L or mg/kg): ug/L

Analysis Date: 11/18/19

Analyte	Initial Calibration Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Preparation Blank	C	M
	08:58		13:45		14:46				13:50		
Calcium (Ca)	1000.00	U	1000.00	U	1000.00	U			1000.00	U	P
Potassium (K)	3000.00	U	3000.00	U	3000.00	U			3000.00	U	P
Magnesium (Mg)	500.00	U	500.00	U	500.00	U			500.00	U	P
Manganese (Mn)	10.00	U	10.00	U	10.00	U			10.00	U	P
Sodium (Na)	5000.00	U	5000.00	U	5000.00	U			120.00	J	P

A.P.P.L. INC.
4
ICP INTERFERENCE CHECK SAMPLE

Lab Name:	A.P.P.L. INC.	Contract:	AECOM
ARF No.:	90559	SDG:	90559
ICP ID Number:	Phoebe	ICS Source:	Environmental Express

Analysis Date: 11/18/19 Concentration Units: ug/L

Analyte	True		Initial Found		
	Sol A	Sol AB	Sol A 9:22	Sol AB 9:26	%R(1)
Aluminum (Al)	100000	100000	100400	104800	105
Calcium (Ca)	100000	100000	99790	101500	102
Iron (Fe)	100000	100000	97050	99000	99.0
Potassium (K)			-112.9	-124.5	
Magnesium (Mg)	100000	100000	101100	102900	103
Manganese (Mn)		250	-1.798	249.4	99.8
Sodium (Na)			76.12	90.64	

(1) Control Limits: Metals 80-120

Low Level ICV

Sample Name	Acq Date Time	Run Sequence	Analyte	Actual Conc (ug/L)	Spiked Conc (ug/L)	Control Limits	% Recovery	QC Flag
LLICVX2	11/18/19 9:08 AM	191118A	Silver	1.142	1	80-120%	114	
LLICVX6	11/18/19 9:12 AM	191118A	Aluminum	357.6	300	80-120%	119	
LLICV	11/18/19 9:03 AM	191118A	Arsenic	1.80	2	80-120%	90	
LLICVX2	11/18/19 9:08 AM	191118A	Boron	55.76	50	80-120%	112	
LLICV	11/18/19 9:03 AM	191118A	Barium	1.731	1.5	80-120%	115	
LLICV	11/18/19 9:03 AM	191118A	Beryllium	1.190	1	80-120%	119	
LLICVX6	11/18/19 9:12 AM	191118A	Calcium	317.80	300	80-120%	106	
LLICV10	11/18/19 9:02 AM	191118A	Cadmium	10.60	10	80-120%	106	
LLICV	11/18/19 9:03 AM	191118A	Cobalt	2.542	2.5	80-120%	102	
LLICV	11/18/19 9:03 AM	191118A	Chromium	0.45	0.5	80-120%	89	
LLICV	11/18/19 9:03 AM	191118A	Copper	2.58	2.5	80-120%	103	
LLICV	11/18/19 9:03 AM	191118A	Iron	29.38	25	80-120%	118	
LLICVX2	11/18/19 9:08 AM	191118A	Potassium	895.1	1000	80-120%	90	
LLICV	11/18/19 9:03 AM	191118A	Magnesium	29.67	25	80-120%	119	
LLICV	11/18/19 9:03 AM	191118A	Manganese	1.10	1	80-120%	110	
LLICVX2	11/18/19 9:08 AM	191118A	Molybdenum	1.71	2	80-120%	85	
LLICV	11/18/19 9:03 AM	191118A	Sodium	474.1	500	80-120%	95	
LLICV	11/18/19 9:03 AM	191118A	Nickel	1.173	1	80-120%	117	
LLICV	11/18/19 9:03 AM	191118A	Phosphorus	11.10	12.5	80-120%	89	
LLICVX2	11/18/19 9:08 AM	191118A	Lead	2.49	3	80-120%	83	
LLICVX2	11/18/19 9:08 AM	191118A	Antimony	4.08	4	80-120%	102	
LLICVX2	11/18/19 9:08 AM	191118A	Selenium	4.27	4	80-120%	107	
LLICV	11/18/19 9:03 AM	191118A	Tin	3.537	3	80-120%	118	
LLICVX2	11/18/19 9:08 AM	191118A	Strontium	2.052	2	80-120%	103	
LLICVX2	11/18/19 9:08 AM	191118A	Titanium	5.28	5	80-120%	106	
LLICV40	11/18/19 10:52 AM	191118A	Thallium	44.04	40.00	80-120%	110	
LLICVX6	11/18/19 9:12 AM	191118A	Vanadium	3.24	3	80-120%	108	
LLICV	11/18/19 9:03 AM	191118A	Zinc	28.28	25	80-120%	113	

A.P.P.L. INC.

5B

POST DIGEST SPIKE SAMPLE RECOVERY

CLIENT SAMPLE NO.

ERH953

Lab Name: A.P.P.L. INC. Contract: AECOM

ARF No.: 90559 SDG: 90559

Analysis Date: 11/18/19 Concentration Units: ug/L

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Calcium (Ca)	80-120	148400		11410		125000.000	110		
Potassium (K)	80-120	134800		799.1		25000.000	536		M
Magnesium (Mg)	80-120	153400		11440		125000.000	114		
Sodium (Na)	80-120	172400		36170		125000.000	109		

Comments:

11/18/19 14:17 BA01833W20 DF5

11/18/19 14:23 BA01833W20-A DF5

Sequence No.: 61
Sample ID: BA01833W20-A DF5
Analyst: PW
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution: 5X

Autosampler Location: 62
Date Collected: 11/18/19 2:23:08 PM
Data Type: Reprocessed on 11/19/19 12:55:48 PM

Initial Sample Vol:
Sample Prep Vol:

Mean Data: BA01833W20-A DF5

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	1220618.8	99.52	%	1.005				1.01%
Y 371.029 Radial	1168524.5	99.64	%	1.078				1.08%
Ag 338.289†	37635.5	533.1	ug/L	13.68	2666	ug/L	68.4	2.57%
Al 308.215†	6691.8	27360	ug/L	672.1	136800	ug/L	3360.6	2.46%
As 188.979†	3097.8	1059	ug/L	40.9	5296	ug/L	204.6	3.86%
B†	40020.1	1032	ug/L	18.8	5158	ug/L	94.1	1.82%
Ba 233.527†	110499.2	1069	ug/L	31.1	5347	ug/L	155.3	2.90%
Be 313.107†	64373.0	1129	ug/L	8.9	5643	ug/L	44.3	0.79%
Ca 315.887†	35651.0	29680	ug/L	663.2	148400	ug/L	3316.0	2.23%
Cd 214.440†	132851.8	1055	ug/L	33.0	5276	ug/L	165.0	3.13%
Co 228.616†	47062.6	1072	ug/L	31.2	5362	ug/L	156.1	2.91%
Cr 267.716†	74803.8	1049	ug/L	33.5	5245	ug/L	167.7	3.20%
Cu 327.393†	85546.0	1065	ug/L	26.0	5327	ug/L	130.1	2.44%
Fe 273.955†	389370.9	26720	ug/L	780.8	133600	ug/L	3903.9	2.92%
K 766.490†	47672.2	26950	ug/L	161.0	134800	ug/L	804.9	0.60%
Mg 285.213†	58321.8	30680	ug/L	723.8	153400	ug/L	3618.8	2.36%
Mn 257.610†	5795.8	1083	ug/L	28.0	5416	ug/L	140.2	2.59%
Mo 202.031†	25214.8	1023	ug/L	39.6	5115	ug/L	197.8	3.87%
Na 589.592†	96558.2	34490	ug/L	218.0	172400	ug/L	1089.8	0.63%
Ni 231.604†	37856.4	1060	ug/L	30.0	5298	ug/L	149.8	2.83%
P 213.617†	16270.8	5262	ug/L	190.8	26310	ug/L	954.2	3.63%
Pb 220.353†	9668.2	1047	ug/L	38.2	5236	ug/L	190.9	3.65%
Sb 206.836†	3648.0	985.0	ug/L	34.10	4925	ug/L	170.5	3.46%
Se 196.026†	2555.2	1046	ug/L	35.5	5228	ug/L	177.6	3.40%
Sn 189.927†	4254.5	518.8	ug/L	19.35	2594	ug/L	96.7	3.73%
Sr 421.552†	136454.4	1083	ug/L	8.7	5415	ug/L	43.4	0.80%
Ti 337.279†	6932.1	1092	ug/L	28.4	5458	ug/L	142.2	2.61%
Tl 190.801†	4049.4	1091	ug/L	35.8	5456	ug/L	178.9	3.28%
V 292.402†	137195.4	1061	ug/L	31.1	5307	ug/L	155.3	2.93%
Zn 206.200†	44613.6	1065	ug/L	34.9	5325	ug/L	174.5	3.28%

A.P.P.L. INC.
9
ICP SERIAL DILUTION

CLIENT SAMPLE NO.
ERH953

Lab Name: A.P.P.L. INC. Contract: AECOM

ARF No.: 90559 SDG: 90559

Matrix: water

Analysis Date: 11/18/19 Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	%D	Q	M
Calcium (Ca)	11410		11800		3.42		
Potassium (K)	799.1		-874.9		NA		
Magnesium (Mg)	11440		11760		2.80		
Sodium (Na)	36170		37920		4.84		

Comments:

11/18/19 14:17 BA01833W20 DF5

11/18/19 14:26 BA01833W20-DT DF25

Sequence No.: 62
Sample ID: BA01833W20-DT DF25
Analyst: PW
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution: 25X

Autosampler Location: 63
Date Collected: 11/18/19 2:26:58 PM
Data Type: Reprocessed on 11/19/19 12:55:49 PM
Initial Sample Vol:
Sample Prep Vol:

Mean Data: BA01833W20-DT DF25

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	1315375.6	107.2	%	0.72				0.67%
Y 371.029 Radial	1263299.8	107.7	%	0.77				0.72%
Ag 338.289†	28.9	0.410	ug/L	0.8673	10.25	ug/L	21.683	211.54%
Al 308.215†	16.2	66.02	ug/L	24.912	1651	ug/L	622.8	37.73%
As 188.979†	10.1	3.420	ug/L	1.9844	85.50	ug/L	49.611	58.02%
B†	424.9	10.95	ug/L	0.316	273.9	ug/L	7.89	2.88%
Ba 233.527†	2.7	0.020	ug/L	0.0467	0.500	ug/L	1.1680	233.55%
Be 313.107†	1.1	0.022	ug/L	0.1744	0.546	ug/L	4.3610	798.58%
Ca 315.887†	567.2	472.2	ug/L	13.16	11800	ug/L	329.0	2.79%
Cd 214.440†	52.7	0.417	ug/L	0.0382	10.42	ug/L	0.955	9.16%
Co 228.616†	-2.7	-0.071	ug/L	0.1307	-1.765	ug/L	3.2680	185.17%
Cr 267.716†	12.4	0.168	ug/L	0.1283	4.196	ug/L	3.2073	76.43%
Cu 327.393†	40.0	0.467	ug/L	1.0999	11.68	ug/L	27.496	235.36%
Fe 273.955†	586.7	40.22	ug/L	0.422	1005	ug/L	10.6	1.05%
K 766.490†	-61.7	-34.99	ug/L	74.224	-874.9	ug/L	1855.61	212.10%
Mg 285.213†	895.6	470.4	ug/L	17.62	11760	ug/L	440.5	3.75%
Mn 257.610†	6.0	1.109	ug/L	0.7633	27.71	ug/L	19.081	68.85%
Mo 202.031†	4.1	0.146	ug/L	0.2371	3.646	ug/L	5.9275	162.58%
Na 589.592†	4248.9	1517	ug/L	35.5	37920	ug/L	887.5	2.34%
Ni 231.604†	16.3	0.442	ug/L	0.2592	11.04	ug/L	6.480	58.67%
P 213.617†	18.4	5.960	ug/L	0.4345	149.0	ug/L	10.86	7.29%
Pb 220.353†	-17.2	-1.854	ug/L	1.8956	-46.35	ug/L	47.390	102.25%
Sb 206.836†	6.6	1.783	ug/L	1.1777	44.58	ug/L	29.441	66.04%
Se 196.026†	0.7	0.270	ug/L	0.3160	6.760	ug/L	7.9001	116.86%
Sn 189.927†	4.4	0.545	ug/L	0.8596	13.63	ug/L	21.489	157.61%
Sr 421.552†	638.7	5.065	ug/L	0.7364	126.6	ug/L	18.41	14.54%
Ti 337.279†	4.5	0.708	ug/L	1.1881	17.71	ug/L	29.703	167.73%
Tl 190.801†	23.4	6.181	ug/L	0.7393	154.5	ug/L	18.48	11.96%
V 292.402†	118.3	0.899	ug/L	0.2320	22.46	ug/L	5.801	25.83%
Zn 206.200†	106.1	2.481	ug/L	0.0880	62.03	ug/L	2.201	3.55%

Sequence No.: 1
Sample ID: CalBlk 191118 I:PB O:EV
Analyst:
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 11/18/19 8:09:16 AM
Data Type: Reprocessed on 11/19/19 2:14:52 PM
Initial Sample Vol:
Sample Prep Vol:

Mean Data: CalBlk 191118 I:PB O:EV

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Y 371.029	1226513.7	5831.77	0.48%	100.0	%
Y 371.029 Radial	1172689.1	5985.40	0.51%	100.0	%
Ag 338.289†	-92.5	26.21	28.32%	[0.00]	ug/L
Al 308.215†	28.5	5.27	18.51%	[0.00]	ug/L
As 188.979†	-60.3	2.68	4.44%	[0.00]	ug/L
B†	-170.5	11.24	6.59%	[0.00]	ug/L
Ba 233.527†	68.2	5.75	8.42%	[0.00]	ug/L
Be 313.107†	8.5	9.64	113.43%	[0.00]	ug/L
Ca 315.887†	-101.8	5.52	5.42%	[0.00]	ug/L
Cd 214.440†	-283.6	15.34	5.41%	[0.00]	ug/L
Co 228.616†	77.8	27.32	35.12%	[0.00]	ug/L
Cr 267.716†	241.1	35.75	14.83%	[0.00]	ug/L
Cu 327.393†	-632.9	40.37	6.38%	[0.00]	ug/L
Fe 273.955†	-76.9	16.71	21.73%	[0.00]	ug/L
K 766.490†	1076.7	41.01	3.81%	[0.00]	ug/L
Mg 285.213†	-20.7	5.75	27.74%	[0.00]	ug/L
Mn 257.610†	-75.2	3.12	4.16%	[0.00]	ug/L
Mo 202.031†	60.3	3.56	5.90%	[0.00]	ug/L
Na 589.592†	398.2	42.24	10.61%	[0.00]	ug/L
Ni 231.604†	35.7	3.93	11.01%	[0.00]	ug/L
P 213.617†	-92.7	5.21	5.62%	[0.00]	ug/L
Pb 220.353†	39.7	15.40	38.83%	[0.00]	ug/L
Sb 206.836†	-24.8	6.65	26.84%	[0.00]	ug/L
Se 196.026†	-0.2	4.18	>999.9%	[0.00]	ug/L
Sn 189.927†	1.9	3.95	213.02%	[0.00]	ug/L
Sr 421.552†	10.7	14.98	140.48%	[0.00]	ug/L
Ti 337.279†	-117.3	6.45	5.50%	[0.00]	ug/L
Tl 190.801†	-101.1	7.40	7.32%	[0.00]	ug/L
V 292.402†	-310.1	27.74	8.95%	[0.00]	ug/L
Zn 206.200†	-449.3	15.66	3.48%	[0.00]	ug/L

Sequence No.: 2
Sample ID: STD 1 191118 I:PB O:EV
Analyst:
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:

Autosampler Location: 2
Date Collected: 11/18/19 8:14:53 AM
Data Type: Reprocessed on 11/19/19 2:14:54 PM
Initial Sample Vol:
Sample Prep Vol:

Mean Data: STD 1 191118 I:PB O:EV

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Y 371.029	1232189.1	8381.91	0.68%	100.5	%
Y 371.029 Radial	1179525.1	8691.17	0.74%	100.6	%
Ag 338.289†	76.2	51.91	68.14%	[0.5]	ug/L
Al 308.215†	16.4	7.79	47.56%	[50]	ug/L
As 188.979†	15.1	3.42	22.65%	[2]	ug/L
B†	1198.6	10.99	0.92%	[25]	ug/L
Ba 233.527†	178.0	8.32	4.68%	[1.5]	ug/L
Be 313.107†	58.3	6.06	10.39%	[1]	ug/L
Ca 315.887†	70.5	5.23	7.41%	[50]	ug/L
Cd 214.440†	57.7	9.40	16.30%	[0.25]	ug/L
Co 228.616†	114.5	13.27	11.59%	[2.5]	ug/L
Cr 267.716†	40.5	8.41	20.79%	[0.5]	ug/L
Cu 327.393†	157.3	67.59	42.98%	[2.5]	ug/L
Fe 273.955†	425.5	15.06	3.54%	[25]	ug/L
K 766.490†	805.1	217.30	26.99%	[500]	ug/L
Mg 285.213†	45.9	5.75	12.54%	[25]	ug/L
Mn 257.610†	1.1	2.45	215.11%	[1]	ug/L
Mo 202.031†	20.6	5.75	27.90%	[1]	ug/L
Na 589.592†	1351.4	61.55	4.55%	[500]	ug/L
Ni 231.604†	55.4	0.56	1.01%	[1]	ug/L
P 213.617†	43.4	3.56	8.20%	[12.5]	ug/L
Pb 220.353†	2.3	8.00	342.28%	[1.5]	ug/L
Sb 206.836†	10.4	0.43	4.19%	[2]	ug/L
Se 196.026†	3.0	5.30	177.78%	[2]	ug/L
Sn 189.927†	31.0	7.47	24.12%	[3]	ug/L
Sr 421.552†	116.7	15.19	13.02%	[1]	ug/L
Ti 337.279†	16.4	5.08	30.94%	[2.5]	ug/L
Tl 190.801†	13.5	5.75	42.49%	[2]	ug/L
V 292.402†	104.9	33.90	32.32%	[0.5]	ug/L
Zn 206.200†	1173.2	0.86	0.07%	[25]	ug/L

Sequence No.: 3
Sample ID: STD 2 191118 I:PB O:EV
Analyst:
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:

Autosampler Location: 3
Date Collected: 11/18/19 8:19:36 AM
Data Type: Reprocessed on 11/19/19 2:14:55 PM
Initial Sample Vol:
Sample Prep Vol:

Mean Data: STD 2 191118 I:PB O:EV

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Y 371.029	1190576.3	12830.78	1.08%	97.07	%
Y 371.029 Radial	1137971.7	12734.50	1.12%	97.04	%
Ag 338.289†	17832.8	67.11	0.38%	[250]	ug/L
Al 308.215†	2449.1	31.02	1.27%	[10000]	ug/L
As 188.979†	1484.1	13.07	0.88%	[500]	ug/L
B†	18765.2	151.38	0.81%	[500]	ug/L
Ba 233.527†	51815.7	157.17	0.30%	[500]	ug/L
Be 313.107†	28690.2	805.89	2.81%	[500]	ug/L
Ca 315.887†	29859.8	324.05	1.09%	[25000]	ug/L
Cd 214.440†	63598.6	302.76	0.48%	[500]	ug/L
Co 228.616†	22066.7	82.32	0.37%	[500]	ug/L
Cr 267.716†	35893.6	108.95	0.30%	[500]	ug/L
Cu 327.393†	40162.0	142.00	0.35%	[500]	ug/L
Fe 273.955†	146079.8	512.55	0.35%	[10000]	ug/L
K 766.490†	17324.9	554.24	3.20%	[10000]	ug/L
Mg 285.213†	47938.4	1227.30	2.56%	[25000]	ug/L
Mn 257.610†	2660.7	35.91	1.35%	[500]	ug/L
Mo 202.031†	12463.1	146.47	1.18%	[500]	ug/L
Na 589.592†	35081.1	923.68	2.63%	[12500]	ug/L
Ni 231.604†	18012.7	84.76	0.47%	[500]	ug/L
P 213.617†	7756.4	70.02	0.90%	[2500]	ug/L
Pb 220.353†	4739.2	40.05	0.85%	[500]	ug/L
Sb 206.836†	1868.0	22.97	1.23%	[500]	ug/L
Se 196.026†	1241.5	6.52	0.53%	[500]	ug/L
Sn 189.927†	4238.9	47.82	1.13%	[500]	ug/L
Sr 421.552†	62912.6	1516.31	2.41%	[500]	ug/L
Ti 337.279†	3147.7	37.48	1.19%	[500]	ug/L
Tl 190.801†	1946.4	22.31	1.15%	[500]	ug/L
V 292.402†	65487.0	220.48	0.34%	[500]	ug/L
Zn 206.200†	21278.9	142.07	0.67%	[500]	ug/L

Sequence No.: 4
Sample ID: STD 3 191118 I:PB O:EV
Analyst:
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:

Autosampler Location: 4
Date Collected: 11/18/19 8:24:13 AM
Data Type: Reprocessed on 11/19/19 2:14:57 PM

Initial Sample Vol:
Sample Prep Vol:

Mean Data: STD 3 191118 I:PB O:EV

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Y 371.029	1170452.8	5735.17	0.49%	95.43	%
Y 371.029 Radial	1117624.5	5468.89	0.49%	95.30	%
Ag 338.289†	35649.2	47.63	0.13%	[500]	ug/L
Al 308.215†	4893.7	82.83	1.69%	[20000]	ug/L
As 188.979†	2947.1	8.11	0.28%	[1000]	ug/L
B†	39101.0	231.53	0.59%	[1000]	ug/L
Ba 233.527†	103033.8	123.18	0.12%	[1000]	ug/L
Be 313.107†	57163.9	770.66	1.35%	[1000]	ug/L
Ca 315.887†	60133.3	1034.07	1.72%	[50000]	ug/L
Cd 214.440†	125561.3	421.95	0.34%	[1000]	ug/L
Co 228.616†	43612.6	38.82	0.09%	[1000]	ug/L
Cr 267.716†	71052.3	85.75	0.12%	[1000]	ug/L
Cu 327.393†	80430.9	213.22	0.27%	[1000]	ug/L
Fe 273.955†	289997.2	635.23	0.22%	[20000]	ug/L
K 766.490†	35519.1	726.21	2.04%	[20000]	ug/L
Mg 285.213†	94943.9	868.00	0.91%	[50000]	ug/L
Mn 257.610†	5365.4	117.94	2.20%	[1000]	ug/L
Mo 202.031†	24590.5	55.44	0.23%	[1000]	ug/L
Na 589.592†	70008.3	650.60	0.93%	[25000]	ug/L
Ni 231.604†	35331.3	103.58	0.29%	[1000]	ug/L
P 213.617†	15446.2	63.53	0.41%	[5000]	ug/L
Pb 220.353†	9229.4	35.18	0.38%	[1000]	ug/L
Sb 206.836†	3695.5	2.87	0.08%	[1000]	ug/L
Se 196.026†	2468.0	17.28	0.70%	[1000]	ug/L
Sn 189.927†	8290.3	10.00	0.12%	[1000]	ug/L
Sr 421.552†	126003.3	844.54	0.67%	[1000]	ug/L
Ti 337.279†	6360.0	128.07	2.01%	[1000]	ug/L
Tl 190.801†	3782.9	3.54	0.09%	[1000]	ug/L
V 292.402†	131240.2	169.04	0.13%	[1000]	ug/L
Zn 206.200†	41909.7	160.98	0.38%	[1000]	ug/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 338.289	3	Lin Thru 0	0.0	71.31	0.00000	0.999999	
Al 308.215	3	Lin Thru 0	0.0	0.2447	0.00000	1.000000	
As 188.979	3	Lin Thru 0	0.0	2.951	0.00000	0.999992	
B	3	Lin Thru 0	0.0	38.79	0.00000	0.999855	
Ba 233.527	3	Lin Thru 0	0.0	103.2	0.00000	0.999997	
Be 313.107	3	Lin Thru 0	0.0	57.21	0.00000	0.999999	
Ca 315.887	3	Lin Thru 0	0.0	1.201	0.00000	0.999996	
Cd 214.440	3	Lin Thru 0	0.0	125.9	0.00000	0.999986	
Co 228.616	3	Lin Thru 0	0.0	43.72	0.00000	0.999989	
Cr 267.716	3	Lin Thru 0	0.0	71.20	0.00000	0.999991	
Cu 327.393	3	Lin Thru 0	0.0	80.41	0.00000	1.000000	
Fe 273.955	3	Lin Thru 0	0.0	14.52	0.00000	0.999996	
K 766.490	3	Lin Thru 0	0.0	1.767	0.00000	0.999950	
Mg 285.213	3	Lin Thru 0	0.0	1.903	0.00000	0.999992	
Mn 257.610	3	Lin Thru 0	0.0	5.357	0.00000	0.999994	
Mo 202.031	3	Lin Thru 0	0.0	24.66	0.00000	0.999985	
Na 589.592	3	Lin Thru 0	0.0	2.802	0.00000	0.999999	
Ni 231.604	3	Lin Thru 0	0.0	35.47	0.00000	0.999969	
P 213.617	3	Lin Thru 0	0.0	3.092	0.00000	0.999998	
Pb 220.353	3	Lin Thru 0	0.0	9.279	0.00000	0.999942	
Sb 206.836	3	Lin Thru 0	0.0	3.704	0.00000	0.999990	
Se 196.026	3	Lin Thru 0	0.0	2.471	0.00000	0.999997	
Sn 189.927	3	Lin Thru 0	0.0	8.328	0.00000	0.999959	
Sr 421.552	3	Lin Thru 0	0.0	126.0	0.00000	1.000000	

Ti 337.279	3	Lin Thru 0	0.0	6.347	0.00000	0.999992
Tl 190.801	3	Lin Thru 0	0.0	3.805	0.00000	0.999932
V 292.402	3	Lin Thru 0	0.0	131.2	0.00000	1.000000
Zn 206.200	3	Lin Thru 0	0.0	42.04	0.00000	0.999978

Sequence No.: 5
Sample ID: ICV 191118 I:PB O:EV
Analyst:
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:

Autosampler Location: 5
Date Collected: 11/18/19 8:53:54 AM
Data Type: Reprocessed on 11/19/19 2:14:58 PM
Initial Sample Vol:
Sample Prep Vol:

Mean Data: ICV 191118 I:PB O:EV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	1206388.1	98.36	%	0.519				0.53%
Y 371.029 Radial	1153566.3	98.37	%	0.576				0.59%
Ag 338.289†	17792.5	251.6	ug/L	0.57	251.6	ug/L	0.57	0.23%
QC value within limits for Ag 338.289 Recovery = 100.66%								
Al 308.215†	2954.2	12080	ug/L	305.7	12080	ug/L	305.7	2.53%
QC value within limits for Al 308.215 Recovery = 96.62%								
As 188.979†	1483.0	506.7	ug/L	7.89	506.7	ug/L	7.89	1.56%
QC value within limits for As 188.979 Recovery = 101.35%								
B†	19212.9	495.3	ug/L	3.44	495.3	ug/L	3.44	0.70%
QC value within limits for B Recovery = 99.06%								
Ba 233.527†	52331.7	506.6	ug/L	0.99	506.6	ug/L	0.99	0.20%
QC value within limits for Ba 233.527 Recovery = 101.31%								
Be 313.107†	27906.9	489.3	ug/L	11.45	489.3	ug/L	11.45	2.34%
QC value within limits for Be 313.107 Recovery = 97.86%								
Ca 315.887†	14407.9	11990	ug/L	274.9	11990	ug/L	274.9	2.29%
QC value within limits for Ca 315.887 Recovery = 95.94%								
Cd 214.440†	64040.3	508.6	ug/L	1.81	508.6	ug/L	1.81	0.36%
QC value within limits for Cd 214.440 Recovery = 101.73%								
Co 228.616†	22363.6	509.7	ug/L	1.78	509.7	ug/L	1.78	0.35%
QC value within limits for Co 228.616 Recovery = 101.94%								
Cr 267.716†	35700.8	500.7	ug/L	1.52	500.7	ug/L	1.52	0.30%
QC value within limits for Cr 267.716 Recovery = 100.14%								
Cu 327.393†	40238.6	501.5	ug/L	1.37	501.5	ug/L	1.37	0.27%
QC value within limits for Cu 327.393 Recovery = 100.29%								
Fe 273.955†	182464.6	12520	ug/L	102.0	12520	ug/L	102.0	0.81%
QC value within limits for Fe 273.955 Recovery = 100.18%								
K 766.490†	20573.8	11630	ug/L	307.1	11630	ug/L	307.1	2.64%
QC value within limits for K 766.490 Recovery = 93.05%								
Mg 285.213†	23468.2	12350	ug/L	271.5	12350	ug/L	271.5	2.20%
QC value within limits for Mg 285.213 Recovery = 98.78%								
Mn 257.610†	2632.1	492.0	ug/L	4.04	492.0	ug/L	4.04	0.82%
QC value within limits for Mn 257.610 Recovery = 98.40%								
Mo 202.031†	12192.8	494.7	ug/L	3.37	494.7	ug/L	3.37	0.68%
QC value within limits for Mo 202.031 Recovery = 98.94%								
Na 589.592†	33119.3	11830	ug/L	303.8	11830	ug/L	303.8	2.57%
QC value within limits for Na 589.592 Recovery = 94.65%								
Ni 231.604†	18255.0	511.0	ug/L	2.05	511.0	ug/L	2.05	0.40%
QC value within limits for Ni 231.604 Recovery = 102.20%								
P 213.617†	7637.4	2470	ug/L	16.3	2470	ug/L	16.3	0.66%
QC value within limits for P 213.617 Recovery = 98.80%								
Pb 220.353†	4759.4	515.4	ug/L	4.71	515.4	ug/L	4.71	0.91%
QC value within limits for Pb 220.353 Recovery = 103.08%								
Sb 206.836†	1746.2	471.5	ug/L	1.47	471.5	ug/L	1.47	0.31%
QC value within limits for Sb 206.836 Recovery = 94.30%								
Se 196.026†	1246.4	509.9	ug/L	0.93	509.9	ug/L	0.93	0.18%
QC value within limits for Se 196.026 Recovery = 101.97%								
Sn 189.927†	2081.9	253.5	ug/L	1.32	253.5	ug/L	1.32	0.52%
QC value within limits for Sn 189.927 Recovery = 101.41%								
Sr 421.552†	61463.8	487.8	ug/L	8.93	487.8	ug/L	8.93	1.83%
QC value within limits for Sr 421.552 Recovery = 97.56%								
Ti 337.279†	3100.2	488.2	ug/L	4.44	488.2	ug/L	4.44	0.91%
QC value within limits for Ti 337.279 Recovery = 97.63%								
Tl 190.801†	1985.6	534.0	ug/L	5.32	534.0	ug/L	5.32	1.00%
QC value within limits for Tl 190.801 Recovery = 106.81%								
V 292.402†	64501.9	499.3	ug/L	0.66	499.3	ug/L	0.66	0.13%
QC value within limits for V 292.402 Recovery = 99.86%								
Zn 206.200†	21709.2	519.4	ug/L	3.55	519.4	ug/L	3.55	0.68%
QC value within limits for Zn 206.200 Recovery = 103.87%								

All analyte(s) passed QC.

Sequence No.: 6 **Autosampler Location:** 1
Sample ID: ICB 191118 I:PB O:EV **Date Collected:** 11/18/19 8:58:33 AM
Analyst: **Data Type:** Reprocessed on 11/19/19 2:14:59 PM
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: ICB 191118 I:PB O:EV

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	1264068.1	103.1	%	0.55				0.53%
Y 371.029 Radial	1211596.7	103.3	%	0.60				0.58%
Ag 338.289†	18.0	0.270	ug/L	0.5944	0.270	ug/L	0.5944	220.29%
QC value within limits for Ag 338.289 Recovery = Not calculated								
Al 308.215†	7.0	28.66	ug/L	22.526	28.66	ug/L	22.526	78.60%
QC value within limits for Al 308.215 Recovery = Not calculated								
As 188.979†	3.5	1.194	ug/L	0.9297	1.194	ug/L	0.9297	77.90%
QC value within limits for As 188.979 Recovery = Not calculated								
B†	338.6	8.730	ug/L	0.2767	8.730	ug/L	0.2767	3.17%
QC value within limits for B Recovery = Not calculated								
Ba 233.527†	-0.3	-0.004	ug/L	0.0850	-0.004	ug/L	0.0850	>999.9%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	4.6	0.082	ug/L	0.0836	0.082	ug/L	0.0836	101.55%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 315.887†	14.4	11.96	ug/L	1.439	11.96	ug/L	1.439	12.03%
QC value within limits for Ca 315.887 Recovery = Not calculated								
Cd 214.440†	50.3	0.400	ug/L	0.0276	0.400	ug/L	0.0276	6.91%
QC value within limits for Cd 214.440 Recovery = Not calculated								
Co 228.616†	6.8	0.153	ug/L	0.3248	0.153	ug/L	0.3248	212.70%
QC value within limits for Co 228.616 Recovery = Not calculated								
Cr 267.716†	-12.0	-0.170	ug/L	0.1310	-0.170	ug/L	0.1310	77.07%
QC value within limits for Cr 267.716 Recovery = Not calculated								
Cu 327.393†	19.8	0.237	ug/L	0.8247	0.237	ug/L	0.8247	347.52%
QC value within limits for Cu 327.393 Recovery = Not calculated								
Fe 273.955†	12.3	0.818	ug/L	1.2541	0.818	ug/L	1.2541	153.35%
QC value within limits for Fe 273.955 Recovery = Not calculated								
K 766.490†	-133.9	-75.77	ug/L	70.015	-75.77	ug/L	70.015	92.41%
QC value within limits for K 766.490 Recovery = Not calculated								
Mg 285.213†	0.9	0.486	ug/L	1.2521	0.486	ug/L	1.2521	257.44%
QC value within limits for Mg 285.213 Recovery = Not calculated								
Mn 257.610†	-1.8	-0.338	ug/L	0.2134	-0.338	ug/L	0.2134	63.07%
QC value within limits for Mn 257.610 Recovery = Not calculated								
Mo 202.031†	2.3	0.092	ug/L	0.1065	0.092	ug/L	0.1065	115.58%
QC value within limits for Mo 202.031 Recovery = Not calculated								
Na 589.592†	-88.9	-31.68	ug/L	51.064	-31.68	ug/L	51.064	161.18%
QC value within limits for Na 589.592 Recovery = Not calculated								
Ni 231.604†	3.9	0.098	ug/L	0.5024	0.098	ug/L	0.5024	513.43%
QC value within limits for Ni 231.604 Recovery = Not calculated								
P 213.617†	0.7	0.221	ug/L	2.3021	0.221	ug/L	2.3021	>999.9%
QC value within limits for P 213.617 Recovery = Not calculated								
Pb 220.353†	-5.6	-0.598	ug/L	0.4692	-0.598	ug/L	0.4692	78.50%
QC value within limits for Pb 220.353 Recovery = Not calculated								
Sb 206.836†	3.0	0.821	ug/L	0.3340	0.821	ug/L	0.3340	40.66%
QC value within limits for Sb 206.836 Recovery = Not calculated								
Se 196.026†	-4.2	-1.710	ug/L	3.0423	-1.710	ug/L	3.0423	177.93%
QC value within limits for Se 196.026 Recovery = Not calculated								
Sn 189.927†	3.9	0.477	ug/L	0.2617	0.477	ug/L	0.2617	54.89%
QC value within limits for Sn 189.927 Recovery = Not calculated								
Sr 421.552†	-50.6	-0.402	ug/L	0.7709	-0.402	ug/L	0.7709	191.94%
QC value within limits for Sr 421.552 Recovery = Not calculated								
Ti 337.279†	6.5	1.018	ug/L	1.5436	1.018	ug/L	1.5436	151.56%
QC value within limits for Ti 337.279 Recovery = Not calculated								
Tl 190.801†	19.3	5.087	ug/L	2.0842	5.087	ug/L	2.0842	40.97%
QC value within limits for Tl 190.801 Recovery = Not calculated								
V 292.402†	60.4	0.459	ug/L	0.1989	0.459	ug/L	0.1989	43.34%
QC value within limits for V 292.402 Recovery = Not calculated								
Zn 206.200†	44.3	1.018	ug/L	0.2306	1.018	ug/L	0.2306	22.64%
QC value within limits for Zn 206.200 Recovery = Not calculated								

All analyte(s) passed QC.

Sequence No.: 7
Sample ID: LLICV 191118 I:PB O:EV
Analyst:
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:

Autosampler Location: 2
Date Collected: 11/18/19 9:03:13 AM
Data Type: Reprocessed on 11/19/19 2:15:02 PM
Initial Sample Vol:
Sample Prep Vol:

Mean Data: LLICV 191118 I:PB O:EV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	1260333.3	102.8	%	0.85				0.83%
Y 371.029 Radial	1207729.3	103.0	%	0.90				0.87%
Ag 338.289†	41.0	0.614	ug/L	0.5951	0.614	ug/L	0.5951	96.98%
QC value greater than the upper limit for Ag 338.289 Recovery = 122.71%								
Al 308.215†	20.3	82.92	ug/L	10.385	82.92	ug/L	10.385	12.52%
QC value greater than the upper limit for Al 308.215 Recovery = 165.83%								
As 188.979†	5.2	1.797	ug/L	0.7177	1.797	ug/L	0.7177	39.93%
QC value within limits for As 188.979 Recovery = 89.86%								
B†	1239.2	31.95	ug/L	0.442	31.95	ug/L	0.442	1.38%
QC value greater than the upper limit for B Recovery = 127.78%								
Ba 233.527†	179.3	1.731	ug/L	0.0358	1.731	ug/L	0.0358	2.07%
QC value within limits for Ba 233.527 Recovery = 115.41%								
Be 313.107†	67.5	1.190	ug/L	0.1332	1.190	ug/L	0.1332	11.19%
QC value within limits for Be 313.107 Recovery = 119.01%								
Ca 315.887†	97.2	80.92	ug/L	2.511	80.92	ug/L	2.511	3.10%
QC value greater than the upper limit for Ca 315.887 Recovery = 161.84%								
Cd 214.440†	72.5	0.575	ug/L	0.0728	0.575	ug/L	0.0728	12.64%
QC value greater than the upper limit for Cd 214.440 Recovery = 230.16%								
Co 228.616†	111.8	2.542	ug/L	0.1259	2.542	ug/L	0.1259	4.95%
QC value within limits for Co 228.616 Recovery = 101.69%								
Cr 267.716†	32.5	0.447	ug/L	0.4078	0.447	ug/L	0.4078	91.29%
QC value within limits for Cr 267.716 Recovery = 89.33%								
Cu 327.393†	209.4	2.580	ug/L	0.8863	2.580	ug/L	0.8863	34.36%
QC value within limits for Cu 327.393 Recovery = 103.18%								
Fe 273.955†	426.7	29.38	ug/L	0.421	29.38	ug/L	0.421	1.43%
QC value within limits for Fe 273.955 Recovery = 117.53%								
K 766.490†	695.4	393.5	ug/L	105.23	393.5	ug/L	105.23	26.74%
QC value less than the lower limit for K 766.490 Recovery = 78.70%								
Mg 285.213†	56.6	29.67	ug/L	5.419	29.67	ug/L	5.419	18.26%
QC value within limits for Mg 285.213 Recovery = 118.70%								
Mn 257.610†	5.9	1.102	ug/L	0.2182	1.102	ug/L	0.2182	19.79%
QC value within limits for Mn 257.610 Recovery = 110.24%								
Mo 202.031†	13.5	0.539	ug/L	0.3875	0.539	ug/L	0.3875	71.91%
QC value less than the lower limit for Mo 202.031 Recovery = 53.89%								
Na 589.592†	1328.4	474.1	ug/L	22.25	474.1	ug/L	22.25	4.69%
QC value within limits for Na 589.592 Recovery = 94.82%								
Ni 231.604†	43.0	1.173	ug/L	0.4970	1.173	ug/L	0.4970	42.37%
QC value within limits for Ni 231.604 Recovery = 117.29%								
P 213.617†	34.3	11.10	ug/L	1.145	11.10	ug/L	1.145	10.32%
QC value within limits for P 213.617 Recovery = 88.80%								
Pb 220.353†	10.1	1.089	ug/L	1.2141	1.089	ug/L	1.2141	111.53%
QC value less than the lower limit for Pb 220.353 Recovery = 72.58%								
Sb 206.836†	11.7	3.167	ug/L	1.3749	3.167	ug/L	1.3749	43.41%
QC value greater than the upper limit for Sb 206.836 Recovery = 158.37%								
Se 196.026†	7.9	3.203	ug/L	3.4534	3.203	ug/L	3.4534	107.81%
QC value greater than the upper limit for Se 196.026 Recovery = 160.17%								
Sn 189.927†	29.3	3.537	ug/L	0.6469	3.537	ug/L	0.6469	18.29%
QC value within limits for Sn 189.927 Recovery = 117.89%								
Sr 421.552†	100.3	0.795	ug/L	0.1429	0.795	ug/L	0.1429	17.97%
QC value less than the lower limit for Sr 421.552 Recovery = 79.51%								
Ti 337.279†	20.9	3.298	ug/L	0.5945	3.298	ug/L	0.5945	18.03%
QC value greater than the upper limit for Ti 337.279 Recovery = 131.90%								
Tl 190.801†	20.1	5.309	ug/L	0.7007	5.309	ug/L	0.7007	13.20%
QC value greater than the upper limit for Tl 190.801 Recovery = 265.47%								
V 292.402†	32.4	0.250	ug/L	0.6241	0.250	ug/L	0.6241	249.87%
QC value less than the lower limit for V 292.402 Recovery = 49.95%								
Zn 206.200†	1191.7	28.28	ug/L	0.340	28.28	ug/L	0.340	1.20%
QC value within limits for Zn 206.200 Recovery = 113.12%								

QC Failed. Continue with analysis.

Sequence No.: 8
Sample ID: LLICVX2 191118 I:PB O:EV
Analyst:
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:

Autosampler Location: 10
Date Collected: 11/18/19 9:07:55 AM
Data Type: Reprocessed on 11/19/19 2:15:03 PM
Initial Sample Vol:
Sample Prep Vol:

Mean Data: LLICVX2 191118 I:PB O:EV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	1262488.2	102.9	%	0.54				0.52%
Y 371.029 Radial	1210151.6	103.2	%	0.58				0.56%
Ag 338.289†	76.9	1.142	ug/L	0.7736	1.142	ug/L	0.7736	67.73%
QC value within limits for Ag 338.289 Recovery = 114.22%								
Al 308.215†	32.0	130.7	ug/L	54.09	130.7	ug/L	54.09	41.37%
QC value greater than the upper limit for Al 308.215 Recovery = 130.74%								
As 188.979†	17.4	5.930	ug/L	1.9708	5.930	ug/L	1.9708	33.24%
QC value greater than the upper limit for As 188.979 Recovery = 148.24%								
B†	2162.8	55.76	ug/L	0.273	55.76	ug/L	0.273	0.49%
QC value within limits for B Recovery = 111.51%								
Ba 233.527†	339.0	3.275	ug/L	0.0788	3.275	ug/L	0.0788	2.40%
QC value within limits for Ba 233.527 Recovery = 109.17%								
Be 313.107†	110.8	1.952	ug/L	0.0740	1.952	ug/L	0.0740	3.79%
QC value within limits for Be 313.107 Recovery = 97.61%								
Ca 315.887†	145.1	120.7	ug/L	4.24	120.7	ug/L	4.24	3.51%
QC value greater than the upper limit for Ca 315.887 Recovery = 120.72%								
Cd 214.440†	107.6	0.854	ug/L	0.1805	0.854	ug/L	0.1805	21.15%
QC value greater than the upper limit for Cd 214.440 Recovery = 170.71%								
Co 228.616†	232.4	5.293	ug/L	0.3088	5.293	ug/L	0.3088	5.83%
QC value within limits for Co 228.616 Recovery = 105.86%								
Cr 267.716†	59.5	0.816	ug/L	0.2975	0.816	ug/L	0.2975	36.45%
QC value within limits for Cr 267.716 Recovery = 81.62%								
Cu 327.393†	459.4	5.673	ug/L	1.5781	5.673	ug/L	1.5781	27.82%
QC value within limits for Cu 327.393 Recovery = 113.46%								
Fe 273.955†	796.9	54.84	ug/L	0.730	54.84	ug/L	0.730	1.33%
QC value within limits for Fe 273.955 Recovery = 109.69%								
K 766.490†	1581.9	895.1	ug/L	75.79	895.1	ug/L	75.79	8.47%
QC value within limits for K 766.490 Recovery = 89.51%								
Mg 285.213†	95.3	49.93	ug/L	2.460	49.93	ug/L	2.460	4.93%
QC value within limits for Mg 285.213 Recovery = 99.86%								
Mn 257.610†	10.3	1.924	ug/L	0.9266	1.924	ug/L	0.9266	48.15%
QC value within limits for Mn 257.610 Recovery = 96.21%								
Mo 202.031†	42.5	1.709	ug/L	0.1556	1.709	ug/L	0.1556	9.11%
QC value within limits for Mo 202.031 Recovery = 85.44%								
Na 589.592†	2679.7	956.3	ug/L	23.57	956.3	ug/L	23.57	2.47%
QC value within limits for Na 589.592 Recovery = 95.63%								
Ni 231.604†	67.5	1.831	ug/L	0.3417	1.831	ug/L	0.3417	18.66%
QC value within limits for Ni 231.604 Recovery = 91.57%								
P 213.617†	73.4	23.73	ug/L	0.629	23.73	ug/L	0.629	2.65%
QC value within limits for P 213.617 Recovery = 94.92%								
Pb 220.353†	23.0	2.487	ug/L	0.3686	2.487	ug/L	0.3686	14.82%
QC value within limits for Pb 220.353 Recovery = 82.89%								
Sb 206.836†	15.1	4.080	ug/L	0.1816	4.080	ug/L	0.1816	4.45%
QC value within limits for Sb 206.836 Recovery = 101.99%								
Se 196.026†	10.5	4.277	ug/L	4.0511	4.277	ug/L	4.0511	94.72%
QC value within limits for Se 196.026 Recovery = 106.92%								
Sn 189.927†	52.8	6.376	ug/L	0.3532	6.376	ug/L	0.3532	5.54%
QC value within limits for Sn 189.927 Recovery = 106.26%								
Sr 421.552†	258.6	2.052	ug/L	0.6531	2.052	ug/L	0.6531	31.83%
QC value within limits for Sr 421.552 Recovery = 102.58%								
Ti 337.279†	33.5	5.276	ug/L	0.4099	5.276	ug/L	0.4099	7.77%
QC value within limits for Ti 337.279 Recovery = 105.52%								
Tl 190.801†	32.1	8.508	ug/L	1.6140	8.508	ug/L	1.6140	18.97%
QC value greater than the upper limit for Tl 190.801 Recovery = 212.69%								
V 292.402†	92.5	0.721	ug/L	0.2995	0.721	ug/L	0.2995	41.55%
QC value less than the lower limit for V 292.402 Recovery = 72.07%								
Zn 206.200†	2343.8	55.66	ug/L	0.266	55.66	ug/L	0.266	0.48%
QC value within limits for Zn 206.200 Recovery = 111.31%								

QC Failed. Continue with analysis.

Sequence No.: 9 **Autosampler Location: 11**
Sample ID: LLICVX6 191118 I:PB O:EV **Date Collected: 11/18/19 9:12:43 AM**
Analyst: **Data Type: Reprocessed on 11/19/19 2:15:04 PM**
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: LLICVX6 191118 I:PB O:EV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	1243538.1	101.4	%	1.29				1.27%
Y 371.029 Radial	1191492.7	101.6	%	1.35				1.33%
Ag 338.289†	268.7	3.953	ug/L	0.8193	3.953	ug/L	0.8193	20.72%
QC value greater than the upper limit for Ag 338.289 Recovery = 131.78%								
Al 308.215†	87.6	357.6	ug/L	30.56	357.6	ug/L	30.56	8.55%
QC value within limits for Al 308.215 Recovery = 119.20%								
As 188.979†	40.9	14.02	ug/L	2.146	14.02	ug/L	2.146	15.31%
QC value within limits for As 188.979 Recovery = 116.82%								
B†	5973.9	154.0	ug/L	1.40	154.0	ug/L	1.40	0.91%
QC value within limits for B Recovery = 102.67%								
Ba 233.527†	1030.0	9.954	ug/L	0.2374	9.954	ug/L	0.2374	2.38%
QC value within limits for Ba 233.527 Recovery = 110.60%								
Be 313.107†	334.7	5.896	ug/L	0.1811	5.896	ug/L	0.1811	3.07%
QC value within limits for Be 313.107 Recovery = 98.27%								
Ca 315.887†	381.9	317.8	ug/L	2.48	317.8	ug/L	2.48	0.78%
QC value within limits for Ca 315.887 Recovery = 105.92%								
Cd 214.440†	229.5	1.819	ug/L	0.0228	1.819	ug/L	0.0228	1.25%
QC value greater than the upper limit for Cd 214.440 Recovery = 121.29%								
Co 228.616†	724.4	16.50	ug/L	0.356	16.50	ug/L	0.356	2.15%
QC value within limits for Co 228.616 Recovery = 110.01%								
Cr 267.716†	215.4	2.972	ug/L	0.1875	2.972	ug/L	0.1875	6.31%
QC value within limits for Cr 267.716 Recovery = 99.08%								
Cu 327.393†	1360.6	16.81	ug/L	0.835	16.81	ug/L	0.835	4.97%
QC value within limits for Cu 327.393 Recovery = 112.08%								
Fe 273.955†	2362.0	162.5	ug/L	2.17	162.5	ug/L	2.17	1.33%
QC value within limits for Fe 273.955 Recovery = 108.31%								
K 766.490†	5127.9	2902	ug/L	33.1	2902	ug/L	33.1	1.14%
QC value within limits for K 766.490 Recovery = 96.72%								
Mg 285.213†	291.0	152.5	ug/L	2.49	152.5	ug/L	2.49	1.63%
QC value within limits for Mg 285.213 Recovery = 101.65%								
Mn 257.610†	28.9	5.419	ug/L	0.8291	5.419	ug/L	0.8291	15.30%
QC value within limits for Mn 257.610 Recovery = 90.32%								
Mo 202.031†	146.2	5.878	ug/L	0.1314	5.878	ug/L	0.1314	2.24%
QC value within limits for Mo 202.031 Recovery = 97.97%								
Na 589.592†	8212.8	2931	ug/L	57.8	2931	ug/L	57.8	1.97%
QC value within limits for Na 589.592 Recovery = 97.69%								
Ni 231.604†	238.5	6.522	ug/L	0.2976	6.522	ug/L	0.2976	4.56%
QC value within limits for Ni 231.604 Recovery = 108.71%								
P 213.617†	221.5	71.64	ug/L	2.745	71.64	ug/L	2.745	3.83%
QC value within limits for P 213.617 Recovery = 95.51%								
Pb 220.353†	77.7	8.388	ug/L	1.4692	8.388	ug/L	1.4692	17.52%
QC value within limits for Pb 220.353 Recovery = 93.20%								
Sb 206.836†	45.0	12.14	ug/L	0.711	12.14	ug/L	0.711	5.86%
QC value within limits for Sb 206.836 Recovery = 101.16%								
Se 196.026†	32.3	13.08	ug/L	2.675	13.08	ug/L	2.675	20.46%
QC value within limits for Se 196.026 Recovery = 108.98%								
Sn 189.927†	161.7	19.52	ug/L	0.263	19.52	ug/L	0.263	1.35%
QC value within limits for Sn 189.927 Recovery = 108.47%								
Sr 421.552†	796.1	6.316	ug/L	0.5941	6.316	ug/L	0.5941	9.41%
QC value within limits for Sr 421.552 Recovery = 105.27%								
Ti 337.279†	98.2	15.46	ug/L	0.858	15.46	ug/L	0.858	5.55%
QC value within limits for Ti 337.279 Recovery = 103.04%								
Tl 190.801†	58.1	15.45	ug/L	0.604	15.45	ug/L	0.604	3.91%
QC value greater than the upper limit for Tl 190.801 Recovery = 128.78%								
V 292.402†	417.0	3.239	ug/L	1.0504	3.239	ug/L	1.0504	32.43%
QC value within limits for V 292.402 Recovery = 107.97%								
Zn 206.200†	6929.6	164.6	ug/L	1.64	164.6	ug/L	1.64	1.00%
QC value within limits for Zn 206.200 Recovery = 109.73%								

QC Failed. Continue with analysis.

Sequence No.: 10 **Autosampler Location:** 6
Sample ID: ICSA 191118 I:PB O:EV **Date Collected:** 11/18/19 9:22:10 AM
Analyst: **Data Type:** Reprocessed on 11/19/19 2:15:05 PM
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: ICSA 191118 I:PB O:EV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	1172624.8	95.61	%	0.241				0.25%
Y 371.029 Radial	1119331.2	95.45	%	0.262				0.27%
Ag 338.289†	78.8	0.542	ug/L	0.9347	0.542	ug/L	0.9347	172.32%
QC value within limits for Ag 338.289 Recovery = Not calculated								
Al 308.215†	24574.1	100400	ug/L	583.8	100400	ug/L	583.8	0.58%
QC value within limits for Al 308.215 Recovery = 100.39%								
As 188.979†	-62.6	3.699	ug/L	2.1376	3.699	ug/L	2.1376	57.78%
QC value within limits for As 188.979 Recovery = Not calculated								
B†	-722.7	-18.63	ug/L	2.985	-18.63	ug/L	2.985	16.02%
QC value within limits for B Recovery = Not calculated								
Ba 233.527†	771.1	-1.482	ug/L	0.0813	-1.482	ug/L	0.0813	5.49%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-4.0	0.458	ug/L	0.0343	0.458	ug/L	0.0343	7.49%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 315.887†	119861.9	99790	ug/L	612.9	99790	ug/L	612.9	0.61%
QC value within limits for Ca 315.887 Recovery = 99.79%								
Cd 214.440†	520.5	0.742	ug/L	0.0784	0.742	ug/L	0.0784	10.57%
QC value within limits for Cd 214.440 Recovery = Not calculated								
Co 228.616†	306.1	0.188	ug/L	0.2383	0.188	ug/L	0.2383	127.07%
QC value within limits for Co 228.616 Recovery = Not calculated								
Cr 267.716†	-82.4	0.294	ug/L	0.1137	0.294	ug/L	0.1137	38.64%
QC value within limits for Cr 267.716 Recovery = Not calculated								
Cu 327.393†	-553.1	-0.358	ug/L	0.6183	-0.358	ug/L	0.6183	172.61%
QC value within limits for Cu 327.393 Recovery = Not calculated								
Fe 273.955†	1409595.5	97050	ug/L	134.5	97050	ug/L	134.5	0.14%
QC value within limits for Fe 273.955 Recovery = 97.05%								
K 766.490†	-68.7	-112.9	ug/L	6.17	-112.9	ug/L	6.17	5.47%
QC value within limits for K 766.490 Recovery = Not calculated								
Mg 285.213†	192182.4	101100	ug/L	588.9	101100	ug/L	588.9	0.58%
QC value within limits for Mg 285.213 Recovery = 101.13%								
Mn 257.610†	-35.8	-1.798	ug/L	0.0436	-1.798	ug/L	0.0436	2.43%
QC value within limits for Mn 257.610 Recovery = Not calculated								
Mo 202.031†	-162.1	-2.090	ug/L	0.5583	-2.090	ug/L	0.5583	26.71%
QC value within limits for Mo 202.031 Recovery = Not calculated								
Na 589.592†	-83.1	76.12	ug/L	17.461	76.12	ug/L	17.461	22.94%
QC value within limits for Na 589.592 Recovery = Not calculated								
Ni 231.604†	60.5	-0.785	ug/L	0.4677	-0.785	ug/L	0.4677	59.56%
QC value within limits for Ni 231.604 Recovery = Not calculated								
P 213.617†	-56.5	-18.28	ug/L	1.058	-18.28	ug/L	1.058	5.79%
QC value within limits for P 213.617 Recovery = Not calculated								
Pb 220.353†	-129.8	-1.038	ug/L	2.0469	-1.038	ug/L	2.0469	197.18%
QC value within limits for Pb 220.353 Recovery = Not calculated								
Sb 206.836†	-4.2	-1.141	ug/L	1.1743	-1.141	ug/L	1.1743	102.91%
QC value within limits for Sb 206.836 Recovery = Not calculated								
Se 196.026†	-104.2	0.366	ug/L	5.5450	0.366	ug/L	5.5450	>999.9%
QC value within limits for Se 196.026 Recovery = Not calculated								
Sn 189.927†	-46.4	-1.839	ug/L	0.7498	-1.839	ug/L	0.7498	40.77%
QC value within limits for Sn 189.927 Recovery = Not calculated								
Sr 421.552†	80.7	-0.394	ug/L	0.1797	-0.394	ug/L	0.1797	45.56%
QC value within limits for Sr 421.552 Recovery = Not calculated								
Ti 337.279†	4.0	-1.412	ug/L	1.2991	-1.412	ug/L	1.2991	92.01%
QC value within limits for Ti 337.279 Recovery = Not calculated								
Tl 190.801†	-7.8	4.982	ug/L	2.3345	4.982	ug/L	2.3345	46.86%
QC value within limits for Tl 190.801 Recovery = Not calculated								
V 292.402†	2694.0	-0.030	ug/L	0.3653	-0.030	ug/L	0.3653	>999.9%
QC value within limits for V 292.402 Recovery = Not calculated								
Zn 206.200†	282.4	4.533	ug/L	0.5776	4.533	ug/L	0.5776	12.74%
QC value within limits for Zn 206.200 Recovery = Not calculated								

All analyte(s) passed QC.

Sequence No.: 11
Sample ID: ICSAB 191118 I:PB O:EV
Analyst:
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 11/18/19 9:26:44 AM
Data Type: Reprocessed on 11/19/19 2:15:06 PM
Initial Sample Vol:
Sample Prep Vol:

Mean Data: ICSAB 191118 I:PB O:EV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	1179943.5	96.20	%	1.021				1.06%
Y 371.029 Radial	1126210.4	96.04	%	1.082				1.13%
Ag 338.289†	38549.1	537.9	ug/L	3.57	537.9	ug/L	3.57	0.66%
QC value within limits for Ag 338.289 Recovery = 107.57%								
Al 308.215†	25643.2	104800	ug/L	974.9	104800	ug/L	974.9	0.93%
QC value within limits for Al 308.215 Recovery = 104.76%								
As 188.979†	701.1	261.8	ug/L	2.60	261.8	ug/L	2.60	0.99%
QC value within limits for As 188.979 Recovery = 104.70%								
B†	-777.1	-20.03	ug/L	2.451	-20.03	ug/L	2.451	12.24%
QC value within limits for B Recovery = Not calculated								
Ba 233.527†	27135.2	253.9	ug/L	1.46	253.9	ug/L	1.46	0.57%
QC value within limits for Ba 233.527 Recovery = 101.57%								
Be 313.107†	14837.4	259.9	ug/L	2.11	259.9	ug/L	2.11	0.81%
QC value within limits for Be 313.107 Recovery = 103.97%								
Ca 315.887†	121971.3	101500	ug/L	512.3	101500	ug/L	512.3	0.50%
QC value within limits for Ca 315.887 Recovery = 101.55%								
Cd 214.440†	63932.4	504.5	ug/L	1.65	504.5	ug/L	1.65	0.33%
QC value within limits for Cd 214.440 Recovery = 100.91%								
Co 228.616†	11603.8	258.4	ug/L	1.84	258.4	ug/L	1.84	0.71%
QC value within limits for Co 228.616 Recovery = 103.36%								
Cr 267.716†	17876.9	252.1	ug/L	0.56	252.1	ug/L	0.56	0.22%
QC value within limits for Cr 267.716 Recovery = 100.83%								
Cu 327.393†	20575.6	261.1	ug/L	0.92	261.1	ug/L	0.92	0.35%
QC value within limits for Cu 327.393 Recovery = 104.44%								
Fe 273.955†	1438298.7	99000	ug/L	260.1	99000	ug/L	260.1	0.26%
QC value within limits for Fe 273.955 Recovery = 99.00%								
K 766.490†	-83.8	-124.5	ug/L	51.99	-124.5	ug/L	51.99	41.78%
QC value within limits for K 766.490 Recovery = Not calculated								
Mg 285.213†	195492.2	102900	ug/L	425.5	102900	ug/L	425.5	0.41%
QC value within limits for Mg 285.213 Recovery = 102.87%								
Mn 257.610†	1308.2	249.4	ug/L	2.69	249.4	ug/L	2.69	1.08%
QC value within limits for Mn 257.610 Recovery = 99.78%								
Mo 202.031†	6001.6	247.9	ug/L	1.71	247.9	ug/L	1.71	0.69%
QC value within limits for Mo 202.031 Recovery = 99.15%								
Na 589.592†	-50.5	90.64	ug/L	7.746	90.64	ug/L	7.746	8.55%
QC value within limits for Na 589.592 Recovery = Not calculated								
Ni 231.604†	17496.8	489.2	ug/L	2.34	489.2	ug/L	2.34	0.48%
QC value within limits for Ni 231.604 Recovery = 97.84%								
P 213.617†	-136.6	-44.17	ug/L	0.681	-44.17	ug/L	0.681	1.54%
QC value within limits for P 213.617 Recovery = Not calculated								
Pb 220.353†	4589.1	508.6	ug/L	3.33	508.6	ug/L	3.33	0.66%
QC value within limits for Pb 220.353 Recovery = 101.72%								
Sb 206.836†	948.5	256.1	ug/L	1.99	256.1	ug/L	1.99	0.78%
QC value within limits for Sb 206.836 Recovery = 102.45%								
Se 196.026†	542.5	263.1	ug/L	2.32	263.1	ug/L	2.32	0.88%
QC value within limits for Se 196.026 Recovery = 105.23%								
Sn 189.927†	-43.9	-1.461	ug/L	1.1748	-1.461	ug/L	1.1748	80.40%
QC value within limits for Sn 189.927 Recovery = Not calculated								
Sr 421.552†	139.1	0.050	ug/L	0.1256	0.050	ug/L	0.1256	251.89%
QC value within limits for Sr 421.552 Recovery = Not calculated								
Ti 337.279†	6.9	-0.997	ug/L	1.1601	-0.997	ug/L	1.1601	116.31%
QC value within limits for Ti 337.279 Recovery = Not calculated								
Tl 190.801†	957.7	262.0	ug/L	0.48	262.0	ug/L	0.48	0.18%
QC value within limits for Tl 190.801 Recovery = 104.80%								
V 292.402†	35574.2	255.5	ug/L	1.44	255.5	ug/L	1.44	0.56%
QC value within limits for V 292.402 Recovery = 102.21%								
Zn 206.200†	21498.8	507.2	ug/L	1.67	507.2	ug/L	1.67	0.33%
QC value within limits for Zn 206.200 Recovery = 101.45%								

All analyte(s) passed QC.

Sequence No.: 12 Autosampler Location: 3
Sample ID: CCV1 191118 I:PB O:EV Date Collected: 11/18/19 1:33:32 PM
Analyst: Data Type: Reprocessed on 11/19/19 2:15:08 PM
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:

Mean Data: CCV1 191118 I:PB O:EV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	1239712.0	101.1	%	1.22				1.21%
Y 371.029 Radial	1187695.9	101.3	%	1.30				1.29%
Ag 338.289†	17954.4	253.9	ug/L	1.64	253.9	ug/L	1.64	0.64%
QC value within limits for Ag 338.289 Recovery = 101.58%								
Al 308.215†	2451.5	10020	ug/L	85.5	10020	ug/L	85.5	0.85%
QC value within limits for Al 308.215 Recovery = 100.22%								
As 188.979†	1510.9	515.5	ug/L	4.18	515.5	ug/L	4.18	0.81%
QC value within limits for As 188.979 Recovery = 103.09%								
B†	19142.2	493.5	ug/L	2.82	493.5	ug/L	2.82	0.57%
QC value within limits for B Recovery = 98.69%								
Ba 233.527†	52126.0	504.8	ug/L	1.96	504.8	ug/L	1.96	0.39%
QC value within limits for Ba 233.527 Recovery = 100.95%								
Be 313.107†	30190.1	529.3	ug/L	5.73	529.3	ug/L	5.73	1.08%
QC value within limits for Be 313.107 Recovery = 105.85%								
Ca 315.887†	30100.2	25060	ug/L	229.8	25060	ug/L	229.8	0.92%
QC value within limits for Ca 315.887 Recovery = 100.23%								
Cd 214.440†	64007.8	508.4	ug/L	1.58	508.4	ug/L	1.58	0.31%
QC value within limits for Cd 214.440 Recovery = 101.69%								
Co 228.616†	22278.9	507.8	ug/L	2.02	507.8	ug/L	2.02	0.40%
QC value within limits for Co 228.616 Recovery = 101.56%								
Cr 267.716†	35795.2	501.8	ug/L	1.79	501.8	ug/L	1.79	0.36%
QC value within limits for Cr 267.716 Recovery = 100.37%								
Cu 327.393†	40648.2	505.8	ug/L	3.48	505.8	ug/L	3.48	0.69%
QC value within limits for Cu 327.393 Recovery = 101.17%								
Fe 273.955†	147240.2	10090	ug/L	42.1	10090	ug/L	42.1	0.42%
QC value within limits for Fe 273.955 Recovery = 100.93%								
K 766.490†	17226.8	9735	ug/L	134.2	9735	ug/L	134.2	1.38%
QC value within limits for K 766.490 Recovery = 97.35%								
Mg 285.213†	48553.2	25530	ug/L	245.2	25530	ug/L	245.2	0.96%
QC value within limits for Mg 285.213 Recovery = 102.11%								
Mn 257.610†	2677.8	499.8	ug/L	3.73	499.8	ug/L	3.73	0.75%
QC value within limits for Mn 257.610 Recovery = 99.96%								
Mo 202.031†	12029.1	487.9	ug/L	1.84	487.9	ug/L	1.84	0.38%
QC value within limits for Mo 202.031 Recovery = 97.58%								
Na 589.592†	34374.8	12280	ug/L	117.0	12280	ug/L	117.0	0.95%
QC value within limits for Na 589.592 Recovery = 98.27%								
Ni 231.604†	18070.6	505.7	ug/L	0.91	505.7	ug/L	0.91	0.18%
QC value within limits for Ni 231.604 Recovery = 101.15%								
P 213.617†	7923.6	2563	ug/L	22.6	2563	ug/L	22.6	0.88%
QC value within limits for P 213.617 Recovery = 102.51%								
Pb 220.353†	4772.1	516.1	ug/L	5.57	516.1	ug/L	5.57	1.08%
QC value within limits for Pb 220.353 Recovery = 103.22%								
Sb 206.836†	1911.9	516.2	ug/L	5.60	516.2	ug/L	5.60	1.08%
QC value within limits for Sb 206.836 Recovery = 103.25%								
Se 196.026†	1282.9	523.5	ug/L	4.35	523.5	ug/L	4.35	0.83%
QC value within limits for Se 196.026 Recovery = 104.69%								
Sn 189.927†	4290.4	519.3	ug/L	5.65	519.3	ug/L	5.65	1.09%
QC value within limits for Sn 189.927 Recovery = 103.85%								
Sr 421.552†	61074.8	484.6	ug/L	4.48	484.6	ug/L	4.48	0.92%
QC value within limits for Sr 421.552 Recovery = 96.92%								
Ti 337.279†	3198.4	503.5	ug/L	3.33	503.5	ug/L	3.33	0.66%
QC value within limits for Ti 337.279 Recovery = 100.70%								
Tl 190.801†	1965.7	529.0	ug/L	5.67	529.0	ug/L	5.67	1.07%
QC value within limits for Tl 190.801 Recovery = 105.80%								
V 292.402†	65513.1	507.4	ug/L	2.25	507.4	ug/L	2.25	0.44%
QC value within limits for V 292.402 Recovery = 101.49%								
Zn 206.200†	21358.8	510.2	ug/L	1.25	510.2	ug/L	1.25	0.25%
QC value within limits for Zn 206.200 Recovery = 102.03%								

All analyte(s) passed QC.

Sequence No.: 13 Autosampler Location: 1
Sample ID: CCB 191118 I:PB O:EV Date Collected: 11/18/19 1:45:27 PM
Analyst: Data Type: Reprocessed on 11/19/19 2:15:09 PM
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:

Mean Data: CCB 191118 I:PB O:EV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	1301277.6	106.1	%	0.27				0.25%
Y 371.029 Radial	1249179.9	106.5	%	0.26				0.25%
Ag 338.289†	9.3	0.141	ug/L	0.4105	0.141	ug/L	0.4105	291.47%
QC value within limits for Ag 338.289 Recovery = Not calculated								
Al 308.215†	7.3	29.95	ug/L	32.462	29.95	ug/L	32.462	108.38%
QC value within limits for Al 308.215 Recovery = Not calculated								
As 188.979†	7.1	2.415	ug/L	0.6412	2.415	ug/L	0.6412	26.54%
QC value within limits for As 188.979 Recovery = Not calculated								
B†	218.1	5.623	ug/L	0.1892	5.623	ug/L	0.1892	3.36%
QC value within limits for B Recovery = Not calculated								
Ba 233.527†	-7.3	-0.073	ug/L	0.0488	-0.073	ug/L	0.0488	66.43%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-3.6	-0.062	ug/L	0.1792	-0.062	ug/L	0.1792	290.75%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 315.887†	15.4	12.86	ug/L	5.062	12.86	ug/L	5.062	39.35%
QC value within limits for Ca 315.887 Recovery = Not calculated								
Cd 214.440†	51.3	0.408	ug/L	0.1232	0.408	ug/L	0.1232	30.22%
QC value within limits for Cd 214.440 Recovery = Not calculated								
Co 228.616†	-11.0	-0.255	ug/L	0.2345	-0.255	ug/L	0.2345	92.01%
QC value within limits for Co 228.616 Recovery = Not calculated								
Cr 267.716†	-6.8	-0.098	ug/L	0.1315	-0.098	ug/L	0.1315	134.69%
QC value within limits for Cr 267.716 Recovery = Not calculated								
Cu 327.393†	51.1	0.625	ug/L	0.7121	0.625	ug/L	0.7121	113.89%
QC value within limits for Cu 327.393 Recovery = Not calculated								
Fe 273.955†	2.4	0.194	ug/L	0.9832	0.194	ug/L	0.9832	506.23%
QC value within limits for Fe 273.955 Recovery = Not calculated								
K 766.490†	-149.1	-84.38	ug/L	41.539	-84.38	ug/L	41.539	49.23%
QC value within limits for K 766.490 Recovery = Not calculated								
Mg 285.213†	3.6	1.891	ug/L	0.8772	1.891	ug/L	0.8772	46.39%
QC value within limits for Mg 285.213 Recovery = Not calculated								
Mn 257.610†	-0.6	-0.101	ug/L	0.8111	-0.101	ug/L	0.8111	799.16%
QC value within limits for Mn 257.610 Recovery = Not calculated								
Mo 202.031†	3.9	0.158	ug/L	0.5608	0.158	ug/L	0.5608	355.22%
QC value within limits for Mo 202.031 Recovery = Not calculated								
Na 589.592†	97.2	34.73	ug/L	14.887	34.73	ug/L	14.887	42.87%
QC value within limits for Na 589.592 Recovery = Not calculated								
Ni 231.604†	-0.3	-0.017	ug/L	0.2690	-0.017	ug/L	0.2690	>999.9%
QC value within limits for Ni 231.604 Recovery = Not calculated								
P 213.617†	1.9	0.622	ug/L	1.4732	0.622	ug/L	1.4732	236.68%
QC value within limits for P 213.617 Recovery = Not calculated								
Pb 220.353†	-10.4	-1.114	ug/L	1.3139	-1.114	ug/L	1.3139	117.90%
QC value within limits for Pb 220.353 Recovery = Not calculated								
Sb 206.836†	6.0	1.629	ug/L	0.3021	1.629	ug/L	0.3021	18.55%
QC value within limits for Sb 206.836 Recovery = Not calculated								
Se 196.026†	-7.8	-3.149	ug/L	1.5823	-3.149	ug/L	1.5823	50.25%
QC value within limits for Se 196.026 Recovery = Not calculated								
Sn 189.927†	1.0	0.130	ug/L	0.1762	0.130	ug/L	0.1762	135.44%
QC value within limits for Sn 189.927 Recovery = Not calculated								
Sr 421.552†	53.0	0.421	ug/L	0.2797	0.421	ug/L	0.2797	66.46%
QC value within limits for Sr 421.552 Recovery = Not calculated								
Ti 337.279†	4.6	0.723	ug/L	1.4158	0.723	ug/L	1.4158	195.88%
QC value within limits for Ti 337.279 Recovery = Not calculated								
Tl 190.801†	13.7	3.608	ug/L	0.4455	3.608	ug/L	0.4455	12.35%
QC value within limits for Tl 190.801 Recovery = Not calculated								
V 292.402†	-34.8	-0.265	ug/L	0.3141	-0.265	ug/L	0.3141	118.76%
QC value within limits for V 292.402 Recovery = Not calculated								
Zn 206.200†	47.0	1.081	ug/L	0.0817	1.081	ug/L	0.0817	7.56%
QC value within limits for Zn 206.200 Recovery = Not calculated								

All analyte(s) passed QC.

Sequence No.: 14
Sample ID: CCV2 191118 I:PB O:EV
Analyst:
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 11/18/19 2:41:21 PM
Data Type: Reprocessed on 11/19/19 2:15:10 PM
Initial Sample Vol:
Sample Prep Vol:

Mean Data: CCV2 191118 I:PB O:EV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	1251007.8	102.0	%	0.85				0.84%
Y 371.029 Radial	1198260.2	102.2	%	0.95				0.93%
Ag 338.289†	13309.6	188.2	ug/L	0.78	188.2	ug/L	0.78	0.42%
QC value within limits for Ag 338.289 Recovery = 100.40%								
Al 308.215†	1818.3	7433	ug/L	92.4	7433	ug/L	92.4	1.24%
QC value within limits for Al 308.215 Recovery = 99.10%								
As 188.979†	1134.7	387.0	ug/L	0.94	387.0	ug/L	0.94	0.24%
QC value within limits for As 188.979 Recovery = 103.20%								
B†	14243.7	367.2	ug/L	1.69	367.2	ug/L	1.69	0.46%
QC value within limits for B Recovery = 97.92%								
Ba 233.527†	39117.5	378.8	ug/L	0.86	378.8	ug/L	0.86	0.23%
QC value within limits for Ba 233.527 Recovery = 101.01%								
Be 313.107†	22299.1	390.9	ug/L	2.08	390.9	ug/L	2.08	0.53%
QC value within limits for Be 313.107 Recovery = 104.25%								
Ca 315.887†	22232.0	18510	ug/L	167.7	18510	ug/L	167.7	0.91%
QC value within limits for Ca 315.887 Recovery = 98.71%								
Cd 214.440†	48234.7	383.2	ug/L	4.05	383.2	ug/L	4.05	1.06%
QC value within limits for Cd 214.440 Recovery = 102.17%								
Co 228.616†	16759.1	382.0	ug/L	0.63	382.0	ug/L	0.63	0.17%
QC value within limits for Co 228.616 Recovery = 101.88%								
Cr 267.716†	26720.2	374.6	ug/L	2.76	374.6	ug/L	2.76	0.74%
QC value within limits for Cr 267.716 Recovery = 99.90%								
Cu 327.393†	30312.9	377.2	ug/L	0.29	377.2	ug/L	0.29	0.08%
QC value within limits for Cu 327.393 Recovery = 100.60%								
Fe 273.955†	110514.4	7576	ug/L	28.2	7576	ug/L	28.2	0.37%
QC value within limits for Fe 273.955 Recovery = 101.01%								
K 766.490†	12705.7	7180	ug/L	58.5	7180	ug/L	58.5	0.82%
QC value within limits for K 766.490 Recovery = 95.73%								
Mg 285.213†	36595.0	19240	ug/L	165.6	19240	ug/L	165.6	0.86%
QC value within limits for Mg 285.213 Recovery = 102.62%								
Mn 257.610†	1985.1	370.5	ug/L	2.52	370.5	ug/L	2.52	0.68%
QC value within limits for Mn 257.610 Recovery = 98.80%								
Mo 202.031†	9313.6	377.8	ug/L	2.96	377.8	ug/L	2.96	0.78%
QC value within limits for Mo 202.031 Recovery = 100.74%								
Na 589.592†	25503.7	9114	ug/L	93.1	9114	ug/L	93.1	1.02%
QC value within limits for Na 589.592 Recovery = 97.22%								
Ni 231.604†	13638.6	381.7	ug/L	2.75	381.7	ug/L	2.75	0.72%
QC value within limits for Ni 231.604 Recovery = 101.79%								
P 213.617†	5903.3	1909	ug/L	15.3	1909	ug/L	15.3	0.80%
QC value within limits for P 213.617 Recovery = 101.83%								
Pb 220.353†	3587.3	388.0	ug/L	2.26	388.0	ug/L	2.26	0.58%
QC value within limits for Pb 220.353 Recovery = 103.47%								
Sb 206.836†	1417.9	382.9	ug/L	2.78	382.9	ug/L	2.78	0.73%
QC value within limits for Sb 206.836 Recovery = 102.09%								
Se 196.026†	958.1	391.0	ug/L	1.44	391.0	ug/L	1.44	0.37%
QC value within limits for Se 196.026 Recovery = 104.25%								
Sn 189.927†	3188.0	385.8	ug/L	2.13	385.8	ug/L	2.13	0.55%
QC value within limits for Sn 189.927 Recovery = 102.89%								
Sr 421.552†	45340.7	359.8	ug/L	2.49	359.8	ug/L	2.49	0.69%
QC value within limits for Sr 421.552 Recovery = 95.93%								
Ti 337.279†	2362.1	371.8	ug/L	2.65	371.8	ug/L	2.65	0.71%
QC value within limits for Ti 337.279 Recovery = 99.15%								
Tl 190.801†	1480.6	398.3	ug/L	3.46	398.3	ug/L	3.46	0.87%
QC value within limits for Tl 190.801 Recovery = 106.21%								
V 292.402†	49094.2	380.4	ug/L	1.75	380.4	ug/L	1.75	0.46%
QC value within limits for V 292.402 Recovery = 101.45%								
Zn 206.200†	16234.6	387.9	ug/L	5.64	387.9	ug/L	5.64	1.45%
QC value within limits for Zn 206.200 Recovery = 103.43%								

All analyte(s) passed QC.

Sequence No.: 15
Sample ID: CCB 191118 I:PB O:EV
Analyst:
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 11/18/19 2:46:18 PM
Data Type: Reprocessed on 11/19/19 2:15:11 PM
Initial Sample Vol:
Sample Prep Vol:

Mean Data: CCB 191118 I:PB O:EV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	1289553.7	105.1	%	0.82				0.78%
Y 371.029 Radial	1237428.7	105.5	%	0.85				0.80%
Ag 338.289†	4.6	0.070	ug/L	0.2795	0.070	ug/L	0.2795	397.89%
QC value within limits for Ag 338.289 Recovery = Not calculated								
Al 308.215†	10.7	43.52	ug/L	9.824	43.52	ug/L	9.824	22.57%
QC value within limits for Al 308.215 Recovery = Not calculated								
As 188.979†	4.9	1.665	ug/L	3.0118	1.665	ug/L	3.0118	180.85%
QC value within limits for As 188.979 Recovery = Not calculated								
B†	245.4	6.325	ug/L	0.2413	6.325	ug/L	0.2413	3.81%
QC value within limits for B Recovery = Not calculated								
Ba 233.527†	-0.5	-0.008	ug/L	0.0044	-0.008	ug/L	0.0044	55.57%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-5.1	-0.089	ug/L	0.0529	-0.089	ug/L	0.0529	59.32%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 315.887†	5.2	4.345	ug/L	4.0698	4.345	ug/L	4.0698	93.67%
QC value within limits for Ca 315.887 Recovery = Not calculated								
Cd 214.440†	57.6	0.458	ug/L	0.0979	0.458	ug/L	0.0979	21.36%
QC value within limits for Cd 214.440 Recovery = Not calculated								
Co 228.616†	1.6	0.036	ug/L	0.1340	0.036	ug/L	0.1340	369.99%
QC value within limits for Co 228.616 Recovery = Not calculated								
Cr 267.716†	-10.3	-0.146	ug/L	0.2441	-0.146	ug/L	0.2441	167.27%
QC value within limits for Cr 267.716 Recovery = Not calculated								
Cu 327.393†	44.3	0.536	ug/L	0.9220	0.536	ug/L	0.9220	171.91%
QC value within limits for Cu 327.393 Recovery = Not calculated								
Fe 273.955†	9.1	0.642	ug/L	0.5207	0.642	ug/L	0.5207	81.09%
QC value within limits for Fe 273.955 Recovery = Not calculated								
K 766.490†	-95.5	-54.03	ug/L	27.487	-54.03	ug/L	27.487	50.87%
QC value within limits for K 766.490 Recovery = Not calculated								
Mg 285.213†	3.7	1.948	ug/L	3.5970	1.948	ug/L	3.5970	184.68%
QC value within limits for Mg 285.213 Recovery = Not calculated								
Mn 257.610†	-3.7	-0.689	ug/L	0.1616	-0.689	ug/L	0.1616	23.47%
QC value within limits for Mn 257.610 Recovery = Not calculated								
Mo 202.031†	3.7	0.150	ug/L	0.2333	0.150	ug/L	0.2333	155.34%
QC value within limits for Mo 202.031 Recovery = Not calculated								
Na 589.592†	-10.9	-3.840	ug/L	34.3143	-3.840	ug/L	34.3143	893.60%
QC value within limits for Na 589.592 Recovery = Not calculated								
Ni 231.604†	-5.1	-0.152	ug/L	0.4105	-0.152	ug/L	0.4105	270.79%
QC value within limits for Ni 231.604 Recovery = Not calculated								
P 213.617†	1.7	0.563	ug/L	1.2944	0.563	ug/L	1.2944	229.77%
QC value within limits for P 213.617 Recovery = Not calculated								
Pb 220.353†	-9.6	-1.033	ug/L	0.5820	-1.033	ug/L	0.5820	56.34%
QC value within limits for Pb 220.353 Recovery = Not calculated								
Sb 206.836†	4.1	1.114	ug/L	1.4054	1.114	ug/L	1.4054	126.22%
QC value within limits for Sb 206.836 Recovery = Not calculated								
Se 196.026†	-0.4	-0.145	ug/L	0.9362	-0.145	ug/L	0.9362	646.84%
QC value within limits for Se 196.026 Recovery = Not calculated								
Sn 189.927†	8.4	1.014	ug/L	0.6386	1.014	ug/L	0.6386	62.98%
QC value within limits for Sn 189.927 Recovery = Not calculated								
Sr 421.552†	-16.5	-0.131	ug/L	0.5177	-0.131	ug/L	0.5177	394.03%
QC value within limits for Sr 421.552 Recovery = Not calculated								
Ti 337.279†	1.7	0.272	ug/L	1.8413	0.272	ug/L	1.8413	677.50%
QC value within limits for Ti 337.279 Recovery = Not calculated								
Tl 190.801†	18.2	4.779	ug/L	0.9835	4.779	ug/L	0.9835	20.58%
QC value within limits for Tl 190.801 Recovery = Not calculated								
V 292.402†	-20.9	-0.159	ug/L	0.5001	-0.159	ug/L	0.5001	315.20%
QC value within limits for V 292.402 Recovery = Not calculated								
Zn 206.200†	40.9	0.924	ug/L	0.2284	0.924	ug/L	0.2284	24.72%
QC value within limits for Zn 206.200 Recovery = Not calculated								

All analyte(s) passed QC.

METALS

Raw Data

Sequence No.: 16
Sample ID: BA01831W20 DF5
Analyst: PW
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution: 5X

Autosampler Location: 60
Date Collected: 11/18/19 2:12:53 PM
Data Type: Reprocessed on 11/19/19 2:15:12 PM
Initial Sample Vol:
Sample Prep Vol:

Mean Data: BA01831W20 DF5

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	1302532.2	106.2	%	1.34				1.26%
Y 371.029 Radial	1250911.1	106.7	%	1.45				1.36%
Ag 338.289†	-4.4	-0.060	ug/L	1.2559	-0.300	ug/L	6.2793	>999.9%
Al 308.215†	7.8	31.59	ug/L	22.273	157.9	ug/L	111.37	70.51%
As 188.979†	-1.3	-0.412	ug/L	2.5670	-2.061	ug/L	12.8352	622.63%
B†	559.0	14.41	ug/L	0.114	72.06	ug/L	0.570	0.79%
Ba 233.527†	41.5	0.395	ug/L	0.0852	1.975	ug/L	0.4260	21.57%
Be 313.107†	2.1	0.043	ug/L	0.1024	0.213	ug/L	0.5121	240.97%
Ca 315.887†	1945.0	1619	ug/L	18.8	8096	ug/L	94.0	1.16%
Cd 214.440†	-0.9	-0.011	ug/L	0.0772	-0.057	ug/L	0.3859	672.81%
Co 228.616†	-4.8	-0.131	ug/L	0.2349	-0.653	ug/L	1.1746	179.97%
Cr 267.716†	38.6	0.523	ug/L	0.0523	2.615	ug/L	0.2613	9.99%
Cu 327.393†	30.3	0.276	ug/L	0.6377	1.381	ug/L	3.1887	230.84%
Fe 273.955†	320.7	21.49	ug/L	0.056	107.4	ug/L	0.28	0.26%
K 766.490†	170.3	96.31	ug/L	33.841	481.6	ug/L	169.20	35.14%
Mg 285.213†	3524.9	1851	ug/L	9.6	9256	ug/L	48.1	0.52%
Mn 257.610†	-1.4	-0.330	ug/L	0.6393	-1.650	ug/L	3.1965	193.69%
Mo 202.031†	-1.1	-0.142	ug/L	0.4033	-0.712	ug/L	2.0163	283.29%
Na 589.592†	18171.0	6487	ug/L	28.1	32430	ug/L	140.7	0.43%
Ni 231.604†	8.0	0.204	ug/L	0.4024	1.019	ug/L	2.0119	197.52%
P 213.617†	93.0	30.09	ug/L	2.676	150.5	ug/L	13.38	8.89%
Pb 220.353†	4.2	0.417	ug/L	1.4636	2.086	ug/L	7.3180	350.74%
Sb 206.836†	7.9	2.121	ug/L	0.3255	10.61	ug/L	1.627	15.34%
Se 196.026†	-0.2	-0.171	ug/L	0.4177	-0.854	ug/L	2.0883	244.50%
Sn 189.927†	-0.1	0.057	ug/L	0.4970	0.287	ug/L	2.4849	865.81%
Sr 421.552†	2180.7	17.29	ug/L	0.621	86.47	ug/L	3.105	3.59%
Ti 337.279†	11.0	1.707	ug/L	1.8525	8.534	ug/L	9.2627	108.54%
Tl 190.801†	17.4	4.654	ug/L	0.2609	23.27	ug/L	1.305	5.61%
V 292.402†	219.9	1.682	ug/L	0.3347	8.411	ug/L	1.6736	19.90%
Zn 206.200†	160.8	3.801	ug/L	0.2340	19.00	ug/L	1.170	6.16%

Sequence No.: 17
Sample ID: BA01833W20 DF5
Analyst: PW
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution: 5X

Autosampler Location: 61
Date Collected: 11/18/19 2:17:59 PM
Data Type: Reprocessed on 11/19/19 2:15:13 PM
Initial Sample Vol:
Sample Prep Vol:

Mean Data: BA01833W20 DF5

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	1282496.6	104.6	%	0.54				0.52%
Y 371.029 Radial	1230884.3	105.0	%	0.60				0.57%
Ag 338.289†	-18.9	-0.283	ug/L	0.5553	-1.414	ug/L	2.7763	196.37%
Al 308.215†	16.7	67.46	ug/L	47.189	337.3	ug/L	235.94	69.95%
As 188.979†	3.5	1.232	ug/L	0.5979	6.159	ug/L	2.9893	48.54%
B†	522.8	13.48	ug/L	0.149	67.39	ug/L	0.744	1.10%
Ba 233.527†	41.8	0.391	ug/L	0.0595	1.957	ug/L	0.2975	15.20%
Be 313.107†	1.4	0.032	ug/L	0.0825	0.160	ug/L	0.4126	258.64%
Ca 315.887†	2741.7	2283	ug/L	24.2	11410	ug/L	121.1	1.06%
Cd 214.440†	-5.0	-0.055	ug/L	0.0523	-0.273	ug/L	0.2614	95.59%
Co 228.616†	-5.2	-0.157	ug/L	0.4071	-0.783	ug/L	2.0357	260.01%
Cr 267.716†	99.9	1.381	ug/L	0.1135	6.904	ug/L	0.5675	8.22%
Cu 327.393†	41.5	0.463	ug/L	1.4212	2.317	ug/L	7.1062	306.64%
Fe 273.955†	3053.9	209.5	ug/L	1.43	1048	ug/L	7.2	0.68%
K 766.490†	282.9	159.8	ug/L	25.06	799.1	ug/L	125.29	15.68%
Mg 285.213†	4356.1	2288	ug/L	26.8	11440	ug/L	134.0	1.17%
Mn 257.610†	17.4	3.155	ug/L	0.4911	15.78	ug/L	2.456	15.56%
Mo 202.031†	7.2	0.193	ug/L	0.2031	0.965	ug/L	1.0153	105.25%
Na 589.592†	20263.5	7234	ug/L	72.3	36170	ug/L	361.3	1.00%
Ni 231.604†	79.5	2.214	ug/L	0.3318	11.07	ug/L	1.659	14.99%
P 213.617†	67.6	21.85	ug/L	2.146	109.2	ug/L	10.73	9.82%
Pb 220.353†	-6.6	-0.740	ug/L	0.5556	-3.700	ug/L	2.7781	75.08%
Sb 206.836†	5.2	1.410	ug/L	1.5031	7.052	ug/L	7.5153	106.58%
Se 196.026†	0.4	0.150	ug/L	1.3761	0.751	ug/L	6.8804	916.77%
Sn 189.927†	-6.3	-0.658	ug/L	0.4817	-3.292	ug/L	2.4083	73.16%
Sr 421.552†	2596.2	20.58	ug/L	0.591	102.9	ug/L	2.95	2.87%
Ti 337.279†	8.5	1.315	ug/L	0.3196	6.576	ug/L	1.5981	24.30%
Tl 190.801†	10.4	2.858	ug/L	0.9125	14.29	ug/L	4.563	31.93%
V 292.402†	333.5	2.522	ug/L	0.3398	12.61	ug/L	1.699	13.48%
Zn 206.200†	187.9	4.614	ug/L	0.0484	23.07	ug/L	0.242	1.05%

Sequence No.: 18
Sample ID: 191030A BLK
Analyst: PW
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:

Autosampler Location: 57
Date Collected: 11/18/19 1:50:12 PM
Data Type: Reprocessed on 11/19/19 2:15:14 PM
Initial Sample Vol:
Sample Prep Vol:

Mean Data: 191030A BLK

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	1330951.2	108.5	%	0.64				0.59%
Y 371.029 Radial	1278781.5	109.0	%	0.72				0.66%
Ag 338.289†	-13.4	-0.166	ug/L	0.2933	-0.166	ug/L	0.2933	176.89%
Al 308.215†	6.5	26.71	ug/L	34.745	26.71	ug/L	34.745	130.07%
As 188.979†	5.3	1.810	ug/L	1.1126	1.810	ug/L	1.1126	61.45%
B†	183.8	4.738	ug/L	0.0203	4.738	ug/L	0.0203	0.43%
Ba 233.527†	42.5	0.409	ug/L	0.0225	0.409	ug/L	0.0225	5.49%
Be 313.107†	-3.7	-0.060	ug/L	0.0412	-0.060	ug/L	0.0412	68.96%
Ca 315.887†	19.1	15.89	ug/L	13.285	15.89	ug/L	13.285	83.59%
Cd 214.440†	65.5	0.520	ug/L	0.1141	0.520	ug/L	0.1141	21.92%
Co 228.616†	-3.8	-0.092	ug/L	0.1216	-0.092	ug/L	0.1216	132.72%
Cr 267.716†	1.0	0.011	ug/L	0.2790	0.011	ug/L	0.2790	>999.9%
Cu 327.393†	71.5	0.885	ug/L	1.0775	0.885	ug/L	1.0775	121.80%
Fe 273.955†	138.0	9.545	ug/L	0.7812	9.545	ug/L	0.7812	8.18%
K 766.490†	-142.1	-80.42	ug/L	16.925	-80.42	ug/L	16.925	21.04%
Mg 285.213†	10.1	5.312	ug/L	2.1767	5.312	ug/L	2.1767	40.98%
Mn 257.610†	2.3	0.426	ug/L	0.9218	0.426	ug/L	0.9218	216.26%
Mo 202.031†	0.9	0.036	ug/L	0.1045	0.036	ug/L	0.1045	291.39%
Na 589.592†	334.5	119.5	ug/L	38.52	119.5	ug/L	38.52	32.25%
Ni 231.604†	-1.9	-0.061	ug/L	0.6533	-0.061	ug/L	0.6533	>999.9%
P 213.617†	3.1	0.999	ug/L	1.3738	0.999	ug/L	1.3738	137.45%
Pb 220.353†	-9.7	-1.043	ug/L	1.8819	-1.043	ug/L	1.8819	180.50%
Sb 206.836†	6.2	1.676	ug/L	0.6879	1.676	ug/L	0.6879	41.04%
Se 196.026†	2.7	1.083	ug/L	2.8409	1.083	ug/L	2.8409	262.39%
Sn 189.927†	3.5	0.432	ug/L	0.5118	0.432	ug/L	0.5118	118.41%
Sr 421.552†	-2.4	-0.019	ug/L	0.2204	-0.019	ug/L	0.2204	>999.9%
Ti 337.279†	10.8	1.708	ug/L	0.8251	1.708	ug/L	0.8251	48.30%
Tl 190.801†	6.5	1.731	ug/L	0.6707	1.731	ug/L	0.6707	38.74%
V 292.402†	-55.7	-0.427	ug/L	0.3531	-0.427	ug/L	0.3531	82.62%
Zn 206.200†	89.9	2.115	ug/L	0.1833	2.115	ug/L	0.1833	8.67%

Sequence No.: 19
Sample ID: 191030A LCS
Analyst: PW
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:

Autosampler Location: 58
Date Collected: 11/18/19 2:03:09 PM
Data Type: Reprocessed on 11/19/19 2:15:15 PM
Initial Sample Vol:
Sample Prep Vol:

Mean Data: 191030A LCS

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	1282341.0	104.6	%	0.92				0.88%
Y 371.029 Radial	1229559.7	104.8	%	0.97				0.93%
Ag 338.289†	6683.9	94.66	ug/L	1.252	94.66	ug/L	1.252	1.32%
Al 308.215†	488.5	1995	ug/L	2.6	1995	ug/L	2.6	0.13%
As 188.979†	723.4	245.6	ug/L	1.91	245.6	ug/L	1.91	0.78%
B†	8848.4	228.1	ug/L	2.33	228.1	ug/L	2.33	1.02%
Ba 233.527†	25037.2	242.7	ug/L	0.48	242.7	ug/L	0.48	0.20%
Be 313.107†	2836.8	50.32	ug/L	0.414	50.32	ug/L	0.414	0.82%
Ca 315.887†	28915.5	24070	ug/L	194.4	24070	ug/L	194.4	0.81%
Cd 214.440†	6178.2	49.20	ug/L	0.428	49.20	ug/L	0.428	0.87%
Co 228.616†	11168.6	254.7	ug/L	2.81	254.7	ug/L	2.81	1.10%
Cr 267.716†	17357.6	243.1	ug/L	1.43	243.1	ug/L	1.43	0.59%
Cu 327.393†	19354.7	239.6	ug/L	2.05	239.6	ug/L	2.05	0.86%
Fe 273.955†	14528.8	975.5	ug/L	3.92	975.5	ug/L	3.92	0.40%
K 766.490†	7982.9	4510	ug/L	123.6	4510	ug/L	123.6	2.74%
Mg 285.213†	45915.5	24130	ug/L	92.1	24130	ug/L	92.1	0.38%
Mn 257.610†	1286.5	239.4	ug/L	2.49	239.4	ug/L	2.49	1.04%
Mo 202.031†	6097.6	246.8	ug/L	2.80	246.8	ug/L	2.80	1.13%
Na 589.592†	66098.4	23600	ug/L	54.9	23600	ug/L	54.9	0.23%
Ni 231.604†	8863.4	247.9	ug/L	2.30	247.9	ug/L	2.30	0.93%
P 213.617†	6158.2	1992	ug/L	22.1	1992	ug/L	22.1	1.11%
Pb 220.353†	2311.2	249.2	ug/L	3.48	249.2	ug/L	3.48	1.40%
Sb 206.836†	858.0	231.7	ug/L	3.05	231.7	ug/L	3.05	1.32%
Se 196.026†	583.7	236.3	ug/L	2.30	236.3	ug/L	2.30	0.97%
Sn 189.927†	2038.8	247.2	ug/L	1.81	247.2	ug/L	1.81	0.73%
Sr 421.552†	28862.4	228.9	ug/L	0.14	228.9	ug/L	0.14	0.06%
Ti 337.279†	1562.3	245.8	ug/L	1.76	245.8	ug/L	1.76	0.72%
Tl 190.801†	932.3	250.8	ug/L	3.54	250.8	ug/L	3.54	1.41%
V 292.402†	31561.9	245.5	ug/L	1.04	245.5	ug/L	1.04	0.42%
Zn 206.200†	20515.5	487.3	ug/L	2.11	487.3	ug/L	2.11	0.43%

Sequence No.: 20
Sample ID: 191030A LCSD
Analyst: PW
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:

Autosampler Location: 59
Date Collected: 11/18/19 2:08:05 PM
Data Type: Reprocessed on 11/19/19 2:15:16 PM
Initial Sample Vol:
Sample Prep Vol:

Mean Data: 191030A LCSD

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	1275837.9	104.0	%	1.44				1.38%
Y 371.029 Radial	1223012.4	104.3	%	1.55				1.49%
Ag 338.289†	6398.3	90.61	ug/L	0.468	90.61	ug/L	0.468	0.52%
Al 308.215†	456.6	1865	ug/L	12.8	1865	ug/L	12.8	0.69%
As 188.979†	685.0	232.5	ug/L	3.65	232.5	ug/L	3.65	1.57%
B†	8462.3	218.1	ug/L	1.16	218.1	ug/L	1.16	0.53%
Ba 233.527†	23804.9	230.7	ug/L	1.00	230.7	ug/L	1.00	0.43%
Be 313.107†	2692.5	47.76	ug/L	0.756	47.76	ug/L	0.756	1.58%
Ca 315.887†	27554.3	22940	ug/L	423.0	22940	ug/L	423.0	1.84%
Cd 214.440†	5852.2	46.61	ug/L	0.698	46.61	ug/L	0.698	1.50%
Co 228.616†	10550.2	240.6	ug/L	3.62	240.6	ug/L	3.62	1.50%
Cr 267.716†	16507.0	231.2	ug/L	2.19	231.2	ug/L	2.19	0.95%
Cu 327.393†	18373.7	227.4	ug/L	1.01	227.4	ug/L	1.01	0.45%
Fe 273.955†	13822.0	928.1	ug/L	5.17	928.1	ug/L	5.17	0.56%
K 766.490†	7686.5	4343	ug/L	142.6	4343	ug/L	142.6	3.28%
Mg 285.213†	43594.2	22910	ug/L	394.0	22910	ug/L	394.0	1.72%
Mn 257.610†	1229.3	228.7	ug/L	4.77	228.7	ug/L	4.77	2.08%
Mo 202.031†	5797.0	234.7	ug/L	3.76	234.7	ug/L	3.76	1.60%
Na 589.592†	62602.2	22360	ug/L	378.1	22360	ug/L	378.1	1.69%
Ni 231.604†	8403.9	235.0	ug/L	3.62	235.0	ug/L	3.62	1.54%
P 213.617†	5811.4	1880	ug/L	31.5	1880	ug/L	31.5	1.68%
Pb 220.353†	2188.0	235.9	ug/L	4.28	235.9	ug/L	4.28	1.81%
Sb 206.836†	810.8	218.9	ug/L	4.63	218.9	ug/L	4.63	2.12%
Se 196.026†	550.2	222.7	ug/L	5.64	222.7	ug/L	5.64	2.53%
Sn 189.927†	1941.7	235.4	ug/L	3.28	235.4	ug/L	3.28	1.39%
Sr 421.552†	27357.8	217.0	ug/L	3.45	217.0	ug/L	3.45	1.59%
Ti 337.279†	1487.6	234.0	ug/L	2.31	234.0	ug/L	2.31	0.99%
Tl 190.801†	898.0	241.5	ug/L	4.69	241.5	ug/L	4.69	1.94%
V 292.402†	30040.2	233.7	ug/L	1.00	233.7	ug/L	1.00	0.43%
Zn 206.200†	19333.0	459.3	ug/L	1.20	459.3	ug/L	1.20	0.26%

Sequence No.: 63
Sample ID: BA01833W20 MS DF5
Analyst: PW
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution: 5X

Autosampler Location: 64
Date Collected: 11/18/19 2:31:53 PM
Data Type: Reprocessed on 11/19/19 12:55:50 PM
Initial Sample Vol:
Sample Prep Vol:

Mean Data: BA01833W20 MS DF5

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	1271896.7	103.7	%	0.51				0.49%
Y 371.029 Radial	1219886.4	104.0	%	0.55				0.53%
Ag 338.289†	1427.1	20.19	ug/L	1.015	100.9	ug/L	5.08	5.03%
Al 308.215†	118.3	482.7	ug/L	14.76	2413	ug/L	73.8	3.06%
As 188.979†	151.0	51.35	ug/L	0.156	256.8	ug/L	0.78	0.30%
B†	2589.5	66.75	ug/L	0.380	333.8	ug/L	1.90	0.57%
Ba 233.527†	5377.2	52.10	ug/L	0.646	260.5	ug/L	3.23	1.24%
Be 313.107†	584.9	10.38	ug/L	0.298	51.92	ug/L	1.488	2.87%
Ca 315.887†	8734.8	7272	ug/L	65.5	36360	ug/L	327.5	0.90%
Cd 214.440†	1265.6	10.06	ug/L	0.057	50.32	ug/L	0.283	0.56%
Co 228.616†	2295.8	52.32	ug/L	0.515	261.6	ug/L	2.58	0.98%
Cr 267.716†	3716.0	52.03	ug/L	0.556	260.2	ug/L	2.78	1.07%
Cu 327.393†	4103.0	50.74	ug/L	0.453	253.7	ug/L	2.27	0.89%
Fe 273.955†	6094.9	413.8	ug/L	2.81	2069	ug/L	14.1	0.68%
K 766.490†	1974.7	1116	ug/L	17.2	5578	ug/L	86.2	1.55%
Mg 285.213†	14197.8	7460	ug/L	70.2	37300	ug/L	350.9	0.94%
Mn 257.610†	281.9	52.37	ug/L	0.688	261.8	ug/L	3.44	1.31%
Mo 202.031†	1228.3	49.62	ug/L	0.237	248.1	ug/L	1.18	0.48%
Na 589.592†	33800.4	12070	ug/L	140.5	60340	ug/L	702.7	1.16%
Ni 231.604†	1907.8	53.34	ug/L	0.530	266.7	ug/L	2.65	0.99%
P 213.617†	1303.6	421.6	ug/L	3.60	2108	ug/L	18.0	0.85%
Pb 220.353†	484.3	52.19	ug/L	1.298	260.9	ug/L	6.49	2.49%
Sb 206.836†	181.6	49.03	ug/L	1.395	245.2	ug/L	6.97	2.85%
Se 196.026†	122.1	49.41	ug/L	3.352	247.0	ug/L	16.76	6.78%
Sn 189.927†	422.0	51.27	ug/L	0.394	256.4	ug/L	1.97	0.77%
Sr 421.552†	8704.3	69.03	ug/L	1.437	345.1	ug/L	7.18	2.08%
Ti 337.279†	336.0	52.83	ug/L	0.627	264.1	ug/L	3.14	1.19%
Tl 190.801†	210.1	56.57	ug/L	0.563	282.8	ug/L	2.82	1.00%
V 292.402†	6833.2	53.06	ug/L	0.624	265.3	ug/L	3.12	1.18%
Zn 206.200†	4577.9	108.9	ug/L	0.36	544.5	ug/L	1.80	0.33%

Sequence No.: 64
Sample ID: BA01833W20 MSD DF5
Analyst: PW
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution: 5X

Autosampler Location: 65
Date Collected: 11/18/19 2:36:39 PM
Data Type: Reprocessed on 11/19/19 12:55:51 PM
Initial Sample Vol:
Sample Prep Vol:

Mean Data: BA01833W20 MSD DF5

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	1271383.5	103.7	%	0.92				0.88%
Y 371.029 Radial	1219719.2	104.0	%	0.96				0.92%
Ag 338.289†	1472.5	20.86	ug/L	2.010	104.3	ug/L	10.05	9.63%
Al 308.215†	120.9	492.9	ug/L	38.76	2464	ug/L	193.8	7.86%
As 188.979†	154.9	52.70	ug/L	4.213	263.5	ug/L	21.06	7.99%
B†	2528.5	65.18	ug/L	2.890	325.9	ug/L	14.45	4.43%
Ba 233.527†	5494.8	53.24	ug/L	2.638	266.2	ug/L	13.19	4.96%
Be 313.107†	668.0	11.85	ug/L	0.430	59.27	ug/L	2.151	3.63%
Ca 315.887†	9854.3	8204	ug/L	288.0	41020	ug/L	1439.9	3.51%
Cd 214.440†	1242.2	9.877	ug/L	0.4909	49.39	ug/L	2.454	4.97%
Co 228.616†	2253.3	51.32	ug/L	2.507	256.6	ug/L	12.54	4.89%
Cr 267.716†	3861.7	54.06	ug/L	2.454	270.3	ug/L	12.27	4.54%
Cu 327.393†	4174.9	51.59	ug/L	2.810	258.0	ug/L	14.05	5.45%
Fe 273.955†	6060.3	411.1	ug/L	21.56	2056	ug/L	107.8	5.24%
K 766.490†	2256.5	1275	ug/L	101.0	6375	ug/L	505.2	7.93%
Mg 285.213†	15965.0	8388	ug/L	246.0	41940	ug/L	1229.8	2.93%
Mn 257.610†	320.2	59.48	ug/L	1.579	297.4	ug/L	7.89	2.65%
Mo 202.031†	1206.7	48.71	ug/L	2.635	243.6	ug/L	13.18	5.41%
Na 589.592†	38248.4	13660	ug/L	388.2	68280	ug/L	1941.0	2.84%
Ni 231.604†	1898.4	53.06	ug/L	3.060	265.3	ug/L	15.30	5.77%
P 213.617†	1279.1	413.7	ug/L	20.58	2068	ug/L	102.9	4.97%
Pb 220.353†	465.9	50.17	ug/L	2.274	250.8	ug/L	11.37	4.53%
Sb 206.836†	178.7	48.26	ug/L	2.102	241.3	ug/L	10.51	4.36%
Se 196.026†	114.4	46.25	ug/L	5.818	231.3	ug/L	29.09	12.58%
Sn 189.927†	422.5	51.39	ug/L	2.468	257.0	ug/L	12.34	4.80%
Sr 421.552†	9897.0	78.48	ug/L	2.235	392.4	ug/L	11.17	2.85%
Ti 337.279†	372.3	58.53	ug/L	2.675	292.6	ug/L	13.38	4.57%
Tl 190.801†	208.2	56.20	ug/L	2.398	281.0	ug/L	11.99	4.27%
V 292.402†	6929.6	53.80	ug/L	2.820	269.0	ug/L	14.10	5.24%
Zn 206.200†	4595.7	109.3	ug/L	5.44	546.4	ug/L	27.22	4.98%

ICP-OES Calibration Standard Prep

Prepared: 11/18/19
Expires: 11/25/19
1% HNO3 / 5% HCl Prep: 11/18/19
Prepared By (Initials): PW

Calibration Standard 3

Initial Standard Information						Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier Part No.	Conc. Range (ug/mL)	Lot Number - QA Number/ APPL Prep Date	Exp Date	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. Range (ug/L)
Solution A	Texas Scientific	HP1810-250	200 - 5,000	**m2meb662248-38391**	**10/11/20**	500uL	100mL	1% HNO3 / 5% HCl	1000 - 25,000
Solution B	Texas Scientific	HP1810-250	4000 - 10,000	**m2meb662249-38389**	**10/11/20**	500uL			2000 - 50,000
Solution C	Texas Scientific	HP1810-250	100 - 200	**m2meb662250-38394**	**10/11/20**	500uL			500 - 1000
Calibration Standard 2									
ICP-OES Calib Standard 3	Texas Scientific	Standard 2/CCV1	0.5 - 50	Prepared 11/18/19	11/25/19	25mL	50mL	1% HNO3 / 5% HCl	250 - 25,000
Calibration Standard 1									
200.7 LDL	O2SI	160634-01-01	0.05 - 100	**10080366-3-41267**	**02/07/21**	250uL	50mL	1% HNO3 / 5% HCl	0.25 - 200

ICP-OES ICV (SS)

Prepared: 11/18/19
Expires: 08/09/19
1% HNO3 / 5% HCl Prep: 11/15/19
Prepared By (Initials): PW

ICP-OES ICV 1

Initial Standard Information						Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier Part No.	Conc. Range (ug/mL)	Lot Number - QA Number	Exp Date	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. Range (ug/mL)
QCS ICV Soln A	CPI	4400-070615RH01	50 - 500	**10062445-11-49481**	**05/14/21**	250uL	50mL	1% HNO3 / 5% HCl	0.25 - 2.5
QCS ICV Soln B	CPI	4400-070615RH01	2,500	**10062445-12-49482**	**05/14/21**	250uL			12.5

ICP-OES ICV Ba

Initial Standard Information						Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier Part No.	Conc. Range (ug/mL)	Lot Number - QA Number	Exp Date	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. Range (ug/mL)
Custom 23 Element Mix #314	O2SI	161314-01-03	5 - 25,00	**1064561-8-38870**	**08/09/19**	1mL	50mL	1% HNO3 / 5% HCl	0.1 - 50
Custom 23 Element Mix #315	O2SI	161314-01-03	10 - 25	**1064561-7-38869**	**08/09/19**	1mL			0.2 - 0 5

ICP-OES CCV2

Initial Standard Information						Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier Part No.	Conc. Range (ug/mL)	APPL Prep Date	Exp Date	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. Range (ug/mL)
ICP-OES Calib Standard 3	Texas Scientific	CCV2	0.5 - 50	Prepared 11/18/19	11/25/19	15mL	40mL	1% HNO3 / 5% HCl	0.15 - 15

ICP-OES Low Levels (LLICV)

Prepared: 11/15/19
Expires: 11/29/19
1% HNO3 / 5% HCl Prep: 11/15/19
Prepared By (Initials): PW

LLICV

Initial Standard Information						Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier Part No.	Conc. Range ug/mL	Lot Number - QA Number	Exp Date	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. Range (ug/L)
200.7 LDL	O2SI	160634-01-01	0.05 - 100	10080366-3-41267	02/07/21	250uL	50mL	1% HNO3 / 5% HCl	0.25 - 200
LLICVX2									
200.7 LDL	O2SI	160634-01-01	0.05 - 100	10080366-3-41267	02/07/21	500uL	50mL	1% HNO3 / 5% HCl	0.50 - 400
LLICVX6									
200.7 LDL	O2SI	160634-01-01	0.05 - 100	10080366-3-41267	02/07/21	1.5mL	50mL	1% HNO3 / 5% HCl	1.5 - 1,200
LLICVX10									
200.7 LDL	O2SI	160634-01-01	0.05 - 100	10080366-3-41267	02/07/21	2.5mL	50mL	1% HNO3 / 5% HCl	2.5 - 2,000
LLICV 10									
ICP-OES Calib Standard 3	Texas Scientific	HP1810-250	0.5 - 50	10080366-3-41267	11/25/19	500uL	50mL	1% HNO3 / 5% HCl	5 - 500
LLICV 50									
ICP-OES Calib Standard 3	Texas Scientific	HP1810-250	0.5 - 50	10080366-3-41267	11/25/19	2.5mL	50mL	1% HNO3 / 5% HCl	25 - 2,500

ICP-OES Interference Check Solution A

Prepared: 11/13/19
Expires: 11/27/19
1% HNO3 / 5% HCl Prep: 11/12/19
Prepared By (Initials): PW

Initial Standard Information						Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier Part No.	Conc. (ug/mL)	Lot Number - QA Number	Exp Date	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
Aluminum	Inorganic Ventures	35-APPLTSP-6010ICSA	10,000	**N2-MEB670092-39414**	**07/25/22**	500uL	50mL	1% HNO3 / 5% HCl	100
Calcium			10,000						100
Magnesium			10,000						100
Iron			10,000						100
ICP-OES Interference Check Solution AB									
Aluminum	Inorganic Ventures	35-APPLTSP-6010ICSA	10,000	N2-MEB670092-39414	07/25/22	500uL	50mL	1% HNO3 / 5% HCl	100
Calcium			10,000						100
Magnesium			10,000						100
Iron			10,000						100
Special Mix (Interference)	O2SI	160495-01-01	100	**10081266-39276**	**12/13/19**	250uL			0.5

ICP-OES Internal Standards

Prepared: 11/14/18
Expires: 12/15/18
1% HNO3 / 5% HCl Prep: 11/14/18
Prepared By (Initials): PW

Initial Standard Information						Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier Part No.	Conc. (mg/L)	Lot Number - QA Number	Exp Date	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (mg/L)
Yttrium	O2SI	060039-04-03	1,000	**10083563-39466**	**01/27/20**	4mL	2L	1% HNO3 / 5% HCl	2

Metals Digestion Worksheet

Method Name 3010A Digestion **Prep Method** M3010 **Set** 191030A **Units** mL

Spikes	
Spiked ID 1	LCSW LOT# 10064561-11-41208 Pipette AP-21
Spiked ID 2	LCSW LOT# 10064561-12-41210
Spiked ID 3	
Spiked ID 4	1
Spiked By	NM Date: 10/30/19 12:18:00 PM
Witnessed By	PW Date: 10/30/19 12:18:00 PM

Starting Temp:	SLOT 5 THERM:MT1 94.2
Ending Temp:	SLOT 5 94.2
Temperature Type:	Mod Block
Sufficient Vol for Matrix QC:	YES
End Date/Time	10/30/19 15:23

	Sample	Sample Container	Spike Amount	Spike ID	Digested Amount	Final Volume	Start Date/Time	Comments
1	191030A Blk				50mL	50mL	10/30/19 12:18	equip: Modblock1
2	191030A LCS		500uL	1+2	50mL	50mL	10/30/19 12:18	equip: Modblock1
3	191030A LCSD		500uL	1+2	50mL	50mL	10/30/19 12:18	equip: Modblock1
4	BA01108	BA01108W01			50mL	50mL	10/30/19 12:18	equip: Modblock1 90418
5	BA01110	BA01110W01			50mL	50mL	10/30/19 12:18	equip: Modblock1 90418
6	BA01111	BA01111W01			50mL	50mL	10/30/19 12:18	equip: Modblock1 90418
7	BA01116	BA01116W01			50mL	50mL	10/30/19 12:18	equip: Modblock1 90418
8	BA01831	BA01831W20			50mL	50mL	10/30/19 12:18	equip: Modblock1 90559
9	BA01833	BA01833W20			50mL	50mL	10/30/19 12:18	equip: Modblock1 90559
10	BA01833 MS	BA01833W20	500uL	1+2	50mL	50mL	10/30/19 12:18	equip: Modblock1
11	BA01833 MSD	BA01833W20	500uL	1+2	50mL	50mL	10/30/19 12:18	equip: Modblock1

Solvent and Lot#
HNO3 BDH 1119020 15533
1:1 HCL 10-22-19
50mL vessel 190916

Sample COC Transfer	
Sample prep employee Initials	nm
Analyst's initials	PW
Date	11/19/19
Time	1416
Moved to	METALS

Technician's Initials	
Scanned By	nm
Sample Preparation	nm
Digestion	nm
Bring up to volume	
Modified	10/30/19 11:33:15 AM

Reviewed By: PW **Date:** 11/19/19

6010B/3010A Injection Log

Directory: K:\ICAP PHOEBE\Backup Excel\

RunID	Injected		Sample Name	Misc Info	FileName	Multiplier
1	18 Nov 2019	08:09	CalBlk 191118 I:PB O:EV		191118A200	1.
2	18 Nov 2019	08:14	STD 1 191118 I:PB O:EV		191118A200	1.
3	18 Nov 2019	08:19	STD 2 191118 I:PB O:EV		191118A200	1.
4	18 Nov 2019	08:24	STD 3 191118 I:PB O:EV		191118A200	1.
5	18 Nov 2019	08:53	ICV 191118 I:PB O:EV		191118A200	1.
6	18 Nov 2019	08:58	ICB 191118 I:PB O:EV		191118A200	1.
7	18 Nov 2019	09:03	LLICV 191118 I:PB O:EV		191118A200	1.
8	18 Nov 2019	09:07	LLICVX2 191118 I:PB O:EV		191118A200	1.
9	18 Nov 2019	09:12	LLICVX6 191118 I:PB O:EV		191118A200	1.
11	18 Nov 2019	09:22	ICSA 191118 I:PB O:EV		191118A200	1.
12	18 Nov 2019	09:26	ICSAB 191118 I:PB O:EV		191118A200	1.
54	18 Nov 2019	13:33	CCV1 191118 I:PB O:EV		191118A200	1.
55	18 Nov 2019	13:45	CCB 191118 I:PB O:EV		191118A200	1.
56	18 Nov 2019	13:50	191030A BLK		191118A200	1.
57	18 Nov 2019	14:03	191030A LCS		191118A200	1.
58	18 Nov 2019	14:08	191030A LCSD		191118A200	1.
59	18 Nov 2019	14:12	BA01831W20 DF5		191118A200	5.
60	18 Nov 2019	14:17	BA01833W20 DF5		191118A200	5.
61	18 Nov 2019	14:23	BA01833W20-A DF5		191118A200	5.
62	18 Nov 2019	14:26	BA01833W20-DT DF25		191118A200	25.
63	18 Nov 2019	14:31	BA01833W20 MS DF5		191118A200	5.
64	18 Nov 2019	14:36	BA01833W20 MSD DF5		191118A200	5.
65	18 Nov 2019	14:41	CCV2 191118 I:PB O:EV		191118A200	1.
66	18 Nov 2019	14:46	CCB 191118 I:PB O:EV		191118A200	1.

INORGANIC ANALYSIS
Calibration Data

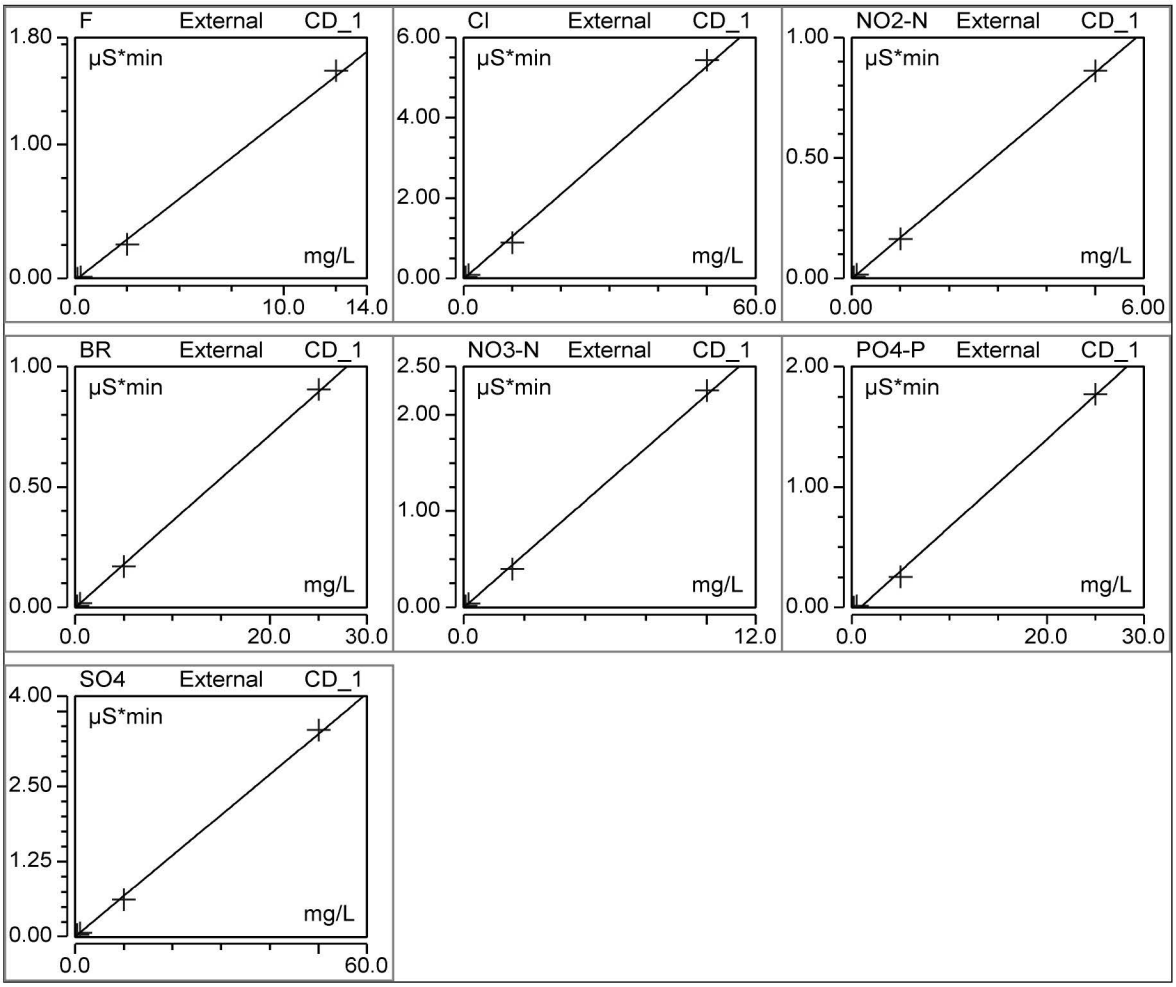
Calibration Batch Report

Sequence:	**190925 300W_ICAL**	*Injection Volume:*	**25.00**
Instrument Method:	**Anions IM**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**25-Sep-2019 / 17:16**	*Run Time:*	**5.1**

Calibration Summary

Peak Name	Eval.Type	Cal.Type	Points	Offset (C0)	Slope (C1)	Curve (C2)	Coeff.Det. %
F	Area	Lin, WithOffset, 1/A	4.000	-0.014	0.122	0.000	99.5887
Cl	Area	Lin, WithOffset, 1/A	4.000	-0.016	0.106	0.000	99.5281
NO2-N	Area	Lin, WithOffset, 1/A	4.000	-0.001	0.171	0.000	99.9672
BR	Area	Lin, WithOffset, 1/A	4.000	-0.001	0.036	0.000	99.9396
NO3-N	Area	Lin, WithOffset, 1/A	4.000	-0.004	0.222	0.000	99.7842
PO4-P	Area	Lin, WithOffset	3.000	-0.065	0.073	0.000	99.7793
SO4	Area	Lin, WithOffset, 1/A	4.000	-0.004	0.068	0.000	99.7924

Injection Name	Amount mg/L CD_1 F	Amount mg/L CD_1 Cl	Amount mg/L CD_1 NO2-N	Amount mg/L CD_1 BR	Amount mg/L CD_1 NO3-N	Amount mg/L CD_1 PO4-P	Amount mg/L CD_1 SO4
ICAL1 190925	0.126	0.4596	0.0412	0.2113	0.0904	n.a.	0.4586
ICAL2 190925	0.210	0.9697	0.1002	0.4928	0.1895	1.0431	0.9277
ICAL5 190925	2.193	8.5222	0.9607	4.7374	1.8054	4.3347	9.0681
ICAL8 190925	12.821	51.4484	5.0379	25.2585	10.1947	25.1222	50.9456

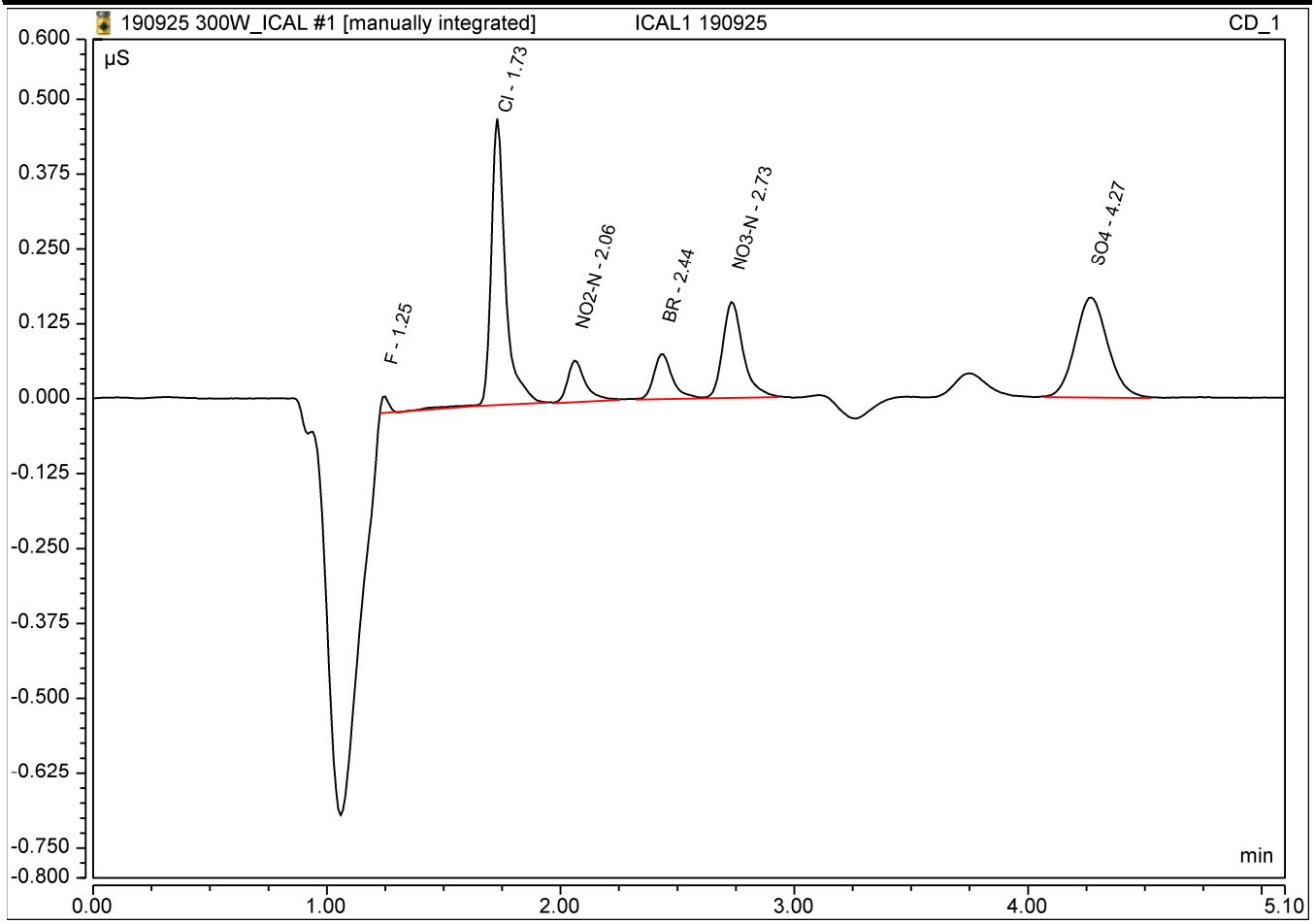


Logged on User: BW
Instrument: Charlie System_1
Sequence: 190925 300W_ICAL

Peak Integration Report

Sample Name:	**ICAL1 190925**	*Inj. Vol.:*	**25uL**
Injection Type:	**Calibration Standard**	*Dilution Factor:*	**1.00**
Program:	**Anion APM 190925A**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**25-Sep-2019 / 16:54**	*Run Time:*	**5.10**

No.	Time (min) min	Peak Name	Peak Type	Area (µS*min) µS*min	Height (µS) µS	Amount mg/L	Spike Level mg/L	Recovery
1	1.25	**F**	Mb*	0.001	0.027	0.13	0.1	125.5%
2	1.73	**Cl**	bMB*	0.033	0.477	0.46	0.4	114.9%
3	2.06	**NO2-N**	BMB	0.006	0.068	0.04	0.04	103.0%
4	2.44	**BR**	BMB	0.007	0.074	0.21	0.2	105.7%
5	2.73	**NO3-N**	BMB	0.016	0.159	0.09	0.08	113.1%
6	4.27	**SO4**	BMB	0.027	0.166	0.46	0.4	114.7%

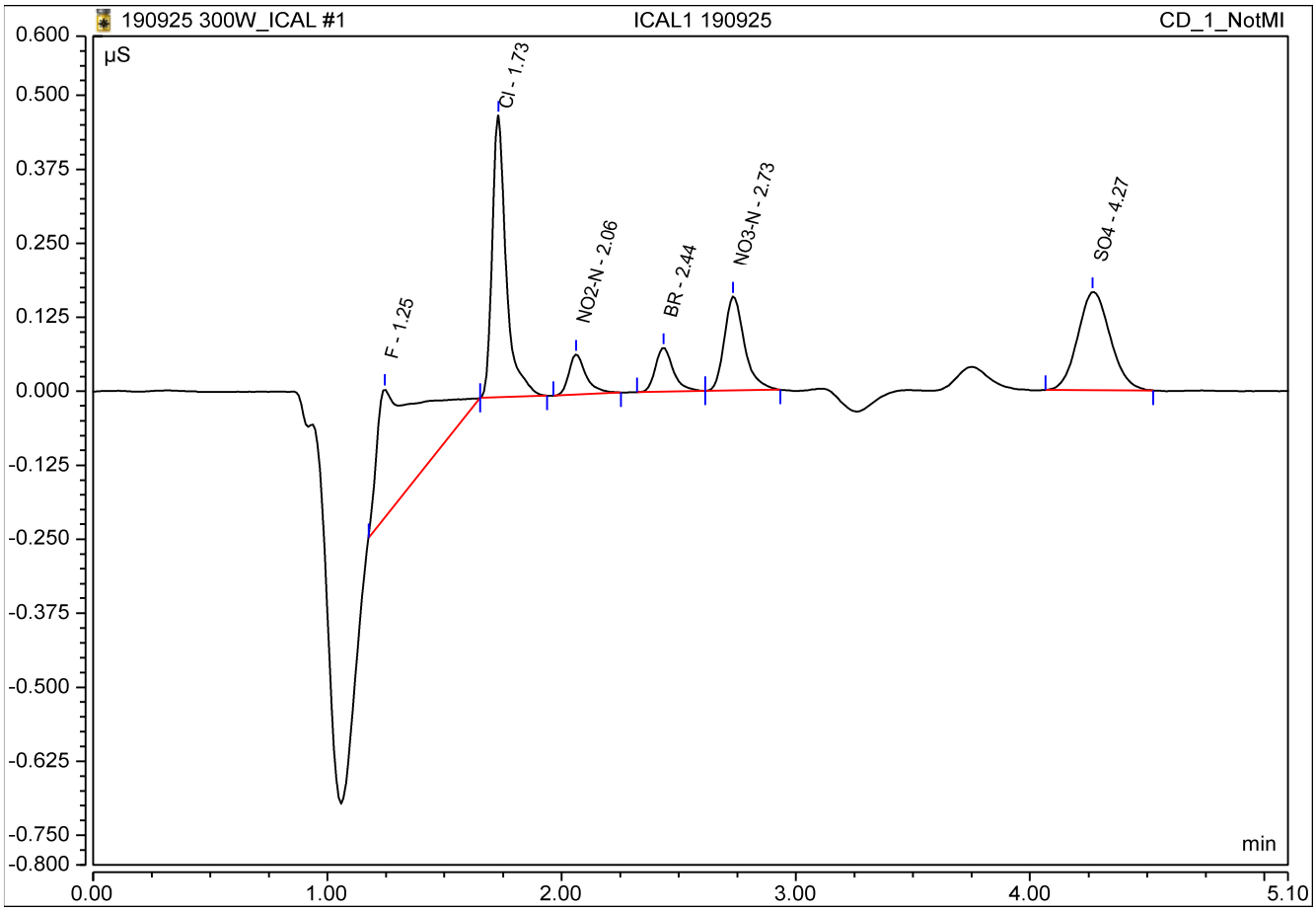


MI1 BW 190925

Not Manipulated Peak Integration Report

Sample Name:	**ICAL1 190925**	*Inj. Vol.:*	**25uL**
Injection Type:	**Calibration Standard**	*Dilution Factor:*	**1.0000**
Program:	**Anion APM 190925A**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**25-Sep-2019 / 16:54**	*Run Time:*	**5.10**

No.	Time min	Peak Name	Peak Type	Area µS*min	Height µS	Ammount mg/L
1	1.25	**F**	Mb*	0.048	0.218	0.1074
2	1.73	**Cl**	bMB*	0.033	0.476	0.4595
3	2.06	**NO2-N**	BMB	0.006	0.068	0.0412
4	2.44	**BR**	BMB	0.007	0.074	0.2113
5	2.73	**NO3-N**	BMB	0.016	0.159	0.0904
6	4.27	**SO4**	BMB	0.027	0.166	0.4586

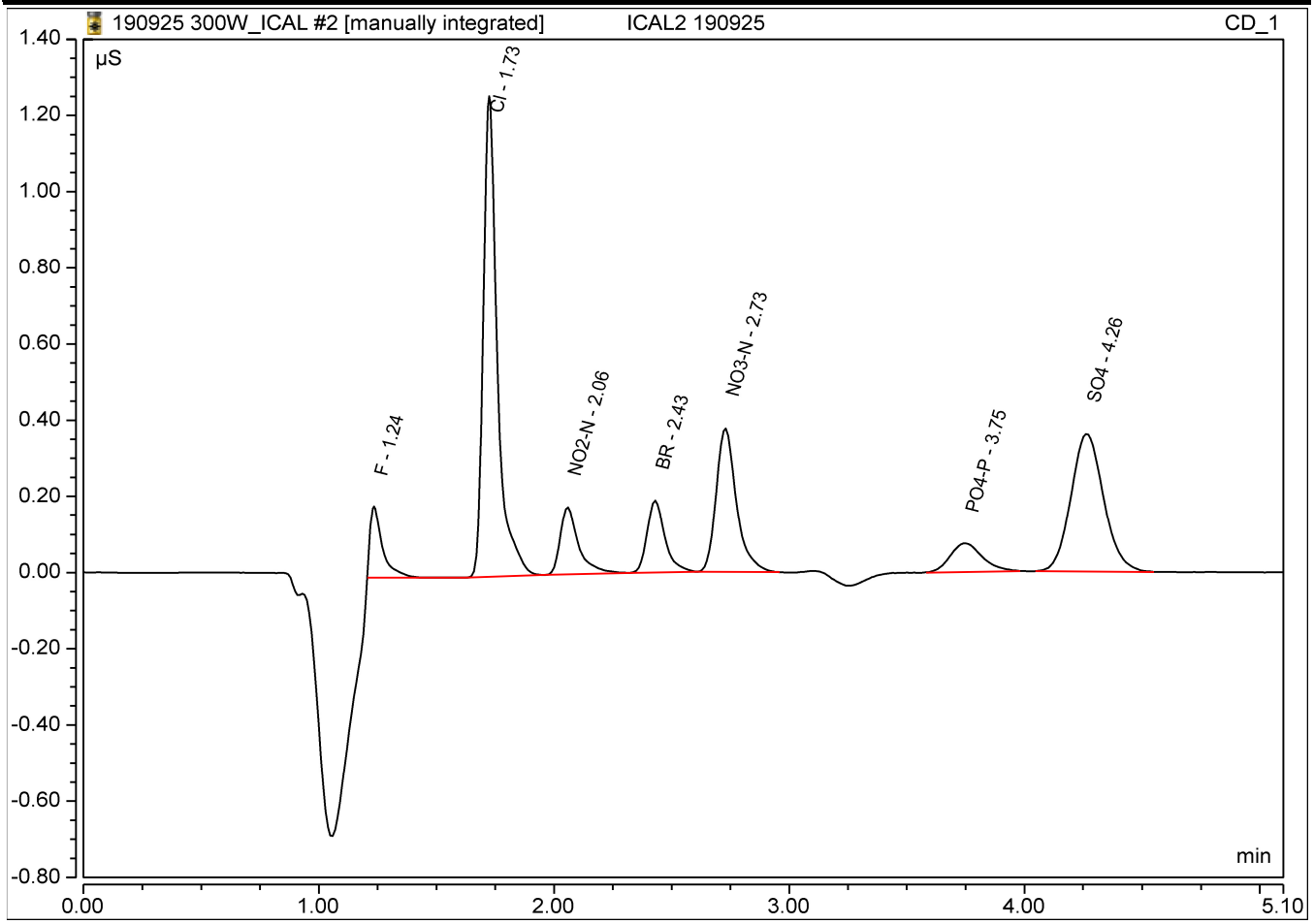


Logged on User: BW
Instrument: Charlie System_1
Sequence: 190925 300W_ICAL

Peak Integration Report

Sample Name:	**ICAL2 190925**	*Inj. Vol.:*	**25uL**
Injection Type:	**Calibration Standard**	*Dilution Factor:*	**1.00**
Program:	**Anion APM 190925A**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**25-Sep-2019 / 17:01**	*Run Time:*	**5.10**

No.	Time (min) min	Peak Name	Peak Type	Area (µS*min) µS*min	Height (µS) µS	Amount mg/L	Spike Level mg/L	Recovery
1	1.24	**F**	Mb*	0.011	0.188	0.21	0.25	84.2%
2	1.73	**Cl**	bMB*	0.087	1.261	0.97	1	97.0%
3	2.06	**NO2-N**	BMB	0.016	0.178	0.10	0.1	100.2%
4	2.43	**BR**	BMB	0.017	0.190	0.49	0.5	98.6%
5	2.73	**NO3-N**	BMB	0.038	0.379	0.19	0.2	94.7%
6	3.75	**PO4-P**	BMB	0.012	0.075	1.04	0.5	208.6%
7	4.26	**SO4**	BMB	0.058	0.363	0.93	1	92.8%

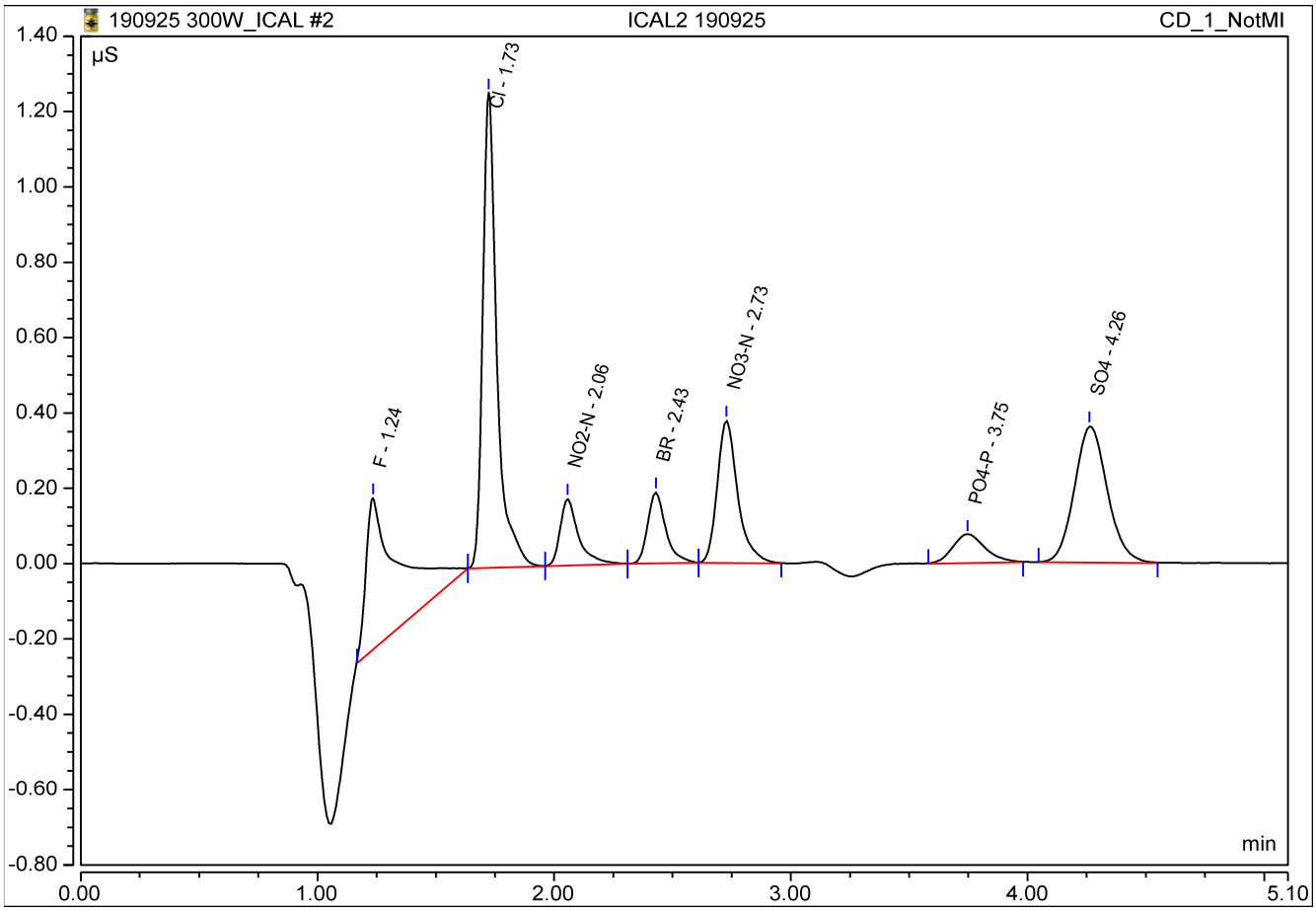


MI1 BW 190925

Not Manipulated Peak Integration Report

Sample Name:	**ICAL2 190925**	*Inj. Vol.:*	**25uL**
Injection Type:	**Calibration Standard**	*Dilution Factor:*	**1.0000**
Program:	**Anion APM 190925A**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**25-Sep-2019 / 17:01**	*Run Time:*	**5.10**

No.	Time min	Peak Name	Peak Type	Area µS*min	Height µS	Ammount mg/L
1	1.24	**F**	Mb*	0.064	0.402	0.2430
2	1.73	**Cl**	bMB*	0.087	1.261	0.9701
3	2.06	**NO2-N**	BMB	0.016	0.178	0.1002
4	2.43	**BR**	BMB	0.017	0.190	0.4928
5	2.73	**NO3-N**	BMB	0.038	0.379	0.1895
6	3.75	**PO4-P**	BMB	0.012	0.075	1.0431
7	4.26	**SO4**	BMB	0.058	0.363	0.9277

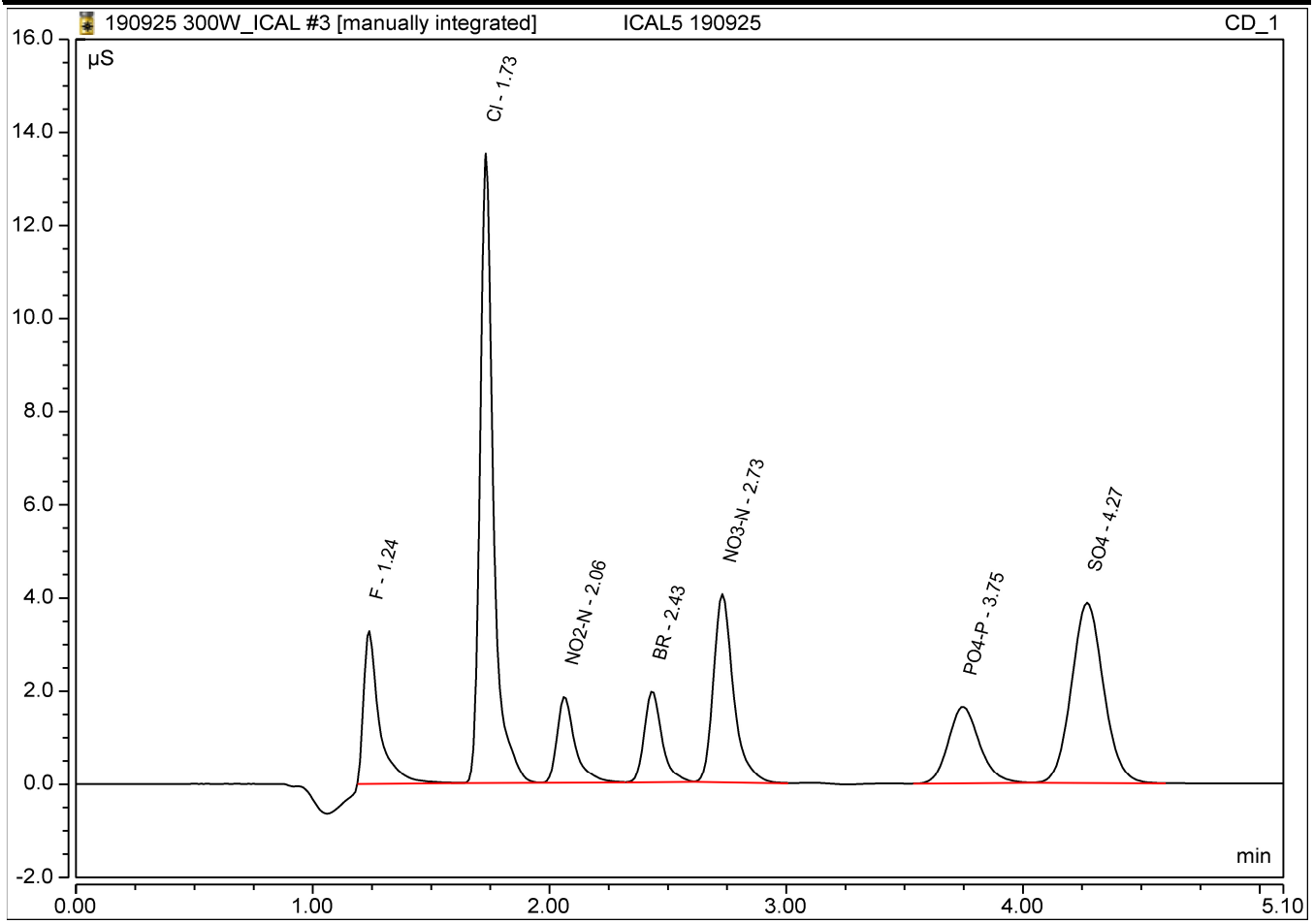


Logged on User: BW
Instrument: Charlie System_1
Sequence: 190925 300W_ICAL

Peak Integration Report

Sample Name:	**ICAL5 190925**	*Inj. Vol.:*	**25uL**
Injection Type:	**Calibration Standard**	*Dilution Factor:*	**1.00**
Program:	**Anion APM 190925A**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**25-Sep-2019 / 17:09**	*Run Time:*	**5.10**

No.	Time (min) min	Peak Name	Peak Type	Area (µS*min) µS*min	Height (µS) µS	Amount mg/L	Spike Level mg/L	Recovery
1	1.24	**F**	MB*	0.254	3.299	2.19	2.5	87.7%
2	1.73	**Cl**	BMB	0.888	13.520	8.52	10	85.2%
3	2.06	**NO2-N**	BMB	0.163	1.858	0.96	1	96.1%
4	2.43	**BR**	BMB	0.169	1.960	4.74	5	94.7%
5	2.73	**NO3-N**	BMB	0.396	4.038	1.81	2	90.3%
6	3.75	**PO4-P**	BMB	0.252	1.652	4.33	5	86.7%
7	4.27	**SO4**	BMB	0.608	3.869	9.07	10	90.7%

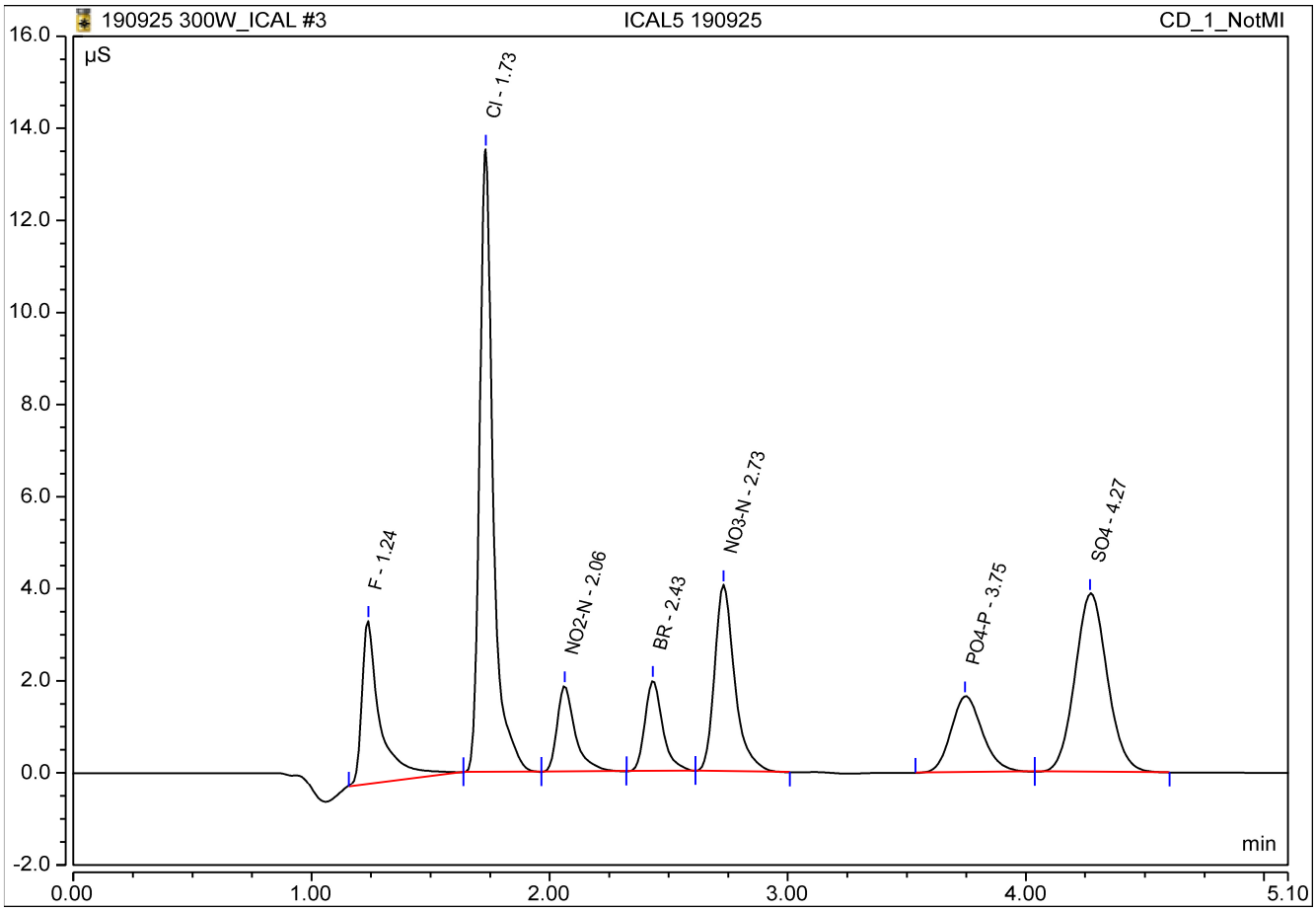


MI1 BW 190925

Not Manipulated Peak Integration Report

Sample Name:	**ICAL5 190925**	*Inj. Vol.:*	**25uL**
Injection Type:	**Calibration Standard**	*Dilution Factor:*	**1.0000**
Program:	**Anion APM 190925A**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**25-Sep-2019 / 17:09**	*Run Time:*	**5.10**

No.	Time min	Peak Name	Peak Type	Area µS*min	Height µS	Ammount mg/L
1	1.24	**F**	MB*	0.317	3.541	2.3555
2	1.73	**Cl**	BMB	0.888	13.520	8.5227
3	2.06	**NO2-N**	BMB	0.163	1.858	0.9607
4	2.43	**BR**	BMB	0.169	1.960	4.7374
5	2.73	**NO3-N**	BMB	0.396	4.038	1.8054
6	3.75	**PO4-P**	BMB	0.252	1.652	4.3347
7	4.27	**SO4**	BMB	0.608	3.869	9.0681

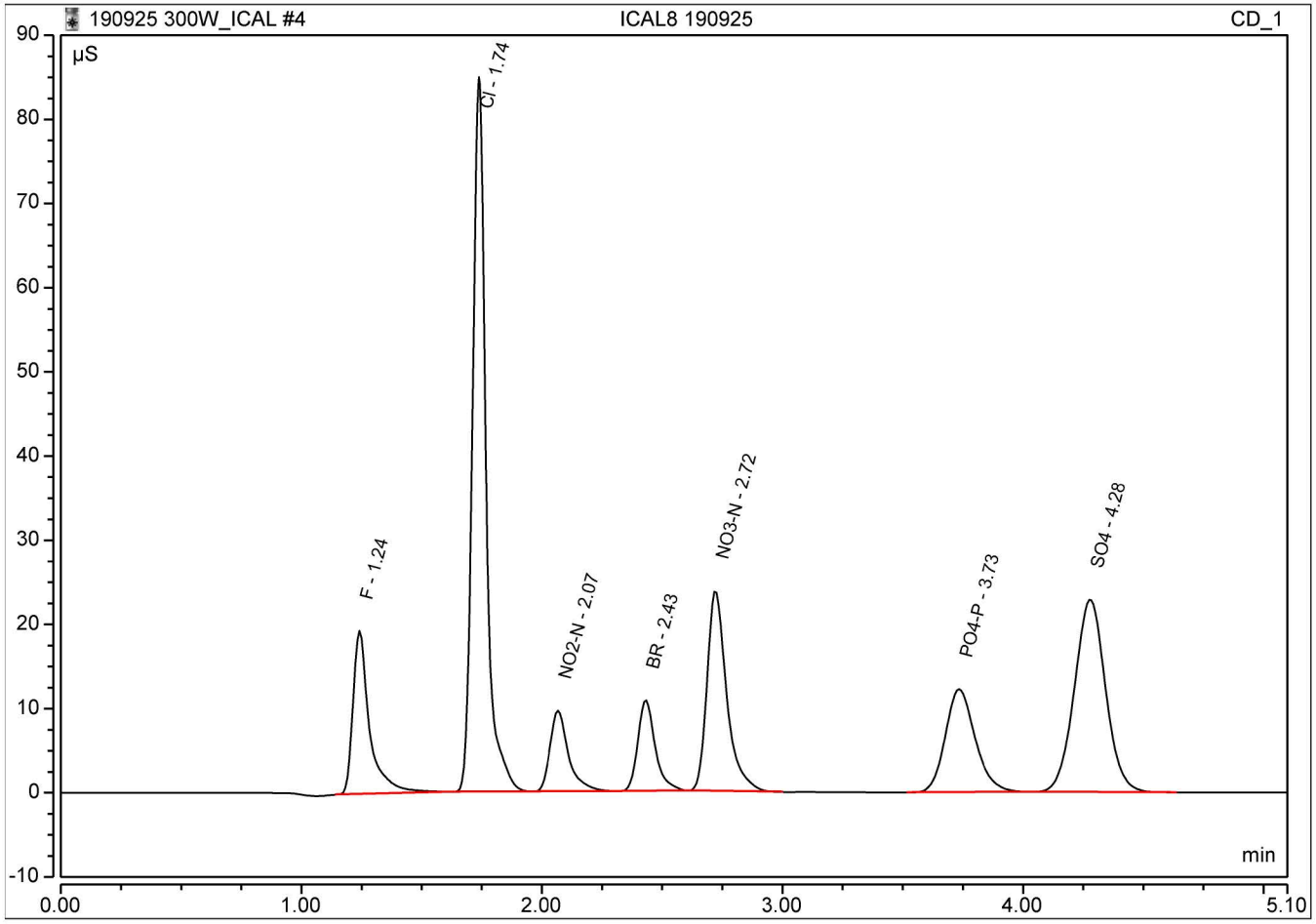


Logged on User: BW
Instrument: Charlie System_1
Sequence: 190925 300W_ICAL

Peak Integration Report

Sample Name:	**ICAL8 190925**	*Inj. Vol.:*	**25uL**
Injection Type:	**Calibration Standard**	*Dilution Factor:*	**1.00**
Program:	**Anion APM 190925A**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**25-Sep-2019 / 17:16**	*Run Time:*	**5.10**

No.	Time (min) min	Peak Name	Peak Type	Area (µS*min) µS*min	Height (µS) µS	Amount mg/L	Spike Level mg/L	Recovery
1	1.24	**F**	BMB	1.552	19.416	12.82	12.5	102.6%
2	1.74	**Cl**	BMB	5.438	84.821	51.45	50	102.9%
3	2.07	**NO2-N**	BMB	0.862	9.634	5.04	5	100.8%
4	2.43	**BR**	BMB	0.906	10.832	25.26	25	101.0%
5	2.72	**NO3-N**	BMB	2.255	23.813	10.19	10	101.9%
6	3.73	**PO4-P**	BMB	1.773	12.273	25.12	25	100.5%
7	4.28	**SO4**	BMB	3.437	22.889	50.95	50	101.9%

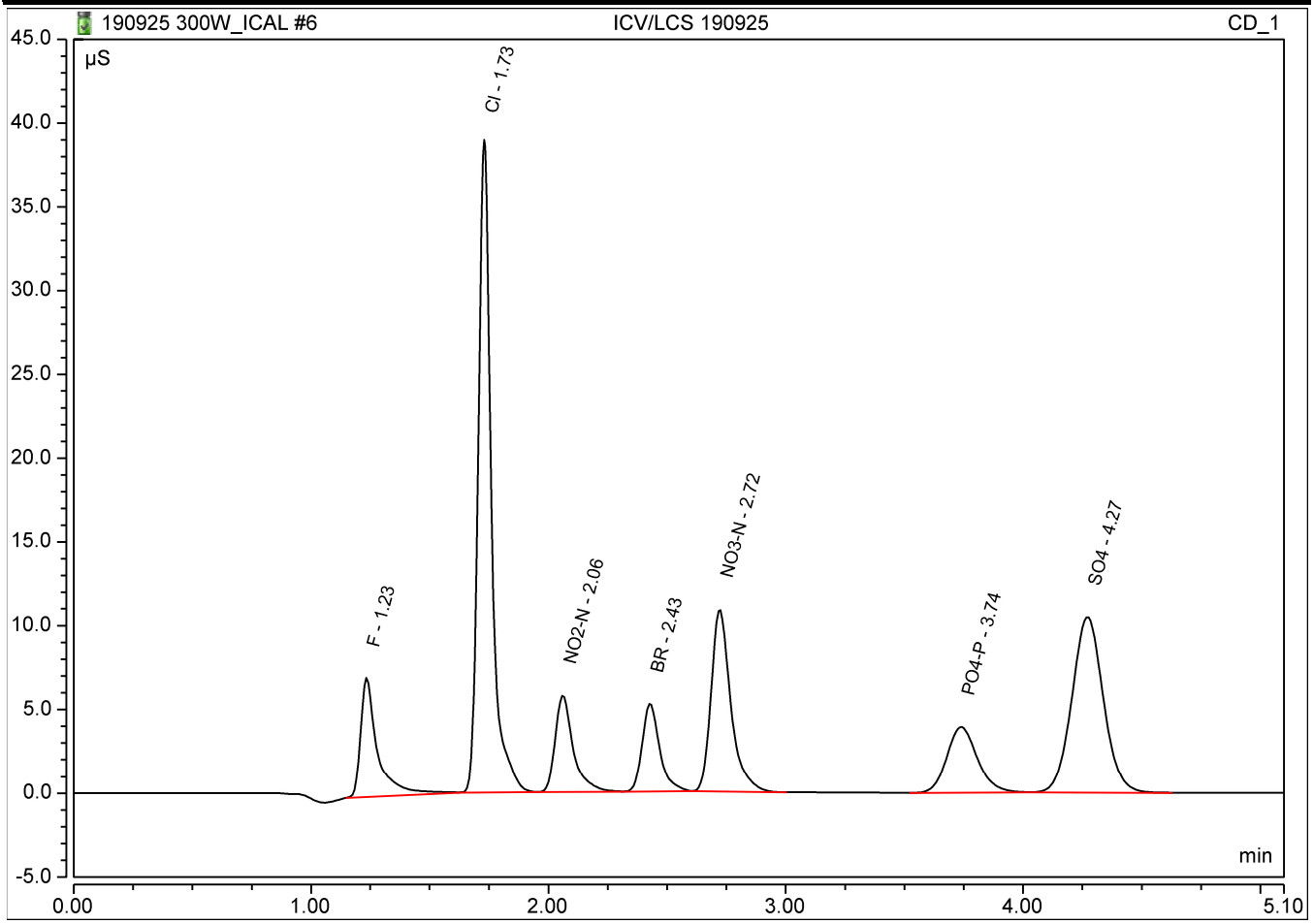


Logged on User: BW
Instrument: Charlie System_1
Sequence: 190925 300W_ICAL

Peak Integration Report

Sample Name:	**ICV/LCS 190925**	*Inj. Vol.:*	**25uL**
Injection Type:	**Check Standard**	*Dilution Factor:*	**1.00**
Program:	**Anion APM 190925A**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**25-Sep-2019 / 17:31**	*Run Time:*	**5.10**

No.	Time (min) min	Peak Name	Peak Type	Area (µS*min) µS*min	Height (µS) µS	Amount mg/L	Spike Level mg/L	Recovery
1	1.23	**F**	BMB	0.591	7.128	4.95	5	99.0%
2	1.73	**Cl**	BMB	2.480	38.952	23.54	25	94.2%
3	2.06	**NO2-N**	BMB	0.510	5.775	2.99	3.04	98.2%
4	2.43	**BR**	BMB	0.448	5.264	12.51	12.5	100.1%
5	2.72	**NO3-N**	BMB	1.047	10.885	4.74	5	94.8%
6	3.74	**PO4-P**	BMB	0.590	3.949	8.95	10	89.5%
7	4.27	**SO4**	BMB	1.609	10.485	23.88	25	95.5%



Algorithm Check
y = Peak Area
x = mg/L S04

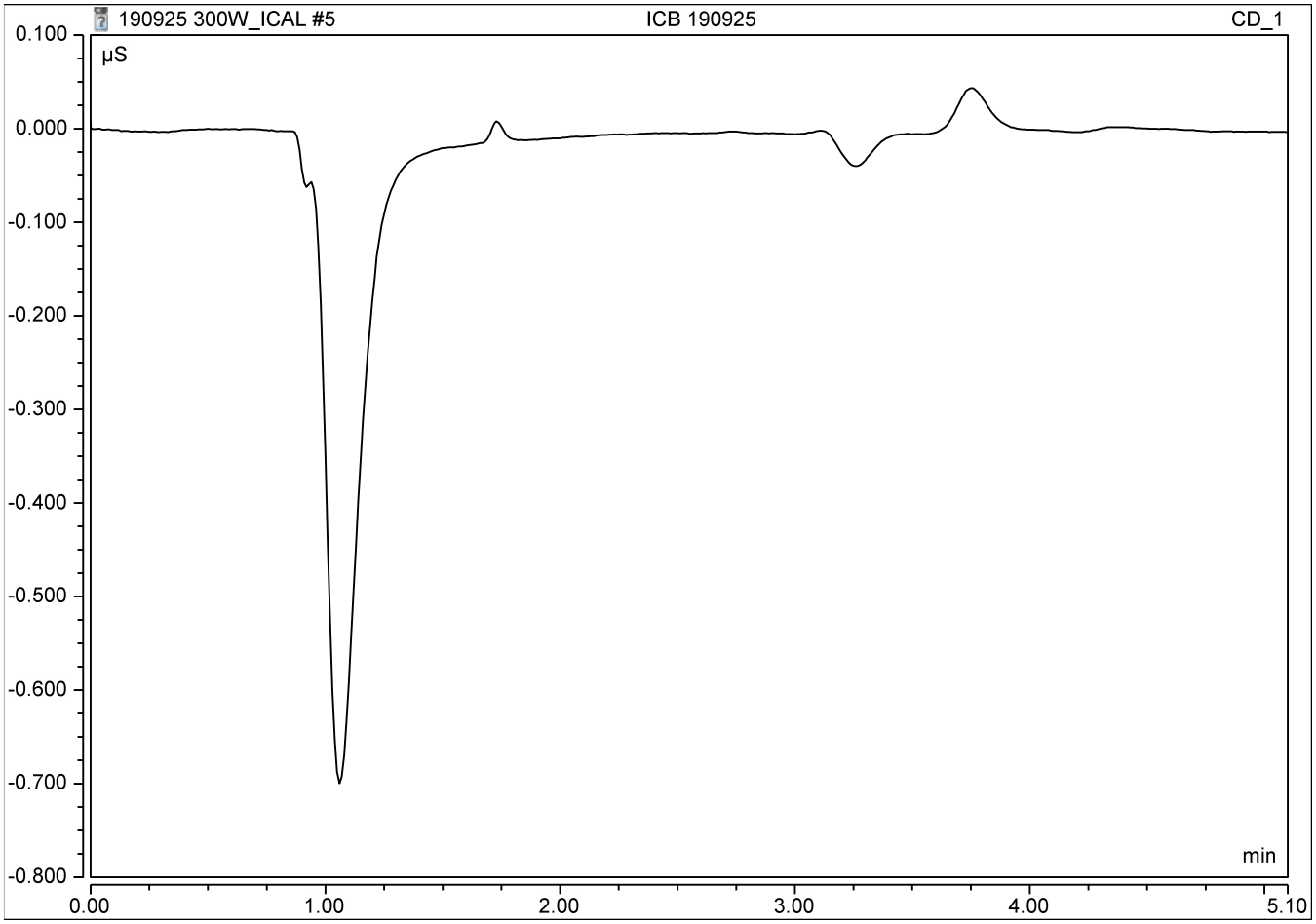
y = 0.0676 x + -0.0044
y = 1.6089 therefor x = 23.86 HH 190929

Logged on User: BW
Instrument: Charlie System_1
Sequence: 190925 300W_ICAL

Peak Integration Report

Sample Name:	**ICB 190925**	*Inj. Vol.:*	**25uL**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.00**
Program:	**Anion APM 190925A**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**25-Sep-2019 / 17:24**	*Run Time:*	**5.10**

No.	Time (min) min	Peak Name	Peak Type	Area (µS*min) µS*min	Height (µS) µS	Amount mg/L	Spike Level mg/L	Recovery



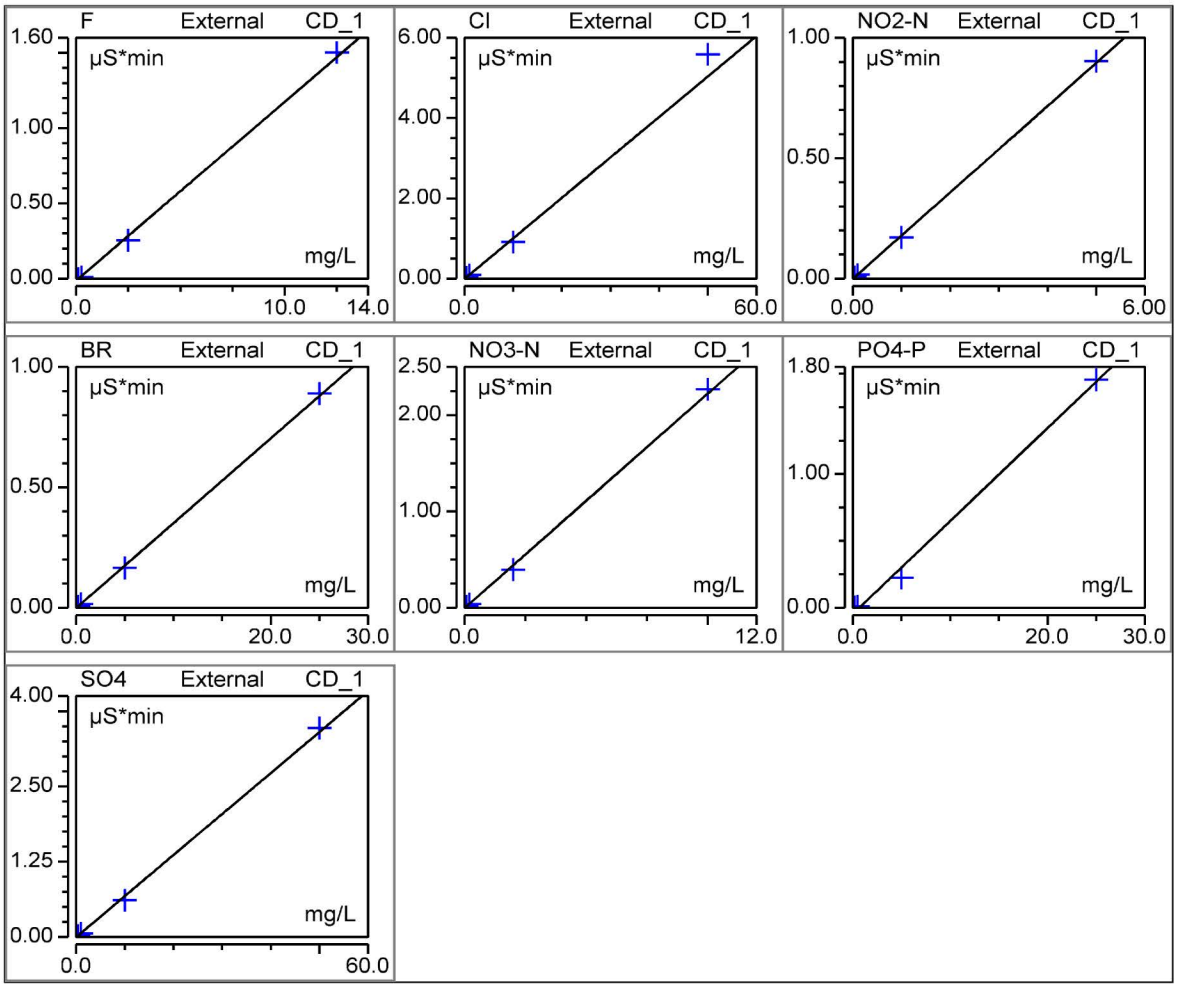
Calibration Batch Report

Sequence:	**191030iCal**	*Injection Volume:*	**25.00**
Instrument Method:	**Anions IM**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**30-Oct-2019 / 18:44**	*Run Time:*	**5.1**

Calibration Summary

Peak Name	Eval.Type	Cal.Type	Points	Offset (C0)	Slope (C1)	Curve (C2)	Coeff.Det. %
F	Area	Lin, WithOffset, 1/A	4.000	-0.014	0.119	0.000	99.7003
Cl	Area	Lin, WithOffset, 1/A²	4.000	-0.007	0.101	0.000	99.0220
NO2-N	Area	Lin, WithOffset, 1/A	4.000	-0.001	0.179	0.000	99.9623
BR	Area	Lin, WithOffset, 1/A	4.000	-0.001	0.035	0.000	99.9272
NO3-N	Area	Lin, WithOffset, 1/A	4.000	-0.005	0.223	0.000	99.7595
PO4-P	Area	Lin, WithOffset	4.000	-0.047	0.069	0.000	99.5917
SO4	Area	Lin, WithOffset, 1/A	4.000	-0.007	0.068	0.000	99.7957

Injection Name	Amount mg/L CD_1 F	Amount mg/L CD_1 Cl	Amount mg/L CD_1 NO2-N	Amount mg/L CD_1 BR	Amount mg/L CD_1 NO3-N	Amount mg/L CD_1 PO4-P	Amount mg/L CD_1 SO4
ICAL1 191030	0.125	0.4074	0.0426	0.2137	0.0909	0.7550	0.4460
ICAL2 191030	0.206	0.9606	0.0968	0.4887	0.1893	0.8434	0.9617
ICAL5 191030	2.259	9.1156	0.9605	4.7141	1.7941	3.8911	9.0418
ICAL8 191030	12.760	55.4700	5.0402	25.2835	10.2057	25.2105	50.9505

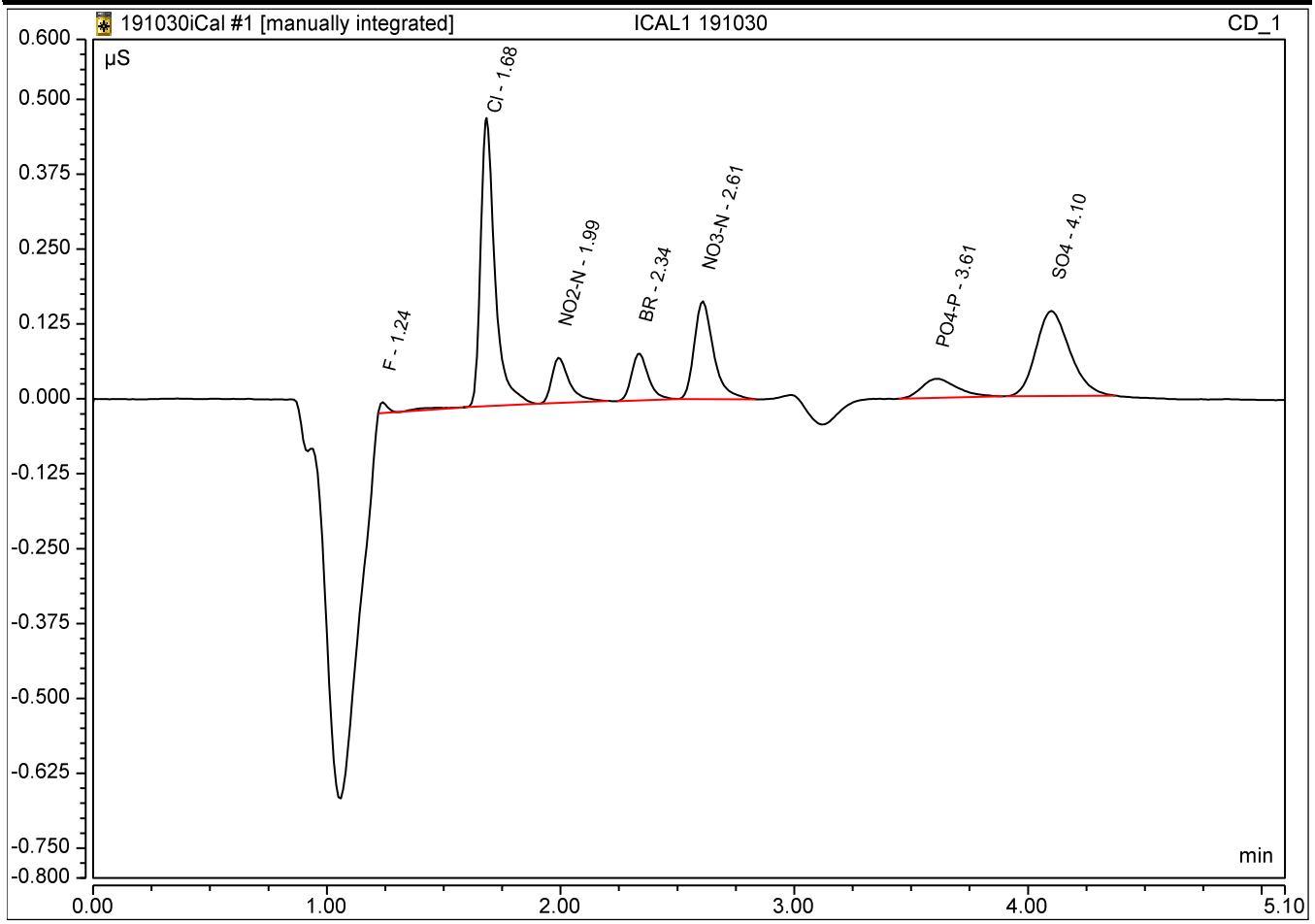


Logged on User: BW
Instrument: Charlie System_1
Sequence: 191030iCal

Peak Integration Report

Sample Name:	**ICAL1 191030**	*Inj. Vol.:*	**25uL**
Injection Type:	**Calibration Standard**	*Dilution Factor:*	**1.00**
Program:	**Anion APM 191030**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**30-Oct-2019 / 18:22**	*Run Time:*	**5.10**

No.	Time (min) min	Peak Name	Peak Type	Area (µS*min) µS*min	Height (µS) µS	Amount mg/L	Spike Level mg/L	Recovery
1	1.24	**F**	M *	0.001	0.018	0.13	0.1	125.3%
2	1.68	**Cl**	bMB*	0.034	0.481	0.41	0.4	101.8%
3	1.99	**NO2-N**	BMB	0.007	0.076	0.04	0.04	106.4%
4	2.34	**BR**	BMB	0.007	0.078	0.21	0.2	106.8%
5	2.61	**NO3-N**	BMB	0.016	0.163	0.09	0.08	113.6%
6	3.61	**PO4-P**	BMB*	0.006	0.032	0.76	0.2	377.5%
7	4.10	**SO4**	BMB	0.024	0.142	0.45	0.4	111.5%

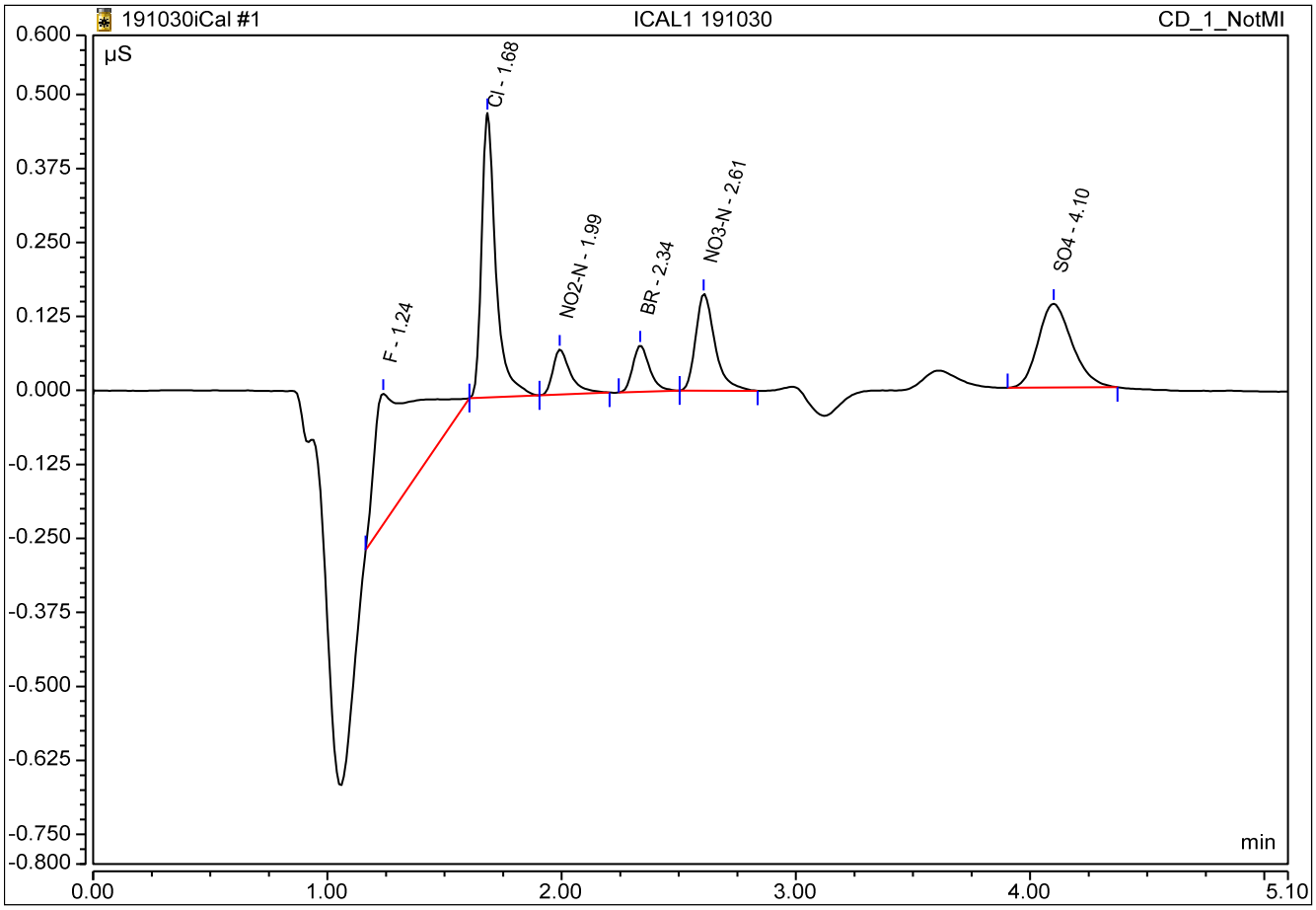


MI1 BW 191031

Not Manipulated Peak Integration Report

Sample Name:	**ICAL1 191030**	*Inj. Vol.:*	**25uL**
Injection Type:	**Calibration Standard**	*Dilution Factor:*	**1.0000**
Program:	**Anion APM 191030**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**30-Oct-2019 / 18:22**	*Run Time:*	**5.10**

No.	Time min	Peak Name	Peak Type	Area µS*min	Height µS	Ammount mg/L
1	1.24	**F**	M *	0.048	0.221	0.0926
2	1.68	**Cl**	bMB*	0.034	0.480	0.4073
3	1.99	**NO2-N**	BMB	0.007	0.076	0.0426
4	2.34	**BR**	BMB	0.007	0.078	0.2137
5	2.61	**NO3-N**	BMB	0.016	0.163	0.0909
6	n.a.	**PO4-P**	BMB*	n.a.	n.a.	n.a.
7	4.10	**SO4**	BMB	0.024	0.142	0.4460

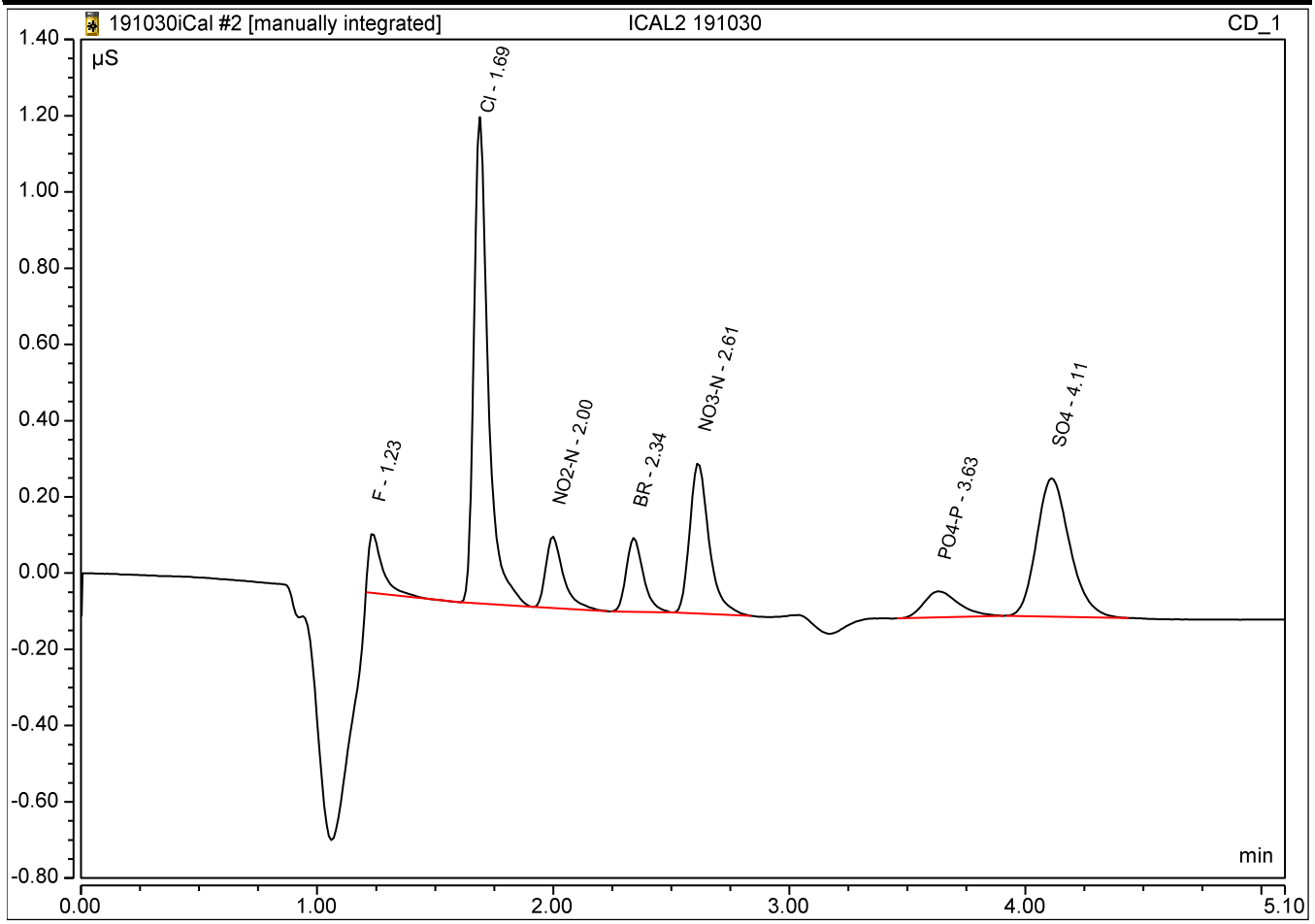


Logged on User: BW
Instrument: Charlie System_1
Sequence: 191030iCal

Peak Integration Report

Sample Name:	**ICAL2 191030**	*Inj. Vol.:*	**25uL**
Injection Type:	**Calibration Standard**	*Dilution Factor:*	**1.00**
Program:	**Anion APM 191030**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**30-Oct-2019 / 18:29**	*Run Time:*	**5.10**

No.	Time (min) min	Peak Name	Peak Type	Area (µS*min) µS*min	Height (µS) µS	Amount mg/L	Spike Level mg/L	Recovery
1	1.23	**F**	Mb*	0.011	0.157	0.21	0.25	82.3%
2	1.69	**Cl**	bMB*	0.090	1.276	0.96	1	96.1%
3	2.00	**NO2-N**	BMB	0.016	0.188	0.10	0.1	96.8%
4	2.34	**BR**	BMB	0.016	0.194	0.49	0.5	97.7%
5	2.61	**NO3-N**	BMB	0.038	0.395	0.19	0.2	94.6%
6	3.63	**PO4-P**	BMB*	0.012	0.068	0.84	0.5	168.7%
7	4.11	**SO4**	BMB	0.059	0.363	0.96	1	96.2%

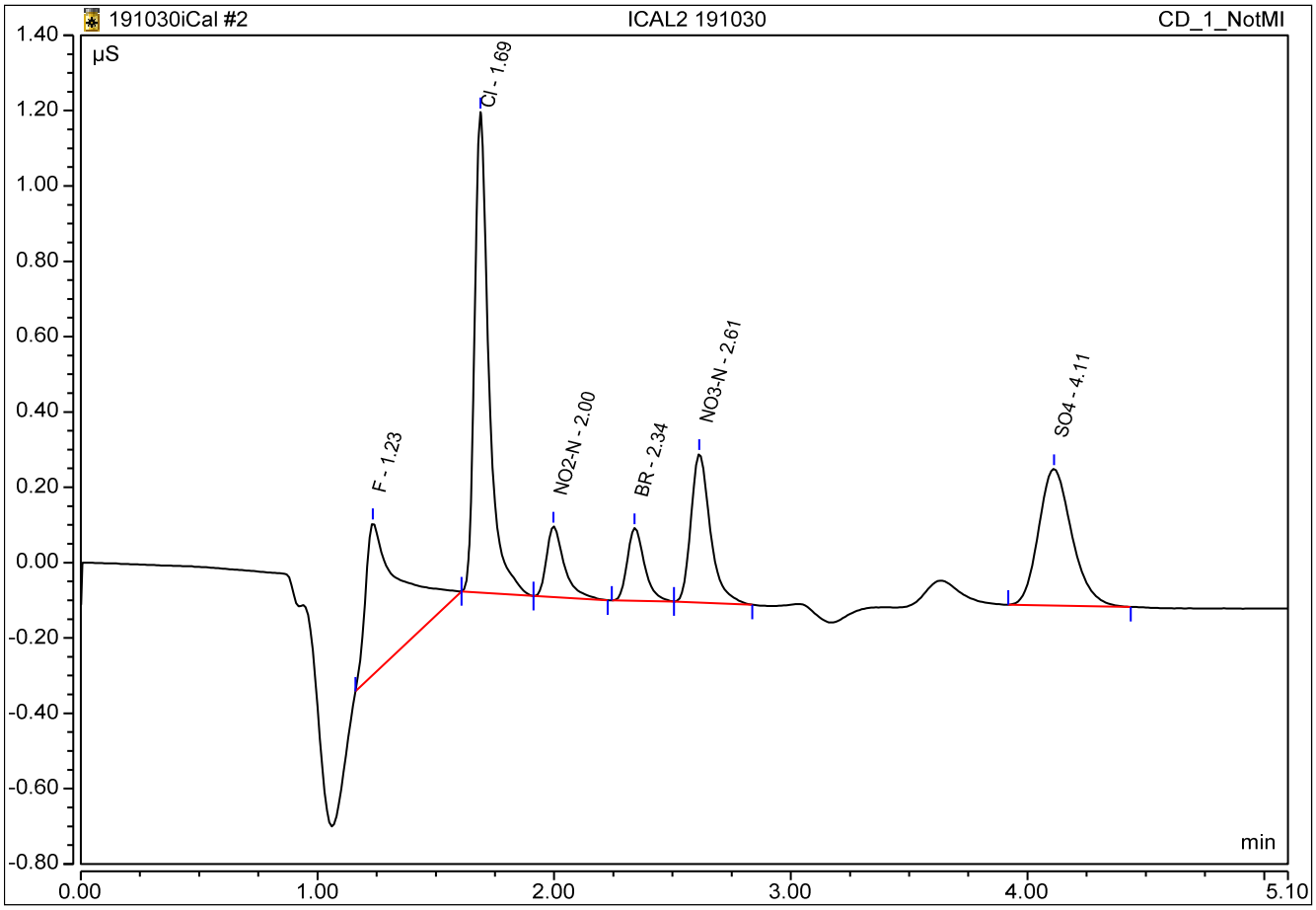


MI1 BW 190931

Not Manipulated Peak Integration Report

Sample Name:	**ICAL2 191030**	*Inj. Vol.:*	**25uL**
Injection Type:	**Calibration Standard**	*Dilution Factor:*	**1.0000**
Program:	**Anion APM 191030**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**30-Oct-2019 / 18:29**	*Run Time:*	**5.10**

No.	Time min	Peak Name	Peak Type	Area µS*min	Height µS	Ammount mg/L
1	1.23	**F**	Mb*	0.069	0.404	0.2711
2	1.69	**Cl**	bMB*	0.090	1.276	0.9610
3	2.00	**NO2-N**	BMB	0.016	0.188	0.0968
4	2.34	**BR**	BMB	0.016	0.194	0.4887
5	2.61	**NO3-N**	BMB	0.038	0.395	0.1893
6	n.a.	**PO4-P**	BMB*	n.a.	n.a.	n.a.
7	4.11	**SO4**	BMB	0.059	0.363	0.9617

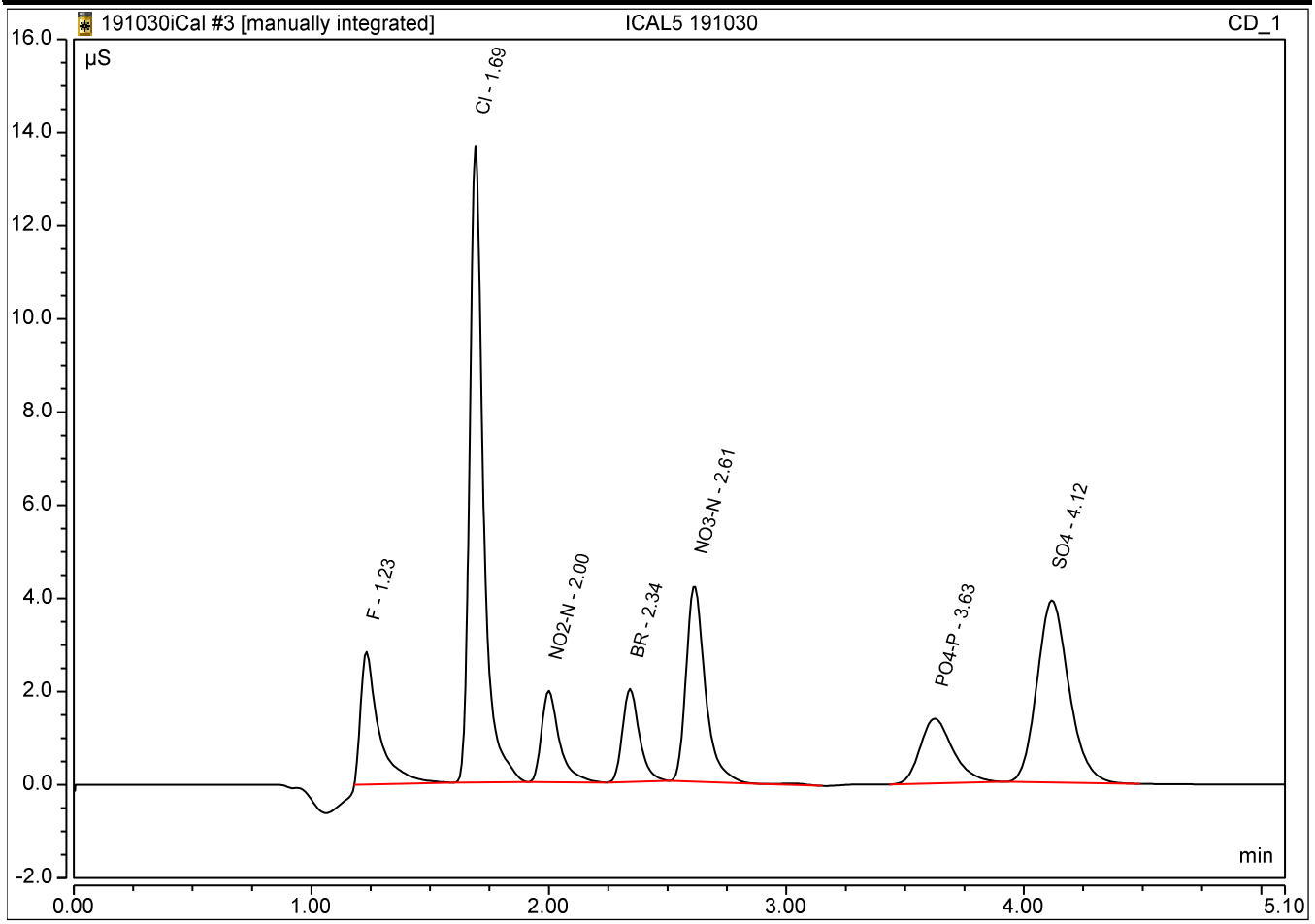


Logged on User: BW
Instrument: Charlie System_1
Sequence: 191030iCal

Peak Integration Report

Sample Name:	**ICAL5 191030**	*Inj. Vol.:*	**25uL**
Injection Type:	**Calibration Standard**	*Dilution Factor:*	**1.00**
Program:	**Anion APM 191030**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**30-Oct-2019 / 18:37**	*Run Time:*	**5.10**

No.	Time (min) min	Peak Name	Peak Type	Area (µS*min) µS*min	Height (µS) µS	Amount mg/L	Spike Level mg/L	Recovery
1	1.23	**F**	MB*	0.255	2.859	2.26	2.5	90.4%
2	1.69	**Cl**	BMB	0.913	13.668	9.12	10	91.2%
3	2.00	**NO2-N**	BMB	0.171	1.960	0.96	1	96.1%
4	2.34	**BR**	BMB	0.165	1.998	4.71	5	94.3%
5	2.61	**NO3-N**	BMB	0.395	4.211	1.79	2	89.7%
7	3.63	**PO4-P**	BMB	0.223	1.389	3.89	5	77.8%
8	4.12	**SO4**	BMB	0.610	3.910	9.04	10	90.4%

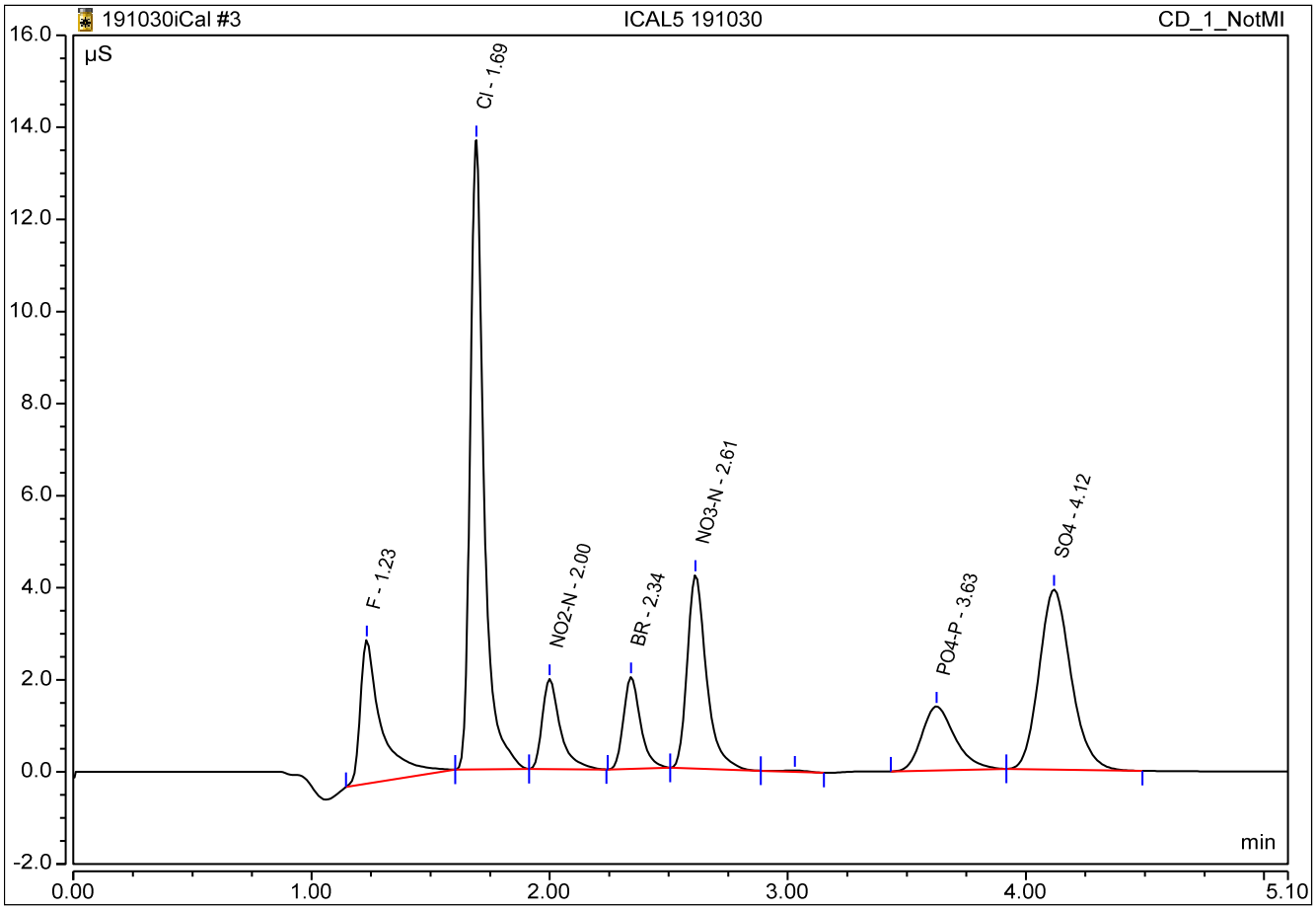


MI1 BW 190931

Not Manipulated Peak Integration Report

Sample Name:	**ICAL5 191030**	*Inj. Vol.:*	**25uL**
Injection Type:	**Calibration Standard**	*Dilution Factor:*	**1.0000**
Program:	**Anion APM 191030**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**30-Oct-2019 / 18:37**	*Run Time:*	**5.10**

No.	Time min	Peak Name	Peak Type	Area µS*min	Height µS	Ammount mg/L
1	1.23	**F**	MB*	0.321	3.121	2.4710
2	1.69	**Cl**	BMB	0.913	13.668	9.1151
3	2.00	**NO2-N**	BMB	0.171	1.960	0.9605
4	2.34	**BR**	BMB	0.165	1.998	4.7141
5	2.61	**NO3-N**	BMB	0.395	4.211	1.7941
7	3.63	**PO4-P**	BMB	0.223	1.389	5.0000
8	4.12	**SO4**	BMB	0.610	3.910	9.0418

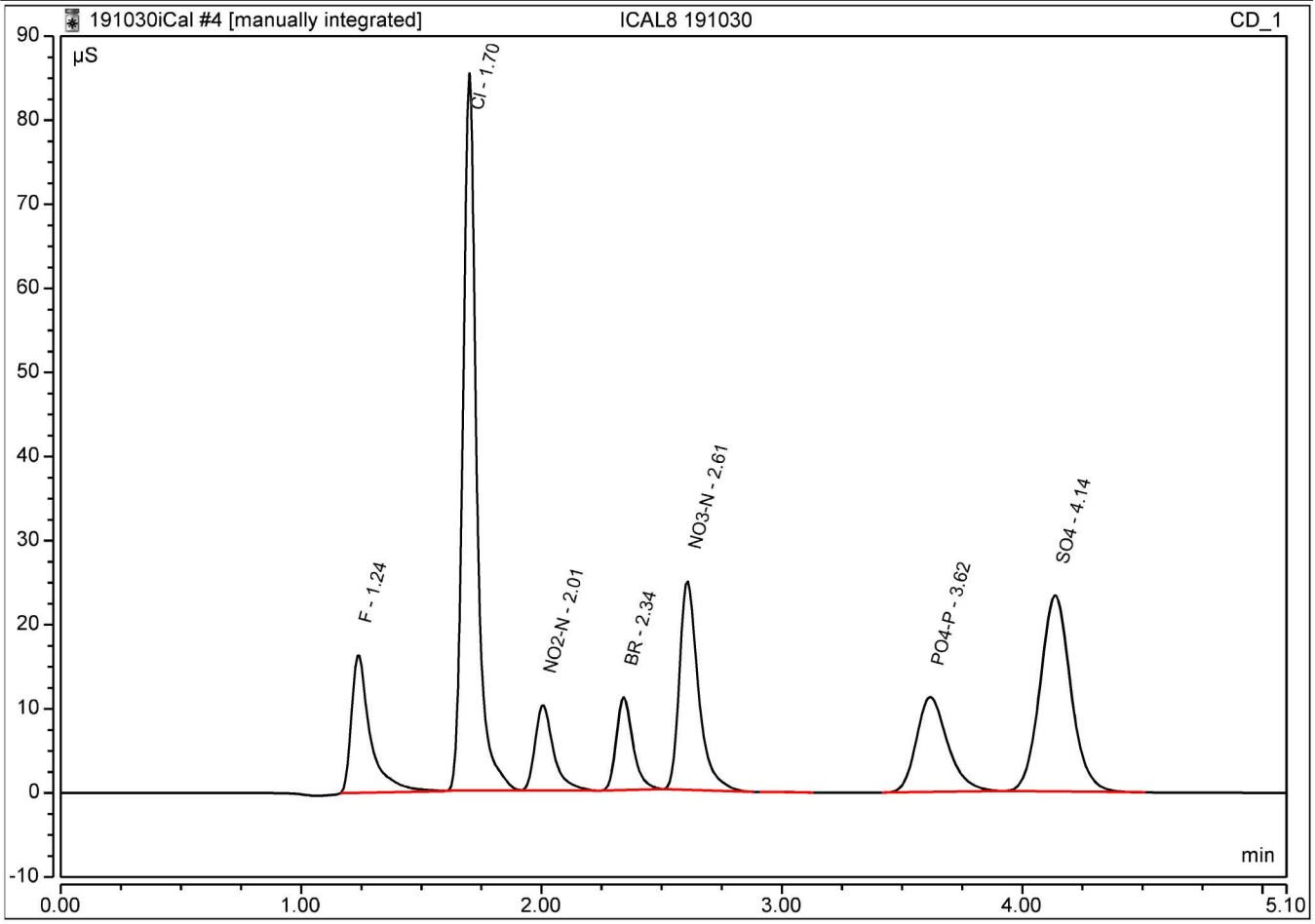


Logged on User: BW
Instrument: Charlie System_1
Sequence: 191030iCal

Peak Integration Report

Sample Name:	**ICAL8 191030**	*Inj. Vol.:*	**25uL**
Injection Type:	**Calibration Standard**	*Dilution Factor:*	**1.00**
Program:	**Anion APM 191030**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**30-Oct-2019 / 18:44**	*Run Time:*	**5.10**

No.	Time (min) min	Peak Name	Peak Type	Area (µS*min) µS*min	Height (µS) µS	Amount mg/L	Spike Level mg/L	Recovery
1	1.24	**F**	BM *	1.503	16.491	12.76	12.5	102.1%
2	1.70	**Cl**	BMB	5.591	85.358	55.47	50	110.9%
3	2.01	**NO2-N**	BMB	0.903	10.178	5.04	5	100.8%
4	2.34	**BR**	BMB	0.890	11.073	25.28	25	101.1%
5	2.61	**NO3-N**	BMB	2.269	24.891	10.21	10	102.1%
7	3.62	**PO4-P**	BMB	1.704	11.286	25.21	25	100.8%
8	4.14	**SO4**	BMB	3.469	23.343	50.95	50	101.9%

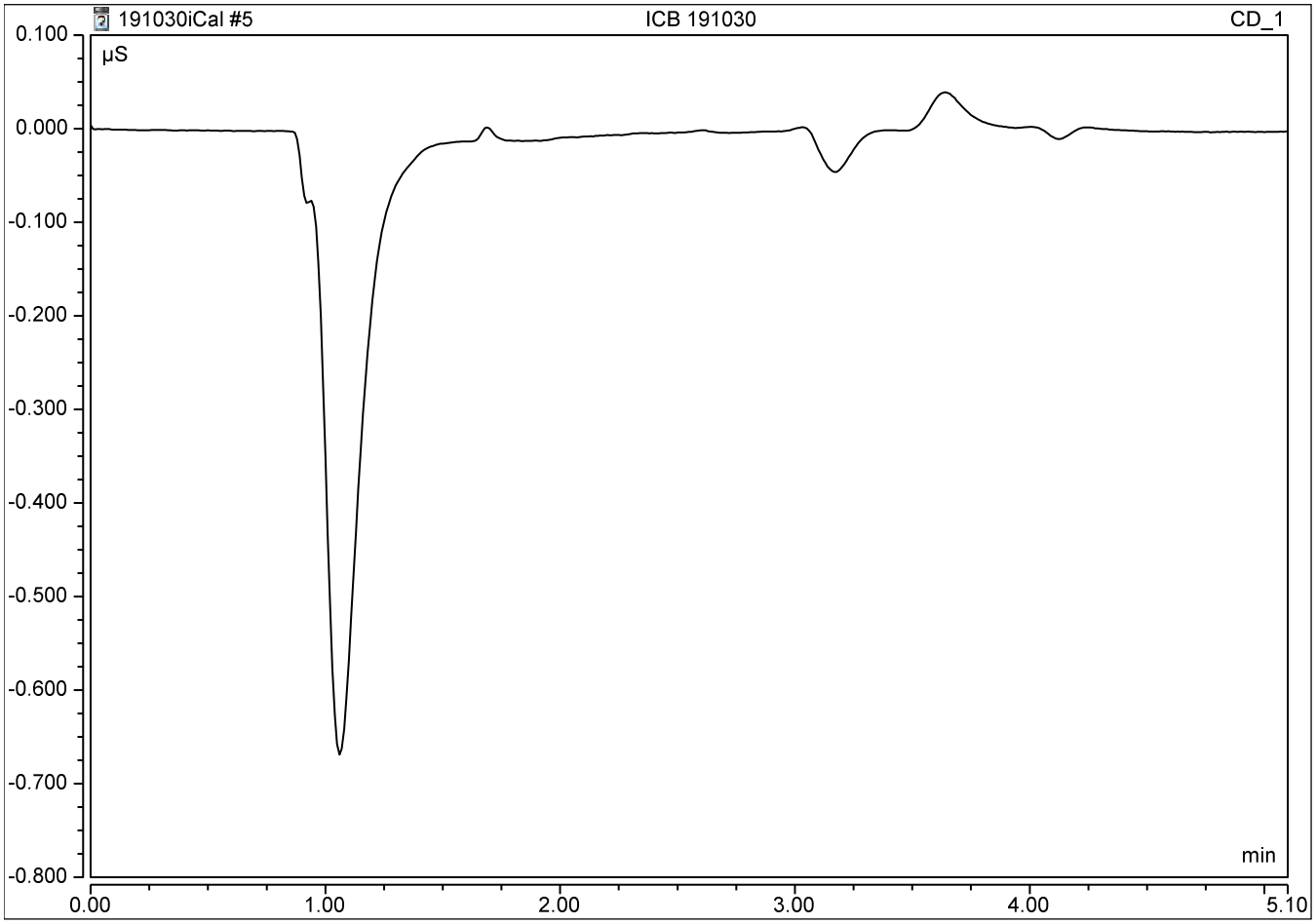


Logged on User: BW
Instrument: Charlie System_1
Sequence: 191030iCal

Peak Integration Report

Sample Name:	**ICB 191030**	*Inj. Vol.:*	**25uL**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.00**
Program:	**Anion APM 191030**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**30-Oct-2019 / 18:52**	*Run Time:*	**5.10**

No.	Time (min) min	Peak Name	Peak Type	Area (µS*min) µS*min	Height (µS) µS	Amount mg/L	Spike Level mg/L	Recovery

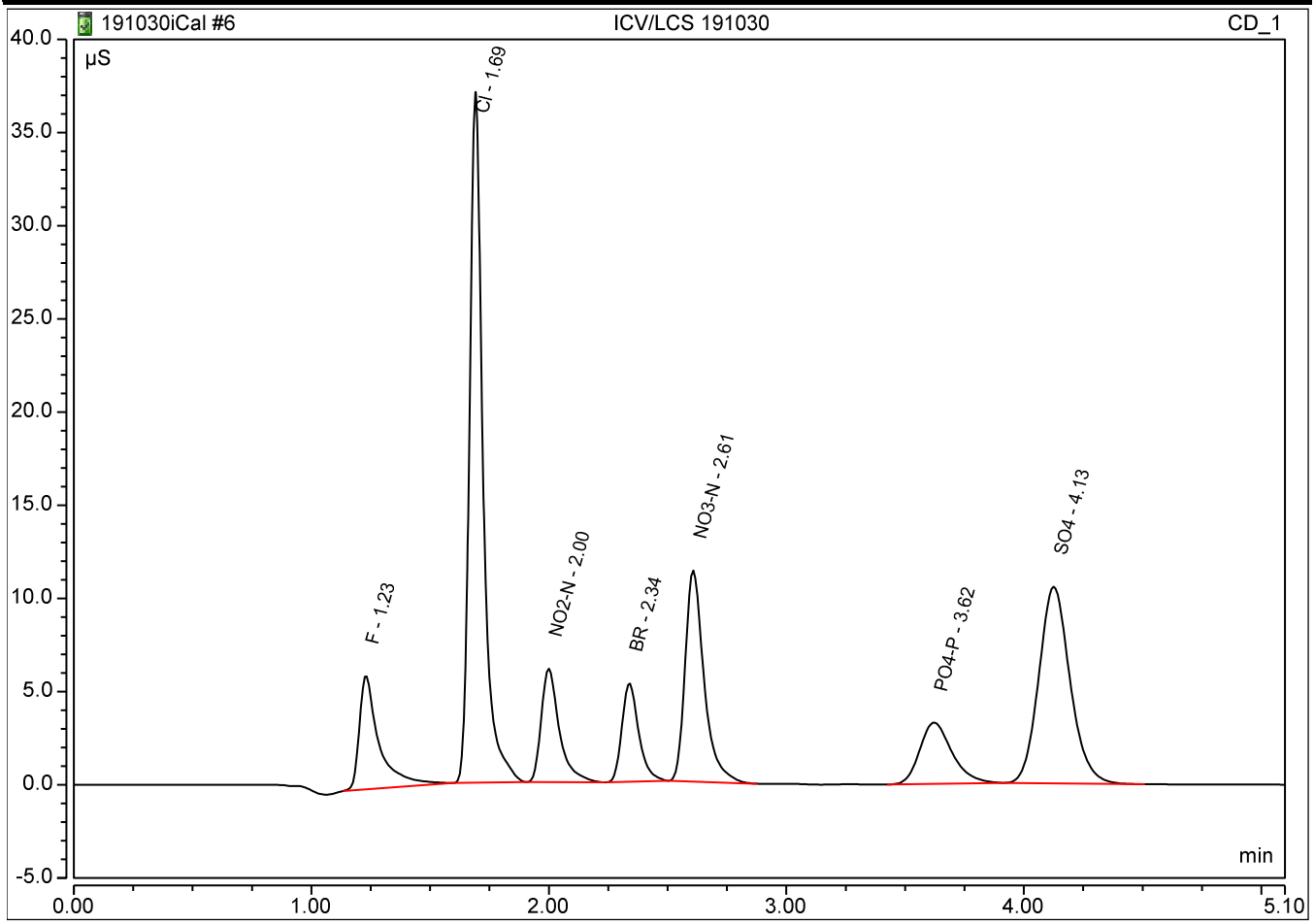


Logged on User: BW
Instrument: Charlie System_1
Sequence: 191030iCal

Peak Integration Report

Sample Name:	**ICV/LCS 191030**	*Inj. Vol.:*	**25uL**
Injection Type:	**Check Standard**	*Dilution Factor:*	**1.00**
Program:	**Anion APM 191030**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**30-Oct-2019 / 18:59**	*Run Time:*	**5.10**

No.	Time (min) min	Peak Name	Peak Type	Area (µS*min) µS*min	Height (µS) µS	Amount mg/L	Spike Level mg/L	Recovery
1	1.23	**F**	BMB	0.589	6.116	5.07	5	101.5%
2	1.69	**Cl**	BMB	2.435	37.074	24.19	25	96.8%
3	2.00	**NO2-N**	BMB	0.539	6.101	3.01	3.04	99.1%
4	2.34	**BR**	BMB	0.435	5.293	12.37	12.5	99.0%
5	2.61	**NO3-N**	BMB	1.049	11.325	4.73	5	94.5%
6	3.62	**PO4-P**	BMB	0.517	3.291	8.12	10	81.2%
7	4.13	**SO4**	BMB	1.608	10.548	23.67	25	94.7%



Algorithm Check
y = Peak Area
x = mg/L S04

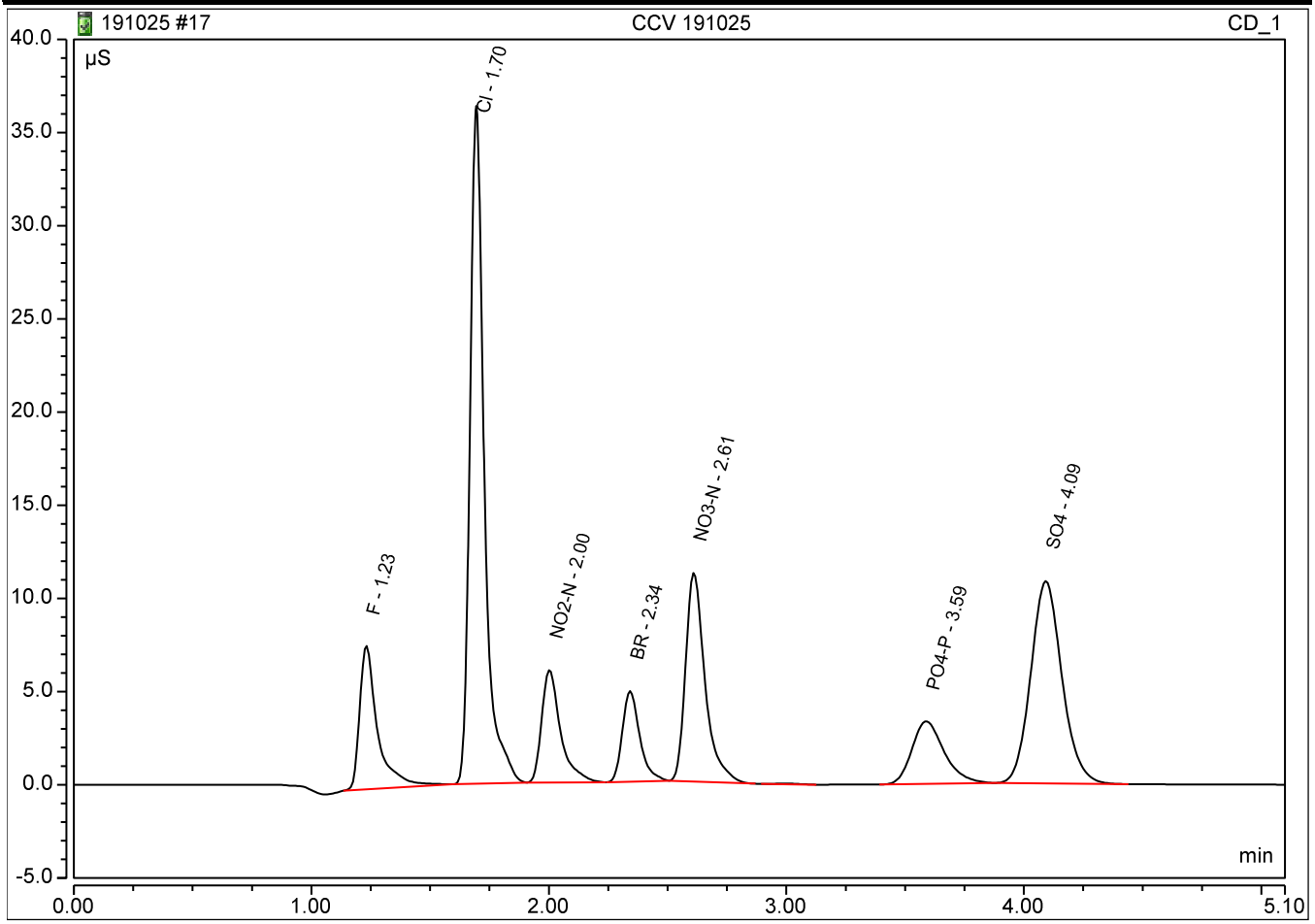
y = 0.0682 x + -0.0066
y = 1.6082 therefor x =

Logged on User: BW
Instrument: Charlie System_1
Sequence: 191025

Peak Integration Report

Sample Name:	**CCV 191025**	*Inj. Vol.:*	**25uL**
Injection Type:	**Check Standard**	*Dilution Factor:*	**1.00**
Program:	**Anion APM 190925A**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**25-Oct-2019 / 18:55**	*Run Time:*	**5.10**

No.	Time (min) min	Peak Name	Peak Type	Area (µS*min) µS*min	Height (µS) µS	Amount mg/L	Spike Level mg/L	Recovery
1	1.23	**F**	BMB	0.675	7.707	5.64	5	112.8%
2	1.70	**Cl**	BMB	2.531	36.363	24.02	25	96.1%
3	2.00	**NO2-N**	BMB	0.555	6.046	3.25	3.04	106.8%
4	2.34	**BR**	BMB	0.413	4.867	11.52	12.5	92.1%
5	2.61	**NO3-N**	BMB	1.064	11.210	4.82	5	96.4%
7	3.59	**PO4-P**	BMB	0.527	3.357	8.09	10	80.9%
8	4.09	**SO4**	BMB	1.650	10.851	24.49	25	98.0%

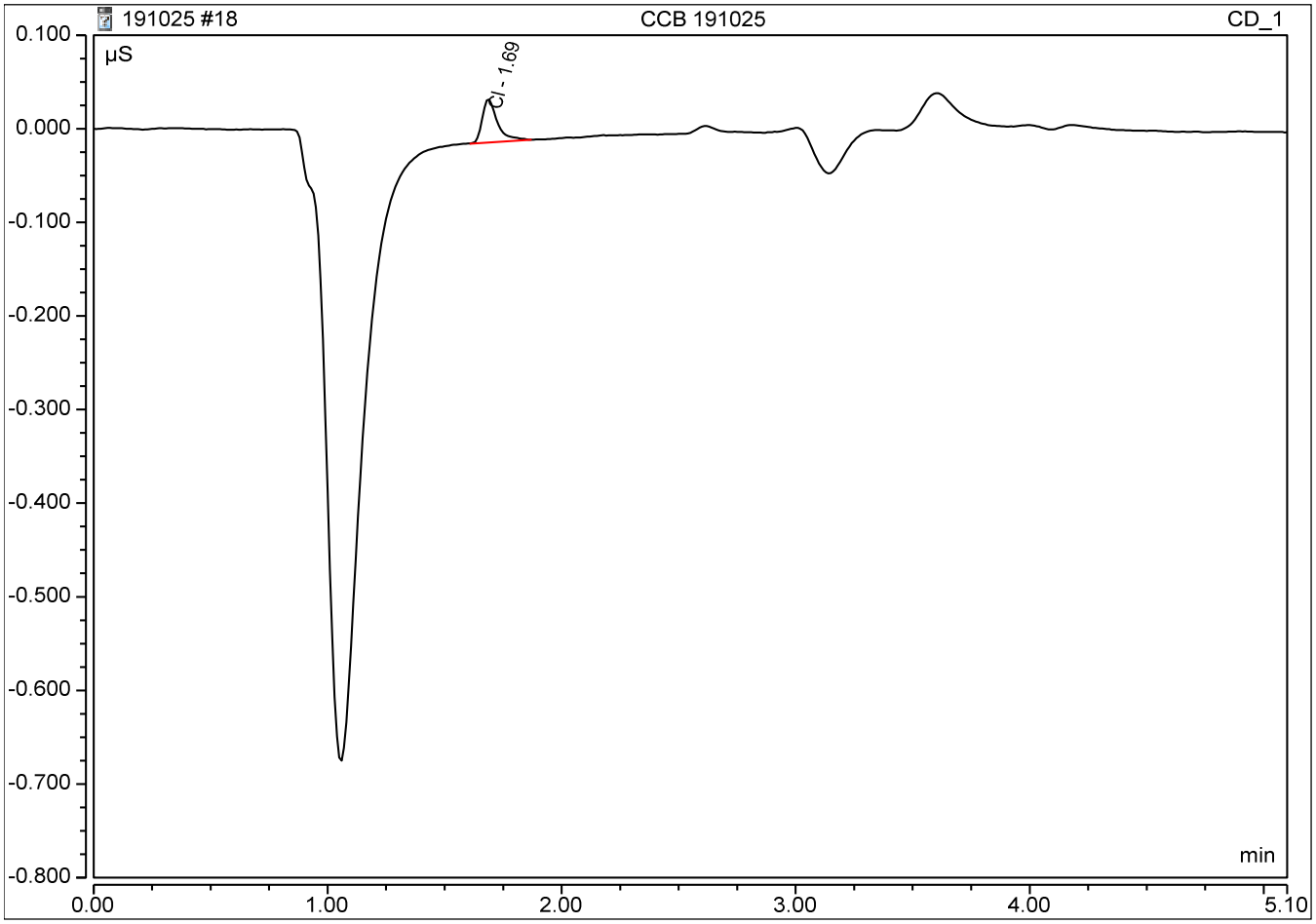


Logged on User: BW
Instrument: Charlie System_1
Sequence: 191025

Peak Integration Report

Sample Name:	**CCB 191025**	*Inj. Vol.:*	**25uL**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.00**
Program:	**Anion APM 190925A**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**25-Oct-2019 / 19:03**	*Run Time:*	**5.10**

No.	Time (min) min	Peak Name	Peak Type	Area (µS*min) µS*min	Height (µS) µS	Amount mg/L	Spike Level mg/L	Recovery
1	1.69	**Cl**	BMB	0.003	0.046	0.18		

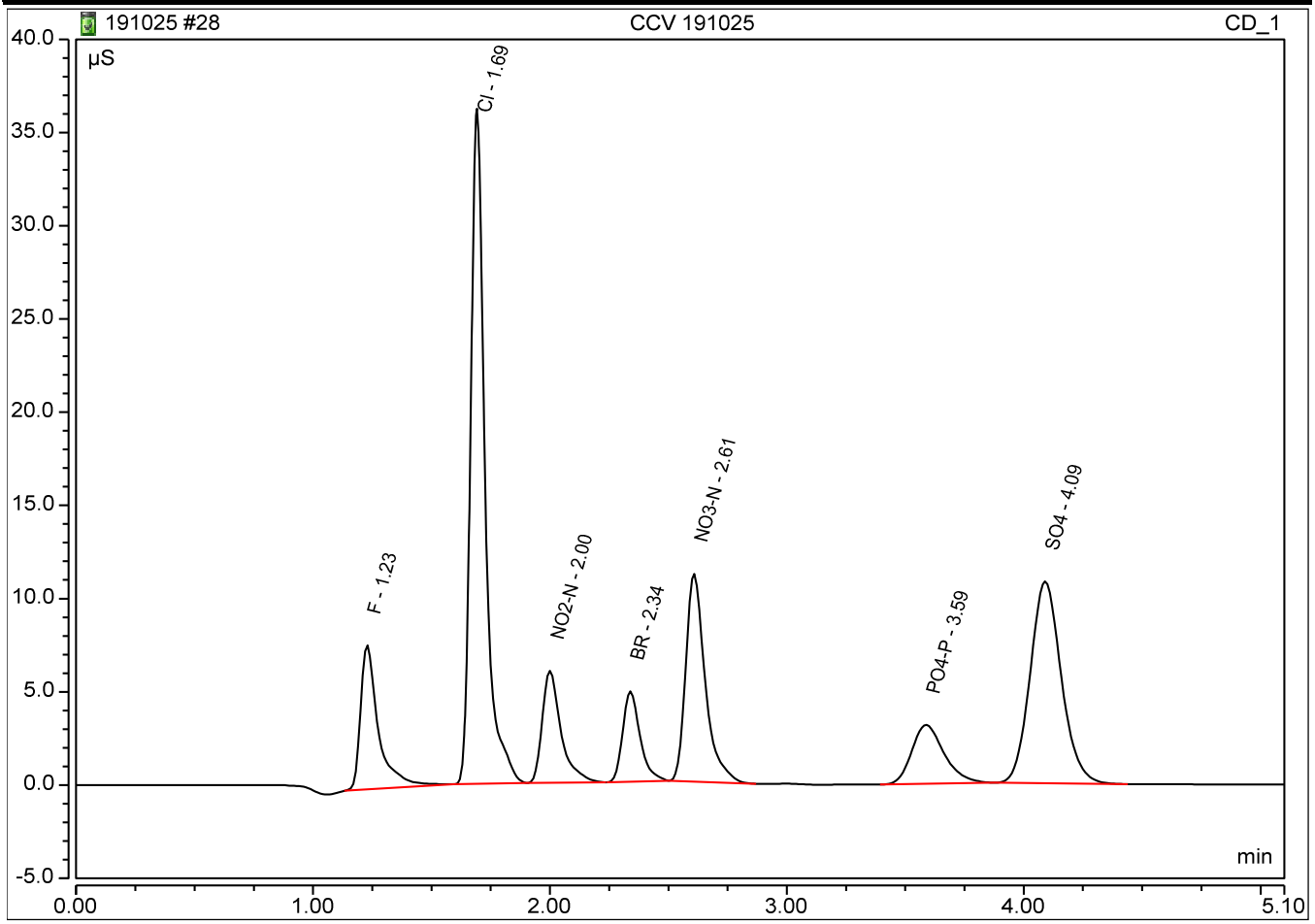


Logged on User: BW
Instrument: Charlie System_1
Sequence: 191025

Peak Integration Report

Sample Name:	**CCV 191025**	*Inj. Vol.:*	**25uL**
Injection Type:	**Check Standard**	*Dilution Factor:*	**1.00**
Program:	**Anion APM 190925A**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**25-Oct-2019 / 20:18**	*Run Time:*	**5.10**

No.	Time (min) min	Peak Name	Peak Type	Area (µS*min) µS*min	Height (µS) µS	Amount mg/L	Spike Level mg/L	Recovery
1	1.23	**F**	BMB	0.678	7.750	5.67	5	113.3%
2	1.69	**Cl**	BMB	2.527	36.210	23.99	25	96.0%
3	2.00	**NO2-N**	BMB	0.552	6.003	3.23	3.04	106.3%
4	2.34	**BR**	BMB	0.413	4.849	11.54	12.5	92.3%
5	2.61	**NO3-N**	BMB	1.064	11.163	4.82	5	96.4%
6	3.59	**PO4-P**	BMB	0.501	3.159	7.74	10	77.4%
7	4.09	**SO4**	BMB	1.650	10.830	24.49	25	97.9%

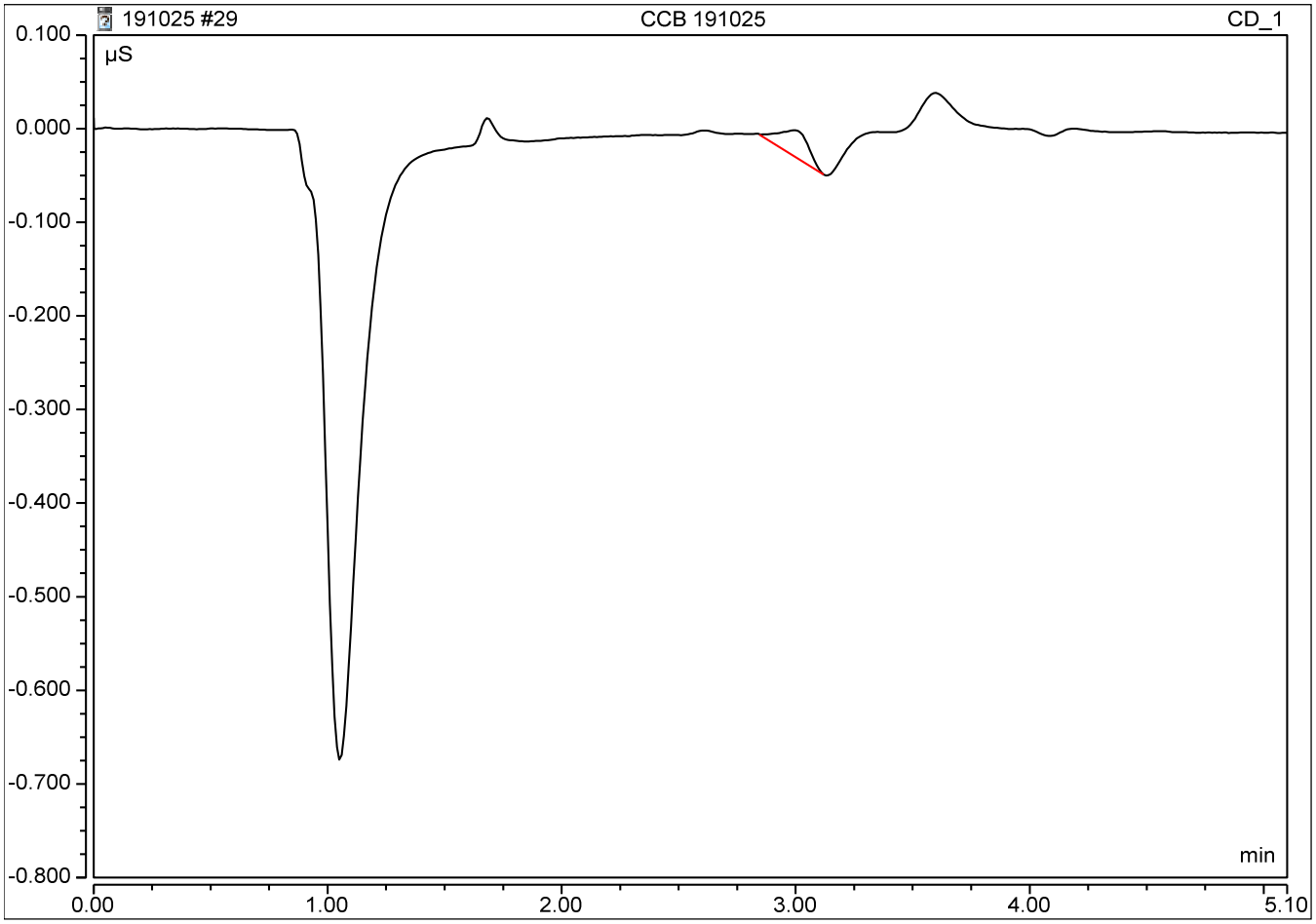


Logged on User: BW
Instrument: Charlie System_1
Sequence: 191025

Peak Integration Report

Sample Name:	**CCB 191025**	*Inj. Vol.:*	**25uL**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.00**
Program:	**Anion APM 190925A**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**25-Oct-2019 / 20:25**	*Run Time:*	**5.10**

No.	Time (min) min	Peak Name	Peak Type	Area (µS*min) µS*min	Height (µS) µS	Amount mg/L	Spike Level mg/L	Recovery

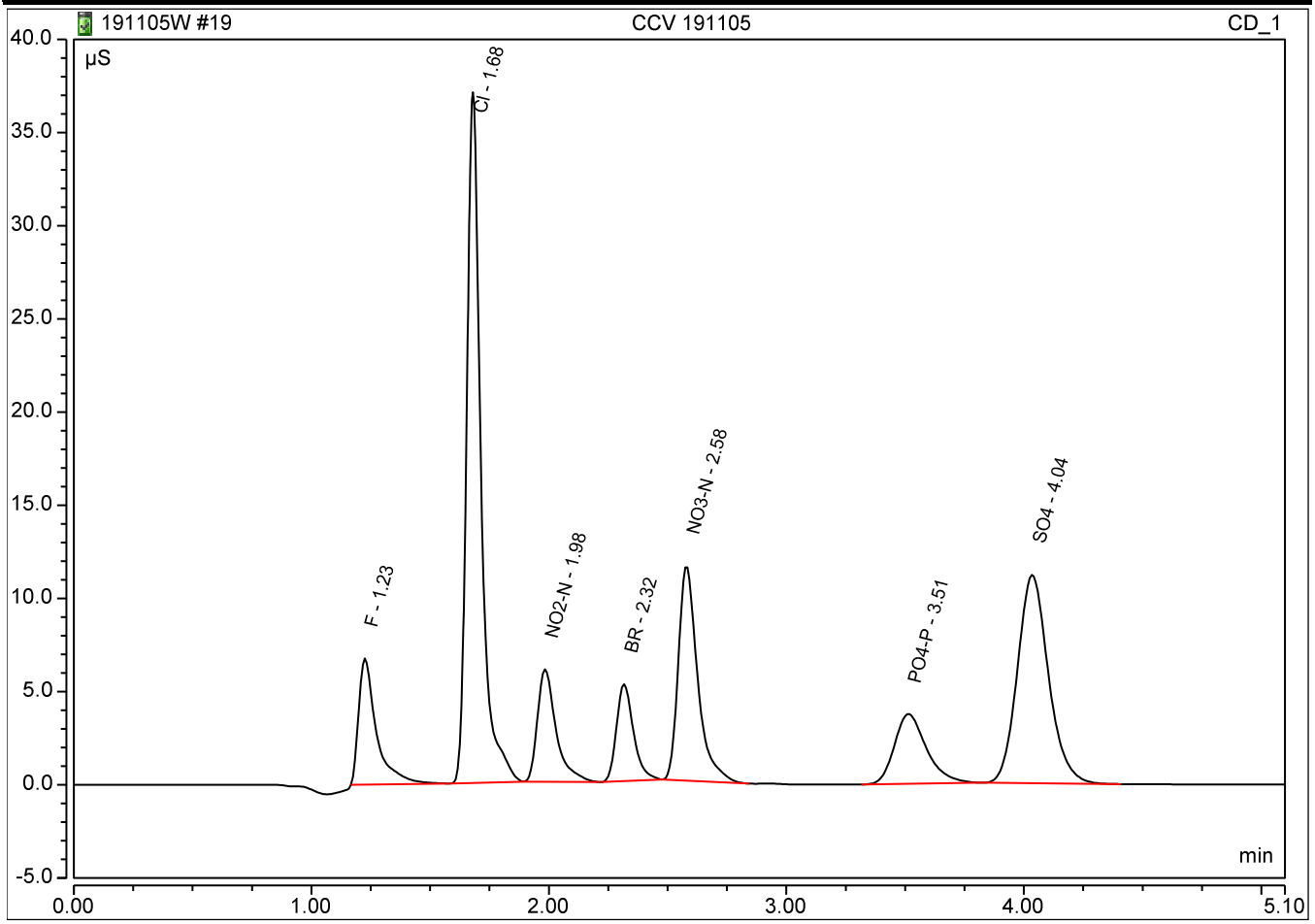


Logged on User: BW
Instrument: Charlie System_1
Sequence: 191105W

Peak Integration Report

Sample Name:	**CCV 191105**	*Inj. Vol.:*	**25uL**
Injection Type:	**Check Standard**	*Dilution Factor:*	**1.00**
Program:	**Anion APM 191030**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**05-Nov-2019 / 22:23**	*Run Time:*	**5.10**

No.	Time (min) min	Peak Name	Peak Type	Area (µS*min) µS*min	Height (µS) µS	Amount mg/L	Spike Level mg/L	Recovery
1	1.23	**F**	BMB	0.588	6.780	5.06	5	101.2%
2	1.68	**Cl**	BMB	2.553	37.066	25.37	25	101.5%
3	1.98	**NO2-N**	BMB	0.550	6.037	3.07	3.04	101.1%
4	2.32	**BR**	BMB	0.432	5.201	12.30	12.5	98.4%
5	2.58	**NO3-N**	BMB	1.087	11.527	4.90	5	97.9%
6	3.51	**PO4-P**	BMB	0.585	3.740	9.10	10	91.0%
7	4.04	**SO4**	BMB	1.695	11.177	24.94	25	99.7%

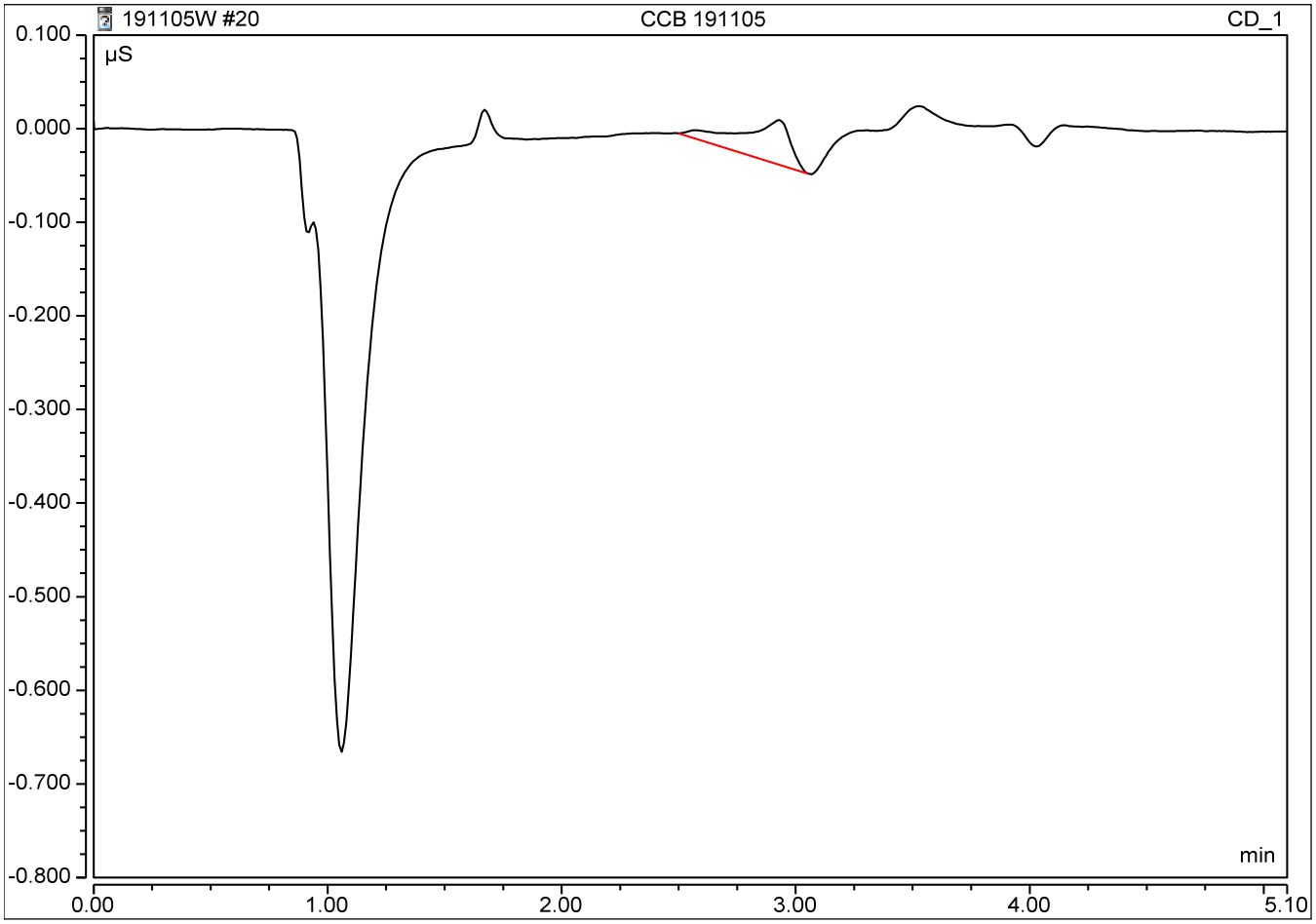


Logged on User: BW
Instrument: Charlie System_1
Sequence: 191105W

Peak Integration Report

Sample Name:	**CCB 191105**	*Inj. Vol.:*	**25uL**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.00**
Program:	**Anion APM 191030**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**05-Nov-2019 / 22:31**	*Run Time:*	**5.10**

No.	Time (min) min	Peak Name	Peak Type	Area (µS*min) µS*min	Height (µS) µS	Amount mg/L	Spike Level mg/L	Recovery

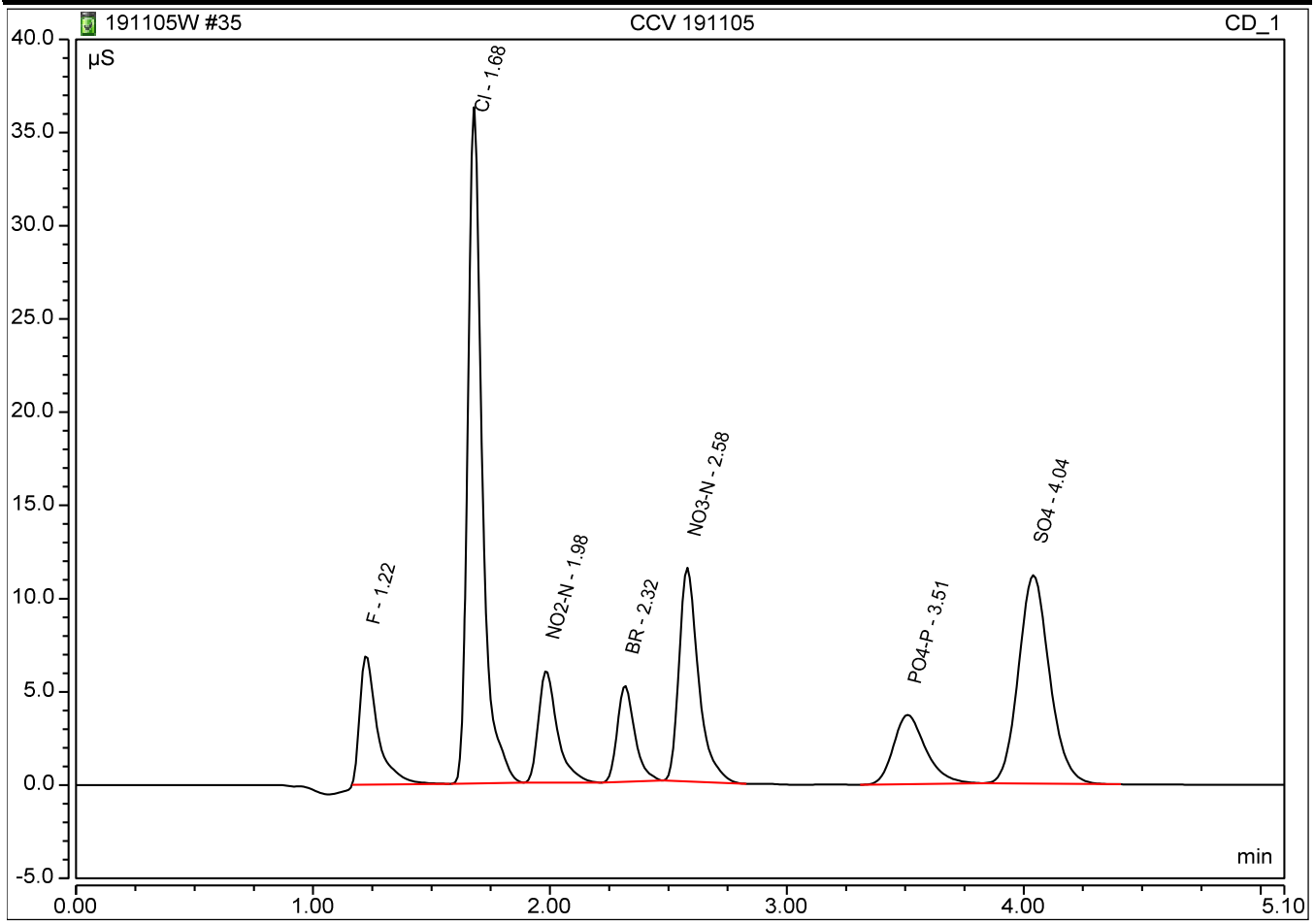


Logged on User: BW
Instrument: Charlie System_1
Sequence: 191105W

Peak Integration Report

Sample Name:	**CCV 191105**	*Inj. Vol.:*	**25uL**
Injection Type:	**Check Standard**	*Dilution Factor:*	**1.00**
Program:	**Anion APM 191030**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**06-Nov-2019 / 00:23**	*Run Time:*	**5.10**

No.	Time (min) min	Peak Name	Peak Type	Area (µS*min) µS*min	Height (µS) µS	Amount mg/L	Spike Level mg/L	Recovery
1	1.22	**F**	BMB	0.598	6.940	5.15	5	103.0%
2	1.68	**Cl**	BMB	2.559	36.280	25.42	25	101.7%
3	1.98	**NO2-N**	BMB	0.557	6.004	3.11	3.04	102.4%
4	2.32	**BR**	BMB	0.441	5.171	12.55	12.5	100.4%
5	2.58	**NO3-N**	BMB	1.094	11.460	4.93	5	98.6%
6	3.51	**PO4-P**	BMB	0.585	3.708	9.09	10	90.9%
7	4.04	**SO4**	BMB	1.696	11.184	24.96	25	99.9%

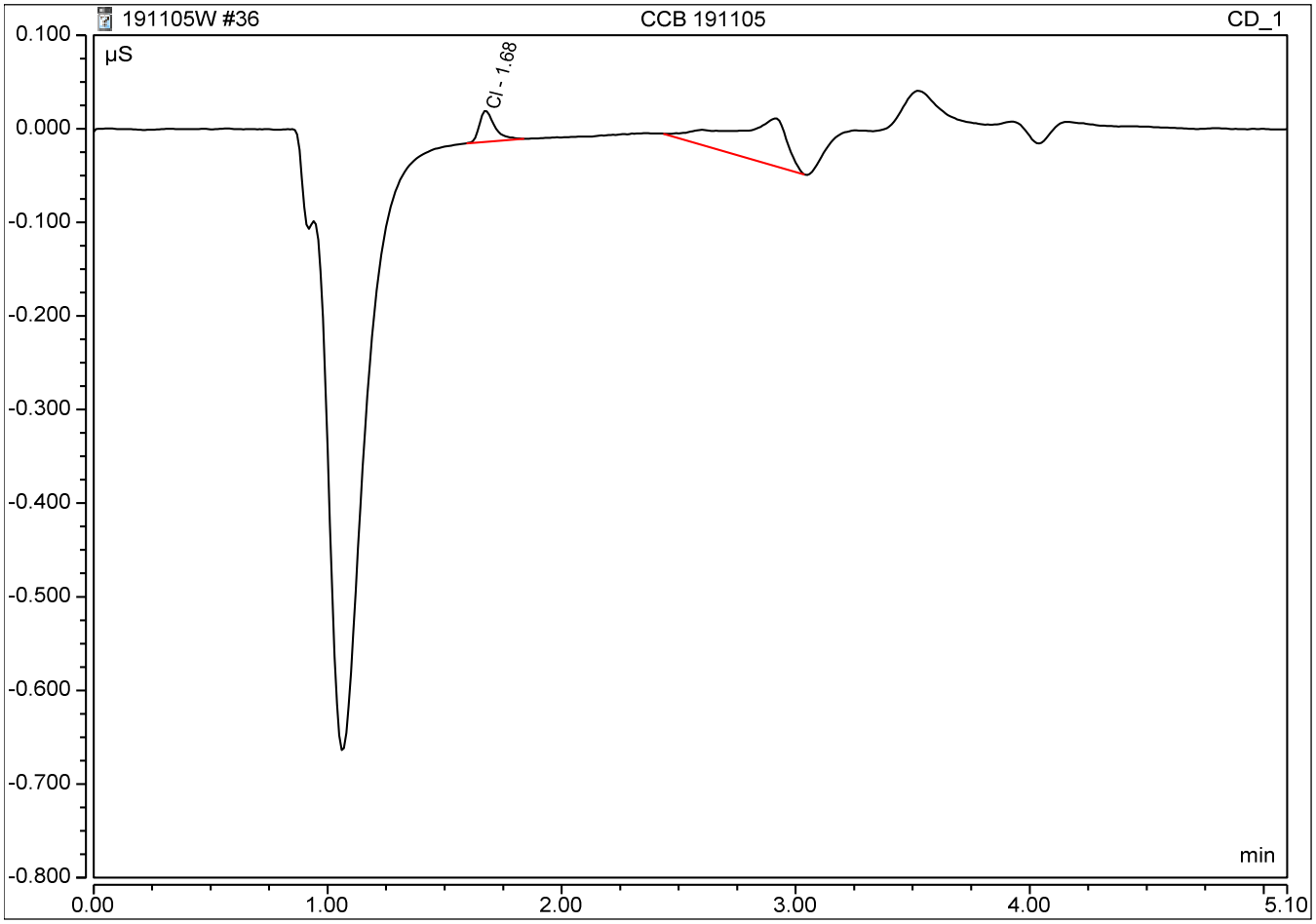


Logged on User: BW
Instrument: Charlie System_1
Sequence: 191105W

Peak Integration Report

Sample Name:	**CCB 191105**	*Inj. Vol.:*	**25uL**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.00**
Program:	**Anion APM 191030**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**06-Nov-2019 / 00:30**	*Run Time:*	**5.10**

No.	Time (min) min	Peak Name	Peak Type	Area (µS*min) µS*min	Height (µS) µS	Amount mg/L	Spike Level mg/L	Recovery
1	1.68	**Cl**	BMB	0.003	0.034	0.10		



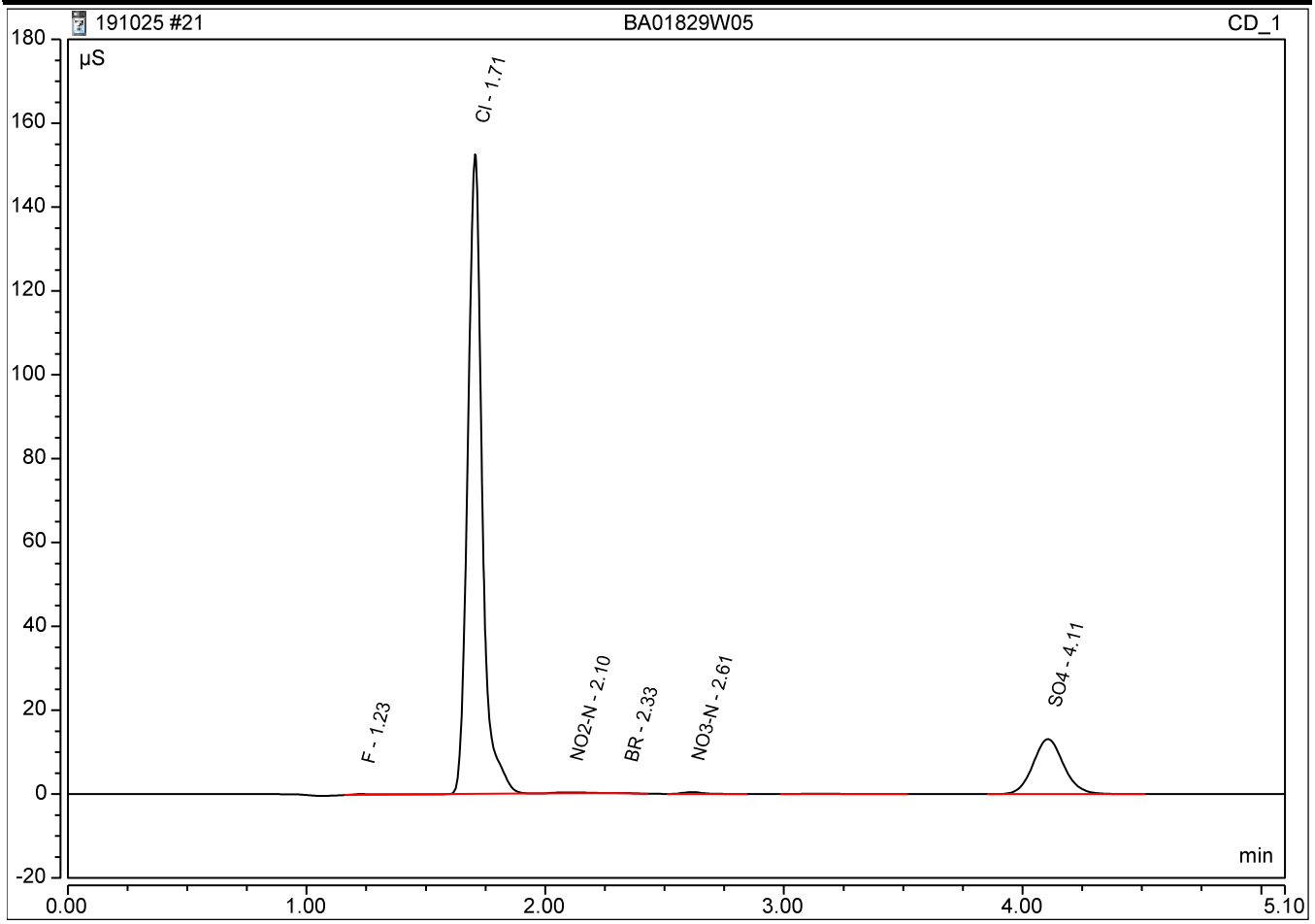
INORGANIC ANALYSIS
Raw Data

Logged on User: BW
Instrument: Charlie System_1
Sequence: 191025

Peak Integration Report

Sample Name:	**BA01829W05**	*Inj. Vol.:*	**25uL**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.00**
Program:	**Anion APM 190925A**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**25-Oct-2019 / 19:25**	*Run Time:*	**5.10**

No.	Time (min) min	Peak Name	Peak Type	Area (µS*min) µS*min	Height (µS) µS	Amount mg/L	Spike Level mg/L	Recovery
1	1.23	**F**	BMB	0.035	0.196	0.40		
2	1.71	**Cl**	BMB	10.678	152.557	100.89		
3	2.10	**NO2-N**	BMB	0.043	0.249	0.26		
4	2.33	**BR**	BMB	0.006	0.078	0.19		
5	2.61	**NO3-N**	BMB	0.045	0.453	0.22		
7	4.11	**SO4**	BMB	1.953	13.127	28.98		

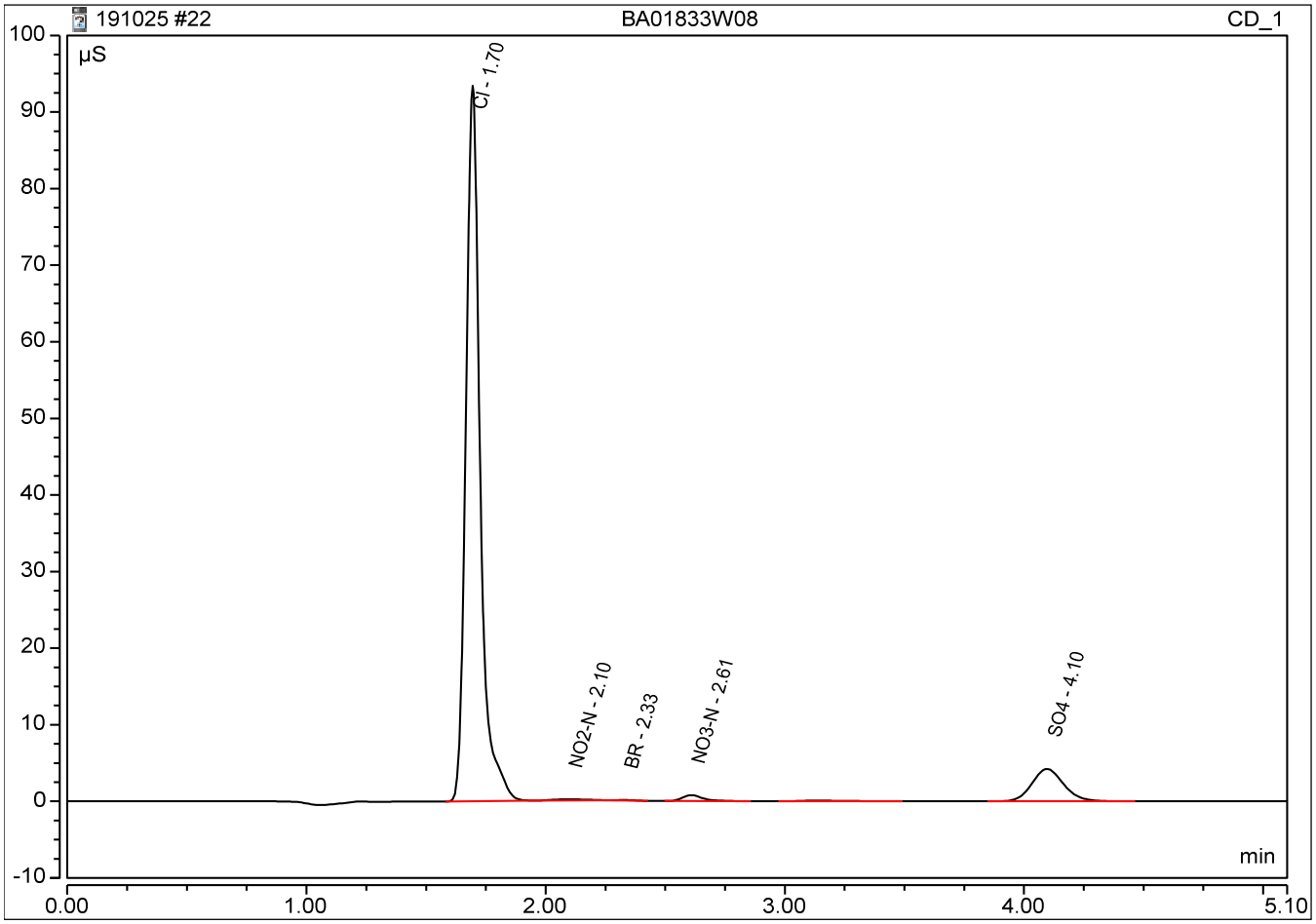


Logged on User: BW
Instrument: Charlie System_1
Sequence: 191025

Peak Integration Report

Sample Name:	**BA01833W08**	*Inj. Vol.:*	**25uL**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.00**
Program:	**Anion APM 190925A**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**25-Oct-2019 / 19:33**	*Run Time:*	**5.10**

No.	Time (min) min	Peak Name	Peak Type	Area (µS*min) µS*min	Height (µS) µS	Amount mg/L	Spike Level mg/L	Recovery
1	1.70	**Cl**	BMB	6.443	93.416	60.93		
2	2.10	**NO2-N**	BMB	0.025	0.147	0.15		
3	2.33	**BR**	BMB	0.004	0.061	0.15		
4	2.61	**NO3-N**	BMB	0.078	0.779	0.37		
6	4.10	**SO4**	BMB	0.647	4.222	9.64		

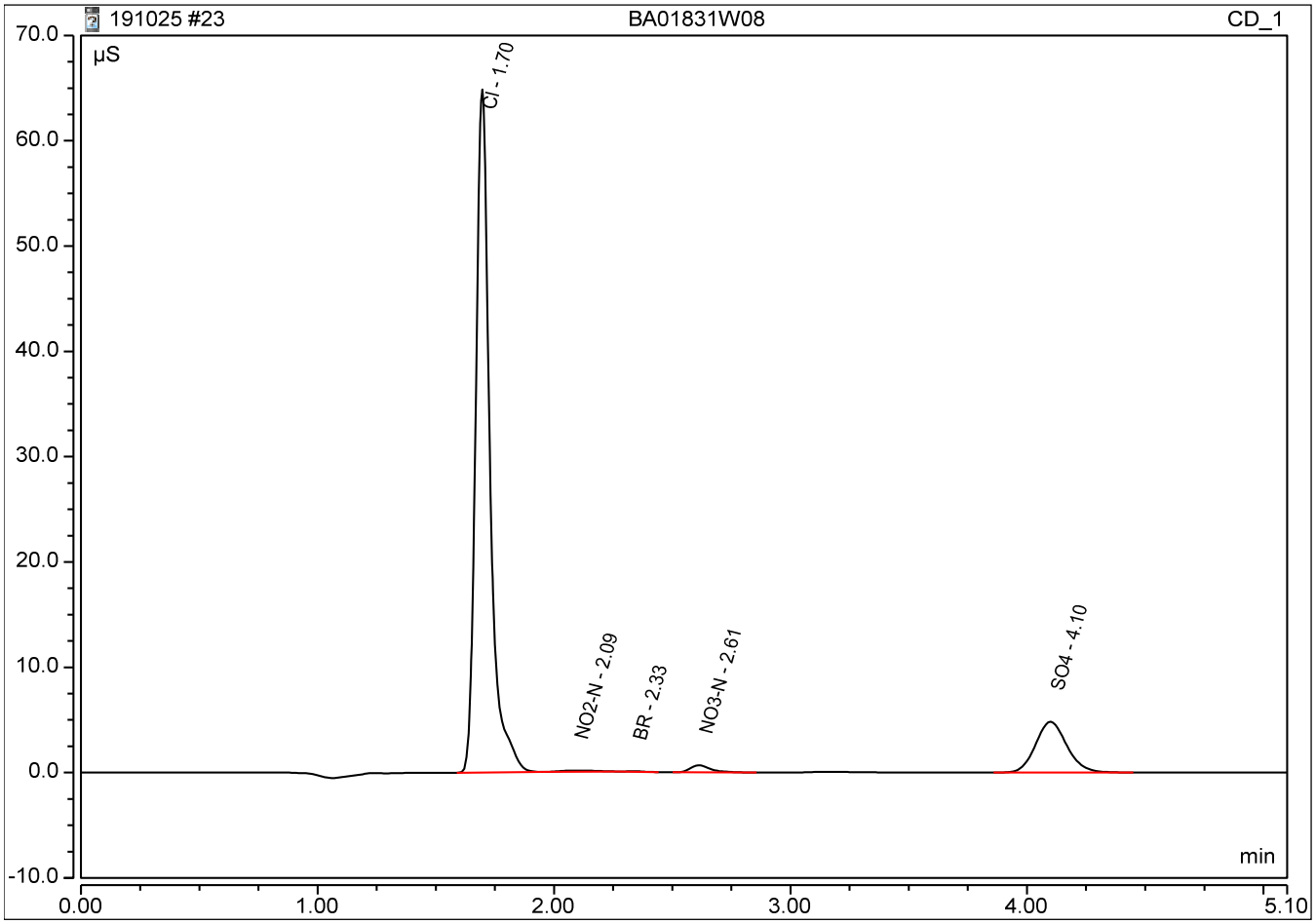


Logged on User: BW
Instrument: Charlie System_1
Sequence: 191025

Peak Integration Report

Sample Name:	**BA01831W08**	*Inj. Vol.:*	**25uL**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.00**
Program:	**Anion APM 190925A**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**25-Oct-2019 / 19:40**	*Run Time:*	**5.10**

No.	Time (min) min	Peak Name	Peak Type	Area (µS*min) µS*min	Height (µS) µS	Amount mg/L	Spike Level mg/L	Recovery
1	1.70	**Cl**	BMB	4.503	64.853	42.63		
2	2.09	**NO2-N**	BMB	0.020	0.118	0.12		
3	2.33	**BR**	BMB	0.004	0.049	0.13		
4	2.61	**NO3-N**	BMB	0.066	0.665	0.32		
5	4.10	**SO4**	BMB	0.740	4.819	11.03		

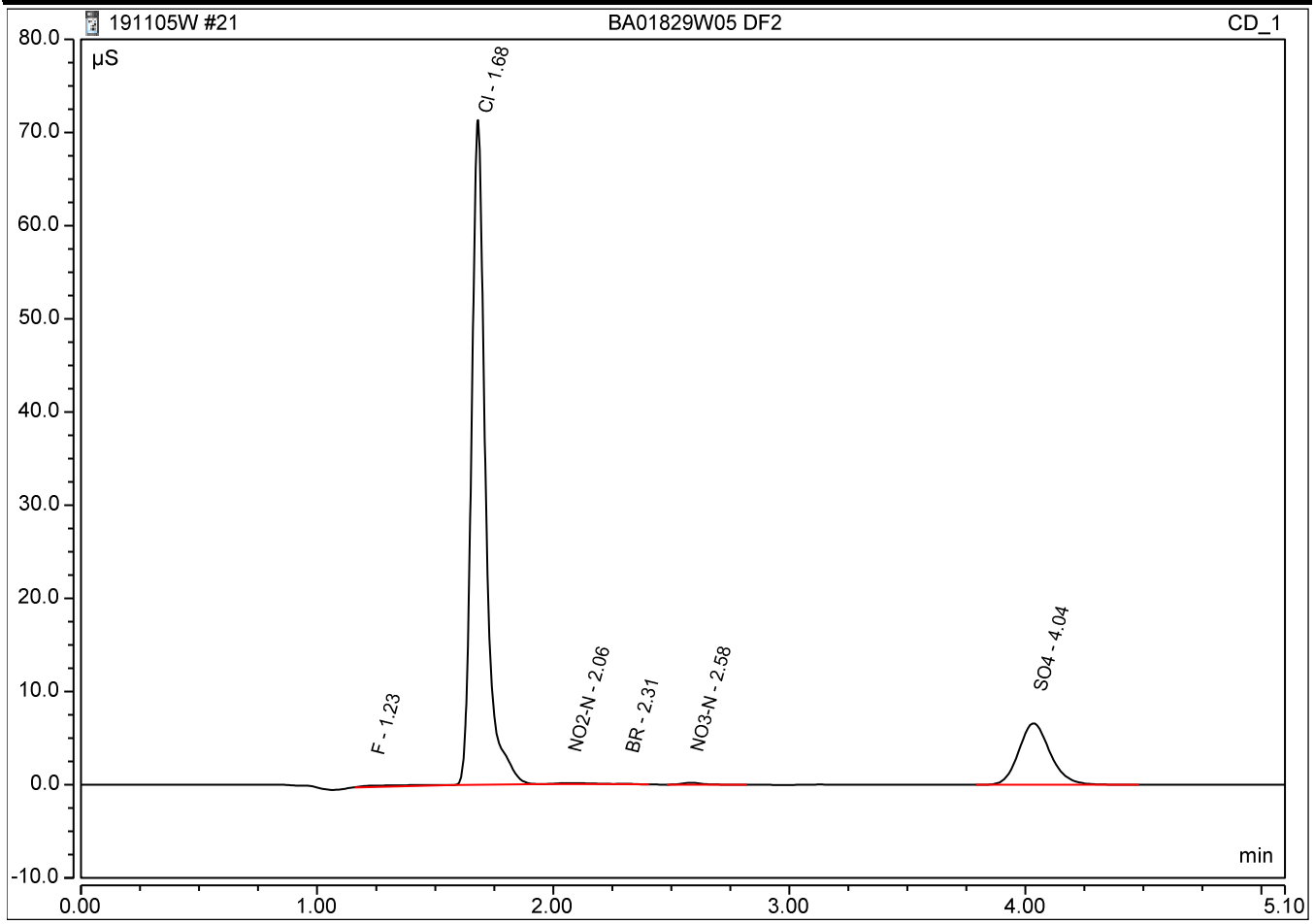


Logged on User: BW
Instrument: Charlie System_1
Sequence: 191105W

Peak Integration Report

Sample Name:	**BA01829W05 DF2**	*Inj. Vol.:*	**25uL**
Injection Type:	**Unknown**	*Dilution Factor:*	**2.00**
Program:	**Anion APM 191030**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**05-Nov-2019 / 22:38**	*Run Time:*	**5.10**

No.	Time (min) min	Peak Name	Peak Type	Area (µS*min) µS*min	Height (µS) µS	Amount mg/L	Spike Level mg/L	Recovery
1	1.23	**F**	BMB	0.035	0.150	0.82		
2	1.68	**Cl**	BMB	4.878	71.333	96.79		
3	2.06	**NO2-N**	BMB	0.017	0.107	0.20		
4	2.31	**BR**	BMB	0.003	0.041	0.23		
5	2.58	**NO3-N**	BMB	0.020	0.208	0.22		
6	4.04	**SO4**	BMB	1.016	6.598	29.99		

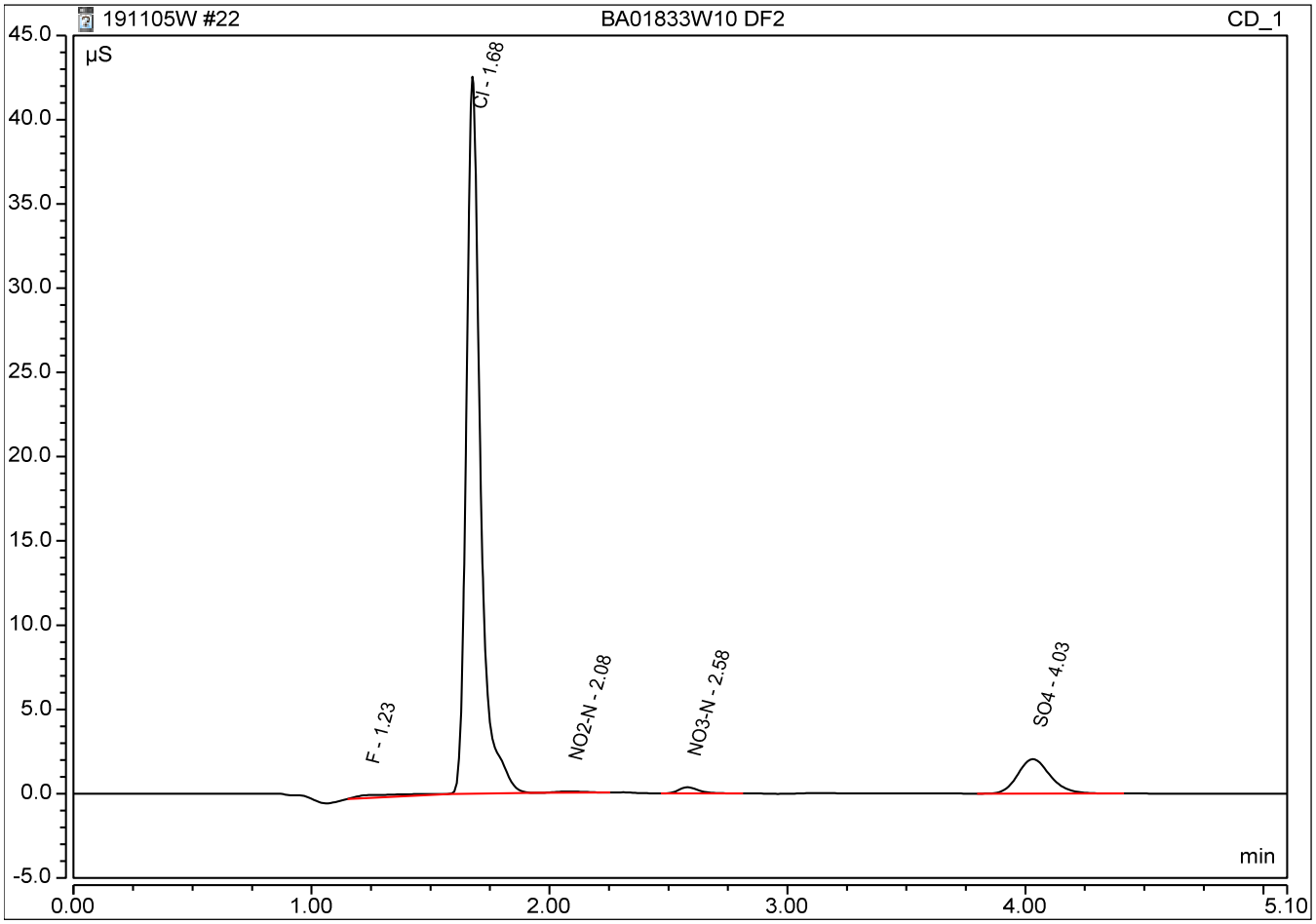


Logged on User: BW
Instrument: Charlie System_1
Sequence: 191105W

Peak Integration Report

Sample Name:	**BA01833W10 DF2**	*Inj. Vol.:*	**25uL**
Injection Type:	**Unknown**	*Dilution Factor:*	**2.00**
Program:	**Anion APM 191030**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**05-Nov-2019 / 22:46**	*Run Time:*	**5.10**

No.	Time (min) min	Peak Name	Peak Type	Area (µS*min) µS*min	Height (µS) µS	Amount mg/L	Spike Level mg/L	Recovery
1	1.23	**F**	BMB	0.040	0.165	0.90		
2	1.68	**Cl**	BMB	2.920	42.548	58.00		
3	2.08	**NO2-N**	BMB	0.012	0.072	0.14		
4	2.58	**NO3-N**	BMB	0.036	0.373	0.37		
5	4.03	**SO4**	BMB	0.324	2.054	9.69		

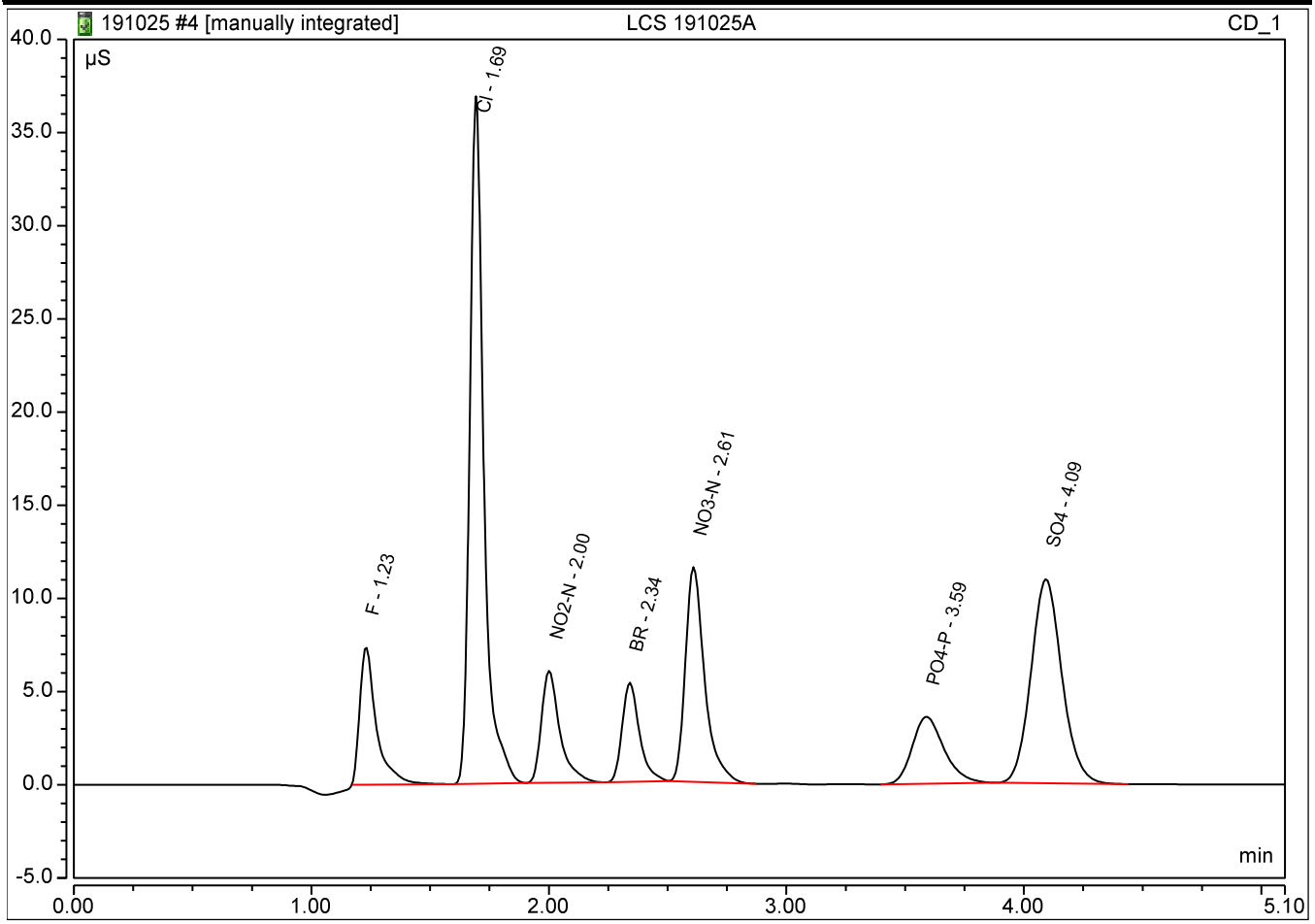


Logged on User: BW
Instrument: Charlie System_1
Sequence: 191025

Peak Integration Report

Sample Name:	**LCS 191025A**	*Inj. Vol.:*	**25uL**
Injection Type:	**Check Standard**	*Dilution Factor:*	**1.00**
Program:	**Anion APM 190925A**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**25-Oct-2019 / 17:18**	*Run Time:*	**5.10**

No.	Time (min) min	Peak Name	Peak Type	Area (µS*min) µS*min	Height (µS) µS	Amount mg/L	Spike Level mg/L	Recovery
1	1.23	**F**	Mb*	0.601	7.415	5.04	5	100.7%
2	1.69	**Cl**	bMB*	2.516	36.889	23.89	25	95.6%
3	2.00	**NO2-N**	BMB	0.543	6.011	3.18	3.04	104.6%
4	2.34	**BR**	BMB	0.449	5.330	12.54	12.5	100.4%
5	2.61	**NO3-N**	BMB	1.084	11.517	4.91	5	98.2%
6	3.59	**PO4-P**	BMB	0.560	3.593	8.54	10	85.4%
7	4.09	**SO4**	BMB	1.653	10.949	24.53	25	98.1%



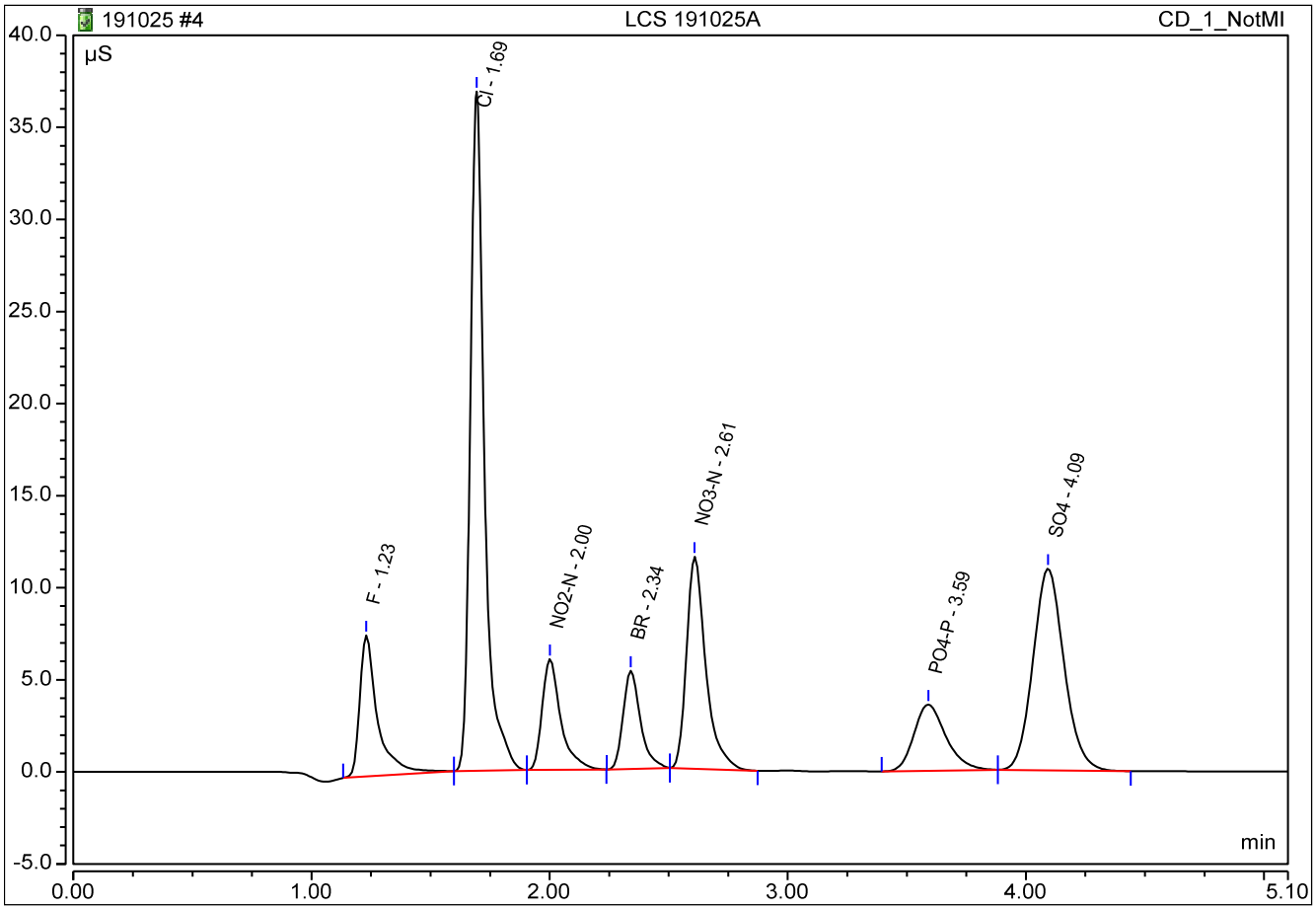
MI1 BW 191119
Algorithm Check
y = Peak Area
x = mg/L S04

y = 0.0676 x + -0.0044
y = 1.6526 therefor x =

Not Manipulated Peak Integration Report

Sample Name:	**LCS 191025A**	*Inj. Vol.:*	**25uL**
Injection Type:	**Check Standard**	*Dilution Factor:*	**1.0000**
Program:	**Anion APM 190925A**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**25-Oct-2019 / 17:18**	*Run Time:*	**5.10**

No.	Time min	Peak Name	Peak Type	Area µS*min	Height µS	Ammount mg/L
1	1.23	**F**	Mb*	0.667	7.670	5.2682
2	1.69	**Cl**	bMB*	2.516	36.888	23.8863
3	2.00	**NO2-N**	BMB	0.543	6.011	3.1786
4	2.34	**BR**	BMB	0.449	5.330	12.5438
5	2.61	**NO3-N**	BMB	1.084	11.517	4.9111
6	3.59	**PO4-P**	BMB	0.560	3.593	8.5389
7	4.09	**SO4**	BMB	1.653	10.949	24.5271

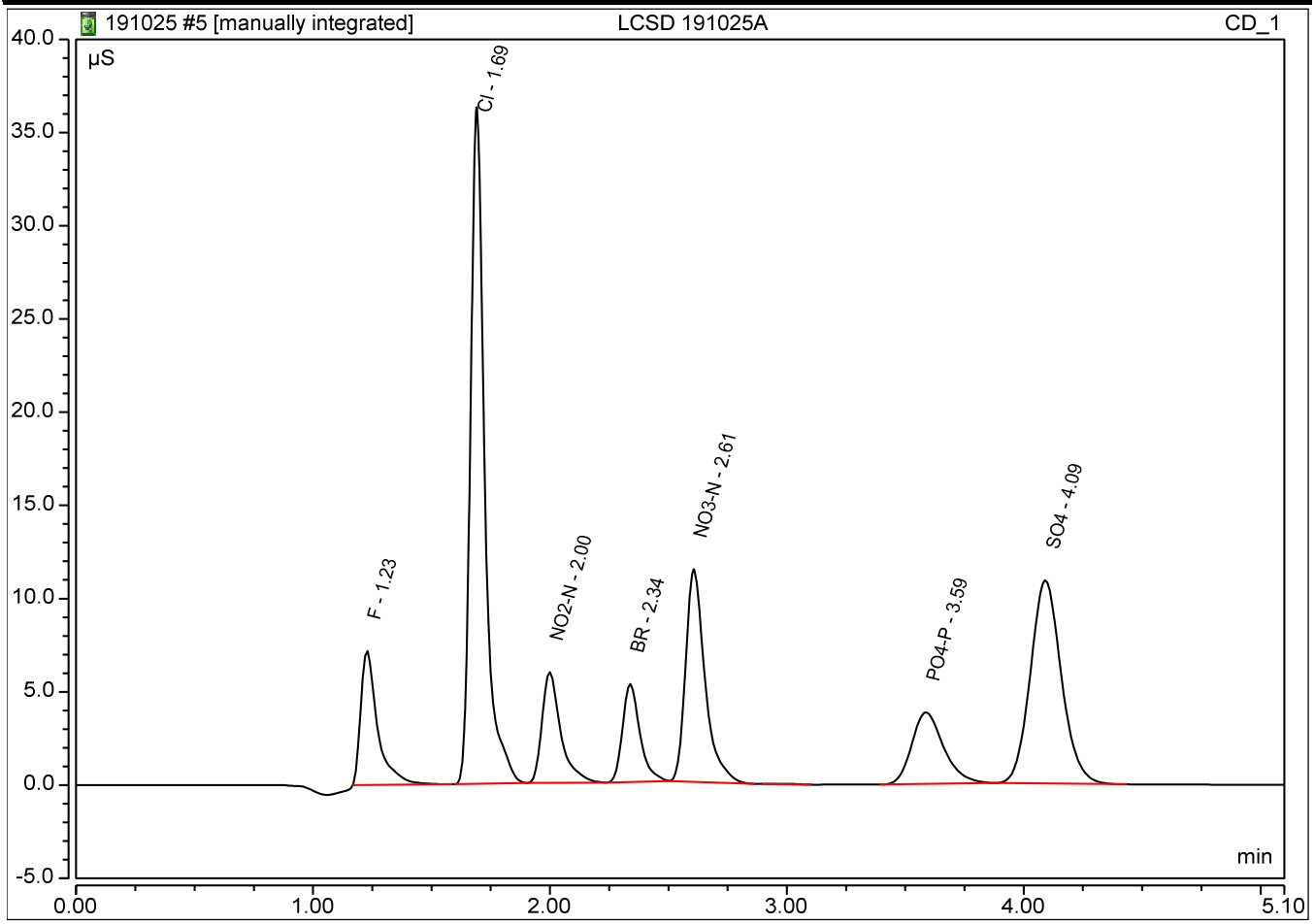


Logged on User: BW
Instrument: Charlie System_1
Sequence: 191025

Peak Integration Report

Sample Name:	**LCSD 191025A**	*Inj. Vol.:*	**25uL**
Injection Type:	**Check Standard**	*Dilution Factor:*	**1.00**
Program:	**Anion APM 190925A**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**25-Oct-2019 / 17:25**	*Run Time:*	**5.10**

No.	Time (min) min	Peak Name	Peak Type	Area (µS*min) µS*min	Height (µS) µS	Amount mg/L	Spike Level mg/L	Recovery
1	1.23	**F**	MB*	0.593	7.217	4.97	5	99.4%
2	1.69	**Cl**	BMB	2.510	36.299	23.82	25	95.3%
3	2.00	**NO2-N**	BMB	0.544	5.954	3.18	3.04	104.6%
4	2.34	**BR**	BMB	0.447	5.269	12.48	12.5	99.8%
5	2.61	**NO3-N**	BMB	1.081	11.401	4.90	5	98.0%
7	3.59	**PO4-P**	BMB	0.598	3.841	9.06	10	90.6%
8	4.09	**SO4**	BMB	1.651	10.902	24.51	25	98.0%

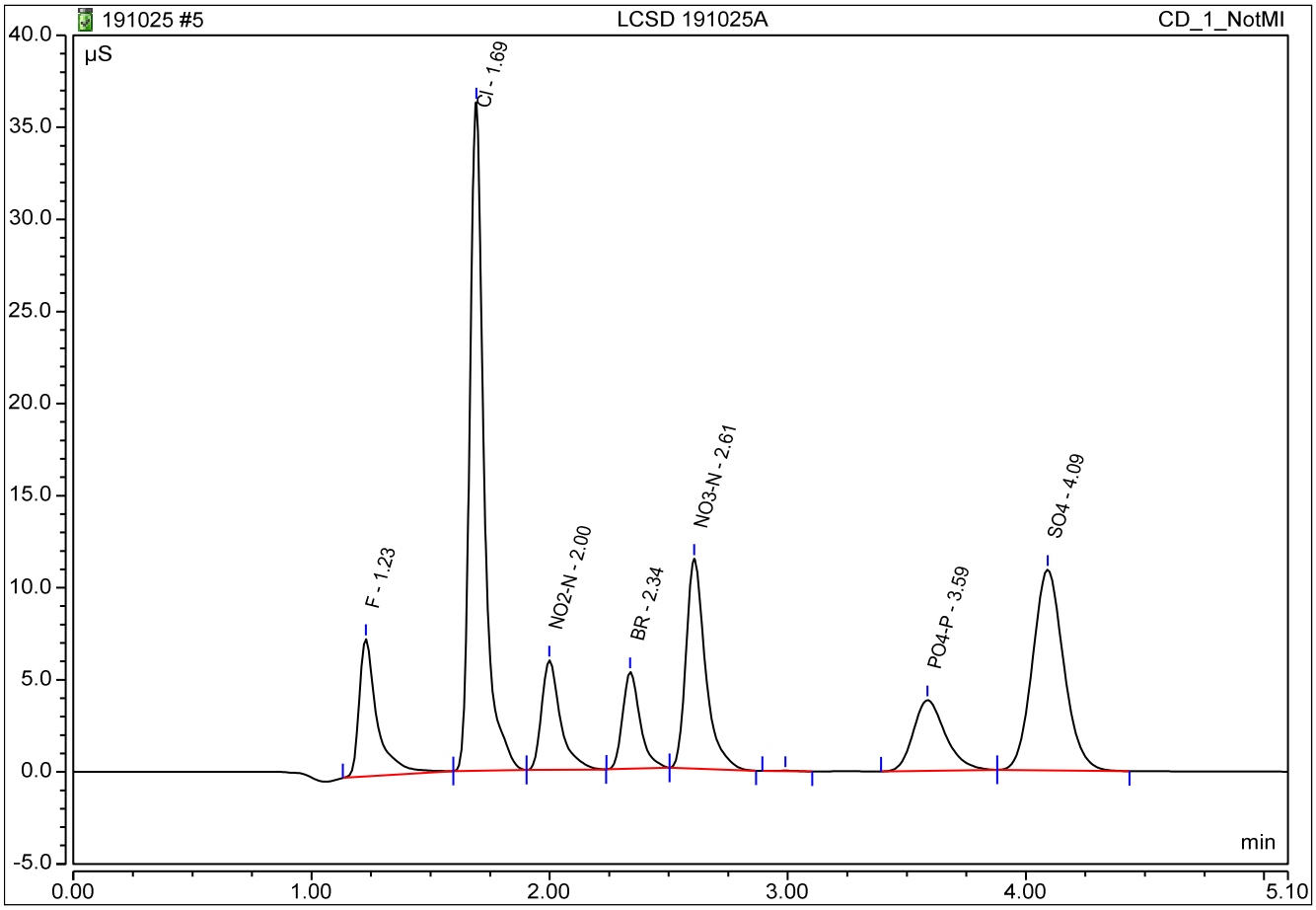


MI1 BW 191119

Not Manipulated Peak Integration Report

Sample Name:	**LCSD 191025A**	*Inj. Vol.:*	**25uL**
Injection Type:	**Check Standard**	*Dilution Factor:*	**1.0000**
Program:	**Anion APM 190925A**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**25-Oct-2019 / 17:25**	*Run Time:*	**5.10**

No.	Time min	Peak Name	Peak Type	Area µS*min	Height µS	Ammount mg/L
1	1.23	**F**	MB*	0.659	7.474	5.2046
2	1.69	**Cl**	BMB	2.510	36.299	23.8249
3	2.00	**NO2-N**	BMB	0.544	5.954	3.1810
4	2.34	**BR**	BMB	0.447	5.269	12.4807
5	2.61	**NO3-N**	BMB	1.081	11.401	4.8981
7	3.59	**PO4-P**	BMB	0.598	3.841	9.0622
8	4.09	**SO4**	BMB	1.651	10.902	24.5077

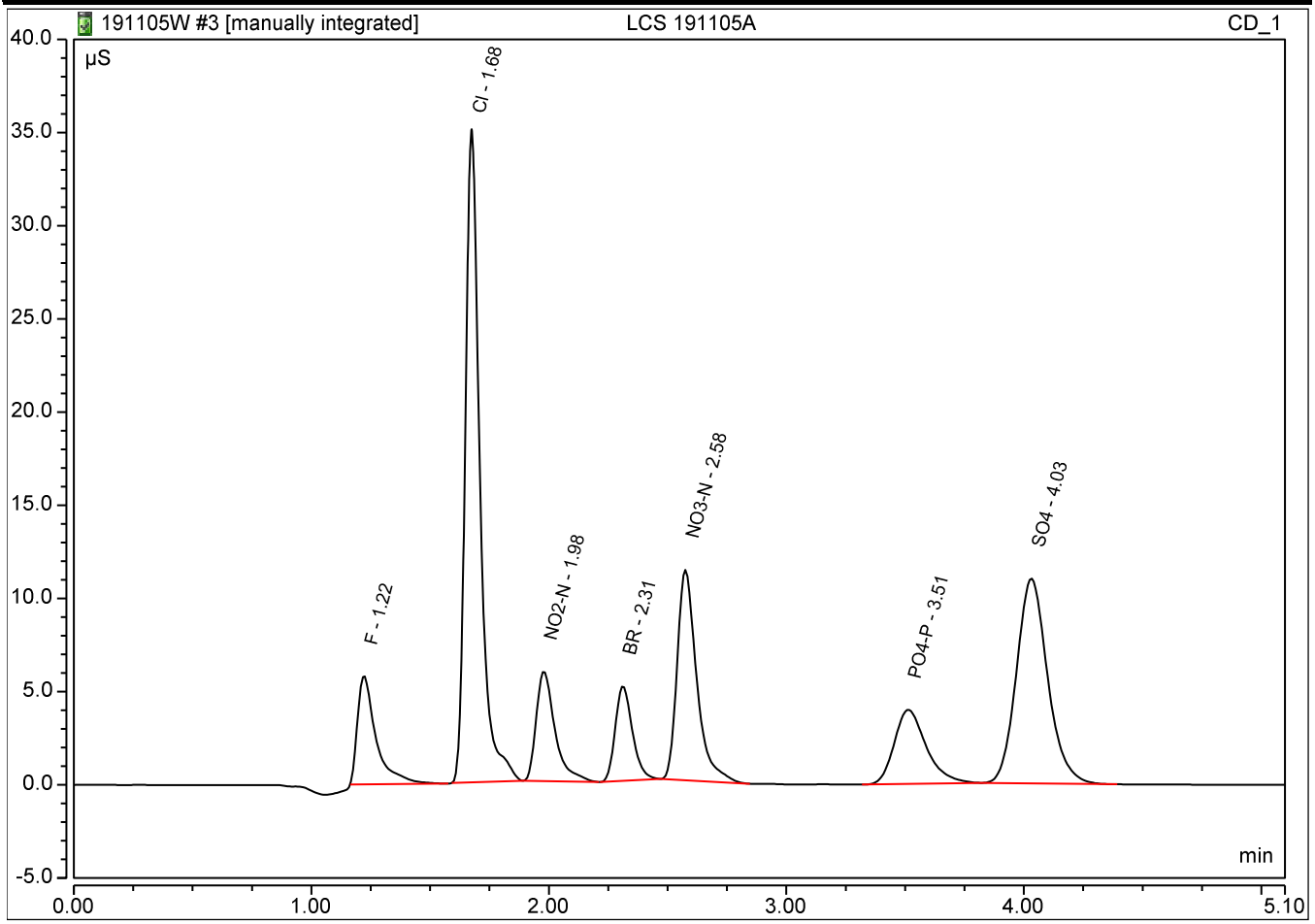


Logged on User: BW
Instrument: Charlie System_1
Sequence: 191105W

Peak Integration Report

Sample Name:	**LCS 191105A**	*Inj. Vol.:*	**25uL**
Injection Type:	**Check Standard**	*Dilution Factor:*	**1.00**
Program:	**Anion APM 191030**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**05-Nov-2019 / 20:23**	*Run Time:*	**5.10**

No.	Time (min) min	Peak Name	Peak Type	Area (µS*min) µS*min	Height (µS) µS	Amount mg/L	Spike Level mg/L	Recovery
1	1.22	**F**	BMB	0.528	5.826	4.55	5	91.1%
2	1.68	**Cl**	BMb*	2.490	35.057	24.74	25	99.0%
3	1.98	**NO2-N**	bMB*	0.542	5.891	3.03	3.04	99.6%
4	2.31	**BR**	BMB	0.427	5.091	12.14	12.5	97.1%
5	2.58	**NO3-N**	BMB	1.081	11.291	4.87	5	97.4%
6	3.51	**PO4-P**	BMB	0.619	3.977	9.59	10	95.9%
7	4.03	**SO4**	BMB	1.675	10.994	24.65	25	98.6%



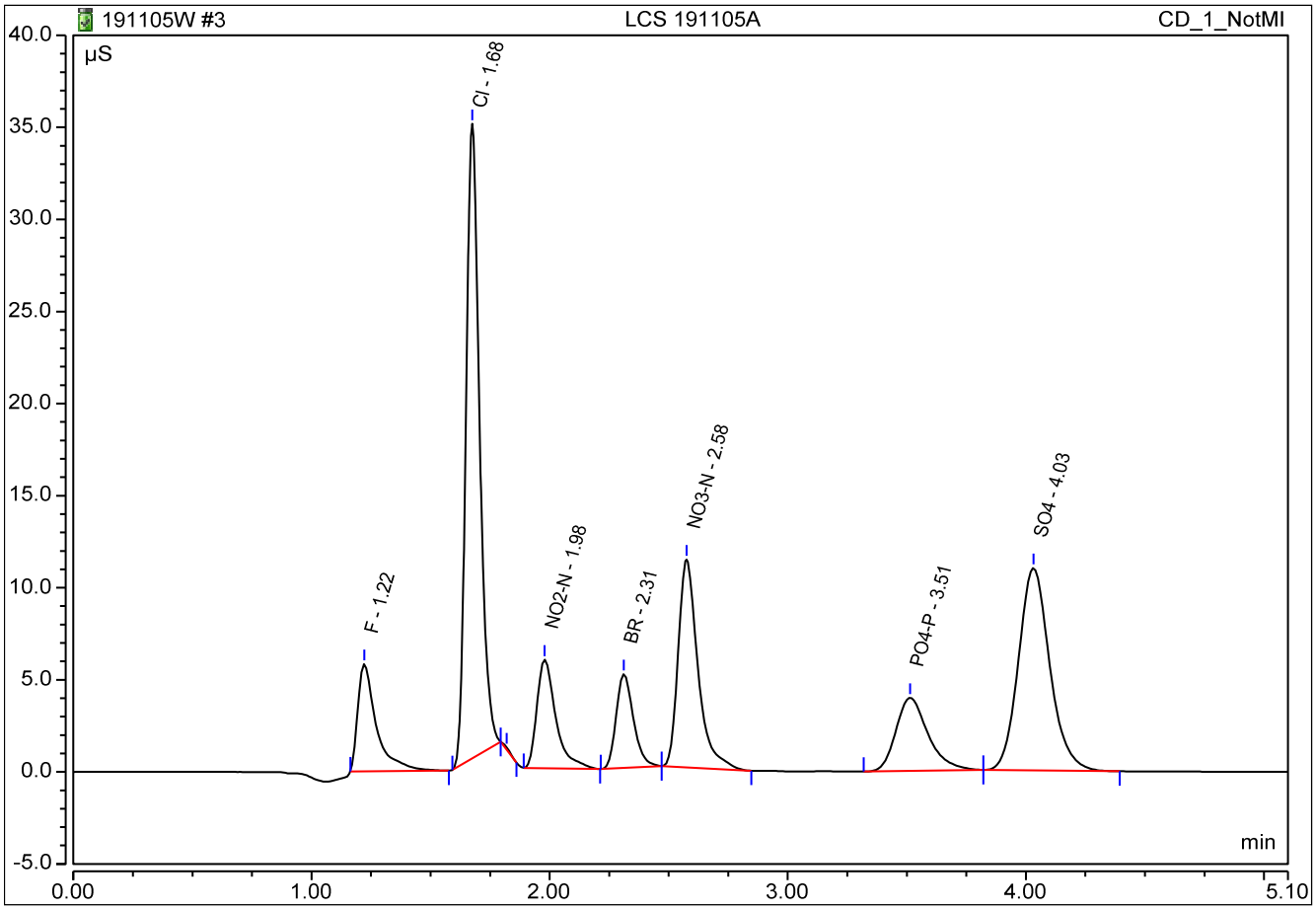
MI4 BW 191114
Algorithm Check
y = Peak Area
x = mg/L S04

y = 0.0682 x + -0.0066
y = 1.6747 therefor x =

Not Manipulated Peak Integration Report

Sample Name:	**LCS 191105A**	*Inj. Vol.:*	**25uL**
Injection Type:	**Check Standard**	*Dilution Factor:*	**1.0000**
Program:	**Anion APM 191030**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**05-Nov-2019 / 20:23**	*Run Time:*	**5.10**

No.	Time min	Peak Name	Peak Type	Area µS*min	Height µS	Ammount mg/L
1	1.22	**F**	BMB	0.528	5.826	4.2733
2	1.68	**Cl**	BMb*	2.278	34.464	22.6377
3	1.98	**NO2-N**	bMB*	0.542	5.891	3.0293
4	2.31	**BR**	BMB	0.427	5.091	12.1412
5	2.58	**NO3-N**	BMB	1.081	11.291	4.8714
6	3.51	**PO4-P**	BMB	0.619	3.977	10.3475
7	4.03	**SO4**	BMB	1.675	10.994	24.6461

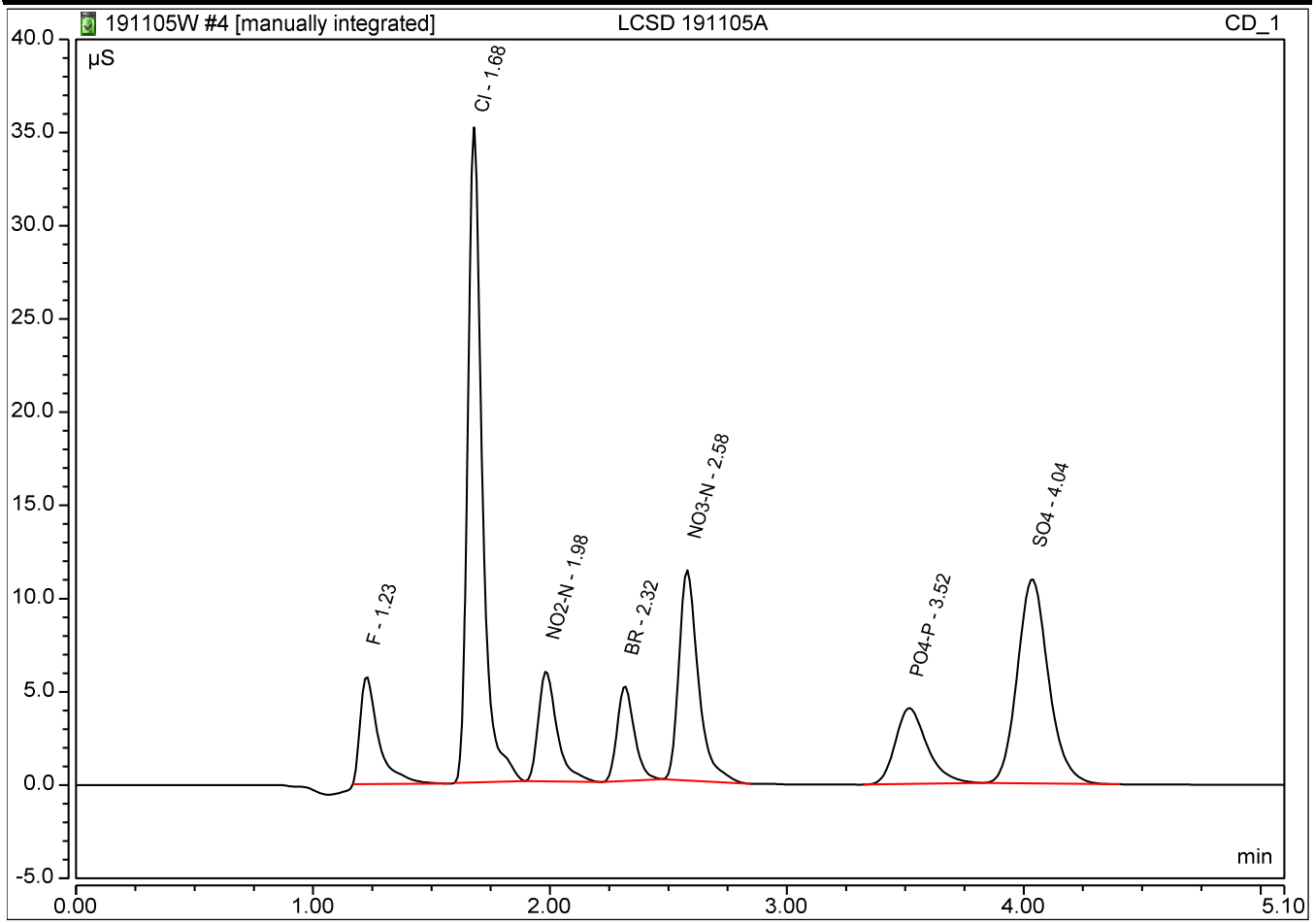


Logged on User: BW
Instrument: Charlie System_1
Sequence: 191105W

Peak Integration Report

Sample Name:	**LCSD 191105A**	*Inj. Vol.:*	**25uL**
Injection Type:	**Check Standard**	*Dilution Factor:*	**1.00**
Program:	**Anion APM 191030**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**05-Nov-2019 / 20:31**	*Run Time:*	**5.10**

No.	Time (min) min	Peak Name	Peak Type	Area (µS*min) µS*min	Height (µS) µS	Amount mg/L	Spike Level mg/L	Recovery
1	1.23	**F**	BMB	0.522	5.786	4.50	5	90.1%
2	1.68	**Cl**	BMb*	2.486	35.141	24.71	25	98.8%
3	1.98	**NO2-N**	bMB*	0.543	5.905	3.03	3.04	99.7%
4	2.32	**BR**	BMB	0.427	5.102	12.14	12.5	97.1%
5	2.58	**NO3-N**	BMB	1.077	11.289	4.86	5	97.1%
6	3.52	**PO4-P**	BMB	0.632	4.067	9.78	10	97.8%
7	4.04	**SO4**	BMB	1.670	10.964	24.58	25	98.3%

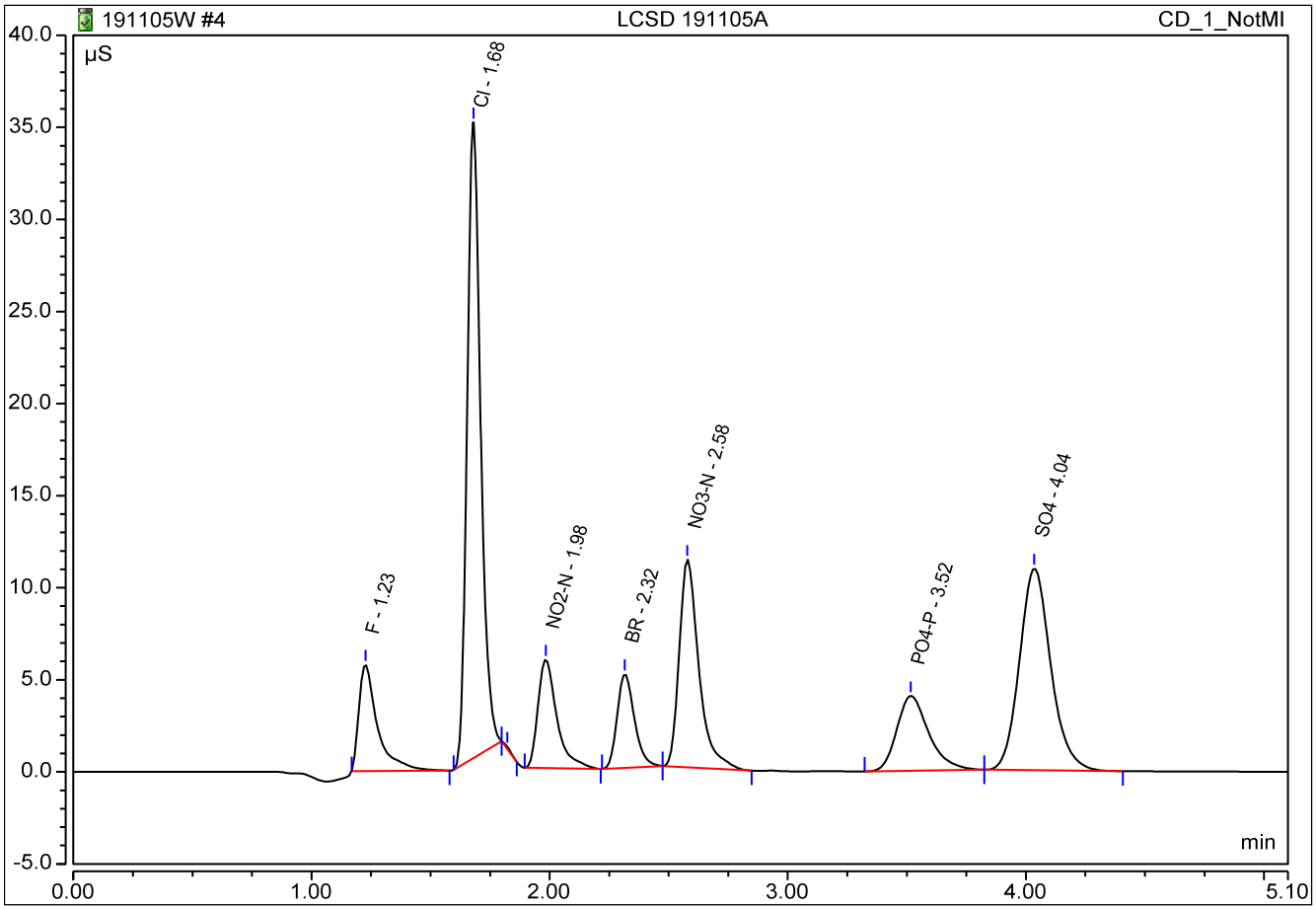


MI4 BW 191114

Not Manipulated Peak Integration Report

Sample Name:	**LCSD 191105A**	*Inj. Vol.:*	**25uL**
Injection Type:	**Check Standard**	*Dilution Factor:*	**1.0000**
Program:	**Anion APM 191030**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**05-Nov-2019 / 20:31**	*Run Time:*	**5.10**

No.	Time min	Peak Name	Peak Type	Area µS*min	Height µS	Ammount mg/L
1	1.23	**F**	BMB	0.522	5.786	4.2199
2	1.68	**Cl**	BMb*	2.270	34.526	22.5615
3	1.98	**NO2-N**	bMB*	0.543	5.905	3.0304
4	2.32	**BR**	BMB	0.427	5.102	12.1421
5	2.58	**NO3-N**	BMB	1.077	11.289	4.8551
6	3.52	**PO4-P**	BMB	0.632	4.067	10.5237
7	4.04	**SO4**	BMB	1.670	10.964	24.5754



Anion Chromatography Working Standard

Prep Date: 09/25/19

Exp Date: 09/26/19

Prep'd By (Initials): BW

Initial Standard Information						Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier Part No.	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date	Aliquot from Stock	Final Volume	Solvent	Final Standard Conc (µg/mL)
Ion Chromatography Standard Fluoride 1000 µg/mL in H2O	o2si	O2SI-062002-01-01	1000	142626-24-38407	10/30/20	312.5 µL	25 mL	Millipore Water	12.5
Ion Chromatography Standard Nitrite 1000 µg/mL in H2O	Inorganic Ventures	ICN021	1000	N2-NOX672889	05/01/20	411 µL	25 mL	Millipore Water	5 as NO2-N
Ion Chromatography Standard Chloride 5000 µg/mL in H2O	o2si	062001-08-03	5000	10084781-1-39578	02/21/20	250 µL	25 mL	Millipore Water	50
Ortho-Phosphate as P Standard	Ultra Scientific	ICC-005A	1000	G34-CP-3323-39057	08/31/23	625 µL	25 mL	Millipore Water	25
Ion Chromatography Standard Nitrate as N 1000 µg/mL in H2O	o2si	062003-01-03	1000	880117-4-39577	02/21/20	250 µL	25 mL	Millipore Water	10
Bromide Standard	Ultra Scientific	ICC-001	1000	CR-5372-39521	12/31/21	625 µL	25 mL	Millipore Water	25
Sulfate Standard	Agilent	ICC-006	1000	CS-0688-40047	03/31/22	1250 µL	25 mL	Millipore Water	50

Anion Chromatography Calibration Curve

Prep Date: 09/25/19

Exp Date: 09/25/19

Prep'd By (Initials): BW

Initial Standard Information						Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. Range (ug/mL)	Reference To APPL Prep Date	Exp. Date	Aliquot from Stock	Final Volume	Solvent	Final Standard Conc. Range (µg/mL)
Anion Chromatography Working Standard	Varies	ICal1	5.0-50.0	Prepared 09/25/19	09/25/19	200 µL	25000 µL	Millipore Water	0.04-0.40
Anion Chromatography Working Standard	Varies	ICal2	5.0-50.0	Prepared 09/25/19	09/25/19	20 µL	1000 µL	Millipore Water	0.1-1.0
Anion Chromatography Working Standard	Varies	ICal3	5.0-50.0	Prepared 09/25/19	09/25/19	50 µL	1000 µL	Millipore Water	0.25-2.5
Anion Chromatography Working Standard	Varies	ICal4	5.0-50.0	Prepared 09/25/19	09/25/19	100 µL	1000 µL	Millipore Water	0.5-5.0
Anion Chromatography Working Standard	Varies	ICal5	5.0-50.0	Prepared 09/25/19	09/25/19	200 µL	1000 µL	Millipore Water	1.0-10.0
Anion Chromatography Working Standard	Varies	ICal6	5.0-50.0	Prepared 09/25/19	09/25/19	500 µL	1000 µL	Millipore Water	2.5-25.0
Anion Chromatography Working Standard	Varies	ICal7	5.0-50.0	Prepared 09/25/19	09/25/19	700 µL	1000 µL	Millipore Water	3.5-35.0
Anion Chromatography Working Standard	Varies	ICal8	5.0-50.0	Prepared 09/25/19	09/25/19	1000 µL	1000 µL	Millipore Water	5.0-50.0

Anion Chromatography LCS/ICV

Prep Date: See injection Log

Exp Date: 24 hours after prep

Prep'd By (Initials): BW

Initial Standard Information						Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier Part No.	Conc. Range (ug/mL)	Lot Number - QA Number	Exp. Date	Aliquot from Stock	Final Volume	Solvent	Final Standard Conc (µg/mL)
Flouride	Inorganic Ventures	ICF1	993-999	K-F652018-39801	10/23/19	125 µL	25 mL	Millipore Water	5
Nitrite	Inorganic Ventures	ICNO21	993-1001	M2-NOX660562-39802	10/23/19	250 µL	25 mL	Millipore Water	10
Chloride	Inorganic Ventures	ICCL1	995-1001	N2CL664868-39036	11/26/19	625 µL	25 mL	Millipore Water	25
O-Phosphate as P	Inorganic Ventures	ICPPO41	1001-1009	M2-POX655826-39803	10/23/19	250 µL	25 mL	Millipore Water	10
Nitrate as N	Inorganic Ventures	ICNNO31	997-1005	N2-NOX667147-39510	10/23/19	125 µL	25 mL	Millipore Water	5
Ion Chromatography Standard Bromide, 1000 µg/mL in H2O	CPI International	4400-IC8M	995-1005	16H087-37320	02/06/20	312.5 µL	25 mL	Millipore Water	12.5
Sulfate	Inorganic Ventures	ICSO41	998-1006	N2-SOX664928-39507	11/27/19	625 µL	25 mL	Millipore Water	25

Anion Chromatography CCV

Prep Date: See injection Log

Exp Date: 24 hours after prep

Prep'd By (Initials): BW

Initial Standard Information						Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier Part No.	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date	Aliquot from Stock	Final Volume	Solvent	Final Standard Conc (µg/mL)
Ion Chromatography Standard Fluoride 1000 µg/mL in H2O	o2si	O2SI-062002-01-01	1000	687393-38-40744	10/30/20	125 µL	25 mL	Millipore Water	5
Ion Chromatography Standard Nitrite 1000 µg/mL in H2O	Inorganic Ventures	ICN021	1000	N2-NOX672889	05/01/20	250 µL	25 mL	Millipore Water	10
Ion Chromatography Standard Chloride 5000 µg/mL in H2O	o2si	062001-08-03	5000	10084781-1-39578	02/21/20	125 µL	25 mL	Millipore Water	25
Ortho-Phosphate as P Standard	Ultra Scientific	ICC-005A	1000	G34-CP-3323-39057	08/31/23	250 µL	25 mL	Millipore Water	10
Ion Chromatography Standard Nitrate as N 1000 µg/mL in H2O	o2si	062003-01-03	1000	880117-4-39577	02/21/20	125 µL	25 mL	Millipore Water	5
Bromide Standard	Ultra Scientific	ICC-001	1000	CR-5372-39521	12/31/21	312.5 µL	25 mL	Millipore Water	12.5
Sulfate Standard	Agilent	ICC-006	1000	CS-0688-40047	03/31/22	625 µL	25 mL	Millipore Water	25

Method 300 and 9056 Injection Log

No.	Position	Injection Description	Inject Time		Type	Comment
1	BA1	ICAL1 190925	25/Sep/2019	16:54	Calibration Standard	
2	BA2	ICAL2 190925	25/Sep/2019	17:01	Calibration Standard	
3	BA3	ICAL5 190925	25/Sep/2019	17:09	Calibration Standard	
4	BA4	ICAL8 190925	25/Sep/2019	17:16	Calibration Standard	
5	R1	ICB 190925	25/Sep/2019	17:24	Unknown	
6	R3	ICV/LCS 190925	25/Sep/2019	17:31	Check Standard	
7	R3	ICVD/LCSD 190925	25/Sep/2019	17:39	Check Standard	
8	R2	CCV 190925	25/Sep/2019	17:46	Check Standard	
9	R1	CCB 190925	25/Sep/2019	17:54	Unknown	
10	RD7	BA00000W03	25/Sep/2019	18:01	Unknown	NDF10 NO3-N Cl; NDF100 SO4
11	RD8	BA00001W01	25/Sep/2019	18:09	Unknown	NDF10 NO3-N Cl; NDF100 SO4
12	RE1	BA00002W01	25/Sep/2019	18:16	Unknown	NDF10 NO3-N Cl; NDF100 SO4
13	RE3	BA00055W12	25/Sep/2019	18:24	Unknown	
14	RE4	BA00055W12 MS	25/Sep/2019	18:31	Unknown	
15	RE5	BA00055W12 MSD	25/Sep/2019	18:39	Unknown	
16	RE6	BA00065W01	25/Sep/2019	18:46	Unknown	
17	RE7	BA00094W12	25/Sep/2019	18:54	Unknown	filtered
18	RE8	BA00098W12	25/Sep/2019	19:01	Unknown	filtered
19	BA5	AZ99900W07	25/Sep/2019	19:09	Unknown	
20	BA6	AZ99908W07	25/Sep/2019	19:16	Unknown	
21	R2	CCV 190925	25/Sep/2019	19:24	Check Standard	
22	R1	CCB 190925	25/Sep/2019	19:31	Unknown	
23	R2	STOP	n.a.		Unknown	

Method 300 and 9056 Injection Log

No.	Position	Injection Description	Inject Time		Type	Comment
1	GE1	ICAL1 191030	30/Oct/2019	18:22	Calibration Standard	
2	GE2	ICAL2 191030	30/Oct/2019	18:29	Calibration Standard	
3	GE3	ICAL5 191030	30/Oct/2019	18:37	Calibration Standard	
4	GE4	ICAL8 191030	30/Oct/2019	18:44	Calibration Standard	
5	R1	ICB 191030	30/Oct/2019	18:52	Unknown	
6	R3	ICV/LCS 191030	30/Oct/2019	18:59	Check Standard	
7	R3	LCSD 191030A	30/Oct/2019	19:07	Check Standard	
8	BA1	BA01825W07	30/Oct/2019	19:14	Unknown	filtered
9	BA2	BA02090	30/Oct/2019	19:22	Unknown	
10	BA3	BA02160	30/Oct/2019	19:29	Unknown	
11	BA4	BA02049W12	30/Oct/2019	19:37	Unknown	filtered
12	BA5	BA02050W07	30/Oct/2019	19:44	Unknown	filtered
13	BA6	BA02053W08	30/Oct/2019	19:52	Unknown	filtered
14	BA7	BA02054W08	30/Oct/2019	19:59	Unknown	filtered
15	BA8	BA01390W01 DF20	30/Oct/2019	20:07	Unknown	NDF20 Cl
16	BB1	BA01390W01 DF5	30/Oct/2019	20:14	Unknown	NDF5 SO4
17	BB2	BA01391W01 DF5	30/Oct/2019	20:22	Unknown	NDF5 Cl SO4
18	BB3	BA01391W01 DF2	30/Oct/2019	20:29	Unknown	NDF2 NO3-N
19	BB4	BA01392W01 DF20	30/Oct/2019	20:37	Unknown	NDF20 Cl
20	R2	CCV 191030	30/Oct/2019	20:44	Check Standard	
21	R1	CCB 191030	30/Oct/2019	20:52	Unknown	
22	BB5	BA01393W01 DF10	30/Oct/2019	20:59	Unknown	NDF10 Cl SO4 NO3-N
23	BB6	BA01459W01 DF10	30/Oct/2019	21:07	Unknown	NDF10 Cl
24	BB7	BA01459W01 DF5	30/Oct/2019	21:14	Unknown	NDF5 SO4
25	BB8	BA01460W01 DF10	30/Oct/2019	21:22	Unknown	NDF10 Cl
26	BC1	BA01460W01 DF5	30/Oct/2019	21:29	Unknown	NDF5 SO4
27	BC2	BA01461W01 DF50	30/Oct/2019	21:37	Unknown	NDF50 Cl
28	BC3	BA01461W01 DF5	30/Oct/2019	21:44	Unknown	NDF5 SO4
29	BC4	BA01875 DF2	30/Oct/2019	21:52	Unknown	SO4 NO3 NO2 Cl filtered; NDF2 SC
30	BC5	BA01876 DF2	30/Oct/2019	21:59	Unknown	SO4 NO3 NO2 Cl filtered; NDF2 SC
31	R2	CCV 191030	30/Oct/2019	22:06	Check Standard	
32	R1	CCB 191030	30/Oct/2019	22:14	Unknown	
33	BC2	Stop	n.a.		Unknown	

Method 300 and 9056 Injection Log

No.	Position	Injection Description	Inject Time		Type	Comment
1	R2	CCV 191105	05/Nov/2019	20:08	Check Standard	
2	R1	CCB 191105	05/Nov/2019	20:16	Unknown	
3	R3	LCS 191105A	05/Nov/2019	20:23	Check Standard	
4	R3	LCSD 191105A	05/Nov/2019	20:31	Check Standard	
5	RD1	BA02459W07	05/Nov/2019	20:38	Unknown	
6	RD2	BA02460W07	05/Nov/2019	20:46	Unknown	
7	RD3	BA02461W06	05/Nov/2019	20:53	Unknown	
8	RD4	BA02462W06	05/Nov/2019	21:01	Unknown	filtered
9	RD6	BA02466W12	05/Nov/2019	21:08	Unknown	
10	RA1	BA01785W04 DF2	05/Nov/2019	21:16	Unknown	NO3 filtered
11	RA2	BA01785W04 DF5	05/Nov/2019	21:23	Unknown	SO4 filtered
12	RA3	BA01785W04 DF10	05/Nov/2019	21:31	Unknown	Cl filtered
13	RA4	BA01786W03 DF5	05/Nov/2019	21:38	Unknown	SO4
14	RA5	BA01786W03 DF20	05/Nov/2019	21:46	Unknown	Cl
15	RA6	BA01787W04 DF2	05/Nov/2019	21:53	Unknown	NO3 SO4
16	RA7	BA01788W04 DF2	05/Nov/2019	22:01	Unknown	Cl SO4 filtered
17	RA8	BA01789W04 DF2	05/Nov/2019	22:08	Unknown	SO4 filtered
18	RB1	BA01789W04 DF5	05/Nov/2019	22:16	Unknown	Cl filtered
19	R2	CCV 191105	05/Nov/2019	22:23	Check Standard	
20	R1	CCB 191105	05/Nov/2019	22:31	Unknown	
21	RB2	BA01829W05 DF2	05/Nov/2019	22:38	Unknown	Cl
22	RB3	BA01833W10 DF2	05/Nov/2019	22:46	Unknown	Cl
23	RB4	BA01824W07 DF10	05/Nov/2019	22:53	Unknown	Cl
24	RB5	BA01825W07 DF2	05/Nov/2019	23:01	Unknown	Cl
25	RB6	BA02062W06 DF50	05/Nov/2019	23:08	Unknown	SO4
26	RB7	BA01875W07 DF10	05/Nov/2019	23:16	Unknown	Cl
27	RB8	BA02187W01 MS	05/Nov/2019	23:23	Unknown	NO3
28	RC1	BA02187W01 DF2	05/Nov/2019	23:31	Unknown	NO3
29	RC2	BA02188W01 MS	05/Nov/2019	23:38	Unknown	NO3
30	RC3	BA02188W01 DF2	05/Nov/2019	23:45	Unknown	NO3
31	RC4	BA02189W01 MS	05/Nov/2019	23:53	Unknown	NO3
32	RC5	BA02189W01 DF2	06/Nov/2019	00:00	Unknown	NO3
33	RC6	BA02192W01 MS	06/Nov/2019	00:08	Unknown	NO3
34	RC7	BA02192W01 DF2	06/Nov/2019	00:15	Unknown	NO3
35	R2	CCV 191105	06/Nov/2019	00:23	Check Standard	
36	R1	CCB 191105	06/Nov/2019	00:30	Unknown	
37	RC8	BA02301W10 DF2	06/Nov/2019	00:38	Unknown	Cl
38	RD5	BA02216W07 DF5	06/Nov/2019	00:45	Unknown	Cl
39	R2	CCV 191105	06/Nov/2019	00:53	Check Standard	
40	R1	CCB 191105	06/Nov/2019	01:00	Unknown	
41	R2	Stop	06/Nov/2019	01:05	Unknown	

Method 300 and 9056 Injection Log

No.	Position	Injection Description	Inject Time		Type	Comment
1	R2	CCV 191025	25/Oct/2019	16:55	Check Standard	
2	R1	CCB 191025	25/Oct/2019	17:03	Unknown	
3	BA8	BA01822	25/Oct/2019	17:10	Unknown	
4	R3	LCS 191025A	25/Oct/2019	17:18	Check Standard	
5	R3	LCSD 191025A	25/Oct/2019	17:25	Check Standard	
6	BA1	BA01115W01	25/Oct/2019	17:33	Unknown	PT NO2N
7	BA2	BA01785W03	25/Oct/2019	17:40	Unknown	KS 191024 1000
8	BA3	BA01786W03	25/Oct/2019	17:48	Unknown	KS 191024 1040
9	BA4	BA01787W03	25/Oct/2019	17:55	Unknown	KS 191024 1140
10	BA5	BA01788W03	25/Oct/2019	18:03	Unknown	KS 191024 1245
11	BA6	BA01789W03	25/Oct/2019	18:10	Unknown	KS 191024 1325
12	BA7	BA01821W07	25/Oct/2019	18:18	Unknown	Bat 191023 1531
13	BB1	BA01822W19 MS	25/Oct/2019	18:25	Unknown	NO3 NO2 SO4 Cl Bat 191023 1705
14	BB2	BA01822W19 MSD	25/Oct/2019	18:33	Unknown	NO3 NO2 SO4 Cl Bat 191023 1705
15	BB3	BA01823W07	25/Oct/2019	18:40	Unknown	Bat 191023 1300
16	BB4	BA01824W07	25/Oct/2019	18:48	Unknown	Bat 191024 1005
17	R2	CCV 191025	25/Oct/2019	18:55	Check Standard	
18	R1	CCB 191025	25/Oct/2019	19:03	Unknown	
19	BB5	BA01826W08	25/Oct/2019	19:10	Unknown	Bat 191024 1149
20	BB6	Bat 191023 1636	25/Oct/2019	19:18	Unknown	Bat 191023 1636 "extra" sample no
21	BB7	BA01829W05	25/Oct/2019	19:25	Unknown	RH 191024 1025
22	BB8	BA01833W08	25/Oct/2019	19:33	Unknown	RH 191023 1145
23	BC1	BA01831W08	25/Oct/2019	19:40	Unknown	RH 191024 0830
24	BC2	BA01658W07 DF2	25/Oct/2019	19:48	Unknown	ndf2 SO4
25	BC3	BA01265W06 DF2	25/Oct/2019	19:55	Unknown	ndf2 SO4
26	BC4	BA01263W01 DF2	25/Oct/2019	20:03	Unknown	ndf2 SO4
27	BC5	BA01264W01 DF2	25/Oct/2019	20:10	Unknown	ndf2 SO4
28	R2	CCV 191025	25/Oct/2019	20:18	Check Standard	
29	R1	CCB 191025	25/Oct/2019	20:25	Unknown	
30	R2	STOP	n.a.		Unknown	

INORGANIC ANALYSIS
Calibration Data

A.P.P.L. INC.
2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: A.P.P.L. INC. Contract: AECOM
ARF No: 90559 SDG: 90559
Initial Calibration Source: Inorganic Ventures
Continuing Calibration Source: o2si
Analysis Date: 10/30/19

Analyte	Calibration Verification									M
	True ICV	Found 16:46	%R(1)	True CCV1	Found 17:08	%R(1)	True CCV1	Found 17:34	%R(1)	
TOXN	3	3.0905	103	3	2.8652	95.5	3	3.1513	105	

(1) Control Limits: 90-110

A.P.P.L. INC.
3
BLANKS

Lab Name: A.P.P.L. INC. Contract: AECOM

ARF No.: 90559 SDG: 90559

Preparation Blank Matrix (soil/water): water

Preparation Blank Concentration Units (ug/L or mg/kg): mg/L

Analyte	Calibration Blanks										M
	ICB 10/30/19 16:48	C	CCB 10/30/19 17:10	C	CCB 10/30/19 17:35	C		C		C	
TOXN	.028	J	.100	U	.100	U					

INORGANIC ANALYSIS
Raw Data

TOTAL ORGANIC CARBON

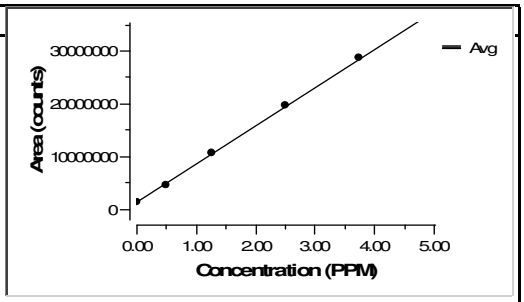
Method: WetChem | Units mg/L | Instrument: Tic Toc

Analyte: TOC | QCG: 191109B

Analyist: AR | Final Volume: 40mL

Date	Time	Appl ID	[TOC]	Raw	% Recovery
10/31/19	19:20	QC blank	0.00	1130.000	
10/31/19	19:56	Ical 1	0.50	7935.000	
10/31/19	20:28	Ical 2	2.00	24866.000	
10/31/19	21:02	Ical 3	5.00	59510.000	
10/31/19	21:35	Ical 4	10.00	118117.000	
10/31/19	22:08	Ical 5	20.00	235471.000	
11/01/19	10:03	ICB	0.08	883.000	
11/01/19	10:39	ICV	10.40	121613.000	104.0%

r^2= 0.9987



Date	Time	Appl ID	DF	Raw Result	SubSample Amount	Filter Blank Subtract	Calc Conc	Result	Range (mg/L)	QC True	% Recovery
2019-11-10	05:57 PM	CCV (using only 2 reps)	1	30693	40mL	0.000	5.092	5.09	5.02	5.00	101.8%
2019-11-10	06:33 PM	CCB	1	3132	40mL	0.000	0.132	0.13	0.03		
2019-11-10	07:09 PM	191107B LCS	1	61937	40mL	0.000	5.161	5.16	0.00	5.00	103.2%
2019-11-10	07:45 PM	191107B LCSD	1	61458	40mL	0.000	5.12	5.12	0.11	5.00	102.4%
2019-11-10	08:22 PM	BA01829W13	1	3442	40mL	0.000	0.29	0.29	0.00		
2019-11-10	08:55 PM	BA01831W18	1	3097	40mL	0.000	0.261	0.26	0.00		
2019-11-10	09:28 PM	BA01833W18	1	3748	40mL	0.000	0.316	0.32	0.01		
2019-11-10	10:01 PM	BA01943W05	1	11113	40mL	0.000	0.946	0.95	0.03		
2019-11-10	10:34 PM	BA01944W05	1	9966	40mL	0.000	0.848	0.85	0.02		
2019-11-10	11:07 PM	BA01945W05	1	80872	40mL	0.000	6.912	6.91	0.28		
2019-11-10	11:41 PM	BA01946W05	1	133487	40mL	0.000	11.412	11.41	0.22		
2019-11-11	12:15 AM	BA02090W11	1	5880	40mL	0.000	0.499	0.50	0.20		
2019-11-11	12:49 AM	BA02160W05	1	59396	40mL	0.000	5.075	5.08	0.62		
2019-11-11	01:23 AM	BA02160W05 DUP	1	62368	40mL	0.000	5.33	5.33	0.06		
2019-11-11	01:57 AM	BA02160W06 MS	1	107404	40mL	0.000	9.181	9.18	0.10		
2019-11-11	02:32 AM	BA02160W06 MSD	1	96261	40mL	0.000	8.229	8.23	3.77		
2019-11-11	03:06 AM	BA02214W15	1	3797	40mL	0.000	0.321	0.32	0.01		
2019-11-11	03:39 AM	CCV	1	60889	40mL	0.000	5.071	5.07	0.05	5.00	101.4%
2019-11-11	04:15 AM	CCB	1	2581	40mL	0.000	0.084	0.08	0.01		
2019-11-11	04:51 AM	BA02216W08	1	9510	40mL	0.000	0.809	0.81	0.01		
2019-11-11	05:24 AM	BA02216W08 DUP	1	9608	40mL	0.000	0.818	0.82	0.01		
2019-11-11	05:58 AM	BA02301W19	1	158152	40mL	0.000	13.521	13.52	0.09		
2019-11-11	06:32 AM	BA02053W10	1	72253	40mL	0.000	6.175	6.18	0.02		
2019-11-11	07:06 AM	BA02054W10	1	42094	40mL	0.000	3.596	3.60	0.01		
2019-11-11	07:40 AM	BA02401W01	1	16638	40mL	0.000	1.419	1.42	0.01		
2019-11-11	08:13 AM	BA02402W01	1	14218	40mL	0.000	1.212	1.21	0.01		
2019-11-11	08:46 AM	BA02403W01	1	10362	40mL	0.000	0.882	0.88	0.00		
2019-11-11	09:19 AM	BA02404W01	1	21221	40mL	0.000	1.811	1.81	0.05		
2019-11-11	09:52 AM	BA02405W01	1	5819	40mL	0.000	0.493	0.49	0.01		
2019-11-11	10:25 AM	BA02406W01	1	14849	40mL	0.000	1.266	1.27	0.02		
2019-11-11	10:59 AM	CCV	1	62637	40mL	0.000	5.221	5.22	0.02	5.00	104.4%
2019-11-11	11:35 AM	CCB	1	2582	40mL	0.000	0.085	0.09	0.00		

TOTAL ORGANIC CARBON

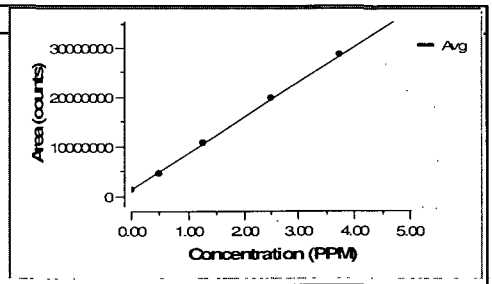
Method: WetChem
Analyte: DOC
Analyist: AR

Units mg/L
QCG: 191105A
Final Volume: 40mL

Instrument: Tic Toc

Date	Time	Appl ID	[TOC]	Raw	% Recovery
10/31/19	19:20	QC blank	0.00	1130.000	
10/31/19	19:56	Ical 1	0.50	7935.000	
10/31/19	20:28	Ical 2	2.00	24866.000	
10/31/19	21:02	Ical 3	5.00	59510.000	
10/31/19	21:35	Ical 4	10.00	118117.000	
10/31/19	22:08	Ical 5	20.00	235471.000	
11/01/19	10:03	ICB	0.08	883.000	
11/01/19	10:39	ICV	10.40	121613.000	104.0%

r^2= 0.9987



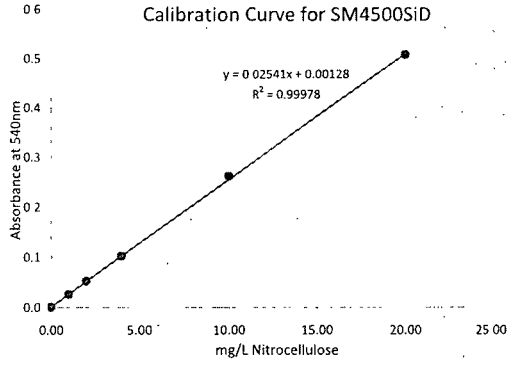
Date	Time	Appl ID	DF	Raw Result	SubSample Amount	Filter Blank Subtract	Calc Conc	Result	Range (mg/L)	QC True	% Recovery
2019-11-05	03:44 PM	CCV	1	63408	40mL	0.010	5.287	5.28	0.13	5.00	105.5%
2019-11-05	04:20 PM	CCB	1	1709	40mL	0.010	0.01	0.00	0.01		
2019-11-05	04:56 PM	191105A LCS	1	60895	40mL	0.010	5.072	5.06	0.08		
2019-11-05	05:31 PM	191105A LCSD	1	60928	40mL	0.010	5.074	5.06	0.02		
2019-11-05	06:07 PM	BA01736W14	1	60233	40mL	0.010	5.147	5.14	2.88		
2019-11-05	06:41 PM	BA01736W14 DUP	1	69335	40mL	0.010	5.926	5.92	0.16		
2019-11-05	07:14 PM	BA01736W14 MS	1	120114	40mL	0.010	10.268	10.26	2.84		
2019-11-05	07:48 PM	BA01736W14 MSD	1	122952	40mL	0.010	10.511	10.50	1.63		
2019-11-05	08:21 PM	BA01737W09	1	15408	40mL	0.010	1.314	1.30	0.01		
2019-11-05	08:54 PM	BA01738W09	1	9921	40mL	0.010	0.844	0.83	0.01		
2019-11-05	09:27 PM	BA01739W09	1	20767	40mL	0.010	1.772	1.76	0.03		
2019-11-05	10:00 PM	BA01740W13	1	112932	40mL	0.010	9.654	9.64	0.16		
2019-11-05	11:08 PM	BA01784W18	1	6306	40mL	0.010	0.535	0.53	0.21		
2019-11-05	11:41 PM	BA01747W09	1	116542	40mL	0.010	9.963	9.95	0.04		
2019-11-06	12:15 AM	BA01748W09	1	46602	40mL	0.010	3.981	3.97	0.04		
2019-11-06	12:48 AM	BA01749W13	1	67409	40mL	0.010	5.761	5.75	0.01		
2019-11-06	01:21 AM	CCV	1	62631	40mL	0.010	5.22	5.21	0.24	5.00	104.2%
2019-11-06	01:57 AM	CCB	1	2052	40mL	0.010	0.039	0.03	0.01		
2019-11-06	02:33 AM	BA01750W09	1	12342	40mL	0.010	1.051	1.04	0.01		
2019-11-06	03:06 AM	BA01751W09	1	12675	40mL	0.010	1.08	1.07	0.01		
2019-11-06	04:13 AM	BA01753W13	1	76200	40mL	0 010	6.513	6.50	0.14		
2019-11-06	04:47 AM	BA01831W18	1	4158	40mL	0.010	0.351	0.34	0.05		
2019-11-06	05:20 AM	BA01833W18 DUP	1	4389	40mL	0.010	0.371	0.36	0.02		
2019-11-06	05:53 AM	BA01833W18	1	4799	40mL	0.010	0.406	0.40	0.01		
2019-11-06	06:26 AM	BA02301W17	1	39760	40mL	0.010	3.396	3.39	0.04		
2019-11-06	06:59 AM	CCV	1	61255	40mL	0.010	5.103	5.09	0.25	5.00	101.9%
2019-11-06	07:36 AM	CCB	1	1897	40mL	0.010	0.026	0.02	0.01		

	Silica	Rev 2, 04/05/19 controlled copy	
Method SM4500SiD	Units mg/L		Instrument: Genisis Spectrometer
Analyte Silica	QCG: 191030A		Wavelength: 410 nm
Analyist FJR	Final Volume: 25mL		Units: mg/L

Date	Time	Appl ID	[SiO2]	Absorbance	% Recovery
10/30/19	20:57	ICB	0.00	0.000	
10/30/19	20:57	Ical 1	1.00	0.026	97.3%
10/30/19	20:58	Ical 2	2.00	0.052	99.8%
10/30/19	20:59	Ical 3	4.00	0.102	91.2%
10/30/19	20:59	Ical 4	10.00	0.261	102.2%
10/30/19	21:00	Ical 5	20.00	0.507	99.5%
10/30/19	21:01	ICV	4.00	0.101	98.1%
10/30/19	21:02	ICB	0.00	0.001	

Slope	0.025413773
Intercept	0.00128173
Coefficient of Determination	0.999784861

Algortithm Check:	Appl ID	Absorbance	Result
	191030A 4 LCS	0.098	3.81
Result = (Absorbance-Raw Blk-Intercept)/ Slope			
Test:	10/30/19	FJR	3.810



	Date	Time	Appl ID	DF	Raw Result	Sample Amount	Raw BLK	Calc Conc	Result	QC True	% Recovery
id	10/30/19	20:57	ICB	1	0.000	25.0mL		-0.05	-0.05		
id	10/30/19	20:57	Ical 1	1	0.026	25.0mL		0.97	0.97	1.00	97.3%
id	10/30/19	20:58	Ical 2	1	0.052	25.0mL		2.00	2.00	2.00	99.8%
id	10/30/19	20:59	Ical 3	1	0.094	25.0mL		3.65	3.65	4.00	91.2%
id	10/30/19	20:59	Ical 4	1	0.261	25.0mL		10.22	10.22	10.00	102.2%
id	10/30/19	21:00	Ical 5	1	0.507	25.0mL		19.90	19.90	20.00	99.5%
id	10/30/19	21:01	ICV	1	0.101	25.0mL		3.92	3.92	4.00	98.1%
id	10/30/19	21:02	ICB	1	0.001	25.0mL		-0.01	-0.01		
	10/30/19	21:03	191030A CCV1 4	1	0.253	25mL		9.90	9.90	10.00	99.0%
	10/30/19	21:04	191030A CCB	1	0.003	25mL		0.07	0.07		
	10/30/19	21:04	191030A BLK	1	0.001	25mL		-0.01	-0.01		
	10/30/19	21:04	191030A 4 LCS	1	0.098	25mL		3.81	3.81	4.00	95.1%
	10/30/19	21:04	191030A 4 LCSD	1	0.097	25mL		3.77	3.77	4.00	94.2%
	10/30/19	21:05	BA01831W09 Total DF:	5	0.281	25mL		11.01	55.03		
	10/30/19	21:05	BA01833W08 Total DF:	5	0.322	25mL		12.62	63.10		
	10/30/19	21:06	BA01833W08 MS Total	5	0.387	25mL		15.18	75.89		
	10/30/19	21:07	BA01833W08 MSD Tot	5	0.389	25mL		15.26	76.28		
	10/30/19	21:07	BA01831W08 Dissolve l	5	0.280	25mL		10.97	54.84		
	10/30/19	21:08	BA01833W09 Dissolve l	5	0.312	25mL		12.23	61.13		
	10/30/19	21:08	BA01833W09 MS Disso	5	0.361	25mL		14.15	70.77		
	10/30/19	21:08	BA01833W09 MSD Dis:	5	0.363	25mL		14.23	71.17		
	10/30/19	21:09	191030A CCV1 3	1	0.101	25mL		3.92	3.92	4.00	98.1%
	10/30/19	21:09	191030A CCB	1	0.001	25mL		-0.01	-0.01		

Ferrous Iron — Rev 2, 04-05-19

Method SM3500Fe | Units mg/L | Instrument: Genisis Spectrometer
Analyte Fe2+ | QCG: 191025 | Wavelength: 510 nm
Analyist fjr | Final Volume: 50mL | Units: mg/L

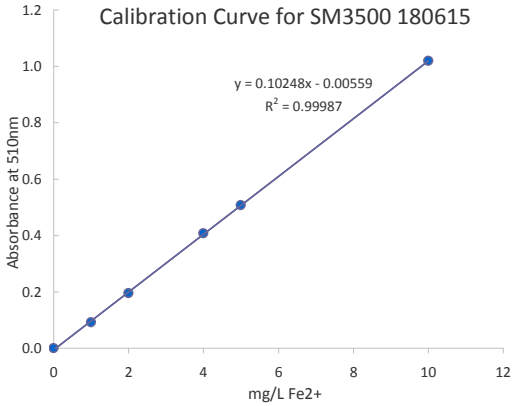
Date	Time	Appl ID	[Fe2+]	Absorbance	% Recovery
06/28/19	12:48	ICB	0.00	0.000	
06/28/19	12:49	Ical 1	1.00	0.092	95.2%
06/28/19	12:50	Ical 2	2.00	0.195	97.9%
06/28/19	12:51	Ical 3	4.00	0.408	100.9%
06/28/19	12:51	Ical 4	5.00	0.507	100.0%
06/28/19	12:52	Ical 5	10.00	1.019	100.0%
06/28/19	13:08	ICV	3.00	0.326	107.9%
06/28/19	12:53	ICB	0.00	0.002	

Slope	0.102479592
Intercept	-0.005591837
Coefficient of Determination	0.999872044

Algortithm Check:	Appl ID	Absorbance	Result
	ICV/LCS 191025A	0.316	3.14

Result = (Absorbance-Raw Blk-Intercept)/ Slope

Test:	FJR	10/25/19	3.14



Date	Time	Appl ID	DF	Raw Result	SubSample Amount	Raw BLK	Calc Conc	Result	QC True	% Recovery
10/25/19	21:53	CCV 4.0 191025	1	0.404	25mL		4.00	4.00	4.00	99.9%
10/25/19	21:52	CCB 191025	1	0.000	25mL		0.05	0.05		
10/25/19	21:54	ICV/LCS 191025A	1	0.316	25mL		3.14	3.14	3.00	104.6%
10/25/19	21:54	ICV/LCSD 191025A	1	0.315	25mL		3.13	3.13	3.00	104.3%
10/25/19	21:55	BA01831W19	1	0.003	25mL		0.08	0.08		
10/25/19	21:56	BA01829W14	1	0.139	25mL		1.41	1.41		
10/25/19	21:57	BA01833W19	1	0.004	25mL		0.09	0.09		
10/25/19	21:57	BA01833W19 MS	1	0.317	25mL		3.15	3.15		
10/25/19	21:58	BA01833W19 MSD	1	0.318	25mL		3.16	3.16		
10/25/19	21:59	CCV 4.0 191025	1	0.410	25mL		4.06	4.06	4.00	101.4%
10/25/19	21:59	CCB 191025	1	0.001	25mL		0.06	0.06		

AQ2 Tray Report

Serial Number:	190170
Software Version:	2.1.0
Report Requested By:	Eve V
Date & Time:	2019-10-31 08:20:35
Tray Number:	1
Tray Name:	191030A NO2 NO3 TOXN

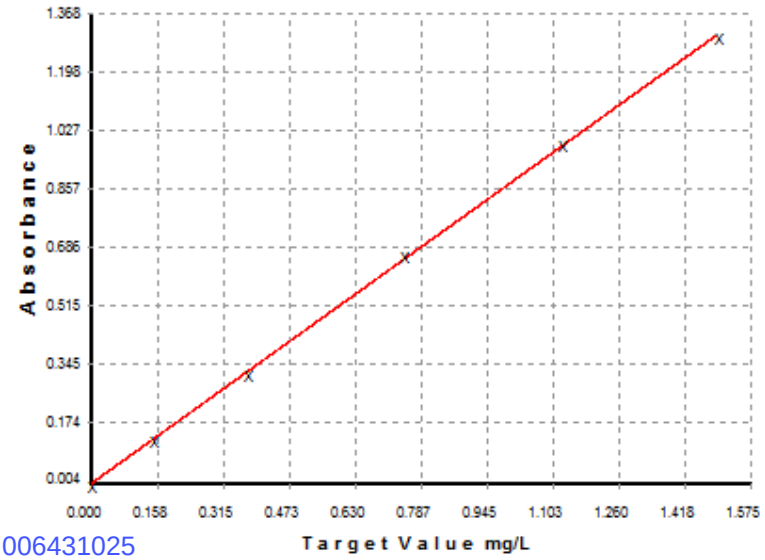
Nitrite-N

Calibration Chart

Type	Absorbance	Calc mg/L	Target mg/L	% Error
S1	0.0035	-0.0024	0.0000	
S90	0.1362	0.1502	0.1500	0.12
S91	0.3269	0.3695	0.3750	-1.47
S92	0.6663	0.7597	0.7500	1.30
S93	0.9890	1.1309	1.1250	0.52
S94	1.3031	1.4921	1.5000	-0.53
S0	0.0119	0.0073	0.0000	

Polynomial Order:	1
Correlation Coefficient:	0.9999
Carryover(%):	0.6
Calibration equation:	y = bx + a
y =:	Concentration mg/L
x =:	Measured absorbance
a =:	-6.431025E-003
b =:	1.149926E+000
Date & Time:	2019-10-30 15:43:58

Calibration Graph



Algorithm check

y = 1.149926(0.633547)-0.006431025

y = 0.722

EV 11/04/19

Reagents

Name	Batch	Prepared By	Expiry Date
Sulfa-NEDD		Joel	
NO2 Buffer		Joel	

Test Results

Cup	Type	ID	Result	Units	QC Pro	Raw Data	Auto Dil.	Man Dil.	User	Time/Date
	S1	Standard 1	0.0035			0.003533			Ev	2019-10-30 15:36:38
	S90	Standard 90	0.1362			0.136189			Ev	2019-10-30 15:37:51
	S91	Standard 91	0.3269			0.326914			Ev	2019-10-30 15:39:04
	S92	Standard 92	0.6663			0.666286			Ev	2019-10-30 15:40:18
	S93	Standard 93	0.9890			0.989008			Ev	2019-10-30 15:41:31
	S94	Standard 94	1.3031			1.303149			Ev	2019-10-30 15:42:45
	S0	Standard 0	0.0119			0.011923			Ev	2019-10-30 15:43:58
	CCV	CCV .75	0.7444	mg/L		0.652965			Ev	2019-10-30 15:45:12
	CCB	CCB	0.0032	mg/L		0.008362			Ev	2019-10-30 15:46:26
3	U1	✓ICV NO2	0.7221	mg/L		0.633547			Ev	2019-10-30 15:47:40
4	U2	ICV NO3 TOXN	0.0035	mg/L		0.008663			Ev	2019-10-30 15:48:54
5	U3	ICB NO2 NO3 TOXN	-0.0007	mg/L		0.004979			Ev	2019-10-30 15:50:07
6	U4	191030A BLK NO2 NO3 TOXN	-0.0015	mg/L		0.004276			Ev	2019-10-30 15:51:22
7	U5	191030A LCS NO2	0.7391	mg/L		0.648356			Ev	2019-10-30 15:52:36
8	U6	191030A LCSD NO2	0.7324	mg/L		0.642501			Ev	2019-10-30 15:53:50
9	U7	191030A LCS NO3 TOXN	0.0040	mg/L		0.009100			Ev	2019-10-30 15:55:05
10	U8	191030A LCSD NO3 TOXN	-0.0015	mg/L		0.004262			Ev	2019-10-30 15:56:19

11	U9	1ppm NO2	1.0014	mg/L	0.876442	Ev	2019-10-30 15:57:33
12	U10	1ppm NO3	0.0057	mg/L	0.010591	Ev	2019-10-30 15:58:46
	CCV	CCV .75	0.7541	mg/L	0.661411	Ev	2019-10-30 16:00:00
	CCB	CCB	0.0029	mg/L	0.008090	Ev	2019-10-30 16:01:15
13	U11	NO2 LOD	0.0277	mg/L	0.029650	Ev	2019-10-30 16:01:54
14	U12	NO2 LOQ	0.1973	mg/L	0.177170	Ev	2019-10-30 16:04:03
15	U13	NO3 LOD	0.0007	mg/L	0.006199	Ev	2019-10-30 16:06:16
16	U14	NO3 LOQ	-0.0010	mg/L	0.004763	Ev	2019-10-30 16:08:34
23	U21	BA02056W05 MS	0.7502	mg/L	0.657989	Ev	2019-10-30 16:10:51
24	U22	BA02056W05 MSD	0.7549	mg/L	0.662087	Ev	2019-10-30 16:13:09
	CCV	CCV .75	0.7578	mg/L	0.664614	Ev	2019-10-30 16:15:27
	CCB	CCB	0.0037	mg/L	0.008785	Ev	2019-10-30 16:17:40

TOXN

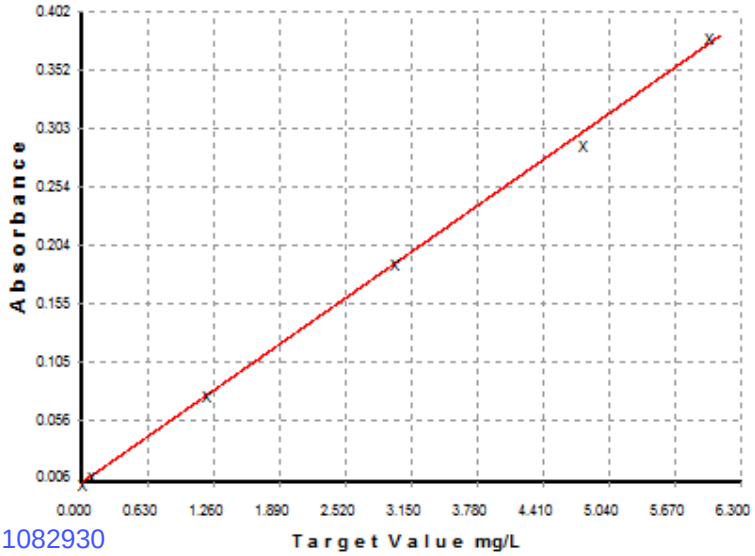
Calibration Chart

Type	Absorbance	Calc mg/L	Target mg/L	% Error
S1	0.0064	-0.0046	0.0000	
S90	0.0138	0.1160	0.1000	16.04
S91	0.0818	1.2214	1.2000	1.78
S92	0.1914	3.0041	3.0000	0.14
S93	0.2926	4.6487	4.8000	-3.15
S94	0.3827	6.1145	6.0000	1.91
S0	0.0081	0.0239	0.0000	

Polynomial Order: 1
Correlation Coefficient: 0.9994
Carryover(%): 0.5
Calibration equation: y = bx + a
y =: Concentration mg/L
x =: Measured absorbance
a =: -1.082930E-001
b =: 1.625895E+001
Date & Time: 2019-10-30 16:39:35

Algorithm check
y = 16.25895(0.196738)-0.1082930
y = 3.09
EV 11/04/19

Calibration Graph



Reagents

Name	Batch	Prepared By	Expiry Date
NO3 W Buffer		Joel	
Sulfa-NEDD		Joel	

Test Results

Cup	Type	ID	Result	Units	QC Pro	Raw Data	Auto Dil.	Man Dil.	User	Time/Date
	S1	Standard 1	0.0064			0.006375			Ev	2019-10-30 16:26:26
	S90	Standard 90	0.0138			0.013798			Ev	2019-10-30 16:28:37
	S91	Standard 91	0.0818			0.081779			Ev	2019-10-30 16:30:49
	S92	Standard 92	0.1914			0.191425			Ev	2019-10-30 16:33:00
	S93	Standard 93	0.2926			0.292576			Ev	2019-10-30 16:35:11
	S94	Standard 94	0.3827			0.382729			Ev	2019-10-30 16:37:23
	S0	Standard 0	0.0081			0.008131			Ev	2019-10-30 16:39:35
	CCV	CCV	2.9201	mg/L		0.186258			Ev	2019-10-30 16:41:46
	CCB	CCB	0.0181	mg/L		0.007776			Ev	2019-10-30 16:43:59
4	U2	✓ ICV NO3 TOXN	3.0905	mg/L		0.196738			Ev	2019-10-30 16:46:11
5	U3	ICB NO2 NO3 TOXN	0.0281	mg/L		0.008390			Ev	2019-10-30 16:48:23
6	U4	191030A BLK NO2 NO3 TOXN	0.0102	mg/L		0.007286			Ev	2019-10-30 16:50:36
9	U7	191030A LCS NO3 TOXN	2.9798	mg/L		0.189930			Ev	2019-10-30 16:52:49
10	U8	191030A LCSD NO3 TOXN	3.0298	mg/L		0.193008			Ev	2019-10-30 16:55:01
12	U10	1ppm NO3	1.0330	mg/L		0.070192			Ev	2019-10-30 16:57:13
15	U13	NO3 LOD	0.0688	mg/L		0.010893			Ev	2019-10-30 16:59:25
16	U14	NO3 LOQ	0.2110	mg/L		0.019638			Ev	2019-10-30 17:01:37
17	U15	TOXN LOD	0.1075	mg/L		0.013273			Ev	2019-10-30 17:03:50
18	U16	TOXN LOQ	0.2096	mg/L		0.019554			Ev	2019-10-30 17:06:02
	CCV	CCV	2.8652	mg/L		0.182881			Ev	2019-10-30 17:08:14
	CCB	CCB	0.0117	mg/L		0.007381			Ev	2019-10-30 17:10:27
19	U17	BA01829W13	0.2112	mg/L		0.019652			Ev	2019-10-30 17:12:40
20	U18	BA01831W18	0.3468	mg/L		0.027991			Ev	2019-10-30 17:14:52
21	U19	BA01833W18	0.3915	mg/L		0.030740			Ev	2019-10-30 17:17:05
22	U20	BA02056W05	3.9974	mg/L		0.252517			Ev	2019-10-30 17:19:17
23	U21	BA02056W05 MS	7.0984	mg/L		0.050319	x10.0000		Ev	2019-10-30 18:03:40
23	U21	BA02056W05 MS	6.8110	mg/L		0.425568			Ev	2019-10-30 17:21:29
24	U22	BA02056W05 MSD	7.3676	mg/L		0.051975	x10.0000		Ev	2019-10-30 18:04:36
24	U22	BA02056W05 MSD	6.9942	mg/L		0.436834			Ev	2019-10-30 17:23:41
25	U23	BA02057W05	0.1075	mg/L		0.013273			Ev	2019-10-30 17:25:53
26	U24	BA02058W05	0.0423	mg/L		0.009264			Ev	2019-10-30 17:28:05
27	U25	BA02059W05	2.1847	mg/L		0.141031			Ev	2019-10-30 17:30:17
28	U26	BA02060W05	0.3724	mg/L		0.029564			Ev	2019-10-30 17:32:29

	CCV	CCV	3.1513	mg/L	0.200480	Ev	2019-10-30 17:34:42
	CCB	CCB	0.0255	mg/L	0.008226	Ev	2019-10-30 17:35:21
29	U27	BA02062W05	0.5397	mg/L	0.039854	Ev	2019-10-30 17:36:26
30	U28	BA02063W05	0.3519	mg/L	0.028305	Ev	2019-10-30 17:37:22
31	U29	BA02064W05	0.5813	mg/L	0.042413	Ev	2019-10-30 17:38:18
32	U30	BA02065W05	0.0430	mg/L	0.009305	Ev	2019-10-30 17:39:14
33	U31	BA02066W05	0.7257	mg/L	0.051296	Ev	2019-10-30 17:40:10
34	U32	BA02067W05	0.0206	mg/L	0.007926	Ev	2019-10-30 17:41:06
	CCV	CCV	3.0689	mg/L	0.195414	Ev	2019-10-30 17:42:02
	CCB	CCB	0.0255	mg/L	0.008226	Ev	2019-10-30 17:42:59
	CCV	CCV	3.1668	mg/L	0.201436		2019-10-30 18:01:46
	CCB	CCB	0.0173	mg/L	0.007722		2019-10-30 18:02:43
	CCV	CCV	2.9391	mg/L	0.187431		2019-10-30 18:05:32
	CCB	CCB	0.0168	mg/L	0.007694		2019-10-30 18:06:29

Nitrate-N

Test Results

Cup	Type	ID	Result	Units	QC Pro	Raw Data	Auto Dil.	Man Dil.	User	Time/Date
4	U2	ICV NO3 TOXN	3.0869	mg/L		0.000000			Ev	2019-10-30 16:46:11
4	U2	ICV NO3 TOXN				0.000000			Ev	2019-10-30 16:46:11
5	U3	ICB NO2 NO3 TOXN	0.0288	mg/L		0.000000			Ev	2019-10-30 16:48:23
5	U3	ICB NO2 NO3 TOXN				0.000000			Ev	2019-10-30 16:48:23
6	U4	191030A BLK NO2 NO3 TOXN	0.0117	mg/L		0.000000			Ev	2019-10-30 16:50:36
6	U4	191030A BLK NO2 NO3 TOXN				0.000000			Ev	2019-10-30 16:50:36
9	U7	191030A LCS NO3 TOXN	2.9757	mg/L		0.000000			Ev	2019-10-30 16:52:49
9	U7	191030A LCS NO3 TOXN				0.000000			Ev	2019-10-30 16:52:49
10	U8	191030A LCSD NO3 TOXN	3.0313	mg/L		0.000000			Ev	2019-10-30 16:55:01
10	U8	191030A LCSD NO3 TOXN				0.000000			Ev	2019-10-30 16:55:01
12	U10	1ppm NO3	1.0272	mg/L		0.000000			Ev	2019-10-30 16:57:13
12	U10	1ppm NO3				0.000000			Ev	2019-10-30 16:57:13
15	U13	NO3 LOD	0.0681	mg/L		0.000000			Ev	2019-10-30 16:59:25
15	U13	NO3 LOD				0.000000			Ev	2019-10-30 16:59:25
16	U14	NO3 LOQ	0.2120	mg/L		0.000000			Ev	2019-10-30 17:01:37
16	U14	NO3 LOQ				0.000000			Ev	2019-10-30 17:01:37
23	U21	BA02056W05 MS	6.3482	mg/L		0.000000			Ev	2019-10-30 18:03:40
23	U21	BA02056W05 MS				0.000000			Ev	2019-10-30 18:03:40
24	U22	BA02056W05 MSD	6.6127	mg/L		0.000000			Ev	2019-10-30 18:04:36
24	U22	BA02056W05 MSD				0.000000			Ev	2019-10-30 18:04:36

Metrohm 814/809 Titrando Data

Sample ID	Analysis Date/Time	Method	Titration Volume (to 8.3)	Titration Volume (total)	OH	CO3	HCO3	Total Alk	Unit	Sample Vol	N	Batch	Initials
BA01833W10	2019-10-30 11:41:35 UTC-8	Alkalinity	0.000	1.468	0.00	0.00	61.07	61.07	mg/L	25 mL	0.0208	191030A	CD
BA01831W10	2019-10-30 11:36:39 UTC-8	Alkalinity	0.000	1.284	0.00	0.00	53.41	53.41	mg/L	25 mL	0.0208	191030A	CD
BA01829W05	2019-10-30 11:31:49 UTC-8	Alkalinity	0.000	1.184	0.00	0.00	49.25	49.25	mg/L	25 mL	0.0208	191030A	CD
191030A LCSD	2019-10-30 08:43:58 UTC-8	Alkalinity	0.288	5.966	0.00	23.96	224.22	248.19	mg/L	25 mL	0.0208	191030A	CD
191030A LCS	2019-10-30 08:16:28 UTC-8	Alkalinity	0.304	5.952	0.00	25.29	222.31	247.60	mg/L	25 mL	0.0208	191030A	CD
191030A BLK	2019-10-30 08:13:55 UTC-8	Alkalinity	0.000	0.000	0.00	0.00	0.00	0.00	mg/L	25 mL	0.0208	191030A	CD

Tiamo Alkalinity Standard Prep

Prep Date:

Exp Date:

Prep'd By (Initials): AR

Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Unit	Conc	Lot Number - QA Number	Prep/Opened	Exp. Date	Aliquot from Stock	Final Volume	Solvent	Final Standard Conc
Sulfuric Acid (H2SO4)	J.T.Baker	NA	NA	167828	NA	NA	PURCHASED	NA	NA	NA
0.10N Sulfuric Acid (H2SO4)	J.T.Baker	Normality	0.1N	167828	05/24/19	05/24/20	3ml	1L	DI	0.10N
0.02N Sulfuric Acid (H2SO4)	J.T.Baker	Normality	0.02N	167828	05/24/19	05/24/20	200mL	1L	DI	0.02N
Inorganic Spike(NaHCO3)	BDH	NA	NA	1575C510	10/18/18	08/14/20	PURCHASED	NA	NA	NA
Inorganic Spike Solution	BDH	Milligrams/Liters	250mg/L	1575C510	09/17/19	03/17/20	3.5g	500mL	DI	250mg/L
Standarizing Solution(NaCO3)	J.T.Baker	Normality	1N	178494	07/25/17	07/25/19	PURCHASED	NA	NA	NA

Name of Final Standard TOC Calibration Curve — **Prep'd By (Initials)** AR

Prep Date 06/11/19

Exp Date 07/09/19

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from contianer Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
Total Organic Carbon (TOC) Standard	Agilent	IQC-1 06-5	1000 mg/L	CS-5157-40233	11/30/20	20 uL	40 mL	DI Water	0.5 ppm
Total Organic Carbon (TOC) Standard	Agilent	IQC-1 06-5	1000 mg/L	CS-5157-40233	11/30/20	50 uL	40 mL	DI Water	1.25 ppm
Total Organic Carbon (TOC) Standard	Agilent	IQC-1 06-5	1000 mg/L	CS-5157-40233	11/30/20	100 uL	40 mL	DI Water	2.5 ppm
Total Organic Carbon (TOC) Standard	Agilent	IQC-1 06-5	1000 mg/L	CS-5157-40233	11/30/20	150 uL	40 mL	DI Water	3.75 ppm
Total Organic Carbon (TOC) Standard	Agilent	IQC-1 06-5	1000 mg/L	CS-5157-40233	11/30/20	200 uL	40 mL	DI Water	5 ppm

Name of Final Standard ICV (TOC) — **Prep'd By (Initials)** AR

Prep Date 06/11/19

Exp Date 07/09/19

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from contianer Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
1000 PPM ICV TOC Intermediate	APPL Inc.	Prep: 2/11/19	1000 mg/L	Prep: 2/11/19	07/09/19	100 uL	40mL	DI Water	2.5 ppm

Name of Final Standard CCV (TOC) — **Prep'd By (Initials)** AR

Prep Date See Data

Exp Date 1 year

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from contianer Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
Total Organic Carbon (TOC) Standard	Agilent	IQC-1 06-5	1000 mg/L	CS-5157-40233	11/30/20	100 uL	40 mL	DI Water	2.5 ppm

Name of Final Standard TOC_LCS/LCSD — **Prep'd By (Initials)** AR

Prep Date See Data

Exp Date 1 year

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from contianer Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
Total Organic Carbon (TOC) Standard	ULTRA Scientific	IQC-106-5	1000 mg/L	CR-0328-37639	02/28/19	100 uL	40 mL	DI Water	2.5 ppm

Name of Final Standard TOC_MS/MSD — **Prep'd By (Initials)** AR

Prep Date See Data

Exp Date 1 year

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from contianer Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
Total Organic Carbon (TOC) Standard	ULTRA Scientific	IQC-106-5	1000 mg/L	CR-0328-37639	02/28/19	100 uL	40 mL	sample	2.5 ppm

Nitrite

High Point @ 1.5 mg/L
0.2463 mL NO2 Inorganic Ventures lot N2-NOX672889-40759 exp: 05/01/20
50 mL DI Water

CCV @ 0.75 mg/L
0.1232 mL NO2 Inorganic Ventures lot N2-NOX672889-40759 exp: 05/01/20
50 mL DI Water

ICV/LCS @ 0.73 mg/L
0.120 mL NO2 Inorganic Ventures lot M2-NOX660562-40468 exp: 08/25/21
50 mL DI Water

1 mg/L NO2
400 uL of High point and 200 uL of DI made directly into a sample cup

Prep 10/25/19
Exp 11/01/19
EV

Nitrate/TOXN

High Point @ 6 mg/L
0.300 mL NO3 O2Si lot 880117-4-39577 exp: 2/21/20
50 mL DI Water

CCV @ 3.0 mg/L
0.150 mL NO3 O2Si lot 880117-4-39577 exp: 2/21/20
50 mL DI Water

ICV/LCS @ 3.0 mg/L
0.150 mL NO3 Inorganic Ventures lot P2-NOX675324-49391 exp: 02/14/23
50 mL DI Water

1 mg/L NO3
100 uL of High point and 500 uLof DI made directly into a sample cup

MS @ 0.73 mg/L NO2 and 2.5 mg/L NO3
0.120 mL NO2 Inorganic Ventures lot M2-NOX660562-40468 exp: 08/25/21and
0.125 mL NO3 Inorganic Ventures lot P2-NOX675324-49391 exp: 02/14/23
Final volume 50 mL of sample

Prep 10/25/19
Exp 11/01/19
EV

EPA 353.2 Injection Log

Directory: I:\EVE\Export\2019\

RunID	Injected		Sample Name	Misc Info	FileName	Multiplier
1	30 Oct 2019	16:26	Standard 1 TOXN/NO3		191030A NO	1.
2	30 Oct 2019	16:28	Standard 90 TOXN/NO3		191030A NO	1.
3	30 Oct 2019	16:30	Standard 91 TOXN/NO3		191030A NO	1.
4	30 Oct 2019	16:33	Standard 92 TOXN/NO3		191030A NO	1.
5	30 Oct 2019	16:35	Standard 93 TOXN/NO3		191030A NO	1.
6	30 Oct 2019	16:37	Standard 94 TOXN/NO3		191030A NO	1.
7	30 Oct 2019	16:39	Standard 0 TOXN/NO3		191030A NO	1.
10	30 Oct 2019	16:46	ICV NO3 TOXN		191030A NO	1.
11	30 Oct 2019	16:48	ICB NO2 NO3 TOXN		191030A NO	1.
12	30 Oct 2019	16:50	191030A BLK NO2 NO3 TOXN		191030A NO	1.
13	30 Oct 2019	16:52	191030A LCS NO3 TOXN		191030A NO	1.
14	30 Oct 2019	16:55	191030A LCSD NO3 TOXN		191030A NO	1.
20	30 Oct 2019	17:08	CCV TOXN/NO3		191030A NO	1.
21	30 Oct 2019	17:10	CCB TOXN/NO3		191030A NO	1.
22	30 Oct 2019	17:12	BA01829W13 TOXN/NO3		191030A NO	1.
23	30 Oct 2019	17:14	BA01831W18 TOXN/NO3		191030A NO	1.
24	30 Oct 2019	17:17	BA01833W18 TOXN/NO3		191030A NO	1.
30	30 Oct 2019	17:34	CCV TOXN/NO3		191030A NO	1.
31	30 Oct 2019	17:35	CCB TOXN/NO3		191030A NO	1.

908 North Temperance Ave. ∇ Clovis, CA 93611 ∇ Phone 559-275-2175 ∇ Fax 559-275-4422

Certification Number: CA1312
NELAP Certification number: CA00046
DoD-ELAP Certificate number: 4064.01

Data Validatable Report

December 5, 2019

AECOM
1001 Bishop Street, Suite 1600
Honolulu, Hawaii 96813

Attn: Margie Pascua

Title: Report of Data: Case 90587

Project: 60571032 CV18F0126 Red Hill Fuel Storage. HI

Contract #: Prime contract # for DoD: NAVY CLEAN N62742-17-F-1800, CV18F0126
Subcontract: 18S-22209-HI27

Dear Ms. Pascua:

Three water samples were received October 25, 2019. Written results for the requested analyses are being provided on this December 5, 2019.

Results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

If you have any questions or require further information, please contact your APPL Project Manager, Libby Cheeseborough, libby@applinc.com, at your convenience. Thank you for choosing APPL, Inc.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. These test results meet all requirements of NELAC and DoD QSM. Release of the hard copy has been authorized by the Laboratory Manager or her designee, as verified by the following signature.

Paula McCartney

Paula McCartney, Laboratory Director
APPL, Inc.

PM/lac
Enclosure
cc: File

Data Validation Package
for
60481245 CIV 0053 Red Hill Fuel Storage
APPL SDG 90587
TABLE OF CONTENTS

LABORATORY NAME: *APPL, Inc.*

CASE NARRATIVE

Case Narrative

ARF: 90587

Project: 60571032 CV18F0126 Red Hill Fuel Storage. HI

Sample Receipt Information:

Six water samples were received October 25, 2019, at 3.4°C, 4.9°C, and 3.4°C. The sample group was assigned Analytical Request Form (ARF) number 90587. Due to a login error, sample ERH945 was cancelled for the EPA 8011 analysis. No other exceptions were noted.

Sample Preparation and Analysis Information:

For the EPA 8011 analysis, the samples were extracted according to APPL SOP method MWE012.

For the EPA 8015B analysis, the sample was extracted according to EPA method 3520C. The sample extracts were silica gel cleaned according to APPL's SOP CLN004 and placed on hold.

For the EPA 8270D SIM analysis, the sample was extracted according to EPA method 3520C.

For the EPA 8270D Phenol analysis, the sample was extracted according to EPA method 3520C.

For the APPL SOP ANA2MEE analysis, the sample was extracted according to EPA method 3535.

For the EPA 8260B analysis, the samples were purged according to EPA method 5030B.

For the RSK-175 analysis, the samples were allowed to equilibrate for 10 minutes at 40°C and a portion of the headspace was analyzed.

For the EPA 6010C analysis, the sample was digested according to EPA method 3010A.

For the EPA 9060A, 300.0, 353.2, SM 2320B, SM 4500-SiD and SM 3500FeB analyses, the sample was prepared according to the methods.

Only the portion of the injection log relative to these samples is included. A full sequence log is available upon request. Measurement uncertainty can be reported upon request.

Analytical Exceptions, Deviations and Abnormalities.

EPA 8015B: Manual integrations were performed in accordance with APPL's SOP. Chromatograms of before and after manual integration are enclosed.

EPA 8270D SIM: One surrogate recovered above the upper control limit in one sample. No target compound was detected in the sample.

APPL SOP ANA2MEE: Manual integrations are performed according to the SOP. 2-MEE was manually integrated in one of the ICAL standards. Before and after chromatograms are included.

Inorganics: The EPA 9060A method requires the instrument to acquire data in quadruplicate. The opening CCV and CCB were inadvertently analyzed in duplicate, rather than quadruplicate. The subsequent samples and CCV, CCB's were all analyzed in quadruplicate, in accordance with the method. Corrective Action: None. The recovery of the opening CCV was acceptable in duplicate "mode". There was limited sample remaining for re-analysis. The client was notified. In the SM 846 TOC method blank, one analyte was detected at concentrations less than one-half the LOQ: Total Organic Carbon. Corrective action: None, this analyte was not detected in the associated sample.

SDG	Received	Client ID	APPL ID	Collected DateTime	Matrix	Method	Method Description	Prep DateTime	Analysis DateTime
90587	10/29/2019	ERH945	BA02089	10/28/2019 7:30:00 AM	WATER	EPA 8260B	EPA 8260B BTEX & 1,2-DCA WATER	11/2/2019 8:37:00 AM	11/2/2019 8:37:00 AM
90587	10/29/2019	ERH945	BA02089	10/28/2019 7:30:00 AM	WATER	EPA 8260-GAS	EPA 8260 with GAS		
90587	10/29/2019	ERH945	BA02089	10/28/2019 7:30:00 AM	WATER	EPA 8260B	EPA 8260B GRO WATER	11/2/2019 8:37:00 AM	11/2/2019 8:37:00 AM
90587	10/29/2019	ERH945	BA02089	10/28/2019 7:30:00 AM	WATER	RSK 175	METHANE BY RSK 175	10/31/2019 5:20:00 PM	10/31/2019 5:20:00 PM
90587	10/29/2019	ERH946	BA02090	10/28/2019 8:20:00 AM	WATER	SM 2320B	Wetlab 2320B - Water	10/31/2019 10:33:00 AM	10/31/2019 10:33:00 AM
90587	10/29/2019	ERH946	BA02090	10/28/2019 8:20:00 AM	WATER	EPA 300.0	Wetlab 300.0 - Water	10/30/2019 7:22:00 PM	10/30/2019 7:22:00 PM
90587	10/29/2019	ERH946	BA02090	10/28/2019 8:20:00 AM	WATER	SM3500FeB	Ferrous Iron	10/29/2019 11:38:00 PM	10/29/2019 11:38:00 PM
90587	10/29/2019	ERH946	BA02090	10/28/2019 8:20:00 AM	WATER	EPA 353.2	EPA 353.2 - WATER	11/1/2019 4:37:00 PM	11/1/2019 4:37:00 PM
90587	10/29/2019	ERH946	BA02090	10/28/2019 8:20:00 AM	WATER	6010C/3010A	EPA 6010C TOTAL	11/4/2019 8:30:00 AM	11/5/2019 12:24:48 PM
90587	10/29/2019	ERH946	BA02090	10/28/2019 8:20:00 AM	WATER	8011	EPA 8011	10/31/2019 3:15:00 PM	10/31/2019 11:17:00 PM
90587	10/29/2019	ERH946	BA02090	10/28/2019 8:20:00 AM	WATER	EPA 8260B	EPA 8260B BTEX & 1,2-DCA WATER	11/2/2019 10:59:00 AM	11/2/2019 10:59:00 AM
90587	10/29/2019	ERH946	BA02090	10/28/2019 8:20:00 AM	WATER	EPA 8270D	EPA 8270D WATER	11/4/2019 1:35:00 PM	11/26/2019 10:42:00 PM
90587	10/29/2019	ERH946	BA02090	10/28/2019 8:20:00 AM	WATER	EPA 8270D	EPA 8270D MODIFIED WATER	10/31/2019 3:15:00 PM	11/8/2019 5:40:00 PM
90587	10/29/2019	ERH946	BA02090	10/28/2019 8:20:00 AM	WATER	EPA 300.0	Wetlab 300.0 - Water		
90587	10/29/2019	ERH946	BA02090	10/28/2019 8:20:00 AM	WATER	SM3500FeB	Ferrous Iron		
90587	10/29/2019	ERH946	BA02090	10/28/2019 8:20:00 AM	WATER	EPA 353.2	EPA 353.2 - WATER		
90587	10/29/2019	ERH946	BA02090	10/28/2019 8:20:00 AM	WATER	6010C/3010A	EPA 6010C TOTAL		
90587	10/29/2019	ERH946	BA02090	10/28/2019 8:20:00 AM	WATER	EPA 8015B-eLL	EPA 8015B TPH LIQ-LIQ		
90587	10/29/2019	ERH946	BA02090	10/28/2019 8:20:00 AM	WATER	SW846 9060A	9060A DOC		
90587	10/29/2019	ERH946	BA02090	10/28/2019 8:20:00 AM	WATER	8270D-SIM	EPA 8270D SIM LIQ-LIQ		
90587	10/29/2019	ERH946	BA02090	10/28/2019 8:20:00 AM	WATER	EPA 300.0	Wetlab 300.0 - Water		
90587	10/29/2019	ERH946	BA02090	10/28/2019 8:20:00 AM	WATER	SM3500FeB	Ferrous Iron		
90587	10/29/2019	ERH946	BA02090	10/28/2019 8:20:00 AM	WATER	EPA 353.2	EPA 353.2 - WATER		
90587	10/29/2019	ERH946	BA02090	10/28/2019 8:20:00 AM	WATER	6010C/3010A	EPA 6010C TOTAL		
90587	10/29/2019	ERH946	BA02090	10/28/2019 8:20:00 AM	WATER	EPA 8015B-eLL	EPA 8015B TPH LIQ-LIQ		
90587	10/29/2019	ERH946	BA02090	10/28/2019 8:20:00 AM	WATER	SW846 9060A	9060A DOC		
90587	10/29/2019	ERH946	BA02090	10/28/2019 8:20:00 AM	WATER	8270D-SIM	EPA 8270D SIM LIQ-LIQ		
90587	10/29/2019	ERH946	BA02090	10/28/2019 8:20:00 AM	WATER	EPA 8015B-eLL	EPA 8015B TPH LIQ-LIQ	11/4/2019 1:40:00 PM	11/14/2019 10:58:00 PM
90587	10/29/2019	ERH946	BA02090	10/28/2019 8:20:00 AM	WATER	SW846 9060A	9060A DOC	11/5/2019 3:44:00 PM	11/7/2019 6:38:00 PM
90587	10/29/2019	ERH946	BA02090	10/28/2019 8:20:00 AM	WATER	EPA 8260-GAS	EPA 8260 with GAS		
90587	10/29/2019	ERH946	BA02090	10/28/2019 8:20:00 AM	WATER	EPA 8260B	EPA 8260B GRO WATER	11/2/2019 10:59:00 AM	11/2/2019 10:59:00 AM
90587	10/29/2019	ERH946	BA02090	10/28/2019 8:20:00 AM	WATER	RSK 175	METHANE BY RSK 175	10/31/2019 5:23:00 PM	10/31/2019 5:23:00 PM
90587	10/29/2019	ERH946	BA02090	10/28/2019 8:20:00 AM	WATER	8270D-SIM	EPA 8270D SIM LIQ-LIQ	11/4/2019 1:35:00 PM	11/12/2019 11:10:00 AM
90587	10/29/2019	ERH946	BA02090	10/28/2019 8:20:00 AM	WATER	SM 4500-Si D	Silica W	11/6/2019 9:23:00 PM	11/6/2019 9:23:00 PM
90587	10/29/2019	ERH946	BA02090	10/28/2019 8:20:00 AM	WATER	SM 4500-Si D	SILICA W - DISSOLVED	11/6/2019 9:28:00 PM	11/6/2019 9:28:00 PM
90587	10/29/2019	ERH946	BA02090	10/28/2019 8:20:00 AM	WATER	SW846 9060A	9060A TOC	11/10/2019 5:57:00 PM	11/11/2019 12:15:00 AM
90587	10/29/2019	ERH947	BA02091	10/28/2019 8:20:00 AM	WATER	8011	EPA 8011	10/31/2019 3:15:00 PM	10/31/2019 11:37:00 PM
90587	10/29/2019	ERH947	BA02091	10/28/2019 8:20:00 AM	WATER	EPA 8260B	EPA 8260B BTEX & 1,2-DCA WATER	11/2/2019 12:09:00 AM	11/2/2019 12:09:00 AM
90587	10/29/2019	ERH947	BA02091	10/28/2019 8:20:00 AM	WATER	EPA 8270D	EPA 8270D WATER	11/4/2019 1:35:00 PM	11/26/2019 11:10:00 PM
90587	10/29/2019	ERH947	BA02091	10/28/2019 8:20:00 AM	WATER	EPA 8270D	EPA 8270D MODIFIED WATER	10/31/2019 3:15:00 PM	11/8/2019 5:59:00 PM

90587	10/29/2019	ERH947	BA02091	10/28/2019 8:20:00 AM	WATER	EPA 8260B	EPA 8260B BTEX & 1,2-DCA WATER		
90587	10/29/2019	ERH947	BA02091	10/28/2019 8:20:00 AM	WATER	EPA 8260B	EPA 8260B GRO WATER		
90587	10/29/2019	ERH947	BA02091	10/28/2019 8:20:00 AM	WATER	EPA 8260B	EPA 8260B BTEX & 1,2-DCA WATER		
90587	10/29/2019	ERH947	BA02091	10/28/2019 8:20:00 AM	WATER	EPA 8260B	EPA 8260B GRO WATER		
90587	10/29/2019	ERH947	BA02091	10/28/2019 8:20:00 AM	WATER	EPA 8015B-eLL	EPA 8015B TPH LIQ-LIQ	11/4/2019 1:40:00 PM	11/14/2019 11:17:00 PM
90587	10/29/2019	ERH947	BA02091	10/28/2019 8:20:00 AM	WATER	EPA 8260-GAS	EPA 8260 with GAS		
90587	10/29/2019	ERH947	BA02091	10/28/2019 8:20:00 AM	WATER	EPA 8260B	EPA 8260B GRO WATER	11/2/2019 12:09:00 AM	11/2/2019 12:09:00 AM
90587	10/29/2019	ERH947	BA02091	10/28/2019 8:20:00 AM	WATER	8270D-SIM	EPA 8270D SIM LIQ-LIQ	11/4/2019 1:35:00 PM	11/12/2019 11:33:00 AM

APPL Inc.
Abbreviations and Flags

FLAG	DESCRIPTION
#	Recovery or RPD outside control limits
*	Recovery or RPD outside control limits
B	Analyte detected in associated method blank
C1	Reason for correction: wrote incorrect response
C2	Reason for correction: calculated incorrectly
C3	Reason for correction: needs to be rechecked
C4	Reason for correction: data not usable
DO	Diluted out
E	Exceeds linear range
F	Estimated value
G1	Includes a wide range of hydrocarbons which does not match our gasoline standard
G10	Includes a match to hydrocarbon profiles within the range of mineral spirits
G11	Includes a match to hydrocarbon profiles within the range of JP-4
G12	Pattern does not match the gasoline standard; the carbon range for this sample is consistent with JP8
G13	Closely resembles the hydrocarbon profile of aviation gasoline
G14	Analyte concentration may be biased due to carry over
G2	Closely resembles the boiling point hydrocarbon profile consistent with weathered gasoline
G3	Includes higher boiling hydrocarbons
G4	Includes dominant peak(s) not indicative of petroleum hydrocarbons
G5	Is mainly dominant peak(s) not indicative of petroleum hydrocarbons
G6	Contains recognizable contaminant peak(s) which has been removed from quantitation
G7	Is mainly a match to hydrocarbons within the range of gasoline
G8	Closely resembles the boiling point hydrocarbon profile consistent with weathered gasoline
G9	Includes hydrocarbons within the range of kerosene
J	Estimated value
M	Matrix effect
MI1	Manual integration: integration does not follow baseline
MI2	Manual integration: non-target peak interference
MI3	Manual integration: to split a peak that was integrated as one peak by the computer.
MI4	Manual integration: to integrate a split peak
MI5	Manual integration: the whole peak or part of the peak was not integrated
MI6	Manual integration: computer integrated wrong peak
MI7	Manual integration: other – (See case narrative)
MDL	Method detection limit
ND	Not detected
NT	Non-target
Q	Acceptance criteria not met
T1 I	Includes wide range of hydrocarbons not indicative of diesel
T1 M	Is mainly wide range of hydrocarbons not necessarily indicative of diesel
T2 I	Includes lower boiling hydrocarbons, e.g. mineral spirits, kerosene, stoddard solvent, white gas
T2 M	Is mainly lower boiling hydrocarbons, e.g. mineral spirits, kerosene, stoddard solvent, white gas
T3 I	Includes higher boiling hydrocarbons, e.g. asphaltene, waste oil, motor oil, or weathered diesel fuel
T3 M	Is mainly higher boiling hydrocarbons, e.g. asphaltene, waste oil, motor oil, or weathered diesel fuel
T4 I	Includes dominant peak(s) not indicative of hydrocarbons
T4 M	Is mainly dominant peak(s) not indicative of hydrocarbons
T5	Contains recognizable contaminant peak(s) which has been removed from quantitation
T6	Is mainly a match to hydrocarbons within range of diesel fuel
T7	Closely resembles the boiling point hydrocarbon profile consistent with diesel fuel
T8	Includes a match to hydrocarbon profiles within range of diesel and kerosene fuel
T9 I	Includes non-diesel hydrocarbons within boiling point range of diesel fuel
T9 M	Is mainly non-diesel hydrocarbons within boiling point range of diesel fuel
U	Not detected
Y	Percent difference between primary and confirmation column > 40%

SAMPLE RECORDS MANAGEMENT

CHAIN OF CUSTODY,

ARF, CRF, AND

CLIENT COMMUNICATION

APPL - Analysis Request Form 90587

Client: AECOM
Address: 1001 Bishop Street, Suite 1600
Honolulu, HI 96813
Attn: Margie Pascua
Phone: 808-356-5373 Fax: 808-523-8950
Job: 60571032 CV18F0126 Red Hill Fuel Storage
PO #: 18S-22209-HI27 PO# 102604
Chain of Custody (Y/N): Y # 114-5
RAD Screen (Y/N): Y pH (Y/N): Y
Turn Around Type: 1 WEEK

Received by: MDA
Date Received: 10/29/19 Time: 10:30
Delivered by: FEDEX
Shuttle Custody Seals (Y/N): Y Time Zone: -10
Chest Temp(s): 2.8,1.0°C
Color: VFRG/A-Grn/SF-BlkRed
Samples Chilled until Placed in Refrig/Freezer: Y
Project Manager: Libby Cheesebor
QC Report Type: DVP4DOD/EQUIS/HI
Due Date:

Comments:
PM: login and F1s to Margie.Pascua@aecom.com
AN: 7 day TAT for Form 1s; 21 day TAT for PKG STYLE 1; DOD v5.1; DOD Forms: LOD database
Wetlab: Nitrate by EPA 300 and 353.2
8270 SIM: 1-methylnaphthalene, 2-methylnaphthalene & naphthalene only.
TPH D & O both with and w/o SGC, reverse surrogate for the SGC; analyze SGC if detections
RSK: Methane only; 8011: EDB only; $87DC53W5: report phenol ONLY
FR: upload final package to ftp site; please notify Margie.Pascua@aecom.com, scuenco@lab-data.com trommelfanger@lab-data.com & jcanlas@lab-data.com
EDD: AECOM EQuIS EDD 2.5.3 Red Hill 87DMEE->3535A to Margie.Pascua@aecom.com & jecklund@

Sample Distribution:
GC: 3-$8011, 2-$87DC53W5, 2-$87DMEEW5, 2-$DOC53W5LIQ, 2-$SIM53LIQ51
Extractions: 2-_LIQ003, 2-_LIQ005, 2-_MWE012, 2-_MWE2MEE
VOA: 3-$86BTOTXDCAW, 3-$GASBL, 3-$GRO86BW, 2-$RSKMETH
Metals: 1-$61CDOD5W(Ca,Mg,Mn,K,Na,Br,F)
Wetlab: 1-$232W(HCO3,CO3,ALK), 1-$300W(CL,SO4), 1-$35FE, 1-$35OF(NO3), 1-$DOCW53, 1-$SIO2, 1-$SIO2D, 1-$TOCW53
Other: 1-_M3010

Charges:

Invoice To:
ACCOUNTS PAYABLE
1001 Bishop Street, Ste 1600
USAPImaging@aecom.com
mary.basano@aecom.com

	Client ID	APPL ID	Sampled	Analyses Requested
1.	ERH945	BA02089W LCSD	10/28/19 07:30	$8011, $86BTOTXDCAW, $GASBL, $GRO86BW, $RSKMETH -- see comments
2.	ERH946	BA02090W LCSD	10/28/19 08:20	$232W(HCO3,CO3,ALK), $300W(CL,SO4), $35FE, $35OF(NO3), $61CDOD5W(Ca,Mg,Mn,K,Na,Br,F), $8011, $86BTOTXDCAW, $87DC53W5, $87DMEEW5, $DOC53W5LIQ, $DOCW53, $GASBL, $GRO86BW, $RSKMETH, $SIM53LIQ51, $SIO2, $SIO2D, $TOCW53 -- see comments

Note: All times, excluding sample collection times, are Pacific Time Zone unless noted otherwise. Collection times are in: -10 UTC
Page 1 Client Code: AECOM-REDHILL *Printed 10/31/19 1:05:01 PM* Computer: APPL-LC **# 90587**

3.	ERH947	LCSD BA02091W	10/28/19 08:20	$8011, $86BTOTXDCAW, $87DC53W5, $87DMEEW5, $DOC53W5LIQ, $GASBL, $GRO86BW, $SIM53LIQ51 -- see comments

APPL Sample Receipt Form

ARF# **90587**

Sample	Container Type	Count	p
BA02089	[13] VOAs - HCL	4	NA
	[15] VOAs - NP	3	NA
BA02090	[3] PL 250mL	3	NA
	[6] PL 500mL - HNO3	1	1.7
	[10] PL 250mL - H2SO4	1	1.7
	[13] VOAs - HCL	4	NA
	[15] VOAs - NP	3	NA
	[17] Amber Liter	4	NA
	[32] Clear VOA - H2SO4	4	NA
	[38] 250mL brn poly, HCl prsvd	1	1.7
	[40] 500mL Amber, unprsrvd	3	NA
BA02091	[13] VOAs - HCL	4	NA
	[15] VOAs - NP	3	NA
	[17] Amber Liter	4	NA
	[40] 500mL Amber, unprsrvd	3	NA

Sample	Container Type	Count	p

90587

APPL, Inc.
908 N Temperance Ave
Clovis, CA 93611
www.applinc.com
Phone: (559) 275-2175
Fax: (559) 275-4422
coc@applinc.com

CHAIN OF CUSTODY RECORD

C.O.C. 115

Report to: PLEASE PRINT	Invoice to: PLEASE PRINT
Company Name: AECOM Phone: 808-356-5373	Company Name: AECOM Phone: 808-529-7249
Address: 1001 Bishop St, Suite 1600 Honolulu, HI 96813 Fax: 808-523-8950	Address: 1001 Bishop St, Suite 1600 Honolulu, HI 96813 Fax: 808-523-8950
Attn: Margie Pascua	Attn: Mary Basano
Email: margie.pascua@aecom.com	Email: mary.basano@aecom.com; usapimaging@aecom.com

Project Name/Number	Sampler (Print)
CV18F0126 / 60571032	MH, MC, SM
Purchase Order Number	**Sampler (Signature)**
102604	MP for MH, MC, SM

Date Shipped:
Carrier: FedEx
Waybill No.:
Comments:

Sample Identification	Location	Date Collected	Time Collected	Time Zone	No. of Containers	Matrix: Aq	Matrix: Sed.	Matrix: Soil	8260C BTEX,TPH-g	8260C DCA 8011 EDB	8015C TPH-d/o	3630/8015C TPH-d/o w/ SGT	8270DSIM PAHs short list	8270D Phenol, TICs MP only	8270D 2-(2-methoxy ethoxy)-ethanol	RSK175M Methane	SM3500-Fe Ferrous Iron	353.2 Nitrate-Nitrite N	SM2320B Alkalinity 300.0 Nitrate,Sulfate,Chloride	300.0 Bromide/Fluoride 6010 Total Ca,Mg,Mn,K,Na SM4500 Total & Dissolved Silica	9060A TOC		
ERH947	RHMW14-03	10/28/19	08:20	HST	7	X			X	X	X	X*	X	X	X							See other coolers for VOAs
~~ERH946~~ (EB 10/28/19)	~~RHMW14-03~~	~~10/28/19~~	~~08:20~~	~~HST~~	~~6~~	~~X~~																

*Analyze TPH w/SGT only if TPH-d/o detected.

TPH-d/o & PAHs need liquid-liquid extraction.

Shuttle Temperature: ER Box @: -0.3 3.1°/2.8 1.3/1.0

Turnaround Requested: Check one
☐ Standard 2-3 wk ☒ One week ☐ 3 days ☐ 24/48 Hrs. ☐ Other:

Sample Disposal:
☐ Return to client ☒ Disposal by Lab (30-day retention)

Relinquished by sampler: AECOM	Date	Time	Received by:	Relinquished by:	Date	Time	Received by:
Relinquished by: Estelle BONNY	10/28/19	14:40			10/29/19	10:30	Received at lab by:

See page 2 for Container Preservative and Sampling Information

APPL, Inc.
908 N Temperance Ave
Clovis, CA 93611
www.applinc.com

Phone: (559) 275-2175
Fax: (559) 275-4422
coc@applinc.com

CHAIN OF CUSTODY RECORD

C.O.C. 114

Report to: PLEASE PRINT	Invoice to: PLEASE PRINT
Company Name: AECOM Phone: 808-356-5373	Company Name: AECOM Phone: 808-529-7249
Address: 1001 Bishop St, Suite 1600 Honolulu, HI 96813 Fax: 808-523-8950	Address: 1001 Bishop St, Suite 1600 Honolulu, HI 96813 Fax: 808-523-8950
Attn: Margie Pascua	Attn: Mary Basano
Email: margie.pascua@aecom.com	Email: mary.basano@aecom.com; usapimaging@aecom.com

Project Name/Number	Sampler (Print)
CV18F0126 / 60571032	MH, MC, SM
Purchase Order Number	**Sampler (Signature)**
102604	MP for MH, MC, SM

Date Shipped:
Carrier: FedEx
Waybill No.:
Comments:

Sample Identification	Location	Date Collected	Time Collected	Time Zone	No. of Containers	Matrix: Aq	Matrix: Sed.	Matrix: Soil	8260C BTEX,TPH-g	8260C DCA 8011 EDB	8015C TPH-d/o	3630/8015C TPH-d/o w/ SGT	8270DSIM PAHs short list	8270D Phenol, TCP 10/X	8270D 2-(2-methoxy ethoxy)-ethanol	RSK175M Methane	SM3500-Fe Ferrous Iron	353.2 Nitrate-Nitrite N	SM2320B Alkalinity 300.0 Nitrate,Sulfate,Chloride	300.0 Bromide/Fluoride 6010 Total Ca,Mg,Mn,K,Na SM4500 Total & Dissolved Silica	9060A TOC	8260C DOC	
ERH945	Trip Blank	10/28/19	07:30	HST	3	X			X	X						X							
ERH946	RHMW14-03	10/28/19	08:20	HST	24	X			X	X	X	X*	X	X	X	X	X	X	X	X	X	X	X	~~See other letter~~ MP 10/30/19
ERH947	RHMW14-03	10/28/19	08:20	HST	7	X			X	X													See other letter
						EB 10/28/19																	

*Analyze TPH w/SGT only if TPH-d/o detected.

TPH-d/o & PAHs need liquid-liquid extraction.

Shuttle Temperature: IR @ -0.3 1.3 / 1.0°

Turnaround Requested: Check one
☐ Standard 2-3 wk ☒ One week ☐ 3 days ☐ 24/48 Hrs. ☐ Other: _____

Sample Disposal:
☐ Return to client ☒ Disposal by Lab (30-day retention)

Relinquished by sampler: AECOM	Date	Time	Received by:	Relinquished by:	Date	Time	Received by:
Relinquished by: Estella Sonny	Date 10/28/19	Time 14:40	Received by:	Relinquished by:	Date 10/29/19	Time 10:30	Received at lab by:

See page 2 for Container Preservative and Sampling Information

COOLER RECEIPT FORM ARF: 90587

1) Project: 60571032 CV18F0126 Red Hill Fuel Storage Date Received: 10/29/19

2) Coolers: Number of Coolers: 2

3) YES Were custody seals present and intact?
How many? 4 Name/Date on seal? see below

4) YES Was there a shipping slip? Carrier name: FEDEX

5) Type of packing in cooler: X bubble wrap __ popcorn __ foam X plastic bags __ other
X wet ice __ dry ice __ no ice __ gel ice

6) YES Were cooler temperatures acceptable?

7) Serial number of certified NIST thermometer use IR @ -0.3°C

8) Cooler temp(s): In °C. Thermometer Temp / Corrected Temp

1: 3.1°C/ 2.8°C	2: 1.3°C/ 1.0°C	3:	4:	5:	6:
7:	8:	9:	10:	11:	12:

Chain of custody:

9) YES Was a chain of custody received?

10) YES Were the custody papers complete/signed in the appropriate places?

Sample Labels:

11) YES Were all sample labels complete (sample ID, date/time of sampling, etc.)?

12) YES Did all container labels agree with custody papers?

Sample Containers:

13) YES Were all containers sealed in separate bags?

14) YES Did all containers arrive in good condition:(unbroken, no leakage, no cracked/broken lids)?

15) YES Were correct containers and preservatives used for the tests indicated?

16) YES Was a sufficient amount of sample sent for tests indicated?

17) No Were bubbles present in volatile samples?
If yes, the following were received with air bubbles:
Larger than a pea:
Smaller than a pea:

Preservation Hold time:

18) Yes Was a sufficient amount of holding time remaining to analyze the samples?

19) Yes Was the pH taken of all non-VOA preserved samples and written on the sample container?

20) Yes Was the pH of acid preserved non-VOA samples < 2?

21) NA Was the pH of sodium hydroxide preserved samples for Cyanide > 12 and Sulfide >9?

22) NO Were unpreserved VOA Vials received?

23) NA Are unpreserved VOA vials noted in the ADD TEST FIELD on the ARF?
pH strip lot number: 90b2031
Lab notified if pH was not adequate:

Notes/Deficiencies:

Personnel receiving samples: ZG Second reviewer: AA
Personnel labeling samples: ZG
Project manager notified: ZG Date/Time of notification 10/30/19
Name of client notified: Date/Time of notification

Revision: 22, November 5, 2013

SAMPLE RESULTS

EPA 8011

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 90587

Sample ID: ERH946

APPL ID: BA02090

Sample Collection Date: 10/28/19

QCG: #8011-191031A-246759

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
8011	EDB	0.019 U	0.02	0.019	0.010	ug/L	10/31/19	10/31/19
8011	SURROGATE: 1,3-DIBROMOPROPANE	96.0	70-132			%	10/31/19	10/31/19

Quant Method: 8011917A.M
Run #: 1025110
Instrument: Herbie
Sequence: 191025
Dilution Factor: 1
Initials: GAG

Printed: 11/05/19 9:58:57 AM
APPL-F1-SC-NoMC-REG MDLs-DOD

EPA 8011

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

Sample ID: ERH947

Sample Collection Date: 10/28/19

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

ARF: 90587

APPL ID: BA02091

QCG: #8011-191031A-246759

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
8011	EDB	0.019 U	0.02	0.019	0.010	ug/L	10/31/19	10/31/19
8011	SURROGATE: 1,3-DIBROMOPROPANE	103	70-132			%	10/31/19	10/31/19

Quant Method: 8011917A.M
Run #: 1025111
Instrument: Herbie
Sequence: 191025
Dilution Factor: 1
Initials: GAG

Printed: 11/05/19 9:58:57 AM
APPL-F1-SC-NoMC-REG MDLs-DOD

EPA 8015B TPH LIQ-LIQ

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 90587

Sample ID: ERH946

APPL ID: BA02090

Sample Collection Date: 10/28/19

QCG: #DOC53-191104A-247204

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8015B-eL	DIESEL (C10-C24)	25.00 U	40.0	25.00	13.07	ug/L	11/04/19	11/14/19
EPA 8015B-eL	OIL (C24-C40)	40.00 U	40.0	40.00	5.54	ug/L	11/04/19	11/14/19
EPA 8015B-eL	SURROGATE: OCTACOSANE (S)	102	60-142			%	11/04/19	11/14/19
EPA 8015B-eL	SURROGATE: ORTHO-TERPHENYL (S)	103	56-125			%	11/04/19	11/14/19

Quant Method:	DOC1114.M
Run #:	1114013
Instrument:	Apollo
Sequence:	191114
Dilution Factor:	1
Initials:	LPO

Printed: 11/16/19 5:17:08 AM

APPL-F1-SC-NoMC-REG MDLs-DOD

EPA 8015B TPH LIQ-LIQ

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 90587

Sample ID: ERH947

APPL ID: BA02091

Sample Collection Date: 10/28/19

QCG: #DOC53-191104A-247204

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8015B-eL	DIESEL (C10-C24)	25.00 U	40.0	25.00	13.07	ug/L	11/04/19	11/14/19
EPA 8015B-eL	OIL (C24-C40)	40.00 U	40.0	40.00	5.54	ug/L	11/04/19	11/14/19
EPA 8015B-eL	SURROGATE: OCTACOSANE (S)	104	60-142			%	11/04/19	11/14/19
EPA 8015B-eL	SURROGATE: ORTHO-TERPHENYL (S)	112	56-125			%	11/04/19	11/14/19

Quant Method: DOC1114.M
Run #: 1114014
Instrument: Apollo
Sequence: 191114
Dilution Factor: 1
Initials: LPO

Printed: 11/16/19 5:17:08 AM
APPL-F1-SC-NoMC-REG MDLs-DOD

EPA 8270D SIM LIQ-LIQ

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 90587

Sample ID: ERH946

APPL ID: BA02090

Sample Collection Date: 10/28/19

QCG: #SIM53-191104A-247109

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
8270D-SIM	1-METHYLNAPHTHALENE	0.10 U	0.2	0.10	0.04	ug/L	11/04/19	11/12/19
8270D-SIM	2-METHYLNAPHTHALENE	0.10 U	0.2	0.10	0.04	ug/L	11/04/19	11/12/19
8270D-SIM	NAPHTHALENE	0.10 U	0.2	0.10	0.04	ug/L	11/04/19	11/12/19
8270D-SIM	SURROGATE: 2-METHYLNAPHTHALEN	86.6	39-114			%	11/04/19	11/12/19
8270D-SIM	SURROGATE: FLUORANTHENE-D10 (S	101	58-120			%	11/04/19	11/12/19

Quant Method: L1028.M
Run #: 1028L262
Instrument: Linus
Sequence: L191028
Dilution Factor: 1
Initials: MA

Printed: 12/03/19 5:58:13 PM
APPL-F1-SC-NoMC-REG MDLs-DOD

EPA 8270D SIM LIQ-LIQ

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 90587

Sample ID: ERH947

APPL ID: BA02091

Sample Collection Date: 10/28/19

QCG: #SIM53-191104A-247109

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
8270D-SIM	1-METHYLNAPHTHALENE	0.10 U	0.2	0.10	0.04	ug/L	11/04/19	11/12/19
8270D-SIM	2-METHYLNAPHTHALENE	0.10 U	0.2	0.10	0.04	ug/L	11/04/19	11/12/19
8270D-SIM	NAPHTHALENE	0.10 U	0.2	0.10	0.04	ug/L	11/04/19	11/12/19
8270D-SIM	SURROGATE: 2-METHYLNAPHTHALEN	115 #	39-114			%	11/04/19	11/12/19
8270D-SIM	SURROGATE: FLUORANTHENE-D10 (S	112	58-120			%	11/04/19	11/12/19

= Recovery (or RPD) is outside QC limits.

Quant Method: L1028.M
Run #: 1028L263
Instrument: Linus
Sequence: L191028
Dilution Factor: 1
Initials: MA

Printed: 12/03/19 5:58:13 PM
APPL-F1-SC-NoMC-REG MDLs-DOD

EPA 8270D WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 90587

Sample ID: ERH946

APPL ID: BA02090

Sample Collection Date: 10/28/19

QCG: #87DC5-191104A-247478

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8270D	PHENOL	4.00 U	5.0	4.00	1.00	ug/L	11/04/19	11/26/19
EPA 8270D	SURROGATE: 2,4,6-TRIBROMOPHENO	85.3	43-140			%	11/04/19	11/26/19
EPA 8270D	SURROGATE: 2-FLUORBIPHENYL (S)	85.5	44-119			%	11/04/19	11/26/19
EPA 8270D	SURROGATE: 2-FLUOROPHENOL (S)	82.2	19-119			%	11/04/19	11/26/19
EPA 8270D	SURROGATE: NITROBENZENE-D5 (S)	103	44-120			%	11/04/19	11/26/19
EPA 8270D	SURROGATE: PHENOL-D6 (S)	90.8	10-115			%	11/04/19	11/26/19
EPA 8270D	SURROGATE: TERPHENYL-D14 (S)	86.5	50-134			%	11/04/19	11/26/19

Quant Method: Not detected.M
Run #: 1121Y158
Instrument: Yoda
Sequence: Y191121
Dilution Factor: 1
Initials: JPR

Printed: 12/03/19 12:18:33 PM
APPL-F1-SC-NoMC-REG MDLs-DOD

EPA 8270D WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

Sample ID: ERH947

Sample Collection Date: 10/28/19

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

ARF: 90587

APPL ID: BA02091

QCG: #87DC5-191104A-247478

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8270D	PHENOL	4.00 U	5.0	4.00	1.00	ug/L	11/04/19	11/26/19
EPA 8270D	SURROGATE: 2,4,6-TRIBROMOPHENO	80.7	43-140			%	11/04/19	11/26/19
EPA 8270D	SURROGATE: 2-FLUORBIPHENYL (S)	87.7	44-119			%	11/04/19	11/26/19
EPA 8270D	SURROGATE: 2-FLUOROPHENOL (S)	92.7	19-119			%	11/04/19	11/26/19
EPA 8270D	SURROGATE: NITROBENZENE-D5 (S)	105	44-120			%	11/04/19	11/26/19
EPA 8270D	SURROGATE: PHENOL-D6 (S)	102	10-115			%	11/04/19	11/26/19
EPA 8270D	SURROGATE: TERPHENYL-D14 (S)	78.7	50-134			%	11/04/19	11/26/19

Quant Method: Not detected.M
Run #: 1121Y159
Instrument: Yoda
Sequence: Y191121
Dilution Factor: 1
Initials: JPR

Printed: 12/03/19 12:18:34 PM
APPL-F1-SC-NoMC-REG MDLs-DOD

EPA 8270D MODIFIED WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

Sample ID: ERH946

Sample Collection Date: 10/28/19

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

ARF: 90587

APPL ID: BA02090

QCG: #87DME-191031A-247175

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8270D	2-(2-METHOXYETHOXY)-ETHANOL	80.0 U	100	80.0	40.0	ug/L	10/31/19	11/08/19

Quant Method:	YMEE1030.M
Run #:	1030L050
Instrument:	Linus
Sequence:	L191030M
Dilution Factor:	1
Initials:	MA

Printed: 11/15/19 12:46:55 PM
APPL-F1-SC-NoMC-REG MDLs-DOD

EPA 8270D MODIFIED WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 90587

Sample ID: ERH947

APPL ID: BA02091

Sample Collection Date: 10/28/19

QCG: #87DME-191031A-247175

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8270D	2-(2-METHOXYETHOXY)-ETHANOL	80.0 U	100	80.0	40.0	ug/L	10/31/19	11/08/19

Quant Method:	YMEE1030.M
Run #:	1030L051
Instrument:	Linus
Sequence:	L191030M
Dilution Factor:	1
Initials:	MA

Printed: 11/15/19 12:46:56 PM

APPL-F1-SC-NoMC-REG MDLs-DOD

EPA 8260B BTEX & 1,2-DCA WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

Sample ID: ERH945

Sample Collection Date: 10/28/19

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

ARF: 90587

APPL ID: BA02089

QCG: #86BTO-191101BT-246726

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8260B	1,2-DICHLOROETHANE	0.30 U	1.0	0.30	0.14	ug/L	11/02/19	11/02/19
EPA 8260B	BENZENE	0.30 U	1.0	0.30	0.15	ug/L	11/02/19	11/02/19
EPA 8260B	ETHYLBENZENE	0.50 U	1.0	0.50	0.23	ug/L	11/02/19	11/02/19
EPA 8260B	TOLUENE	0.30 U	1.0	0.30	0.15	ug/L	11/02/19	11/02/19
EPA 8260B	XYLENES (TOTAL)	0.30 U	2.0	0.30	0.15	ug/L	11/02/19	11/02/19
EPA 8260B	SURROGATE: 1,2-DICHLOROETHANE-	97.1	81-118			%	11/02/19	11/02/19
EPA 8260B	SURROGATE: 4-BROMOFLUOROBENZ	93.8	85-114			%	11/02/19	11/02/19
EPA 8260B	SURROGATE: DIBROMOFLUOROMETH	100.0	80-119			%	11/02/19	11/02/19
EPA 8260B	SURROGATE: TOLUENE-D8 (S)	95.3	89-112			%	11/02/19	11/02/19

Quant Method: T1023W.M
Run #: 1101T42
Instrument: Thor
Sequence: T191028
Dilution Factor: 1
Initials: DPO

Printed: 11/04/19 5:27:59 PM
APPL-F1-SC-NoMC-REG MDLs-DOD

EPA 8260B BTEX & 1,2-DCA WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

Sample ID: ERH946

Sample Collection Date: 10/28/19

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

ARF: 90587

APPL ID: BA02090

QCG: #86BTO-191101BT-246726

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8260B	1,2-DICHLOROETHANE	0.30 U	1.0	0.30	0.14	ug/L	11/02/19	11/02/19
EPA 8260B	BENZENE	0.30 U	1.0	0.30	0.15	ug/L	11/02/19	11/02/19
EPA 8260B	ETHYLBENZENE	0.50 U	1.0	0.50	0.23	ug/L	11/02/19	11/02/19
EPA 8260B	TOLUENE	0.30 U	1.0	0.30	0.15	ug/L	11/02/19	11/02/19
EPA 8260B	XYLENES (TOTAL)	0.30 U	2.0	0.30	0.15	ug/L	11/02/19	11/02/19
EPA 8260B	SURROGATE: 1,2-DICHLOROETHANE-	99.8	81-118			%	11/02/19	11/02/19
EPA 8260B	SURROGATE: 4-BROMOFLUOROBENZ	98.4	85-114			%	11/02/19	11/02/19
EPA 8260B	SURROGATE: DIBROMOFLUOROMETH	98.0	80-119			%	11/02/19	11/02/19
EPA 8260B	SURROGATE: TOLUENE-D8 (S)	99.1	89-112			%	11/02/19	11/02/19

Quant Method: T1023W.M
Run #: 1101T47
Instrument: Thor
Sequence: T191028
Dilution Factor: 1
Initials: DPO

Printed: 11/04/19 5:28:00 PM
APPL-F1-SC-NoMC-REG MDLs-DOD

EPA 8260B BTEX & 1,2-DCA WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

Sample ID: ERH947

Sample Collection Date: 10/28/19

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

ARF: 90587

APPL ID: BA02091

QCG: #86BTO-191101AT-246719

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8260B	1,2-DICHLOROETHANE	0.30 U	1.0	0.30	0.14	ug/L	11/02/19	11/02/19
EPA 8260B	BENZENE	0.30 U	1.0	0.30	0.15	ug/L	11/02/19	11/02/19
EPA 8260B	ETHYLBENZENE	0.50 U	1.0	0.50	0.23	ug/L	11/02/19	11/02/19
EPA 8260B	TOLUENE	0.30 U	1.0	0.30	0.15	ug/L	11/02/19	11/02/19
EPA 8260B	XYLENES (TOTAL)	0.30 U	2.0	0.30	0.15	ug/L	11/02/19	11/02/19
EPA 8260B	SURROGATE: 1,2-DICHLOROETHANE-	94.6	81-118			%	11/02/19	11/02/19
EPA 8260B	SURROGATE: 4-BROMOFLUOROBENZ	92.2	85-114			%	11/02/19	11/02/19
EPA 8260B	SURROGATE: DIBROMOFLUOROMETH	94.3	80-119			%	11/02/19	11/02/19
EPA 8260B	SURROGATE: TOLUENE-D8 (S)	94.1	89-112			%	11/02/19	11/02/19

Quant Method: T1023W.M
Run #: 1101T24
Instrument: Thor
Sequence: T191028
Dilution Factor: 1
Initials: DPO

Printed: 11/04/19 5:28:00 PM
APPL-F1-SC-NoMC-REG MDLs-DOD

EPA 8260B GRO WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

Sample ID: ERH945

Sample Collection Date: 10/28/19

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

ARF: 90587

APPL ID: BA02089

QCG: #GRO86-191101BT-246725

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8260B	GASOLINE RANGE ORGANICS	18.0 U	20	18.0	8.6	ug/L	11/02/19	11/02/19
EPA 8260B	SURROGATE: 4-BROMOFLUOROBENZ	93.8	85-114			%	11/02/19	11/02/19

Quant Method:	TGAS1026.M
Run #:	1101T42
Instrument:	Thor
Sequence:	T191028
Dilution Factor:	1
Initials:	DPO

Printed: 11/04/19 5:24:57 PM
APPL-F1-SC-NoMC-REG MDLs-DOD

EPA 8260B GRO WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 90587

Sample ID: ERH946

APPL ID: BA02090

Sample Collection Date: 10/28/19

QCG: #GRO86-191101BT-246725

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8260B	GASOLINE RANGE ORGANICS	18.0 U	20	18.0	8.6	ug/L	11/02/19	11/02/19
EPA 8260B	SURROGATE: 4-BROMOFLUOROBENZ	98.4	85-114			%	11/02/19	11/02/19

Quant Method:	TGAS1026.M
Run #:	1101T47
Instrument:	Thor
Sequence:	T191028
Dilution Factor:	1
Initials:	DPO

Printed: 11/04/19 5:24:57 PM

APPL-F1-SC-NoMC-REG MDLs-DOD

EPA 8260B GRO WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

Attn: Margie Pascua

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 90587

Sample ID: ERH947

APPL ID: BA02091

Sample Collection Date: 10/28/19

QCG: #GRO86-191101AT-246718

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8260B	GASOLINE RANGE ORGANICS	18.0 U	20	18.0	8.6	ug/L	11/02/19	11/02/19
EPA 8260B	SURROGATE: 4-BROMOFLUOROBENZ	92.2	85-114			%	11/02/19	11/02/19

Quant Method: TGAS1026.M
Run #: 1101T24
Instrument: Thor
Sequence: T191028
Dilution Factor: 1
Initials: DPO

Printed: 11/04/19 5:24:57 PM
APPL-F1-SC-NoMC-REG MDLs-DOD

METHANE

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua
Project: 60571032 CV18F0126 Red Hill Fuel Storage
Sample ID: ERH945
Sample Collection Date: 10/28/19

ARF: 90587
APPL ID: BA02089
QCG: #RSKME-191031A-246650

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
RSK 175	METHANE	1.00 U	5.0	1.00	0.25	ug/L	10/31/19	10/31/19

Quant Method:	RSK1002.M
Run #:	1031R08
Instrument:	Rocky
Sequence:	191002
Dilution Factor:	1
Initials:	GAG

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APPL-F1-SC-NoMC-REG MDLs-DOD

METHANE

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

Sample ID: ERH946

Sample Collection Date: 10/28/19

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

ARF: 90587

APPL ID: BA02090

QCG: #RSKME-191031A-246650

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
RSK 175	METHANE	1.00 U	5.0	1.00	0.25	ug/L	10/31/19	10/31/19

Quant Method:	RSK1002.M
Run #:	1031R09
Instrument:	Rocky
Sequence:	191002
Dilution Factor:	1
Initials:	GAG

Printed: 11/15/19 1:38:03 PM
APPL-F1-SC-NoMC-REG MDLs-DOD

Metals Analysis

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

Attn: Margie Pascua
Project: 60571032 CV18F0126 Red Hill Fuel Storage
Sample ID: ERH946
Sample Collection Date: 10/28/19

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

ARF: 90587
APPL ID: BA02090

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
6010C/3010A	CALCIUM (CA)	7740	1000	75.0	27.5	ug/L	1	11/04/19	11/05/19
6010C/3010A	MAGNESIUM (MG)	8820	500	30.0	12.9	ug/L	1	11/04/19	11/05/19
6010C/3010A	MANGANESE (MN)	7.3 J	10.0	4.00	1.23	ug/L	1	11/04/19	11/05/19
6010C/3010A	POTASSIUM (K)	1390 J	3000	500.0	220.0	ug/L	1	11/04/19	11/05/19
6010C/3010A	SODIUM (NA)	36100	5000	500.0	111.1	ug/L	1	11/04/19	11/05/19

J = Estimated value.

Printed: 12/02/19 10:15:49 AM
APPL-F1-SC-NoMC-REG MDLs

Wet Lab Analysis

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

Sample ID: ERH946

Sample Collection Date: 10/28/19

APPL ID: BA02090

ARF: 90587

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
EPA 300.0	BROMIDE	0.14 J	0.5	0.16	0.05	mg/L	1	10/30/19	10/30/19
EPA 300.0	CHLORIDE	47.8	1.0	0.20	0.08	mg/L	1	10/30/19	10/30/19
EPA 300.0	FLUORIDE	0.09 U	0.1	0.09	0.08	mg/L	1	10/30/19	10/30/19
EPA 300.0	NITRATE	1.7	0.5	0.18	0.04	mg/L	1	10/30/19	10/30/19
EPA 300.0	SULFATE	7.5	1.0	0.20	0.09	mg/L	1	10/30/19	10/30/19

J = Estimated value.

Printed: 12/04/19 2:33:14 PM

APPL-F1-SC-NoMC-REG MDLs

Wet Lab Analysis

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

Sample ID: ERH946

Sample Collection Date: 10/28/19

APPL ID: BA02090

ARF: 90587

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
EPA 353.2	NITRATE-NITRITE-N	0.41	0.10	0.090	0.028	mg/L	1	11/01/19	11/01/19
SM 2320B	BICARBONATE AS CACO3	55.1	2.0	1.70	0.85	mg/L	1	10/31/19	10/31/19
SM 2320B	CARBONATE AS CACO3	1.70 U	2.0	1.70	0.85	mg/L	1	10/31/19	10/31/19
SM 2320B	TOTAL ALKALINITY AS CACO	55.1	2.0	1.70	0.85	mg/L	1	10/31/19	10/31/19
SM 4500-Si D	SILICA W	49.1	5.0	4.00	2.65	mg/L	5	11/06/19	11/06/19
SM 4500-Si D	DISSOLVED SILICA	45.1	5.0	4.00	2.65	mg/L	5	11/06/19	11/06/19
SM3500FeB	FERROUS IRON	0.32 U	1.0	0.32	0.16	mg/L	1	10/29/19	10/29/19
SW846 9060A	DISSOLVED ORGANIC CARB	0.39 J	0.93	0.350	0.130	mg/L	1	11/05/19	11/07/19
SW846 9060A	TOTAL ORGANIC CARBON	0.50 J	0.93	0.350	0.130	mg/L	1	11/10/19	11/11/19

J = Estimated value.

Printed: 12/04/19 3:44:07 PM

APPL-F1-SC-NoMC-REG MDLs

QC FORMS

8011

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 90587

Case No: 90587 Date Analyzed: 10/31/19

Matrix: WATER Instrument: Herbie

APPL ID.	Client Sample No.	SURROGATE: 1,3-DIBROMOPROPANE (S)					
		Limits	Result	Qualifier	Limits	Result	Qualifier
191031A-BLK	Blank	70-132	94.0				
191031A-LCS	Lab Control Spike	70-132	106				
191031A-LCSD	Lab Control SpikeD	70-132	105				
BA02090	ERH946	70-132	96.0				
BA02091	ERH947	70-132	103				

Comments: Batch: #8011-191031A

8011

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 90587

Case No: 90587 Date Analyzed: 10/31/19

Matrix: WATER Instrument: Herbie

Blank ID: 191031A-BLK Time Analyzed: 2158

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191031A-BLK	Blank	1025106	10/31/19 2158
191031A-LCS	Lab Control Spike	1025107	10/31/19 2218
191031A-LCSD	Lab Control SpikeD	1025108	10/31/19 2237
BA02090	ERH946	1025110	10/31/19 2317
BA02091	ERH947	1025111	10/31/19 2337

Comments: Batch: #8011-191031A

Printed: 11/05/19 9:59:21 AM
Form 4, Blank Summary

Method Blank

EPA 8011

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Blank Name/QCG: **191031W-01783 - 246759**
Batch ID: #8011-191031A

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	EDB	0.019 U	0.02	0.019	0.010	ug/L	10/31/19	10/31/19
BLANK	SURROGATE: 1,3-DIBROMOPRO	94.0	70-132			%	10/31/19	10/31/19

Quant Method:8011917A.M
Run #:1025106
Instrument:Herbie
Sequence:191025
Initials:GAG

GC SC-Blank-REG MDLs-DOD
Printed: 11/05/19 9:58:56 AM

8011

Form 4

LCS Summary

Lab Name: APPL, Inc. SDG No: 90587

Case No: 90587 Date Analyzed: 10/31/19

Matrix: WATER Instrument: Herbie

LCS ID: 191031A-LCS Time Analyzed: 2218

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191031A-BLK	Blank	1025106	10/31/19 2158
191031A-LCS	Lab Control Spike	1025107	10/31/19 2218
191031A-LCSD	Lab Control SpikeD	1025108	10/31/19 2237
BA02090	ERH946	1025110	10/31/19 2317
BA02091	ERH947	1025111	10/31/19 2337

Comments: Batch: #8011-191031A

Printed: 11/05/19 9:59:22 AM
Form 4, LCS Summary

Laboratory Control Spike Recoveries

EPA 8011

APPL ID: **191031W-01783 LCS - 246759**
Batch ID: #8011-191031A

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Lvl ug/L	SPK Result ug/L	DUP Result ug/L	SPK % Recovery	DUP % Recovery	Recovery Limits	RPD %	RPD Limits
EDB	0.250	0.257	0.265	103	106	60-140	3.1	25
SURROGATE: 1,3-DIBROMOPROPANE (	0.250	0.265	0.263	106	105	70-132		

Comments: _____

Primary	SPK	DUP
Quant Method :	8011917A.M	8011917A.M
Extraction Date :	10/31/19	10/31/19
Analysis Date :	10/31/19	10/31/19
Instrument :	Herbie	Herbie
Run :	1025107	1025108
Initials :	GAG	

Printed: 11/05/19 9:59:04 AM
APPL Standard LCSD

EPA 8015B-eLL

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 90587

Case No: 90587 Date Analyzed: 11/14/19

Matrix: WATER Instrument: Apollo

APPL ID.	Client Sample No.	SURROGATE: OCTACOSANE (S)			SURROGATE: ORTHO-TERPHENYL (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
191104A-BLK	Blank	60-142	105		56-125	113	
191104A-LCS	Lab Control Spike	60-142	72.0		56-125	105	
191104A-LCSD	Lab Control SpikeD	60-142	63.3		56-125	106	
BA02090	ERH946	60-142	102		56-125	103	
BA02091	ERH947	60-142	104		56-125	112	

Comments: Batch: #DOC53-191104A

EPA 8015B-eL

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 90587

Case No: 90587 Date Analyzed: 11/14/19

Matrix: WATER Instrument: Apollo

Blank ID: 191104A-BLK Time Analyzed: 2159

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191104A-BLK	Blank	1114010	11/14/19 2159
191104A-LCS	Lab Control Spike	1114011	11/14/19 2218
191104A-LCSD	Lab Control SpikeD	1114012	11/14/19 2238
BA02090	ERH946	1114013	11/14/19 2258
BA02091	ERH947	1114014	11/14/19 2317

Comments: Batch: #DOC53-191104A

Printed: 11/16/19 5:17:10 AM
Form 4, Blank Summary

Method Blank
EPA 8015B TPH LIQ-LIQ

Blank Name/QCG: **191104W-02090 - 247204**
Batch ID: #DOC53-191104A

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	DIESEL (C10-C24)	25.00 U	40.0	25.00	13.07	ug/L	11/04/19	11/14/19
BLANK	OIL (C24-C40)	40.00 U	40.0	40.00	5.54	ug/L	11/04/19	11/14/19
BLANK	SURROGATE: OCTACOSANE (S)	105	60-142			%	11/04/19	11/14/19
BLANK	SURROGATE: ORTHO-TERPHEN	113	56-125			%	11/04/19	11/14/19

Quant Method: DOC1114.M
Run #: 1114010
Instrument: Apollo
Sequence: 191114
Initials: LPO

GC SC-Blank-REG MDLs-DOD
Printed: 11/16/19 5:17:07 AM

EPA 8015B-eL

Form 4

LCS Summary

Lab Name: APPL, Inc. SDG No: 90587

Case No: 90587 Date Analyzed: 11/14/19

Matrix: WATER Instrument: Apollo

LCS ID: 191104A-LCS Time Analyzed: 2218

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191104A-BLK	Blank	1114010	11/14/19 2159
191104A-LCS	Lab Control Spike	1114011	11/14/19 2218
191104A-LCSD	Lab Control SpikeD	1114012	11/14/19 2238
BA02090	ERH946	1114013	11/14/19 2258
BA02091	ERH947	1114014	11/14/19 2317

Comments: Batch: #DOC53-191104A

Printed: 11/16/19 5:17:10 AM
Form 4, LCS Summary

Laboratory Control Spike Recoveries
EPA 8015B TPH LIQ-LIQ

APPL ID: **191104W-02090 LCS - 247204**
Batch ID: #DOC53-191104A

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Lvl ug/L	SPK Result ug/L	DUP Result ug/L	SPK % Recovery	DUP % Recovery	Recovery Limits	RPD %	RPD Limits
DIESEL (C10-C24)	1250	1310	1330	105	106	36-132	1.5	30
OIL (C24-C40)	2500	2400	2390	96.0	95.6	41-113	0.42	30
SURROGATE: OCTACOSANE (S)	75.0	54.0	47.5	72.0	63.3	60-142		
SURROGATE: ORTHO-TERPHENYL (S)	75.0	78.4	79.4	105	106	56-125		

Comments: _____

Primary	SPK	DUP
Quant Method :	DOC1114.M	DOC1114.M
Extraction Date :	11/04/19	11/04/19
Analysis Date :	11/14/19	11/14/19
Instrument :	Apollo	Apollo
Run :	1114011	1114012
Initials :	LPO	

Printed: 11/16/19 5:24:54 AM
APPL Standard LCSD

8270D-SIM

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 90587

Case No: 90587 Date Analyzed: 11/12/19

Matrix: WATER Instrument: Linus

APPL ID.	Client Sample No.	SURROGATE: 2-METHYLNAPHTHALENE-D10 (S)			SURROGATE: FLUORANTHENE-D10 (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
191104A-BLK	Blank	39-114	88.3		58-120	105	
191104A-LCS	Lab Control Spike	39-114	96.5		58-120	105	
191104A-LCSD	Lab Control SpikeD	39-114	88.2		58-120	103	
BA02090	ERH946	39-114	86.6		58-120	101	
BA02091	ERH947	39-114	115	#	58-120	112	

Comments: Batch: #SIM53-191104A

= Recovery outside of Control Limits on Sample.

8270D-SIM

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 90587

Case No: 90587 Date Analyzed: 11/12/19

Matrix: WATER Instrument: Linus

Blank ID: 191104A-BLK Time Analyzed: 1004

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191104A-BLK	Blank	1028L259	11/12/19 1004
191104A-LCS	Lab Control Spike	1028L260	11/12/19 1026
191104A-LCSD	Lab Control SpikeD	1028L261	11/12/19 1048
BA02090	ERH946	1028L262	11/12/19 1110
BA02091	ERH947	1028L263	11/12/19 1133

Comments: Batch: #SIM53-191104A

Printed: 12/03/19 5:58:34 PM
Form 4, Blank Summary

Method Blank
EPA 8270D SIM LIQ-LIQ

Blank Name/QCG: **191104W-02090 - 247109**
Batch ID: #SIM53-191104A

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	1-METHYLNAPHTHALENE	0.10 U	0.2	0.10	0.04	ug/L	11/04/19	11/12/19
BLANK	2-METHYLNAPHTHALENE	0.10 U	0.2	0.10	0.04	ug/L	11/04/19	11/12/19
BLANK	NAPHTHALENE	0.10 U	0.2	0.10	0.04	ug/L	11/04/19	11/12/19
BLANK	SURROGATE: 2-METHYLNAPHT	88.3	39-114			%	11/04/19	11/12/19
BLANK	SURROGATE: FLUORANTHENE-	105	58-120			%	11/04/19	11/12/19

Quant Method: L1028.M
Run #: 1028L259
Instrument: Linus
Sequence: L191028
Initials: MA

GC SC-Blank-REG MDLs-DOD
Printed: 12/03/19 5:58:13 PM

8270D-SIM

Form 4

LCS Summary

Lab Name: APPL, Inc. SDG No: 90587

Case No: 90587 Date Analyzed: 11/12/19

Matrix: WATER Instrument: Linus

LCS ID: 191104A-LCS Time Analyzed: 1026

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191104A-BLK	Blank	1028L259	11/12/19 1004
191104A-LCS	Lab Control Spike	1028L260	11/12/19 1026
191104A-LCSD	Lab Control SpikeD	1028L261	11/12/19 1048
BA02090	ERH946	1028L262	11/12/19 1110
BA02091	ERH947	1028L263	11/12/19 1133

Comments: Batch: #SIM53-191104A

Laboratory Control Spike Recoveries

EPA 8270D SIM LIQ-LIQ

APPL ID: **191104W-02090 LCS - 247109**
Batch ID: #SIM53-191104A

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Lvl ug/L	SPK Result ug/L	DUP Result ug/L	SPK % Recovery	DUP % Recovery	Recovery Limits	RPD %	RPD Limits
1-METHYLNAPHTHALENE	6.25	6.55	5.92	105	94.7	41-115	10.1	20
2-METHYLNAPHTHALENE	6.25	6.65	5.98	106	95.7	39-114	10.6	20
NAPHTHALENE	6.25	6.67	6.03	107	96.5	43-114	10.1	20
SURROGATE: 2-METHYLNAPHTHALEN	6.25	6.03	5.51	96.5	88.2	39-114		
SURROGATE: FLUORANTHENE-D10 (S)	6.25	6.54	6.46	105	103	58-120		

Comments: _____

Primary	SPK	DUP
Quant Method :	L1028.M	L1028.M
Extraction Date :	11/04/19	11/04/19
Analysis Date :	11/12/19	11/12/19
Instrument :	Linus	Linus
Run :	1028L260	1028L261
Initials :	MA	

Printed: 12/03/19 5:58:19 PM
APPL Standard LCSD

Form 5
Tune Summary

Lab Name: APPL Inc.
Case No:
Matrix: Water
ID: 1028L002.D

SDG No:
Date Analyzed: 10/28/19
Instrument: Linus
Time Analyzed: 10:20

	Client Sample No.	APPL ID.	File ID.	Date Analyzed
1		5 SIM 10/28/19(2)	1028L004.D	10/28/19 12:26
2		0.1 SIM 10/28/19	1028L005.D	10/28/19 12:51
3		0.2 SIM 10/28/19	1028L006.D	10/28/19 13:13
4		0.5 SIM 10/28/19	1028L007.D	10/28/19 13:35
5		1 SIM 10/28/19	1028L008.D	10/28/19 13:57
6		20 SIM 10/28/19	1028L009.D	10/28/19 14:19
7		50 SIM 10/28/19	1028L010.D	10/28/19 14:42
8		100 SIM 10/28/19	1028L011.D	10/28/19 15:04
9		SS SIM 10/28/19	1028L012.D	10/28/19 15:55
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				

m/e		
51	9.95 - 80.1% of mass 198	44.0
68	0 - 2.05% of mass 69	0.0
70	0 - 2% of mass 69	0.3
127	10 - 80% of mass 198	66.3
197	0 - 2% of mass 198	0.0
198	100 - 100% of mass 198	100.0
199	5 - 9% of mass 198	6.8
275	10 - 60% of mass 198	23.0
365	1 - 100% of mass 198	3.1
441	0.01 - 24% of mass 442	15.5
442	50 - 500% of mass 198	95.8
443	15 - 24% of mass 442	19.6

Form 5
Tune Summary

Lab Name: APPL Inc.
Case No: 90587
Matrix: Water
ID: 1028L257.D

SDG No: 90587
Date Analyzed: 11/12/19
Instrument: Linus
Time Analyzed: 9:18

	Client Sample No.	APPL ID.	File ID.	Date Analyzed
1		5 SIM 10/28/19 (1)	1028L258.D	11/12/19 9:35
2	Blank	191104A BLK 1/800	1028L259.D	11/12/19 10:04
3	Lab Control Spike	191104A LCS-2 1/800	1028L260.D	11/12/19 10:26
4	Lab Control SpikeD	191104A LCSD-2 1/800	1028L261.D	11/12/19 10:48
5	ERH946	BA02090W19 1/800	1028L262.D	11/12/19 11:10
6	ERH947	BA02091W14 1/800	1028L263.D	11/12/19 11:33
7		5 SIM 10/28/19 (1)	1028L268.D	11/12/19 13:40
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				

m/e		
51	9.95 - 80.04% of mass 198	51.2
68	0 - 2.04% of mass 69	0.0
70	0 - 2.04% of mass 69	0.7
127	10 - 80% of mass 198	65.7
197	0 - 2% of mass 198	0.0
198	100 - 100% of mass 198	100.0
199	5 - 9% of mass 198	7.1
275	10 - 60% of mass 198	21.2
365	1 - 100% of mass 198	3.2
441	0.01 - 24% of mass 442	17.4
442	50 - 500% of mass 198	71.1
443	15 - 24% of mass 442	21.1

8A
INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: APPL Inc. Contract: _____

Lab Code: _____ SDG No.: _____

Lab File ID (Standard): 1028L258.D Date Analyzed: 11/12/19

Instrument ID: Linus Time Analyzed: 9:35

GC Column: _____ ID: Heated Purge: (Y/N) _____

		Napthalene-D8(IS)		Acenaphthene-D10(IS)		Phenanthrene-D10(IS)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	42226	4.27	17230	6.27	30075	7.98
	UPPER LIMIT	84452	4.44	34460	6.44	60150	8.15
	LOWER LIMIT	21113	4.10	8615	6.10	15038	7.81
	SAMPLE NO.						
01	191104A BLK 1/800	41490	4.26	17274	6.27	30878	7.98
02	191104A LCS-2 1/800	38137	4.27	15916	6.27	30577	7.98
03	191104A LCSD-2 1/800	42346	4.27	17317	6.27	31965	7.98
04	BA02090W19 1/800	44661	4.27	18484	6.27	32886	7.98
05	BA02091W14 1/800	33700	4.27	14442	6.27	29551	7.98
06	5 SIM 10/28/19 (1)	53473	4.27	20055	6.27	37410	7.98
07							
08							
09							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = -50% of internal standard area.
RT UPPER LIMIT = +0.17 minutes of internal standard RT
RT LOWER LIMIT = -0.17 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

8A
INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: APPL Inc. Contract: _____

Lab Code: _____ SDG No.: _____

Lab File ID (Standard): 1028L258.D Date Analyzed: 11/12/19

Instrument ID: Linus Time Analyzed: 9:35

GC Column: _____ ID: Heated Purge: (Y/N) _____

		Chrysene-D12(IS)		Perylene-D12(IS)			
		AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	35927	11.10	34153	13.52		
	UPPER LIMIT	71854	11.27	68306	13.69		
	LOWER LIMIT	17964	10.93	17077	13.35		
	SAMPLE NO.						
01	191104A BLK 1/800	37096	11.10	38223	13.52		
02	191104A LCS-2 1/800	37171	11.10	38425	13.52		
03	191104A LCSD-2 1/800	38068	11.10	38812	13.52		
04	BA02090W19 1/800	40232	11.10	42032	13.53		
05	BA02091W14 1/800	36855	11.10	38632	13.53		
06	5 SIM 10/28/19 (1)	46428	11.11	47184	13.53		
07							
08							
09							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = -50% of internal standard area.
RT UPPER LIMIT = +0.17 minutes of internal standard RT
RT LOWER LIMIT = -0.17 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

EPA 8270D

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 90587

Case No: 90587 Date Analyzed: 11/07/19

Matrix: WATER Instrument: Yoda

APPL ID.	Client Sample No.	SURROGATE: 2,4,6-TRIBROMOPHENOL (S)			SURROGATE: 2-FLUORBIPHENYL (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
191104A-BLK	Blank	43-140	84.2		44-119	77.6	
191104A-LCS	Lab Control Spike	43-140	76.4		44-119	68.6	
191104A-LCSD	Lab Control SpikeD	43-140	74.8		44-119	67.0	
BA02090	ERH946	43-140	85.3		44-119	85.5	
BA02091	ERH947	43-140	80.7		44-119	87.7	

Comments: Batch: #87DC5-191104A

EPA 8270D

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 90587

Case No: 90587 Date Analyzed: 11/07/19

Matrix: WATER Instrument: Yoda

APPL ID.	Client Sample No.	SURROGATE: 2-FLUOROPHENOL (S)			SURROGATE: NITROBENZENE-D5 (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
191104A-BLK	Blank	19-119	81.4		44-120	83.8	
191104A-LCS	Lab Control Spike	19-119	71.2		44-120	69.7	
191104A-LCSD	Lab Control SpikeD	19-119	69.6		44-120	69.1	
BA02090	ERH946	19-119	82.2		44-120	103	
BA02091	ERH947	19-119	92.7		44-120	105	

Comments: Batch: #87DC5-191104A

EPA 8270D

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 90587

Case No: 90587 Date Analyzed: 11/07/19

Matrix: WATER Instrument: Yoda

APPL ID.	Client Sample No.	SURROGATE: PHENOL-D6 (S)			SURROGATE: TERPHENYL-D14 (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
191104A-BLK	Blank	10-115	86.1		50-134	84.2	
191104A-LCS	Lab Control Spike	10-115	74.8		50-134	75.7	
191104A-LCSD	Lab Control SpikeD	10-115	73.6		50-134	75.7	
BA02090	ERH946	10-115	90.8		50-134	86.5	
BA02091	ERH947	10-115	102		50-134	78.7	

Comments: Batch: #87DC5-191104A

EPA 8270D

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 90587

Case No: 90587 Date Analyzed: 11/07/19

Matrix: WATER Instrument: Yoda

Blank ID: 191104A-BLK Time Analyzed: 1648

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191104A-BLK	Blank	1030Y281	11/07/19 1648
191104A-LCS	Lab Control Spike	1030Y282	11/07/19 1716
191104A-LCSD	Lab Control SpikeD	1030Y283	11/07/19 1744
BA02090	ERH946	1121Y158	11/26/19 2242
BA02091	ERH947	1121Y159	11/26/19 2310

Comments: Batch: #87DC5-191104A

Printed: 12/03/19 12:18:43 PM
Form 4, Blank Summary

Method Blank
EPA 8270D WATER

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Blank Name/QCG: **191104W-02301 - 248520**
Batch ID: #87DC5-191104A1

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	PHENOL	4.00 U	5.0	4.00	1.00	ug/L	11/04/19	11/26/19
BLANK	SURROGATE: 2,4,6-TRIBROMOP	90.0	43-140			%	11/04/19	11/26/19
BLANK	SURROGATE: 2-FLUORBIPHENY	89.5	44-119			%	11/04/19	11/26/19
BLANK	SURROGATE: 2-FLUOROPHENO	84.6	19-119			%	11/04/19	11/26/19
BLANK	SURROGATE: NITROBENZENE-	95.0	44-120			%	11/04/19	11/26/19
BLANK	SURROGATE: PHENOL-D6 (S)	90.5	10-115			%	11/04/19	11/26/19
BLANK	SURROGATE: TERPHENYL-D14 (	96.3	50-134			%	11/04/19	11/26/19

Quant Method:Not detected.
Run #:1121Y155
Instrument:Yoda
Sequence:Y191121
Initials:JPR

GC SC-Blank-REG MDLs-DOD
Printed: 12/23/19 1:19:48 PM

EPA 8270D

Form 4

LCS Summary

Lab Name: APPL, Inc. SDG No: 90587

Case No: 90587 Date Analyzed: 11/07/19

Matrix: WATER Instrument: Yoda

LCS ID: 191104A-LCS Time Analyzed: 1716

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191104A-BLK	Blank	1030Y281	11/07/19 1648
191104A-LCS	Lab Control Spike	1030Y282	11/07/19 1716
191104A-LCSD	Lab Control SpikeD	1030Y283	11/07/19 1744
BA02090	ERH946	1121Y158	11/26/19 2242
BA02091	ERH947	1121Y159	11/26/19 2310

Comments: Batch: #87DC5-191104A

Laboratory Control Spike Recoveries

EPA 8270D WATER

APPL ID: **191104W-02301 LCS - 248520**
Batch ID: #87DC5-191104A1

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Lvl ug/L	SPK Result ug/L	DUP Result ug/L	SPK % Recovery	DUP % Recovery	Recovery Limits	RPD %	RPD Limits
PHENOL	62.5	69.6	78.5	111	126 #	10-115	12.0	20
SURROGATE: 2,4,6-TRIBROMOPHENOL	250	231	230	92.4	92.0	43-140		
SURROGATE: 2-FLUORBIPHENYL (S)	125	110	111	88.0	88.8	44-119		
SURROGATE: 2-FLUOROPHENOL (S)	250	240	257	96.0	103	19-119		
SURROGATE: NITROBENZENE-D5 (S)	125	127	135	102	108	44-120		
SURROGATE: PHENOL-D6 (S)	250	261	283	104	113	10-115		
SURROGATE: TERPHENYL-D14 (S)	125	86.6	100	69.3	80.0	50-134		

= Recovery is outside QC limits.

Comments: _____

Primary	SPK	DUP
Quant Method :	Not detected.M	Not detected.M
Extraction Date :	11/04/19	11/04/19
Analysis Date :	11/26/19	11/26/19
Instrument :	Yoda	Yoda
Run :	1121Y156	1121Y157
Initials :	JPR	

Printed: 12/23/19 1:19:53 PM
APPL Standard LCSD

Form 5
Tune Summary

Lab Name: APPL Inc.
Case No:
Matrix: Soil
ID: 1121Y002.D

SDG No:
Date Analyzed: 11/21/19
Instrument: Yoda
Time Analyzed: 13:52

	Client Sample No.	APPL ID.	File ID.	Date Analyzed
1		4ug/ml 8270 11/21/19	1121Y003.D	11/21/19 14:07
2		5ug/ml 8270 11/21/19	1121Y004.D	11/21/19 14:35
3		10ug/ml 8270 11/21/1	1121Y005.D	11/21/19 15:37
4		20ug/ml 8270 11/21/1	1121Y006.D	11/21/19 16:05
5		40ug/ml 8270 11/21/1	1121Y007.D	11/21/19 16:33
6		50ug/ml 8270 11/21/1	1121Y008.D	11/21/19 17:01
7		60ug/ml 8270 11/21/1	1121Y009.D	11/21/19 17:30
8		80ug/ml 8270 11/21/1	1121Y010.D	11/21/19 17:58
9		100ug/ml 8270 11/21/	1121Y011.D	11/21/19 18:26
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				

m/e		
51	9.95 - 80.04% of mass 198	27.9
68	0 - 2% of mass 69	0.0
70	0 - 2% of mass 69	0.7
127	10 - 80% of mass 198	43.6
197	0 - 2% of mass 198	0.0
198	100 - 100% of mass 198	100.0
199	5 - 9% of mass 198	6.9
275	10 - 60% of mass 198	32.2
365	1 - 100% of mass 198	3.9
441	0.01 - 24% of mass 442	16.6
442	50 - 500% of mass 198	139.4
443	15 - 24% of mass 442	19.7

Form 5
Tune Summary

Lab Name: APPL Inc.
Case No:
Matrix: Soil
ID: 1121Y030.D

SDG No:
Date Analyzed: 11/22/19
Instrument: Yoda
Time Analyzed: 13:23

	Client Sample No.	APPL ID.	File ID.	Date Analyzed
1		SS 8270 11/22/19	1121Y031.D	11/22/19 13:38
2				
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8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				

m/e		
51	9.95 - 80.04% of mass 198	26.5
68	0 - 2% of mass 69	0.0
70	0 - 2% of mass 69	0.4
127	10 - 80% of mass 198	41.9
197	0 - 2% of mass 198	0.0
198	100 - 100% of mass 198	100.0
199	5 - 9% of mass 198	6.7
275	10 - 60% of mass 198	33.3
365	1 - 100% of mass 198	4.2
441	0.01 - 24% of mass 442	16.3
442	50 - 500% of mass 198	154.9
443	15 - 24% of mass 442	19.0

Form 5
Tune Summary

Lab Name: APPL Inc.
Case No: 90587
Matrix: Water
ID: 1121Y148.D

SDG No: 90587
Date Analyzed: 11/26/19
Instrument: Yoda
Time Analyzed: 18:16

	Client Sample No.	APPL ID.	File ID.	Date Analyzed
1		50ug/ml 8270 11/21/1	1121Y154.D	11/26/19 20:50
2	Blank	191104A BLK 2/800	1121Y155.D	11/26/19 21:18
3	Lab Control Spike	191104A LCS-1 2/800	1121Y156.D	11/26/19 21:46
4	Lab Control SpikeD	191104A LCSD-1 2/800	1121Y157.D	11/26/19 22:14
5	ERH946	BA02090W19 2/800	1121Y158.D	11/26/19 22:42
6	ERH947	BA02091W14 2/800	1121Y159.D	11/26/19 23:10
7		50ug/ml 8270 11/21/1	1121Y172.D	11/27/19 5:11
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				

m/e		
51	9.95 - 80.04% of mass 198	30.7
68	0 - 2% of mass 69	0.0
70	0 - 2% of mass 69	0.2
127	10 - 80% of mass 198	45.8
197	0 - 2% of mass 198	0.0
198	100 - 100% of mass 198	100.0
199	5 - 9% of mass 198	7.0
275	10 - 60% of mass 198	30.9
365	1 - 100% of mass 198	3.6
441	0.01 - 24% of mass 442	16.2
442	50 - 500% of mass 198	125.7
443	15 - 24% of mass 442	19.6

INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: APPL Inc. Contract: _____

Lab Code: _____ SDG No.: _____

Lab File ID (Standard): 1121Y154.D Date Analyzed: 11/26/19

Instrument ID: Yoda Time Analyzed: 20:50

GC Column: _____ ID: Heated Purge: (Y/N) _____

		1,4-dichlorobenzene-D4(IS)		Napthalene-D8(IS)		Acenaphthene-D10(IS)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	179473	5.47	719514	6.91	453439	8.93
	UPPER LIMIT	358946	5.64	1439028	7.08	906878	9.10
	LOWER LIMIT	89737	5.30	359757	6.74	226720	8.76
	SAMPLE NO.						
01	191104A BLK 2/800	174092	5.47	683374	6.91	442513	8.93
02	191104A LCS-1 2/800	150012	5.47	600754	6.91	417278	8.93
03	191104A LCSD-1 2/800	138243	5.47	560201	6.91	405413	8.93
04	BA02090W19 2/800	163278	5.47	648274	6.91	472509	8.93
05	BA02091W14 2/800	144024	5.47	593407	6.91	429374	8.93
06	50ug/ml 8270 11/21/19 (	184992	5.47	734252	6.91	456477	8.93
07							
08							
09							
10							
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14							
15							
16							
17							
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19							
20							
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22							

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = -50% of internal standard area.
RT UPPER LIMIT = +0.17 minutes of internal standard RT
RT LOWER LIMIT = -0.17 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

8A
INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: APPL Inc. Contract:

Lab Code: SDG No.:

Lab File ID (Standard): 1121Y154.D Date Analyzed: 11/26/19

Instrument ID: Yoda Time Analyzed: 20:50

GC Column: ID: Heated Purge: (Y/N)

		Phenanthrene-D10(IS)		Chrysene-D12(IS)		Perylene-D12(IS)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	869953	10.67	1038490	13.76	946185	15.62
	UPPER LIMIT	1739906	10.84	2076980	13.93	1892370	15.79
	LOWER LIMIT	434977	10.50	519245	13.59	473093	15.45
	SAMPLE NO.						
01	191104A BLK 2/800	890536	10.66	909385	13.75	920577	15.62
02	191104A LCS-1 2/800	853592	10.67	1179960	13.76	888601	15.62
03	191104A LCSD-1 2/800	822436	10.66	1006520	13.75	875772	15.63
04	BA02090W19 2/800	952165	10.66	1039370	13.75	963363	15.61
05	BA02091W14 2/800	880590	10.66	1054120	13.75	904213	15.62
06	50ug/ml 8270 11/21/19 (	870891	10.67	1025140	13.76	935612	15.62
07							
08							
09							
10							
11							
12							
13							
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16							
17							
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19							
20							
21							
22							

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = -50% of internal standard area.
RT UPPER LIMIT = +0.17 minutes of internal standard RT
RT LOWER LIMIT = -0.17 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

EPA 8270D

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 90587

Case No: 90587 Date Analyzed: 11/08/19

Matrix: WATER Instrument: Linus

Blank ID: 191031A-BLK Time Analyzed: 1421

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191031A-BLK	Blank	1030L043	11/08/19 1421
191031A-LCS	Lab Control Spike	1030L044	11/08/19 1549
191031A-LCSD	Lab Control SpikeD	1030L047	11/08/19 1645
BA02090	ERH946	1030L050	11/08/19 1740
BA02091	ERH947	1030L051	11/08/19 1759

Comments: Batch: #87DME-191031A

Method Blank

EPA 8270D MODIFIED WATER

Blank Name/QCG: **191031W-01829 - 247175**
Batch ID: #87DME-191031A

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	2-(2-METHOXYETHOXY)-ETHAN	80.0 U	100	80.0	40.0	ug/L	10/31/19	11/08/19

Quant Method:YMEE1030.M
Run #:1030L043
Instrument:Linus
Sequence:L191030M
Initials:MA

GC SC-Blank-REG MDLs-DOD
Printed: 11/15/19 12:46:54 PM

EPA 8270D

Form 4

LCS Summary

Lab Name: APPL, Inc. SDG No: 90587

Case No: 90587 Date Analyzed: 11/08/19

Matrix: WATER Instrument: Linus

LCS ID: 191031A-LCS Time Analyzed: 1549

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191031A-BLK	Blank	1030L043	11/08/19 1421
191031A-LCS	Lab Control Spike	1030L044	11/08/19 1549
191031A-LCSD	Lab Control SpikeD	1030L047	11/08/19 1645
BA02090	ERH946	1030L050	11/08/19 1740
BA02091	ERH947	1030L051	11/08/19 1759

Comments: Batch: #87DME-191031A

Laboratory Control Spike Recoveries
EPA 8270D MODIFIED WATER

APPL ID: **191031W-01829 LCS - 247175**
Batch ID: #87DME-191031A

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Lvl ug/L	SPK Result ug/L	DUP Result ug/L	SPK % Recovery	DUP % Recovery	Recovery Limits	RPD %	RPD Limits
2-(2-METHOXYETHOXY)-ETHANOL	80.0	92.2	82.6	115	103	30-130	11.0	20

Comments: _____

Primary	SPK	DUP
Quant Method :	YMEE1030.M	YMEE1030.M
Extraction Date :	10/31/19	10/31/19
Analysis Date :	11/08/19	11/08/19
Instrument :	Linus	Linus
Run :	1030L044	1030L047
Initials :	MA	

Printed: 11/15/19 12:46:57 PM
APPL Standard LCSD

Form 5
Tune Summary

Lab Name: APPL Inc.
Case No:
Matrix: Water
ID: 1030L002.D

SDG No:
Date Analyzed: 10/31/19
Instrument: Linus
Time Analyzed: 9:39

	Client Sample No.	APPL ID.	File ID.	Date Analyzed
1		50 2MEE 4/30/19	1030L004.D	10/31/19 11:50
2		100 2MEE 4/30/19	1030L005.D	10/31/19 12:10
3		200 2MEE 4/30/19	1030L006.D	10/31/19 12:29
4		500 2MEE 4/30/19	1030L008.D	10/31/19 13:07
5		600 2MEE 4/30/19	1030L009.D	10/31/19 13:25
6		800 2MEE 4/30/19	1030L010.D	10/31/19 13:43
7		1000 2MEE 4/30/19	1030L011.D	10/31/19 14:02
8				
9				
10				
11				
12				
14				
15				
16				
17				
18				
19				
20				
21				
22				

m/e		
51	9.95 - 80.04% of mass 198	47.5
68	0 - 2.04% of mass 69	0.0
70	0 - 2.04% of mass 69	0.6
127	10 - 80% of mass 198	64.9
197	0 - 2% of mass 198	0.0
198	100 - 100% of mass 198.1	100.0
199	5 - 9% of mass 198	6.2
275	10 - 60% of mass 198	21.7
365	1 - 100% of mass 198	3.2
441	0.01 - 24% of mass 442	14.5
442	50 - 500% of mass 198.1	95.4
443	15 - 24% of mass 442	18.6

Form 5

Form 5
Tune Summary

Lab Name: APPL Inc.
Case No:
Matrix: Water
ID: 1030L014.D

SDG No:
Date Analyzed: 11/01/19
Instrument: Linus
Time Analyzed: 15:17

	Client Sample No.	APPL ID.	File ID.	Date Analyzed
1		SS 2MEE 11/1/19	1030L016.D	11/01/19 17:11
2				
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10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				

m/e		
51	9.95 - 80.04% of mass 198	50.2
68	0 - 2.04% of mass 69	0.0
70	0 - 2.04% of mass 69	0.7
127	10 - 80% of mass 198	65.2
197	0 - 2% of mass 198	0.0
198	100 - 100% of mass 198	100.0
199	5 - 9% of mass 198	7.0
275	10 - 60% of mass 198	22.3
365	1 - 100% of mass 198	3.1
441	0.01 - 24% of mass 442	18.5
442	50 - 500% of mass 198	81.1
443	15 - 24% of mass 442	19.7

Form 5
Tune Summary

Lab Name: APPL Inc.
Case No:
Matrix: Water
ID: 1030L041.D

SDG No:
Date Analyzed: 11/08/19
Instrument: Linus
Time Analyzed: 12:30

	Client Sample No.	APPL ID.	File ID.	Date Analyzed
1		500 2MEE 4/30/19	1030L042.D	11/08/19 13:13
2	Blank	191031A BLK 2/500	1030L043.D	11/08/19 14:21
3	Lab Control Spike	191031A LCS-1 2/500	1030L044.D	11/08/19 15:49
4	Lab Control SpikeD	191031A LCSD-1 2/500	1030L047.D	11/08/19 16:45
5		BA02090W13 2/500	1030L050.D	11/08/19 17:40
6		BA02091W10 2/500	1030L051.D	11/08/19 17:59
7		500 2MEE 4/30/19	1030L061.D	11/08/19 21:02
8				
9				
10				
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12				
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14				
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16				
17				
18				
19				
20				
21				
22				

m/e		
51	9.95 - 80.04% of mass 198	46.6
68	0 - 2.04% of mass 69	0.0
70	0 - 2.04% of mass 69	0.6
127	10 - 80% of mass 198	60.1
197	0 - 2% of mass 198	0.0
198	100 - 100% of mass 198	100.0
199	5 - 9% of mass 198	6.6
275	10 - 60% of mass 198	22.2
365	1 - 100% of mass 198	3.6
441	0.01 - 24% of mass 442	17.0
442	50 - 500% of mass 198	82.6
443	15 - 24% of mass 442	20.2

INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: APPL Inc. Contract: _____

Lab Code: _____ SDG No.: _____

Lab File ID (Standard): 1030L042.D Date Analyzed: 8 Nov 19 13:13

Instrument ID: Linus Time Analyzed: 8 Nov 19 13:13

GC Column: _____ ID: Heated Purge: (Y/N) _____

		1,4-dichlorobenzene-D4(IS)		Napthalene-D8(IS)		Acenaphthene-D10(IS)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	742292	3.67	3312060	4.62	1556560	6.01
	UPPER LIMIT	1484584	3.84	6624120	4.79	3113120	6.18
	LOWER LIMIT	371146	3.50	1656030	4.45	778280	5.84
	SAMPLE NO.						
01	191031A BLK 2/500	699122	3.67	3106330	4.62	1436560	6.01
02	191031A LCS-1 2/500	835190	3.66	3596710	4.62	1685480	6.01
03	191031A LCSD-1 2/500	968441	3.66	4015250	4.62	1942620	6.01
04	BA02090W13 2/500	684533	3.66	2903040	4.62	1369310	6.01
05	BA02091W10 2/500	594445	3.66	2355820	4.61	1335740	6.01
06	500 2MEE 4/30/19	772424	3.67	3311190	4.61	1654190	6.01
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AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = -50% of internal standard area.
RT UPPER LIMIT = +0.17 minutes of internal standard RT
RT LOWER LIMIT = -0.17 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

8A
INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: APPL Inc. Contract: _____

Lab Code: _____ SDG No.: _____

Lab File ID (Standard): 1030L042.D Date Analyzed: 8 Nov 19 13:13

Instrument ID: Linus Time Analyzed: 8 Nov 19 13:13

GC Column: _____ ID: Heated Purge: (Y/N) _____

		Phenanthrene-D10(IS)		Chrysene-D12(IS)		Perylene-D12(IS)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	2759130	7.22	2199350	9.42	2536270	10.65
	UPPER LIMIT	5518260	7.39	4398700	9.59	5072540	10.82
	LOWER LIMIT	1379565	7.05	1099675	9.25	1268135	10.48
	SAMPLE NO.						
01	191031A BLK 2/500	2646760	7.22	2042230	9.44	2139010	10.68
02	191031A LCS-1 2/500	2974820	7.22	2366380	9.43	2671220	10.66
03	191031A LCSD-1 2/500	3543240	7.22	2703110	9.41	3165690	10.63
04	BA02090W13 2/500	2660270	7.22	1978660	9.40	2146460	10.61
05	BA02091W10 2/500	2664220	7.22	1917000	9.40	2021240	10.60
06	500 2MEE 4/30/19	3011210	7.22	2583760	9.39	2584580	10.57
07							
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09							
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17							
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21							
22							

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = -50% of internal standard area.
RT UPPER LIMIT = +0.17 minutes of internal standard RT
RT LOWER LIMIT = -0.17 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

EPA 8260B

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 90587

Case No: 90587 Date Analyzed: 11/01/19

Matrix: WATER Instrument: Thor

APPL ID.	Client Sample No.	SURROGATE: 1,2-DICHLOROETHANE-D4 (S)			SURROGATE: 4-BROMOFLUOROBENZENE (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
191101AT-LCS	Lab Control Spike	81-118	92.8		85-114	94.4	
191101AT-LCSD	Lab Control SpikeD	81-118	92.8		85-114	92.8	
191101AT-BLK	Blank	81-118	103		85-114	98.2	
BA02091	ERH947	81-118	94.6		85-114	92.2	

Comments: Batch: #86BTO-191101AT

EPA 8260B

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 90587

Case No: 90587 Date Analyzed: 11/01/19

Matrix: WATER Instrument: Thor

APPL ID.	Client Sample No.	SURROGATE: DIBROMOFLUOROMETHANE (S)			SURROGATE: TOLUENE-D8 (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
191101AT-LCS	Lab Control Spike	80-119	92.8		89-112	92.0	
191101AT-LCSD	Lab Control SpikeD	80-119	94.4		89-112	92.0	
191101AT-BLK	Blank	80-119	103		89-112	97.7	
BA02091	ERH947	80-119	94.3		89-112	94.1	

Comments: Batch: #86BTO-191101AT

EPA 8260B

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 90587

Case No: 90587 Date Analyzed: 11/02/19

Matrix: WATER Instrument: Thor

APPL ID.	Client Sample No.	SURROGATE: 1,2-DICHLOROETHANE-D4 (S)			SURROGATE: 4-BROMOFLUOROBENZENE (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
191101BT-LCS	Lab Control Spike	81-118	97.6		85-114	104	
191101BT-LCSD	Lab Control SpikeD	81-118	90.4		85-114	94.4	
191101BT-BLK	Blank	81-118	93.7		85-114	94.8	
BA02089	ERH945	81-118	97.1		85-114	93.8	
BA02090	ERH946	81-118	99.8		85-114	98.4	

Comments: Batch: #86BTO-191101BT

EPA 8260B

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 90587

Case No: 90587 Date Analyzed: 11/02/19

Matrix: WATER Instrument: Thor

APPL ID.	Client Sample No.	SURROGATE: DIBROMOFLUOROMETHANE (S)			SURROGATE: TOLUENE-D8 (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
191101BT-LCS	Lab Control Spike	80-119	97.2		89-112	102	
191101BT-LCSD	Lab Control SpikeD	80-119	92.0		89-112	90.4	
191101BT-BLK	Blank	80-119	92.9		89-112	97.1	
BA02089	ERH945	80-119	100.0		89-112	95.3	
BA02090	ERH946	80-119	98.0		89-112	99.1	

Comments: Batch: #86BTO-191101BT

EPA 8260B

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 90587

Case No: 90587 Date Analyzed: 11/01/19

Matrix: WATER Instrument: Thor

Blank ID: 191101AT-BLK Time Analyzed: 1955

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191101AT-LCS	Lab Control Spike	1101T04	11/01/19 1442
191101AT-LCSD	Lab Control SpikeD	1101T05	11/01/19 1511
191101AT-BLK	Blank	1101T15	11/01/19 1955
BA02091	ERH947	1101T24	11/02/19 0009

Comments: Batch: #86BTO-191101AT

Printed: 11/04/19 5:28:02 PM
Form 4, Blank Summary

Method Blank

EPA 8260B BTEX & 1,2-DCA WATER

Blank Name/QCG: **191101W-02091 - 246719**

Batch ID: #86BTO-191101AT

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	1,2-DICHLOROETHANE	0.30 U	1.0	0.30	0.14	ug/L	11/01/19	11/01/19
BLANK	BENZENE	0.30 U	1.0	0.30	0.15	ug/L	11/01/19	11/01/19
BLANK	ETHYLBENZENE	0.50 U	1.0	0.50	0.23	ug/L	11/01/19	11/01/19
BLANK	TOLUENE	0.30 U	1.0	0.30	0.15	ug/L	11/01/19	11/01/19
BLANK	XYLENES (TOTAL)	0.30 U	2.0	0.30	0.15	ug/L	11/01/19	11/01/19
BLANK	SURROGATE: 1,2-DICHLOROET	103	81-118			%	11/01/19	11/01/19
BLANK	SURROGATE: 4-BROMOFLUORO	98.2	85-114			%	11/01/19	11/01/19
BLANK	SURROGATE: DIBROMOFLUOR	103	80-119			%	11/01/19	11/01/19
BLANK	SURROGATE: TOLUENE-D8 (S)	97.7	89-112			%	11/01/19	11/01/19

Quant Method:T1023W.M
Run #:1101T15
Instrument:Thor
Sequence:T191028
Initials:DPO

GC SC-Blank-REG MDLs-DOD
Printed: 11/04/19 5:28:08 PM

EPA 8260B

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 90587

Case No: 90587 Date Analyzed: 11/02/19

Matrix: WATER Instrument: Thor

Blank ID: 191101BT-BLK Time Analyzed: 0741

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191101BT-LCS	Lab Control Spike	1101T32	11/02/19 0355
191101BT-LCSD	Lab Control SpikeD	1101T33	11/02/19 0423
191101BT-BLK	Blank	1101T40	11/02/19 0741
BA02089	ERH945	1101T42	11/02/19 0837
BA02090	ERH946	1101T47	11/02/19 1059

Comments: Batch: #86BTO-191101BT

Printed: 11/04/19 5:28:03 PM
Form 4, Blank Summary

Method Blank

EPA 8260B BTEX & 1,2-DCA WATER

Blank Name/QCG: **191101W-02214 - 246726**
Batch ID: #86BTO-191101BT

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	1,2-DICHLOROETHANE	0.30 U	1.0	0.30	0.14	ug/L	11/02/19	11/02/19
BLANK	BENZENE	0.30 U	1.0	0.30	0.15	ug/L	11/02/19	11/02/19
BLANK	ETHYLBENZENE	0.50 U	1.0	0.50	0.23	ug/L	11/02/19	11/02/19
BLANK	TOLUENE	0.30 U	1.0	0.30	0.15	ug/L	11/02/19	11/02/19
BLANK	XYLENES (TOTAL)	0.30 U	2.0	0.30	0.15	ug/L	11/02/19	11/02/19
BLANK	SURROGATE: 1,2-DICHLOROET	93.7	81-118			%	11/02/19	11/02/19
BLANK	SURROGATE: 4-BROMOFLUORO	94.8	85-114			%	11/02/19	11/02/19
BLANK	SURROGATE: DIBROMOFLUOR	92.9	80-119			%	11/02/19	11/02/19
BLANK	SURROGATE: TOLUENE-D8 (S)	97.1	89-112			%	11/02/19	11/02/19

Quant Method:T1023W.M
Run #:1101T40
Instrument:Thor
Sequence:T191028
Initials:DPO

GC SC-Blank-REG MDLs-DOD
Printed: 11/04/19 5:28:09 PM

EPA 8260B

Form 4

LCS Summary

Lab Name: APPL, Inc. SDG No: 90587

Case No: 90587 Date Analyzed: 11/01/19

Matrix: WATER Instrument: Thor

LCS ID: 191101AT-LCS Time Analyzed: 1442

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191101AT-LCS	Lab Control Spike	1101T04	11/01/19 1442
191101AT-LCSD	Lab Control SpikeD	1101T05	11/01/19 1511
191101AT-BLK	Blank	1101T15	11/01/19 1955
BA02091	ERH947	1101T24	11/02/19 0009

Comments: Batch: #86BTO-191101AT

Printed: 11/04/19 5:28:01 PM
Form 4, LCS Summary

Laboratory Control Spike Recoveries
EPA 8260B BTEX & 1,2-DCA WATER

APPL ID: **191101W-02091 LCS - 246719**
Batch ID: #86BTO-191101AT

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Lvl ug/L	SPK Result ug/L	DUP Result ug/L	SPK % Recovery	DUP % Recovery	Recovery Limits	RPD %	RPD Limits
1,2-DICHLOROETHANE	10.00	8.06	7.95	80.6	79.5	73-128	1.4	20
BENZENE	10.00	9.17	8.54	91.7	85.4	79-120	7.1	20
ETHYLBENZENE	10.00	8.87	8.89	88.7	88.9	79-121	0.23	20
TOLUENE	10.00	9.13	8.53	91.3	85.3	80-121	6.8	20
XYLENES (TOTAL)	30.0	26.6	26.7	88.7	89.0	79-121	0.38	20
SURROGATE: 1,2-DICHLOROETHANE-D	25.0	23.2	23.2	92.8	92.8	81-118		
SURROGATE: 4-BROMOFLUOROBENZE	25.0	23.6	23.2	94.4	92.8	85-114		
SURROGATE: DIBROMOFLUOROMETH	25.0	23.2	23.6	92.8	94.4	80-119		
SURROGATE: TOLUENE-D8 (S)	25.0	23.0	23.0	92.0	92.0	89-112		

Comments: _____

Primary	SPK	DUP
Quant Method :	T1023W.M	T1023W.M
Extraction Date :	11/01/19	11/01/19
Analysis Date :	11/01/19	11/01/19
Instrument :	Thor	Thor
Run :	1101T04	1101T05
Initials :	DPO	

Printed: 11/04/19 5:28:05 PM
APPL Standard LCSD

EPA 8260B

Form 4

LCS Summary

Lab Name: APPL, Inc. SDG No: 90587

Case No: 90587 Date Analyzed: 11/02/19

Matrix: WATER Instrument: Thor

LCS ID: 191101BT-LCS Time Analyzed: 0355

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191101BT-LCS	Lab Control Spike	1101T32	11/02/19 0355
191101BT-LCSD	Lab Control SpikeD	1101T33	11/02/19 0423
191101BT-BLK	Blank	1101T40	11/02/19 0741
BA02089	ERH945	1101T42	11/02/19 0837
BA02090	ERH946	1101T47	11/02/19 1059

Comments: Batch: #86BTO-191101BT

Printed: 11/04/19 5:28:01 PM
Form 4, LCS Summary

Laboratory Control Spike Recoveries

EPA 8260B BTEX & 1,2-DCA WATER

APPL ID: **191102W-02214 LCS - 246726**
Batch ID: #86BTO-191101BT

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Lvl ug/L	SPK Result ug/L	DUP Result ug/L	SPK % Recovery	DUP % Recovery	Recovery Limits	RPD %	RPD Limits
1,2-DICHLOROETHANE	10.00	9.00	8.56	90.0	85.6	73-128	5.0	20
BENZENE	10.00	9.21	8.72	92.1	87.2	79-120	5.5	20
ETHYLBENZENE	10.00	9.38	8.84	93.8	88.4	79-121	5.9	20
TOLUENE	10.00	8.97	8.73	89.7	87.3	80-121	2.7	20
XYLENES (TOTAL)	30.0	29.1	26.0	97.0	86.7	79-121	11.3	20
SURROGATE: 1,2-DICHLOROETHANE-D	25.0	24.4	22.6	97.6	90.4	81-118		
SURROGATE: 4-BROMOFLUOROBENZE	25.0	25.9	23.6	104	94.4	85-114		
SURROGATE: DIBROMOFLUOROMETH	25.0	24.3	23.0	97.2	92.0	80-119		
SURROGATE: TOLUENE-D8 (S)	25.0	25.6	22.6	102	90.4	89-112		

Comments:

Primary	SPK	DUP
Quant Method :	T1023W.M	T1023W.M
Extraction Date :	11/02/19	11/02/19
Analysis Date :	11/02/19	11/02/19
Instrument :	Thor	Thor
Run :	1101T32	1101T33
Initials :	DPO	

Printed: 11/04/19 5:28:04 PM
APPL Standard LCSD

Form 5
Tune Summary

Lab Name: APPL Inc.
Case No:
Matrix: Water
ID: 1023T00.D

SDG No:
Date Analyzed: 10/23/2019
Instrument: Thor
Time Analyzed: 16:48

	Client Sample No.	APPL ID.	File ID.	Date Analyzed
1		0.3ug/L VOC STD 10/2	1023T06.D	10/23/2019 19:32
2		0.5ug/L VOC STD 10/2	1023T07.D	10/23/2019 20:01
3		1.0ug/L VOC STD 10/2	1023T08.D	10/23/2019 20:29
4		2.0ug/L VOC STD 10/2	1023T09.D	10/23/2019 20:58
5		5.0ug/L VOC STD 10/2	1023T10.D	10/23/2019 21:26
6		10ug/L VOC STD 10/23	1023T11.D	10/23/2019 21:55
7		20ug/L VOC STD 10/23	1023T12.D	10/23/2019 22:23
8		40ug/L VOC STD 10/23	1023T13.D	10/23/2019 22:52
9		100ug/L VOC STD 10/2	1023T14.D	10/23/2019 23:20
10		(SS)10ug/L VOC STD 1	1023T16.D	10/24/2019 0:17
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				

m/e		
50	15 - 40% of mass 95	16.1
75	30 - 60% of mass 95	48.8
95	100 - 100% of mass 95	100.0
96	5 - 9% of mass 95	7.0
173	0 - 2.05% of mass 174	1.5
174	50 - 200% of mass 95	97.4
175	5 - 9% of mass 174	7.4
176	95 - 101% of mass 174	95.9
177	5 - 9% of mass 176	7.0

Form 5
Tune Summary

Lab Name: APPL Inc.
Case No: 90587
Matrix: Water
ID: 1101T02.D

SDG No: 90587
Date Analyzed: 11/1/2019
Instrument: Thor
Time Analyzed: 13:52

	Client Sample No.	APPL ID.	File ID.	Date Analyzed
1	Lab Control Spike	191101A CCV/LCS 10ug	1101T04.D	11/1/2019 14:42
2	Lab Control SpikeD	191101A LCSD 10ug/L	1101T05.D	11/1/2019 15:11
3	Blank	191101A BLK	1101T15.D	11/1/2019 19:55
4	ERH947	BA02091W01	1101T24.D	11/2/2019 0:09
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				

m/e		
50	15 - 40% of mass 95	15.1
75	30 - 60% of mass 95	48.7
95	100 - 100% of mass 95	100.0
96	5 - 9% of mass 95	6.1
173	0 - 2.05% of mass 174	0.9
174	50 - 200% of mass 95	100.5
175	5 - 9% of mass 174	8.1
176	95 - 101% of mass 174	97.2
177	5 - 9% of mass 176	6.7

Form 5
Tune Summary

Lab Name: APPL Inc.
Case No: 90587
Matrix: Water
ID: 1101T30.D

SDG No: 90587
Date Analyzed: 11/2/2019
Instrument: Thor
Time Analyzed: 2:59

	Client Sample No.	APPL ID.	File ID.	Date Analyzed
1	Lab Control Spike	191101B LCS 10ug/L	1101T32.D	11/2/2019 3:55
2	Lab Control SpikeD	191101B LCSD 10ug/L	1101T33.D	11/2/2019 4:23
3	Blank	191101B BLK	1101T40.D	11/2/2019 7:41
4	ERH945	BA02089W01	1101T42.D	11/2/2019 8:37
5	ERH946	BA02090W01	1101T47.D	11/2/2019 10:59
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				

m/e		
50	15 - 40% of mass 95	16.6
75	30 - 60% of mass 95	50.7
95	100 - 100% of mass 95	100.0
96	5 - 9% of mass 95	7.0
173	0 - 2.05% of mass 174	0.0
174	50 - 200% of mass 95	98.0
175	5 - 9% of mass 174	7.2
176	95 - 101% of mass 174	98.8
177	5 - 9% of mass 176	6.5

8A
INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: APPL Inc. Contract: _____

Lab Code: _____ SDG No.: _____

Lab File ID (Standard): 1101T04.D Date Analyzed: 1 Nov 19 14:42

Instrument ID: Thor Time Analyzed: 1 Nov 19 14:42

GC Column: _____ ID: Heated Purge: (Y/N) _____

		Fluorobenzene (IS)		Chlorobenzene-D5 (IS)		1,4-Dichlorobenzene-D (IS)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	145216	6.59	136704	9.74	79792	12.06
	UPPER LIMIT	290432	6.76	273408	9.91	159584	12.23
	LOWER LIMIT	72608	6.42	68352	9.57	39896	11.89
	SAMPLE NO.						
01	191101A LCSD 10ug/L	145024	6.59	134720	9.74	75120	12.06
02	191101A BLK	123736	6.59	117800	9.74	63024	12.06
03	BA02091W01	131968	6.59	120600	9.74	66432	12.06
04	Ending CCV 10ug/L 11/1	130448	6.59	122496	9.74	72688	12.06
05	191101B CCV 10ug/L	132672	6.59	120960	9.74	73080	12.06
06	191101B LCS 10ug/L	130328	6.59	114384	9.74	68736	12.06
07	191101B LCSD 10ug/L	138752	6.59	128328	9.74	74504	12.06
08	191101B BLK	134144	6.59	118384	9.74	66672	12.06
09	BA02089W01	124768	6.59	116192	9.74	64704	12.06
10	BA02090W01	126552	6.59	112152	9.74	65400	12.06
11	Ending CCV 10ug/L 11/1	127256	6.59	115520	9.74	69184	12.06
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = -50% of internal standard area.
RT UPPER LIMIT = +0.17 minutes of internal standard RT
RT LOWER LIMIT = -0.17 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

EPA 8260B

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 90587

Case No: 90587 Date Analyzed: 11/01/19

Matrix: WATER Instrument: Thor

APPL ID.	Client Sample No.	SURROGATE: 4-BROMOFLUOROBENZENE (S)					
		Limits	Result	Qualifier	Limits	Result	Qualifier
191101AT-LCS	Lab Control Spike	85-114	99.2				
191101AT-LCSD	Lab Control SpikeD	85-114	98.4				
191101AT-BLK	Blank	85-114	98.2				
BA02091	ERH947	85-114	92.2				

Comments: Batch: #GRO86-191101AT

EPA 8260B

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 90587

Case No: 90587 Date Analyzed: 11/02/19

Matrix: WATER Instrument: Thor

APPL ID.	Client Sample No.	SURROGATE: 4-BROMOFLUOROBENZENE (S)					
		Limits	Result	Qualifier	Limits	Result	Qualifier
191101BT-LCS	Lab Control Spike	85-114	100				
191101BT-LCSD	Lab Control SpikeD	85-114	93.6				
191101BT-BLK	Blank	85-114	94.8				
BA02089	ERH945	85-114	93.8				
BA02090	ERH946	85-114	98.4				

Comments: Batch: #GRO86-191101BT

EPA 8260B

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 90587

Case No: 90587 Date Analyzed: 11/01/19

Matrix: WATER Instrument: Thor

Blank ID: 191101AT-BLK Time Analyzed: 1955

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191101AT-LCS	Lab Control Spike	1101T11	11/01/19 1801
191101AT-LCSD	Lab Control SpikeD	1101T12	11/01/19 1830
191101AT-BLK	Blank	1101t15	11/01/19 1955
BA02091	ERH947	1101T24	11/02/19 0009

Comments: Batch: #GRO86-191101AT

Printed: 11/04/19 5:25:00 PM
Form 4, Blank Summary

Method Blank

EPA 8260B GRO WATER

Blank Name/QCG: **191101W-02091 - 246718**

Batch ID: #GRO86-191101AT

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	GASOLINE RANGE ORGANICS	18.0 U	20	18.0	8.6	ug/L	11/01/19	11/01/19
BLANK	SURROGATE: 4-BROMOFLUORO	98.2	85-114			%	11/01/19	11/01/19

Quant Method:TGAS1026.M
Run #:1101t15
Instrument:Thor
Sequence:T191028
Initials:DPO

GC SC-Blank-REG MDLs-DOD
Printed: 11/04/19 5:25:08 PM

EPA 8260B

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 90587

Case No: 90587 Date Analyzed: 11/02/19

Matrix: WATER Instrument: Thor

Blank ID: 191101BT-BLK Time Analyzed: 0741

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191101BT-LCS	Lab Control Spike	1101T34	11/02/19 0452
191101BT-LCSD	Lab Control SpikeD	1101T35	11/02/19 0520
191101BT-BLK	Blank	1101T40	11/02/19 0741
BA02089	ERH945	1101T42	11/02/19 0837
BA02090	ERH946	1101T47	11/02/19 1059

Comments: Batch: #GRO86-191101BT

Printed: 11/04/19 5:25:00 PM
Form 4, Blank Summary

Method Blank
EPA 8260B GRO WATER

Blank Name/QCG: **191101W-02214 - 246725**
Batch ID: #GRO86-191101BT

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	GASOLINE RANGE ORGANICS	18.0 U	20	18.0	8.6	ug/L	11/02/19	11/02/19
BLANK	SURROGATE: 4-BROMOFLUORO	94.8	85-114			%	11/02/19	11/02/19

Quant Method:TGAS1026.M
Run #:1101T40
Instrument:Thor
Sequence:T191028
Initials:DPO

GC SC-Blank-REG MDLs-DOD
Printed: 11/04/19 5:25:09 PM

EPA 8260B

Form 4

LCS Summary

Lab Name: APPL, Inc. SDG No: 90587

Case No: 90587 Date Analyzed: 11/01/19

Matrix: WATER Instrument: Thor

LCS ID: 191101AT-LCS Time Analyzed: 1801

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191101AT-LCS	Lab Control Spike	1101T11	11/01/19 1801
191101AT-LCSD	Lab Control SpikeD	1101T12	11/01/19 1830
191101AT-BLK	Blank	1101t15	11/01/19 1955
BA02091	ERH947	1101T24	11/02/19 0009

Comments: Batch: #GRO86-191101AT

Printed: 11/04/19 5:24:59 PM
Form 4, LCS Summary

Laboratory Control Spike Recoveries
EPA 8260B GRO WATER

APPL ID: **191101W-02091 LCS - 246718**
Batch ID: #GRO86-191101AT

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Lvl ug/L	SPK Result ug/L	DUP Result ug/L	SPK % Recovery	DUP % Recovery	Recovery Limits	RPD %	RPD Limits
GASOLINE RANGE ORGANICS	300	295	279	98.3	93.0	78-122	5.6	20
SURROGATE: 4-BROMOFLUOROBENZE	25.0	24.8	24.6	99.2	98.4	85-114		

Comments: _____

Primary	SPK	DUP
Quant Method :	TGAS1026.M	TGAS1026.M
Extraction Date :	11/01/19	11/01/19
Analysis Date :	11/01/19	11/01/19
Instrument :	Thor	Thor
Run :	1101T11	1101T12
Initials :	DPO	

Printed: 11/04/19 5:25:02 PM
APPL Standard LCSD

EPA 8260B

Form 4

LCS Summary

Lab Name: APPL, Inc. SDG No: 90587

Case No: 90587 Date Analyzed: 11/02/19

Matrix: WATER Instrument: Thor

LCS ID: 191101BT-LCS Time Analyzed: 0452

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191101BT-LCS	Lab Control Spike	1101T34	11/02/19 0452
191101BT-LCSD	Lab Control SpikeD	1101T35	11/02/19 0520
191101BT-BLK	Blank	1101T40	11/02/19 0741
BA02089	ERH945	1101T42	11/02/19 0837
BA02090	ERH946	1101T47	11/02/19 1059

Comments: Batch: #GRO86-191101BT

Printed: 11/04/19 5:24:59 PM

Form 4, LCS Summary

Laboratory Control Spike Recoveries
EPA 8260B GRO WATER

APPL ID: **191102W-02214 LCS - 246725**
Batch ID: #GRO86-191101BT

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Lvl ug/L	SPK Result ug/L	DUP Result ug/L	SPK % Recovery	DUP % Recovery	Recovery Limits	RPD %	RPD Limits
GASOLINE RANGE ORGANICS	300	244	234	81.3	78.0	78-122	4.2	20
SURROGATE: 4-BROMOFLUOROBENZE	25.0	25.0	23.4	100	93.6	85-114		

Comments: _____

Primary	SPK	DUP
Quant Method :	TGAS1026.M	TGAS1026.M
Extraction Date :	11/02/19	11/02/19
Analysis Date :	11/02/19	11/02/19
Instrument :	Thor	Thor
Run :	1101T34	1101T35
Initials :	DPO	

RSK 175

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 90587

Case No: 90587 Date Analyzed: 10/31/19

Matrix: WATER Instrument: Rocky

Blank ID: 191031A-BLK Time Analyzed: 1712

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191031A-LCS	Lab Control Spike	1031R03	10/31/19 1703
191031A-LCSD	Lab Control SpikeD	1031R04	10/31/19 1708
191031A-BLK	Blank	1031R05	10/31/19 1712
BA02089	ERH945	1031R08	10/31/19 1720
BA02090	ERH946	1031R09	10/31/19 1723

Comments: Batch: #RSKME-191031A

Method Blank
METHANE

Blank Name/QCG: **191031W-01830 - 246650**
Batch ID: #RSKME-191031A

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	METHANE	1.00 U	5.0	1.00	0.25	ug/L	10/31/19	10/31/19

Quant Method: RSK1002.M
Run #: 1031R05
Instrument: Rocky
Sequence: 191002
Initials: GAG

GC SC-Blank-REG MDLs-DOD
Printed: 11/15/19 1:38:02 PM

RSK 175

Form 4

LCS Summary

Lab Name: APPL, Inc. SDG No: 90587

Case No: 90587 Date Analyzed: 10/31/19

Matrix: WATER Instrument: Rocky

LCS ID: 191031A-LCS Time Analyzed: 1703

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191031A-LCS	Lab Control Spike	1031R03	10/31/19 1703
191031A-LCSD	Lab Control SpikeD	1031R04	10/31/19 1708
191031A-BLK	Blank	1031R05	10/31/19 1712
BA02089	ERH945	1031R08	10/31/19 1720
BA02090	ERH946	1031R09	10/31/19 1723

Comments: Batch: #RSKME-191031A

Laboratory Control Spike Recoveries

METHANE

APPL ID: **191031W-01830 LCS - 246650**
Batch ID: #RSKME-191031A

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Lvl ug/L	SPK Result ug/L	DUP Result ug/L	SPK % Recovery	DUP % Recovery	Recovery Limits	RPD %	RPD Limits
METHANE	83.4	86.5	88.2	104	106	72-125	1.9	30

Comments: _____

Primary	SPK	DUP
Quant Method :	RSK1002.M	RSK1002.M
Extraction Date :	10/31/19	10/31/19
Analysis Date :	10/31/19	10/31/19
Instrument :	Rocky	Rocky
Run :	1031R03	1031R04
Initials :	GAG	

Printed: 11/15/19 1:38:03 PM
APPL Standard LCSD

6010C/3010A

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 90587

Case No: 90587 Date Analyzed: 11/05/19

Matrix: WATER Instrument: Phoebe

Blank ID: 191104A1-BLK Time Analyzed: 1124

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191104A1-LCSD	Lab Control SpikeD	191105A	11/05/19 1134
191104A1-LCS	Lab Control Spike	191105A	11/05/19 1129
191104A1-BLK	Blank	191105A	11/05/19 1124
BA02090	ERH946	191105A	11/05/19 1224

Comments: Batch: #61CDO-191104A1

Printed: 12/02/19 10:15:53 AM
Form 4, Blank Summary

METALS BLANK

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Method	Analyte	Result	LOQ	LOD	DL	Units	Prep Date	Analysis Date	QC Group
6010C	CALCIUM (CA)	75.0 U	1000	75.0	27.5	ug/L	11/04/19	11/05/19	#61CDO-191104A1-BA02090
6010C	MAGNESIUM (MG)	30.0 U	500	30.0	12.9	ug/L	11/04/19	11/05/19	#61CDO-191104A1-BA02090
6010C	MANGANESE (MN)	4.00 U	10.0	4.00	1.23	ug/L	11/04/19	11/05/19	#61CDO-191104A1-BA02090
6010C	POTASSIUM (K)	500.0 U	3000	500.0	220.0	ug/L	11/04/19	11/05/19	#61CDO-191104A1-BA02090
6010C	SODIUM (NA)	500.0 U	5000	500.0	111.1	ug/L	11/04/19	11/05/19	#61CDO-191104A1-BA02090

6010C/3010A

Form 4

LCS Summary

Lab Name: APPL, Inc. SDG No: 90587

Case No: 90587 Date Analyzed: 11/05/19

Matrix: WATER Instrument: Phoebe

LCS ID: 191104A1-LCS Time Analyzed: 1129

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191104A1-LCSD	Lab Control SpikeD	191105A	11/05/19 1134
191104A1-LCS	Lab Control Spike	191105A	11/05/19 1129
191104A1-BLK	Blank	191105A	11/05/19 1124
BA02090	ERH946	191105A	11/05/19 1224

Comments: Batch: #61CDO-191104A1

Printed: 12/02/19 10:15:59 AM
Form 4, LCS Summary

Laboratory Control Spike Recoveries

METALS

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Method	Compound Name	Spike Lvl ug/L	SPK Res ug/L	DUP Res ug/L	SPK % Recov	DUP % Recov	RPD	RPD Max	QC Limits	Extract Date-Spk	Analysis Date-Spk	Extract Date-Dup	Analysis Date-Dup	QC Group
EPA 6010C	CALCIUM (CA)	25000	24900	24700	99.6	98.8	0.8	20	87-113	11/04/19	11/05/19	11/04/19	11/05/19	#61CDO-191104A1-BA020
EPA 6010C	MAGNESIUM (MG)	25000	24800	24800	99.2	99.2	0.0	20	85-113	11/04/19	11/05/19	11/04/19	11/05/19	#61CDO-191104A1-BA020
EPA 6010C	MANGANESE (MN)	250	249	248	99.6	99.2	0.4	20	90-114	11/04/19	11/05/19	11/04/19	11/05/19	#61CDO-191104A1-BA020
EPA 6010C	POTASSIUM (K)	5000	4830	4830	96.6	96.6	0.0	20	86-114	11/04/19	11/05/19	11/04/19	11/05/19	#61CDO-191104A1-BA020
EPA 6010C	SODIUM (NA)	25000	24800	24800	99.2	99.2	0.0	20	87-115	11/04/19	11/05/19	11/04/19	11/05/19	#61CDO-191104A1-BA020

Comments: _____

EPA 300.0

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 90587

Case No: 90587 Date Analyzed: 10/30/19

Matrix: WATER Instrument: Charlie

Blank ID: 191030iR-BLK Time Analyzed: 1852

APPL ID.	Client Sample No.	File ID.	Date Analyzed
BA02090	ERH946	10	10/30/19 1922
191030iR-BLK	Blank	6	10/30/19 1852
191030iR-LCS	Lab Control Spike	7	10/30/19 1859
191030iR-LCSD	Lab Control SpikeD	8	10/30/19 1907

Comments: Batch: #300W-191030iR

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Form 4, Blank Summary

WETLAB BLANK

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Method	Analyte	Result	LOQ	LOD	DL	Units	Prep Date	Analysis Date	QC Group
EPA 300.0	BROMIDE	0.16 U	0.5	0.16	0.05	mg/L	10/30/19	10/30/19	#300W-191030iR-BA02090
EPA 300.0	CHLORIDE	0.20 U	1.0	0.20	0.08	mg/L	10/30/19	10/30/19	#300W-191030iR-BA02090
EPA 300.0	FLUORIDE	0.09 U	0.1	0.09	0.08	mg/L	10/30/19	10/30/19	#300W-191030iR-BA02090
EPA 300.0	NITRATE	0.18 U	0.5	0.18	0.04	mg/L	10/30/19	10/30/19	#300W-191030iR-BA02090
EPA 300.0	SULFATE	0.20 U	1.0	0.20	0.09	mg/L	10/30/19	10/30/19	#300W-191030iR-BA02090

Wetlab SC-Blank-REG MDLs
Printed: 12/09/19 10:19:05 AM

EPA 300.0

Form 4

LCS Summary

Lab Name: APPL, Inc. SDG No: 90587

Case No: 90587 Date Analyzed: 10/30/19

Matrix: WATER Instrument: Charlie

LCS ID: 191030iR-LCS Time Analyzed: 1859

APPL ID.	Client Sample No.	File ID.	Date Analyzed
BA02090	ERH946	10	10/30/19 1922
191030iR-BLK	Blank	6	10/30/19 1852
191030iR-LCS	Lab Control Spike	7	10/30/19 1859
191030iR-LCSD	Lab Control SpikeD	8	10/30/19 1907

Comments: Batch: #300W-191030iR

Printed: 12/04/19 2:33:38 PM
Form 4, LCS Summary

Laboratory Control Spike Recoveries

WETLAB

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Method	Compound Name	Spike Lvl mg/L	SPK Res mg/L	DUP Res mg/L	SPK % Recov	DUP % Recov	RPD	RPD Max	QC Limits	Extract Date-Spk	Analysis Date-Spk	Extract Date-Dup	Analysis Date-Dup	QC Group
EPA 300.0	BROMIDE	12.5	12.4	12.4	99.2	99.2	0.0	20	90-110	10/30/19	10/30/19	10/30/19	10/30/19	#300W-191030iR-BA02090
EPA 300.0	CHLORIDE	25.0	24.2	24.2	96.8	96.8	0.0	20	90-110	10/30/19	10/30/19	10/30/19	10/30/19	#300W-191030iR-BA02090
EPA 300.0	FLUORIDE	5.0	5.07	5.05	101	101	0.40	20	90-110	10/30/19	10/30/19	10/30/19	10/30/19	#300W-191030iR-BA02090
EPA 300.0	NITRATE	22.1	20.9	20.9	94.6	94.6	0.0	20	90-110	10/30/19	10/30/19	10/30/19	10/30/19	#300W-191030iR-BA02090
EPA 300.0	SULFATE	25.0	23.7	23.7	94.8	94.8	0.0	20	90-110	10/30/19	10/30/19	10/30/19	10/30/19	#300W-191030iR-BA02090

Comments:

Matrix Spike Recoveries

WETLAB

APPL ID: **191101W-02090 MS - 246717**

Sample ID: BA02090

Client ID: ERH946

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Method	Compound Name	Spike Lvl mg/L	Matrix Res mg/L	SPK Res mg/L	DUP Res mg/L	SPK % Recovery	DUP % Recovery	RPD	RPD Max	Recovery Limits	Extract Date-Spk	Analysis Date-Spk	Extract Date-Dup	Analysis Date-Dup	QC Group	QC Sample
EPA 353.2	NITRATE-NITRITE-N	3.0	0.41	3.71	3.86	110	115 #	4.0	20	90-110	11/01/19	11/01/19	11/01/19	11/01/19	246717	BA02090
SM3500Fe	FERROUS IRON	3.0	0.084	3.04	3.03	98.5	98.2	0.33	20	80-120	10/29/19	10/29/19	10/29/19	10/29/19	246593	BA02090

= Recovery is outside QC limits.

Comments: _____

_____

_____

Printed: 12/17/19 2:16:13 PM
APPL MSD SCII

EPA 353.2

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 90587

Case No: 90587 Date Analyzed: 11/01/19

Matrix: WATER Instrument: EVE

Blank ID: 191101A-BLK Time Analyzed: 1629

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191101A-BLK	Blank	12	11/01/19 1629
191101A-LCS	Lab Control Spike	13	11/01/19 1631
191101A-LCSD	Lab Control SpikeD	14	11/01/19 1633
BA02090	ERH946	16	11/01/19 1637

Comments: Batch: #35OF-191101A

Printed: 12/04/19 3:44:31 PM
Form 4, Blank Summary

SM 2320B

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 90587

Case No: 90587 Date Analyzed: 10/31/19

Matrix: WATER Instrument: Tiamo

Blank ID: 191031A-BLK Time Analyzed: 0929

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191031A-BLK	Blank	1	10/31/19 0929
191031A-LCS	Lab Control Spike	2	10/31/19 0932
191031A-LCSD	Lab Control SpikeD	3	10/31/19 0941
BA02090	ERH946	8	10/31/19 1033

Comments: Batch: #232W-191031A

Printed: 12/04/19 3:44:31 PM
Form 4, Blank Summary

SM 4500-Si D

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 90587

Case No: 90587 Date Analyzed: 11/06/19

Matrix: WATER Instrument: Manual Spec

Blank ID: 191106A-BLK Time Analyzed: 2122

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191106A-BLK	Blank	57	11/06/19 2122
191106A-LCS	Lab Control Spike	58	11/06/19 2122
BA02090	ERH946	59	11/06/19 2123
191106A-LCSD	Lab Control SpikeD	60	11/06/19 2123

Comments: Batch: #SIO2-191106A

Printed: 12/04/19 3:44:31 PM
Form 4, Blank Summary

SM 4500-Si D

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 90587

Case No: 90587 Date Analyzed: 11/06/19

Matrix: WATER Instrument: Manual Spec

Blank ID: 191106A-BLK Time Analyzed: 2122

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191106A-BLK	Blank	57	11/06/19 2122
191106A-LCS	Lab Control Spike	58	11/06/19 2122
191106A-LCSD	Lab Control SpikeD	60	11/06/19 2123
BA02090	ERH946	68	11/06/19 2128

Comments: Batch: #SIO2D-191106A

Printed: 12/04/19 3:44:31 PM
Form 4, Blank Summary

SM3500FeB

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 90587
Case No: 90587 Date Analyzed: 10/29/19
Matrix: WATER Instrument: Manual Spec
Blank ID: A191029-BLK Time Analyzed: 2334

APPL ID.	Client Sample No.	File ID.	Date Analyzed
A191029-BLK	Blank	32	10/29/19 2334
A191029-LCSD	Lab Control SpikeD	34	10/29/19 2336
A191029-LCS	Lab Control Spike	35	10/29/19 2336
BA02090	ERH946	36	10/29/19 2338

Comments: Batch: #35FE-A191029

Printed: 12/04/19 3:44:31 PM
Form 4, Blank Summary

SW846 9060A

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 90587

Case No: 90587 Date Analyzed: 11/06/19

Matrix: WATER Instrument: TICTOC

Blank ID: 191105B-BLK Time Analyzed: 0848

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191105B-BLK	Blank	12	11/06/19 0848
191105B-LCS	Lab Control Spike	13	11/06/19 0924
191105B-LCSD	Lab Control SpikeD	14	11/06/19 1000
BA02090	ERH946	38	11/07/19 1838

Comments: Batch: #DOCW5-191105B

Printed: 12/04/19 3:44:31 PM
Form 4, Blank Summary

SW846 9060A

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 90587

Case No: 90587 Date Analyzed: 11/10/19

Matrix: WATER Instrument: TICTOC

Blank ID: 191107B-BLK Time Analyzed: 1833

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191107B-BLK	Blank	10	11/10/19 1833
191107B-LCS	Lab Control Spike	11	11/10/19 1909
191107B-LCSD	Lab Control SpikeD	12	11/10/19 1945
BA02090	ERH946	20	11/11/19 0015

Comments: Batch: #TOCW5-191107B

Printed: 12/04/19 3:44:31 PM
Form 4, Blank Summary

WETLAB BLANK

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Method	Analyte	Result	LOQ	LOD	DL	Units	Prep Date	Analysis Date	QC Group
SM 2320B	BICARBONATE AS	1.70 U	2.0	1.70	0.85	mg/L	10/31/19	10/31/19	#232W-191031A-BA02056
SM 2320B	CARBONATE AS C	1.70 U	2.0	1.70	0.85	mg/L	10/31/19	10/31/19	#232W-191031A-BA02056
SM 2320B	TOTAL ALKALINITY	1.70 U	2.0	1.70	0.85	mg/L	10/31/19	10/31/19	#232W-191031A-BA02056
SM3500Fe	FERROUS IRON	0.32 U	1.0	0.32	0.16	mg/L	10/29/19	10/29/19	#35FE-A191029-BA02090
EPA 353.2	NITRATE-NITRITE-	0.090 U	0.10	0.090	0.028	mg/L	11/01/19	11/01/19	#35OF-191101A-BA02090
SW846 90	DISSOLVED ORGA	0.350 U	0.93	0.350	0.130	mg/L	11/05/19	11/06/19	#DOCW5-191105B-BA02090
SM 4500-S	SILICA W	0.80 U	1.0	0.80	0.53	mg/L	11/06/19	11/06/19	#SIO2-191106A-BA02525
SM 4500-S	DISSOLVED SILICA	0.80 U	1.0	0.80	0.53	mg/L	11/06/19	11/06/19	#SIO2D-191106A-BA02525
SW846 90	TOTAL ORGANIC C	0.13 J	0.93	0.350	0.130	mg/L	11/10/19	11/10/19	#TOCW5-191107B-BA01829

J = Estimated value.

Wetlab SC-Blank-REG MDLs
Printed: 12/04/19 3:44:07 PM

EPA 353.2

Form 4

LCS Summary

Lab Name: APPL, Inc. SDG No: 90587

Case No: 90587 Date Analyzed: 11/01/19

Matrix: WATER Instrument: EVE

LCS ID: 191101A-LCS Time Analyzed: 1631

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191101A-BLK	Blank	12	11/01/19 1629
191101A-LCS	Lab Control Spike	13	11/01/19 1631
191101A-LCSD	Lab Control SpikeD	14	11/01/19 1633
BA02090	ERH946	16	11/01/19 1637

Comments: Batch: #35OF-191101A

Printed: 12/04/19 3:44:31 PM
Form 4, LCS Summary

SM 2320B

Form 4

LCS Summary

Lab Name: APPL, Inc. SDG No: 90587

Case No: 90587 Date Analyzed: 10/31/19

Matrix: WATER Instrument: Tiamo

LCS ID: 191031A-LCS Time Analyzed: 0932

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191031A-BLK	Blank	1	10/31/19 0929
191031A-LCS	Lab Control Spike	2	10/31/19 0932
191031A-LCSD	Lab Control SpikeD	3	10/31/19 0941
BA02090	ERH946	8	10/31/19 1033

Comments: Batch: #232W-191031A

Printed: 12/04/19 3:44:31 PM
Form 4, LCS Summary

SM 4500-Si D

Form 4

LCS Summary

Lab Name: APPL, Inc. SDG No: 90587

Case No: 90587 Date Analyzed: 11/06/19

Matrix: WATER Instrument: Manual Spec

LCS ID: 191106A-LCS Time Analyzed: 2122

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191106A-BLK	Blank	57	11/06/19 2122
191106A-LCS	Lab Control Spike	58	11/06/19 2122
BA02090	ERH946	59	11/06/19 2123
191106A-LCSD	Lab Control SpikeD	60	11/06/19 2123

Comments: Batch: #SIO2-191106A

Printed: 12/04/19 3:44:31 PM
Form 4, LCS Summary

SM 4500-Si D

Form 4

LCS Summary

Lab Name: APPL, Inc. SDG No: 90587

Case No: 90587 Date Analyzed: 11/06/19

Matrix: WATER Instrument: Manual Spec

LCS ID: 191106A-LCS Time Analyzed: 2122

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191106A-BLK	Blank	57	11/06/19 2122
191106A-LCS	Lab Control Spike	58	11/06/19 2122
191106A-LCSD	Lab Control SpikeD	60	11/06/19 2123
BA02090	ERH946	68	11/06/19 2128

Comments: Batch: #SIO2D-191106A

Printed: 12/04/19 3:44:31 PM
Form 4, LCS Summary

SM3500FeB

Form 4

LCS Summary

Lab Name: APPL, Inc. SDG No: 90587

Case No: 90587 Date Analyzed: 10/29/19

Matrix: WATER Instrument: Manual Spec

LCS ID: A191029-LCS Time Analyzed: 2336

APPL ID.	Client Sample No.	File ID.	Date Analyzed
A191029-BLK	Blank	32	10/29/19 2334
A191029-LCSD	Lab Control SpikeD	34	10/29/19 2336
A191029-LCS	Lab Control Spike	35	10/29/19 2336
BA02090	ERH946	36	10/29/19 2338

Comments: Batch: #35FE-A191029

Printed: 12/04/19 3:44:31 PM
Form 4, LCS Summary

SW846 9060A

Form 4

LCS Summary

Lab Name: APPL, Inc. SDG No: 90587

Case No: 90587 Date Analyzed: 11/06/19

Matrix: WATER Instrument: TICTOC

LCS ID: 191105B-LCS Time Analyzed: 0924

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191105B-BLK	Blank	12	11/06/19 0848
191105B-LCS	Lab Control Spike	13	11/06/19 0924
191105B-LCSD	Lab Control SpikeD	14	11/06/19 1000
BA02090	ERH946	38	11/07/19 1838

Comments: Batch: #DOCW5-191105B

Printed: 12/04/19 3:44:31 PM
Form 4, LCS Summary

SW846 9060A

Form 4

LCS Summary

Lab Name: APPL, Inc. SDG No: 90587

Case No: 90587 Date Analyzed: 11/10/19

Matrix: WATER Instrument: TICTOC

LCS ID: 191107B-LCS Time Analyzed: 1909

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191107B-BLK	Blank	10	11/10/19 1833
191107B-LCS	Lab Control Spike	11	11/10/19 1909
191107B-LCSD	Lab Control SpikeD	12	11/10/19 1945
BA02090	ERH946	20	11/11/19 0015

Comments: Batch: #TOCW5-191107B

Printed: 12/04/19 3:44:31 PM
Form 4, LCS Summary

Laboratory Control Spike Recoveries

WETLAB

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Method	Compound Name	Spike Lvl mg/L	SPK Res mg/L	DUP Res mg/L	SPK % Recov	DUP % Recov	RPD	RPD Max	QC Limits	Extract Date-Spk	Analysis Date-Spk	Extract Date-Dup	Analysis Date-Dup	QC Group
EPA 353.2	NITRATE-NITRITE-N	3.00	3.10	2.99	103	99.7	3.6	20	90-110	11/01/19	11/01/19	11/01/19	11/01/19	#35OF-191101A-BA02090
SM 2320B	BICARBONATE AS CACO3	242.5	238	236	98.1	97.3	0.84	20	90-110	10/31/19	10/31/19	10/31/19	10/31/19	#232W-191031A-BA02056
SM 2320B	CARBONATE AS CACO3	7.50	7.16	7.82	95.5	104	8.8	20	90-110	10/31/19	10/31/19	10/31/19	10/31/19	#232W-191031A-BA02056
SM 2320B	TOTAL ALKALINITY AS CA	250	245	243	98.0	97.2	0.82	20	90-110	10/31/19	10/31/19	10/31/19	10/31/19	#232W-191031A-BA02056
SM 4500-Si	SILICA W	4.00	3.81	3.85	95.3	96.3	1.0	20	80-120	11/06/19	11/06/19	11/06/19	11/06/19	#SIO2-191106A-BA02525
SM 4500-Si	DISSOLVED SILICA	4.00	3.81	3.85	95.3	96.3	1.0	20	80-120	11/06/19	11/06/19	11/06/19	11/06/19	#SIO2D-191106A-BA02525
SM3500Fe	FERROUS IRON	3.00	3.08	3.10	103	103	0.65	20	80-120	10/29/19	10/29/19	10/29/19	10/29/19	#35FE-A191029-BA02090
SW846 90	DISSOLVED ORGANIC CA	5.00	5.31	5.25	106	105	1.1	20	90-110	11/05/19	11/06/19	11/05/19	11/06/19	#DOCW5-191105B-BA020
SW846 90	TOTAL ORGANIC CARBO	5.00	5.16	5.12	103	102	0.78	20	80-120	11/10/19	11/10/19	11/10/19	11/10/19	#TOCW5-191107B-BA018

Comments:

Printed: 12/04/19 3:44:17 PM
APPL Standard LCSD

ORGANICS
Calibration Data

DBCP/EDB/1,2,3-TCP Analysis by
504 8011

Form 6
Initial Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Initial Cal. Date: 10/04/19
Matrix: Water Instrument: Herbie Initials:

0916268 D 0916269.D 0916270.D 0916271.D 0916272.D 0916273.D

		Compound	1	2	3	4	5	6					Avg	%RSD	Type	r^2	Q
1	TM	EDB	957925	891635	829946	799880	783065	760594					837174	8.9	TM		
2	TM	1,2,3-TCP	275950	261900	249268	238118	222163	222258					244943	8.8	TM		
3	S	1,3-DIBROMOPROPANE(S)		1075985	937166	872350	833523	840804					911966	11	S		
4	TM	DBCP	3687525	3144370	3175104	3075688	2997261	3077861					3192968	7.8	TM		
5		Signal #2											0	0			
6																	
7																	
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35																	

1.045453

DBCP/EDB/1,2,3-TCP Analysis by
504 8011

Form 6
Initial Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Initial Cal. Date: 10/04/19
Matrix: Water Instrument: Herbie
Initials:

0916268.D 0916269.D 0916270.D 0916271.D 0916272.D 0916273.D

		Compound	1	2	3	4	5	6					Avg	%RSD	Type	r^2	Q
36	TM	EDB #2	4043025	3612320	3361426	3185151	3128997	3162054					3415495	10	TM		
37	TM	1,2,3-TCP #2	716275	690230	656420	605505	578491	554784					633618	10	TM		
38	S	1,3-DIBROMOPROPANE(S) #2		2479830	2319054	2114508	2054939	2051529					2203972	8.6	S		
39	TM	DBCP #2	10155850	9496460	9513624	9602001	9342871	9593304					9617352	2.9	TM		
40																	
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0.915583

Quantitation Report (Not Reviewed)

Signal #1 : G:\HERBIE\DATA\190916\0916268.D\ECD1A.CH Vial: 68
Signal #2 : G:\HERBIE\DATA\190916\0916268.D\ECD2B.CH
Acq On : 10-04-19 19:08:08 Operator: MA,SS
Sample : 8011 1 9/17/19 Inst : Herbie
Misc : water Multiplr: 1.00
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Oct 6 12:40 2019 Quant Results File: 8011917A.RES

Quant Method : G:\HERBIE\DATA\190916\8011917A.M (RTE Integrator)
Title : 504.1 OR 8011
Last Update : Tue Aug 13 10:40:23 2019
Response via : Initial Calibration
DataAcq Meth : DOHS504.M

Volume Inj. : 2µL
Signal #1 Phase : DB-35MS Signal #2 Phase: DB-XLB
Signal #1 Info : 0.25 Signal #2 Info : 0.50

Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
System Monitoring Compounds						
3) S 1,3-DIBROMOPROPA	10.01	11.03	53761	107891	0.028	0.026
Spiked Amount 0.350			Recovery =		8.00%	7.43%
Target Compounds						
1) TM EDB	5.78	7.21	38317	161721	0.029	0.026
2) TM 1,2,3-TCP	9.24	10.44	11038	28651	0.023	0.025
4) TM DBCP	13.34	14.08	147501	406234	0.023	0.025

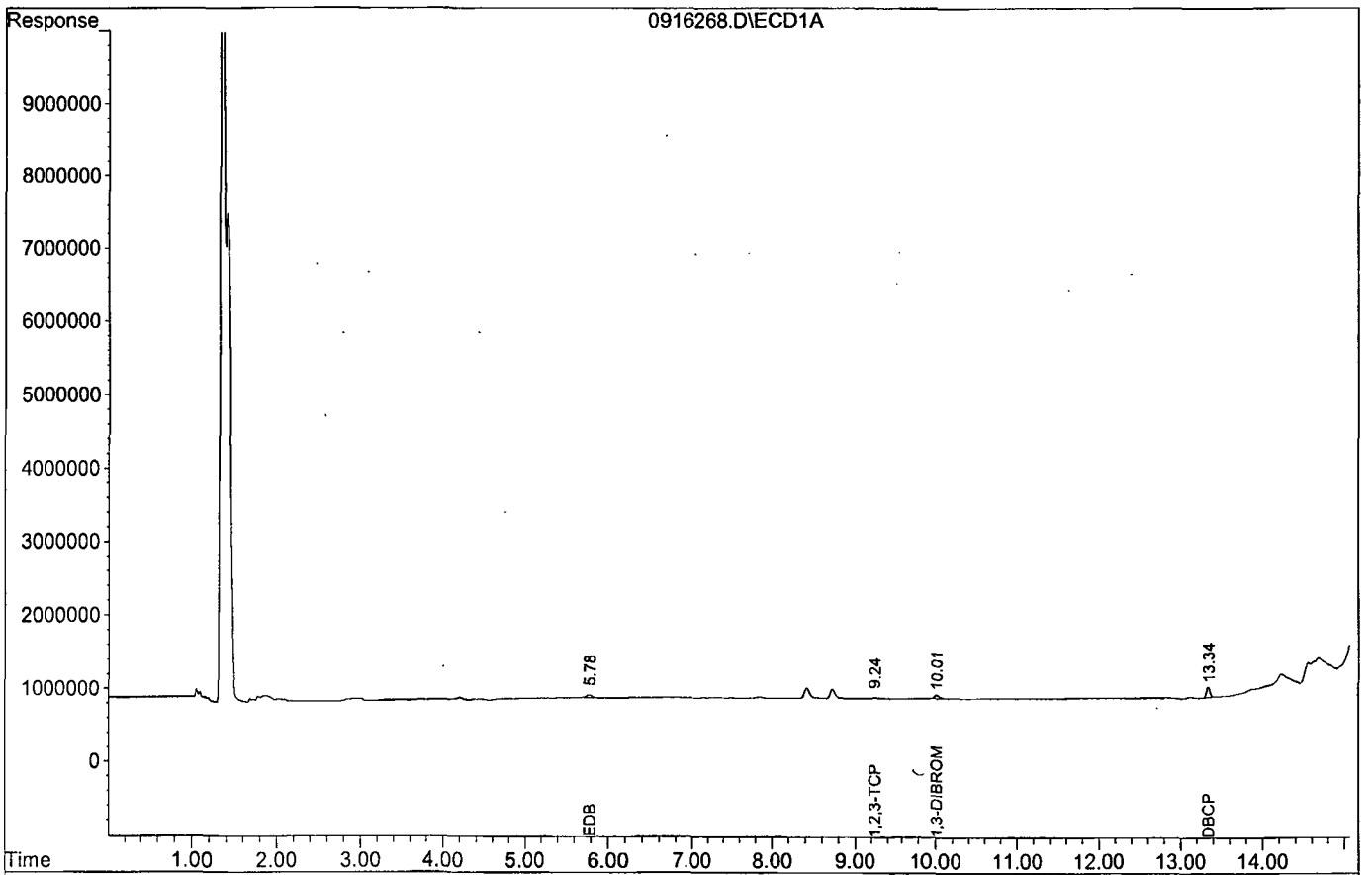
Target Compounds

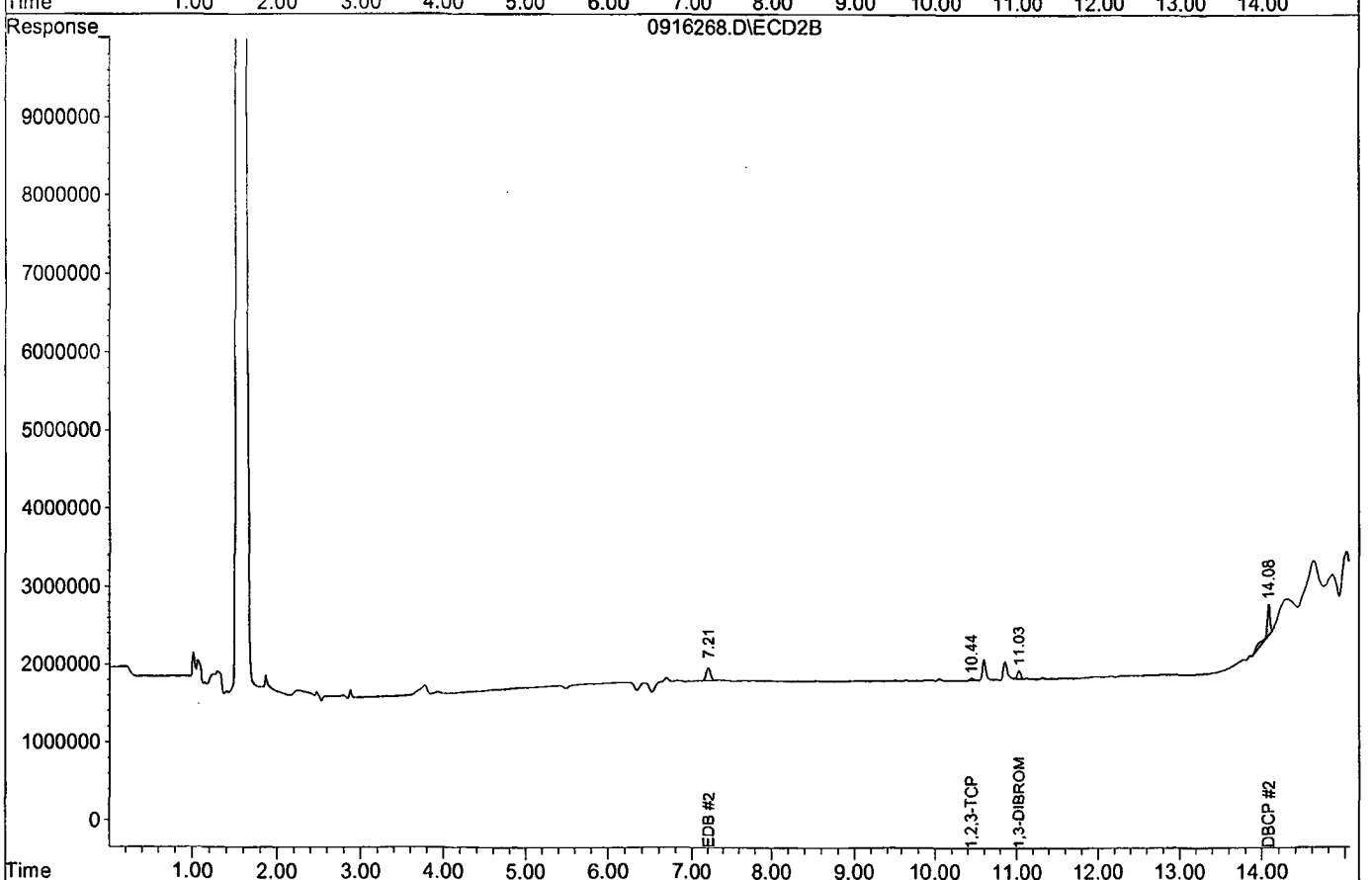
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (Not Reviewed)

Data File : G:\HERBIE\DATA\190916\0916268.D
Acq On : 10-04-19 19:08:08
Sample : 8011 1 9/17/19
Misc : water
Quant Method : G:\HERBIE\DATA\190916\8011917A.M

Vial: 68
Operator: MA,SS
Inst : Herbie
Multiplr: 1.00





Quantitation Report (Not Reviewed)

Signal #1 : G:\HERBIE\DATA\190916\0916269.D\ECD1A.CH Vial: 69
Signal #2 : G:\HERBIE\DATA\190916\0916269.D\ECD2B.CH
Acq On : 10-04-19 19:28:36 Operator: MA,SS
Sample : 8011 2 9/17/19 Inst : Herbie
Misc : water Multiplr: 1.00
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Oct 6 12:40 2019 Quant Results File: 8011917A.RES

Quant Method : G:\HERBIE\DATA\190916\8011917A.M (RTE Integrator)
Title : 504.1 OR 8011
Last Update : Tue Aug 13 10:40:23 2019
Response via : Initial Calibration
DataAcq Meth : DOHS504.M

Volume Inj. : 2µL
Signal #1 Phase : DB-35MS Signal #2 Phase: DB-XLB
Signal #1 Info : 0.25 Signal #2 Info : 0.50

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
	System Monitoring Compounds						
3) S	1,3-DIBROMOPROPA	10.01	11.03	215197	495966	0.113	0.121
Spiked Amount	0.350			Recovery	=	32.29%	34.57%
	Target Compounds						
1) TM	EDB	5.78	7.21	178327	722464	0.133	0.116
2) TM	1,2,3-TCP	9.25	10.44	52380	138046	0.108	0.122
4) TM	DBCP	13.34	14.08	628874	1899292	0.098	0.117

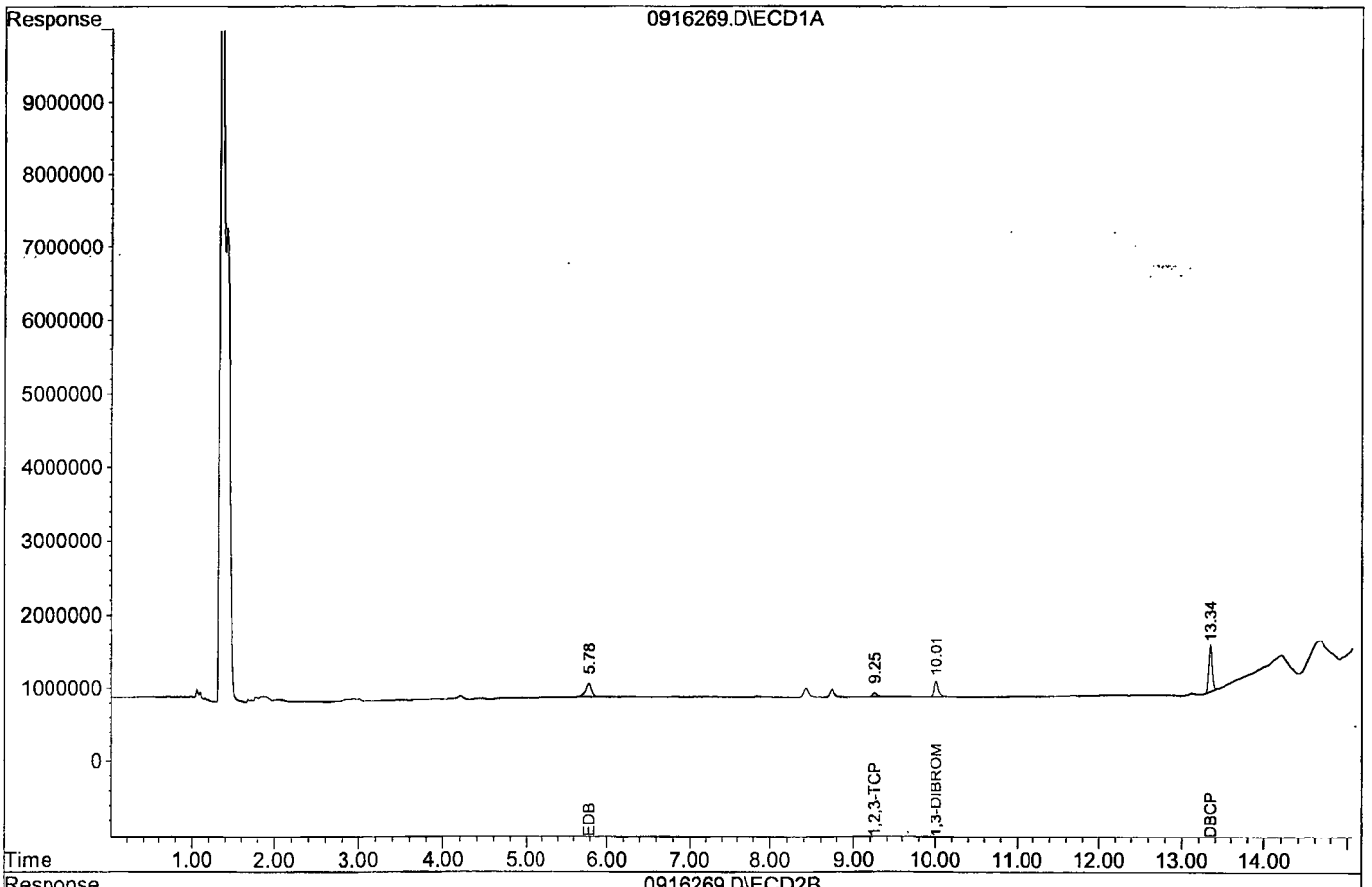
Target Compounds

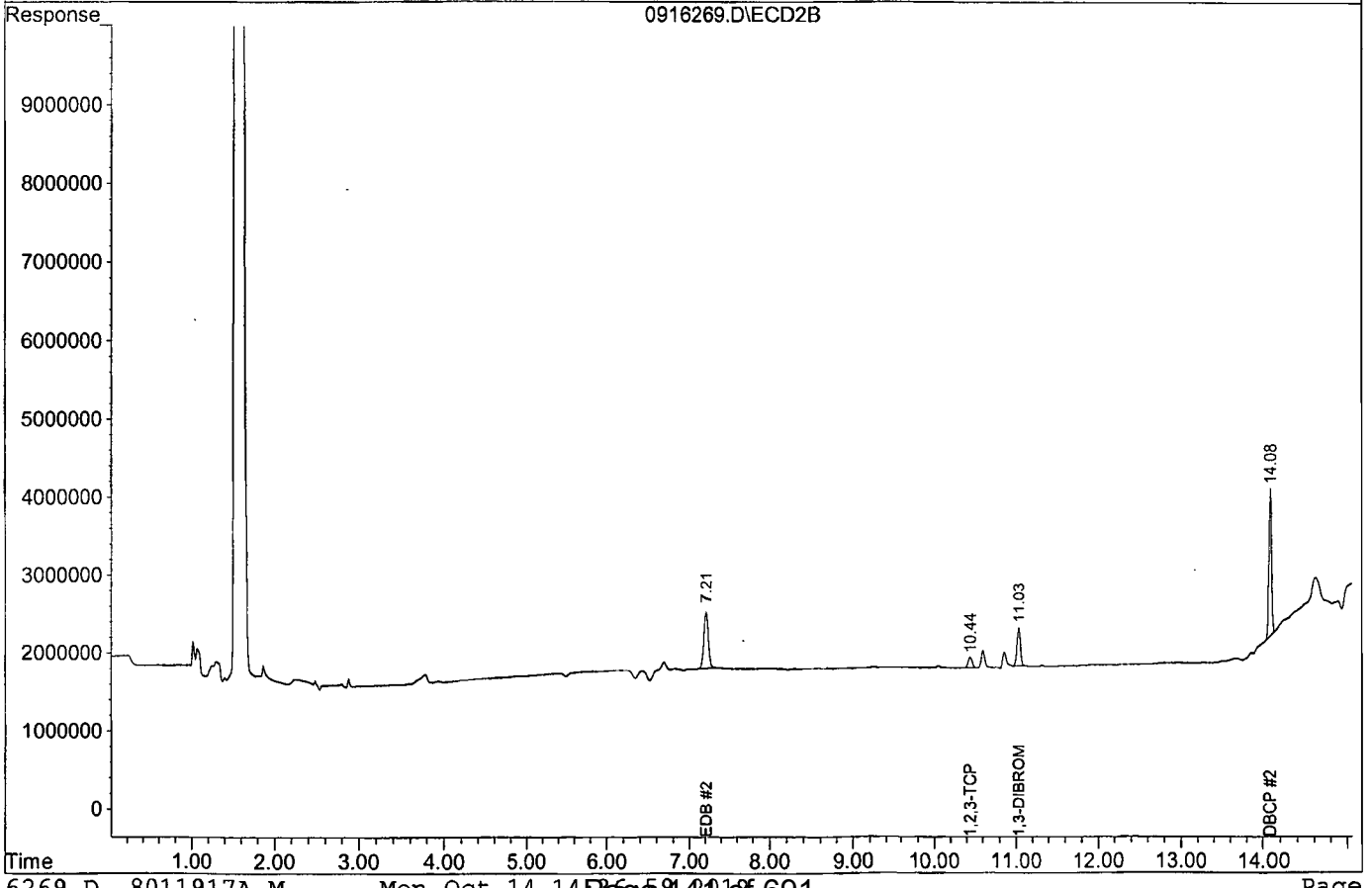
(f)=RT Delta > 1/2 Window (#)=Amounts differ by more than 25% (m)=manual int.

Quantitation Report (Not Reviewed)

Data File : G:\HERBIE\DATA\190916\0916269.D
Acq On : 10-04-19 19:28:36
Sample : 8011 2 9/17/19
Misc : water
Quant Method : G:\HERBIE\DATA\190916\8011917A.M

Vial: 69
Operator: MA,SS
Inst : Herbie
Multiplr: 1.00





Quantitation Report (Not Reviewed)

Signal #1 : G:\HERBIE\DATA\190916\0916270.D\ECD1A.CH Vial: 70
Signal #2 : G:\HERBIE\DATA\190916\0916270.D\ECD2B.CH
Acq On : 10-04-19 19:49:11 Operator: MA,SS
Sample : 8011 3 9/17/19 Inst : Herbie
Misc : water Multiplr: 1.00
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Oct 6 12:40 2019 Quant Results File: 8011917A.RES

Quant Method : G:\HERBIE\DATA\190916\8011917A.M (RTE Integrator)
Title : 504.1 OR 8011
Last Update : Tue Aug 13 10:40:23 2019
Response via : Initial Calibration
DataAcq Meth : DOHS504.M

Volume Inj. : 2µL
Signal #1 Phase : DB-35MS Signal #2 Phase: DB-XLB
Signal #1 Info : 0.25 Signal #2 Info : 0.50

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
	System Monitoring Compounds						
3) S	1,3-DIBROMOPROPA	10.01	11.03	468583	1159527	0.246	0.283
Spiked Amount	0.350			Recovery	=	70.29%	80.86%
	Target Compounds						
1) TM	EDB	5.78	7.21	414973	1680713	0.309	0.270
2) TM	1,2,3-TCP	9.24	10.44	124634	328210	0.257	0.289
4) TM	DBCP	13.34	14.08	1587552	4756812	0.248	0.292

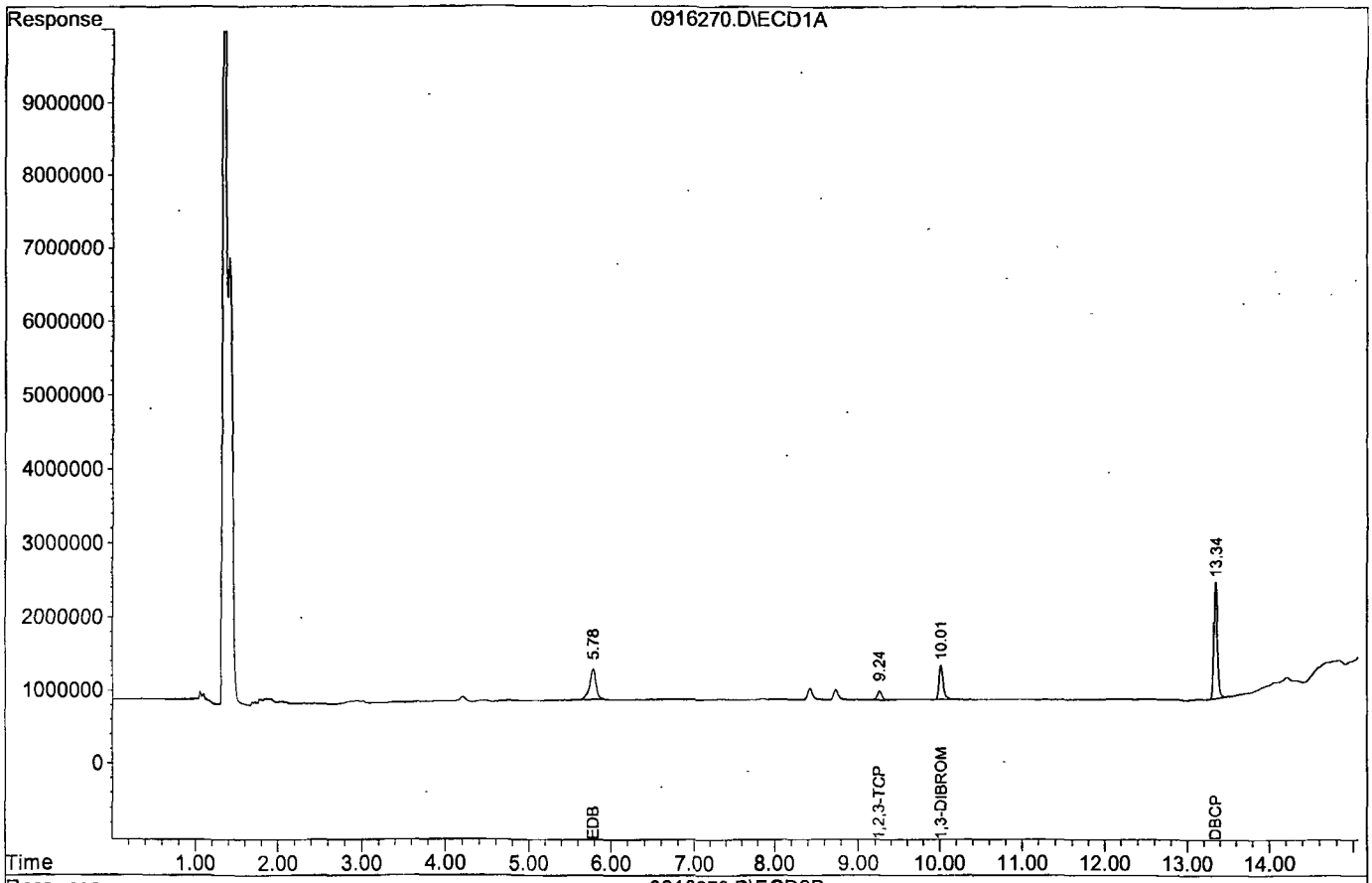
Target Compounds

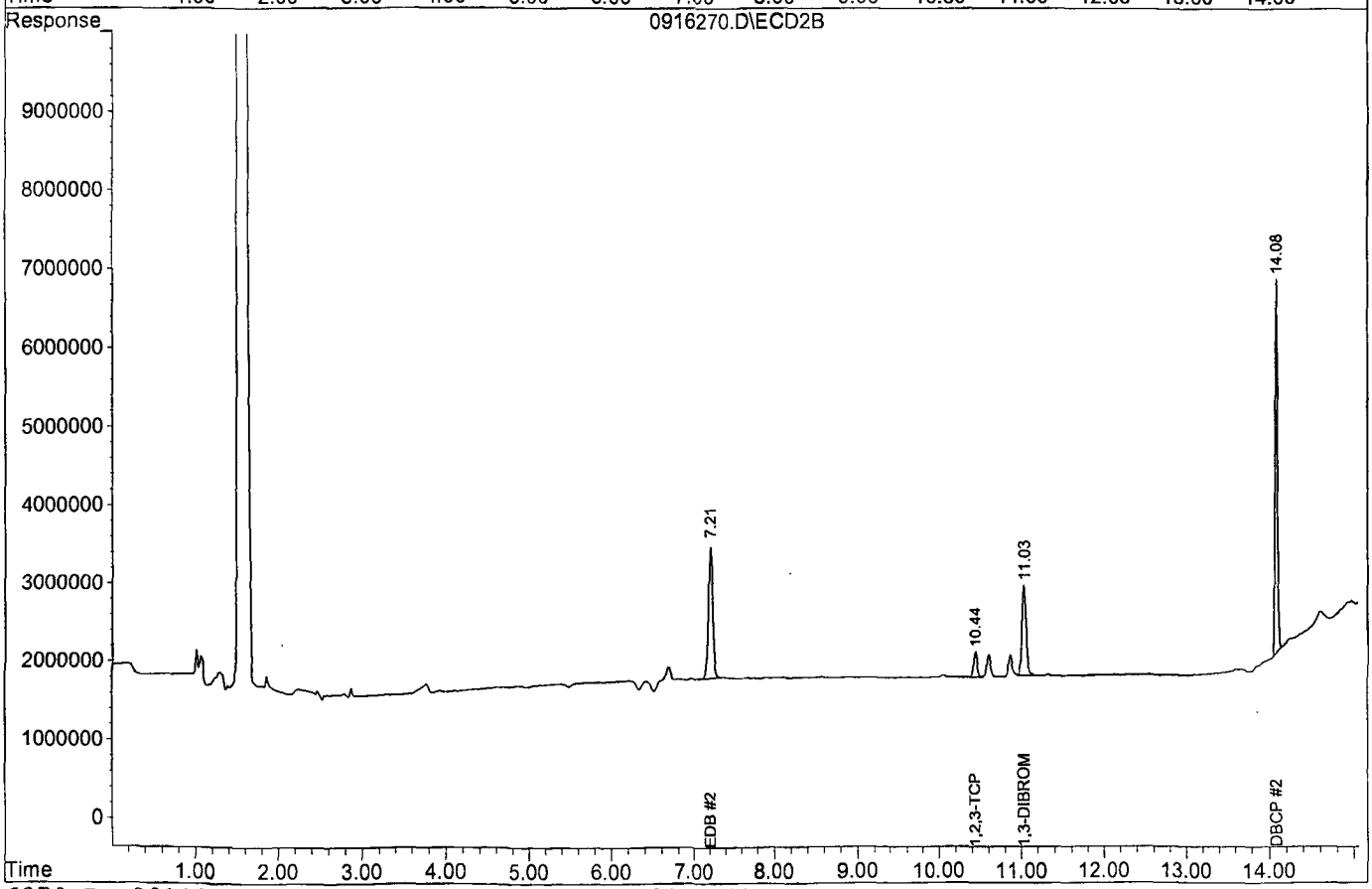
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (Not Reviewed)

Data File : G:\HERBIE\DATA\190916\0916270.D
Acq On : 10-04-19 19:49:11
Sample : 8011 3 9/17/19
Misc : water
Quant Method : G:\HERBIE\DATA\190916\8011917A.M

Vial: 70
Operator: MA,SS
Inst : Herbie
Multiplr: 1.00





Quantitation Report (Not Reviewed)

Signal #1 : G:\HERBIE\DATA\190916\0916271.D\ECD1A.CH Vial: 71
Signal #2 : G:\HERBIE\DATA\190916\0916271.D\ECD2B.CH
Acq On : 10-04-19 20:09:38 Operator: MA,SS
Sample : 8011 4 9/17/19 Inst : Herbie
Misc : water Multiplr: 1.00
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Oct 6 12:40 2019 Quant Results File: 8011917A.RES

Quant Method : G:\HERBIE\DATA\190916\8011917A.M (RTE Integrator)
Title : 504.1 OR 8011
Last Update : Tue Aug 13 10:40:23 2019
Response via : Initial Calibration
DataAcq Meth : DOHS504.M

Volume Inj. : 2µL
Signal #1 Phase : DB-35MS Signal #2 Phase: DB-XLB
Signal #1 Info : 0.25 Signal #2 Info : 0.50

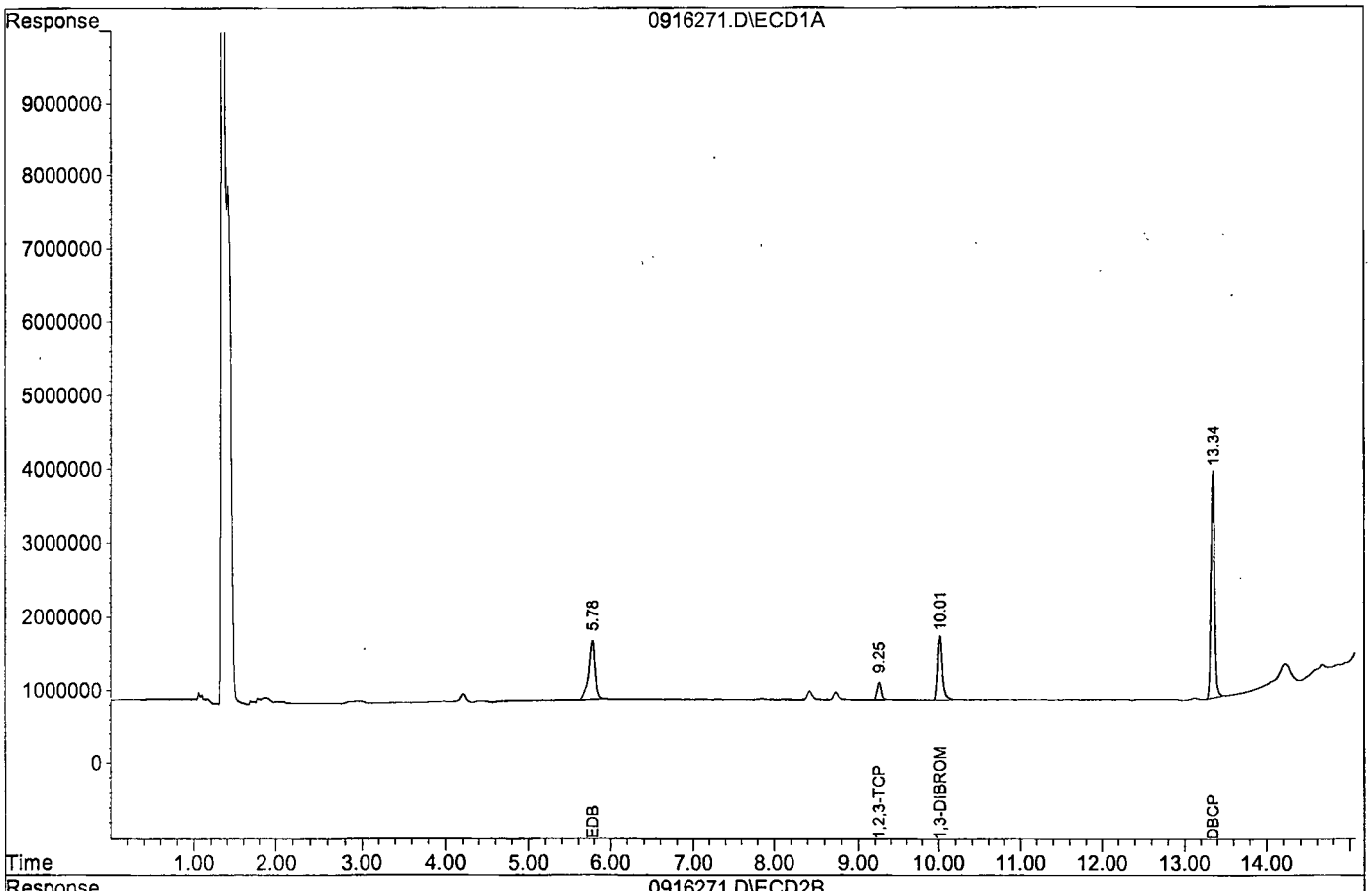
Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
System Monitoring Compounds						
3) S 1,3-DIBROMOPROPA	10.01	11.03	872350	2114508	0.458	0.517
Spiked Amount 0.350			Recovery =		130.86%	147.71%
Target Compounds						
1) TM EDB	5.78	7.21	799880	3185151	0.596	0.511
2) TM 1,2,3-TCP	9.25	10.44	238118	605505	0.490	0.533
4) TM DBCP	13.34	14.08	3075688	9602001	0.481	0.590
Target Compounds						

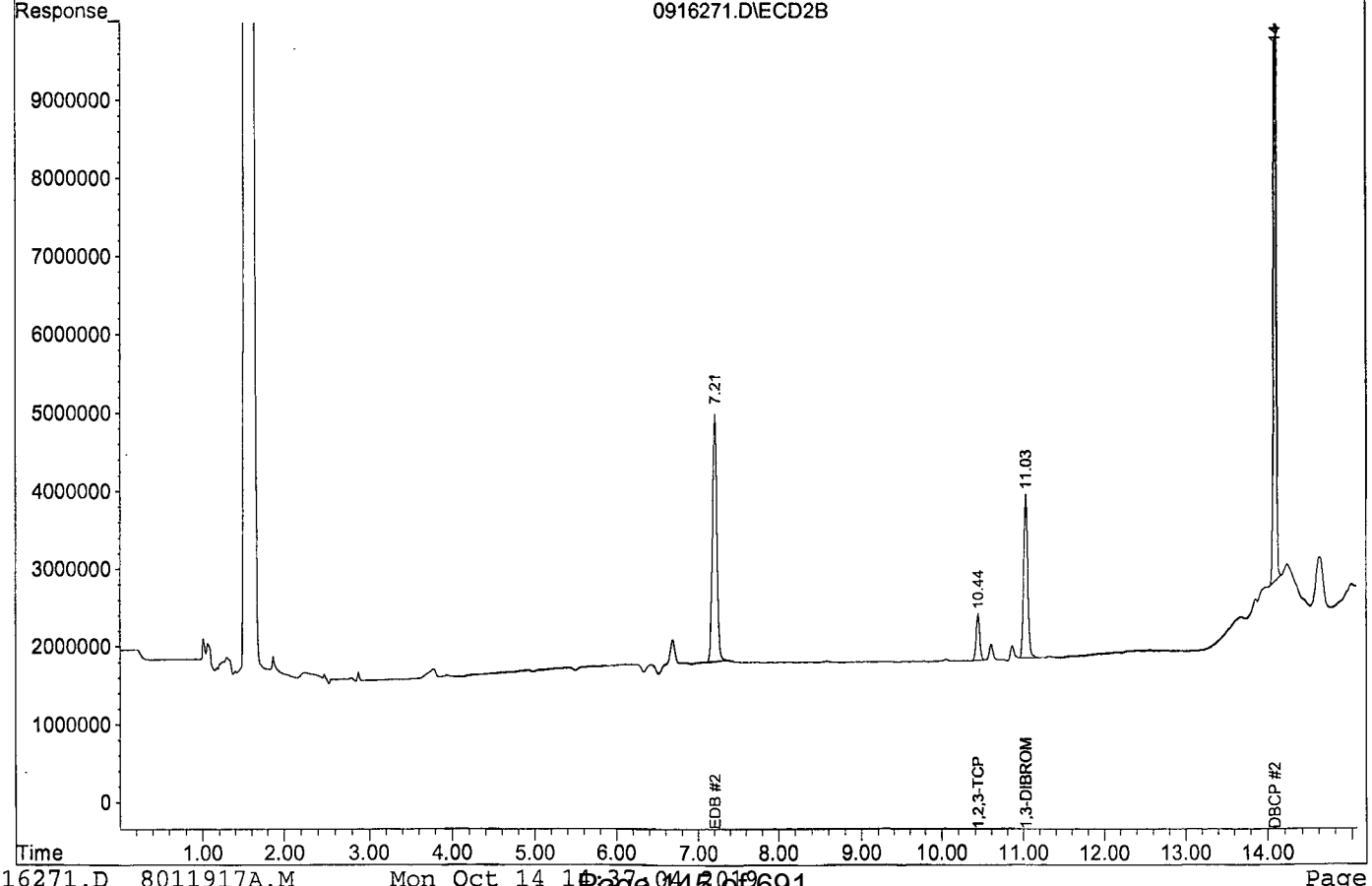
(f)=RT Delta > 1/2 Window (#)=Amounts differ > 20% (m)=manual int.

Quantitation Report (Not Reviewed)

Data File : G:\HERBIE\DATA\190916\0916271.D
Acq On : 10-04-19 20:09:38
Sample : 8011 4 9/17/19
Misc : water
Quant Method : G:\HERBIE\DATA\190916\8011917A.M

Vial: 71
Operator: MA,SS
Inst : Herbie
Multiplr: 1.00





Quantitation Report (Not Reviewed)

Signal #1 : G:\HERBIE\DATA\190916\0916272.D\ECD1A.CH Vial: 72
Signal #2 : G:\HERBIE\DATA\190916\0916272.D\ECD2B.CH
Acq On : 10-04-19 20:30:00 Operator: MA,SS
Sample : 8011 5 9/17/19 Inst : Herbie
Misc : water Multiplr: 1.00
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Oct 6 12:40 2019 Quant Results File: 8011917A.RES

Quant Method : G:\HERBIE\DATA\190916\8011917A.M (RTE Integrator)
Title : 504.1 OR 8011
Last Update : Tue Aug 13 10:40:23 2019
Response via : Initial Calibration
DataAcq Meth : DOHS504.M

Volume Inj. : 2µL
Signal #1 Phase : DB-35MS Signal #2 Phase: DB-XLB
Signal #1 Info : 0.25 Signal #2 Info : 0.50

Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
System Monitoring Compounds						
3) S 1,3-DIBROMOPROPA	10.01	11.03	1250285	3082409	0.657	0.753
Spiked Amount 0.350			Recovery =		187.71%	215.14%
Target Compounds						
1) TM EDB	5.78	7.21	1174598	4693496	0.875	0.753
2) TM 1,2,3-TCP	9.25	10.44	333245	867737	0.686	0.764
4) TM DBCP	13.34	14.08	4495892	14014307	0.703	0.862

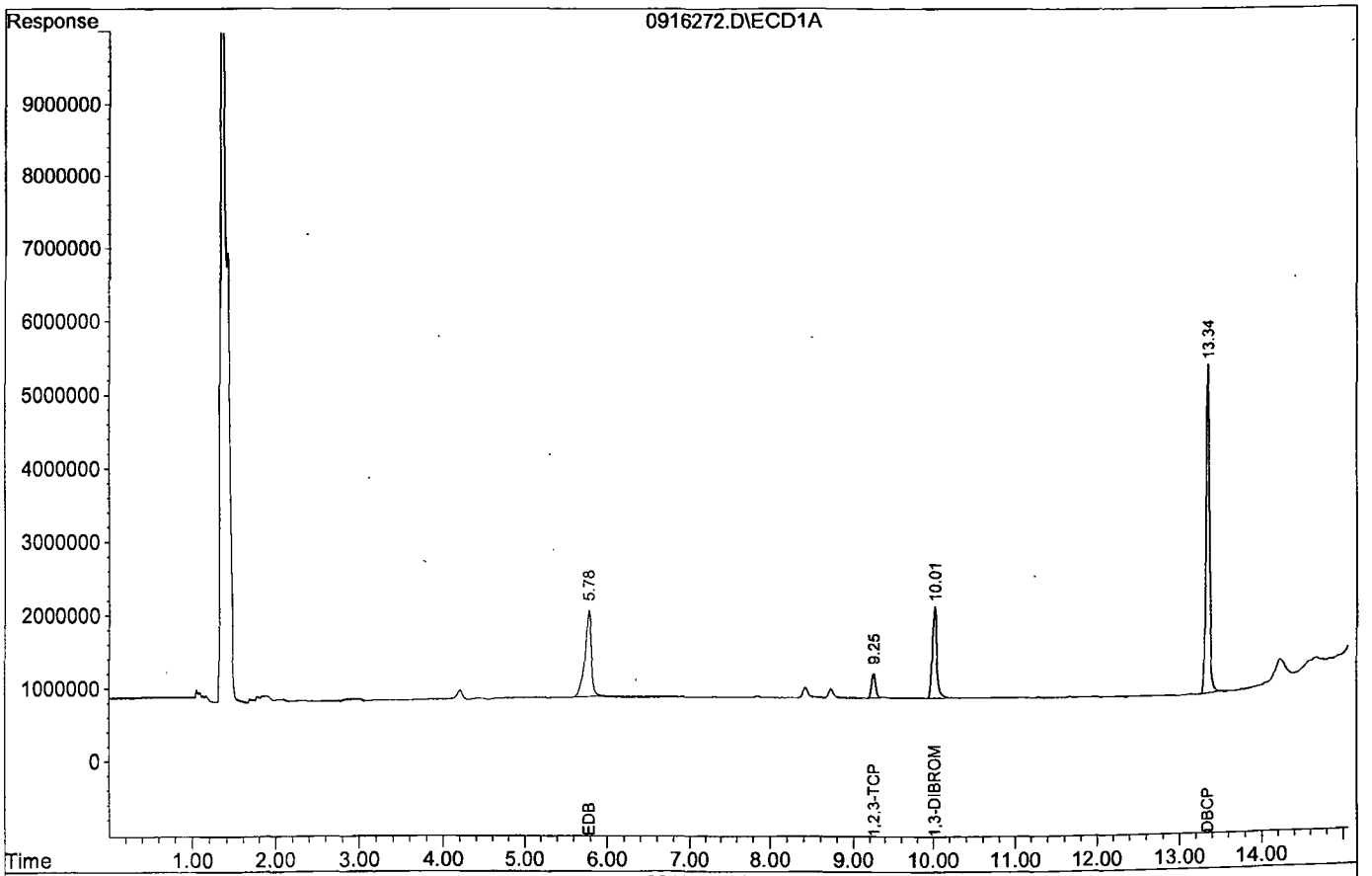
Target Compounds

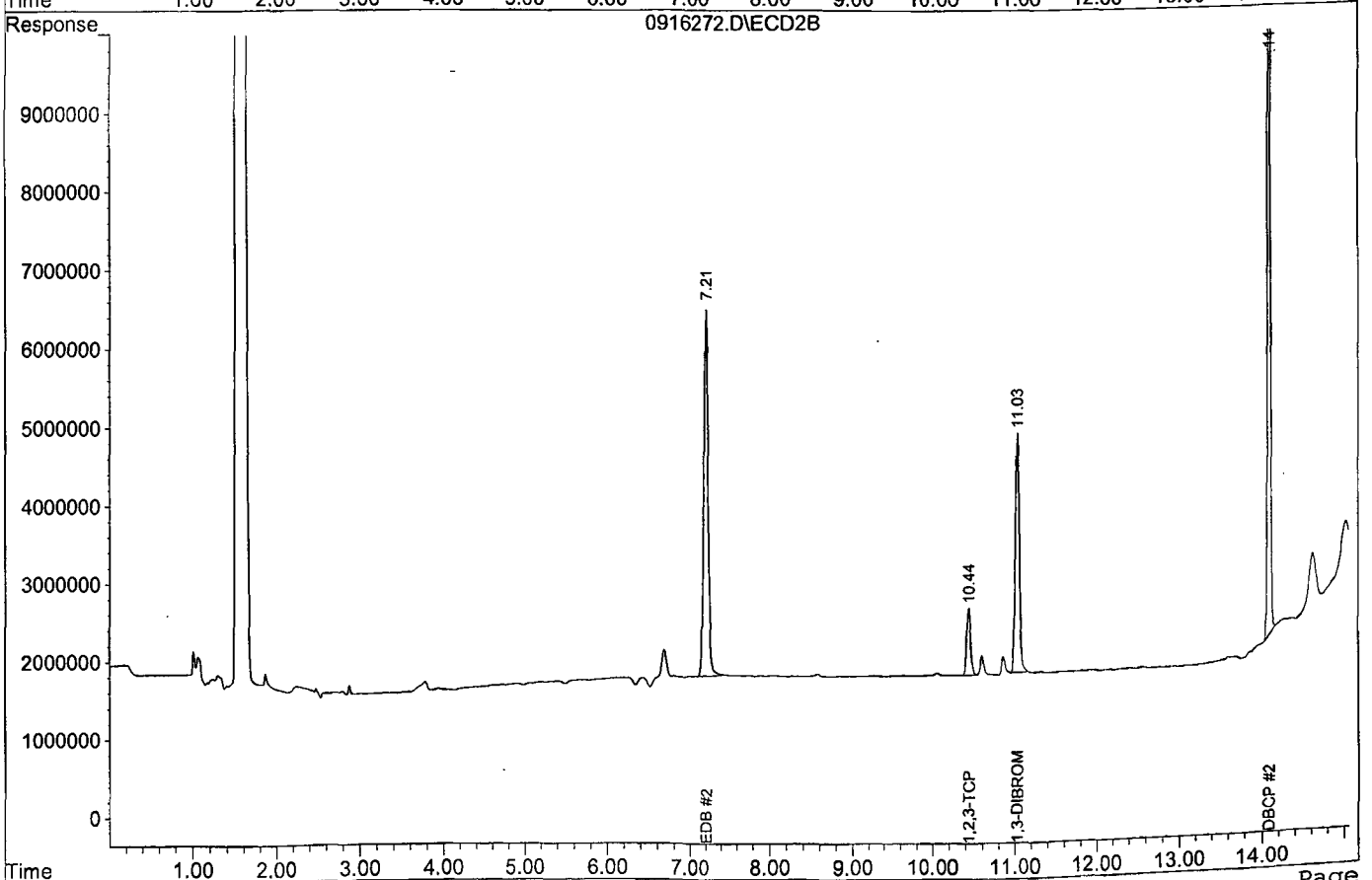
(f)=RT Delta > 1/2 Window (#)=Amounts differ by> 25% (m)=manual int.
0916272.D 8011917A.M Mon Oct 14 14:39:05 2019

Quantitation Report (Not Reviewed)

Data File : G:\HERBIE\DATA\190916\0916272.D
Acq On : 10-04-19 20:30:00
Sample : 8011 5 9/17/19
Misc : water
Quant Method : G:\HERBIE\DATA\190916\8011917A.M

Vial: 72
Operator: MA,SS
Inst : Herbie
Multiplr: 1.00





Quantitation Report (Not Reviewed)

Signal #1 : G:\HERBIE\DATA\190916\0916273.D\ECD1A.CH Vial: 73
Signal #2 : G:\HERBIE\DATA\190916\0916273.D\ECD2B.CH
Acq On : 10-04-19 20:50:31 Operator: MA,SS
Sample : 8011 6 9/17/19 Inst : Herbie
Misc : water Multiplr: 1.00
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Oct 6 12:40 2019 Quant Results File: 8011917A.RES

Quant Method : G:\HERBIE\DATA\190916\8011917A.M (RTE Integrator)
Title : 504.1 OR 8011
Last Update : Tue Aug 13 10:40:23 2019
Response via : Initial Calibration
DataAcq Meth : DOHS504.M

Volume Inj. : 2µL
Signal #1 Phase : DB-35MS Signal #2 Phase: DB-XLB
Signal #1 Info : 0.25 Signal #2 Info : 0.50

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
	System Monitoring Compounds						
3) S	1,3-DIBROMOPROPA	10.01	11.03	1681608	4103058	0.883	1.003
Spiked Amount	0.350			Recovery	=	252.29%	286.57%
	Target Compounds						
1) TM	EDB	5.78	7.21	1521187	6324107	1.133	1.014
2) TM	1,2,3-TCP	9.25	10.44	444516	1109568	0.915	0.977
4) TM	DBCP	13.34	14.08	6155722	19186607	0.963	1.180

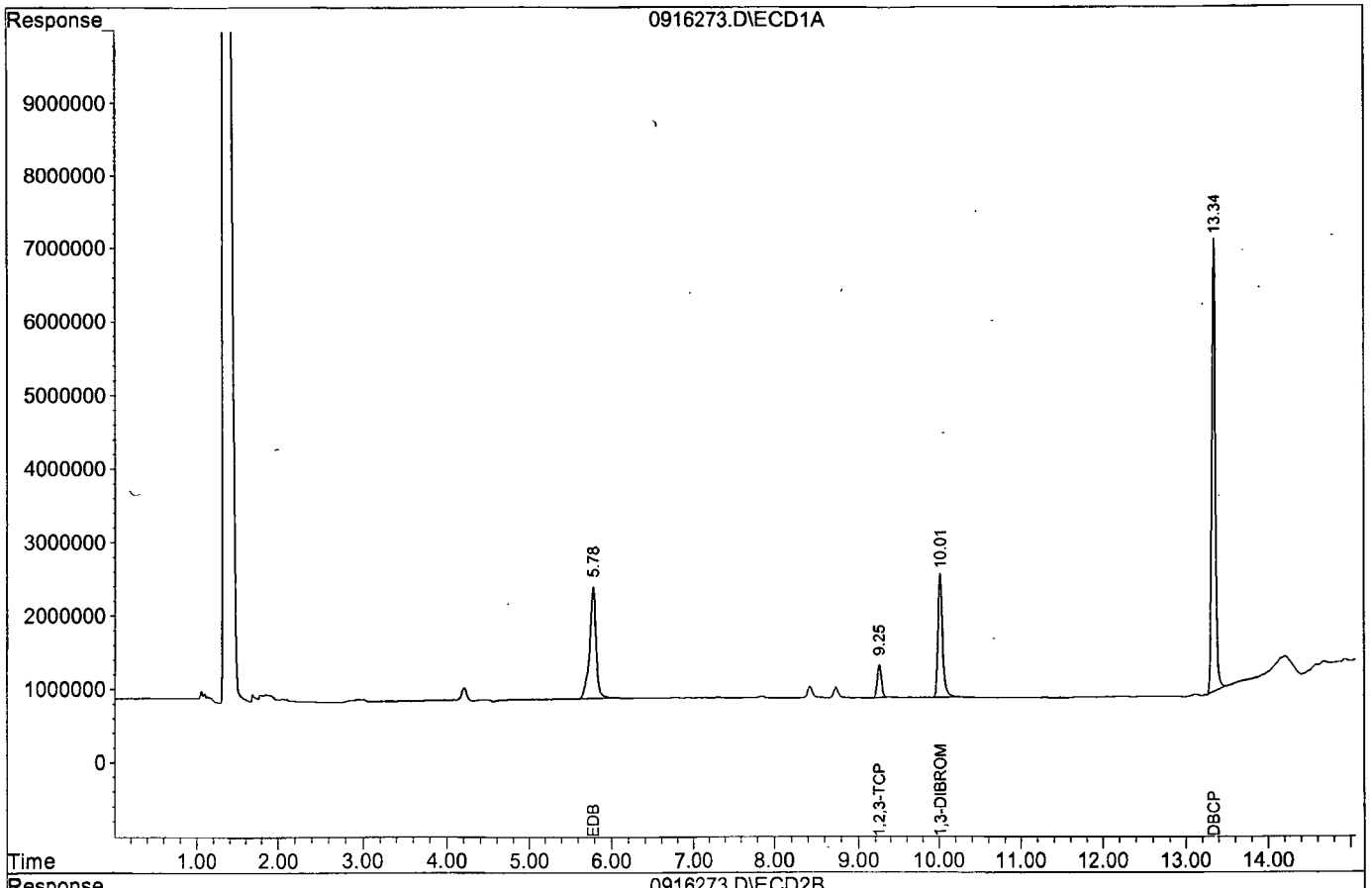
Target Compounds

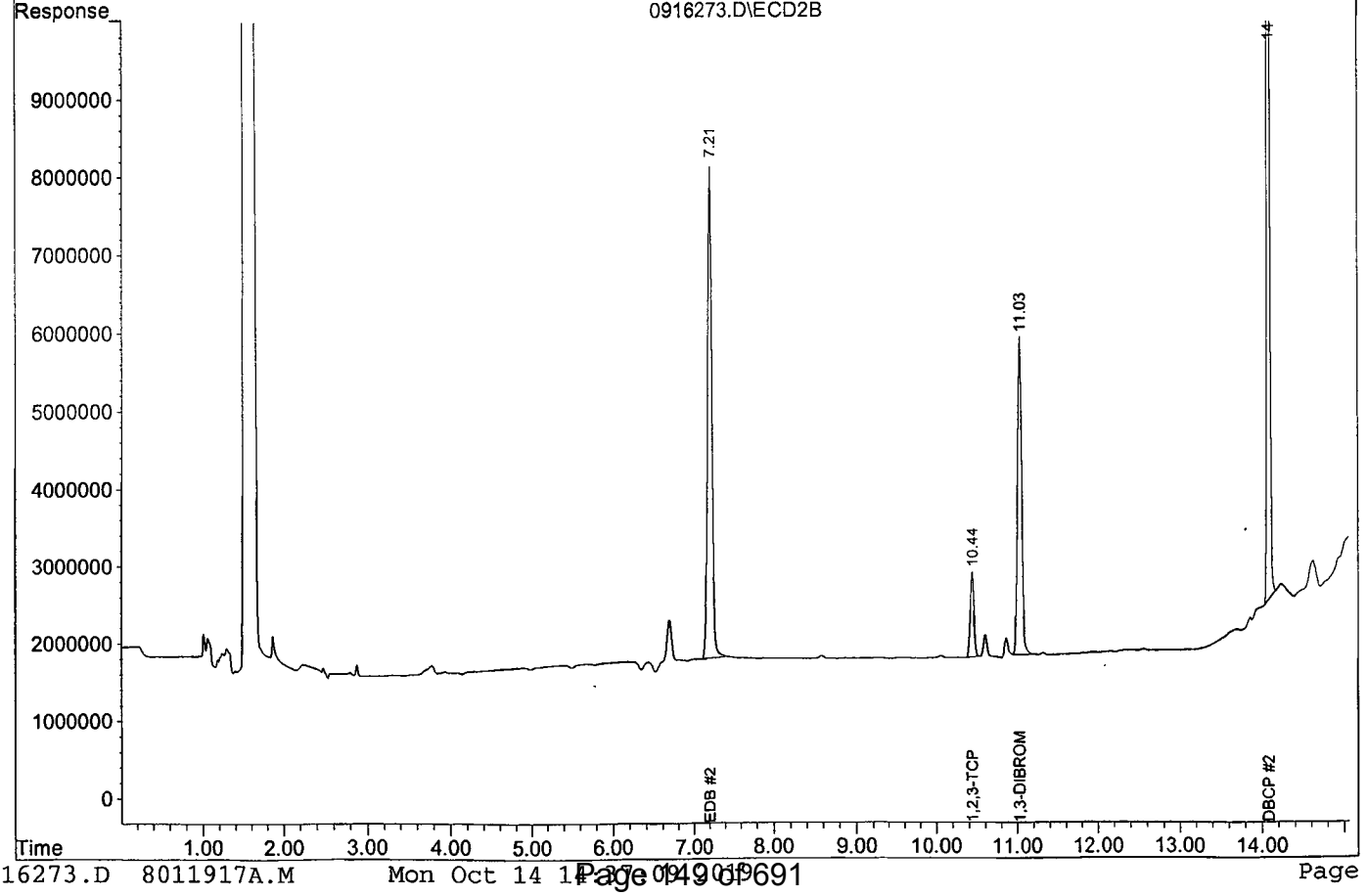
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
0916273.D 8011917A.M Mon Oct 14 14:37:08 2019 Page 1

Quantitation Report (Not Reviewed)

Data File : G:\HERBIE\DATA\190916\0916273.D
Acq On : 10-04-19 20:50:31
Sample : 8011 6 9/17/19
Misc : water
Quant Method : G:\HERBIE\DATA\190916\8011917A.M

Vial: 73
Operator: MA,SS
Inst : Herbie
Multiplr: 1.00





DBCP/EDB/1,2,3-TCP Analysis by
504 8011

Form 7

Second Source Calibration

Lab Name: APPL, Inc.
Case No:
Matrix: Water

SDG No:
Date Analyzed: 10/04/19
Instrument: Herbie
Initial Cal. Date: 10/04/19
Data File: 0916274.D

		Compound	MEAN	CCRF	%D	%Drift	
1	TM	EDB	837174	802470	4.1	TM	
2	TM	1,2,3-TCP	244943	232280	5.2	TM	
3	TM	DBCP	3192970	2971730	6.9	TM	
4							
5							
6							
7							
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39							
40							
		Average			5.4		

DBCP/EDB/1,2,3-TCP Analysis by
504 8011

Form 7

Second Source Calibration

Lab Name: APPL, Inc.
Case No:
Matrix: Water

SDG No:
Date Analyzed: 10/04/19
Instrument: Herbie
Cal. Date: 10/04/19
Data File: 0916274.D

		Compound	MEAN	CCRF	%D		%Drift
41	TM	EDB	3415500	3269020	4.3	TM	
42	TM	1,2,3-TCP	633618	597545	5.7	TM	
43	TM	DBCP	9617350	8954430	6.9	TM	
44							
45							
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80							
		Average			5.6		

Quantitation Report (Not Reviewed)

Signal #1 : G:\HERBIE\DATA\190916\0916274.D\ECD1A.CH Vial: 74
Signal #2 : G:\HERBIE\DATA\190916\0916274.D\ECD2B.CH
Acq On : 10-04-19 21:10:52 Operator: MA,SS
Sample : 8011 SS 9/17/19 Inst : Herbie
Misc : water Multiplr: 1.00
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Oct 6 12:40 2019 Quant Results File: 8011917A.RES

Quant Method : G:\HERBIE\DATA\190916\8011917A.M (RTE Integrator)
Title : 504.1 OR 8011
Last Update : Tue Aug 13 10:40:23 2019
Response via : Initial Calibration
DataAcq Meth : DOHS504.M

Volume Inj. : 2µL
Signal #1 Phase : DB-35MS Signal #2 Phase: DB-XLB
Signal #1 Info : 0.25 Signal #2 Info : 0.50

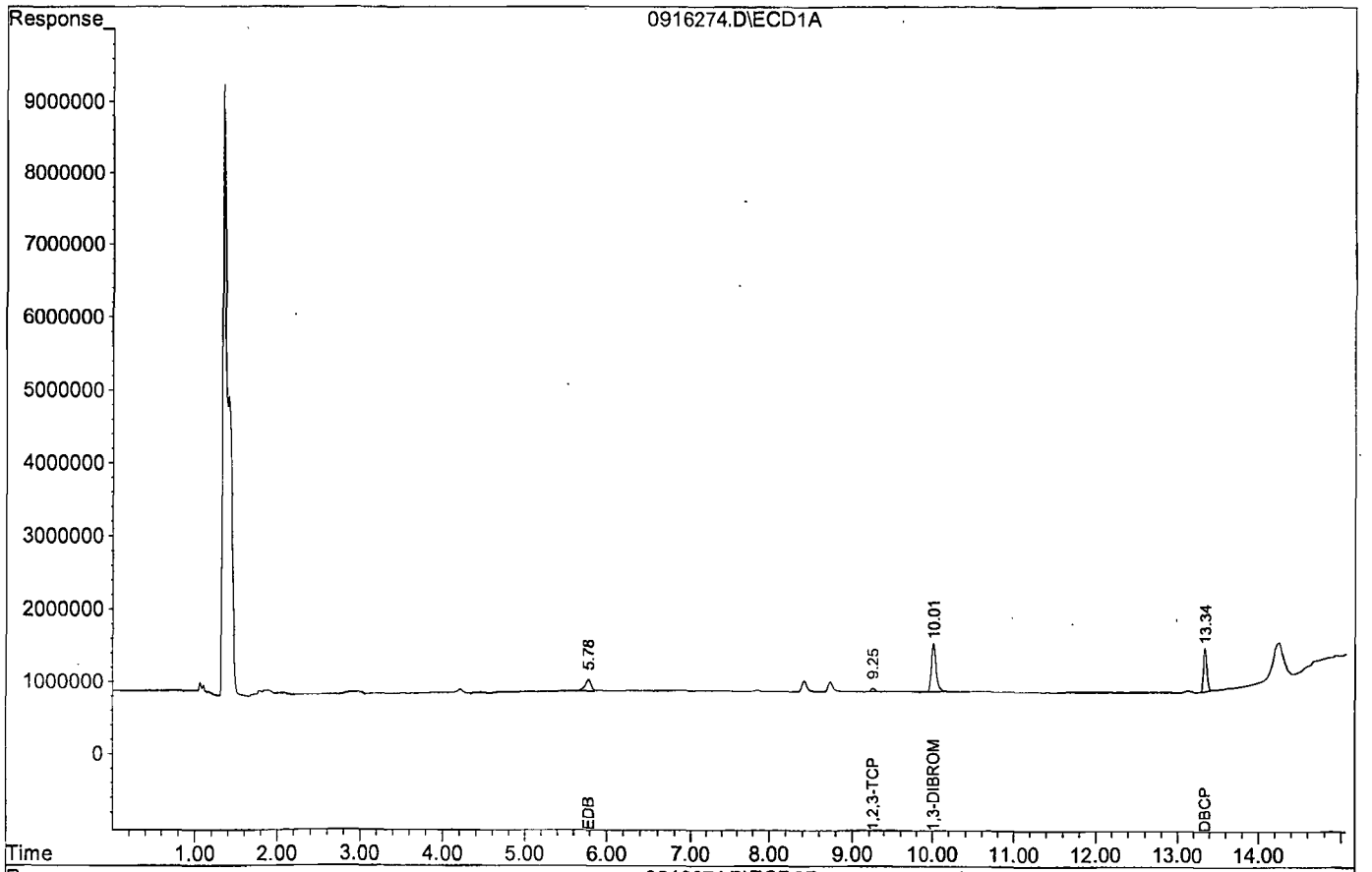
Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
System Monitoring Compounds						
3) S 1,3-DIBROMOPROPA	10.01	11.03	666463	1624406	0.350	0.397
Spiked Amount 0.350			Recovery =		100.00%	113.43%
Target Compounds						
1) TM EDB	5.78	7.21	160494	653803	0.120	0.105
2) TM 1,2,3-TCP	9.25	10.44	46456	119509	0.096	0.105
4) TM DBCP	13.34	14.08	594345	1790886	0.093	0.110
Target Compounds						

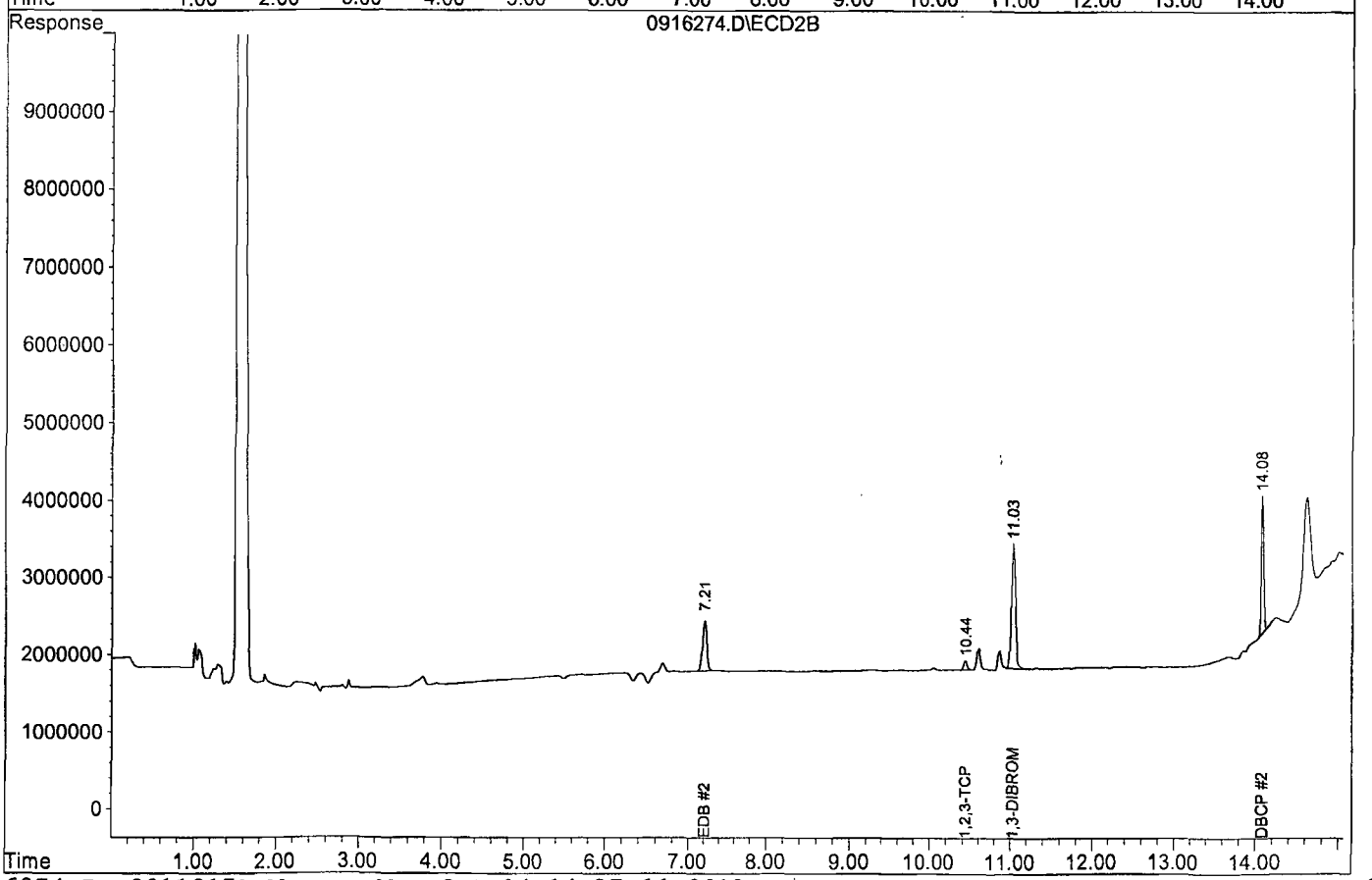
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (Not Reviewed)

Data File : G:\HERBIE\DATA\190916\0916274.D
Acq On : 10-04-19 21:10:52
Sample : 8011 SS 9/17/19
Misc : water
Quant Method : G:\HERBIE\DATA\190916\8011917A.M

Vial: 74
Operator: MA,SS
Inst : Herbie
Multiplr: 1.00





DBCP/EDB/1,2,3-TCP Analysis by
504 8011

Form 7

Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix: Water

SDG No:
Date Analyzed: 10/31/19
Instrument: Herbie
Initial Cal. Date: 10/04/19
Data File: 1025105.D

		Compound	MEAN	CCRF	%D		%Drift
1	TM	EDB	837174	924550	10	TM	
2	TM	1,2,3-TCP	244943	244375	0.23	TM	
3	S	1,3-DIBROMOPROPANE(S)	911966	1000080	9.7	S	
4	TM	DBCP	3192970	2986390	6.5	TM	
5							
6							
7							
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39							
40							
		Average			6.6		

DBCP/EDB/1,2,3-TCP Analysis by
504 8011

Form 7

Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix: Water

SDG No:
Date Analyzed: 10/31/19
Instrument: Herbie
Cal. Date: 10/04/19
Data File: 1025105.D

		Compound	MEAN	CCRF	%D	%Drift	
41	TM	EDB	3415500	3642790	6.7	TM	
42	TM	1,2,3-TCP	633618	708640	12	TM	
43	S	1,3-DIBROMOPROPANE(S)	2203970	2463170	12	S	
44	TM	DBCP	9617350	10379800	7.9	TM	
45							
46							
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80							
		Average			9.7		

Quantitation Report (Not Reviewed)

Signal #1 : G:\HERBIE\DATA\191025\1025105.D\ECD1A.CH Vial: 5
Signal #2 : G:\HERBIE\DATA\191025\1025105.D\ECD2B.CH
Acq On : 10-31-19 21:38:04 Operator: MA,SS
Sample : 8011 2 9/17/19 Inst : Herbie
Misc : water Multiplr: 1.00
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Nov 1 12:04 2019 Quant Results File: 8011917A.RES

Quant Method : G:\HERBIE\DATA\190916\8011917A.M (RTE Integrator)
Title : 504.1 OR 8011
Last Update : Sun Oct 06 12:43:10 2019
Response via : Initial Calibration
DataAcq Meth : DOHS504.M

Volume Inj. : 2µL
Signal #1 Phase : DB-35MS Signal #2 Phase: DB-XLB
Signal #1 Info : 0.25 Signal #2 Info : 0.50

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
	System Monitoring Compounds						
3) S	1,3-DIBROMOPROPA	10.02	11.04	200015	492633	0.110	0.112
Spiked Amount	0.350			Recovery	=	31.43%	32.00%
	Target Compounds						
1) TM	EDB	5.79	7.22	184910	728558	0.110	0.107
2) TM	1,2,3-TCP	9.25	10.44	48875	141728	0.100	0.112
4) TM	DBCP	13.35	14.08	597277	2075962	0.094	0.108

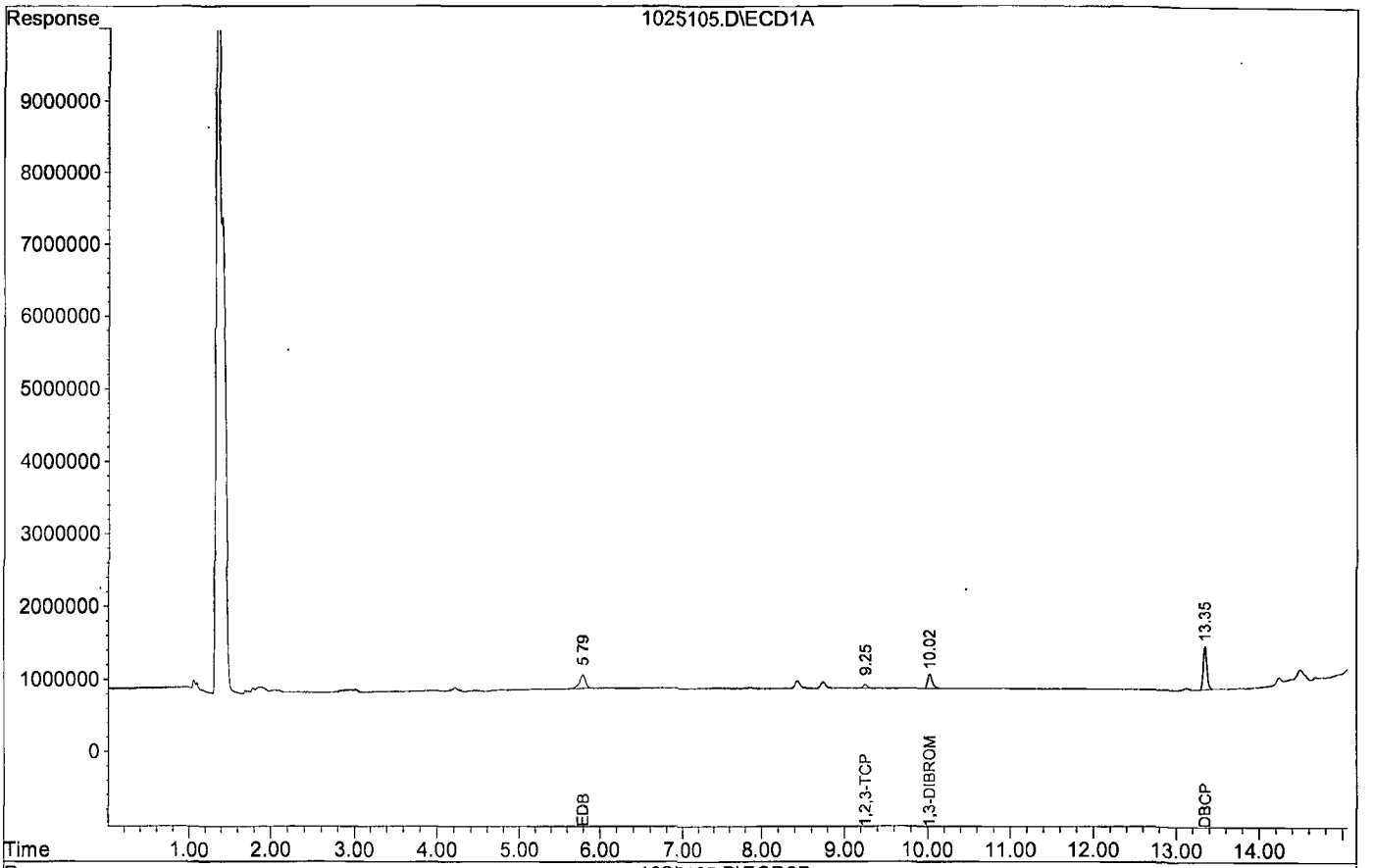
Target Compounds

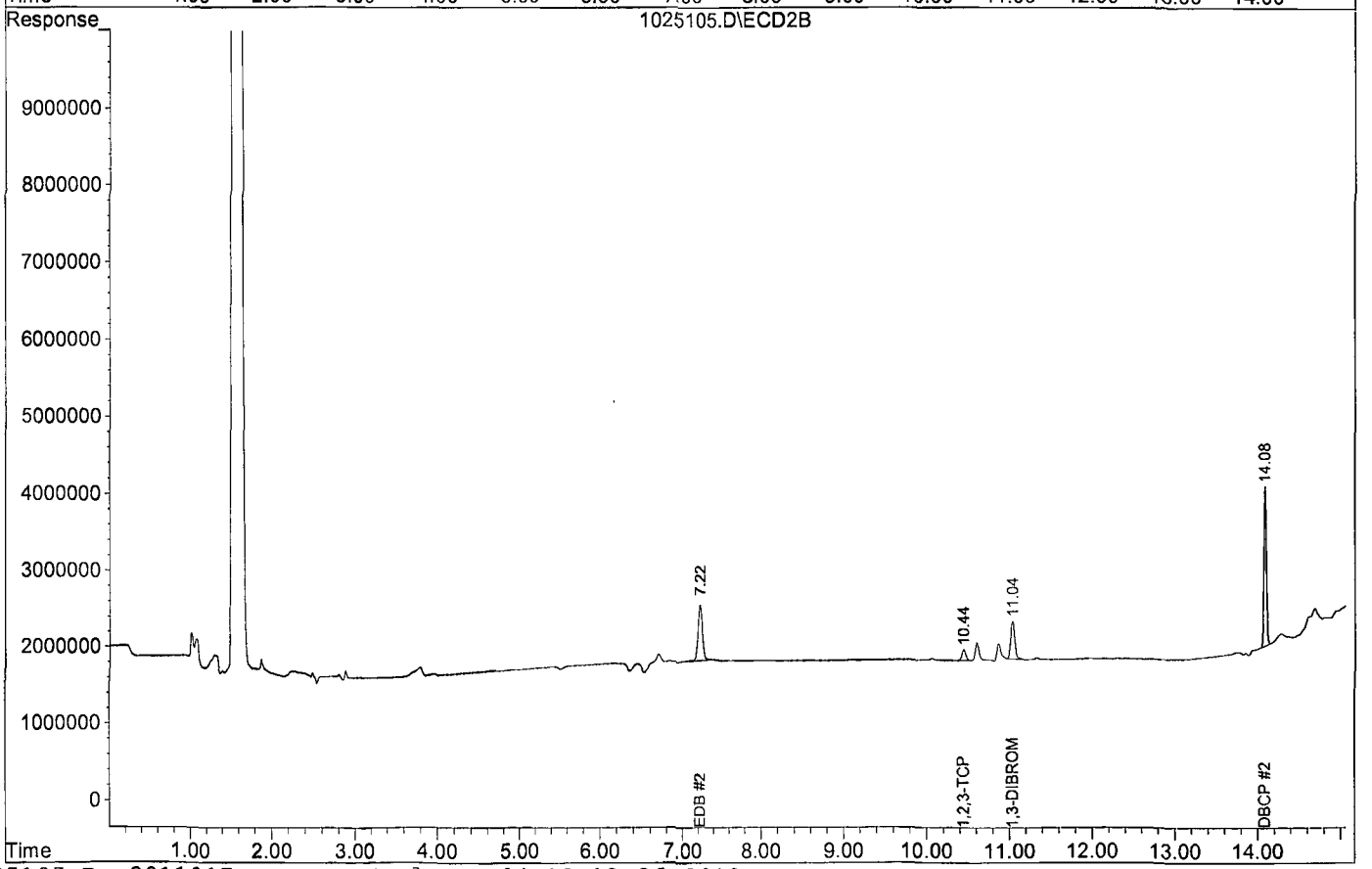
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (Not Reviewed)

Data File : G:\HERBIE\DATA\191025\1025105.D
Acq On : 10-31-19 21:38:04
Sample : 8011 2 9/17/19
Misc : water
Quant Method : G:\HERBIE\DATA\190916\8011917A.M

Vial: 5
Operator: MA,SS
Inst : Herbie
Multiplr: 1.00





DBCP/EDB/1,2,3-TCP Analysis by
504 8011

Form 7

Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix: Water

SDG No:
Date Analyzed: 11/01/19
Instrument: Herbie
Initial Cal. Date: 10/04/19
Data File: 1025113.D

		Compound	MEAN	CCRF	%D		%Drift
1	TM	EDB	837174	920745	10	TM	
2	TM	1,2,3-TCP	244943	258900	5.7	TM	
3	S	1,3-DIBROMOPROPANE(S)	911966	1045000	15	S	
4	TM	DBCP	3192970	3135630	1.8	TM	
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39							
40							
		Average			8.1		

DBCP/EDB/1,2,3-TCP Analysis by
504 8011

Form 7

Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix: Water

SDG No:
Date Analyzed: 11/01/19
Instrument: Herbie
Cal. Date: 10/04/19
Data File: 1025113.D

		Compound	MEAN	CCRF	%D		%Drift
41	TM	EDB	3415500	3664800	7.3	TM	
42	TM	1,2,3-TCP	633618	690030	8.9	TM	
43	S	1,3-DIBROMOPROPANE(S)	2203970	2477380	12	S	
44	TM	DBCP	9617350	10730400	12	TM	
45							
46							
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80							
		Average			10.1		

Quantitation Report (Not Reviewed)

Signal #1 : G:\HERBIE\DATA\191025\1025113.D\ECD1A.CH Vial: 13
Signal #2 : G:\HERBIE\DATA\191025\1025113.D\ECD2B.CH
Acq On : 11-01-19 0:17:46 Operator: MA,SS
Sample : 8011 2 9/17/19 Inst : Herbie
Misc : water Multiplr: 1.00
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Nov 1 12:05 2019 Quant Results File: 8011917A.RES

Quant Method : G:\HERBIE\DATA\190916\8011917A.M (RTE Integrator)
Title : 504.1 OR 8011
Last Update : Sun Oct 06 12:43:10 2019
Response via : Initial Calibration
DataAcq Meth : DOHS504.M

Volume Inj. : 2µL
Signal #1 Phase : DB-35MS Signal #2 Phase: DB-XLB
Signal #1 Info : 0.25 Signal #2 Info : 0.50

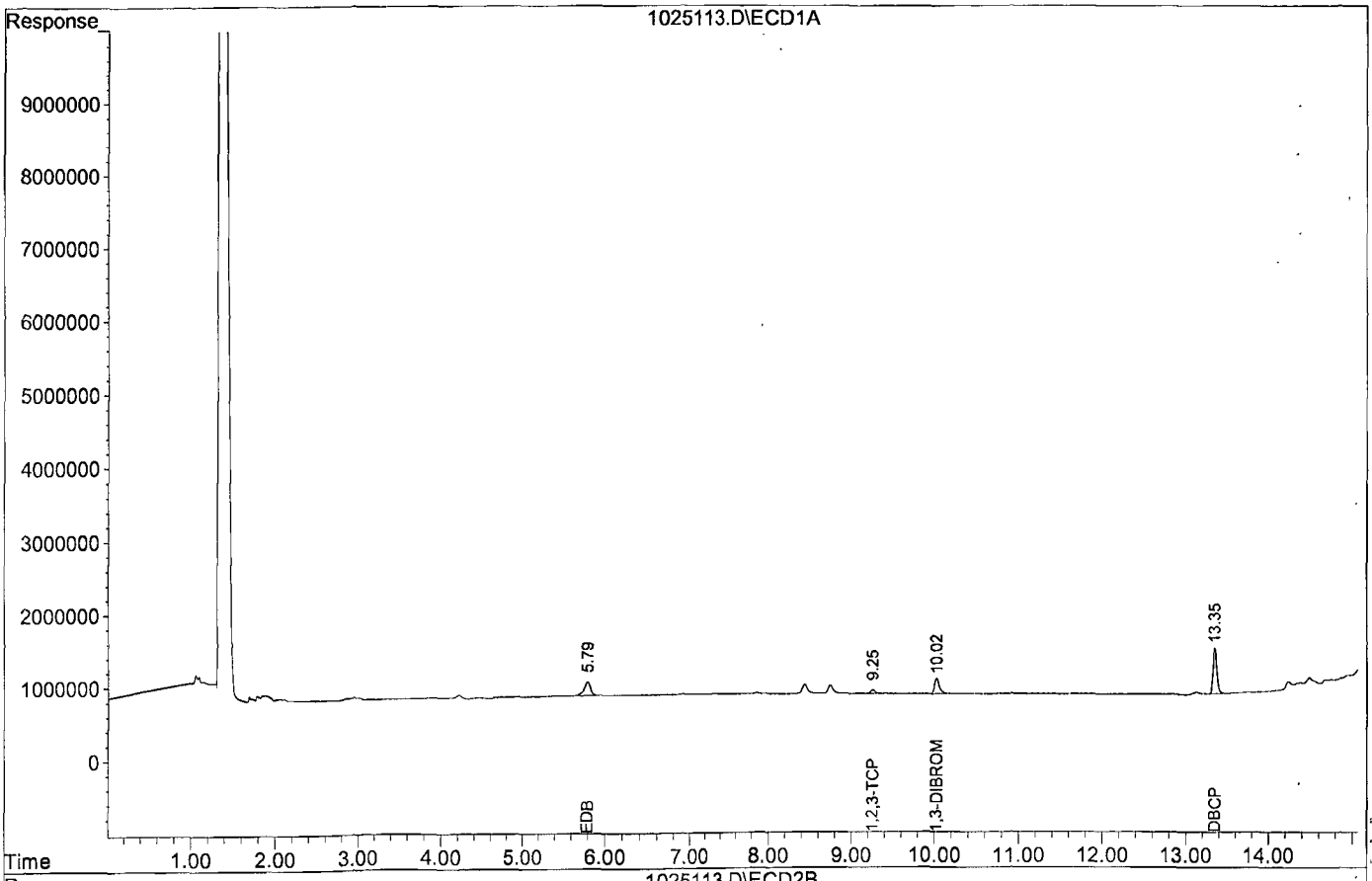
	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
	System Monitoring Compounds						
3) S	1,3-DIBROMOPROPA	10.02	11.04	209000	495475	0.115	0.112
Spiked Amount	0.350			Recovery	=	32.86%	32.00%
	Target Compounds						
1) TM	EDB	5.79	7.22	184149	732960	0.110	0.107
2) TM	1,2,3-TCP	9.25	10.44	51780	138006	0.106	0.109
4) TM	DBCP	13.35	14.08	627126	2146074	0.098	0.112
	Target Compounds						

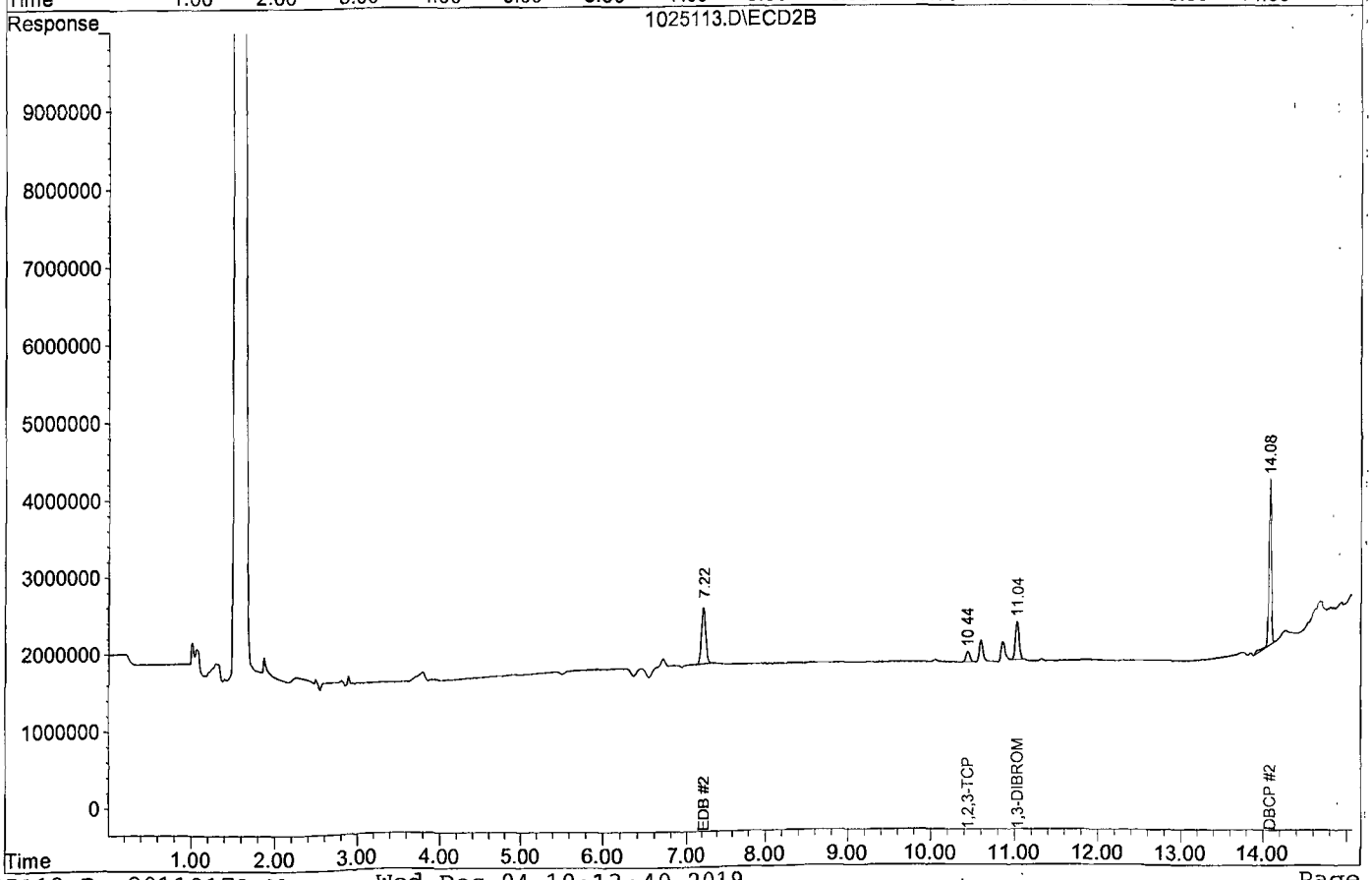
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (Not Reviewed)

Data File : G:\HERBIE\DATA\191025\1025113.D
Acq On : 11-01-19 0:17:46
Sample : 8011 2 9/17/19
Misc : water
Quant Method : G:\HERBIE\DATA\190916\8011917A.M

Vial: 13
Operator: MA,SS
Inst : Herbie
Multiplr: 1.00





ORGANICS
Raw Data

Quantitation Report (QT Reviewed)

Signal #1 : G:\HERBIE\DATA\191025\1025110.D\ECD1A.CH Vial: 10
Signal #2 : G:\HERBIE\DATA\191025\1025110.D\ECD2B.CH
Acq On : 10-31-19 23:17:51 Operator: MA,SS
Sample : BA02090W01 2/35.00G Inst : Herbie
Misc : water Multiplr: 0.99
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Nov 5 9:21 2019 Quant Results File: 8011917A.RES

Quant Method : G:\HERBIE\DATA\190916\8011917A.M (RTE Integrator)
Title : 504.1 OR 8011
Last Update : Sun Oct 06 12:43:10 2019
Response via : Initial Calibration
DataAcq Meth : DOHS504.M

Volume Inj. : 2µL
Signal #1 Phase : DB-35MS Signal #2 Phase: DB-XLB
Signal #1 Info : 0.25 Signal #2 Info : 0.50

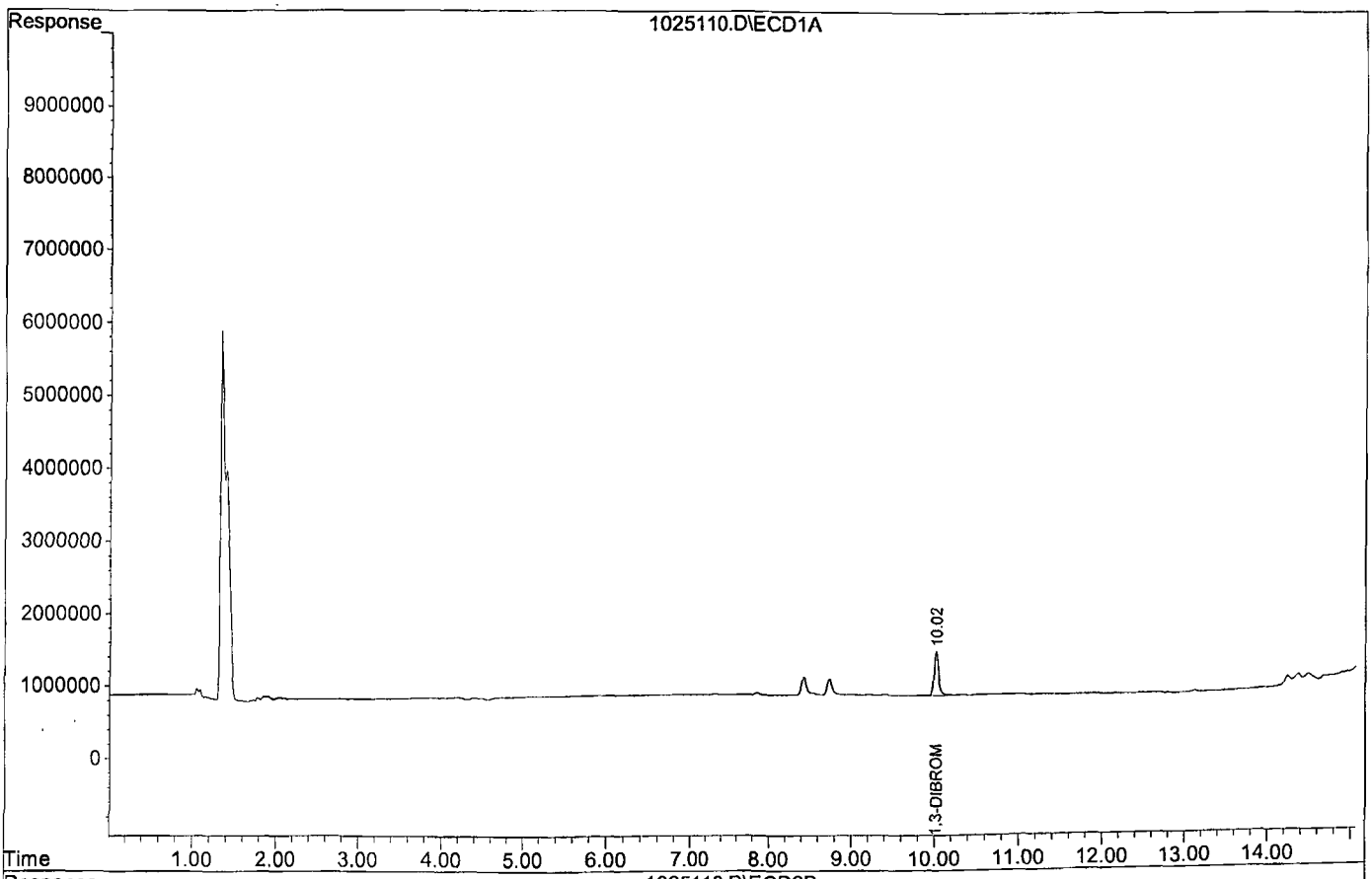
	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
	System Monitoring Compounds						
3)	S 1,3-DIBROMOPROPA	10.02	11.03	612101	1665147	0.333	0.374
	Spiked Amount 0.347			Recovery	=	96.01%	107.83%
	Target Compounds						
	Target Compounds						
1)	TM EDB	0.00	0.00	0	0	N.D. d	N.D. d
2)	TM 1,2,3-TCP	0.00	0.00	0	0	N.D. d	N.D. d
4)	TM DBCP	0.00	0.00	0	0	N.D. d	N.D. d

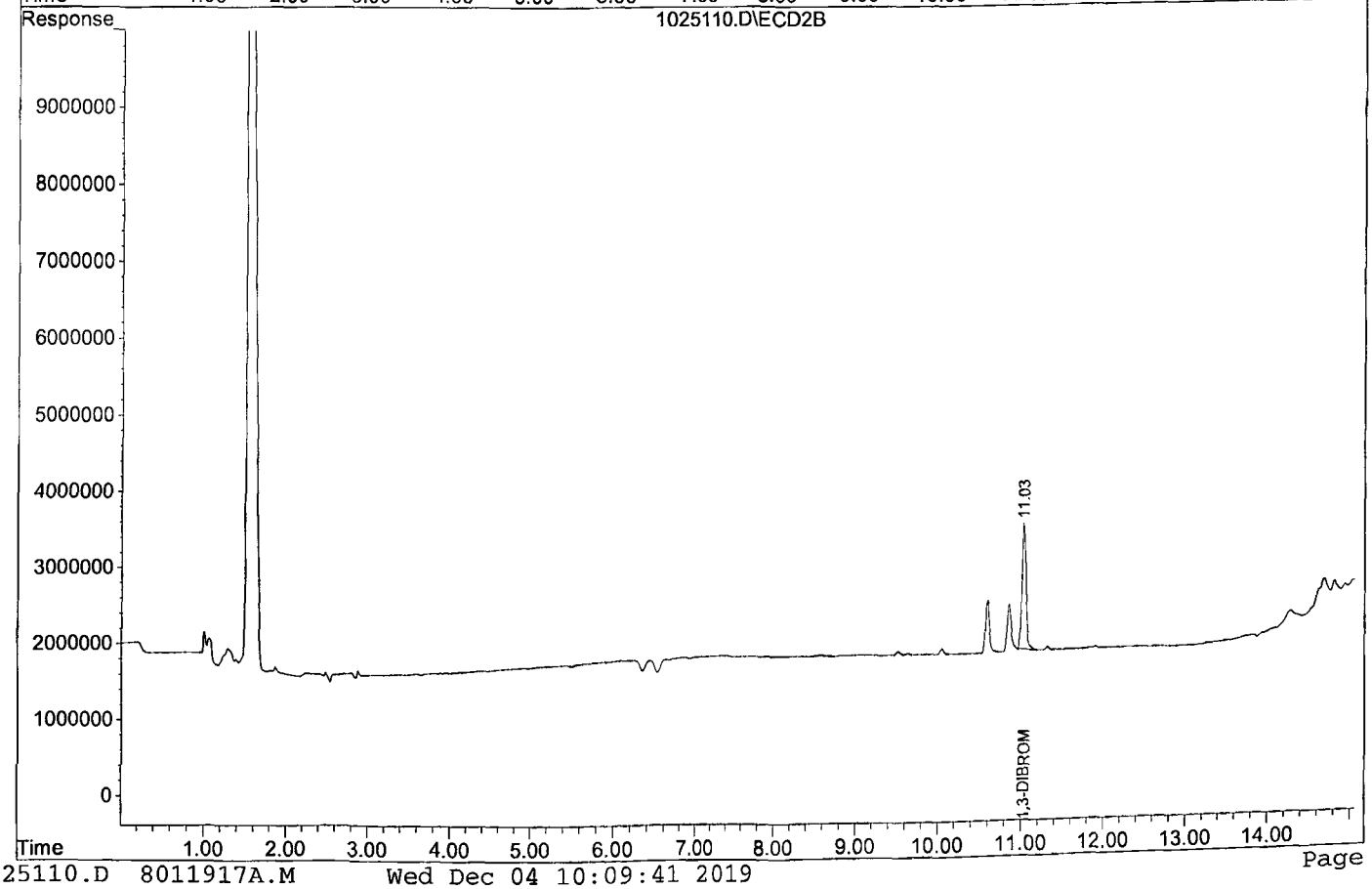
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : G:\HERBIE\DATA\191025\1025110.D
Acq On : 10-31-19 23:17:51
Sample : BA02090W01 2/35.00G
Misc : water
Quant Method : G:\HERBIE\DATA\190916\8011917A.M

Vial: 10
Operator: MA,SS
Inst : Herbie
Multiplr: 0.99





Quantitation Report (QT Reviewed)

Signal #1 : G:\HERBIE\DATA\191025\1025111.D\ECD1A.CH Vial: 11
Signal #2 : G:\HERBIE\DATA\191025\1025111.D\ECD2B.CH
Acq On : 10-31-19 23:37:46 Operator: MA,SS
Sample : BA02091W01 2/35.00G Inst : Herbie
Misc : water Multiplr: 0.99
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Nov 5 9:21 2019 Quant Results File: 8011917A.RES

Quant Method : G:\HERBIE\DATA\190916\8011917A.M (RTE Integrator)
Title : 504.1 OR 8011
Last Update : Sun Oct 06 12:43:10 2019
Response via : Initial Calibration
DataAcq Meth : DOHS504.M

Volume Inj. : 2µL
Signal #1 Phase : DB-35MS Signal #2 Phase: DB-XLB
Signal #1 Info : 0.25 Signal #2 Info : 0.50

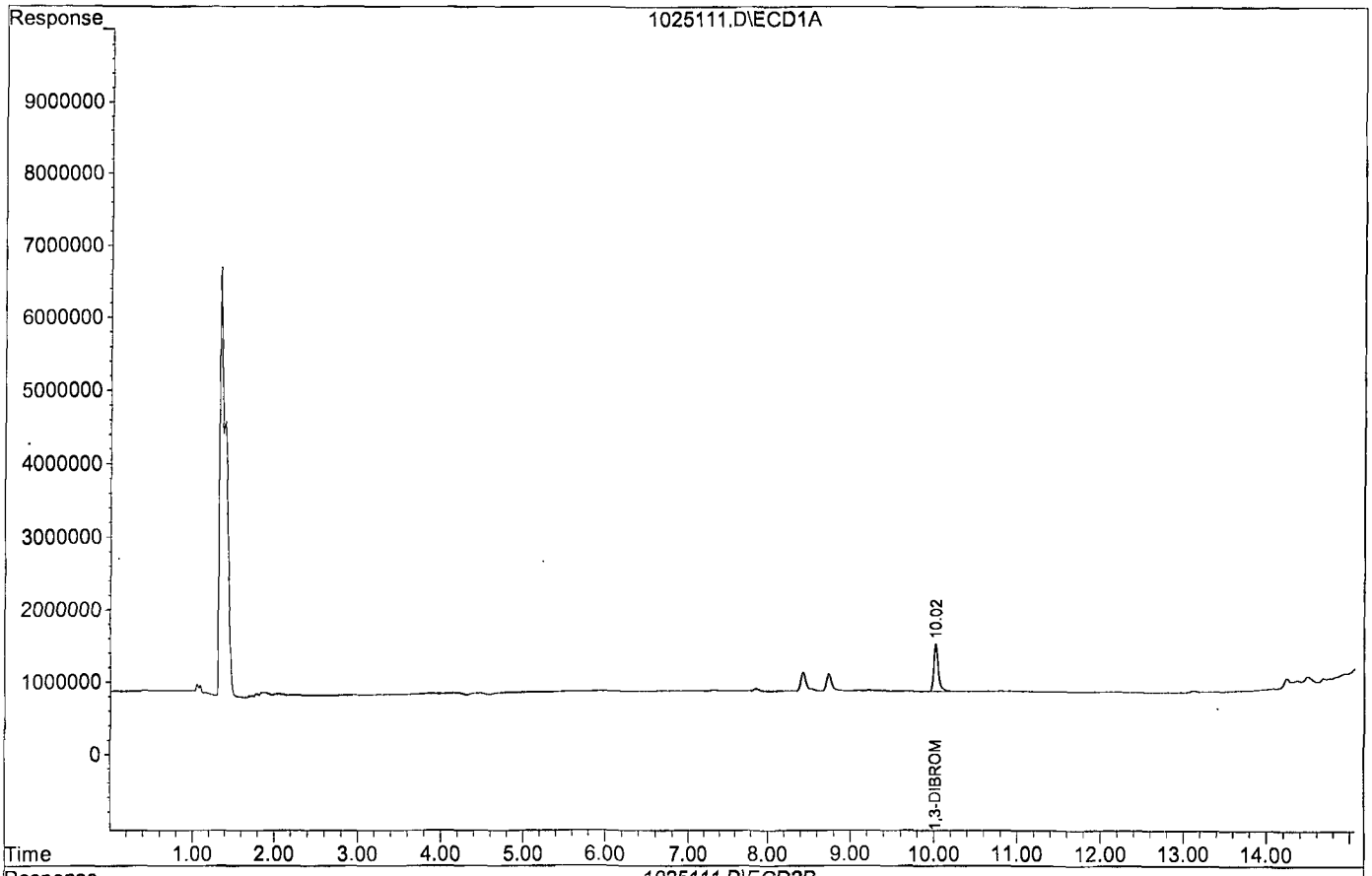
	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
	System Monitoring Compounds						
3) S	1,3-DIBROMOPROPA	10.02	11.03	658356	1750122	0.356	0.392
Spiked Amount	0.346			Recovery	=	102.99%	113.41%
	Target Compounds						
	Target Compounds						
1) TM	EDB	0.00	0.00	0	0	N.D. d	N.D. d
2) TM	1,2,3-TCP	0.00	0.00	0	0	N.D. d	N.D. d
4) TM	DBCP	0.00	0.00	0	0	N.D. d	N.D. d

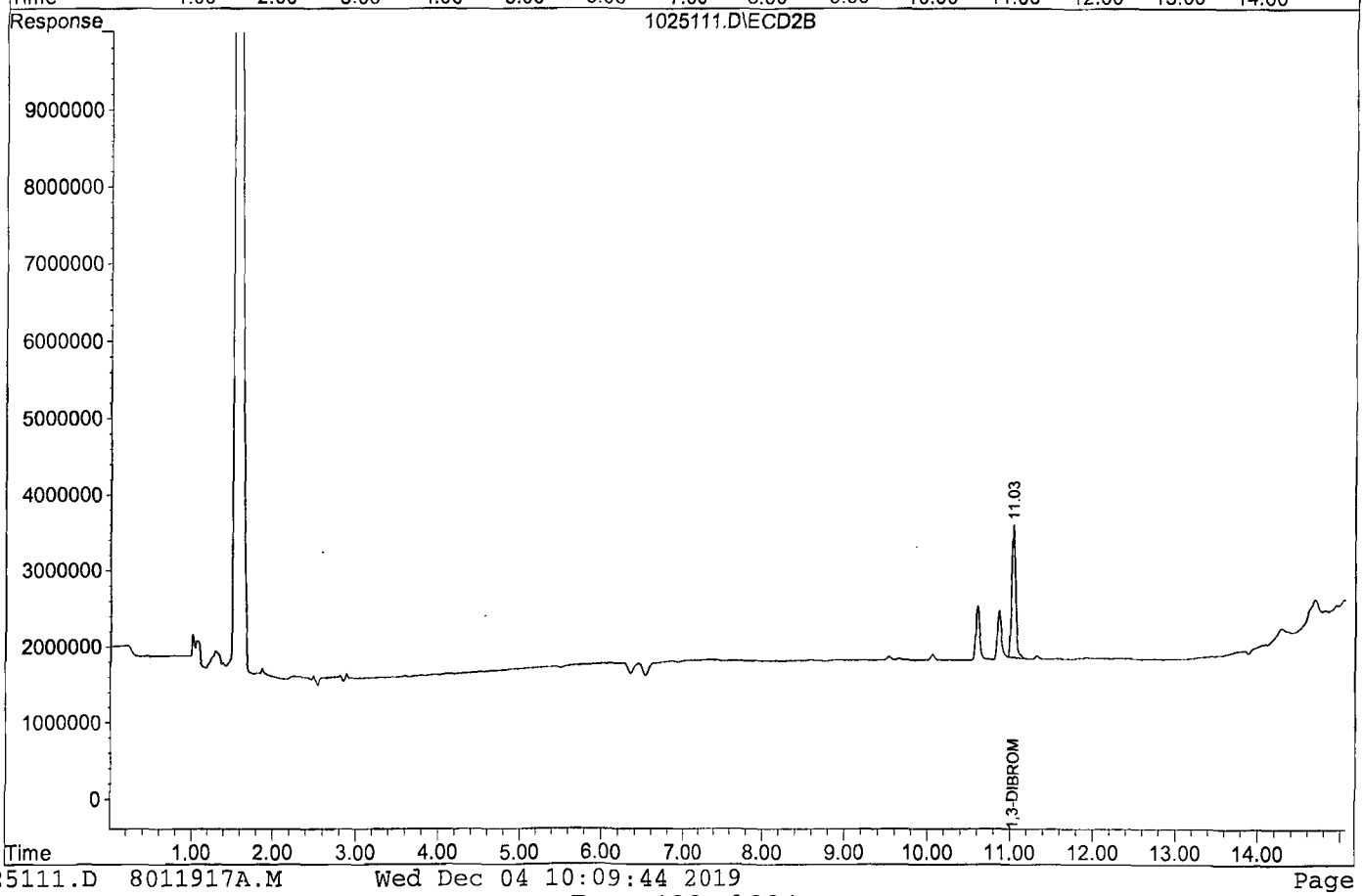
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : G:\HERBIE\DATA\191025\1025111.D
Acq On : 10-31-19 23:37:46
Sample : BA02091W01 2/35.00G
Misc : water
Quant Method : G:\HERBIE\DATA\190916\8011917A.M

Vial: 11
Operator: MA,SS
Inst : Herbie
Multiplr: 0.99





Quantitation Report (QT Reviewed)

Signal #1 : G:\HERBIE\DATA\191025\1025106.D\ECD1A.CH Vial: 6
Signal #2 : G:\HERBIE\DATA\191025\1025106.D\ECD2B.CH
Acq On : 10-31-19 21:58:06 Operator: MA,SS
Sample : 191031A BLK 2/35.00G Inst : Herbie
Misc : water Multiplr: 1.00
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Nov 5 9:19 2019 Quant Results File: 8011917A.RES

Quant Method : G:\HERBIE\DATA\190916\8011917A.M (RTE Integrator)
Title : 504.1 OR 8011
Last Update : Sun Oct 06 12:43:10 2019
Response via : Initial Calibration
DataAcq Meth : DOHS504.M

Volume Inj. : 2µL
Signal #1 Phase : DB-35MS Signal #2 Phase: DB-XLB
Signal #1 Info : 0.25 Signal #2 Info : 0.50

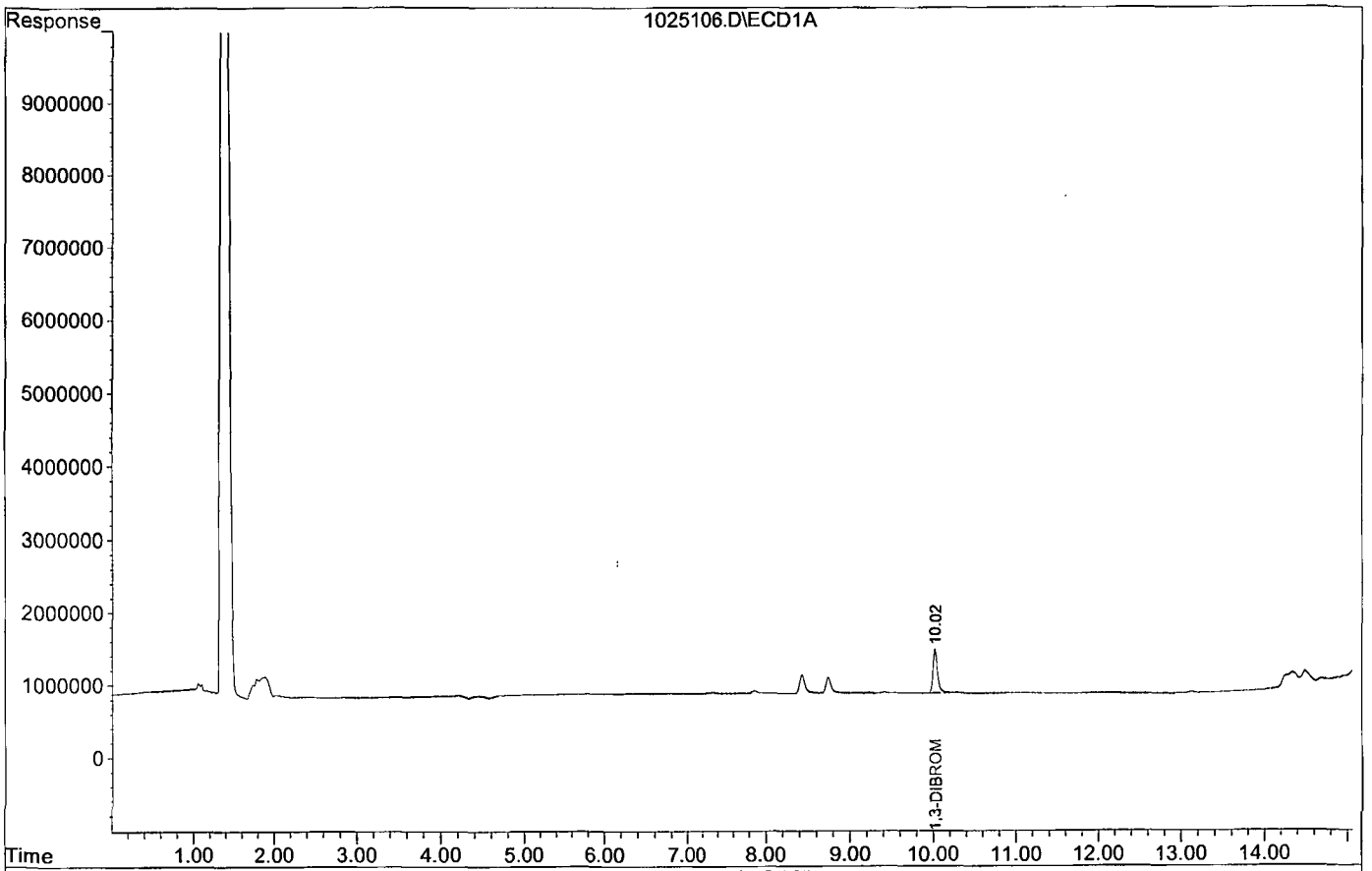
	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
	System Monitoring Compounds						
3) S	1,3-DIBROMOPROPA	10.02	11.04	599270	1601988	0.328	0.362
Spiked Amount	0.349			Recovery	=	94.01%	103.75%
	Target Compounds						
	Target Compounds						
1) TM	EDB	0.00	0.00	0	0	N.D. d	N.D. d
2) TM	1,2,3-TCP	0.00	0.00	0	0	N.D. d	N.D. d
4) TM	DBCP	0.00	0.00	0	0	N.D. d	N.D. d

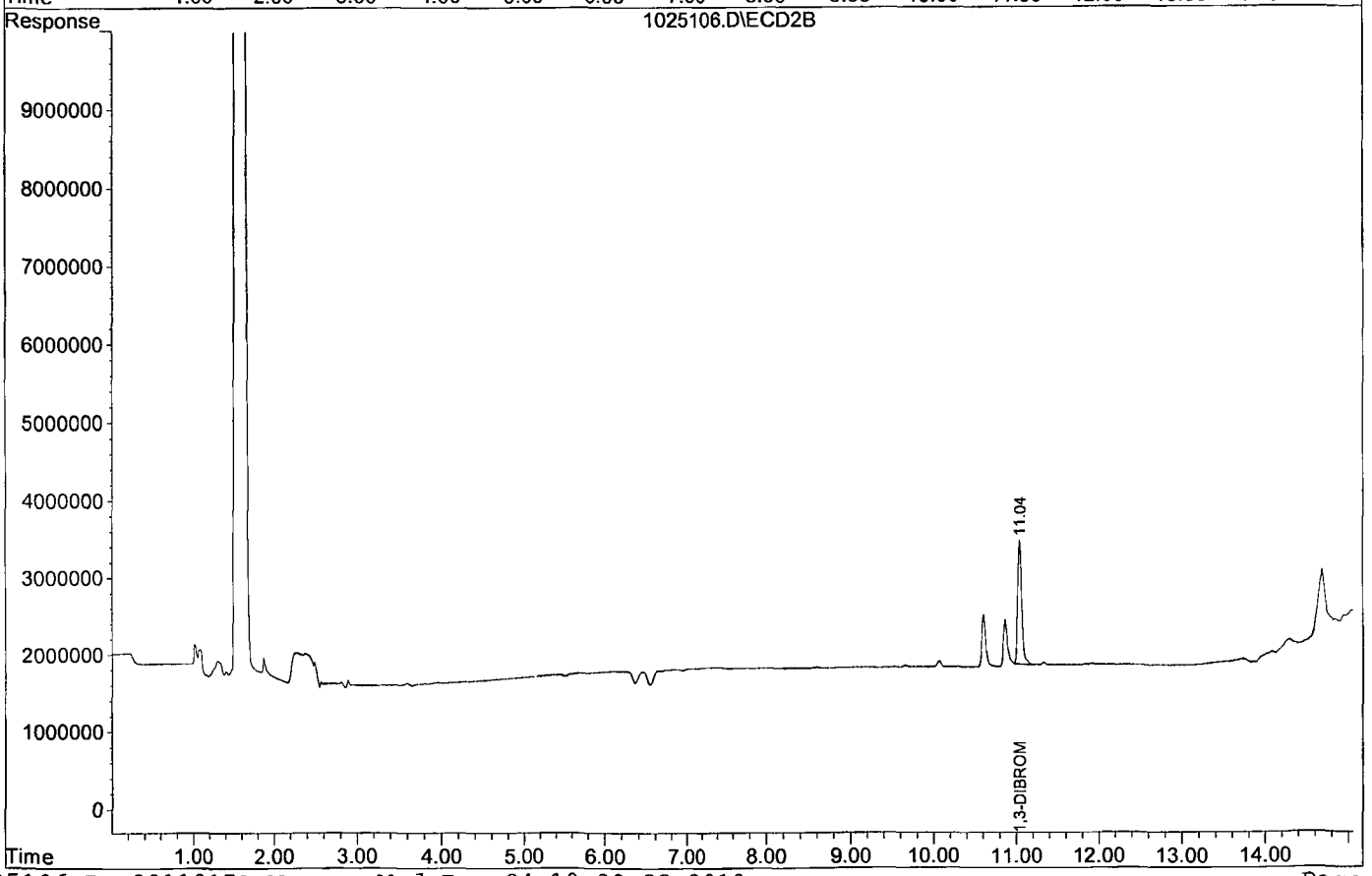
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : G:\HERBIE\DATA\191025\1025106.D
Acq On : 10-31-19 21:58:06
Sample : 191031A BLK 2/35.00G
Misc : water
Quant Method : G:\HERBIE\DATA\190916\8011917A.M

Vial: 6
Operator: MA,SS
Inst : Herbie
Multiplr: 1.00





Quantitation Report (Not Reviewed)

Signal #1 : G:\HERBIE\DATA\191025\1025107.D\ECD1A.CH Vial: 7
Signal #2 : G:\HERBIE\DATA\191025\1025107.D\ECD2B.CH
Acq On : 10-31-19 22:18:02 Operator: MA,SS
Sample : 191031A LCS-1 2/35.00G Inst : Herbie
Misc : water Multiplr: 0.99
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Nov 5 9:19 2019 Quant Results File: 8011917A.RES

Quant Method : G:\HERBIE\DATA\190916\8011917A.M (RTE Integrator)
Title : 504.1 OR 8011
Last Update : Sun Oct 06 12:43:10 2019
Response via : Initial Calibration
DataAcq Meth : DOHS504.M

Volume Inj. : 2µL
Signal #1 Phase : DB-35MS Signal #2 Phase: DB-XLB
Signal #1 Info : 0.25 Signal #2 Info : 0.50

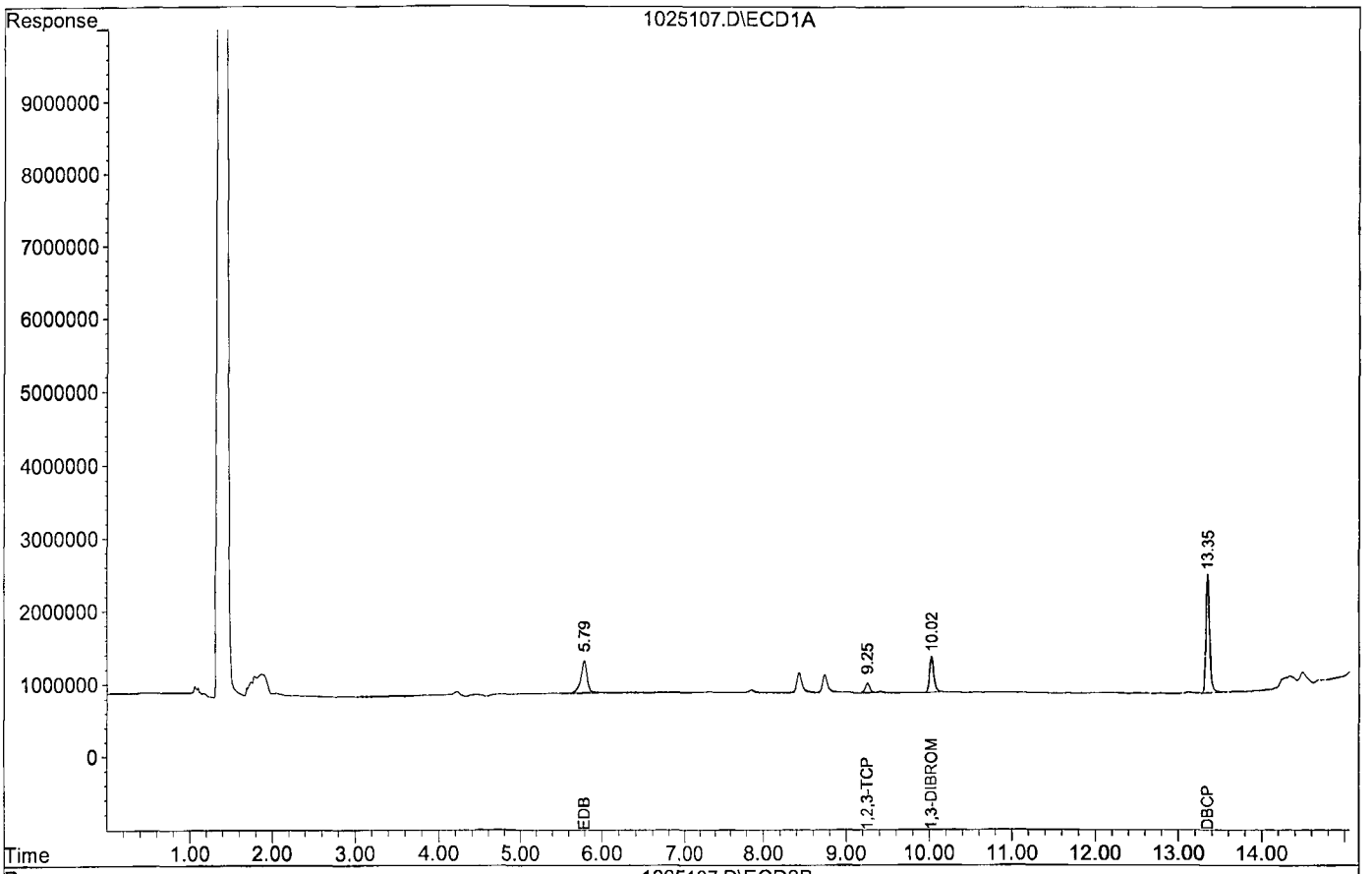
	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
	System Monitoring Compounds						
3) S	1,3-DIBROMOPROPA	10.02	11.04	485583	1268502	0.265	0.286
Spiked Amount	0.348			Recovery	=	76.17%	82.20%
	Target Compounds						
1) TM	EDB	5.79	7.22	433141	1743076	0.257	0.254
2) TM	1,2,3-TCP	9.25	10.44	126208	358535	0.256	0.281
4) TM	DBCP	13.35	14.08	1621367	5645297	0.252	0.292
	Target Compounds						

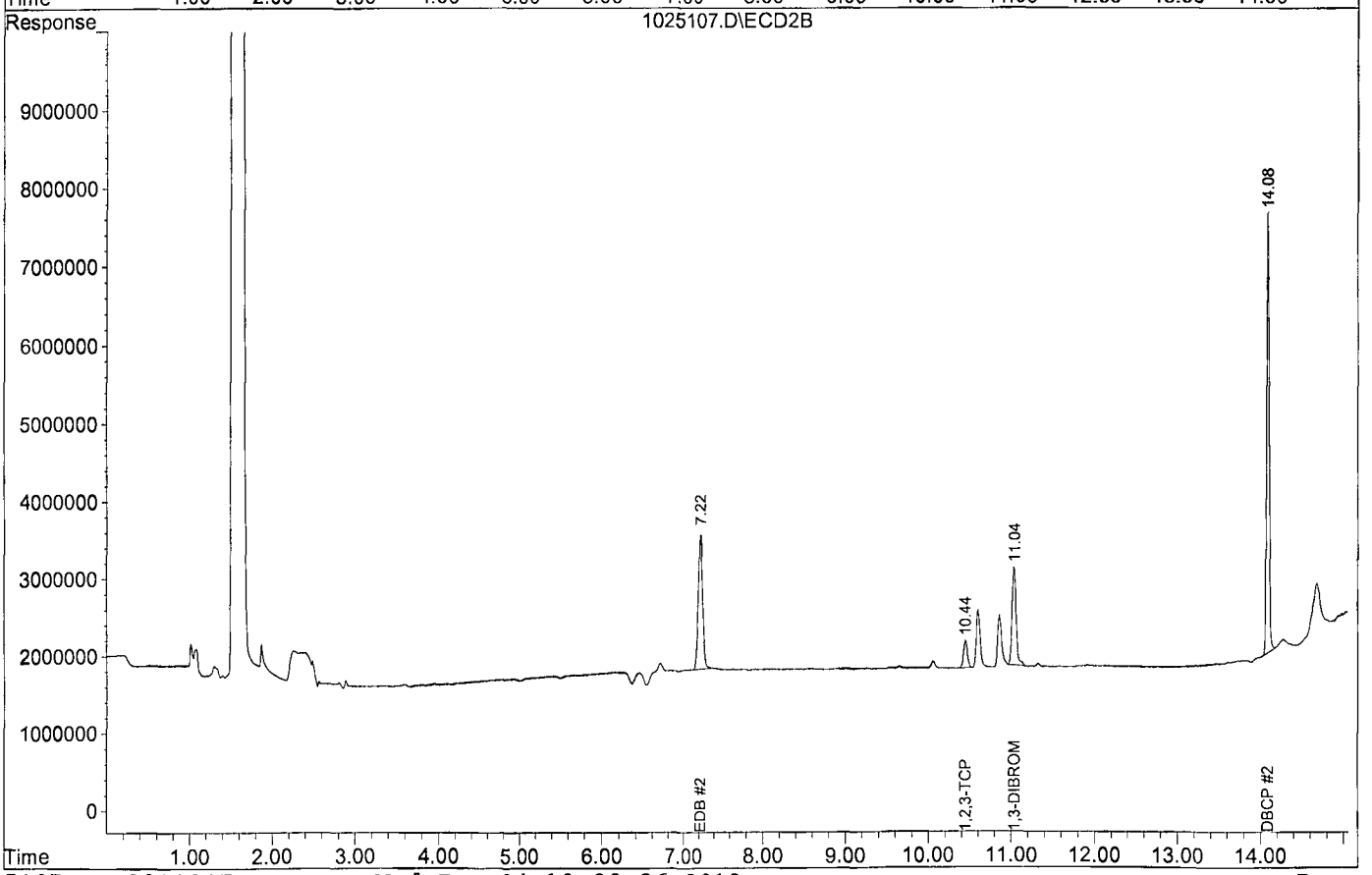
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (Not Reviewed)

Data File : G:\HERBIE\DATA\191025\1025107.D
Acq On : 10-31-19 22:18:02
Sample : 191031A LCS-1 2/35.00G
Misc : water
Quant Method : G:\HERBIE\DATA\190916\8011917A.M

Vial: 7
Operator: MA,SS
Inst : Herbie
Multiplr: 0.99





Quantitation Report (Not Reviewed)

Signal #1 : G:\HERBIE\DATA\191025\1025108.D\ECD1A.CH Vial: 8
Signal #2 : G:\HERBIE\DATA\191025\1025108.D\ECD2B.CH
Acq On : 10-31-19 22:37:56 Operator: MA,SS
Sample : 191031A LCSD-1 2/35.00G Inst : Herbie
Misc : water Multiplr: 1.00
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Nov 5 9:19 2019 Quant Results File: 8011917A.RES

Quant Method : G:\HERBIE\DATA\190916\8011917A.M (RTE Integrator)
Title : 504.1 OR 8011
Last Update : Sun Oct 06 12:43:10 2019
Response via : Initial Calibration
DataAcq Meth : DOHS504.M

Volume Inj. : 2µL
Signal #1 Phase : DB-35MS Signal #2 Phase: DB-XLB
Signal #1 Info : 0.25 Signal #2 Info : 0.50

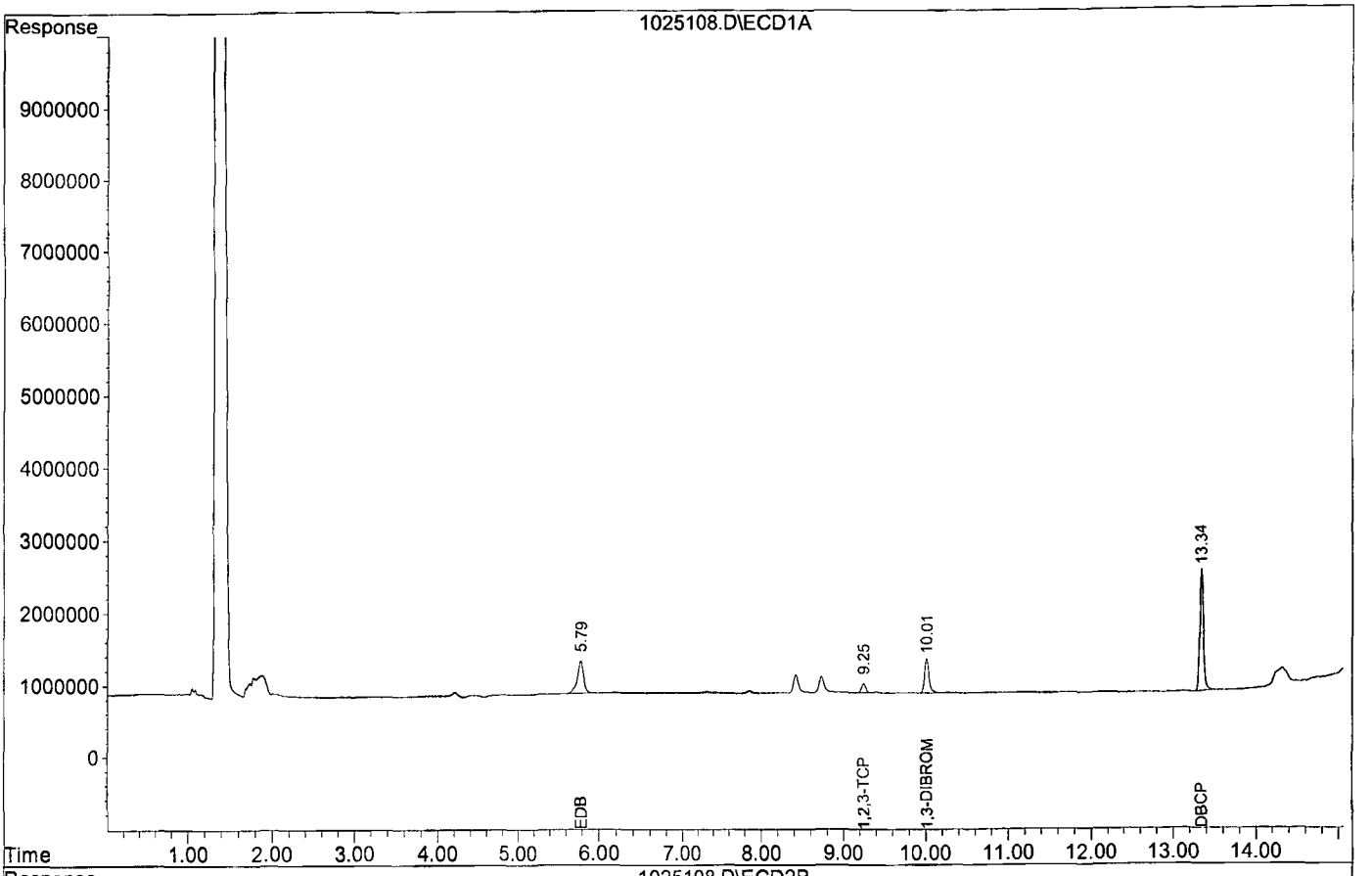
	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
	System Monitoring Compounds						
3) S	1,3-DIBROMOPROPA	10.01	11.03	481350	1260429	0.263	0.285
Spiked Amount	0.348			Recovery	=	75.49%	81.80%
	Target Compounds						
1) TM	EDB	5.79	7.22	444936	1762759	0.265	0.257
2) TM	1,2,3-TCP	9.25	10.44	129114	354462	0.262	0.278
4) TM	DBCP	13.34	14.08	1668084	5895544	0.260	0.305
	Target Compounds						

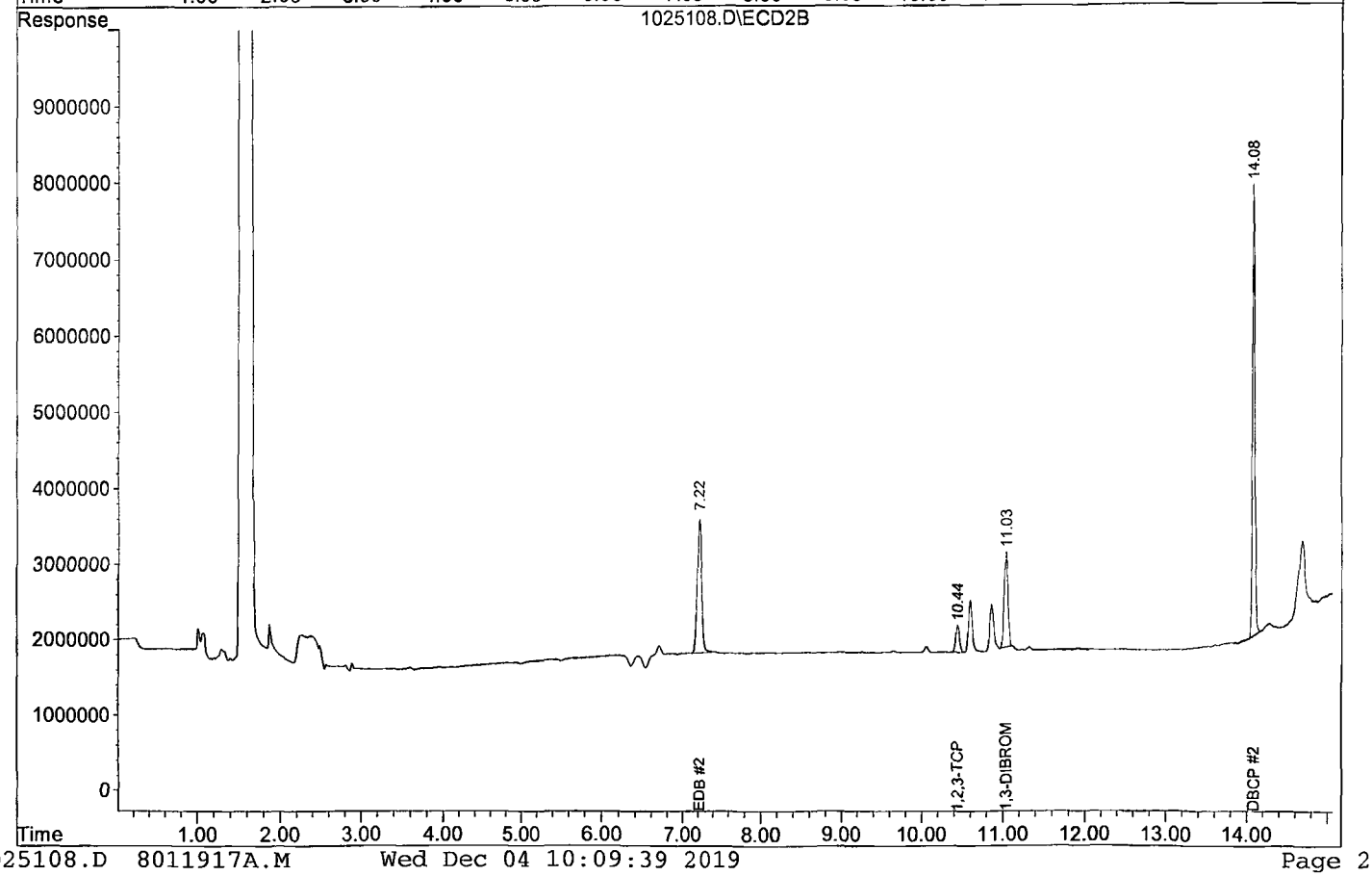
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (Not Reviewed)

Data File : G:\HERBIE\DATA\191025\1025108.D
Acq On : 10-31-19 22:37:56
Sample : 191031A LCSD-1 2/35.00G
Misc : water
Quant Method : G:\HERBIE\DATA\190916\8011917A.M

Vial: 8
Operator: MA,SS
Inst : Herbie
Multiplr: 1.00





Name of Final Standard 504/8011 Stock **Prep'd By (Initials)** GA

Prep Date 09/09/19

Exp Date 01/06/20

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from container Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
504/DOHS Stock	APPL	504/DOHS Stock	20 ug/mL	05/07/19	04/10/20	175 uL	10 mL	Methanol #208858	0.35 ug/mL
1,3 DBP Stock	APPL	1,3 DBP Stock	100 ug/mL	05/07/19	01/06/20	35 uL	"	"	"

Name of Final Standard 504/8011 Spike **Prep'd By (Initials)** GA

Prep Date 09/09/19

Exp Date 01/06/20

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from container Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
504/8011 Stock	APPL	504/8011 Stock	0.35 ug/mL	09/09/19	01/06/20	1000 uL	10 mL	Methanol #208858	0.035 ug/mL

Name of Final Standard 504/8011 Surrogate **Prep'd By (Initials)** GA

Prep Date 09/04/19

Exp Date 01/06/19

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from container Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
1,3 DBP	APPL	1,3 DBP Stock	100 ug/mL	05/07/19	01/06/20	35 uL	10 mL	Methanol #208858	0.35ug/ml

Organic Extraction Worksheet

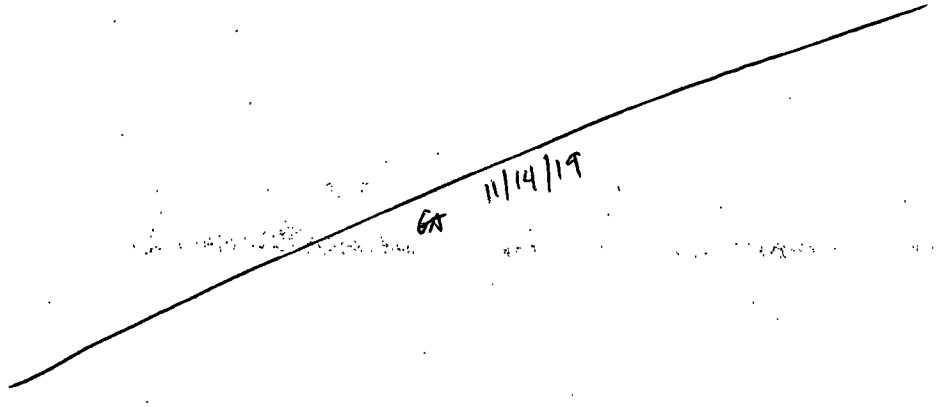
Method	EPA Method 8011 DBCP/EDB	Extraction Set	191031A	Extraction Method	MWE012	Units	mL

Spiked ID 1	504.1 M. SPIKE 09/09/19 EXP 01/06/20		Surrogate ID 1	504.1 Surrogate 09/04/19 EXP 01/06/20	
Spiked ID 2			Surrogate ID 2		
Spiked ID 3			Surrogate ID 3		
Spiked ID 4			Surrogate ID 4		
Spiked ID 5			Surrogate ID 5		
Spiked ID 6			Sufficient Vol for Matrix QC:		
Spiked ID 7			Ext. Start Time:	10/31/19 15:15	
Spiked ID 8			Ext. End Time:	10/31/19 15:35	
			GC Requires Extract By:		

pH1			Water Bath Temp 1 °C	
pH2			Water Bath Temp 2 °C	
pH3			Water Bath Temp 3 °C	

Spiked By: DL **Date** 10/31/19 3:15:00 PM **Witnessed By:** RB **Date** 11/14/19 5:02:21 PM

	Sample	Sample Container	Spike Amount	Spike ID	Surrogate Amount	Surrogate ID	Extract Amount	Final Volume	pH	Extract Date/Time	Comments
1	191031A Blk				0.035	1 equip	35.11g	2	7	10/31/19 15:15	
2	191031A LCS-1		0.250	1	NA	NA equip	35.21g	2	7	10/31/19 15:15	
3	191031A LCSD-1		0.250	1	NA	NA equip	35.16g	2	7	10/31/19 15:15	
4	BA01783	BA01783W07			0.035	1 equip	35.61g	2	7	10/31/19 15:15	90551
5	BA02090	BA02090W06			0.035	1 equip	35.32g	2	7	10/31/19 15:15	90587
6	BA02091	BA02091W07			0.035	1 equip	35.44g	2	7	10/31/19 15:15	90587
7	M STD 1		0.020	1	NA	NA equip	35.06g	2	7	10/31/19 15:15	



Solvent and Lot#	
ph strip	HC863463
Sod. Thiosulfate	1016C241
NaCL	19A035211
GC2 Hexane (2mLs)	DT947

Extraction COC Transfer	
Extraction lab employee Initials	DL
GC analyst's initials	GA
Date	10/31/19
Time	15:00
Refrigerator	Hobart

	Technician's Initials
Scanned By	DL
Sample Preparation	DL
Extraction	DL
Concentration	DL

Modified	11/14/19 5:00:07 PM

Reviewed By: ga **Date** 11/14/19

Injection Log

Directory: G:\HERBIE\DATA\190916\

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	68	0916268.D	1	8011 1 9/17/19	water	10-04-19 19:08:08
2	69	0916269.D	1	8011 2 9/17/19	water	10-04-19 19:28:36
3	70	0916270.D	1	8011 3 9/17/19	water	10-04-19 19:49:11
4	71	0916271.D	1	8011 4 9/17/19	water	10-04-19 20:09:38
5	72	0916272.D	1	8011 5 9/17/19	water	10-04-19 20:30:00
6	73	0916273.D	1	8011 6 9/17/19	water	10-04-19 20:50:31
7	74	0916274.D	1	8011 SS 9/17/19	water	10-04-19 21:10:52
8	5	1025105.D	1	8011 2 9/17/19	water	10-31-19 21:38:04
9	6	1025106.D	0.99687	191031A BLK 2/35.00G	water	10-31-19 21:58:06
10	7	1025107.D	0.99404	191031A LCS-1 2/35.00G	water	10-31-19 22:18:02
11	8	1025108.D	0.99545	191031A LCSD-1 2/35.00G	water	10-31-19 22:37:56
12	10	1025110.D	0.99094	BA02090W01 2/35.00G	water	10-31-19 23:17:51
13	11	1025111.D	0.98758	BA02091W01 2/35.00G	water	10-31-19 23:37:46
14	13	1025113.D	1	8011 2 9/17/19	water	11-01-19 0:17:46

ORGANICS
Calibration Data

TPH Extractables
DOC1114

Form 6
Initial Calibration

Lab Name: APPL, Inc.
Case No:
Matrix: Water

SDG No:
Initial Cal. Date: 11/14/19
Instrument: Apollo

Initials: BST

		Compound	1	2	3	4	5	6					Avg	%RSD	Type	r^2	Q
			1114003 D	1114004.D	1114005 D	1114006 D	1114007.D	1114008.D									
1	HATM	Diesel (C10-C24)	2027964	1336430	1489661	1454530	1384113	1359697					1508733	17	HATM		
2	HBTM	Motor Oil (C24-C40)	776455	819947	771703	744158	810038	798760					786843	3.6	HBTM		
3	SAL	Ortho-Terphenyl(S)	2345827	1504455	1492939	1513819	1376726	1360942					1599118	23	SA	0.997	
4	SA	Octacosane(S)	1517911	1093917	1010508	997320	1111697	1064489					1132640	17	SA		
5																	
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1.749733

Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\191114\1114003.D Vial: 3
Acq On : 11-14-19 19:39:49 Operator: BT
Sample : Diesel Motor Oil - 1 11/14/19 Inst : Apollo
Misc : water Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 15 9:20 2019 Quant Results File: DOC1114.RES

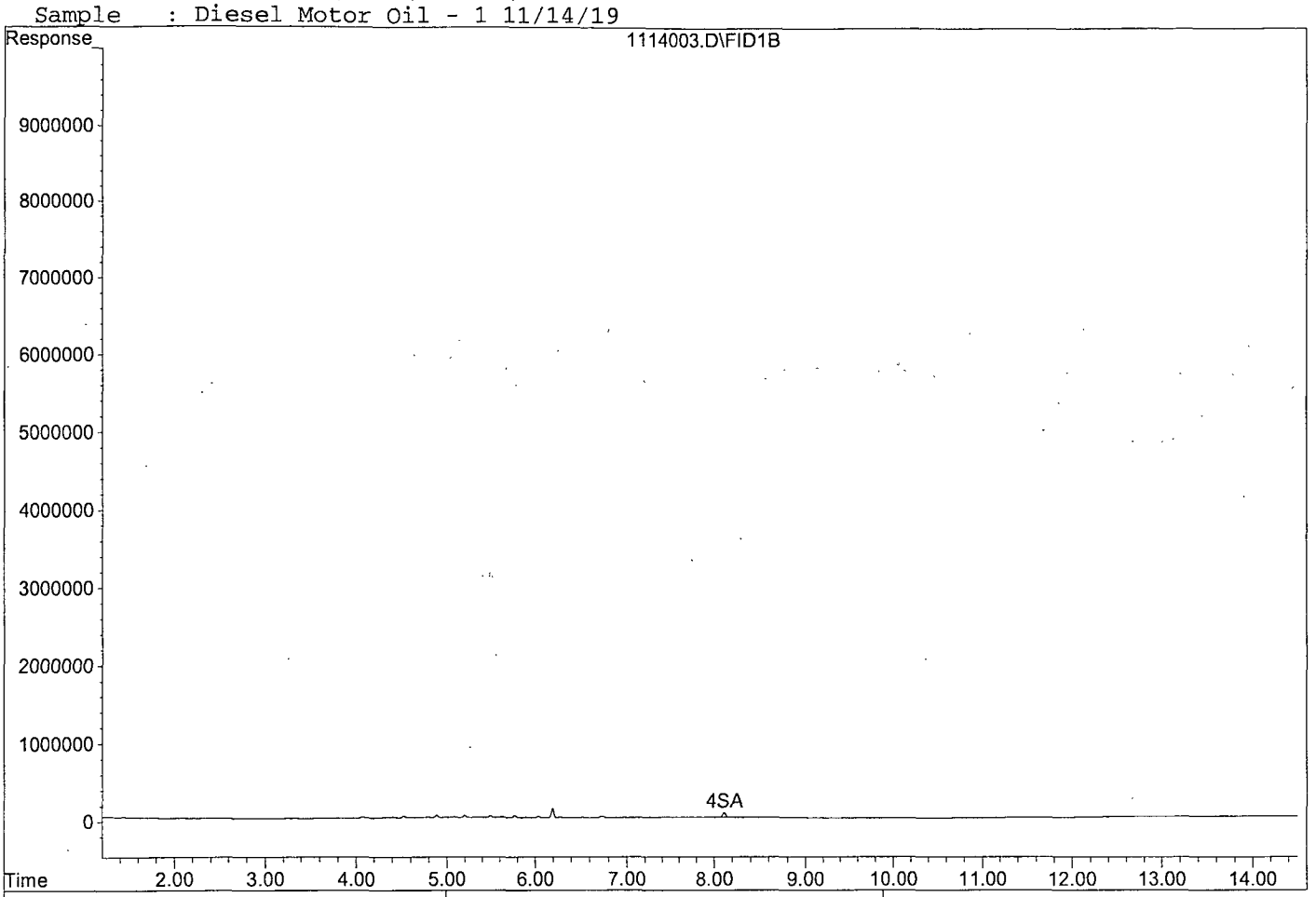
Method : G:\APOLLO\DATA\191114\DOC1114.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Nov 15 09:19:04 2019
Response via : Multiple Level Calibration

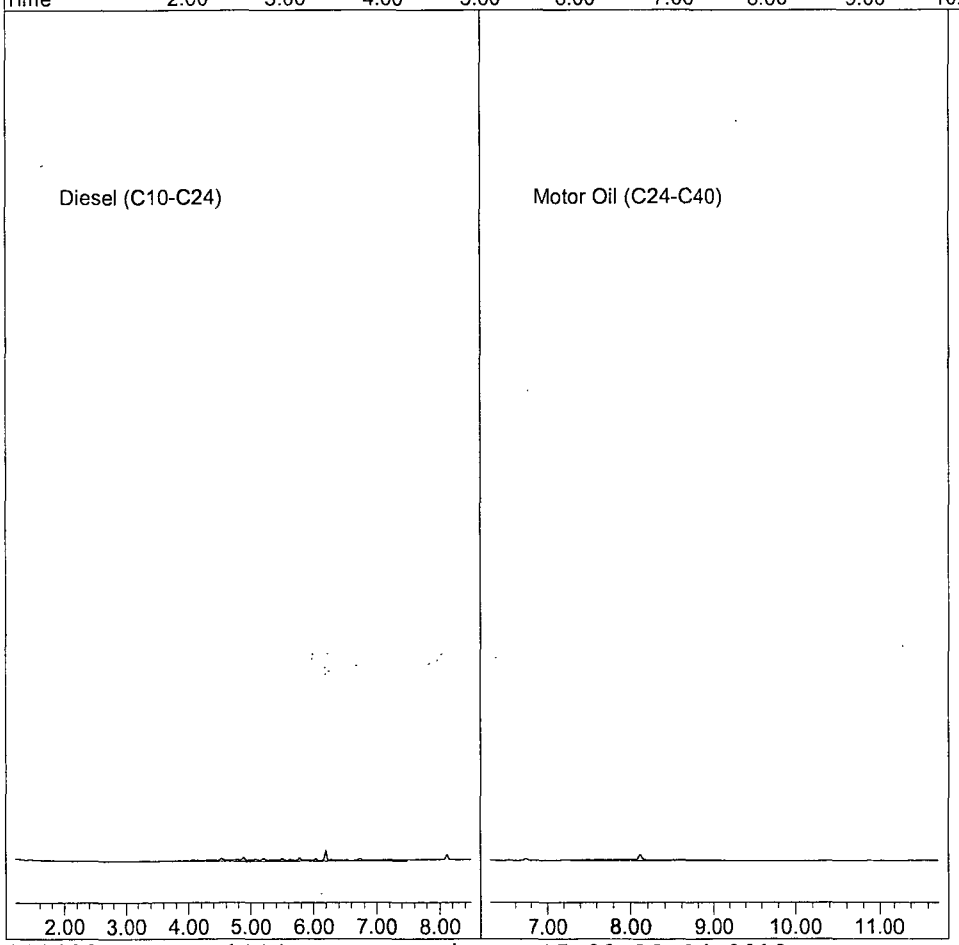
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) SA Ortho-Terphenyl(S)	6.20	2345827	N.D. ppb
Surrogate Spike 30.000	Recovery =		0.00%
4) SA Octacosane(S)	8.11	1517911	0.670 ppb
Surrogate Spike 30.000	Recovery =		2.23%
Target Compounds			
1) HATM Diesel (C10-C24)	4.42	40559274	13.446 ppb
2) HBTM Motor Oil (C24-C40)	9.01	15529092	9.868 ppb
Target Compounds			

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: G:\APOLLO\DATA\191114\1114003.D
Sample : Diesel Motor Oil - 1 11/14/19

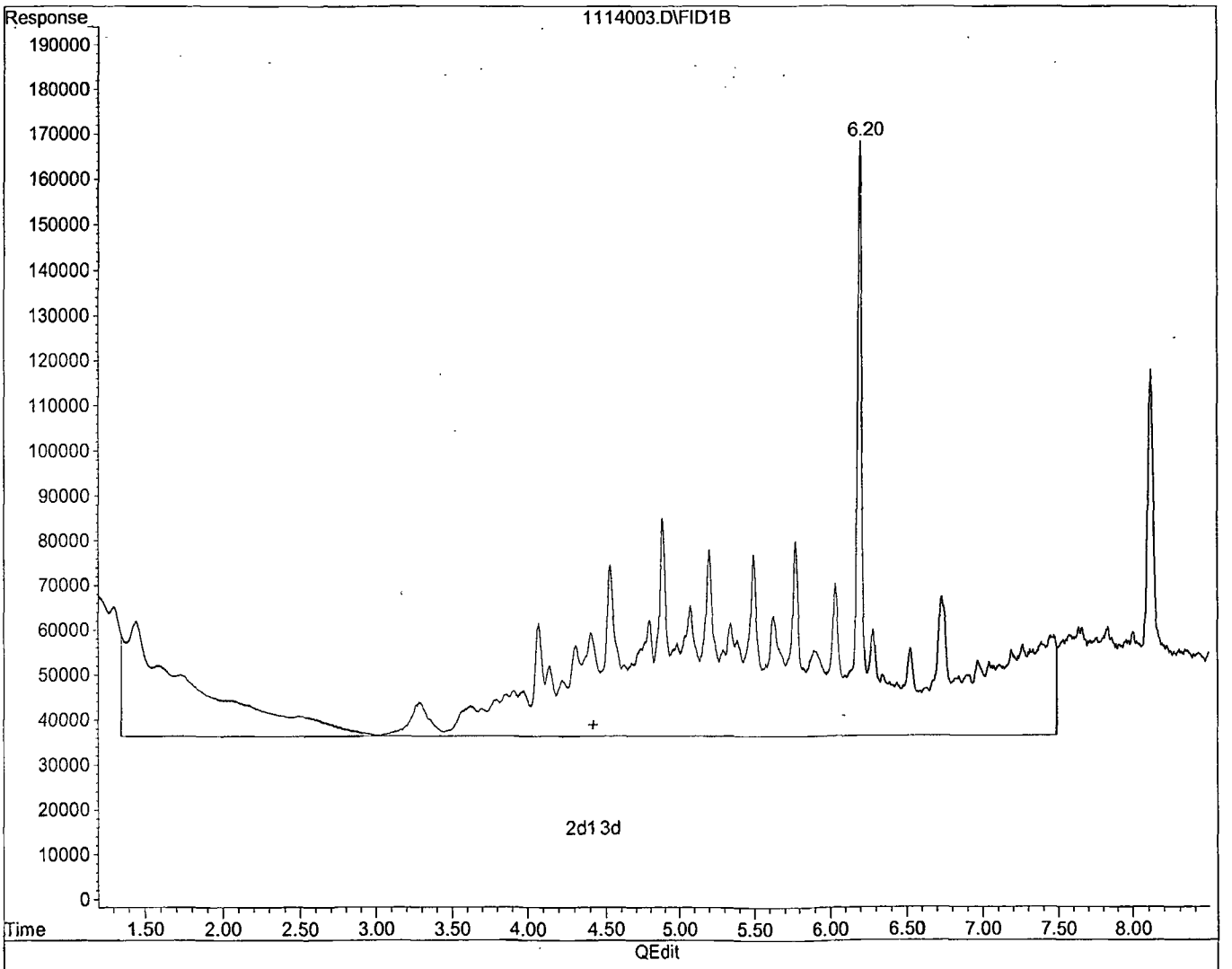




Quantitation Report

Data File : G:\APOLLO\DATA\191114\1114003.D Vial: 3
Acq On : 11-14-19 19:39:49 Operator: BT
Sample : Diesel Motor Oil - 1 11/14/19 Inst : Apollo
Misc : water Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 15 9:19 2019 Quant Results File: DOC1114.RES

Method : G:\APOLLO\DATA\191114\DOC1114.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Nov 15 09:19:04 2019
Response via : Multiple Level Calibration



(1) Diesel (C10-C24) (HATM)

4.42min 16.132ppb m

response 48662424

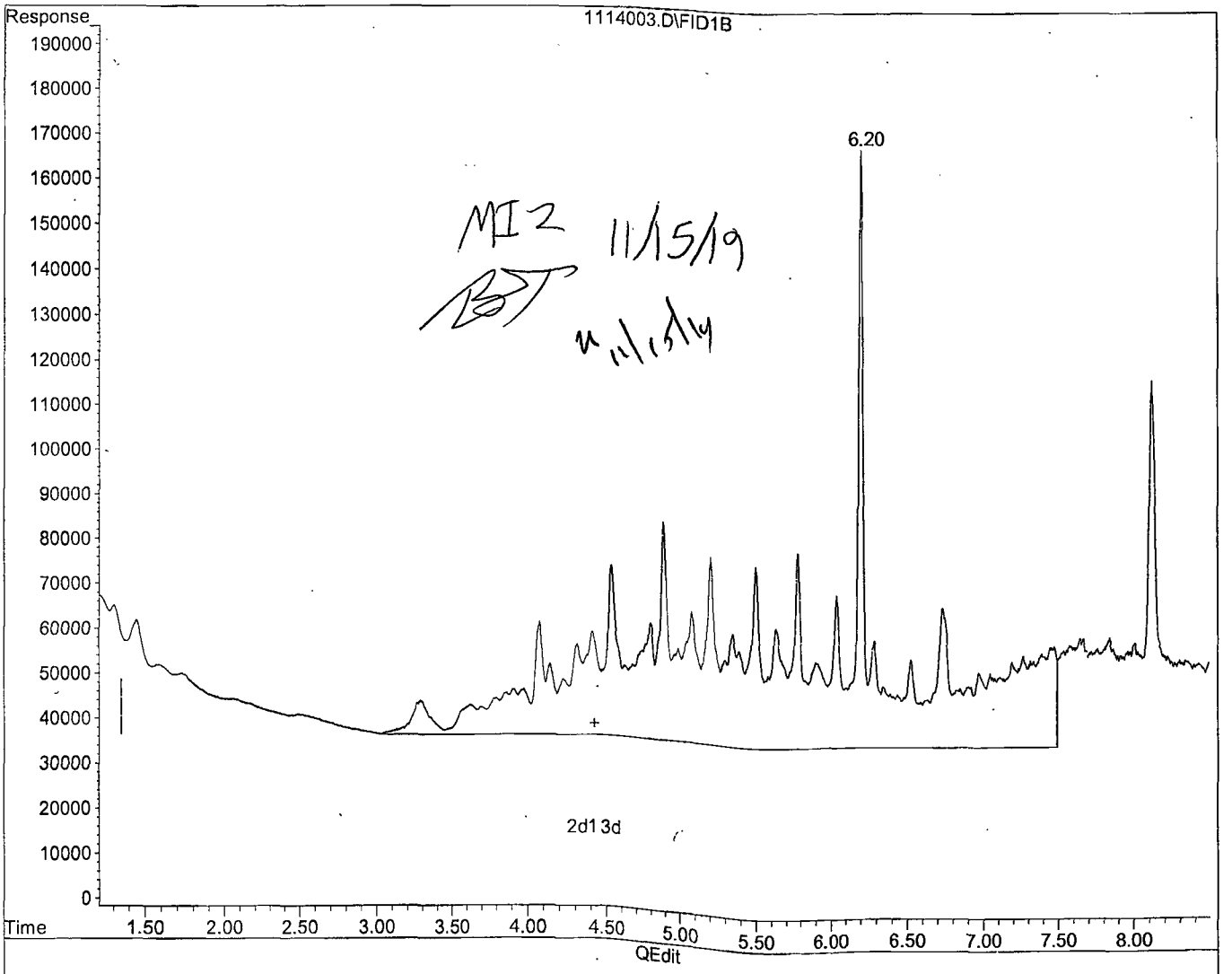
(+) = Expected Retention Time

Quantitation Report

Data File : G:\APOLLO\DATA\191114\1114003.D
Acq On : 11-14-19 19:39:49
Sample : Diesel Motor Oil - 1 11/14/19
Misc : water
IntFile : events.e
Quant Time: Nov 15 9:19 2019 Quant Results File: DOC1114.RES

Vial: 3
Operator: BT
Inst : Apollo
Multiplr: 1.00

Method : G:\APOLLO\DATA\191114\DOC1114.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Nov 15 09:19:04 2019
Response via : Multiple Level Calibration



(1) Diesel (C10-C24) (HATM)

4.42min 13.446ppb m

response 40559274

(+) = Expected Retention Time

1114003.D DOC1114.M Fri Nov 15 09:20:47 2019

Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\191114\1114004.D Vial: 4
Acq On : 11-14-19 19:59:46 Operator: BT
Sample : Diesel Motor Oil - 2 11/14/19 Inst : Apollo
Misc : water Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 15 9:21 2019 Quant Results File: DOC1114.RES

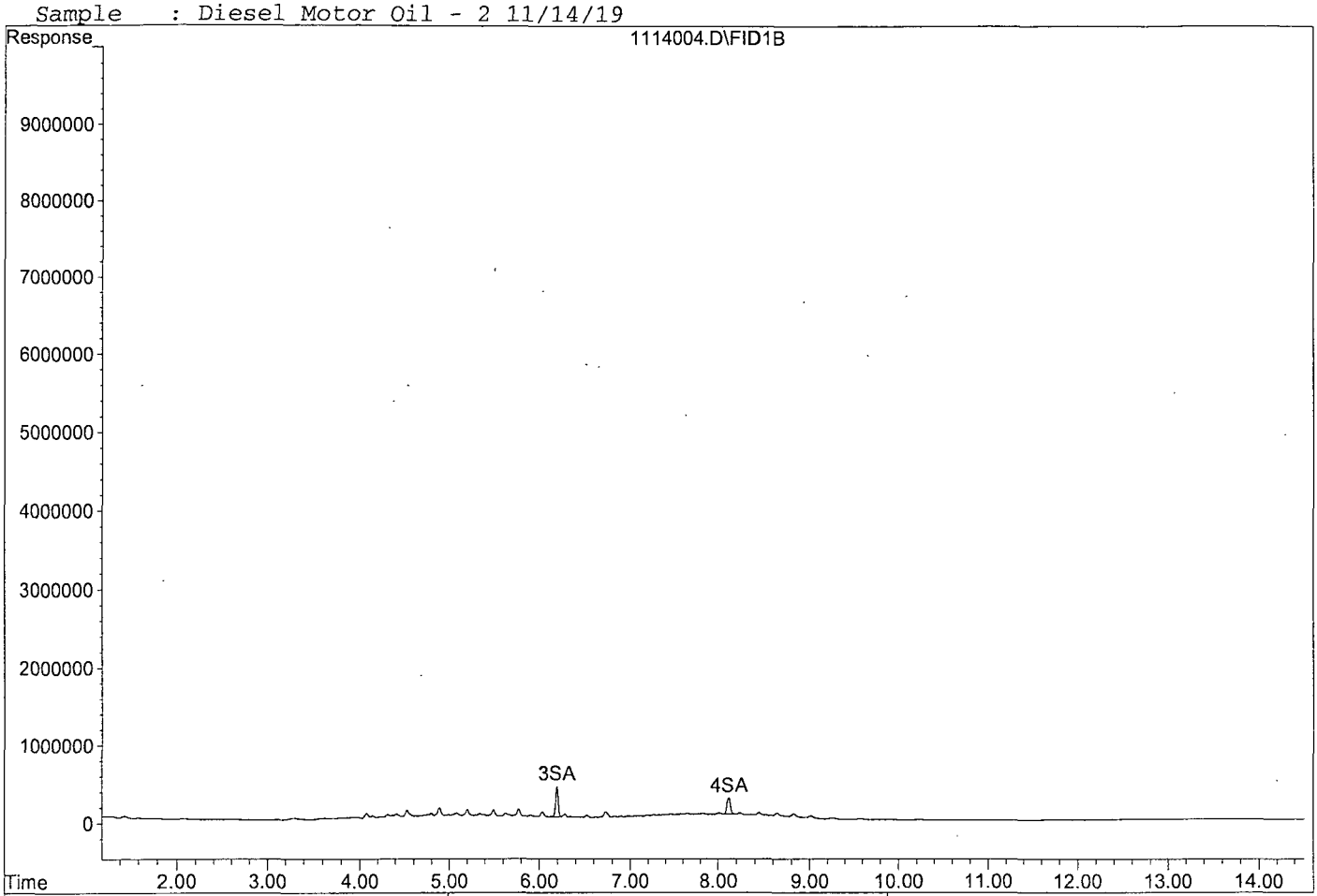
Method : G:\APOLLO\DATA\191114\DOC1114.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Nov 15 09:19:04 2019
Response via : Multiple Level Calibration

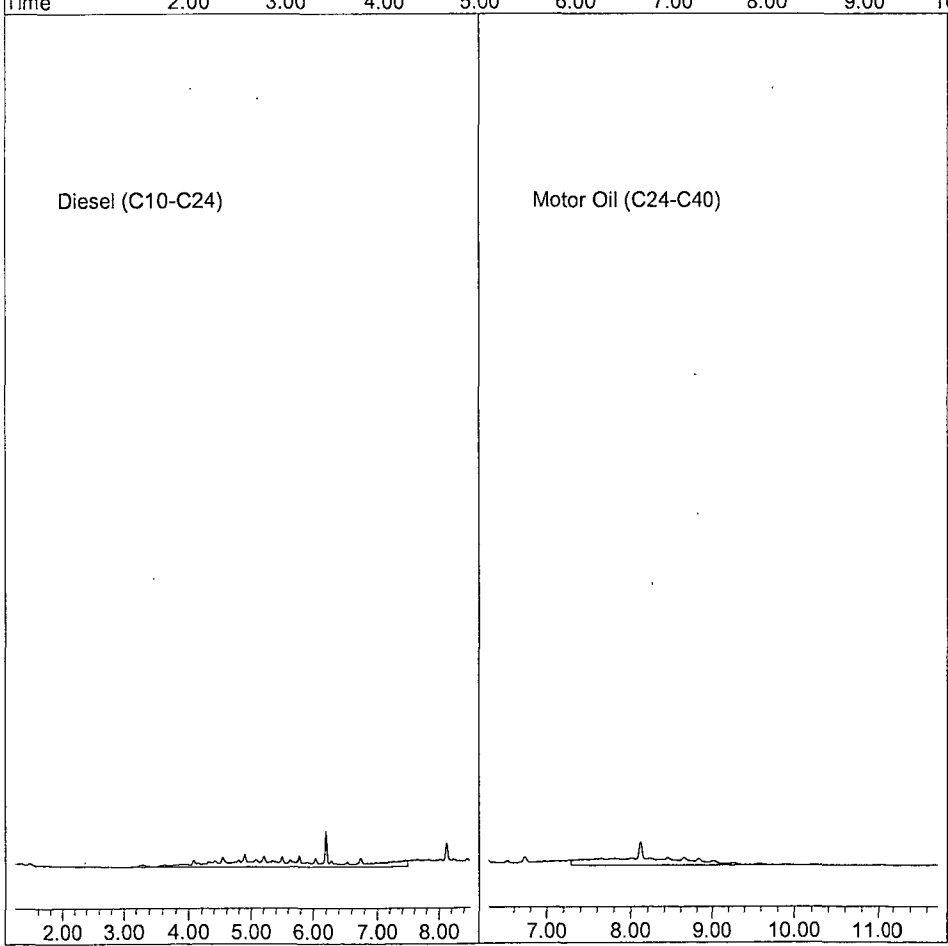
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) SA Ortho-Terphenyl(S)	6.20	7522274	1.503 ppb
Surrogate Spike 30.000	Recovery =		5.01%
4) SA Octacosane(S)	8.12	5469585	2.415 ppb
Surrogate Spike 30.000	Recovery =		8.05%
Target Compounds			
1) HATM Diesel (C10-C24)	4.42	133643009	44.304 ppb
2) HBTM Motor Oil (C24-C40)	9.01	81994744	52.104 ppb
Target Compounds			

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: G:\APOLLO\DATA\191114\1114004.D
Sample : Diesel Motor Oil - 2 11/14/19

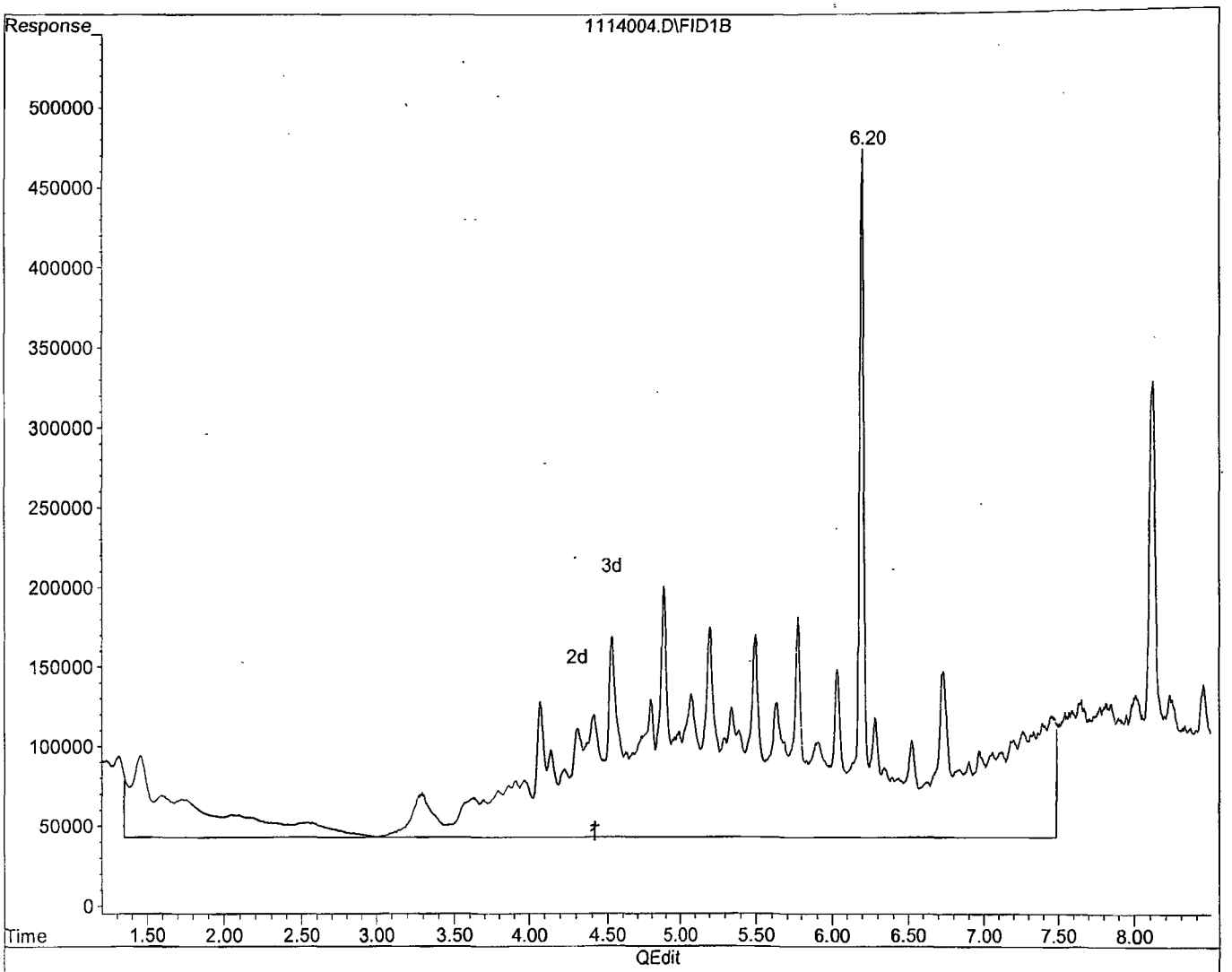




Quantitation Report

Data File : G:\APOLLO\DATA\191114\1114004.D Vial: 4
Acq On : 11-14-19 19:59:46 Operator: BT
Sample : Diesel Motor Oil - 2 11/14/19 Inst : Apollo
Misc : water Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 15 9:19 2019 Quant Results File: DOC1114.RES

Method : G:\APOLLO\DATA\191114\DOC1114.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Nov 15 09:19:04 2019
Response via : Multiple Level Calibration



(1) Diesel (C10-C24) (HATM)

4.42min 48.922ppb m

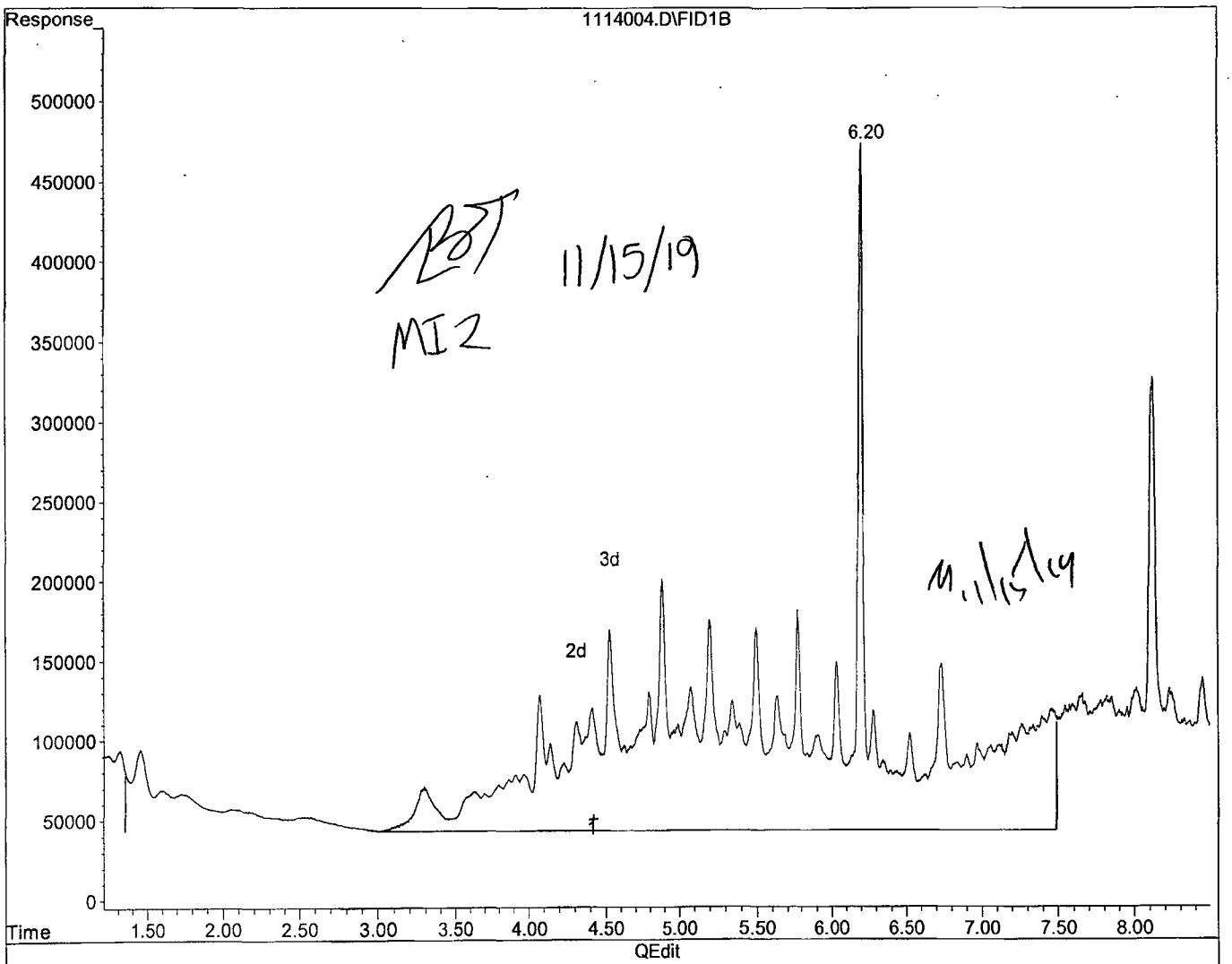
response 147576006

(+) = Expected Retention Time

Quantitation Report

Data File : G:\APOLLO\DATA\191114\1114004.D Vial: 4
Acq On : 11-14-19 19:59:46 Operator: BT
Sample : Diesel Motor Oil - 2 11/14/19 Inst : Apollo
Misc : water Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 15 9:19 2019 Quant Results File: DOC1114.RES

Method : G:\APOLLO\DATA\191114\DOC1114.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Nov 15 09:19:04 2019
Response via : Multiple Level Calibration



(1) Diesel (C10-C24) (HATM)

4.42min 44.304ppb m

response 133643009

(+) = Expected Retention Time

Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\191114\1114005.D Vial: 5
Acq On : 11-14-19 20:19:39 Operator: BT
Sample : Diesel Motor Oil - 3 11/14/19 Inst : Apollo
Misc : water Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 15 9:19 2019 Quant Results File: DOC1114.RES

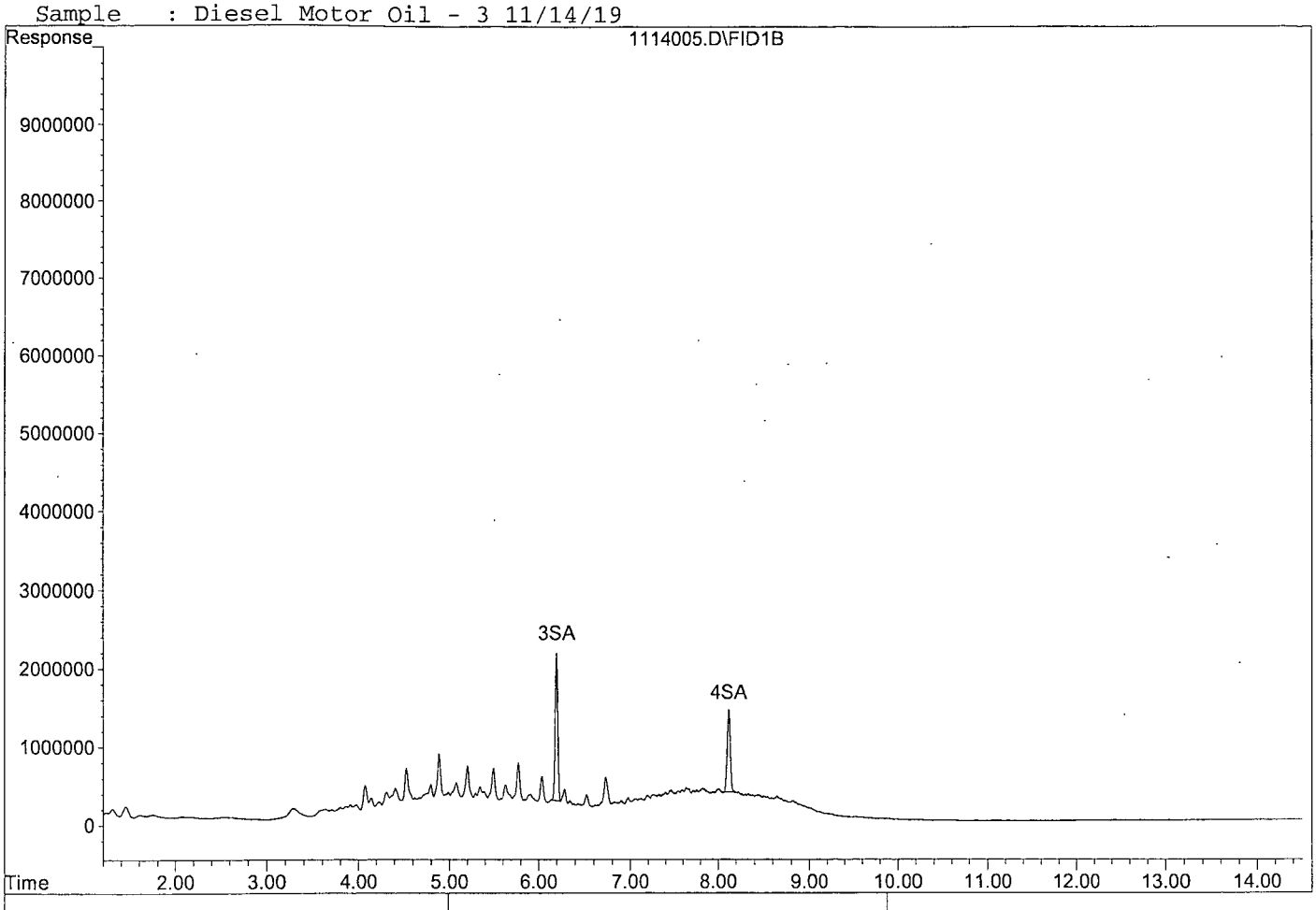
Method : G:\APOLLO\DATA\191114\DOC1114.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Nov 15 09:19:04 2019
Response via : Multiple Level Calibration

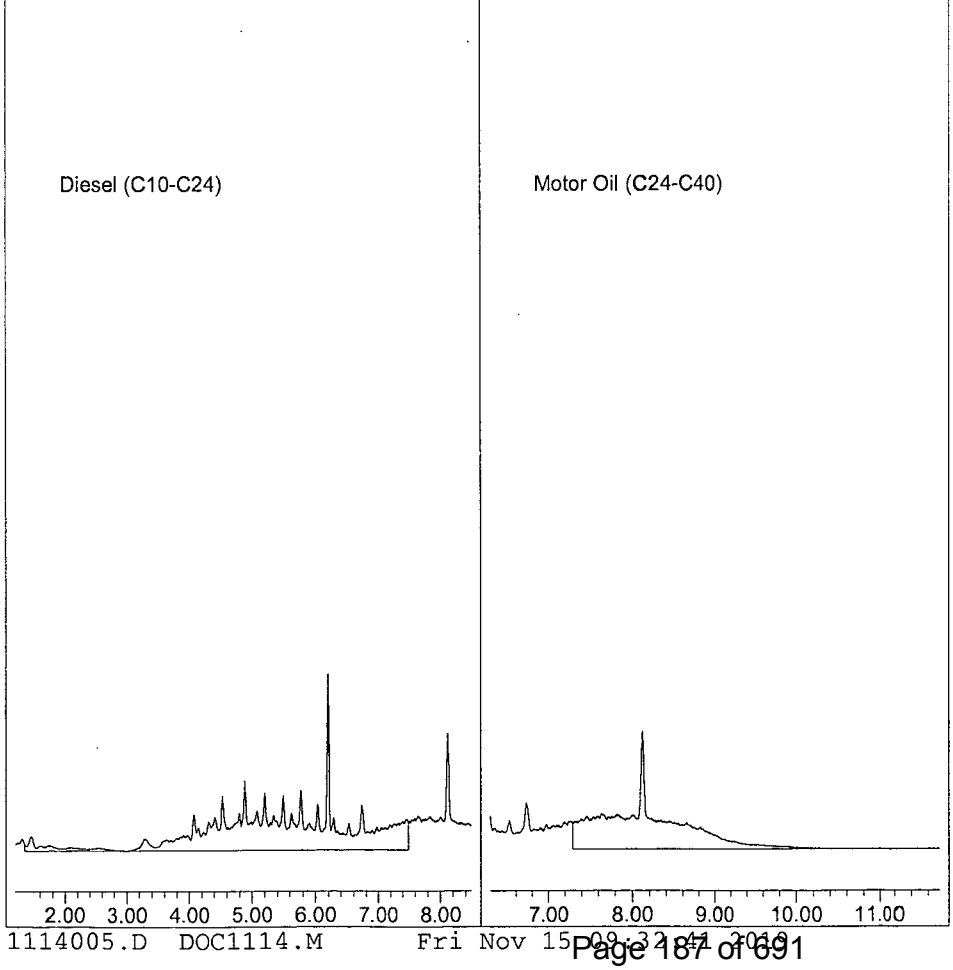
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) SA Ortho-Terphenyl(S)	6.20	37323483	12.416 ppb
Surrogate Spike 30.000	Recovery =		41.39%
4) SA Octacosane(S)	8.12	25262712	11.152 ppb
Surrogate Spike 30.000	Recovery =		37.17%
Target Compounds			
1) HATM Diesel (C10-C24)	4.42	744830742	246.917 ppb
2) HBTM Motor Oil (C24-C40)	9.01	385851504	245.190 ppb
Target Compounds			

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: G:\APOLLO\DATA\191114\1114005.D
Sample : Diesel Motor Oil - 3 11/14/19





Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\191114\1114006.D Vial: 6
Acq On : 11-14-19 20:39:34 Operator: BT
Sample : Diesel Motor Oil - 4 11/14/19 Inst : Apollo
Misc : water Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 15 9:19 2019 Quant Results File: DOC1114.RES

Method : G:\APOLLO\DATA\191114\DOC1114.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Nov 15 09:19:04 2019
Response via : Multiple Level Calibration

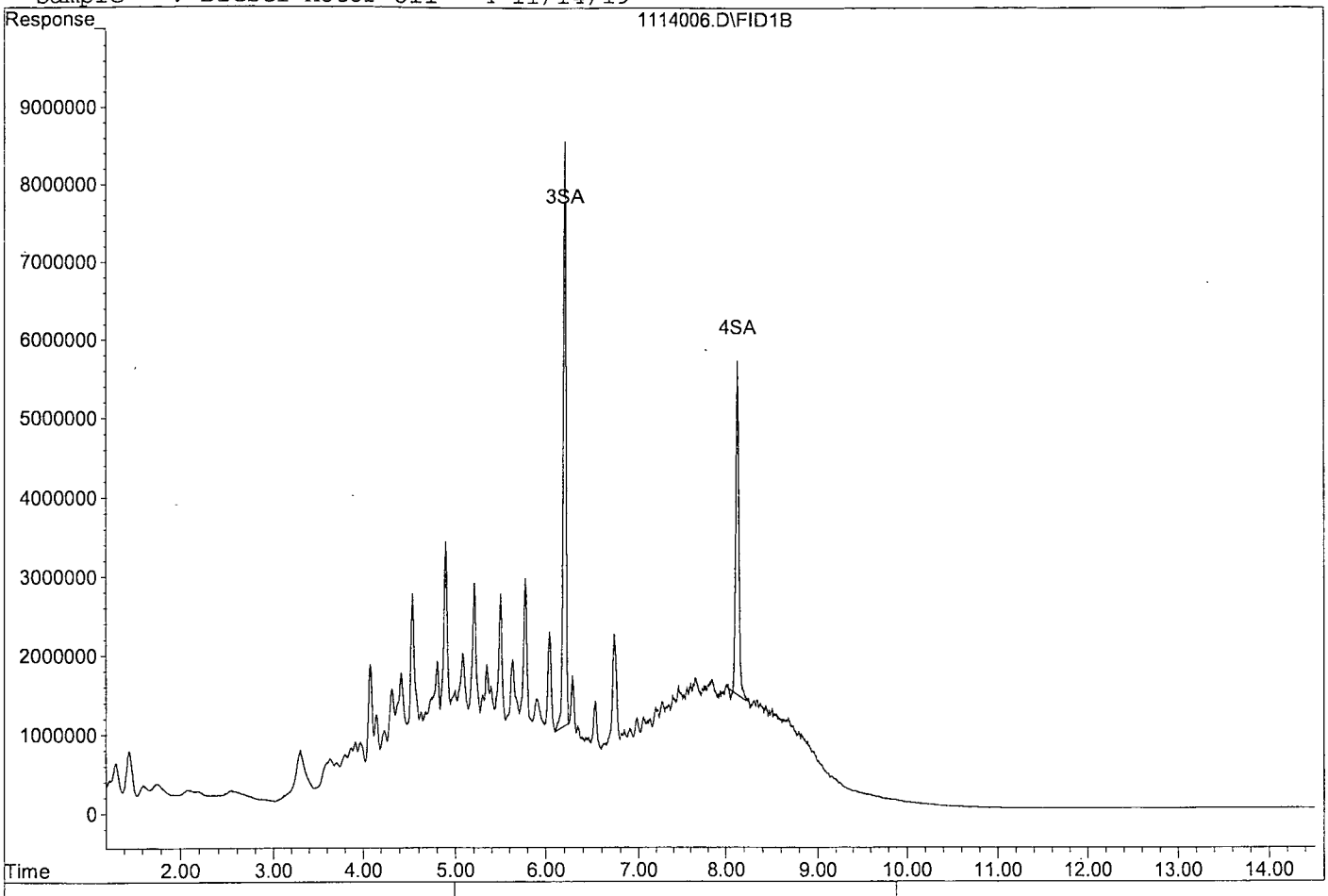
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

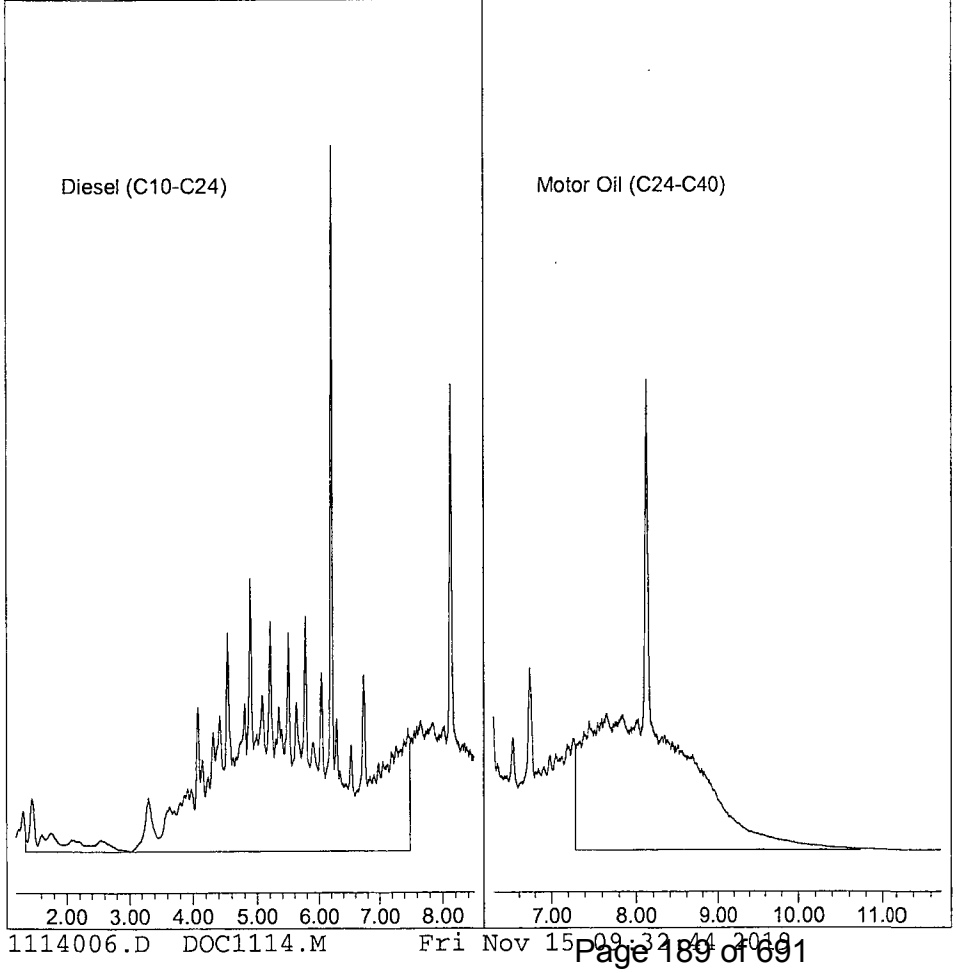
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) SA Ortho-Terphenyl(S)	6.21	151381863	54.183 ppb
Surrogate Spike 30.000		Recovery =	180.61%
4) SA Octacosane(S)	8.12	99731952	44.026 ppb
Surrogate Spike 30.000		Recovery =	146.75%
Target Compounds			
1) HATM Diesel (C10-C24)	4.42	2909060509	964.374 ppb
2) HBTM Motor Oil (C24-C40)	9.01	1488315692	945.751 ppb

Target Compounds

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: G:\APOLLO\DATA\191114\1114006.D
Sample : Diesel Motor Oil - 4 11/14/19





Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\191114\1114007.D Vial: 7
Acq On : 11-14-19 20:59:26 Operator: BT
Sample : Diesel Motor Oil - 5 11/14/19 Inst : Apollo
Misc : water Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 15 9:19 2019 Quant Results File: DOC1114.RES

Method : G:\APOLLO\DATA\191114\DOC1114.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Nov 15 09:19:04 2019
Response via : Multiple Level Calibration

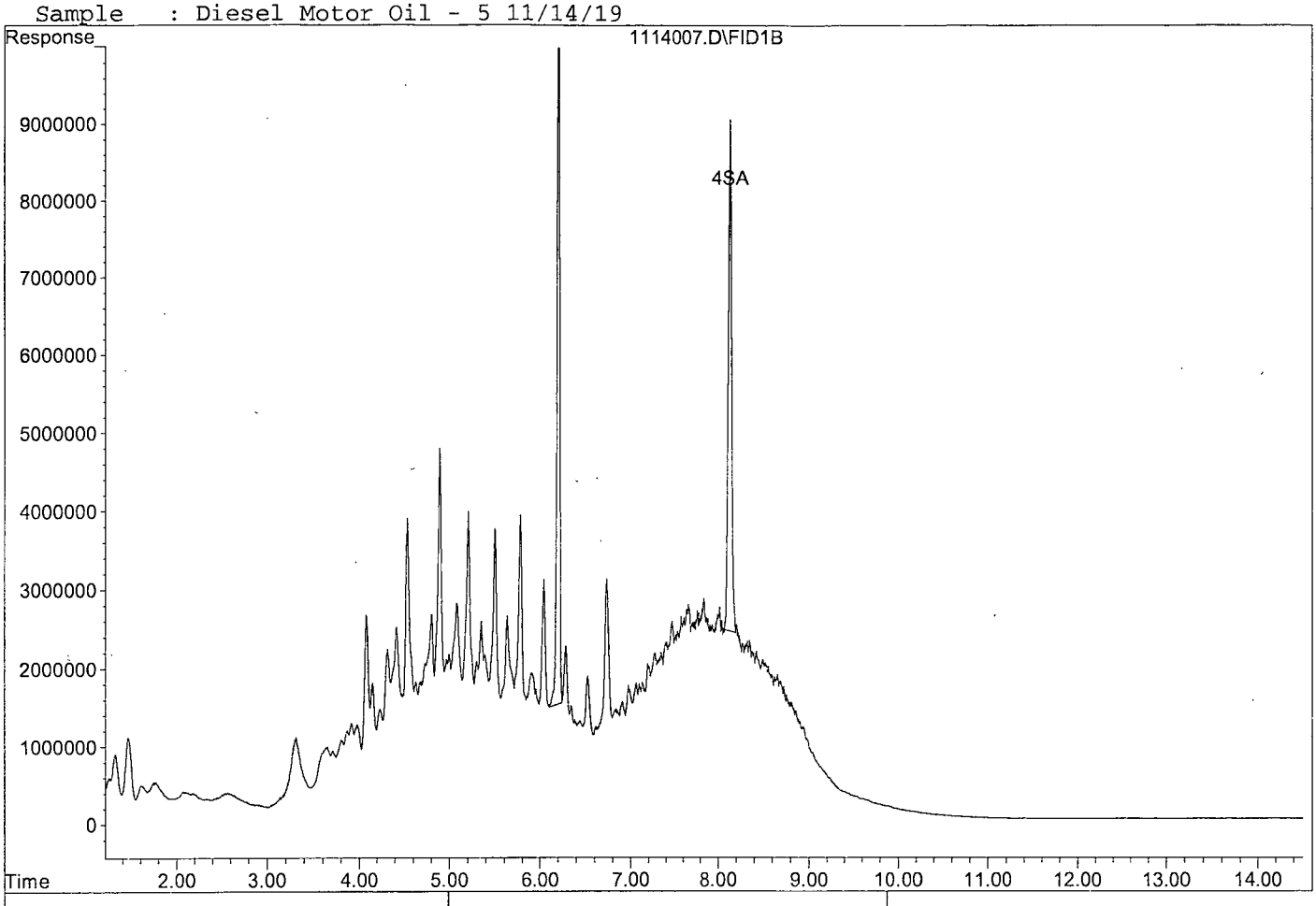
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

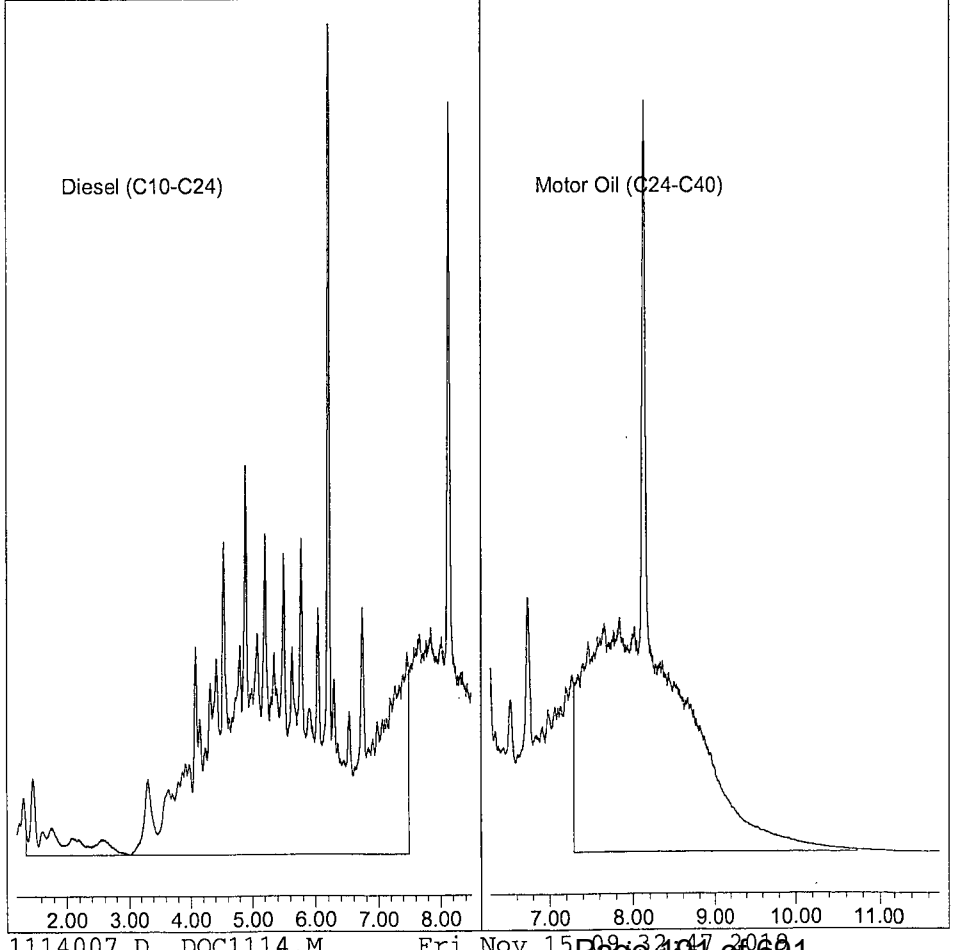
Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
3) SA Ortho-Terphenyl(S)	6.21	206508954	74.370	ppb
Surrogate Spike 30.000	Recovery =		247.90%	
4) SA Octacosane(S)	8.13	166754564	73.613	ppb
Surrogate Spike 30.000	Recovery =		245.38%	
Target Compounds				
1) HATM Diesel (C10-C24)	4.42	4152339086	1376.529	ppb
2) HBTM Motor Oil (C24-C40)	9.01	2430112740	1544.216	ppb

Target Compounds

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: G:\APOLLO\DATA\191114\1114007.D
Sample : Diesel Motor Oil - 5 11/14/19





Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\191114\1114008.D Vial: 8
Acq On : 11-14-19 21:19:19 Operator: BT
Sample : Diesel Motor Oil - 6 11/14/19 Inst : Apollo
Misc : water Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 15 9:19 2019 Quant Results File: DOC1114.RES

Method : G:\APOLLO\DATA\191114\DOC1114.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Nov 15 09:19:04 2019
Response via : Multiple Level Calibration

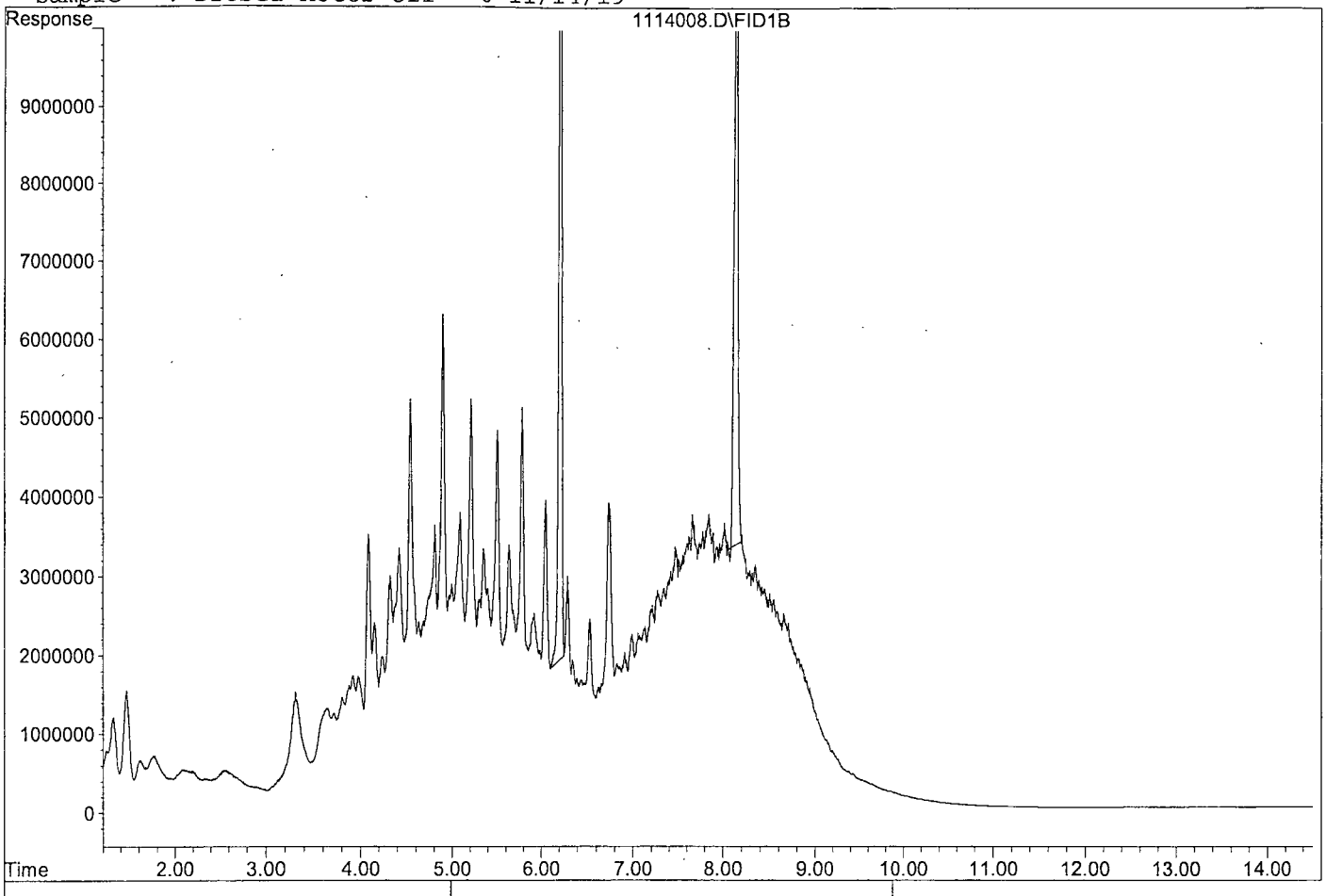
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

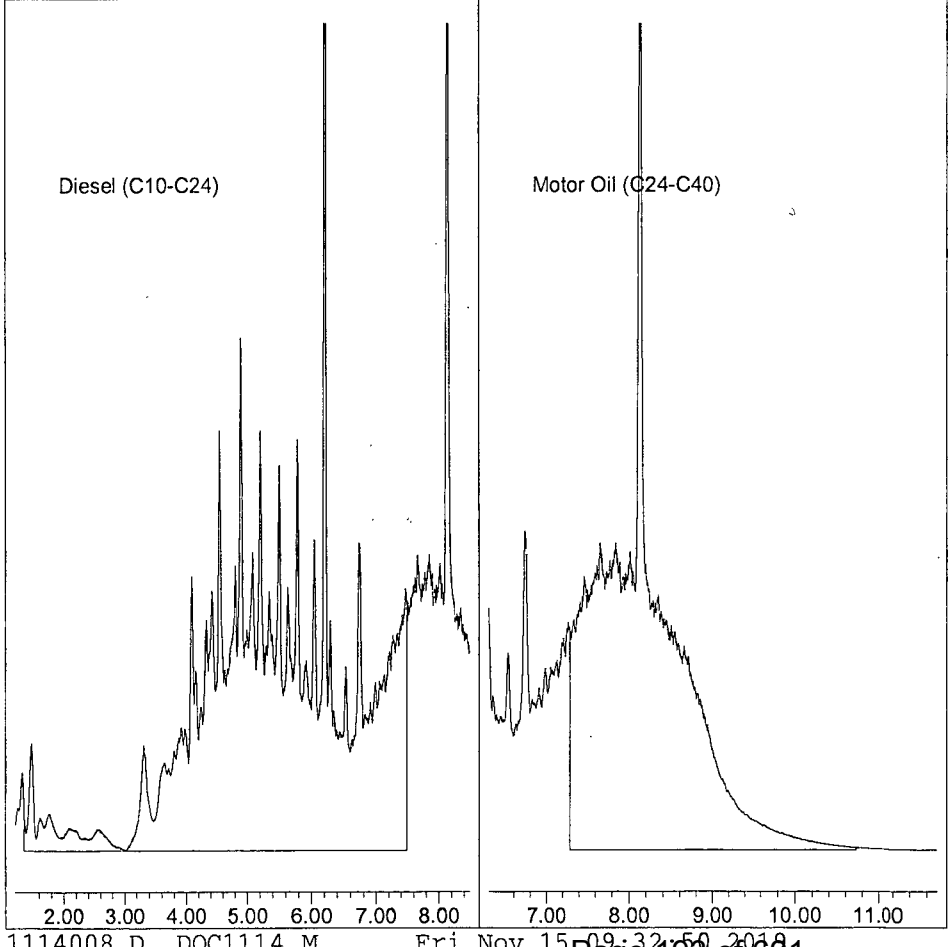
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) SA Ortho-Terphenyl(S)	6.21	272188350	98.421 ppb
Surrogate Spike 30.000	Recovery =		328.07%
4) SA Octacosane(S)	8.14	212897820	93.983 ppb
Surrogate Spike 30.000	Recovery =		313.28%
Target Compounds			
1) HATM Diesel (C10-C24)	4.42	5438788689	1802.996 ppb
2) HBTM Motor Oil (C24-C40)	9.01	3195039251	2030.289 ppb

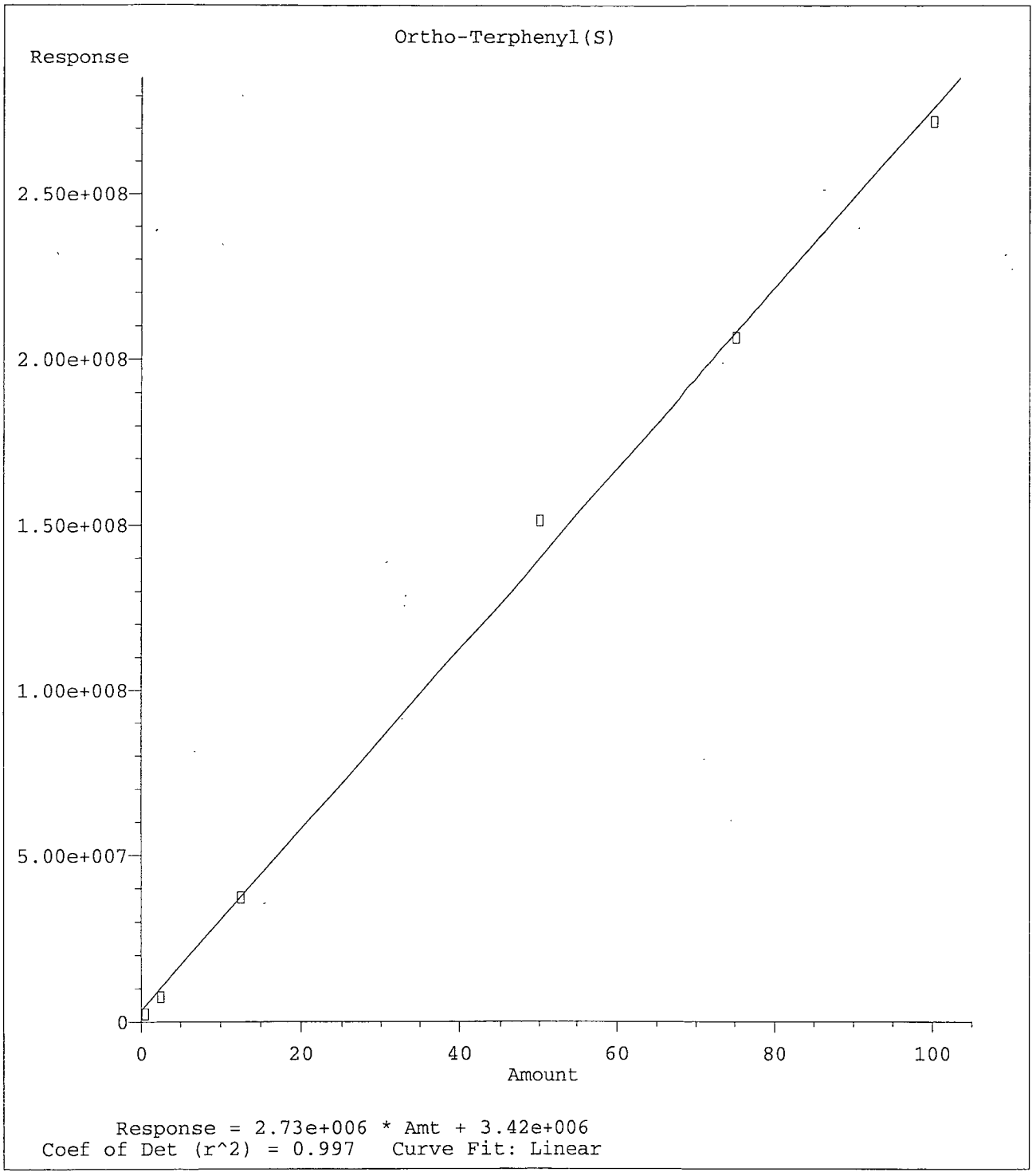
Target Compounds

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: G:\APOLLO\DATA\191114\1114008.D
Sample : Diesel Motor Oil - 6 11/14/19







Method Name: G:\APOLLO\DATA\191114\DOC1114.M
Calibration Table Last Updated: Fri Nov 15 09:19:04 2019

TPH Extractables
DOC1114

Form 7

Second Source Calibration

Lab Name: APPL, Inc.
Case No:
Matrix: Water

SDG No:
Date Analyzed: 11/14/19
Instrument: Apollo
Initial Cal. Date: 11/14/19
Data File: 1114009.D

		Compound	MEAN	CCRF	%D		%Drift
1	HATM	Diesel (C10-C24)	1508730	1766620	17	HATM	
2	HBTM	Motor Oil (C24-C40)	786843	841695	7.0	HBTM	
3							
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36							
37							
38							
39							
40							
		Average			12.0		

Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\191114\1114009.D Vial: 9
Acq On : 11-14-19 21:39:10 Operator: BT
Sample : Diesel Motor Oil Second Source 1/15/19 Inst : Apollo
Misc : water Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 15 9:29 2019 Quant Results File: DOC1114.RES

Method : G:\APOLLO\DATA\191114\DOC1114.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Nov 15 09:19:04 2019
Response via : Multiple Level Calibration

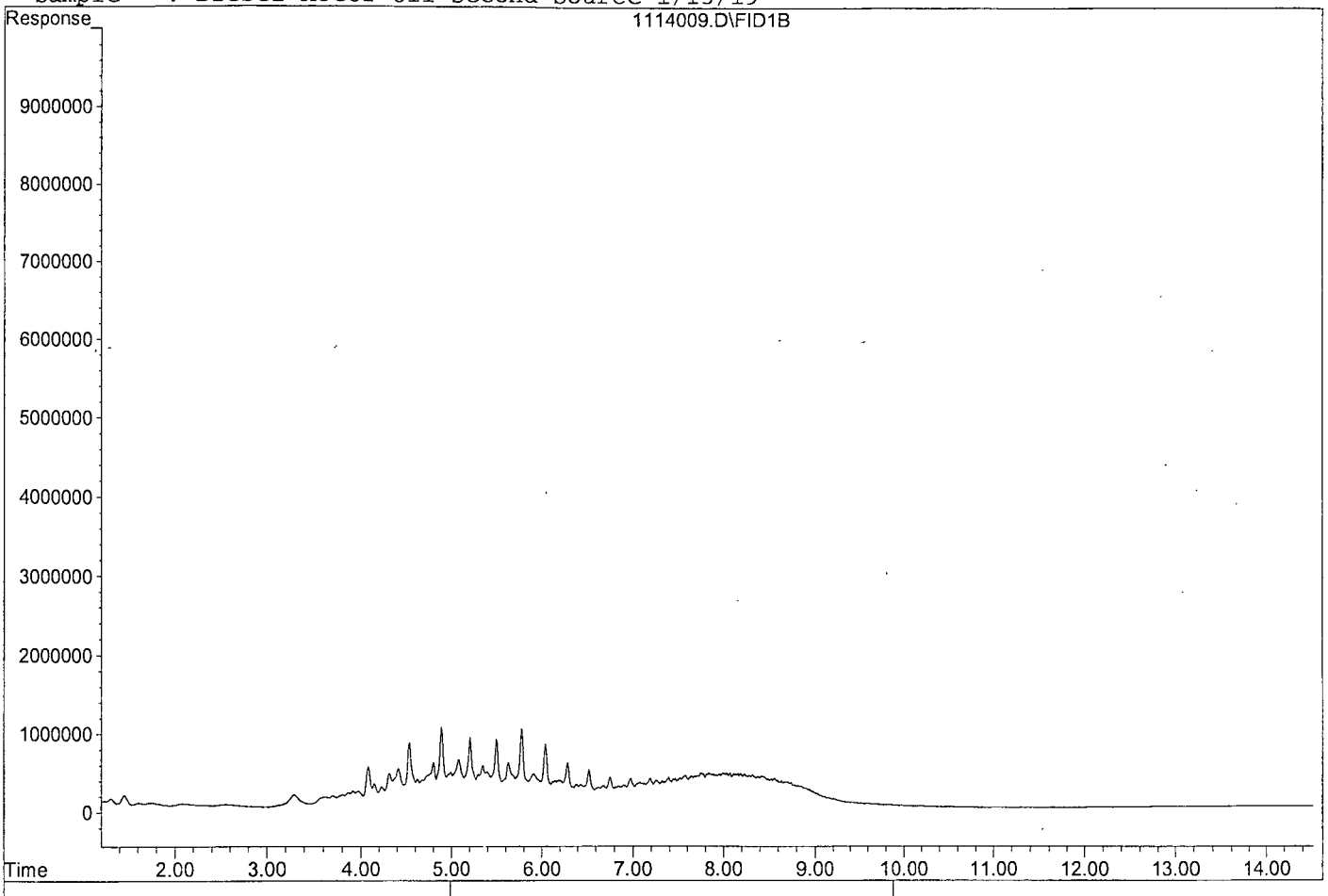
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

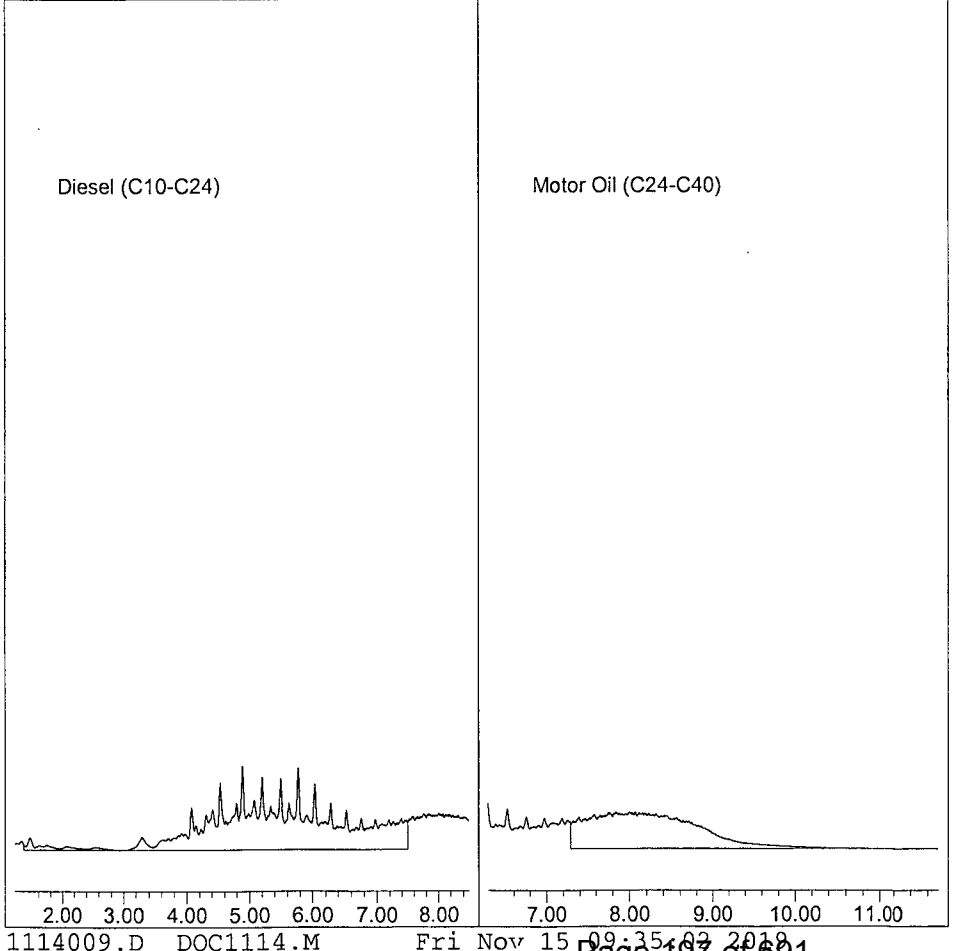
Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds					
3) SA Ortho-Terphenyl(S)	0.00	0	N.D.	ppb	d
Surrogate Spike 30.000	Recovery	=	0.00%		
4) SA Octacosane(S)	0.00	0	N.D.	ppb	d
Surrogate Spike 30.000	Recovery	=	0.00%		
Target Compounds					
1) HATM Diesel (C10-C24)	4.42	883311718	292.733	ppb	
2) HBTM Motor Oil (C24-C40)	9.01	420847463	267.428	ppb	

Target Compounds

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: G:\APOLLO\DATA\191114\1114009.D
Sample : Diesel Motor Oil Second Source 1/15/19





TPH Extractables
DOC1114

Form 7

Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix: Water

SDG No:
Date Analyzed: 11/15/19
Instrument: Apollo
Initial Cal. Date: 11/14/19
Data File: 1114019.D

		Compound	MEAN	CCRF	%D	%Drift	
1	HATM	Diesel (C10-C24)	1508730	1589330	5.3	HATM	
2	HBTM	Motor Oil (C24-C40)	786843	782904	0.50	HBTM	
3	SAL	Ortho-Terphenyl(S)	1599120	1656820	3.6	SAL	11
4	SA	Octacosane(S)	1132640	1105010	2.4	SA	
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40							
		Average			3.0		

Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\191114\1114019.D Vial: 19
Acq On : 11-15-19 0:55:27 Operator: BT
Sample : Diesel Motor Oil CCV 11/14/19 Inst : Apollo
Misc : water Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 15 14:46 2019 Quant Results File: DOC1114.RES

Method : G:\APOLLO\DATA\191114\DOC1114.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Nov 15 09:19:04 2019
Response via : Multiple Level Calibration

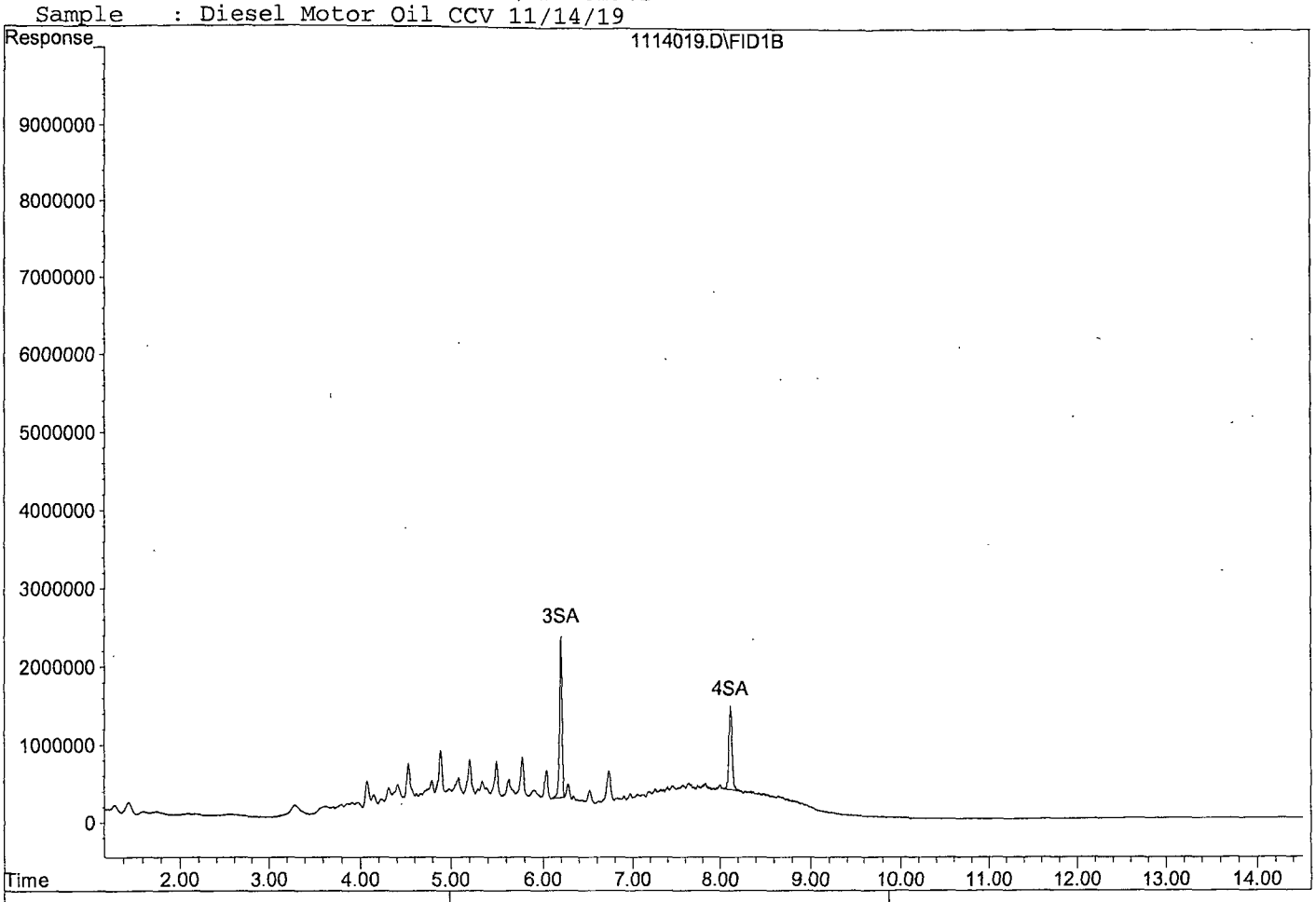
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

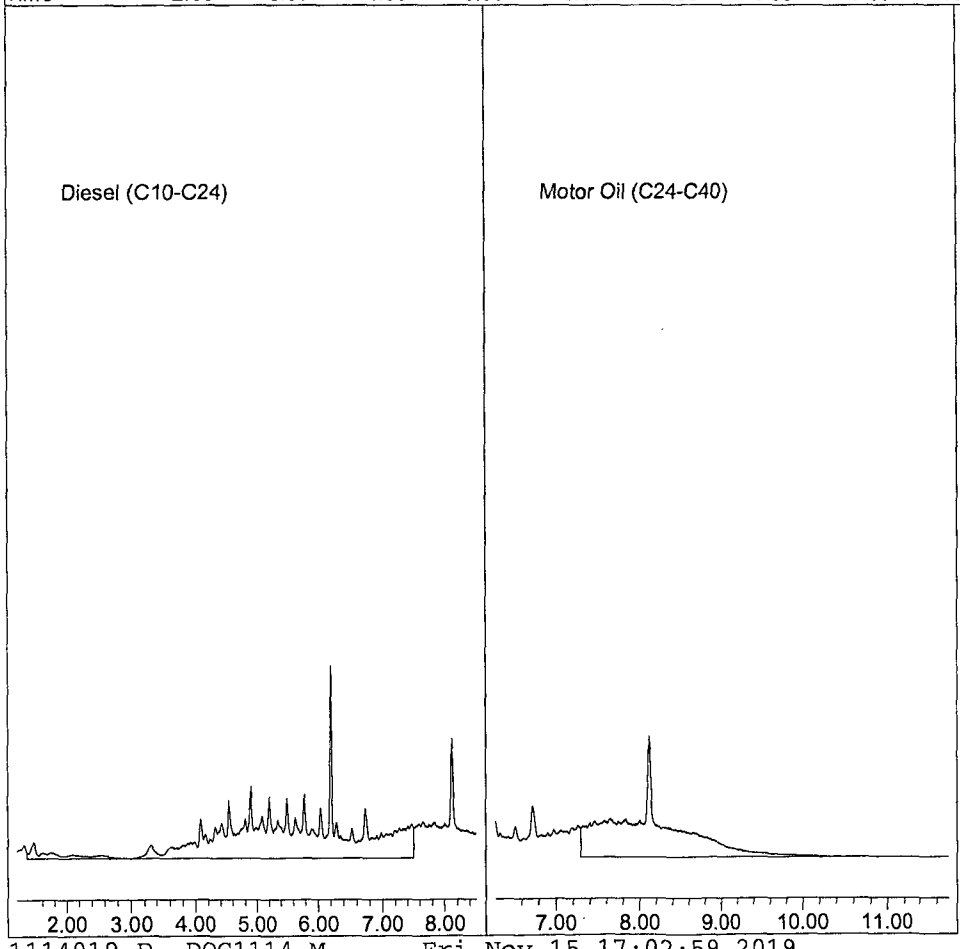
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) SA Ortho-Terphenyl(S)	6.20	41420415	13.916 ppb
Surrogate Spike 30.000	Recovery =		46.39%
4) SA Octacosane(S)	8.12	27625341	12.195 ppb
Surrogate Spike 30.000	Recovery =		40.65%
Target Compounds			
1) HATM Diesel (C10-C24)	4.42	794663386	263.355 ppb
2) HBTM Motor Oil (C24-C40)	9.01	391452103	248.748 ppb
Target Compounds			

(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File: G:\APOLLO\DATA\191114\1114019.D
Sample : Diesel Motor Oil CCV 11/14/19





1114019.D DOC1114.M Fri Nov 15 17:02:59 2019 Page 2

ORGANICS
Raw Data

Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\191114\1114013.D
Acq On : 11-14-19 22:58:16
Sample : BA02090W17 2/800
Misc : water
IntFile : events.e
Quant Time: Nov 15 15:01 2019 Quant Results File: DOC1114.RES

Vial: 13
Operator: BT
Inst : Apollo
Multiplr: 2.50

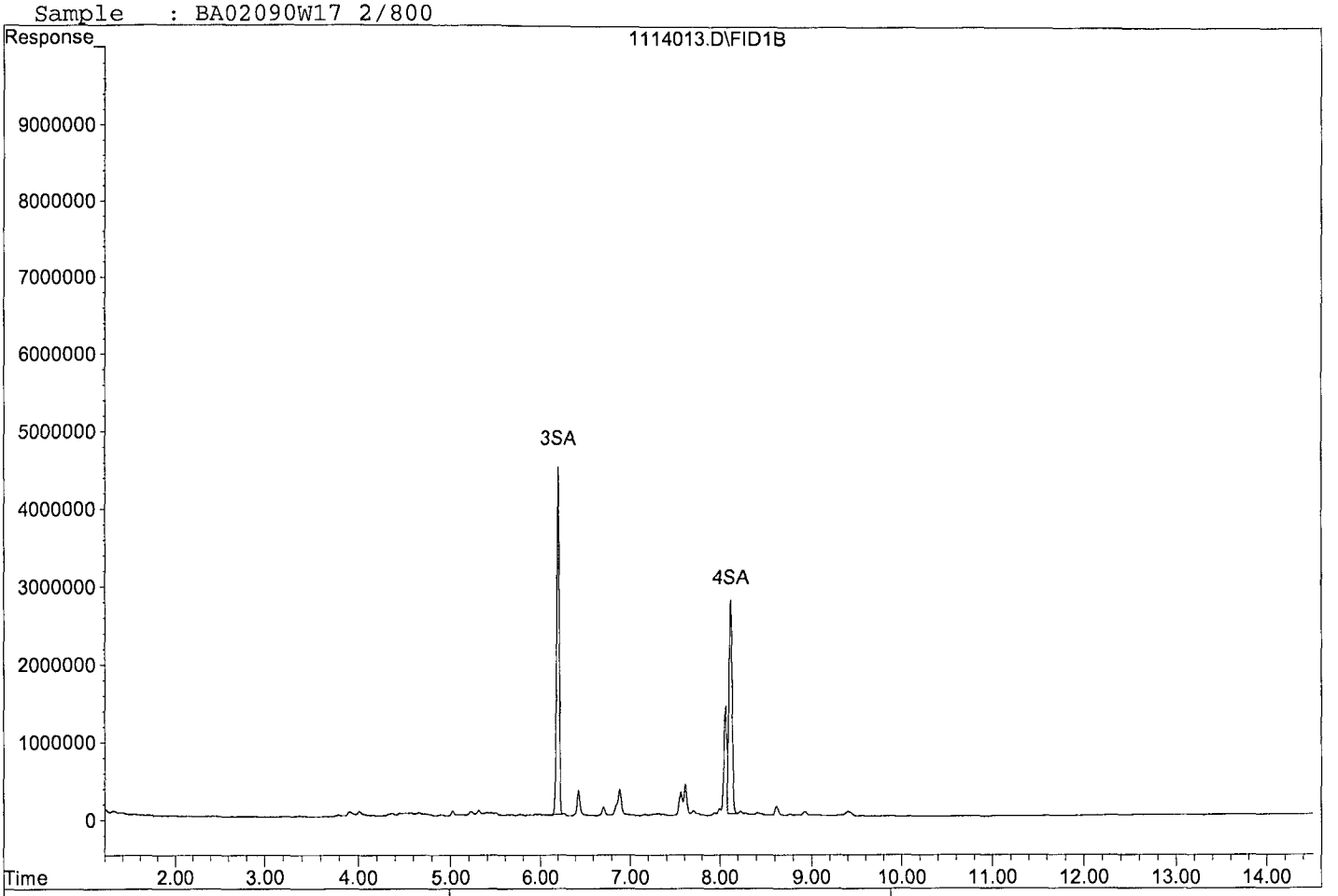
Method : G:\APOLLO\DATA\191114\DOC1114.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Nov 15 09:19:04 2019
Response via : Multiple Level Calibration

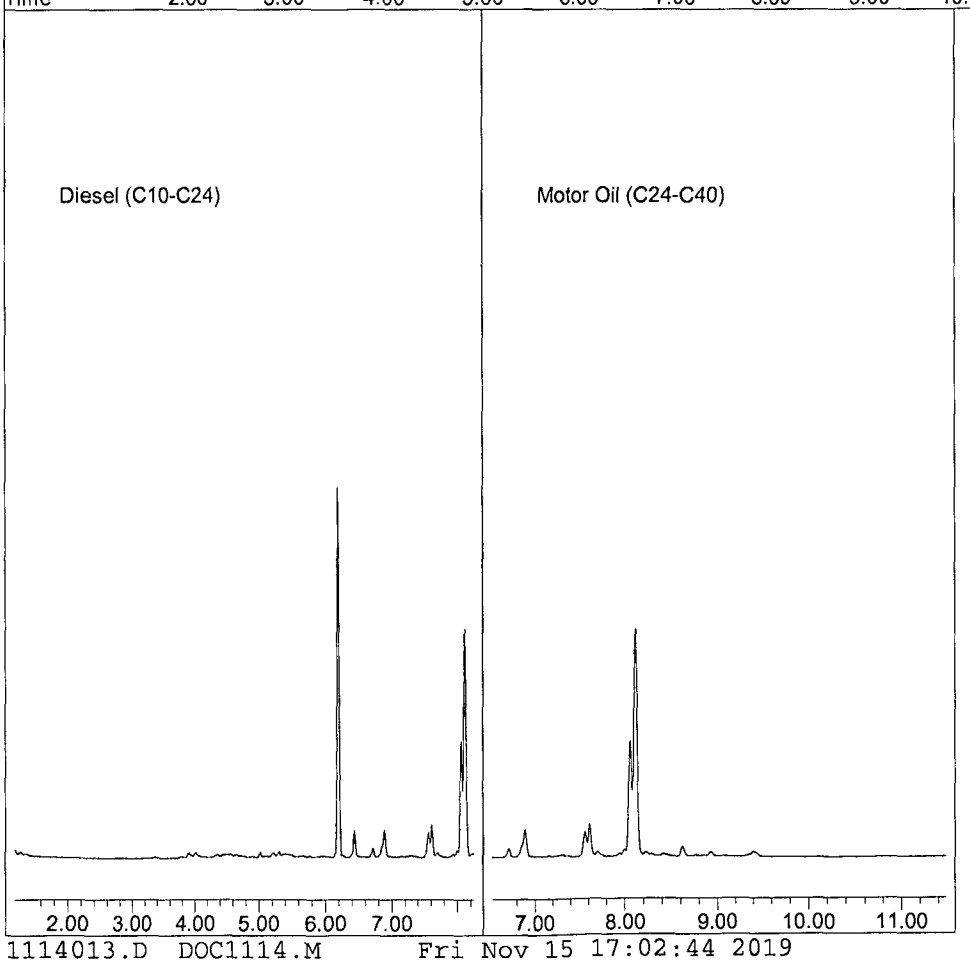
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds					
3) SA Ortho-Terphenyl(S)	6.20	87902409	77.343	ppb	
Surrogate Spike 75.000	Recovery =		103.12%		
4) SA Octacosane(S)	8.12	69460519	76.658	ppb	m
Surrogate Spike 75.000	Recovery =		102.21%		
Target Compounds					
Target Compounds					
1) HATM Diesel (C10-C24)	0.00	0	N.D.	ppb	
2) HBTM Motor Oil (C24-C40)	0.00	0	N.D.	ppb	

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: G:\APOLLO\DATA\191114\1114013.D
Sample : BA02090W17 2/800



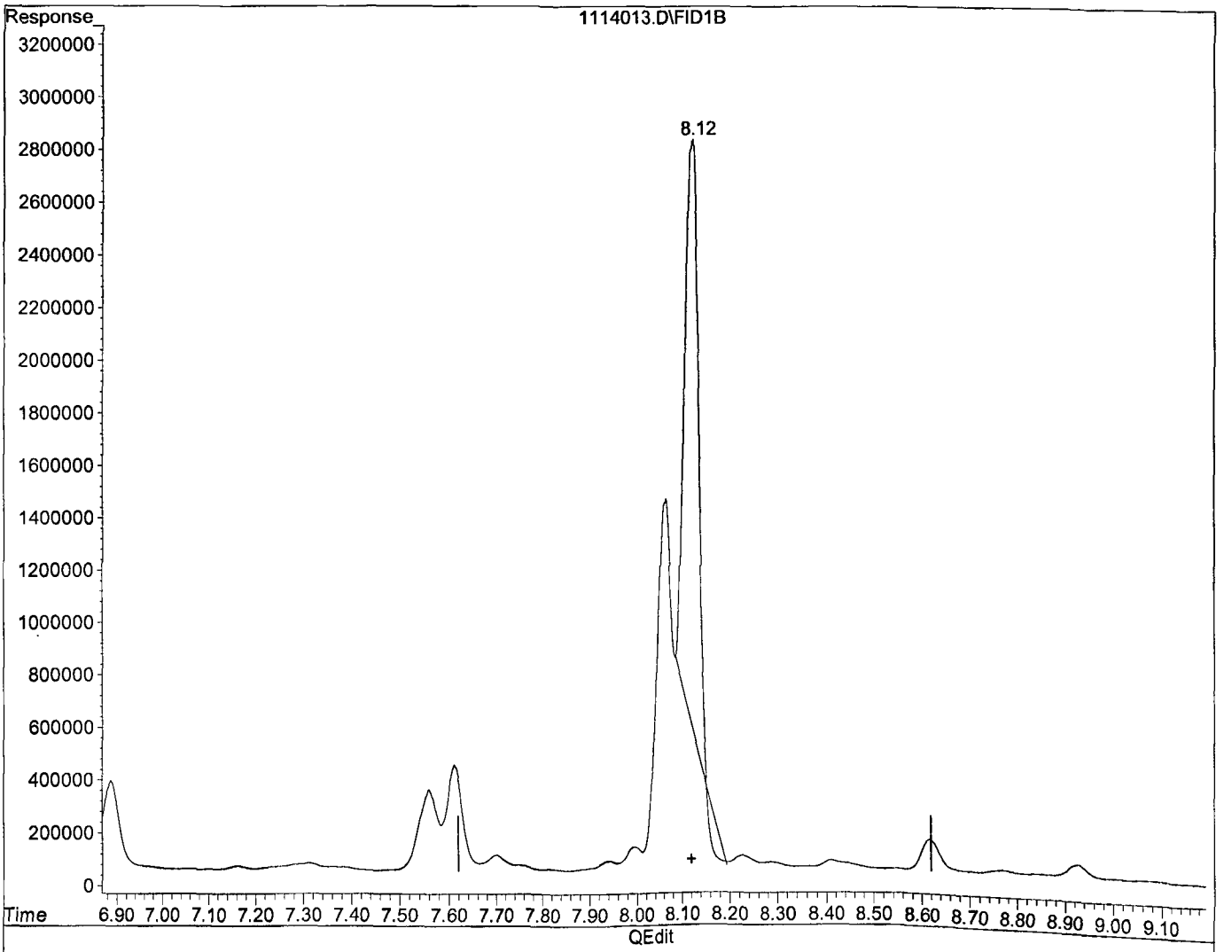


1114013.D DOC1114.M Fri Nov 15 17:02:44 2019 Page 2

Quantitation Report

Data File : G:\APOLLO\DATA\191114\1114013.D Vial: 13
Acq On : 11-14-19 22:58:16 Operator: BT
Sample : BA02090W17 2/800 Inst : Apollo
Misc : water Multiplr: 2.50
IntFile : events.e
Quant Time: Nov 15 14:45 2019 Quant Results File: DOC1114.RES

Method : G:\APOLLO\DATA\191114\DOC1114.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Nov 15 09:19:04 2019
Response via : Multiple Level Calibration



(4) Octacosane(S) (SA)

8.12min 48.660ppb

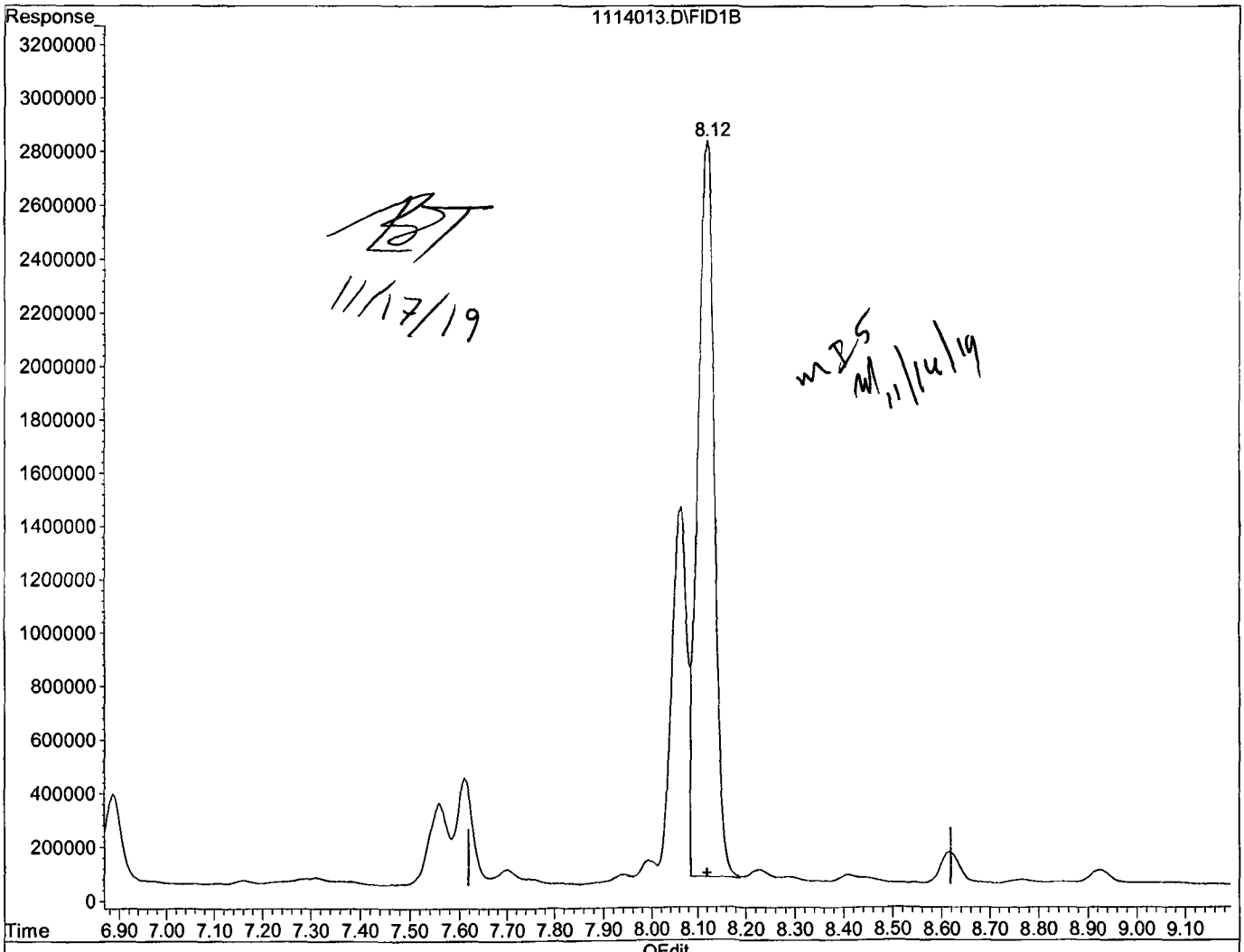
response 44091620

(+) = Expected Retention Time
1114013.D DOC1114.M Fri Nov 15 14:59:26 2019

Quantitation Report

Data File : G:\APOLLO\DATA\191114\1114013.D Vial: 13
Acq On : 11-14-19 22:58:16 Operator: BT
Sample : BA02090W17 2/800 Inst : Apollo
Misc : water Multiplr: 2.50
IntFile : events.e
Quant Time: Nov 15 14:45 2019 Quant Results File: DOC1114.RES

Method : G:\APOLLO\DATA\191114\DOC1114.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Nov 15 09:19:04 2019
Response via : Multiple Level Calibration



(4) Octacosane(S) (SA)

8.12min 76.658ppb m

response 69460519

(+) = Expected Retention Time
1114013.D DOC1114.M Fri Nov 15 14:59:36 2019

Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\191114\1114014.D Vial: 14
Acq On : 11-14-19 23:17:57 Operator: BT
Sample : BA02091W11 2/800 Inst : Apollo
Misc : water Multiplr: 2.50
IntFile : events.e
Quant Time: Nov 15 15:01 2019 Quant Results File: DOC1114.RES

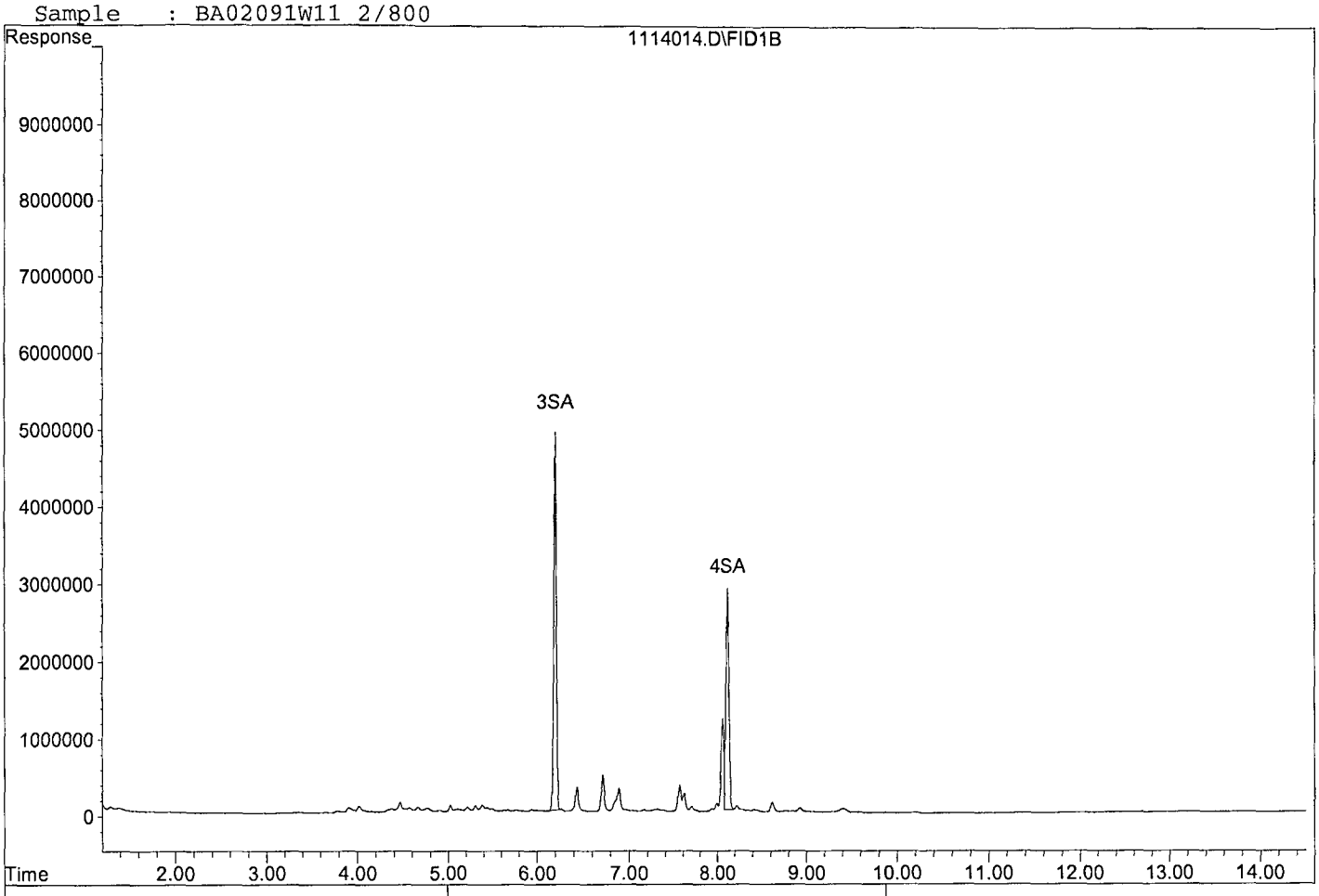
Method : G:\APOLLO\DATA\191114\DOC1114.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Nov 15 09:19:04 2019
Response via : Multiple Level Calibration

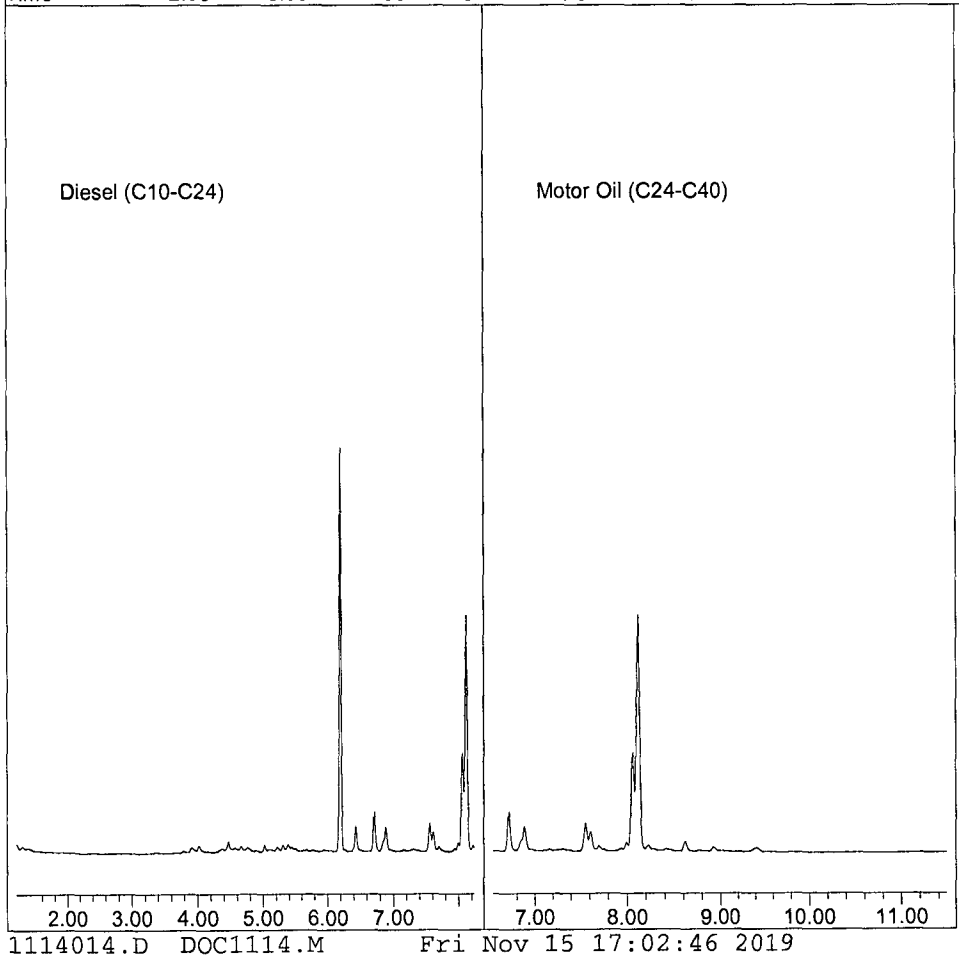
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds					
3) SA Ortho-Terphenyl(S)	6.20	94814446	83.671	ppb	
Surrogate Spike 75.000	Recovery =		111.56%		
4) SA Octacosane(S)	8.12	70412720	77.709	ppb	m
Surrogate Spike 75.000	Recovery =		103.61%		
Target Compounds					
Target Compounds					
1) HATM Diesel (C10-C24)	0.00	0	N.D.	ppb	
2) HBTM Motor Oil (C24-C40)	0.00	0	N.D.	ppb	

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: G:\APOLLO\DATA\191114\1114014.D
Sample : BA02091W11 2/800



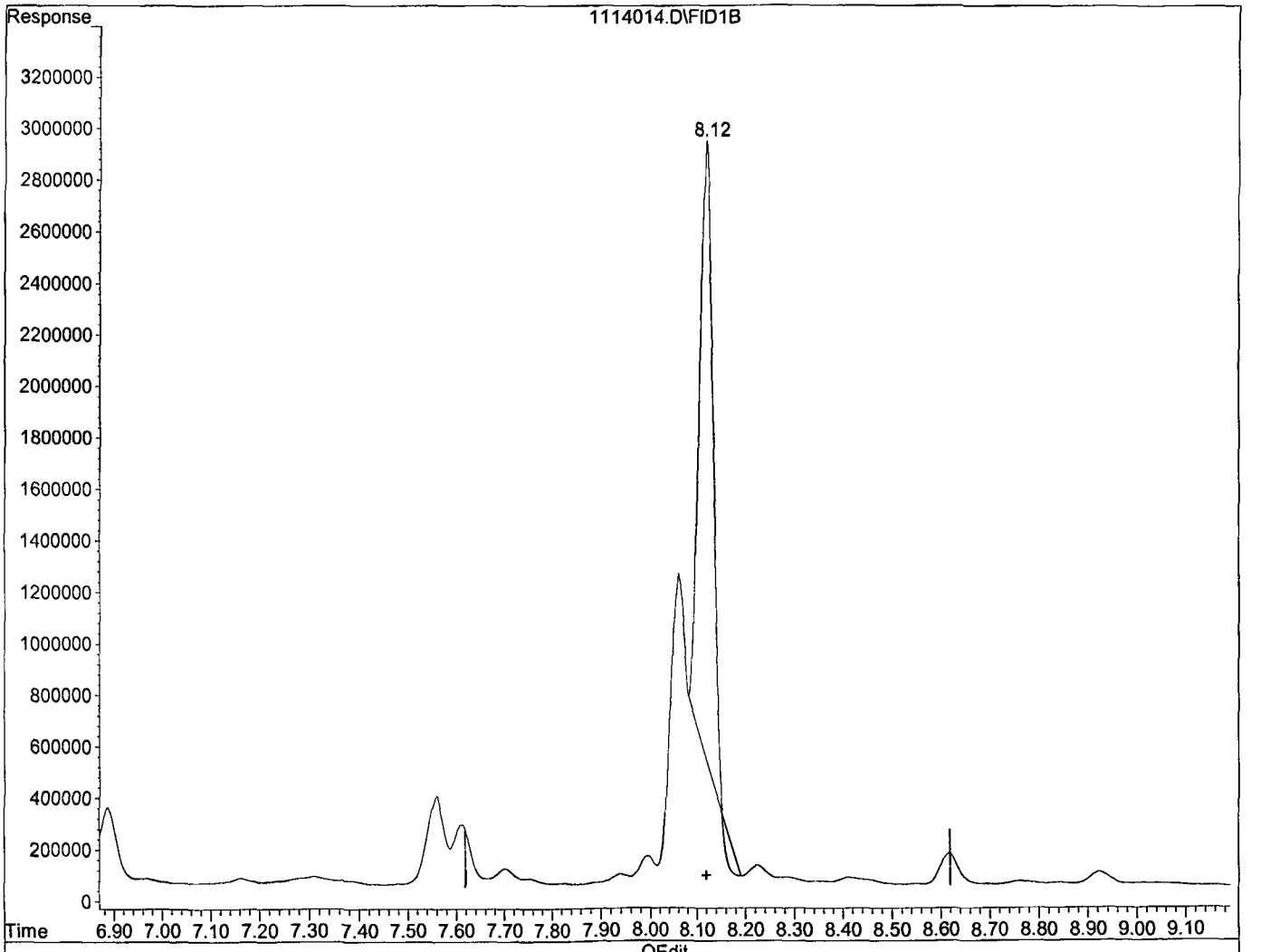


1114014.D DOC1114.M Fri Nov 15 17:02:46 2019 Page 2

Quantitation Report

Data File : G:\APOLLO\DATA\191114\1114014.D Vial: 14
Acq On : 11-14-19 23:17:57 Operator: BT
Sample : BA02091W11 2/800 Inst : Apollo
Misc : water Multiplr: 2.50
IntFile : events.e
Quant Time: Nov 15 14:45 2019 Quant Results File: DOC1114.RES

Method : G:\APOLLO\DATA\191114\DOC1114.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Nov 15 09:19:04 2019
Response via : Multiple Level Calibration



QEdit

(4) Octacosane(S) (SA)

8.12min 51.365ppb

response 46542660

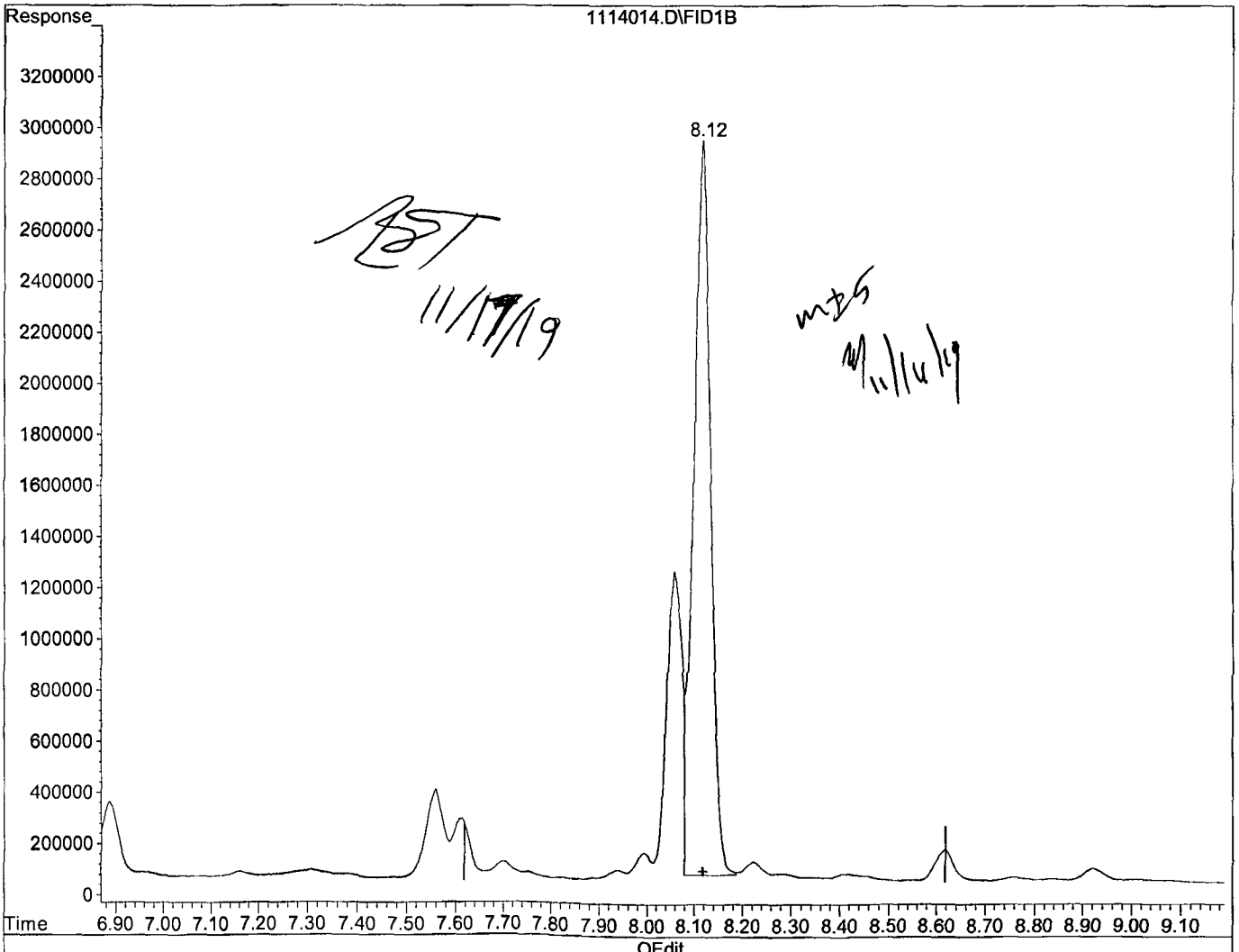
(+) = Expected Retention Time

1114014.D DOC1114.M Fri Nov 15 15:01:43 2019

Quantitation Report

Data File : G:\APOLLO\DATA\191114\1114014.D Vial: 14
Acq On : 11-14-19 23:17:57 Operator: BT
Sample : BA02091W11 2/800 Inst : Apollo
Misc : water Multiplr: 2.50
IntFile : events.e
Quant Time: Nov 15 14:45 2019 Quant Results File: DOC1114.RES

Method : G:\APOLLO\DATA\191114\DOC1114.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Nov 15 09:19:04 2019
Response via : Multiple Level Calibration



(4) Octacosane(S) (SA)

8.12min 77.709ppb m

response 70412720

(+) = Expected Retention Time
1114014.D DOC1114.M Fri Nov 15 15:01:52 2019

Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\191114\1114010.D Vial: 10
Acq On : 11-14-19 21:59:00 Operator: BT
Sample : 191104A BLK 2/800 Inst : Apollo
Misc : water Multiplr: 2.50
IntFile : events.e
Quant Time: Nov 15 14:47 2019 Quant Results File: DOC1114.RES

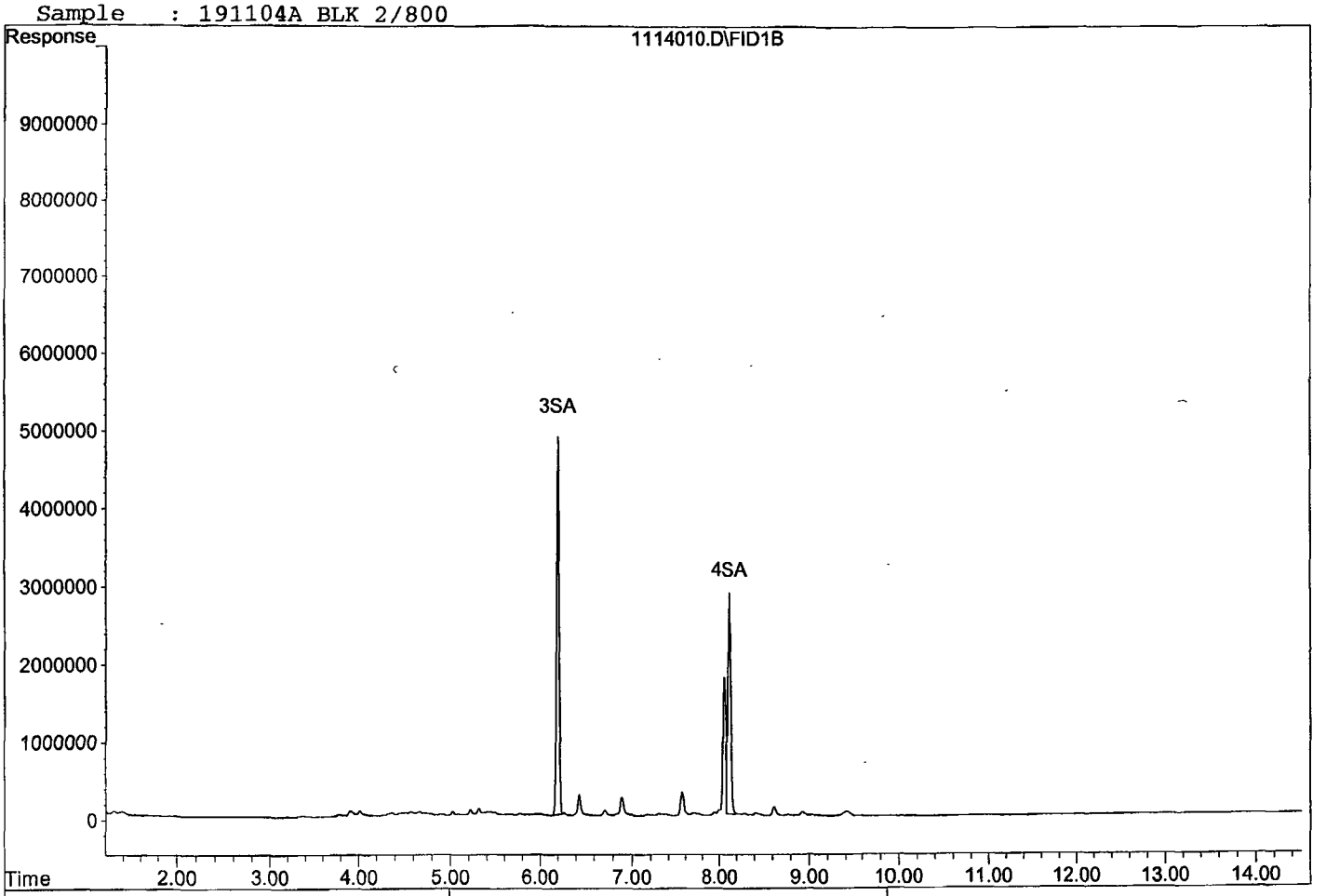
Method : G:\APOLLO\DATA\191114\DOC1114.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Nov 15 09:19:04 2019
Response via : Multiple Level Calibration

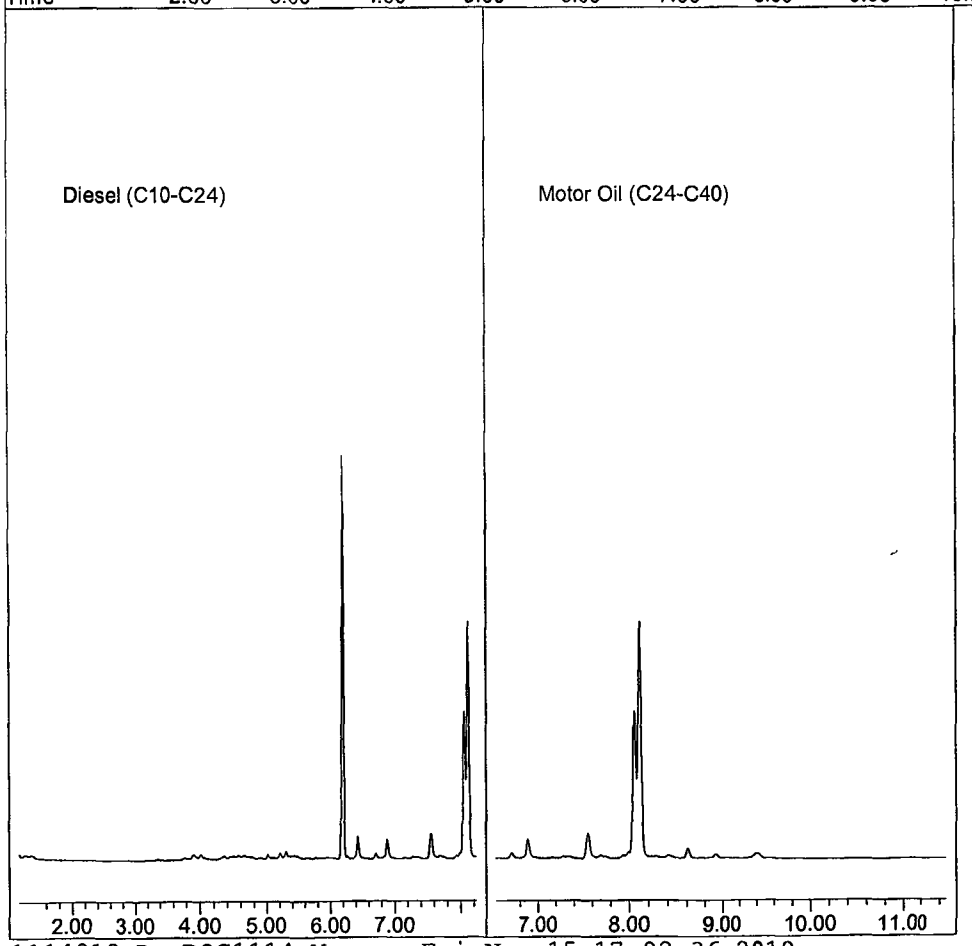
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds					
3) SA Ortho-Terphenyl(S)	6.20	95718085	84.498	ppb	
Surrogate Spike 75.000	Recovery =		112.66%		
4) SA Octacosane(S)	8.12	71527670	78.939	ppb	m
Surrogate Spike 75.000	Recovery =		105.25%		
Target Compounds					
Target Compounds					
1) HATM Diesel (C10-C24)	0.00	0	N.D.	ppb	
2) HBTM Motor Oil (C24-C40)	0.00	0	N.D.	ppb	

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: G:\APOLLO\DATA\191114\1114010.D
Sample : 191104A BLK 2/800



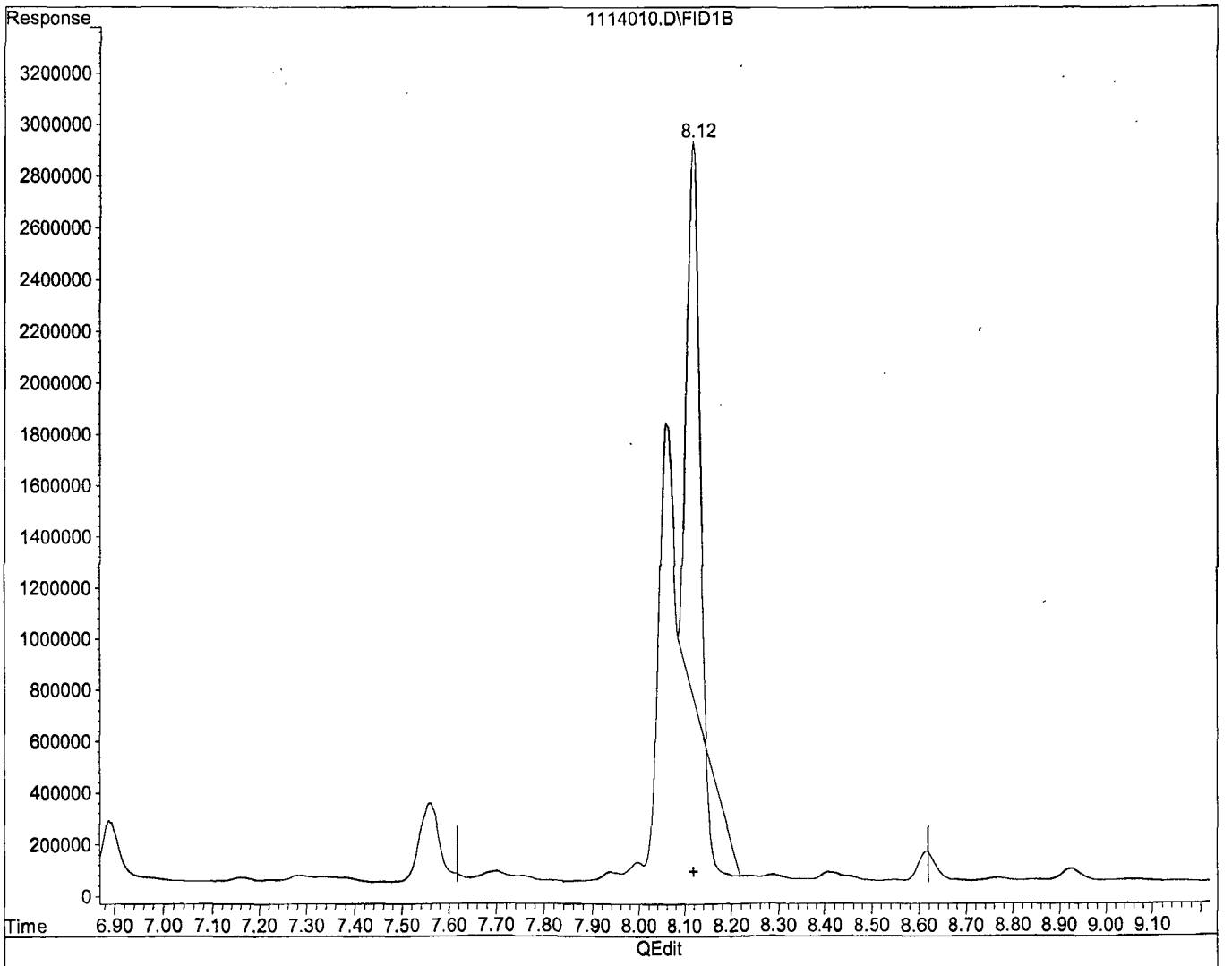


1114010.D DOC1114.M Fri Nov 15 17:02:36 2019

Quantitation Report

Data File : G:\APOLLO\DATA\191114\1114010.D Vial: 10
Acq On : 11-14-19 21:59:00 Operator: BT
Sample : 191104A BLK 2/800 Inst : Apollo
Misc : water Multiplr: 2.50
IntFile : events.e
Quant Time: Nov 15 14:45 2019 Quant Results File: DOC1114.RES

Method : G:\APOLLO\DATA\191114\DOC1114.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Nov 15 09:19:04 2019
Response via : Multiple Level Calibration



(4) Octacosane(S) (SA)

8.12min 35.782ppb

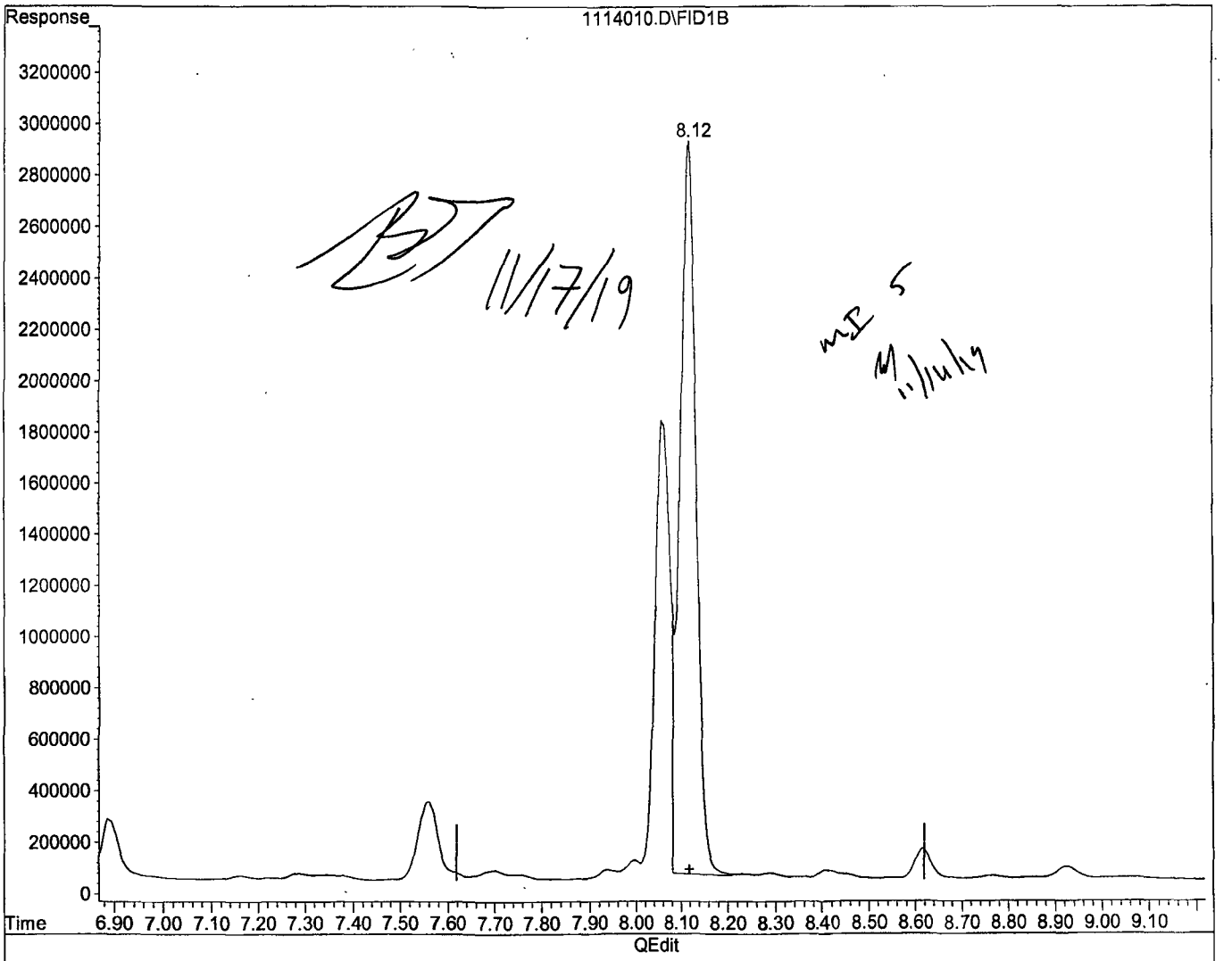
response 32422455

(+) = Expected Retention Time

Quantitation Report

Data File : G:\APOLLO\DATA\191114\1114010.D Vial: 10
Acq On : 11-14-19 21:59:00 Operator: BT
Sample : 191104A BLK 2/800 Inst : Apollo
Misc : water Multiplr: 2.50
IntFile : events.e
Quant Time: Nov 15 14:45 2019 Quant Results File: DOC1114.RES

Method : G:\APOLLO\DATA\191114\DOC1114.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Nov 15 09:19:04 2019
Response via : Multiple Level Calibration



(4) Octacosane(S) (SA)

8.12min 78.939ppb m

response 71527670

(+) = Expected Retention Time

1114010.D DOC1114.M Fri Nov 15 14:47:57 2019

Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\191114\1114011.D Vial: 11
Acq On : 11-14-19 22:18:47 Operator: BT
Sample : 191104A LCS-1 2/800 Inst : Apollo
Misc : water Multiplr: 2.50
IntFile : events.e
Quant Time: Nov 15 14:45 2019 Quant Results File: DOC1114.RES

Method : G:\APOLLO\DATA\191114\DOC1114.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Nov 15 09:19:04 2019
Response via : Multiple Level Calibration

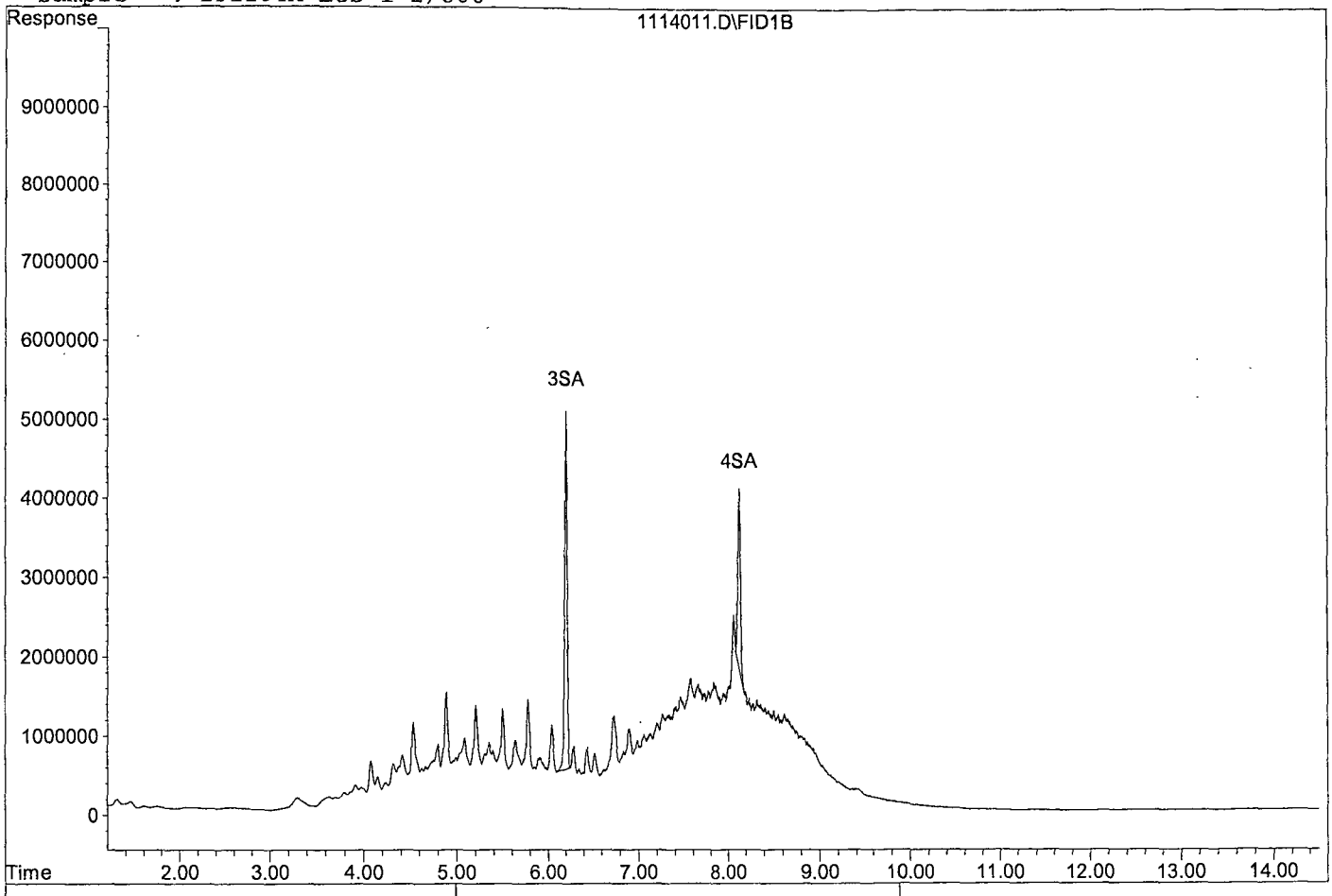
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

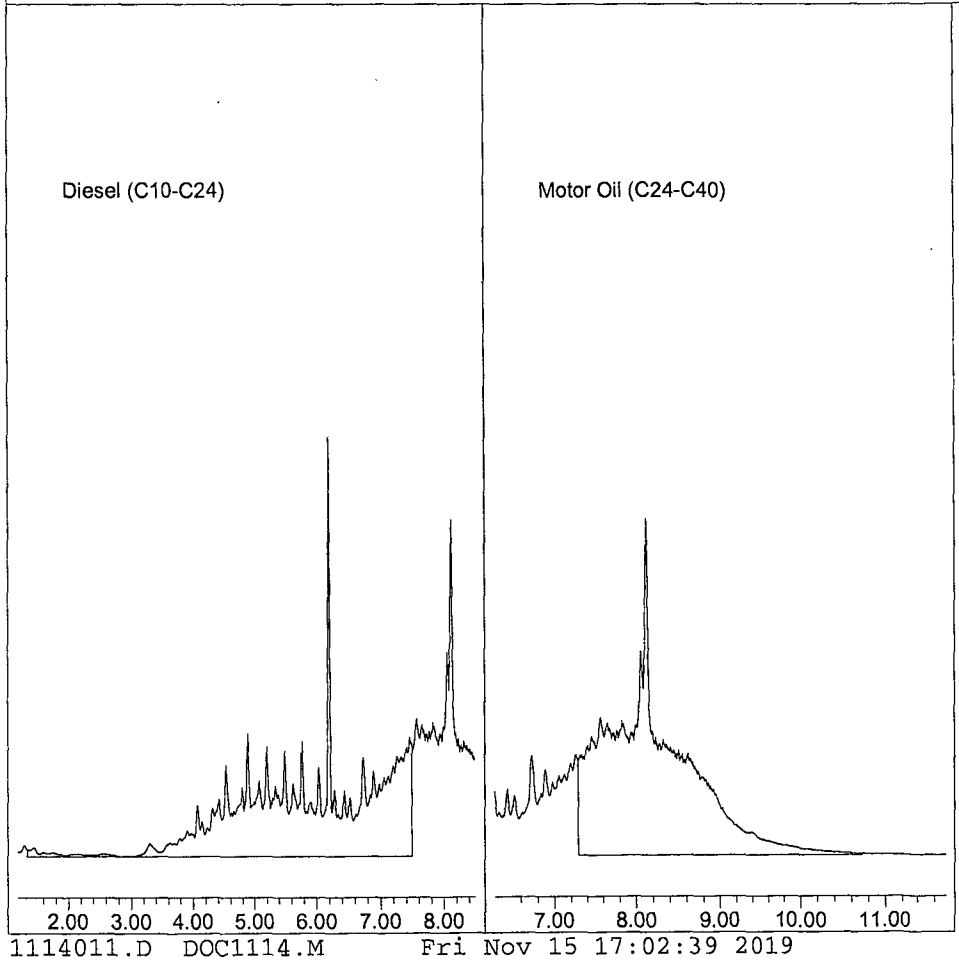
Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
3) SA Ortho-Terphenyl(S)	6.20	89048685	78.393	ppb
Surrogate Spike 75.000	Recovery =		104.52%	
4) SA Octacosane(S)	8.13	48942841	54.014	ppb
Surrogate Spike 75.000	Recovery =		72.02%	
Target Compounds				
1) HATM Diesel (C10-C24)	4.42	1582024905	1310.723	ppb
2) HBTM Motor Oil (C24-C40)	9.01	1508069917	2395.759	ppb

Target Compounds

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: G:\APOLLO\DATA\191114\1114011.D
Sample : 191104A LCS-1 2/800





Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\191114\1114012.D Vial: 12
Acq On : 11-14-19 22:38:34 Operator: BT
Sample : 191104A LCSD-1 2/800 Inst : Apollo
Misc : water Multiplr: 2.50
IntFile : events.e
Quant Time: Nov 15 14:45 2019 Quant Results File: DOC1114.RES

Method : G:\APOLLO\DATA\191114\DOC1114.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Nov 15 09:19:04 2019
Response via : Multiple Level Calibration

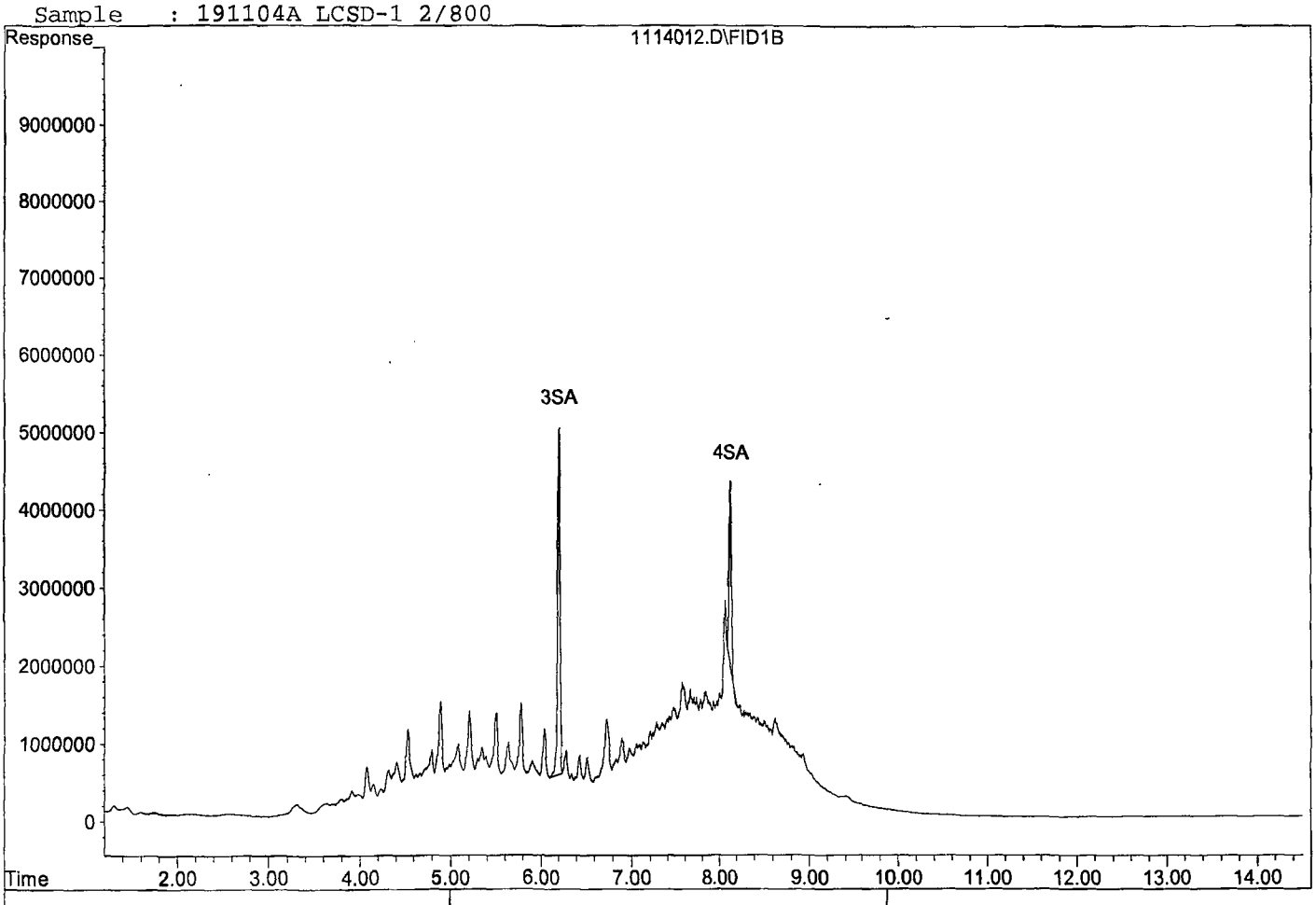
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

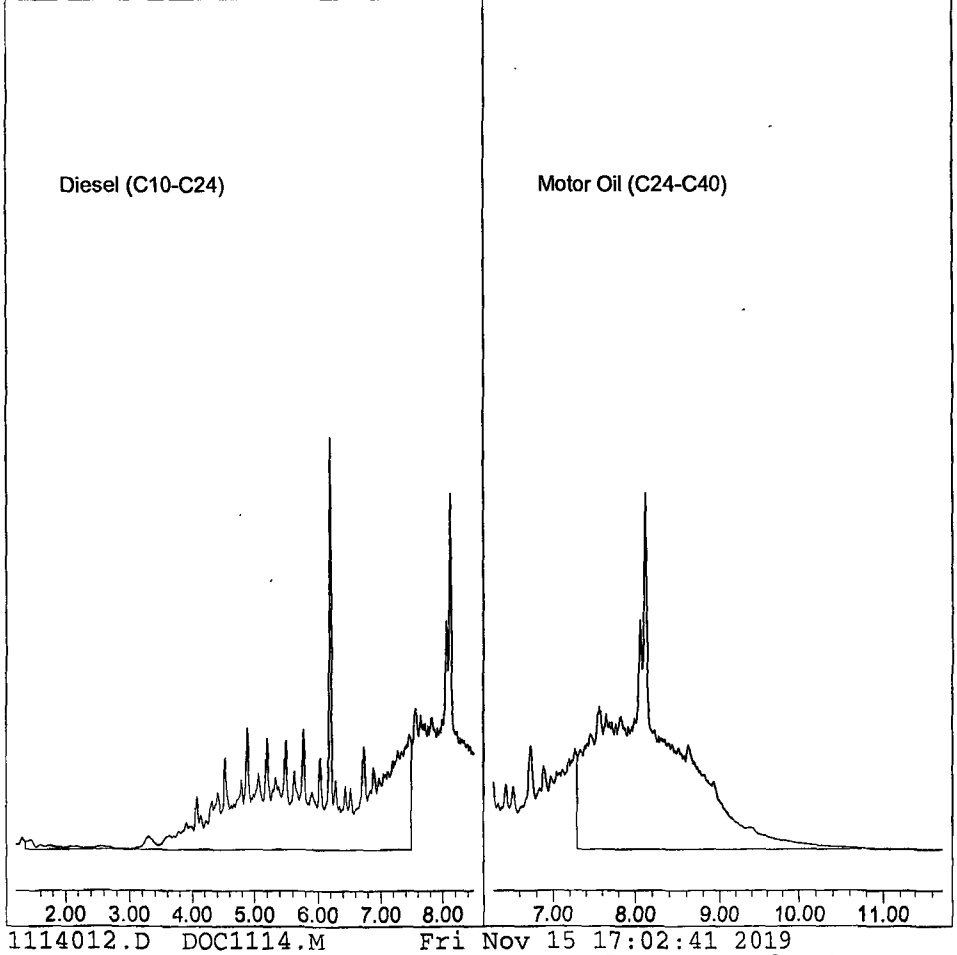
Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
3) SA Ortho-Terphenyl(S)	6.20	90161570	79.412	ppb
Surrogate Spike 75.000		Recovery =	105.88%	
4) SA Octacosane(S)	8.13	43035554	47.495	ppb
Surrogate Spike 75.000		Recovery =	63.33%	
Target Compounds				
1) HATM Diesel (C10-C24)	4.42	1607261609	1331.632	ppb
2) HBTM Motor Oil (C24-C40)	9.01	1502955315	2387.634	ppb

Target Compounds

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: G:\APOLLO\DATA\191114\1114012.D
Sample : 191104A LCSD-1 2/800





Organic Extraction Worksheet

Method	Continuous Liq/Liq TPH-Diesel/MO 3520C	Extraction Set	191104A	Extraction Method	LIQ005	Units	mL

Spiked ID 1	Diesel Spike 10/28/19 10/28/20		Surrogate ID 1	THC Surrogate 10/29/19 10/29/20	
Spiked ID 2	Motor Oil Spike 10/30/19 10/30/20		Surrogate ID 2		
Spiked ID 3			Surrogate ID 3		
Spiked ID 4			Surrogate ID 4		
Spiked ID 5			Surrogate ID 5		
Spiked ID 6			Sufficient Vol for Matrix QC:		
Spiked ID 7			Ext. Start Time:	11/04/19 13:40	
Spiked ID 8			Ext. End Time:	11/05/19 10:40	
			GC Requires Extract By:		

pH1			Water Bath Temp 1 °C	75/74.2 °C
pH2			Water Bath Temp 2 °C	75/74.9
pH3			Water Bath Temp 3 °C	80/79.9 °C

Spiked By: DL **Date** 11/04/19 **Witnessed By:** YL **Date** 11/04/19

	Sample	Sample Container	Spike Amount	Spike ID	Surrogate Amount	Surrogate ID	Extract Amount	Final Volume	pH	Extract Date/Time	Comments
1	191104A Blk				1	0.100 equip	800	2	2Y	11/04/19 13:40	
2	191104A LCS-1		0.020,0.040	1,2	1	0.100 equip	800	2	2Y	11/04/19 13:40	
3	191104A LCSD-1		0.020,0.040	1,2	1	0.100 equip	800	2	2Y	11/04/19 13:40	
4	BA02090	BA02090W17			1	0.100 equip	800	2	2Y	11/04/19 13:40	90587
5	BA02091	BA02091W11			1	0.100 equip	800	2	2Y	11/04/19 13:40	90587
6	BA02160	BA02160W15			1	0.100 equip	800	2	2Y	11/04/19 13:40	90599
7	BA02214	BA02214W23			1	0.100 equip	800	2	2Y	11/04/19 13:40	90611
8	BA02216	BA02216W16			1	0.100 equip	800	2	2Y	11/04/19 13:40	90611
9	BA02301	BA02301W14			1	0.100 equip	800	2	2Y	11/04/19 13:40	90625

Solvent and Lot#	
1+1 HCL	.6-15-19
PH Strips	HC863463
Dicholormethane (DCM)	59130
Filter Paper	.400171
B. Sodium Sulfate	2019020631
Silica Gel (*)	.

Extraction COC Transfer	
Extraction lab employee Initials	
GC analyst's initials	
Date	
Time	
Refrigerator	

	Technician's Initials
Scanned By	DS
Sample Preparation	DL YL RB
Extraction	DL
Concentration	DL

Modified	11/16/19 5:34:48 AM

Reviewed By: **Date**

Diesel / Motor Oil Calibration Curve

Prepared: 11/14/19

Expires: 05/13/20

Prepared By (Initials): BT

Methylene Chloride Lot No. 58059

Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference to APPL Prep Date	Exp. Date	Exp. Date (Manufacturer)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
Diesel / Motor Oil Calibration STD	APPL	Diesel / Motor Oil - 1	2,000	Prepared 11/14/19	09/11/20	N/A	5uL	1mL	MC	10
Diesel / Motor Oil Calibration STD	APPL	Diesel / Motor Oil -2	2,000	Prepared 11/14/19	09/11/20	N/A	25uL	1mL	MC	50
Diesel / Motor Oil Calibration STD	APPL	Diesel / Motor Oil - 3	2,000	Prepared 11/14/19	09/11/20	N/A	125uL	1mL	MC	250
Diesel / Motor Oil Calibration STD	APPL	Diesel / Motor Oil - 4	2,000	Prepared 11/14/19	09/11/20	N/A	500uL	1mL	MC	1000
Diesel / Motor Oil Calibration STD	APPL	Diesel / Motor Oil - 5	2,000	Prepared 11/14/19	09/11/20	N/A	750uL	1mL	MC	1500
Diesel / Motor Oil Calibration STD	APPL	Diesel / Motor Oil - 6	2,000	Prepared 11/14/19	09/11/20	N/A	100uL	100uL	N/A	2,000

Diesel / Motor Oil Second Source (SS)

Prepared: 01/15/19

Expires: 01/15/20

Prepared By (Initials): DP

Methylene Chloride Lot No. 56278

Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier Part No.	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr.)	Exp. Date (Manufacturer)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
Diesel Fuel #2	O2SI	G34-011598-03	50,000	**G34-319187-38958**	**08/02/19**	**09/29/21**	50uL	10mL	MC	250
Motor Oil Second Source	O2SI	116390-02-SS	50,000	**301142-37652**	**07/13/19**	**03/05/22**	50uL			

Diesel / Motor Oil Calibration Standard

Prepared: 11/14/19 **Prepared By (Initials): BT**

Expires: 09/11/20

Methylene Chloride Lot No. 58059

Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier Part No.	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr.)	Exp. Date (Manufacturer)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
Diesel Fuel #2	Restek	31258	50,000	**A0149066-41325**	**09/24/20**	**06/03/26**	400uL	10mL	MC	2000
Motor Oil	Restek	31464	50,000	**A0147736-41330**	**09/11/20**	**05/31/26**	400uL			2000
THC Surrogate	Phenova	ALO-130161	600	**CL13256-49449**	**11/13/20**	**11/28/24**	1666uL			100

THC Surrogate

Prepared: 10/29/19

Expires: 10/29/20

Prepared By (Initials): BT

Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier Part No.	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr.)	Exp. Date (Manufacturer)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
O-terphenyl / Octacosane Mix	Phenova	ALO-130161	600	CL13256-49450	10/29/20	02/31/2024	N/A	N/A	N/A	600

Diesel Spike

Prepared: 10/28/19 **Prepared By (Initials): BT**

Expires: 10/28/20

Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier Part No.	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr.)	Exp. Date (Manufacturer)	From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
Diesel Fuel #2	Restek	31258	50,000	A0149066-41319	10/28/20	06/03/26	N/A	N/A	N/A	50,000

Motor Oil Spike

Prepared: 10/30/19 **Prepared By (Initials): BT**

Expires: 10/30/20

Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier Part No.	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr.)	Exp. Date (Manufacturer)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
Motor Oil Composite	Restek	31464	50,000	**A0147736-41328**	**10/30/20**	**05/31/26**	N/A	N/A	N/A	50,000

Injection Log

Directory: G:\APOLLO\DATA\191114\

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	3	1114003.D	1	Diesel Motor Oil - 1 11/14/19	water	11-14-19 19:39:49
2	4	1114004.D	1	Diesel Motor Oil - 2 11/14/19	water	11-14-19 19:59:46
3	5	1114005.D	1	Diesel Motor Oil - 3 11/14/19	water	11-14-19 20:19:39
4	6	1114006.D	1	Diesel Motor Oil - 4 11/14/19	water	11-14-19 20:39:34
5	7	1114007.D	1	Diesel Motor Oil - 5 11/14/19	water	11-14-19 20:59:26
6	8	1114008.D	1	Diesel Motor Oil - 6 11/14/19	water	11-14-19 21:19:19
7	9	1114009.D	1	Diesel Motor Oil Second Source 1/15/19	water	11-14-19 21:39:10
8	10	1114010.D	2.5	191104A BLK 2/800	water	11-14-19 21:59:00
9	11	1114011.D	2.5	191104A LCS-1 2/800	water	11-14-19 22:18:47
10	12	1114012.D	2.5	191104A LCSD-1 2/800	water	11-14-19 22:38:34
11	13	1114013.D	2.5	BA02090W17 2/800	water	11-14-19 22:58:16
12	14	1114014.D	2.5	BA02091W11 2/800	water	11-14-19 23:17:57
13	19	1114019.D	1	Diesel Motor Oil CCV 11/14/19	water	11-15-19 0:55:27

ORGANICS
Calibration Data

PAH by GCMS SIM
EPA 8270 SIM

Form 6
Initial Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Initial Cal. Date: 10/28/19
Matrix: Instrument: Linus
Initials: MA LP

			1028L005.D	1028L006.D	1028L007.D	1028L008.D	1028L004.D	1028L009 D	1028L010.D	1028L011.D								
		Compound	0.1	0.2	0.5	1	5	20	50	100			Avg	%RSD	Type	r^2	Q	MRF
1	I	Napthalene-D8(IS)																
2	S	Surrogate Recovery (NBZ)	0.6154	0.4960	0.4602	0.4714	0.4325	0.4265	0.4474	0.4616			0.48	13	S			
3	TM	Naphthalene	1.353	1.324	1.228	1.322	1.154	1.233	1.170	1.137			1.2	6.8	TM			0.700
4	S	2-Methylnaphthalene-D10 (2M	1.381	1.311	1.233	1.321	1.228	1.192	1.177	1.148			1.2	6.5	S			
5	TM	2-Methylnaphthalene	0.7871	0.7676	0.7353	0.7876	0.7127	0.7463	0.6996	0.6884			0.74	5.2	TM			0.400
6	TM	1-Methylnaphthalene	0.8729	0.8587	0.7207	0.7851	0.7016	0.7332	0.6925	0.6878			0.76	9.8	TM			
7	I	Acenaphthene-D10(IS)																
8	S	Surrogate Recovery (FBP)	2.084	2.067	1.863	2.099	1.844	1.830	1.715	1.653			1.9	9.1	S			
9	TM	Acenaphthylene	5.495	5.363	5.078	5.658	5.251	5.751	5.010	4.930			5.3	5.7	TM			0.900
10	*TM	Acenaphthene	1.708	1.625	1.517	1.618	1.412	1.529	1.338	1.439			1.5	8.1	*TM			0.900
11	TM	Fluorene	1.748	1.717	1.628	1.812	1.633	1.776	1.673	1.592			1.7	4.6	TM			0.900
12	I	Phenanthrene-D10(IS)																
13	TM	Phenanthrene	1.669	1.541	1.498	1.635	1.381	1.470	1.355	1.265			1.5	9.4	TM			0.700
14	TM	Anthracene	1.260	1.193	1.201	1.358	1.291	1.363	1.276	1.260			1.3	4.9	TM			0.700
15	S	Fluoranthene-D10 (FRT)	1.894	1.787	1.721	1.903	1.860	1.907	1.799	1.683			1.8	4.7	S			
16	*TM	Fluoranthene	2.125	1.989	1.963	2.216	2.039	2.159	1.845	1.771			2.0	7.6	*TM			0.600
17	I	Chrysene-D12(IS)																
18	TM	Pyrene	1.917	1.787	1.752	1.917	1.747	1.808	1.714	1.669			1.8	5.0	TM			0.600
19	S	Surrogate Recovery (TPH)	1.035	0.9626	0.9160	0.9919	0.9371	0.9175	0.9804	0.9502			0.96	4.2	S			
20	TM	Benz (a) anthracene	1.534	1.359	1.345	1.415	1.416	1.448	1.430	1.415			1.4	4.0	TM			0.800
21	TM	Chrysene	1.877	1.680	1.536	1.668	1.444	1.534	1.433	1.409			1.6	10	TM			0.700
22	TM	Indeno (1,2,3-cd) pyrene	1.476	1.215	1.084	1.244	1.392	1.511	1.583	1.595			1.4	14	TM			0.500
23	I	Perylene-D12(IS)																
24	TM	Benzo (b) fluoranthene	1.329	1.058	1.106	1.231	1.301	1.421	1.375	1.322			1.3	10	TM			0.700
25	TM	Benzo (k) fluoranthene	1.285	1.483	1.360	1.569	1.476	1.628	1.346	1.365			1.4	8.3	TM			0.700
26	*TM	Benzo (a) pyrene	1.142	0.9908	0.9637	1.073	1.246	1.377	1.283	1.260			1.2	13	*TM			0.700
27	TM	Dibenz (a,h) anthracene	1.207	1.035	0.9842	1.085	1.167	1.279	1.208	1.243			1.2	9.1	TM			0.400
28	TM	Benzo (g,h,i) perylene	1.405	1.180	1.137	1.241	1.225	1.358	1.281	1.283			1.3	7.0	TM			0.500
29																		
30																		
31																		
32																		
33																		
34																		
35																		

Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L191028\1028L004.D Vial: 4
Acq On : 28 Oct 19 12:26 Operator: MA
Sample : 5 SIM 10/28/19(2) Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 30 10:37 2019 Quant Results File: L1028.RES

Quant Method : M:\LINUS\DATA\L191028\L1028.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 30 10:36:52 2019
Response via : Initial Calibration
DataAcq Meth : SIM_2

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Napthalene-D8(IS)	4.27	136	42509	2.50000 ppb		0.00
7) Acenaphthene-D10(IS)	6.27	164	17630	2.50000 ppb		0.00
12) Phenanthrene-D10(IS)	7.99	188	30825	2.50000 ppb		0.00
17) Chrysene-D12(IS)	11.11	240	35746	2.50000 ppb		0.00
23) Perylene-D12(IS)	13.53	264	35057	2.50000 ppb		0.00
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	3.49	82	18387	2.26999 ppb		0.00
Spiked Amount 5.000			Recovery	= 45.400%		
4) 2-Methylnaphthalene-D10 (2	5.05	152	52219	2.45912 ppb		0.00
Spiked Amount 5.000			Recovery	= 49.180%		
8) Surrogate Recovery (FBP)	5.52	172	32516	2.43389 ppb		0.00
Spiked Amount 5.000			Recovery	= 48.680%		
15) Fluoranthene-D10 (FRT)	9.37	212	57325	2.55457 ppb		0.00
Spiked Amount 5.000			Recovery	= 51.100%		
19) Surrogate Recovery (TPH)	9.86	244	33496	2.43703 ppb		0.00
Spiked Amount 5.000			Recovery	= 48.740%		
Target Compounds						Qvalue
3) Naphthalene	4.30	128	98104	4.65241 ppb		100
5) 2-Methylnaphthalene	5.08	142	60590	4.81172 ppb		100
6) 1-Methylnaphthalene	5.19	142	59650	4.63689 ppb		100
9) Acenaphthylene	6.11	152	185151	4.93782 ppb		100
10) Acenaphthene	6.30	154	49783	4.63497 ppb		100
11) Fluorene	6.90	166	57596	4.81102 ppb		100
13) Phenanthrene	8.01	178	85147	4.67624 ppb		100
14) Anthracene	8.08	178	79570	5.06096 ppb		100
16) Fluoranthene	9.39	202	125700	5.02216 ppb		100
18) Pyrene	9.64	202	124886	4.88571 ppb		100
20) Benz (a) anthracene	11.09	228	101233	4.98555 ppb		100
21) Chrysene	11.14	228	103205	4.58223 ppb		100
22) Indeno (1,2,3-cd) pyrene	15.00	276	99497	5.01530 ppb	#	100
24) Benzo (b) fluoranthene	12.90	252	91200	5.12901 ppb		100
25) Benzo (k) fluoranthene	12.95	252	103463	5.12718 ppb		100
26) Benzo (a) pyrene	13.43	252	87360	5.33556 ppb		100
27) Dibenz (a,h) anthracene	15.05	278	81789	5.06796 ppb		100
28) Benzo (g,h,i) perylene	15.38	276	85903	4.84757 ppb		100

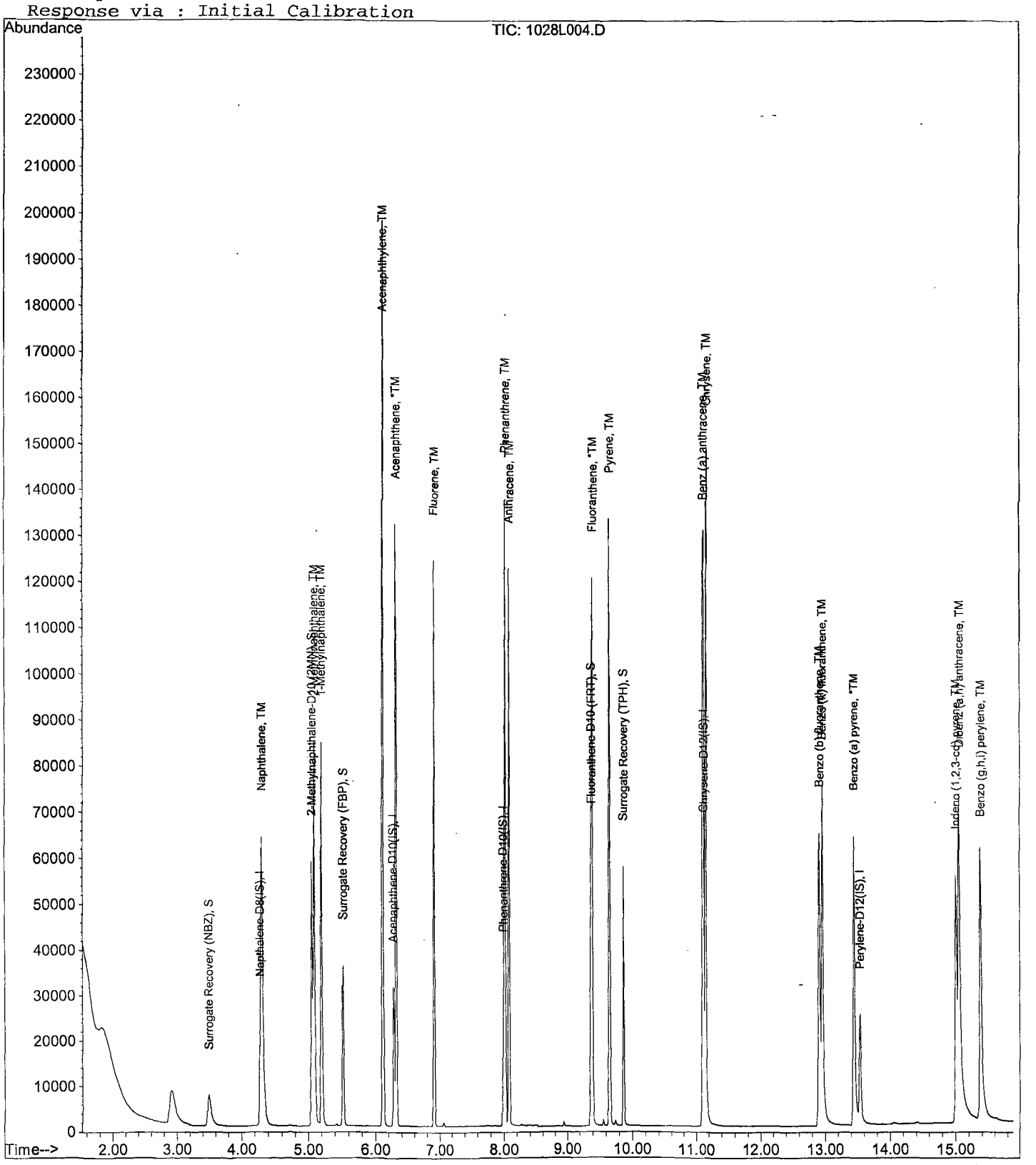
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L191028\1028L004.D Vial: 4
Acq On : 28 Oct 19 12:26 Operator: MA
Sample : 5 SIM 10/28/19(2) Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 30 10:37 2019 Quant Results File: L1028.RES

Method : M:\LINUS\DATA\L191028\L1028.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 30 10:39:31 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L191028\1028L005.D Vial: 5
Acq On : 28 Oct 19 12:51 Operator: MA
Sample : 0.1 SIM 10/28/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 30 10:34 2019 Quant Results File: L1028.RES

Quant Method : M:\LINUS\DATA\L191028\L1028.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 30 10:34:31 2019
Response via : Initial Calibration
DataAcq Meth : SIM_2

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Napthalene-D8(IS)	4.27	136	39324	2.50000	ppb		0.00
7) Acenaphthene-D10(IS)	6.27	164	16174	2.50000	ppb		0.00
12) Phenanthrene-D10(IS)	7.99	188	28360	2.50000	ppb		0.00
17) Chrysene-D12(IS)	11.10	240	31560	2.50000	ppb		-0.01
23) Perylene-D12(IS)	13.52	264	31724	2.50000	ppb		-0.01
System Monitoring Compounds							
2) Surrogate Recovery (NBZ)	3.49	82	484	0.06459	ppb		0.00
Spiked Amount 5.000			Recovery = 1.300%				
4) 2-Methylnaphthalene-D10 (2	5.05	152	1086	0.05528	ppb		0.00
Spiked Amount 5.000			Recovery = 1.100%				
8) Surrogate Recovery (FBP)	5.52	172	674	0.05499	ppb		0.00
Spiked Amount 5.000			Recovery = 1.100%				
15) Fluoranthene-D10 (FRT)	9.36	212	1074	0.05202	ppb		-0.01
Spiked Amount 5.000			Recovery = 1.040%				
19) Surrogate Recovery (TPH)	9.86	244	653	0.05381	ppb		0.00
Spiked Amount 5.000			Recovery = 1.080%				
Target Compounds							Qvalue
3) Naphthalene	4.30	128	2128	0.10909	ppb		99
5) 2-Methylnaphthalene	5.08	142	1238	0.10628	ppb		99
6) 1-Methylnaphthalene	5.19	142	1373	0.11537	ppb		95
9) Acenaphthylene	6.11	152	3555	0.10334	ppb		99
10) Acenaphthene	6.30	154	1105	0.11214	ppb		95
11) Fluorene	6.90	166	1131	0.10298	ppb		98
13) Phenanthrene	8.02	178	1893	0.11300	ppb		98
14) Anthracene	8.08	178	1429	0.09879	ppb		99
16) Fluoranthene	9.38	202	2411	0.10470	ppb	#	85
18) Pyrene	9.64	202	2420	0.10723	ppb		94
20) Benz (a) anthracene	11.09	228	1936	0.10799	ppb		99
21) Chrysene	11.14	228	2369	0.11913	ppb		96
22) Indeno (1,2,3-cd) pyrene	15.00	276	1863	0.10636	ppb	#	93
24) Benzo (b) fluoranthene	12.89	252	1687	0.10484	ppb		98
25) Benzo (k) fluoranthene	12.95	252	1630	0.08926	ppb		96
26) Benzo (a) pyrene	13.43	252	1449	0.09780	ppb		96
27) Dibenz (a,h) anthracene	15.04	278	1531	0.10483	ppb	#	91
28) Benzo (g,h,i) perylene	15.37	276	1783	0.11119	ppb		99

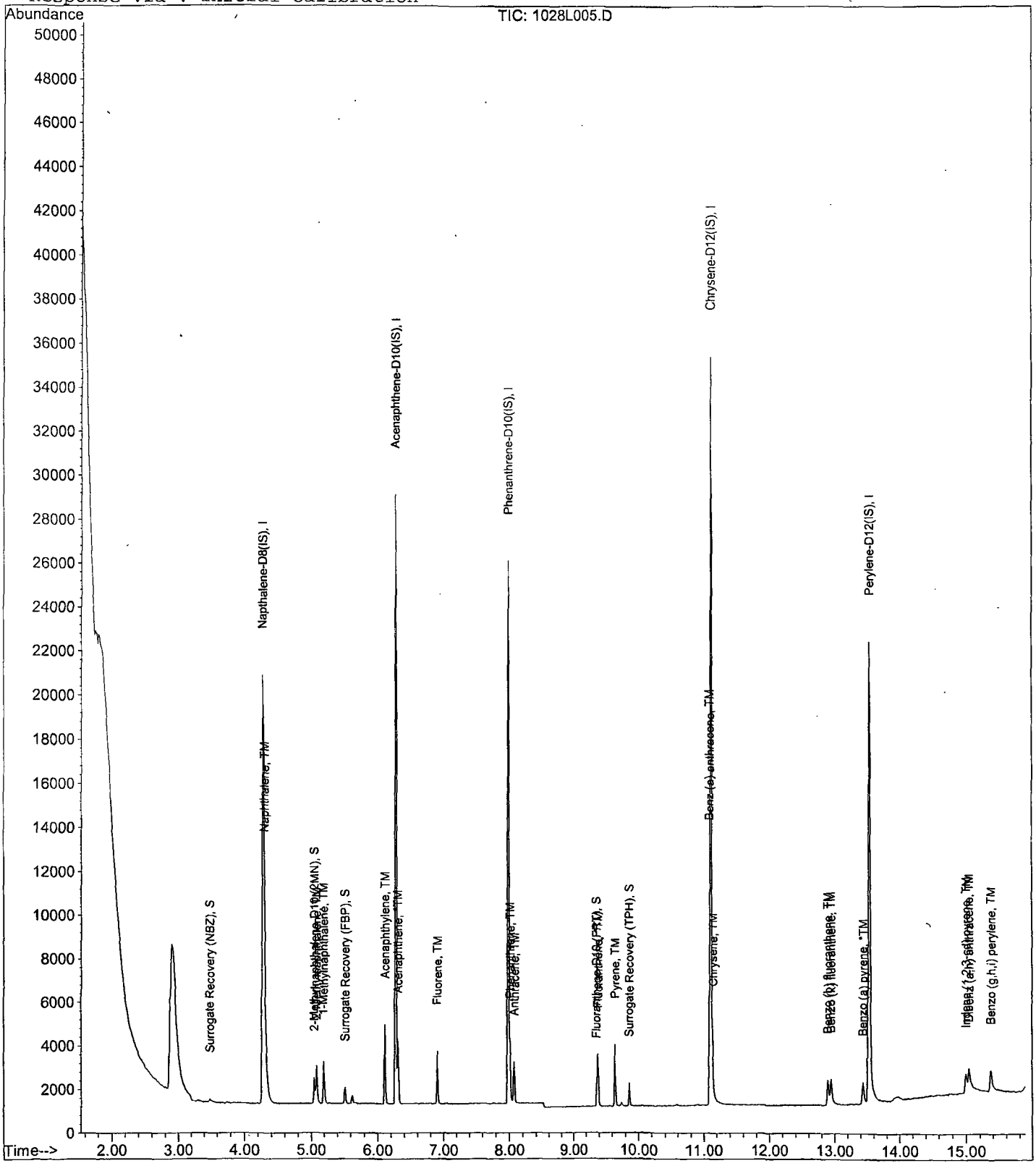
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L191028\1028L005.D Vial: 5
Acq On : 28 Oct 19 12:51 Operator: MA
Sample : 0.1 SIM 10/28/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 30 10:34 2019 Quant Results File: L1028.RES

Method : M:\LINUS\DATA\L191028\L1028.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 30 10:39:31 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L191028\1028L006.D Vial: 6
Acq On : 28 Oct 19 13:13 Operator: MA
Sample : 0.2 SIM 10/28/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 30 10:34 2019 Quant Results File: L1028.RES

Quant Method : M:\LINUS\DATA\L191028\L1028.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 30 10:34:31 2019
Response via : Initial Calibration
DataAcq Meth : SIM_2

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Napthalene-D8(IS)	4.27	136	38562	2.50000 ppb		0.00
7) Acenaphthene-D10(IS)	6.27	164	15986	2.50000 ppb		0.00
12) Phenanthrene-D10(IS)	7.99	188	28375	2.50000 ppb		0.00
17) Chrysene-D12(IS)	11.10	240	31295	2.50000 ppb		-0.01
23) Perylene-D12(IS)	13.52	264	30972	2.50000 ppb		-0.01
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	3.49	82	765	0.10411 ppb		0.00
Spiked Amount 5.000			Recovery = 2.080%			
4) 2-Methylnaphthalene-D10 (2	5.05	152	2022	0.10497 ppb		0.00
Spiked Amount 5.000			Recovery = 2.100%			
8) Surrogate Recovery (FBP)	5.52	172	1322	0.10913 ppb		0.00
Spiked Amount 5.000			Recovery = 2.180%			
15) Fluoranthene-D10 (FRT)	9.36	212	2028	0.09818 ppb		-0.01
Spiked Amount 5.000			Recovery = 1.960%			
19) Surrogate Recovery (TPH)	9.86	244	1205	0.10014 ppb		0.00
Spiked Amount 5.000			Recovery = 2.000%			
Target Compounds						Qvalue
3) Naphthalene	4.30	128	4084	0.21350 ppb		99
5) 2-Methylnaphthalene	5.08	142	2368	0.20730 ppb		97
6) 1-Methylnaphthalene	5.19	142	2649	0.22700 ppb		98
9) Acenaphthylene	6.11	152	6859	0.20174 ppb		99
10) Acenaphthene	6.30	154	2078	0.21337 ppb		99
11) Fluorene	6.90	166	2196	0.20230 ppb		97
13) Phenanthrene	8.01	178	3498	0.20870 ppb		99
14) Anthracene	8.08	178	2709	0.18718 ppb		100
16) Fluoranthene	9.38	202	4516	0.19601 ppb	#	82
18) Pyrene	9.64	202	4473	0.19988 ppb		94
20) Benz (a) anthracene	11.09	228	3402	0.19137 ppb		98
21) Chrysene	11.14	228	4205	0.21325 ppb		96
22) Indeno (1,2,3-cd) pyrene	15.00	276	3043	0.17520 ppb	#	80
24) Benzo (b) fluoranthene	12.89	252	2622	0.16691 ppb	#	95
25) Benzo (k) fluoranthene	12.95	252	3675	0.20614 ppb		97
26) Benzo (a) pyrene	13.43	252	2455	0.16972 ppb	#	93
27) Dibenz (a,h) anthracene	15.04	278	2564	0.17983 ppb		95
28) Benzo (g,h,i) perylene	15.37	276	2923	0.18670 ppb		93

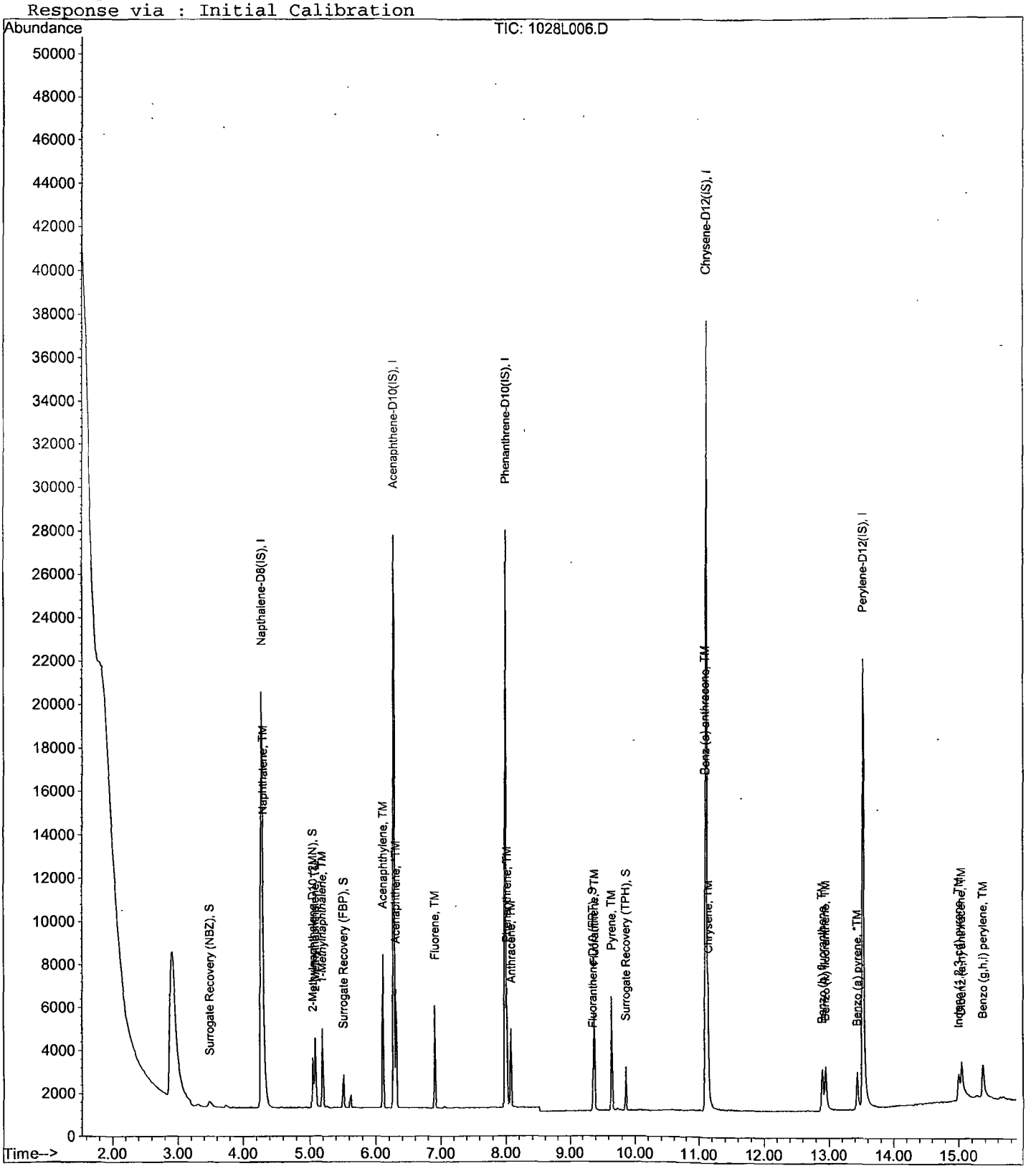
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L191028\1028L006.D Vial: 6
Acq On : 28 Oct 19 13:13 Operator: MA
Sample : 0.2 SIM 10/28/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 30 10:34 2019 Quant Results File: L1028.RES

Method : M:\LINUS\DATA\L191028\L1028.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 30 10:39:31 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L191028\1028L007.D Vial: 7
Acq On : 28 Oct 19 13:35 Operator: MA
Sample : 0.5 SIM 10/28/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 30 10:35 2019 Quant Results File: L1028.RES

Quant Method : M:\LINUS\DATA\L191028\L1028.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 30 10:34:31 2019
Response via : Initial Calibration
DataAcq Meth : SIM_2

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Napthalene-D8(IS)	4.27	136	37004	2.50000	ppb		0.00
7) Acenaphthene-D10(IS)	6.28	164	15527	2.50000	ppb		0.01
12) Phenanthrene-D10(IS)	7.99	188	27459	2.50000	ppb		0.00
17) Chrysene-D12(IS)	11.11	240	30862	2.50000	ppb		0.00
23) Perylene-D12(IS)	13.53	264	29964	2.50000	ppb		0.00
System Monitoring Compounds							
2) Surrogate Recovery (NBZ)	3.49	82	1703	0.24152	ppb		0.00
Spiked Amount 5.000			Recovery	= 4.840%			
4) 2-Methylnaphthalene-D10 (2	5.05	152	4562	0.24680	ppb		0.00
Spiked Amount 5.000			Recovery	= 4.940%			
8) Surrogate Recovery (FBP)	5.52	172	2893	0.24588	ppb		0.00
Spiked Amount 5.000			Recovery	= 4.920%			
15) Fluoranthene-D10 (FRT)	9.37	212	4727	0.23647	ppb		0.00
Spiked Amount 5.000			Recovery	= 4.720%			
19) Surrogate Recovery (TPH)	9.86	244	2827	0.23823	ppb		0.00
Spiked Amount 5.000			Recovery	= 4.760%			
Target Compounds							Qvalue
3) Naphthalene	4.30	128	9091	0.49526	ppb		99
5) 2-Methylnaphthalene	5.08	142	5442	0.49647	ppb		100
6) 1-Methylnaphthalene	5.19	142	5334	0.47632	ppb		96
9) Acenaphthylene	6.11	152	15769	0.47751	ppb		100
10) Acenaphthene	6.30	154	4710	0.49791	ppb		98
11) Fluorene	6.90	166	5056	0.47953	ppb		98
13) Phenanthrene	8.02	178	8228	0.50727	ppb		98
14) Anthracene	8.08	178	6595	0.47089	ppb		99
16) Fluoranthene	9.39	202	10783	0.48363	ppb		98
18) Pyrene	9.64	202	10814	0.49001	ppb		96
20) Benz (a) anthracene	11.09	228	8304	0.47368	ppb		99
21) Chrysene	11.14	228	9479	0.48746	ppb		99
22) Indeno (1,2,3-cd) pyrene	15.00	276	6693	0.39076	ppb	#	90
24) Benzo (b) fluoranthene	12.89	252	6629	0.43618	ppb	#	95
25) Benzo (k) fluoranthene	12.95	252	8149	0.47247	ppb		97
26) Benzo (a) pyrene	13.44	252	5775	0.41266	ppb		95
27) Dibenz (a,h) anthracene	15.04	278	5898	0.42758	ppb	#	89
28) Benzo (g,h,i) perylene	15.37	276	6815	0.44994	ppb		95

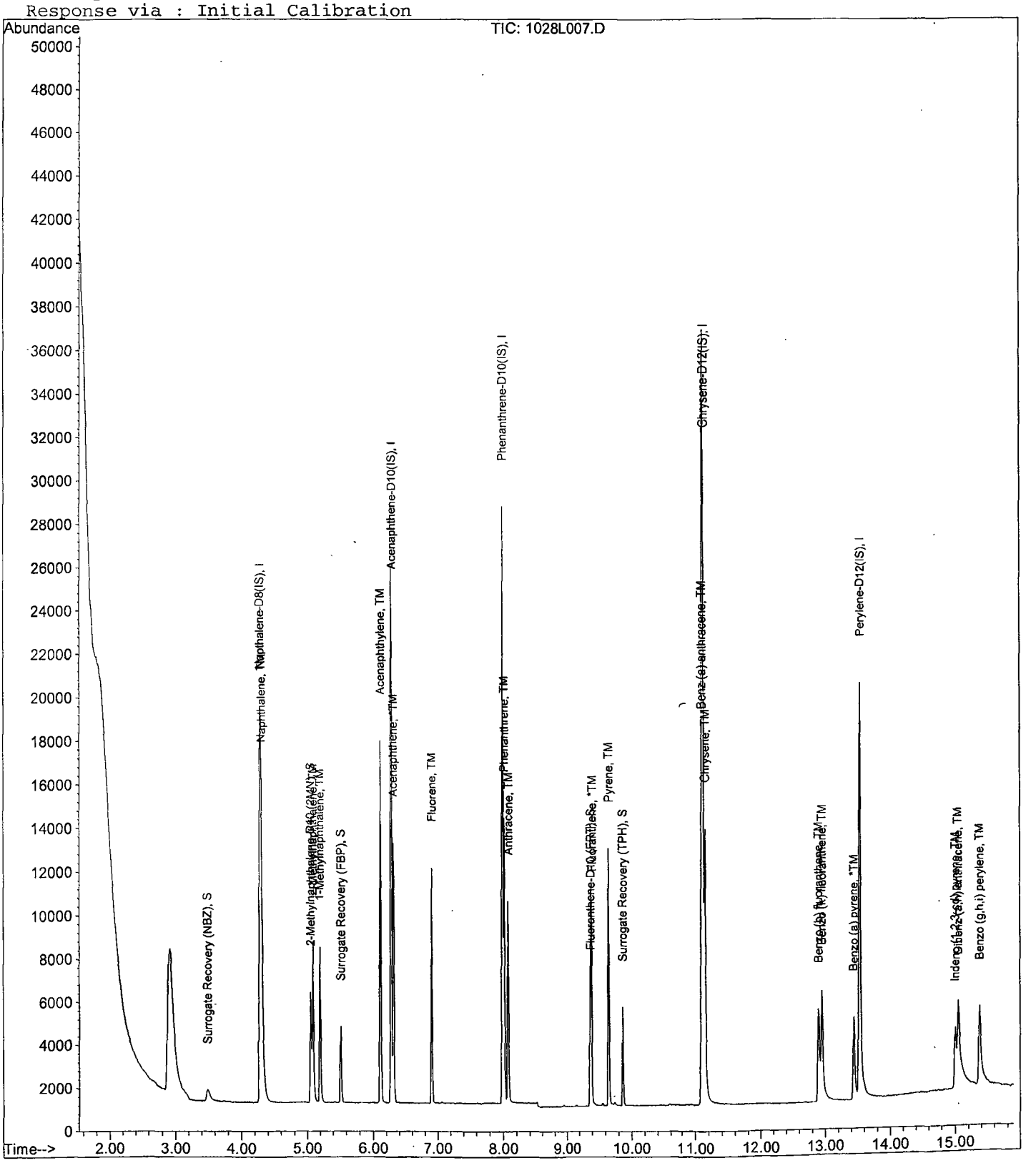
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L191028\1028L007.D Vial: 7
Acq On : 28 Oct 19 13:35 Operator: MA
Sample : 0.5 SIM 10/28/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 30 10:35 2019 Quant Results File: L1028.RES

Method : M:\LINUS\DATA\L191028\L1028.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 30 10:39:31 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L191028\1028L008.D Vial: 8
Acq On : 28 Oct 19 13:57 Operator: MA
Sample : 1 SIM 10/28/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 30 10:35 2019 Quant Results File: L1028.RES

Quant Method : M:\LINUS\DATA\L191028\L1028.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 30 10:34:31 2019
Response via : Initial Calibration
DataAcq Meth : SIM_2

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Napthalene-D8(IS)	4.29	136	32025	2.50000 ppb		0.01
7) Acenaphthene-D10(IS)	6.28	164	13099	2.50000 ppb		0.01
12) Phenanthrene-D10(IS)	7.99	188	23028	2.50000 ppb		0.00
17) Chrysene-D12(IS)	11.11	240	26425	2.50000 ppb		0.00
23) Perylene-D12(IS)	13.53	264	25032	2.50000 ppb		0.00
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	3.49	82	3019	0.49473 ppb		0.00
Spiked Amount 5.000			Recovery	= 9.900%		
4) 2-Methylnaphthalene-D10 (2	5.05	152	8459	0.52876 ppb		0.00
Spiked Amount 5.000			Recovery	= 10.580%		
8) Surrogate Recovery (FBP)	5.52	172	5500	0.55409 ppb		0.00
Spiked Amount 5.000			Recovery	= 11.080%		
15) Fluoranthene-D10 (FRT)	9.37	212	8766	0.52290 ppb		0.00
Spiked Amount 5.000			Recovery	= 10.460%		
19) Surrogate Recovery (TPH)	9.86	244	5242	0.51591 ppb		0.00
Spiked Amount 5.000			Recovery	= 10.320%		
Target Compounds						Qvalue
3) Naphthalene	4.30	128	16930	1.06571 ppb		100
5) 2-Methylnaphthalene	5.08	142	10089	1.06351 ppb		99
6) 1-Methylnaphthalene	5.19	142	10057	1.03771 ppb		97
9) Acenaphthylene	6.11	152	29648	1.06419 ppb		99
10) Acenaphthene	6.31	154	8477	1.06224 ppb		88
11) Fluorene	6.90	166	9496	1.06758 ppb		97
13) Phenanthrene	8.01	178	15064	1.10743 ppb		100
14) Anthracene	8.08	178	12506	1.06475 ppb		100
16) Fluoranthene	9.39	202	20409	1.09150 ppb		100
18) Pyrene	9.64	202	20263	1.07233 ppb		98
20) Benz (a) anthracene	11.10	228	14953	0.99617 ppb		97
21) Chrysene	11.14	228	17636	1.05923 ppb		99
22) Indeno (1,2,3-cd) pyrene	15.00	276	13150	0.89665 ppb	#	94
24) Benzo (b) fluoranthene	12.90	252	12330	0.97114 ppb		99
25) Benzo (k) fluoranthene	12.95	252	15715	1.09065 ppb		99
26) Benzo (a) pyrene	13.43	252	10748	0.91934 ppb		99
27) Dibenz (a,h) anthracene	15.05	278	10865	0.94286 ppb		98
28) Benzo (g,h,i) perylene	15.37	276	12422	0.98172 ppb	#	89

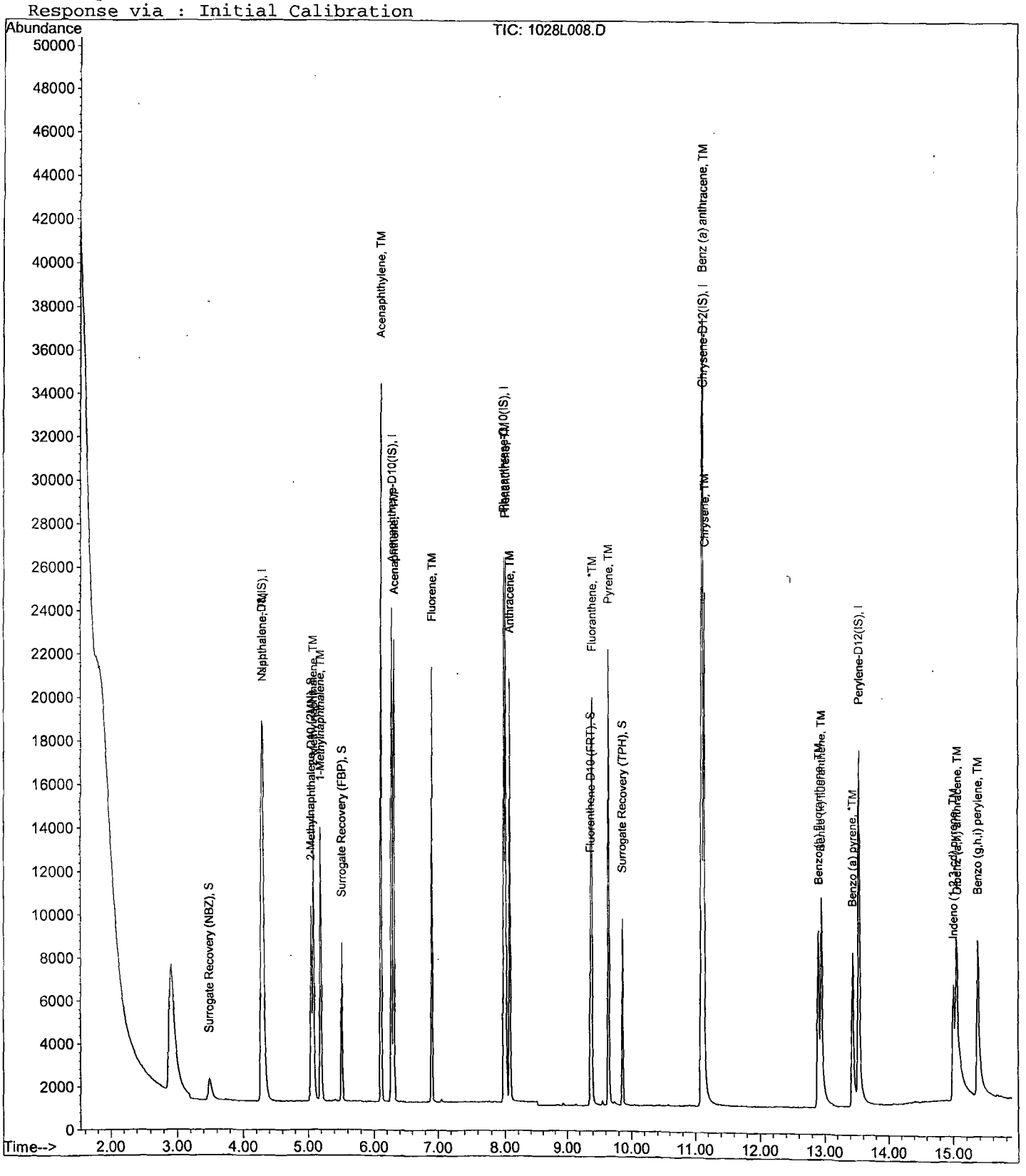
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L191028\1028L008.D Vial: 8
Acq On : 28 Oct 19 13:57 Operator: MA
Sample : 1 SIM 10/28/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 30 10:35 2019 Quant Results File: L1028.RES

Method : M:\LINUS\DATA\L191028\L1028.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 30 10:39:31 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L191028\1028L009.D Vial: 9
Acq On : 28 Oct 19 14:19 Operator: MA
Sample : 20 SIM 10/28/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 30 10:35 2019 Quant Results File: L1028.RES

Quant Method : M:\LINUS\DATA\L191028\L1028.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 30 10:34:31 2019
Response via : Initial Calibration
DataAcq Meth : SIM_2

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Napthalene-D8(IS)	4.29	136	32869	2.50000 ppb		0.01
7) Acenaphthene-D10(IS)	6.28	164	13416	2.50000 ppb		0.01
12) Phenanthrene-D10(IS)	7.99	188	23677	2.50000 ppb		0.00
17) Chrysene-D12(IS)	11.11	240	28661	2.50000 ppb		0.00
23) Perylene-D12(IS)	13.53	264	27623	2.50000 ppb		0.00
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	3.49	82	56078	8.95364 ppb		0.00
Spiked Amount 5.000			Recovery	= 179.080%		
4) 2-Methylnaphthalene-D10 (2	5.05	152	156708	9.54415 ppb		0.00
Spiked Amount 5.000			Recovery	= 190.880%		
8) Surrogate Recovery (FBP)	5.52	172	98204	9.65967 ppb		0.00
Spiked Amount 5.000			Recovery	= 193.200%		
15) Fluoranthene-D10 (FRT)	9.37	212	180565	10.47571 ppb		0.00
Spiked Amount 5.000			Recovery	= 209.520%		
19) Surrogate Recovery (TPH)	9.86	244	105182	9.54434 ppb		0.00
Spiked Amount 5.000			Recovery	= 190.880%		
Target Compounds						Qvalue
3) Naphthalene	4.31	128	324267	19.88786 ppb		99
5) 2-Methylnaphthalene	5.08	142	196246	20.15556 ppb		98
6) 1-Methylnaphthalene	5.19	142	192793	19.38213 ppb		96
9) Acenaphthylene	6.11	152	617256	21.63237 ppb		99
10) Acenaphthene	6.31	154	164055	20.07171 ppb		88
11) Fluorene	6.90	166	190667	20.92904 ppb		96
13) Phenanthrene	8.01	178	278373	19.90356 ppb		99
14) Anthracene	8.08	178	258173	21.37818 ppb		98
16) Fluoranthene	9.39	202	408909	21.26956 ppb	#	88
18) Pyrene	9.65	202	414663	20.23232 ppb	#	88
20) Benz (a) anthracene	11.10	228	331965	20.39010 ppb		99
21) Chrysene	11.15	228	351823	19.48211 ppb		99
22) Indeno (1,2,3-cd) pyrene	15.02	276	346411	21.77783 ppb	#	80
24) Benzo (b) fluoranthene	12.91	252	314014	22.41257 ppb		98
25) Benzo (k) fluoranthene	12.97	252	359815	22.62958 ppb	#	94
26) Benzo (a) pyrene	13.45	252	304231	23.58169 ppb		98
27) Dibenz (a,h) anthracene	15.07	278	282549	22.21959 ppb		96
28) Benzo (g,h,i) perylene	15.39	276	300183	21.49840 ppb	#	87

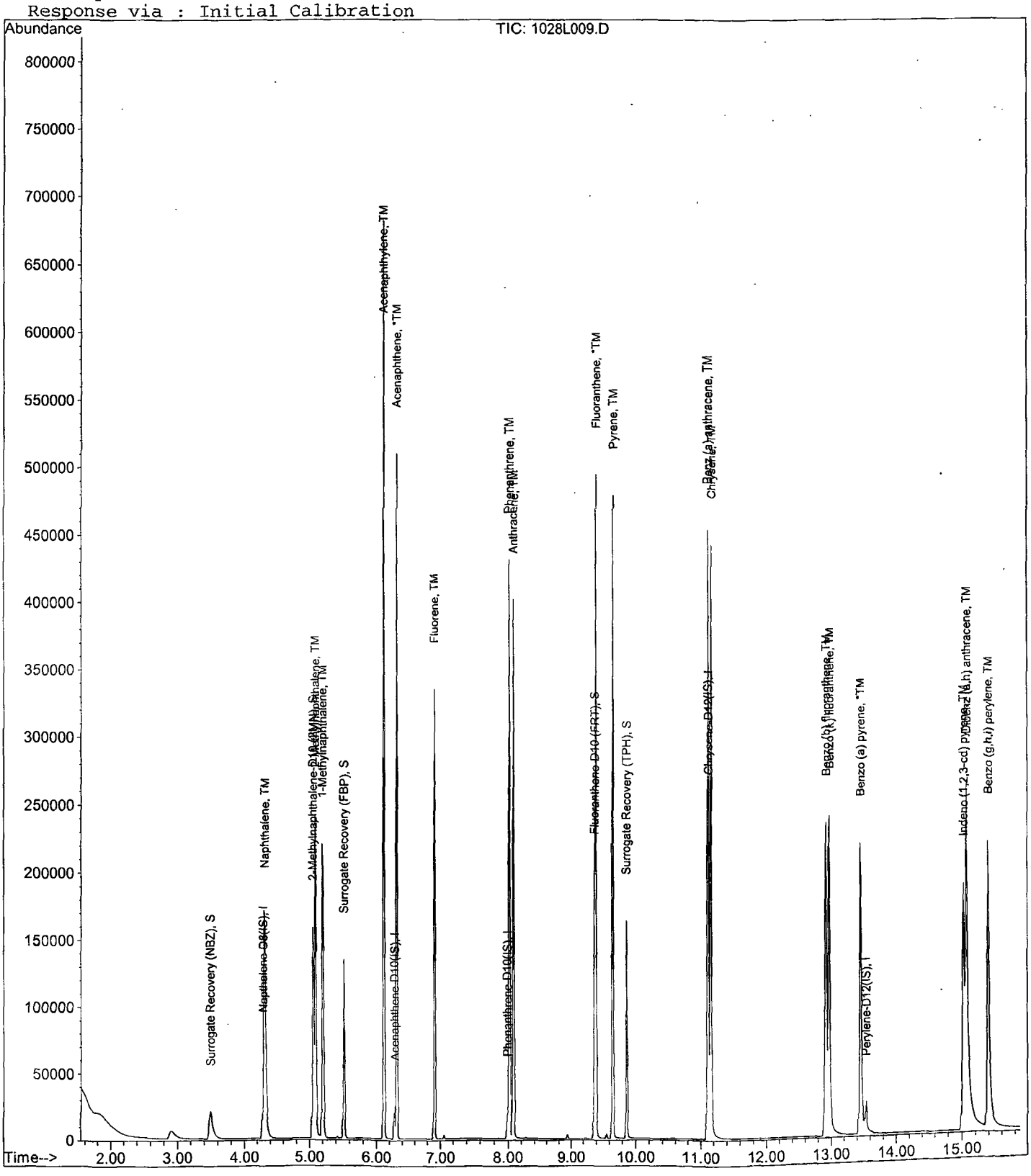
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L191028\1028L009.D Vial: 9
Acq On : 28 Oct 19 14:19 Operator: MA
Sample : 20 SIM 10/28/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 30 10:35 2019 Quant Results File: L1028.RES

Method : M:\LINUS\DATA\L191028\L1028.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 30 10:39:31 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L191028\1028L010.D Vial: 10
Acq On : 28 Oct 19 14:42 Operator: MA
Sample : 50 SIM 10/28/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 30 10:39 2019 Quant Results File: L1028.RES

Quant Method : M:\LINUS\DATA\L191028\L1028.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 30 10:39:03 2019
Response via : Initial Calibration
DataAcq Meth : SIM_2

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Napthalene-D8(IS)	4.29	136	36782	2.50000 ppb		0.01
7) Acenaphthene-D10(IS)	6.28	164	15743	2.50000 ppb		0.01
12) Phenanthrene-D10(IS)	7.99	188	27764	2.50000 ppb		0.00
17) Chrysene-D12(IS)	11.12	240	31502	2.50000 ppb		0.01
23) Perylene-D12(IS)	13.54	264	33834	2.50000 ppb		0.01
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	3.49	82	164569	23.48044 ppb		0.00
Spiked Amount 5.000			Recovery	= 469.600%		
4) 2-Methylnaphthalene-D10 (2	5.05	152	432823	23.55633 ppb		0.00
Spiked Amount 5.000			Recovery	= 471.120%		
8) Surrogate Recovery (FBP)	5.52	172	269987	22.63141 ppb		0.00
Spiked Amount 5.000			Recovery	= 452.620%		
15) Fluoranthene-D10 (FRT)	9.38	212	499535	24.71499 ppb		0.01
Spiked Amount 5.000			Recovery	= 494.300%		
19) Surrogate Recovery (TPH)	9.87	244	308848	25.49780 ppb		0.01
Spiked Amount 5.000			Recovery	= 509.960%		
Target Compounds						Qvalue
3) Naphthalene	4.31	128	860769	47.17621 ppb		99
5) 2-Methylnaphthalene	5.10	142	514626	47.23207 ppb		96
6) 1-Methylnaphthalene	5.20	142	509460	45.76902 ppb		97
9) Acenaphthylene	6.11	152	1577589	47.11599 ppb		99
10) Acenaphthene	6.31	154	421153	43.91071 ppb		92
11) Fluorene	6.92	166	526911	49.28860 ppb		97
13) Phenanthrene	8.03	178	752594	45.88906 ppb		99
14) Anthracene	8.09	178	708446	50.02779 ppb		99
16) Fluoranthene	9.40	202	1024241	45.43376 ppb	#	91
18) Pyrene	9.66	202	1079871	47.93751 ppb	#	84
20) Benz (a) anthracene	11.11	228	900763	50.33740 ppb		98
21) Chrysene	11.16	228	902898	45.48872 ppb		98
22) Indeno (1,2,3-cd) pyrene	15.04	276	997292	57.04250 ppb	#	80
24) Benzo (b) fluoranthene	12.92	252	930609	54.22848 ppb		100
25) Benzo (k) fluoranthene	12.99	252	911111	46.78279 ppb		100
26) Benzo (a) pyrene	13.47	252	868154	54.93963 ppb		97
27) Dibenz (a,h) anthracene	15.09	278	817460	52.48391 ppb		97
28) Benzo (g,h,i) perylene	15.42	276	866669	50.67466 ppb		93

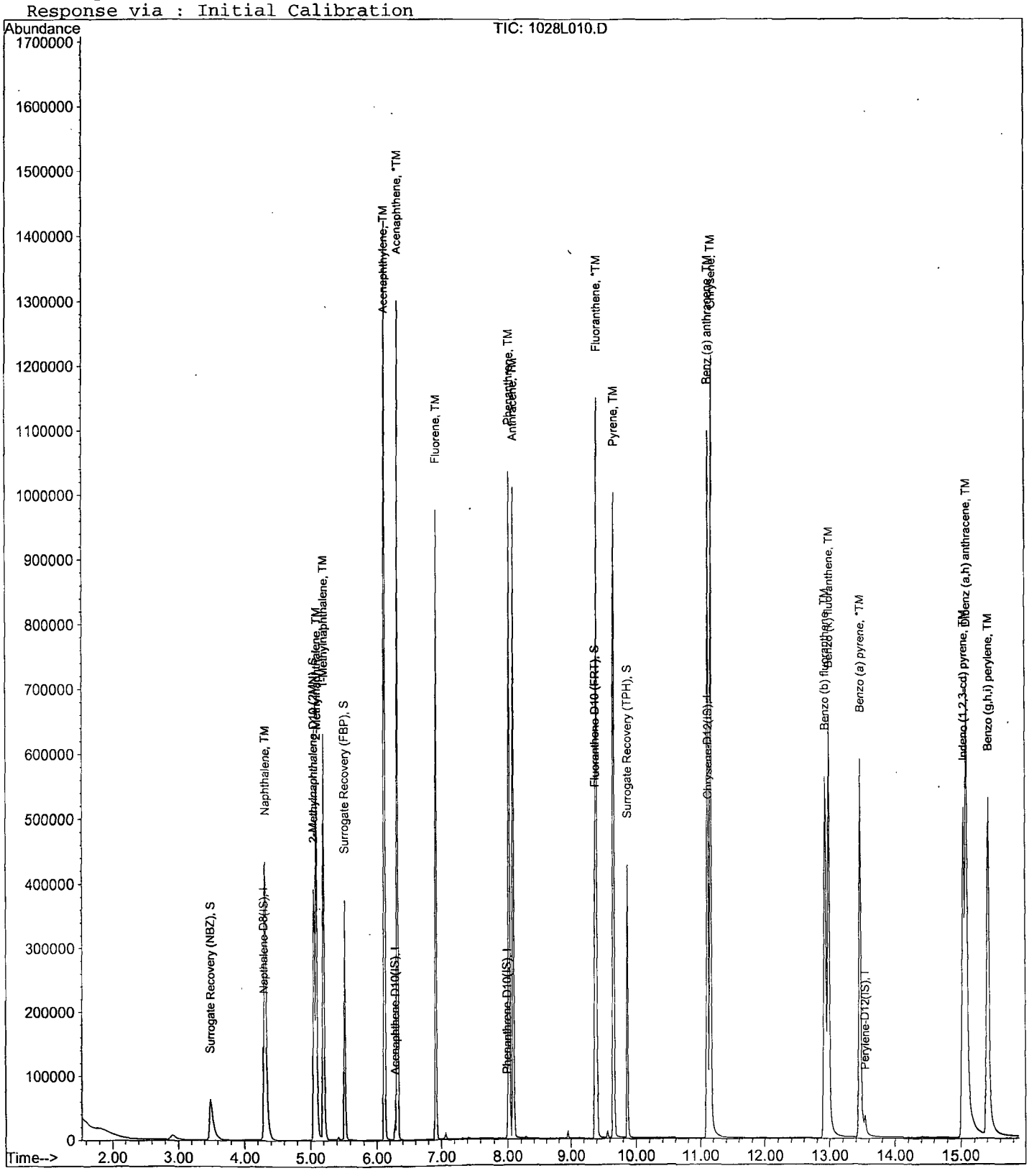
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L191028\1028L010.D Vial: 10
Acq On : 28 Oct 19 14:42 Operator: MA
Sample : 50 SIM 10/28/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 30 10:39 2019 Quant Results File: L1028.RES

Method : M:\LINUS\DATA\L191028\L1028.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 30 10:39:31 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L191028\1028L011.D Vial: 11
Acq On : 28 Oct 19 15:04 Operator: MA
Sample : 100 SIM 10/28/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 30 10:39 2019 Quant Results File: L1028.RES

Quant Method : M:\LINUS\DATA\L191028\L1028.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 30 10:39:03 2019
Response via : Initial Calibration
DataAcq Meth : SIM_2

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Napthalene-D8(IS)	4.29	136	35886	2.50000 ppb		0.01
7) Acenaphthene-D10(IS)	6.28	164	15357	2.50000 ppb		0.01
12) Phenanthrene-D10(IS)	7.99	188	27888	2.50000 ppb		0.00
17) Chrysene-D12(IS)	11.13	240	31266	2.50000 ppb		0.02
23) Perylene-D12(IS)	13.54	264	33574	2.50000 ppb		0.01
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	3.49	82	331274	48.44577 ppb		0.00
Spiked Amount 5.000			Recovery	= 968.920%		
4) 2-Methylnaphthalene-D10 (2	5.06	152	824254	45.97997 ppb		0.01
Spiked Amount 5.000			Recovery	= 919.600%		
8) Surrogate Recovery (FBP)	5.52	172	507607	43.61919 ppb		0.00
Spiked Amount 5.000			Recovery	= 872.380%		
15) Fluoranthene-D10 (FRT)	9.38	212	938946	46.24873 ppb		0.01
Spiked Amount 5.000			Recovery	= 924.980%		
19) Surrogate Recovery (TPH)	9.87	244	594165	49.42319 ppb		0.01
Spiked Amount 5.000			Recovery	= 988.460%		
Target Compounds						Qvalue
3) Naphthalene	4.31	128	1632322	91.69646 ppb		99
5) 2-Methylnaphthalene	5.09	142	988093	92.95084 ppb		96
6) 1-Methylnaphthalene	5.20	142	987228	90.90531 ppb		97
9) Acenaphthylene	6.12	152	3028365	92.71793 ppb		98
10) Acenaphthene	6.33	154	884058	94.49143 ppb		81
11) Fluorene	6.92	166	977828	93.76761 ppb		99
13) Phenanthrene	8.03	178	1410719	85.63545 ppb		98
14) Anthracene	8.10	178	1405385	98.80172 ppb		98
16) Fluoranthene	9.41	202	1975643	87.24682 ppb	#	93
18) Pyrene	9.67	202	2087655	93.37447 ppb	#	79
20) Benz (a) anthracene	11.12	228	1769567	99.63525 ppb		98
21) Chrysene	11.17	228	1761570	89.41920 ppb	#	95
22) Indeno (1,2,3-cd) pyrene	15.08	276	1994441	114.93788 ppb	#	97
24) Benzo (b) fluoranthene	12.95	252	1775337	104.25365 ppb		98
25) Benzo (k) fluoranthene	13.01	252	1833100	94.85304 ppb		98
26) Benzo (a) pyrene	13.49	252	1692412	107.93077 ppb		96
27) Dibenz (a,h) anthracene	15.12	278	1669599	108.02446 ppb		94
28) Benzo (g,h,i) perylene	15.46	276	1722719	101.50847 ppb		96

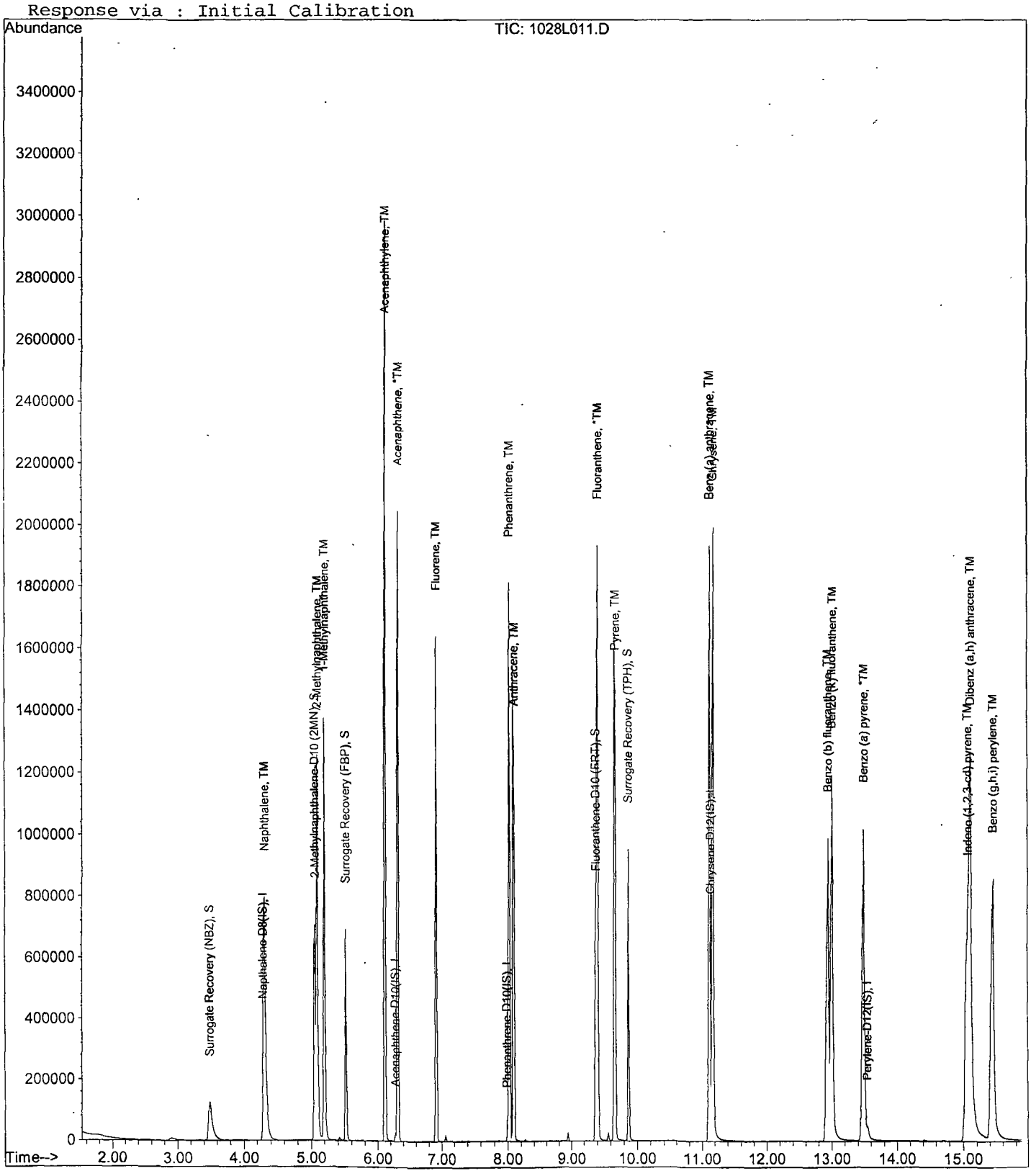
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L191028\1028L011.D Vial: 11
Acq On : 28 Oct 19 15:04 Operator: MA
Sample : 100 SIM 10/28/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 30 10:39 2019 Quant Results File: L1028.RES

Method : M:\LINUS\DATA\L191028\L1028.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 30 10:39:31 2019
Response via : Initial Calibration



PAH by GCMS SIM
EPA 8270 SIM

Form 7

Second Source Calibration

Lab Name: APPL, Inc.
Case No:
Matrix:

SDG No:
Date Analyzed: 10/28/19
Instrument: Linus
Initial Cal. Date: 10/28/19
Data File: 1028L012.D

		Compound	MEAN	CCRF	%D		%Drift
1	TM	Naphthalene	1.240	1.222	1.4	TM	
2	TM	2-Methylnaphthalene	0.7406	0.7386	0.26	TM	
3	TM	1-Methylnaphthalene	0.7566	0.7450	1.5	TM	
4	TM	Acenaphthylene	5.317	5.695	7.1	TM	
5	*TM	Acenaphthene	1.523	1.515	0.52	*TM	
6	TM	Fluorene	1.698	1.746	2.9	TM	
7	TM	Phenanthrene	1.477	1.538	4.1	TM	
8	TM	Anthracene	1.275	1.367	7.2	TM	
9	*TM	Fluoranthene	2.013	2.171	7.8	*TM	
10	TM	Pyrene	1.789	1.816	1.5	TM	
11	TM	Benz (a) anthracene	1.420	1.330	6.4	TM	
12	TM	Chrysene	1.573	1.539	2.2	TM	
13	TM	Indeno (1,2,3-cd) pyrene	1.387	1.255	9.5	TM	
14	TM	Benzo (b) fluoranthene	1.268	1.334	5.2	TM	
15	TM	Benzo (k) fluoranthene	1.439	1.585	10	TM	
16	*TM	Benzo (a) pyrene	1.167	1.265	8.4	*TM	
17	TM	Dibenz (a,h) anthracene	1.151	1.126	2.2	TM	
18	TM	Benzo (g,h,i) perylene	1.264	1.235	2.3	TM	
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
30							
31							
32							
33							
34							
35							
36							
37							
38							
39							
40							
		Average			4.5		

Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L191028\1028L012.D Vial: 12
Acq On : 28 Oct 19 15:55 Operator: MA
Sample : SS SIM 10/28/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 30 10:44 2019 Quant Results File: L1028.RES

Quant Method : M:\LINUS\DATA\L191028\L1028.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 30 10:39:31 2019
Response via : Initial Calibration
DataAcq Meth : SIM_2

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Napthalene-D8(IS)	4.29	136	37041	2.50000 ppb		0.01
7) Acenaphthene-D10(IS)	6.28	164	15072	2.50000 ppb		0.01
12) Phenanthrene-D10(IS)	7.99	188	26057	2.50000 ppb		0.00
17) Chrysene-D12(IS)	11.11	240	32042	2.50000 ppb		0.00
23) Perylene-D12(IS)	13.53	264	29024	2.50000 ppb		0.00
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	0.00	82	0d	0.00000 ppb		
Spiked Amount 5.000			Recovery	= 0.000%		
4) 2-Methylnaphthalene-D10 (2	0.00	152	0d	0.00000 ppb		
Spiked Amount 5.000			Recovery	= 0.000%		
8) Surrogate Recovery (FBP)	0.00	172	0d	0.00000 ppb		
Spiked Amount 5.000			Recovery	= 0.000%		
15) Fluoranthene-D10 (FRT)	0.00	212	0d	0.00000 ppb		
Spiked Amount 5.000			Recovery	= 0.000%		
19) Surrogate Recovery (TPH)	0.00	244	0d	0.00000 ppb		
Spiked Amount 5.000			Recovery	= 0.000%		
Target Compounds						Qvalue
3) Naphthalene	4.30	128	90550	4.92808 ppb		100
5) 2-Methylnaphthalene	5.08	142	54717	4.98678 ppb		97
6) 1-Methylnaphthalene	5.19	142	55190	4.92351 ppb		97
9) Acenaphthylene	6.11	152	171659	5.35498 ppb		99
10) Acenaphthene	6.31	154	45673	4.97401 ppb		89
11) Fluorene	6.90	166	52636	5.14291 ppb		95
13) Phenanthrene	8.01	178	80127	5.20577 ppb		98
14) Anthracene	8.08	178	71254	5.36132 ppb		99
16) Fluoranthene	9.39	202	113116	5.39024 ppb	#	93
18) Pyrene	9.65	202	116362	5.07511 ppb	#	86
20) Benz (a) anthracene	11.10	228	85204	4.68122 ppb		98
21) Chrysene	11.14	228	98596	4.89203 ppb	#	96
22) Indeno (1,2,3-cd) pyrene	15.01	276	80441	4.52347 ppb		88
24) Benzo (b) fluoranthene	12.90	252	77412	5.25853 ppb		99
25) Benzo (k) fluoranthene	12.96	252	92007	5.50721 ppb		99
26) Benzo (a) pyrene	13.45	252	73458	5.42211 ppb		97
27) Dibenz (a,h) anthracene	15.05	278	65335	4.88992 ppb	#	94
28) Benzo (g,h,i) perylene	15.38	276	71685	4.88610 ppb	#	92

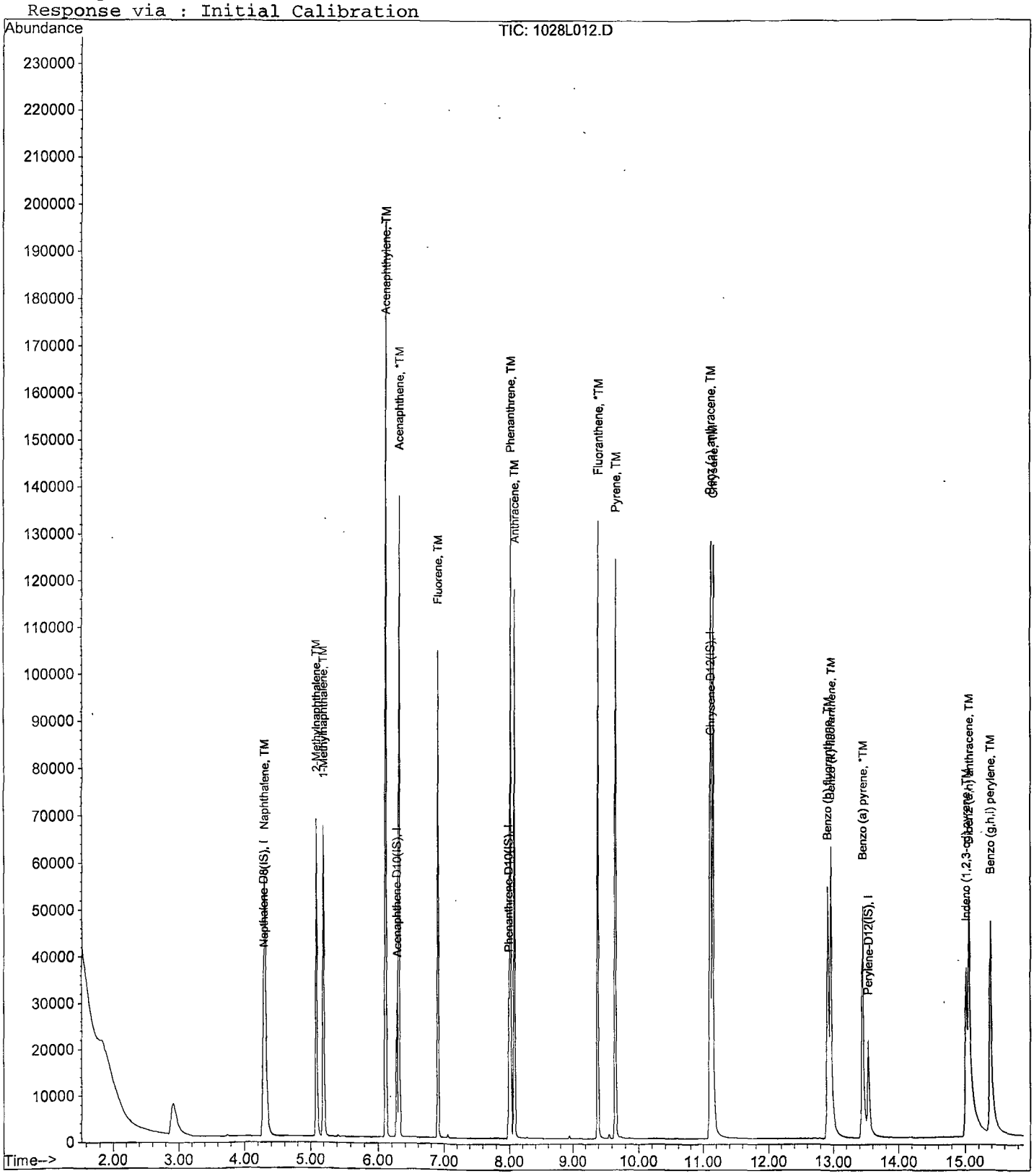
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L191028\1028L012.D Vial: 12
Acq On : 28 Oct 19 15:55 Operator: MA
Sample : SS SIM 10/28/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 30 10:44 2019 Quant Results File: L1028.RES

Method : M:\LINUS\DATA\L191028\L1028.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 30 10:39:31 2019
Response via : Initial Calibration



PAH by GCMS SIM
EPA 8270 SIM

Form 7

Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix:

SDG No:
Date Analyzed: 11/12/19
Instrument: Linus
Initial Cal. Date: 10/28/19
Data File: 1028L258.D

		Compound	MEAN	CCRF	%D	%Drift	
1	I	Napthalene-D8(IS)	ISTD			I	
2	S	Surrogate Recovery (NBZ)	0.4764	0.4387	7.9	S	
3	TM	Naphthalene	1.240	1.213	2.2	TM	
4	S	2-Methylnaphthalene-D10 (2MN)	1.249	1.175	5.9	S	
5	TM	2-Methylnaphthalene	0.7406	0.7296	1.5	TM	
6	TM	1-Methylnaphthalene	0.7566	0.7306	3.4	TM	
7	I	Acenaphthene-D10(IS)	ISTD			I	
8	S	Surrogate Recovery (FBP)	1.894	1.817	4.1	S	
9	TM	Acenaphthylene	5.317	5.487	3.2	TM	
10	*TM	Acenaphthene	1.523	1.488	2.3	*TM	
11	TM	Fluorene	1.698	1.700	0.12	TM	
12	I	Phenanthrene-D10(IS)	ISTD			I	
13	TM	Phenanthrene	1.477	1.472	0.34	TM	
14	TM	Anthracene	1.275	1.335	4.7	TM	
15	S	Fluoranthene-D10 (FRT)	1.819	1.825	0.33	S	
16	*TM	Fluoranthene	2.013	2.140	6.3	*TM	
17	I	Chrysene-D12(IS)	ISTD			I	
18	TM	Pyrene	1.789	1.797	0.43	TM	
19	S	Surrogate Recovery (TPH)	0.9613	0.9421	2.0	S	
20	TM	Benz (a) anthracene	1.420	1.350	4.9	TM	
21	TM	Chrysene	1.573	1.501	4.5	TM	
22	TM	Indeno (1,2,3-cd) pyrene	1.387	1.330	4.1	TM	
23	I	Perylene-D12(IS)	ISTD			I	
24	TM	Benzo (b) fluoranthene	1.268	1.234	2.7	TM	
25	TM	Benzo (k) fluoranthene	1.439	1.592	11	TM	
26	*TM	Benzo (a) pyrene	1.167	1.232	5.6	*TM	
27	TM	Dibenz (a,h) anthracene	1.151	1.150	0.11	TM	
28	TM	Benzo (g,h,i) perylene	1.264	1.243	1.7	TM	
29							
30							
31							
32							
33							
34							
35							
36							
37							
38							
39							
40							
		Average			3.4		

Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L191028\1028L258.D Vial: 58
Acq On : 12 Nov 19 9:35 Operator: MA
Sample : 5 SIM 10/28/19 (1) Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Nov 12 9:58 2019 Quant Results File: L1028.RES

Quant Method : M:\LINUS\DATA\L191028\L1028.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 30 10:39:31 2019
Response via : Initial Calibration
DataAcq Meth : SIM_2

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Napthalene-D8(IS)	4.27	136	42226	2.50000 ppb		0.00
7) Acenaphthene-D10(IS)	6.27	164	17230	2.50000 ppb		0.00
12) Phenanthrene-D10(IS)	7.98	188	30075	2.50000 ppb		-0.01
17) Chrysene-D12(IS)	11.10	240	35927	2.50000 ppb		-0.01
23) Perylene-D12(IS)	13.52	264	34153	2.50000 ppb		-0.01
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	3.48	82	18525	2.30235 ppb		-0.01
Spiked Amount 5.000			Recovery	= 46.040%		
4) 2-Methylnaphthalene-D10 (2	5.03	152	49602	2.35154 ppb		-0.01
Spiked Amount 5.000			Recovery	= 47.040%		
8) Surrogate Recovery (FBP)	5.51	172	31305	2.39764 ppb		-0.01
Spiked Amount 5.000			Recovery	= 47.960%		
15) Fluoranthene-D10 (FRT)	9.36	212	54895	2.50828 ppb		-0.01
Spiked Amount 5.000			Recovery	= 50.160%		
19) Surrogate Recovery (TPH)	9.85	244	33847	2.45016 ppb		-0.01
Spiked Amount 5.000			Recovery	= 49.000%		
Target Compounds						Qvalue
3) Naphthalene	4.29	128	102434	4.89031 ppb		100
5) 2-Methylnaphthalene	5.07	142	61617	4.92608 ppb		99
6) 1-Methylnaphthalene	5.18	142	61697	4.82815 ppb		96
9) Acenaphthylene	6.10	152	189092	5.16000 ppb		99
10) Acenaphthene	6.30	154	51262	4.88347 ppb		86
11) Fluorene	6.89	166	58569	5.00587 ppb		97
13) Phenanthrene	8.00	178	88522	4.98283 ppb		99
14) Anthracene	8.06	178	80306	5.23515 ppb		99
16) Fluoranthene	9.38	202	128699	5.31347 ppb		97
18) Pyrene	9.64	202	129090	5.02141 ppb	#	82
20) Benz (a) anthracene	11.09	228	97038	4.75488 ppb		97
21) Chrysene	11.13	228	107882	4.77395 ppb		99
22) Indeno (1,2,3-cd) pyrene	15.00	276	95573	4.79323 ppb		88
24) Benzo (b) fluoranthene	12.89	252	84258	4.86403 ppb		96
25) Benzo (k) fluoranthene	12.93	252	108752	5.53193 ppb	#	95
26) Benzo (a) pyrene	13.43	252	84141	5.27795 ppb		95
27) Dibenz (a,h) anthracene	15.04	278	78522	4.99431 ppb		96
28) Benzo (g,h,i) perylene	15.37	276	84882	4.91674 ppb	#	89

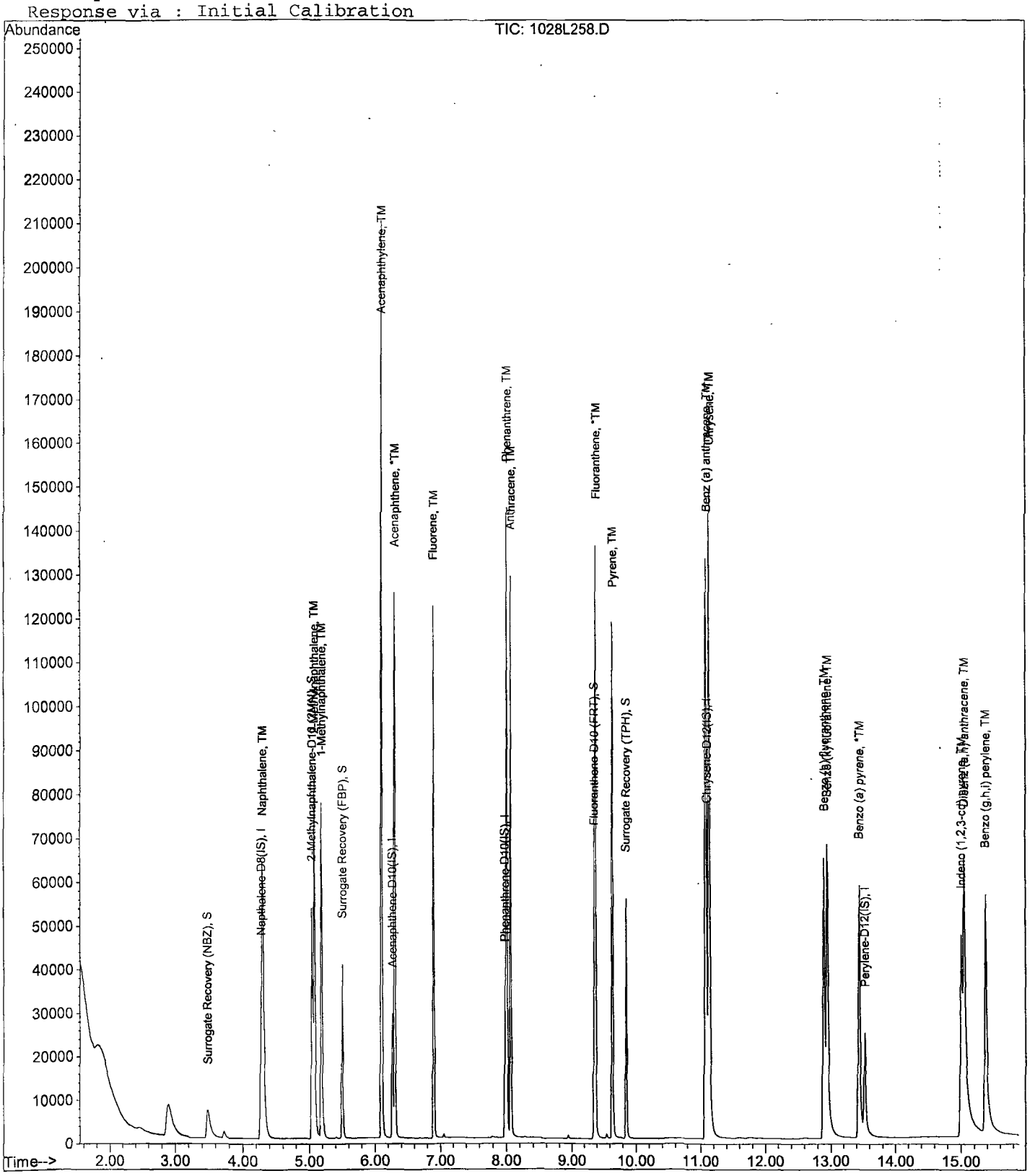
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L191028\1028L258.D Vial: 58
Acq On : 12 Nov 19 9:35 Operator: MA
Sample : 5 SIM 10/28/19 (1) Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Nov 12 9:58 2019 Quant Results File: L1028.RES

Method : M:\LINUS\DATA\L191028\L1028.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 30 10:39:31 2019
Response via : Initial Calibration



PAH by GCMS SIM
EPA 8270 SIM

Form 7

Continuing Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Date Analyzed: 11/12/19
Matrix: Instrument: Linus
Initial Cal. Date: 10/28/19
Data File: 1028L268.D

		Compound	MEAN	CCRF	%D	%Drift	
1	I	Napthalene-D8(IS)	ISTD			I	
2	S	Surrogate Recovery (NBZ)	0.4764	0.4531	4.9	S	
3	TM	Naphthalene	1.240	1.195	3.6	TM	
4	S	2-Methylnaphthalene-D10 (2MN)	1.249	1.164	6.8	S	
5	TM	2-Methylnaphthalene	0.7406	0.7246	2.2	TM	
6	TM	1-Methylnaphthalene	0.7566	0.7153	5.5	TM	
7	I	Acenaphthene-D10(IS)	ISTD			I	
8	S	Surrogate Recovery (FBP)	1.894	1.981	4.6	S	
9	TM	Acenaphthylene	5.317	5.967	12	TM	
10	*TM	Acenaphthene	1.523	1.583	3.9	*TM	
11	TM	Fluorene	1.698	1.820	7.2	TM	
12	I	Phenanthrene-D10(IS)	ISTD			I	
13	TM	Phenanthrene	1.477	1.439	2.6	TM	
14	TM	Anthracene	1.275	1.336	4.7	TM	
15	S	Fluoranthene-D10 (FRT)	1.819	1.932	6.2	S	
16	*TM	Fluoranthene	2.013	2.118	5.2	*TM	
17	I	Chrysene-D12(IS)	ISTD			I	
18	TM	Pyrene	1.789	1.705	4.7	TM	
19	S	Surrogate Recovery (TPH)	0.9613	0.9680	0.70	S	
20	TM	Benz (a) anthracene	1.420	1.405	1.0	TM	
21	TM	Chrysene	1.573	1.412	10	TM	
22	TM	Indeno (1,2,3-cd) pyrene	1.387	1.371	1.2	TM	
23	I	Perylene-D12(IS)	ISTD			I	
24	TM	Benzo (b) fluoranthene	1.268	1.207	4.8	TM	
25	TM	Benzo (k) fluoranthene	1.439	1.471	2.2	TM	
26	*TM	Benzo (a) pyrene	1.167	1.195	2.4	*TM	
27	TM	Dibenz (a,h) anthracene	1.151	1.119	2.7	TM	
28	TM	Benzo (g,h,i) perylene	1.264	1.155	8.6	TM	
29							
30							
31							
32							
33							
34							
35							
36							
37							
38							
39							
40							
		Average			4.7		

Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L191028\1028L268.D Vial: 68
Acq On : 12 Nov 19 13:40 Operator: MA
Sample : 5 SIM 10/28/19 (1) Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Nov 12 14:13 2019 Quant Results File: L1028.RES

Quant Method : M:\LINUS\DATA\L191028\L1028.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 30 10:39:31 2019
Response via : Initial Calibration
DataAcq Meth : SIM_2

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Napthalene-D8(IS)	4.27	136	53473	2.50000 ppb		0.00
7) Acenaphthene-D10(IS)	6.27	164	20055	2.50000 ppb		0.00
12) Phenanthrene-D10(IS)	7.98	188	37410	2.50000 ppb		-0.01
17) Chrysene-D12(IS)	11.11	240	46428	2.50000 ppb		0.00
23) Perylene-D12(IS)	13.53	264	47184	2.50000 ppb		0.00
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	3.49	82	24228	2.37781 ppb		0.00
Spiked Amount 5.000			Recovery	= 47.560%		
4) 2-Methylnaphthalene-D10 (2	5.05	152	62241	2.33010 ppb		0.00
Spiked Amount 5.000			Recovery	= 46.600%		
8) Surrogate Recovery (FBP)	5.51	172	39722	2.61375 ppb		-0.01
Spiked Amount 5.000			Recovery	= 52.280%		
15) Fluoranthene-D10 (FRT)	9.36	212	72284	2.65523 ppb		-0.01
Spiked Amount 5.000			Recovery	= 53.100%		
19) Surrogate Recovery (TPH)	9.86	244	44941	2.51744 ppb		0.00
Spiked Amount 5.000			Recovery	= 50.340%		
Target Compounds						Qvalue
3) Naphthalene	4.30	128	127804	4.81817 ppb		99
5) 2-Methylnaphthalene	5.08	142	77492	4.89219 ppb		100
6) 1-Methylnaphthalene	5.19	142	76496	4.72717 ppb		100
9) Acenaphthylene	6.11	152	239348	5.61137 ppb		99
10) Acenaphthene	6.30	154	63497	5.19695 ppb		96
11) Fluorene	6.90	166	72996	5.36010 ppb		99
13) Phenanthrene	8.01	178	107669	4.87229 ppb		100
14) Anthracene	8.08	178	99935	5.23741 ppb		100
16) Fluoranthene	9.38	202	158489	5.26042 ppb	#	77
18) Pyrene	9.64	202	158350	4.76641 ppb		99
20) Benz (a) anthracene	11.09	228	130498	4.94814 ppb		99
21) Chrysene	11.14	228	131121	4.48996 ppb		100
22) Indeno (1,2,3-cd) pyrene	15.01	276	127343	4.94208 ppb	#	98
24) Benzo (b) fluoranthene	12.90	252	113868	4.75796 ppb		98
25) Benzo (k) fluoranthene	12.96	252	138820	5.11123 ppb		99
26) Benzo (a) pyrene	13.45	252	112769	5.12013 ppb		96
27) Dibenz (a,h) anthracene	15.05	278	105625	4.86278 ppb	#	93
28) Benzo (g,h,i) perylene	15.39	276	108994	4.56982 ppb		98

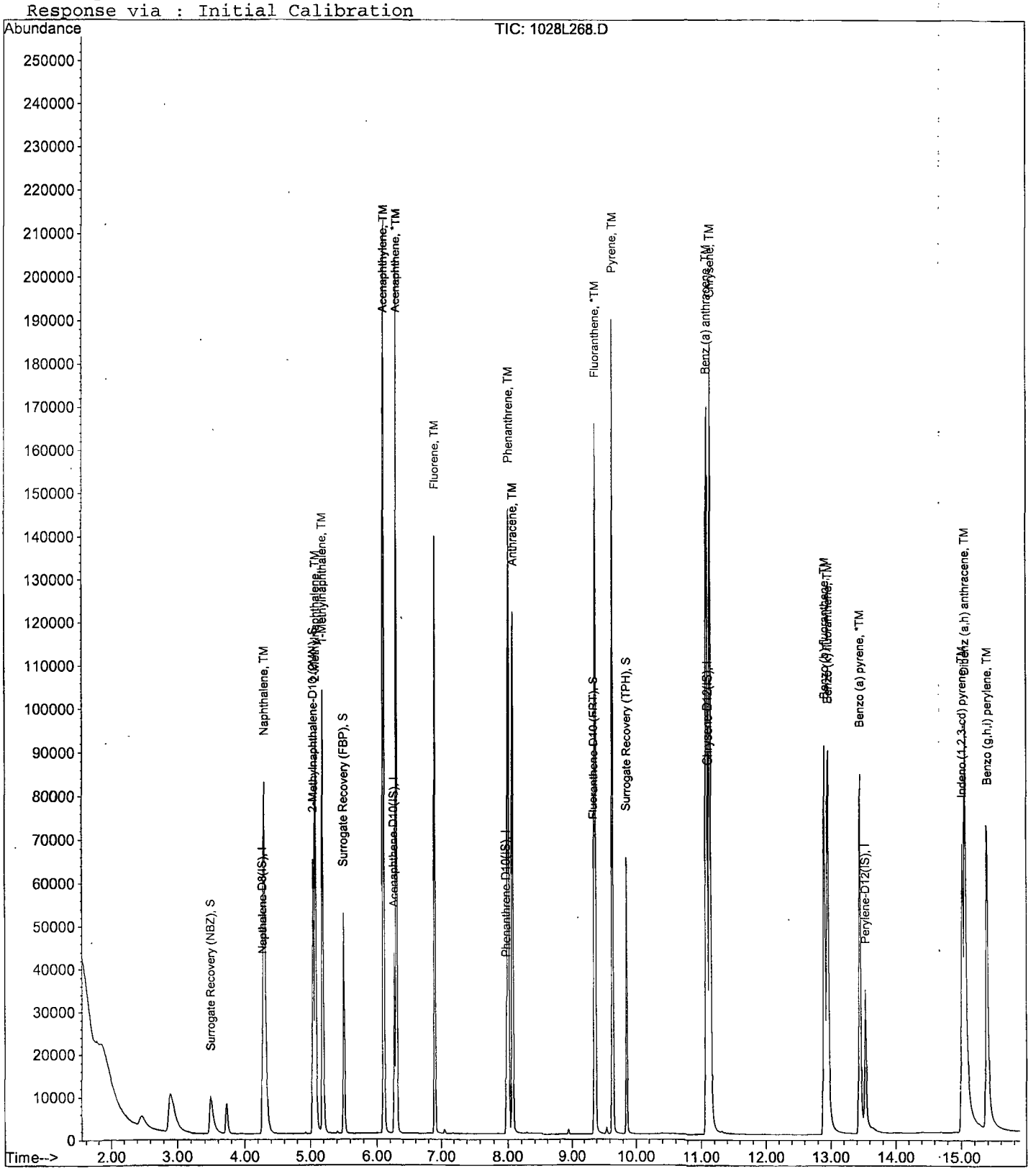
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L191028\1028L268.D Vial: 68
Acq On : 12 Nov 19 13:40 Operator: MA
Sample : 5 SIM 10/28/19 (1) Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Nov 12 14:13 2019 Quant Results File: L1028.RES

Method : M:\LINUS\DATA\L191028\L1028.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 30 10:39:31 2019
Response via : Initial Calibration



ORGANICS
Raw Data

Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L191028\1028L262.D Vial: 62
Acq On : 12 Nov 19 11:10 Operator: MA
Sample : BA02090W19 1/800 Inst : Linus
Misc : Multiplr: 1.25

Quant Time: Nov 12 11:36 2019 Quant Results File: L1028.RES

Quant Method : M:\LINUS\DATA\L191028\L1028.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 30 10:39:31 2019
Response via : Initial Calibration
DataAcq Meth : SIM_2

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Napthalene-D8(IS)	4.27	136	44661	2.50000 ppb	0.00
7) Acenaphthene-D10(IS)	6.27	164	18484	2.50000 ppb	0.00
12) Phenanthrene-D10(IS)	7.98	188	32886	2.50000 ppb	-0.01
17) Chrysene-D12(IS)	11.10	240	40232	2.50000 ppb	-0.01
23) Perylene-D12(IS)	13.53	264	42032	2.50000 ppb	0.00
System Monitoring Compounds					
2) Surrogate Recovery (NBZ)	3.49	82	612814	90.01271 ppb	0.00
Spiked Amount 6.250			Recovery	= 1440.208%	
4) 2-Methylnaphthalene-D10 (2	5.05	152	96566	5.41051 ppb	0.00
Spiked Amount 6.250			Recovery	= 86.576%	
8) Surrogate Recovery (FBP)	5.52	172	840174	74.97900 ppb	0.00
Spiked Amount 6.250			Recovery	= 1199.664%	
15) Fluoranthene-D10 (FRT)	9.36	212	120982	6.31928 ppb	-0.01
Spiked Amount 6.250			Recovery	= 101.104%	
19) Surrogate Recovery (TPH)	9.86	244	1015596	82.06451 ppb	0.00
Spiked Amount 6.250			Recovery	= 1313.040%	

Target Compounds Qvalue

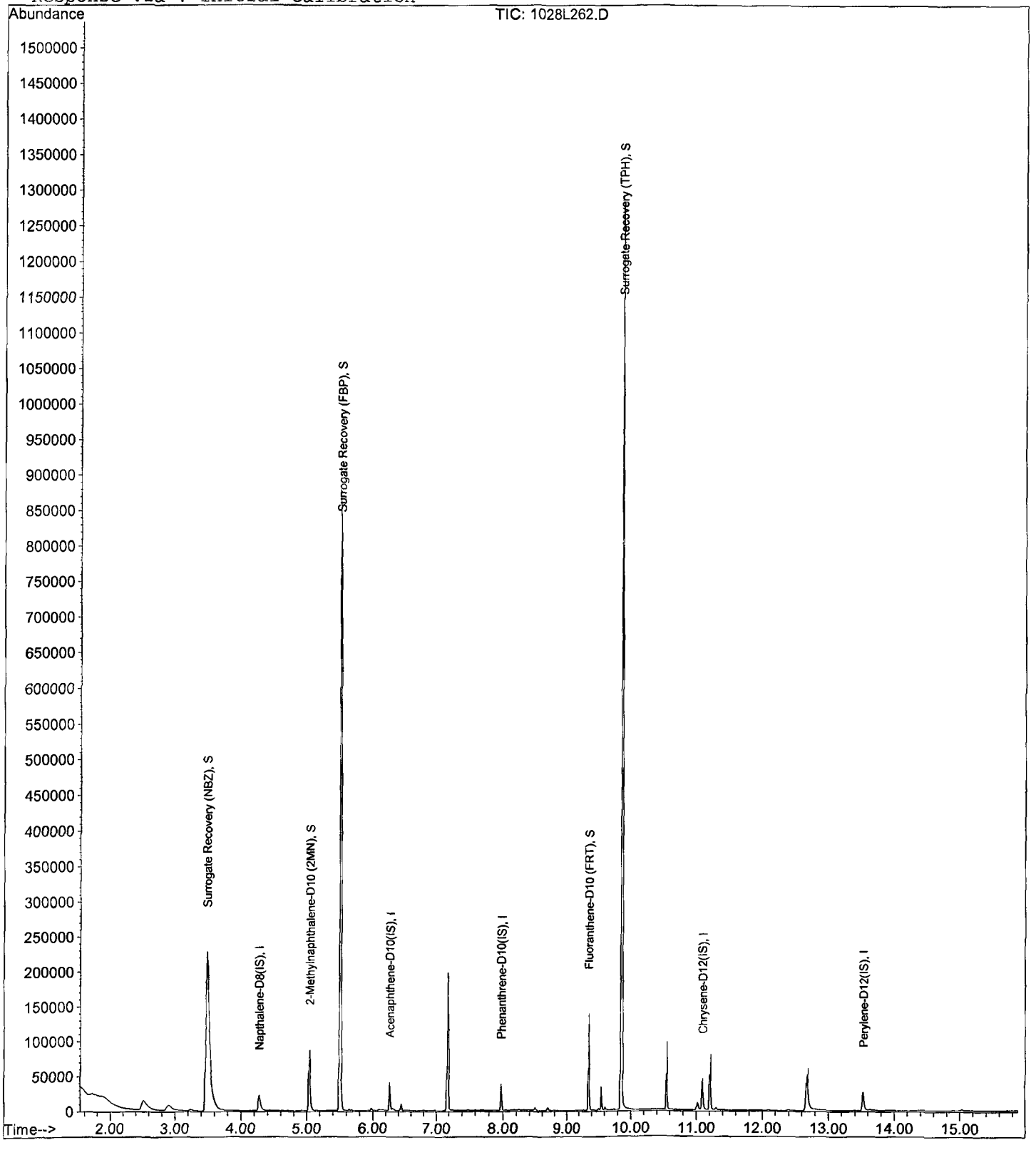
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L191028\1028L262.D Vial: 62
Acq On : 12 Nov 19 11:10 Operator: MA
Sample : BA02090W19 1/800 Inst : Linus
Misc : Multiplr: 1.25

Quant Time: Nov 12 11:36 2019 Quant Results File: L1028.RES

Method : M:\LINUS\DATA\L191028\L1028.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 30 10:39:31 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L191028\1028L263.D Vial: 63
Acq On : 12 Nov 19 11:33 Operator: MA
Sample : BA02091W14 1/800 Inst : Linus
Misc : Multiplr: 1.25

Quant Time: Nov 12 11:57 2019 Quant Results File: L1028.RES

Quant Method : M:\LINUS\DATA\L191028\L1028.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 30 10:39:31 2019
Response via : Initial Calibration
DataAcq Meth : SIM_2

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Napthalene-D8(IS)	4.27	136	33700	2.50000 ppb	0.00
7) Acenaphthene-D10(IS)	6.27	164	14442	2.50000 ppb	0.00
12) Phenanthrene-D10(IS)	7.98	188	29551	2.50000 ppb	-0.01
17) Chrysene-D12(IS)	11.10	240	36855	2.50000 ppb	-0.01
23) Perylene-D12(IS)	13.53	264	38632	2.50000 ppb	0.00
System Monitoring Compounds					
2) Surrogate Recovery (NBZ)	3.49	82	619733	120.63639 ppb	0.00
Spiked Amount 6.250			Recovery	= 1930.176%	
4) 2-Methylnaphthalene-D10 (2	5.05	152	96506	7.16584 ppb	0.00
Spiked Amount 6.250			Recovery	= 114.656%	
8) Surrogate Recovery (FBP)	5.51	172	842672	96.24930 ppb	-0.01
Spiked Amount 6.250			Recovery	= 1539.984%	
15) Fluoranthene-D10 (FRT)	9.36	212	120499	7.00437 ppb	-0.01
Spiked Amount 6.250			Recovery	= 112.064%	
19) Surrogate Recovery (TPH)	9.87	244	1042634	91.96900 ppb	0.01
Spiked Amount 6.250			Recovery	= 1471.504%	

Target Compounds Qvalue

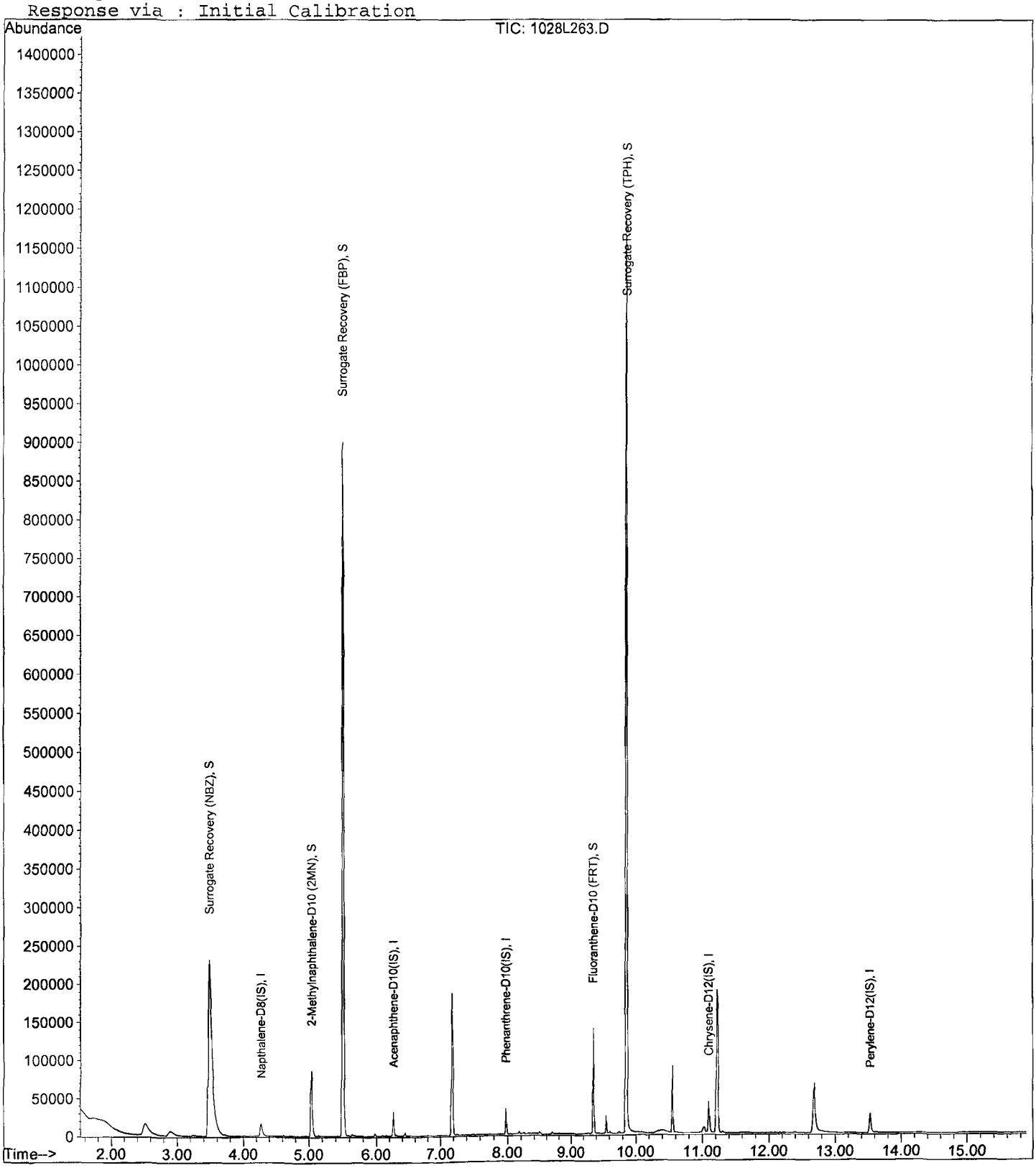
(#) = qualifier out of range (m) = manual integration
1028L263.D L1028.M Mon Dec 02 15:43:05 2019 Page 1

Quantitation Report

Data File : M:\LINUS\DATA\L191028\1028L263.D Vial: 63
Acq On : 12 Nov 19 11:33 Operator: MA
Sample : BA02091W14 1/800 Inst : Linus
Misc : Multiplr: 1.25

Quant Time: Nov 12 11:57 2019 Quant Results File: L1028.RES

Method : M:\LINUS\DATA\L191028\L1028.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 30 10:39:31 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L191028\1028L259.D Vial: 59
Acq On : 12 Nov 19 10:04 Operator: MA
Sample : 191104A BLK 1/800 Inst : Linus
Misc : Multiplr: 1.25

Quant Time: Nov 12 10:44 2019 Quant Results File: L1028.RES

Quant Method : M:\LINUS\DATA\L191028\L1028.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 30 10:39:31 2019
Response via : Initial Calibration
DataAcq Meth : SIM_2

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Napthalene-D8(IS)	4.26	136	41490	2.50000 ppb	-0.01
7) Acenaphthene-D10(IS)	6.27	164	17274	2.50000 ppb	0.00
12) Phenanthrene-D10(IS)	7.98	188	30878	2.50000 ppb	-0.01
17) Chrysene-D12(IS)	11.10	240	37096	2.50000 ppb	-0.01
23) Perylene-D12(IS)	13.52	264	38223	2.50000 ppb	-0.01
System Monitoring Compounds					
2) Surrogate Recovery (NBZ)	3.48	82	621569	98.27646 ppb	-0.01
Spiked Amount 6.250			Recovery	= 1572.416%	
4) 2-Methylnaphthalene-D10 (2	5.03	152	91477	5.51710 ppb	-0.01
Spiked Amount 6.250			Recovery	= 88.272%	
8) Surrogate Recovery (FBP)	5.51	172	815996	77.92225 ppb	-0.01
Spiked Amount 6.250			Recovery	= 1246.752%	
15) Fluoranthene-D10 (FRT)	9.36	212	118382	6.58559 ppb	-0.01
Spiked Amount 6.250			Recovery	= 105.376%	
19) Surrogate Recovery (TPH)	9.86	244	1001899	87.80169 ppb	0.00
Spiked Amount 6.250			Recovery	= 1404.832%	

Target Compounds Qvalue

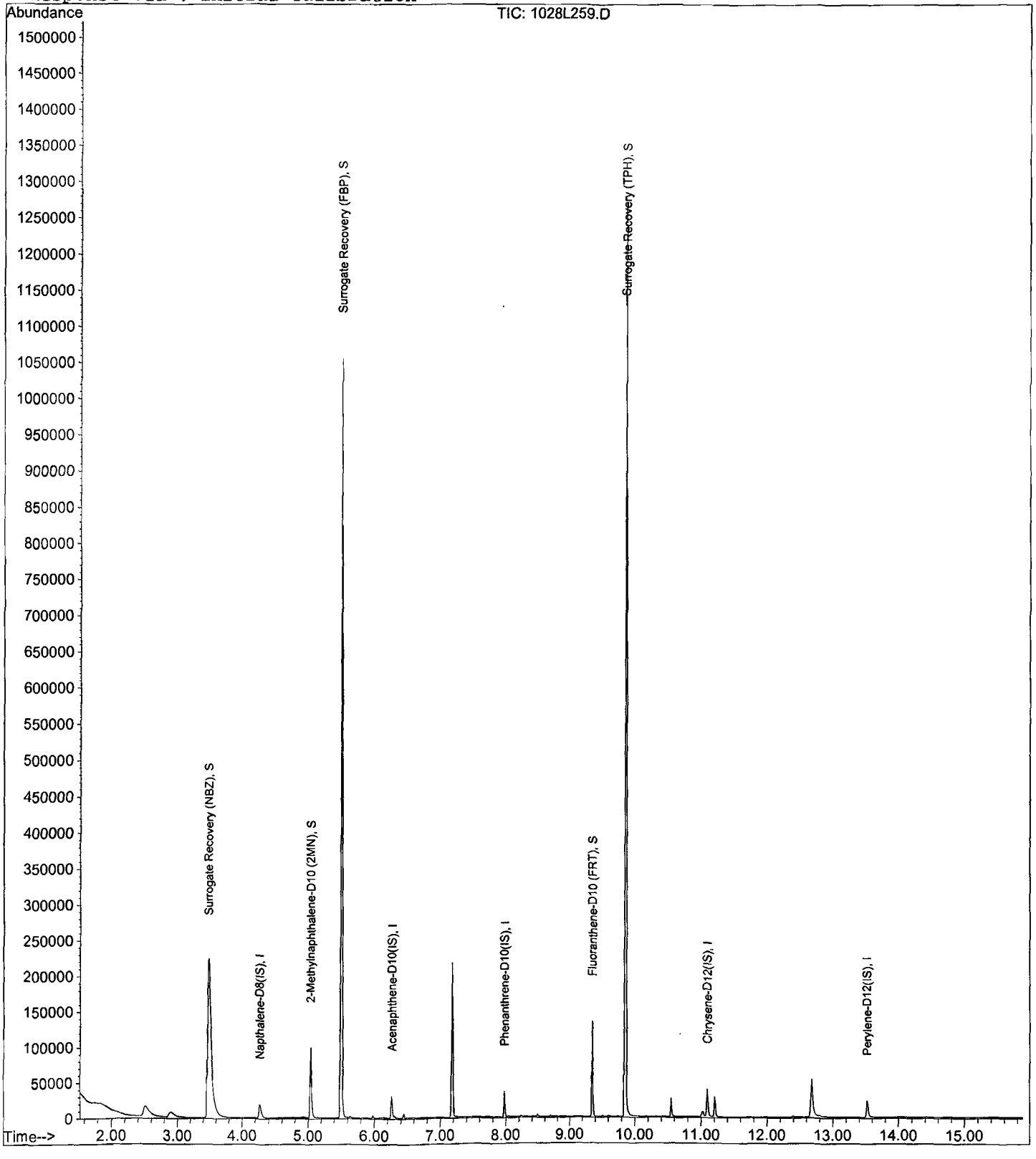
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L191028\1028L259.D Vial: 59
Acq On : 12 Nov 19 10:04 Operator: MA
Sample : 191104A BLK 1/800 Inst : Linus
Misc : Multiplr: 1.25

Quant Time: Nov 12 10:44 2019 Quant Results File: L1028.RES

Method : M:\LINUS\DATA\L191028\L1028.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 30 10:39:31 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L191028\1028L260.D Vial: 60
Acq On : 12 Nov 19 10:26 Operator: MA
Sample : 191104A LCS-2 1/800 Inst : Linus
Misc : Multiplr: 1.25

Quant Time: Nov 12 10:44 2019 Quant Results File: L1028.RES

Quant Method : M:\LINUS\DATA\L191028\L1028.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 30 10:39:31 2019
Response via : Initial Calibration
DataAcq Meth : SIM_2

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Napthalene-D8(IS)	4.27	136	38137	2.50000 ppb		0.00
7) Acenaphthene-D10(IS)	6.27	164	15916	2.50000 ppb		0.00
12) Phenanthrene-D10(IS)	7.98	188	30577	2.50000 ppb		-0.01
17) Chrysene-D12(IS)	11.10	240	37171	2.50000 ppb		-0.01
23) Perylene-D12(IS)	13.52	264	38425	2.50000 ppb		-0.01
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	3.43	82	110	0.01892 ppb		-0.06
Spiked Amount 6.250			Recovery	= 0.304%		
4) 2-Methylnaphthalene-D10 (2	5.03	152	91841	6.02605 ppb		-0.01
Spiked Amount 6.250			Recovery	= 96.416%		
8) Surrogate Recovery (FBP)	5.51	172	41	0.00425 ppb		-0.01
Spiked Amount 6.250			Recovery	= 0.064%		
15) Fluoranthene-D10 (FRT)	9.36	212	116417	6.54003 ppb		-0.01
Spiked Amount 6.250			Recovery	= 104.640%		
19) Surrogate Recovery (TPH)	9.85	244	656	0.05737 ppb		-0.01
Spiked Amount 6.250			Recovery	= 0.912%		
Target Compounds						Qvalue
3) Naphthalene	4.30	128	100989	6.67282 ppb		99
5) 2-Methylnaphthalene	5.07	142	60088	6.64862 ppb		98
6) 1-Methylnaphthalene	5.18	142	60498	6.55241 ppb		94
9) Acenaphthylene	6.10	152	198210	7.31920 ppb		99
10) Acenaphthene	6.30	154	52099	6.71620 ppb		89
11) Fluorene	6.89	166	62062	7.17792 ppb		95
13) Phenanthrene	8.00	178	94114	6.51328 ppb		99
14) Anthracene	8.06	178	81213	6.50919 ppb		99
16) Fluoranthene	9.38	202	138415	7.02598 ppb	#	91
18) Pyrene	9.64	202	143455	6.74179 ppb	#	86
20) Benz (a) anthracene	11.09	228	114358	6.77003 ppb		97
21) Chrysene	11.13	228	116810	6.24505 ppb	#	97
22) Indeno (1,2,3-cd) pyrene	15.00	276	111769	6.77238 ppb	#	94
24) Benzo (b) fluoranthene	12.89	252	101882	6.53442 ppb		98
25) Benzo (k) fluoranthene	12.95	252	125220	7.07682 ppb		100
26) Benzo (a) pyrene	13.43	252	92944	6.47745 ppb		97
27) Dibenz (a,h) anthracene	15.04	278	92971	6.56987 ppb		95
28) Benzo (g,h,i) perylene	15.37	276	96991	6.24192 ppb	#	88

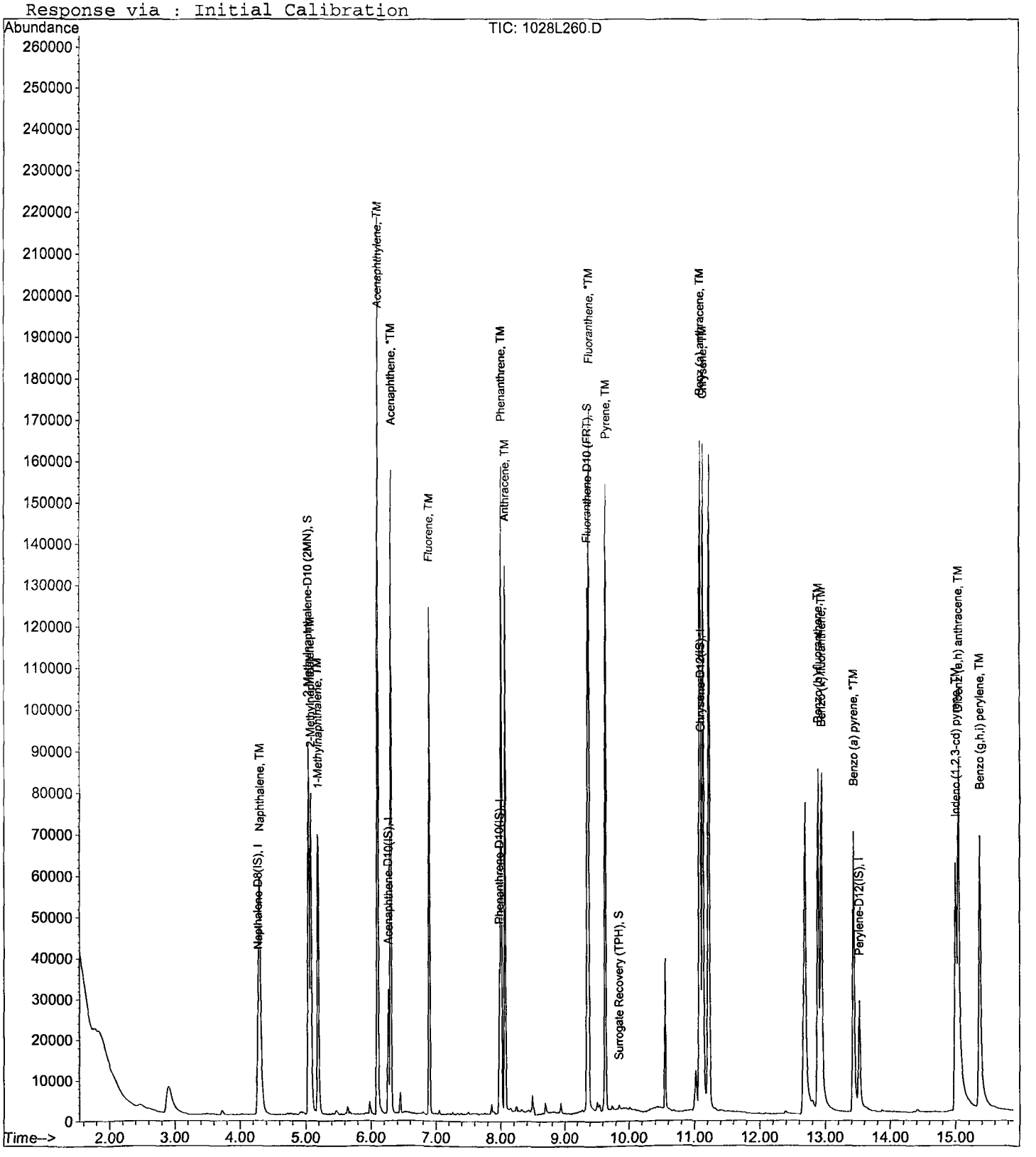
(#) = qualifier out of range (m) = manual integration
1028L260.D L1028.M Mon Dec 02 15:43:54 2019 Page 1

Quantitation Report

Data File : M:\LINUS\DATA\L191028\1028L260.D Vial: 60
Acq On : 12 Nov 19 10:26 Operator: MA
Sample : 191104A LCS-2 1/800 Inst : Linus
Misc : Multiplr: 1.25

Quant Time: Nov 12 10:44 2019 Quant Results File: L1028.RES

Method : M:\LINUS\DATA\L191028\L1028.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 30 10:39:31 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L191028\1028L261.D Vial: 61
Acq On : 12 Nov 19 10:48 Operator: MA
Sample : 191104A LCSD-2 1/800 Inst : Linus
Misc : Multiplr: 1.25

Quant Time: Nov 12 11:06 2019 Quant Results File: L1028.RES

Quant Method : M:\LINUS\DATA\L191028\L1028.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 30 10:39:31 2019
Response via : Initial Calibration
DataAcq Meth : SIM_2

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Napthalene-D8(IS)	4.27	136	42346	2.50000	ppb		0.00
7) Acenaphthene-D10(IS)	6.27	164	17317	2.50000	ppb		0.00
12) Phenanthrene-D10(IS)	7.98	188	31965	2.50000	ppb		-0.01
17) Chrysene-D12(IS)	11.10	240	38068	2.50000	ppb		-0.01
23) Perylene-D12(IS)	13.52	264	38812	2.50000	ppb		-0.01
System Monitoring Compounds							
2) Surrogate Recovery (NBZ)	3.49	82	49	0.00759	ppb		0.00
Spiked Amount 6.250			Recovery = 0.128%				
4) 2-Methylnaphthalene-D10 (2	5.03	152	93203	5.50757	ppb		-0.01
Spiked Amount 6.250			Recovery = 88.128%				
8) Surrogate Recovery (FBP)	5.50	172	49	0.00467	ppb		-0.01
Spiked Amount 6.250			Recovery = 0.080%				
15) Fluoranthene-D10 (FRT)	9.36	212	120142	6.45622	ppb		-0.01
Spiked Amount 6.250			Recovery = 103.296%				
19) Surrogate Recovery (TPH)	9.85	244	483	0.04125	ppb		-0.01
Spiked Amount 6.250			Recovery = 0.656%				
Target Compounds							Qvalue
3) Naphthalene	4.30	128	101393	6.03361	ppb		100
5) 2-Methylnaphthalene	5.07	142	60057	5.98469	ppb		95
6) 1-Methylnaphthalene	5.19	142	60646	5.91557	ppb		98
9) Acenaphthylene	6.10	152	201592	6.84183	ppb		98
10) Acenaphthene	6.30	154	52512	6.22177	ppb		91
11) Fluorene	6.89	166	62293	6.62176	ppb		94
13) Phenanthrene	8.00	178	93353	6.18008	ppb		99
14) Anthracene	8.06	178	84268	6.46077	ppb		99
16) Fluoranthene	9.38	202	139408	6.76911	ppb	#	91
18) Pyrene	9.64	202	143036	6.56370	ppb	#	86
20) Benz (a) anthracene	11.09	228	115634	6.68427	ppb		98
21) Chrysene	11.13	228	118796	6.20157	ppb		97
22) Indeno (1,2,3-cd) pyrene	15.00	276	112692	6.66741	ppb	#	96
24) Benzo (b) fluoranthene	12.89	252	113890	7.23175	ppb		98
25) Benzo (k) fluoranthene	12.95	252	113527	6.35201	ppb		99
26) Benzo (a) pyrene	13.43	252	97543	6.73018	ppb		98
27) Dibenz (a,h) anthracene	15.05	278	94122	6.58488	ppb		99
28) Benzo (g,h,i) perylene	15.37	276	96903	6.17408	ppb	#	85

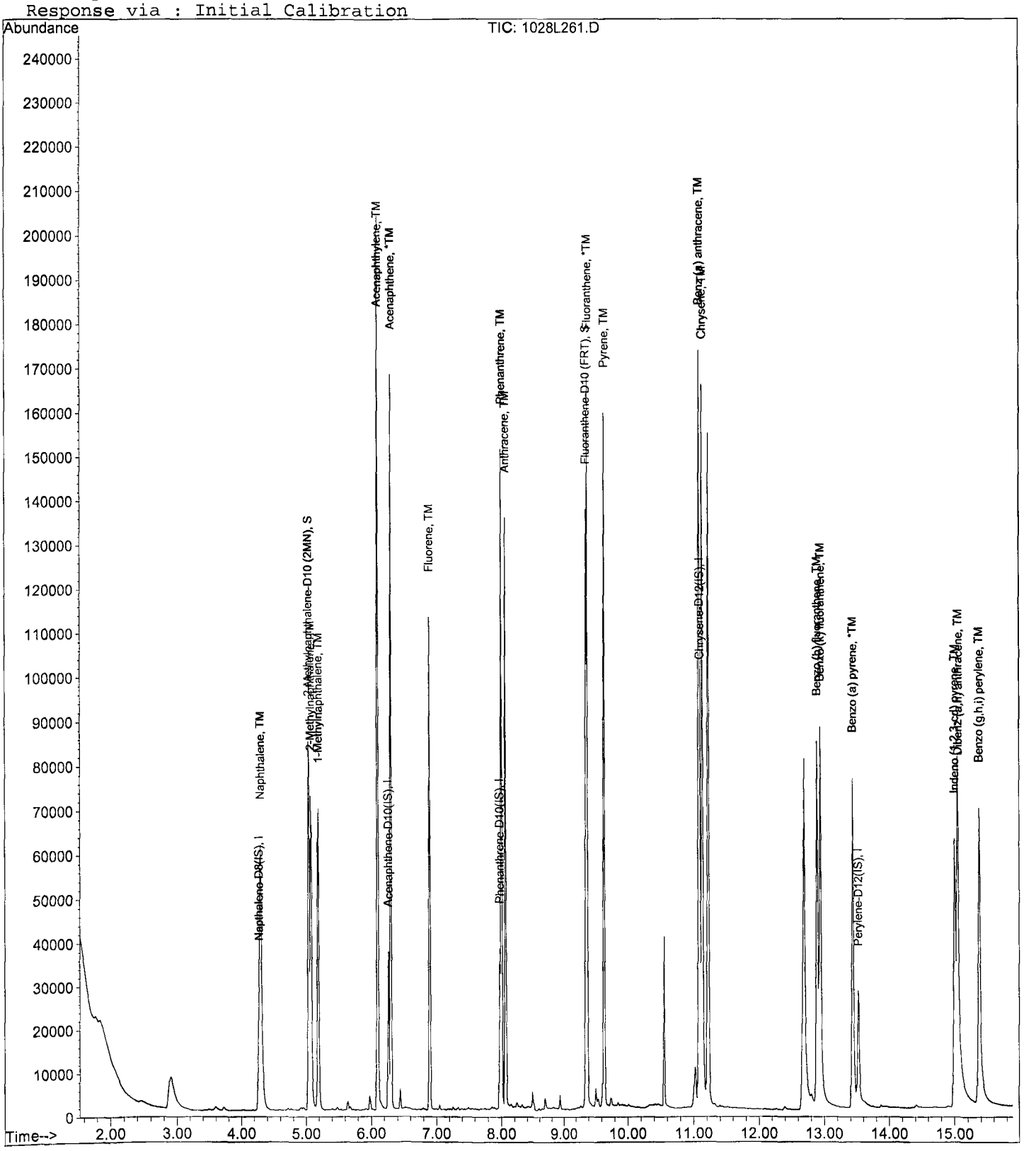
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L191028\1028L261.D Vial: 61
Acq On : 12 Nov 19 10:48 Operator: MA
Sample : 191104A LCSD-2 1/800 Inst : Linus
Misc : Multiplr: 1.25

Quant Time: Nov 12 11:06 2019 Quant Results File: L1028.RES

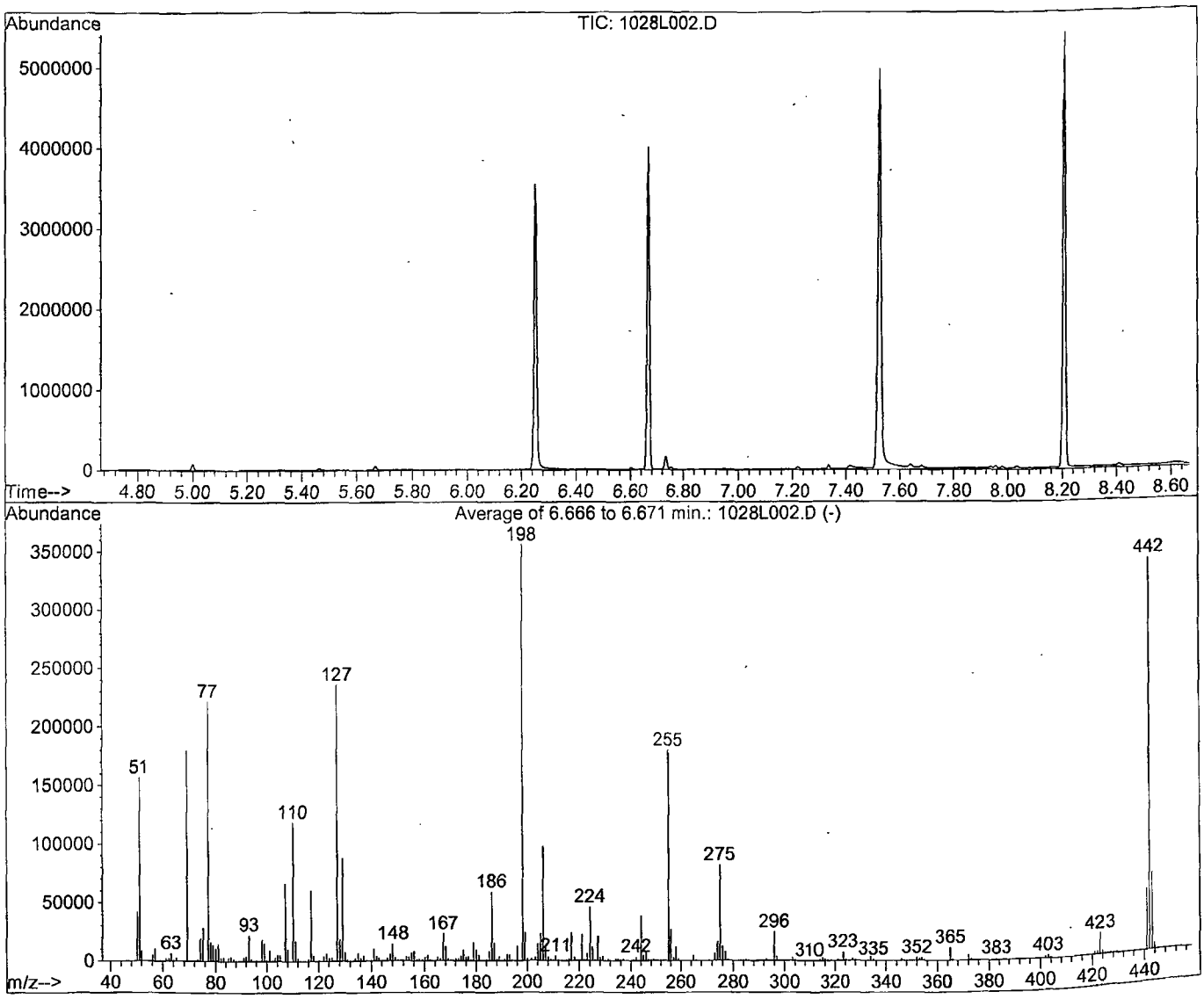
Method : M:\LINUS\DATA\L191028\L1028.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 30 10:39:31 2019
Response via : Initial Calibration



DFTPP

Data File : M:\LINUS\DATA\L191028\1028L002.D Vial: 2
Acq On : 28 Oct 19 10:20 Operator: MA
Sample : SV Tune 07/11/19 Inst : Linus
Misc : Multiplr: 1.00

Method : M:\LINUS\DATA\L191028\L1028.M (RTE Integrator)
Title : EPA 8270



AutoFind: Scans 1639, 1640, 1641; Background Corrected with Scan 1630

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	44.0	156621	PASS
68	69	0.00	2	0.0	0	PASS
70	69	0.00	2	0.3	628	PASS
127	198	10	80	66.3	235925	PASS
197	198	0.00	2	0.0	0	PASS
198	198	100	100	100.0	355968	PASS
199	198	5	9	6.8	24237	PASS
275	198	10	60	23.0	81733	PASS
365	198	1	100	3.1	10977	PASS
441	442	0.01	24	15.5	52947	PASS
442	198	50	500	95.8	340885	PASS
443	442	15	24	19.6	66771	PASS

Data File Name:	**1028L002.D**
Data File Path:	**M:\LINUS\DATA\L191028**
Operator:	**MA**
Date Acquired:	**28 Oct 2019 10:20**
Method File:	**DFTPP2.M**
Sample Name:	**SV Tune 07/11/19**
Vial Number:	**2**
Instrument Name:	**Linus**

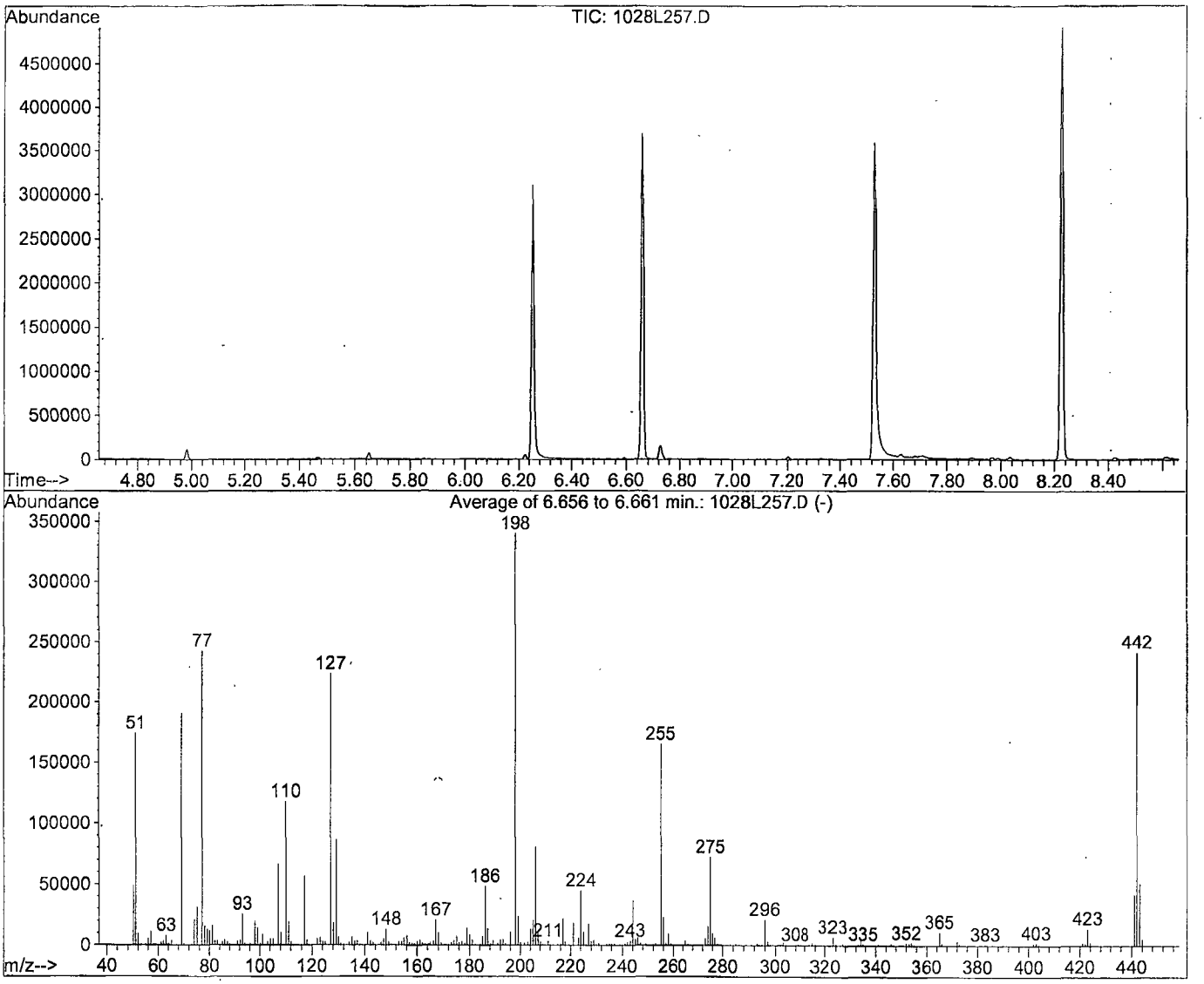
#	Name	Ret Time	Target Response
1)	DDT	8.21	37737600
2)	DDD	7.96	199800
3)	DDE	7.25	192158

Breakdown **1.03**

DFTPP

Data File : M:\LINUS\DATA\L191028\1028L257.D Vial: 57
Acq On : 12 Nov 19 9:18 Operator: MA
Sample : SV Tune 10/01/19 Inst : Linus
Misc : Multiplr: 1.00

Method : M:\LINUS\DATA\L191028\L1028.M (RTE Integrator)
Title : EPA 8270



AutoFind: Scans 1635, 1636, 1637; Background Corrected with Scan 1627

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	51.2	174024	PASS
68	69	0.00	2	0.0	0	PASS
70	69	0.00	2	0.7	1243	PASS
127	198	10	80	65.7	223509	PASS
197	198	0.00	2	0.0	0	PASS
198	198	100	100	100.0	340181	PASS
199	198	5	9	7.1	23997	PASS
275	198	10	60	21.2	72056	PASS
365	198	1	100	3.2	10859	PASS
441	442	0.01	24	17.4	41941	PASS
442	198	50	500	71.1	241728	PASS
443	442	15	24	21.1	50888	PASS

1028L257.D L1028.M Tue Nov 12 09:31:29 2019

Data File Name:	**1028L257.D**
Data File Path:	**M:\LINUS\DATA\L191028**
Operator:	**MA**
Date Acquired:	**12 Nov 2019 09:18**
Method File:	**DFTPP2.M**
Sample Name:	**SV Tune 10/01/19**
Vial Number:	**57**
Instrument Name:	**Linus**

#	Name	Ret Time	Target Response
1)	DDT	8.21	34843200
2)	DDD	7.98	128973
3)	DDE	8.15	0

Breakdown **0.37**

Name of Final Standard	**Semivolatile (SV) Tuning Solution**	**Prep'd By (Initials)**	**JP**
Prep Date	**10/01/19**		
Exp Date	**11/30/20**		

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from contianer Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc.(range)
Semivolatile GC/MS Tuning Standard	Ultra Scientific	GCM-150-1	1,000 ug/mL	CR3789-38879	**11/30/20**	1,250 uL	25 mL	**MC, #58240**	50 ug/mL

Name of Final Standard	**8270 SIM PAH Internal Standard**
Prep Date	**10/28/19**
Exp Date	**10/28/20**

Prep'd By (Initials) **MA**

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from contianer Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
SV Internal Standard	Restek	31206	2000 ug/mL	**A0151843-49414**	**07/35/25**	625uL	10mL	**MC 59130**	125 ug/mL

Name of Final Standard	**SIM Curve**
Prep Date	**07/28/19**
Exp Date	**01/24/20**

Prep'd By (Initials) **MA**

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from container Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
1.0 ug/mL SIM	APPL	1.0 ug/mL SIM	1.0 ug/mL	**08/10/19**	**01/24/20**	10 uL	100uL	**MC 59130 90uL**	0.1 ug/mL
SIM Internal Standard	APPL	SIM Internal Standard	125 ug/mL	**10/28/19**	**10/28/20**	2 uL	*	*	2.5ug/mL
1.0 ug/mL SIM	APPL	1.0 ug/mL SIM	1.0 ug/mL	**08/10/19**	**01/24/20**	20 uL	100uL	**MC 59130 80uL**	0.2 ug/mL
SIM Internal Standard	APPL	SIM Internal Standard	125 ug/mL	**10/28/19**	**10/28/20**	2 uL	*	*	2.5ug/mL
5.0 ug/mL SIM	APPL	5.0 ug/mL SIM	5.0 ug/mL	**08/10/19**	**01/24/20**	10 uL	100uL	**MC 59130 90uL**	0.5 ug/mL
SIM Internal Standard	APPL	SIM Internal Standard	125 ug/mL	**10/28/19**	**10/28/20**	2 uL	*	*	2.5ug/mL
5.0 ug/mL SIM	APPL	5.0 ug/mL SIM	5.0 ug/mL	**08/10/19**	**01/24/20**	20 uL	100uL	**MC 59130 80 uL**	1.0 ug/mL
SIM Internal Standard	APPL	SIM Internal Standard	125 ug/mL	**10/28/19**	**10/28/20**	2 uL	*	*	2.5ug/mL

SIM STOCK	APPL	PAH SIM STOCK	200 ug/mL	**08/10/19**	**08/10/20**	5 uL	200uL	**MC 59130 190 uL**	5.0 ug/mL
SIM 2S SURROGATE	APPL	SIM 2S SURR	100 ug/mL	**05/17/19**	**01/24/20**	5 uL	*	*	2.5ug/mL
SIM Internal Standard	APPL	SIM Internal Standard	125 ug/mL	**10/28/19**	**10/28/20**	4 uL	*	*	2.5ug/mL
SIM STOCK	APPL	PAH SIM STOCK	200 ug/mL	**08/10/19**	**08/10/20**	10 uL	100 uL	**MC 59130 80 uL**	20 ug/mL
SIM 2S SURROGATE	APPL	SIM 2S SURROGATE	100 ug/mL	**05/17/19**	**01/24/20**	10 uL	*	*	10 ug/mL
SIM Internal Standard	APPL	SIM Internal Standard	125 ug/mL	**10/28/19**	**10/28/20**	2 uL	*	*	2.5ug/mL
SIM STOCK	APPL	PAH SIM STOCK	200	**08/10/19**	**08/10/20**	25 uL	100uL	**MC 59130 50 uL**	50 ug/mL
SIM 2S SURROGATE	APPL	SIM 2S SURROGATE	100 ug/mL	**05/17/19**	**01/24/20**	25 uL	*	*	25 ug/mL
SIM Internal Standard	APPL	SIM Internal Standard	125 ug/mL	**10/28/19**	**10/28/20**	2 uL	*	*	2.5ug/mL
SIM STOCK	APPL	PAH SIM STOCK	200 ug/mL	**08/10/19**	**08/10/20**	50 uL	100uL	**na**	100 ug/mL
SIM 2S SURROGATE	APPL	SIM 2S SURROGATE	100 ug/mL	**05/17/19**	**01/24/20**	50 uL	*	*	50 ug/mL
SIM Internal Standard	APPL	SIM Internal Standard	125 ug/mL	**10/28/19**	**10/28/20**	2 uL	*	*	2.5ug/mL

Name of Final Standard **8270 PAH SIM Second Source** **Prep'd By (Initials)** **MA**

Prep Date **10/28/19**

Exp Date **12/28/19**

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from container Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
PAH SIM SS Stock	Phenova	AL0-130490	200 ug/mL	**12/28/18**	**12/28/19**	5 uL	200uL	**MC 59130 195uL**	5 ug/mL
SIM Internal Standard	APPL	SIM Internal Standard	125 ug/mL	**10/28/19**	**10/28/20**	4 uL	*	*	2.5ug/mL

Name of Final Standard	**PAH SIM Stock (Ampule)**
Prep Date	**08/10/19**
Exp Date	**08/10/20**

Prep'd By (I **MA**

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from contianer Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
Custom PAH SIM Mix	Phenova	ALO-130490	200 ug/mL	**CL13121-41102**	**08/10/20**	1000 uL	1mL	**NA**	200ug/mL

Name of Final Standard	PAH SIM 2nd Source Stock (Ampule)	Prep'd By (Initials)	GA
Prep Date	12/28/18		
Exp Date	12/28/19		

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from container Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
Custom PAH SIM Mix	Phenova	AL0-130490	200 ug/mL	**CL13121 - 40082**	**12/28/19**	1 mL	na	**na**	200 ug/mL

Name of Final Standard	SIM 2S Surrogate	Prep'd By (Initials)	GA
Prep Date	05/17/19		
Exp Date	01/24/20		

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from contianer Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc (range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
SIM Surrogate Mix	Restek	33913	2000 ug/mL	A0137718 - 39318	01/24/20	250 uL	5 mL	Acetone #030817A	100 ug/mL
8270 B/N surrog mix	Restek	31086	5000 ug/mL	A0141697 - 40112	04/10/20	100 uL	"	"	"

Name of Final Standard	SIM Spike
Prep Date	11/13/19
Exp Date	11/13/20

Prep'd By (Initials) SJ

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from contianer Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
Custom PAH Sim Mix	Phenova	AL0-130490	200 ug/mL	CL13121- 41100,41223	12/31/22	2 mL	10 mL	Acetone 0231086	40 ug/mL

Name of Final Standard	**SIM Surrogate**	**Prep'd By (Initials)**	**MA**
Prep Date	**09/03/19**		
Exp Date	**03/03/20**		

Initial Standard Information						Final Standard Information			
Standard (from	Supplier	P/N# (or	Conc.(range)	# (or	Exp Date	from	Volume	Solvent +	Standard
Sim Surrogate Deuterated	Restek	33913	2000 ug/mL	**A0145699-40651,41234, 41236**	**1/31/25, 4/20/25**	2500 uL	50 mL	**Acetone #217497**	100 ug/mL

_LIQ003

Organic Extraction Worksheet

Method	Continuous Liquid/Liquid SVOC 3520C	Extraction Set	191104A	Extraction Method	LIQ003	Units	mL

Spiked ID 1	8270T Spike 10/3/19 ex 10/3/20		Surrogate ID 1	8270 Surrogate 10/3/19 ex 10/3/20	
Spiked ID 2	Sim Spike 9/30/19 ex 9/30/20		Surrogate ID 2	SIM Surrogate 10/25/19 ex 10/25/20	
Spiked ID 3			Surrogate ID 3		
Spiked ID 4			Surrogate ID 4		
Spiked ID 5			Surrogate ID 5		
Spiked ID 6			Sufficient Vol for Matrix QC:	no	
Spiked ID 7			Ext. Start Time:	11/04/19 13:35	
Spiked ID 8			Ext. End Time:	11/06/19 6:30	
			GC Requires Extract By:		

pH1	2	11/05/19 10:40	Water Bath Temp 1 °C	EWB5 75/74.2 °
pH2	14	11/06/19 13:00	Water Bath Temp 2 °C	
pH3			Water Bath Temp 3 °C	

Spiked By: DL **Date** 11/04/19 **Witnessed By:** YL **Date** 11/04/19

	Sample	Sample Container	Spike Amount	Spike ID	Surrogate Amount	Surrogate ID	Extract Amount	Final Volume	pH	Extract Date/Time	Comments
1	191104A Blk				1,0.050	1,2	800	1	2/1	11/04/19 13:35	
						equip	EWB5				
2	191104A LCS-1		1	1	1	1	800	1	2/1	11/04/19 13:35	
						equip	EWB5				
3	191104A LCS-2		0.125	2	0.050	2	800	1	2/1	11/04/19 13:35	
						equip	EWB5				
4	191104A LCSD-1		1	1	1	1	800	1	2/1	11/04/19 13:35	
						equip	EWB5				
5	191104A LCSD-2		0.125	2	0.050	2	800	1	2/1	11/04/19 13:35	
						equip	EWB5				
6	BA02090	BA02090W19			1,0.050	1,2	800	1	2/1	11/04/19 13:35	90587
						equip	EWB5				
7	BA02091	BA02091W14			1,0.050	1,2	800	1	2/1	11/04/19 13:35	90587
						equip	EWB5				
8	BA02160	BA02160W16			1,0.050	1,2	800	1	2/1	11/04/19 13:35	90599
						equip	EWB5				
9	BA02214	BA02214W21			1,0.050	1,2	800	1	2/1	11/04/19 13:35	90611
						equip	EWB5				
10	BA02216	BA02216W13			1,0.050	1,2	800	1	2/1	11/04/19 13:35	90611
						equip	EWB5				
11	BA02301	BA02301W13			1,0.050	1,2	800	1	2/1	11/04/19 13:35	90625
						equip	EWB5				

Solvent and Lot#	
PH Strips	HC863463
Dichloromethane (DCM)	59130
1+1 H2SO4	11/1/19
10N NaOH	10/25/19
Filter Paper	400171
B. Na2SO4	2019020631

Extraction COC Transfer	
Extraction lab employee Initials	SS
GC analyst's initials	MA
Date	11/7/19
Time	1:30 pm
Refrigerator	GC_C

	Technician's Initials
Scanned By	DL
Sample Preparation	DL,YL,RB
Extraction	RB,DL
Concentration	DL

Modified	11/14/19 9:54:11 AM

Reviewed By: MA **Date** 11/14/19

Injection Log

Directory: M:\LINUS\DATA\L191028\

Vial	FileName	Multiplier	SampleName	Misc Info	Injected
2	1028L002.D	1	SV Tune 10/01/19		28 Oct 19 10:20
4	1028L004.D	1	5 SIM 10/28/19(2)		28 Oct 19 12:26
5	1028L005.D	1	0.1 SIM 10/28/19		28 Oct 19 12:51
6	1028L006.D	1	0.2 SIM 10/28/19		28 Oct 19 13:13
7	1028L007.D	1	0.5 SIM 10/28/19		28 Oct 19 13:35
8	1028L008.D	1	1 SIM 10/28/19		28 Oct 19 13:57
9	1028L009.D	1	20 SIM 10/28/19		28 Oct 19 14:19
10	1028L010.D	1	50 SIM 10/28/19		28 Oct 19 14:42
11	1028L011.D	1	100 SIM 10/28/19		28 Oct 19 15:04
12	1028L012.D	1	SS SIM 10/28/19		28 Oct 19 15:55
57	1028L257.D	1	SV Tune 10/01/19		12 Nov 19 9:18
58	1028L258.D	1	5 SIM 10/28/19 (1)		12 Nov 19 9:35
59	1028L259.D	1.25	191104A BLK 1/800		12 Nov 19 10:04
60	1028L260.D	1.25	191104A LCS-2 1/800		12 Nov 19 10:26
61	1028L261.D	1.25	191104A LCSD-2 1/800		12 Nov 19 10:48
62	1028L262.D	1.25	BA02090W19 1/800		12 Nov 19 11:10
63	1028L263.D	1.25	BA02091W14 1/800		12 Nov 19 11:33
68	1028L268.D	1	5 SIM 10/28/19 (1)		12 Nov 19 13:40

ORGANICS
Calibration Data

Semi-Volatile Analysis by GC-MS
EPA 8270

Form 6
Initial Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Initial Cal. Date: 11/21/19
Matrix: Instrument: Yoda

Initials: MA

		Compound	1121Y003.D 4	1121Y004.D 5	1121Y005.D 10	1121Y006.D 20	1121Y007.D 40	1121Y008.D 50	1121Y009.D 60	1121Y010.D 80	1121Y011.D 91		Avg	%RSD	Type	r^2	Q	MRF
1	I	1,4-dichlorobenzene-D4(IS)	ISTD															
2		1,4-Dioxane	0.4131	0.4262	0.6088	0.5154	0.4095	0.4466	0.4353	0.4216	0.5029		0.46	14				
3	TM	n-Nitrosodimethylamine	0.7472	0.7900	0.7145	0.6353	0.6209	0.6613	0.7224	0.7296	0.7209		0.70	7.8	TM			
4	TM	Pyridine	1.503	1.671	1.847	1.602	1.612	1.772	1.882	1.932	1.865		1.7	8.6	TM			
5	S	2-Fluorophenol (S)	1.487	1.348	1.400	1.254	1.237	1.355	1.453	1.534	1.468		1.4	7.4	S			
6	S	Phenol-D6 (S)	1.756	1.549	1.642	1.478	1.476	1.633	1.747	1.861	1.785		1.7	8.4	S			
7	*TM	Phenol	1.749	1.801	1.921	1.714	1.815	1.992	2.160	2.248	2.228		2.0	11	*TM			0.800
8	TM	Aniline			1.047	1.052	1.148	1.169	1.201	1.269	1.211		1.2	7.1	TM			
9	TM	Bis (2-chloroethyl) ether	0.7596	0.7864	0.8586	0.7722	0.7720	0.8416	0.9033	0.9359	0.9016		0.84	8.0	TM			0.700
10	TM	2-Chlorophenol	1.357	1.382	1.497	1.364	1.378	1.499	1.627	1.645	1.601		1.5	8.0	TM			0.800
11	TM	1,3-DCB	1.536	1.641	1.694	1.502	1.551	1.693	1.828	1.878	1.803		1.7	8.1	TM			
12	*TM	1,4-DCB	1.556	1.618	1.733	1.554	1.576	1.738	1.843	1.912	1.838		1.7	8.0	*TM			
13	TM	Benzyl alcohol	0.7592	0.7688	0.8337	0.7639	0.7868	0.8726	0.9274	0.9523	0.9245		0.84	9.2	TM			
14	TM	1,2-DCB	1.441	1.559	1.644	1.456	1.460	1.604	1.710	1.771	1.713		1.6	7.8	TM			
15	TM	2-Methylphenol	1.088	1.109	1.215	1.070	1.076	1.253	1.346	1.314	1.342		1.2	9.8	TM			0.700
16	TM	Bis (2-chloroisopropyl) ether	0.8788	0.9016	0.9685	0.8381	0.8636	0.9380	0.9966	1.034	0.9974		0.94	7.3	TM			
17	TM	Acetophenone	1.946	1.990	2.180	1.908	1.996	2.186	2.386	2.456	2.392		2.2	9.8	TM			0.010
18	TM	3&4-Methylphenol	1.435	1.509	1.633	1.441	1.512	1.696	1.829	1.913	1.862		1.6	11	TM			0.600
19	**TM	n-Nitrosodi-n-propylamine	1.093	1.149	1.236	1.108	1.128	1.259	1.349	1.390	1.363		1.2	9.5	**TM			0.500
20	TM	Hexachloroethane	0.5962	0.6514	0.7001	0.6119	0.6291	0.6831	0.7309	0.7571	0.7360		0.68	8.6	TM			0.300
21	I	Napthalene-D8(IS)	ISTD															
22	S	Nitrobenzene-D5(S)	0.4909	0.4400	0.4480	0.4249	0.4251	0.4425	0.4519	0.4695	0.4641		0.45	4.7	S			
23	TM	Nitrobenzene	0.4203	0.4487	0.4724	0.4405	0.4454	0.4667	0.4790	0.4868	0.4882		0.46	5.1	TM			0.200
24	TM	Isophorone	0.6864	0.7296	0.7374	0.7047	0.7298	0.7674	0.7743	0.7950	0.7997		0.75	5.3	TM			0.400
25	*TM	2-Nitrophenol	0.1792	0.1931	0.2068	0.2007	0.2081	0.2209	0.2244	0.2308	0.2328		0.21	8.6	*TM			0.100
26	TM	2,4-Dimethylphenol	0.2989	0.3139	0.3292	0.3055	0.3201	0.3373	0.3422	0.3500	0.3576		0.33	6.2	TM			0.200
27	TML	Benzoic acid	0.0982	0.1215	0.1867	0.2338	0.2843	0.3119	0.3253	0.3097	0.3131		0.24	36	TML	0.998		
28	TM	Bis (2-chloroethoxy) methane	0.3582	0.3873	0.3992	0.3839	0.3958	0.4153	0.4208	0.4286	0.4365		0.40	6.2	TM			0.300
29	*TM	2,4-Dichlorophenol	0.2978	0.3162	0.3333	0.3182	0.3286	0.3510	0.3576	0.3652	0.3745		0.34	7.6	*TM			0.200
30	TM	1,2,4-Trichlorobenzene	0.3477	0.3741	0.3873	0.3624	0.3854	0.3994	0.4100	0.4254	0.4290		0.39	7.0	TM			
31	TM	3,4-Dimethylphenol	0.4850	0.4923	0.5178	0.4946	0.5265	0.5486	0.5603	0.5755	0.5762		0.53	6.8	TM			
32	TM	Naphthalene	0.9679	1.050	1.070	1.002	1.044	1.102	1.121	1.156	1.183		1.1	6.5	TM			0.700
33	TM	4-Chloroaniline			0.3471	0.3393	0.3746	0.4069	0.3980	0.3986	0.3929		0.38	7.1	TM			0.010
34	TM	2,6-Dichlorophenol	0.2883	0.3109	0.3193	0.3043	0.3167	0.3407	0.3496	0.3553	0.3608		0.33	7.7	TM			
35	TM	Hexachloropropene	0.2899	0.3123	0.3296	0.3193	0.3388	0.3526	0.3667	0.3769	0.3786		0.34	9.0	TM			

Semi-Volatile Analysis by GC-MS
EPA 8270

Form 6
Initial Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Initial Cal. Date: 11/21/19
Matrix: Instrument: Yoda Initials:

		Compound	4	5	10	20	40	50	60	80	91		Avg	%RSD	Type		Q	
36	*TM	Hexachlorobutadiene	0.2483	0.2674	0.2753	0.2570	0.2714	0.2788	0.2882	0.2985	0.3013		0.28	6.4	*TM			0.010
37	TM	Caprolactum	0.1060	0.1109	0.1188	0.1116	0.1158	0.1233	0.1260	0.1284	0.1285		0.12	6.9	TM			0.010
38	*TM	4-Chloro-3-methylphenol	0.3450	0.3598	0.3803	0.3528	0.3721	0.3927	0.4005	0.4114	0.4181		0.38	6.8	*TM			0.200
39	TM	2-Methylnaphthalene	0.6586	0.6946	0.7298	0.6852	0.7108	0.7591	0.7694	0.7921	0.8092		0.73	7.0	TM			0.400
40	TM	1-Methylnaphthalene	0.6864	0.7167	0.7473	0.6960	0.7403	0.7824	0.7954	0.8312	0.8369		0.76	7.3	TM			
41	I	Acenaphthene-D10(IS)	ISTD															
42	**TM	Hexachlorocyclopentadiene			0.4047	0.4452	0.5371	0.5778	0.5356	0.5014	0.5552		0.51	12	**TM			0.050
43	TM	1,2,4,5-Tetrachlorobenzene	0.6252	0.6692	0.6757	0.6442	0.6972	0.7328	0.7295	0.7660	0.7864		0.70	7.8	TM			0.010
44	*TM	2,4,6-Trichlorophenol	0.3803	0.4337	0.4321	0.4274	0.4438	0.4740	0.4637	0.4817	0.4911		0.45	7.7	*TM			0.200
45	TM	2,4,5-Trichlorophenol	0.4406	0.4440	0.4619	0.4489	0.4678	0.5007	0.4912	0.5126	0.5208		0.48	6.4	TM			0.200
46	S	2-Fluorobiphenyl(S)	1.652	1.486	1.453	1.406	1.410	1.509	1.468	1.538	1.539		1.5	5.1	S			
47	TM	1,1'-Biphenyl	1.417	1.439	1.478	1.431	1.492	1.585	1.553	1.631	1.656		1.5	5.9	TM			0.010
48	TM	2-Chloronaphthalene	1.135	1.191	1.236	1.169	1.228	1.300	1.273	1.322	1.343		1.2	5.7	TM			0.800
49	TM	2-Nitroaniline	0.3493	0.3785	0.3935	0.3749	0.3886	0.4159	0.4088	0.4204	0.4192		0.39	6.1	TM			0.010
50	TM	Dimethyl phthalate	1.421	1.459	1.487	1.426	1.501	1.600	1.555	1.609	1.614		1.5	5.1	TM			0.010
51	TM	2,6-DNT	0.2894	0.2971	0.3276	0.3293	0.3389	0.3693	0.3603	0.3705	0.3755		0.34	9.4	TM			0.200
52	TM	Acenaphthylene	1.775	1.825	1.867	1.810	1.887	2.003	1.960	2.039	2.040		1.9	5.3	TM			0.900
53	TM	3-Nitroaniline	0.3368	0.3525	0.3811	0.3775	0.3933	0.4173	0.4102	0.4186	0.4220		0.39	7.8	TM			0.010
54	*TM	Acenaphthene	1.162	1.167	1.230	1.200	1.284	1.375	1.344	1.412	1.459		1.3	8.5	*TM			0.900
55	**TM	2,4-Dinitrophenol				0.1695	0.2095	0.2326	0.2385	0.2537	0.2583		0.23	15	**TM			0.010
56	**TM	4-Nitrophenol	0.0201	0.0218	0.0251	0.0236	0.0259	0.0275	0.0256	0.0271	0.0273		0.02	10	**TM			0.010
57	TM	Dibenzofuran	1.703	1.732	1.754	1.677	1.756	1.875	1.851	1.925	1.953		1.8	5.6	TM			0.800
58	TM	2,4-DNT	0.4206	0.4414	0.4553	0.4644	0.4861	0.5108	0.5051	0.5266	0.5373		0.48	8.3	TM			0.200
59	TM	2,3,4,6-Tetrachlorophenol	0.3407	0.3718	0.3800	0.3806	0.4047	0.4310	0.4264	0.4400	0.4478		0.40	9.0	TM			0.010
60	TM	Diethyl phthalate	1.477	1.526	1.527	1.479	1.516	1.617	1.570	1.621	1.623		1.6	3.8	TM			0.010
61	TM	4-Chlorophenyl phenyl ether	0.7839	0.8192	0.8394	0.8083	0.8621	0.9335	0.9288	0.9951	1.013		0.89	9.4	TM			0.400
62	TM	Fluorene	1.340	1.374	1.424	1.371	1.476	1.601	1.583	1.705	1.729		1.5	9.8	TM			0.900
63	TM	4-Nitroaniline	0.2712	0.2968	0.3093	0.2988	0.3132	0.3343	0.3188	0.3244	0.3253		0.31	6.2	TM			0.010
64	S	2,4,6-Tribromophenol(S)	0.3026	0.2844	0.2722	0.2744	0.2883	0.3138	0.3195	0.3429	0.3559		0.31	9.7	S			
65	I	Phenanthrene-D10(IS)	ISTD															
66	TM	4,6-Dinitro-2-methylphenol			0.1316	0.1466	0.1593	0.1737	0.1764	0.1861	0.1865		0.17	13	TM			0.010
67	TM	Diphenyl amine		0.5641	0.5584	0.5578	0.6050	0.6307	0.6433	0.6780	0.6789		0.61	8.3	TM			
68	*TM	n-Nitrosodiphenylamine		0.5641	0.5584	0.5578	0.6050	0.6307	0.6433	0.6780	0.6789		0.61	8.3	*TM			0.010
69	TM	1,2-Diphenylhydrazine	0.6919	0.7397	0.7428	0.7141	0.7574	0.7929	0.7830	0.8128	0.8106		0.76	5.6	TM			
70	TM	4-Bromophenyl phenyl ether	0.2326	0.2459	0.2506	0.2455	0.2597	0.2772	0.2835	0.2942	0.2998		0.27	9.0	TM			0.100

Semi-Volatile Analysis by GC-MS
EPA 8270

Form 6
Initial Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Initial Cal. Date: 11/21/19
Matrix: Instrument: Yoda Initials:

		Compound	4	5	10	20	40	50	60	80	91		Avg	%RSD	Type		Q	
71	TM	Hexachlorobenzene	0.2473	0.2716	0.2574	0.2566	0.2765	0.2965	0.2962	0.3085	0.3143		0.28	8.7	TM			0.100
72	TM	Atrazine		0.2382	0.2260	0.2098	0.2296	0.2382	0.2397	0.2449	0.2454		0.23	5.1	TM			0.010
73	*TM	Pentachlorophenol			0.1444	0.1557	0.1763	0.1911	0.1903	0.2076	0.2104		0.18	14	*TM			0.050
74	TM	Phenanthrene	1.008	1.049	1.046	1.011	1.056	1.105	1.113	1.171	1.184		1.1	5.9	TM			0.700
75	TM	Anthracene	1.045	1.093	1.101	1.059	1.117	1.168	1.172	1.234	1.241		1.1	6.3	TM			0.700
76	TM	Carbazol	0.9216	0.9673	1.003	0.9601	1.009	1.064	1.071	1.110	1.101		1.0	6.5	TM			0.010
77	TM	Di-n-butylphthalate	1.193	1.246	1.258	1.241	1.312	1.394	1.408	1.456	1.478		1.3	7.9	TM			0.010
78		2-Nitrodiphenylamine	0.2511	0.2717	0.2895	0.3048	0.3243	0.3416	0.3486	0.3566	0.3603		0.32	12				
79	*TM	Fluoranthene	1.196	1.214	1.252	1.210	1.307	1.376	1.389	1.459	1.454		1.3	8.0	*TM			0.600
80	I	Chrysene-D12(IS)	ISTD															
81	TM	Benzidine				0.2277	0.2870	0.3338	0.3091	0.3109	0.3119		0.30	12	TM			
82	TM	Pyrene	1.206	1.248	1.263	1.203	1.189	1.276	1.188	1.182	1.180		1.2	3.1	TM			0.600
83	S	Terphenyl-D14(S)	1.165	1.060	0.9868	0.9558	0.9291	0.9737	0.9485	0.9434	1.038		1.0	7.6	S			
84	TM	Butyl benzylphthalate	0.5532	0.5683	0.5820	0.5395	0.5376	0.5742	0.5448	0.5336	0.5306		0.55	3.4	TM			0.010
85	TM	3,3'-Dichlorobenzidine	0.3670	0.3556	0.3061	0.3163	0.3591	0.4126	0.3916	0.3865	0.3878		0.36	9.7	TM			0.010
86	TM	Benz (a) anthracene	1.298	1.428	1.370	1.289	1.276	1.359	1.302	1.327	1.342		1.3	3.6	TM			0.800
87	TM	Bis (2-ethylhexyl) phthalate	0.8211	0.8729	0.8848	0.8315	0.8196	0.8736	0.8456	0.8374	0.8443		0.85	2.8	TM			0.010
88	TM	Chrysene	1.232	1.177	1.234	1.165	1.158	1.248	1.193	1.137	1.138		1.2	3.6	TM			0.700
89	*TM	Di-n-octylphthalate	1.291	1.381	1.388	1.305	1.300	1.379	1.301	1.309	1.309		1.3	3.1	*TM			0.010
90	I	Perylene-D12(IS)	ISTD															
91	TM	Benzo (b) fluoranthene	1.124	1.138	1.268	1.226	1.210	1.412	1.326	1.337	1.342		1.3	7.8	TM			0.700
92	TM	Benzo (k) fluoranthene	1.085	1.156	1.043	1.031	1.178	1.140	1.189	1.320	1.346		1.2	9.5	TM			0.700
93	*TM	Benzo (a) pyrene	1.031	1.054	1.091	1.052	1.118	1.191	1.159	1.226	1.243		1.1	7.0	*TM			0.700
94	TM	Indeno (1,2,3-cd) pyrene	1.226	1.291	1.300	1.259	1.321	1.402	1.382	1.439	1.448		1.3	6.0	TM			0.500
95	TM	Dibenz (a,h) anthracene	1.076	1.111	1.142	1.090	1.166	1.251	1.222	1.280	1.306		1.2	7.2	TM			0.400
96	TM	Benzo (g,h,i) perylene	1.006	1.037	1.048	1.011	1.049	1.115	1.089	1.123	1.129		1.1	4.5	TM			0.500
97																		
98																		
99																		
100																		
101																		
102																		
103																		
104																		
105																		

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y191121\1121Y003.D Vial: 3
Acq On : 21 Nov 19 14:07 Operator: MA,SS
Sample : 4ug/ml 8270 11/21/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 22 15:55 2019 Quant Results File: Y1121ND.RES

Quant Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 15:42:05 2019
Response via : Initial Calibration
DataAcq Meth : SVOC1011

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.47	152	171877	40.00000 ppb	0.00
21) Napthalene-D8(IS)	6.91	136	699682	40.00000 ppb	0.00
41) Acenaphthene-D10(IS)	8.93	164	435091	40.00000 ppb	0.00
65) Phenanthrene-D10(IS)	10.66	188	880555	40.00000 ppb	0.00
80) Chrysene-D12(IS)	13.75	240	903111	40.00000 ppb	0.00
90) Perylene-D12(IS)	15.62	264	1002643	40.00000 ppb	0.00
System Monitoring Compounds					
5) 2-Fluorophenol (S)	3.90	112	51113	8.54001 ppb	0.00
Spiked Amount 200.000			Recovery	= 4.270%	
6) Phenol-D6 (S)	5.06	99	60351	8.46840 ppb	-0.02
Spiked Amount 200.000			Recovery	= 4.234%	
22) Nitrobenzene-D5(S)	6.09	82	34346	4.35589 ppb	0.00
Spiked Amount 100.000			Recovery	= 4.356%	
46) 2-Fluorobiphenyl(S)	8.14	172	71869	4.41801 ppb	0.00
Spiked Amount 100.000			Recovery	= 4.418%	
64) 2,4,6-Tribromophenol(S)	9.85	330	26335	7.91248 ppb	0.00
Spiked Amount 200.000			Recovery	= 3.956%	
83) Terphenyl-D14(S)	12.52	244	105225	4.66036 ppb	0.00
Spiked Amount 100.000			Recovery	= 4.660%	
Target Compounds					Qvalue
2) 1,4-Dioxane	1.74	58	710	0.35582 #	1
3) n-Nitrosodimethylamine	1.96	42	12843	4.24143 ppb	88
4) Pyridine	1.99	79	25828	3.44888 ppb	97
7) Phenol	5.08	94	30055	3.57098 ppb	83
8) Aniline	5.10	93	15130	3.19391 ppb #	74
9) Bis (2-chloroethyl) ether	5.17	63	13055	3.63084 ppb	94
10) 2-Chlorophenol	5.24	128	23332	3.66070 ppb	97
11) 1,3-DCB	5.41	146	26394	3.65488 ppb	96
12) 1,4-DCB	5.49	146	26744	3.64508 ppb	99
13) Benzyl alcohol	5.63	108	13049	3.60134 ppb	94
14) 1,2-DCB	5.67	146	24759	3.61216 ppb	99
15) 2-Methylphenol	5.76	107	18692	3.62060 ppb	99
16) Bis (2-chloroisopropyl) et	5.78	45	15104	3.75895 ppb	95
17) Acetophenone	5.93	105	33450	3.60387 ppb	95
18) 3&4-Methylphenol	5.93	107	49324	6.96583 ppb	95
19) n-Nitrosodi-n-propylamine	5.92	70	18786	3.55298 ppb	92
20) Hexachloroethane	6.05	117	10248	3.52118 ppb	89
23) Nitrobenzene	6.11	77	29406	3.64767 ppb	98
24) Isophorone	6.38	82	48023	3.67460 ppb	96
25) 2-Nitrophenol	6.47	139	12539	3.40134 ppb	93
26) 2,4-Dimethylphenol	6.52	122	20911	3.64149 ppb	98
27) Benzoic acid	6.59	105	6870	6.98276 ppb	94
28) Bis (2-chloroethoxy) metha	6.62	93	25066	3.55718 ppb	98
29) 2,4-Dichlorophenol	6.75	162	20834	3.52351 ppb	92
30) 1,2,4-Trichlorobenzene	6.84	180	24329	3.55547 ppb	98
31) 3,4-Dimethylphenol	6.86	107	33935	3.65526 ppb	98
32) Naphthalene	6.94	128	67722	3.59329 ppb	99
33) 4-Chloroaniline	6.99	127	21792	3.39619 ppb	92
34) 2,6-Dichlorophenol	7.00	162	20174	3.52345 ppb	97
35) Hexachloropropene	7.04	213	20281	3.40479 ppb	98
36) Hexachlorobutadiene	7.08	225	17375	3.59566 ppb	96
37) Caprolactum	7.36	55	7420	3.57025 ppb	94

(#) = qualifier out of range (m) = manual integration

Data File : M:\YODA\DATA\Y191121\1121Y003.D Vial: 3
Acq On : 21 Nov 19 14:07 Operator: MA,SS
Sample : 4ug/ml 8270 11/21/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 22 15:55 2019 Quant Results File: Y1121ND.RES

Quant Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 15:42:05 2019
Response via : Initial Calibration
DataAcq Meth : SVOC1011

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
38)	4-Chloro-3-methylphenol	7.55	107	24140	3.61824	ppb		96
39)	2-Methylnaphthalene	7.73	142	46079	3.58746	ppb		99
40)	1-Methylnaphthalene	7.84	142	48029	3.61675	ppb		98
42)	Hexachlorocyclopentadiene	7.90	237	13066	2.36391	ppb		98
43)	1,2,4,5-Tetrachlorobenzene	7.91	216	27200	3.55745	ppb		99
44)	2,4,6-Trichlorophenol	8.05	196	16547	3.39912	ppb		95
45)	2,4,5-Trichlorophenol	8.10	196	19169	3.69855	ppb		94
47)	1,1'-Biphenyl	8.26	154	61663	3.72896	ppb		98
48)	2-Chloronaphthalene	8.28	162	49376	3.64897	ppb		99
49)	2-Nitroaniline	8.39	65	15196	3.54290	ppb		96
50)	Dimethyl phthalate	8.61	163	61840	3.74213	ppb		99
51)	2,6-DNT	8.67	165	12592	3.40721	ppb		98
52)	Acenaphthylene	8.77	152	77248	3.71436	ppb		99
53)	3-Nitroaniline	8.39	138	14652	3.45457	ppb		92
54)	Acenaphthene	8.97	154	50577	3.59732	ppb		98
55)	2,4-Dinitrophenol	9.00	184	2218	0.89820	ppb		90
56)	4-Nitrophenol	8.67	65	876	3.23673	ppb	#	74
57)	Dibenzofuran	9.17	168	74089	3.77841	ppb		99
58)	2,4-DNT	9.15	165	18301	3.48292	ppb		89
59)	2,3,4,6-Tetrachlorophenol	9.31	232	14824	3.38549	ppb		97
60)	Diethyl phthalate	9.43	149	64247	3.80951	ppb		98
61)	4-Chlorophenyl phenyl ethe	9.56	204	34106	3.53499	ppb		95
62)	Fluorene	9.56	166	58288	3.54590	ppb		99
63)	4-Nitroaniline	8.87	138	11801	3.49716	ppb		98
66)	4,6-Dinitro-2-methylphenol	9.62	198	7216	1.97776	ppb	#	77
67)	Diphenyl amine	9.69	169	94212	6.96393	ppb		99
68)	n-Nitrosodiphenylamine	9.69	169	94212	6.96393	ppb		99
69)	1,2-Diphenylhydrazine	9.75	77	60929	3.63908	ppb		97
70)	4-Bromophenyl phenyl ether	10.13	248	20479	3.50463	ppb		93
71)	Hexachlorobenzene	10.21	284	21775	3.52596	ppb		93
72)	Atrazine	10.32	200	9503	1.84482	ppb		97
73)	Pentachlorophenol	10.45	266	10529	2.62448	ppb		88
74)	Phenanthrene	10.69	178	88775	3.72528	ppb		99
75)	Anthracene	10.74	178	92014	3.67778	ppb		98
76)	Carbazol	10.93	167	81154	3.60423	ppb		100
77)	Di-n-butylphthalate	11.34	149	105020	3.58164	ppb		99
78)	2-Nitrodiphenylamine	11.51	167	11054	1.58658	ppb		92
79)	Fluoranthene	12.08	202	105288	3.63060	ppb	#	97
81)	Benzidine	12.23	184	26925	4.01919	ppb		99
82)	Pyrene	12.34	202	108905	3.96999	ppb		99
84)	Butyl benzylphthalate	13.08	149	49960	4.01214	ppb		91
85)	3,3'-Dichlorobenzidine	13.69	252	33143	4.02465	ppb		99
86)	Benz (a) anthracene	13.73	228	117193	3.89605	ppb		99
87)	Bis (2-ethylhexyl) phthala	13.75	149	74158	3.87394	ppb	#	95
88)	Chrysene	13.77	228	111291	4.15296	ppb		99
89)	Di-n-octylphthalate	14.51	149	116580	3.88466	ppb		94
91)	Benzo (b) fluoranthene	15.05	252	112725	3.55542	ppb		99
92)	Benzo (k) fluoranthene	15.09	252	108771	3.72354	ppb	#	98
93)	Benzo (a) pyrene	15.52	252	103381	3.65175	ppb		97
94)	Indeno (1,2,3-cd) pyrene	17.50	276	122956	3.65819	ppb		96
95)	Dibenz (a,h) anthracene	17.54	278	107866	3.63839	ppb		100
96)	Benzo (g,h,i) perylene	18.07	276	100853	3.76901	ppb		99

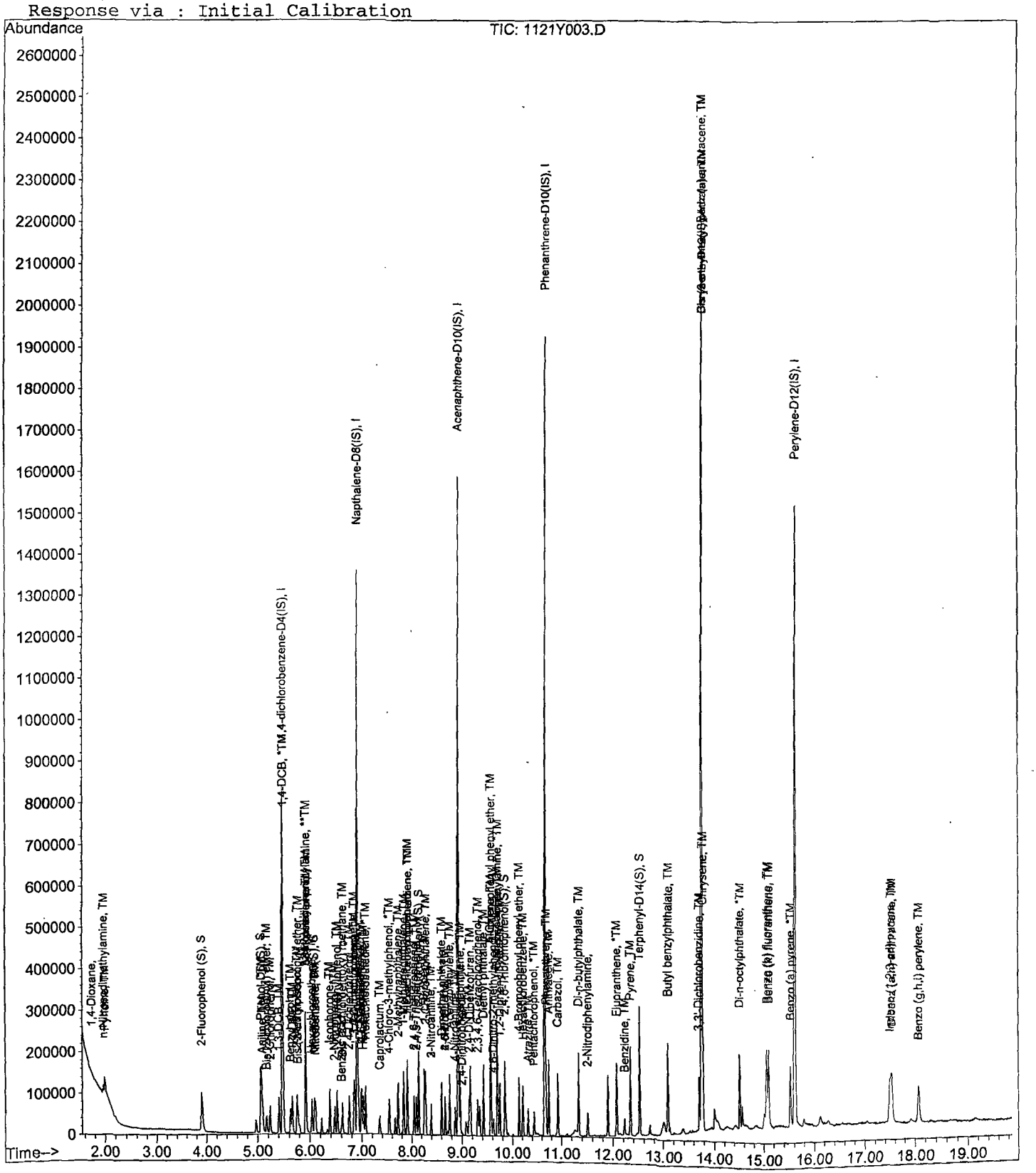
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y191121\1121Y003.D Vial: 3
Acq On : 21 Nov 19 14:07 Operator: MA,SS
Sample : 4ug/ml 8270 11/21/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 22 15:55 2019 Quant Results File: Y1121ND.RES

Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 18:04:15 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y191121\1121Y004.D Vial: 4
Acq On : 21 Nov 19 14:35 Operator: MA,SS
Sample : 5ug/ml 8270 11/21/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 22 17:59 2019 Quant Results File: Y1121ND.RES

Quant Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 16:12:45 2019
Response via : Initial Calibration
DataAcq Meth : SVOC1011

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.48	152	178119	40.00000 ppb	0.00
21) Napthalene-D8(IS)	6.91	136	701942	40.00000 ppb	0.00
41) Acenaphthene-D10(IS)	8.93	164	437841	40.00000 ppb	0.00
65) Phenanthrene-D10(IS)	10.66	188	878554	40.00000 ppb	0.00
80) Chrysene-D12(IS)	13.75	240	894953	40.00000 ppb	0.00
90) Perylene-D12(IS)	15.61	264	1003571	40.00000 ppb	0.00
System Monitoring Compounds					
5) 2-Fluorophenol (S)	3.91	112	60020	9.67677 ppb	0.00
Spiked Amount 200.000			Recovery	= 4.839%	
6) Phenol-D6 (S)	5.07	99	68975	9.33934 ppb	0.00
Spiked Amount 200.000			Recovery	= 4.670%	
22) Nitrobenzene-D5(S)	6.09	82	38608	4.88065 ppb	0.00
Spiked Amount 100.000			Recovery	= 4.881%	
46) 2-Fluorobiphenyl(S)	8.14	172	81328	4.96808 ppb	0.00
Spiked Amount 100.000			Recovery	= 4.968%	
64) 2,4,6-Tribromophenol(S)	9.85	330	31127	9.29352 ppb	0.00
Spiked Amount 200.000			Recovery	= 4.647%	
83) Terphenyl-D14(S)	12.51	244	118567	5.29914 ppb	0.00
Spiked Amount 100.000			Recovery	= 5.299%	
Target Compounds					Qvalue
2) 1,4-Dioxane	1.75	58	949	0.45892 #	1
3) n-Nitrosodimethylamine	1.96	42	17590	5.60557 ppb	78
4) Pyridine	1.99	79	37212	4.79487 ppb	97
7) Phenol	5.08	94	40110	4.59865 ppb	87
8) Aniline	5.10	93	21048	4.28749 ppb #	77
9) Bis (2-chloroethyl) ether	5.17	63	17508	4.69867 ppb	96
10) 2-Chlorophenol	5.24	128	30773	4.65897 ppb	94
11) 1,3-DCB	5.40	146	36544	4.88305 ppb	97
12) 1,4-DCB	5.50	146	36021	4.73744 ppb	96
13) Benzyl alcohol	5.63	108	17118	4.55877 ppb	99
14) 1,2-DCB	5.66	146	34722	4.88817 ppb	99
15) 2-Methylphenol	5.76	107	24694	4.61556 ppb	98
16) Bis (2-chloroisopropyl) et	5.78	45	20074	4.82076 ppb	92
17) Acetophenone	5.92	105	44298	4.60536 ppb	100
18) 3&4-Methylphenol	5.93	107	67207	9.15876 ppb	97
19) n-Nitrosodi-n-propylamine	5.92	70	25583	4.66893 ppb	97
20) Hexachloroethane	6.05	117	14504	4.80888 ppb	98
23) Nitrobenzene	6.11	77	39369	4.86780 ppb	97
24) Isophorone	6.38	82	64013	4.88234 ppb	95
25) 2-Nitrophenol	6.47	139	16944	4.58144 ppb	87
26) 2,4-Dimethylphenol	6.52	122	27539	4.78027 ppb	99
27) Benzoic acid	6.60	105	10661	5.63187 ppb	89
28) Bis (2-chloroethoxy) metha	6.62	93	33987	4.80766 ppb	95
29) 2,4-Dichlorophenol	6.75	162	27742	4.67670 ppb	96
30) 1,2,4-Trichlorobenzene	6.84	180	32824	4.78149 ppb	97
31) 3,4-Dimethylphenol	6.86	107	43196	4.63781 ppb	98
32) Naphthalene	6.94	128	92144	4.87336 ppb	98
33) 4-Chloroaniline	6.99	127	29189	4.53434 ppb	94
34) 2,6-Dichlorophenol	7.00	162	27277	4.74867 ppb	96
35) Hexachloropropene	7.04	213	27403	4.58562 ppb	96
36) Hexachlorobutadiene	7.08	225	23460	4.83929 ppb	98
37) Caprolactum	7.35	55	9733	4.66811 ppb	97

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y191121\1121Y004.D Vial: 4
Acq On : 21 Nov 19 14:35 Operator: MA,SS
Sample : 5ug/ml 8270 11/21/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 22 17:59 2019 Quant Results File: Y1121ND.RES

Quant Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 16:12:45 2019
Response via : Initial Calibration
DataAcq Meth : SVOC1011

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
38)	4-Chloro-3-methylphenol	7.55	107	31574	4.71725	ppb		98
39)	2-Methylnaphthalene	7.73	142	60949	4.72988	ppb		100
40)	1-Methylnaphthalene	7.84	142	62883	4.72006	ppb		100
42)	Hexachlorocyclopentadiene	7.91	237	19448	3.49645	ppb		97
43)	1,2,4,5-Tetrachlorobenzene	7.92	216	36627	4.76031	ppb		96
44)	2,4,6-Trichlorophenol	8.05	196	23738	4.84568	ppb		98
45)	2,4,5-Trichlorophenol	8.10	196	24300	4.65910	ppb		95
47)	1,1'-Biphenyl	8.26	154	78756	4.73271	ppb		97
48)	2-Chloronaphthalene	8.28	162	65185	4.78703	ppb		97
49)	2-Nitroaniline	8.39	65	20713	4.79884	ppb		95
50)	Dimethyl phthalate	8.61	163	79858	4.80211	ppb		99
51)	2,6-DNT	8.68	165	16261	4.37236	ppb	#	77
52)	Acenaphthylene	8.76	152	99907	4.77371	ppb		99
53)	3-Nitroaniline	8.39	138	19292	4.52000	ppb		93
54)	Acenaphthene	8.97	154	63851	4.51292	ppb		98
55)	2,4-Dinitrophenol	9.00	184	3397	1.36701	ppb	#	84
56)	4-Nitrophenol	8.67	65	1191	4.37298	ppb	#	74
57)	Dibenzofuran	9.16	168	94779	4.80321	ppb		98
58)	2,4-DNT	9.15	165	24158	4.56870	ppb		98
59)	2,3,4,6-Tetrachlorophenol	9.31	232	20347	4.61764	ppb		93
60)	Diethyl phthalate	9.42	149	83497	4.91984	ppb		99
61)	4-Chlorophenyl phenyl ethe	9.56	204	44837	4.61804	ppb		93
62)	Fluorene	9.56	166	75174	4.54443	ppb		96
63)	4-Nitroaniline	8.87	138	16245	4.78388	ppb		94
66)	4,6-Dinitro-2-methylphenol	9.62	198	10573	2.90445	ppb	#	74
67)	Diphenyl amine	9.70	169	123899	9.17918	ppb		100
68)	n-Nitrosodiphenylamine	9.70	169	123899	9.17918	ppb		100
69)	1,2-Diphenylhydrazine	9.75	77	81228	4.86252	ppb		97
70)	4-Bromophenyl phenyl ether	10.14	248	27005	4.63197	ppb		89
71)	Hexachlorobenzene	10.21	284	29823	4.84015	ppb		95
72)	Atrazine	10.31	200	13082	2.54540	ppb		93
73)	Pentachlorophenol	10.44	266	13695	3.42141	ppb		96
74)	Phenanthrene	10.69	178	115216	4.84584	ppb		99
75)	Anthracene	10.75	178	120056	4.80954	ppb		98
76)	Carbazol	10.93	167	106227	4.72853	ppb		99
77)	Di-n-butylphthalate	11.34	149	136821	4.67682	ppb		99
78)	2-Nitrodiphenylamine	11.51	167	14920	2.14635	ppb		97
79)	Fluoranthene	12.08	202	133347	4.60862	ppb	#	97
81)	Benzidine	12.23	184	22751	3.42708	ppb		99
82)	Pyrene	12.34	202	139635	5.13662	ppb		99
84)	Butyl benzylphthalate	13.08	149	63571	5.15174	ppb		88
85)	3,3'-Dichlorobenzidine	13.69	252	39776	4.87415	ppb		97
86)	Benz (a) anthracene	13.73	228	159783	5.36036	ppb		100
87)	Bis (2-ethylhexyl) phthala	13.75	149	97649	5.14758	ppb	#	96
88)	Chrysene	13.78	228	131677	4.95848	ppb		100
89)	Di-n-octylphthalate	14.51	149	154516	5.19570	ppb		96
91)	Benzo (b) fluoranthene	15.05	252	142727	4.49753	ppb		99
92)	Benzo (k) fluoranthene	15.09	252	145010	4.95951	ppb		98
93)	Benzo (a) pyrene	15.52	252	132183	4.66482	ppb		96
94)	Indeno (1,2,3-cd) pyrene	17.50	276	161903	4.81249	ppb		99
95)	Dibenz (a,h) anthracene	17.54	278	139369	4.69666	ppb		98
96)	Benzo (g,h,i) perylene	18.06	276	130106	4.85773	ppb		100

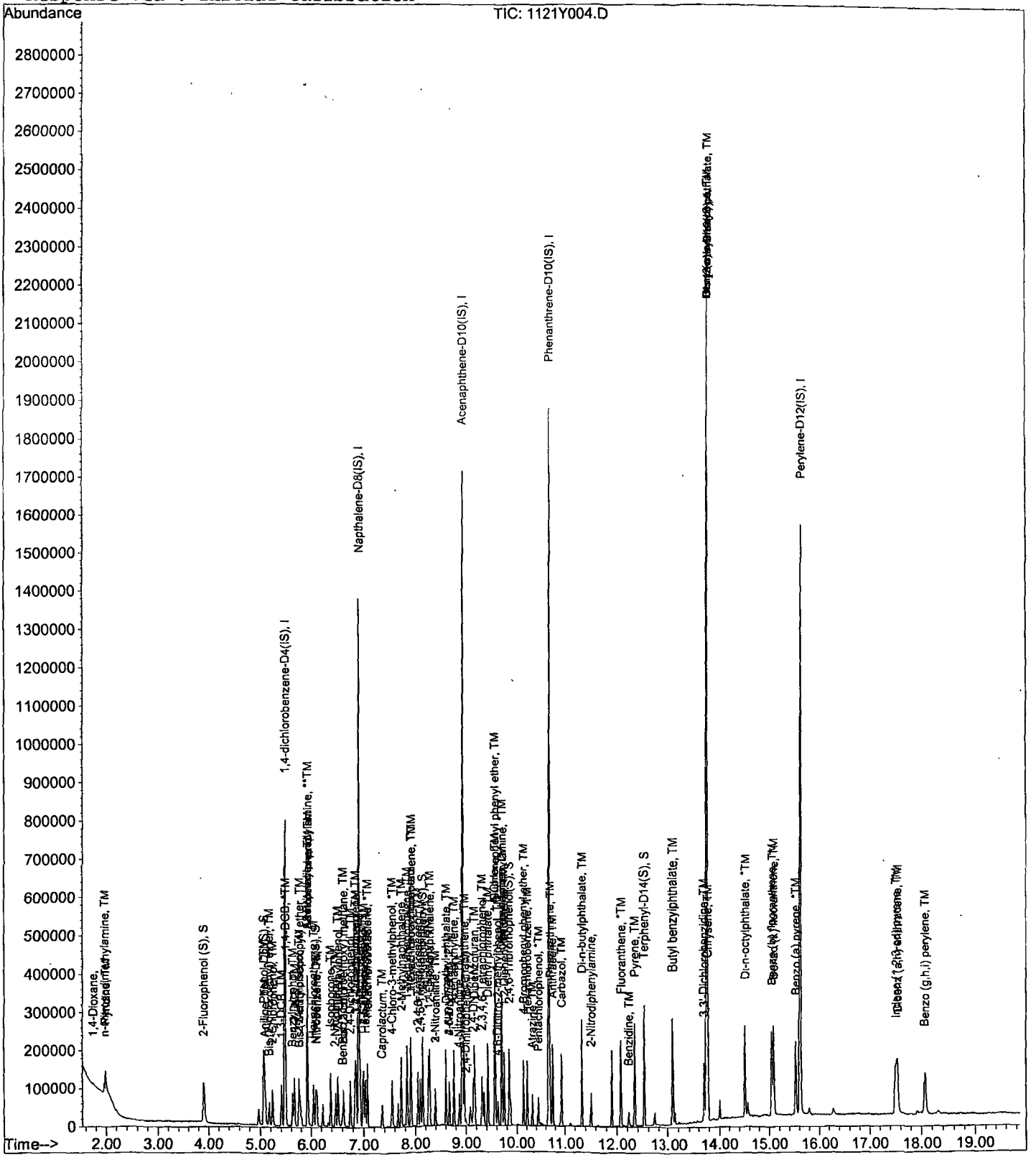
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y191121\1121Y004.D Vial: 4
Acq On : 21 Nov 19 14:35 Operator: MA,SS
Sample : 5ug/ml 8270 11/21/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 22 17:59 2019 Quant Results File: Y1121ND.RES

Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 18:04:15 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y191121\1121Y005.D Vial: 5
Acq On : 21 Nov 19 15:37 Operator: MA,SS
Sample : 10ug/ml 8270 11/21/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 22 15:55 2019 Quant Results File: Y1121ND.RES

Quant Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 15:42:05 2019
Response via : Initial Calibration
DataAcq Meth : SVOC1011

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.47	152	168977	40.00000 ppb		0.00
21) Napthalene-D8(IS)	6.91	136	683114	40.00000 ppb		0.00
41) Acenaphthene-D10(IS)	8.93	164	434378	40.00000 ppb		0.00
65) Phenanthrene-D10(IS)	10.66	188	872989	40.00000 ppb		0.00
80) Chrysene-D12(IS)	13.75	240	893214	40.00000 ppb		0.00
90) Perylene-D12(IS)	15.62	264	988297	40.00000 ppb		0.00
System Monitoring Compounds						
5) 2-Fluorophenol (S)	3.90	112	118316	20.10761 ppb		0.00
Spiked Amount 200.000			Recovery =	10.054%		
6) Phenol-D6 (S)	5.06	99	138757	19.80441 ppb		-0.02
Spiked Amount 200.000			Recovery =	9.902%		
22) Nitrobenzene-D5(S)	6.09	82	76517	9.93955 ppb		0.00
Spiked Amount 100.000			Recovery =	9.940%		
46) 2-Fluorobiphenyl(S)	8.14	172	157762	9.71403 ppb		0.00
Spiked Amount 100.000			Recovery =	9.714%		
64) 2,4,6-Tribromophenol(S)	9.85	330	59109	17.78875 ppb		0.00
Spiked Amount 200.000			Recovery =	8.895%		
83) Terphenyl-D14(S)	12.52	244	220345	9.86711 ppb		0.00
Spiked Amount 100.000			Recovery =	9.867%		
Target Compounds						Qvalue
2) 1,4-Dioxane	1.74	58	2572	1.31107		53
3) n-Nitrosodimethylamine	1.96	42	30183	10.13908 ppb		98
4) Pyridine	1.98	79	78020	10.59700 ppb		97
7) Phenol	5.08	94	81147	9.80693 ppb		92
8) Aniline	5.10	93	44216	9.49410 ppb	#	72
9) Bis (2-chloroethyl) ether	5.17	63	36273	10.26135 ppb		98
10) 2-Chlorophenol	5.24	128	63228	10.09048 ppb		95
11) 1,3-DCB	5.41	146	71562	10.07954 ppb		99
12) 1,4-DCB	5.49	146	73207	10.14901 ppb		96
13) Benzyl alcohol	5.63	108	35220	9.88705 ppb		98
14) 1,2-DCB	5.67	146	69444	10.30527 ppb		96
15) 2-Methylphenol	5.76	107	51325	10.11217 ppb		95
16) Bis (2-chloroisopropyl) et	5.78	45	40914	10.35705 ppb		95
17) Acetophenone	5.93	105	92082	10.09107 ppb		99
18) 3&4-Methylphenol	5.93	107	137956	19.81735 ppb		96
19) n-Nitrosodi-n-propylamine	5.93	70	52205	10.04294 ppb		99
20) Hexachloroethane	6.05	117	29576	10.33662 ppb		87
23) Nitrobenzene	6.11	77	80674	10.24991 ppb		99
24) Isophorone	6.38	82	125937	9.87010 ppb		98
25) 2-Nitrophenol	6.47	139	35318	9.81274 ppb		95
26) 2,4-Dimethylphenol	6.52	122	56214	10.02667 ppb		98
27) Benzoic acid	6.62	105	31882	11.03508 ppb		96
28) Bis (2-chloroethoxy) metha	6.62	93	68176	9.90969 ppb		98
29) 2,4-Dichlorophenol	6.75	162	56920	9.85995 ppb		96
30) 1,2,4-Trichlorobenzene	6.84	180	66134	9.89930 ppb		98
31) 3,4-Dimethylphenol	6.86	107	88422	9.75524 ppb		94
32) Naphthalene	6.94	128	182795	9.93422 ppb		99
33) 4-Chloroaniline	6.99	127	59273	9.46150 ppb	#	93
34) 2,6-Dichlorophenol	7.00	162	54536	9.75589 ppb		97
35) Hexachloropropene	7.04	213	56293	9.67972 ppb		99
36) Hexachlorobutadiene	7.08	225	47021	9.96674 ppb		98
37) Caprolactum	7.36	55	20280	9.99472 ppb		97

(#) = qualifier out of range (m) = manual integration

Data File : M:\YODA\DATA\Y191121\1121Y005.D Vial: 5
Acq On : 21 Nov 19 15:37 Operator: MA,SS
Sample : 10ug/ml 8270 11/21/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 22 15:55 2019 Quant Results File: Y1121ND.RES

Quant Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 15:42:05 2019
Response via : Initial Calibration
DataAcq Meth : SVOC1011

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
38)	4-Chloro-3-methylphenol	7.55	107	64955	9.97194 ppb		93
39)	2-Methylnaphthalene	7.73	142	124627	9.93812 ppb		98
40)	1-Methylnaphthalene	7.84	142	127619	9.84323 ppb		99
42)	Hexachlorocyclopentadiene	7.91	237	43952	7.96489 ppb		99
43)	1,2,4,5-Tetrachlorobenzene	7.92	216	73379	9.61289 ppb		97
44)	2,4,6-Trichlorophenol	8.05	196	46928	9.65586 ppb		94
45)	2,4,5-Trichlorophenol	8.10	196	50161	9.69416 ppb		97
47)	1,1'-Biphenyl	8.26	154	160463	9.71963 ppb		98
48)	2-Chloronaphthalene	8.28	162	134240	9.93686 ppb		98
49)	2-Nitroaniline	8.39	65	42728	9.97826 ppb		95
50)	Dimethyl phthalate	8.61	163	161526	9.79049 ppb		100
51)	2,6-DNT	8.68	165	35573	9.64134 ppb		76
52)	Acenaphthylene	8.77	152	202717	9.76335 ppb		99
53)	3-Nitroaniline	8.39	138	41383	9.77309 ppb		97
54)	Acenaphthene	8.97	154	133593	9.51748 ppb		99
55)	2,4-Dinitrophenol	9.00	184	13612	5.52138 ppb		97
56)	4-Nitrophenol	8.67	65	2725	10.08512 ppb	#	74
57)	Dibenzofuran	9.16	168	190431	9.72759 ppb		97
58)	2,4-DNT	9.15	165	49448	9.42604 ppb		99
59)	2,3,4,6-Tetrachlorophenol	9.31	232	41263	9.43906 ppb		93
60)	Diethyl phthalate	9.42	149	165836	9.84934 ppb		96
61)	4-Chlorophenyl phenyl ethe	9.56	204	91155	9.46347 ppb		92
62)	Fluorene	9.56	166	154613	9.42120 ppb		99
63)	4-Nitroaniline	8.87	138	33585	9.96907 ppb		96
66)	4,6-Dinitro-2-methylphenol	9.62	198	28721	7.94008 ppb	#	73
67)	Diphenyl amine	9.70	169	243760	18.17433 ppb		100
68)	n-Nitrosodiphenylamine	9.70	169	243760	18.17433 ppb		100
69)	1,2-Diphenylhydrazine	9.75	77	162117	9.76662 ppb		95
70)	4-Bromophenyl phenyl ether	10.14	248	54692	9.44072 ppb		93
71)	Hexachlorobenzene	10.21	284	56169	9.17412 ppb	#	88
72)	Atrazine	10.32	200	24663	4.82934 ppb		95
73)	Pentachlorophenol	10.45	266	31516	7.92382 ppb		96
74)	Phenanthrene	10.69	178	228351	9.66539 ppb		99
75)	Anthracene	10.75	178	240259	9.68633 ppb		99
76)	Carbazol	10.94	167	218795	9.80140 ppb		98
77)	Di-n-butylphthalate	11.34	149	274648	9.44787 ppb		98
78)	2-Nitrodiphenylamine	11.51	167	31586	4.57283 ppb		99
79)	Fluoranthene	12.08	202	273290	9.50542 ppb		98
81)	Benzidine	12.23	184	38752	5.84874 ppb		96
82)	Pyrene	12.34	202	281971	10.39279 ppb		99
84)	Butyl benzylphthalate	13.08	149	129957	10.55210 ppb		81
85)	3,3'-Dichlorobenzidine	13.70	252	68357	8.39277 ppb		99
86)	Benz (a) anthracene	13.73	228	305978	10.28485 ppb		100
87)	Bis (2-ethylhexyl) phthala	13.75	149	197577	10.43558 ppb		98
88)	Chrysene	13.78	228	275483	10.39389 ppb		99
89)	Di-n-octylphthalate	14.51	149	309876	10.44006 ppb		97
91)	Benzo (b) fluoranthene	15.06	252	313332	10.02614 ppb		99
92)	Benzo (k) fluoranthene	15.10	252	257771	8.95233 ppb		100
93)	Benzo (a) pyrene	15.52	252	269584	9.66082 ppb		99
94)	Indeno (1,2,3-cd) pyrene	17.51	276	321122	9.69272 ppb		98
95)	Dibenz (a,h) anthracene	17.55	278	282097	9.65343 ppb		99
96)	Benzo (g,h,i) perylene	18.08	276	259057	9.82182 ppb		98

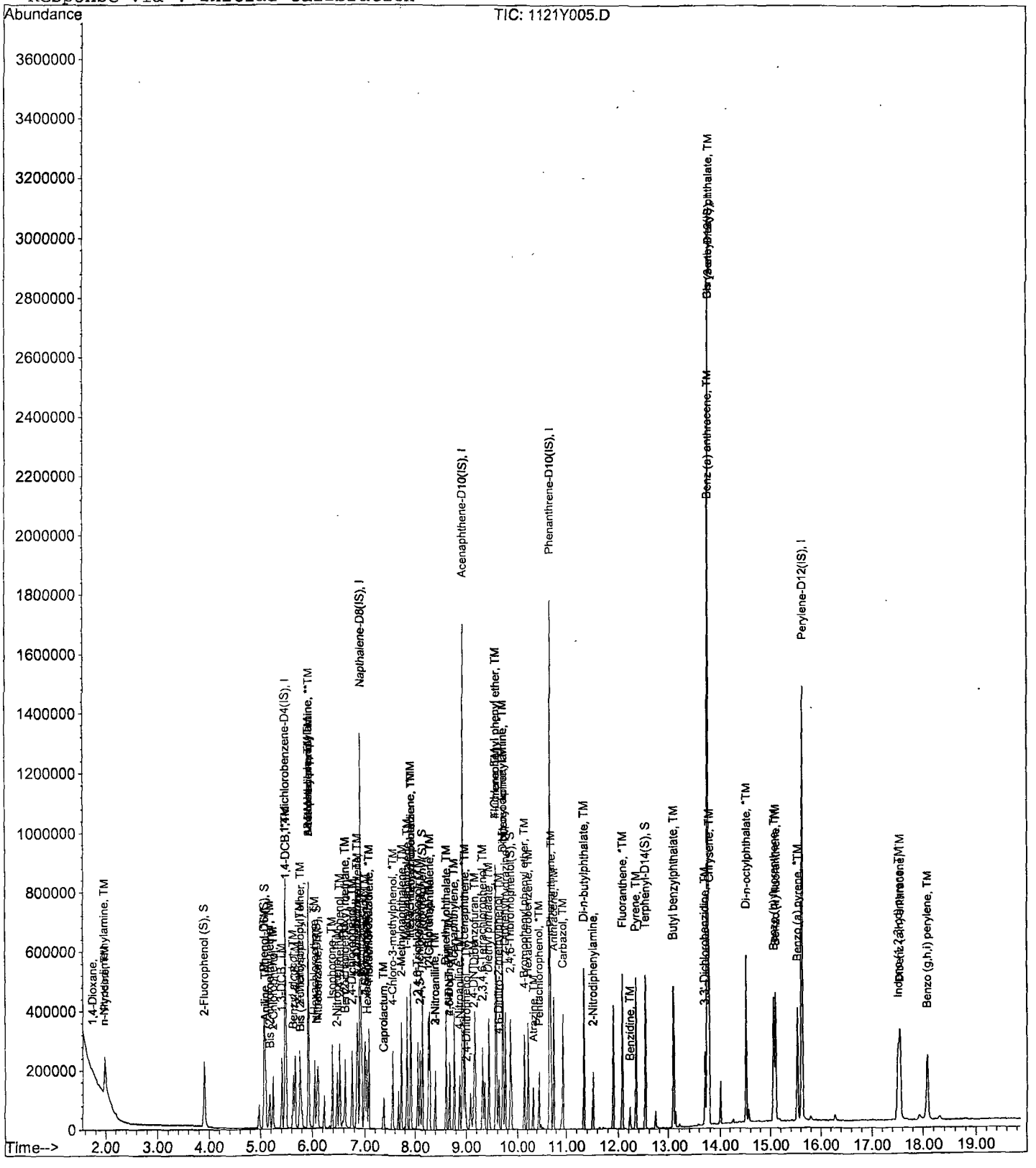
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y191121\1121Y005.D Vial: 5
Acq On : 21 Nov 19 15:37 Operator: MA,SS
Sample : 10ug/ml 8270 11/21/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 22 15:55 2019 Quant Results File: Y1121ND.RES

Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 18:04:15 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y191121\1121Y006.D Vial: 6
Acq On : 21 Nov 19 16:05 Operator: MA,SS
Sample : 20ug/ml 8270 11/21/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 22 15:55 2019 Quant Results File: Y1121ND.RES

Quant Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 15:42:05 2019
Response via : Initial Calibration
DataAcq Meth : SVOC1011

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.48	152	199064	40.00000 ppb		0.00
21) Napthalene-D8(IS)	6.91	136	758291	40.00000 ppb		0.00
41) Acenaphthene-D10(IS)	8.93	164	470271	40.00000 ppb		0.00
65) Phenanthrene-D10(IS)	10.66	188	939739	40.00000 ppb		0.00
80) Chrysene-D12(IS)	13.75	240	1001332	40.00000 ppb		0.00
90) Perylene-D12(IS)	15.61	264	1078368	40.00000 ppb		0.00
System Monitoring Compounds						
5) 2-Fluorophenol (S)	3.91	112	249667	36.01745 ppb		0.00
Spiked Amount 200.000			Recovery = 18.009%			
6) Phenol-D6 (S)	5.07	99	294157	35.63864 ppb		0.00
Spiked Amount 200.000			Recovery = 17.820%			
22) Nitrobenzene-D5(S)	6.09	82	161107	18.85299 ppb		0.00
Spiked Amount 100.000			Recovery = 18.853%			
46) 2-Fluorobiphenyl(S)	8.14	172	330526	18.79846 ppb		0.00
Spiked Amount 100.000			Recovery = 18.798%			
64) 2,4,6-Tribromophenol(S)	9.85	330	129026	35.86647 ppb		0.00
Spiked Amount 200.000			Recovery = 17.933%			
83) Terphenyl-D14(S)	12.51	244	478561	19.11619 ppb		0.00
Spiked Amount 100.000			Recovery = 19.116%			
Target Compounds						Qvalue
2) 1,4-Dioxane	1.74	58	5130	2.21977		94
3) n-Nitrosodimethylamine	1.96	42	63235	18.03137 ppb		94
4) Pyridine	1.98	79	159447	18.38350 ppb		96
7) Phenol	5.08	94	170623	17.50383 ppb		91
8) Aniline	5.10	93	104728	19.08852 ppb	#	76
9) Bis (2-chloroethyl) ether	5.17	63	76855	18.45559 ppb		95
10) 2-Chlorophenol	5.24	128	135758	18.39089 ppb		96
11) 1,3-DCB	5.41	146	149508	17.87547 ppb		100
12) 1,4-DCB	5.50	146	154683	18.20323 ppb		99
13) Benzyl alcohol	5.63	108	76033	18.11817 ppb		97
14) 1,2-DCB	5.67	146	144896	18.25222 ppb		98
15) 2-Methylphenol	5.76	107	106477	17.80762 ppb		97
16) Bis (2-chloroisopropyl) et	5.78	45	83414	17.92413 ppb		92
17) Acetophenone	5.92	105	189886	17.66405 ppb		99
18) 3&4-Methylphenol	5.93	107	286947	34.98981 ppb		99
19) n-Nitrosodi-n-propylamine	5.92	70	110325	18.01596 ppb		98
20) Hexachloroethane	6.05	117	60903	18.06811 ppb		95
23) Nitrobenzene	6.12	77	166997	19.11404 ppb		94
24) Isophorone	6.39	82	267166	18.86283 ppb		100
25) 2-Nitrophenol	6.47	139	76084	19.04342 ppb		90
26) 2,4-Dimethylphenol	6.52	122	115838	18.61318 ppb		99
27) Benzoic acid	6.60	105	88654	18.85200 ppb		98
28) Bis (2-chloroethoxy) metha	6.62	93	145536	19.05708 ppb		99
29) 2,4-Dichlorophenol	6.75	162	120650	18.82758 ppb		96
30) 1,2,4-Trichlorobenzene	6.84	180	137408	18.52887 ppb		97
31) 3,4-Dimethylphenol	6.86	107	187529	18.63818 ppb		98
32) Naphthalene	6.94	128	379858	18.59722 ppb		100
33) 4-Chloroaniline	6.99	127	128659	18.50122 ppb		96
34) 2,6-Dichlorophenol	7.00	162	115378	18.59362 ppb		98
35) Hexachloropropene	7.04	213	121057	18.75235 ppb		99
36) Hexachlorobutadiene	7.08	225	97450	18.60804 ppb		100
37) Caprolactum	7.38	55	42312	18.78553 ppb		97

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y191121\1121Y006.D Vial: 6
Acq On : 21 Nov 19 16:05 Operator: MA,SS
Sample : 20ug/ml 8270 11/21/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 22 15:55 2019 Quant Results File: Y1121ND.RES

Quant Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 15:42:05 2019
Response via : Initial Calibration
DataAcq Meth : SVOC1011

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
38)	4-Chloro-3-methylphenol	7.55	107	133766	18.49994 ppb		96
39)	2-Methylnaphthalene	7.73	142	259800	18.66330 ppb		100
40)	1-Methylnaphthalene	7.84	142	263891	18.33598 ppb		98
42)	Hexachlorocyclopentadiene	7.91	237	104680	17.52202 ppb		100
43)	1,2,4,5-Tetrachlorobenzene	7.92	216	151479	18.32966 ppb		99
44)	2,4,6-Trichlorophenol	8.05	196	100488	19.09822 ppb		99
45)	2,4,5-Trichlorophenol	8.10	196	105541	18.84018 ppb		93
47)	1,1'-Biphenyl	8.26	154	336399	18.82129 ppb		97
48)	2-Chloronaphthalene	8.28	162	274932	18.79801 ppb		98
49)	2-Nitroaniline	8.39	65	88142	19.01274 ppb		97
50)	Dimethyl phthalate	8.61	163	335325	18.77360 ppb		99
51)	2,6-DNT	8.68	165	77433	19.38486 ppb		79
52)	Acenaphthylene	8.76	152	425705	18.93812 ppb		99
53)	3-Nitroaniline	8.39	138	88770	19.36402 ppb		99
54)	Acenaphthene	8.97	154	282238	18.57264 ppb		99
55)	2,4-Dinitrophenol	9.00	184	39846	14.92897 ppb		95
56)	4-Nitrophenol	8.68	65	5546	18.95893 ppb		95
57)	Dibenzofuran	9.16	168	394383	18.60825 ppb		96
58)	2,4-DNT	9.15	165	109203	19.22802 ppb		98
59)	2,3,4,6-Tetrachlorophenol	9.31	232	89499	18.91062 ppb		95
60)	Diethyl phthalate	9.43	149	347798	19.07985 ppb		99
61)	4-Chlorophenyl phenyl ethe	9.56	204	190055	18.22506 ppb		91
62)	Fluorene	9.56	166	322405	18.14603 ppb		98
63)	4-Nitroaniline	8.88	138	70247	19.26001 ppb		80
66)	4,6-Dinitro-2-methylphenol	9.63	198	68893	17.69303 ppb		97
67)	Diphenyl amine	9.70	169	524220	36.30873 ppb		99
68)	n-Nitrosodiphenylamine	9.70	169	524220	36.30873 ppb		99
69)	1,2-Diphenylhydrazine	9.75	77	335520	18.77740 ppb		93
70)	4-Bromophenyl phenyl ether	10.14	248	115339	18.49521 ppb		93
71)	Hexachlorobenzene	10.21	284	120551	18.29110 ppb		91
72)	Atrazine	10.32	200	49292	8.96643 ppb		97
73)	Pentachlorophenol	10.44	266	73146	17.08423 ppb		99
74)	Phenanthrene	10.69	178	475206	18.68529 ppb		100
75)	Anthracene	10.75	178	497372	18.62784 ppb		99
76)	Carbazol	10.94	167	451106	18.77287 ppb		97
77)	Di-n-butylphthalate	11.34	149	583123	18.63456 ppb		99
78)	2-Nitrodiphenylamine	11.51	167	71614	9.63141 ppb		99
79)	Fluoranthene	12.08	202	568406	18.36571 ppb		98
81)	Benzidine	12.23	184	114011	15.34943 ppb		98
82)	Pyrene	12.34	202	602482	19.80839 ppb		99
84)	Butyl benzylphthalate	13.08	149	270124	19.56501 ppb		85
85)	3,3'-Dichlorobenzidine	13.69	252	158377	17.34569 ppb	#	99
86)	Benz (a) anthracene	13.74	228	645189	19.34516 ppb		98
87)	Bis (2-ethylhexyl) phthala	13.75	149	416311	19.61443 ppb	#	97
88)	Chrysene	13.78	228	583044	19.62285 ppb		100
89)	Di-n-octylphthalate	14.51	149	653172	19.62998 ppb		96
91)	Benzo (b) fluoranthene	15.06	252	660853	19.38003 ppb		100
92)	Benzo (k) fluoranthene	15.09	252	555866	17.69263 ppb		99
93)	Benzo (a) pyrene	15.52	252	567068	18.62410 ppb		99
94)	Indeno (1,2,3-cd) pyrene	17.51	276	678920	18.78083 ppb		99
95)	Dibenz (a,h) anthracene	17.55	278	587950	18.43929 ppb		99
96)	Benzo (g,h,i) perylene	18.08	276	545235	18.94528 ppb		98

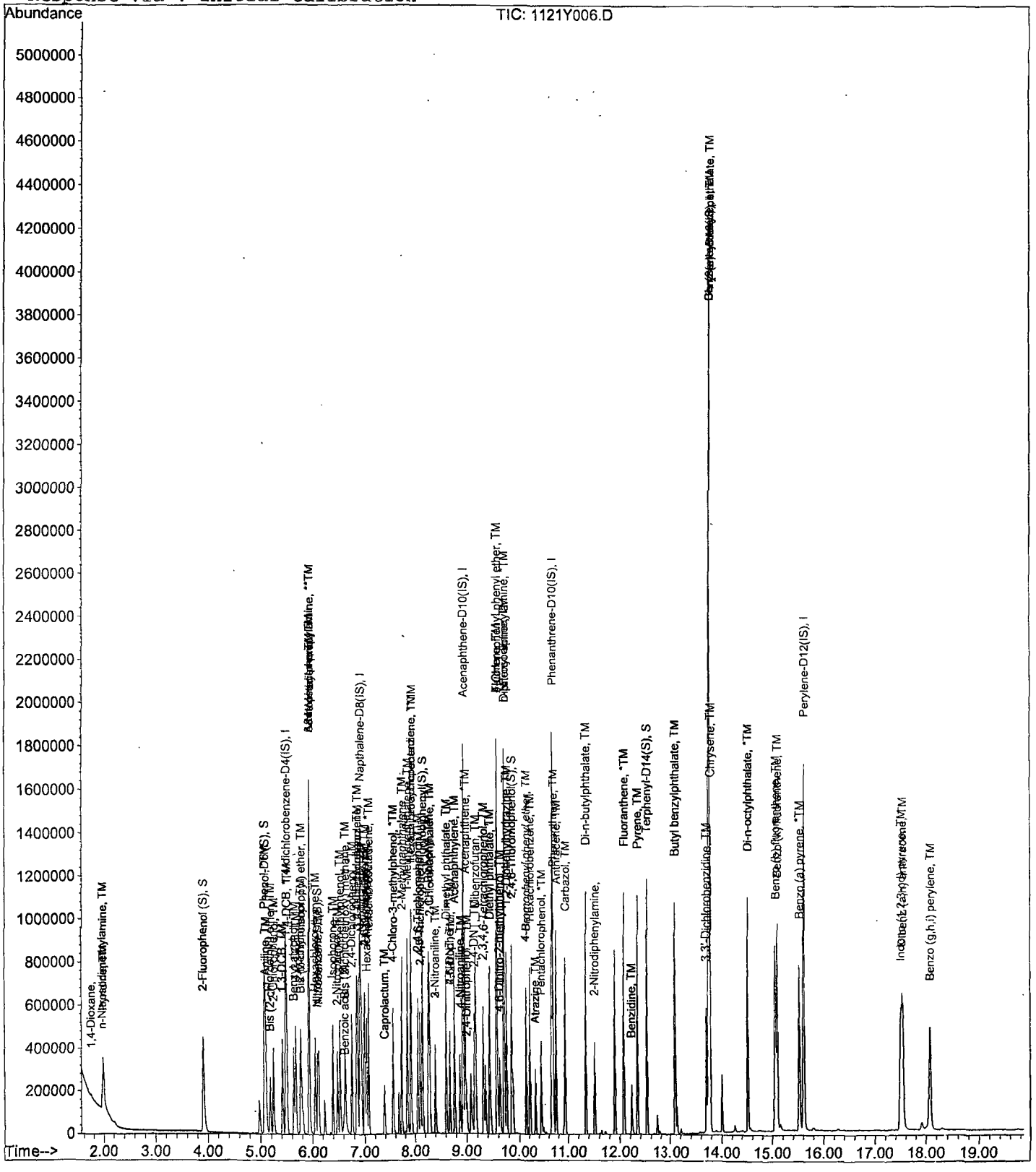
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y191121\1121Y006.D Vial: 6
Acq On : 21 Nov 19 16:05 Operator: MA,SS
Sample : 20ug/ml 8270 11/21/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 22 15:55 2019 Quant Results File: Y1121ND.RES

Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 18:04:15 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y191121\1121Y007.D Vial: 7
Acq On : 21 Nov 19 16:33 Operator: MA,SS
Sample : 40ug/ml 8270 11/21/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 22 15:55 2019 Quant Results File: Y1121ND.RES

Quant Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 15:42:05 2019
Response via : Initial Calibration
DataAcq Meth : SVOC1011

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.48	152	193290	40.00000 ppb	0.00
21) Napthalene-D8(IS)	6.91	136	718227	40.00000 ppb	0.00
41) Acenaphthene-D10(IS)	8.93	164	443843	40.00000 ppb	0.00
65) Phenanthrene-D10(IS)	10.67	188	873650	40.00000 ppb	0.00
80) Chrysene-D12(IS)	13.75	240	1011815	40.00000 ppb	0.00
90) Perylene-D12(IS)	15.61	264	1014443	40.00000 ppb	0.00
System Monitoring Compounds					
5) 2-Fluorophenol (S)	3.91	112	478213	71.04877 ppb	0.00
Spiked Amount 200.000			Recovery =	35.525%	
6) Phenol-D6 (S)	5.07	99	570499	71.18363 ppb	0.00
Spiked Amount 200.000			Recovery =	35.592%	
22) Nitrobenzene-D5(S)	6.10	82	305289	37.71822 ppb	0.00
Spiked Amount 100.000			Recovery =	37.718%	
46) 2-Fluorobiphenyl(S)	8.14	172	625810	37.71186 ppb	0.00
Spiked Amount 100.000			Recovery =	37.712%	
64) 2,4,6-Tribromophenol(S)	9.85	330	255942	75.38271 ppb	0.00
Spiked Amount 200.000			Recovery =	37.692%	
83) Terphenyl-D14(S)	12.52	244	940108	37.16368 ppb	0.00
Spiked Amount 100.000			Recovery =	37.164%	
Target Compounds					Qvalue
2) 1,4-Dioxane	1.74	58	7916	3.52761	59
3) n-Nitrosodimethylamine	1.96	42	120018	35.24528 ppb	96
4) Pyridine	1.98	79	311631	37.00290 ppb	98
7) Phenol	5.09	94	350876	37.07084 ppb	97
8) Aniline	5.10	93	221824	41.63910 ppb	86
9) Bis (2-chloroethyl) ether	5.18	63	149223	36.90413 ppb	95
10) 2-Chlorophenol	5.24	128	266304	37.15338 ppb	95
11) 1,3-DCB	5.41	146	299866	36.92356 ppb	98
12) 1,4-DCB	5.50	146	304720	36.93093 ppb	100
13) Benzyl alcohol	5.64	108	152088	37.32419 ppb	99
14) 1,2-DCB	5.66	146	282123	36.60001 ppb	98
15) 2-Methylphenol	5.77	107	208047	35.83397 ppb	99
16) Bis (2-chloroisopropyl) et	5.79	45	166924	36.94036 ppb	99
17) Acetophenone	5.93	105	385878	36.96841 ppb	91
18) 3&4-Methylphenol	5.93	107	584480	73.39947 ppb	95
19) n-Nitrosodi-n-propylamine	5.93	70	218037	36.66883 ppb	100
20) Hexachloroethane	6.05	117	121590	37.14970 ppb	95
23) Nitrobenzene	6.12	77	319916	38.65930 ppb	98
24) Isophorone	6.39	82	524152	39.07122 ppb	96
25) 2-Nitrophenol	6.48	139	149445	39.49181 ppb	97
26) 2,4-Dimethylphenol	6.53	122	229872	38.99686 ppb	98
27) Benzoic acid	6.64	105	204208	38.00783 ppb	98
28) Bis (2-chloroethoxy) metha	6.63	93	284276	39.30071 ppb	99
29) 2,4-Dichlorophenol	6.75	162	236041	38.88919 ppb	95
30) 1,2,4-Trichlorobenzene	6.84	180	276835	39.41234 ppb	97
31) 3,4-Dimethylphenol	6.86	107	378173	39.68257 ppb	99
32) Naphthalene	6.94	128	750123	38.77336 ppb	100
33) 4-Chloroaniline	6.99	127	269013	40.84206 ppb	97
34) 2,6-Dichlorophenol	7.01	162	227469	38.70236 ppb	99
35) Hexachloropropene	7.04	213	243359	39.80039 ppb	98
36) Hexachlorobutadiene	7.08	225	194922	39.29649 ppb	100
37) Caprolactum	7.40	55	83188	38.99372 ppb	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y191121\1121Y007.D Vial: 7
Acq On : 21 Nov 19 16:33 Operator: MA,SS
Sample : 40ug/ml 8270 11/21/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 22 15:55 2019 Quant Results File: Y1121ND.RES

Quant Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 15:42:05 2019
Response via : Initial Calibration
DataAcq Meth : SVOC1011

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
38)	4-Chloro-3-methylphenol	7.55	107	267287	39.02802	ppb		90
39)	2-Methylnaphthalene	7.73	142	510524	38.72037	ppb		99
40)	1-Methylnaphthalene	7.84	142	531683	39.00376	ppb		100
42)	Hexachlorocyclopentadiene	7.91	237	238400	42.28104	ppb		99
43)	1,2,4,5-Tetrachlorobenzene	7.92	216	309462	39.67603	ppb		98
44)	2,4,6-Trichlorophenol	8.05	196	196965	39.66310	ppb		98
45)	2,4,5-Trichlorophenol	8.10	196	207639	39.27277	ppb	#	91
47)	1,1'-Biphenyl	8.26	154	662128	39.25142	ppb		99
48)	2-Chloronaphthalene	8.29	162	544895	39.47465	ppb		99
49)	2-Nitroaniline	8.40	65	172460	39.41567	ppb		93
50)	Dimethyl phthalate	8.62	163	666101	39.51306	ppb		99
51)	2,6-DNT	8.68	165	150437	39.90341	ppb		96
52)	Acenaphthylene	8.76	152	837454	39.47372	ppb		100
53)	3-Nitroaniline	8.40	138	174570	40.34761	ppb		95
54)	Acenaphthene	8.97	154	569769	39.72608	ppb		98
55)	2,4-Dinitrophenol	9.01	184	93000	36.91875	ppb		94
56)	4-Nitrophenol	8.68	65	11500	41.65342	ppb		100
57)	Dibenzofuran	9.17	168	779361	38.96231	ppb		98
58)	2,4-DNT	9.15	165	215764	40.25297	ppb		89
59)	2,3,4,6-Tetrachlorophenol	9.31	232	179644	40.21787	ppb	#	93
60)	Diethyl phthalate	9.43	149	672653	39.09829	ppb		97
61)	4-Chlorophenyl phenyl ethe	9.56	204	382649	38.87845	ppb		87
62)	Fluorene	9.57	166	655165	39.07053	ppb		99
63)	4-Nitroaniline	8.88	138	138994	40.37790	ppb		93
66)	4,6-Dinitro-2-methylphenol	9.63	198	139175	38.44661	ppb	#	79
67)	Diphenyl amine	9.71	169	1057137	78.75870	ppb		99
68)	n-Nitrosodiphenylamine	9.71	169	1057137	78.75870	ppb		99
69)	1,2-Diphenylhydrazine	9.75	77	661686	39.83262	ppb	#	88
70)	4-Bromophenyl phenyl ether	10.14	248	226910	39.13870	ppb		97
71)	Hexachlorobenzene	10.21	284	241564	39.42494	ppb	#	83
72)	Atrazine	10.32	200	100285	19.62226	ppb		99
73)	Pentachlorophenol	10.44	266	153986	38.68619	ppb		100
74)	Phenanthrene	10.70	178	922442	39.01456	ppb		100
75)	Anthracene	10.75	178	975577	39.30179	ppb		100
76)	Carbazol	10.94	167	881170	39.44405	ppb		99
77)	Di-n-butylphthalate	11.34	149	1146641	39.41451	ppb		98
78)	2-Nitrodiphenylamine	11.51	167	141659	20.49302	ppb		98
79)	Fluoranthene	12.08	202	1141702	39.67999	ppb		99
81)	Benzidine	12.23	184	290367	38.68742	ppb		98
82)	Pyrene	12.35	202	1203115	39.14616	ppb		100
84)	Butyl benzylphthalate	13.09	149	543907	38.98688	ppb		97
85)	3,3'-Dichlorobenzidine	13.70	252	363359	39.38333	ppb		100
86)	Benz (a) anthracene	13.74	228	1291293	38.31661	ppb		99
87)	Bis (2-ethylhexyl) phthala	13.75	149	829295	38.66730	ppb		97
88)	Chrysene	13.78	228	1171969	39.03498	ppb		99
89)	Di-n-octylphthalate	14.51	149	1315078	39.11298	ppb		98
91)	Benzo (b) fluoranthene	15.06	252	1227741	38.27328	ppb		99
92)	Benzo (k) fluoranthene	15.09	252	1195396	40.44580	ppb		99
93)	Benzo (a) pyrene	15.53	252	1134185	39.59711	ppb		99
94)	Indeno (1,2,3-cd) pyrene	17.52	276	1340147	39.40832	ppb		100
95)	Dibenz (a,h) anthracene	17.55	278	1182851	39.43422	ppb		98
96)	Benzo (g,h,i) perylene	18.09	276	1063705	39.28962	ppb		99

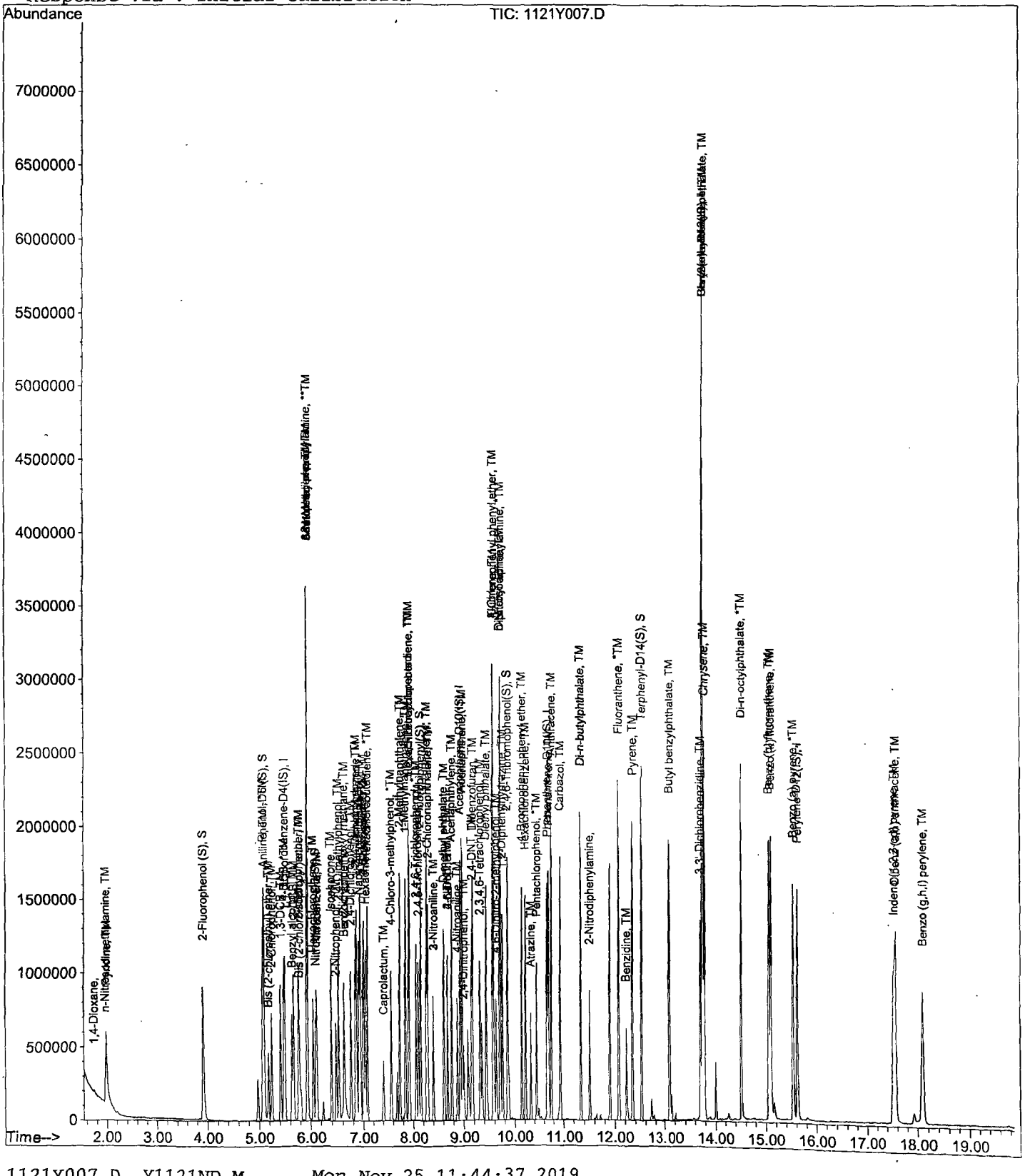
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y191121\1121Y007.D Vial: 7
Acq On : 21 Nov 19 16:33 Operator: MA,SS
Sample : 40ug/ml 8270 11/21/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 22 15:55 2019 Quant Results File: Y1121ND.RES

Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 18:04:15 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y191121\1121Y008.D Vial: 8
Acq On : 21 Nov 19 17:01 Operator: MA,SS
Sample : 50ug/ml 8270 11/21/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 22 15:55 2019 Quant Results File: Y1121ND.RES

Quant Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 15:42:05 2019
Response via : Initial Calibration
DataAcq Meth : SVOC1011

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.48	152	171005	40.00000 ppb	0.00
21) Napthalene-D8(IS)	6.92	136	663771	40.00000 ppb	0.00
41) Acenaphthene-D10(IS)	8.93	164	407738	40.00000 ppb	0.00
65) Phenanthrene-D10(IS)	10.67	188	815726	40.00000 ppb	0.00
80) Chrysene-D12(IS)	13.75	240	934599	40.00000 ppb	0.00
90) Perylene-D12(IS)	15.61	264	938399	40.00000 ppb	0.00
System Monitoring Compounds					
5) 2-Fluorophenol (S)	3.91	112	579236	97.27277 ppb	0.00
Spiked Amount 200.000			Recovery =	48.637%	
6) Phenol-D6 (S)	5.08	99	698019	98.44487 ppb	0.00
Spiked Amount 200.000			Recovery =	49.223%	
22) Nitrobenzene-D5(S)	6.10	82	367148	49.08227 ppb	0.00
Spiked Amount 100.000			Recovery =	49.082%	
46) 2-Fluorobiphenyl(S)	8.15	172	768989	50.44333 ppb	0.00
Spiked Amount 100.000			Recovery =	50.443%	
64) 2,4,6-Tribromophenol(S)	9.86	330	319887	102.55928 ppb	0.00
Spiked Amount 200.000			Recovery =	51.280%	
83) Terphenyl-D14(S)	12.52	244	1137526	48.68309 ppb	0.00
Spiked Amount 100.000			Recovery =	48.683%	
Target Compounds					Qvalue
2) 1,4-Dioxane	1.74	58	9546	4.80835	100
3) n-Nitrosodimethylamine	1.96	42	141360	46.92256 ppb	100
4) Pyridine	1.98	79	378779	50.83719 ppb	100
7) Phenol	5.09	94	425758	50.84429 ppb	100
8) Aniline	5.10	93	249856	53.01309 ppb	100
9) Bis (2-chloroethyl) ether	5.18	63	179891	50.28624 ppb	100
10) 2-Chlorophenol	5.25	128	320461	50.53548 ppb	100
11) 1,3-DCB	5.41	146	361793	50.35436 ppb	100
12) 1,4-DCB	5.50	146	371417	50.88053 ppb	100
13) Benzyl alcohol	5.64	108	186524	51.74052 ppb	100
14) 1,2-DCB	5.66	146	342793	50.26610 ppb	100
15) 2-Methylphenol	5.77	107	267866	52.14968 ppb	100
16) Bis (2-chloroisopropyl) et	5.78	45	200510	50.15555 ppb	100
17) Acetophenone	5.93	105	467300	50.60310 ppb	100
18) 3&4-Methylphenol	5.94	107	725121	102.92818 ppb	100
19) n-Nitrosodi-n-propylamine	5.93	70	269072	51.14886 ppb	100
20) Hexachloroethane	6.04	117	146012	50.42507 ppb	100
23) Nitrobenzene	6.12	77	387198	50.62844 ppb	100
24) Isophorone	6.40	82	636697	51.35420 ppb	100
25) 2-Nitrophenol	6.48	139	183318	52.41725 ppb	100
26) 2,4-Dimethylphenol	6.53	122	279872	51.37437 ppb	100
27) Benzoic acid	6.65	105	258747	50.49164 ppb	100
28) Bis (2-chloroethoxy) metha	6.63	93	344576	51.54525 ppb	100
29) 2,4-Dichlorophenol	6.76	162	291193	51.91177 ppb	100
30) 1,2,4-Trichlorobenzene	6.85	180	331385	51.04903 ppb	100
31) 3,4-Dimethylphenol	6.86	107	455150	51.67819 ppb	100
32) Naphthalene	6.94	128	913992	51.11952 ppb	100
33) 4-Chloroaniline	6.99	127	337587	55.45792 ppb	100
34) 2,6-Dichlorophenol	7.01	162	282687	52.04326 ppb	100
35) Hexachloropropene	7.04	213	292552	51.77099 ppb	100
36) Hexachlorobutadiene	7.07	225	231300	50.45591 ppb	100
37) Caprolactum	7.41	55	102304	51.88838 ppb	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y191121\1121Y008.D Vial: 8
Acq On : 21 Nov 19 17:01 Operator: MA,SS
Sample : 50ug/ml 8270 11/21/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 22 15:55 2019 Quant Results File: Y1121ND.RES

Quant Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 15:42:05 2019
Response via : Initial Calibration
DataAcq Meth : SVOC1011

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
38) 4-Chloro-3-methylphenol	7.56	107	325787	51.47257 ppb	100
39) 2-Methylnaphthalene	7.72	142	629795	51.68518 ppb	100
40) 1-Methylnaphthalene	7.84	142	649196	51.53153 ppb	100
42) Hexachlorocyclopentadiene	7.91	237	294464	56.84860 ppb	100
43) 1,2,4,5-Tetrachlorobenzene	7.92	216	373513	52.12844 ppb	100
44) 2,4,6-Trichlorophenol	8.05	196	241595	52.95826 ppb	100
45) 2,4,5-Trichlorophenol	8.11	196	255196	52.54176 ppb	100
47) 1,1'-Biphenyl	8.26	154	808031	52.14223 ppb	100
48) 2-Chloronaphthalene	8.29	162	662366	52.23381 ppb	100
49) 2-Nitroaniline	8.40	65	211988	52.73999 ppb	100
50) Dimethyl phthalate	8.62	163	815644	52.66831 ppb	100
51) 2,6-DNT	8.68	165	188199	54.34015 ppb	100
52) Acenaphthylene	8.76	152	1021037	52.38859 ppb	100
53) 3-Nitroaniline	8.40	138	212688	53.51054 ppb	100
54) Acenaphthene	8.97	154	700903	53.19649 ppb	100
55) 2,4-Dinitrophenol	9.01	184	118563	51.23438 ppb	100
56) 4-Nitrophenol	8.68	65	14018	55.26970 ppb	100
57) Dibenzofuran	9.17	168	955387	51.99165 ppb	100
58) 2,4-DNT	9.15	165	260352	52.87228 ppb	100
59) 2,3,4,6-Tetrachlorophenol	9.32	232	219669	53.53321 ppb	100
60) Diethyl phthalate	9.44	149	823957	52.13381 ppb	100
61) 4-Chlorophenyl phenyl ethe	9.57	204	475789	52.62244 ppb	100
62) Fluorene	9.57	166	815787	52.95702 ppb	100
63) 4-Nitroaniline	8.88	138	170405	53.88627 ppb	100
66) 4,6-Dinitro-2-methylphenol	9.64	198	177142	52.40968 ppb	100
67) Diphenyl amine	9.71	169	1286170	102.62633 ppb	100
68) n-Nitrosodiphenylamine	9.71	169	1286170	102.62633 ppb	100
69) 1,2-Diphenylhydrazine	9.76	77	808449	52.12339 ppb	100
70) 4-Bromophenyl phenyl ether	10.14	248	282643	52.21366 ppb	100
71) Hexachlorobenzene	10.22	284	302354	52.85033 ppb	100
72) Atrazine	10.32	200	121452	25.45135 ppb	100
73) Pentachlorophenol	10.44	266	194818	52.41999 ppb	100
74) Phenanthrene	10.69	178	1126250	51.01708 ppb	100
75) Anthracene	10.75	178	1190869	51.38164 ppb	100
76) Carbazol	10.94	167	1084434	51.98980 ppb	100
77) Di-n-butylphthalate	11.34	149	1421631	52.33699 ppb	100
78) 2-Nitrodiphenylamine	11.51	167	174136	26.98010 ppb	100
79) Fluoranthene	12.08	202	1403330	52.23623 ppb	100
81) Benzidine	12.23	184	389926	56.24456 ppb	100
82) Pyrene	12.35	202	1490379	52.49942 ppb	100
84) Butyl benzylphthalate	13.09	149	670791	52.05433 ppb	100
85) 3,3'-Dichlorobenzidine	13.70	252	482025	56.56162 ppb	100
86) Benz (a) anthracene	13.74	228	1587379	50.99396 ppb	100
87) Bis (2-ethylhexyl) phthala	13.75	149	1020587	51.51820 ppb	100
88) Chrysene	13.79	228	1457437	52.55371 ppb	100
89) Di-n-octylphthalate	14.51	149	1611365	51.88467 ppb	100
91) Benzo (b) fluoranthene	15.07	252	1656567	55.82619 ppb	100
92) Benzo (k) fluoranthene	15.10	252	1337361	48.91594 ppb	100
93) Benzo (a) pyrene	15.53	252	1397191	52.73214 ppb	100
94) Indeno (1,2,3-cd) pyrene	17.53	276	1644836	52.28754 ppb	100
95) Dibenz (a,h) anthracene	17.56	278	1467340	52.88276 ppb	100
96) Benzo (g,h,i) perylene	18.10	276	1307740	52.21774 ppb	100

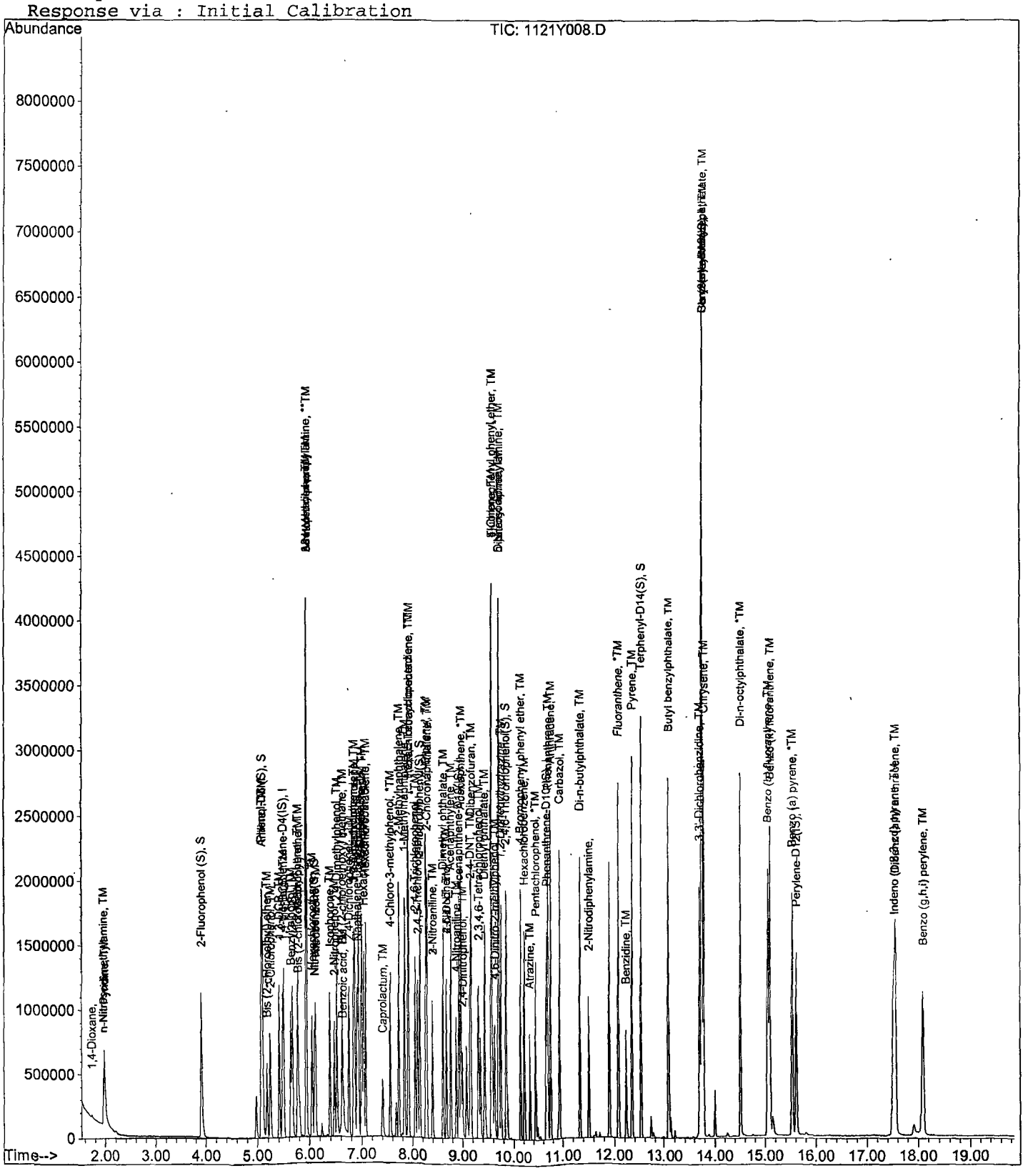
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y191121\1121Y008.D Vial: 8
Acq On : 21 Nov 19 17:01 Operator: MA,SS
Sample : 50ug/ml 8270 11/21/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 22 15:55 2019 Quant Results File: Y1121ND.RES

Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 18:04:15 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y191121\1121Y009.D Vial: 9
Acq On : 21 Nov 19 17:30 Operator: MA,SS
Sample : 60ug/ml 8270 11/21/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 22 15:55 2019 Quant Results File: Y1121ND.RES

Quant Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 15:42:05 2019
Response via : Initial Calibration
DataAcq Meth : SVOC1011

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.48	152	167367	40.00000 ppb		0.00
21) Napthalene-D8(IS)	6.92	136	682970	40.00000 ppb		0.00
41) Acenaphthene-D10(IS)	8.93	164	436434	40.00000 ppb		0.00
65) Phenanthrene-D10(IS)	10.67	188	853269	40.00000 ppb		0.00
80) Chrysene-D12(IS)	13.76	240	1039035	40.00000 ppb		0.00
90) Perylene-D12(IS)	15.61	264	1002354	40.00000 ppb		0.00
System Monitoring Compounds						
5) 2-Fluorophenol (S)	3.91	112	729383	125.14986 ppb		0.00
Spiked Amount 200.000			Recovery =	62.575%		
6) Phenol-D6 (S)	5.08	99	877326	126.42292 ppb		0.00
Spiked Amount 200.000			Recovery =	63.212%		
22) Nitrobenzene-D5(S)	6.10	82	462991	60.15513 ppb		0.00
Spiked Amount 100.000			Recovery =	60.155%		
46) 2-Fluorobiphenyl(S)	8.15	172	960712	58.87615 ppb		0.00
Spiked Amount 100.000			Recovery =	58.876%		
64) 2,4,6-Tribromophenol(S)	9.86	330	418277	125.28670 ppb		0.00
Spiked Amount 200.000			Recovery =	62.644%		
83) Terphenyl-D14(S)	12.52	244	1478351	56.91011 ppb		0.00
Spiked Amount 100.000			Recovery =	56.910%		
Target Compounds						Qvalue
2) 1,4-Dioxane	1.74	58	10929	5.62464		78
3) n-Nitrosodimethylamine	1.96	42	181363	61.50958 ppb		98
4) Pyridine	1.98	79	472362	64.77533 ppb		99
7) Phenol	5.10	94	542251	66.16354 ppb		91
8) Aniline	5.11	93	301632	65.38976 ppb	#	76
9) Bis (2-chloroethyl) ether	5.18	63	226768	64.76800 ppb		100
10) 2-Chlorophenol	5.25	128	408420	65.80625 ppb		99
11) 1,3-DCB	5.41	146	458825	65.24737 ppb		99
12) 1,4-DCB	5.50	146	462750	64.77020 ppb		99
13) Benzyl alcohol	5.64	108	232819	65.98625 ppb		97
14) 1,2-DCB	5.66	146	429263	64.31403 ppb		100
15) 2-Methylphenol	5.77	107	337894	67.21303 ppb		99
16) Bis (2-chloroisopropyl) et	5.78	45	250202	63.94590 ppb		97
17) Acetophenone	5.93	105	599064	66.28169 ppb		92
18) 3&4-Methylphenol	5.94	107	918482	133.20896 ppb		99
19) n-Nitrosodi-n-propylamine	5.93	70	338621	65.76885 ppb		96
20) Hexachloroethane	6.04	117	183498	64.74829 ppb		99
23) Nitrobenzene	6.12	77	490695	62.35765 ppb		99
24) Isophorone	6.40	82	793249	62.18267 ppb		99
25) 2-Nitrophenol	6.48	139	229856	63.87658 ppb		99
26) 2,4-Dimethylphenol	6.53	122	350532	62.53618 ppb		99
27) Benzoic acid	6.67	105	333277	62.42385 ppb		97
28) Bis (2-chloroethoxy) metha	6.63	93	431089	62.67397 ppb		100
29) 2,4-Dichlorophenol	6.76	162	366318	63.46873 ppb		98
30) 1,2,4-Trichlorobenzene	6.85	180	420058	62.88985 ppb		98
31) 3,4-Dimethylphenol	6.87	107	573978	63.33804 ppb		96
32) Naphthalene	6.94	128	1148408	62.42481 ppb		100
33) 4-Chloroaniline	7.00	127	407727	65.09745 ppb		95
34) 2,6-Dichlorophenol	7.01	162	358099	64.07349 ppb		99
35) Hexachloropropene	7.04	213	375716	64.61892 ppb		99
36) Hexachlorobutadiene	7.07	225	295237	62.59272 ppb		99
37) Caprolactum	7.42	55	129071	63.62427 ppb		99

(#) = qualifier out of range (m) = manual integration

Data File : M:\YODA\DATA\Y191121\1121Y009.D Vial: 9
Acq On : 21 Nov 19 17:30 Operator: MA,SS
Sample : 60ug/ml 8270 11/21/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 22 15:55 2019 Quant Results File: Y1121ND.RES

Quant Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 15:42:05 2019
Response via : Initial Calibration
DataAcq Meth : SVOC1011

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
38)	4-Chloro-3-methylphenol	7.56	107	410265	62.99749 ppb		97
39)	2-Methylnaphthalene	7.72	142	788195	62.86619 ppb		99
40)	1-Methylnaphthalene	7.84	142	814831	62.86101 ppb		100
42)	Hexachlorocyclopentadiene	7.91	237	350656	63.24577 ppb		98
43)	1,2,4,5-Tetrachlorobenzene	7.92	216	477589	62.27101 ppb		99
44)	2,4,6-Trichlorophenol	8.06	196	303584	62.17091 ppb		96
45)	2,4,5-Trichlorophenol	8.10	196	321535	61.84743 ppb		99
47)	1,1'-Biphenyl	8.26	154	1016984	61.31099 ppb		100
48)	2-Chloronaphthalene	8.29	162	833303	61.39306 ppb		99
49)	2-Nitroaniline	8.40	65	267591	62.19606 ppb		98
50)	Dimethyl phthalate	8.62	163	1017940	61.40921 ppb		100
51)	2,6-DNT	8.69	165	235838	63.61799 ppb		77
52)	Acenaphthylene	8.77	152	1283418	61.52137 ppb		99
53)	3-Nitroaniline	8.40	138	268555	63.12367 ppb		99
54)	Acenaphthene	8.98	154	879704	62.37697 ppb		99
55)	2,4-Dinitrophenol	9.01	184	156158	63.04333 ppb		98
56)	4-Nitrophenol	8.68	65	16756	61.72115 ppb		100
57)	Dibenzofuran	9.17	168	1211806	61.60982 ppb		100
58)	2,4-DNT	9.15	165	330641	62.73161 ppb		94
59)	2,3,4,6-Tetrachlorophenol	9.32	232	279128	63.55073 ppb		99
60)	Diethyl phthalate	9.44	149	1027987	60.76663 ppb		99
61)	4-Chlorophenyl phenyl ethe	9.57	204	608036	62.82731 ppb		99
62)	Fluorene	9.57	166	1036089	62.83570 ppb		99
63)	4-Nitroaniline	8.88	138	208716	61.66151 ppb		83
66)	4,6-Dinitro-2-methylphenol	9.64	198	225751	63.85252 ppb	#	86
67)	Diphenyl amine	9.71	169	1646816	125.62146 ppb		100
68)	n-Nitrosodiphenylamine	9.71	169	1646816	125.62146 ppb		100
69)	1,2-Diphenylhydrazine	9.76	77	1002105	61.76630 ppb		98
70)	4-Bromophenyl phenyl ether	10.14	248	362845	64.08043 ppb		96
71)	Hexachlorobenzene	10.22	284	379070	63.34462 ppb		98
72)	Atrazine	10.33	200	153425	30.73694 ppb		98
73)	Pentachlorophenol	10.44	266	243544	62.64748 ppb		99
74)	Phenanthrene	10.69	178	1424318	61.68024 ppb		100
75)	Anthracene	10.75	178	1499952	61.86994 ppb		99
76)	Carbazol	10.94	167	1370757	62.82519 ppb		100
77)	Di-n-butylphthalate	11.34	149	1802593	63.44215 ppb		100
78)	2-Nitrodiphenylamine	11.51	167	223110	33.04703 ppb		96
79)	Fluoranthene	12.08	202	1777159	63.24069 ppb		99
81)	Benzidine	12.23	184	481715	62.50052 ppb		100
82)	Pyrene	12.35	202	1851615	58.66831 ppb		100
84)	Butyl benzylphthalate	13.09	149	849128	59.27041 ppb		100
85)	3,3'-Dichlorobenzidine	13.70	252	610343	64.42010 ppb		97
86)	Benz (a) anthracene	13.74	228	2029724	58.65030 ppb		99
87)	Bis (2-ethylhexyl) phthala	13.75	149	1317864	59.83790 ppb		99
88)	Chrysene	13.78	228	1859803	60.32199 ppb		100
89)	Di-n-octylphthalate	14.51	149	2028250	58.74377 ppb		99
91)	Benzo (b) fluoranthene	15.07	252	1993390	62.89088 ppb		100
92)	Benzo (k) fluoranthene	15.10	252	1788270	61.23522 ppb		99
93)	Benzo (a) pyrene	15.54	252	1743187	61.59281 ppb		99
94)	Indeno (1,2,3-cd) pyrene	17.53	276	2077884	61.83912 ppb		99
95)	Dibenz (a,h) anthracene	17.56	278	1837837	62.00929 ppb		99
96)	Benzo (g,h,i) perylene	18.11	276	1637386	61.20884 ppb		100

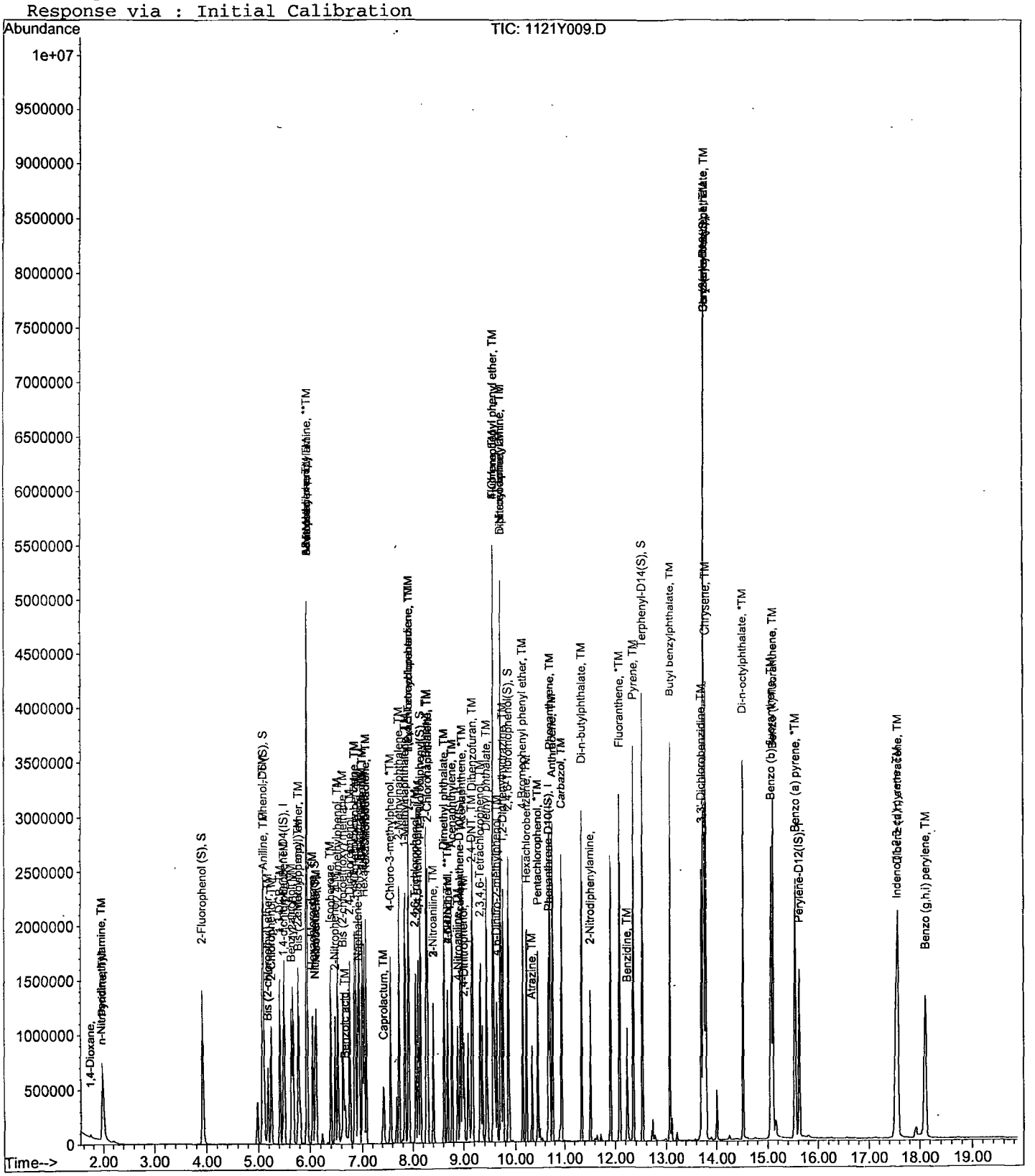
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y191121\1121Y009.D Vial: 9
Acq On : 21 Nov 19 17:30 Operator: MA,SS
Sample : 60ug/ml 8270 11/21/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 22 15:55 2019 Quant Results File: Y1121ND.RES

Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 18:04:15 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y191121\1121Y010.D Vial: 10
Acq On : 21 Nov 19 17:58 Operator: MA,SS
Sample : 80ug/ml 8270 11/21/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 22 15:55 2019 Quant Results File: Y1121ND.RES

Quant Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 15:42:05 2019
Response via : Initial Calibration
DataAcq Meth : SVOC1011

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.48	152	161505	40.00000 ppb		0.00
21) Napthalene-D8(IS)	6.92	136	659343	40.00000 ppb		0.00
41) Acenaphthene-D10(IS)	8.93	164	420757	40.00000 ppb		0.00
65) Phenanthrene-D10(IS)	10.67	188	817022	40.00000 ppb		0.00
80) Chrysene-D12(IS)	13.76	240	1057013	40.00000 ppb		0.00
90) Perylene-D12(IS)	15.62	264	952132	40.00000 ppb		0.00
System Monitoring Compounds						
5) 2-Fluorophenol (S)	3.92	112	990840	176.18224 ppb		0.00
Spiked Amount 200.000			Recovery =	88.091%		
6) Phenol-D6 (S)	5.09	99	1202244	179.53177 ppb		0.00
Spiked Amount 200.000			Recovery =	89.766%		
22) Nitrobenzene-D5(S)	6.11	82	619066	83.31579 ppb		0.00
Spiked Amount 100.000			Recovery =	83.316%		
46) 2-Fluorobiphenyl(S)	8.15	172	1294339	82.27758 ppb		0.00
Spiked Amount 100.000			Recovery =	82.278%		
64) 2,4,6-Tribromophenol(S)	9.86	330	577082	179.29400 ppb		0.00
Spiked Amount 200.000			Recovery =	89.647%		
83) Terphenyl-D14(S)	12.52	244	1994267	75.46491 ppb		0.00
Spiked Amount 100.000			Recovery =	75.465%		
Target Compounds						Qvalue
2) 1,4-Dioxane	1.74	58	13617	7.26239		84
3) n-Nitrosodimethylamine	1.96	42	235667	82.82792 ppb		94
4) Pyridine	1.98	79	624008	88.67653 ppb		98
7) Phenol	5.10	94	726252	91.83105 ppb		93
8) Aniline	5.11	93	409792	92.06184 ppb		96
9) Bis (2-chloroethyl) ether	5.18	63	302296	89.47362 ppb		97
10) 2-Chlorophenol	5.25	128	531400	88.72900 ppb		97
11) 1,3-DCB	5.41	146	606639	89.39847 ppb		98
12) 1,4-DCB	5.50	146	617470	89.56298 ppb		99
13) Benzyl alcohol	5.64	108	307594	90.34346 ppb		97
14) 1,2-DCB	5.67	146	572108	88.82682 ppb		97
15) 2-Methylphenol	5.77	107	424481	87.50142 ppb		98
16) Bis (2-chloroisopropyl) et	5.78	45	333832	88.41659 ppb	#	86
17) Acetophenone	5.94	105	793424	90.97238 ppb		96
18) 3&4-Methylphenol	5.95	107	1235710	185.72194 ppb		100
19) n-Nitrosodi-n-propylamine	5.94	70	449037	90.38001 ppb		99
20) Hexachloroethane	6.05	117	244557	89.42540 ppb		81
23) Nitrobenzene	6.13	77	641878	84.49302 ppb		96
24) Isophorone	6.41	82	1048398	85.12875 ppb		99
25) 2-Nitrophenol	6.48	139	304374	87.61603 ppb		94
26) 2,4-Dimethylphenol	6.54	122	461574	85.29730 ppb		97
27) Benzoic acid	6.68	105	408452	78.92895 ppb		96
28) Bis (2-chloroethoxy) metha	6.63	93	565143	85.10769 ppb		100
29) 2,4-Dichlorophenol	6.76	162	481524	86.41909 ppb		96
30) 1,2,4-Trichlorobenzene	6.85	180	560904	86.98614 ppb		98
31) 3,4-Dimethylphenol	6.87	107	758867	86.74117 ppb		99
32) Naphthalene	6.94	128	1524779	85.85353 ppb		99
33) 4-Chloroaniline	7.00	127	525627	86.92855 ppb		97
34) 2,6-Dichlorophenol	7.01	162	468519	86.83458 ppb		98
35) Hexachloropropene	7.04	213	497069	88.55374 ppb		99
36) Hexachlorobutadiene	7.08	225	393639	86.44530 ppb		99
37) Caprolactum	7.44	55	169346	86.46877 ppb		97

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y191121\1121Y010.D Vial: 10
Acq On : 21 Nov 19 17:58 Operator: MA,SS
Sample : 80ug/ml 8270 11/21/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 22 15:55 2019 Quant Results File: Y1121ND.RES

Quant Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 15:42:05 2019
Response via : Initial Calibration
DataAcq Meth : SVOC1011

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
38)	4-Chloro-3-methylphenol	7.56	107	542466	86.28226 ppb		91
39)	2-Methylnaphthalene	7.73	142	1044506	86.29480 ppb		99
40)	1-Methylnaphthalene	7.84	142	1096138	87.59298 ppb		99
42)	Hexachlorocyclopentadiene	7.91	237	421952	78.94061 ppb		98
43)	1,2,4,5-Tetrachlorobenzene	7.93	216	644608	87.17953 ppb		97
44)	2,4,6-Trichlorophenol	8.06	196	405336	86.10151 ppb		97
45)	2,4,5-Trichlorophenol	8.10	196	431346	86.06100 ppb		95
47)	1,1'-Biphenyl	8.27	154	1372352	85.81772 ppb		98
48)	2-Chloronaphthalene	8.29	162	1112347	85.00487 ppb		98
49)	2-Nitroaniline	8.41	65	353796	85.29656 ppb		92
50)	Dimethyl phthalate	8.61	163	1354088	84.73161 ppb		99
51)	2,6-DNT	8.69	165	311799	87.24250 ppb		89
52)	Acenaphthylene	8.77	152	1715728	85.30874 ppb		100
53)	3-Nitroaniline	8.41	138	352251	85.88127 ppb		94
54)	Acenaphthene	8.98	154	1188456	87.40938 ppb		98
55)	2,4-Dinitrophenol	9.01	184	213465	89.38997 ppb		90
56)	4-Nitrophenol	8.69	65	22795	87.09445 ppb		98
57)	Dibenzofuran	9.17	168	1619716	85.41674 ppb		99
58)	2,4-DNT	9.16	165	443127	87.20575 ppb		96
59)	2,3,4,6-Tetrachlorophenol	9.32	232	370261	87.44043 ppb		96
60)	Diethyl phthalate	9.44	149	1363775	83.61948 ppb		97
61)	4-Chlorophenyl phenyl ethe	9.57	204	837406	89.75166 ppb		98
62)	Fluorene	9.57	166	1434471	90.23778 ppb		100
63)	4-Nitroaniline	8.88	138	272975	83.65050 ppb		92
66)	4,6-Dinitro-2-methylphenol	9.65	198	304020	89.80545 ppb		95
67)	Diphenyl amine	9.72	169	2215854	176.52740 ppb		99
68)	n-Nitrosodiphenylamine	9.72	169	2215854	176.52740 ppb		99
69)	1,2-Diphenylhydrazine	9.76	77	1328140	85.49377 ppb		95
70)	4-Bromophenyl phenyl ether	10.14	248	480779	88.67516 ppb		94
71)	Hexachlorobenzene	10.22	284	504135	87.98109 ppb		92
72)	Atrazine	10.33	200	200128	41.87209 ppb		100
73)	Pentachlorophenol	10.44	266	339237	91.13425 ppb		98
74)	Phenanthrene	10.69	178	1913358	86.53416 ppb		100
75)	Anthracene	10.76	178	2016161	86.85199 ppb		99
76)	Carbazol	10.94	167	1813480	86.80372 ppb		98
77)	Di-n-butylphthalate	11.34	149	2379965	87.47883 ppb		99
78)	2-Nitrodiphenylamine	11.51	167	291341	45.06789 ppb		96
79)	Fluoranthene	12.09	202	2383800	88.59156 ppb		98
81)	Benzidine	12.23	184	657175	83.81550 ppb		100
82)	Pyrene	12.35	202	2499582	77.85207 ppb		99
84)	Butyl benzylphthalate	13.09	149	1127954	77.39377 ppb		93
85)	3,3'-Dichlorobenzidine	13.71	252	817041	84.76979 ppb		99
86)	Benz (a) anthracene	13.74	228	2804468	79.65877 ppb		100
87)	Bis (2-ethylhexyl) phthala	13.76	149	1770210	79.00970 ppb	#	90
88)	Chrysene	13.78	228	2404541	76.66388 ppb		99
89)	Di-n-octylphthalate	14.52	149	2767567	78.79312 ppb		94
91)	Benzo (b) fluoranthene	15.07	252	2546511	84.57946 ppb		99
92)	Benzo (k) fluoranthene	15.11	252	2513489	90.60854 ppb		100
93)	Benzo (a) pyrene	15.54	252	2333955	86.81655 ppb		99
94)	Indeno (1,2,3-cd) pyrene	17.53	276	2739905	85.84233 ppb		100
95)	Dibenz (a,h) anthracene	17.58	278	2438265	86.60732 ppb		100
96)	Benzo (g,h,i) perylene	18.12	276	2139103	84.18191 ppb		100

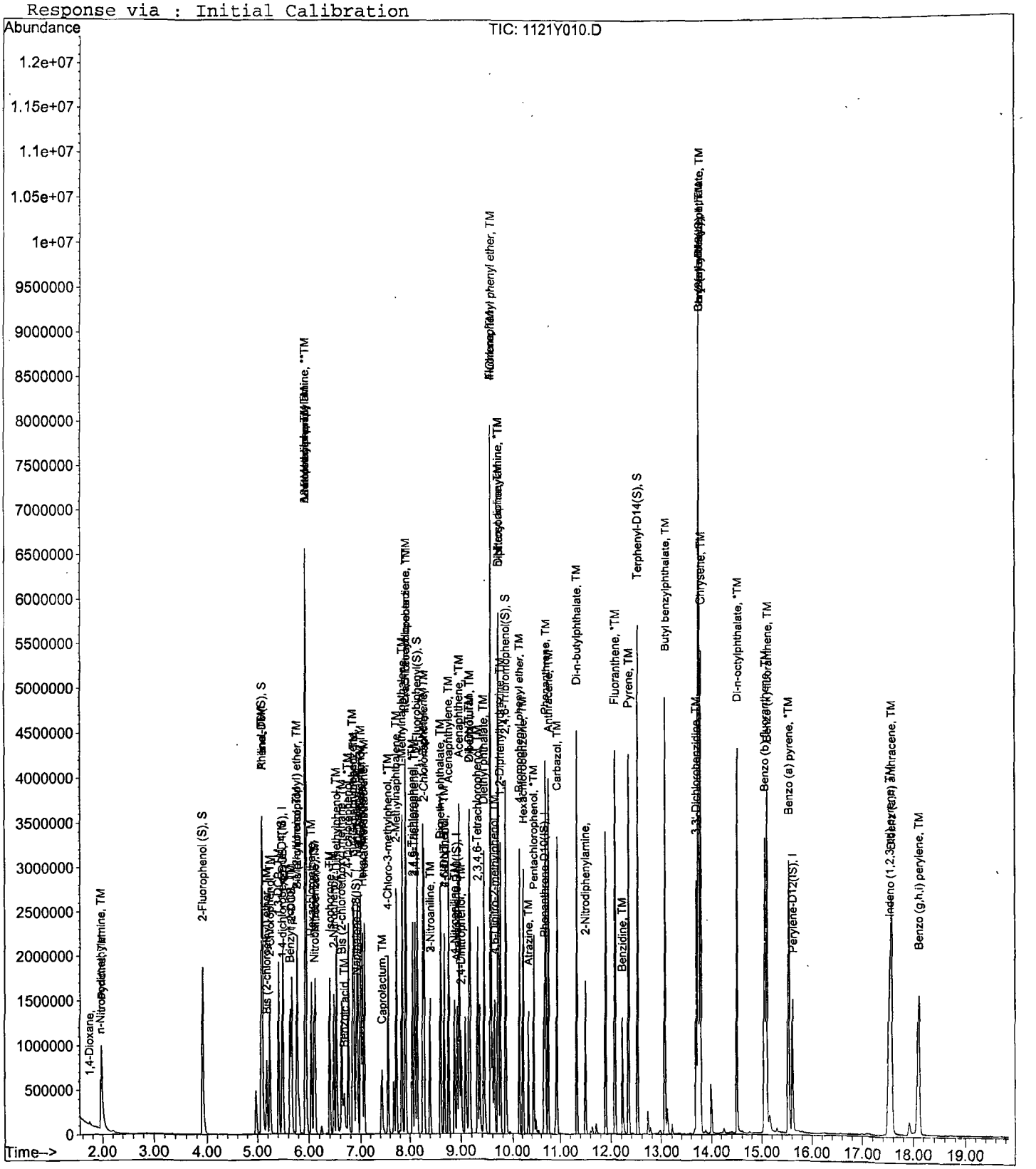
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y191121\1121Y010.D Vial: 10
Acq On : 21 Nov 19 17:58 Operator: MA,SS
Sample : 80ug/ml 8270 11/21/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 22 15:55 2019 Quant Results File: Y1121ND.RES

Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 18:04:15 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y191121\1121Y011.D Vial: 11
Acq On : 21 Nov 19 18:26 Operator: MA,SS
Sample : 100ug/ml 8270 11/21/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 22 15:55 2019 Quant Results File: Y1121ND.RES

Quant Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 15:42:05 2019
Response via : Initial Calibration
DataAcq Meth : SVOC1011

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.48	152	165464	40.00000 ppb		0.00
21) Napthalene-D8(IS)	6.92	136	652211	40.00000 ppb		0.00
41) Acenaphthene-D10(IS)	8.93	164	415860	40.00000 ppb		0.00
65) Phenanthrene-D10(IS)	10.67	188	819523	40.00000 ppb		0.00
80) Chrysene-D12(IS)	13.76	240	1060730	40.00000 ppb		0.00
90) Perylene-D12(IS)	15.62	264	938773	40.00000 ppb		0.00
System Monitoring Compounds						
5) 2-Fluorophenol (S)	3.92	112	1214721	210.82280 ppb		0.01
Spiked Amount 200.000			Recovery = 105.412%			
6) Phenol-D6 (S)	5.09	99	1477093	215.29750 ppb		0.00
Spiked Amount 200.000			Recovery = 107.649%			
22) Nitrobenzene-D5(S)	6.11	82	756797	102.96581 ppb		0.01
Spiked Amount 100.000			Recovery = 102.966%			
46) 2-Fluorobiphenyl(S)	8.15	172	1600159	102.91550 ppb		0.00
Spiked Amount 100.000			Recovery = 102.916%			
64) 2,4,6-Tribromophenol(S)	9.86	330	739921	232.59361 ppb		0.00
Spiked Amount 200.000			Recovery = 116.297%			
83) Terphenyl-D14(S)	12.52	244	2504948	94.45739 ppb		0.00
Spiked Amount 100.000			Recovery = 94.457%			
Target Compounds						Qvalue
2) 1,4-Dioxane	1.74	58	18929	9.85390		95
3) n-Nitrosodimethylamine	1.96	42	271356	93.08932 ppb		93
4) Pyridine	1.98	79	702025	97.37636 ppb		100
7) Phenol	5.10	94	838607	103.50067 ppb		90
8) Aniline	5.11	93	455808	99.94949 ppb		91
9) Bis (2-chloroethyl) ether	5.18	63	339378	98.04574 ppb		96
10) 2-Chlorophenol	5.25	128	602478	98.19009 ppb		96
11) 1,3-DCB	5.41	146	678718	97.62737 ppb		98
12) 1,4-DCB	5.50	146	691769	97.93912 ppb		99
13) Benzyl alcohol	5.65	108	347998	99.76497 ppb		99
14) 1,2-DCB	5.67	146	644684	97.70020 ppb		97
15) 2-Methylphenol	5.78	107	505332	101.67545 ppb		97
16) Bis (2-chloroisopropyl) et	5.79	45	375455	97.06131 ppb	#	85
17) Acetophenone	5.94	105	900554	100.78512 ppb		98
18) 3&4-Methylphenol	5.95	107	1402122	205.69082 ppb		100
19) n-Nitrosodi-n-propylamine	5.94	70	512893	100.76263 ppb		99
20) Hexachloroethane	6.05	117	277059	98.88616 ppb		77
23) Nitrobenzene	6.13	77	724399	96.39831 ppb		97
24) Isophorone	6.41	82	1186602	97.40437 ppb		99
25) 2-Nitrophenol	6.48	139	345383	100.50791 ppb		95
26) 2,4-Dimethylphenol	6.54	122	530631	99.13108 ppb		98
27) Benzoic acid	6.70	105	464552	90.96933 ppb		98
28) Bis (2-chloroethoxy) metha	6.63	93	647653	98.59982 ppb		99
29) 2,4-Dichlorophenol	6.76	162	555679	100.81822 ppb		95
30) 1,2,4-Trichlorobenzene	6.85	180	636557	99.79806 ppb		98
31) 3,4-Dimethylphenol	6.87	107	854975	98.79530 ppb		97
32) Naphthalene	6.95	128	1756038	99.95590 ppb		100
33) 4-Chloroaniline	7.00	127	582992	97.46992 ppb		96
34) 2,6-Dichlorophenol	7.01	162	535409	100.31698 ppb		99
35) Hexachloropropene	7.04	213	561742	101.16969 ppb		99
36) Hexachlorobutadiene	7.08	225	447133	99.26663 ppb		99
37) Caprolactum	7.45	55	190606	98.38846 ppb		98

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y191121\1121Y011.D Vial: 11
Acq On : 21 Nov 19 18:26 Operator: MA,SS
Sample : 100ug/ml 8270 11/21/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 22 15:55 2019 Quant Results File: Y1121ND.RES

Quant Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 15:42:05 2019
Response via : Initial Calibration
DataAcq Meth : SVOC1011

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
38)	4-Chloro-3-methylphenol	7.56	107	620360	99.75072 ppb		90
39)	2-Methylnaphthalene	7.73	142	1200691	100.28321 ppb		99
40)	1-Methylnaphthalene	7.85	142	1241758	100.31464 ppb		100
42)	Hexachlorocyclopentadiene	7.91	237	525248	99.42281 ppb		100
43)	1,2,4,5-Tetrachlorobenzene	7.93	216	743990	101.80524 ppb		97
44)	2,4,6-Trichlorophenol	8.06	196	464648	99.86283 ppb		98
45)	2,4,5-Trichlorophenol	8.11	196	492676	99.45490 ppb		95
47)	1,1'-Biphenyl	8.27	154	1566999	99.14353 ppb		98
48)	2-Chloronaphthalene	8.29	162	1270438	98.22934 ppb		99
49)	2-Nitroaniline	8.41	65	396579	96.73698 ppb		89
50)	Dimethyl phthalate	8.62	163	1527158	96.68670 ppb		100
51)	2,6-DNT	8.69	165	355236	100.56678 ppb		90
52)	Acenaphthylene	8.77	152	1930263	97.10593 ppb		99
53)	3-Nitroaniline	8.41	138	399288	98.49557 ppb		94
54)	Acenaphthene	8.98	154	1379881	102.68352 ppb		99
55)	2,4-Dinitrophenol	9.02	184	244377	103.53964 ppb		93
56)	4-Nitrophenol	8.69	65	25792	99.70573 ppb		97
57)	Dibenzofuran	9.17	168	1847326	98.56707 ppb		100
58)	2,4-DNT	9.16	165	508284	101.20631 ppb		96
59)	2,3,4,6-Tetrachlorophenol	9.32	232	423645	101.22566 ppb		98
60)	Diethyl phthalate	9.44	149	1535193	95.23836 ppb		97
61)	4-Chlorophenyl phenyl ethe	9.57	204	958012	103.88708 ppb		98
62)	Fluorene	9.57	166	1635750	104.11127 ppb		99
63)	4-Nitroaniline	8.89	138	307746	95.41624 ppb		95
66)	4,6-Dinitro-2-methylphenol	9.65	198	347696	102.39361 ppb	#	87
67)	Diphenyl amine	9.72	169	2531599	201.06594 ppb		100
68)	n-Nitrosodiphenylamine	9.72	169	2531599	201.06594 ppb		100
69)	1,2-Diphenylhydrazine	9.76	77	1511310	96.98772 ppb		94
70)	4-Bromophenyl phenyl ether	10.14	248	558947	102.77789 ppb		94
71)	Hexachlorobenzene	10.22	284	585989	101.95407 ppb		94
72)	Atrazine	10.33	200	226263	47.19575 ppb		100
73)	Pentachlorophenol	10.44	266	392286	105.06398 ppb		99
74)	Phenanthrene	10.70	178	2206608	99.49222 ppb		100
75)	Anthracene	10.76	178	2313072	99.33821 ppb		99
76)	Carbazol	10.95	167	2052704	97.95452 ppb		98
77)	Di-n-butylphthalate	11.34	149	2755900	100.98770 ppb		99
78)	2-Nitrodiphenylamine	11.51	167	332160	51.22542 ppb		97
79)	Fluoranthene	12.09	202	2710719	100.43374 ppb		98
81)	Benzidine	12.23	184	752592	95.64854 ppb		100
82)	Pyrene	12.35	202	2846621	88.35027 ppb		100
84)	Butyl benzylphthalate	13.09	149	1280524	87.55436 ppb		93
85)	3,3'-Dichlorobenzidine	13.71	252	935925	96.76400 ppb		99
86)	Benz (a) anthracene	13.74	228	3237968	91.64972 ppb		100
87)	Bis (2-ethylhexyl) phthala	13.75	149	2037331	90.61345 ppb		99
88)	Chrysene	13.79	228	2746558	87.26154 ppb		99
89)	Di-n-octylphthalate	14.52	149	3158477	89.60729 ppb		94
91)	Benzo (b) fluoranthene	15.07	252	2866820	96.57314 ppb		99
92)	Benzo (k) fluoranthene	15.11	252	2873942	105.07677 ppb		100
93)	Benzo (a) pyrene	15.55	252	2654481	100.14430 ppb		98
94)	Indeno (1,2,3-cd) pyrene	17.54	276	3092876	98.27998 ppb		99
95)	Dibenz (a,h) anthracene	17.58	278	2789126	100.47972 ppb		99
96)	Benzo (g,h,i) perylene	18.13	276	2411552	96.25433 ppb		99

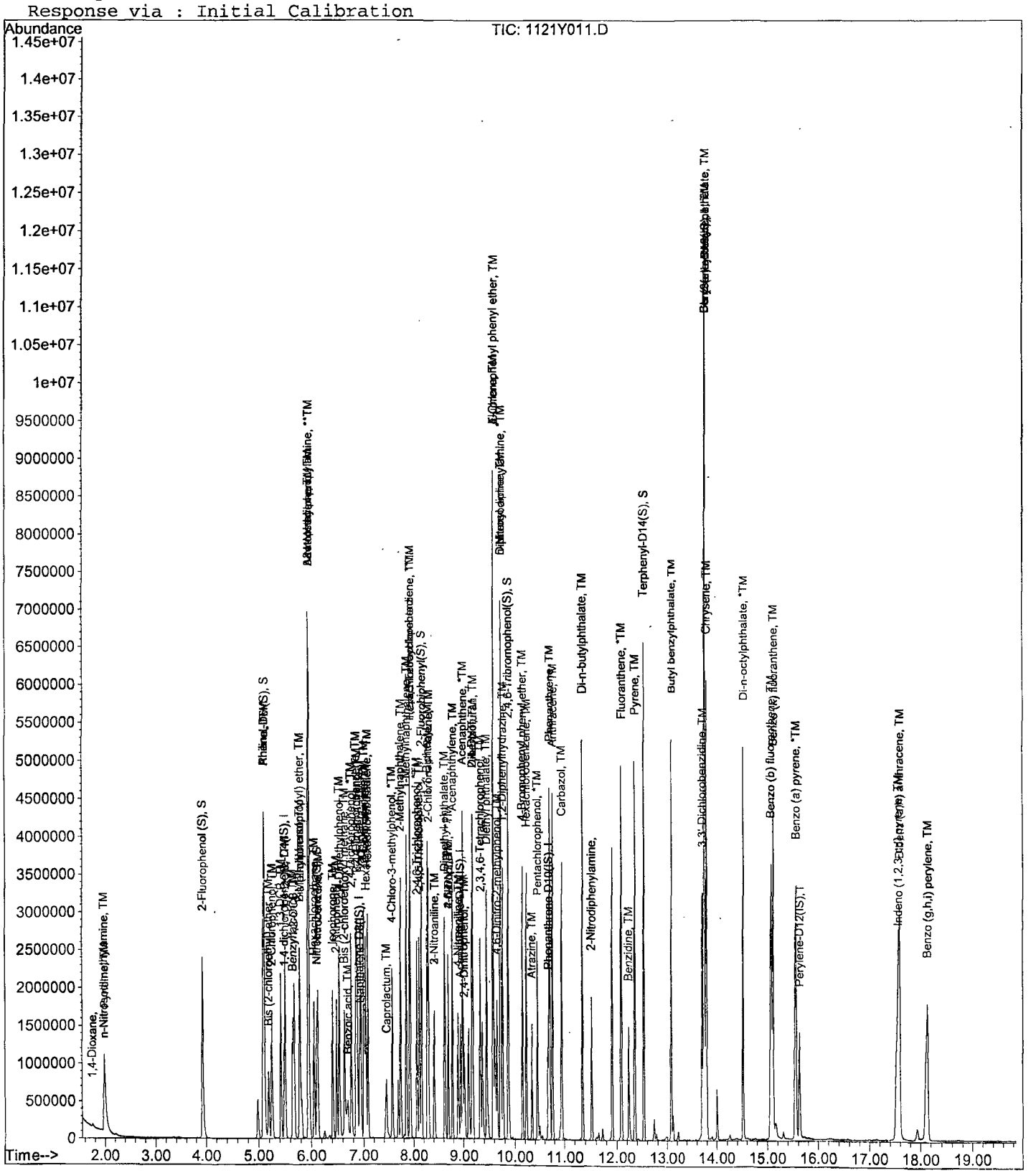
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y191121\1121Y011.D Vial: 11
Acq On : 21 Nov 19 18:26 Operator: MA,SS
Sample : 100ug/ml 8270 11/21/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 22 15:55 2019 Quant Results File: Y1121ND.RES

Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 18:04:15 2019
Response via : Initial Calibration



Semi-Volatile Analysis by GC-MS
EPA 8270

Form 7

Second Source Calibration

Lab Name: APPL, Inc.
Case No:
Matrix:

SDG No:
Date Analyzed: 11/22/19
Instrument: Yoda
Initial Cal. Date: 11/21/19
Data File: 1121Y031.D

		Compound	MEAN	CCRF	%D		%Drift
1		1,4-Dioxane	0.4644	0.4187	9.8		
2	TM	n-Nitrosodimethylamine	0.7047	0.7350	4.3	TM	
3	TM	Pyridine	1.743	1.856	6.5	TM	
4	*TM	Phenol	1.959	2.048	4.5	*TM	
5	TM	Aniline	1.157	1.383	20	TM	
6	TM	Bis (2-chloroethyl) ether	0.8368	0.8714	4.1	TM	
7	TM	2-Chlorophenol	1.483	1.540	3.8	TM	
8	TM	1,3-DCB	1.681	1.730	2.9	TM	
9	*TM	1,4-DCB	1.708	1.750	2.5	*TM	
10	TM	Benzyl alcohol	0.8432	0.9373	11	TM	
11	TM	1,2-DCB	1.595	1.611	1.0	TM	
12	TM	2-Methylphenol	1.201	1.217	1.3	TM	
13	TM	Bis (2-chloroisopropyl) ether	0.9351	0.9909	6.0	TM	
14	TM	Acetophenone	2.160	2.216	2.6	TM	
15	TM	3&4-Methylphenol	1.648	1.689	2.5	TM	
16	**TM	n-Nitrosodi-n-propylamine	1.231	1.296	5.3	**TM	
17	TM	Hexachloroethane	0.6773	0.7009	3.5	TM	
18	TM	Nitrobenzene	0.4609	0.4732	2.7	TM	
19	TM	Isophorone	0.7471	0.7881	5.5	TM	
20	*TM	2-Nitrophenol	0.2108	0.2226	5.6	*TM	
21	TM	2,4-Dimethylphenol	0.3283	0.3485	6.2	TM	
22	TML	Benzoic acid	0.2427	0.3209	32	TML	5.0
23	TM	Bis (2-chloroethoxy) methane	0.4028	0.4376	8.6	TM	
24	*TM	2,4-Dichlorophenol	0.3380	0.3552	5.1	*TM	
25	TM	1,2,4-Trichlorobenzene	0.3912	0.4061	3.8	TM	
26	TM	3,4-Dimethylphenol	0.5307	0.5603	5.6	TM	
27	TM	Naphthalene	1.077	1.149	6.7	TM	
28	TM	4-Chloroaniline	0.3796	0.4520	19	TM	
29	TM	2,6-Dichlorophenol	0.3273	0.3457	5.6	TM	
30	TM	Hexachloropropene	0.3405	0.3575	5.0	TM	
31	*TM	Hexachlorobutadiene	0.2763	0.2845	3.0	*TM	
32	TM	Caprolactum	0.1188	0.1277	7.5	TM	
33	*TM	4-Chloro-3-methylphenol	0.3814	0.4051	6.2	*TM	
34	TM	2-Methylnaphthalene	0.7343	0.7998	8.9	TM	
35	TM	1-Methylnaphthalene	0.7592	0.7910	4.2	TM	
36	**TM	Hexachlorocyclopentadiene	0.5081	0.5178	1.9	**TM	
37	TM	1,2,4,5-Tetrachlorobenzene	0.7029	0.7210	2.6	TM	
38	*TM	2,4,6-Trichlorophenol	0.4475	0.4698	5.0	*TM	
39	TM	2,4,5-Trichlorophenol	0.4765	0.4958	4.1	TM	
40	TM	1,1'-Biphenyl	1.520	1.591	4.7	TM	
		Average			6.3		

Semi-Volatile Analysis by GC-MS
EPA 8270

Form 7

Second Source Calibration

Lab Name: APPL, Inc.
Case No:
Matrix: 0

SDG No:
Date Analyzed: 11/22/19
Instrument: Yoda
Cal. Date: 11/21/19
Data File: 1121Y031.D

		Compound	MEAN	CCRF	%D		%Drift
41	TM	2-Chloronaphthalene	1.244	1.270	2.1	TM	
42	TM	2-Nitroaniline	0.3943	0.4363	11	TM	
43	TM	Dimethyl phthalate	1.519	1.581	4.0	TM	
44	TM	2,6-DNT	0.3398	0.3503	3.1	TM	
45	TM	Acenaphthylene	1.912	2.013	5.3	TM	
46	TM	3-Nitroaniline	0.3899	0.4282	9.8	TM	
47	*TM	Acenaphthene	1.293	1.374	6.3	*TM	
48	**TM	2,4-Dinitrophenol	0.2270	0.2078	8.5	**TM	
49	**TM	4-Nitrophenol	0.0249	0.0255	2.5	**TM	
50	TM	Dibenzofuran	1.803	1.948	8.0	TM	
51	TM	2,4-DNT	0.4831	0.5081	5.2	TM	
52	TM	2,3,4,6-Tetrachlorophenol	0.4026	0.4217	4.8	TM	
53	TM	Diethyl phthalate	1.550	1.616	4.2	TM	
54	TM	4-Chlorophenyl phenyl ether	0.8870	0.9201	3.7	TM	
55	TM	Fluorene	1.511	1.605	6.2	TM	
56	TM	4-Nitroaniline	0.3102	0.3481	12	TM	
57	TM	4,6-Dinitro-2-methylphenol	0.1657	0.1692	2.1	TM	
58	TM	Diphenyl amine	0.6145	0.6582	7.1	TM	
59	*TM	n-Nitrosodiphenylamine	0.6145	0.6582	7.1	*TM	
60	TM	1,2-Diphenylhydrazine	0.7606	0.7882	3.6	TM	
61	TM	4-Bromophenyl phenyl ether	0.2654	0.2802	5.6	TM	
62	TM	Hexachlorobenzene	0.2805	0.2914	3.9	TM	
63	TM	Atrazine	0.2340	0.2529	8.1	TM	
64	*TM	Pentachlorophenol	0.1822	0.1839	0.90	*TM	
65	TM	Phenanthrene	1.083	1.158	6.9	TM	
66	TM	Anthracene	1.137	1.193	5.0	TM	
67	TM	Carbazol	1.023	1.086	6.1	TM	
68	TM	Di-n-butylphthalate	1.332	1.413	6.1	TM	
69		2-Nitrodiphenylamine	0.3165	0.3476	9.8		
70	*TM	Fluoranthene	1.317	1.408	6.9	*TM	
71	TM	Benzidine	0.2967	0.3285	11	TM	
72	TM	Pyrene	1.215	1.271	4.6	TM	
73	TM	Butyl benzylphthalate	0.5515	0.5707	3.5	TM	
74	TM	3,3'-Dichlorobenzidine	0.3647	0.4360	20	TM	
75	TM	Benz (a) anthracene	1.332	1.397	4.9	TM	
76	TM	Bis (2-ethylhexyl) phthalate	0.8479	0.9274	9.4	TM	
77	TM	Chrysene	1.187	1.239	4.4	TM	
78	*TM	Di-n-octylphthalate	1.329	1.443	8.6	*TM	
79	TM	Benzo (b) fluoranthene	1.265	1.319	4.3	TM	
80	TM	Benzo (k) fluoranthene	1.165	1.283	10	TM	
		Average			6.4		

Semi-Volatile Analysis by GC-MS
EPA 8270

Form 7

Second Source Calibration

Lab Name: APPL, Inc.
Case No:
Matrix: 0

SDG No:
Date Analyzed: 11/22/19
Instrument: Yoda
Cal. Date: 11/21/19
Data File: 1121Y031.D

		Compound	MEAN	CCRF	%D	%Drift	
81	*TM	Benzo (a) pyrene	1.129	1.217	7.8	*TM	
82	TM	Indeno (1,2,3-cd) pyrene	1.341	1.394	3.9	TM	
83	TM	Dibenz (a,h) anthracene	1.183	1.278	8.1	TM	
84	TM	Benzo (g,h,i) perylene	1.068	1.226	15	TM	
85							
86							
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117							
118							
119							
120							
		Average			8.7		

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y191121\1121Y031.D Vial: 31
Acq On : 22 Nov 19 13:38 Operator: MA,SS
Sample : SS 8270 11/22/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 25 11:24 2019 Quant Results File: Y1121ND.RES

Quant Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 18:04:15 2019
Response via : Initial Calibration
DataAcq Meth : SVOC1011

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.47	152	171421	40.00000 ppb	0.00
21) Napthalene-D8(IS)	6.91	136	662584	40.00000 ppb	0.00
41) Acenaphthene-D10(IS)	8.93	164	418442	40.00000 ppb	0.00
65) Phenanthrene-D10(IS)	10.66	188	824762	40.00000 ppb	0.00
80) Chrysene-D12(IS)	13.75	240	956637	40.00000 ppb	0.00
90) Perylene-D12(IS)	15.62	264	963616	40.00000 ppb	0.00
System Monitoring Compounds					
5) 2-Fluorophenol (S)	0.00	112	0	0.00000 ppb	
Spiked Amount 200.000			Recovery	= 0.000%	
6) Phenol-D6 (S)	0.00	99	0	0.00000 ppb	
Spiked Amount 200.000			Recovery	= 0.000%	
22) Nitrobenzene-D5(S)	6.05	82	44357	5.94050 ppb	-0.05
Spiked Amount 100.000			Recovery	= 5.940%	
46) 2-Fluorobiphenyl(S)	8.10	172	717	0.04583 ppb	-0.05
Spiked Amount 100.000			Recovery	= 0.046%	
64) 2,4,6-Tribromophenol(S)	0.00	330	0	0.00000 ppb	
Spiked Amount 200.000			Recovery	= 0.000%	
83) Terphenyl-D14(S)	12.52	244	529	0.02212 ppb	0.00
Spiked Amount 100.000			Recovery	= 0.022%	
Target Compounds					Qvalue
2) 1,4-Dioxane	1.73	58	8972	4.50826	97
3) n-Nitrosodimethylamine	1.94	42	157497	52.15215 ppb	85
4) Pyridine	1.97	79	397706	53.24792 ppb	97
7) Phenol	5.08	94	438769	52.27091 ppb	95
8) Aniline	5.09	93	296448	59.80681 ppb	97
9) Bis (2-chloroethyl) ether	5.17	63	186730	52.07133 ppb	97
10) 2-Chlorophenol	5.24	128	329970	51.90873 ppb	96
11) 1,3-DCB	5.41	146	370675	51.46536 ppb	99
12) 1,4-DCB	5.49	146	374910	51.23440 ppb	98
13) Benzyl alcohol	5.63	108	200832	55.57427 ppb	95
14) 1,2-DCB	5.67	146	345304	50.51143 ppb	97
15) 2-Methylphenol	5.76	107	260765	50.64401 ppb	98
16) Bis (2-chloroisopropyl) et	5.78	45	212330	52.98331 ppb	89
17) Acetophenone	5.93	105	474785	51.28887 ppb	89
18) 3&4-Methylphenol	5.94	107	723826	102.49502 ppb	98
19) n-Nitrosodi-n-propylamine	5.93	70	277635	52.64855 ppb	98
20) Hexachloroethane	6.05	117	150185	51.74034 ppb	85
23) Nitrobenzene	6.12	77	391946	51.34108 ppb	94
24) Isophorone	6.39	82	652688	52.73830 ppb	97
25) 2-Nitrophenol	6.47	139	184402	52.82167 ppb	89
26) 2,4-Dimethylphenol	6.53	122	288651	53.08080 ppb	96
27) Benzoic acid	6.65	105	265773	52.52237 ppb	98
28) Bis (2-chloroethoxy) metha	6.62	93	362438	54.31436 ppb	99
29) 2,4-Dichlorophenol	6.75	162	294151	52.53304 ppb	95
30) 1,2,4-Trichlorobenzene	6.85	180	336307	51.90006 ppb	97
31) 3,4-Dimethylphenol	6.86	107	464030	52.78082 ppb	99
32) Naphthalene	6.94	128	951836	53.33151 ppb	100
33) 4-Chloroaniline	6.99	127	374395	59.53877 ppb	96
34) 2,6-Dichlorophenol	7.00	162	286319	52.80635 ppb	98
35) Hexachloropropene	7.04	213	296131	52.49822 ppb	99
36) Hexachlorobutadiene	7.08	225	235619	51.49013 ppb	99
37) Caprolactum	7.41	55	105792	53.75361 ppb	98

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y191121\1121Y031.D Vial: 31
Acq On : 22 Nov 19 13:38 Operator: MA,SS
Sample : SS 8270 11/22/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 25 11:24 2019 Quant Results File: Y1121ND.RES

Quant Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 18:04:15 2019
Response via : Initial Calibration
DataAcq Meth : SVOC1011

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
38)	4-Chloro-3-methylphenol	7.55	107	335513	53.10419 ppb		90
39)	2-Methylnaphthalene	7.73	142	662441	54.46172 ppb		99
40)	1-Methylnaphthalene	7.84	142	655119	52.09484 ppb		99
42)	Hexachlorocyclopentadiene	7.91	237	270848	50.95175 ppb		98
43)	1,2,4,5-Tetrachlorobenzene	7.92	216	377114	51.28467 ppb		99
44)	2,4,6-Trichlorophenol	8.05	196	245742	52.48934 ppb		97
45)	2,4,5-Trichlorophenol	8.10	196	259336	52.02828 ppb		93
47)	1,1'-Biphenyl	8.27	154	832163	52.32581 ppb		98
48)	2-Chloronaphthalene	8.28	162	664290	51.04548 ppb		97
49)	2-Nitroaniline	8.40	65	228214	55.32443 ppb		91
50)	Dimethyl phthalate	8.61	163	826771	52.02114 ppb		99
51)	2,6-DNT	8.68	165	183246	51.55656 ppb		92
52)	Acenaphthylene	8.77	152	1052996	52.64630 ppb		100
53)	3-Nitroaniline	8.40	138	223977	54.90928 ppb		95
54)	Acenaphthene	8.97	154	718729	53.15403 ppb		98
55)	2,4-Dinitrophenol	9.01	184	108675	45.76019 ppb		96
56)	4-Nitrophenol	8.68	65	13343	51.26258 ppb		96
57)	Dibenzofuran	9.17	168	1018717	54.01990 ppb		97
58)	2,4-DNT	9.16	165	265741	52.58617 ppb		95
59)	2,3,4,6-Tetrachlorophenol	9.31	232	220565	52.37656 ppb		94
60)	Diethyl phthalate	9.43	149	845111	52.10442 ppb		98
61)	4-Chlorophenyl phenyl ethe	9.56	204	481244	51.86421 ppb		92
62)	Fluorene	9.57	166	839435	53.09820 ppb		98
63)	4-Nitroaniline	8.88	138	182054	56.09730 ppb		94
66)	4,6-Dinitro-2-methylphenol	9.63	198	174409	51.03576 ppb	#	72
67)	Diphenyl amine	9.70	169	1357188	107.10657 ppb		100
68)	n-Nitrosodiphenylamine	9.70	169	1357188	107.10657 ppb		100
69)	1,2-Diphenylhydrazine	9.75	77	812596	51.81678 ppb		91
70)	4-Bromophenyl phenyl ether	10.14	248	288847	52.77515 ppb		93
71)	Hexachlorobenzene	10.21	284	300398	51.93315 ppb	#	86
72)	Atrazine	10.33	200	130350	27.01674 ppb		98
73)	Pentachlorophenol	10.45	266	189568	50.44853 ppb		99
74)	Phenanthrene	10.69	178	1193495	53.47084 ppb		100
75)	Anthracene	10.75	178	1230249	52.49920 ppb		100
76)	Carbazol	10.94	167	1119240	53.07059 ppb		99
77)	Di-n-butylphthalate	11.34	149	1456976	53.05055 ppb		98
78)	2-Nitrodiphenylamine	11.51	167	179156	27.45378 ppb		94
79)	Fluoranthene	12.08	202	1451245	53.42793 ppb		99
81)	Benzidine	12.23	184	392760	55.34822 ppb		97
82)	Pyrene	12.35	202	1519982	52.30875 ppb		99
84)	Butyl benzylphthalate	13.08	149	682425	51.73717 ppb		84
85)	3,3'-Dichlorobenzidine	13.70	252	521346	59.76631 ppb		98
86)	Benz (a) anthracene	13.74	228	1670654	52.43277 ppb		99
87)	Bis (2-ethylhexyl) phthala	13.75	149	1108962	54.68968 ppb	#	95
88)	Chrysene	13.78	228	1481718	52.19841 ppb		100
89)	Di-n-octylphthalate	14.51	149	1725602	54.28301 ppb		96
91)	Benzo (b) fluoranthene	15.06	252	1589370	52.15999 ppb		99
92)	Benzo (k) fluoranthene	15.10	252	1545615	55.05372 ppb		99
93)	Benzo (a) pyrene	15.53	252	1465947	53.87924 ppb		99
94)	Indeno (1,2,3-cd) pyrene	17.52	276	1678695	51.96740 ppb		99
95)	Dibenz (a,h) anthracene	17.56	278	1539902	54.04555 ppb		98
96)	Benzo (g,h,i) perylene	18.10	276	1476910	57.42940 ppb		100

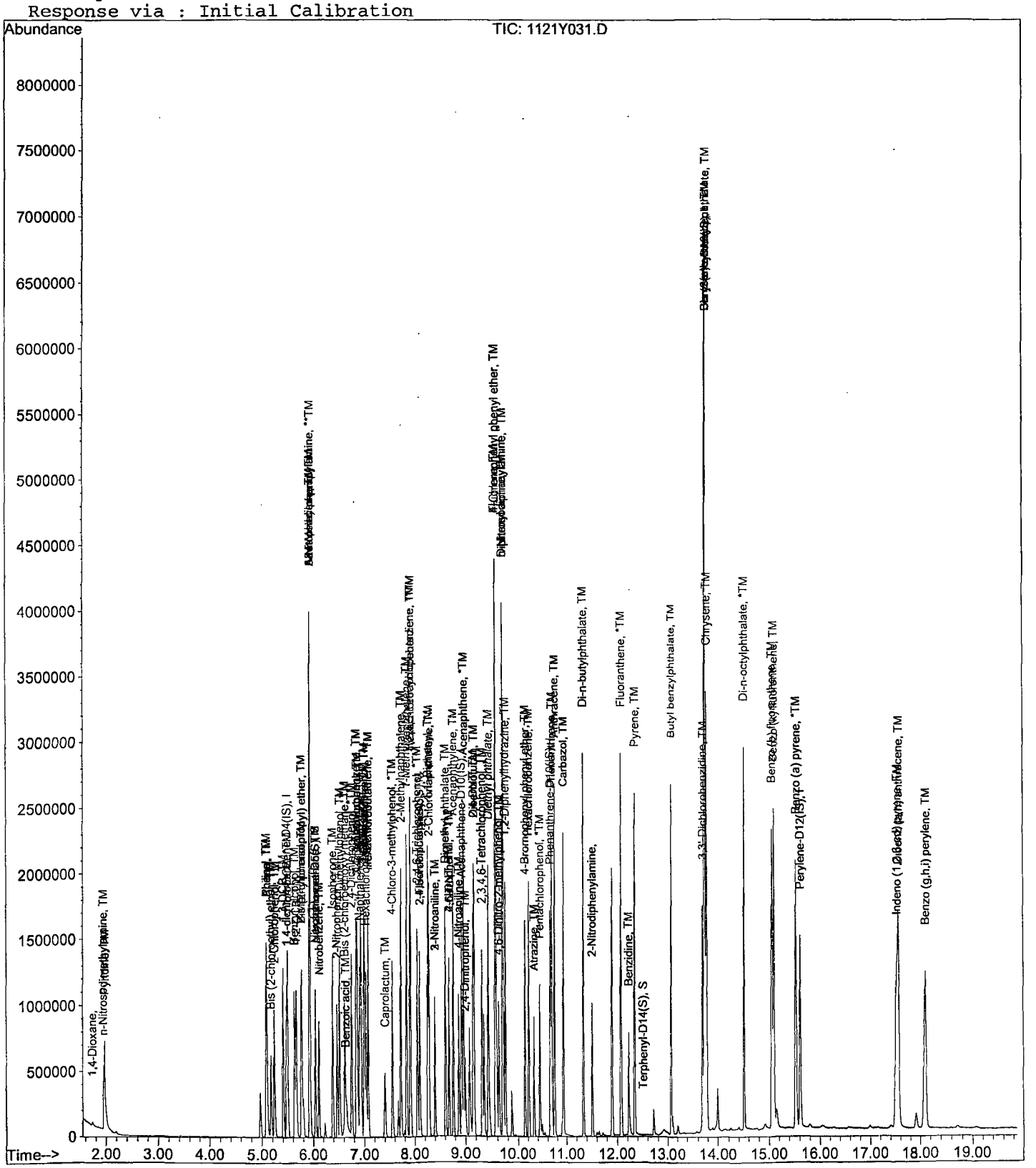
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y191121\1121Y031.D Vial: 31
Acq On : 22 Nov 19 13:38 Operator: MA,SS
Sample : SS 8270 11/22/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 25 11:24 2019 Quant Results File: Y1121ND.RES

Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 18:04:15 2019
Response via : Initial Calibration



Semi-Volatile Analysis by GC-MS
EPA 8270

Form 7

Ending Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix:

SDG No:
Date Analyzed: 11/26/19
Instrument: Yoda
Initial Cal. Date: 11/21/19
Data File: 1121Y154.D

		Compound	MEAN	CCRF	%D		%Drift
1	I	1,4-dichlorobenzene-D4(IS)	ISTD			I	
2		1,4-Dioxane	0.4644	0.4740	2.1		
3	TM	n-Nitrosodimethylamine	0.7047	0.8639	23	TM	
4	TM	Pyridine	1.743	2.050	18	TM	
5	S	2-Fluorophenol (S)	1.393	1.435	3.0	S	
6	S	Phenol-D6 (S)	1.659	1.762	6.2	S	
7	*TM	Phenol	1.959	2.184	11	*TM	
8	TM	Aniline	1.157	1.329	15	TM	
9	TM	Bis (2-chloroethyl) ether	0.8368	0.9543	14	TM	
10	TM	2-Chlorophenol	1.483	1.581	6.6	TM	
11	TM	1,3-DCB	1.681	1.715	2.0	TM	
12	*TM	1,4-DCB	1.708	1.760	3.1	*TM	
13	TM	Benzyl alcohol	0.8432	0.9323	11	TM	
14	TM	1,2-DCB	1.595	1.638	2.7	TM	
15	TM	2-Methylphenol	1.201	1.355	13	TM	
16	TM	Bis (2-chloroisopropyl) ether	0.9351	1.121	20	TM	
17	TM	Acetophenone	2.160	2.372	9.8	TM	
18	TM	3&4-Methylphenol	1.648	1.838	12	TM	
19	**TM	n-Nitrosodi-n-propylamine	1.231	1.442	17	**TM	
20	TM	Hexachloroethane	0.6773	0.7210	6.4	TM	
21	I	Napthalene-D8(IS)	ISTD			I	
22	S	Nitrobenzene-D5(S)	0.4508	0.4694	4.1	S	
23	TM	Nitrobenzene	0.4609	0.4980	8.1	TM	
24	TM	Isophorone	0.7471	0.8098	8.4	TM	
25	*TM	2-Nitrophenol	0.2108	0.2193	4.1	*TM	
26	TM	2,4-Dimethylphenol	0.3283	0.3480	6.0	TM	
27	TML	Benzoic acid	0.2427	0.3340	38	TML	9.0
28	TM	Bis (2-chloroethoxy) methane	0.4028	0.4317	7.2	TM	
29	*TM	2,4-Dichlorophenol	0.3380	0.3497	3.5	*TM	
30	TM	1,2,4-Trichlorobenzene	0.3912	0.3971	1.5	TM	
31	TM	3,4-Dimethylphenol	0.5307	0.5743	8.2	TM	
32	TM	Naphthalene	1.077	1.129	4.8	TM	
33	TM	4-Chloroaniline	0.3796	0.4418	16	TM	
34	TM	2,6-Dichlorophenol	0.3273	0.3346	2.2	TM	
35	TM	Hexachloropropene	0.3405	0.2967	13	TM	
36	*TM	Hexachlorobutadiene	0.2763	0.2758	0.17	*TM	
37	TM	Caprolactum	0.1188	0.1334	12	TM	
38	*TM	4-Chloro-3-methylphenol	0.3814	0.4063	6.5	*TM	
39	TM	2-Methylnaphthalene	0.7343	0.7765	5.8	TM	
40	TM	1-Methylnaphthalene	0.7592	0.7902	4.1	TM	
		Average			9.2		

Semi-Volatile Analysis by GC-MS
EPA 8270

Form 7

Ending Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix: 0

SDG No:
Date Analyzed: 11/26/19
Instrument: Yoda
Cal. Date: 11/21/19
Data File: 1121Y154.D

		Compound	MEAN	CCRF	%D		%Drift
41	I	Acenaphthene-D10(IS)	ISTD			I	
42	**TM	Hexachlorocyclopentadiene	0.5081	0.3896	23	**TM	
43	TM	1,2,4,5-Tetrachlorobenzene	0.7029	0.6995	0.49	TM	
44	*TM	2,4,6-Trichlorophenol	0.4475	0.4551	1.7	*TM	
45	TM	2,4,5-Trichlorophenol	0.4765	0.4851	1.8	TM	
46	S	2-Fluorobiphenyl(S)	1.496	1.445	3.4	S	
47	TM	1,1'-Biphenyl	1.520	1.603	5.4	TM	
48	TM	2-Chloronaphthalene	1.244	1.292	3.9	TM	
49	TM	2-Nitroaniline	0.3943	0.4473	13	TM	
50	TM	Dimethyl phthalate	1.519	1.591	4.7	TM	
51	TM	2,6-DNT	0.3398	0.3560	4.8	TM	
52	TM	Acenaphthylene	1.912	1.972	3.2	TM	
53	TM	3-Nitroaniline	0.3899	0.4205	7.8	TM	
54	*TM	Acenaphthene	1.293	1.313	1.6	*TM	
55	**TM	2,4-Dinitrophenol	0.2270	0.1474	35	**TM	
56	**TM	4-Nitrophenol	0.0249	0.0292	17	**TM	
57	TM	Dibenzofuran	1.803	1.851	2.7	TM	
58	TM	2,4-DNT	0.4831	0.5120	6.0	TM	
59	TM	2,3,4,6-Tetrachlorophenol	0.4026	0.4054	0.70	TM	
60	TM	Diethyl phthalate	1.550	1.605	3.5	TM	
61	TM	4-Chlorophenyl phenyl ether	0.8870	0.9205	3.8	TM	
62	TM	Fluorene	1.511	1.612	6.7	TM	
63	TM	4-Nitroaniline	0.3102	0.3431	11	TM	
64	S	2,4,6-Tribromophenol(S)	0.3060	0.2897	5.3	S	
65	I	Phenanthrene-D10(IS)	ISTD			I	
66	TM	4,6-Dinitro-2-methylphenol	0.1657	0.1247	25	TM	
67	TM	Diphenyl amine	0.6145	0.6755	9.9	TM	
68	*TM	n-Nitrosodiphenylamine	0.6145	0.6755	9.9	*TM	
69	TM	1,2-Diphenylhydrazine	0.7606	0.8649	14	TM	
70	TM	4-Bromophenyl phenyl ether	0.2654	0.2751	3.6	TM	
71	TM	Hexachlorobenzene	0.2805	0.2811	0.22	TM	
72	TM	Atrazine	0.2340	0.2208	5.6	TM	
73	*TM	Pentachlorophenol	0.1822	0.1782	2.2	*TM	
74	TM	Phenanthrene	1.083	1.145	5.7	TM	
75	TM	Anthracene	1.137	1.205	6.0	TM	
76	TM	Carbazol	1.023	1.096	7.2	TM	
77	TM	Di-n-butylphthalate	1.332	1.457	9.4	TM	
78		2-Nitrodiphenylamine	0.3165	0.3573	13		
79	*TM	Fluoranthene	1.317	1.407	6.8	*TM	
80	I	Chrysene-D12(IS)	ISTD			I	
		Average			7.7		

Semi-Volatile Analysis by GC-MS
EPA 8270

Form 7

Ending Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix: 0

SDG No:
Date Analyzed: 11/26/19
Instrument: Yoda
Cal. Date: 11/21/19
Data File: 1121Y154.D

		Compound	MEAN	CCRF	%D		%Drift
81	TM	Benzidine	0.2967	0.3296	11	TM	
82	TM	Pyrene	1.215	1.222	0.57	TM	
83	S	Terphenyl-D14(S)	1.000	0.9423	5.8	S	
84	TM	Butyl benzylphthalate	0.5515	0.5704	3.4	TM	
85	TM	3,3'-Dichlorobenzidine	0.3647	0.4696	29	TM	
86	TM	Benz (a) anthracene	1.332	1.326	0.46	TM	
87	TM	Bis (2-ethylhexyl) phthalate	0.8479	0.9572	13	TM	
88	TM	Chrysene	1.187	1.161	2.1	TM	
89	*TM	Di-n-octylphthalate	1.329	1.409	6.0	*TM	
90	I	Perylene-D12(IS)	ISTD			I	
91	TM	Benzo (b) fluoranthene	1.265	1.329	5.0	TM	
92	TM	Benzo (k) fluoranthene	1.165	1.261	8.2	TM	
93	*TM	Benzo (a) pyrene	1.129	1.179	4.4	*TM	
94	TM	Indeno (1,2,3-cd) pyrene	1.341	1.356	1.1	TM	
95	TM	Dibenz (a,h) anthracene	1.183	1.195	1.0	TM	
96	TM	Benzo (g,h,i) perylene	1.068	1.073	0.49	TM	
97							
98							
99							
100							
101							
102							
103							
104							
105							
106							
107							
108							
109							
110							
111							
112							
113							
114							
115							
116							
117							
118							
119							
120							
		Average			6.1		

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y191121\1121Y154.D Vial: 54
Acq On : 26 Nov 19 20:50 Operator: MA,SS
Sample : 50ug/ml 8270 11/21/19 (1) Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 27 7:38 2019 Quant Results File: Y1121ND.RES

Quant Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 18:04:15 2019
Response via : Initial Calibration
DataAcq Meth : SVOC1011

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.47	152	179473	40.00000 ppb		0.00
21) Napthalene-D8(IS)	6.91	136	719514	40.00000 ppb		0.00
41) Acenaphthene-D10(IS)	8.93	164	453439	40.00000 ppb		0.00
65) Phenanthrene-D10(IS)	10.67	188	869953	40.00000 ppb		0.00
80) Chrysene-D12(IS)	13.76	240	1038491	40.00000 ppb		0.00
90) Perylene-D12(IS)	15.62	264	946185	40.00000 ppb		0.00
System Monitoring Compounds						
5) 2-Fluorophenol (S)	3.90	112	643790	103.01244 ppb		0.00
Spiked Amount 200.000			Recovery =	51.506%		
6) Phenol-D6 (S)	5.07	99	790641	106.24656 ppb		0.00
Spiked Amount 200.000			Recovery =	53.124%		
22) Nitrobenzene-D5(S)	6.10	82	422202	52.06943 ppb		0.00
Spiked Amount 100.000			Recovery =	52.069%		
46) 2-Fluorobiphenyl(S)	8.14	172	819046	48.31191 ppb		0.00
Spiked Amount 100.000			Recovery =	48.312%		
64) 2,4,6-Tribromophenol(S)	9.86	330	328385	94.67254 ppb		0.00
Spiked Amount 200.000			Recovery =	47.337%		
83) Terphenyl-D14(S)	12.52	244	1223267	47.11515 ppb		0.00
Spiked Amount 100.000			Recovery =	47.115%		
Target Compounds						Qvalue
2) 1,4-Dioxane	1.72	58	10634	5.10366		75
3) n-Nitrosodimethylamine	1.94	42	193799	61.29377 ppb		100
4) Pyridine	1.96	79	459851	58.80612 ppb		99
7) Phenol	5.09	94	489897	55.74345 ppb		90
8) Aniline	5.10	93	298240	57.46890 ppb		90
9) Bis (2-chloroethyl) ether	5.17	63	214083	57.02058 ppb		91
10) 2-Chlorophenol	5.24	128	354618	53.28336 ppb		96
11) 1,3-DCB	5.40	146	384680	51.01363 ppb		97
12) 1,4-DCB	5.49	146	394790	51.53065 ppb		98
13) Benzyl alcohol	5.64	108	209164	55.28314 ppb		98
14) 1,2-DCB	5.66	146	367467	51.34183 ppb		99
15) 2-Methylphenol	5.77	107	304001	56.39216 ppb		96
16) Bis (2-chloroisopropyl) et	5.78	45	251533	59.94978 ppb	#	73
17) Acetophenone	5.93	105	532131	54.90471 ppb		89
18) 3&4-Methylphenol	5.94	107	824480	111.50995 ppb		99
19) n-Nitrosodi-n-propylamine	5.93	70	323406	58.57674 ppb		96
20) Hexachloroethane	6.04	117	161743	53.22224 ppb		96
23) Nitrobenzene	6.12	77	447941	54.03327 ppb		98
24) Isophorone	6.39	82	728304	54.19197 ppb		94
25) 2-Nitrophenol	6.48	139	197237	52.02793 ppb		98
26) 2,4-Dimethylphenol	6.53	122	313026	53.00862 ppb		99
27) Benzoic acid	6.67	105	300385	54.51101 ppb		97
28) Bis (2-chloroethoxy) metha	6.63	93	388252	53.57921 ppb		99
29) 2,4-Dichlorophenol	6.76	162	314516	51.72573 ppb		99
30) 1,2,4-Trichlorobenzene	6.84	180	357184	50.76047 ppb		97
31) 3,4-Dimethylphenol	6.86	107	516511	54.10175 ppb		99
32) Naphthalene	6.94	128	1015093	52.37563 ppb		100
33) 4-Chloroaniline	6.99	127	397384	58.19449 ppb		98
34) 2,6-Dichlorophenol	7.01	162	300931	51.10985 ppb		99
35) Hexachloropropene	7.04	213	266832	43.56125 ppb		99
36) Hexachlorobutadiene	7.08	225	248033	49.91429 ppb		100
37) Caprolactum	7.42	55	119960	56.12973 ppb		94

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y191121\1121Y154.D Vial: 54
Acq On : 26 Nov 19 20:50 Operator: MA,SS
Sample : 50ug/ml 8270 11/21/19 (1) Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 27 7:38 2019 Quant Results File: Y1121ND.RES

Quant Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 18:04:15 2019
Response via : Initial Calibration
DataAcq Meth : SVOC1011

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
38)	4-Chloro-3-methylphenol	7.56	107	365424	53.26209	ppb		95
39)	2-Methylnaphthalene	7.72	142	698402	52.87511	ppb		100
40)	1-Methylnaphthalene	7.84	142	710656	52.03980	ppb		100
42)	Hexachlorocyclopentadiene	7.91	237	220800	38.33090	ppb		99
43)	1,2,4,5-Tetrachlorobenzene	7.92	216	396483	49.75720	ppb		100
44)	2,4,6-Trichlorophenol	8.05	196	257942	50.84288	ppb		100
45)	2,4,5-Trichlorophenol	8.11	196	274951	50.90359	ppb		95
47)	1,1'-Biphenyl	8.26	154	908359	52.70860	ppb		99
48)	2-Chloronaphthalene	8.29	162	732391	51.93487	ppb		99
49)	2-Nitroaniline	8.40	65	253528	56.71749	ppb		95
50)	Dimethyl phthalate	8.62	163	901594	52.35065	ppb		100
51)	2,6-DNT	8.69	165	201795	52.39336	ppb		82
52)	Acenaphthylene	8.76	152	1117973	51.58089	ppb		99
53)	3-Nitroaniline	8.40	138	238316	53.91528	ppb		99
54)	Acenaphthene	8.97	154	744268	50.79451	ppb		99
55)	2,4-Dinitrophenol	9.01	184	83537	32.46037	ppb		88
56)	4-Nitrophenol	8.68	65	16549	58.67257	ppb		97
57)	Dibenzofuran	9.17	168	1049257	51.34504	ppb		100
58)	2,4-DNT	9.15	165	290218	52.99730	ppb		86
59)	2,3,4,6-Tetrachlorophenol	9.32	232	229755	50.34795	ppb		97
60)	Diethyl phthalate	9.43	149	909668	51.75593	ppb		96
61)	4-Chlorophenyl phenyl ethe	9.56	204	521741	51.88883	ppb	#	84
62)	Fluorene	9.57	166	913843	53.34340	ppb		99
63)	4-Nitroaniline	8.88	138	194469	55.29788	ppb		87
66)	4,6-Dinitro-2-methylphenol	9.64	198	135601	37.61849	ppb	#	85
67)	Diphenyl amine	9.71	169	1469100	109.91585	ppb		100
68)	n-Nitrosodiphenylamine	9.71	169	1469100	109.91585	ppb		100
69)	1,2-Diphenylhydrazine	9.76	77	940567	56.86150	ppb		98
70)	4-Bromophenyl phenyl ether	10.14	248	299176	51.82284	ppb		96
71)	Hexachlorobenzene	10.22	284	305728	50.10899	ppb		96
72)	Atrazine	10.32	200	120041	23.58763	ppb		98
73)	Pentachlorophenol	10.44	266	193784	48.89160	ppb		99
74)	Phenanthrene	10.69	178	1244623	52.86486	ppb		100
75)	Anthracene	10.75	178	1310274	53.00961	ppb		100
76)	Carbazol	10.94	167	1191847	53.57770	ppb		98
77)	Di-n-butylphthalate	11.34	149	1584063	54.68180	ppb		98
78)	2-Nitrodiphenylamine	11.51	167	194295	28.22703	ppb		99
79)	Fluoranthene	12.08	202	1530294	53.41157	ppb		99
81)	Benzidine	12.23	184	427883	55.54512	ppb		99
82)	Pyrene	12.35	202	1586188	50.28460	ppb		99
84)	Butyl benzylphthalate	13.09	149	740503	51.71529	ppb		99
85)	3,3'-Dichlorobenzidine	13.70	252	609564	64.37158	ppb	#	98
86)	Benz (a) anthracene	13.74	228	1721546	49.77134	ppb		100
87)	Bis (2-ethylhexyl) phthala	13.75	149	1242523	56.44658	ppb		99
88)	Chrysene	13.79	228	1507683	48.92673	ppb		100
89)	Di-n-octylphthalate	14.51	149	1828785	52.99445	ppb		96
91)	Benzo (b) fluoranthene	15.07	252	1571322	52.51769	ppb		98
92)	Benzo (k) fluoranthene	15.10	252	1491286	54.09713	ppb		99
93)	Benzo (a) pyrene	15.54	252	1394881	52.21175	ppb		99
94)	Indeno (1,2,3-cd) pyrene	17.54	276	1603749	50.56191	ppb		98
95)	Dibenz (a,h) anthracene	17.57	278	1413122	50.50966	ppb		99
96)	Benzo (g,h,i) perylene	18.12	276	1268799	50.24594	ppb		98

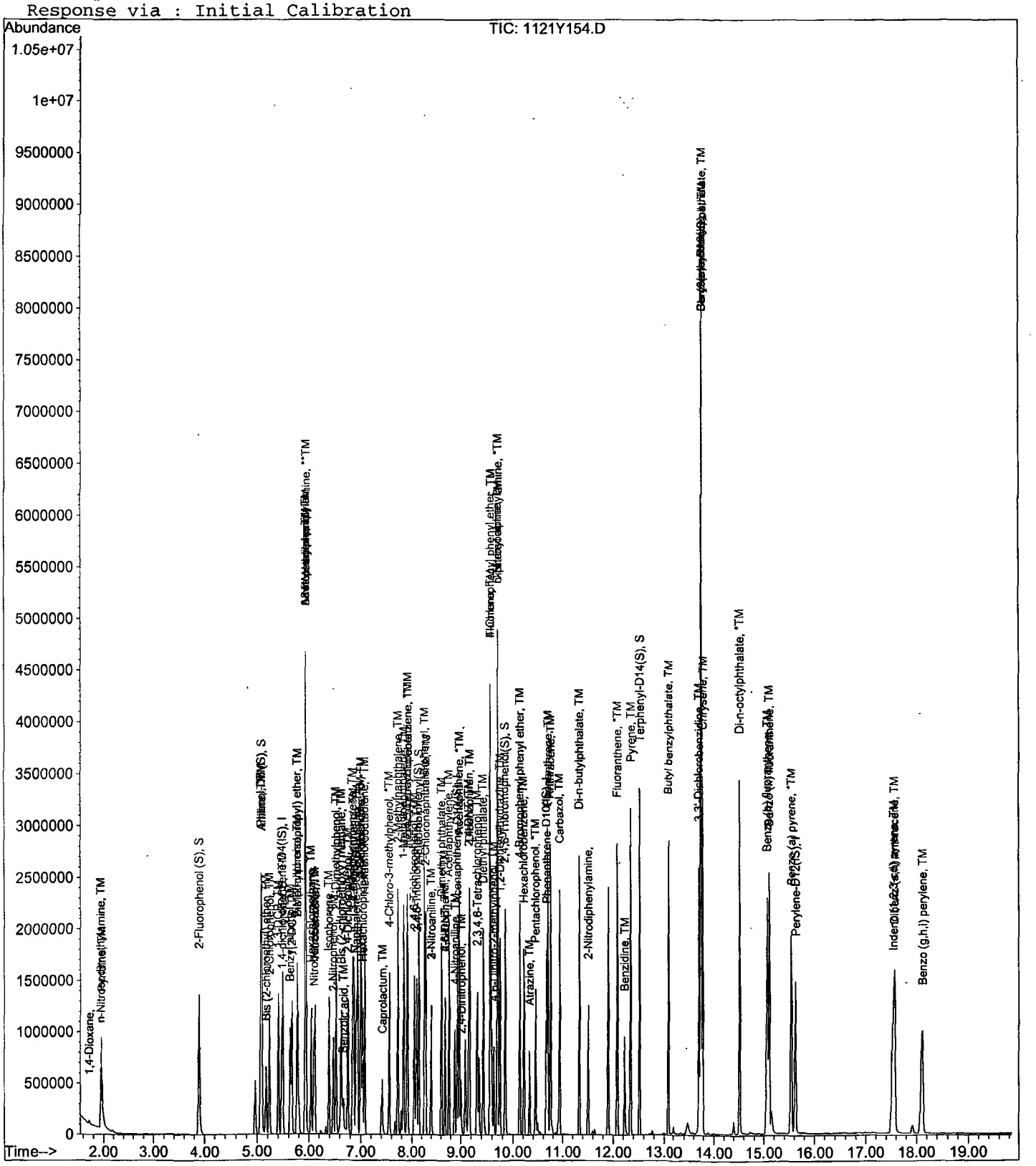
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y191121\1121Y154.D Vial: 54
Acq On : 26 Nov 19 20:50 Operator: MA,SS
Sample : 50ug/ml 8270 11/21/19 (1) Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 27 7:38 2019 Quant Results File: Y1121ND.RES

Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 18:04:15 2019
Response via : Initial Calibration



Semi-Volatile Analysis by GC-MS
EPA 8270

Form 7

Ending Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix:

SDG No:
Date Analyzed: 11/27/19
Instrument: Yoda
Initial Cal. Date: 11/21/19
Data File: 1121Y172.D

		Compound	MEAN	CCRF	%D		%Drift
1	I	1,4-dichlorobenzene-D4(IS)	ISTD			I	
2		1,4-Dioxane	0.4644	0.4417	4.9		
3	TM	n-Nitrosodimethylamine	0.7047	0.8379	19	TM	
4	TM	Pyridine	1.743	1.952	12	TM	
5	S	2-Fluorophenol (S)	1.393	1.379	1.0	S	
6	S	Phenol-D6 (S)	1.659	1.703	2.7	S	
7	*TM	Phenol	1.959	2.067	5.5	*TM	
8	TM	Aniline	1.157	1.091	5.6	TM	
9	TM	Bis (2-chloroethyl) ether	0.8368	0.9041	8.0	TM	
10	TM	2-Chlorophenol	1.483	1.502	1.2	TM	
11	TM	1,3-DCB	1.681	1.676	0.29	TM	
12	*TM	1,4-DCB	1.708	1.702	0.30	*TM	
13	TM	Benzyl alcohol	0.8432	0.8845	4.9	TM	
14	TM	1,2-DCB	1.595	1.559	2.3	TM	
15	TM	2-Methylphenol	1.201	1.294	7.7	TM	
16	TM	Bis (2-chloroisopropyl) ether	0.9351	1.075	15	TM	
17	TM	Acetophenone	2.160	2.289	6.0	TM	
18	TM	3&4-Methylphenol	1.648	1.757	6.6	TM	
19	**TM	n-Nitrosodi-n-propylamine	1.231	1.402	14	**TM	
20	TM	Hexachloroethane	0.6773	0.7003	3.4	TM	
21	I	Napthalene-D8(IS)	ISTD			I	
22	S	Nitrobenzene-D5(S)	0.4508	0.4617	2.4	S	
23	TM	Nitrobenzene	0.4609	0.4820	4.6	TM	
24	TM	Isophorone	0.7471	0.7816	4.6	TM	
25	*TM	2-Nitrophenol	0.2108	0.2130	1.1	*TM	
26	TM	2,4-Dimethylphenol	0.3283	0.3335	1.6	TM	
27	TML	Benzoic acid	0.2427	0.3303	36	TML	7.9
28	TM	Bis (2-chloroethoxy) methane	0.4028	0.4235	5.1	TM	
29	*TM	2,4-Dichlorophenol	0.3380	0.3384	0.10	*TM	
30	TM	1,2,4-Trichlorobenzene	0.3912	0.3808	2.7	TM	
31	TM	3,4-Dimethylphenol	0.5307	0.5599	5.5	TM	
32	TM	Naphthalene	1.077	1.087	0.90	TM	
33	TM	4-Chloroaniline	0.3796	0.3954	4.1	TM	
34	TM	2,6-Dichlorophenol	0.3273	0.3292	0.58	TM	
35	TM	Hexachloropropene	0.3405	0.2996	12	TM	
36	*TM	Hexachlorobutadiene	0.2763	0.2674	3.2	*TM	
37	TM	Caprolactum	0.1188	0.1328	12	TM	
38	*TM	4-Chloro-3-methylphenol	0.3814	0.3947	3.5	*TM	
39	TM	2-Methylnaphthalene	0.7343	0.7458	1.6	TM	
40	TM	1-Methylnaphthalene	0.7592	0.7694	1.3	TM	
		Average			5.9		

Semi-Volatile Analysis by GC-MS
EPA 8270

Form 7

Ending Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix: 0

SDG No:
Date Analyzed: 11/27/19
Instrument: Yoda
Cal. Date: 11/21/19
Data File: 1121Y172.D

		Compound	MEAN	CCRF	%D		%Drift
41	I	Acenaphthene-D10(IS)	ISTD			I	
42	**TM	Hexachlorocyclopentadiene	0.5081	0.3947	22	**TM	
43	TM	1,2,4,5-Tetrachlorobenzene	0.7029	0.6869	2.3	TM	
44	*TM	2,4,6-Trichlorophenol	0.4475	0.4440	0.80	*TM	
45	TM	2,4,5-Trichlorophenol	0.4765	0.4706	1.2	TM	
46	S	2-Fluorobiphenyl(S)	1.496	1.423	4.9	S	
47	TM	1,1'-Biphenyl	1.520	1.561	2.7	TM	
48	TM	2-Chloronaphthalene	1.244	1.262	1.4	TM	
49	TM	2-Nitroaniline	0.3943	0.4340	10	TM	
50	TM	Dimethyl phthalate	1.519	1.541	1.4	TM	
51	TM	2,6-DNT	0.3398	0.3449	1.5	TM	
52	TM	Acenaphthylene	1.912	1.932	1.0	TM	
53	TM	3-Nitroaniline	0.3899	0.4015	3.0	TM	
54	*TM	Acenaphthene	1.293	1.230	4.8	*TM	
55	**TM	2,4-Dinitrophenol	0.2270	0.1679	26	**TM	
56	**TM	4-Nitrophenol	0.0249	0.0294	18	**TM	
57	TM	Dibenzofuran	1.803	1.828	1.4	TM	
58	TM	2,4-DNT	0.4831	0.4959	2.7	TM	
59	TM	2,3,4,6-Tetrachlorophenol	0.4026	0.3916	2.7	TM	
60	TM	Diethyl phthalate	1.550	1.560	0.62	TM	
61	TM	4-Chlorophenyl phenyl ether	0.8870	0.9068	2.2	TM	
62	TM	Fluorene	1.511	1.591	5.3	TM	
63	TM	4-Nitroaniline	0.3102	0.3289	6.0	TM	
64	S	2,4,6-Tribromophenol(S)	0.3060	0.2874	6.1	S	
65	I	Phenanthrene-D10(IS)	ISTD			I	
66	TM	4,6-Dinitro-2-methylphenol	0.1657	0.1350	19	TM	
67	TM	Diphenyl amine	0.6145	0.6626	7.8	TM	
68	*TM	n-Nitrosodiphenylamine	0.6145	0.6626	7.8	*TM	
69	TM	1,2-Diphenylhydrazine	0.7606	0.8556	12	TM	
70	TM	4-Bromophenyl phenyl ether	0.2654	0.2698	1.6	TM	
71	TM	Hexachlorobenzene	0.2805	0.2786	0.69	TM	
72	TM	Atrazine	0.2340	0.2257	3.5	TM	
73	*TM	Pentachlorophenol	0.1822	0.1785	2.1	*TM	
74	TM	Phenanthrene	1.083	1.106	2.1	TM	
75	TM	Anthracene	1.137	1.165	2.5	TM	
76	TM	Carbazol	1.023	1.060	3.7	TM	
77	TM	Di-n-butylphthalate	1.332	1.424	6.9	TM	
78		2-Nitrodiphenylamine	0.3165	0.3451	9.0		
79	*TM	Fluoranthene	1.317	1.373	4.2	*TM	
80	I	Chrysene-D12(IS)	ISTD			I	
		Average			5.7		

Semi-Volatile Analysis by GC-MS
EPA 8270

Form 7

Ending Continuing Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Date Analyzed: 11/27/19
Matrix: 0 Instrument: Yoda
Cal. Date: 11/21/19
Data File: 1121Y172.D

		Compound	MEAN	CCRF	%D		%Drift	
81	TM	Benzidine	0.2967	0.0557	81	TM		*
82	TM	Pyrene	1.215	1.214	0.09	TM		
83	S	Terphenyl-D14(S)	1.000	0.9343	6.6	S		
84	TM	Butyl benzylphthalate	0.5515	0.5760	4.4	TM		
85	TM	3,3'-Dichlorobenzidine	0.3647	0.4464	22	TM		
86	TM	Benz (a) anthracene	1.332	1.318	1.1	TM		
87	TM	Bis (2-ethylhexyl) phthalate	0.8479	0.9482	12	TM		
88	TM	Chrysene	1.187	1.170	1.5	TM		
89	*TM	Di-n-octylphthalate	1.329	1.404	5.6	*TM		
90	I	Perylene-D12(IS)	ISTD			I		
91	TM	Benzo (b) fluoranthene	1.265	1.316	4.0	TM		
92	TM	Benzo (k) fluoranthene	1.165	1.232	5.7	TM		
93	*TM	Benzo (a) pyrene	1.129	1.183	4.8	*TM		
94	TM	Indeno (1,2,3-cd) pyrene	1.341	1.357	1.2	TM		
95	TM	Dibenz (a,h) anthracene	1.183	1.204	1.8	TM		
96	TM	Benzo (g,h,i) perylene	1.068	1.065	0.25	TM		
97								
98								
99								
100								
101								
102								
103								
104								
105								
106								
107								
108								
109								
110								
111								
112								
113								
114								
115								
116								
117								
118								
119								
120								
		Average			10.1			

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y191121\1121Y172.D Vial: 72
Acq On : 27 Nov 19 5:11 Operator: MA,SS
Sample : 50ug/ml 8270 11/21/19 (2) Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 27 7:32 2019 Quant Results File: Y1121ND.RES

Quant Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 18:04:15 2019
Response via : Initial Calibration
DataAcq Meth : SVOC1011

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.47	152	184992	40.00000 ppb		0.00
21) Napthalene-D8(IS)	6.91	136	734252	40.00000 ppb		0.00
41) Acenaphthene-D10(IS)	8.93	164	456477	40.00000 ppb		0.00
65) Phenanthrene-D10(IS)	10.67	188	870891	40.00000 ppb		0.00
80) Chrysene-D12(IS)	13.76	240	1025135	40.00000 ppb		0.00
90) Perylene-D12(IS)	15.62	264	935612	40.00000 ppb		0.00
System Monitoring Compounds						
5) 2-Fluorophenol (S)	3.90	112	637612	98.98015 ppb		0.00
Spiked Amount 200.000			Recovery =	49.490%		
6) Phenol-D6 (S)	5.07	99	787677	102.69041 ppb		0.00
Spiked Amount 200.000			Recovery =	51.345%		
22) Nitrobenzene-D5(S)	6.10	82	423758	51.21233 ppb		0.00
Spiked Amount 100.000			Recovery =	51.212%		
46) 2-Fluorobiphenyl(S)	8.14	172	811938	47.57390 ppb		0.00
Spiked Amount 100.000			Recovery =	47.574%		
64) 2,4,6-Tribromophenol(S)	9.86	330	327984	93.92762 ppb		0.00
Spiked Amount 200.000			Recovery =	46.964%		
83) Terphenyl-D14(S)	12.52	244	1197240	46.71348 ppb		0.00
Spiked Amount 100.000			Recovery =	46.713%		
Target Compounds						Qvalue
2) 1,4-Dioxane	1.72	58	10213	4.75537		80
3) n-Nitrosodimethylamine	1.94	42	193764	59.45441 ppb		95
4) Pyridine	1.96	79	451366	55.99901 ppb		99
7) Phenol	5.09	94	478022	52.76952 ppb		91
8) Aniline	5.10	93	252352	47.17587 ppb		91
9) Bis (2-chloroethyl) ether	5.17	63	209067	54.02330 ppb		91
10) 2-Chlorophenol	5.24	128	347270	50.62258 ppb		95
11) 1,3-DCB	5.40	146	387517	49.85670 ppb		98
12) 1,4-DCB	5.49	146	393673	49.85185 ppb		98
13) Benzyl alcohol	5.63	108	204538	52.44764 ppb		85
14) 1,2-DCB	5.66	146	360520	48.86844 ppb		98
15) 2-Methylphenol	5.77	107	299339	53.87077 ppb		95
16) Bis (2-chloroisopropyl) et	5.78	45	248574	57.47706 ppb	#	73
17) Acetophenone	5.92	105	529331	52.98642 ppb		87
18) 3&4-Methylphenol	5.94	107	812630	106.62831 ppb		98
19) n-Nitrosodi-n-propylamine	5.93	70	324178	56.96483 ppb		97
20) Hexachloroethane	6.04	117	161933	51.69508 ppb		91
23) Nitrobenzene	6.12	77	442354	52.28830 ppb		99
24) Isophorone	6.39	82	717342	52.30493 ppb		94
25) 2-Nitrophenol	6.48	139	195512	50.53772 ppb		99
26) 2,4-Dimethylphenol	6.53	122	306094	50.79430 ppb		99
27) Benzoic acid	6.67	105	303196	53.95801 ppb		98
28) Bis (2-chloroethoxy) metha	6.63	93	388659	52.55880 ppb		100
29) 2,4-Dichlorophenol	6.76	162	310575	50.05235 ppb		99
30) 1,2,4-Trichlorobenzene	6.84	180	349522	48.67459 ppb		98
31) 3,4-Dimethylphenol	6.86	107	513912	52.74905 ppb		99
32) Naphthalene	6.94	128	997778	50.44887 ppb		99
33) 4-Chloroaniline	6.99	127	362861	52.07220 ppb		98
34) 2,6-Dichlorophenol	7.01	162	302183	50.29233 ppb		98
35) Hexachloropropene	7.04	213	275007	43.99469 ppb		99
36) Hexachlorobutadiene	7.07	225	245404	48.39396 ppb		100
37) Caprolactum	7.42	55	121852	55.87059 ppb		93

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y191121\1121Y172.D Vial: 72
Acq On : 27 Nov 19 5:11 Operator: MA,SS
Sample : 50ug/ml 8270 11/21/19 (2) Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 27 7:32 2019 Quant Results File: Y1121ND.RES

Quant Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 18:04:15 2019
Response via : Initial Calibration
DataAcq Meth : SVOC1011

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
38)	4-Chloro-3-methylphenol	7.56	107	362279	51.74381 ppb		95
39)	2-Methylnaphthalene	7.72	142	684488	50.78153 ppb		99
40)	1-Methylnaphthalene	7.84	142	706153	50.67213 ppb		99
42)	Hexachlorocyclopentadiene	7.91	237	225216	38.83731 ppb		99
43)	1,2,4,5-Tetrachlorobenzene	7.92	216	391941	48.85984 ppb		100
44)	2,4,6-Trichlorophenol	8.05	196	253330	49.60149 ppb		97
45)	2,4,5-Trichlorophenol	8.10	196	268521	49.38230 ppb		96
47)	1,1'-Biphenyl	8.26	154	890689	51.33931 ppb		99
48)	2-Chloronaphthalene	8.29	162	720008	50.71697 ppb		100
49)	2-Nitroaniline	8.40	65	247641	55.03178 ppb		95
50)	Dimethyl phthalate	8.62	163	879421	50.72334 ppb		99
51)	2,6-DNT	8.69	165	196771	50.74893 ppb		83
52)	Acenaphthylene	8.76	152	1102374	50.52269 ppb		100
53)	3-Nitroaniline	8.40	138	229101	51.48559 ppb		98
54)	Acenaphthene	8.97	154	702020	47.59232 ppb		98
55)	2,4-Dinitrophenol	9.01	184	95794	36.97540 ppb		88
56)	4-Nitrophenol	8.68	65	16756	59.01110 ppb		97
57)	Dibenzofuran	9.17	168	1043326	50.71502 ppb		99
58)	2,4-DNT	9.15	165	282953	51.32674 ppb		84
59)	2,3,4,6-Tetrachlorophenol	9.32	232	223457	48.64192 ppb		98
60)	Diethyl phthalate	9.43	149	890191	50.31070 ppb		96
61)	4-Chlorophenyl phenyl ethe	9.56	204	517414	51.11602 ppb	#	85
62)	Fluorene	9.57	166	907725	52.63363 ppb		100
63)	4-Nitroaniline	8.88	138	187675	53.01082 ppb		86
66)	4,6-Dinitro-2-methylphenol	9.64	198	147009	40.73938 ppb	#	80
67)	Diphenyl amine	9.71	169	1442713	107.82535 ppb		100
68)	n-Nitrosodiphenylamine	9.71	169	1442713	107.82535 ppb		100
69)	1,2-Diphenylhydrazine	9.75	77	931386	56.24582 ppb	#	84
70)	4-Bromophenyl phenyl ether	10.14	248	293678	50.81569 ppb		98
71)	Hexachlorobenzene	10.22	284	303272	49.65292 ppb		97
72)	Atrazine	10.32	200	122867	24.11693 ppb		95
73)	Pentachlorophenol	10.44	266	194283	48.96471 ppb		99
74)	Phenanthrene	10.69	178	1203605	51.06758 ppb		99
75)	Anthracene	10.75	178	1268023	51.24502 ppb		100
76)	Carbazol	10.94	167	1154451	51.84072 ppb		100
77)	Di-n-butylphthalate	11.33	149	1550566	53.46784 ppb	#	98
78)	2-Nitrodiphenylamine	11.51	167	187833	27.25885 ppb		99
79)	Fluoranthene	12.08	202	1494235	52.09684 ppb		99
81)	Benzidine	12.23	184	71385	9.38749 ppb		99
82)	Pyrene	12.35	202	1555591	49.95713 ppb		100
84)	Butyl benzylphthalate	13.09	149	738067	52.21673 ppb		99
85)	3,3'-Dichlorobenzidine	13.70	252	571991	61.19074 ppb	#	97
86)	Benz (a) anthracene	13.74	228	1688421	49.44964 ppb		100
87)	Bis (2-ethylhexyl) phthala	13.75	149	1215094	55.91969 ppb		99
88)	Chrysene	13.79	228	1498662	49.26762 ppb		100
89)	Di-n-octylphthalate	14.51	149	1798749	52.80317 ppb		98
91)	Benzo (b) fluoranthene	15.07	252	1538723	52.00932 ppb		99
92)	Benzo (k) fluoranthene	15.10	252	1440477	52.84451 ppb	#	99
93)	Benzo (a) pyrene	15.54	252	1383860	52.38459 ppb		99
94)	Indeno (1,2,3-cd) pyrene	17.53	276	1586518	50.58391 ppb		98
95)	Dibenz (a,h) anthracene	17.57	278	1407996	50.89516 ppb		99
96)	Benzo (g,h,i) perylene	18.11	276	1245326	49.87369 ppb		98

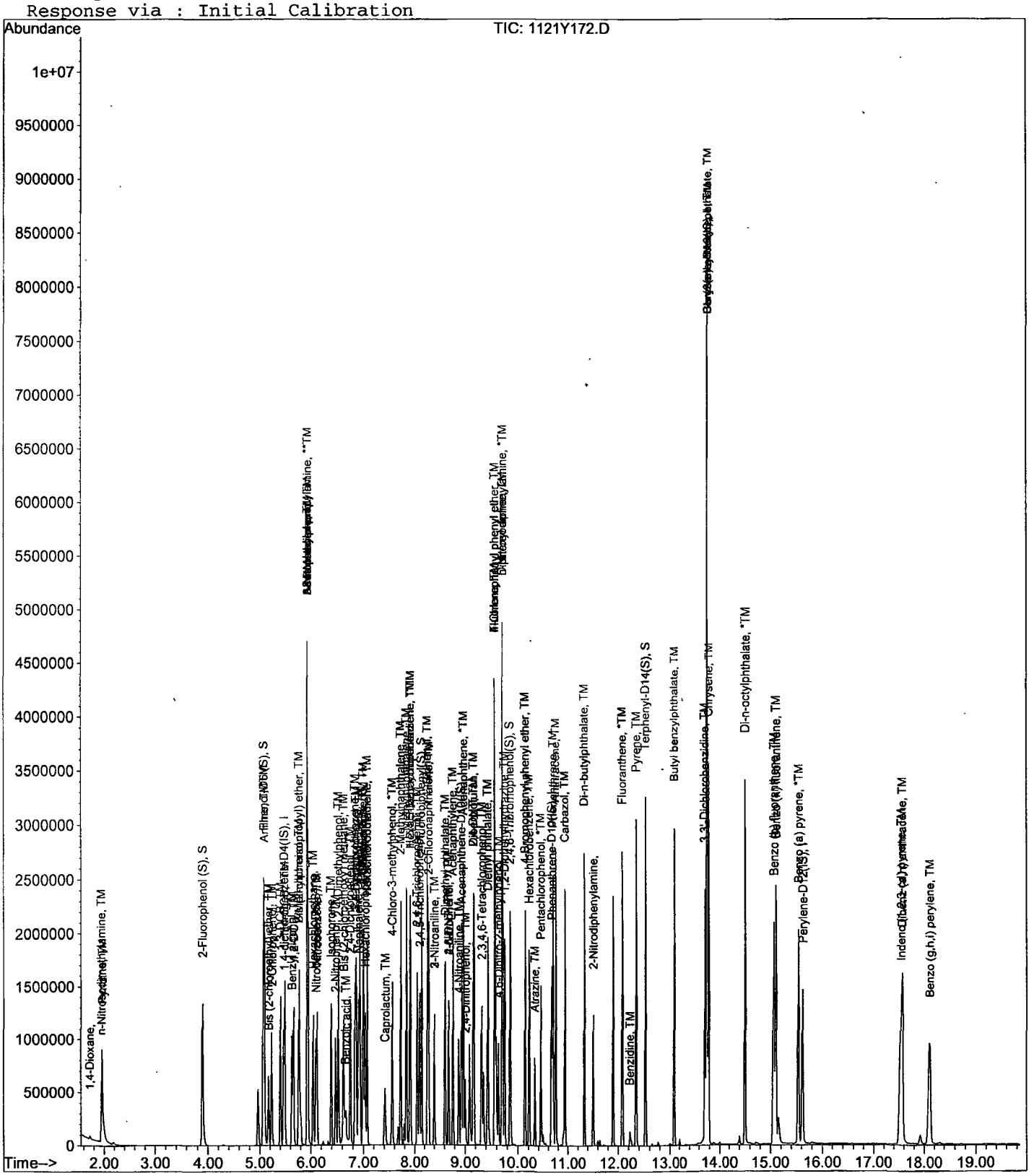
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y191121\1121Y172.D Vial: 72
Acq On : 27 Nov 19 5:11 Operator: MA,SS
Sample : 50ug/ml 8270 11/21/19 (2) Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 27 7:32 2019 Quant Results File: Y1121ND.RES

Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 18:04:15 2019
Response via : Initial Calibration



ORGANICS
Raw Data

Quantitation Report (QT Reviewed)

Data File : M:\YODA\DATA\Y191121\1121Y158.D Vial: 58
Acq On : 26 Nov 19 22:42 Operator: MA,SS
Sample : BA02090W19 2/800 Inst : Yoda
Misc : Multiplr: 1.25

Quant Time: Dec 3 11:56 2019 Quant Results File: Y1121ND.RES

Quant Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 18:04:15 2019
Response via : Initial Calibration
DataAcq Meth : SVOC1011

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.47	152	163278	40.00000 ppb	0.00
21) Napthalene-D8(IS)	6.91	136	648274	40.00000 ppb	0.00
41) Acenaphthene-D10(IS)	8.93	164	472509	40.00000 ppb	0.00
65) Phenanthrene-D10(IS)	10.66	188	952165	40.00000 ppb	0.00
80) Chrysene-D12(IS)	13.75	240	1039371	40.00000 ppb	0.00
90) Perylene-D12(IS)	15.61	264	963363	40.00000 ppb	0.00
System Monitoring Compounds					
5) 2-Fluorophenol (S)	3.91	112	934667	205.48674 ppb	0.00
Spiked Amount 250.000			Recovery	= 82.195%	
6) Phenol-D6 (S)	5.07	99	1230003	227.10316 ppb	0.00
Spiked Amount 250.000			Recovery	= 90.841%	
22) Nitrobenzene-D5(S)	6.09	82	750760	128.45597 ppb	0.00
Spiked Amount 125.000			Recovery	= 102.765%	
46) 2-Fluorobiphenyl(S)	8.14	172	1510524	106.87899 ppb	0.00
Spiked Amount 125.000			Recovery	= 85.503%	
64) 2,4,6-Tribromophenol(S)	9.85	330	616731	213.28253 ppb	0.00
Spiked Amount 250.000			Recovery	= 85.313%	
83) Terphenyl-D14(S)	12.52	244	2247908	108.13344 ppb	0.00
Spiked Amount 125.000			Recovery	= 86.506%	

Target Compounds Qvalue

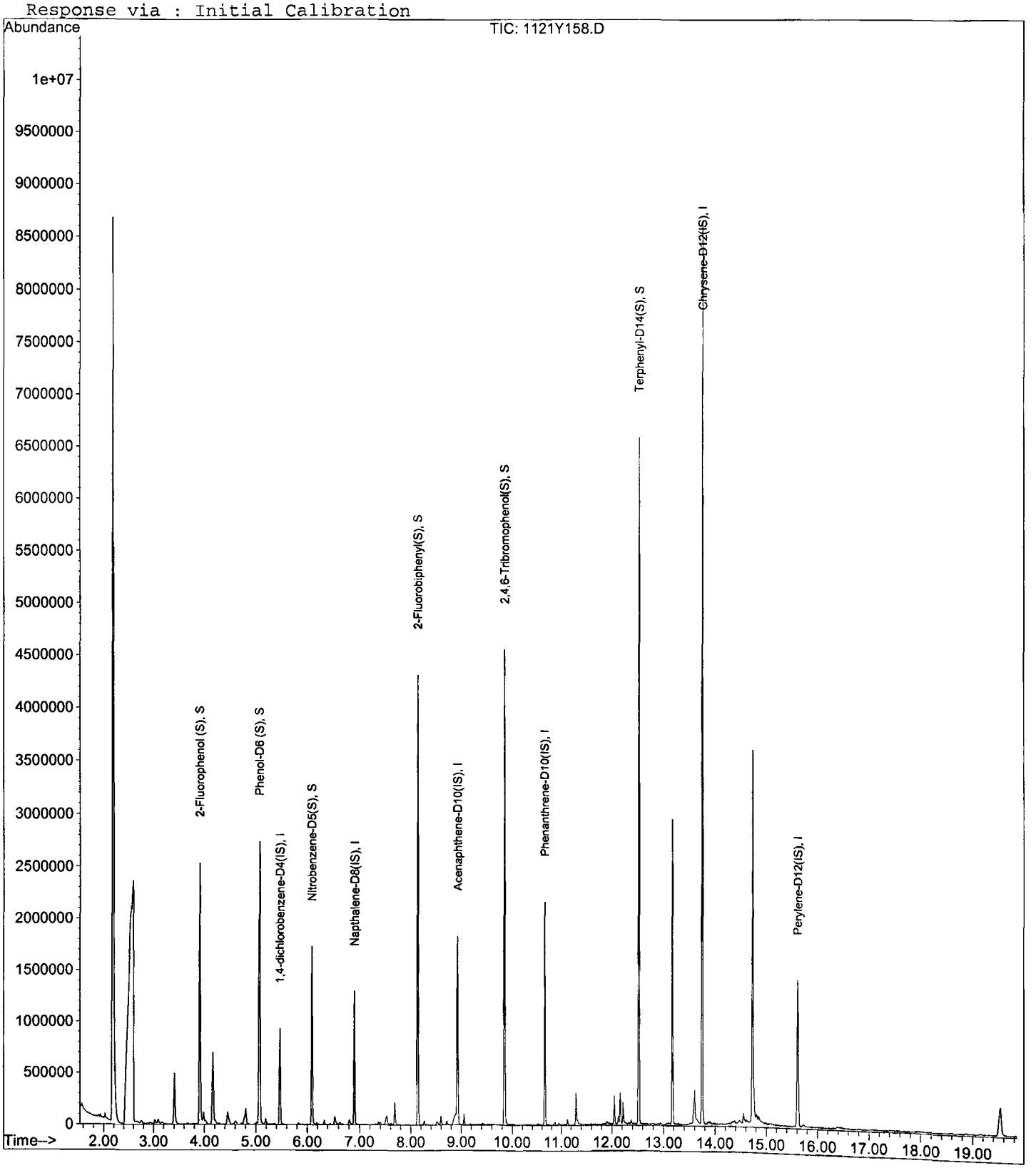
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y191121\1121Y158.D Vial: 58
Acq On : 26 Nov 19 22:42 Operator: MA,SS
Sample : BA02090W19 2/800 Inst : Yoda
Misc : Multiplr: 1.25

Quant Time: Dec 3 11:56 2019 Quant Results File: Y1121ND.RES

Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 18:04:15 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\YODA\DATA\Y191121\1121Y159.D Vial: 59
Acq On : 26 Nov 19 23:10 Operator: MA,SS
Sample : BA02091W14 2/800 Inst : Yoda
Misc : Multiplr: 1.25

Quant Time: Dec 3 11:59 2019 Quant Results File: Y1121ND.RES

Quant Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 18:04:15 2019
Response via : Initial Calibration
DataAcq Meth : SVOC1011

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.47	152	144024	40.00000 ppb	0.00
21) Napthalene-D8(IS)	6.91	136	593407	40.00000 ppb	0.00
41) Acenaphthene-D10(IS)	8.93	164	429374	40.00000 ppb	0.00
65) Phenanthrene-D10(IS)	10.66	188	880590	40.00000 ppb	0.00
80) Chrysene-D12(IS)	13.75	240	1054121	40.00000 ppb	0.00
90) Perylene-D12(IS)	15.62	264	904213	40.00000 ppb	0.00
System Monitoring Compounds					
5) 2-Fluorophenol (S)	3.91	112	929409	231.64694 ppb	0.00
Spiked Amount 250.000			Recovery	= 92.659%	
6) Phenol-D6 (S)	5.07	99	1217411	254.82793 ppb	0.00
Spiked Amount 250.000			Recovery	= 101.931%	
22) Nitrobenzene-D5(S)	6.09	82	701549	131.13455 ppb	0.00
Spiked Amount 125.000			Recovery	= 104.908%	
46) 2-Fluorobiphenyl(S)	8.14	172	1407359	109.58320 ppb	0.00
Spiked Amount 125.000			Recovery	= 87.666%	
64) 2,4,6-Tribromophenol(S)	9.85	330	530403	201.85514 ppb	0.00
Spiked Amount 250.000			Recovery	= 80.742%	
83) Terphenyl-D14(S)	12.52	244	2074254	98.38379 ppb	0.00
Spiked Amount 125.000			Recovery	= 78.707%	

Target Compounds Qvalue

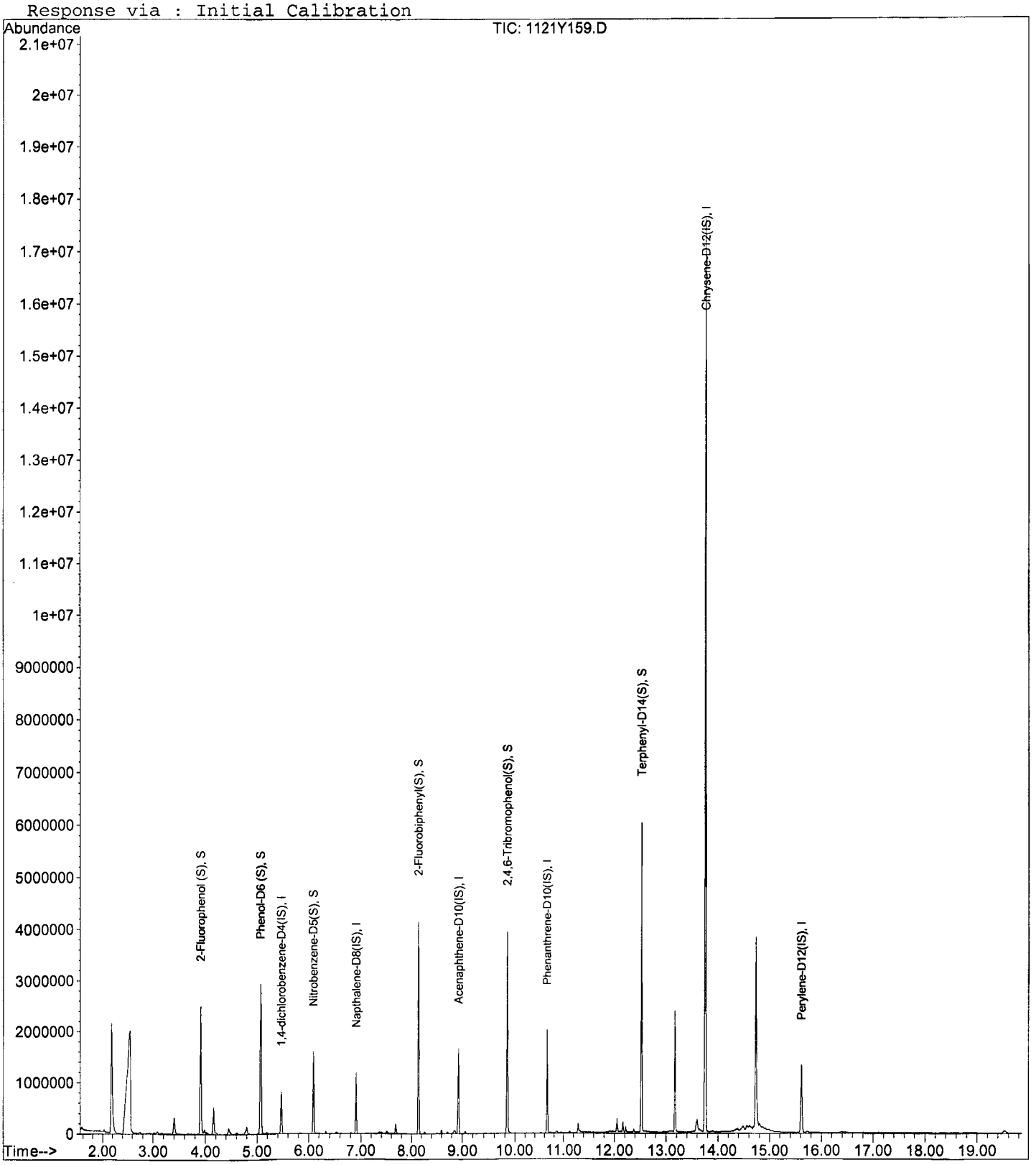
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y191121\1121Y159.D Vial: 59
Acq On : 26 Nov 19 23:10 Operator: MA,SS
Sample : BA02091W14 2/800 Inst : Yoda
Misc : Multiplr: 1.25

Quant Time: Dec 3 11:59 2019 Quant Results File: Y1121ND.RES

Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 18:04:15 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\YODA\DATA\Y191121\1121Y155.D Vial: 55
Acq On : 26 Nov 19 21:18 Operator: MA,SS
Sample : 191104A BLK 2/800 Inst : Yoda
Misc : Multiplr: 1.25

Quant Time: Dec 3 11:53 2019 Quant Results File: Y1121ND.RES

Quant Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 18:04:15 2019
Response via : Initial Calibration
DataAcq Meth : SVOC1011

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.47	152	174092	40.00000 ppb	0.00
21) Napthalene-D8(IS)	6.91	136	683374	40.00000 ppb	0.00
41) Acenaphthene-D10(IS)	8.93	164	442513	40.00000 ppb	0.00
65) Phenanthrene-D10(IS)	10.66	188	890536	40.00000 ppb	0.00
80) Chrysene-D12(IS)	13.75	240	909385	40.00000 ppb	0.00
90) Perylene-D12(IS)	15.62	264	920577	40.00000 ppb	0.00
System Monitoring Compounds					
5) 2-Fluorophenol (S)	3.91	112	1025276	211.40563 ppb	0.00
Spiked Amount 250.000			Recovery	= 84.562%	
6) Phenol-D6 (S)	5.07	99	1306134	226.17968 ppb	-0.01
Spiked Amount 250.000			Recovery	= 90.472%	
22) Nitrobenzene-D5(S)	6.09	82	731731	118.76946 ppb	-0.01
Spiked Amount 125.000			Recovery	= 95.015%	
46) 2-Fluorobiphenyl(S)	8.14	172	1480607	111.86355 ppb	0.00
Spiked Amount 125.000			Recovery	= 89.491%	
64) 2,4,6-Tribromophenol(S)	9.85	330	609236	224.97233 ppb	0.00
Spiked Amount 250.000			Recovery	= 89.989%	
83) Terphenyl-D14(S)	12.52	244	2189854	120.39805 ppb	0.00
Spiked Amount 125.000			Recovery	= 96.318%	

Target Compounds Qvalue

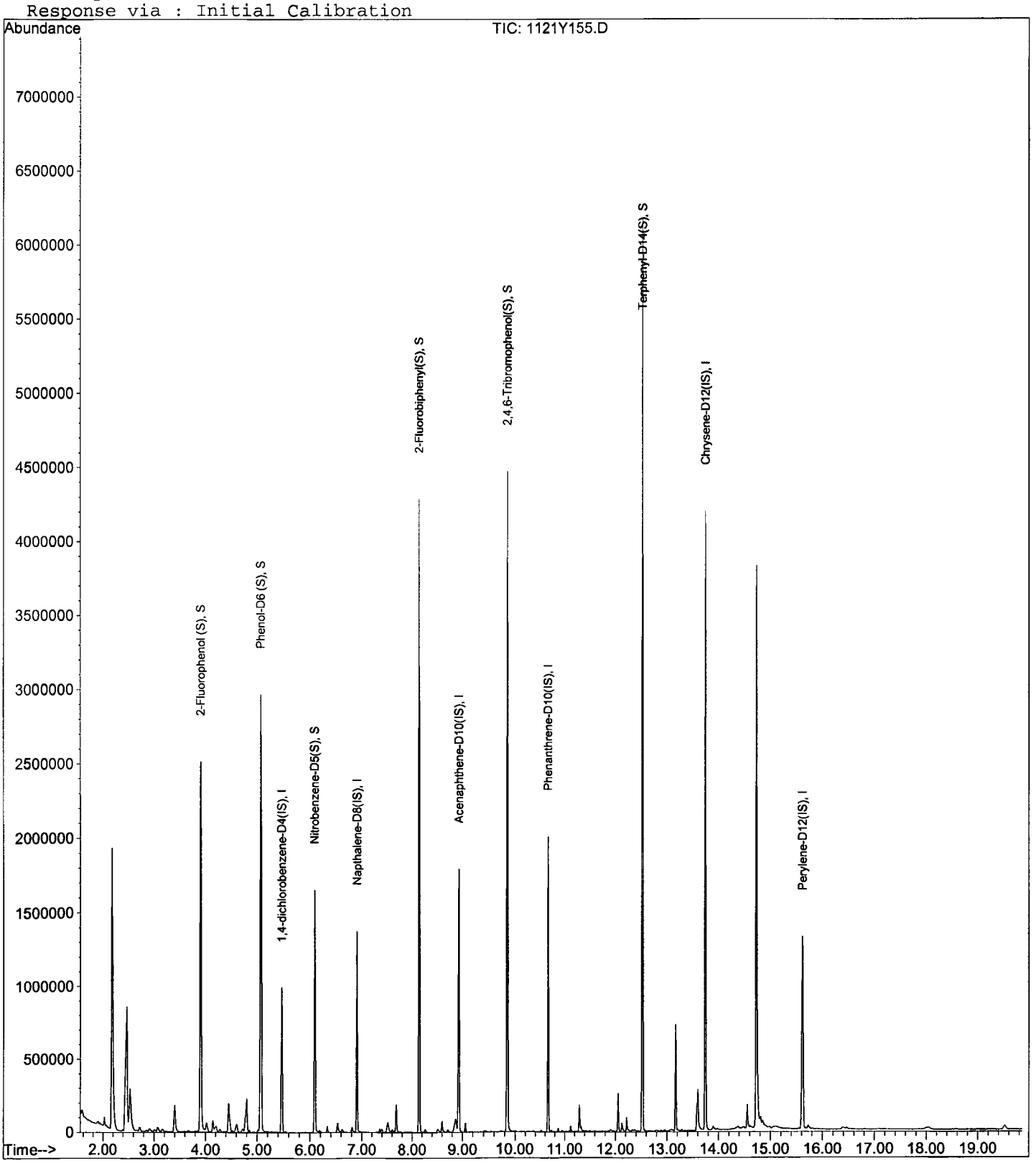
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y191121\1121Y155.D Vial: 55
Acq On : 26 Nov 19 21:18 Operator: MA,SS
Sample : 191104A BLK 2/800 Inst : Yoda
Misc : Multiplr: 1.25

Quant Time: Dec 3 11:53 2019 Quant Results File: Y1121ND.RES

Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 18:04:15 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y191121\1121Y156.D Vial: 56
Acq On : 26 Nov 19 21:46 Operator: MA,SS
Sample : 191104A LCS-1 2/800 Inst : Yoda
Misc : Multiplr: 1.25

Quant Time: Nov 27 8:02 2019 Quant Results File: Y1121ND.RES

Quant Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 18:04:15 2019
Response via : Initial Calibration
DataAcq Meth : SVOC1011

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.47	152	150012	40.00000 ppb		0.00
21) Napthalene-D8(IS)	6.91	136	600754	40.00000 ppb		0.00
41) Acenaphthene-D10(IS)	8.93	164	417278	40.00000 ppb		0.00
65) Phenanthrene-D10(IS)	10.67	188	853592	40.00000 ppb		0.00
80) Chrysene-D12(IS)	13.76	240	1179958	40.00000 ppb		0.00
90) Perylene-D12(IS)	15.62	264	888601	40.00000 ppb		0.00
System Monitoring Compounds						
5) 2-Fluorophenol (S)	3.91	112	1002367	239.85862 ppb		0.00
Spiked Amount 250.000			Recovery	= 95.944%		
6) Phenol-D6 (S)	5.08	99	1297655	260.78218 ppb		0.00
Spiked Amount 250.000			Recovery	= 104.313%		
22) Nitrobenzene-D5(S)	6.10	82	686931	126.83182 ppb		0.00
Spiked Amount 125.000			Recovery	= 101.466%		
46) 2-Fluorobiphenyl(S)	8.15	172	1377704	110.38378 ppb		0.00
Spiked Amount 125.000			Recovery	= 88.307%		
64) 2,4,6-Tribromophenol(S)	9.86	330	590841	231.37409 ppb		0.00
Spiked Amount 250.000			Recovery	= 92.550%		
83) Terphenyl-D14(S)	12.52	244	2043176	86.57476 ppb		0.00
Spiked Amount 125.000			Recovery	= 69.260%		
Target Compounds						Qvalue
2) 1,4-Dioxane	1.72	58	8724	6.26157		97
3) n-Nitrosodimethylamine	1.94	42	170662	80.72067 ppb		98
4) Pyridine	1.97	79	257399	49.22609 ppb		99
7) Phenol	5.10	94	409296	69.64817 ppb		89
8) Aniline	5.10	93	64712	18.64812 ppb	#	1
9) Bis (2-chloroethyl) ether	5.17	63	188247	74.98262 ppb		93
10) 2-Chlorophenol	5.24	128	309646	69.57921 ppb		94
11) 1,3-DCB	5.40	146	297762	59.05260 ppb		98
12) 1,4-DCB	5.49	146	305086	59.55317 ppb		97
13) Benzyl alcohol	5.64	108	177530	70.17148 ppb		96
14) 1,2-DCB	5.66	146	290793	60.76032 ppb		97
15) 2-Methylphenol	5.77	107	268820	74.57417 ppb		97
16) Bis (2-chloroisopropyl) et	5.78	45	225958	80.53850 ppb	#	68
17) Acetophenone	5.92	105	481917	74.36121 ppb		82
18) 3&4-Methylphenol	5.94	107	717426	145.10880 ppb		100
19) n-Nitrosodi-n-propylamine	5.93	70	283826	76.87983 ppb		96
20) Hexachloroethane	6.04	117	111182	54.71234 ppb		92
23) Nitrobenzene	6.12	77	415854	75.09896 ppb		97
24) Isophorone	6.39	82	643393	71.67227 ppb		95
25) 2-Nitrophenol	6.48	139	177235	69.99230 ppb		97
26) 2,4-Dimethylphenol	6.53	122	279024	70.73922 ppb		99
27) Benzoic acid	6.68	105	280628	75.67835 ppb		99
28) Bis (2-chloroethoxy) metha	6.63	93	334094	69.02460 ppb		98
29) 2,4-Dichlorophenol	6.76	162	279403	68.79353 ppb		98
30) 1,2,4-Trichlorobenzene	6.84	180	280779	59.73803 ppb		96
31) 3,4-Dimethylphenol	6.86	107	457727	71.77792 ppb		99
32) Naphthalene	6.94	128	858639	66.32643 ppb		100
33) 4-Chloroaniline	7.00	127	27505	6.03026 ppb	#	78
34) 2,6-Dichlorophenol	7.00	162	268048	68.15580 ppb		96
35) Hexachloropropene	7.04	213	88439	21.61518 ppb		99
36) Hexachlorobutadiene	7.07	225	167393	50.43190 ppb		99
37) Caprolactum	7.41	55	109970	77.03415 ppb		89

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y191121\1121Y156.D Vial: 56
Acq On : 26 Nov 19 21:46 Operator: MA,SS
Sample : 191104A LCS-1 2/800 Inst : Yoda
Misc : Multiplr: 1.25

Quant Time: Nov 27 8:02 2019 Quant Results File: Y1121ND.RES

Quant Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 18:04:15 2019
Response via : Initial Calibration
DataAcq Meth : SVOC1011

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
38)	4-Chloro-3-methylphenol	7.56	107	331132	72.25616	ppb		91
39)	2-Methylnaphthalene	7.72	142	584393	66.23743	ppb		99
40)	1-Methylnaphthalene	7.84	142	616888	67.62934	ppb		100
42)	Hexachlorocyclopentadiene	7.91	237	53200	12.54483	ppb		98
43)	1,2,4,5-Tetrachlorobenzene	7.92	216	328401	55.98081	ppb		100
44)	2,4,6-Trichlorophenol	8.06	196	234961	62.90820	ppb		97
45)	2,4,5-Trichlorophenol	8.10	196	243042	61.11922	ppb	#	87
47)	1,1'-Biphenyl	8.26	154	779609	61.44749	ppb		99
48)	2-Chloronaphthalene	8.29	162	630149	60.69636	ppb		99
49)	2-Nitroaniline	8.40	65	142393	43.26962	ppb		95
50)	Dimethyl phthalate	8.62	163	843658	66.53970	ppb		100
51)	2,6-DNT	8.69	165	183119	64.58068	ppb		80
52)	Acenaphthylene	8.76	152	952252	59.67780	ppb		100
53)	3-Nitroaniline	8.40	138	128039	39.34634	ppb		99
54)	Acenaphthene	8.97	154	623609	57.81003	ppb		99
55)	2,4-Dinitrophenol	9.01	184	93422	49.30911	ppb		94
56)	4-Nitrophenol	8.68	65	14681	70.70049	ppb		99
57)	Dibenzofuran	9.17	168	924809	61.47125	ppb		99
58)	2,4-DNT	9.15	165	257623	63.90244	ppb		84
59)	2,3,4,6-Tetrachlorophenol	9.32	232	209573	62.38146	ppb		98
60)	Diethyl phthalate	9.43	149	843289	65.17140	ppb		95
61)	4-Chlorophenyl phenyl ethe	9.56	204	462757	62.51371	ppb	#	84
62)	Fluorene	9.57	166	810454	64.26002	ppb		99
63)	4-Nitroaniline	8.88	138	28838	11.13850	ppb		99
66)	4,6-Dinitro-2-methylphenol	9.64	198	135350	47.83571	ppb		95
67)	Diphenyl amine	9.71	169	796279	75.89789	ppb		99
68)	n-Nitrosodiphenylamine	9.71	169	796279	75.89789	ppb		99
69)	1,2-Diphenylhydrazine	9.75	77	649736	50.04042	ppb	#	85
70)	4-Bromophenyl phenyl ether	10.14	248	270202	59.62638	ppb		99
71)	Hexachlorobenzene	10.21	284	266763	55.70081	ppb	#	75
72)	Atrazine	10.32	200	34598	8.66086	ppb		97
73)	Pentachlorophenol	10.44	266	183001	58.82004	ppb		99
74)	Phenanthrene	10.69	178	1114472	60.30508	ppb		100
75)	Anthracene	10.75	178	1127153	58.09394	ppb		100
76)	Carbazol	10.94	167	961828	55.08285	ppb		99
77)	Di-n-butylphthalate	11.34	149	1461171	64.25795	ppb		99
78)	2-Nitrodiphenylamine	11.51	167	7435	1.37607	ppb		97
79)	Fluoranthene	12.08	202	1366910	60.77933	ppb		99
82)	Pyrene	12.35	202	1389313	48.45367	ppb		100
84)	Butyl benzylphthalate	13.09	149	664662	51.06687	ppb		97
85)	3,3'-Dichlorobenzidine	13.70	252	30928	3.59313	ppb		98
86)	Benz (a) anthracene	13.74	228	1530981	48.69414	ppb		100
87)	Bis (2-ethylhexyl) phthala	13.76	149	3442060	172.02748	ppb	#	92
88)	Chrysene	13.79	228	1329301	47.45759	ppb		100
89)	Di-n-octylphthalate	14.51	149	1687020	53.78166	ppb		96
91)	Benzo (b) fluoranthene	15.07	252	1377259	61.26823	ppb		99
92)	Benzo (k) fluoranthene	15.10	252	1255218	60.60545	ppb	#	98
93)	Benzo (a) pyrene	15.54	252	1162989	57.94100	ppb		99
94)	Indeno (1,2,3-cd) pyrene	17.53	276	1403478	58.89413	ppb		98
95)	Dibenz (a,h) anthracene	17.57	278	1245481	59.25312	ppb		99
96)	Benzo (g,h,i) perylene	18.11	276	1109564	58.48437	ppb		100

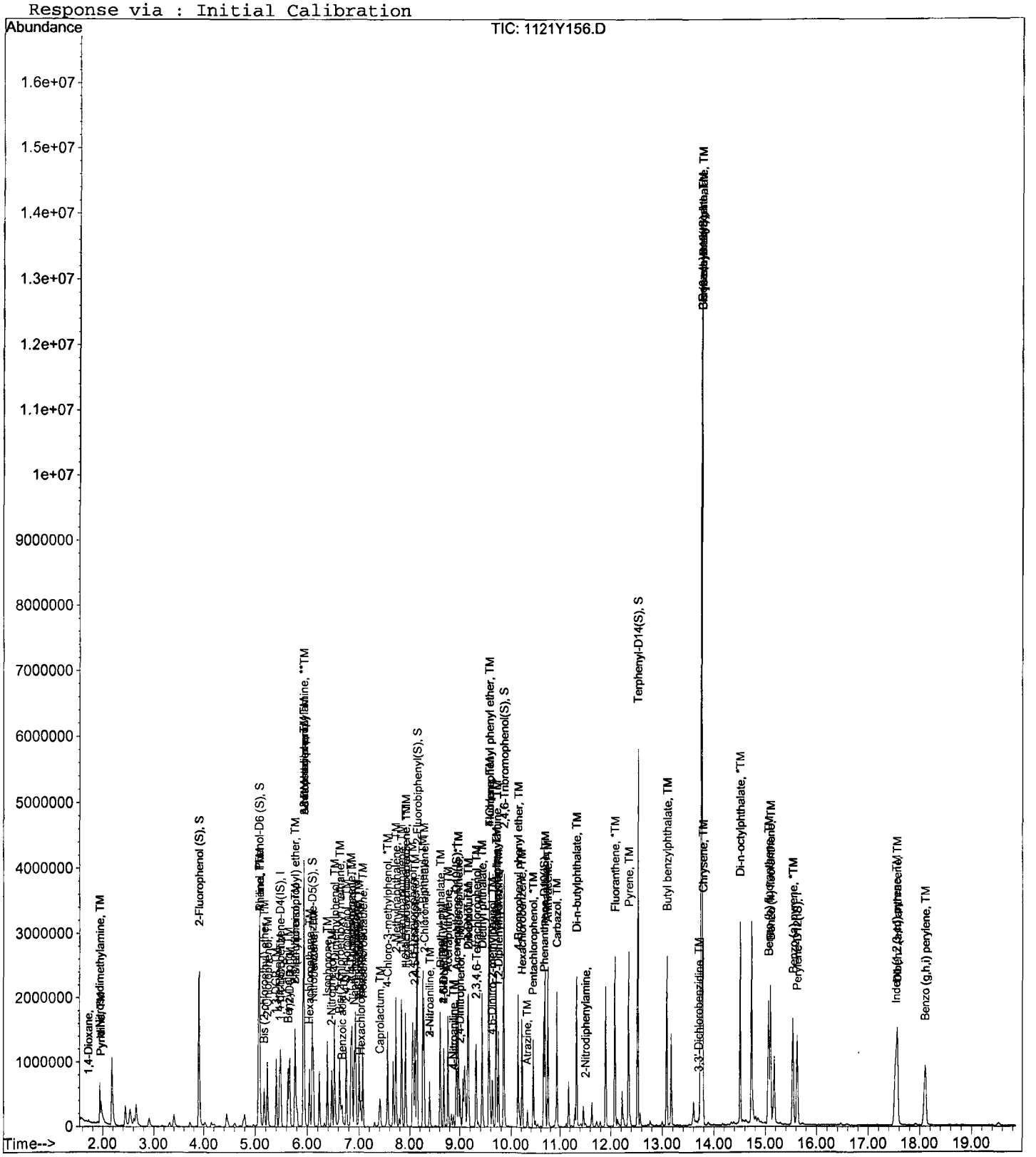
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y191121\1121Y156.D Vial: 56
Acq On : 26 Nov 19 21:46 Operator: MA,SS
Sample : 191104A LCS-1 2/800 Inst : Yoda
Misc : Multiplr: 1.25

Quant Time: Nov 27 8:02 2019 Quant Results File: Y1121ND.RES

Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 18:04:15 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y191121\1121Y157.D Vial: 57
Acq On : 26 Nov 19 22:14 Operator: MA,SS
Sample : 191104A LCSD-1 2/800 Inst : Yoda
Misc : Multiplr: 1.25

Quant Time: Nov 27 8:02 2019 Quant Results File: Y1121ND.RES

Quant Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 18:04:15 2019
Response via : Initial Calibration
DataAcq Meth : SVOC1011

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.47	152	138243	40.00000 ppb		0.00
21) Napthalene-D8(IS)	6.91	136	560201	40.00000 ppb		0.00
41) Acenaphthene-D10(IS)	8.93	164	405413	40.00000 ppb		0.00
65) Phenanthrene-D10(IS)	10.66	188	822436	40.00000 ppb		0.00
80) Chrysene-D12(IS)	13.75	240	1006521	40.00000 ppb		0.00
90) Perylene-D12(IS)	15.63	264	875772	40.00000 ppb		0.01
System Monitoring Compounds						
5) 2-Fluorophenol (S)	3.90	112	989505	256.93864 ppb		0.00
Spiked Amount 250.000			Recovery	= 102.776%		
6) Phenol-D6 (S)	5.08	99	1297791	283.01293 ppb		0.00
Spiked Amount 250.000			Recovery	= 113.205%		
22) Nitrobenzene-D5(S)	6.10	82	680099	134.66044 ppb		0.00
Spiked Amount 125.000			Recovery	= 107.728%		
46) 2-Fluorobiphenyl(S)	8.14	172	1344694	110.89210 ppb		0.00
Spiked Amount 125.000			Recovery	= 88.714%		
64) 2,4,6-Tribromophenol(S)	9.86	330	569779	229.65630 ppb		0.00
Spiked Amount 250.000			Recovery	= 91.862%		
83) Terphenyl-D14(S)	12.53	244	2014105	100.04868 ppb		0.00
Spiked Amount 125.000			Recovery	= 80.039%		
Target Compounds						Qvalue
2) 1,4-Dioxane	1.71	58	8448	6.57968		100
3) n-Nitrosodimethylamine	1.94	42	165355	84.86881 ppb		93
4) Pyridine	1.96	79	346814	71.97273 ppb		97
7) Phenol	5.09	94	425312	78.53490 ppb		90
8) Aniline	5.09	93	203328	63.58141 ppb	#	47
9) Bis (2-chloroethyl) ether	5.17	63	186617	80.66156 ppb		96
10) 2-Chlorophenol	5.24	128	306127	74.64462 ppb		96
11) 1,3-DCB	5.41	146	288569	62.10153 ppb		99
12) 1,4-DCB	5.49	146	299212	63.37887 ppb		97
13) Benzyl alcohol	5.63	108	181662	77.91764 ppb		87
14) 1,2-DCB	5.66	146	286588	64.97959 ppb		98
15) 2-Methylphenol	5.77	107	261593	78.74733 ppb		96
16) Bis (2-chloroisopropyl) et	5.78	45	224359	86.77650 ppb	#	82
17) Acetophenone	5.93	105	479129	80.22496 ppb		86
18) 3&4-Methylphenol	5.94	107	706210	155.00059 ppb		97
19) n-Nitrosodi-n-propylamine	5.94	70	283204	83.24199 ppb		97
20) Hexachloroethane	6.05	117	110262	58.87888 ppb		84
23) Nitrobenzene	6.12	77	409995	79.40071 ppb		100
24) Isophorone	6.39	82	645078	77.06192 ppb		96
25) 2-Nitrophenol	6.47	139	175265	74.22475 ppb		85
26) 2,4-Dimethylphenol	6.53	122	250472	68.09742 ppb		98
27) Benzoic acid	6.67	105	246747	71.62861 ppb		98
28) Bis (2-chloroethoxy) metha	6.62	93	338600	75.01964 ppb		98
29) 2,4-Dichlorophenol	6.75	162	275636	72.77886 ppb		95
30) 1,2,4-Trichlorobenzene	6.84	180	275337	62.82082 ppb		98
31) 3,4-Dimethylphenol	6.86	107	454029	76.35205 ppb		98
32) Naphthalene	6.94	128	860465	71.27907 ppb		99
33) 4-Chloroaniline	6.99	127	174399	41.00349 ppb		99
34) 2,6-Dichlorophenol	7.00	162	266739	72.73268 ppb		96
35) Hexachloropropene	7.03	213	93007	24.37718 ppb		99
36) Hexachlorobutadiene	7.08	225	168655	54.49040 ppb		100
37) Caprolactum	7.41	55	113079	84.94617 ppb		96

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y191121\1121Y157.D Vial: 57
Acq On : 26 Nov 19 22:14 Operator: MA,SS
Sample : 191104A LCSD-1 2/800 Inst : Yoda
Misc : Multiplr: 1.25

Quant Time: Nov 27 8:02 2019 Quant Results File: Y1121ND.RES

Quant Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 18:04:15 2019
Response via : Initial Calibration
DataAcq Meth : SVOC1011

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
38)	4-Chloro-3-methylphenol	7.56	107	326475	76.39703 ppb		96
39)	2-Methylnaphthalene	7.73	142	585352	71.14892 ppb		100
40)	1-Methylnaphthalene	7.84	142	600381	70.58437 ppb		99
42)	Hexachlorocyclopentadiene	7.91	237	46872	11.37613 ppb		98
43)	1,2,4,5-Tetrachlorobenzene	7.92	216	325126	57.04456 ppb		98
44)	2,4,6-Trichlorophenol	8.05	196	230717	63.57976 ppb		98
45)	2,4,5-Trichlorophenol	8.11	196	239542	62.00204 ppb		95
47)	1,1'-Biphenyl	8.27	154	774901	62.86391 ppb		99
48)	2-Chloronaphthalene	8.29	162	617692	61.23775 ppb		99
49)	2-Nitroaniline	8.40	65	218647	68.38578 ppb		98
50)	Dimethyl phthalate	8.61	163	841414	68.30492 ppb		99
51)	2,6-DNT	8.68	165	179924	65.31097 ppb		98
52)	Acenaphthylene	8.77	152	968358	62.46327 ppb		99
53)	3-Nitroaniline	8.40	138	198901	62.91104 ppb		99
54)	Acenaphthene	8.97	154	666328	63.57797 ppb		99
55)	2,4-Dinitrophenol	9.01	184	91626	49.77652 ppb		99
56)	4-Nitrophenol	8.68	65	14571	72.22440 ppb		100
57)	Dibenzofuran	9.17	168	922162	63.08920 ppb		98
58)	2,4-DNT	9.16	165	255374	65.19845 ppb		95
59)	2,3,4,6-Tetrachlorophenol	9.31	232	203597	62.37627 ppb	#	91
60)	Diethyl phthalate	9.43	149	818199	65.08297 ppb		96
61)	4-Chlorophenyl phenyl ethe	9.56	204	456413	63.46117 ppb		89
62)	Fluorene	9.57	166	795776	64.94282 ppb		100
63)	4-Nitroaniline	8.88	138	136446	54.24381 ppb		96
66)	4,6-Dinitro-2-methylphenol	9.64	198	136332	50.00806 ppb		94
67)	Diphenyl amine	9.71	169	1225625	121.24679 ppb		99
68)	n-Nitrosodiphenylamine	9.71	169	1225625	121.24679 ppb		99
69)	1,2-Diphenylhydrazine	9.75	77	829947	66.34109 ppb		88
70)	4-Bromophenyl phenyl ether	10.14	248	261807	59.96245 ppb		95
71)	Hexachlorobenzene	10.21	284	267387	57.94613 ppb	#	82
72)	Atrazine	10.33	200	96546	25.08376 ppb		97
73)	Pentachlorophenol	10.45	266	176286	58.80820 ppb		98
74)	Phenanthrene	10.70	178	1088739	61.14441 ppb		99
75)	Anthracene	10.75	178	1136847	60.81325 ppb		99
76)	Carbazol	10.94	167	1052079	62.53391 ppb		99
77)	Di-n-butylphthalate	11.34	149	1447537	66.06991 ppb		98
78)	2-Nitrodiphenylamine	11.51	167	5706	1.09607 ppb		94
79)	Fluoranthene	12.08	202	1327524	61.26417 ppb		100
81)	Benzidine	12.23	184	28664	4.79896 ppb	#	94
82)	Pyrene	12.35	202	1393214	56.96238 ppb		100
84)	Butyl benzylphthalate	13.08	149	663043	59.72055 ppb		79
85)	3,3'-Dichlorobenzidine	13.70	252	357212	48.65089 ppb		97
86)	Benz (a) anthracene	13.74	228	1494248	55.71515 ppb		100
87)	Bis (2-ethylhexyl) phthala	13.75	149	1708731	100.11446 ppb		98
88)	Chrysene	13.79	228	1310591	54.85210 ppb		99
89)	Di-n-octylphthalate	14.51	149	1643179	61.41048 ppb		99
91)	Benzo (b) fluoranthene	15.07	252	1451844	65.53230 ppb		100
92)	Benzo (k) fluoranthene	15.11	252	1161209	56.88774 ppb		99
93)	Benzo (a) pyrene	15.54	252	1178813	59.58968 ppb		98
94)	Indeno (1,2,3-cd) pyrene	17.54	276	1403370	59.75226 ppb		99
95)	Dibenz (a,h) anthracene	17.56	278	1249306	60.30574 ppb		98
96)	Benzo (g,h,i) perylene	18.11	276	1104140	59.05101 ppb		99

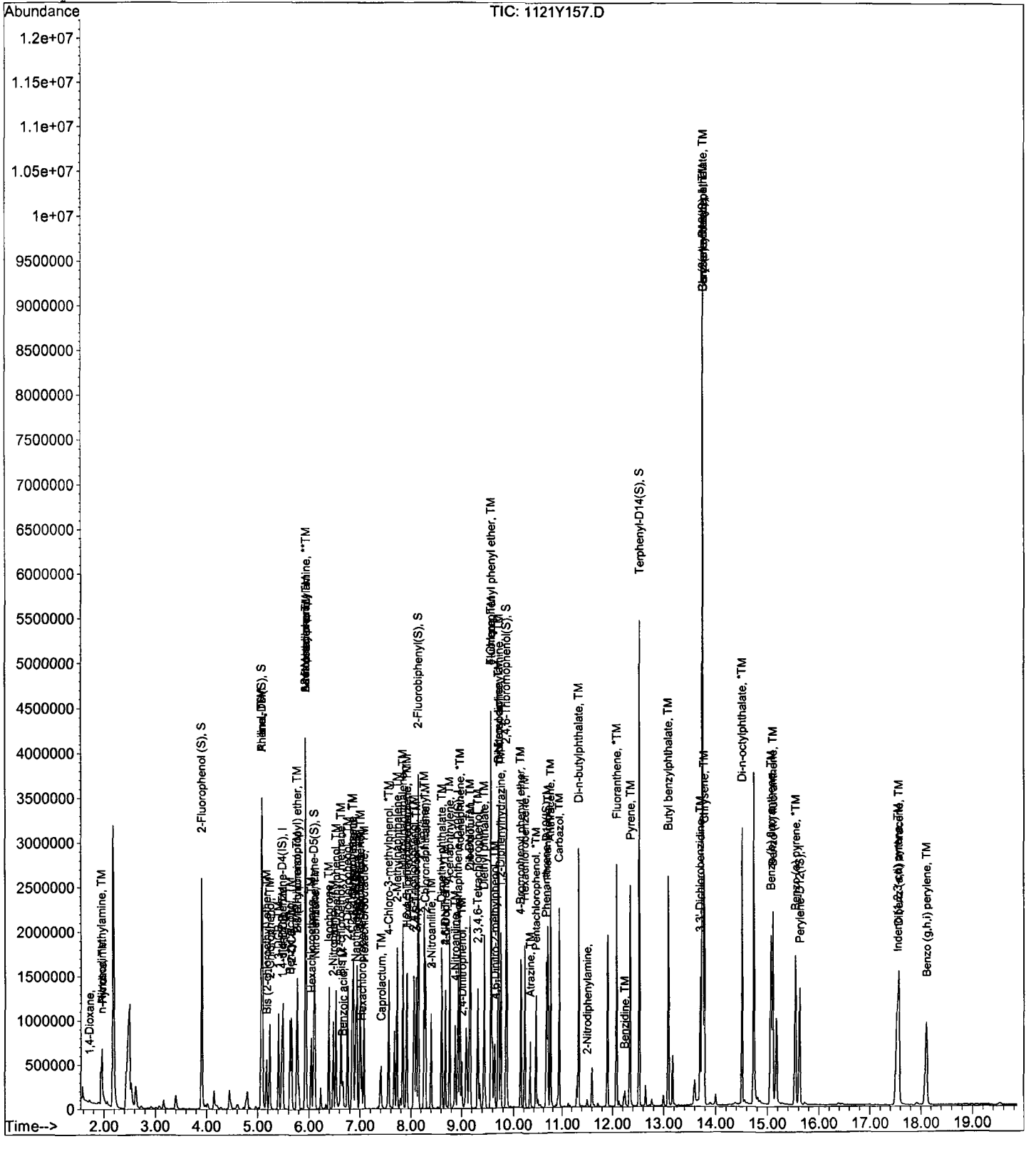
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y191121\1121Y157.D Vial: 57
Acq On : 26 Nov 19 22:14 Operator: MA,SS
Sample : 191104A LCSD-1 2/800 Inst : Yoda
Misc : Multiplr: 1.25

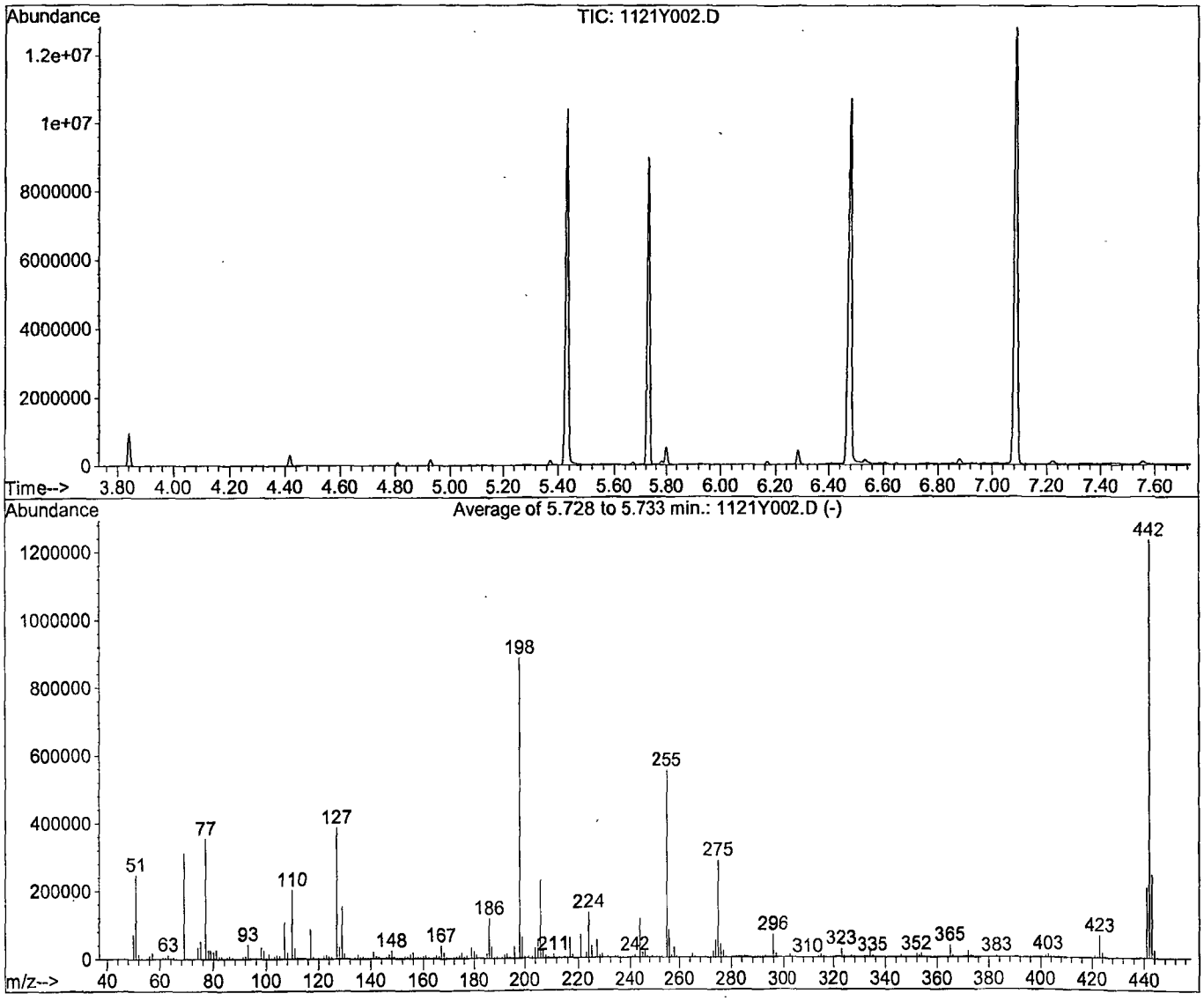
Quant Time: Nov 27 8:02 2019 Quant Results File: Y1121ND.RES

Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 18:04:15 2019
Response via : Initial Calibration



Data File : M:\YODA\DATA\Y191121\1121Y002.D Vial: 2
Acq On : 21 Nov 19 13:52 Operator: MA,SS
Sample : SV TUNE 10/01/19 Inst : Yoda
Misc : Multiplr: 1.00

Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C



Spectrum Information: Average of 5.728 to 5.733 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	27.9	246367	PASS
68	69	0.00	2	0.0	0	PASS
70	69	0.00	2	0.7	2239	PASS
127	198	10	80	43.6	385771	PASS
197	198	0.00	2	0.0	0	PASS
198	198	100	100	100.0	884437	PASS
199	198	5	9	6.9	61053	PASS
275	198	10	60	32.2	284928	PASS
365	198	1	100	3.9	34467	PASS
441	442	0.01	24	16.6	205141	PASS
442	198	50	500	139.4	1232555	PASS
443	442	15	24	19.7	243243	PASS

Data File Name:	**1121Y002.D**
Data File Path:	**M:\YODA\DATA\Y191121**
Operator:	**MA,SS**
Date Acquired:	**21 Nov 2019 13:52**
Method File:	**DFTPP2.M**
Sample Name:	**SV TUNE 10/01/19**
Vial Number:	**2**
Instrument Name:	**Yoda**

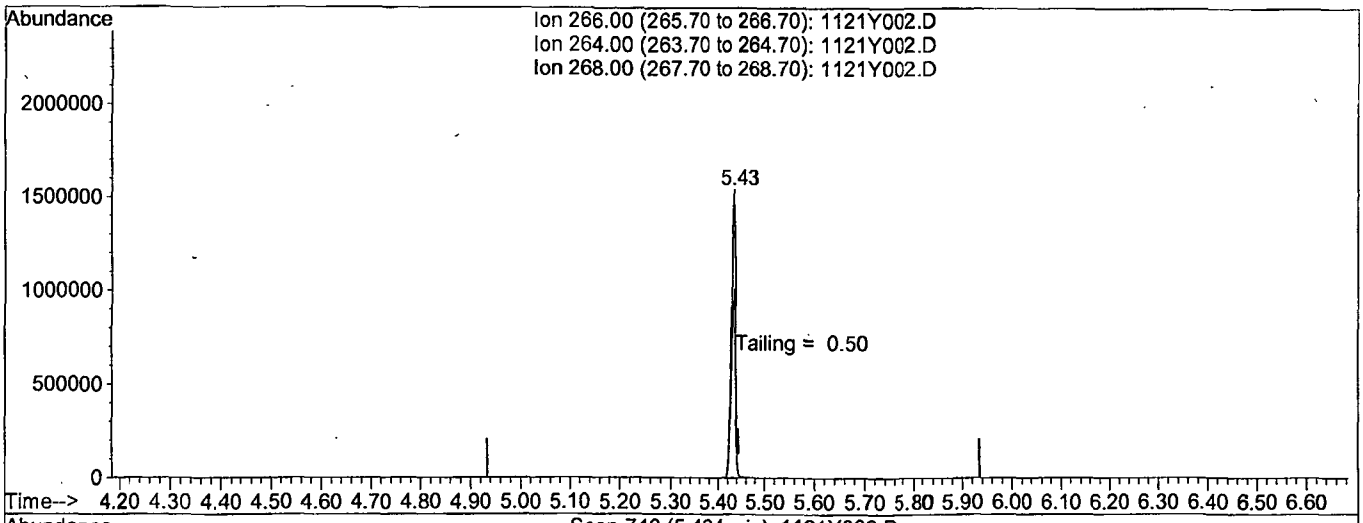
#	Name	Ret Time	Target Response
1)	DDT	7.09	103687000
2)	DDD	6.88	1239160
3)	DDE	6.61	214961

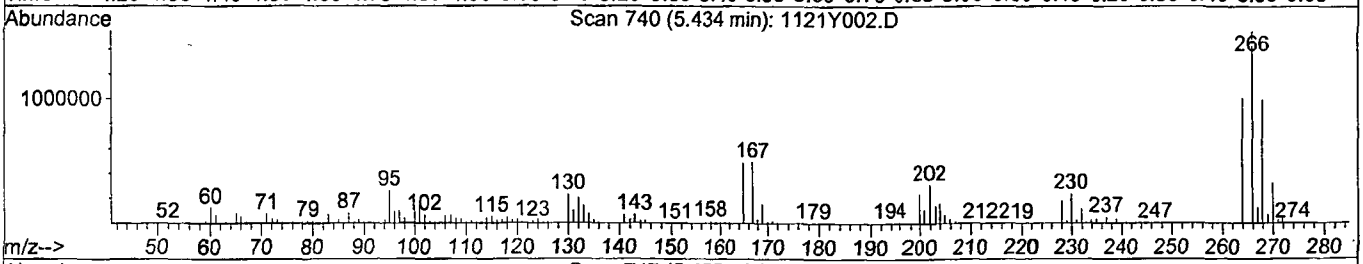
Breakdown **1.38**

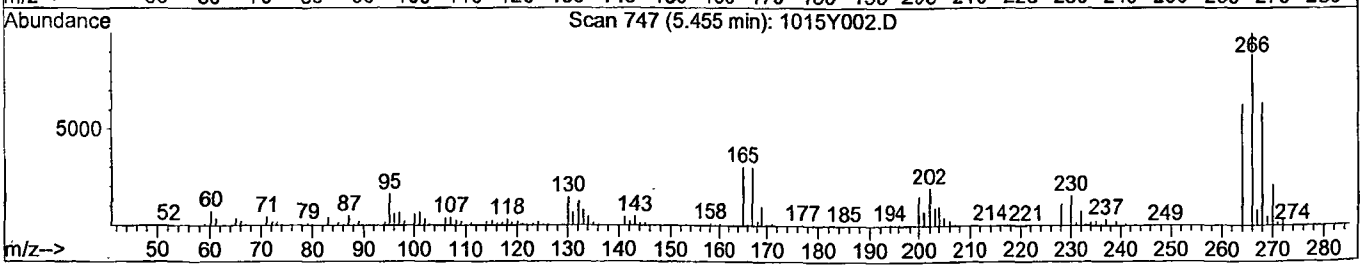
Quantitation Report

Data File : M:\YODA\DATA\Y191121\1121Y002.D Vial: 2
Acq On : 21 Nov 19 13:52 Operator: MA,SS
Sample : SV TUNE 10/01/19 Inst : Yoda
Misc : Multiplr: 1.00
Quant Time: Nov 25 11:35 2019 Quant Results File: temp.res

Method : M:\YODA\DATA\Y191121\DFTPP2.M (Chemstation Integrator)
Title :
Last Update : Mon Nov 25 11:35:23 2019
Response via : Single Level Calibration







TIC: 1121Y002.D

(5) Pentachlorophenol

5.43min 0.0000

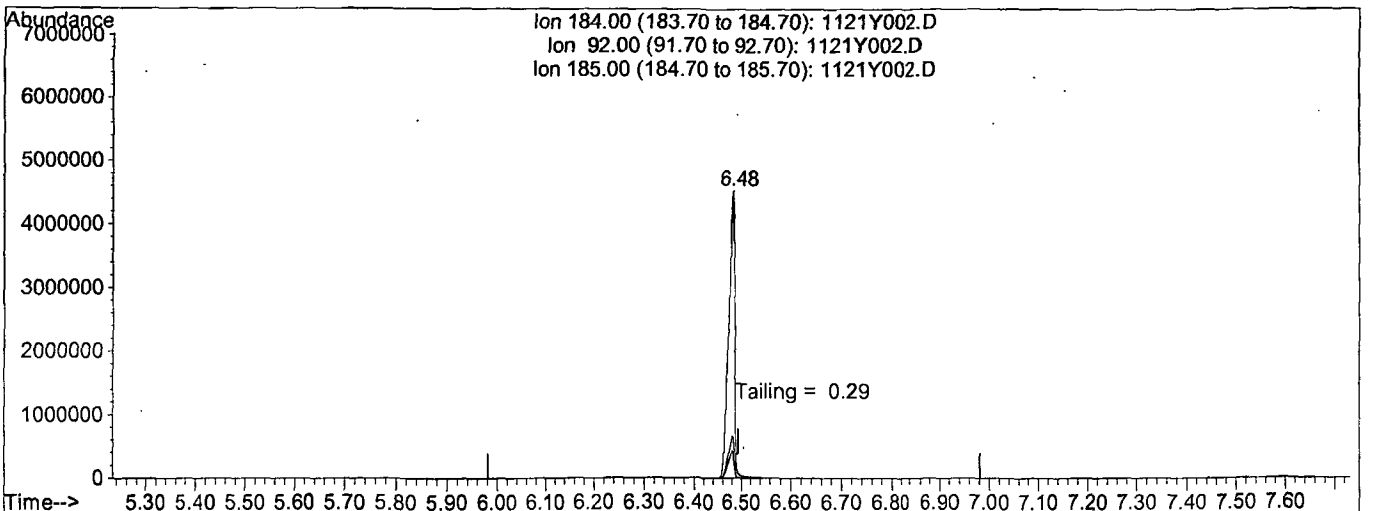
response 10183664

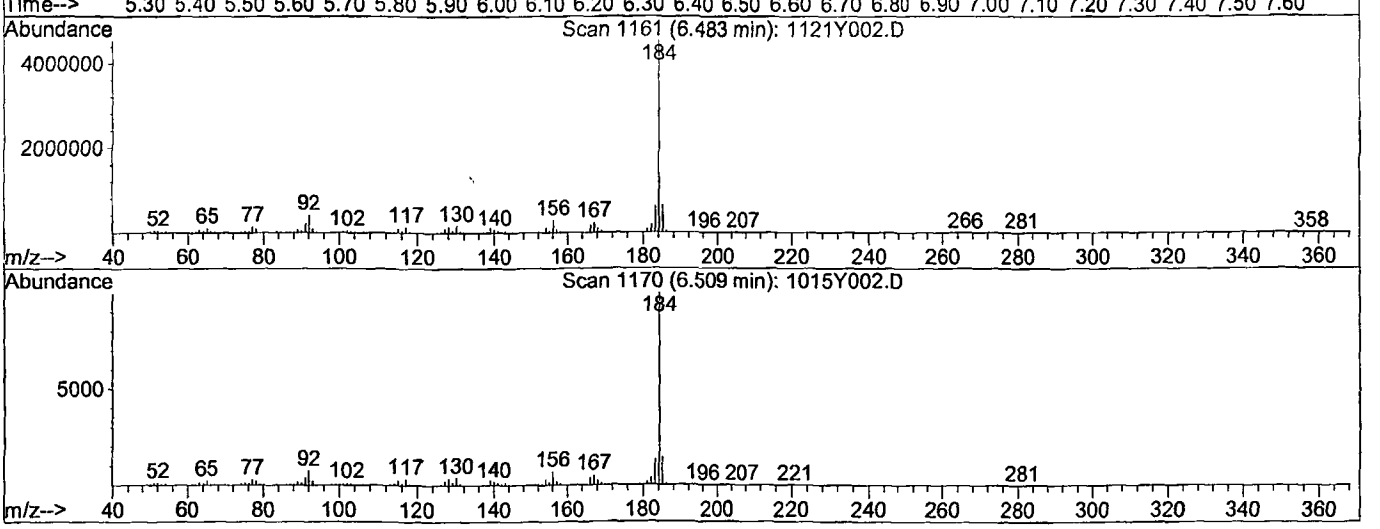
Ion	Exp%	Act%
266.00	100	100
264.00	65.50	63.47
268.00	64.40	63.76
0.00	0.00	0.00

Quantitation Report

Data File : M:\YODA\DATA\Y191121\1121Y002.D Vial: 2
Acq On : 21 Nov 19 13:52 Operator: MA,SS
Sample : SV TUNE 10/01/19 Inst : Yoda
Misc : Multiplr: 1.00
Quant Time: Nov 25 11:35 2019 Quant Results File: temp.res

Method : M:\YODA\DATA\Y191121\DFTPP2.M (Chemstation Integrator)
Title :
Last Update : Mon Nov 25 11:35:23 2019
Response via : Single Level Calibration





TIC: 1121Y002.D

(6) Benzidine

6.48min 0.0000

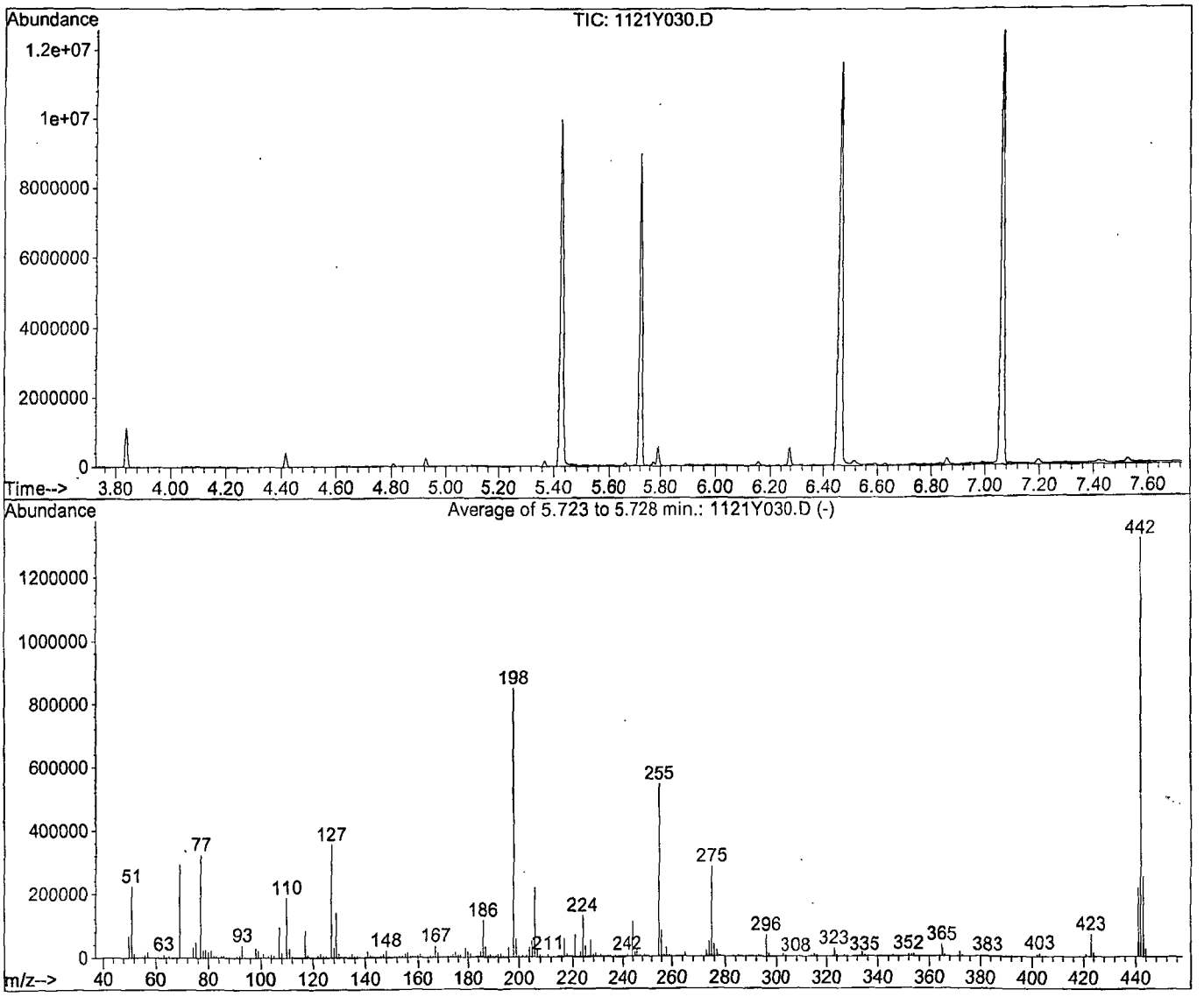
response 41952279

Ion	Exp%	Act%
184.00	100	100
92.00	9.20	8.85
185.00	14.30	14.28
0.00	0.00	0.00

Data File : M:\YODA\DATA\Y191121\1121Y030.D
Acq On : 22 Nov 19 13:23
Sample : SV TUNE 10/01/19
Misc :

Vial: 30
Operator: MA,SS
Inst : Yoda
Multiplr: 1.00

Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C



Spectrum Information: Average of 5.723 to 5.728 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	26.5	224439	PASS
68	69	0.00	2	0.0	0	PASS
70	69	0.00	2	0.4	1281	PASS
127	198	10	80	41.9	354859	PASS
197	198	0.00	2	0.0	0	PASS
198	198	100	100	100.0	847637	PASS
199	198	5	9	6.7	57211	PASS
275	198	10	60	33.3	282091	PASS
365	198	1	100	4.2	35747	PASS
441	442	0.01	24	16.3	213781	PASS
442	198	50	500	154.9	1313109	PASS
443	442	15	24	19.0	249600	PASS

Data File Name:	**1121Y030.D**
Data File Path:	**M:\YODA\DATA\Y191121**
Operator:	**MA,SS**
Date Acquired:	**22 Nov 2019 13:23**
Method File:	**DFTPP2.M**
Sample Name:	**SV TUNE 10/01/19**
Vial Number:	**30**
Instrument Name:	**Yoda**

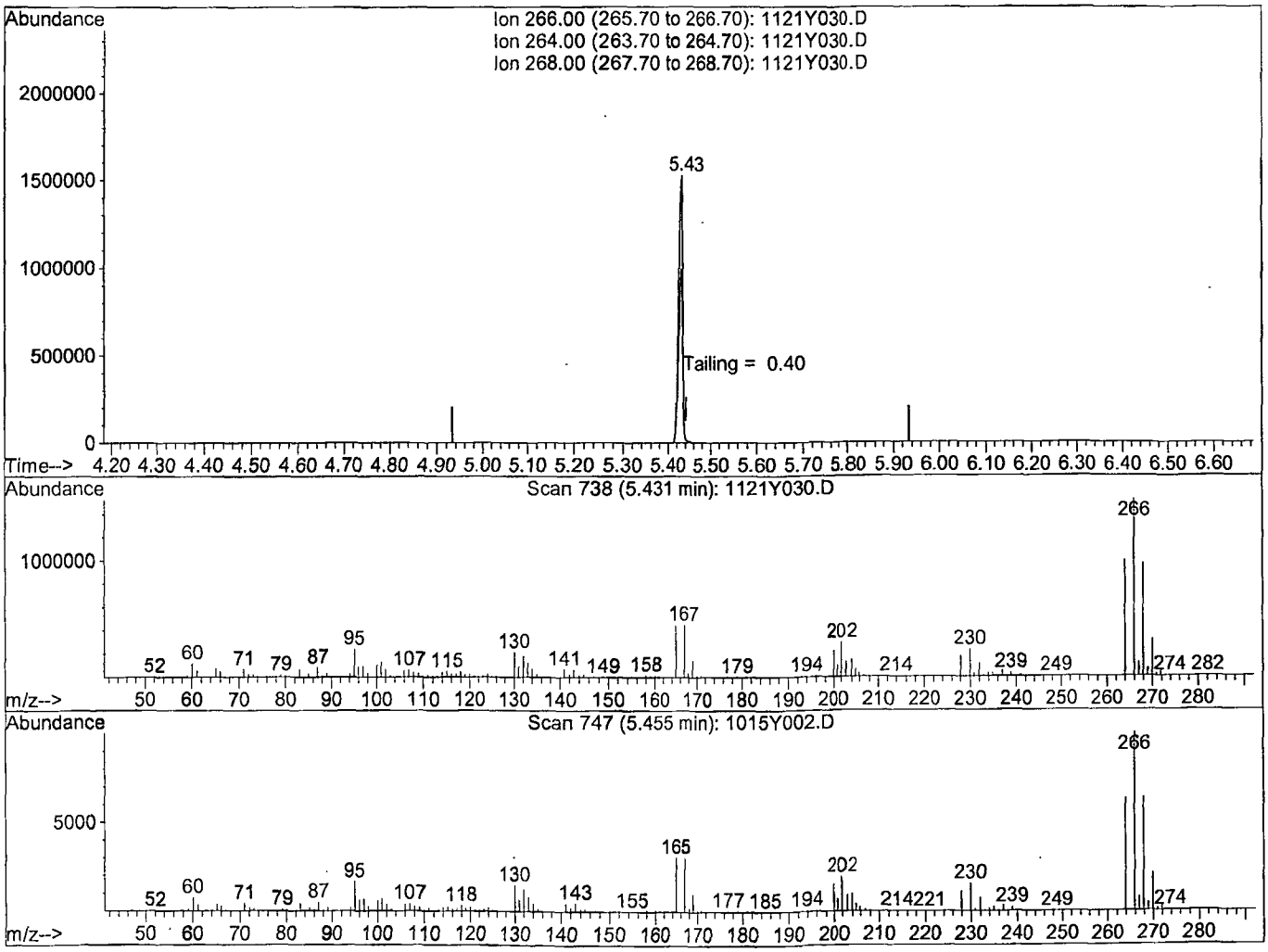
#	Name	Ret Time	Target Response
1)	DDT	7.09	106455000
2)	DDD	6.88	1407220
3)	DDE	6.61	235872

Breakdown **1.52**

Quantitation Report

Data File : M:\YODA\DATA\Y191121\1121Y030.D Vial: 30
Acq On : 22 Nov 19 13:23 Operator: MA,SS
Sample : SV TUNE 10/01/19 Inst : Yoda
Misc : Multiplr: 1.00
Quant Time: Nov 25 11:36 2019 Quant Results File: temp.res

Method : M:\YODA\DATA\Y191121\DFTPP2.M (Chemstation Integrator)
Title :
Last Update : Mon Nov 25 11:35:23 2019
Response via : Single Level Calibration



TIC: 1121Y030.D

(5) Pentachlorophenol

5.43min 0.0000

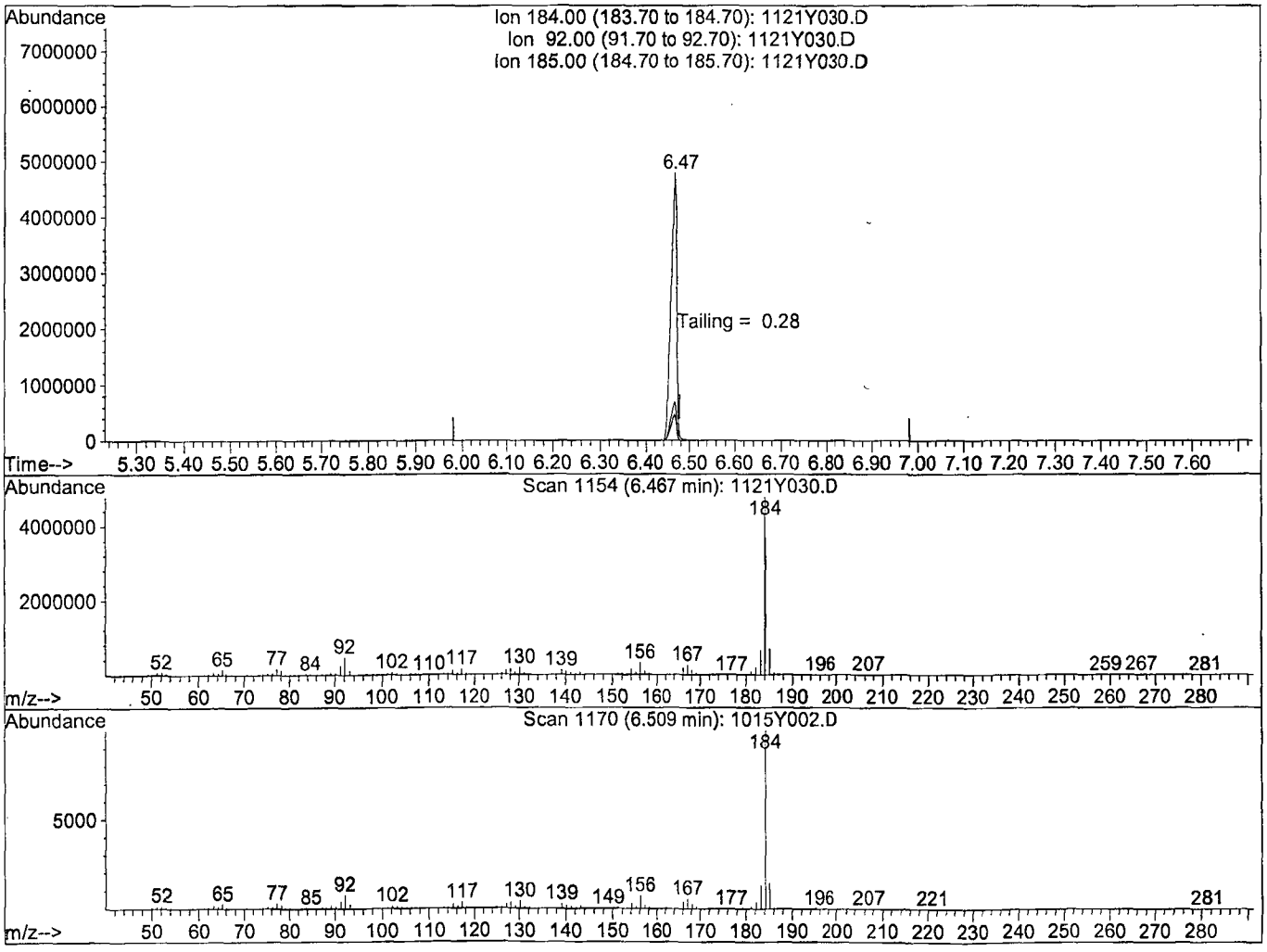
response 10296121

Ion	Exp%	Act%
266.00	100	100
264.00	65.50	63.86
268.00	64.40	63.64
0.00	0.00	0.00

Quantitation Report

Data File : M:\YODA\DATA\Y191121\1121Y030.D Vial: 30
Acq On : 22 Nov 19 13:23 Operator: MA,SS
Sample : SV TUNE 10/01/19 Inst : Yoda
Misc : Multiplr: 1.00
Quant Time: Nov 25 11:36 2019 Quant Results File: temp.res

Method : M:\YODA\DATA\Y191121\DFTPP2.M (Chemstation Integrator)
Title :
Last Update : Mon Nov 25 11:35:23 2019
Response via : Single Level Calibration



TIC: 1121Y030.D

(6) Benzidine

6.47min 0.0000

response 43745170

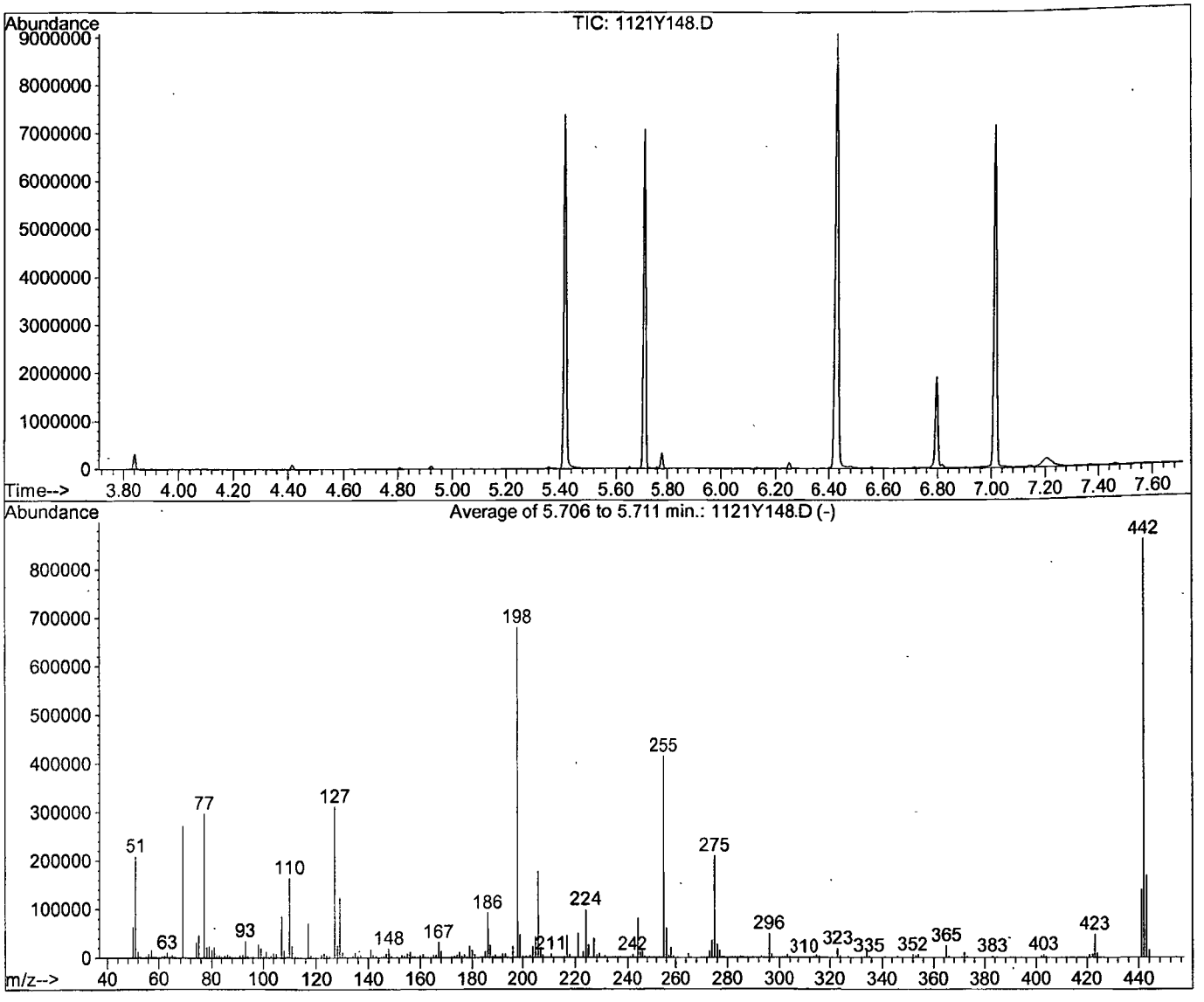
Ion	Exp%	Act%
184.00	100	100
92.00	9.20	9.26
185.00	14.30	14.55
0.00	0.00	0.00

DFTPP

Data File : M:\YODA\DATA\Y191121\1121Y148.D
Acq On : 26 Nov 19 18:16
Sample : SV TUNE 10/01/19
Misc :

Vial: 48
Operator: MA,SS
Inst : Yoda
Multiplr: 1.00

Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C



Spectrum Information: Average of 5.706 to 5.711 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	30.7	208917	PASS
68	69	0.00	2	0.0	0	PASS
70	69	0.00	2	0.2	654	PASS
127	198	10	80	45.8	311232	PASS
197	198	0.00	2	0.0	0	PASS
198	198	100	100	100.0	679979	PASS
199	198	5	9	7.0	47424	PASS
275	198	10	60	30.9	209792	PASS
365	198	1	100	3.6	24760	PASS
441	442	0.01	24	16.2	138283	PASS
442	198	50	500	125.7	854912	PASS
443	442	15	24	19.6	167749	PASS

Data File Name:	**1121Y148.D**
Data File Path:	**M:\YODA\DATA\Y191121**
Operator:	**MA,SS**
Date Acquired:	**26 Nov 2019 18:16**
Method File:	**DFTPP2.M**
Sample Name:	**SV TUNE 10/01/19**
Vial Number:	**48**
Instrument Name:	**Yoda**

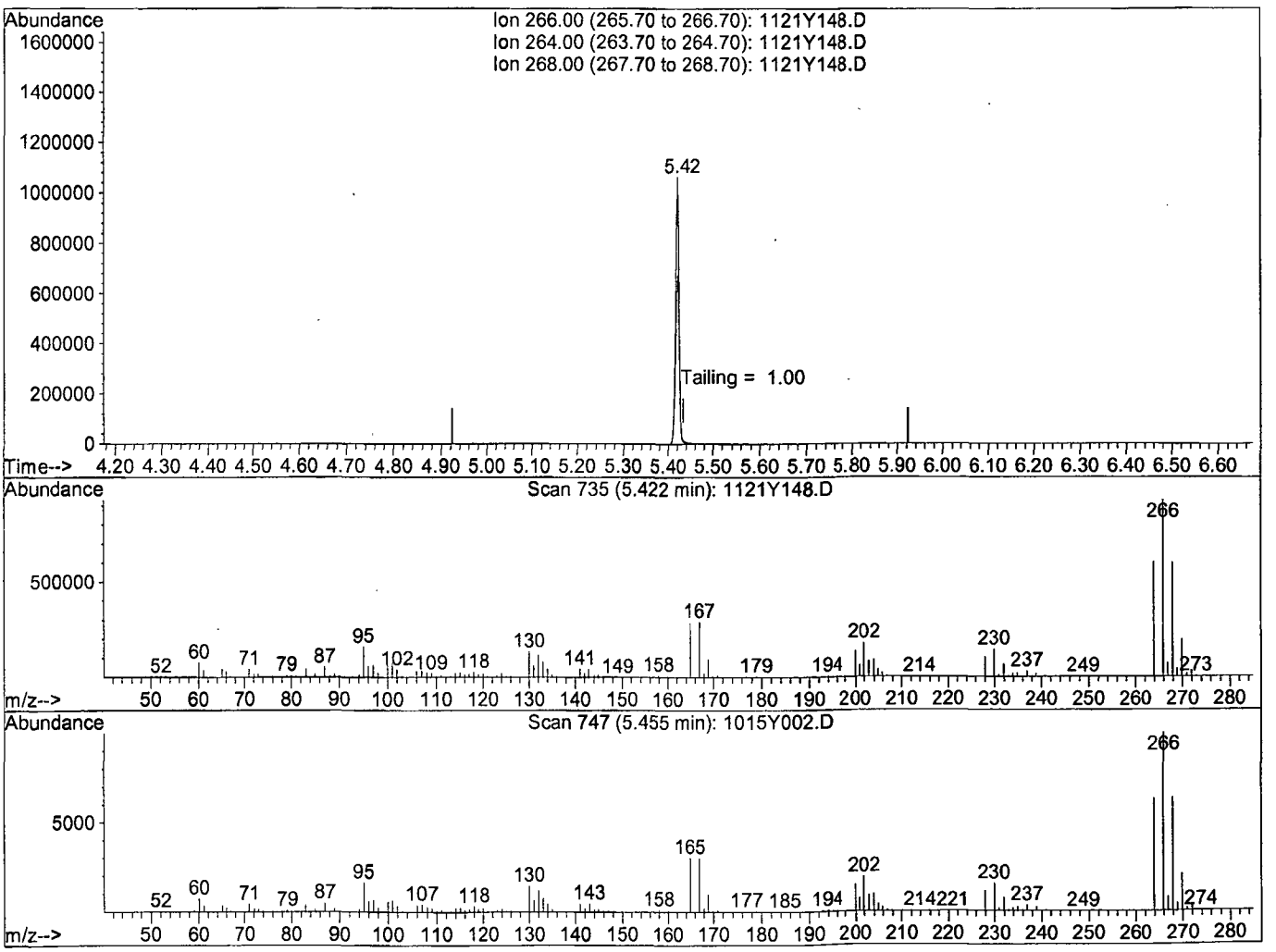
#	Name	Ret Time	Target Response
1)	DDT	7.03	50149300
2)	DDD	6.83	496078
3)	DDE	6.65	0

Breakdown **0.98**

Quantitation Report

Data File : M:\YODA\DATA\Y191121\1121Y148.D Vial: 48
Acq On : 26 Nov 19 18:16 Operator: MA,SS
Sample : SV TUNE 10/01/19 Inst : Yoda
Misc : Multiplr: 1.00
Quant Time: Nov 26 17:13 2019 Quant Results File: temp.res

Method : M:\YODA\DATA\Y191121\DFTPP2.M (Chemstation Integrator)
Title :
Last Update : Mon Nov 25 12:03:01 2019
Response via : Single Level Calibration



TIC: 1121Y148.D

(5) Pentachlorophenol

5.42min 0.0000

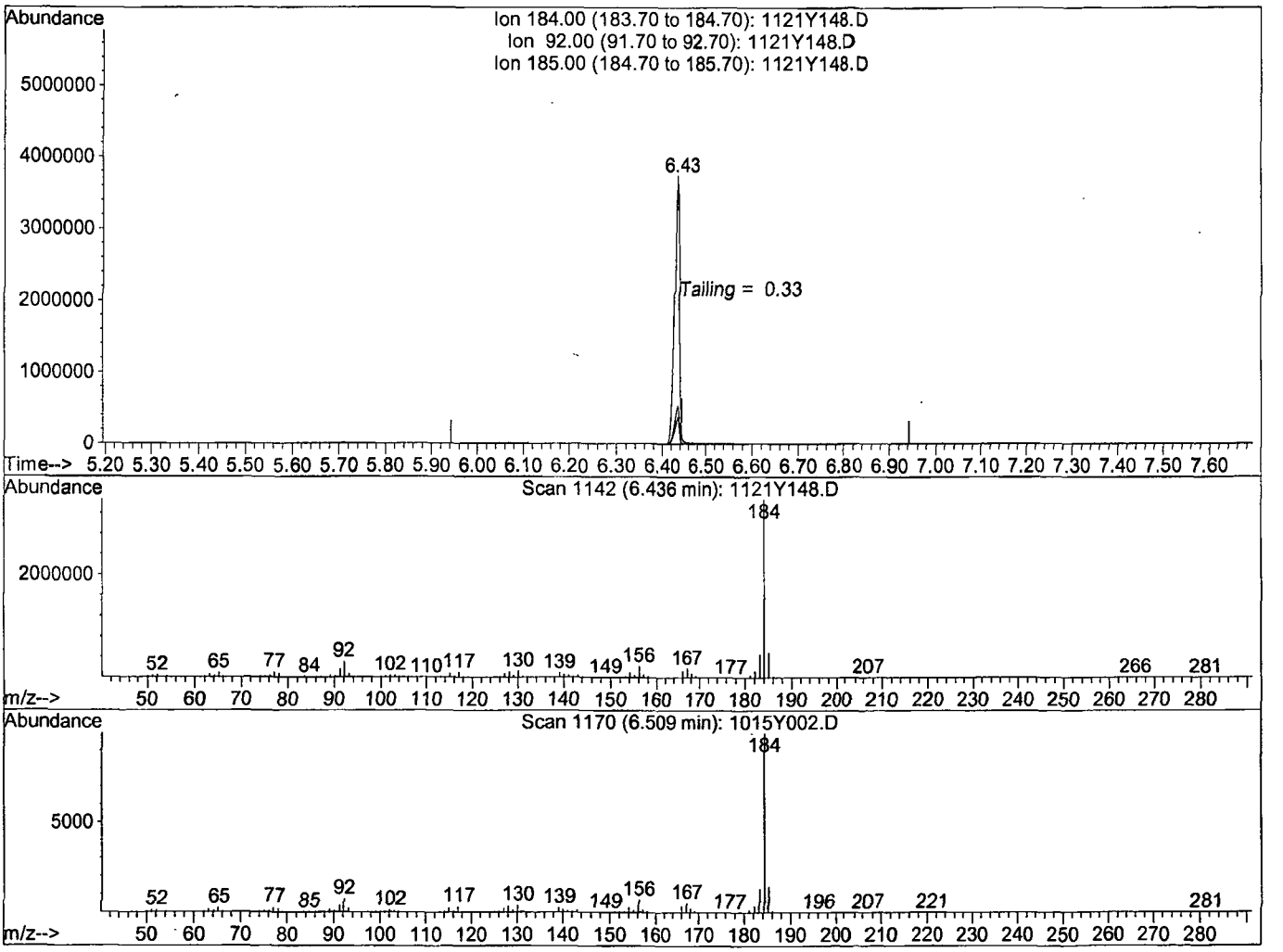
response 6348230

Ion	Exp%	Act%
266.00	100	100
264.00	64.40	64.10
268.00	63.20	63.12
0.00	0.00	0.00

Quantitation Report

Data File : M:\YODA\DATA\Y191121\1121Y148.D Vial: 48
Acq On : 26 Nov 19 18:16 Operator: MA,SS
Sample : SV TUNE 10/01/19 Inst : Yoda
Misc : Multiplr: 1.00
Quant Time: Nov 26 17:13 2019 Quant Results File: temp.res

Method : M:\YODA\DATA\Y191121\DFTPP2.M (Chemstation Integrator)
Title :
Last Update : Mon Nov 25 12:03:01 2019
Response via : Single Level Calibration



TIC: 1121Y148.D

(6) Benzidine

6.44min 0.0000

response 29597434

Ion	Exp%	Act%
184.00	100	100
92.00	9.40	9.28
185.00	14.10	14.36
0.00	0.00	0.00

Name of Final Standard	8270 Full Scan Stock Spike	Prep'd By (Initials)	JP
Prep Date	011/21/2019		
Exp Date	011/21/2020		

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from contianer Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
10001	Absolute	10001	2000	081419 - 49302	08/14/22	1.0 mL	11 mL	NA	181.82 ug/mL
10002	Absolute	10002	2000	090919-49211	09/09/22	1.0 mL	*	*	181.82 ug/mL
10004	Absolute	10004	2000	071618-99221	07/16/23	1.0 mL	*	*	181.82 ug/mL
10005	Absolute	10005	2000	032018-40234	03/20/23	1.0 mL	*	*	181.82 ug/mL
10006	Absolute	10006	2000	030119-49242	03/01/22	1.0 mL	*	*	181.82 ug/mL
10007	Absolute	10007	2000	080116-40254	08/01/21	1.0 mL	*	*	181.82 ug/mL
10018	Absolute	10018	2000	051719-49262	05/17/24	1.0 mL	*	*	181.82 ug/mL
70023	Absolute	70023	1000	012819-49268	01/28/24	1.0 mL	*	*	90.91ug/mL
82705	Absolute	82705	2000	090919-49293	09/09/22	1.0 mL	*	*	181.82 ug/mL
94552	Absolute	94552	various	053119-49284	05/31/21	1.0 mL	*	*	various
72304	Absolute	70023	1000	090519-49455 - 41159	09/05/24	1.0 mL	*	*	90.91ug/mL

Name of Final Standard	8270 Internal Standard Ampules (2)	Prep'd By (Initials)	JP
Prep Date	11/20/19		
Exp Date	11/20/20		

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from contianer Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
Semivolatile Internal Standard	Restek	31206	2000 ug/mL	**A0151843-49411 A0151843-49412**	**07/31/25**	2 mL	2 mL	NA	2000ug/mL

Name of Final Standard	8270 SS STOCK	Prep'd By (Initials)	JP
Prep Date	11/20/19		
Exp Date	11/20/20		

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from contianer Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
10001	Absolute	10001	2000 ug/mL	051019-40534	05/10/21	1.0 mL	20 mL	**Methanol Lot 208858**	100 ug/mL
10002	Absolute	10002	2000 ug/mL	020217-39199	02/02/20	1.0 mL	*	*	100 ug/mL
10004	Absolute	10004	2000 ug/mL	051018-39196	05/10/21	1.0 mL	*	*	100 ug/mL
10005	Absolute	10005	2000 ug/mL	031618-39207	03/16/23	1.0 mL	*	*	100 ug/mL
10006	Absolute	10006	2000 ug/mL	011718-39208	01/17/21	1.0 mL	*	*	100 ug/mL
10007	Absolute	10007	2000 ug/mL	060118-39213	06/01/23	1.0 mL	*	*	100 ug/mL
10018	Absolute	10018	2000 ug/mL	062718-40535	06/27/23	1.0 mL	*	*	100 ug/mL
70023	Absolute	70023	1000 ug/mL	051618-39214	05/16/23	1.0 mL	*	*	50 ug/mL
82705	Absolute	82705	2000 ug/mL	090617-40540	09/06/20	1.0 mL	*	*	100 ug/mL
94552	Absolute	94552	various	013118-40542	01/31/20	1.0 mL	*	*	various
72304	Absolute	72304	1000 ug/mL	110719-49477	11/07/24	1.0 mL	*	*	50 ug/mL

Name of Final Standard	8270 Full Scan Second Source	Prep'd By (Initials)	JP
Prep Date	11/22/19		
Exp Date	11/22/20		

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from container Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
8270 SS Stock	APPL	8270 SS Stock	100:50 ug/mL	**11/20/19**	**11/20/20**	100 uL	200uL	**MC DW717 150uL**	50:25 ug/mL
SV Internal Standard	APPL	SV Internal Standard	2000 ug/mL	**11/20/19**	**11/20/19**	4 uL	*	*	*

Name of Final Standard	8270 Full Scan Standard Curve	Prep'd By (Initials)	JP
Prep Date	011/21/2019		
Exp Date	011/21/2020		

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from container Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
8270 Stock	APPL	8270 Stock	182:91 ug/mL	011/21/2019	011/21/2020	4.4 uL	200uL	MC DW717 150uL	4 ug/mL
8270 Surrogate	APPL	8270 Surrogate	200:400 ug/mL	07/10/19	06/24/20	4 uL	*	*	*
SV Internal Standard	APPL	SV Internal Standard	2000 ug/mL	011/20/2019	07/31/25	4 uL	*	*	*
8270 Stock	APPL	8270 Stock	182:91 ug/mL	011/21/2019	011/21/2020	11 uL	400uL	MC DW717 150uL	5 ug/mL
8270 Surrogate	APPL	8270 Surrogate	200:400 ug/mL	07/10/19	06/24/20	10 uL	*	*	*
SV Internal Standard	APPL	SV Internal Standard	2000 ug/mL	011/20/2019	07/31/25	8 uL	*	*	*
8270 Stock	APPL	8270 Stock	182:91 ug/mL	011/21/2019	011/21/2020	11 uL	200uL	MC DW717 150uL	10 ug/mL
8270 Surrogate	APPL	8270 Surrogate	200:400 ug/mL	07/10/19	06/24/20	10 uL	*	*	*
SV Internal Standard	APPL	SV Internal Standard	2000 ug/mL	011/20/2019	07/31/25	4 uL	*	*	*
8270 Stock	APPL	8270 Stock	182:91 ug/mL	011/21/2019	011/21/2020	11 uL	100uL	MC DW717 150uL	20 ug/mL
8270 Surrogate	APPL	8270 Surrogate	200:400 ug/mL	07/10/19	06/24/20	10 uL	*	*	*
SV Internal Standard	APPL	SV Internal Standard	2000 ug/mL	011/20/2019	07/31/25	2 uL	*	*	*
8270 Stock	APPL	8270 Stock	182:91 ug/mL	011/21/2019	011/21/2020	22 uL	100uL	MC DW717 150uL	40 ug/mL
8270 Surrogate	APPL	8270 Surrogate	200:400 ug/mL	07/10/19	06/24/20	20 uL	*	*	*
SV Internal Standard	APPL	SV Internal Standard	2000 ug/mL	011/20/2019	07/31/25	2 uL	*	*	*
8270 Stock	APPL	8270 Stock	182:91 ug/mL	011/21/2019	011/21/2020	55 uL	200 uL	MC DW717 150uL	50 ug/mL
8270 Surrogate	APPL	8270 Surrogate	200:400 ug/mL	07/10/19	06/24/20	50 uL	*	*	*
SV Internal Standard	APPL	SV Internal Standard	2000 ug/mL	011/20/2019	07/31/25	4 uL	*	*	*
8270 Stock	APPL	8270 Stock	182:91 ug/mL	011/21/2019	011/21/2020	33 uL	100uL	MC DW717 150uL	60 ug/mL
8270 Surrogate	APPL	8270 Surrogate	200:400 ug/mL	07/10/19	06/24/20	30 uL	*	*	*
SV Internal Standard	APPL	SV Internal Standard	2000 ug/mL	011/20/2019	07/31/25	2 uL	*	*	*
8270 Stock	APPL	8270 Stock	182:91 ug/mL	011/21/2019	011/21/2020	44 uL	100uL	MC DW717 150uL	80 ug/mL
8270 Surrogate	APPL	8270 Surrogate	200:400 ug/mL	07/10/19	06/24/20	40 uL	*	*	*
SV Internal Standard	APPL	SV Internal Standard	2000 ug/mL	011/20/2019	07/31/25	2 uL	*	*	*
8270 Stock	APPL	8270 Stock	182:91 ug/mL	011/21/2019	011/21/2020	50 uL	100uL	na	91 ug/mL
8270 Surrogate	APPL	8270 Surrogate	200:400 ug/mL	07/10/19	06/24/20	50 uL	*	*	*
SV Internal Standard	APPL	SV Internal Standard	2000 ug/mL	011/20/2019	07/31/25	2 uL	*	*	*

Name of Final Standard	Semivolatile (SV) Tuning Solution	Prep'd By (Initials)	JP
Prep Date	10/01/19		
Exp Date	11/30/20		

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from contianer Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
Semivolatile GC/MS Tuning Standard	Ultra Scientific	GCM-150-1	1,000 ug/mL	CR3789-38879	**11/30/20**	1,250 uL	25 mL	**MC #58240**	50 ug/mL

Organic Extraction Worksheet

Method	Continuous Liquid/Liquid SVOC 3520C	Extraction Set	191104A	Extraction Method	LIQ003	Units	mL

Spiked ID 1	8270T Spike 10/3/19 ex 10/3/20		Surrogate ID 1	8270 Surrogate 10/3/19 ex 10/3/20	
Spiked ID 2	Sim Spike 9/30/19 ex 9/30/20		Surrogate ID 2	SIM Surrogate 10/25/19 ex 10/25/20	
Spiked ID 3			Surrogate ID 3		
Spiked ID 4			Surrogate ID 4		
Spiked ID 5			Surrogate ID 5		
Spiked ID 6			Sufficient Vol for Matrix QC:	no	
Spiked ID 7			Ext. Start Time:	11/04/19 13:35	
Spiked ID 8			Ext. End Time:	11/06/19 6:30	
			GC Requires Extract By:		

pH1	2	11/05/19 10:40	Water Bath Temp 1 °C	EWB5 75/74.2 °
pH2	14	11/06/19 13:00	Water Bath Temp 2 °C	
pH3			Water Bath Temp 3 °C	

Spiked By: DL **Date** 11/04/19 **Witnessed By:** YL **Date** 11/04/19

	Sample	Sample Container	Spike Amount	Spike ID	Surrogate Amount	Surrogate ID	Extract Amount	Final Volume	pH	Extract Date/Time	Comments
1	191104A Blk				1,0.050	1,2	800	1	2/1	11/04/19 13:35	
						equip	EWB5				
2	191104A LCS-1		1	1	1	1	800	1	2/1	11/04/19 13:35	
						equip	EWB5				
3	191104A LCS-2		0.125	2	0.050	2	800	1	2/1	11/04/19 13:35	
						equip	EWB5				
4	191104A LCSD-1		1	1	1	1	800	1	2/1	11/04/19 13:35	
						equip	EWB5				
5	191104A LCSD-2		0.125	2	0.050	2	800	1	2/1	11/04/19 13:35	
						equip	EWB5				
6	BA02090	BA02090W19			1,0.050	1,2	800	1	2/1	11/04/19 13:35	90587
						equip	EWB5				
7	BA02091	BA02091W14			1,0.050	1,2	800	1	2/1	11/04/19 13:35	90587
						equip	EWB5				
8	BA02160	BA02160W16			1,0.050	1,2	800	1	2/1	11/04/19 13:35	90599
						equip	EWB5				
9	BA02214	BA02214W21			1,0.050	1,2	800	1	2/1	11/04/19 13:35	90611
						equip	EWB5				
10	BA02216	BA02216W13			1,0.050	1,2	800	1	2/1	11/04/19 13:35	90611
						equip	EWB5				
11	BA02301	BA02301W13			1,0.050	1,2	800	1	2/1	11/04/19 13:35	90625
						equip	EWB5				

Solvent and Lot#	
PH Strips	HC863463
Dichloromethane (DCM)	59130
1+1 H2SO4	11/1/19
10N NaOH	10/25/19
Filter Paper	400171
B. Na2SO4	2019020631

Extraction COC Transfer	
Extraction lab employee Initials	SS
GC analyst's initials	MA
Date	11/7/19
Time	1330
Refrigerator	GC_C

	Technician's Initials
Scanned By	DL
Sample Preparation	DL,YL,RB
Extraction	RB,DL
Concentration	DL

Modified	11/14/19 9:54:11 AM

Reviewed By: **Date**

Injection Log

Directory: M:\YODA\DATA\Y191121\

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	2	1121Y002.D	1	SV TUNE 10/01/19		21 Nov 19 13:52
2	3	1121Y003.D	1	4ug/ml 8270 11/21/19		21 Nov 19 14:07
3	4	1121Y004.D	1	5ug/ml 8270 11/21/19		21 Nov 19 14:35
4	5	1121Y005.D	1	10ug/ml 8270 11/21/19		21 Nov 19 15:37
5	6	1121Y006.D	1	20ug/ml 8270 11/21/19		21 Nov 19 16:05
6	7	1121Y007.D	1	40ug/ml 8270 11/21/19		21 Nov 19 16:33
7	8	1121Y008.D	1	50ug/ml 8270 11/21/19		21 Nov 19 17:01
8	9	1121Y009.D	1	60ug/ml 8270 11/21/19		21 Nov 19 17:30
9	10	1121Y010.D	1	80ug/ml 8270 11/21/19		21 Nov 19 17:58
10	11	1121Y011.D	1	100ug/ml 8270 11/21/19		21 Nov 19 18:26
11	31	1121Y031.D	1	SS 8270 11/22/19		22 Nov 19 13:38
12	48	1121Y148.D	1	SV TUNE 10/01/19		26 Nov 19 18:16
13	54	1121Y154.D	1	50ug/ml 8270 11/21/19 (1)		26 Nov 19 20:50
14	55	1121Y155.D	1.25	191104A BLK 2/800		26 Nov 19 21:18
15	56	1121Y156.D	1.25	191104A LCS-1 2/800		26 Nov 19 21:46
16	57	1121Y157.D	1.25	191104A LCSD-1 2/800		26 Nov 19 22:14
17	58	1121Y158.D	1.25	BA02090W19 2/800		26 Nov 19 22:42
18	59	1121Y159.D	1.25	BA02091W14 2/800		26 Nov 19 23:10
19	72	1121Y172.D	1	50ug/ml 8270 11/21/19 (2)		27 Nov 19 5:11

ORGANICS
Calibration Data

2MEE
EPA 8270

Form 6
Initial Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Initial Cal. Date: 10/31/19
Matrix: Instrument: Linus
Initials: MA/JM

			1030L004 D	1030L005.D	1030L006 D	1030L007.D	1030L008.D	1030L009 D	1030L010 D	1030L011 D								
		Compound	1	2	3	4	5	6	7	8			Avg	%RSD	Type	r^2	Q	MRF
1	I	1,4-dichlorobenzene-D4(IS)																
2	TM	2-(2-Methoxyethoxy)ethanol	0.1255	0.1270	0.1199	*	0.1601	0.1377	0.1599	0.1385			0.14	12	TM			
3	I	Napthalene-D8(IS)																
4	I	Acenaphthene-D10(IS)																
5	I	Phenanthrene-D10(IS)																
6	I	Chrysene-D12(IS)																
7	I	Perylene-D12(IS)																
8																		
9																		
10																		
11																		
12																		
13		* It was concentrated. Deleted from the ICAL																
14																		
15																		
16																		
17																		
18																		
19																		
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31																		
32																		
33																		
34																		
35																		

Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L191030M\1030L004.D Vial: 4
Acq On : 31 Oct 19 11:50 Operator: MA
Sample : 50 2MEE 4/30/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 31 12:28 2019 Quant Results File: YMEE1030.RES

Quant Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Oct 31 11:46:50 2019
Response via : Initial Calibration
DataAcq Meth : GED

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	3.67	152	924546	40.00000	ppb	0.00
3) Napthalene-D8(IS)	4.62	136	3824592	40.00000	ppb	0.00
4) Acenaphthene-D10(IS)	6.02	164	1847509	40.00000	ppb	0.00
5) Phenanthrene-D10(IS)	7.22	188	3070665	40.00000	ppb	0.00
6) Chrysene-D12(IS)	9.42	240	2379935	40.00000	ppb	0.02
7) Perylene-D12(IS)	10.65	264	2480690	40.00000	ppb	0.06

System Monitoring Compounds

Target Compounds						Qvalue
2) 2-(2-Methoxyethoxy)ethanol	3.19	45	145043m	63.19099	ppb	98

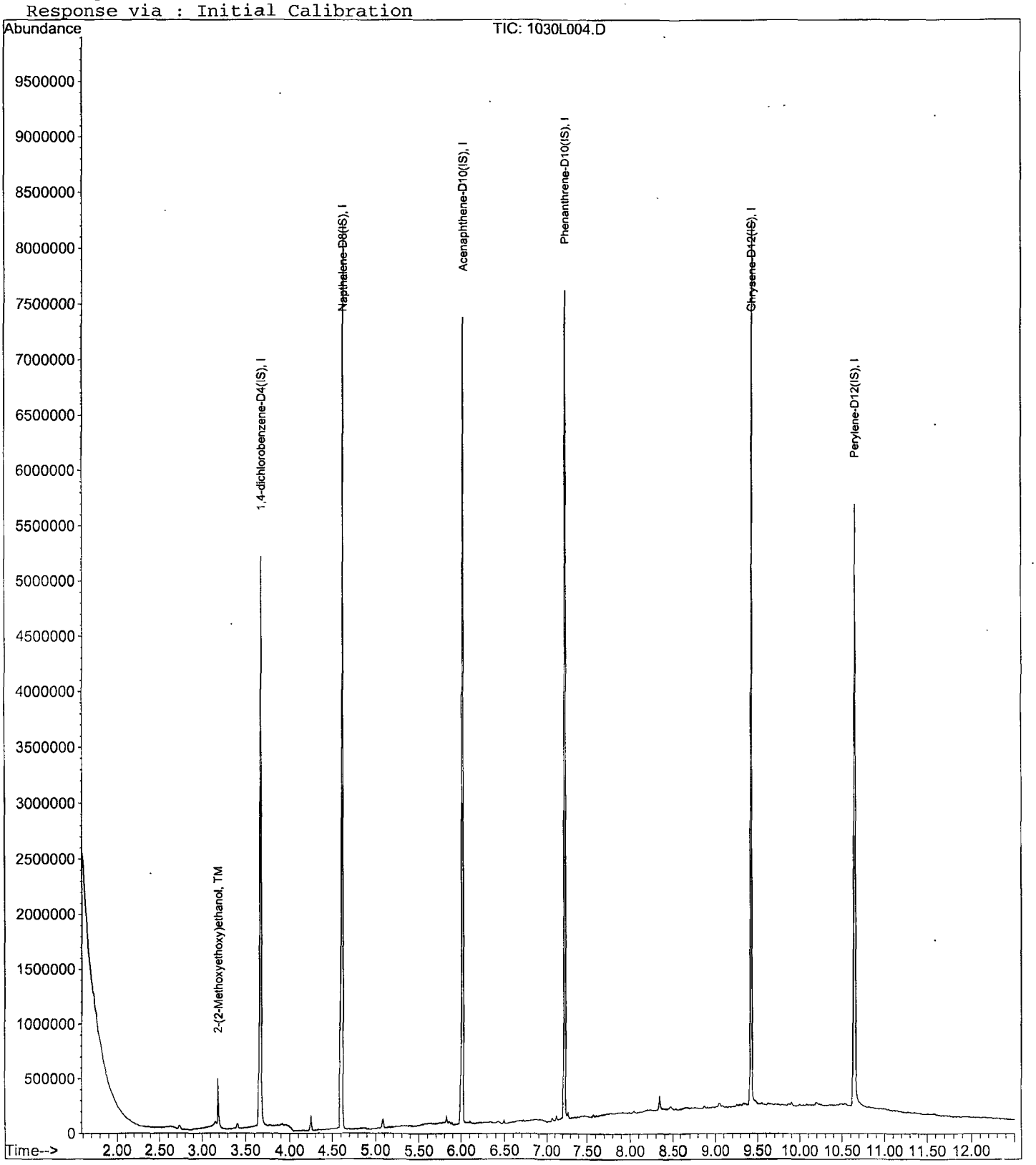
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L191030M\1030L004.D Vial: 4
Acq On : 31 Oct 19 11:50 Operator: MA
Sample : 50 2MEE 4/30/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 31 12:28 2019 Quant Results File: YMEE1030.RES

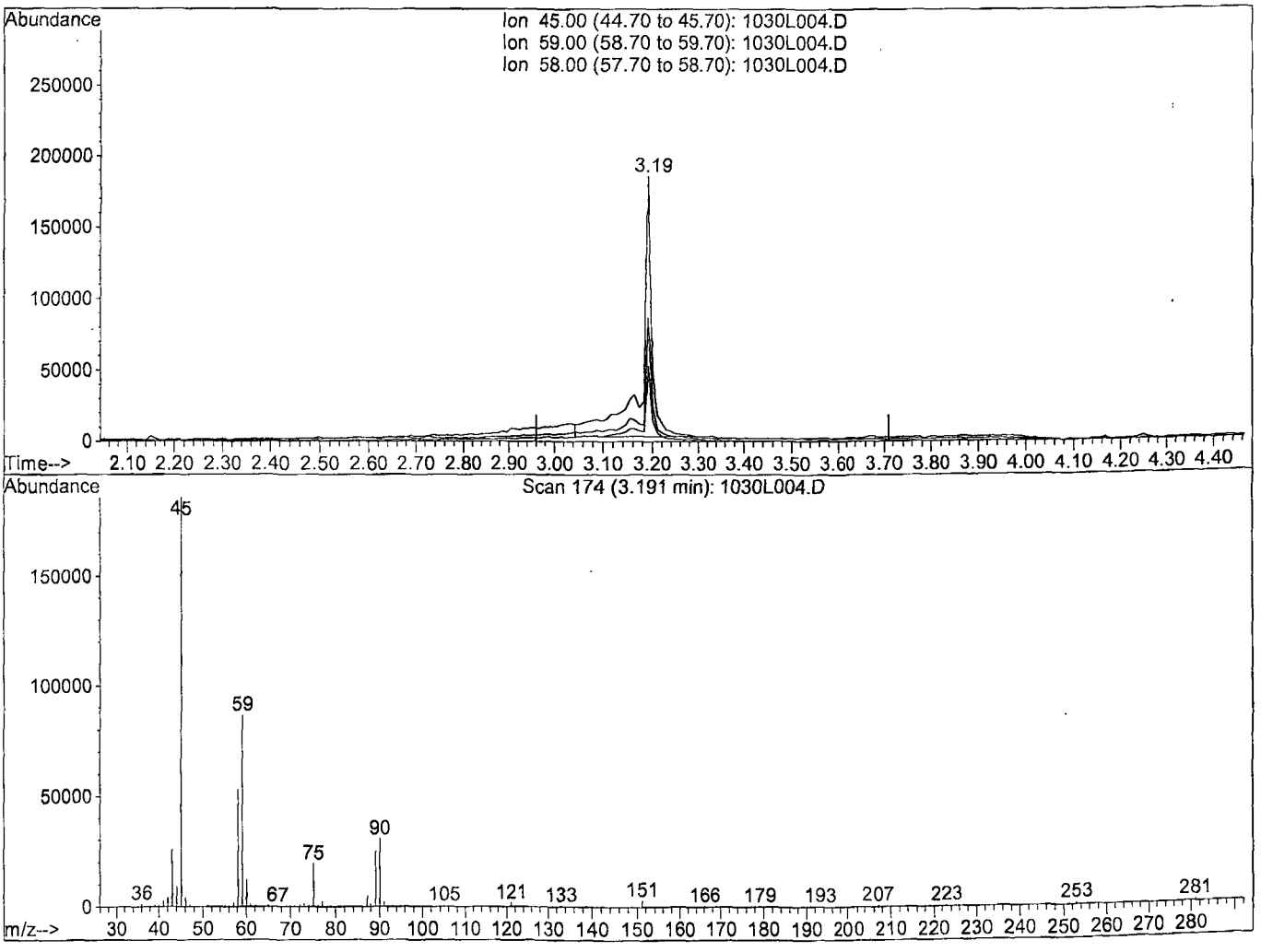
Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Oct 31 14:18:15 2019
Response via : Initial Calibration



Quantitation Report

Data File : M:\LINUS\DATA\L191030M\1030L004.D Vial: 4
Acq On : 31 Oct 19 11:50 Operator: MA
Sample : 50 2MEE 4/30/19 Inst : Linus
Misc : Multiplr: 1.00
Quant Time: Oct 31 12:04 2019 Quant Results File: temp.res

Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Oct 31 11:46:50 2019
Response via : Multiple Level Calibration



TIC: 1030L004.D

(2) 2-(2-Methoxyethoxy)ethanol (TM)

3.19min 99.2279ppb

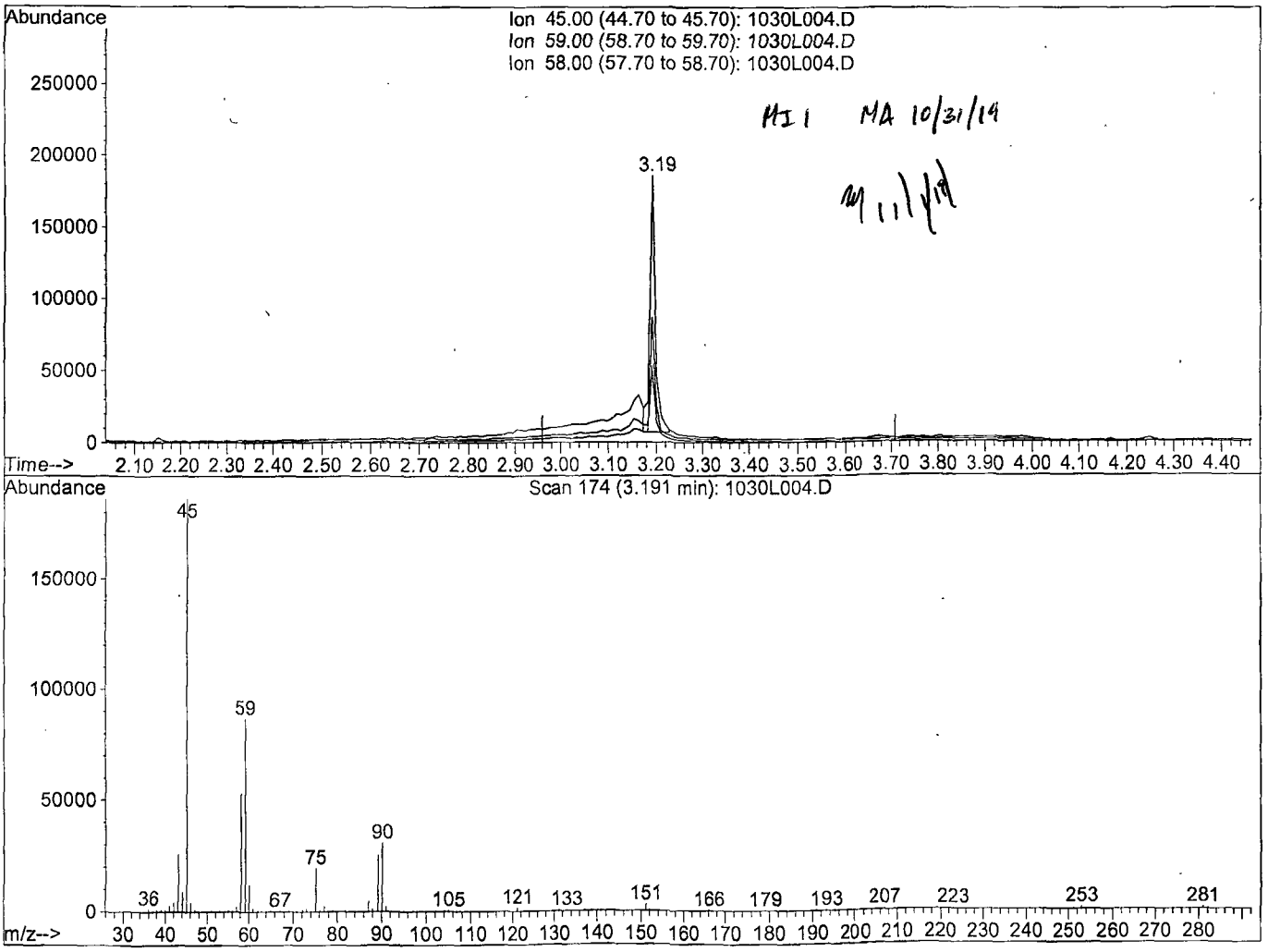
response 284001

Ion	Exp%	Act%
45.00	100	100
59.00	48.10	46.59
58.00	29.40	28.49
0.00	0.00	0.00

Quantitation Report

Data File : M:\LINUS\DATA\L191030M\1030L004.D Vial: 4
Acq On : 31 Oct 19 11:50 Operator: MA
Sample : 50 2MEE 4/30/19 Inst : Linus
Misc : Multiplr: 1.00
Quant Time: Oct 31 12:28 2019 Quant Results File: temp.res

Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Oct 31 11:46:50 2019
Response via : Multiple Level Calibration



TIC: 1030L004.D

(2) 2-(2-Methoxyethoxy)ethanol (TM)

3.19min 63.1910ppb m

response 145043

Ion	Exp%	Act%
45.00	100	100
59.00	48.10	46.59
58.00	29.40	28.49
0.00	0.00	0.00

Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L191030M\1030L005.D Vial: 5
Acq On : 31 Oct 19 12:10 Operator: MA
Sample : 100 2MEE 4/30/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 31 13:29 2019 Quant Results File: YMEE1030.RES

Quant Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Oct 31 13:28:52 2019
Response via : Initial Calibration
DataAcq Meth : GED

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	3.66	152	802143	40.00000	ppb	0.00
3) Napthalene-D8(IS)	4.62	136	3947022	40.00000	ppb	0.00
4) Acenaphthene-D10(IS)	6.02	164	1905798	40.00000	ppb	0.00
5) Phenanthrene-D10(IS)	7.23	188	3352515	40.00000	ppb	0.00
6) Chrysene-D12(IS)	9.39	240	2935825	40.00000	ppb	0.00
7) Perylene-D12(IS)	10.58	264	2243163	40.00000	ppb	-0.02

System Monitoring Compounds

Target Compounds						Qvalue
2) 2-(2-Methoxyethoxy)ethanol	3.19	45	254665	101.69486	ppb	93

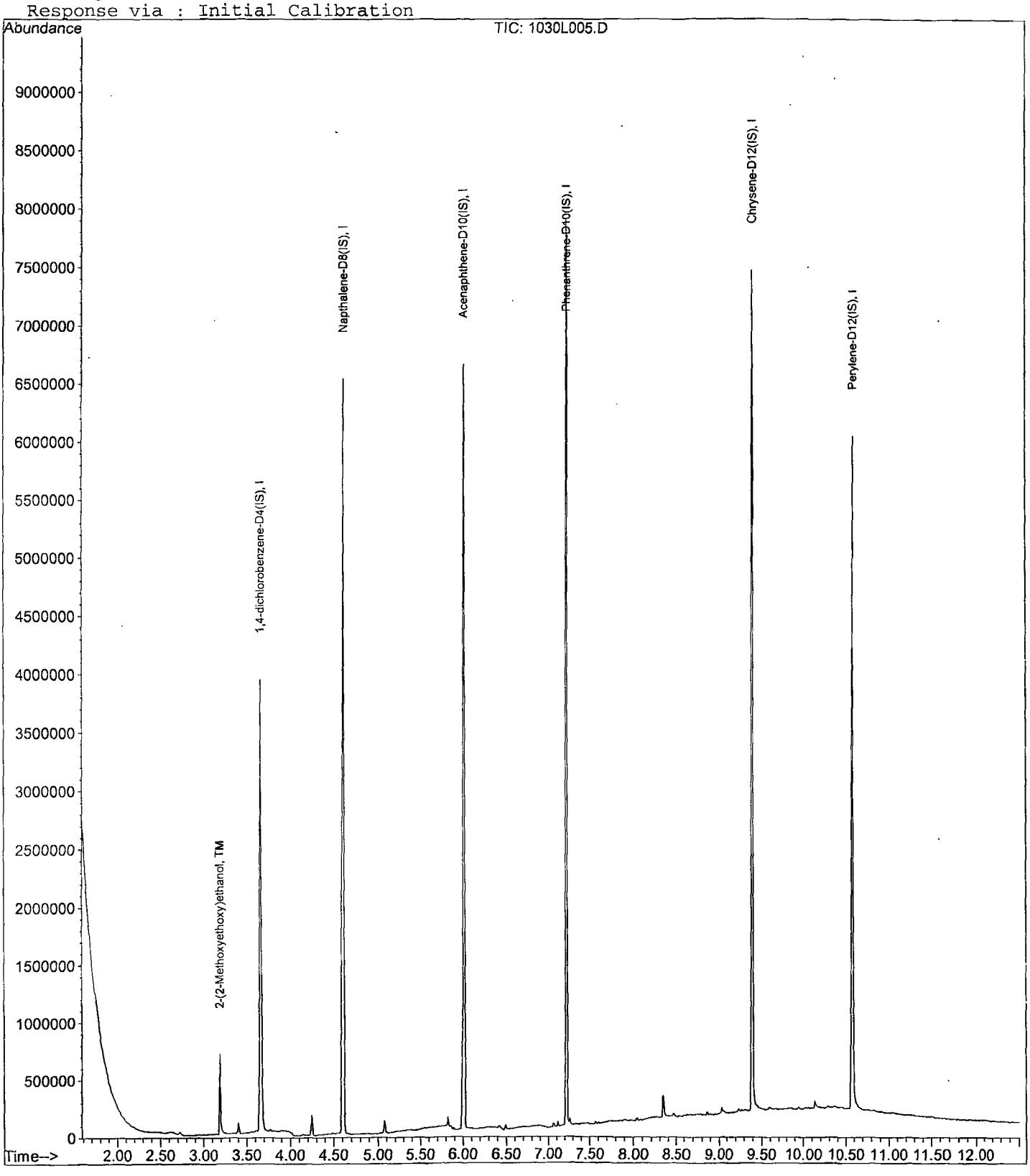
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L191030M\1030L005.D Vial: 5
Acq On : 31 Oct 19 12:10 Operator: MA
Sample : 100 2MEE 4/30/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 31 13:29 2019 Quant Results File: YMEE1030.RES

Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Oct 31 14:18:15 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L191030M\1030L006.D Vial: 6
Acq On : 31 Oct 19 12:29 Operator: MA
Sample : 200 2MEE 4/30/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 31 13:30 2019 Quant Results File: YMEE1030.RES

Quant Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Oct 31 13:28:52 2019
Response via : Initial Calibration
DataAcq Meth : GED

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	3.67	152	867176	40.00000	ppb	0.00
3) Napthalene-D8(IS)	4.62	136	3930052	40.00000	ppb	0.00
4) Acenaphthene-D10(IS)	6.02	164	2009214	40.00000	ppb	0.00
5) Phenanthrene-D10(IS)	7.22	188	3319659	40.00000	ppb	0.00
6) Chrysene-D12(IS)	9.40	240	3235629	40.00000	ppb	0.00
7) Perylene-D12(IS)	10.58	264	2613264	40.00000	ppb	-0.02
System Monitoring Compounds						
Target Compounds						Qvalue
2) 2-(2-Methoxyethoxy)ethanol	3.20	45	519817	166.78709	ppb	99

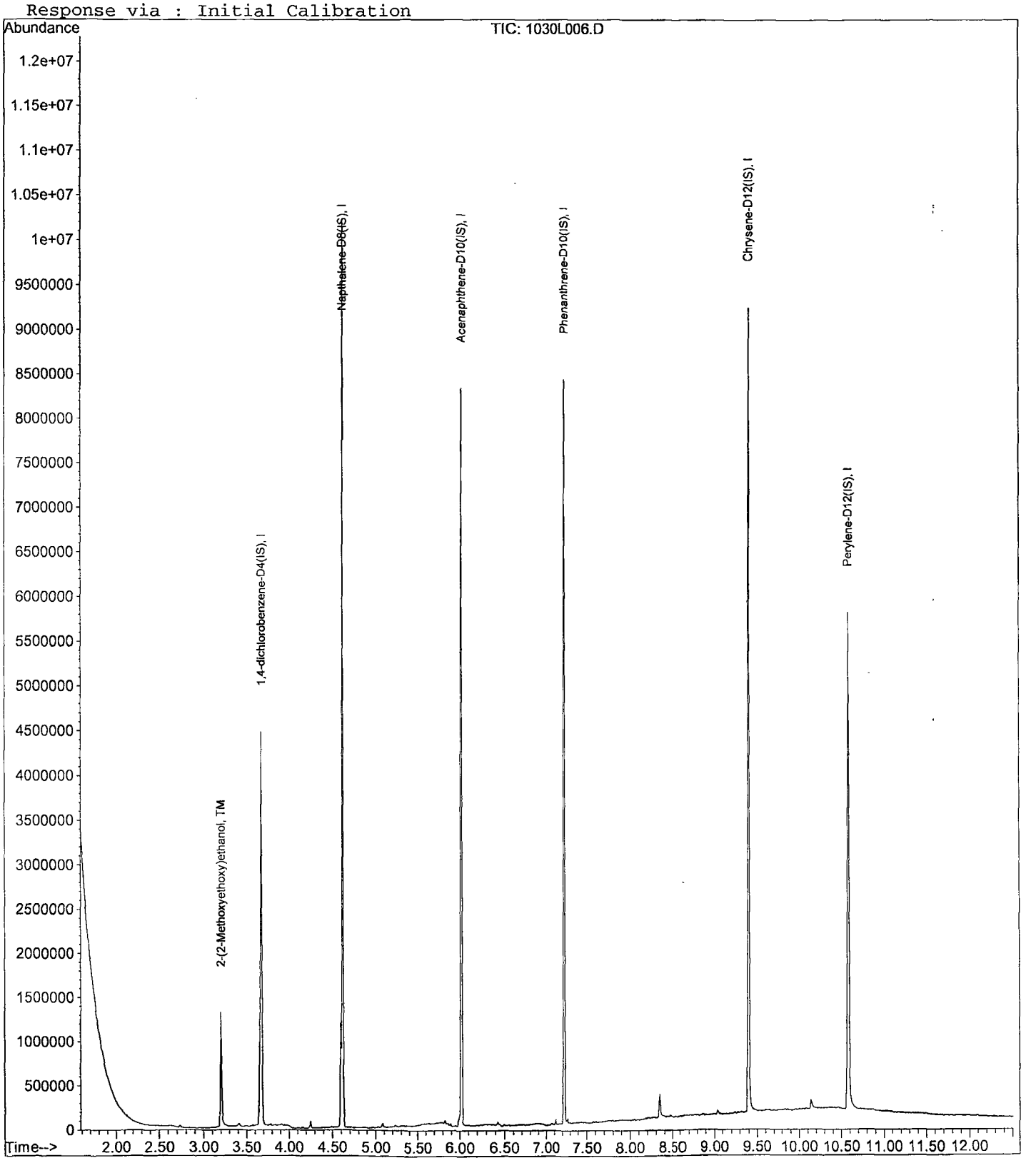
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L191030M\1030L006.D Vial: 6
Acq On : 31 Oct 19 12:29 Operator: MA
Sample : 200 2MEE 4/30/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 31 13:30 2019 Quant Results File: YMEE1030.RES

Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Oct 31 14:18:15 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L191030M\1030L007.D Vial: 7
Acq On : 31 Oct 19 12:49 Operator: MA
Sample : 400 2MEE 4/30/19 not used. It got concen Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 31 13:30 2019 Quant Results File: YMEE1030.RES

Quant Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Oct 31 13:28:52 2019
Response via : Initial Calibration
DataAcq Meth : GED

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	3.67	152	768222	40.00000	ppb	0.00
3) Napthalene-D8(IS)	4.62	136	3846001	40.00000	ppb	0.00
4) Acenaphthene-D10(IS)	6.02	164	2102228	40.00000	ppb	0.00
5) Phenanthrene-D10(IS)	7.23	188	3529522	40.00000	ppb	0.00
6) Chrysene-D12(IS)	9.40	240	2845578	40.00000	ppb	0.00
7) Perylene-D12(IS)	10.60	264	2568289	40.00000	ppb	0.00

System Monitoring Compounds

Target Compounds						Qvalue
2) 2-(2-Methoxyethoxy)ethanol	3.22	45	1438559	476.21754	ppb	94

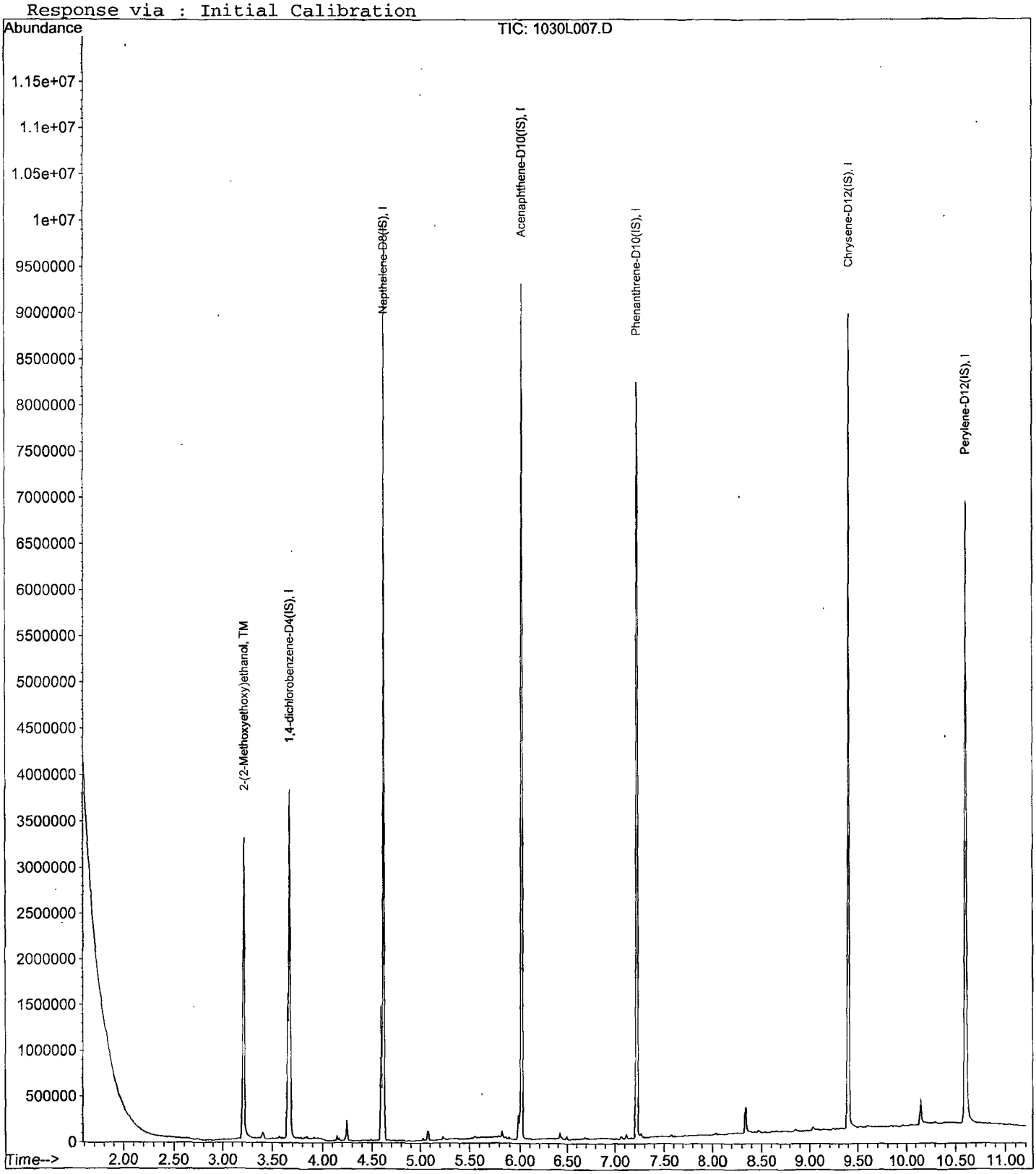
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L191030M\1030L007.D Vial: 7
Acq On : 31 Oct 19 12:49 Operator: MA
Sample : 400 2MEE 4/30/19 not used. It got concen Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 31 13:30 2019 Quant Results File: YMEE1030.RES

Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Oct 31 14:18:15 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L191030M\1030L008.D Vial: 8
Acq On : 31 Oct 19 13:07 Operator: MA
Sample : 500 2MEE 4/30/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 31 14:14 2019 Quant Results File: YMEE1030.RES

Quant Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Oct 31 14:14:39 2019
Response via : Initial Calibration
DataAcq Meth : GED

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	3.67	152	772292	40.00000 ppb	0.00
3) Napthalene-D8(IS)	4.62	136	3394425	40.00000 ppb	0.00
4) Acenaphthene-D10(IS)	6.02	164	1712966	40.00000 ppb	0.00
5) Phenanthrene-D10(IS)	7.22	188	2832000	40.00000 ppb	0.00
6) Chrysene-D12(IS)	9.40	240	2510708	40.00000 ppb	0.00
7) Perylene-D12(IS)	10.60	264	2441015	40.00000 ppb	0.00

System Monitoring Compounds

Target Compounds					Qvalue
2) 2-(2-Methoxyethoxy)ethanol	3.21	45	1545173	578.42618 ppb	100

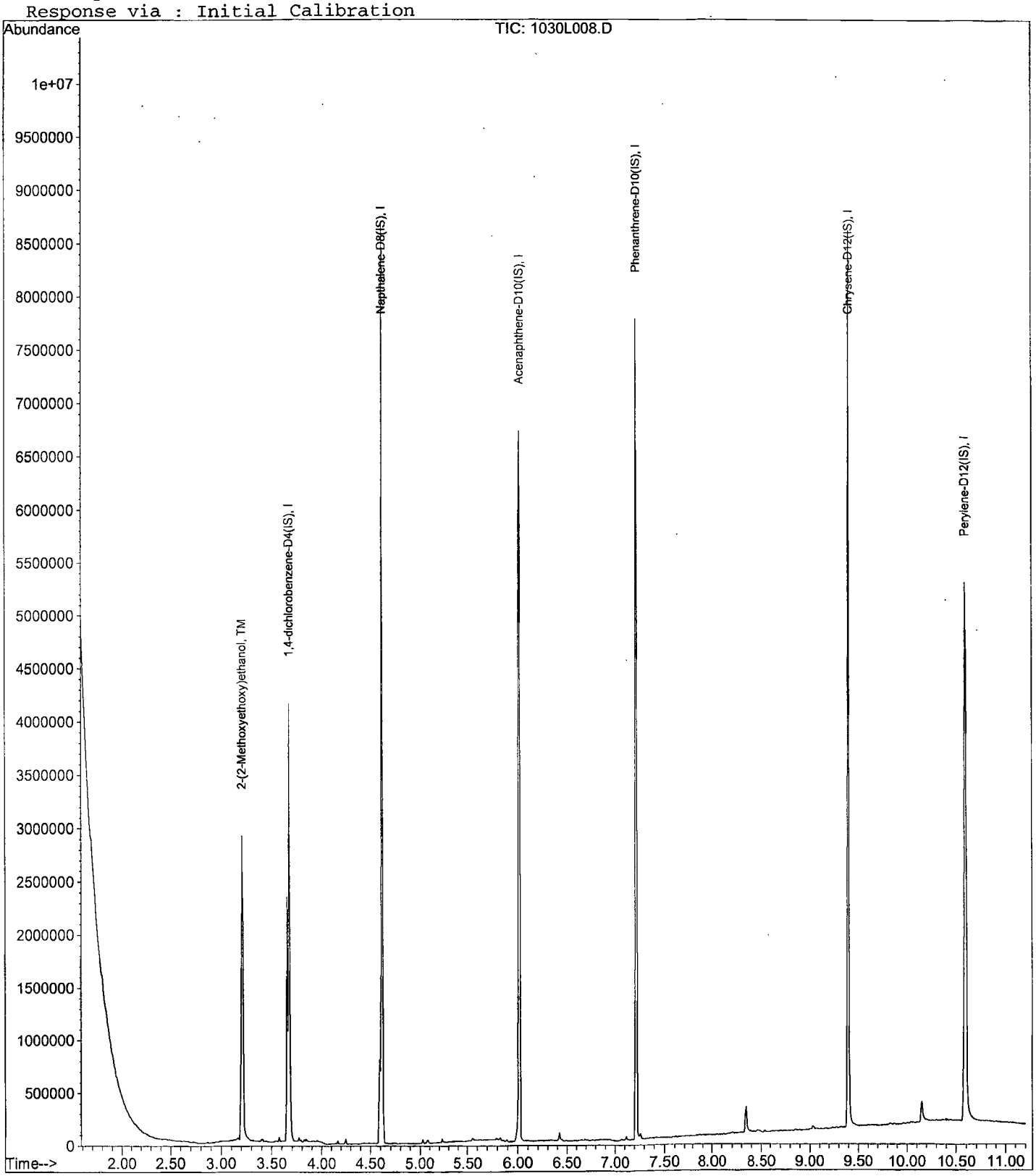
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L191030M\1030L008.D Vial: 8
Acq On : 31 Oct 19 13:07 Operator: MA
Sample : 500 2MEE 4/30/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 31 14:14 2019 Quant Results File: YMEE1030.RES

Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Oct 31 14:18:15 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L191030M\1030L009.D Vial: 9
Acq On : 31 Oct 19 13:25 Operator: MA
Sample : 600 2MEE 4/30/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 31 13:40 2019 Quant Results File: YMEE1030.RES

Quant Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Oct 31 13:28:52 2019
Response via : Initial Calibration
DataAcq Meth : GED

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	3.67	152	918679	40.00000 ppb	0.00
3) Napthalene-D8(IS)	4.62	136	3995417	40.00000 ppb	0.00
4) Acenaphthene-D10(IS)	6.02	164	2035544	40.00000 ppb	0.00
5) Phenanthrene-D10(IS)	7.23	188	3476903	40.00000 ppb	0.00
6) Chrysene-D12(IS)	9.40	240	2887642	40.00000 ppb	0.00
7) Perylene-D12(IS)	10.59	264	2390309	40.00000 ppb	0.00

System Monitoring Compounds

Target Compounds					Qvalue
2) 2-(2-Methoxyethoxy)ethanol	3.22	45	1897302	517.69156 ppb	98

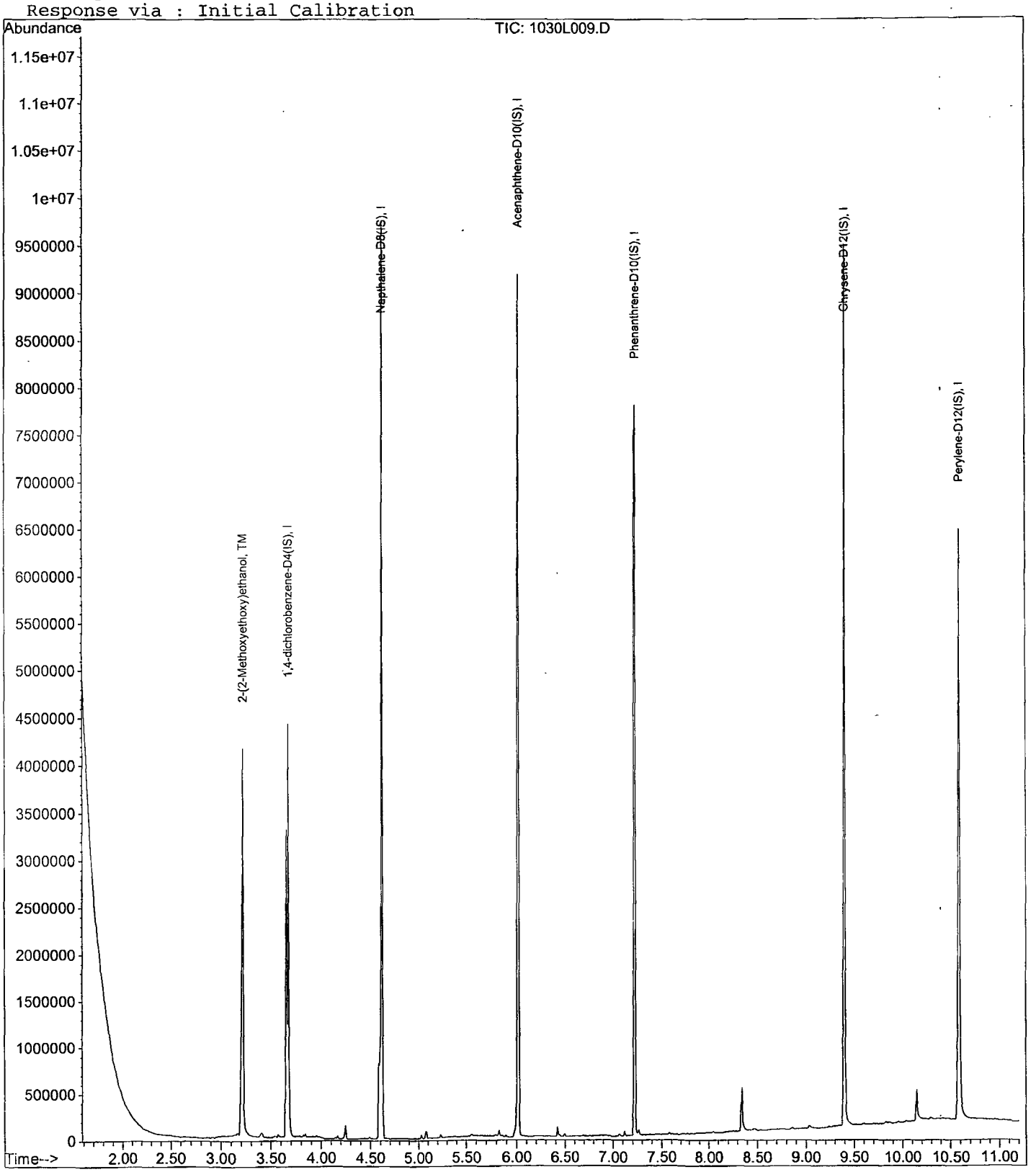
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L191030M\1030L009.D Vial: 9
Acq On : 31 Oct 19 13:25 Operator: MA
Sample : 600 2MEE 4/30/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 31 13:40 2019 Quant Results File: YMEE1030.RES

Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Oct 31 14:18:15 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L191030M\1030L010.D Vial: 10
Acq On : 31 Oct 19 13:43 Operator: MA
Sample : 800 2MEE 4/30/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 31 14:12 2019 Quant Results File: YMEE1030.RES

Quant Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Oct 31 13:28:52 2019
Response via : Initial Calibration
DataAcq Meth : GED

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	3.67	152	781913	40.00000	ppb	0.00
3) Napthalene-D8(IS)	4.62	136	3819124	40.00000	ppb	0.00
4) Acenaphthene-D10(IS)	6.02	164	2060420	40.00000	ppb	0.00
5) Phenanthrene-D10(IS)	7.23	188	3432435	40.00000	ppb	0.00
6) Chrysene-D12(IS)	9.41	240	3218071	40.00000	ppb	0.00
7) Perylene-D12(IS)	10.61	264	2421844	40.00000	ppb	0.00

System Monitoring Compounds

Target Compounds						Qvalue
2) 2-(2-Methoxyethoxy)ethanol	3.23	45	2499934	802.74185	ppb	98

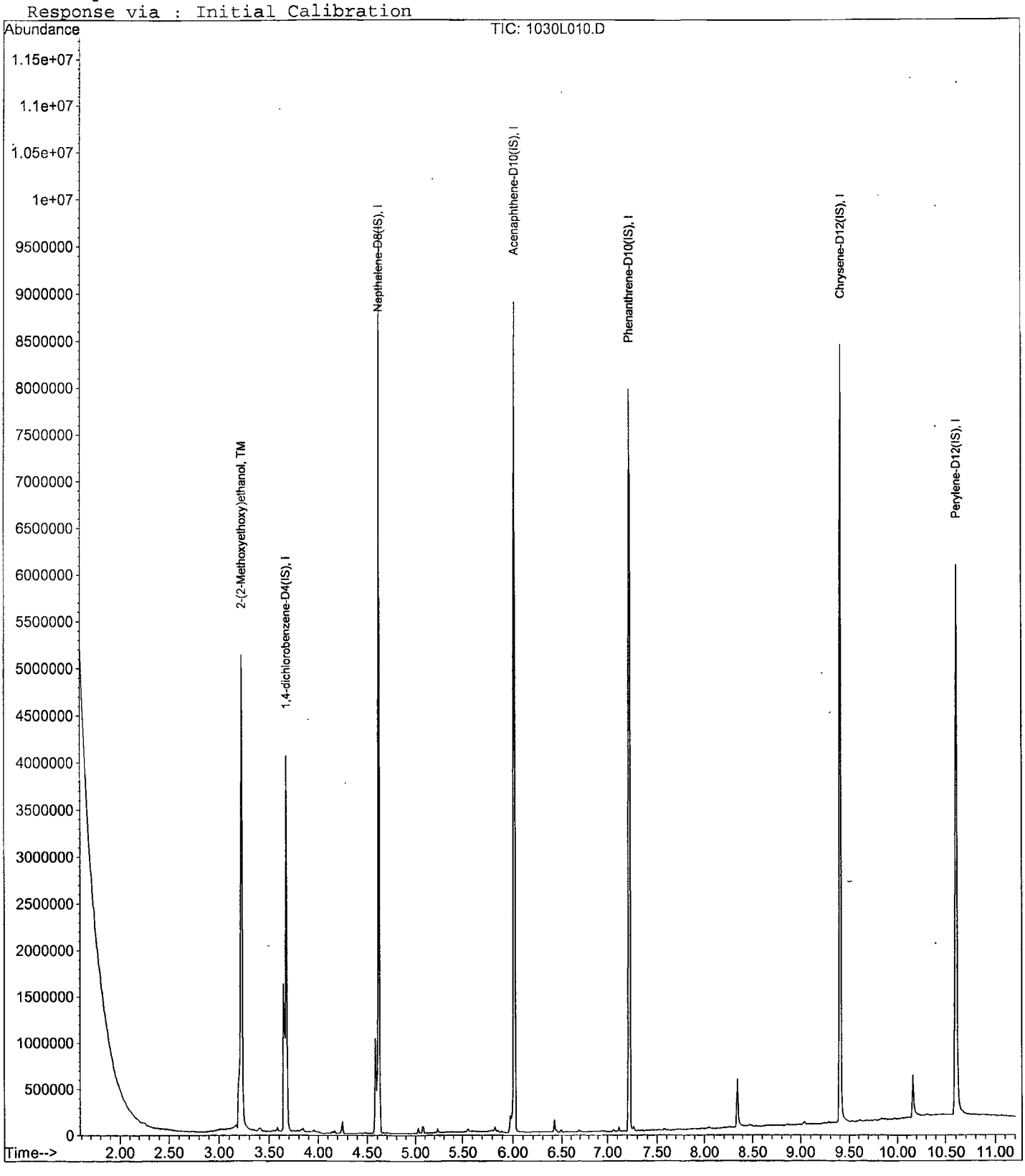
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L191030M\1030L010.D Vial: 10
Acq On : 31 Oct 19 13:43 Operator: MA
Sample : 800 2MEE 4/30/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 31 14:12 2019 Quant Results File: YMEE1030.RES

Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Oct 31 14:18:15 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L191030M\1030L011.D Vial: 11
Acq On : 31 Oct 19 14:02 Operator: MA
Sample : 1000 2MEE 4/30/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 31 14:13 2019 Quant Results File: YMEE1030.RES

Quant Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Oct 31 13:28:52 2019
Response via : Initial Calibration
DataAcq Meth : GED

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	3.67	152	893999	40.00000 ppb	0.00
3) Napthalene-D8(IS)	4.62	136	4002209	40.00000 ppb	0.00
4) Acenaphthene-D10(IS)	6.02	164	2003789	40.00000 ppb	0.00
5) Phenanthrene-D10(IS)	7.22	188	3346119	40.00000 ppb	0.00
6) Chrysene-D12(IS)	9.40	240	2853107	40.00000 ppb	0.00
7) Perylene-D12(IS)	10.60	264	2370540	40.00000 ppb	0.00

System Monitoring Compounds

Target Compounds					Qvalue
2) 2-(2-Methoxyethoxy)ethanol	3.23	45	3096034	880.60620 ppb	98

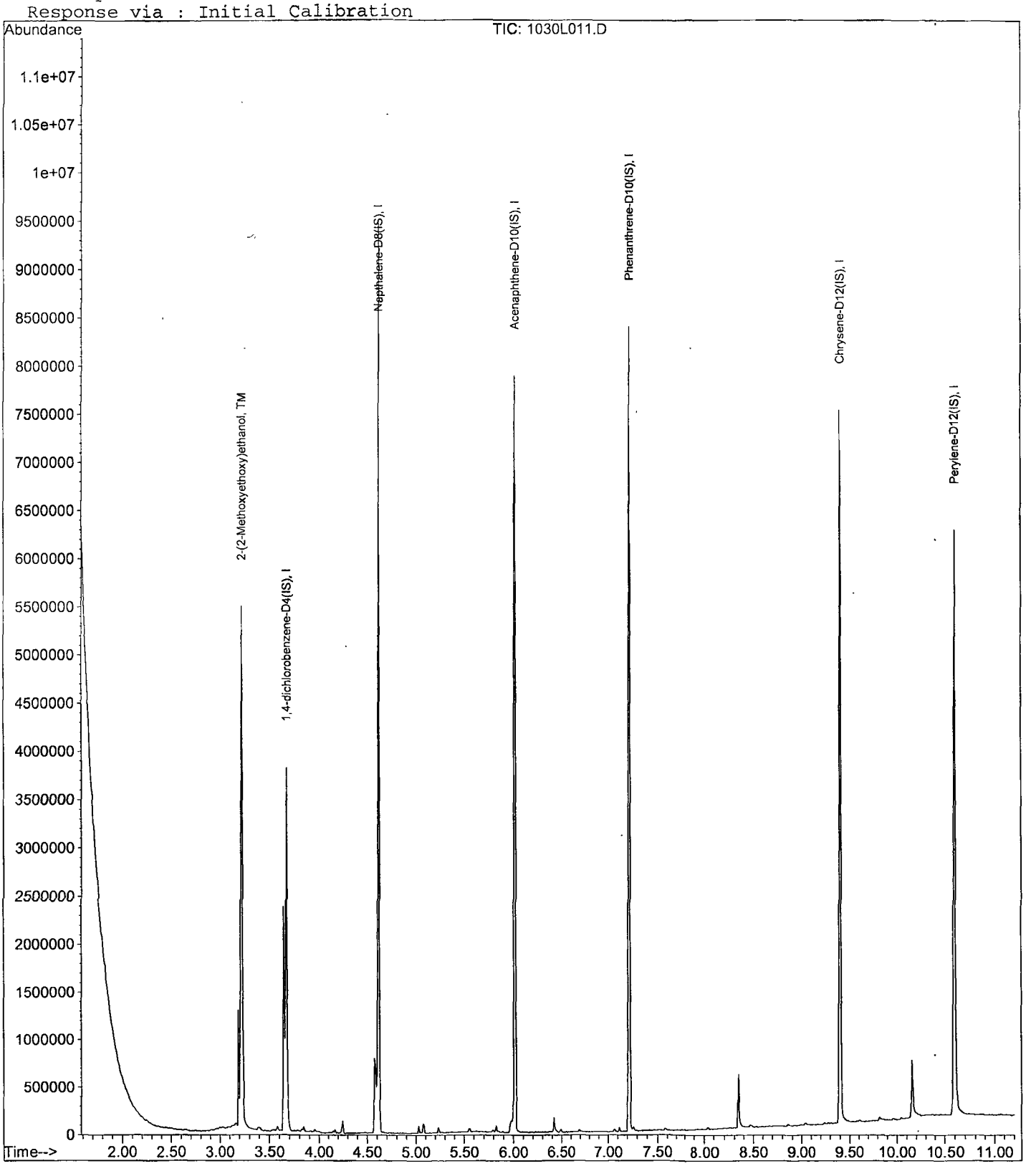
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L191030M\1030L011.D Vial: 11
Acq On : 31 Oct 19 14:02 Operator: MA
Sample : 1000 2MEE 4/30/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 31 14:13 2019 Quant Results File: YMEE1030.RES

Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Oct 31 14:18:15 2019
Response via : Initial Calibration



2MEE
EPA 8270

Form 7

Secon Source Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix:

SDG No:
Date Analyzed: 1 Nov 19 17:11
Instrument: Linus
Initial Cal. Date: 10/31/19
Data File: 1030L016.D

		Compound	MEAN	CCRF	%D		%Drift
1	I	1,4-dichlorobenzene-D4(IS)	ISTD			I	
2	TM	2-(2-Methoxyethoxy)ethanol	0.1384	0.1658	20	TM	
3	I	Napthalene-D8(IS)	ISTD			I	
4	I	Acenaphthene-D10(IS)	ISTD			I	
5	I	Phenanthrene-D10(IS)	ISTD			I	
6	I	Chrysene-D12(IS)	ISTD			I	
7	I	Perylene-D12(IS)	ISTD			I	
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
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30							
31							
32							
33							
34							
35							
36							
37							
38							
39							
40							
		Average			20.0		

Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L191030M\1030L016.D Vial: 16
Acq On : 1 Nov 19 17:11 Operator: MA
Sample : SS 2MEE 11/1/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Nov 1 17:27 2019 Quant Results File: YMEE1030.RES

Quant Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 01 17:06:59 2019
Response via : Initial Calibration
DataAcq Meth : GED

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	3.67	152	966230	40.00000 ppb	0.00
3) Napthalene-D8(IS)	4.62	136	4151555	40.00000 ppb	0.00
4) Acenaphthene-D10(IS)	6.02	164	2209408	40.00000 ppb	0.00
5) Phenanthrene-D10(IS)	7.23	188	4025811	40.00000 ppb	0.00
6) Chrysene-D12(IS)	9.40	240	2795621	40.00000 ppb	0.00
7) Perylene-D12(IS)	10.59	264	3078419	40.00000 ppb	0.00

System Monitoring Compounds

Target Compounds					Qvalue
2) 2-(2-Methoxyethoxy)ethanol	3.20	45	2003024	599.31894 ppb	100

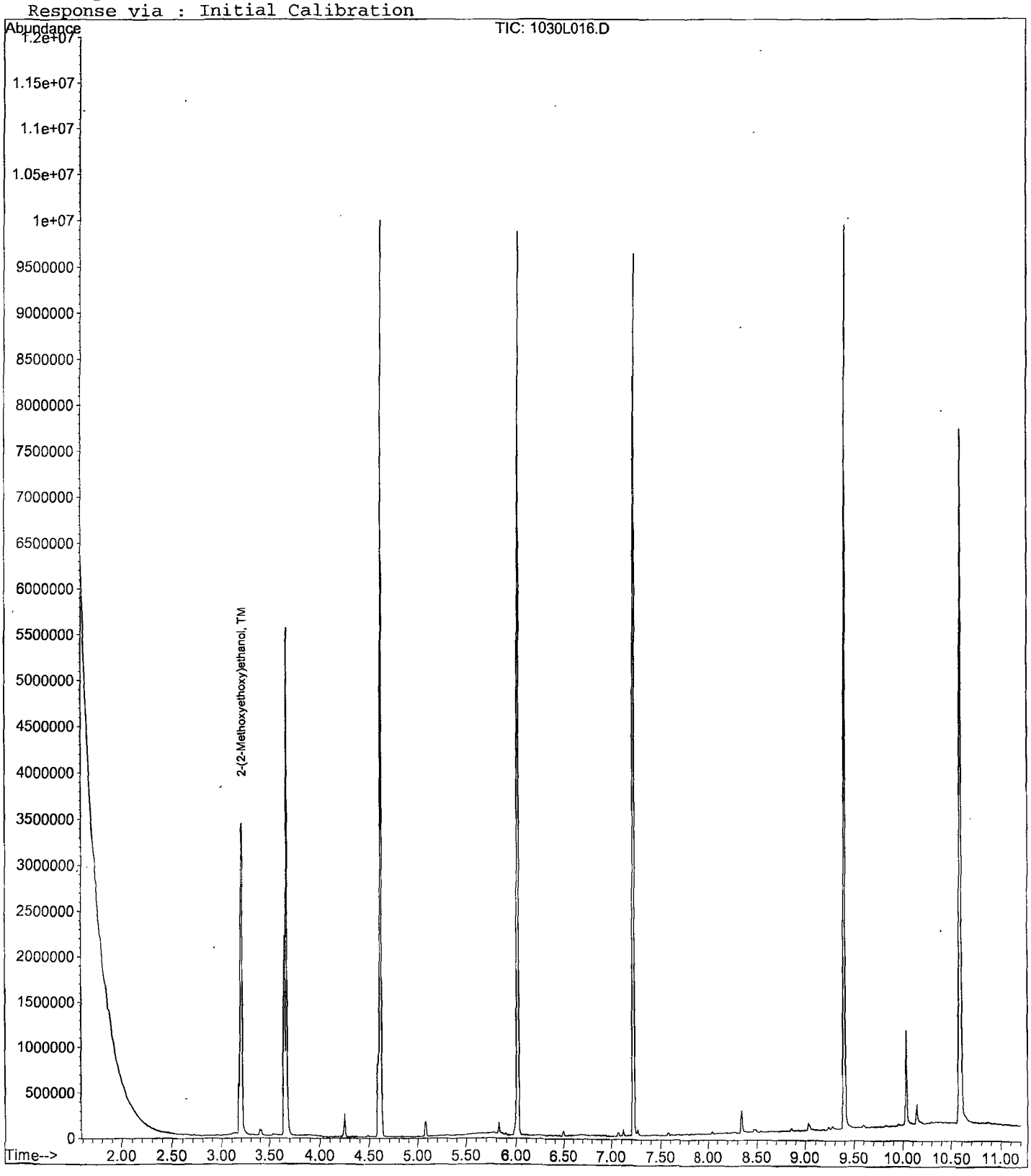
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L191030M\1030L016.D Vial: 16
Acq On : 1 Nov 19 17:11 Operator: MA
Sample : SS 2MEE 11/1/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Nov 1 17:27 2019 Quant Results File: YMEE1030.RES

Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 01 17:44:15 2019
Response via : Initial Calibration



2MEE
EPA 8270

Form 7

Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix:

SDG No:
Date Analyzed: 8 Nov 19 13:13
Instrument: Linus
Initial Cal. Date: 10/31/19
Data File: 1030L042.D

		Compound	MEAN	CCRF	%D		%Drift
1	I	1,4-dichlorobenzene-D4(IS)	ISTD			I	
2	TM	2-(2-Methoxyethoxy)ethanol	0.1384	0.1387	0.23	TM	
3	I	Napthalene-D8(IS)	ISTD			I	
4	I	Acenaphthene-D10(IS)	ISTD			I	
5	I	Phenanthrene-D10(IS)	ISTD			I	
6	I	Chrysene-D12(IS)	ISTD			I	
7	I	Perylene-D12(IS)	ISTD			I	
8							
9							
10							
11							
12							
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35							
36							
37							
38							
39							
40							
		Average			0.2		

Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L191030M\1030L042.D Vial: 42
Acq On : 8 Nov 19 13:13 Operator: MA
Sample : 500 2MEE 4/30/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Nov 8 13:31 2019 Quant Results File: YMEE1030.RES

Quant Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 01 17:44:15 2019
Response via : Initial Calibration
DataAcq Meth : GED

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	3.67	152	742292m	40.00000 ppb	0.00
3) Napthalene-D8(IS)	4.62	136	3312063	40.00000 ppb	0.00
4) Acenaphthene-D10(IS)	6.01	164	1556563	40.00000 ppb	0.00
5) Phenanthrene-D10(IS)	7.22	188	2759126	40.00000 ppb	0.00
6) Chrysene-D12(IS)	9.42	240	2199352	40.00000 ppb	0.02
7) Perylene-D12(IS)	10.65	264	2536267	40.00000 ppb	0.05

System Monitoring Compounds

Target Compounds					Qvalue
2) 2-(2-Methoxyethoxy)ethanol	3.20	45	1286778	501.16556 ppb	98

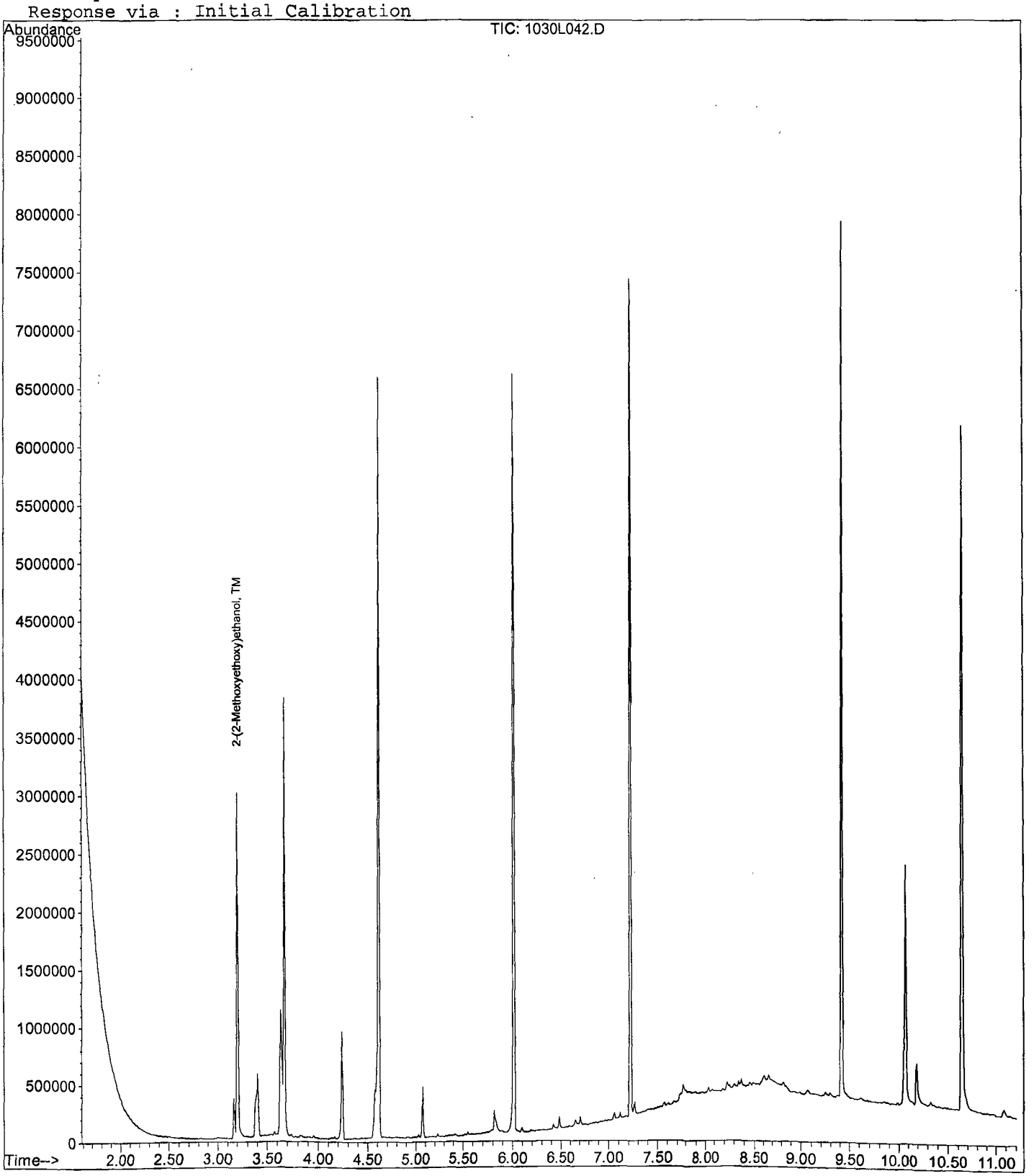
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L191030M\1030L042.D Vial: 42
Acq On : 8 Nov 19 13:13 Operator: MA
Sample : 500 2MEE 4/30/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Nov 8 13:31 2019 Quant Results File: YMEE1030.RES

Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 01 17:44:15 2019
Response via : Initial Calibration



2MEE
EPA 8270

Form 7

Ending Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix:

SDG No:
Date Analyzed: 8 Nov 19 21:02
Instrument: Linus
Initial Cal. Date: 10/31/19
Data File: 1030L061.D

		Compound	MEAN	CCRF	%D		%Drift
1	I	1,4-dichlorobenzene-D4(IS)	ISTD			I	
2	TM	2-(2-Methoxyethoxy)ethanol	0.1384	0.1103	20	TM	
3	I	Napthalene-D8(IS)	ISTD			I	
4	I	Acenaphthene-D10(IS)	ISTD			I	
5	I	Phenanthrene-D10(IS)	ISTD			I	
6	I	Chrysene-D12(IS)	ISTD			I	
7	I	Perylene-D12(IS)	ISTD			I	
8							
9							
10							
11							
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34							
35							
36							
37							
38							
39							
40							
		Average			20.0		

Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L191030M\1030L061.D Vial: 61
Acq On : 8 Nov 19 21:02 Operator: MA
Sample : 500 2MEE 4/30/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Nov 11 9:47 2019 Quant Results File: YMEE1030.RES

Quant Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 01 17:44:15 2019
Response via : Initial Calibration
DataAcq Meth : GED

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	3.67	152	772424m	40.00000	ppb	0.00
3) Napthalene-D8(IS)	4.61	136	3311191	40.00000	ppb	0.00
4) Acenaphthene-D10(IS)	6.01	164	1654193	40.00000	ppb	0.00
5) Phenanthrene-D10(IS)	7.22	188	3011207	40.00000	ppb	0.00
6) Chrysene-D12(IS)	9.39	240	2583758	40.00000	ppb	0.00
7) Perylene-D12(IS)	10.57	264	2584578	40.00000	ppb	-0.03

System Monitoring Compounds

Target Compounds						Qvalue
2) 2-(2-Methoxyethoxy)ethanol	3.19	45	1065305	398.72234	ppb	96

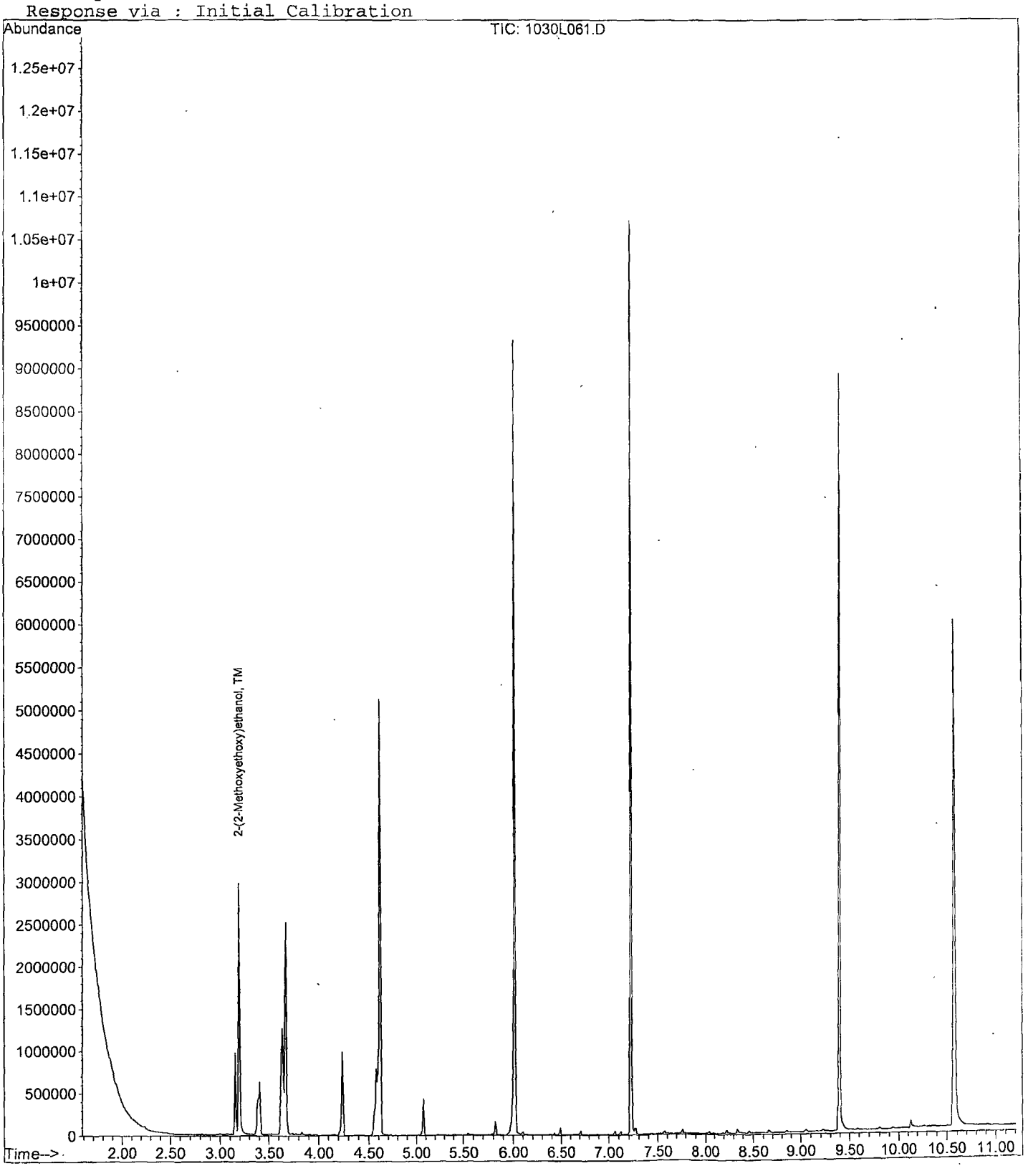
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L191030M\1030L061.D Vial: 61
Acq On : 8 Nov 19 21:02 Operator: MA
Sample : 500 2MEE 4/30/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Nov 11 9:47 2019 Quant Results File: YMEE1030.RES

Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 01 17:44:15 2019
Response via : Initial Calibration



ORGANICS
Raw Data

Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L191030M\1030L050.D Vial: 50
Acq On : 8 Nov 19 17:40 Operator: MA
Sample : BA02090W13 2/500 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Nov 11 9:44 2019 Quant Results File: YMEE1030.RES

Quant Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 01 17:44:15 2019
Response via : Initial Calibration
DataAcq Meth : GED

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	3.66	152	684533	40.00000	ppb	0.00
3) Napthalene-D8(IS)	4.62	136	2903038	40.00000	ppb	0.00
4) Acenaphthene-D10(IS)	6.01	164	1369310	40.00000	ppb	0.00
5) Phenanthrene-D10(IS)	7.22	188	2660270	40.00000	ppb	0.00
6) Chrysene-D12(IS)	9.40	240	1978656	40.00000	ppb	0.00
7) Perylene-D12(IS)	10.61	264	2146463	40.00000	ppb	0.00

System Monitoring Compounds

Target Compounds Qvalue

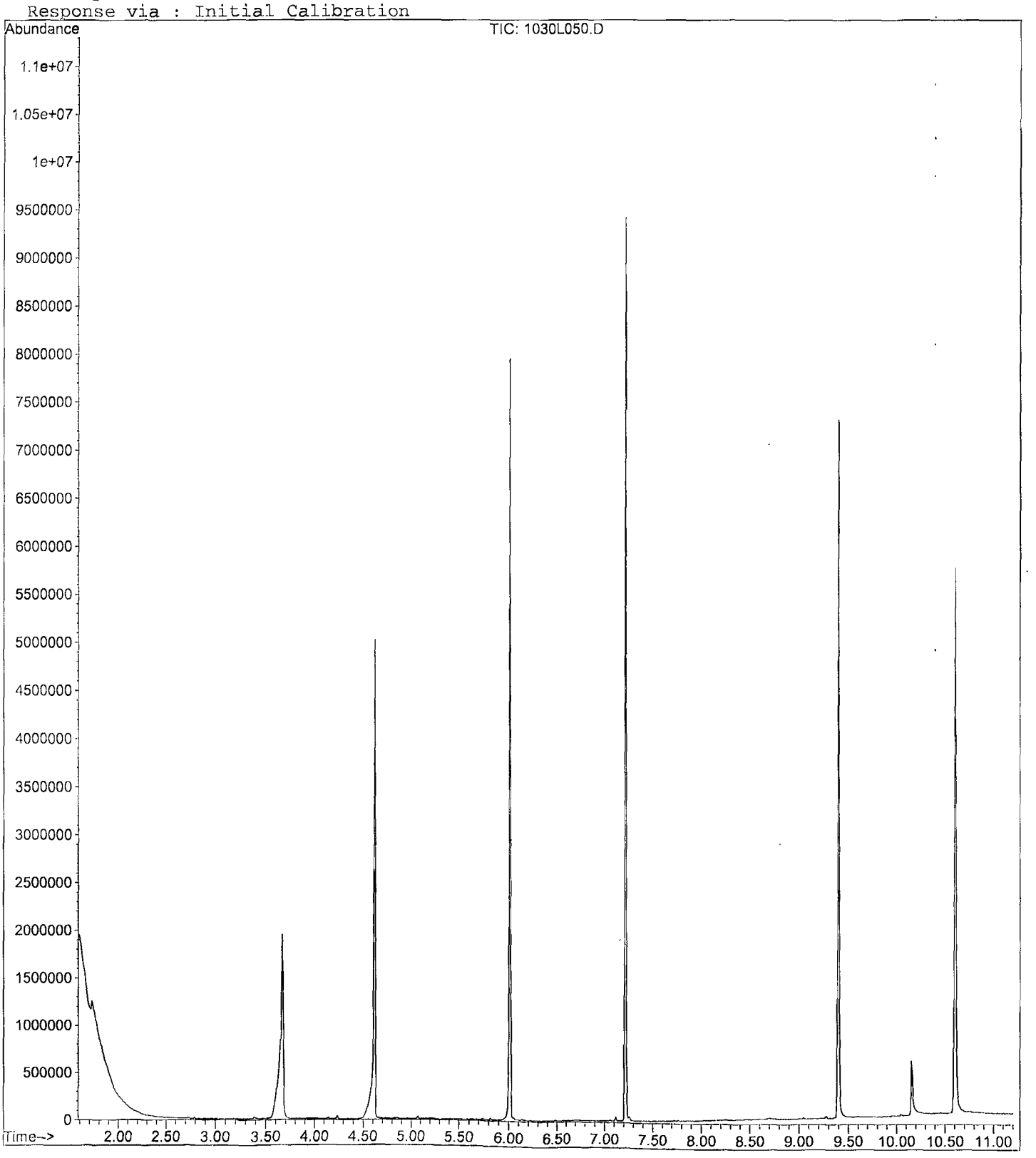
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L191030M\1030L050.D Vial: 50
Acq On : 8 Nov 19 17:40 Operator: MA
Sample : BA02090W13 2/500 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Nov 11 9:44 2019 Quant Results File: YMEE1030.RES

Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 01 17:44:15 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L191030M\1030L051.D Vial: 51
Acq On : 8 Nov 19 17:59 Operator: MA
Sample : BA02091W10 2/500 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Nov 11 9:44 2019 Quant Results File: YMEE1030.RES

Quant Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 01 17:44:15 2019
Response via : Initial Calibration
DataAcq Meth : GED

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	3.66	152	594445	40.00000	ppb	0.00
3) Napthalene-D8(IS)	4.61	136	2355816	40.00000	ppb	0.00
4) Acenaphthene-D10(IS)	6.01	164	1335737	40.00000	ppb	0.00
5) Phenanthrene-D10(IS)	7.22	188	2664215	40.00000	ppb	0.00
6) Chrysene-D12(IS)	9.40	240	1917002	40.00000	ppb	0.00
7) Perylene-D12(IS)	10.60	264	2021237	40.00000	ppb	0.00

System Monitoring Compounds

Target Compounds Qvalue

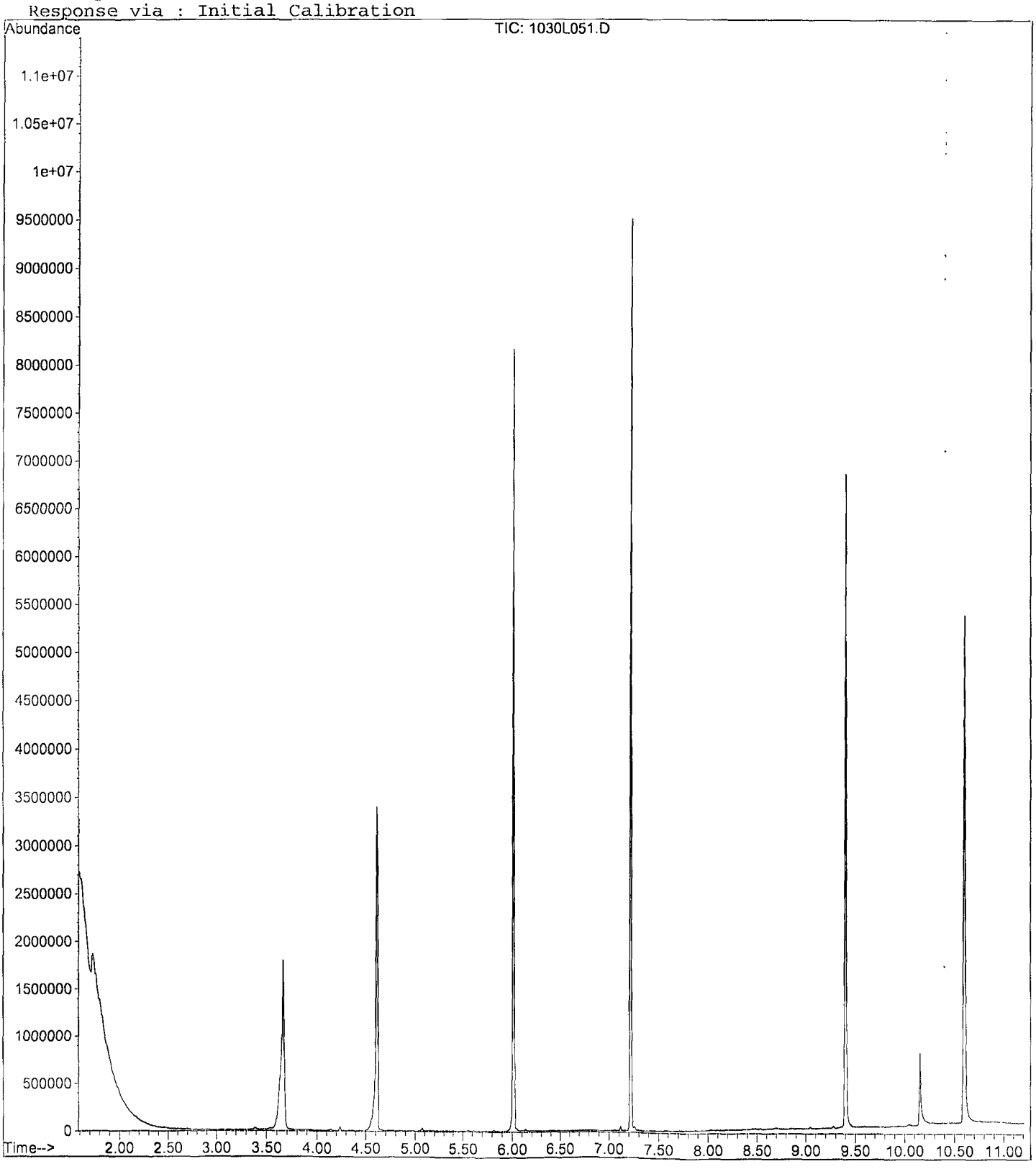
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L191030M\1030L051.D Vial: 51
Acq On : 8 Nov 19 17:59 Operator: MA
Sample : BA02091W10 2/500 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Nov 11 9:44 2019 Quant Results File: YMEE1030.RES

Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 01 17:44:15 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L191030M\1030L043.D Vial: 43
Acq On : 8 Nov 19 14:21 Operator: MA
Sample : 191031A BLK 2/500 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Nov 8 16:32 2019 Quant Results File: YMEE1030.RES

Quant Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 01 17:44:15 2019
Response via : Initial Calibration
DataAcq Meth : GED

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	3.67	152	699122	40.00000 ppb	0.00
3) Napthalene-D8(IS)	4.62	136	3106332	40.00000 ppb	0.00
4) Acenaphthene-D10(IS)	6.01	164	1436563	40.00000 ppb	0.00
5) Phenanthrene-D10(IS)	7.22	188	2646764	40.00000 ppb	0.00
6) Chrysene-D12(IS)	9.44	240	2042225	40.00000 ppb	0.04
7) Perylene-D12(IS)	10.68	264	2139011	40.00000 ppb	0.08

System Monitoring Compounds

Target Compounds Qvalue

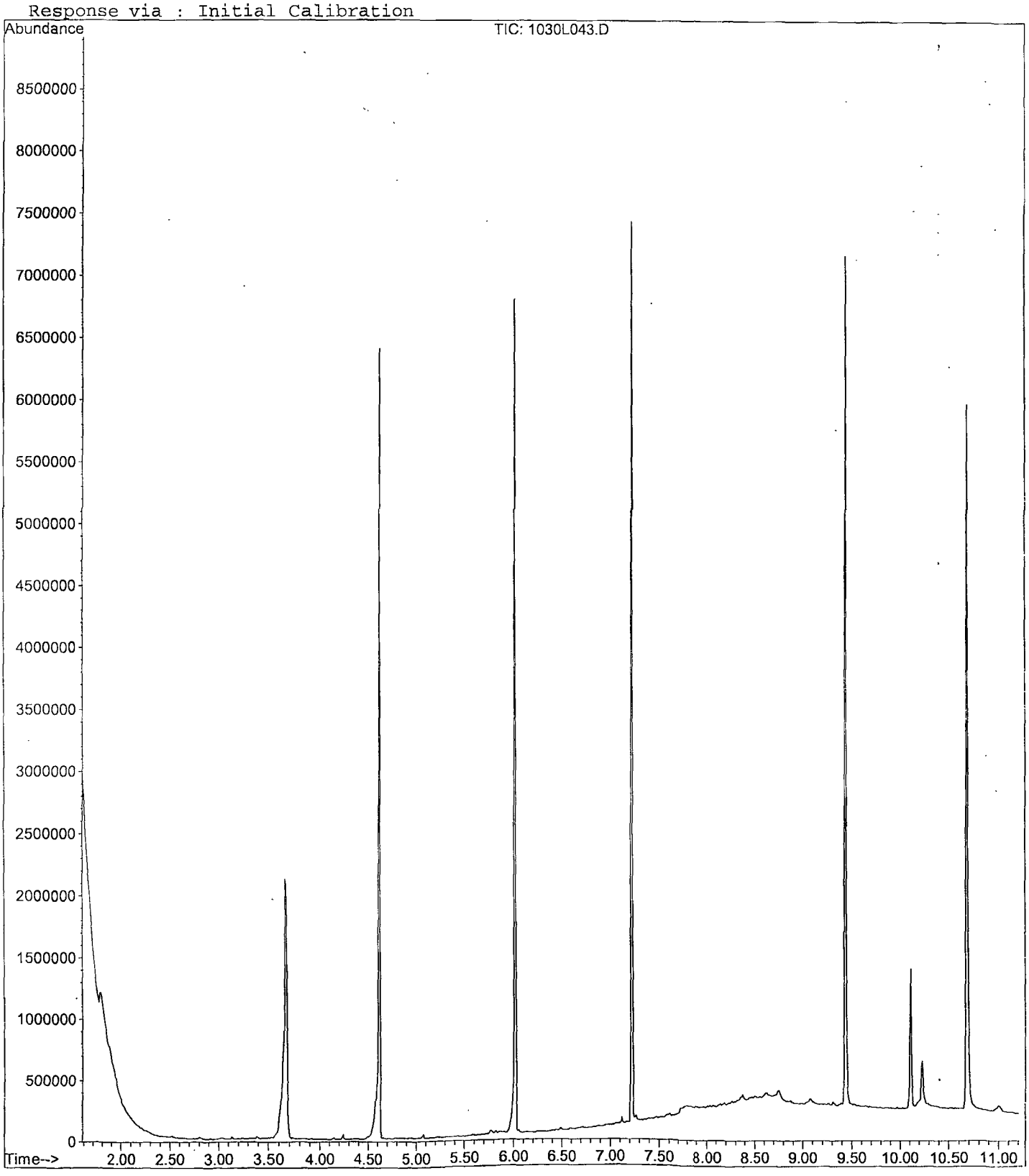
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L191030M\1030L043.D Vial: 43
Acq On : 8 Nov 19 14:21 Operator: MA
Sample : 191031A BLK 2/500 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Nov 8 16:32 2019 Quant Results File: YMEE1030.RES

Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 01 17:44:15 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L191030M\1030L044.D Vial: 44
Acq On : 8 Nov 19 15:49 Operator: MA
Sample : 191031A LCS-1 2/500 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Nov 8 16:33 2019 Quant Results File: YMEE1030.RES

Quant Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 01 17:44:15 2019
Response via : Initial Calibration
DataAcq Meth : GED

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	3.66	152	835190	40.00000 ppb	0.00
3) Napthalene-D8(IS)	4.62	136	3596714	40.00000 ppb	0.00
4) Acenaphthene-D10(IS)	6.01	164	1685475	40.00000 ppb	0.00
5) Phenanthrene-D10(IS)	7.22	188	2974818	40.00000 ppb	0.00
6) Chrysene-D12(IS)	9.43	240	2366376	40.00000 ppb	0.03
7) Perylene-D12(IS)	10.66	264	2671224	40.00000 ppb	0.07
System Monitoring Compounds					
Target Compounds					Qvalue
2) 2-(2-Methoxyethoxy)ethanol	3.22	45	266233	92.15714 ppb	97

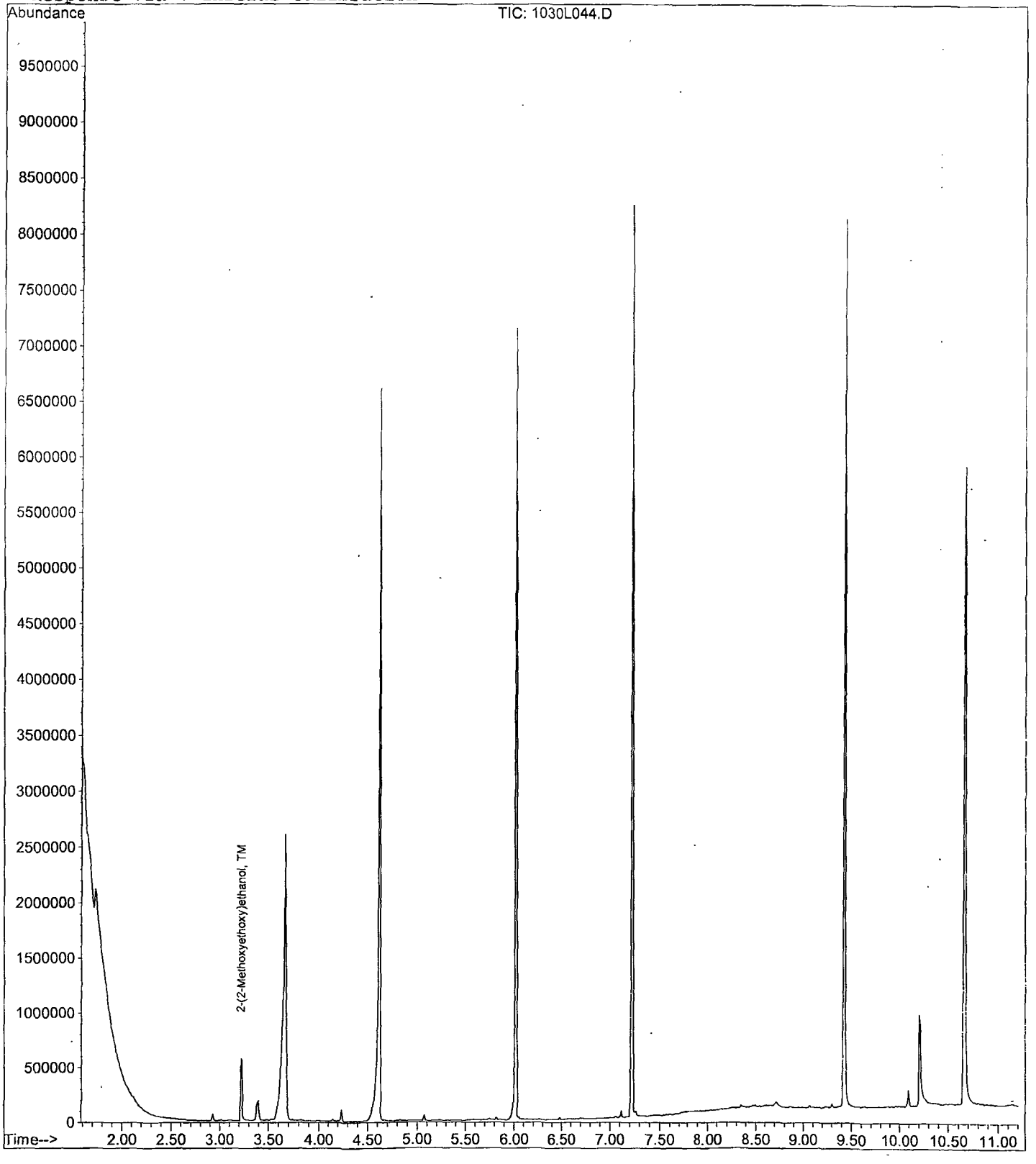
(#) = qualifier out of range (m) = manual integration

Data File : M:\LINUS\DATA\L191030M\1030L044.D
Acq On : 8 Nov 19 15:49
Sample : 191031A LCS-1 2/500
Misc :

Vial: 44
Operator: MA
Inst : Linus
Multiplr: 1.00

Quant Time: Nov 8 16:33 2019 Quant Results File: YMEE1030.RES

Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 01 17:44:15 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L191030M\1030L047.D Vial: 47
Acq On : 8 Nov 19 16:45 Operator: MA
Sample : 191031A LCSD-1 2/500 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Nov 8 17:18 2019 Quant Results File: YMEE1030.RES

Quant Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 01 17:44:15 2019
Response via : Initial Calibration
DataAcq Meth : GED

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	3.66	152	968441	40.00000	ppb	0.00
3) Napthalene-D8(IS)	4.62	136	4015248	40.00000	ppb	0.00
4) Acenaphthene-D10(IS)	6.01	164	1942615	40.00000	ppb	0.00
5) Phenanthrene-D10(IS)	7.22	188	3543239	40.00000	ppb	0.00
6) Chrysene-D12(IS)	9.41	240	2703109	40.00000	ppb	0.00
7) Perylene-D12(IS)	10.63	264	3165685	40.00000	ppb	0.03

System Monitoring Compounds

Target Compounds						Qvalue
2) 2-(2-Methoxyethoxy)ethanol	3.22	45	276813	82.63531	ppb	91

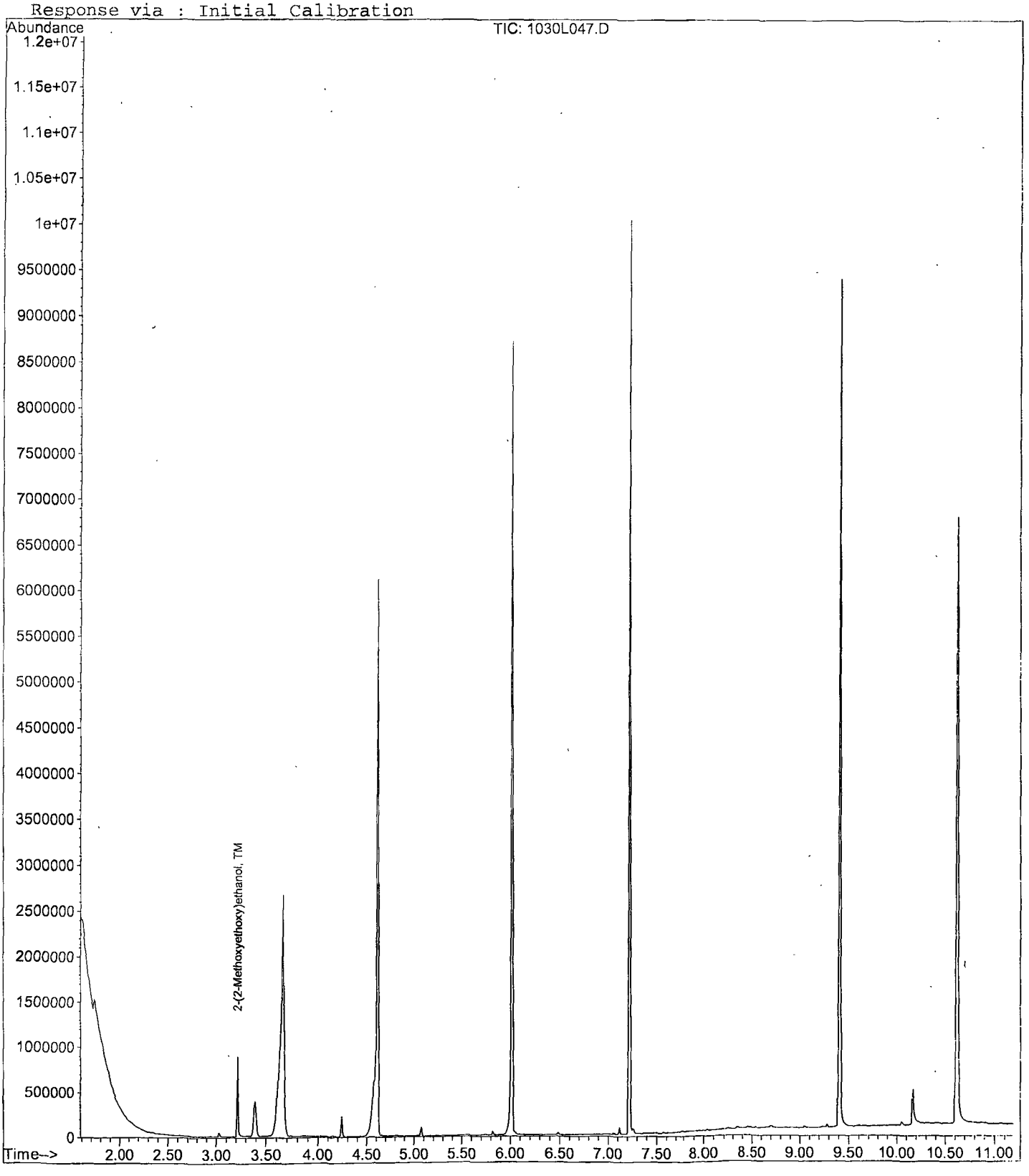
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L191030M\1030L047.D Vial: 47
Acq On : 8 Nov 19 16:45 Operator: MA
Sample : 191031A LCSD-1 2/500 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Nov 8 17:18 2019 Quant Results File: YMEE1030.RES

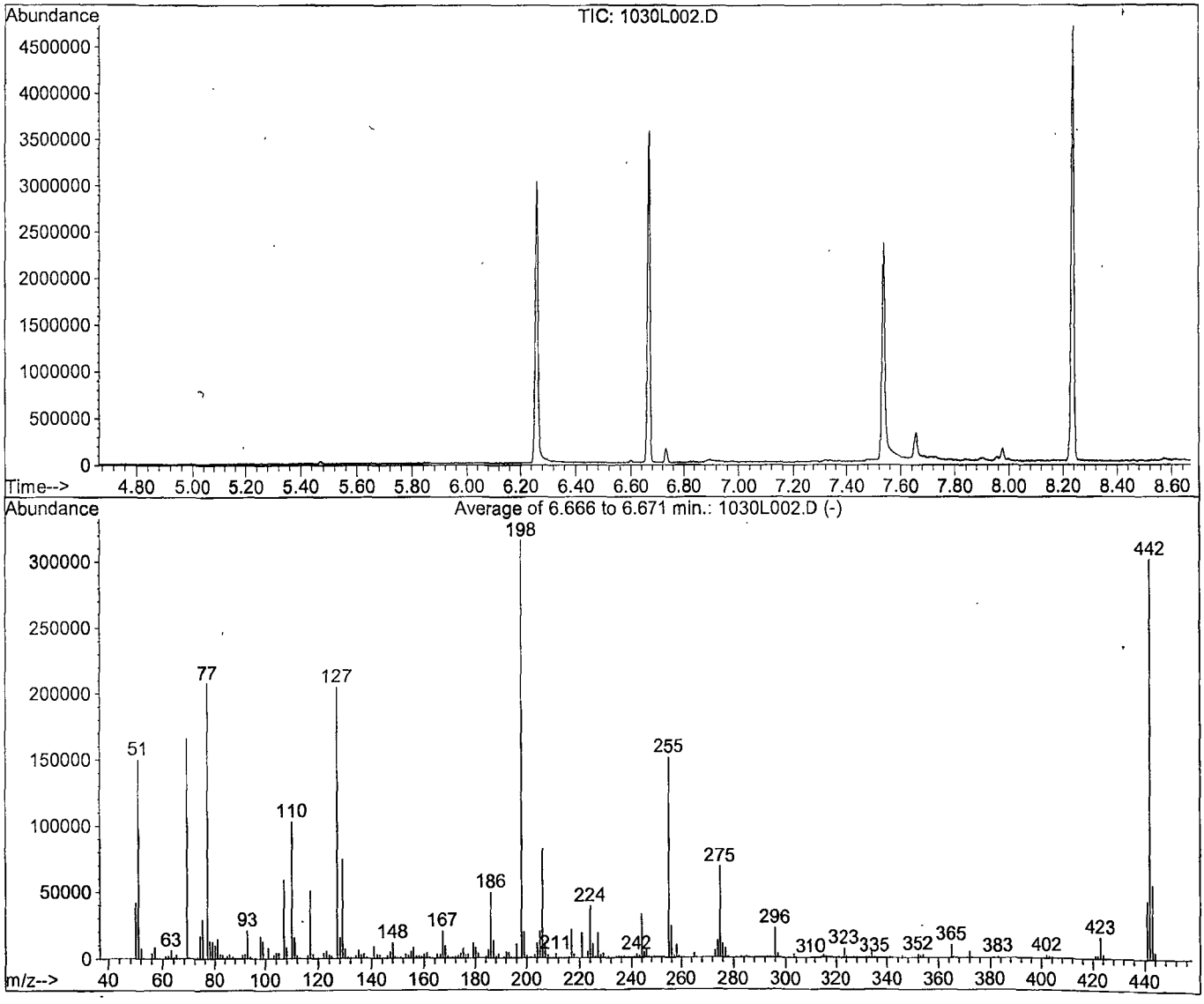
Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 01 17:44:15 2019
Response via : Initial Calibration



DFTPP

Data File : M:\LINUS\DATA\L191030M\1030L002.D Vial: 86
Acq On : 31 Oct 19 9:39 Operator: MA
Sample : SV Tune 10/01/19 Inst : Linus
Misc : Multiplr: 1.00

Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C



AutoFind: Scans 1639, 1640, 1641; Background Corrected with Scan 1629

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	47.5	150243	PASS
68	69	0.00	2	0.0	0	PASS
70	69	0.00	2	0.6	922	PASS
127	198	10	80	64.9	205418	PASS
197	198	0.00	2	0.0	0	PASS
198	198	100	100	100.0	316523	PASS
199	198	5	9	6.2	19776	PASS
275	198	10	60	21.7	68701	PASS
365	198	1	100	3.2	9986	PASS
441	442	0.01	24	14.5	43648	PASS
442	198	50	500	95.4	301909	PASS
443	442	15	24	18.6	56149	PASS

Data File Name:	**1030L002.D**
Data File Path:	**M:\LINUS\DATA\L191030M**
Operator:	**MA**
Date Acquired:	**31 Oct 2019 09:39**
Method File:	**DFTPP2.M**
Sample Name:	**SV Tune 07/11/19**
Vial Number:	**86**
Instrument Name:	**Linus**

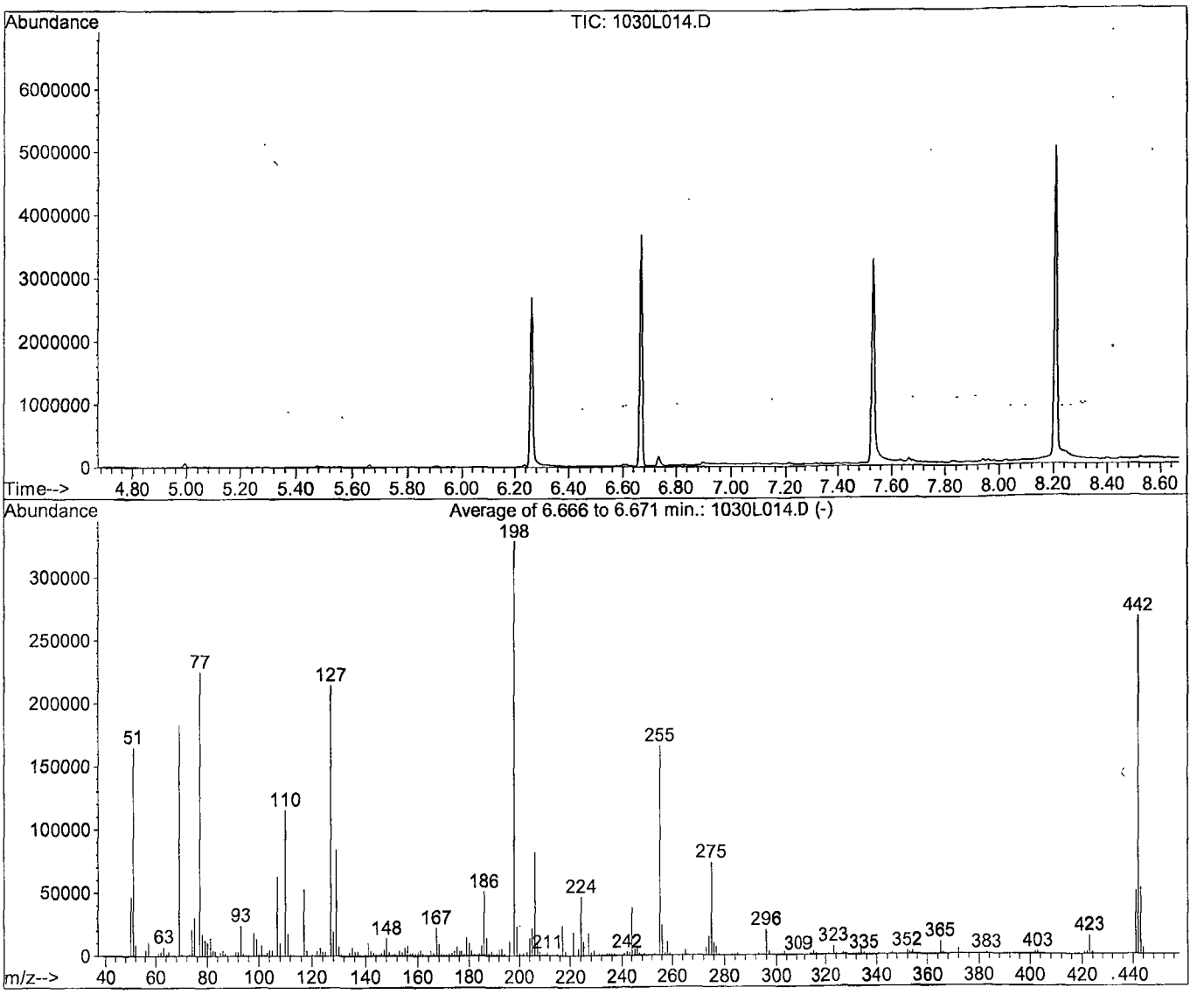
#	Name	Ret Time	Target Response
1)	DDT	8.21	32088400
2)	DDD	7.98	1040940
3)	DDE	8.00	701952

Breakdown **5.15**

DFTPP

Data File : M:\LINUS\DATA\L191030M\1030L014.D Vial: 14
Acq On : 1 Nov 19 15:17 Operator: MA
Sample : SV Tune 10/01/19 Inst : Linus
Misc : Multiplr: 1.00

Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C



AutoFind: Scans 1639, 1640, 1641; Background Corrected with Scan 1630

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	50.2	164951	PASS
68	69	0.00	2	0.0	0	PASS
70	69	0.00	2	0.7	1364	PASS
127	198	10	80	65.2	214229	PASS
197	198	0.00	2	0.0	0	PASS
198	198	100	100	100.0	328597	PASS
199	198	5	9	7.0	22899	PASS
275	198	10	60	22.3	73325	PASS
365	198	1	100	3.1	10112	PASS
441	442	0.01	24	18.5	49301	PASS
442	198	50	500	81.1	266539	PASS
443	442	15	24	19.7	52437	PASS

Data File Name:	**1030L014.D**
Data File Path:	**M:\LINUS\DATA\L191030M**
Operator:	**MA**
Date Acquired:	**1 Nov 19 15:17**
Method File:	**DFTPP2.M**
Sample Name:	**SV Tune 10/01/19**
Vial Number:	**14**
Instrument Name:	**Linus**

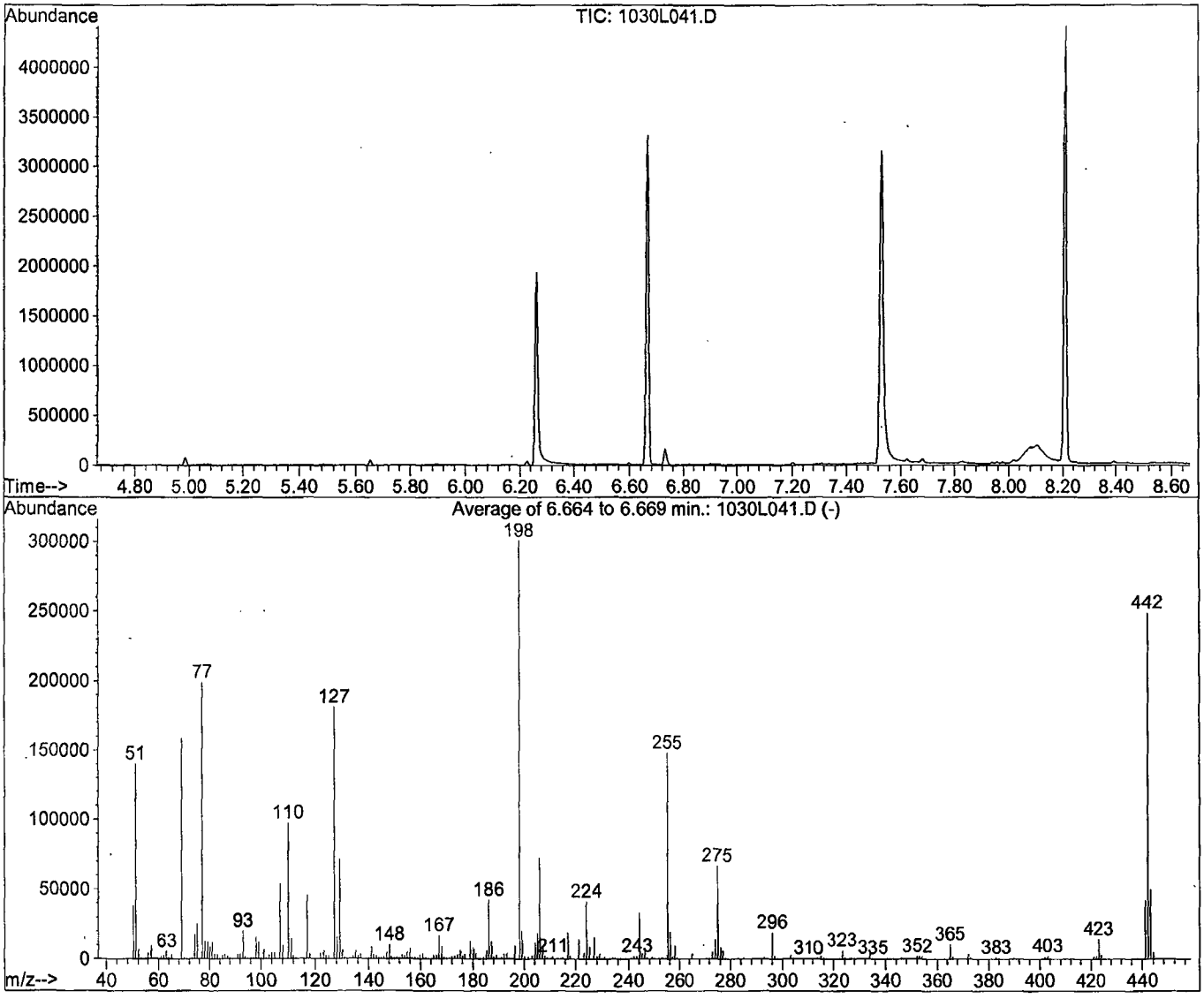
#	Name	Ret Time	Target Response
1)	DDT	8.21	38086400
2)	DDD	7.98	224750
3)	DDE	8.00	113996

Breakdown **0.88**

DFTPP

Data File : M:\LINUS\DATA\L191030M\1030L041.D Vial: 41
Acq On : 8 Nov 19 12:30 Operator: MA
Sample : SV Tune 10/01/19 Inst : Linus
Misc : Multiplr: 1.00

Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C



AutoFind: Scans 1638, 1639, 1640; Background Corrected with Scan 1629

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	46.6	140225	PASS
68	69	0.00	2	0.0	0	PASS
70	69	0.00	2	0.6	933	PASS
127	198	10	80	60.1	180957	PASS
197	198	0.00	2	0.0	0	PASS
198	198	100	100	100.0	300928	PASS
199	198	5	9	6.6	19924	PASS
275	198	10	60	22.2	66765	PASS
365	198	1	100	3.6	10732	PASS
441	442	0.01	24	17.0	42301	PASS
442	198	50	500	82.6	248469	PASS
443	442	15	24	20.2	50115	PASS

Data File Name:	**1030L041.D**
Data File Path:	**M:\LINUS\DATA\L191030M**
Operator:	**MA**
Date Acquired:	**8 Nov 19 12:30**
Method File:	**DFTPP2.M**
Sample Name:	**SV Tune 10/01/19**
Vial Number:	**41**
Instrument Name:	**Linus**

#	Name	Ret Time	Target Response
1)	DDT	8.21	31052200
2)	DDD	7.98	158999
3)	DDE	8.00	92340

Breakdown **0.80**

Name of Final Standard Diethylene Glycol

Prep Date 01/31/19

Exp Date 01/31/20

Prep'd By (Initials) GA

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from contianer Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc.(range)
Diethylene glycol methyl ether	AccuStandard	S-72273	2000 ug/mL	218101558-39888 39889	01/31/20	2.0 mL	4 mL	Methanol #042317C	1000 ug/mL

Given to Extraction to do MEE M STD Stock (used for ICAL) Final concentration 2000ug/L

_MWE2MEE

Organic Extraction Worksheet

Method	Solid Phase Extraction of 2MEE in Water	Extraction Set	190429A	Extraction Method	MWE2MEE	Units	mL

Spiked ID 1	Diethylene Glycol 1-31-19 EXP 1-31-20		Surrogate ID 1		
Spiked ID 2	2MEE SS 10320ug/mL 8-3-18 exp 8-3-19		Surrogate ID 2		
Spiked ID 3			Surrogate ID 3		
Spiked ID 4			Surrogate ID 4		
Spiked ID 5			Surrogate ID 5		
Spiked ID 6			Sufficient Vol for Matrix QC:	YES	
Spiked ID 7			Ext. Start Time:	04/29/19 10:50	
Spiked ID 8			Ext. End Time:	04/29/19 16:40	
			GC Requires Extract By:	04/30/19 0:00	

M STD AND SS PREPARATION

HA 5/1/19

				Water Bath Temp Criteria	
pH1					
pH2					
pH3					

Spiked By: KY **Date** 04/29/19 **Witnessed By:** DL **Date** 04/29/19

	Sample	Sample Container	Spike Amount	Spike ID	Surrogate Amount	Surrogate ID	Extract Amount	Final Volume	pH	Extract Date/Time	Comments
1	190429A Blk				NA	NA equip	500	2	7	04/29/19 10:50	
2	190429A LCS-1		0.040	1	NA	NA equip	500	2	7	04/29/19 10:50	
3	190429A LCSD-1		0.040	1	NA	NA equip	500	2	7	04/29/19 10:50	
4	AZ89958 MS-1	AZ89958W23	0.040	1	NA	NA equip	510	2	7	04/29/19 10:50	88687
5	AZ89958 MSD-1	AZ89958W22	0.040	1	NA	NA equip	510	2	7	04/29/19 10:50	88687
6	AZ89958	AZ89958W24			NA	NA equip	500	2	7	04/29/19 10:50	88687
7	AZ89959	AZ89959W06			NA	NA equip	480	2	7	04/29/19 10:50	88687
8	AZ89961	AZ89961W22			NA	NA equip	510	2	7	04/29/19 10:50	88687
9	AZ90051 MS-1	AZ90051W21	0.040	1	NA	NA equip	500	2	7	04/29/19 10:50	88701
10	AZ90051 MSD-1	AZ90051W25	0.040	1	NA	NA equip	500	2	7	04/29/19 10:50	88701
11	AZ90051	AZ90051W22			NA	NA equip	500	2	7	04/29/19 10:50	88701
12	AZ90052	AZ90052W05			NA	NA equip	505	2	7	04/29/19 10:50	88701
13	AZ90054	AZ90054W16			NA	NA equip	510	2	7	04/29/19 10:50	88701
14	AZ90056	AZ90056W16			NA	NA equip	510	2	7	04/29/19 10:50	88701
15	AZ90058	AZ90058W17			NA	NA equip	500	2	7	04/29/19 10:50	88701
16	AZ90060	AZ90060W17			NA	NA equip	505	2	7	04/29/19 10:50	88701

Solvent and Lot#	
ENVI-Carb Plus 400MG/1ML	.
Reverible Tube Lot:	11225702
PH Strip	HC 863463
Di Water	4-29-19
Dichloromethane	58240
Methanol	58179

Extraction COC Transfer	
Extraction lab employee Initials	KY
GC analyst's initials	
Date	
Time	
Refrigerator	

	Technician's Initials
Scanned By	DL
Sample Preparation	DL
Extraction	DL
Concentration	DL

Modified	04/29/19 2:46:49 PM

Reviewed By: **Date**

Organic Extraction Worksheet

Method	Solid Phase Extraction of 2MEE in Water	Extraction Set	190429A	Extraction Method	MWE2MEE	Units	mL

Spiked ID 1	Diethylene Glycol 1-31-19 EXP 1-31-20		Surrogate ID 1		
Spiked ID 2	2MEE SS 10320ug/mL 8-3-18 exp 8-3-19		Surrogate ID 2		
Spiked ID 3			Surrogate ID 3		
Spiked ID 4			Surrogate ID 4		
Spiked ID 5			Surrogate ID 5		
Spiked ID 6			Sufficient Vol for Matrix QC:	YES	
Spiked ID 7			Ext. Start Time:	04/29/19 10:50	
Spiked ID 8			Ext. End Time:	04/29/19 16:40	
			GC Requires Extract By:	**04/30/19 0:00**	

pH1			Water Bath Temp Criteria
pH2			
pH3			

Spiked By: KY **Date** 04/29/19 **Witnessed By:** DL **Date** 04/29/19

	Sample	Sample Container	Spike Amount	Spike ID	Surrogate Amount	Surrogate ID	Extract Amount	Final Volume	pH	Extract Date/Time	Comments
17	AZ90100	AZ90100W17			NA	NA equip	510	2	7	04/29/19 10:50	88714
18	AZ90102	AZ90102W16			NA	NA equip	395	2	7	04/29/19 10:50	88714
19	AZ90103	AZ90103W04			NA	NA equip	250	2	7	04/29/19 10:50	88714
20	AZ90105	AZ90105W16			NA	NA equip	500	2	7	04/29/19 10:50	88714
21	AZ90107	AZ90107W16			NA	NA equip	510	2	7	04/29/19 10:50	88714
22	AZ90109	AZ90109W17			NA	NA equip	505	2	7	04/29/19 10:50	88714
23	AZ90213	AZ90213W15			NA	NA equip	505	2	7	04/29/19 10:50	88736
24	AZ90215	AZ90215W16			NA	NA equip	500	2	7	04/29/19 10:50	88736
25	M STD		1	1	NA	NA equip	500	2	7	04/29/19 10:50	
26	SS		0.097	2	NA	NA equip	500	2	7	04/29/19 10:50	

Solvent and Lot#	
ENVI-Carb Plus 400MG/1ML	
Reverible Tube Lot:	11225702
PH Strip	HC 863463
Di Water	4-29-19
Dichloromethane	58240
Methanol	58179

Extraction COC Transfer	
Extraction lab employee Initials	KY
GC analyst's initials	
Date	
Time	
Refrigerator	

	Technician's Initials
Scanned By	DL
Sample Preparation	DL
Extraction	DL
Concentration	DL

Modified	04/29/19 2:46:49 PM

Reviewed By: Page 406 of 694 **Date**

Name of Final Standard: MEE Curve
Prep Date: 04/30/19
Exp Date: 10/30/19
Prep'd By (Initials): SS

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from container Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
MEE M STD Stock	APPL		2000 ug/mL	04/29/19	01/31/20	5 uL	200uL	Methanol 195uL Lot# 208858	50 ug/mL
SV Internal Standard	APPL	8270 I.S.	2000 ug/mL	03/12/19	03/12/20	4 uL			
MEE M STD Stock	APPL		2000 ug/mL	04/29/19	01/31/20	5 uL	100uL	Methanol 95uL Lot# 208858	100 ug/mL
SV Internal Standard	APPL	8270 I.S.	2000 ug/mL	03/12/19	03/12/20	2 uL			
MEE M STD Stock	APPL		2000 ug/mL	04/29/19	01/31/20	10 uL	100uL	Methanol 90uL Lot# 208858	200 ug/mL
SV Internal Standard	APPL	8270 I.S.	2000 ug/mL	03/12/19	03/12/20	2 uL			
MEE M STD Stock	APPL		2000 ug/mL	04/29/19	01/31/20	20 uL	100uL	Methanol 80 uL Lot# 208858	400 ug/mL
SV Internal Standard	APPL	8270 I.S.	2000 ug/mL	03/12/19	03/12/20	2 uL			
MEE M STD Stock	APPL		2000 ug/mL	04/29/19	01/31/20	50 uL	200 uL	Methanol 150 uL	500 ug/mL
SV Internal Standard	APPL	8270 I.S.	2000 ug/mL	03/12/19	03/12/20	4 uL			
MEE M STD Stock	APPL		2000 ug/mL	04/29/19	01/31/20	30 uL	100uL	Methanol 70 uL Lot# 208858	600 ug/mL
SV Internal Standard	APPL	8270 I.S.	2000 ug/mL	03/12/19	03/12/20	2 uL			
MEE M STD Stock	APPL		2000 ug/mL	04/29/19	01/31/20	40 uL	100uL	Methanol 60 uL Lot# 208858	800 ug/mL
SV Internal Standard	APPL	8270 I.S.	2000 ug/mL	03/12/19	03/12/20	2 uL			
MEE M STD Stock	APPL		2000 ug/mL	04/29/19	01/31/20	50 uL	100uL	Methanol 50uL Lot# 208858	1000 ug/mL
SV Internal Standard	APPL	8270 I.S.	2000 ug/mL	03/12/19	03/12/20	2 uL			

Name of Final Standard: MEE Second Source
Prep Date: 04/30/19
Exp Date: 08/03/19
Prep'd By (Initials): SS

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from container Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
MEE SS	APPL		2000 ug/mL	04/29/19	08/03/19	50 uL	200uL	Methanol 150uL Lot# 208858	500 ug/mL
SV Internal Standard	APPL	8270 I.S.	2000 ug/mL	03/12/19	03/12/20	4 uL			

Name of Final Standard 2MEE Second Source Stock

Prep'd By (Initials) JP

Prep Date 10/28/19

Exp Date 10/28/20

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from contianer Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
Methoxyethanol-Neat	Chem Service	N-12404-1G	Neat 99.5%	**7079100 - 39417**	**07/31/22**	0.1022g	10 mL	**MC #56258**	10220 ug/mL

Given to Extraction to do **MEE SS** (used for ICAL SS)

0.097ml were spiked in 500ml of water and extracted on 10/28/2019 . Final concentration is 2000ug/L

Name of Final Standard	**MEE Second Source**	**Prep'd By (Initials)**	**MA**
Prep Date	**11/01/19**		
Exp Date	**11/01/20**		

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from container Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
MEE SS	APPL		2000 ug/mL	**10/28/19**	**10/28/20**	50 uL	200uL	**Methanol 150uL Lot# 208858**	500 ug/mL
SV Internal Standard	APPL	8270 I.S.	2000 ug/mL	**10/28/19**	**10/28/20**	4 uL	"	"	"

_MWE2MEE

Organic Extraction Worksheet

Method	Solid Phase Extraction of 2MEE in Water	Extraction Set	191028A	Extraction Method	MWE2MEE	Units	mL

Spiked ID 1	Diethylene Glycol 1-31-19 EXP 1-31-20		Surrogate ID 1		
Spiked ID 2	2MEE SS 10200ug/mL10/28/19 10/28/20		Surrogate ID 2		
Spiked ID 3			Surrogate ID 3		
Spiked ID 4			Surrogate ID 4		
Spiked ID 5			Surrogate ID 5		
Spiked ID 6			Sufficient Vol for Matrix QC:		
Spiked ID 7			Ext. Start Time:	10/28/19 16:10	
Spiked ID 8			Ext. End Time:	10/30/19 14:30	
			GC Requires Extract By:		

pH1			Water Bath Temp 1 °C		
pH2			Water Bath Temp 2 °C		
pH3			Water Bath Temp 3 °C		

Spiked By: **Date** **Witnessed By:** **Date**

	Sample	Sample Container	Spike Amount	Spike ID	Surrogate Amount	Surrogate ID	Extract Amount	Final Volume	pH	Extract Date/Time	Comments
1	191028A Blk				NA	NA equip	500	2	7Y	10/28/19 11:10	
2	191028A LCS-1		0.040	1	NA	NA equip	500	2	7Y	10/28/19 11:10	
3	191028A LCSD-1		0.040	1	NA	NA equip	500	2	7Y	10/28/19 11:10	
4	BA01579 MS-1	BA01579W21	0.040	1	NA	NA equip	500	2	7Y	10/28/19 11:10	
5	BA01579 MSD-1	BA01579W18	0.040	1	NA	NA equip	500	2	7Y	10/28/19 11:10	
6	BA01579	BA01579W16			NA	NA equip	500	2	7Y	10/28/19 11:10	90524
7	BA01580	BA01580W06			NA	NA equip	500	2	7Y	10/28/19 11:10	90524
8	BA01582	BA01582W12			NA	NA equip	500	2	7Y	10/28/19 11:10	90524
9	BA01651	BA01651W11			NA	NA equip	500	2	7Y	10/28/19 11:10	90532
10	BA01652	BA01652W07			NA	NA equip	500	2	7Y	10/28/19 11:10	90532
11	BA01654	BA01654W10			NA	NA equip	500	2	7Y	10/28/19 11:10	90532
12	BA01656	BA01656W10			NA	NA equip	500	2	7Y	10/28/19 11:10	90532
13	BA01658	BA01658W11			NA	NA equip	500	2	7Y	10/28/19 11:10	90532
14	BA01660	BA01660W10			NA	NA equip	500	2	7Y	10/28/19 11:10	90532
15	BA01662	BA01662W17			NA	NA equip	500	2	7Y	10/28/19 11:10	90532
16	BA01664	BA01664W18			NA	NA equip	500	2	7Y	10/28/19 11:10	90532

Solvent and Lot#	
ENVI-Carb Plus 400MG/1ML	1169450
PH Strip	HC863463
Di Water	10/30/19
Dichloromethane	59130
Methanol	59129

Extraction COC Transfer	
Extraction lab employee Initials	SS
GC analyst's initials	JP
Date	
Time	
Refrigerator	Hobard

	Technician's Initials
Scanned By	DL
Sample Preparation	DL
Extraction	DL
Concentration	DL

Modified	10/28/19 12:42:46 PM

Reviewed By: **Date**

Organic Extraction Worksheet

Method	Solid Phase Extraction of 2MEE in Water	Extraction Set	191028A	Extraction Method	MWE2MEE	Units	mL

Spiked ID 1	Diethylene Glycol 1-31-19 EXP 1-31-20		Surrogate ID 1		
Spiked ID 2	2MEE SS 10200ug/mL10/28/19 10/28/20		Surrogate ID 2		
Spiked ID 3			Surrogate ID 3		
Spiked ID 4			Surrogate ID 4		
Spiked ID 5			Surrogate ID 5		
Spiked ID 6			Sufficient Vol for Matrix QC:		
Spiked ID 7			Ext. Start Time:	10/28/19 16:10	
Spiked ID 8			Ext. End Time:	10/30/19 14:30	
			GC Requires Extract By:		

pH1			Water Bath Temp 1 °C	
pH2			Water Bath Temp 2 °C	
pH3			Water Bath Temp 3 °C	

Spiked By: **Date** **Witnessed By:** **Date**

	Sample	Sample Container	Spike Amount	Spike ID	Surrogate Amount	Surrogate ID	Extract Amount	Final Volume	pH	Extract Date/Time	Comments
17	BA01775	BA01775W07			NA	NA equip	500	2	7Y	10/28/19 11:10	90551
18	BA01777	BA01777W08			NA	NA equip	500	2	7Y	10/28/19 11:10	90551
19	BA01779	BA01779W08			NA	NA equip	500	2	7Y	10/28/19 11:10	90551
20	BA01781	BA01781W09			NA	NA equip	500	2	7Y	10/28/19 11:10	90551
21	BA01782	BA01782W07			NA	NA equip	500	2	7Y	10/28/19 11:10	90551
22	BA01784	BA01784W13			NA	NA equip	500	2	7Y	10/28/19 11:10	90551
23	SS		0.097	2	NA	NA equip	500	2	7Y	10/28/19 11:10	90551

Solvent and Lot#	
ENVI-Carb Plus 400MG/1ML	1169450
PH Strip	HC863463
Di Water	10/30/19
Dichloromethane	59130
Methanol	59129

Extraction COC Transfer	
Extraction lab employee Initials	SS
GC analyst's initials	JP
Date	
Time	
Refrigerator	Hobard

	Technician's Initials
Scanned By	DL
Sample Preparation	DL
Extraction	DL
Concentration	DL

Modified	10/28/19 12:42:46 PM

Reviewed By: **Date**

_MWE2MEE

Organic Extraction Worksheet

Method	Solid Phase Extraction of 2MEE in Water	Extraction Set	191031A	Extraction Method	MWE2MEE	Units	mL

Spiked ID 1	Diethylene Glycol 1-31-19 EXP 1-31-20		Surrogate ID 1		
Spiked ID 2	2MEE SS 10320ug/mL 10/28/19 exp 10/28/20		Surrogate ID 2		
Spiked ID 3			Surrogate ID 3		
Spiked ID 4			Surrogate ID 4		
Spiked ID 5			Surrogate ID 5		
Spiked ID 6			Sufficient Vol for Matrix QC:	no	
Spiked ID 7			Ext. Start Time:	10/31/19 15:15	
Spiked ID 8			Ext. End Time:	11/06/19 13:30	
			GC Requires Extract By:		

pH1			Water Bath Temp 1 °C	
pH2			Water Bath Temp 2 °C	
pH3			Water Bath Temp 3 °C	

Spiked By: DL **Date** 10/31/19 **Witnessed By:** RP **Date** 10/31/19

	Sample	Sample Container	Spike Amount	Spike ID	Surrogate Amount	Surrogate ID	Extract Amount	Final Volume	pH	Extract Date/Time	Comments
1	191031A Blk				NA	NA equip	500	2	7Y	10/31/19 15:15	
2	191031A LCS-1		0.040	1	NA	NA equip	500	2	7Y	10/31/19 15:15	
3	191031A LCSD-1		0.040	1	NA	NA equip	500	2	7Y	10/31/19 15:15	
4	BA01829	BA01829W08		1	NA	NA equip	500	2	7Y	10/31/19 15:15	90559
5	BA01831	BA01831W11			NA	NA equip	500	2	7Y	10/31/19 15:15	90559
6	BA01833	BA01833W12			NA	NA equip	500	2	7Y	10/31/19 15:15	90559
7	BA02090	BA02090W13			NA	NA equip	500	2	7Y	10/31/19 15:15	90587
8	BA02091	BA02091W10			NA	NA equip	500	2	7Y	10/31/19 15:15	90587
9	BA02160	BA02160W10			NA	NA equip	500	2	7Y	10/31/19 15:15	90599
10	SS		0.097	2	NA	NA equip	500	2	7Y	10/31/19 15:15	

Solvent and Lot#	
ENVI-Carb Plus 400MG/1ML	11694501
Leverible Tube Lot:	11694501
pH Strip	HC863463
DI Water	11/6/19
Dichloromethane	59130
Methanol	59129

Extraction COC Transfer	
Extraction lab employee Initials	SS
GC analyst's initials	MA
Date	11/6/19
Time	1:30
Refrigerator	GC_C

	Technician's Initials
Scanned By	DL
Sample Preparation	DL
Extraction	DL
Concentration	DL

Modified	10/31/19 2:47:49 PM

Reviewed By: MA **Date** 11/19/19

1/19/19 4:24:37 PM

Ext_BD_2409

Injection Log

Directory: M:\LINUS\DATA\L191030M\

Vial	FileName	Multiplier	SampleName	Misc Info	Injected
86	1030L002.D	1	SV Tune 10/01/19		31 Oct 19 9:39
4	1030L004.D	1	50 2MEE 4/30/19		31 Oct 19 11:50
5	1030L005.D	1	100 2MEE 4/30/19		31 Oct 19 12:10
6	1030L006.D	1	200 2MEE 4/30/19		31 Oct 19 12:29
8	1030L008.D	1	500 2MEE 4/30/19		31 Oct 19 13:07
9	1030L009.D	1	600 2MEE 4/30/19		31 Oct 19 13:25
10	1030L010.D	1	800 2MEE 4/30/19		31 Oct 19 13:43
11	1030L011.D	1	1000 2MEE 4/30/19		31 Oct 19 14:02
14	1030L014.D	1	SV Tune 10/01/19		1 Nov 19 15:17
16	1030L016.D	1	SS 2MEE 11/1/19		1 Nov 19 17:11
41	1030L041.D	1	SV Tune 10/01/19		8 Nov 19 12:30
42	1030L042.D	1	500 2MEE 4/30/19		8 Nov 19 13:13
43	1030L043.D	1	191031A BLK 2/500		8 Nov 19 14:21
44	1030L044.D	1	191031A LCS-1 2/500		8 Nov 19 15:49
47	1030L047.D	1	191031A LCSD-1 2/500		8 Nov 19 16:45
50	1030L050.D	1	BA02090W13 2/500		8 Nov 19 17:40
51	1030L051.D	1	BA02091W10 2/500		8 Nov 19 17:59
61	1030L061.D	1	500 2MEE 4/30/19		8 Nov 19 21:02

ORGANICS
Calibration Data

VOLATILE ORGANIC ANALYSIS
VOLATILE ORGANIC COMPOUNDS

Form 6
Initial Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Initial Cal. Date: 10/23/19
Matrix: Instrument: Thor Initials: DP

			1023T06 D	1023T07 D	1023T08.D	1023T09.D	1023T10.D	1023T11.D	1023T12.D	1023T13.D	1023T14.D							
		Compound	1	2	3	4	5	6	7	8	9		Avg	%RSD	Type	r^2	Q	MRF
1	I	Fluorobenzene (IS)																
2	TM	Chlorotrifluoroethene													TM			
3	TM	Dichlorodifluoromethane		0.2635	0.2974	0.2177	0.1924	0.2092	0.2232	0.2234	0.2273		0.23	14	TM			
4	TML	Freon 114		0.1488	0.1532	0.1309	0.0936	0.1075	0.1061	0.1016	0.0918		0.12	21	TML	0.998		
5	TM**L	Chloromethane		0.3470	0.2838	0.2274	0.1882	0.1949	0.1769	0.1792	0.1673		0.22	29	TM**L	0.999		
6	TM*	Vinyl chloride		0.2045	0.2053	0.1544	0.1472	0.1629	0.1574	0.1616	0.1630		0.17	13	TM*			
7	TM	2-Chloro-1,1,1-trifluoroethane													TM			
8	TML	Bromomethane		0.1364	0.1701	0.1326	0.1025	0.0971	0.0973	0.0998	0.0989		0.12	23	TML	1.000		
9	TML	Chloroethane		0.5439	0.3418	0.1686	0.1126	0.1183	0.1159	0.1115	0.1078		0.20	79	TML	1.000		
10	TM	Dichlorofluoromethane		0.2987	0.3792	0.3293	0.2792	0.2956	0.3000	0.3099	0.2707		0.31	11	TM			
11	TM	Trichlorofluoromethane		0.3546	0.3702	0.3204	0.2669	0.2914	0.3067	0.3120	0.3052		0.32	10	TM			
12	TM	Diethyl ether													TM			
13	TM	Acrolein		0.0091	0.0102	0.0093	0.0090	0.0099	0.0090	0.0094	0.0107		0.01	6.5	TM			
14	TML	Acetone					0.0850	0.0694	0.0573	0.0525	0.0436		0.06	26	TML	0.993		
15	TML	Freon-113		0.0900	0.0943	0.1495	0.1217	0.1326	0.1349	0.1331	0.1190		0.12	17	TML	0.997		
16	TM*	1,1-DCE		0.2461	0.2741	0.2375	0.2011	0.1994	0.2212	0.2174	0.1945		0.22	12	TM*			
17	TM	2-Propanol													TM			
18	TML	Acetonitrile		0.0231	0.0203	0.0205	0.0204	0.0205	0.0204	0.0201			0.02	5.0	TML	0.999		
19	TM	t-Butanol	0.0186	0.0170	0.0165	0.0163	0.0166	0.0164	0.0165	0.0162	0.0151		0.02	5.5	TM			
20	TML	Methyl Acetate		0.1825	0.1427	0.1250	0.1098	0.1167	0.1135	0.1109	0.0979		0.12	21	TML	0.997		
21	TML	Iodomethane			0.0515	0.0317	0.0309	0.0938	0.1285	0.1563	0.1730		0.10	62	TML	0.997		
22	TM	Acrylonitrile			0.0579	0.0653	0.0505	0.0563	0.0575	0.0589	0.0544		0.06	7.9	TM			
23	TML	Methylene chloride		0.3088	0.2765	0.2310	0.1876	0.2049	0.2008	0.2073	0.1755		0.22	21	TML	0.995		
24	TML	Carbon disulfide		0.4997	0.5113	0.4516	0.3454	0.3784	0.3694	0.3894			0.42	16	TML	0.997		
25	TML	Methyl t-butyl ether (MtBE)		0.7185	0.5653	0.5427	0.4770	0.5079	0.4926	0.5094	0.4544		0.53	15	TML	0.998		
26	TM	Trans-1,2-DCE		0.2379	0.2419	0.2386	0.1914	0.2112	0.2110	0.2265	0.1937		0.22	9.2	TM			
27	TM	Hexane													TM			
28	TM	Diisopropyl Ether		0.2261	0.2133	0.2022	0.1735	0.1673	0.1872	0.1843	0.1687		0.19	11	TM			
29	TM**	2,2-Dichloro-1,1,1-trifluoroethane													TM**			
30	TM**L	1,1-DCA		0.1617	0.1772	0.1442	0.1175	0.1246	0.1250	0.1246	0.1101		0.14	17	TM**L	0.997		
31	TML	Vinyl Acetate		0.0970	0.1887	0.1478	0.1332	0.1470	0.1495	0.1560	0.1383		0.14	18	TML	0.997		
32	TM	Ethyl tert Butyl Ether		0.5563	0.5078	0.5374	0.4655	0.5217	0.5147	0.5270	0.4675		0.51	6.2	TM			
33	TML	MEK (2-Butanone)		0.0765	0.1107	0.0883	0.0675	0.0684	0.0667	0.0726	0.0638		0.08	20	TML	0.997		
34	TM	Cis-1,2-DCE		0.2725	0.2659	0.2822	0.2450	0.2650	0.2688	0.2788	0.2434		0.27	5.4	TM			
35	TML	2,2-Dichloropropane		0.1769	0.1489	0.1233	0.0973	0.0982	0.1074	0.1129	0.0987		0.12	24	TML	0.996		

VOLATILE ORGANIC ANALYSIS
VOLATILE ORGANIC COMPOUNDS

Form 6
Initial Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Initial Cal. Date: 10/23/19
Matrix: Instrument: Thor Initials: DP

		Compound	1	2	3	4	5	6	7	8	9		Avg	%RSD	Type		Q	MRF
36	TM	2-Methylpentane													TM			
37	TM	3-Methylpentane													TM			
38	TM*	Chloroform		0.1766	0.2016	0.1713	0.1616	0.1730	0.1737	0.1778	0.1552		0.17	7.8	TM*			
39	TM	Bromochloromethane		0.0894	0.0865	0.0750	0.0644	0.0729	0.0733	0.0722	0.0632		0.07	12	TM			
40	S	Dibromofluoromethane(S)	0.5385	0.5240	0.4368	0.4526	0.4712	0.4842	0.4850	0.4883	0.4565		0.48	6.8	S			
41	TML	1,1,1-TCA		0.2129	0.1588	0.1638	0.1363	0.1488	0.1422	0.1490	0.1319		0.16	16	TML	0.998		
42	TM	Cyclohexane		0.2261	0.2534	0.2165	0.1723	0.1768	0.1838	0.1960	0.1759		0.20	15	TM			
43	TM	1,1-Dichloropropene		0.2534	0.2616	0.2105	0.1953	0.2043	0.2079	0.2218	0.1929		0.22	12	TM			
44	TML	2,2,4-Trimethylpentane		0.2331	0.2307	0.1631	0.1311	0.1417	0.1530	0.1543	0.1467		0.17	24	TML	0.999		
45	S	1,2-DCA-D4(S)	0.5868	0.5920	0.4819	0.5140	0.5350	0.5510	0.5468	0.5434	0.5053		0.54	6.7	S			
46	TML	Carbon Tetrachloride		0.1055	0.3400	0.2537	0.2272	0.2464	0.2563	0.2777	0.2389		0.24	27	TML	0.996		
47	TM	Tert Amyl Methyl Ether		0.5745	0.5621	0.5367	0.4861	0.4912	0.5084	0.5332	0.4716		0.52	7.1	TM			
48	TM	Methylcyclopentane													TM			
49	TML	1,2-DCA		0.1966	0.3107	0.1541	0.1327	0.1395	0.1555	0.1500	0.1332		0.17	35	TML	0.997		
50	TM	Benzene		0.8485	0.8036	0.7185	0.6643	0.6662	0.6757	0.6931	0.6211		0.71	11	TM			
51	TM	TCE		0.2722	0.2470	0.2286	0.1953	0.2056	0.2059	0.2205	0.1905		0.22	13	TM			
52	TM	2-Pentanone		0.1108	0.1149	0.1111	0.1099	0.1099	0.1143	0.1151	0.1033		0.11	3.5	TM			
53	TM*	1,2-Dichloropropane		0.1853	0.2044	0.2111	0.1592	0.1711	0.1716	0.1804	0.1632		0.18	10	TM*			
54	TM	Bromodichloromethane		0.3065	0.2886	0.2968	0.2566	0.2672	0.2716	0.2766	0.2507		0.28	7.0	TM			
55	TM	Methyl Cyclohexane		0.2264	0.2806	0.2220	0.1998	0.2057	0.2142	0.2154	0.1995		0.22	12	TM			
56	TML	Dibromomethane		0.0397	0.1774	0.1298	0.1310	0.1452	0.1650	0.1731	0.1500		0.14	32	TML	0.996		
57	TML	MIBK (methyl isobutyl ketone)		0.0844	0.0692	0.0637	0.0572	0.0554	0.0541	0.0581	0.0607		0.06	16	TML	0.999		
58	TM	1-Bromo-2-chloroethane		0.2573	0.2182	0.2514	0.2085	0.2346	0.2347	0.2443	0.2149		0.23	7.6	TM			
59	TM	2-Chloroethyl vinyl ether													TM			
60	TM	Cis-1,3-Dichloropropene		0.3335	0.3178	0.2936	0.2532	0.2842	0.2741	0.2944	0.2653		0.29	9.2	TM			
61	TM*	Toluene		0.9098	0.9112	0.8100	0.7171	0.7733	0.7816	0.8151	0.7330		0.81	9.0	TM*			
62	TM	Trans-1,3-Dichloropropene		0.2312	0.1717	0.1734	0.1593	0.1756	0.1793	0.1867	0.1706		0.18	12	TM			
63	TM	1,1,2-TCA		0.1921	0.1936	0.1959	0.1649	0.1831	0.1763	0.1788	0.1619		0.18	7.1	TM			
64	TML	2-Hexanone		0.1190	0.1019	0.0917	0.0683	0.0836	0.0845	0.0859	0.0908		0.09	16	TML	0.999		
65	I	Chlorobenzene-D5 (IS)																
66	S	Toluene-D8(S)	2.143	2.042	1.649	1.690	1.820	1.965	1.778	1.900	1.815		1.9	8.7	S			
67	TM	1,2-EDB		0.1280	0.1257	0.1213	0.1171	0.1178	0.1147	0.1206	0.1124		0.12	4.4	TM			
68	TM	Tetrachloroethene		0.2621	0.1636	0.2604	0.2344	0.2586	0.2354	0.2538	0.2261		0.24	14	TM			
69	TML	1-Chlorohexane		0.2348	0.3409	0.1975	0.2087	0.2225	0.2148	0.2169	0.2095		0.23	20	TML	1.000		
70	TM	1,1,1,2-Tetrachloroethane		0.2959	0.2482	0.2317	0.2188	0.2393	0.2266	0.2473	0.2274		0.24	10.0	TM			

VOLATILE ORGANIC ANALYSIS
VOLATILE ORGANIC COMPOUNDS

Form 6
Initial Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Initial Cal. Date: 10/23/19
Matrix: Instrument: Thor Initials: DP

		Compound	1	2	3	4	5	6	7	8	9		Avg	%RSD	Type		Q	MRF
71	TM	m&p-Xylene		0.7498	0.7821	0.7043	0.6485	0.7359	0.6995	0.7681	0.7042		0.72	6.0	TM			
72	TM	o-Xylene		0.8311	0.8492	0.7438	0.6798	0.8011	0.7259	0.8069	0.7531		0.77	7.5	TM			
73	TM	Styrene		0.6076	0.5684	0.4928	0.4722	0.5586	0.5232	0.5954	0.5736		0.55	8.8	TM			
74	S	4-Bromofluorobenzene(S)	0.8756	0.7804	0.6244	0.6442	0.7197	0.7700	0.7173	0.7521	0.7682		0.74	10	S			
75	TM	1,3-Dichloropropane		0.3214	0.3602	0.3177	0.2956	0.3152	0.2972	0.3054	0.2819		0.31	7.6	TM			
76	TML	Dibromochloromethane		0.0593	0.2424	0.2370	0.2108	0.2612	0.2356	0.2509	0.2387		0.22	30	TML	0.999		
77	TM**	Chlorobenzene		0.4023	0.3965	0.3492	0.3439	0.3893	0.3469	0.3743	0.3468		0.37	6.7	TM**			
78	TM*	Ethylbenzene		0.9902	0.9200	0.9273	0.8019	0.9160	0.8708	0.9368	0.8660		0.90	6.3	TM*			
79	TM**L	Bromoform		0.0742	0.1464	0.1916	0.1780	0.2077	0.1939	0.1995	0.1988		0.17	26	TM**L	1.000		
80	I	1,4-Dichlorobenzene-D (IS)																
81	TM	Isopropylbenzene		1.591	1.840	1.530	1.427	1.549	1.443	1.591	1.317		1.5	10	TM			
82	TM**	1,1,2,2-Tetrachloroethane		0.4738	0.3664	0.4444	0.3665	0.4152	0.4009	0.3990	0.3637		0.40	9.9	TM**			
83	TML	1,2,3-Trichloropropane		0.0485	0.1436	0.1330	0.1331	0.1434	0.1385	0.1396	0.1228		0.13	25	TML	0.997		
84	TML	t-1,4-Dichloro-2-Butene		0.0264	0.0609	0.0805	0.0930	0.0833	0.0809	0.0819	0.0749		0.07	29	TML	0.999		
85	TM	Bromobenzene		0.4205	0.4747	0.4052	0.3679	0.4011	0.3708	0.4040	0.3574		0.40	9.3	TM			
86	TM	n-Propylbenzene		1.966	1.913	1.738	1.541	1.638	1.619	1.750	1.493		1.7	9.8	TM			
87	TM	4-Ethyltoluene		1.598	1.501	1.504	1.355	1.436	1.406	1.581	1.337		1.5	6.7	TM			
88	TM	2-Chlorotoluene		0.7020	0.8063	0.7557	0.6917	0.6698	0.6817	0.7216	0.6330		0.71	7.6	TM			
89	TM	1,3,5-Trimethylbenzene		1.259	1.494	1.251	1.244	1.304	1.280	1.391	1.196		1.3	7.4	TM			
90	TM	4-Chlorotoluene		0.7780	0.8172	0.8811	0.7244	0.8125	0.7871	0.9000	0.7433		0.81	7.6	TM			
91	TM	Tert-Butylbenzene		1.225	1.170	1.311	1.208	1.130	1.115	1.210	1.033		1.2	7.1	TM			
92	TM	1,2,4-Trimethylbenzene		1.331	1.543	1.367	1.254	1.300	1.276	1.402	1.212		1.3	7.8	TM			
93	TM	Sec-Butylbenzene		1.667	1.641	1.503	1.393	1.510	1.463	1.615	1.396		1.5	7.0	TM			
94	TM	p-Isopropyltoluene		1.283	1.416	1.335	1.225	1.374	1.326	1.466	1.277		1.3	5.9	TM			
95	TM	Benzyl Chloride		0.3521	0.3298	0.2742	0.3076	0.2905	0.3003	0.3140	0.3307		0.31	8.0	TM			
96	TM	1,3-DCB		0.7074	0.6746	0.6224	0.5443	0.5435	0.5187	0.5507	0.4944		0.58	13	TM			
97	TM	1,4-DCB		1.117	0.9190	0.9501	0.7911	0.8213	0.8035	0.8716	0.7780		0.88	13	TM			
98	TM	n-Butylbenzene		1.085	1.065	1.005	0.8899	0.9728	0.9890	1.126	0.9982		1.0	7.3	TM			
99	TM	1,2-DCB		0.5874	0.5719	0.5274	0.4788	0.5258	0.4932	0.5480	0.5036		0.53	7.2	TM			
100	TM	Hexachloroethane		0.1594	0.1599	0.1796	0.1534	0.1690	0.1464	0.1699	0.1641		0.16	6.4	TM			
101	TML	1,2-Dibromo-3-chloropropane		0.1001	0.0554	0.0561	0.0637	0.0530	0.0547	0.0600	0.0551		0.06	25	TML	0.999		
102	TM	1,2,4-Trichlorobenzene		0.3419	0.3602	0.2846	0.2815	0.3090	0.3105	0.3407	0.3131		0.32	8.8	TM			
103	TM	Hexachlorobutadiene		0.2380	0.1957	0.1659	0.1794	0.1971	0.1781	0.2086	0.1932		0.19	11	TM			
104	TM	Naphthalene		0.9319	0.8032	0.7281	0.6839	0.7404	0.8006	0.9091	0.8287		0.80	11	TM			
105	TML	1,2,3-Trichlorobenzene		0.1330	0.5188	0.4190	0.4062	0.3909	0.4349	0.4897	0.4316		0.40	29	TML	0.997		

Quantitation Report (QT Reviewed)

Data File : M:\THOR\DATA\T191023\1023T06.D Vial: 6
Acq On : 23 Oct 19 19:32 Operator:
Sample : 0.3ug/L VOC STD 10/23/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 24 10:00 2019 Quant Results File: T1023W.RES

Quant Method : M:\THOR\DATA\T191023\T1023W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:55:52 2019
Response via : Initial Calibration
DataAcq Meth : T8260

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene (IS)	6.59	96	178368	25.00	ppb		0.00
65) Chlorobenzene-D5 (IS)	9.74	117	160768	25.00	ppb		0.00
80) 1,4-Dichlorobenzene-D (IS)	12.07	152	91040	25.00	ppb		0.00
System Monitoring Compounds							
40) Dibromofluoromethane(S)	5.79	111	19209	5.59	ppb		0.00
Spiked Amount 25.000			Recovery = 22.348%				
45) 1,2-DCA-D4(S)	6.18	65	20935	5.44	ppb		0.00
Spiked Amount 25.000			Recovery = 21.752%				
66) Toluene-D8(S)	8.30	98	68918	5.74	ppb		0.00
Spiked Amount 25.000			Recovery = 22.960%				
74) 4-Bromofluorobenzene(S)	10.92	174	28153	5.92	ppb		0.00
Spiked Amount 25.000			Recovery = 23.692%				
Target Compounds							Qvalue
19) t-Butanol	3.53	59	1328	11.22	ppb	#	83

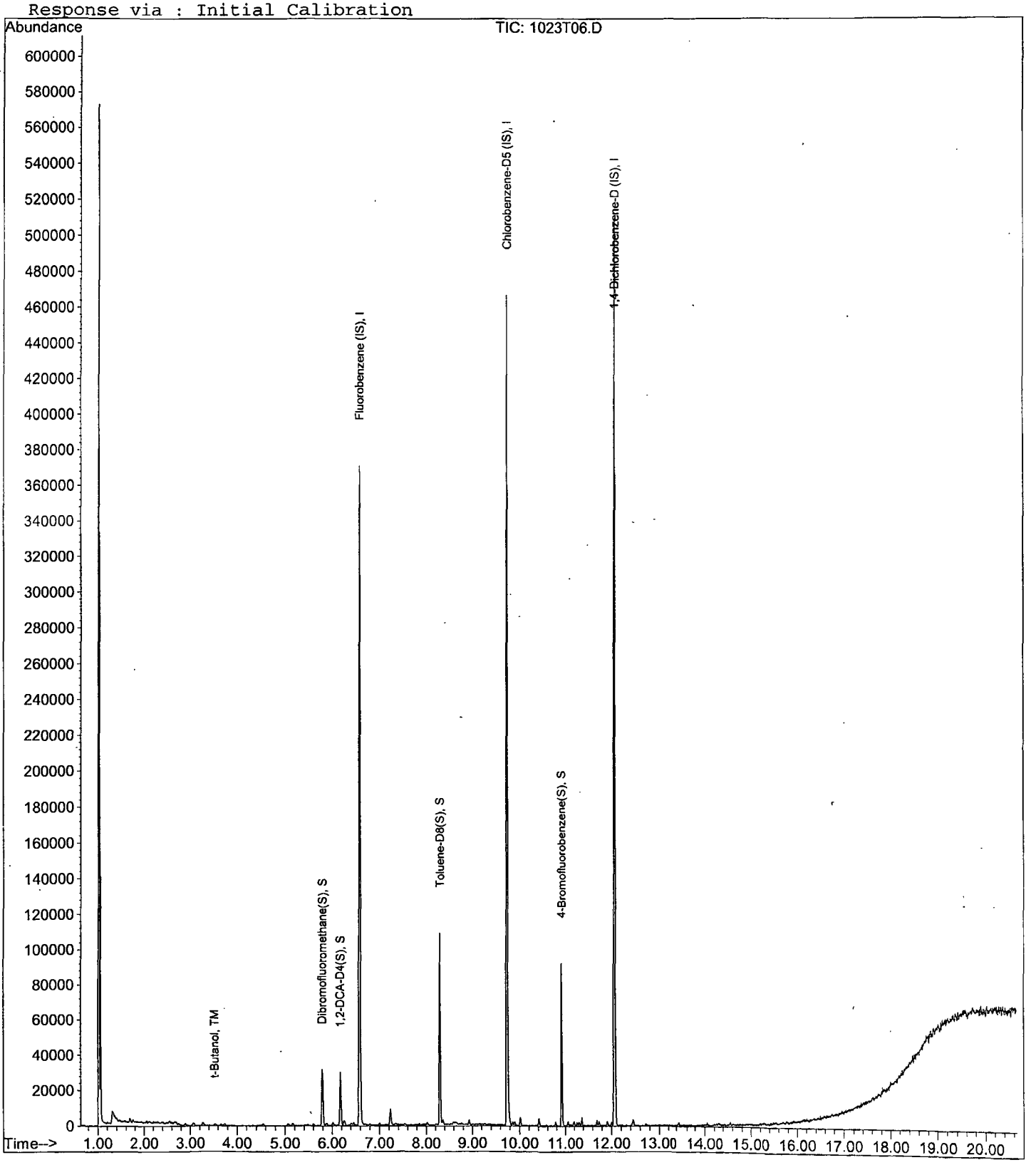
(#) = qualifier out of range (m) = manual integration
1023T06.D T1023W.M Thu Oct 24 10:00:14 2019 Page 1

Quantitation Report

Data File : M:\THOR\DATA\T191023\1023T06.D Vial: 6
Acq On : 23 Oct 19 19:32 Operator:
Sample : 0.3ug/L VOC STD 10/23/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 24 10:00 2019 Quant Results File: T1023W.RES

Method : M:\THOR\DATA\T191023\T1023W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:55:52 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\THOR\DATA\T191023\1023T07.D Vial: 7
Acq On : 23 Oct 19 20:01 Operator:
Sample : 0.5ug/L VOC STD 10/23/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 24 9:58 2019 Quant Results File: T1023W.RES

Quant Method : M:\THOR\DATA\T191023\T1023W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:55:52 2019
Response via : Initial Calibration
DataAcq Meth : T8260

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene (IS)	6.59	96	177792	25.00	ppb		0.00
65) Chlorobenzene-D5 (IS)	9.74	117	164416	25.00	ppb		0.00
80) 1,4-Dichlorobenzene-D (IS)	12.07	152	92872	25.00	ppb		0.00
System Monitoring Compounds							
40) Dibromofluoromethane(S)	5.79	111	18632	5.44	ppb		0.00
Spiked Amount 25.000			Recovery =	21.748%			
45) 1,2-DCA-D4(S)	6.18	65	21049	5.49	ppb		0.00
Spiked Amount 25.000			Recovery =	21.940%			
66) Toluene-D8(S)	8.30	98	67127	5.47	ppb		0.00
Spiked Amount 25.000			Recovery =	21.868%			
74) 4-Bromofluorobenzene(S)	10.92	174	25663	5.28	ppb		0.00
Spiked Amount 25.000			Recovery =	21.120%			
Target Compounds							Qvalue
3) Dichlorodifluoromethane	1.21	85	937	0.57	ppb		95
4) Freon 114	1.32	85	529	-0.55	ppb	#	68
6) Vinyl chloride	1.46	62	727	0.60	ppb	#	51
8) Bromomethane	1.76	96	485	0.41	ppb		92
9) Chloroethane	1.87	64	1934	1.06	ppb	#	42
10) Dichlorofluoromethane	2.06	67	1062	0.49	ppb		89
11) Trichlorofluoromethane	2.12	101	1261	0.56	ppb		86
13) Acrolein	2.56	55	1625	23.88	ppb		94
14) Acetone	2.74	43	1532	3.50	ppb	#	76
15) Freon-113	2.70	101	320	-0.57	ppb	#	77
16) 1,1-DCE	2.68	61	875	0.55	ppb		95
18) Acetonitrile	3.06	41	4102	25.90	ppb	#	90
19) t-Butanol	3.54	59	3028	25.66	ppb	#	72
20) Methyl Acetate	3.19	43	649	-0.56	ppb	#	51
23) Methylene chloride	3.27	49	1098	-0.66	ppb	#	86
24) Carbon disulfide	2.90	76	1777	0.45	ppb	#	92
25) Methyl t-butyl ether (MtBE	3.74	73	2555	-0.20	ppb	#	83
26) Trans-1,2-DCE	3.68	61	846	0.54	ppb		85
28) Diisopropyl Ether	4.55	45	804	0.59	ppb		91
30) 1,1-DCA	4.33	63	575	-0.56	ppb	#	66
31) Vinyl Acetate	4.55	87	345	-0.38	ppb	#	37
32) Ethyl tert Butyl Ether	5.06	59	1978	0.54	ppb	#	82
33) MEK (2-Butanone)	5.23	43	272	0.59	ppb	#	52
34) Cis-1,2-DCE	5.16	61	969	0.51	ppb	#	84
35) 2,2-Dichloropropane	5.16	77	629	0.49	ppb	#	56
38) Chloroform	5.60	83	628	0.51	ppb		87
39) Bromochloromethane	5.47	130	318	0.60	ppb	#	74
41) 1,1,1-TCA	5.80	97	757	-0.21	ppb		81
42) Cyclohexane	5.87	84	804	0.57	ppb	#	75
43) 1,1-Dichloropropene	6.01	75	901	0.58	ppb	#	78
44) 2,2,4-Trimethylpentane	6.41	57	829	0.47	ppb		88
46) Carbon Tetrachloride	6.01	119	375	-0.52	ppb	#	17
47) Tert Amyl Methyl Ether	6.45	73	2043	0.55	ppb	#	80
49) 1,2-DCA	6.27	62	699	-0.50	ppb	#	72
50) Benzene	6.25	78	3017	0.60	ppb		95
51) TCE	7.01	130	968	0.62	ppb	#	70
52) 2-Pentanone	7.23	43	19699	24.92	ppb		100
53) 1,2-Dichloropropane	7.23	63	659	0.51	ppb	#	71
54) Bromodichloromethane	7.53	83	1090	0.55	ppb	#	91

(#) = qualifier out of range (m) = manual integration

Data File : M:\THOR\DATA\T191023\1023T07.D Vial: 7
Acq On : 23 Oct 19 20:01 Operator:
Sample : 0.5ug/L VOC STD 10/23/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 24 9:58 2019 Quant Results File: T1023W.RES

Quant Method : M:\THOR\DATA\T191023\T1023W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:55:52 2019
Response via : Initial Calibration
DataAcq Meth : T8260

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
55)	Methyl Cyclohexane	7.22	83	805	0.51	ppb		89
56)	Dibromomethane	7.35	174	141	-0.35	ppb		91
57)	MIBK (methyl isobutyl ket	9.05	43	300	1.22	ppb	#	77
58)	1-Bromo-2-chloroethane	7.85	63	915	0.55	ppb		90
60)	Cis-1,3-Dichloropropene	8.02	75	1186	0.58	ppb	#	82
61)	Toluene	8.36	91	3235	0.56	ppb		96
62)	Trans-1,3-Dichloropropene	8.59	75	822	0.64	ppb	#	72
63)	1,1,2-TCA	8.77	97	683	0.53	ppb		87
64)	2-Hexanone	8.20	43	423	1.29	ppb	#	62
67)	1,2-EDB	9.26	107	421	0.53	ppb		92
68)	Tetrachloroethene	8.93	166	862	0.55	ppb		89
69)	1-Chlorohexane	9.78	91	772	0.19	ppb	#	65
70)	1,1,1,2-Tetrachloroethane	9.86	131	973	0.61	ppb		95
71)	m&p-Xylene	10.02	91	4931	1.04	ppb		98
72)	o-Xylene	10.40	91	2733	0.54	ppb		96
73)	Styrene	10.41	104	1998	0.55	ppb		96
75)	1,3-Dichloropropane	8.94	76	1057	0.52	ppb		93
77)	Chlorobenzene	9.77	112	1323	0.55	ppb		83
78)	Ethylbenzene	9.90	91	3256	0.55	ppb		88
79)	Bromoform	10.58	173	244	0.38	ppb	#	64
81)	Isopropylbenzene	10.78	105	2955	0.52	ppb	#	92
82)	1,1,2,2-Tetrachloroethane	11.06	83	880	0.59	ppb	#	85
83)	1,2,3-Trichloropropane	11.10	110	90	-0.89	ppb	#	19
84)	t-1,4-Dichloro-2-Butene	11.13	53	49	-0.64	ppb	#	16
85)	Bromobenzene	11.06	77	781	0.53	ppb		91
86)	n-Propylbenzene	11.19	91	3651	0.58	ppb		89
87)	4-Ethyltoluene	11.31	105	2968	0.55	ppb	#	90
88)	2-Chlorotoluene	11.26	91	1304	0.50	ppb		95
89)	1,3,5-Trimethylbenzene	11.37	105	2339	0.48	ppb		95
90)	4-Chlorotoluene	11.37	91	1445	0.48	ppb		98
91)	Tert-Butylbenzene	11.69	119	2276	0.52	ppb		96
92)	1,2,4-Trimethylbenzene	11.74	105	2473	0.50	ppb		97
93)	Sec-Butylbenzene	11.91	105	3096	0.55	ppb		95
94)	p-Isopropyltoluene	12.06	119	2383	0.48	ppb	#	81
95)	Benzyl Chloride	12.22	91	654	0.56	ppb	#	74
96)	1,3-DCB	12.00	146	1008	0.47	ppb		89
97)	1,4-DCB	12.09	146	2074	0.63	ppb		94
98)	n-Butylbenzene	12.47	91	2016	0.53	ppb		95
99)	1,2-DCB	12.46	146	1091	0.55	ppb		84
100)	Hexachloroethane	12.71	117	296	0.49	ppb	#	38
101)	1,2-Dibromo-3-chloropropan	13.22	157	186	0.50	ppb	#	50
102)	1,2,4-Trichlorobenzene	14.07	182	635	0.54	ppb	#	81
103)	Hexachlorobutadiene	14.25	225	442	0.61	ppb	#	43
104)	Naphthalene	14.30	128	1731	0.58	ppb	#	85

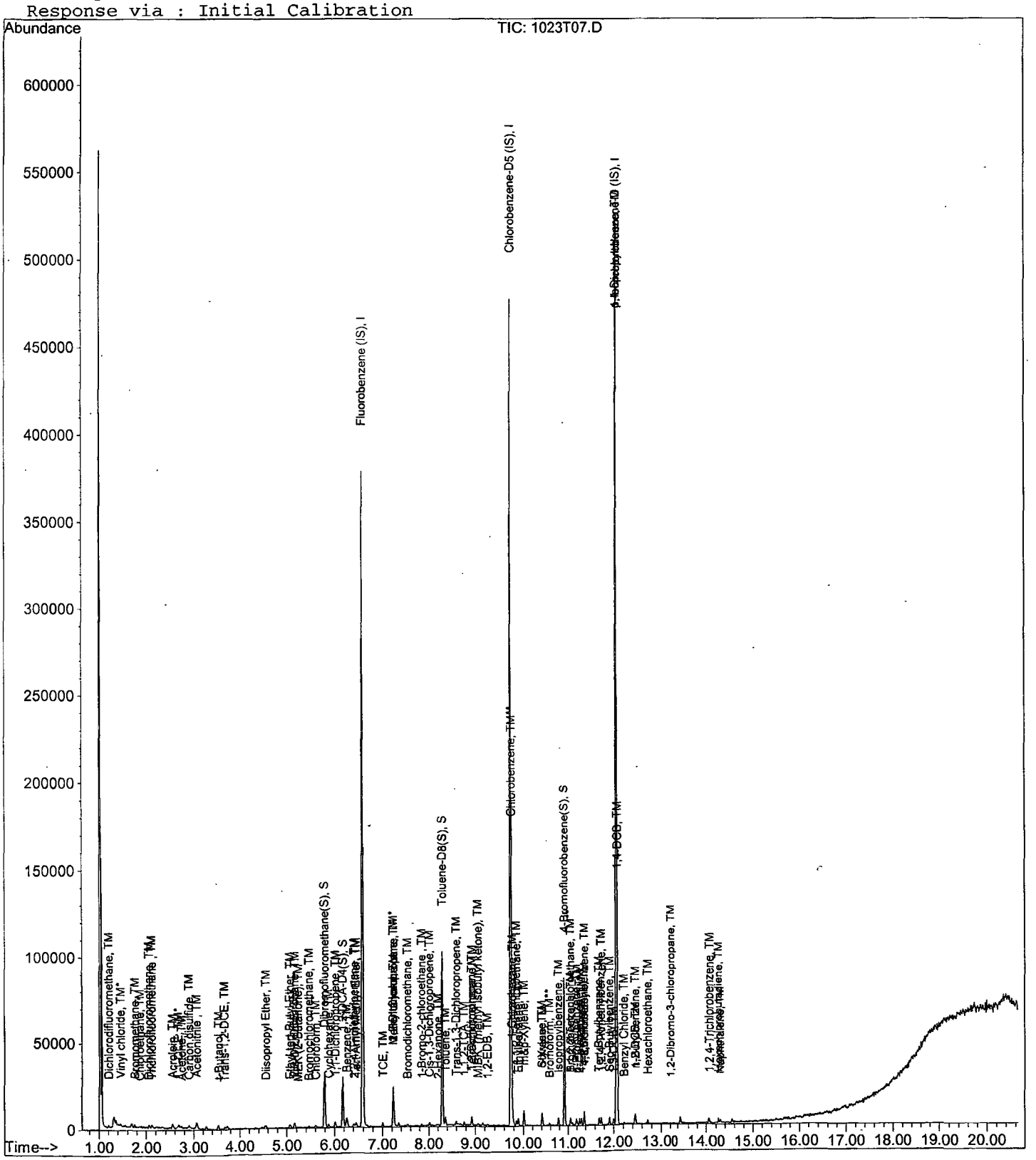
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\THOR\DATA\T191023\1023T07.D Vial: 7
Acq On : 23 Oct 19 20:01 Operator:
Sample : 0.5ug/L VOC STD 10/23/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 24 9:58 2019 Quant Results File: T1023W.RES

Method : M:\THOR\DATA\T191023\T1023W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:55:52 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\THOR\DATA\T191023\1023T08.D Vial: 8
Acq On : 23 Oct 19 20:29 Operator:
Sample : 1.0ug/L VOC STD 10/23/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 24 9:58 2019 Quant Results File: T1023W.RES

Quant Method : M:\THOR\DATA\T191023\T1023W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:55:52 2019
Response via : Initial Calibration
DataAcq Meth : T8260

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene (IS)	6.59	96	186048	25.00	ppb		0.00
65) Chlorobenzene-D5 (IS)	9.74	117	170048	25.00	ppb		0.00
80) 1,4-Dichlorobenzene-D (IS)	12.07	152	96952	25.00	ppb		0.00
System Monitoring Compounds							
40) Dibromofluoromethane(S)	5.79	111	32509	9.07	ppb		0.00
Spiked Amount 25.000			Recovery = 36.260%				
45) 1,2-DCA-D4(S)	6.18	65	35862	8.93	ppb		0.00
Spiked Amount 25.000			Recovery = 35.724%				
66) Toluene-D8(S)	8.30	98	112166	8.83	ppb		0.00
Spiked Amount 25.000			Recovery = 35.332%				
74) 4-Bromofluorobenzene(S)	10.92	174	42473	8.45	ppb		0.00
Spiked Amount 25.000			Recovery = 33.796%				
Target Compounds							Qvalue
3) Dichlorodifluoromethane	1.21	85	2213	1.28	ppb	#	81
4) Freon 114	1.32	85	1140	0.31	ppb		93
5) Chloromethane	1.36	50	2112	0.60	ppb		96
6) Vinyl chloride	1.46	62	1528	1.21	ppb		96
8) Bromomethane	1.75	96	1266	1.45	ppb		96
9) Chloroethane	1.86	64	2544	1.72	ppb		98
10) Dichlorofluoromethane	2.06	67	2822	1.23	ppb		92
11) Trichlorofluoromethane	2.12	101	2755	1.17	ppb		99
13) Acrolein	2.55	55	3800	53.36	ppb		80
14) Acetone	2.74	43	1592	3.48	ppb	#	79
15) Freon-113	2.69	101	702	-0.16	ppb	#	84
16) 1,1-DCE	2.66	61	2040	1.22	ppb		90
18) Acetonitrile	3.06	41	7539	47.94	ppb		92
19) t-Butanol	3.54	59	6157	49.86	ppb		96
21) Iodomethane	2.82	142	383	3.68	ppb		94
22) Acrylonitrile	3.62	53	431	1.01	ppb	#	78
24) Carbon disulfide	2.90	76	3805	1.15	ppb	#	93
25) Methyl t-butyl ether (MtBE	3.73	73	4207	0.25	ppb	#	89
26) Trans-1,2-DCE	3.67	61	1800	1.10	ppb		93
28) Diisopropyl Ether	4.55	45	1587	1.12	ppb	#	83
30) 1,1-DCA	4.32	63	1319	0.31	ppb	#	79
31) Vinyl Acetate	4.56	87	1404	0.62	ppb		91
32) Ethyl tert Butyl Ether	5.06	59	3779	0.99	ppb	#	77
33) MEK (2-Butanone)	5.25	43	824	1.70	ppb	#	52
34) Cis-1,2-DCE	5.16	61	1979	1.00	ppb	#	70
35) 2,2-Dichloropropane	5.15	77	1108	1.09	ppb	#	58
38) Chloroform	5.60	83	1500	1.16	ppb		98
39) Bromochloromethane	5.46	130	644	1.16	ppb	#	48
41) 1,1,1-TCA	5.80	97	1182	0.18	ppb	#	79
42) Cyclohexane	5.87	84	1886	1.27	ppb		78
43) 1,1-Dichloropropene	6.02	75	1947	1.20	ppb		85
44) 2,2,4-Trimethylpentane	6.41	57	1717	1.24	ppb		93
46) Carbon Tetrachloride	6.01	119	2530	0.67	ppb		77
47) Tert Amyl Methyl Ether	6.45	73	4183	1.08	ppb		95
49) 1,2-DCA	6.26	62	2312	1.08	ppb	#	90
50) Benzene	6.25	78	5980	1.13	ppb	#	88
51) TCE	7.01	130	1838	1.12	ppb		87
52) 2-Pentanone	7.23	43	42744	51.67	ppb		96
53) 1,2-Dichloropropane	7.23	63	1521	1.13	ppb	#	88

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\THOR\DATA\T191023\1023T08.D Vial: 8
Acq On : 23 Oct 19 20:29 Operator:
Sample : 1.0ug/L VOC STD 10/23/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 24 9:58 2019 Quant Results File: T1023W.RES

Quant Method : M:\THOR\DATA\T191023\T1023W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:55:52 2019
Response via : Initial Calibration
DataAcq Meth : T8260

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
54)	Bromodichloromethane	7.54	83	2148	1.04	ppb	#	68
55)	Methyl Cyclohexane	7.22	83	2088	1.27	ppb		88
56)	Dibromomethane	7.35	174	1320	0.68	ppb		90
57)	MIBK (methyl isobutyl ket	9.05	43	515	1.66	ppb	#	73
58)	1-Bromo-2-chloroethane	7.85	63	1624	0.94	ppb		83
60)	Cis-1,3-Dichloropropene	8.02	75	2365	1.10	ppb		98
61)	Toluene	8.37	91	6781	1.13	ppb		100
62)	Trans-1,3-Dichloropropene	8.59	75	1278	0.95	ppb	#	28
63)	1,1,2-TCA	8.77	97	1441	1.07	ppb		94
64)	2-Hexanone	8.21	43	758	1.76	ppb	#	71
67)	1,2-EDB	9.26	107	855	1.05	ppb	#	75
68)	Tetrachloroethene	8.92	166	1113	0.69	ppb		92
69)	1-Chlorohexane	9.78	91	2319	1.25	ppb		95
70)	1,1,1,2-Tetrachloroethane	9.86	131	1688	1.03	ppb		79
71)	m&p-Xylene	10.02	91	10640	2.16	ppb		91
72)	o-Xylene	10.40	91	5776	1.10	ppb		92
73)	Styrene	10.42	104	3866	1.04	ppb		93
75)	1,3-Dichloropropane	8.93	76	2450	1.16	ppb		87
76)	Dibromochloromethane	9.16	129	1649	0.91	ppb	#	81
77)	Chlorobenzene	9.77	112	2697	1.08	ppb	#	91
78)	Ethylbenzene	9.90	91	6258	1.02	ppb		96
79)	Bromoform	10.58	173	996	0.93	ppb	#	30
81)	Isopropylbenzene	10.78	105	7137	1.20	ppb		96
82)	1,1,2,2-Tetrachloroethane	11.06	83	1421	0.91	ppb	#	91
85)	Bromobenzene	11.06	77	1841	1.19	ppb		91
86)	n-Propylbenzene	11.19	91	7417	1.12	ppb		92
87)	4-Ethyltoluene	11.31	105	5822	1.02	ppb		92
88)	2-Chlorotoluene	11.26	91	3127	1.14	ppb		94
89)	1,3,5-Trimethylbenzene	11.31	105	5746	1.14	ppb		84
90)	4-Chlorotoluene	11.37	91	3169	1.01	ppb	#	85
91)	Tert-Butylbenzene	11.69	119	4538	1.00	ppb		93
92)	1,2,4-Trimethylbenzene	11.74	105	5982	1.15	ppb		91
93)	Sec-Butylbenzene	11.91	105	6363	1.08	ppb	#	92
94)	p-Isopropyltoluene	12.06	119	5492	1.06	ppb	#	89
95)	Benzyl Chloride	12.22	91	1279	1.06	ppb	#	92
96)	1,3-DCB	12.00	146	2616	1.16	ppb		92
97)	1,4-DCB	12.09	146	3564	1.04	ppb		99
98)	n-Butylbenzene	12.47	91	4131	1.05	ppb	#	83
99)	1,2-DCB	12.46	146	2218	1.08	ppb		96
100)	Hexachloroethane	12.72	117	620	0.98	ppb		92
101)	1,2-Dibromo-3-chloropropan	13.22	157	215	0.59	ppb	#	74
102)	1,2,4-Trichlorobenzene	14.06	182	1397	1.13	ppb		94
103)	Hexachlorobutadiene	14.25	225	759	1.01	ppb	#	33
104)	Naphthalene	14.30	128	3115	1.00	ppb		96
105)	1,2,3-Trichlorobenzene	14.54	182	2012	0.99	ppb	#	69

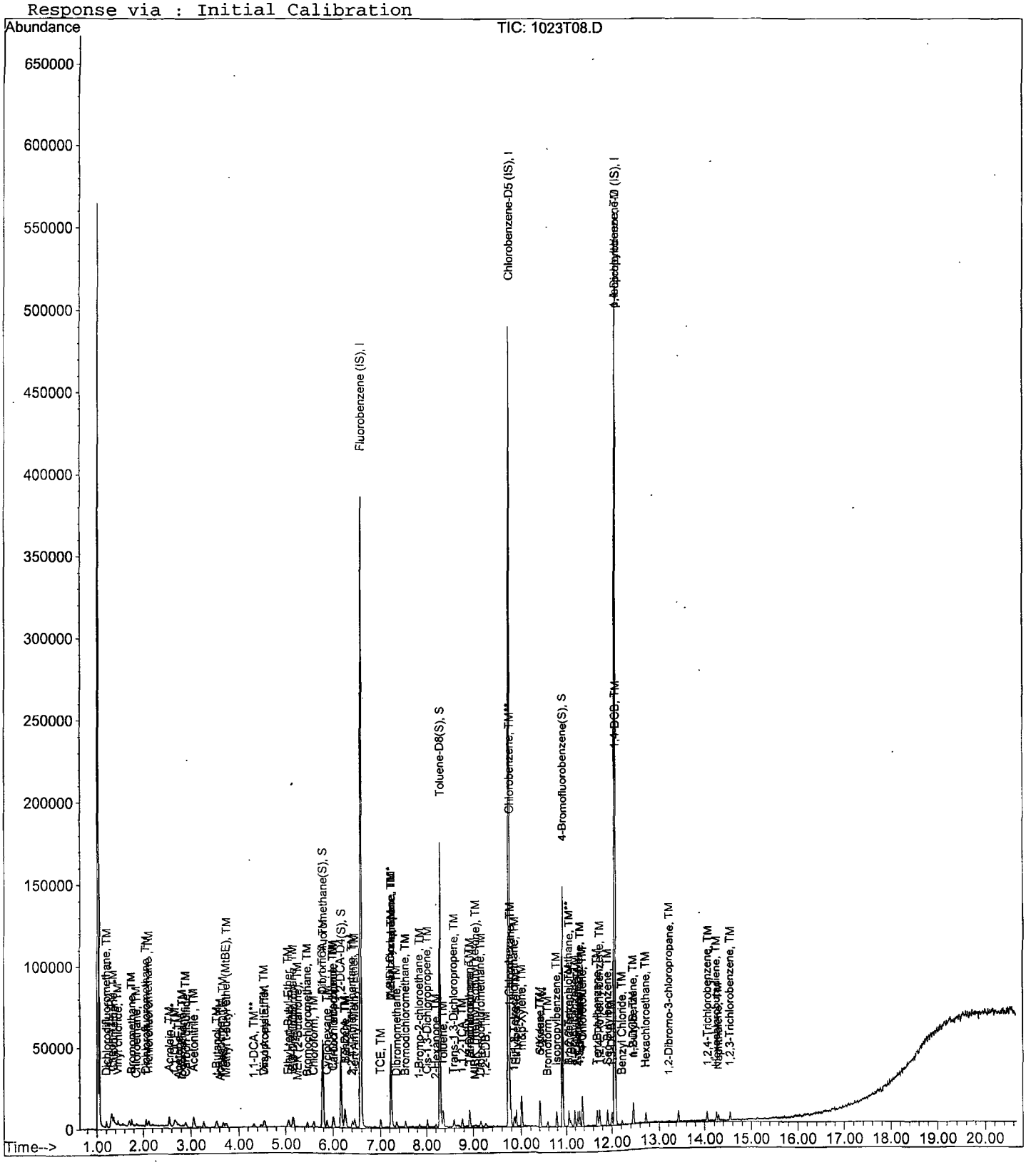
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\THOR\DATA\T191023\1023T08.D Vial: 8
Acq On : 23 Oct 19 20:29 Operator:
Sample : 1.0ug/L VOC STD 10/23/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 24 9:58 2019 Quant Results File: T1023W.RES

Method : M:\THOR\DATA\T191023\T1023W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:55:52 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\THOR\DATA\T191023\1023T09.D Vial: 9
Acq On : 23 Oct 19 20:58 Operator:
Sample : 2.0ug/L VOC STD 10/23/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 24 9:58 2019 Quant Results File: T1023W.RES

Quant Method : M:\THOR\DATA\T191023\T1023W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:55:52 2019
Response via : Initial Calibration
DataAcq Meth : T8260

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene (IS)	6.59	96	182336	25.00	ppb		0.00
65) Chlorobenzene-D5 (IS)	9.74	117	173696	25.00	ppb		0.00
80) 1,4-Dichlorobenzene-D (IS)	12.07	152	94992	25.00	ppb		0.00
System Monitoring Compounds							
40) Dibromofluoromethane(S)	5.79	111	33009	9.39	ppb		0.00
Spiked Amount 25.000			Recovery = 37.568%				
45) 1,2-DCA-D4(S)	6.18	65	37488	9.53	ppb		0.00
Spiked Amount 25.000			Recovery = 38.104%				
66) Toluene-D8(S)	8.30	98	117350	9.05	ppb		0.00
Spiked Amount 25.000			Recovery = 36.188%				
74) 4-Bromofluorobenzene(S)	10.92	174	44756	8.72	ppb		0.00
Spiked Amount 25.000			Recovery = 34.864%				
Target Compounds							Qvalue
3) Dichlorodifluoromethane	1.20	85	3175	1.88	ppb		97
4) Freon 114	1.32	85	1910	1.49	ppb		85
5) Chloromethane	1.36	50	3317	1.63	ppb	#	81
6) Vinyl chloride	1.46	62	2252	1.82	ppb		90
8) Bromomethane	1.75	96	1934	2.41	ppb		83
9) Chloroethane	1.86	64	2460	1.68	ppb	#	73
10) Dichlorofluoromethane	2.06	67	4804	2.14	ppb		89
11) Trichlorofluoromethane	2.12	101	4673	2.03	ppb		97
13) Acrolein	2.55	55	5067	72.60	ppb		97
14) Acetone	2.74	43	2190	4.88	ppb	#	76
15) Freon-113	2.70	101	2181	1.55	ppb	#	88
16) 1,1-DCE	2.67	61	3464	2.12	ppb		92
18) Acetonitrile	3.06	41	11213	74.43	ppb		97
19) t-Butanol	3.54	59	8922	73.72	ppb		93
20) Methyl Acetate	3.18	43	1823	1.05	ppb	#	78
21) Iodomethane	2.82	142	462	3.74	ppb		88
22) Acrylonitrile	3.62	53	953	2.28	ppb		92
23) Methylene chloride	3.27	49	3370	1.08	ppb		87
24) Carbon disulfide	2.89	76	6588	2.19	ppb		98
25) Methyl t-butyl ether (MtBE	3.73	73	7916	1.39	ppb	#	89
26) Trans-1,2-DCE	3.68	61	3481	2.18	ppb		89
28) Diisopropyl Ether	4.55	45	2949	2.12	ppb		97
30) 1,1-DCA	4.32	63	2103	1.32	ppb	#	92
31) Vinyl Acetate	4.55	87	2156	1.39	ppb		99
32) Ethyl tert Butyl Ether	5.06	59	7839	2.10	ppb		99
33) MEK (2-Butanone)	5.22	43	1288	2.71	ppb	#	73
34) Cis-1,2-DCE	5.16	61	4117	2.13	ppb		95
35) 2,2-Dichloropropane	5.16	77	1799	2.05	ppb		93
38) Chloroform	5.59	83	2498	1.97	ppb		97
39) Bromochloromethane	5.46	130	1094	2.01	ppb		90
41) 1,1,1-TCA	5.80	97	2390	1.46	ppb		94
42) Cyclohexane	5.87	84	3158	2.16	ppb		79
43) 1,1-Dichloropropene	6.02	75	3070	1.93	ppb		92
44) 2,2,4-Trimethylpentane	6.41	57	2379	1.89	ppb		99
46) Carbon Tetrachloride	6.01	119	3701	1.36	ppb		88
47) Tert Amyl Methyl Ether	6.46	73	7829	2.06	ppb		95
49) 1,2-DCA	6.27	62	2248	1.06	ppb		93
50) Benzene	6.25	78	10480	2.02	ppb		95
51) TCE	7.00	130	3335	2.07	ppb		95

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\THOR\DATA\T191023\1023T09.D Vial: 9
Acq On : 23 Oct 19 20:58 Operator:
Sample : 2.0ug/L VOC STD 10/23/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 24 9:58 2019 Quant Results File: T1023W.RES

Quant Method : M:\THOR\DATA\T191023\T1023W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:55:52 2019
Response via : Initial Calibration
DataAcq Meth : T8260

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
52)	2-Pentanone	7.23	43	60760	74.94	ppb		97
53)	1,2-Dichloropropane	7.23	63	3079	2.34	ppb	#	98
54)	Bromodichloromethane	7.54	83	4329	2.14	ppb		99
55)	Methyl Cyclohexane	7.22	83	3239	2.01	ppb		85
56)	Dibromomethane	7.34	174	1893	1.22	ppb		97
57)	MIBK (methyl isobutyl ket	9.05	43	929	2.63	ppb	#	84
58)	1-Bromo-2-chloroethane	7.85	63	3667	2.16	ppb		98
60)	Cis-1,3-Dichloropropene	8.02	75	4282	2.03	ppb		95
61)	Toluene	8.37	91	11816	2.01	ppb		97
62)	Trans-1,3-Dichloropropene	8.59	75	2529	1.92	ppb	#	65
63)	1,1,2-TCA	8.77	97	2858	2.17	ppb		79
64)	2-Hexanone	8.20	43	1337	2.66	ppb	#	89
67)	1,2-EDB	9.26	107	1686	2.03	ppb		80
68)	Tetrachloroethene	8.92	166	3619	2.20	ppb		93
69)	1-Chlorohexane	9.77	91	2745	1.51	ppb		92
70)	1,1,1,2-Tetrachloroethane	9.85	131	3220	1.92	ppb		97
71)	m&p-Xylene	10.02	91	19574	3.89	ppb		100
72)	o-Xylene	10.40	91	10335	1.92	ppb		93
73)	Styrene	10.42	104	6848	1.80	ppb		90
75)	1,3-Dichloropropane	8.93	76	4414	2.04	ppb		96
76)	Dibromochloromethane	9.16	129	3293	1.87	ppb		83
77)	Chlorobenzene	9.77	112	4853	1.89	ppb		96
78)	Ethylbenzene	9.90	91	12886	2.05	ppb		92
79)	Bromoform	10.58	173	2663	2.11	ppb		90
81)	Isopropylbenzene	10.78	105	11630	1.99	ppb	#	92
82)	1,1,2,2-Tetrachloroethane	11.05	83	3377	2.20	ppb	#	92
83)	1,2,3-Trichloropropane	11.09	110	1011	1.06	ppb	#	76
84)	t-1,4-Dichloro-2-Butene	11.12	53	612	1.33	ppb		90
85)	Bromobenzene	11.06	77	3079	2.02	ppb		80
86)	n-Propylbenzene	11.19	91	13209	2.04	ppb		98
87)	4-Ethyltoluene	11.31	105	11432	2.05	ppb		97
88)	2-Chlorotoluene	11.26	91	5743	2.14	ppb		91
89)	1,3,5-Trimethylbenzene	11.37	105	9508	1.92	ppb		97
90)	4-Chlorotoluene	11.37	91	6696	2.19	ppb		96
91)	Tert-Butylbenzene	11.69	119	9964	2.23	ppb		86
92)	1,2,4-Trimethylbenzene	11.74	105	10392	2.05	ppb		92
93)	Sec-Butylbenzene	11.91	105	11421	1.97	ppb		97
94)	p-Isopropyltoluene	12.06	119	10147	2.00	ppb		99
95)	Benzyl Chloride	12.22	91	2084	1.76	ppb		96
96)	1,3-DCB	12.00	146	4196	1.90	ppb		97
97)	1,4-DCB	12.09	146	7220	2.16	ppb		97
98)	n-Butylbenzene	12.47	91	7641	1.98	ppb		98
99)	1,2-DCB	12.46	146	4008	1.99	ppb		96
100)	Hexachloroethane	12.72	117	1365	2.21	ppb		88
101)	1,2-Dibromo-3-chloropropan	13.22	157	426	1.62	ppb	#	79
102)	1,2,4-Trichlorobenzene	14.06	182	2163	1.79	ppb	#	84
103)	Hexachlorobutadiene	14.26	225	1261	1.71	ppb		95
104)	Naphthalene	14.30	128	5533	1.81	ppb		93
105)	1,2,3-Trichlorobenzene	14.55	182	3184	1.72	ppb	#	75

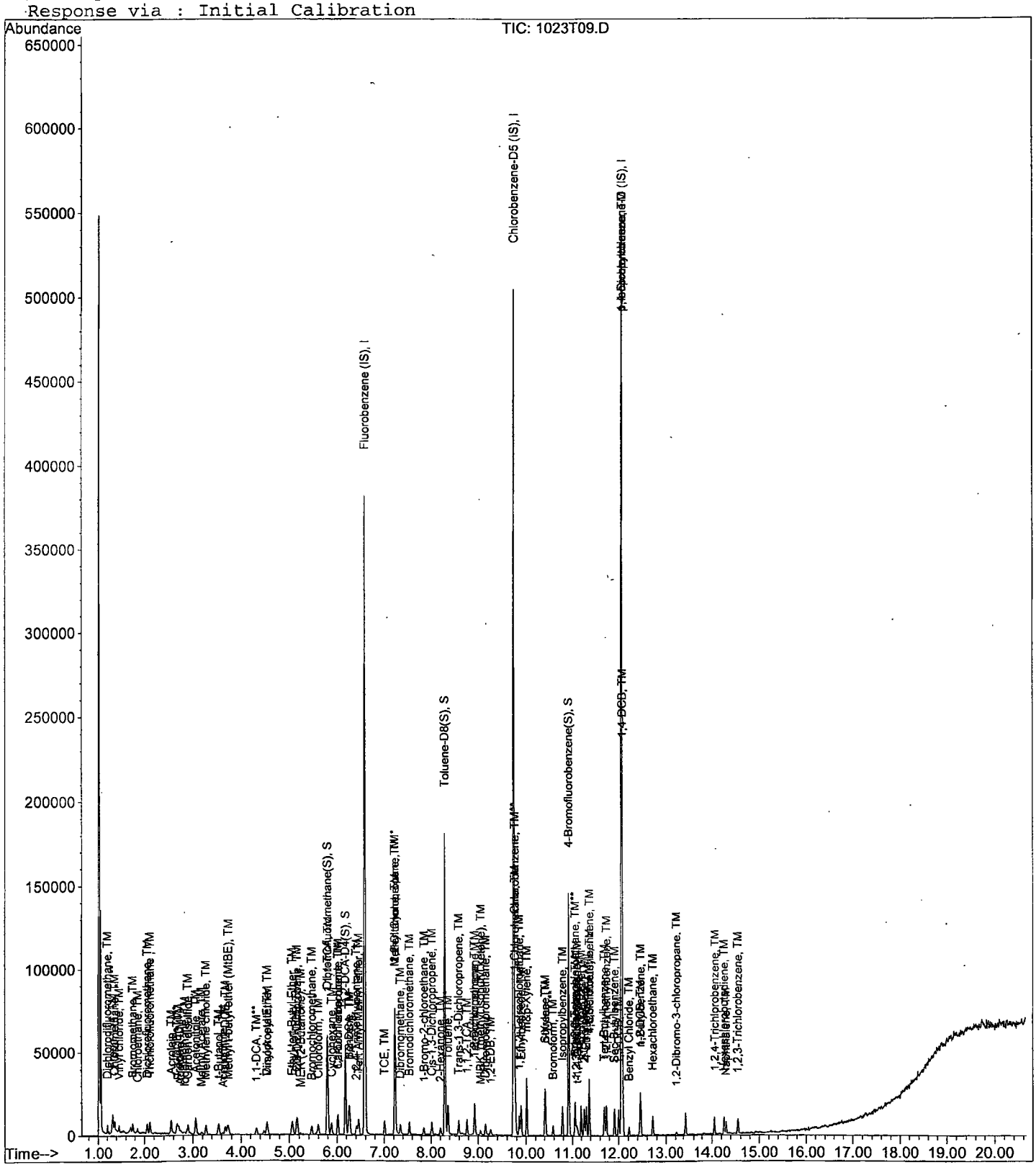
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\THOR\DATA\T191023\1023T09.D Vial: 9
Acq On : 23 Oct 19 20:58 Operator:
Sample : 2.0ug/L VOC STD 10/23/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 24 9:58 2019 Quant Results File: T1023W.RES

Method : M:\THOR\DATA\T191023\T1023W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:55:52 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\THOR\DATA\T191023\1023T10.D Vial: 10
Acq On : 23 Oct 19 21:26 Operator:
Sample : 5.0ug/L VOC STD 10/23/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 24 9:58 2019 Quant Results File: T1023W.RES

Quant Method : M:\THOR\DATA\T191023\T1023W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:55:52 2019
Response via : Initial Calibration
DataAcq Meth : T8260

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene (IS)	6.59	96	183104	25.00	ppb		0.00
65) Chlorobenzene-D5 (IS)	9.74	117	171200	25.00	ppb		0.00
80) 1,4-Dichlorobenzene-D (IS)	12.06	152	96128	25.00	ppb		0.00
System Monitoring Compounds							
40) Dibromofluoromethane(S)	5.79	111	86276	24.44	ppb		0.00
Spiked Amount 25.000			Recovery = 97.780%				
45) 1,2-DCA-D4(S)	6.18	65	97911	24.78	ppb		0.00
Spiked Amount 25.000			Recovery = 99.104%				
66) Toluene-D8(S)	8.30	98	311553	24.37	ppb		0.00
Spiked Amount 25.000			Recovery = 97.476%				
74) 4-Bromofluorobenzene(S)	10.92	174	123213	24.34	ppb		0.00
Spiked Amount 25.000			Recovery = 97.376%				
Target Compounds							Qvalue
3) Dichlorodifluoromethane	1.21	85	7047	4.15	ppb		100
4) Freon 114	1.32	85	3426	3.73	ppb		92
5) Chloromethane	1.36	50	6891	4.54	ppb		97
6) Vinyl chloride	1.46	62	5392	4.34	ppb		92
8) Bromomethane	1.75	96	3752	4.92	ppb		100
9) Chloroethane	1.86	64	4122	3.80	ppb		90
10) Dichlorofluoromethane	2.06	67	10226	4.54	ppb		92
11) Trichlorofluoromethane	2.12	101	9773	4.22	ppb		99
13) Acrolein	2.55	55	6587	93.99	ppb		94
14) Acetone	2.74	43	3112	6.90	ppb		91
15) Freon-113	2.70	101	4455	4.13	ppb		94
16) 1,1-DCE	2.66	61	7366	4.49	ppb		96
18) Acetonitrile	3.06	41	14951	99.89	ppb		97
19) t-Butanol	3.54	59	12184	100.25	ppb		95
20) Methyl Acetate	3.18	43	4022	4.10	ppb		97
21) Iodomethane	2.82	142	1130	4.26	ppb		96
22) Acrylonitrile	3.62	53	1849	4.41	ppb	#	79
23) Methylene chloride	3.27	49	6871	3.77	ppb		95
24) Carbon disulfide	2.89	76	12647	4.37	ppb	#	93
25) Methyl t-butyl ether (MtBE	3.73	73	17467	4.24	ppb		95
26) Trans-1,2-DCE	3.68	61	7009	4.37	ppb		93
28) Diisopropyl Ether	4.55	45	6353	4.56	ppb		90
30) 1,1-DCA	4.32	63	4303	4.02	ppb		96
31) Vinyl Acetate	4.54	87	4879	4.04	ppb		84
32) Ethyl tert Butyl Ether	5.06	59	17047	4.54	ppb	#	89
33) MEK (2-Butanone)	5.23	43	2473	5.18	ppb	#	57
34) Cis-1,2-DCE	5.16	61	8972	4.62	ppb	#	84
35) 2,2-Dichloropropane	5.15	77	3565	4.40	ppb		95
38) Chloroform	5.60	83	5919	4.65	ppb		98
39) Bromochloromethane	5.47	130	2359	4.32	ppb		83
41) 1,1,1-TCA	5.81	97	4991	4.13	ppb		94
42) Cyclohexane	5.88	84	6309	4.31	ppb		80
43) 1,1-Dichloropropene	6.02	75	7151	4.47	ppb		96
44) 2,2,4-Trimethylpentane	6.41	57	4801	4.13	ppb		99
46) Carbon Tetrachloride	6.02	119	8319	3.96	ppb		83
47) Tert Amyl Methyl Ether	6.46	73	17800	4.67	ppb		97
49) 1,2-DCA	6.27	62	4860	3.72	ppb		96
50) Benzene	6.25	78	24326	4.67	ppb		97
51) TCE	7.01	130	7152	4.42	ppb		92

(#) = qualifier out of range (m) = manual integration

Data File : M:\THOR\DATA\T191023\1023T10.D Vial: 10
Acq On : 23 Oct 19 21:26 Operator:
Sample : 5.0ug/L VOC STD 10/23/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 24 9:58 2019 Quant Results File: T1023W.RES

Quant Method : M:\THOR\DATA\T191023\T1023W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:55:52 2019
Response via : Initial Calibration
DataAcq Meth : T8260

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
52)	2-Pentanone	7.23	43	80479	98.85	ppb		98
53)	1,2-Dichloropropane	7.23	63	5830	4.40	ppb	#	84
54)	Bromodichloromethane	7.54	83	9397	4.63	ppb	#	98
55)	Methyl Cyclohexane	7.22	83	7317	4.53	ppb		96
56)	Dibromomethane	7.35	174	4797	3.82	ppb		91
57)	MIBK (methyl isobutyl ket	9.05	43	2096	5.25	ppb	#	86
58)	1-Bromo-2-chloroethane	7.85	63	7637	4.48	ppb		98
60)	Cis-1,3-Dichloropropene	8.02	75	9274	4.37	ppb		97
61)	Toluene	8.37	91	26261	4.45	ppb		98
62)	Trans-1,3-Dichloropropene	8.59	75	5833	4.40	ppb		85
63)	1,1,2-TCA	8.77	97	6039	4.56	ppb		96
64)	2-Hexanone	8.20	43	2503	4.40	ppb		92
67)	1,2-EDB	9.26	107	4010	4.89	ppb		89
68)	Tetrachloroethene	8.92	166	8026	4.95	ppb		98
69)	1-Chlorohexane	9.77	91	7147	4.60	ppb		95
70)	1,1,1,2-Tetrachloroethane	9.86	131	7493	4.52	ppb		96
71)	m&p-Xylene	10.02	91	44412	8.96	ppb		98
72)	o-Xylene	10.41	91	23275	4.39	ppb		96
73)	Styrene	10.42	104	16167	4.30	ppb		97
75)	1,3-Dichloropropane	8.93	76	10123	4.74	ppb		100
76)	Dibromochloromethane	9.16	129	7218	4.29	ppb		94
77)	Chlorobenzene	9.77	112	11774	4.66	ppb		100
78)	Ethylbenzene	9.89	91	27457	4.44	ppb		96
79)	Bromoform	10.58	173	6093	4.66	ppb		92
81)	Isopropylbenzene	10.78	105	27436	4.65	ppb		98
82)	1,1,2,2-Tetrachloroethane	11.06	83	7046	4.54	ppb	#	94
83)	1,2,3-Trichloropropane	11.09	110	2559	4.29	ppb		89
84)	t-1,4-Dichloro-2-Butene	11.12	53	1788	5.37	ppb	#	61
85)	Bromobenzene	11.06	77	7073	4.60	ppb		88
86)	n-Propylbenzene	11.19	91	29626	4.51	ppb		97
87)	4-Ethyltoluene	11.31	105	26056	4.63	ppb		97
88)	2-Chlorotoluene	11.26	91	13299	4.89	ppb		95
89)	1,3,5-Trimethylbenzene	11.37	105	23914	4.78	ppb		96
90)	4-Chlorotoluene	11.37	91	13927	4.50	ppb		97
91)	Tert-Butylbenzene	11.69	119	23226	5.14	ppb		98
92)	1,2,4-Trimethylbenzene	11.74	105	24100	4.69	ppb		95
93)	Sec-Butylbenzene	11.91	105	26773	4.57	ppb		96
94)	p-Isopropyltoluene	12.06	119	23556	4.58	ppb		96
95)	Benzyl Chloride	12.22	91	5914	4.92	ppb		99
96)	1,3-DCB	12.00	146	9295	4.15	ppb		97
97)	1,4-DCB	12.09	146	15209	4.49	ppb		97
98)	n-Butylbenzene	12.46	91	17108	4.38	ppb		97
99)	1,2-DCB	12.45	146	9205	4.52	ppb		96
100)	Hexachloroethane	12.72	117	2949	4.71	ppb		96
101)	1,2-Dibromo-3-chloropropan	13.22	157	1225	5.34	ppb	#	67
102)	1,2,4-Trichlorobenzene	14.06	182	5412	4.43	ppb		98
103)	Hexachlorobutadiene	14.25	225	3450	4.61	ppb	#	55
104)	Naphthalene	14.30	128	13148	4.26	ppb		98
105)	1,2,3-Trichlorobenzene	14.54	182	7810	4.45	ppb	#	78

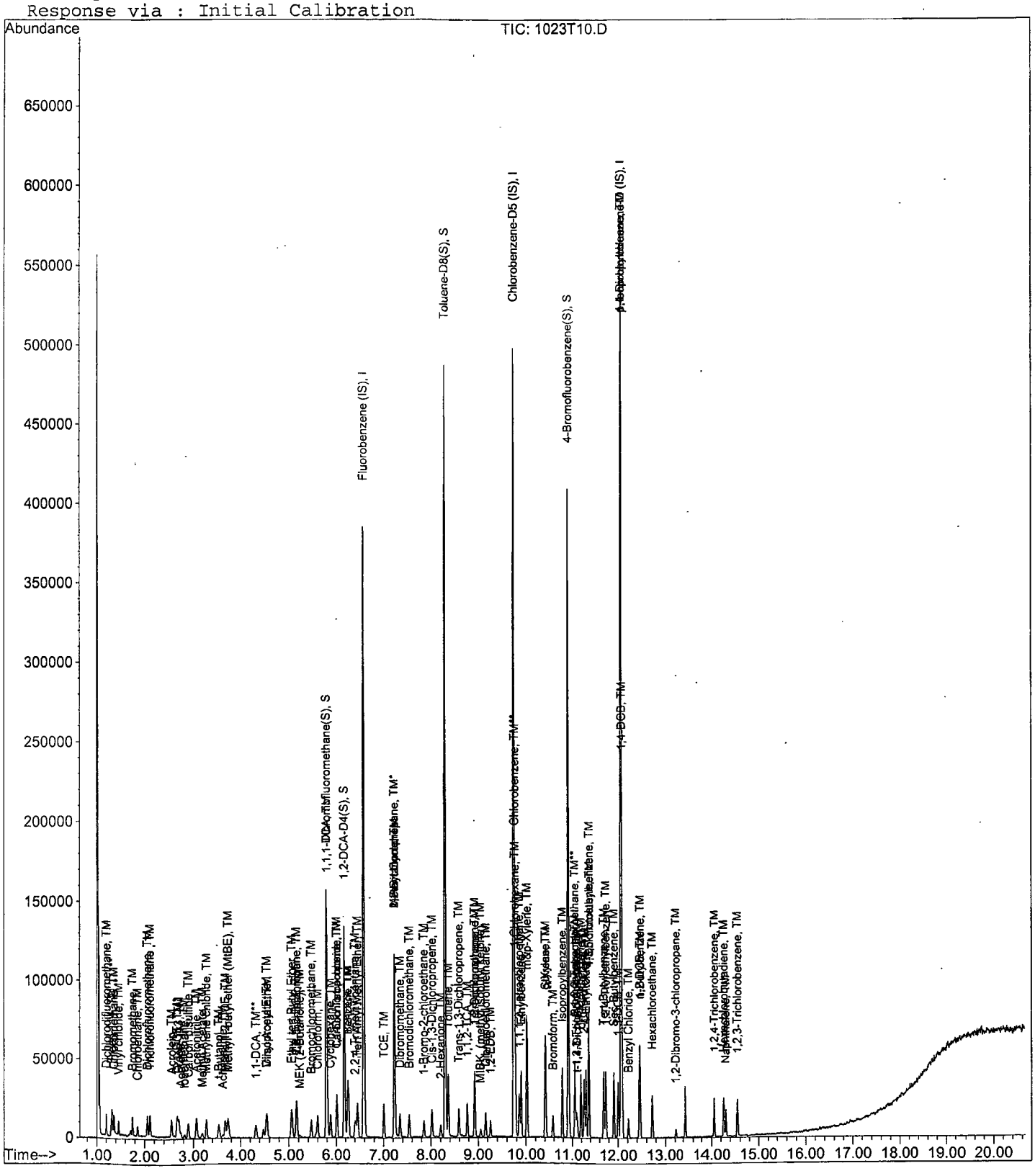
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\THOR\DATA\T191023\1023T10.D Vial: 10
Acq On : 23 Oct 19 21:26 Operator:
Sample : 5.0ug/L VOC STD 10/23/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 24 9:58 2019 Quant Results File: T1023W.RES

Method : M:\THOR\DATA\T191023\T1023W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:55:52 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\THOR\DATA\T191023\1023T11.D Vial: 11
Acq On : 23 Oct 19 21:55 Operator:
Sample : 10ug/L VOC STD 10/23/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 24 9:58 2019 Quant Results File: T1023W.RES

Quant Method : M:\THOR\DATA\T191023\T1023W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:55:52 2019
Response via : Initial Calibration
DataAcq Meth : T8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	6.59	96	178432	25.00	ppb	0.00
65) Chlorobenzene-D5 (IS)	9.74	117	159872	25.00	ppb	0.00
80) 1,4-Dichlorobenzene-D (IS)	12.06	152	97112	25.00	ppb	0.00
System Monitoring Compounds						
40) Dibromofluoromethane(S)	5.79	111	86393	25.12	ppb	0.00
Spiked Amount 25.000			Recovery = 100.476%			
45) 1,2-DCA-D4(S)	6.18	65	98312	25.53	ppb	0.00
Spiked Amount 25.000			Recovery = 102.112%			
66) Toluene-D8(S)	8.30	98	314020	26.30	ppb	0.00
Spiked Amount 25.000			Recovery = 105.208%			
74) 4-Bromofluorobenzene(S)	10.92	174	123099	26.04	ppb	0.00
Spiked Amount 25.000			Recovery = 104.180%			
Target Compounds						Qvalue
3) Dichlorodifluoromethane	1.20	85	14932	9.03	ppb	100
4) Freon 114	1.32	85	7672	10.34	ppb	100
5) Chloromethane	1.36	50	13913	10.59	ppb	100
6) Vinyl chloride	1.46	62	11629	9.61	ppb	100
8) Bromomethane	1.75	96	6929	9.57	ppb	100
9) Chloroethane	1.86	64	8442	9.63	ppb	100
10) Dichlorofluoromethane	2.06	67	21099	9.60	ppb	100
11) Trichlorofluoromethane	2.12	101	20797	9.22	ppb	100
13) Acrolein	2.55	55	8793	128.75	ppb	100
14) Acetone	2.74	43	4950	11.27	ppb	100
15) Freon-113	2.70	101	9462	10.12	ppb	100
16) 1,1-DCE	2.67	61	14233	8.91	ppb	100
18) Acetonitrile	3.06	41	18272	126.10	ppb	100
19) t-Butanol	3.53	59	14643	123.64	ppb	100
20) Methyl Acetate	3.18	43	8327	10.39	ppb	100
21) Iodomethane	2.82	142	6698	8.68	ppb	100
22) Acrylonitrile	3.62	53	4020	9.84	ppb	100
23) Methylene chloride	3.27	49	14626	10.05	ppb	100
24) Carbon disulfide	2.90	76	27007	9.83	ppb	100
25) Methyl t-butyl ether (MtBE	3.73	73	36251	10.13	ppb	100
26) Trans-1,2-DCE	3.68	61	15076	9.64	ppb	100
28) Diisopropyl Ether	4.55	45	11939	8.79	ppb	100
30) 1,1-DCA	4.32	63	8893	9.98	ppb	100
31) Vinyl Acetate	4.54	87	10490	9.80	ppb	100
32) Ethyl tert Butyl Ether	5.06	59	37233	10.18	ppb	100
33) MEK (2-Butanone)	5.23	43	4883	10.51	ppb	100
34) Cis-1,2-DCE	5.16	61	18914	9.99	ppb	100
35) 2,2-Dichloropropane	5.16	77	7007	9.26	ppb	100
38) Chloroform	5.60	83	12348	9.95	ppb	100
39) Bromochloromethane	5.46	130	5202	9.77	ppb	100
41) 1,1,1-TCA	5.80	97	10621	10.21	ppb	100
42) Cyclohexane	5.88	84	12619	8.84	ppb	100
43) 1,1-Dichloropropene	6.02	75	14583	9.35	ppb	100
44) 2,2,4-Trimethylpentane	6.41	57	10115	9.30	ppb	100
46) Carbon Tetrachloride	6.01	119	17586	9.45	ppb	100
47) Tert Amyl Methyl Ether	6.46	73	35058	9.44	ppb	100
49) 1,2-DCA	6.27	62	9957	9.19	ppb	100
50) Benzene	6.25	78	47545	9.36	ppb	100
51) TCE	7.01	130	14677	9.32	ppb	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\THOR\DATA\T191023\1023T11.D Vial: 11
Acq On : 23 Oct 19 21:55 Operator:
Sample : 10ug/L VOC STD 10/23/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 24 9:58 2019 Quant Results File: T1023W.RES

Quant Method : M:\THOR\DATA\T191023\T1023W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:55:52 2019
Response via : Initial Calibration
DataAcq Meth : T8260

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
52)	2-Pentanone	7.23	43	98031	123.56	ppb	100
53)	1,2-Dichloropropane	7.23	63	12213	9.46	ppb	100
54)	Bromodichloromethane	7.54	83	19074	9.65	ppb	100
55)	Methyl Cyclohexane	7.22	83	14678	9.33	ppb	100
56)	Dibromomethane	7.35	174	10360	9.04	ppb	100
57)	MIBK (methyl isobutyl ket	9.05	43	3951	9.67	ppb	100
58)	1-Bromo-2-chloroethane	7.85	63	16743	10.07	ppb	100
60)	Cis-1,3-Dichloropropene	8.02	75	20283	9.82	ppb	100
61)	Toluene	8.37	91	55194	9.59	ppb	100
62)	Trans-1,3-Dichloropropene	8.59	75	12534	9.70	ppb	100
63)	1,1,2-TCA	8.77	97	13065	10.12	ppb	100
64)	2-Hexanone	8.20	43	5964	9.85	ppb	100
67)	1,2-EDB	9.26	107	7535	9.84	ppb	100
68)	Tetrachloroethene	8.92	166	16538	10.92	ppb	100
69)	1-Chlorohexane	9.78	91	14226	10.24	ppb	100
70)	1,1,1,2-Tetrachloroethane	9.86	131	15300	9.89	ppb	100
71)	m&p-Xylene	10.02	91	94120	20.33	ppb	100
72)	o-Xylene	10.40	91	51227	10.35	ppb	100
73)	Styrene	10.42	104	35722	10.18	ppb	100
75)	1,3-Dichloropropane	8.93	76	20155	10.11	ppb	100
76)	Dibromochloromethane	9.15	129	16704	10.78	ppb	100
77)	Chlorobenzene	9.77	112	24896	10.56	ppb	100
78)	Ethylbenzene	9.90	91	58576	10.14	ppb	100
79)	Bromoform	10.58	173	13279	10.61	ppb	100
81)	Isopropylbenzene	10.78	105	60153	10.08	ppb	100
82)	1,1,2,2-Tetrachloroethane	11.05	83	16130	10.28	ppb	100
83)	1,2,3-Trichloropropane	11.09	110	5570	10.50	ppb	100
84)	t-1,4-Dichloro-2-Butene	11.12	53	3236	10.26	ppb	100
85)	Bromobenzene	11.06	77	15582	10.02	ppb	100
86)	n-Propylbenzene	11.19	91	63613	9.59	ppb	100
87)	4-Ethyltoluene	11.31	105	55797	9.81	ppb	100
88)	2-Chlorotoluene	11.26	91	26018	9.46	ppb	100
89)	1,3,5-Trimethylbenzene	11.37	105	50646	10.01	ppb	100
90)	4-Chlorotoluene	11.37	91	31560	10.09	ppb	100
91)	Tert-Butylbenzene	11.69	119	43879	9.61	ppb	100
92)	1,2,4-Trimethylbenzene	11.74	105	50506	9.74	ppb	100
93)	Sec-Butylbenzene	11.91	105	58662	9.91	ppb	100
94)	p-Isopropyltoluene	12.06	119	53371	10.27	ppb	100
95)	Benzyl Chloride	12.22	91	11283	9.30	ppb	100
96)	1,3-DCB	12.00	146	21112	9.34	ppb	100
97)	1,4-DCB	12.09	146	31903	9.32	ppb	100
98)	n-Butylbenzene	12.46	91	37788	9.57	ppb	100
99)	1,2-DCB	12.45	146	20424	9.93	ppb	100
100)	Hexachloroethane	12.72	117	6566	10.39	ppb	100
101)	1,2-Dibromo-3-chloropropan	13.22	157	2059	9.16	ppb	100
102)	1,2,4-Trichlorobenzene	14.06	182	12002	9.73	ppb	100
103)	Hexachlorobutadiene	14.25	225	7655	10.13	ppb	100
104)	Naphthalene	14.30	128	28762	9.22	ppb	100
105)	1,2,3-Trichlorobenzene	14.54	182	15183	8.74	ppb	100

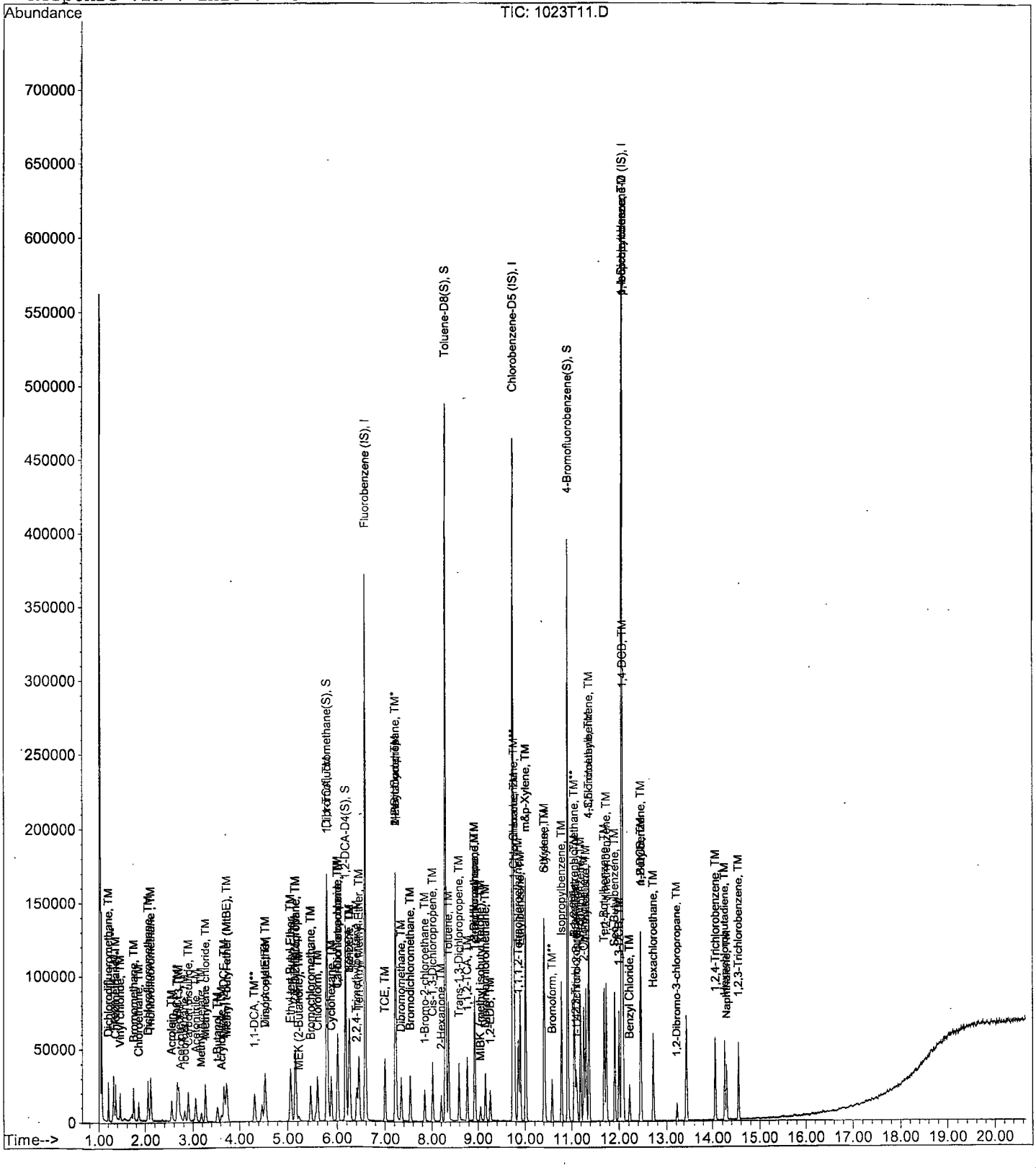
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\THOR\DATA\T191023\1023T11.D Vial: 11
Acq On : 23 Oct 19 21:55 Operator:
Sample : 10ug/L VOC STD 10/23/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 24 9:58 2019 Quant Results File: T1023W.RES

Method : M:\THOR\DATA\T191023\T1023W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:55:52 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\THOR\DATA\T191023\1023T12.D Vial: 12
Acq On : 23 Oct 19 22:23 Operator:
Sample : 20ug/L VOC STD 10/23/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 24 9:58 2019 Quant Results File: T1023W.RES

Quant Method : M:\THOR\DATA\T191023\T1023W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:55:52 2019
Response via : Initial Calibration
DataAcq Meth : T8260

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene (IS)	6.59	96	180864	25.00	ppb		0.00
65) Chlorobenzene-D5 (IS)	9.74	117	175808	25.00	ppb		0.00
80) 1,4-Dichlorobenzene-D (IS)	12.07	152	103912	25.00	ppb		0.00
System Monitoring Compounds							
40) Dibromofluoromethane(S)	5.79	111	175433	50.32	ppb		0.00
Spiked Amount 25.000			Recovery = 201.288%				
45) 1,2-DCA-D4(S)	6.18	65	197560	50.61	ppb		0.00
Spiked Amount 25.000			Recovery = 202.440%				
66) Toluene-D8(S)	8.30	98	624922	47.60	ppb		0.00
Spiked Amount 25.000			Recovery = 190.396%				
74) 4-Bromofluorobenzene(S)	10.92	174	252217	48.53	ppb		0.00
Spiked Amount 25.000			Recovery = 194.104%				
Target Compounds							Qvalue
3) Dichlorodifluoromethane	1.20	85	32288	19.26	ppb		97
4) Freon 114	1.32	85	15354	21.74	ppb		96
5) Chloromethane	1.36	50	25641	20.15	ppb		100
6) Vinyl chloride	1.46	62	22773	18.57	ppb		100
8) Bromomethane	1.75	96	14084	19.47	ppb		95
9) Chloroethane	1.85	64	16775	20.31	ppb		100
10) Dichlorofluoromethane	2.06	67	43411	19.49	ppb		96
11) Trichlorofluoromethane	2.12	101	44383	19.42	ppb		95
13) Acrolein	2.55	55	9785	141.35	ppb		92
14) Acetone	2.74	43	8290	18.61	ppb		97
15) Freon-113	2.69	101	19524	21.58	ppb		94
16) 1,1-DCE	2.67	61	32010	19.76	ppb		93
18) Acetonitrile	3.06	41	22103	151.11	ppb	#	88
19) t-Butanol	3.54	59	17879	148.94	ppb	#	93
20) Methyl Acetate	3.18	43	16422	21.63	ppb		90
21) Iodomethane	2.82	142	18596	17.90	ppb		96
22) Acrylonitrile	3.62	53	8318	20.08	ppb		98
23) Methylene chloride	3.27	49	29061	21.18	ppb		94
24) Carbon disulfide	2.89	76	53453	19.39	ppb		95
25) Methyl t-butyl ether (MtBE	3.73	73	71271	20.58	ppb	#	94
26) Trans-1,2-DCE	3.67	61	30537	19.27	ppb		96
28) Diisopropyl Ether	4.55	45	27088	19.67	ppb		93
30) 1,1-DCA	4.32	63	18088	21.33	ppb		96
31) Vinyl Acetate	4.54	87	21636	20.70	ppb		98
32) Ethyl tert Butyl Ether	5.06	59	74470	20.10	ppb		96
33) MEK (2-Butanone)	5.22	43	9649	20.48	ppb	#	90
34) Cis-1,2-DCE	5.16	61	38891	20.27	ppb		97
35) 2,2-Dichloropropane	5.15	77	15543	20.72	ppb		95
38) Chloroform	5.60	83	25136	19.99	ppb		96
39) Bromochloromethane	5.46	130	10607	19.65	ppb		92
41) 1,1,1-TCA	5.80	97	20576	20.43	ppb		89
42) Cyclohexane	5.88	84	26588	18.37	ppb		90
43) 1,1-Dichloropropene	6.02	75	30088	19.04	ppb		94
44) 2,2,4-Trimethylpentane	6.41	57	22144	20.47	ppb		99
46) Carbon Tetrachloride	6.01	119	37078	20.44	ppb		91
47) Tert Amyl Methyl Ether	6.45	73	73559	19.54	ppb		98
49) 1,2-DCA	6.27	62	22504	22.02	ppb		96
50) Benzene	6.25	78	97763	19.00	ppb		97
51) TCE	7.01	130	29788	18.66	ppb		95

(#) = qualifier out of range (m) = manual integration

Data File : M:\THOR\DATA\T191023\1023T12.D Vial: 12
Acq On : 23 Oct 19 22:23 Operator:
Sample : 20ug/L VOC STD 10/23/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 24 9:58 2019 Quant Results File: T1023W.RES

Quant Method : M:\THOR\DATA\T191023\T1023W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:55:52 2019
Response via : Initial Calibration
DataAcq Meth : T8260

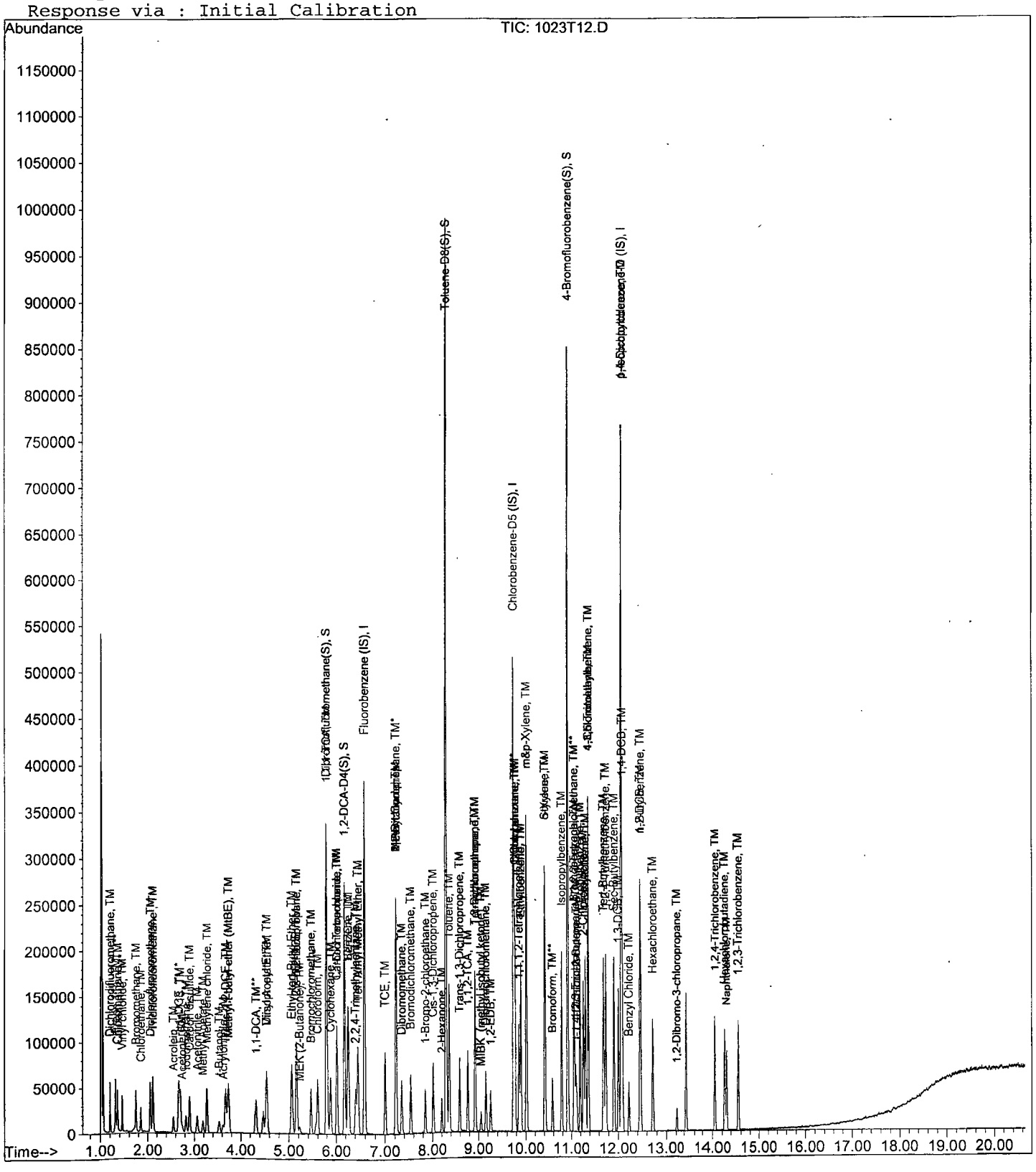
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
52)	2-Pentanone	7.23	43	124053	154.25	ppb		96
53)	1,2-Dichloropropane	7.23	63	24827	18.98	ppb		100
54)	Bromodichloromethane	7.54	83	39295	19.62	ppb	#	94
55)	Methyl Cyclohexane	7.22	83	30988	19.43	ppb		98
56)	Dibromomethane	7.35	174	23876	21.17	ppb		96
57)	MIBK (methyl isobutyl ket	9.05	43	7826	18.40	ppb		95
58)	1-Bromo-2-chloroethane	7.85	63	33960	20.15	ppb		97
60)	Cis-1,3-Dichloropropene	8.02	75	39658	18.93	ppb		96
61)	Toluene	8.36	91	113096	19.39	ppb		100
62)	Trans-1,3-Dichloropropene	8.59	75	25936	19.81	ppb		100
63)	1,1,2-TCA	8.77	97	25504	19.50	ppb		99
64)	2-Hexanone	8.20	43	12225	19.26	ppb		96
67)	1,2-EDB	9.26	107	16136	19.17	ppb		87
68)	Tetrachloroethene	8.92	166	33107	19.88	ppb		96
69)	1-Chlorohexane	9.77	91	30211	20.12	ppb		97
70)	1,1,1,2-Tetrachloroethane	9.86	131	31868	18.73	ppb		98
71)	m&p-Xylene	10.02	91	196759	38.64	ppb		99
72)	o-Xylene	10.40	91	102100	18.76	ppb		97
73)	Styrene	10.42	104	73591	19.06	ppb		100
75)	1,3-Dichloropropane	8.93	76	41806	19.06	ppb		97
76)	Dibromochloromethane	9.15	129	33143	19.54	ppb		99
77)	Chlorobenzene	9.77	112	48784	18.82	ppb		97
78)	Ethylbenzene	9.90	91	122474	19.27	ppb		99
79)	Bromoform	10.58	173	27267	19.65	ppb		91
81)	Isopropylbenzene	10.78	105	119982	18.79	ppb		97
82)	1,1,2,2-Tetrachloroethane	11.05	83	33329	19.86	ppb		96
83)	1,2,3-Trichloropropane	11.09	110	11514	21.30	ppb	#	88
84)	t-1,4-Dichloro-2-Butene	11.12	53	6726	20.70	ppb		93
85)	Bromobenzene	11.05	77	30824	18.53	ppb		92
86)	n-Propylbenzene	11.19	91	134615	18.97	ppb		97
87)	4-Ethyltoluene	11.31	105	116893	19.20	ppb		98
88)	2-Chlorotoluene	11.26	91	56665	19.26	ppb		97
89)	1,3,5-Trimethylbenzene	11.37	105	106438	19.66	ppb		97
90)	4-Chlorotoluene	11.37	91	65432	19.54	ppb		96
91)	Tert-Butylbenzene	11.69	119	92727	18.98	ppb		98
92)	1,2,4-Trimethylbenzene	11.74	105	106050	19.10	ppb		100
93)	Sec-Butylbenzene	11.91	105	121580	19.20	ppb		99
94)	p-Isopropyltoluene	12.06	119	110194	19.82	ppb		98
95)	Benzyl Chloride	12.22	91	24960	19.22	ppb		96
96)	1,3-DCB	12.00	146	43120	17.83	ppb		99
97)	1,4-DCB	12.09	146	66795	18.23	ppb		94
98)	n-Butylbenzene	12.47	91	82217	19.46	ppb		94
99)	1,2-DCB	12.46	146	41000	18.63	ppb		100
100)	Hexachloroethane	12.72	117	12173	18.00	ppb		86
101)	1,2-Dibromo-3-chloropropan	13.22	157	4549	19.35	ppb	#	86
102)	1,2,4-Trichlorobenzene	14.06	182	25808	19.54	ppb		96
103)	Hexachlorobutadiene	14.25	225	14803	18.31	ppb		89
104)	Naphthalene	14.30	128	66553	19.93	ppb		100
105)	1,2,3-Trichlorobenzene	14.54	182	36151	19.68	ppb		84

(#) = qualifier out of range (m) = manual integration

Data File : M:\THOR\DATA\T191023\1023T12.D Vial: 12
Acq On : 23 Oct 19 22:23 Operator:
Sample : 20ug/L VOC STD 10/23/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 24 9:58 2019 Quant Results File: T1023W.RES

Method : M:\THOR\DATA\T191023\T1023W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:55:52 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\THOR\DATA\T191023\1023T13.D Vial: 13
Acq On : 23 Oct 19 22:52 Operator:
Sample : 40ug/L VOC STD 10/23/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 24 9:58 2019 Quant Results File: T1023W.RES

Quant Method : M:\THOR\DATA\T191023\T1023W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:55:52 2019
Response via : Initial Calibration
DataAcq Meth : T8260

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene (IS)	6.59	96	178368	25.00	ppb		0.00
65) Chlorobenzene-D5 (IS)	9.74	117	169472	25.00	ppb		0.00
80) 1,4-Dichlorobenzene-D (IS)	12.06	152	101648	25.00	ppb		0.00
System Monitoring Compounds							
40) Dibromofluoromethane(S)	5.79	111	174185	50.66	ppb		0.00
Spiked Amount 25.000			Recovery = 202.652%				
45) 1,2-DCA-D4(S)	6.18	65	193525	50.27	ppb		0.00
Spiked Amount 25.000			Recovery = 201.080%				
66) Toluene-D8(S)	8.30	98	644008	50.89	ppb		0.00
Spiked Amount 25.000			Recovery = 203.544%				
74) 4-Bromofluorobenzene(S)	10.92	174	254916	50.88	ppb		0.00
Spiked Amount 25.000			Recovery = 203.516%				
Target Compounds							Qvalue
3) Dichlorodifluoromethane	1.20	85	63760	38.56	ppb		95
4) Freon 114	1.32	85	29000	42.87	ppb		96
5) Chloromethane	1.36	50	51152	41.89	ppb		99
6) Vinyl chloride	1.46	62	46109	38.12	ppb		98
8) Bromomethane	1.74	96	28488	40.22	ppb		94
9) Chloroethane	1.85	64	31831	40.46	ppb		97
10) Dichlorofluoromethane	2.06	67	88454	40.27	ppb		97
11) Trichlorofluoromethane	2.11	101	89037	39.50	ppb		97
13) Acrolein	2.55	55	11710	171.52	ppb		99
14) Acetone	2.74	43	14990	34.13	ppb		96
15) Freon-113	2.70	101	37981	43.49	ppb	#	93
16) 1,1-DCE	2.66	61	62037	38.83	ppb		96
18) Acetonitrile	3.06	41	25122	174.65	ppb		98
19) t-Butanol	3.54	59	20185	170.50	ppb		97
20) Methyl Acetate	3.18	43	31651	43.69	ppb		95
21) Iodomethane	2.82	142	44603	38.69	ppb		97
22) Acrylonitrile	3.62	53	16801	41.12	ppb		93
23) Methylene chloride	3.27	49	59157	45.35	ppb		93
24) Carbon disulfide	2.89	76	111137	41.12	ppb		97
25) Methyl t-butyl ether (MtBE	3.73	73	145366	43.62	ppb		95
26) Trans-1,2-DCE	3.67	61	64627	41.36	ppb		100
28) Diisopropyl Ether	4.54	45	52598	38.74	ppb		97
30) 1,1-DCA	4.32	63	35560	43.80	ppb		97
31) Vinyl Acetate	4.54	87	44516	43.98	ppb		99
32) Ethyl tert Butyl Ether	5.06	59	150408	41.16	ppb		92
33) MEK (2-Butanone)	5.22	43	20713	44.58	ppb	#	85
34) Cis-1,2-DCE	5.16	61	79565	42.05	ppb		99
35) 2,2-Dichloropropane	5.15	77	32216	43.95	ppb		96
38) Chloroform	5.60	83	50728	40.90	ppb		98
39) Bromochloromethane	5.46	130	20600	38.70	ppb		93
41) 1,1,1-TCA	5.80	97	42512	43.91	ppb		91
42) Cyclohexane	5.88	84	55927	39.18	ppb		87
43) 1,1-Dichloropropene	6.02	75	63308	40.62	ppb		90
44) 2,2,4-Trimethylpentane	6.41	57	44048	41.62	ppb		99
46) Carbon Tetrachloride	6.01	119	79257	45.17	ppb		88
47) Tert Amyl Methyl Ether	6.45	73	152156	40.97	ppb		99
49) 1,2-DCA	6.27	62	42800	43.61	ppb		96
50) Benzene	6.25	78	197816	38.98	ppb		96
51) TCE	7.00	130	62914	39.96	ppb		96

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\THOR\DATA\T191023\1023T13.D Vial: 13
Acq On : 23 Oct 19 22:52 Operator:
Sample : 40ug/L VOC STD 10/23/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 24 9:58 2019 Quant Results File: T1023W.RES

Quant Method : M:\THOR\DATA\T191023\T1023W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:55:52 2019
Response via : Initial Calibration
DataAcq Meth : T8260

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
52)	2-Pentanone	7.23	43	143761	181.26	ppb	99
53)	1,2-Dichloropropane	7.23	63	51484	39.91	ppb	95
54)	Bromodichloromethane	7.54	83	78938	39.97	ppb	96
55)	Methyl Cyclohexane	7.22	83	61467	39.08	ppb	97
56)	Dibromomethane	7.35	174	49408	44.96	ppb	97
57)	MIBK (methyl isobutyl ket	9.05	43	16584	38.93	ppb	92
58)	1-Bromo-2-chloroethane	7.85	63	69691	41.92	ppb	92
60)	Cis-1,3-Dichloropropene	8.02	75	84020	40.68	ppb	97
61)	Toluene	8.37	91	232623	40.43	ppb	98
62)	Trans-1,3-Dichloropropene	8.59	75	53280	41.27	ppb	97
63)	1,1,2-TCA	8.77	97	51015	39.54	ppb	95
64)	2-Hexanone	8.20	43	24520	38.52	ppb	96
67)	1,2-EDB	9.26	107	32704	40.30	ppb	89
68)	Tetrachloroethene	8.92	166	68825	42.87	ppb	96
69)	1-Chlorohexane	9.77	91	58810	41.01	ppb	96
70)	1,1,1,2-Tetrachloroethane	9.86	131	67043	40.89	ppb	97
71)	m&p-Xylene	10.02	91	416560	84.87	ppb	100
72)	o-Xylene	10.40	91	218808	41.71	ppb	95
73)	Styrene	10.42	104	161433	43.38	ppb	96
75)	1,3-Dichloropropane	8.93	76	82807	39.17	ppb	98
76)	Dibromochloromethane	9.16	129	68039	41.72	ppb	98
77)	Chlorobenzene	9.77	112	101480	40.61	ppb	96
78)	Ethylbenzene	9.90	91	254015	41.47	ppb	96
79)	Bromoform	10.58	173	54091	40.23	ppb	95
81)	Isopropylbenzene	10.78	105	258833	41.44	ppb	97
82)	1,1,2,2-Tetrachloroethane	11.06	83	64889	39.53	ppb	98
83)	1,2,3-Trichloropropane	11.09	110	22702	44.03	ppb	85
84)	t-1,4-Dichloro-2-Butene	11.12	53	13317	42.74	ppb	94
85)	Bromobenzene	11.06	77	65704	40.38	ppb	92
86)	n-Propylbenzene	11.19	91	284550	41.00	ppb	99
87)	4-Ethyltoluene	11.31	105	257138	43.17	ppb	99
88)	2-Chlorotoluene	11.26	91	117349	40.78	ppb	97
89)	1,3,5-Trimethylbenzene	11.37	105	226201	42.72	ppb	99
90)	4-Chlorotoluene	11.37	91	146368	44.69	ppb	96
91)	Tert-Butylbenzene	11.69	119	196787	41.18	ppb	97
92)	1,2,4-Trimethylbenzene	11.74	105	227965	41.98	ppb	96
93)	Sec-Butylbenzene	11.91	105	262624	42.40	ppb	100
94)	p-Isopropyltoluene	12.06	119	238398	43.83	ppb	99
95)	Benzyl Chloride	12.22	91	51064	40.20	ppb	96
96)	1,3-DCB	12.00	146	89560	37.85	ppb	97
97)	1,4-DCB	12.09	146	141760	39.56	ppb	98
98)	n-Butylbenzene	12.47	91	183127	44.31	ppb	96
99)	1,2-DCB	12.46	146	89128	41.40	ppb	98
100)	Hexachloroethane	12.72	117	27632	41.77	ppb	99
101)	1,2-Dibromo-3-chloropropan	13.22	157	9753	42.89	ppb	82
102)	1,2,4-Trichlorobenzene	14.06	182	55408	42.90	ppb	97
103)	Hexachlorobutadiene	14.25	225	33920	42.89	ppb	96
104)	Naphthalene	14.30	128	147855	45.27	ppb	99
105)	1,2,3-Trichlorobenzene	14.55	182	79646	44.56	ppb	85

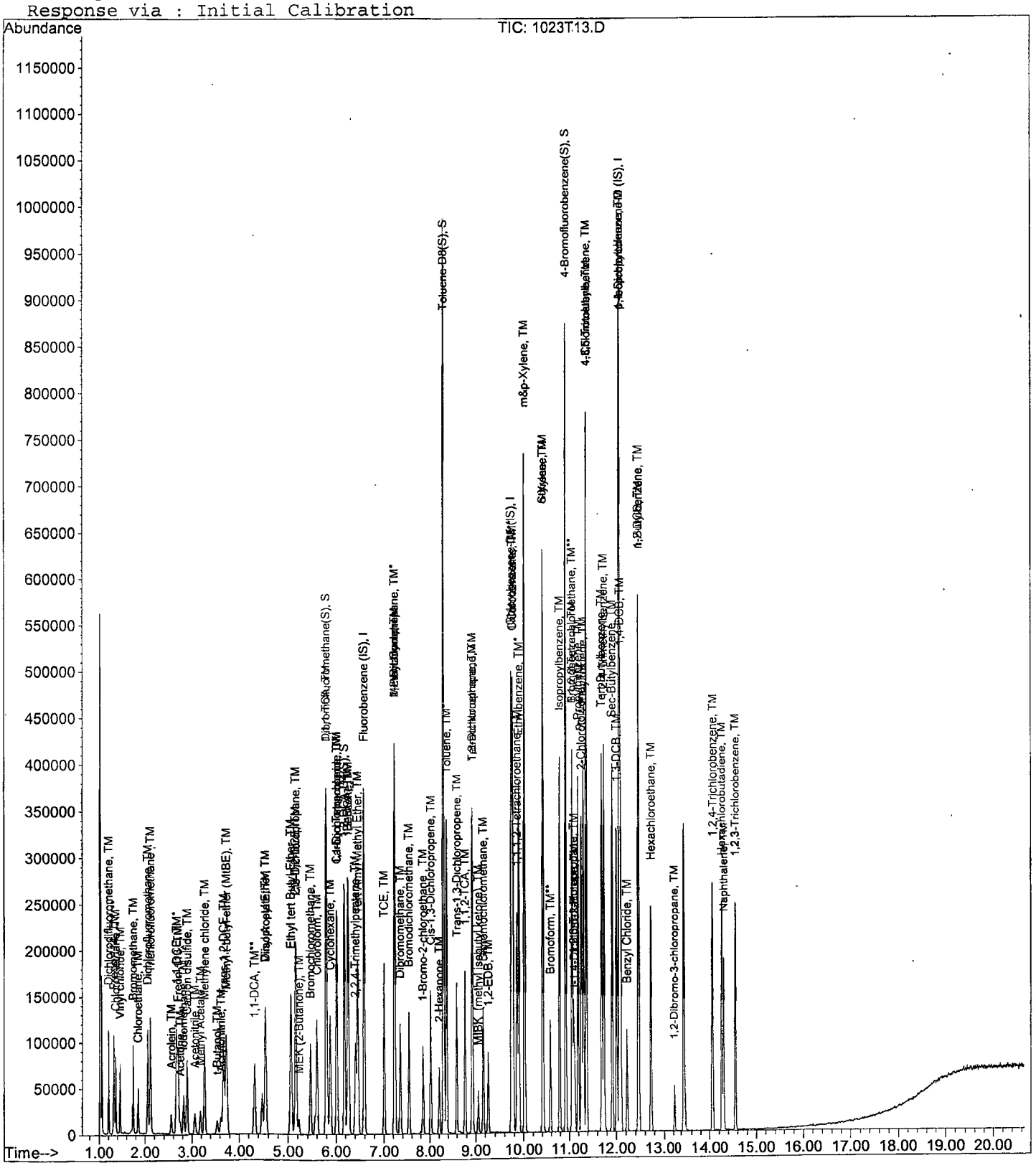
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\THOR\DATA\T191023\1023T13.D Vial: 13
Acq On : 23 Oct 19 22:52 Operator:
Sample : 40ug/L VOC STD 10/23/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 24 9:58 2019 Quant Results File: T1023W.RES

Method : M:\THOR\DATA\T191023\T1023W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:55:52 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\THOR\DATA\T191023\1023T14.D Vial: 14
Acq On : 23 Oct 19 23:20 Operator:
Sample : 100ug/L VOC STD 10/23/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 24 9:58 2019 Quant Results File: T1023W.RES

Quant Method : M:\THOR\DATA\T191023\T1023W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:55:52 2019
Response via : Initial Calibration
DataAcq Meth : T8260

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene (IS)	6.59	96	177408	25.00	ppb		0.00
65) Chlorobenzene-D5 (IS)	9.74	117	165184	25.00	ppb		0.00
80) 1,4-Dichlorobenzene-D (IS)	12.06	152	110936	25.00	ppb		0.00
System Monitoring Compounds							
40) Dibromofluoromethane(S)	5.79	111	323935	94.73	ppb		0.00
Spiked Amount 25.000			Recovery = 378.912%				
45) 1,2-DCA-D4(S)	6.18	65	358548	93.64	ppb		0.00
Spiked Amount 25.000			Recovery = 374.564%				
66) Toluene-D8(S)	8.30	98	1198840	97.19	ppb		0.00
Spiked Amount 25.000			Recovery = 388.740%				
74) 4-Bromofluorobenzene(S)	10.92	174	507561	103.93	ppb		0.00
Spiked Amount 25.000			Recovery = 415.736%				
Target Compounds							Qvalue
3) Dichlorodifluoromethane	1.20	85	161280	98.07	ppb		94
4) Freon 114	1.32	85	65160	98.56	ppb		98
5) Chloromethane	1.36	50	118541	99.05	ppb		98
6) Vinyl chloride	1.46	62	115637	96.12	ppb		97
8) Bromomethane	1.74	96	70192	100.05	ppb		95
9) Chloroethane	1.84	64	76471	99.85	ppb		98
10) Dichlorofluoromethane	2.06	67	192115	87.94	ppb		95
11) Trichlorofluoromethane	2.11	101	216549	96.59	ppb		94
13) Acrolein	2.55	55	15173	223.45	ppb		84
14) Acetone	2.75	43	30975	70.91	ppb		99
15) Freon-113	2.69	101	84420	98.35	ppb		90
16) 1,1-DCE	2.66	61	138039	86.87	ppb		98
18) Acetonitrile	3.07	41	28302	198.25	ppb		98
19) t-Butanol	3.56	59	24074	204.45	ppb		90
20) Methyl Acetate	3.18	43	69485	98.24	ppb		100
21) Iodomethane	2.82	142	122737	101.05	ppb		98
22) Acrylonitrile	3.62	53	38523	94.80	ppb		89
23) Methylene chloride	3.27	49	124543	97.71	ppb		94
24) Carbon disulfide	2.89	76	244994	91.39	ppb		97
25) Methyl t-butyl ether (MtBE	3.73	73	322426	98.48	ppb		96
26) Trans-1,2-DCE	3.67	61	137420	88.41	ppb		95
28) Diisopropyl Ether	4.55	45	119684	88.62	ppb		95
30) 1,1-DCA	4.32	63	78104	98.29	ppb		97
31) Vinyl Acetate	4.55	87	98071	98.30	ppb		99
32) Ethyl tert Butyl Ether	5.06	59	331724	91.26	ppb		92
33) MEK (2-Butanone)	5.22	43	45284	97.99	ppb	#	90
34) Cis-1,2-DCE	5.16	61	172748	91.79	ppb		96
35) 2,2-Dichloropropane	5.15	77	70056	96.54	ppb		94
38) Chloroform	5.60	83	110152	89.29	ppb		99
39) Bromochloromethane	5.46	130	44816	84.64	ppb		90
41) 1,1,1-TCA	5.80	97	93568	98.40	ppb		93
42) Cyclohexane	5.88	84	124790	87.89	ppb		86
43) 1,1-Dichloropropene	6.02	75	136901	88.30	ppb		93
44) 2,2,4-Trimethylpentane	6.41	57	104128	99.37	ppb		99
46) Carbon Tetrachloride	6.01	119	169517	97.97	ppb		91
47) Tert Amyl Methyl Ether	6.45	73	334682	90.62	ppb		99
49) 1,2-DCA	6.27	62	94504	98.32	ppb		98
50) Benzene	6.25	78	440766	87.32	ppb		99
51) TCE	7.00	130	135158	86.30	ppb		96

(#) = qualifier out of range (m) = manual integration

Data File : M:\THOR\DATA\T191023\1023T14.D Vial: 14
Acq On : 23 Oct 19 23:20 Operator:
Sample : 100ug/L VOC STD 10/23/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 24 9:58 2019 Quant Results File: T1023W.RES

Quant Method : M:\THOR\DATA\T191023\T1023W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:55:52 2019
Response via : Initial Calibration
DataAcq Meth : T8260

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
52)	2-Pentanone	7.23	43	164997	209.16	ppb		98
53)	1,2-Dichloropropane	7.23	63	115843	90.29	ppb		98
54)	Bromodichloromethane	7.54	83	177908	90.56	ppb	#	98
55)	Methyl Cyclohexane	7.22	83	141548	90.49	ppb		93
56)	Dibromomethane	7.35	174	106467	97.96	ppb		95
57)	MIBK (methyl isobutyl ket	9.05	43	43040	100.75	ppb		90
58)	1-Bromo-2-chloroethane	7.85	63	152471	92.22	ppb		95
60)	Cis-1,3-Dichloropropene	8.02	75	188241	91.63	ppb		96
61)	Toluene	8.37	91	520145	90.90	ppb		99
62)	Trans-1,3-Dichloropropene	8.59	75	121088	94.29	ppb		100
63)	1,1,2-TCA	8.77	97	114901	89.55	ppb		97
64)	2-Hexanone	8.20	43	64448	100.76	ppb		95
67)	1,2-EDB	9.26	107	74256	93.88	ppb		91
68)	Tetrachloroethene	8.92	166	149403	95.48	ppb		94
69)	1-Chlorohexane	9.77	91	138433	99.58	ppb		99
70)	1,1,1,2-Tetrachloroethane	9.86	131	150233	94.00	ppb		98
71)	m&p-Xylene	10.02	91	930569	194.51	ppb		99
72)	o-Xylene	10.41	91	497624	97.32	ppb		96
73)	Styrene	10.42	104	378992	104.49	ppb		97
75)	1,3-Dichloropropane	8.93	76	186261	90.40	ppb		99
76)	Dibromochloromethane	9.16	129	157727	99.37	ppb		96
77)	Chlorobenzene	9.77	112	229120	94.07	ppb		96
78)	Ethylbenzene	9.90	91	572206	95.84	ppb		97
79)	Bromoform	10.58	173	131325	99.93	ppb		93
81)	Isopropylbenzene	10.78	105	584266	85.72	ppb		98
82)	1,1,2,2-Tetrachloroethane	11.05	83	161391	90.08	ppb		98
83)	1,2,3-Trichloropropane	11.09	110	54492	98.15	ppb		87
84)	t-1,4-Dichloro-2-Butene	11.12	53	33220	98.75	ppb		96
85)	Bromobenzene	11.06	77	158592	89.31	ppb		95
86)	n-Propylbenzene	11.19	91	662551	87.46	ppb		99
87)	4-Ethyltoluene	11.31	105	593199	91.26	ppb		100
88)	2-Chlorotoluene	11.26	91	280887	89.44	ppb		97
89)	1,3,5-Trimethylbenzene	11.37	105	530500	91.80	ppb		99
90)	4-Chlorotoluene	11.37	91	329856	92.29	ppb		97
91)	Tert-Butylbenzene	11.69	119	458246	87.86	ppb		98
92)	1,2,4-Trimethylbenzene	11.74	105	537692	90.73	ppb		98
93)	Sec-Butylbenzene	11.91	105	619321	91.62	ppb		100
94)	p-Isopropyltoluene	12.06	119	566466	95.43	ppb		99
95)	Benzyl Chloride	12.22	91	146752	105.86	ppb		98
96)	1,3-DCB	12.00	146	219392	84.95	ppb		98
97)	1,4-DCB	12.09	146	345218	88.27	ppb		98
98)	n-Butylbenzene	12.46	91	442939	98.20	ppb		97
99)	1,2-DCB	12.46	146	223488	95.11	ppb		99
100)	Hexachloroethane	12.72	117	72808	100.84	ppb		98
101)	1,2-Dibromo-3-chloropropan	13.22	157	24448	99.05	ppb	#	81
102)	1,2,4-Trichlorobenzene	14.06	182	138944	98.56	ppb		95
103)	Hexachlorobutadiene	14.25	225	85720	99.32	ppb		97
104)	Naphthalene	14.30	128	367747	103.17	ppb		99
105)	1,2,3-Trichlorobenzene	14.54	182	191498	98.40	ppb		84

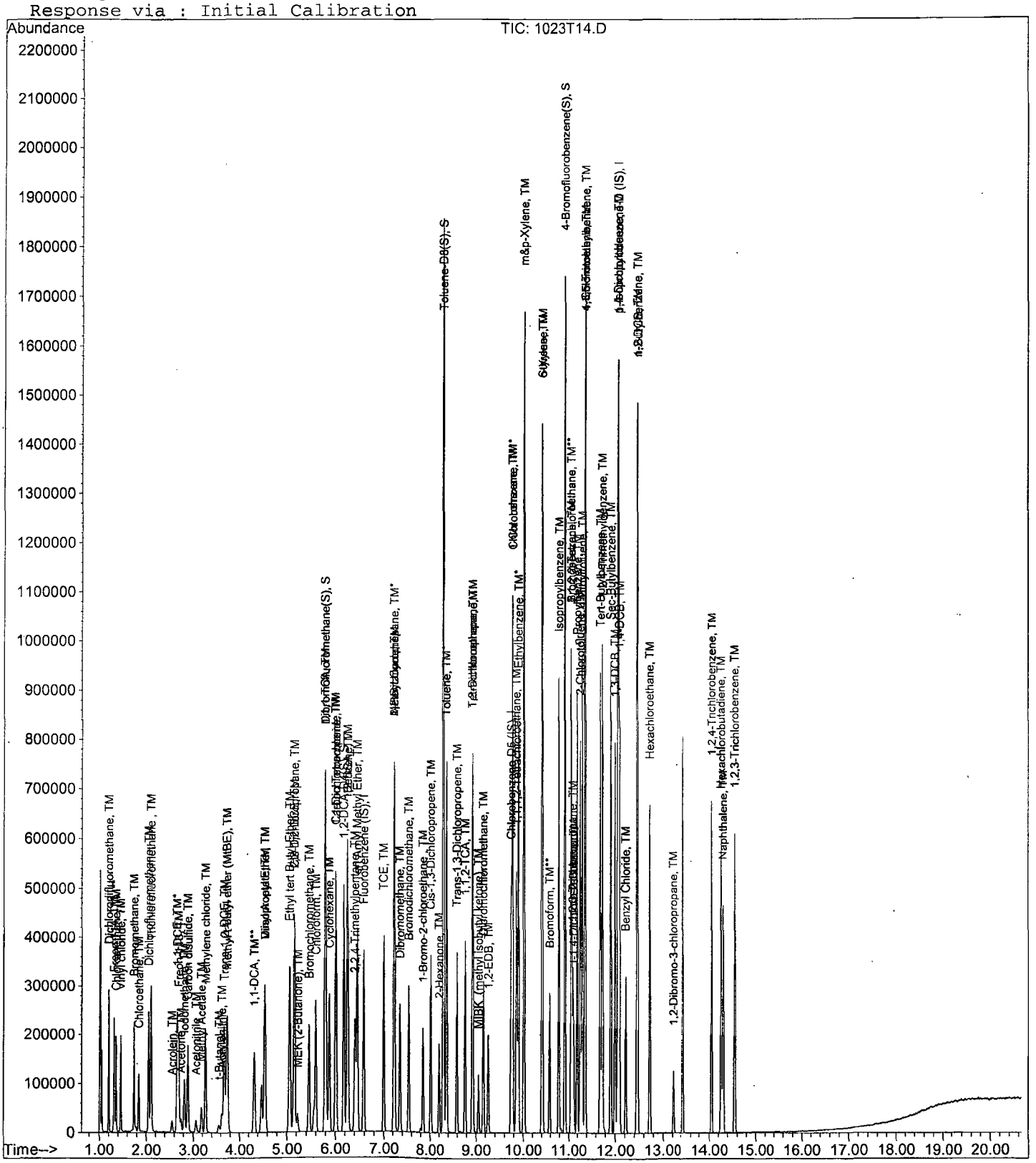
(#) = qualifier out of range (m) = manual integration

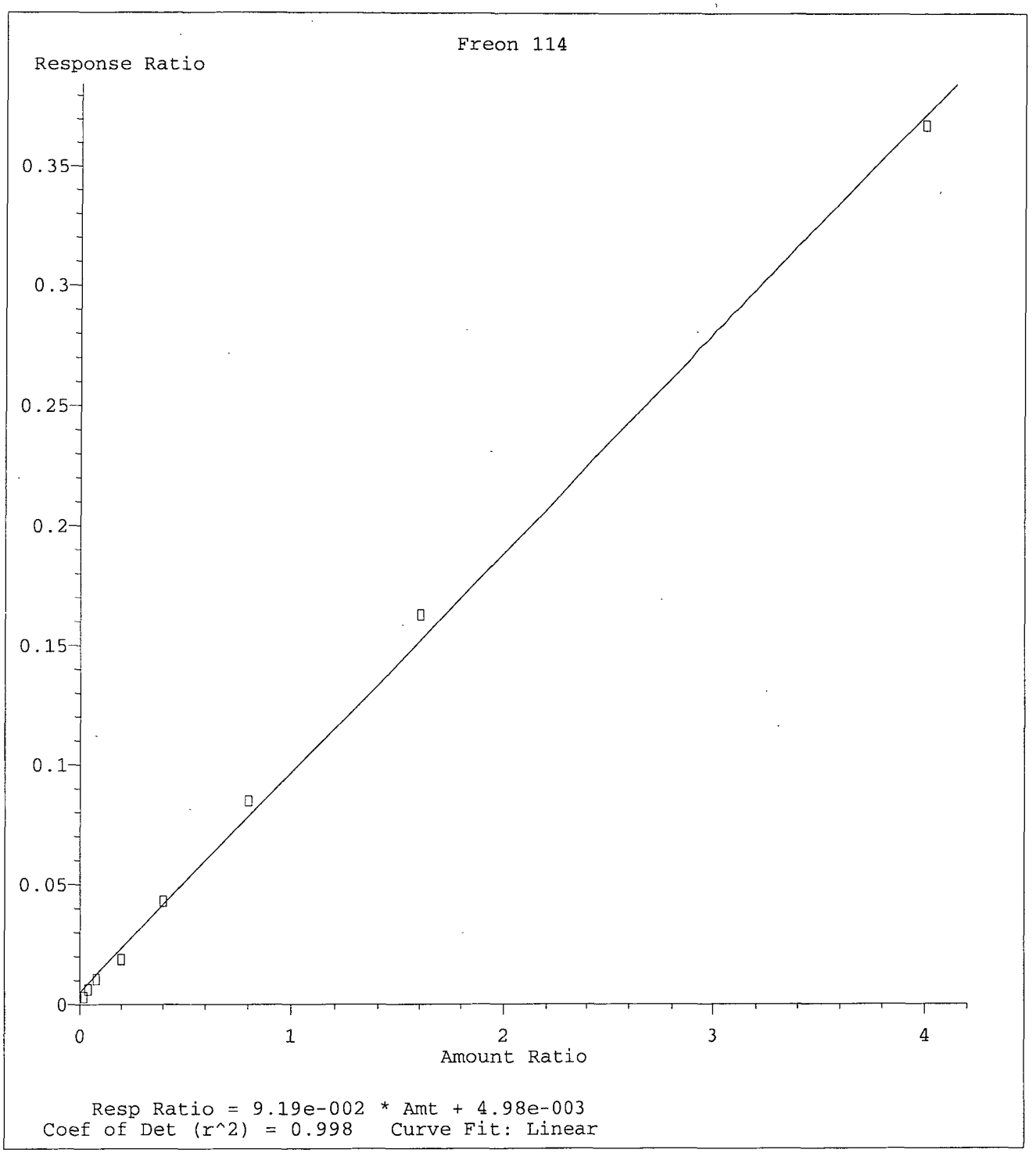
Quantitation Report

Data File : M:\THOR\DATA\T191023\1023T14.D Vial: 14
Acq On : 23 Oct 19 23:20 Operator:
Sample : 100ug/L VOC STD 10/23/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

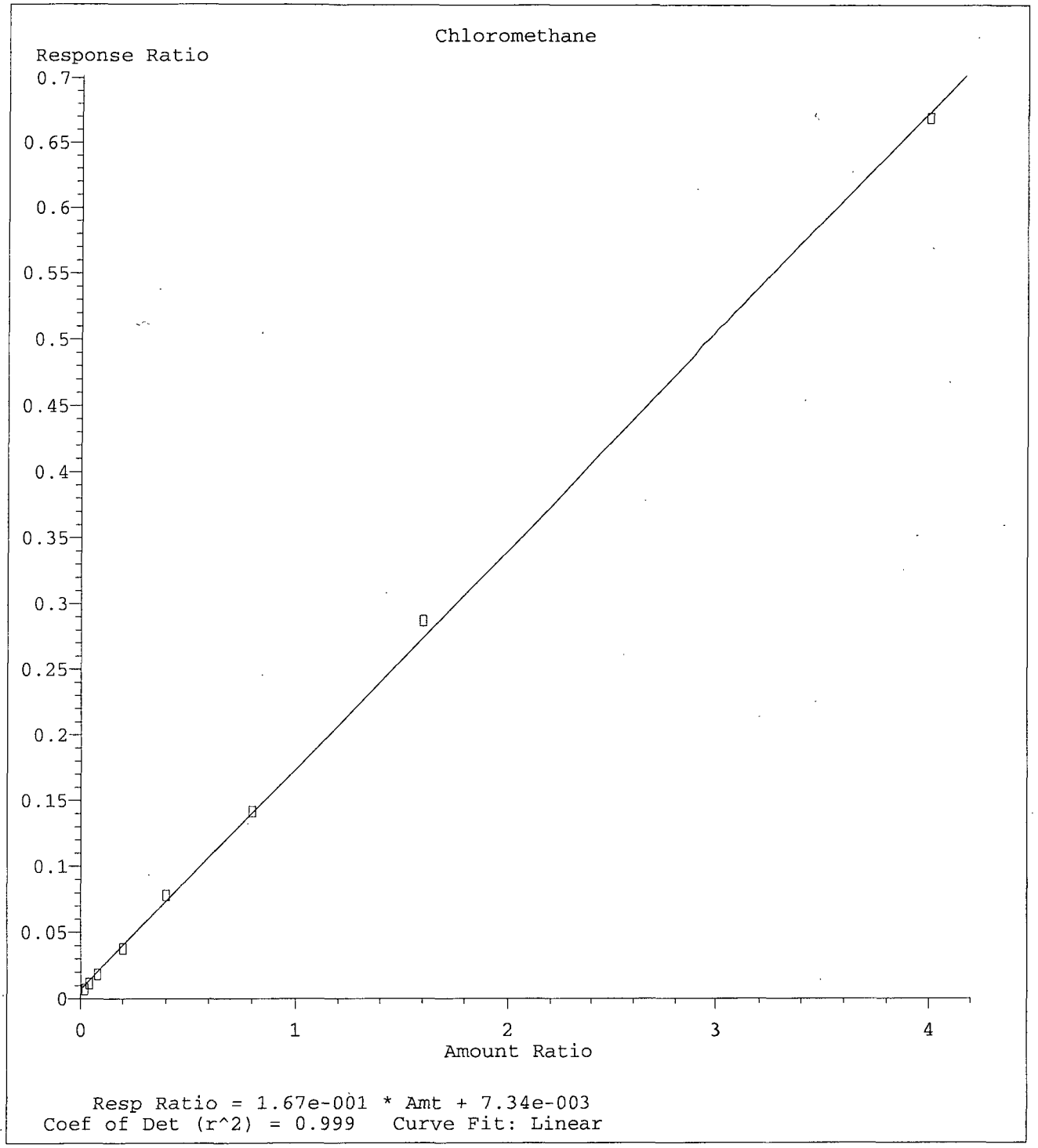
Quant Time: Oct 24 9:58 2019 Quant Results File: T1023W.RES

Method : M:\THOR\DATA\T191023\T1023W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:55:52 2019
Response via : Initial Calibration

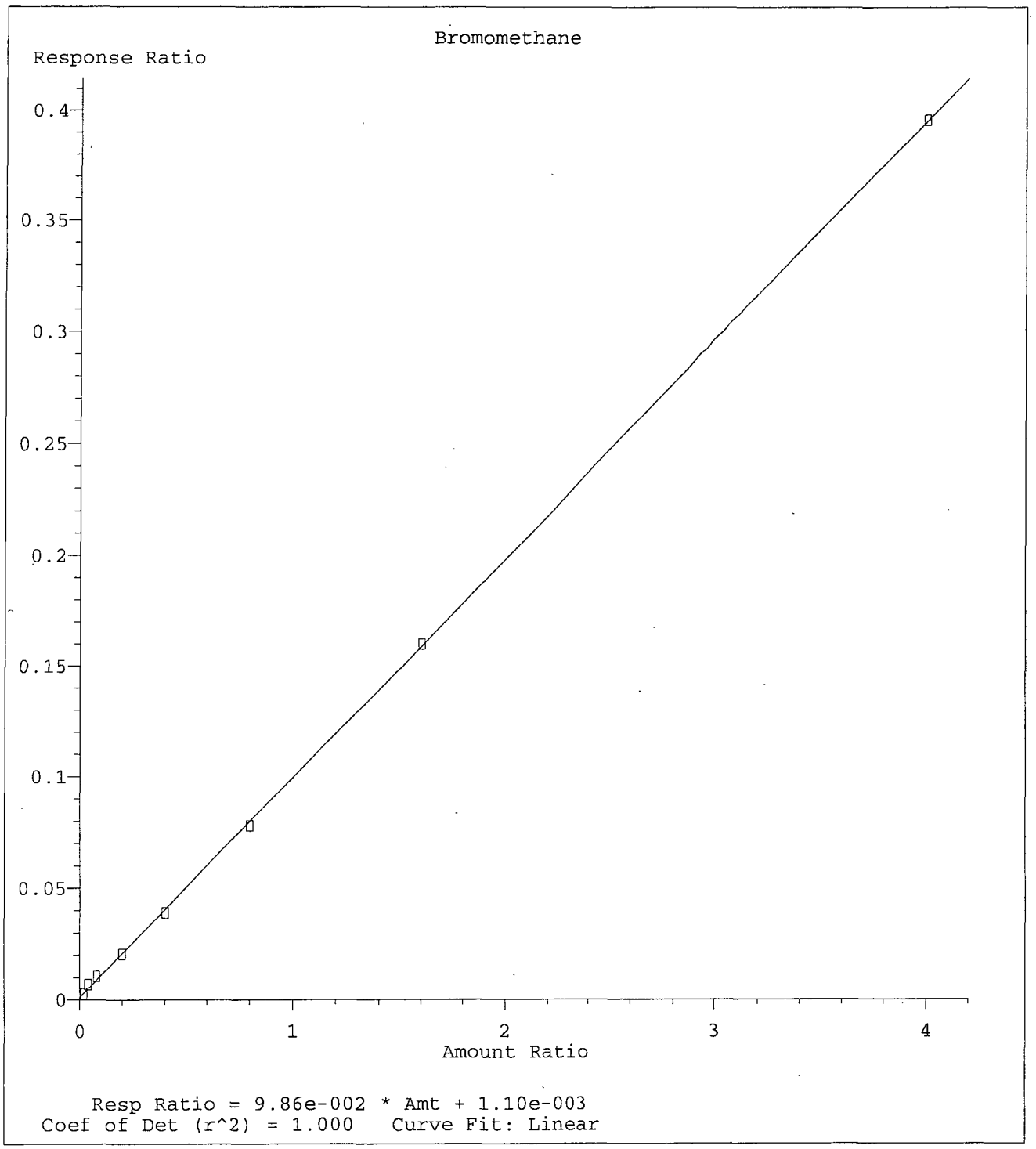




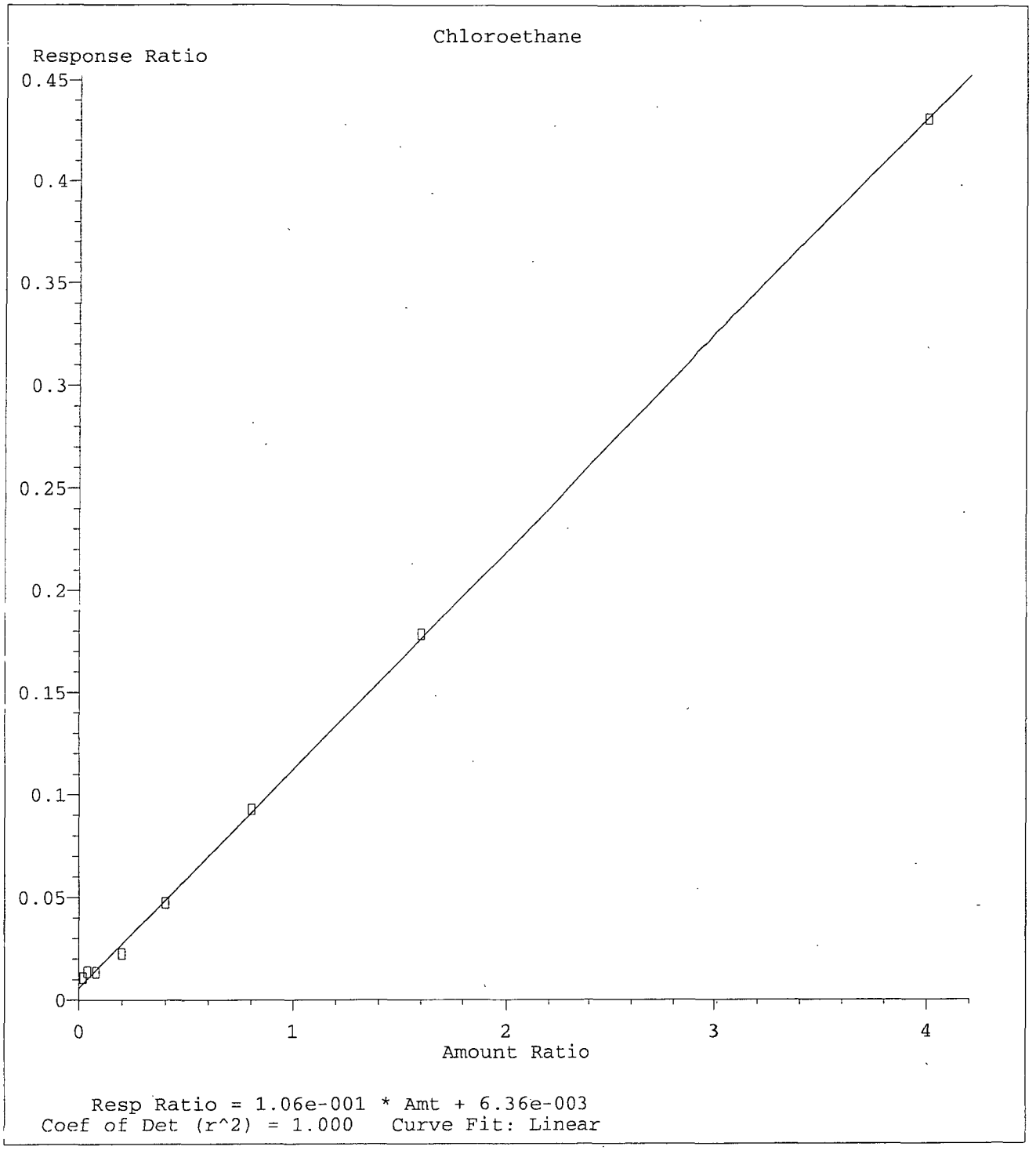
Method Name: M:\THOR\DATA\T191023\T1023W.M
Calibration Table Last Updated: Thu Oct 24 09:55:52 2019



Method Name: M:\THOR\DATA\T191023\T1023W.M
Calibration Table Last Updated: Thu Oct 24 09:55:52 2019



Method Name: M:\THOR\DATA\T191023\T1023W.M
Calibration Table Last Updated: Thu Oct 24 09:55:52 2019



Method Name: M:\THOR\DATA\T191023\T1023W.M
Calibration Table Last Updated: Thu Oct 24 09:55:52 2019

VOLATILE ORGANIC ANALYSIS
VOLATILE ORGANIC COMPOUNDS

Form 7

Second Source Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Date Analyzed: 10/24/19
Matrix: Instrument: Thor
Initial Cal. Date: 10/23/19
Data File: 1023T16.D

		Compound	MEAN	CCRF	%D		%Drift	
1	TM	Dichlorodifluoromethane	0.2318	0.2193	5.4	TM		
2	TML	Freon 114	0.1167	0.1499	28	TML	49	* NT
3	TM**L	Chloromethane	0.2206	0.1984	10	TM**L	7.9	
4	TM*	Vinyl chloride	0.1695	0.1774	4.7	TM*		
5	TM	2-Chloro-1,1,1-trifluoroethane	0.0000	0.0033	0.00	TM		
6	TML	Bromomethane	0.1168	0.1128	3.5	TML	12	
7	TML	Chloroethane	0.2026	0.1323	35	TML	9.5	
8	TM	Dichlorofluoromethane	0.3078	0.3001	2.5	TM		
9	TM	Trichlorofluoromethane	0.3159	0.2995	5.2	TM		
10	TM	Acrolein	0.0096	0.0112	18	TM		
11	TML	Acetone	0.0616	0.0554	10.0	TML	10.0	
12	TML	Freon-113	0.1219	0.1457	20	TML	12	
13	TM*	1,1-DCE	0.2239	0.2001	11	TM*		
14	TM	2-Propanol	0.0000	0.0000	0.00	TM		
15	TML	Acetonitrile	0.0207	0.0162	22	TML	21	* NT
16	TM	t-Butanol	0.0166	0.0133	20	TM		
17	TML	Methyl Acetate	0.1249	0.1273	1.9	TML	15	
18	TML	Iodomethane	0.0951	0.0641	33	TML	30	* NT
19	TM	Acrylonitrile	0.0573	0.0640	12	TM		
20	TML	Methylene chloride	0.2241	0.1875	16	TML	9.4	
21	TML	Carbon disulfide	0.4208	0.4590	9.1	TML	20	
22	TML	Methyl t-butyl ether (MtBE)	0.5335	0.5214	2.3	TML	4.3	
23	TM	Trans-1,2-DCE	0.2190	0.2083	4.9	TM		
24	TM	Diisopropyl Ether	0.1903	0.1867	1.9	TM		
25	TM**L	1,1-DCA	0.1356	0.1114	18	TM**L	12	
26	TML	Vinyl Acetate	0.1447	0.1570	8.5	TML	5.2	
27	TM	Ethyl tert Butyl Ether	0.5122	0.5159	0.73	TM		
28	TML	MEK (2-Butanone)	0.0768	0.0670	13	TML	2.8	
29	TM	Cis-1,2-DCE	0.2652	0.2502	5.7	TM		
30	TML	2,2-Dichloropropane	0.1205	0.1062	12	TML	0.49	
31	TM	3-Methylpentane	0.0000	0.1118	0.00	TM		
32	TM*	Chloroform	0.1738	0.1625	6.5	TM*		
33	TM	Bromochloromethane	0.0746	0.0630	16	TM		
34	TML	1,1,1-TCA	0.1555	0.1321	15	TML	11	
35	TM	Cyclohexane	0.2001	0.2050	2.5	TM		
36	TM	1,1-Dichloropropene	0.2185	0.1948	11	TM		
37	TML	2,2,4-Trimethylpentane	0.1692	0.1696	0.19	TML	12	
38	TML	Carbon Tetrachloride	0.2432	0.2335	4.0	TML	11	
39	TM	Tert Amyl Methyl Ether	0.5205	0.5251	0.89	TM		
40	TM	Methylcyclopentane	0.0000	0.0302	0.00	TM		
		Average			9.8			

VOLATILE ORGANIC ANALYSIS
VOLATILE ORGANIC COMPOUNDS

Form 7

Second Source Calibration

Lab Name: APPL, Inc.
Case No:
Matrix: 0

SDG No:
Date Analyzed: 10/24/19
Instrument: Thor
Cal. Date: 10/23/19
Data File: 1023T16.D

		Compound	MEAN	CCRF	%D		%Drift	
41	TML	1,2-DCA	0.1715	0.1289	25	TML	16	
42	TM	Benzene	0.7114	0.6162	13	TM		
43	TM	TCE	0.2207	0.1896	14	TM		
44	TM	2-Pentanone	0.1112	0.0883	21	TM		* NT
45	TM*	1,2-Dichloropropane	0.1808	0.1591	12	TM*		
46	TM	Bromodichloromethane	0.2768	0.2438	12	TM		
47	TM	Methyl Cyclohexane	0.2204	0.2355	6.8	TM		
48	TML	Dibromomethane	0.1389	0.1511	8.8	TML	5.7	
49	TML	MIBK (methyl isobutyl ketone)	0.0628	0.0468	25	TML	17	
50	TM	1-Bromo-2-chloroethane	0.2330	0.2366	1.5	TM		
51	TM	2-Chloroethyl vinyl ether	0.0000	0.0003	0.00	TM		
52	TM	Cis-1,3-Dichloropropene	0.2895	0.2553	12	TM		
53	TM*	Toluene	0.8064	0.7207	11	TM*		
54	TM	Trans-1,3-Dichloropropene	0.1810	0.1646	9.1	TM		
55	TM	1,1,2-TCA	0.1808	0.1646	9.0	TM		
56	TML	2-Hexanone	0.0907	0.0766	16	TML	9.2	
57	TM	1,2-EDB	0.1197	0.1061	11	TM		
58	TM	Tetrachloroethene	0.2368	0.2406	1.6	TM		
59	TML	1-Chlorohexane	0.2307	0.2346	1.7	TML	8.2	
60	TM	1,1,1,2-Tetrachloroethane	0.2419	0.2138	12	TM		
61	TM	m&p-Xylene	0.7241	0.6656	8.1	TM		
62	TM	o-Xylene	0.7739	0.7175	7.3	TM		
63	TM	Styrene	0.5490	0.5082	7.4	TM		
64	TM	1,3-Dichloropropane	0.3118	0.2867	8.1	TM		
65	TML	Dibromochloromethane	0.2170	0.2142	1.3	TML	12	
66	TM**	Chlorobenzene	0.3686	0.3346	9.2	TM**		
67	TM*	Ethylbenzene	0.9036	0.8620	4.6	TM*		
68	TM**L	Bromoform	0.1737	0.1747	0.52	TM**L	10	
69	TM	Isopropylbenzene	1.536	1.414	7.9	TM		
70	TM**	1,1,2,2-Tetrachloroethane	0.4037	0.3702	8.3	TM**		
71	TML	1,2,3-Trichloropropane	0.1253	0.1278	2.0	TML	7.6	
72	TML	t-1,4-Dichloro-2-Butene	0.0727	0.0898	24	TML	11	
73	TM	Bromobenzene	0.4002	0.3609	9.8	TM		
74	TM	n-Propylbenzene	1.707	1.544	9.6	TM		
75	TM	4-Ethyltoluene	1.465	1.535	4.8	TM		
76	TM	2-Chlorotoluene	0.7078	0.6820	3.6	TM		
77	TM	1,3,5-Trimethylbenzene	1.302	1.250	4.0	TM		
78	TM	4-Chlorotoluene	0.8054	0.7723	4.1	TM		
79	TM	Tert-Butylbenzene	1.175	1.037	12	TM		
80	TM	1,2,4-Trimethylbenzene	1.336	1.253	6.2	TM		
		Average			9.1			

VOLATILE ORGANIC ANALYSIS
VOLATILE ORGANIC COMPOUNDS

Form 7

Second Source Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Date Analyzed: 10/24/19
Matrix: 0 Instrument: Thor
Cal. Date: 10/23/19
Data File: 1023T16.D

		Compound	MEAN	CCRF	%D	%Drift		
81	TM	Sec-Butylbenzene	1.523	1.403	7.9	TM		
82	TM	p-Isopropyltoluene	1.338	1.290	3.6	TM		
83	TM	Benzyl Chloride	0.3124	0.2611	16	TM		
84	TM	1,3-DCB	0.5820	0.5032	14	TM		
85	TM	1,4-DCB	0.8814	0.7951	9.8	TM		
86	TM	n-Butylbenzene	1.016	1.002	1.4	TM		
87	TM	1,2-DCB	0.5295	0.4923	7.0	TM		
88	TM	Hexachloroethane	0.1627	0.1495	8.1	TM		
89	TML	1,2-Dibromo-3-chloropropane	0.0623	0.0560	10	TML	3.0	
90	TM	1,2,4-Trichlorobenzene	0.3177	0.3716	17	TM		
91	TM	Hexachlorobutadiene	0.1945	0.1920	1.3	TM		
92	TM	Naphthalene	0.8033	1.276	59	TM		*
93	TML	1,2,3-Trichlorobenzene	0.4030	0.5563	38	TML	25	*
94								
95								
96								
97								
98								
99								
100								
101								
102								
103								
104								
105								
106								
107								
108								
109								
110								
111								
112								
113								
114								
115								
116								
117								
118								
119								
120								
		Average			14.9			

Quantitation Report (Not Reviewed)

Data File : M:\THOR\DATA\T191023\1023T16.D Vial: 16
Acq On : 24 Oct 19 00:17 Operator:
Sample : (SS)10ug/L VOC STD 10/23/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 24 10:01 2019 Quant Results File: T1023W.RES

Quant Method : M:\THOR\DATA\T191023\T1023W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:55:52 2019
Response via : Initial Calibration
DataAcq Meth : T8260

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene (IS)	6.59	96	189056	25.00	ppb		0.00
65) Chlorobenzene-D5 (IS)	9.74	117	176576	25.00	ppb		0.00
80) 1,4-Dichlorobenzene-D (IS)	12.07	152	104576	25.00	ppb		0.00
System Monitoring Compounds							
40) Dibromofluoromethane(S)	5.79	111	88311	24.23	ppb		0.00
Spiked Amount 25.000			Recovery =	96.936%			
45) 1,2-DCA-D4(S)	6.18	65	99051	24.28	ppb		0.00
Spiked Amount 25.000			Recovery =	97.100%			
66) Toluene-D8(S)	8.30	98	317868	24.11	ppb		0.00
Spiked Amount 25.000			Recovery =	96.424%			
74) 4-Bromofluorobenzene(S)	10.92	174	125676	24.07	ppb		0.00
Spiked Amount 25.000			Recovery =	96.300%			
Target Compounds							Qvalue
3) Dichlorodifluoromethane	1.20	85	16584	9.46	ppb		95
4) Freon 114	1.32	85	11332	14.95	ppb		94
5) Chloromethane	1.36	50	15001	10.79	ppb		100
6) Vinyl chloride	1.46	62	13419	10.47	ppb		94
8) Bromomethane	1.75	96	8529	11.16	ppb		91
9) Chloroethane	1.85	64	10004	10.95	ppb		94
10) Dichlorofluoromethane	2.06	67	22695	9.75	ppb		94
11) Trichlorofluoromethane	2.12	101	22652	9.48	ppb		93
13) Acrolein	2.55	55	10633	146.94	ppb		91
14) Acetone	2.74	43	4192	9.00	ppb	#	85
15) Freon-113	2.70	101	11017	11.22	ppb		94
16) 1,1-DCE	2.67	61	15133	8.94	ppb		94
18) Acetonitrile	3.06	41	15283	98.86	ppb		93
19) t-Butanol	3.53	59	12569	100.17	ppb		90
20) Methyl Acetate	3.18	43	9624	11.47	ppb		100
21) Iodomethane	2.82	142	4850	7.01	ppb		96
22) Acrylonitrile	3.62	53	4841	11.18	ppb		92
23) Methylene chloride	3.27	49	14178	9.06	ppb		95
24) Carbon disulfide	2.89	76	34712	11.97	ppb		96
25) Methyl t-butyl ether (MtBE	3.73	73	39432	10.43	ppb	#	94
26) Trans-1,2-DCE	3.67	61	15749	9.51	ppb		99
28) Diisopropyl Ether	4.54	45	14117	9.81	ppb		93
30) 1,1-DCA	4.32	63	8425	8.79	ppb		96
31) Vinyl Acetate	4.55	87	11869	10.52	ppb		94
32) Ethyl tert Butyl Ether	5.06	59	39017	10.07	ppb		95
33) MEK (2-Butanone)	5.22	43	5065	10.28	ppb		96
34) Cis-1,2-DCE	5.16	61	18921	9.43	ppb		98
35) 2,2-Dichloropropane	5.16	77	8030	10.05	ppb		93
38) Chloroform	5.60	83	12288	9.35	ppb		98
39) Bromochloromethane	5.46	130	4761	8.44	ppb		92
41) 1,1,1-TCA	5.80	97	9986	8.94	ppb		93
42) Cyclohexane	5.88	84	15506	10.25	ppb		83
43) 1,1-Dichloropropene	6.02	75	14729	8.92	ppb		93
44) 2,2,4-Trimethylpentane	6.41	57	12822	11.20	ppb		96
46) Carbon Tetrachloride	6.01	119	17655	8.91	ppb		94
47) Tert Amyl Methyl Ether	6.45	73	39710	10.09	ppb		97
49) 1,2-DCA	6.26	62	9746	8.40	ppb		96
50) Benzene	6.25	78	46595	8.66	ppb		96
51) TCE	7.01	130	14335	8.59	ppb		94

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\THOR\DATA\T191023\1023T16.D Vial: 16
Acq On : 24 Oct 19 00:17 Operator:
Sample : (SS)10ug/L VOC STD 10/23/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 24 10:01 2019 Quant Results File: T1023W.RES

Quant Method : M:\THOR\DATA\T191023\T1023W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:55:52 2019
Response via : Initial Calibration
DataAcq Meth : T8260

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
52)	2-Pentanone	7.23	43	83503	99.33	ppb		97
53)	1,2-Dichloropropane	7.23	63	12032	8.80	ppb		99
54)	Bromodichloromethane	7.54	83	18434	8.81	ppb		96
55)	Methyl Cyclohexane	7.22	83	17807	10.68	ppb		99
56)	Dibromomethane	7.35	174	11427	9.43	ppb		89
57)	MIBK (methyl isobutyl ket	9.05	43	3541	8.26	ppb		91
58)	1-Bromo-2-chloroethane	7.85	63	17889	10.15	ppb		98
60)	Cis-1,3-Dichloropropene	8.02	75	19310	8.82	ppb		95
61)	Toluene	8.36	91	54500	8.94	ppb		98
62)	Trans-1,3-Dichloropropene	8.59	75	12446	9.09	ppb		91
63)	1,1,2-TCA	8.77	97	12450	9.10	ppb		95
64)	2-Hexanone	8.21	43	5795	9.08	ppb		91
67)	1,2-EDB	9.26	107	7497	8.87	ppb		92
68)	Tetrachloroethene	8.93	166	16992	10.16	ppb		93
69)	1-Chlorohexane	9.77	91	16573	10.82	ppb		96
70)	1,1,1,2-Tetrachloroethane	9.86	131	15099	8.84	ppb		99
71)	m&p-Xylene	10.02	91	94029	18.39	ppb		98
72)	o-Xylene	10.41	91	50679	9.27	ppb		97
73)	Styrene	10.42	104	35896	9.26	ppb		98
75)	1,3-Dichloropropane	8.93	76	20248	9.19	ppb		99
76)	Dibromochloromethane	9.15	129	15128	8.82	ppb		94
77)	Chlorobenzene	9.77	112	23632	9.08	ppb		94
78)	Ethylbenzene	9.90	91	60882	9.54	ppb		94
79)	Bromoform	10.58	173	12336	8.96	ppb		94
81)	Isopropylbenzene	10.78	105	59167	9.21	ppb		98
82)	1,1,2,2-Tetrachloroethane	11.05	83	15484	9.17	ppb		96
83)	1,2,3-Trichloropropane	11.09	110	5345	9.24	ppb		95
84)	t-1,4-Dichloro-2-Butene	11.12	53	3757	11.13	ppb		96
85)	Bromobenzene	11.06	77	15098	9.02	ppb		92
86)	n-Propylbenzene	11.19	91	64588	9.04	ppb		100
87)	4-Ethyltoluene	11.31	105	64214	10.48	ppb		98
88)	2-Chlorotoluene	11.26	91	28529	9.64	ppb		93
89)	1,3,5-Trimethylbenzene	11.37	105	52305	9.60	ppb		99
90)	4-Chlorotoluene	11.37	91	32304	9.59	ppb		96
91)	Tert-Butylbenzene	11.69	119	43377	8.82	ppb		98
92)	1,2,4-Trimethylbenzene	11.74	105	52394	9.38	ppb		99
93)	Sec-Butylbenzene	11.91	105	58680	9.21	ppb		96
94)	p-Isopropyltoluene	12.06	119	53966	9.64	ppb		97
95)	Benzyl Chloride	12.22	91	10920	8.36	ppb		98
96)	1,3-DCB	12.00	146	21048	8.65	ppb		97
97)	1,4-DCB	12.09	146	33259	9.02	ppb		98
98)	n-Butylbenzene	12.47	91	41925	9.86	ppb		97
99)	1,2-DCB	12.45	146	20592	9.30	ppb		98
100)	Hexachloroethane	12.72	117	6254	9.19	ppb		99
101)	1,2-Dibromo-3-chloropropan	13.22	157	2343	9.70	ppb		86
102)	1,2,4-Trichlorobenzene	14.06	182	15546	11.70	ppb		98
103)	Hexachlorobutadiene	14.25	225	8031	9.87	ppb		99
104)	Naphthalene	14.30	128	53370	15.88	ppb		98
105)	1,2,3-Trichlorobenzene	14.54	182	23272	12.52	ppb	#	81

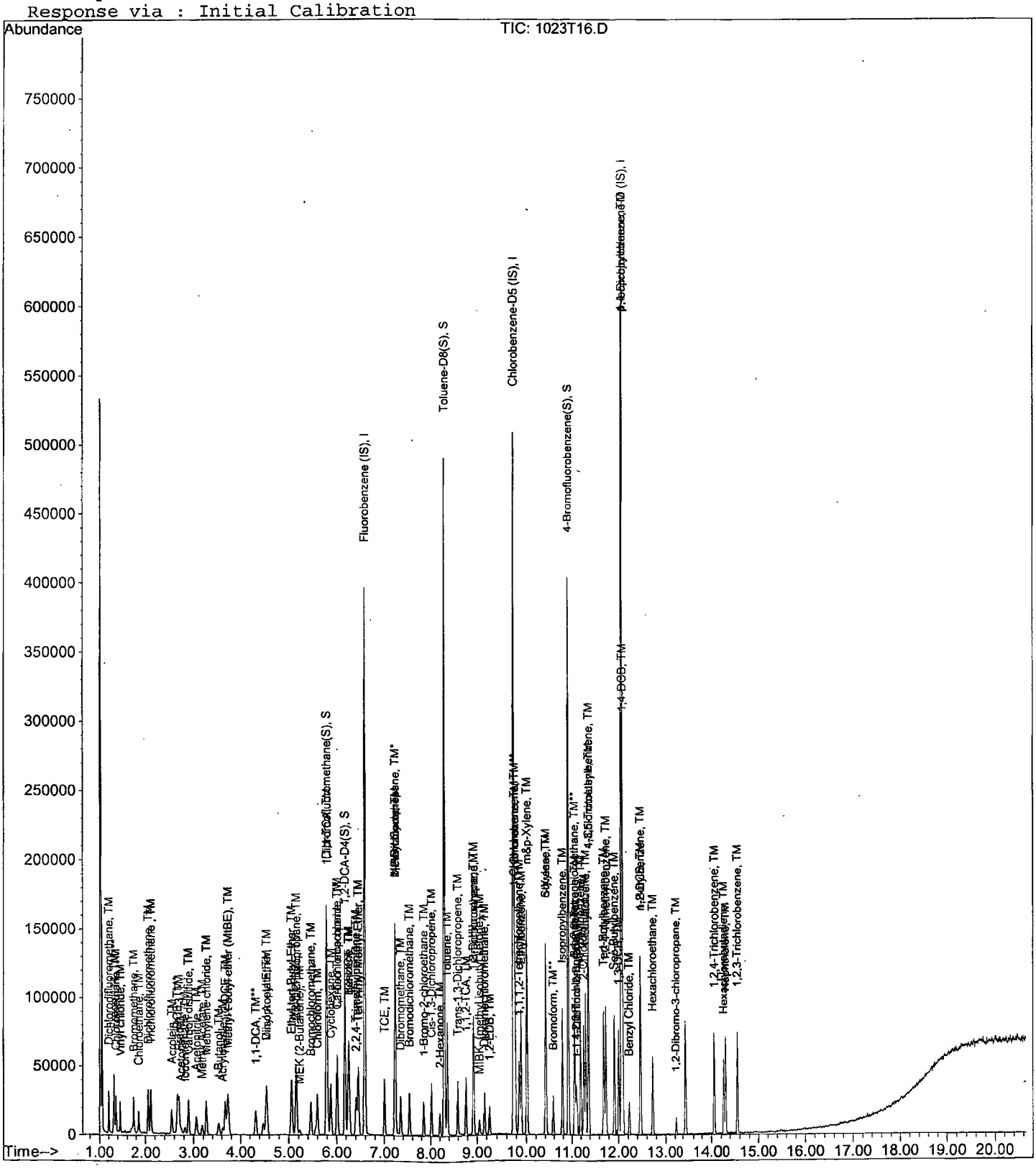
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\THOR\DATA\T191023\1023T16.D Vial: 16
Acq On : 24 Oct 19 00:17 Operator:
Sample : (SS)10ug/L VOC STD 10/23/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 24 10:01 2019 Quant Results File: T1023W.RES

Method : M:\THOR\DATA\T191023\T1023W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:55:52 2019
Response via : Initial Calibration



VOLATILE ORGANIC ANALYSIS
VOLATILE ORGANIC COMPOUNDS

Form 7

Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix:

SDG No:
Date Analyzed: 1 Nov 19 14:42
Instrument: Thor
Initial Cal. Date: 10/23/19
Data File: 1101T04.D

		Compound	MEAN	CCRF	%D	%Drift		
1	I	Fluorobenzene (IS)	ISTD			I		
2	TM	Dichlorodifluoromethane	0.2318	0.1678	28	TM		* NT
3	TML	Freon 114	0.1167	0.1148	1.6	TML	11	
4	TM**L	Chloromethane	0.2206	0.2087	5.4	TM**L	14	
5	TM*	Vinyl chloride	0.1695	0.1422	16	TM*		
6	TM	2-Chloro-1,1,1-trifluoroethane	0.0000	0.0028	0.00	TM		
7	TML	Bromomethane	0.1168	0.0874	25	TML	14	
8	TML	Chloroethane	0.2026	0.1224	40	TML	0.15	
9	TM	Dichlorofluoromethane	0.3078	0.2929	4.8	TM		
10	TM	Trichlorofluoromethane	0.3159	0.2598	18	TM		
11	TM	Acrolein	0.0096	0.0071	25	TM		* NT
12	TML	Acetone	0.0616	0.0725	18	TML	18	
13	TML	Freon-113	0.1219	0.1266	3.9	TML	3.8	
14	TM*	1,1-DCE	0.2239	0.2018	9.9	TM*		
15	TML	Acetonitrile	0.0207	0.0183	12	TML	10	
16	TM	t-Butanol	0.0166	0.0146	12	TM		
17	TML	Methyl Acetate	0.1249	0.0943	25	TML	19	
18	TML	Iodomethane	0.0951	0.0488	49	TML	39	* NT
19	TM	Acrylonitrile	0.0573	0.0536	6.4	TM		
20	TML	Methylene chloride	0.2241	0.1883	16	TML	8.9	
21	TML	Carbon disulfide	0.4208	0.3924	6.7	TML	2.0	
22	TML	Methyl t-butyl ether (MtBE)	0.5335	0.4522	15	TML	11	
23	TM	Trans-1,2-DCE	0.2190	0.2075	5.3	TM		
24	TM	Diisopropyl Ether	0.1903	0.1757	7.7	TM		
25	TM**L	1,1-DCA	0.1356	0.1098	19	TM**L	14	
26	TML	Vinyl Acetate	0.1447	0.1389	4.0	TML	7.8	
27	TM	Ethyl tert Butyl Ether	0.5122	0.4518	12	TM		
28	TML	MEK (2-Butanone)	0.0768	0.0601	22	TML	7.7	
29	TM	Cis-1,2-DCE	0.2652	0.2949	11	TM		
30	TML	2,2-Dichloropropane	0.1205	0.1100	8.6	TML	4.3	
31	TM	3-Methylpentane	0.0000	0.0847	0.00	TM		
32	TM*	Chloroform	0.1738	0.1609	7.4	TM*		
33	TM	Bromochloromethane	0.0746	0.0680	8.8	TM		
34	S	Dibromofluoromethane(S)	0.4819	0.4479	7.1	S		
35	TML	1,1,1-TCA	0.1555	0.1371	12	TML	6.7	
36	TM	Cyclohexane	0.2001	0.1798	10	TM		
37	TM	1,1-Dichloropropene	0.2185	0.1956	10	TM		
38	TML	2,2,4-Trimethylpentane	0.1692	0.1427	16	TML	6.3	
39	S	1,2-DCA-D4(S)	0.5396	0.5008	7.2	S		
40	TML	Carbon Tetrachloride	0.2432	0.2306	5.2	TML	12	
		Average			13.1			

VOLATILE ORGANIC ANALYSIS
VOLATILE ORGANIC COMPOUNDS

Form 7

Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix: 0

SDG No:
Date Analyzed: 1 Nov 19 14:42
Instrument: Thor
Cal. Date: 10/23/19
Data File: 1101T04.D

		Compound	MEAN	CCRF	%D		%Drift	
41	TM	Tert Amyl Methyl Ether	0.5205	0.4343	17	TM		
42	TM	Methylcyclopentane	0.0000	0.0217	0.00	TM		
43	TML	1,2-DCA	0.1715	0.1244	27	TML	19	
44	TM	Benzene	0.7114	0.6524	8.3	TM		
45	TM	TCE	0.2207	0.3629	64	TM		* NT
46	TM	2-Pentanone	0.1112	0.0943	15	TM		
47	TM*	1,2-Dichloropropane	0.1808	0.1609	11	TM*		
48	TM	Bromodichloromethane	0.2768	0.2500	9.7	TM		
49	TM	Methyl Cyclohexane	0.2204	0.1864	15	TM		
50	TML	Dibromomethane	0.1389	0.1539	11	TML	3.9	
51	TML	MIBK (methyl isobutyl ketone)	0.0628	0.0495	21	TML	13	
52	TM	1-Bromo-2-chloroethane	0.2330	0.2423	4.0	TM		
53	TM	2-Chloroethyl vinyl ether	0.0000	0.0004	0.00	TM		
54	TM	Cis-1,3-Dichloropropene	0.2895	0.2451	15	TM		
55	TM*	Toluene	0.8064	0.7360	8.7	TM*		
56	TM	Trans-1,3-Dichloropropene	0.1810	0.1675	7.5	TM		
57	TM	1,1,2-TCA	0.1808	0.1657	8.4	TM		
58	TML	2-Hexanone	0.0907	0.0763	16	TML	9.5	
59	I	Chlorobenzene-D5 (IS)	ISTD			I		
60	S	Toluene-D8(S)	1.867	1.718	8.0	S		
61	TM	1,2-EDB	0.1197	0.1137	5.0	TM		
62	TM	Tetrachloroethene	0.2368	0.2399	1.3	TM		
63	TML	1-Chlorohexane	0.2307	0.1955	15	TML	10	
64	TM	1,1,1,2-Tetrachloroethane	0.2419	0.2305	4.7	TM		
65	TM	m&p-Xylene	0.7241	0.6483	10	TM		
66	TM	o-Xylene	0.7739	0.6754	13	TM		
67	TM	Styrene	0.5490	0.4860	11	TM		
68	S	4-Bromofluorobenzene(S)	0.7391	0.6986	5.5	S		
69	TM	1,3-Dichloropropane	0.3118	0.2710	13	TM		
70	TML	Dibromochloromethane	0.2170	0.2262	4.3	TML	6.7	
71	TM**	Chlorobenzene	0.3686	0.3409	7.5	TM**		
72	TM*	Ethylbenzene	0.9036	0.8019	11	TM*		
73	TM**L	Bromoform	0.1737	0.1802	3.7	TM**L	7.6	
74	I	1,4-Dichlorobenzene-D (IS)	ISTD			I		
75	TM	Isopropylbenzene	1.536	1.321	14	TM		
76	TM**	1,1,2,2-Tetrachloroethane	0.4037	0.3594	11	TM**		
77	TML	1,2,3-Trichloropropane	0.1253	0.1262	0.71	TML	8.9	
78	TML	t-1,4-Dichloro-2-Butene	0.0727	0.0654	10	TML	21	* NT
79	TM	Bromobenzene	0.4002	0.3528	12	TM		
80	TM	n-Propylbenzene	1.707	1.466	14	TM		
		Average			11.4			

VOLATILE ORGANIC ANALYSIS
VOLATILE ORGANIC COMPOUNDS

Form 7

Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix: 0

SDG No:
Date Analyzed: 1 Nov 19 14:42
Instrument: Thor
Cal. Date: 10/23/19
Data File: 1101T04.D

		Compound	MEAN	CCRF	%D		%Drift	
81	TM	4-Ethyltoluene	1.465	1.302	11	TM		
82	TM	2-Chlorotoluene	0.7078	0.6333	11	TM		
83	TM	1,3,5-Trimethylbenzene	1.302	1.196	8.1	TM		
84	TM	4-Chlorotoluene	0.8054	0.7570	6.0	TM		
85	TM	Tert-Butylbenzene	1.175	1.027	13	TM		
86	TM	1,2,4-Trimethylbenzene	1.336	1.153	14	TM		
87	TM	Sec-Butylbenzene	1.523	1.312	14	TM		
88	TM	p-Isopropyltoluene	1.338	1.188	11	TM		
89	TM	Benzyl Chloride	0.3124	0.3127	0.10	TM		
90	TM	1,3-DCB	0.5820	0.4828	17	TM		
91	TM	1,4-DCB	0.8814	0.7875	11	TM		
92	TM	n-Butylbenzene	1.016	0.8814	13	TM		
93	TM	1,2-DCB	0.5295	0.4744	10	TM		
94	TM	Hexachloroethane	0.1627	0.1544	5.1	TM		
95	TML	1,2-Dibromo-3-chloropropane	0.0623	0.0450	28	TML	23	* NT
96	TM	1,2,4-Trichlorobenzene	0.3177	0.2631	17	TM		
97	TM	Hexachlorobutadiene	0.1945	0.1797	7.6	TM		
98	TM	Naphthalene	0.8033	0.6408	20	TM		
99	TML	1,2,3-Trichlorobenzene	0.4030	0.3750	6.9	TML	16	
100								
101								
102								
103								
104								
105								
106								
107								
108								
109								
110								
111								
112								
113								
114								
115								
116								
117								
118								
119								
120								
		Average			11.8			

Quantitation Report (Not Reviewed)

Data File : M:\THOR\DATA\T191028\1101t04.D Vial: 2
Acq On : 1 Nov 19 14:42 Operator:
Sample : 191101A CCV/LCS 10ug/L Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Nov 4 12:10 2019 Quant Results File: T1023W.RES

Quant Method : M:\THOR\DATA\T191023\T1023W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:55:52 2019
Response via : Initial Calibration
DataAcq Meth : T8260

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Fluorobenzene (IS)	6.59	96	145216	25.00 ppb		0.00
65) Chlorobenzene-D5 (IS)	9.74	117	136704	25.00 ppb		0.00
80) 1,4-Dichlorobenzene-D (IS)	12.06	152	79792	25.00 ppb		0.00
System Monitoring Compounds						
40) Dibromofluoromethane(S)	5.78	111	65044	23.24 ppb		0.00
Spiked Amount 25.000			Recovery =	92.948%		
45) 1,2-DCA-D4(S)	6.17	65	72721	23.20 ppb		0.00
Spiked Amount 25.000			Recovery =	92.812%		
66) Toluene-D8(S)	8.29	98	234871	23.01 ppb		0.00
Spiked Amount 25.000			Recovery =	92.028%		
74) 4-Bromofluorobenzene(S)	10.91	174	95500	23.63 ppb		0.00
Spiked Amount 25.000			Recovery =	94.520%		
Target Compounds						Qvalue
3) Dichlorodifluoromethane	1.20	85	9745	7.24 ppb		96
4) Freon 114	1.32	85	6667	11.13 ppb		99
5) Chloromethane	1.36	50	12125	11.42 ppb		89
6) Vinyl chloride	1.46	62	8257	8.38 ppb		96
8) Bromomethane	1.75	96	5075	8.58 ppb		97
9) Chloroethane	1.85	64	7110	10.02 ppb		94
10) Dichlorofluoromethane	2.06	67	17015	9.52 ppb		97
11) Trichlorofluoromethane	2.11	101	15092	8.22 ppb		94
13) Acrolein	2.55	55	5184	93.27 ppb		96
14) Acetone	2.73	43	4214	11.78 ppb	#	86
15) Freon-113	2.70	101	7353	9.62 ppb	#	92
16) 1,1-DCE	2.66	61	11724	9.01 ppb		92
18) Acetonitrile	3.05	41	13299	112.43 ppb	#	91
19) t-Butanol	3.52	59	10613	110.11 ppb		93
20) Methyl Acetate	3.17	43	5476	8.11 ppb		96
21) Iodomethane	2.82	142	2837	6.14 ppb		90
22) Acrylonitrile	3.60	53	3112	9.36 ppb	#	66
23) Methylene chloride	3.26	49	10940	9.11 ppb		93
24) Carbon disulfide	2.89	76	22791	10.20 ppb	#	92
25) Methyl t-butyl ether (MtBE	3.72	73	26268	8.92 ppb		97
26) Trans-1,2-DCE	3.66	61	12054	9.47 ppb		97
28) Diisopropyl Ether	4.54	45	10204	9.23 ppb		96
30) 1,1-DCA	4.32	63	6375	8.64 ppb		99
31) Vinyl Acetate	4.54	87	8067	9.22 ppb		95
32) Ethyl tert Butyl Ether	5.05	59	26244	8.82 ppb	#	88
33) MEK (2-Butanone)	5.21	43	3490	9.23 ppb		99
34) Cis-1,2-DCE	5.15	61	17130	11.12 ppb		96
35) 2,2-Dichloropropane	5.15	77	6392	10.43 ppb		94
38) Chloroform	5.59	83	9347	9.26 ppb		99
39) Bromochloromethane	5.46	130	3952	9.12 ppb		100
41) 1,1,1-TCA	5.80	97	7965	9.33 ppb		93
42) Cyclohexane	5.88	84	10442	8.98 ppb		78
43) 1,1-Dichloropropene	6.01	75	11362	8.95 ppb		93
44) 2,2,4-Trimethylpentane	6.40	57	8287	9.37 ppb		100
46) Carbon Tetrachloride	6.01	119	13395	8.79 ppb		90
47) Tert Amyl Methyl Ether	6.45	73	25227	8.34 ppb		96
49) 1,2-DCA	6.26	62	7228	8.06 ppb		100
50) Benzene	6.24	78	37895	9.17 ppb		97
51) TCE	7.00	130	21078	16.44 ppb		94

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\THOR\DATA\T191028\1101t04.D Vial: 2
Acq On : 1 Nov 19 14:42 Operator:
Sample : 191101A CCV/LCS 10ug/L Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Nov 4 12:10 2019 Quant Results File: T1023W.RES

Quant Method : M:\THOR\DATA\T191023\T1023W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:55:52 2019
Response via : Initial Calibration
DataAcq Meth : T8260

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
52)	2-Pentanone	7.22	43	68437	105.99	ppb		98
53)	1,2-Dichloropropane	7.23	63	9345	8.90	ppb		99
54)	Bromodichloromethane	7.53	83	14521	9.03	ppb	#	94
55)	Methyl Cyclohexane	7.22	83	10828	8.46	ppb		99
56)	Dibromomethane	7.34	174	8938	9.61	ppb		92
57)	MIBK (methyl isobutyl ket	9.04	43	2874	8.70	ppb	#	89
58)	1-Bromo-2-chloroethane	7.84	63	14074	10.40	ppb		92
60)	Cis-1,3-Dichloropropene	8.02	75	14235	8.46	ppb		99
61)	Toluene	8.36	91	42753	9.13	ppb		99
62)	Trans-1,3-Dichloropropene	8.59	75	9728	9.25	ppb		92
63)	1,1,2-TCA	8.77	97	9623	9.16	ppb		93
64)	2-Hexanone	8.20	43	4434	9.05	ppb	#	90
67)	1,2-EDB	9.26	107	6217	9.50	ppb		80
68)	Tetrachloroethene	8.92	166	13119	10.13	ppb		92
69)	1-Chlorohexane	9.77	91	10692	8.95	ppb		87
70)	1,1,1,2-Tetrachloroethane	9.85	131	12603	9.53	ppb		99
71)	m&p-Xylene	10.01	91	70897	17.91	ppb		97
72)	o-Xylene	10.40	91	36933	8.73	ppb		95
73)	Styrene	10.41	104	26574	8.85	ppb		97
75)	1,3-Dichloropropane	8.93	76	14820	8.69	ppb		98
76)	Dibromochloromethane	9.15	129	12371	9.33	ppb		97
77)	Chlorobenzene	9.77	112	18640	9.25	ppb		96
78)	Ethylbenzene	9.89	91	43847	8.87	ppb		96
79)	Bromoform	10.57	173	9856	9.24	ppb		89
81)	Isopropylbenzene	10.78	105	42172	8.60	ppb		99
82)	1,1,2,2-Tetrachloroethane	11.05	83	11470	8.90	ppb	#	97
83)	1,2,3-Trichloropropane	11.09	110	4028	9.11	ppb	#	90
84)	t-1,4-Dichloro-2-Butene	11.11	53	2088	7.88	ppb		88
85)	Bromobenzene	11.05	77	11259	8.81	ppb		84
86)	n-Propylbenzene	11.19	91	46796	8.59	ppb		99
87)	4-Ethyltoluene	11.30	105	41558	8.89	ppb		98
88)	2-Chlorotoluene	11.26	91	20213	8.95	ppb		97
89)	1,3,5-Trimethylbenzene	11.37	105	38183	9.19	ppb		100
90)	4-Chlorotoluene	11.37	91	24160	9.40	ppb		94
91)	Tert-Butylbenzene	11.69	119	32787	8.74	ppb		96
92)	1,2,4-Trimethylbenzene	11.74	105	36794	8.63	ppb		94
93)	Sec-Butylbenzene	11.91	105	41887	8.62	ppb		98
94)	p-Isopropyltoluene	12.06	119	37926	8.88	ppb		98
95)	Benzyl Chloride	12.22	91	9981	10.01	ppb		92
96)	1,3-DCB	12.00	146	15411	8.30	ppb		99
97)	1,4-DCB	12.09	146	25133	8.93	ppb		97
98)	n-Butylbenzene	12.46	91	28130	8.67	ppb		99
99)	1,2-DCB	12.45	146	15141	8.96	ppb		99
100)	Hexachloroethane	12.72	117	4929	9.49	ppb		92
101)	1,2-Dibromo-3-chloropropan	13.21	157	1437	7.72	ppb		95
102)	1,2,4-Trichlorobenzene	14.06	182	8397	8.28	ppb		99
103)	Hexachlorobutadiene	14.25	225	5736	9.24	ppb		95
104)	Naphthalene	14.30	128	20453	7.98	ppb		99
105)	1,2,3-Trichlorobenzene	14.54	182	11969	8.37	ppb		85

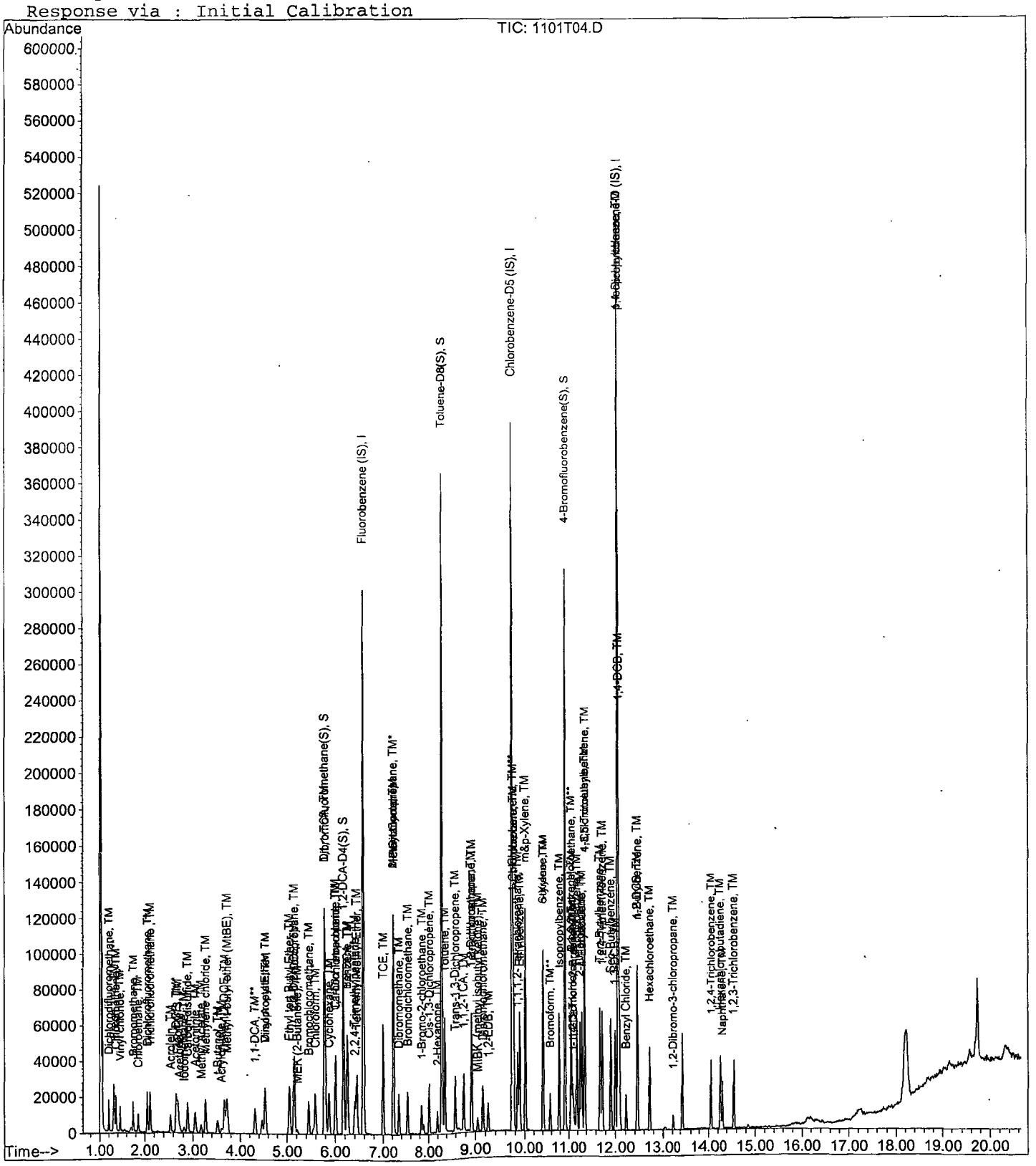
(#) = qualifier out of range (m) = manual integration
1101t04.D T1023W.M Mon Nov 04 13:38:38 2019 Page 2

Quantitation Report

Data File : M:\THOR\DATA\T191028\1101t04.D Vial: 2
Acq On : 1 Nov 19 14:42 Operator:
Sample : 191101A CCV/LCS 10ug/L Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Nov 4 12:10 2019 Quant Results File: T1023W.RES

Method : M:\THOR\DATA\T191028\T1023W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:55:52 2019
Response via : Initial Calibration



VOLATILE ORGANIC ANALYSIS
VOLATILE ORGANIC COMPOUNDS

Form 7

Ending Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix:

SDG No:
Date Analyzed: 2 Nov 19 1:34
Instrument: Thor
Initial Cal. Date: 10/23/19
Data File: 1101t27.D

		Compound	MEAN	CCRF	%D		%Drift
1	I	Fluorobenzene (IS)	ISTD			I	
2	TM	Dichlorodifluoromethane	0.2318	0.1909	18	TM	
3	TML	Freon 114	0.1167	0.1261	8.1	TML	24
4	TM**L	Chloromethane	0.2206	0.1994	9.6	TM**L	8.6
5	TM*	Vinyl chloride	0.1695	0.1546	8.8	TM*	
6	TM	2-Chloro-1,1,1-trifluoroethane	0.0000	0.0042	0.00	TM	
7	TML	Bromomethane	0.1168	0.0979	16	TML	3.5
8	TML	Chloroethane	0.2026	0.1132	44	TML	8.5
9	TM	Dichlorofluoromethane	0.3078	0.2999	2.6	TM	
10	TM	Trichlorofluoromethane	0.3159	0.3064	3.0	TM	
11	TM	Acrolein	0.0096	0.0069	28	TM	
12	TML	Acetone	0.0616	0.0694	13	TML	13
13	TML	Freon-113	0.1219	0.1374	13	TML	5.3
14	TM*	1,1-DCE	0.2239	0.2175	2.8	TM*	
15	TML	Acetonitrile	0.0207	0.0169	18	TML	17
16	TM	t-Butanol	0.0166	0.0122	27	TM	
17	TML	Methyl Acetate	0.1249	0.1000	20	TML	13
18	TML	Iodomethane	0.0951	0.0429	55	TML	42
19	TM	Acrylonitrile	0.0573	0.0437	24	TM	
20	TML	Methylene chloride	0.2241	0.1993	11	TML	2.7
21	TML	Carbon disulfide	0.4208	0.4098	2.6	TML	6.6
22	TML	Methyl t-butyl ether (MtBE)	0.5335	0.4424	17	TML	13
23	TM	Trans-1,2-DCE	0.2190	0.2112	3.6	TM	
24	TM	Diisopropyl Ether	0.1903	0.1662	13	TM	
25	TM**L	1,1-DCA	0.1356	0.1220	10	TM**L	2.5
26	TML	Vinyl Acetate	0.1447	0.1409	2.6	TML	6.4
27	TM	Ethyl tert Butyl Ether	0.5122	0.4671	8.8	TM	
28	TML	MEK (2-Butanone)	0.0768	0.0569	26	TML	13
29	TM	Cis-1,2-DCE	0.2652	0.2626	0.99	TM	
30	TML	2,2-Dichloropropane	0.1205	0.1021	15	TML	3.6
31	TM	3-Methylpentane	0.0000	0.0858	0.00	TM	
32	TM*	Chloroform	0.1738	0.1694	2.5	TM*	
33	TM	Bromochloromethane	0.0746	0.0659	12	TM	
34	S	Dibromofluoromethane(S)	0.4819	0.4740	1.6	S	
35	TML	1,1,1-TCA	0.1555	0.1491	4.1	TML	2.3
36	TM	Cyclohexane	0.2001	0.1901	5.0	TM	
37	TM	1,1-Dichloropropene	0.2185	0.1967	10.0	TM	
38	TML	2,2,4-Trimethylpentane	0.1692	0.1340	21	TML	12
39	S	1,2-DCA-D4(S)	0.5396	0.5147	4.6	S	
40	TML	Carbon Tetrachloride	0.2432	0.2720	12	TML	5.1
		Average			12.7		

VOLATILE ORGANIC ANALYSIS
VOLATILE ORGANIC COMPOUNDS

Form 7

Ending Continuing Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Date Analyzed: 2 Nov 19 1:34
Matrix: 0 Instrument: Thor
Cal. Date: 10/23/19
Data File: 1101t27.D

		Compound	MEAN	CCRF	%D		%Drift
41	TM	Tert Amyl Methyl Ether	0.5205	0.4293	18	TM	
42	TM	Methylcyclopentane	0.0000	0.0255	0.00	TM	
43	TML	1,2-DCA	0.1715	0.1414	18	TML	6.7
44	TM	Benzene	0.7114	0.6771	4.8	TM	
45	TM	TCE	0.2207	0.3089	40	TM	
46	TM	2-Pentanone	0.1112	0.0840	24	TM	
47	TM*	1,2-Dichloropropane	0.1808	0.1591	12	TM*	
48	TM	Bromodichloromethane	0.2768	0.2539	8.3	TM	
49	TM	Methyl Cyclohexane	0.2204	0.2045	7.2	TM	
50	TML	Dibromomethane	0.1389	0.1562	12	TML	2.3
51	TML	MIBK (methyl isobutyl ketone)	0.0628	0.0469	25	TML	17
52	TM	1-Bromo-2-chloroethane	0.2330	0.2504	7.5	TM	
53	TM	2-Chloroethyl vinyl ether	0.0000	0.0006	0.00	TM	
54	TM	Cis-1,3-Dichloropropene	0.2895	0.2606	10.0	TM	
55	TM*	Toluene	0.8064	0.7532	6.6	TM*	
56	TM	Trans-1,3-Dichloropropene	0.1810	0.1540	15	TM	
57	TM	1,1,2-TCA	0.1808	0.1661	8.1	TM	
58	TML	2-Hexanone	0.0907	0.0657	28	TML	21
59	I	Chlorobenzene-D5 (IS)	ISTD			I	
60	S	Toluene-D8(S)	1.867	1.778	4.8	S	
61	TM	1,2-EDB	0.1197	0.0993	17	TM	
62	TM	Tetrachloroethene	0.2368	0.2533	7.0	TM	
63	TML	1-Chlorohexane	0.2307	0.1799	22	TML	18
64	TM	1,1,1,2-Tetrachloroethane	0.2419	0.2301	4.9	TM	
65	TM	m&p-Xylene	0.7241	0.6637	8.3	TM	
66	TM	o-Xylene	0.7739	0.6949	10	TM	
67	TM	Styrene	0.5490	0.4852	12	TM	
68	S	4-Bromofluorobenzene(S)	0.7391	0.7172	3.0	S	
69	TM	1,3-Dichloropropane	0.3118	0.2777	11	TM	
70	TML	Dibromochloromethane	0.2170	0.2217	2.2	TML	8.6
71	TM**	Chlorobenzene	0.3686	0.3473	5.8	TM**	
72	TM*	Ethylbenzene	0.9036	0.8165	9.6	TM*	
73	TM**L	Bromoform	0.1737	0.1719	1.1	TM**L	12
74	I	1,4-Dichlorobenzene-D (IS)	ISTD			I	
75	TM	Isopropylbenzene	1.536	1.370	11	TM	
76	TM**	1,1,2,2-Tetrachloroethane	0.4037	0.3266	19	TM**	
77	TML	1,2,3-Trichloropropane	0.1253	0.1248	0.40	TML	10
78	TML	t-1,4-Dichloro-2-Butene	0.0727	0.0626	14	TML	25
79	TM	Bromobenzene	0.4002	0.3563	11	TM	
80	TM	n-Propylbenzene	1.707	1.477	13	TM	
		Average			11.4		

VOLATILE ORGANIC ANALYSIS
VOLATILE ORGANIC COMPOUNDS

Form 7

Ending Continuing Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Date Analyzed: 2 Nov 19 1:34
Matrix: 0 Instrument: Thor
Cal. Date: 10/23/19
Data File: 1101t27.D

		Compound	MEAN	CCRF	%D		%Drift
81	TM	4-Ethyltoluene	1.465	1.306	11	TM	
82	TM	2-Chlorotoluene	0.7078	0.6398	9.6	TM	
83	TM	1,3,5-Trimethylbenzene	1.302	1.204	7.6	TM	
84	TM	4-Chlorotoluene	0.8054	0.7591	5.7	TM	
85	TM	Tert-Butylbenzene	1.175	1.011	14	TM	
86	TM	1,2,4-Trimethylbenzene	1.336	1.115	17	TM	
87	TM	Sec-Butylbenzene	1.523	1.315	14	TM	
88	TM	p-Isopropyltoluene	1.338	1.147	14	TM	
89	TM	Benzyl Chloride	0.3124	0.1885	40	TM	
90	TM	1,3-DCB	0.5820	0.4909	16	TM	
91	TM	1,4-DCB	0.8814	0.8035	8.8	TM	
92	TM	n-Butylbenzene	1.016	0.8421	17	TM	
93	TM	1,2-DCB	0.5295	0.4981	5.9	TM	
94	TM	Hexachloroethane	0.1627	0.1538	5.5	TM	
95	TML	1,2-Dibromo-3-chloropropane	0.0623	0.0483	22	TML	17
96	TM	1,2,4-Trichlorobenzene	0.3177	0.2235	30	TM	
97	TM	Hexachlorobutadiene	0.1945	0.1835	5.6	TM	
98	TM	Naphthalene	0.8033	0.5128	36	TM	
99	TML	1,2,3-Trichlorobenzene	0.4030	0.3102	23	TML	31
100							
101							
102							
103							
104							
105							
106							
107							
108							
109							
110							
111							
112							
113							
114							
115							
116							
117							
118							
119							
120							
		Average			15.9		

Quantitation Report (Not Reviewed)

Data File : M:\THOR\DATA\T191028\1101t27.D Vial: 25
Acq On : 2 Nov 19 1:34 Operator:
Sample : Ending CCV 10ug/L 11/1/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Nov 4 12:10 2019 Quant Results File: T1023W.RES

Quant Method : M:\THOR\DATA\T191023\T1023W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:55:52 2019
Response via : Initial Calibration
DataAcq Meth : T8260

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Fluorobenzene (IS)	6.59	96	130448	25.00 ppb		0.00
65) Chlorobenzene-D5 (IS)	9.74	117	122496	25.00 ppb		0.00
80) 1,4-Dichlorobenzene-D (IS)	12.06	152	72688	25.00 ppb		0.00
System Monitoring Compounds						
40) Dibromofluoromethane(S)	5.78	111	61834	24.59 ppb		0.00
Spiked Amount 25.000			Recovery =	98.368%		
45) 1,2-DCA-D4(S)	6.17	65	67142	23.85 ppb		0.00
Spiked Amount 25.000			Recovery =	95.392%		
66) Toluene-D8(S)	8.29	98	217810	23.81 ppb		0.00
Spiked Amount 25.000			Recovery =	95.240%		
74) 4-Bromofluorobenzene(S)	10.91	174	87856	24.26 ppb		0.00
Spiked Amount 25.000			Recovery =	97.040%		
Target Compounds						Qvalue
3) Dichlorodifluoromethane	1.20	85	9960	8.24 ppb		92
4) Freon 114	1.32	85	6579	12.36 ppb		91
5) Chloromethane	1.36	50	10405	10.86 ppb		98
6) Vinyl chloride	1.46	62	8065	9.12 ppb		100
8) Bromomethane	1.75	96	5109	9.65 ppb		89
9) Chloroethane	1.86	64	5907	9.15 ppb		99
10) Dichlorofluoromethane	2.06	67	15646	9.74 ppb		96
11) Trichlorofluoromethane	2.11	101	15986	9.70 ppb		91
13) Acrolein	2.55	55	4508	90.29 ppb		88
14) Acetone	2.73	43	3623	11.28 ppb		96
15) Freon-113	2.70	101	7170	10.53 ppb		92
16) 1,1-DCE	2.67	61	11351	9.72 ppb		96
18) Acetonitrile	3.05	41	11035	103.60 ppb		96
19) t-Butanol	3.51	59	7943	91.74 ppb	#	91
20) Methyl Acetate	3.17	43	5218	8.69 ppb		98
21) Iodomethane	2.81	142	2236	5.81 ppb		98
22) Acrylonitrile	3.61	53	2280	7.63 ppb		84
23) Methylene chloride	3.27	49	10401	9.73 ppb		89
24) Carbon disulfide	2.89	76	21381	10.66 ppb		99
25) Methyl t-butyl ether (MtBE	3.72	73	23085	8.70 ppb		92
26) Trans-1,2-DCE	3.67	61	11018	9.64 ppb		95
28) Diisopropyl Ether	4.54	45	8672	8.73 ppb		96
30) 1,1-DCA	4.32	63	6368	9.75 ppb		95
31) Vinyl Acetate	4.53	87	7350	9.36 ppb		86
32) Ethyl tert Butyl Ether	5.05	59	24373	9.12 ppb		96
33) MEK (2-Butanone)	5.22	43	2971	8.74 ppb		94
34) Cis-1,2-DCE	5.15	61	13702	9.90 ppb		96
35) 2,2-Dichloropropane	5.15	77	5325	9.64 ppb		99
38) Chloroform	5.59	83	8840	9.75 ppb		92
39) Bromochloromethane	5.45	130	3437	8.83 ppb		96
41) 1,1,1-TCA	5.80	97	7779	10.23 ppb		93
42) Cyclohexane	5.88	84	9921	9.50 ppb		86
43) 1,1-Dichloropropene	6.01	75	10265	9.00 ppb		97
44) 2,2,4-Trimethylpentane	6.41	57	6992	8.78 ppb		97
46) Carbon Tetrachloride	6.01	119	14195	10.51 ppb		89
47) Tert Amyl Methyl Ether	6.45	73	22401	8.25 ppb		98
49) 1,2-DCA	6.26	62	7378	9.33 ppb		96
50) Benzene	6.25	78	35330	9.52 ppb		96
51) TCE	7.00	130	16117	14.00 ppb		93

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\THOR\DATA\T191028\1101t27.D Vial: 25
Acq On : 2 Nov 19 1:34 Operator:
Sample : Ending CCV 10ug/L 11/1/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Nov 4 12:10 2019 Quant Results File: T1023W.RES

Quant Method : M:\THOR\DATA\T191023\T1023W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:55:52.2019
Response via : Initial Calibration
DataAcq Meth : T8260

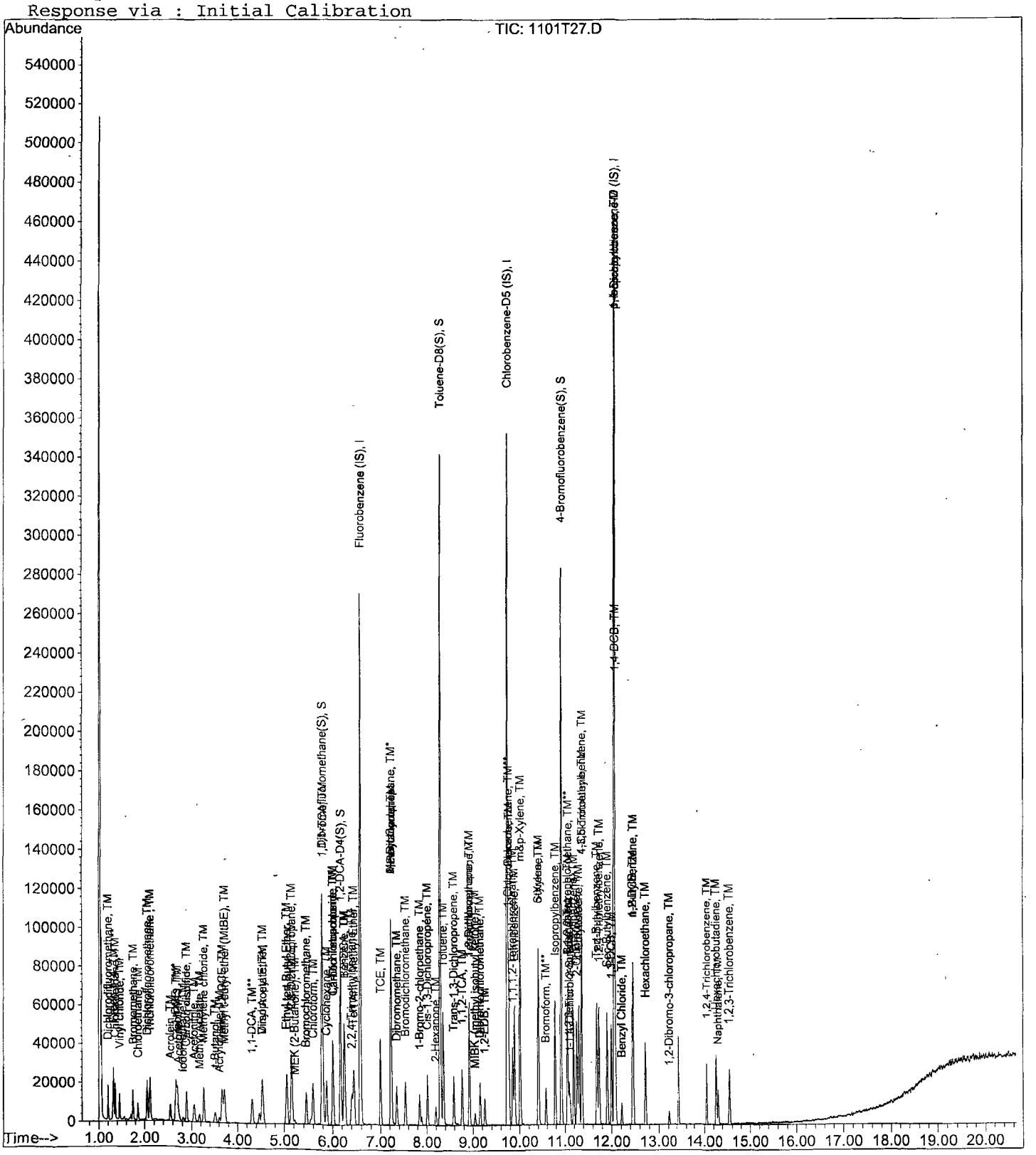
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
52)	2-Pentanone	7.22	43	54770	94.42	ppb		97
53)	1,2-Dichloropropane	7.23	63	8303	8.80	ppb	#	91
54)	Bromodichloromethane	7.54	83	13248	9.17	ppb	#	97
55)	Methyl Cyclohexane	7.22	83	10669	9.28	ppb		91
56)	Dibromomethane	7.34	174	8152	9.77	ppb		98
57)	MIBK (methyl isobutyl ket	9.04	43	2445	8.26	ppb	#	91
58)	1-Bromo-2-chloroethane	7.85	63	13066	10.75	ppb		98
60)	Cis-1,3-Dichloropropene	8.01	75	13600	9.00	ppb		99
61)	Toluene	8.36	91	39300	9.34	ppb		95
62)	Trans-1,3-Dichloropropene	8.59	75	8033	8.51	ppb		94
63)	1,1,2-TCA	8.76	97	8669	9.19	ppb		99
64)	2-Hexanone	8.20	43	3426	7.87	ppb	#	89
67)	1,2-EDB	9.25	107	4866	8.30	ppb		90
68)	Tetrachloroethene	8.92	166	12411	10.70	ppb		94
69)	1-Chlorohexane	9.77	91	8813	8.21	ppb		96
70)	1,1,1,2-Tetrachloroethane	9.85	131	11277	9.51	ppb		98
71)	m&p-Xylene	10.02	91	65041	18.33	ppb		98
72)	o-Xylene	10.40	91	34050	8.98	ppb		92
73)	Styrene	10.41	104	23773	8.84	ppb		99
75)	1,3-Dichloropropane	8.93	76	13609	8.91	ppb		94
76)	Dibromochloromethane	9.15	129	10865	9.14	ppb		95
77)	Chlorobenzene	9.77	112	17016	9.42	ppb		98
78)	Ethylbenzene	9.89	91	40008	9.04	ppb		97
79)	Bromoform	10.57	173	8423	8.82	ppb		92
81)	Isopropylbenzene	10.78	105	39841	8.92	ppb		99
82)	1,1,2,2-Tetrachloroethane	11.05	83	9497	8.09	ppb		94
83)	1,2,3-Trichloropropane	11.09	110	3629	9.00	ppb		85
84)	t-1,4-Dichloro-2-Butene	11.11	53	1820	7.51	ppb		95
85)	Bromobenzene	11.05	77	10360	8.90	ppb		87
86)	n-Propylbenzene	11.19	91	42951	8.65	ppb		99
87)	4-Ethyltoluene	11.31	105	37960	8.91	ppb		100
88)	2-Chlorotoluene	11.26	91	18603	9.04	ppb		94
89)	1,3,5-Trimethylbenzene	11.37	105	34999	9.24	ppb		98
90)	4-Chlorotoluene	11.37	91	22072	9.43	ppb		95
91)	Tert-Butylbenzene	11.69	119	29408	8.61	ppb		97
92)	1,2,4-Trimethylbenzene	11.73	105	32406	8.35	ppb		99
93)	Sec-Butylbenzene	11.91	105	38224	8.63	ppb		99
94)	p-Isopropyltoluene	12.06	119	33346	8.57	ppb		99
95)	Benzyl Chloride	12.22	91	5482	6.04	ppb		97
96)	1,3-DCB	12.00	146	14274	8.44	ppb		99
97)	1,4-DCB	12.09	146	23361	9.12	ppb		98
98)	n-Butylbenzene	12.46	91	24485	8.28	ppb		95
99)	1,2-DCB	12.45	146	14482	9.41	ppb		92
100)	Hexachloroethane	12.72	117	4471	9.45	ppb		95
101)	1,2-Dibromo-3-chloropropan	13.22	157	1405	8.31	ppb		84
102)	1,2,4-Trichlorobenzene	14.06	182	6498	7.03	ppb		97
103)	Hexachlorobutadiene	14.25	225	5336	9.44	ppb		98
104)	Naphthalene	14.30	128	14911	6.38	ppb		97
105)	1,2,3-Trichlorobenzene	14.54	182	9019	6.89	ppb		98

(#) = qualifier out of range (m) = manual integration

Data File : M:\THOR\DATA\T191028\1101t27.D Vial: 25
Acq On : 2 Nov 19 1:34 Operator:
Sample : Ending CCV 10ug/L 11/1/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Nov 4 12:10 2019 Quant Results File: T1023W.RES

Method : M:\THOR\DATA\T191028\T1023W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:55:52 2019
Response via : Initial Calibration



VOLATILE ORGANIC ANALYSIS
VOLATILE ORGANIC COMPOUNDS

Form 7

Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix:

SDG No:
Date Analyzed: 2 Nov 19 3:27
Instrument: Thor
Initial Cal. Date: 10/23/19
Data File: 1101t31.D

		Compound	MEAN	CCRF	%D		%Drift	
1	I	Fluorobenzene (IS)	ISTD			I		
2	TM	Dichlorodifluoromethane	0.2318	0.1938	16	TM		
3	TML	Freon 114	0.1167	0.1230	5.4	TML	20	
4	TM**L	Chloromethane	0.2206	0.1997	9.5	TM**L	8.7	
5	TM*	Vinyl chloride	0.1695	0.1515	11	TM*		
6	TM	2-Chloro-1,1,1-trifluoroethane	0.0000	0.0034	0.00	TM		
7	TML	Bromomethane	0.1168	0.0869	26	TML	15	
8	TML	Chloroethane	0.2026	0.1213	40	TML	0.91	
9	TM	Dichlorofluoromethane	0.3078	0.2950	4.2	TM		
10	TM	Trichlorofluoromethane	0.3159	0.3182	0.72	TM		
11	TM	Diethyl ether	0.0000	0.0004	0.00	TM		
12	TM	Acrolein	0.0096	0.0062	36	TM		* NT
13	TML	Acetone	0.0616	0.0603	2.0	TML	2.0	
14	TML	Freon-113	0.1219	0.1369	12	TML	4.8	
15	TM*	1,1-DCE	0.2239	0.2229	0.46	TM*		
16	TML	Acetonitrile	0.0207	0.0161	23	TML	21	* NT
17	TM	t-Butanol	0.0166	0.0108	35	TM		* NT
18	TML	Methyl Acetate	0.1249	0.0835	33	TML	30	* NT
19	TML	Iodomethane	0.0951	0.0551	42	TML	35	* NT
20	TM	Acrylonitrile	0.0573	0.0488	15	TM		
21	TML	Methylene chloride	0.2241	0.1995	11	TML	2.5	
22	TML	Carbon disulfide	0.4208	0.4167	0.96	TML	8.5	
23	TML	Methyl t-butyl ether (MtBE)	0.5335	0.4446	17	TML	13	
24	TM	Trans-1,2-DCE	0.2190	0.2082	4.9	TM		
25	TM	Hexane	0.0000	0.0584	0.00	TM		
26	TM	Diisopropyl Ether	0.1903	0.1643	14	TM		
27	TM**L	1,1-DCA	0.1356	0.1253	7.6	TM**L	0.46	
28	TML	Vinyl Acetate	0.1447	0.1423	1.7	TML	5.4	
29	TM	Ethyl tert Butyl Ether	0.5122	0.4335	15	TM		
30	TML	MEK (2-Butanone)	0.0768	0.0503	35	TML	23	* NT
31	TM	Cis-1,2-DCE	0.2652	0.2589	2.4	TM		
32	TML	2,2-Dichloropropane	0.1205	0.0938	22	TML	12	
33	TM	3-Methylpentane	0.0000	0.0852	0.00	TM		
34	TM*	Chloroform	0.1738	0.1673	3.8	TM*		
35	TM	Bromochloromethane	0.0746	0.0650	13	TM		
36	S	Dibromofluoromethane(S)	0.4819	0.4666	3.2	S		
37	TML	1,1,1-TCA	0.1555	0.1437	7.6	TML	1.8	
38	TM	Cyclohexane	0.2001	0.1837	8.2	TM		
39	TM	1,1-Dichloropropene	0.2185	0.2075	5.0	TM		
40	TML	2,2,4-Trimethylpentane	0.1692	0.1432	15	TML	5.9	
		Average			12.8			

VOLATILE ORGANIC ANALYSIS
VOLATILE ORGANIC COMPOUNDS

Form 7

Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix: 0

SDG No:
Date Analyzed: 2 Nov 19 3:27
Instrument: Thor
Cal. Date: 10/23/19
Data File: 1101t31.D

		Compound	MEAN	CCRF	%D		%Drift	
41	S	1,2-DCA-D4(S)	0.5396	0.5094	5.6	S		
42	TML	Carbon Tetrachloride	0.2432	0.2628	8.1	TML	1.2	
43	TM	Tert Amyl Methyl Ether	0.5205	0.4142	20	TM		
44	TM	Methylcyclopentane	0.0000	0.0273	0.00	TM		
45	TML	1,2-DCA	0.1715	0.1387	19	TML	8.7	
46	TM	Benzene	0.7114	0.6548	8.0	TM		
47	TM	TCE	0.2207	0.2779	26	TM		* NT
48	TM	2-Pentanone	0.1112	0.0789	29	TM		* NT
49	TM*	1,2-Dichloropropane	0.1808	0.1659	8.2	TM*		
50	TM	Bromodichloromethane	0.2768	0.2421	13	TM		
51	TM	Methyl Cyclohexane	0.2204	0.2182	0.99	TM		
52	TML	Dibromomethane	0.1389	0.1511	8.8	TML	5.7	
53	TML	MIBK (methyl isobutyl ketone)	0.0628	0.0372	41	TML	33	* NT
54	TM	1-Bromo-2-chloroethane	0.2330	0.2046	12	TM		
55	TM	2-Chloroethyl vinyl ether	0.0000	0.0005	0.00	TM		
56	TM	Cis-1,3-Dichloropropene	0.2895	0.2504	14	TM		
57	TM*	Toluene	0.8064	0.7239	10	TM*		
58	TM	Trans-1,3-Dichloropropene	0.1810	0.1438	21	TM		* NT
59	TM	1,1,2-TCA	0.1808	0.1505	17	TM		
60	TML	2-Hexanone	0.0907	0.0585	35	TML	29	* NT
61	I	Chlorobenzene-D5 (IS)	ISTD			I		
62	S	Toluene-D8(S)	1.867	1.816	2.7	S		
63	TM	1,2-EDB	0.1197	0.1099	8.2	TM		
64	TM	Tetrachloroethene	0.2368	0.2631	11	TM		
65	TML	1-Chlorohexane	0.2307	0.1895	18	TML	13	
66	TM	1,1,1,2-Tetrachloroethane	0.2419	0.2223	8.1	TM		
67	TM	m&p-Xylene	0.7241	0.6556	9.5	TM		
68	TM	o-Xylene	0.7739	0.7065	8.7	TM		
69	TM	Styrene	0.5490	0.4947	9.9	TM		
70	S	4-Bromofluorobenzene(S)	0.7391	0.7362	0.39	S		
71	TM	1,3-Dichloropropane	0.3118	0.2729	12	TM		
72	TML	Dibromochloromethane	0.2170	0.2287	5.4	TML	5.7	
73	TM**	Chlorobenzene	0.3686	0.3436	6.8	TM**		
74	TM*	Ethylbenzene	0.9036	0.8274	8.4	TM*		
75	TM**L	Bromoform	0.1737	0.1442	17	TM**L	26	* NT
76	I	1,4-Dichlorobenzene-D (IS)	ISTD			I		
77	TM	Isopropylbenzene	1.536	1.386	9.8	TM		
78	TM**	1,1,2,2-Tetrachloroethane	0.4037	0.3213	20	TM**		
79	TML	1,2,3-Trichloropropane	0.1253	0.1088	13	TML	23	* NT
80	TML	t-1,4-Dichloro-2-Butene	0.0727	0.0513	29	TML	40	* NT
		Average			13.0			

VOLATILE ORGANIC ANALYSIS
VOLATILE ORGANIC COMPOUNDS

Form 7

Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix: 0

SDG No:
Date Analyzed: 2 Nov 19 3:27
Instrument: Thor
Cal. Date: 10/23/19
Data File: 1101t31.D

		Compound	MEAN	CCRF	%D		%Drift	
81	TM	Bromobenzene	0.4002	0.3537	12	TM		
82	TM	n-Propylbenzene	1.707	1.472	14	TM		
83	TM	4-Ethyltoluene	1.465	1.310	11	TM		
84	TM	2-Chlorotoluene	0.7078	0.5900	17	TM		
85	TM	1,3,5-Trimethylbenzene	1.302	1.199	7.9	TM		
86	TM	4-Chlorotoluene	0.8054	0.7323	9.1	TM		
87	TM	Tert-Butylbenzene	1.175	1.123	4.4	TM		
88	TM	1,2,4-Trimethylbenzene	1.336	1.127	16	TM		
89	TM	Sec-Butylbenzene	1.523	1.297	15	TM		
90	TM	p-Isopropyltoluene	1.338	1.157	14	TM		
91	TM	Benzyl Chloride	0.3124	0.1942	38	TM		* NT
92	TM	1,3-DCB	0.5820	0.4918	16	TM		
93	TM	1,4-DCB	0.8814	0.7649	13	TM		
94	TM	n-Butylbenzene	1.016	0.7927	22	TM		* NT
95	TM	1,2-DCB	0.5295	0.4354	18	TM		
96	TM	Hexachloroethane	0.1627	0.1617	0.62	TM		
97	TML	1,2-Dibromo-3-chloropropane	0.0623	0.0425	32	TML	27	* NT
98	TM	1,2,4-Trichlorobenzene	0.3177	0.2199	31	TM		* NT
99	TM	Hexachlorobutadiene	0.1945	0.1547	20	TM		
100	TM	Naphthalene	0.8033	0.4850	40	TM		* NT
101	TML	1,2,3-Trichlorobenzene	0.4030	0.3266	19	TML	27	* NT
102								
103								
104								
105								
106								
107								
108								
109								
110								
111								
112								
113								
114								
115								
116								
117								
118								
119								
120								
		Average			17.6			

Quantitation Report (Not Reviewed)

Data File : M:\THOR\DATA\T191028\1101t31.D Vial: 29
Acq On : 2 Nov 19 3:27 Operator:
Sample : 191101B CCV 10ug/L Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Nov 4 12:10 2019 Quant Results File: T1023W.RES

Quant Method : M:\THOR\DATA\T191023\T1023W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:55:52 2019
Response via : Initial Calibration
DataAcq Meth : T8260

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene (IS)	6.59	96	132672	25.00	ppb		0.00
65) Chlorobenzene-D5 (IS)	9.74	117	120960	25.00	ppb		0.00
80) 1,4-Dichlorobenzene-D (IS)	12.06	152	73080	25.00	ppb		0.00
System Monitoring Compounds							
40) Dibromofluoromethane(S)	5.78	111	61901	24.21	ppb		0.00
Spiked Amount 25.000			Recovery =	96.820%			
45) 1,2-DCA-D4(S)	6.17	65	67582	23.60	ppb		0.00
Spiked Amount 25.000			Recovery =	94.408%			
66) Toluene-D8(S)	8.29	98	219687	24.32	ppb		0.00
Spiked Amount 25.000			Recovery =	97.280%			
74) 4-Bromofluorobenzene(S)	10.91	174	89051	24.90	ppb		0.00
Spiked Amount 25.000			Recovery =	99.608%			
Target Compounds							Qvalue
3) Dichlorodifluoromethane	1.20	85	10286	8.36	ppb		98
4) Freon 114	1.32	85	6528	12.03	ppb		93
5) Chloromethane	1.36	50	10597	10.87	ppb		97
6) Vinyl chloride	1.46	62	8040	8.94	ppb		91
8) Bromomethane	1.75	96	4612	8.54	ppb		99
9) Chloroethane	1.86	64	6436	9.91	ppb		93
10) Dichlorofluoromethane	2.06	67	15654	9.58	ppb		93
11) Trichlorofluoromethane	2.11	101	16886	10.07	ppb		93
13) Acrolein	2.54	55	4084	80.42	ppb		98
14) Acetone	2.73	43	3200	9.80	ppb		99
15) Freon-113	2.69	101	7264	10.48	ppb	#	85
16) 1,1-DCE	2.67	61	11829	9.95	ppb		95
18) Acetonitrile	3.05	41	10655	98.19	ppb		98
19) t-Butanol	3.52	59	7183	81.57	ppb		99
20) Methyl Acetate	3.17	43	4432	7.01	ppb		91
21) Iodomethane	2.82	142	2922	6.49	ppb		91
22) Acrylonitrile	3.60	53	2591	8.53	ppb	#	69
23) Methylene chloride	3.27	49	10589	9.75	ppb		90
24) Carbon disulfide	2.89	76	22114	10.85	ppb		100
25) Methyl t-butyl ether (MtBE	3.72	73	23597	8.75	ppb		96
26) Trans-1,2-DCE	3.67	61	11051	9.51	ppb	#	82
28) Diisopropyl Ether	4.54	45	8718	8.63	ppb		93
30) 1,1-DCA	4.32	63	6650	10.05	ppb		98
31) Vinyl Acetate	4.53	87	7551	9.46	ppb		91
32) Ethyl tert Butyl Ether	5.05	59	23006	8.46	ppb	#	87
33) MEK (2-Butanone)	5.21	43	2670	7.73	ppb	#	88
34) Cis-1,2-DCE	5.15	61	13737	9.76	ppb	#	93
35) 2,2-Dichloropropane	5.15	77	4979	8.83	ppb		98
38) Chloroform	5.59	83	8877	9.62	ppb		94
39) Bromochloromethane	5.45	130	3448	8.71	ppb		87
41) 1,1,1-TCA	5.80	97	7627	9.82	ppb		93
42) Cyclohexane	5.87	84	9751	9.18	ppb		92
43) 1,1-Dichloropropene	6.01	75	11013	9.50	ppb		92
44) 2,2,4-Trimethylpentane	6.41	57	7601	9.41	ppb		98
46) Carbon Tetrachloride	6.01	119	13946	10.12	ppb		85
47) Tert Amyl Methyl Ether	6.45	73	21982	7.96	ppb		94
49) 1,2-DCA	6.26	62	7361	9.13	ppb		96
50) Benzene	6.25	78	34748	9.20	ppb		97
51) TCE	7.00	130	14750	12.59	ppb		97

(#) = qualifier out of range (m) = manual integration
1101t31.D T1023W.M Mon Nov 04 13:26:32 2019

Quantitation Report (Not Reviewed)

Data File : M:\THOR\DATA\T191028\1101t31.D Vial: 29
Acq On : 2 Nov 19 3:27 Operator:
Sample : 191101B CCV 10ug/L Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Nov 4 12:10 2019 Quant Results File: T1023W.RES

Quant Method : M:\THOR\DATA\T191023\T1023W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:55:52 2019
Response via : Initial Calibration
DataAcq Meth : T8260

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
52)	2-Pentanone	7.22	43	52349	88.74	ppb		99
53)	1,2-Dichloropropane	7.23	63	8805	9.18	ppb		93
54)	Bromodichloromethane	7.53	83	12847	8.74	ppb	#	99
55)	Methyl Cyclohexane	7.22	83	11582	9.90	ppb		89
56)	Dibromomethane	7.34	174	8019	9.43	ppb		94
57)	MIBK (methyl isobutyl ket	9.05	43	1974	6.67	ppb		92
58)	1-Bromo-2-chloroethane	7.85	63	10860	8.78	ppb		98
60)	Cis-1,3-Dichloropropene	8.01	75	13288	8.65	ppb		97
61)	Toluene	8.36	91	38415	8.98	ppb		100
62)	Trans-1,3-Dichloropropene	8.59	75	7631	7.95	ppb		83
63)	1,1,2-TCA	8.76	97	7987	8.32	ppb		90
64)	2-Hexanone	8.20	43	3107	7.09	ppb		96
67)	1,2-EDB	9.26	107	5317	9.18	ppb		85
68)	Tetrachloroethene	8.92	166	12730	11.11	ppb		96
69)	1-Chlorohexane	9.77	91	9168	8.67	ppb		95
70)	1,1,1,2-Tetrachloroethane	9.86	131	10757	9.19	ppb		100
71)	m&p-Xylene	10.01	91	63444	18.11	ppb		99
72)	o-Xylene	10.40	91	34185	9.13	ppb		99
73)	Styrene	10.41	104	23937	9.01	ppb		94
75)	1,3-Dichloropropane	8.93	76	13206	8.75	ppb		90
76)	Dibromochloromethane	9.15	129	11065	9.43	ppb		97
77)	Chlorobenzene	9.77	112	16624	9.32	ppb		93
78)	Ethylbenzene	9.89	91	40033	9.16	ppb		100
79)	Bromoform	10.57	173	6979	7.43	ppb		95
81)	Isopropylbenzene	10.78	105	40520	9.02	ppb		99
82)	1,1,2,2-Tetrachloroethane	11.05	83	9393	7.96	ppb		90
83)	1,2,3-Trichloropropane	11.09	110	3179	7.70	ppb	#	79
84)	t-1,4-Dichloro-2-Butene	11.11	53	1501	6.01	ppb	#	73
85)	Bromobenzene	11.05	77	10338	8.84	ppb		87
86)	n-Propylbenzene	11.19	91	43023	8.62	ppb		97
87)	4-Ethyltoluene	11.30	105	38287	8.94	ppb		98
88)	2-Chlorotoluene	11.26	91	17247	8.34	ppb		94
89)	1,3,5-Trimethylbenzene	11.37	105	35049	9.21	ppb		95
90)	4-Chlorotoluene	11.37	91	21408	9.09	ppb		94
91)	Tert-Butylbenzene	11.69	119	32833	9.56	ppb		99
92)	1,2,4-Trimethylbenzene	11.74	105	32934	8.44	ppb		95
93)	Sec-Butylbenzene	11.91	105	37907	8.51	ppb		98
94)	p-Isopropyltoluene	12.06	119	33810	8.65	ppb		99
95)	Benzyl Chloride	12.22	91	5678	6.22	ppb		95
96)	1,3-DCB	12.00	146	14375	8.45	ppb		95
97)	1,4-DCB	12.09	146	22359	8.68	ppb		97
98)	n-Butylbenzene	12.46	91	23173	7.80	ppb		99
99)	1,2-DCB	12.45	146	12729	8.22	ppb		97
100)	Hexachloroethane	12.72	117	4727	9.94	ppb		97
101)	1,2-Dibromo-3-chloropropan	13.22	157	1241	7.26	ppb	#	82
102)	1,2,4-Trichlorobenzene	14.06	182	6428	6.92	ppb	#	83
103)	Hexachlorobutadiene	14.25	225	4522	7.95	ppb		88
104)	Naphthalene	14.30	128	14177	6.04	ppb		98
105)	1,2,3-Trichlorobenzene	14.54	182	9546	7.27	ppb		82

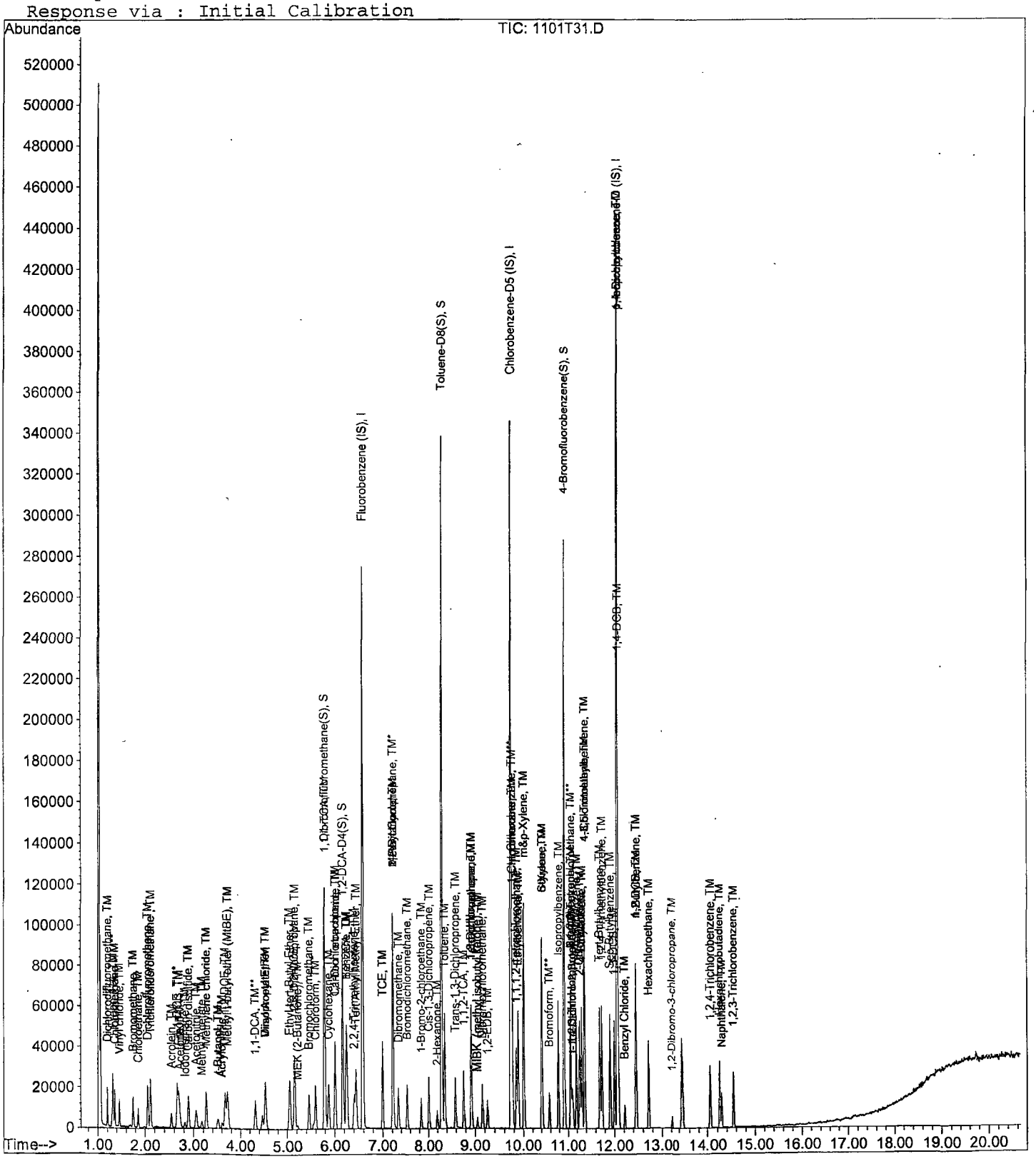
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\THOR\DATA\T191028\1101t31.D Vial: 29
Acq On : 2 Nov 19 3:27 Operator:
Sample : 191101B CCV 10ug/L Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Nov 4 12:10 2019 Quant Results File: T1023W.RES

Method : M:\THOR\DATA\T191023\T1023W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:55:52 2019
Response via : Initial Calibration



VOLATILE ORGANIC ANALYSIS
VOLATILE ORGANIC COMPOUNDS

Form 7

Ending Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix:

SDG No:
Date Analyzed: 2 Nov 19 14:17
Instrument: Thor
Initial Cal. Date: 10/23/19
Data File: 1101t54.D

		Compound	MEAN	CCRF	%D		%Drift	
1	I	Fluorobenzene (IS)	ISTD			I		
2	TM	Dichlorodifluoromethane	0.2318	0.1950	16	TM		
3	TML	Freon 114	0.1167	0.1281	9.8	TML	26	
4	TM**L	Chloromethane	0.2206	0.2106	4.5	TM**L	15	
5	TM*	Vinyl chloride	0.1695	0.1599	5.7	TM*		
6	TM	2-Chloro-1,1,1-trifluoroethane	0.0000	0.0040	0.00	TM		
7	TML	Bromomethane	0.1168	0.1005	14	TML	0.88	
8	TML	Chloroethane	0.2026	0.1268	37	TML	4.3	
9	TM	Dichlorofluoromethane	0.3078	0.3049	0.97	TM		
10	TM	Trichlorofluoromethane	0.3159	0.3159	0.01	TM		
11	TM	Acrolein	0.0096	0.0072	25	TM		
12	TML	Acetone	0.0616	0.0721	17	TML	17	
13	TML	Freon-113	0.1219	0.1442	18	TML	11	
14	TM*	1,1-DCE	0.2239	0.2299	2.7	TM*		
15	TML	Acetonitrile	0.0207	0.0190	8.5	TML	6.7	
16	TM	t-Butanol	0.0166	0.0149	10	TM		
17	TML	Methyl Acetate	0.1249	0.1174	6.0	TML	4.6	
18	TML	Iodomethane	0.0951	0.0276	71	TML	51	* NT
19	TM	Acrylonitrile	0.0573	0.0572	0.06	TM		
20	TML	Methylene chloride	0.2241	0.2005	11	TML	2.0	
21	TML	Carbon disulfide	0.4208	0.4226	0.43	TML	10	
22	TML	Methyl t-butyl ether (MtBE)	0.5335	0.4715	12	TML	6.6	
23	TM	Trans-1,2-DCE	0.2190	0.2236	2.1	TM		
24	TM	Diisopropyl Ether	0.1903	0.1651	13	TM		
25	TM**L	1,1-DCA	0.1356	0.1207	11	TM**L	3.7	
26	TML	Vinyl Acetate	0.1447	0.1426	1.4	TML	5.1	
27	TM	Ethyl tert Butyl Ether	0.5122	0.4641	9.4	TM		
28	TML	MEK (2-Butanone)	0.0768	0.0651	15	TML	0.00	
29	TM	Cis-1,2-DCE	0.2652	0.2711	2.2	TM		
30	TML	2,2-Dichloropropane	0.1205	0.0849	30	TML	20	
31	TM	3-Methylpentane	0.0000	0.0946	0.00	TM		
32	TM*	Chloroform	0.1738	0.1767	1.6	TM*		
33	TM	Bromochloromethane	0.0746	0.0758	1.5	TM		
34	S	Dibromofluoromethane(S)	0.4819	0.4732	1.8	S		
35	TML	1,1,1-TCA	0.1555	0.1553	0.11	TML	7.0	
36	TM	Cyclohexane	0.2001	0.1798	10	TM		
37	TM	1,1-Dichloropropene	0.2185	0.2069	5.3	TM		
38	TML	2,2,4-Trimethylpentane	0.1692	0.1286	24	TML	16	
39	S	1,2-DCA-D4(S)	0.5396	0.5366	0.56	S		
40	TML	Carbon Tetrachloride	0.2432	0.2728	12	TML	5.4	
		Average			10.5			

VOLATILE ORGANIC ANALYSIS
VOLATILE ORGANIC COMPOUNDS

Form 7

Ending Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix: 0

SDG No:
Date Analyzed: 2 Nov 19 14:17
Instrument: Thor
Cal. Date: 10/23/19
Data File: 1101t54.D

		Compound	MEAN	CCRF	%D		%Drift
41	TM	Tert Amyl Methyl Ether	0.5205	0.4610	11	TM	
42	TM	Methylcyclopentane	0.0000	0.0211	0.00	TM	
43	TML	1,2-DCA	0.1715	0.1511	12	TML	0.58
44	TM	Benzene	0.7114	0.6806	4.3	TM	
45	TM	TCE	0.2207	0.2651	20	TM	
46	TM	2-Pentanone	0.1112	0.1009	9.2	TM	
47	TM*	1,2-Dichloropropane	0.1808	0.1688	6.6	TM*	
48	TM	Bromodichloromethane	0.2768	0.2539	8.3	TM	
49	TM	Methyl Cyclohexane	0.2204	0.1982	10	TM	
50	TML	Dibromomethane	0.1389	0.1464	5.4	TML	8.7
51	TML	MIBK (methyl isobutyl ketone)	0.0628	0.0464	26	TML	18
52	TM	1-Bromo-2-chloroethane	0.2330	0.2203	5.5	TM	
53	TM	2-Chloroethyl vinyl ether	0.0000	0.0002	0.00	TM	
54	TM	Cis-1,3-Dichloropropene	0.2895	0.2418	16	TM	
55	TM*	Toluene	0.8064	0.7517	6.8	TM*	
56	TM	Trans-1,3-Dichloropropene	0.1810	0.1608	11	TM	
57	TM	1,1,2-TCA	0.1808	0.1780	1.6	TM	
58	TML	2-Hexanone	0.0907	0.0709	22	TML	15
59	I	Chlorobenzene-D5 (IS)	ISTD			I	
60	S	Toluene-D8(S)	1.867	1.867	0.01	S	
61	TM	1,2-EDB	0.1197	0.1160	3.1	TM	
62	TM	Tetrachloroethene	0.2368	0.2503	5.7	TM	
63	TML	1-Chlorohexane	0.2307	0.1915	17	TML	12
64	TM	1,1,1,2-Tetrachloroethane	0.2419	0.2530	4.6	TM	
65	TM	m&p-Xylene	0.7241	0.6929	4.3	TM	
66	TM	o-Xylene	0.7739	0.7265	6.1	TM	
67	TM	Styrene	0.5490	0.4930	10	TM	
68	S	4-Bromofluorobenzene(S)	0.7391	0.7497	1.4	S	
69	TM	1,3-Dichloropropane	0.3118	0.3024	3.0	TM	
70	TML	Dibromochloromethane	0.2170	0.2447	13	TML	0.93
71	TM**	Chlorobenzene	0.3686	0.3582	2.8	TM**	
72	TM*	Ethylbenzene	0.9036	0.8558	5.3	TM*	
73	TM**L	Bromoform	0.1737	0.1982	14	TM**L	1.4
74	I	1,4-Dichlorobenzene-D (IS)	ISTD			I	
75	TM	Isopropylbenzene	1.536	1.355	12	TM	
76	TM**	1,1,2,2-Tetrachloroethane	0.4037	0.3755	7.0	TM**	
77	TML	1,2,3-Trichloropropane	0.1253	0.1410	13	TML	3.1
78	TML	t-1,4-Dichloro-2-Butene	0.0727	0.0638	12	TML	23
79	TM	Bromobenzene	0.4002	0.3751	6.3	TM	
80	TM	n-Propylbenzene	1.707	1.530	10	TM	
		Average			8.6		

VOLATILE ORGANIC ANALYSIS
VOLATILE ORGANIC COMPOUNDS

Form 7

Ending Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix: 0

SDG No:
Date Analyzed: 2 Nov 19 14:17
Instrument: Thor
Cal. Date: 10/23/19
Data File: 1101t54.D

		Compound	MEAN	CCRF	%D		%Drift
81	TM	4-Ethyltoluene	1.465	1.347	8.1	TM	
82	TM	2-Chlorotoluene	0.7078	0.6451	8.9	TM	
83	TM	1,3,5-Trimethylbenzene	1.302	1.192	8.5	TM	
84	TM	4-Chlorotoluene	0.8054	0.7982	0.90	TM	
85	TM	Tert-Butylbenzene	1.175	1.086	7.6	TM	
86	TM	1,2,4-Trimethylbenzene	1.336	1.129	15	TM	
87	TM	Sec-Butylbenzene	1.523	1.386	9.0	TM	
88	TM	p-Isopropyltoluene	1.338	1.178	12	TM	
89	TM	Benzyl Chloride	0.3124	0.1639	48	TM	
90	TM	1,3-DCB	0.5820	0.5001	14	TM	
91	TM	1,4-DCB	0.8814	0.7929	10	TM	
92	TM	n-Butylbenzene	1.016	0.8089	20	TM	
93	TM	1,2-DCB	0.5295	0.4926	7.0	TM	
94	TM	Hexachloroethane	0.1627	0.1709	5.0	TM	
95	TML	1,2-Dibromo-3-chloropropane	0.0623	0.0546	12	TML	5.5
96	TM	1,2,4-Trichlorobenzene	0.3177	0.2512	21	TM	
97	TM	Hexachlorobutadiene	0.1945	0.1722	11	TM	
98	TM	Naphthalene	0.8033	0.6160	23	TM	
99	TML	1,2,3-Trichlorobenzene	0.4030	0.3535	12	TML	21
100							
101							
102							
103							
104							
105							
106							
107							
108							
109							
110							
111							
112							
113							
114							
115							
116							
117							
118							
119							
120							
		Average			13.3		

Quantitation Report (Not Reviewed)

Data File : M:\THOR\DATA\T191028\1101t54.D Vial: 52
Acq On : 2 Nov 19 14:17 Operator:
Sample : Ending CCV 10ug/L 11/1/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Nov 4 12:11 2019 Quant Results File: T1023W.RES

Quant Method : M:\THOR\DATA\T191023\T1023W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:55:52 2019
Response via : Initial Calibration
DataAcq Meth : T8260

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene (IS)	6.59	96	127256	25.00	ppb		0.00
65) Chlorobenzene-D5 (IS)	9.74	117	115520	25.00	ppb		0.00
80) 1,4-Dichlorobenzene-D (IS)	12.06	152	69184	25.00	ppb		0.00
System Monitoring Compounds							
40) Dibromofluoromethane(S)	5.78	111	60217	24.55	ppb		0.00
Spiked Amount 25.000			Recovery = 98.196%				
45) 1,2-DCA-D4(S)	6.17	65	68282	24.86	ppb		0.00
Spiked Amount 25.000			Recovery = 99.444%				
66) Toluene-D8(S)	8.30	98	215639	25.00	ppb		0.00
Spiked Amount 25.000			Recovery = 99.984%				
74) 4-Bromofluorobenzene(S)	10.91	174	86601	25.36	ppb		0.00
Spiked Amount 25.000			Recovery = 101.428%				
Target Compounds							Qvalue
3) Dichlorodifluoromethane	1.20	85	9928	8.42	ppb		97
4) Freon 114	1.32	85	6522	12.59	ppb		96
5) Chloromethane	1.36	50	10722	11.53	ppb		100
6) Vinyl chloride	1.46	62	8141	9.43	ppb		100
8) Bromomethane	1.75	96	5114	9.91	ppb		99
9) Chloroethane	1.86	64	6453	10.43	ppb		91
10) Dichlorofluoromethane	2.06	67	15518	9.90	ppb		100
11) Trichlorofluoromethane	2.12	101	16082	10.00	ppb		92
13) Acrolein	2.55	55	4561	93.64	ppb		99
14) Acetone	2.73	43	3672	11.72	ppb		95
15) Freon-113	2.70	101	7341	11.09	ppb		84
16) 1,1-DCE	2.66	61	11702	10.27	ppb		94
18) Acetonitrile	3.05	41	12075	116.60	ppb		97
19) t-Butanol	3.52	59	9459	111.99	ppb		94
20) Methyl Acetate	3.18	43	5974	10.46	ppb		99
21) Iodomethane	2.82	142	1404	4.94	ppb		97
22) Acrylonitrile	3.61	53	2913	9.99	ppb		93
23) Methylene chloride	3.26	49	10208	9.80	ppb		97
24) Carbon disulfide	2.89	76	21510	11.00	ppb	#	94
25) Methyl t-butyl ether (MtBE	3.72	73	24001	9.34	ppb	#	94
26) Trans-1,2-DCE	3.67	61	11380	10.21	ppb		98
28) Diisopropyl Ether	4.54	45	8406	8.68	ppb		93
30) 1,1-DCA	4.32	63	6143	9.63	ppb		97
31) Vinyl Acetate	4.54	87	7261	9.49	ppb		98
32) Ethyl tert Butyl Ether	5.05	59	23623	9.06	ppb		90
33) MEK (2-Butanone)	5.22	43	3315	10.00	ppb		92
34) Cis-1,2-DCE	5.15	61	13802	10.22	ppb		98
35) 2,2-Dichloropropane	5.15	77	4320	7.96	ppb		98
38) Chloroform	5.59	83	8993	10.16	ppb		100
39) Bromochloromethane	5.46	130	3856	10.15	ppb		91
41) 1,1,1-TCA	5.80	97	7905	10.70	ppb		95
42) Cyclohexane	5.88	84	9153	8.99	ppb		86
43) 1,1-Dichloropropene	6.01	75	10534	9.47	ppb		96
44) 2,2,4-Trimethylpentane	6.41	57	6548	8.42	ppb		97
46) Carbon Tetrachloride	6.01	119	13886	10.54	ppb		89
47) Tert Amyl Methyl Ether	6.45	73	23466	8.86	ppb	#	92
49) 1,2-DCA	6.26	62	7692	10.06	ppb		94
50) Benzene	6.25	78	34645	9.57	ppb		99
51) TCE	7.00	130	13493	12.01	ppb		93

(#) = qualifier out of range (m) = manual integration
1101t54.D T1023W.M Mon Nov 04 13:34:08 2019

Quantitation Report (Not Reviewed)

Data File : M:\THOR\DATA\T191028\1101t54.D Vial: 52
Acq On : 2 Nov 19 14:17 Operator:
Sample : Ending CCV 10ug/L 11/1/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Nov 4 12:11 2019 Quant Results File: T1023W.RES

Quant Method : M:\THOR\DATA\T191023\T1023W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:55:52 2019
Response via : Initial Calibration
DataAcq Meth : T8260

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
52)	2-Pentanone	7.22	43	64211	113.48	ppb		98
53)	1,2-Dichloropropane	7.23	63	8594	9.34	ppb		99
54)	Bromodichloromethane	7.54	83	12925	9.17	ppb	#	95
55)	Methyl Cyclohexane	7.22	83	10090	8.99	ppb		100
56)	Dibromomethane	7.34	174	7453	9.13	ppb		99
57)	MIBK (methyl isobutyl ket	9.04	43	2364	8.20	ppb	#	87
58)	1-Bromo-2-chloroethane	7.84	63	11213	9.45	ppb		91
60)	Cis-1,3-Dichloropropene	8.01	75	12308	8.35	ppb		93
61)	Toluene	8.36	91	38264	9.32	ppb		95
62)	Trans-1,3-Dichloropropene	8.59	75	8185	8.89	ppb		97
63)	1,1,2-TCA	8.77	97	9059	9.84	ppb		96
64)	2-Hexanone	8.20	43	3610	8.45	ppb		100
67)	1,2-EDB	9.26	107	5361	9.69	ppb		86
68)	Tetrachloroethene	8.92	166	11567	10.57	ppb		96
69)	1-Chlorohexane	9.77	91	8849	8.76	ppb		93
70)	1,1,1,2-Tetrachloroethane	9.86	131	11691	10.46	ppb		92
71)	m&p-Xylene	10.02	91	64031	19.14	ppb		97
72)	o-Xylene	10.40	91	33571	9.39	ppb		98
73)	Styrene	10.41	104	22780	8.98	ppb		100
75)	1,3-Dichloropropane	8.93	76	13975	9.70	ppb		99
76)	Dibromochloromethane	9.15	129	11305	10.09	ppb		94
77)	Chlorobenzene	9.77	112	16552	9.72	ppb		95
78)	Ethylbenzene	9.89	91	39547	9.47	ppb		98
79)	Bromoform	10.57	173	9157	10.14	ppb	#	68
81)	Isopropylbenzene	10.78	105	37508	8.82	ppb		99
82)	1,1,2,2-Tetrachloroethane	11.05	83	10391	9.30	ppb		96
83)	1,2,3-Trichloropropane	11.09	110	3903	10.31	ppb		94
84)	t-1,4-Dichloro-2-Butene	11.11	53	1766	7.67	ppb	#	88
85)	Bromobenzene	11.05	77	10380	9.37	ppb		89
86)	n-Propylbenzene	11.19	91	42338	8.96	ppb		97
87)	4-Ethyltoluene	11.30	105	37274	9.19	ppb		98
88)	2-Chlorotoluene	11.26	91	17851	9.11	ppb		95
89)	1,3,5-Trimethylbenzene	11.37	105	32979	9.15	ppb		99
90)	4-Chlorotoluene	11.37	91	22088	9.91	ppb		97
91)	Tert-Butylbenzene	11.69	119	30050	9.24	ppb		96
92)	1,2,4-Trimethylbenzene	11.74	105	31251	8.46	ppb		97
93)	Sec-Butylbenzene	11.91	105	38363	9.10	ppb		99
94)	p-Isopropyltoluene	12.06	119	32586	8.80	ppb		98
95)	Benzyl Chloride	12.22	91	4537	5.25	ppb		99
96)	1,3-DCB	12.00	146	13839	8.59	ppb		100
97)	1,4-DCB	12.09	146	21942	9.00	ppb		98
98)	n-Butylbenzene	12.46	91	22385	7.96	ppb		88
99)	1,2-DCB	12.45	146	13631	9.30	ppb		97
100)	Hexachloroethane	12.72	117	4730	10.50	ppb		94
101)	1,2-Dibromo-3-chloropropan	13.22	157	1512	9.45	ppb		87
102)	1,2,4-Trichlorobenzene	14.06	182	6953	7.91	ppb		98
103)	Hexachlorobutadiene	14.25	225	4765	8.85	ppb		89
104)	Naphthalene	14.30	128	17046	7.67	ppb		98
105)	1,2,3-Trichlorobenzene	14.54	182	9782	7.88	ppb		85

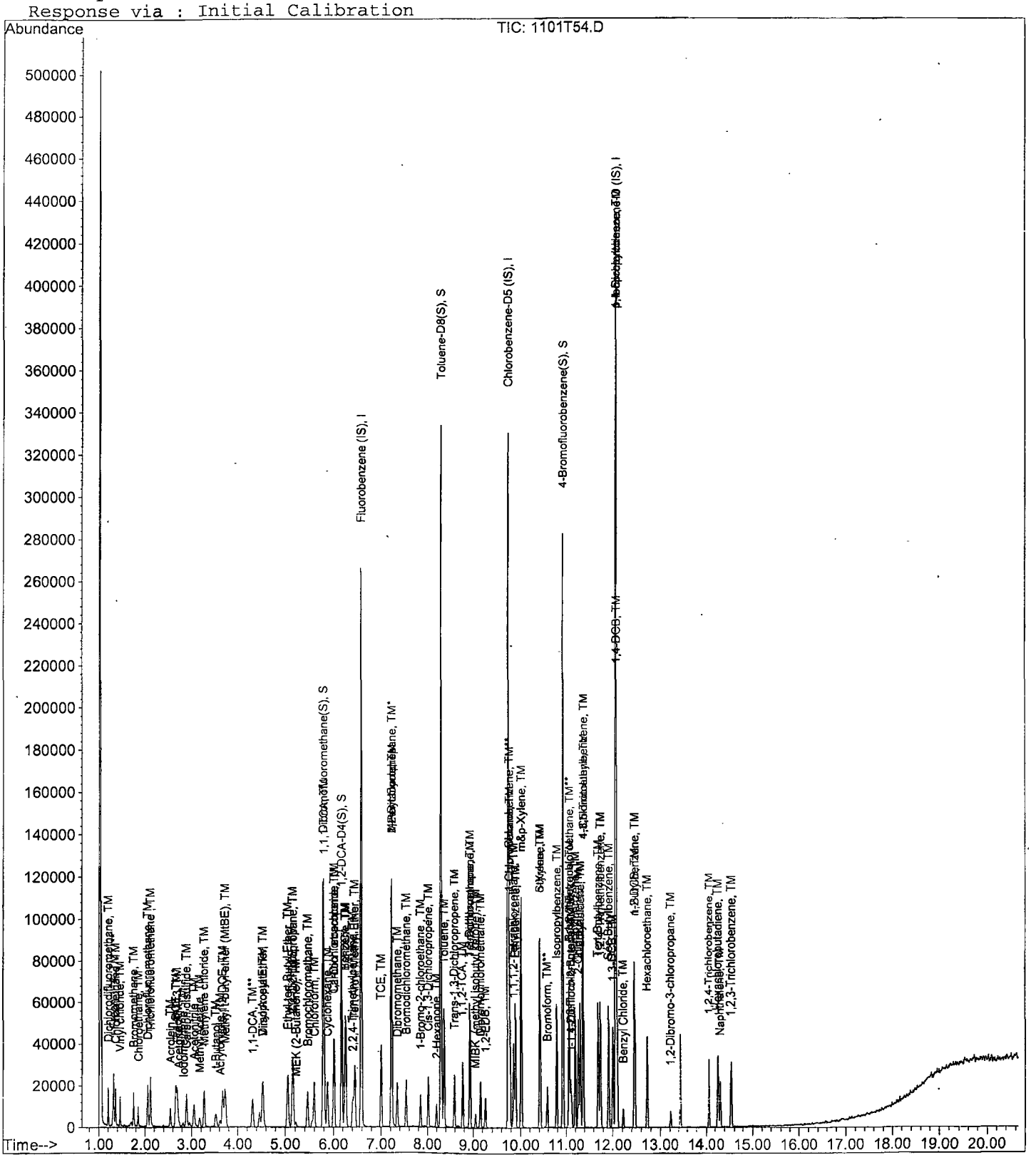
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\THOR\DATA\T191028\1101t54.D Vial: 52
Acq On : 2 Nov 19 14:17 Operator:
Sample : Ending CCV 10ug/L 11/1/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Nov 4 12:11 2019 Quant Results File: T1023W.RES

Method : M:\THOR\DATA\T191023\T1023W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:55:52 2019
Response via : Initial Calibration



ORGANICS
Raw Data

Quantitation Report (QT Reviewed)

Data File : M:\THOR\DATA\T191028\1101T42.D Vial: 40
Acq On : 2 Nov 19 8:37 Operator:
Sample : BA02089W01 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Nov 4 13:53 2019 Quant Results File: T1023W.RES

Quant Method : M:\THOR\DATA\T191023\T1023W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:55:52 2019
Response via : Initial Calibration
DataAcq Meth : T8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	6.59	96	124768	25.00	ppb	0.00
65) Chlorobenzene-D5 (IS)	9.74	117	116192	25.00	ppb	0.00
80) 1,4-Dichlorobenzene-D (IS)	12.06	152	64704	25.00	ppb	0.00
System Monitoring Compounds						
40) Dibromofluoromethane(S)	5.78	111	60104	24.99	ppb	0.00
Spiked Amount 25.000			Recovery =	99.968%		
45) 1,2-DCA-D4(S)	6.17	65	65369	24.28	ppb	0.00
Spiked Amount 25.000			Recovery =	97.100%		
66) Toluene-D8(S)	8.30	98	206662	23.82	ppb	0.00
Spiked Amount 25.000			Recovery =	95.268%		
74) 4-Bromofluorobenzene(S)	10.92	174	80525	23.44	ppb	0.00
Spiked Amount 25.000			Recovery =	93.768%		

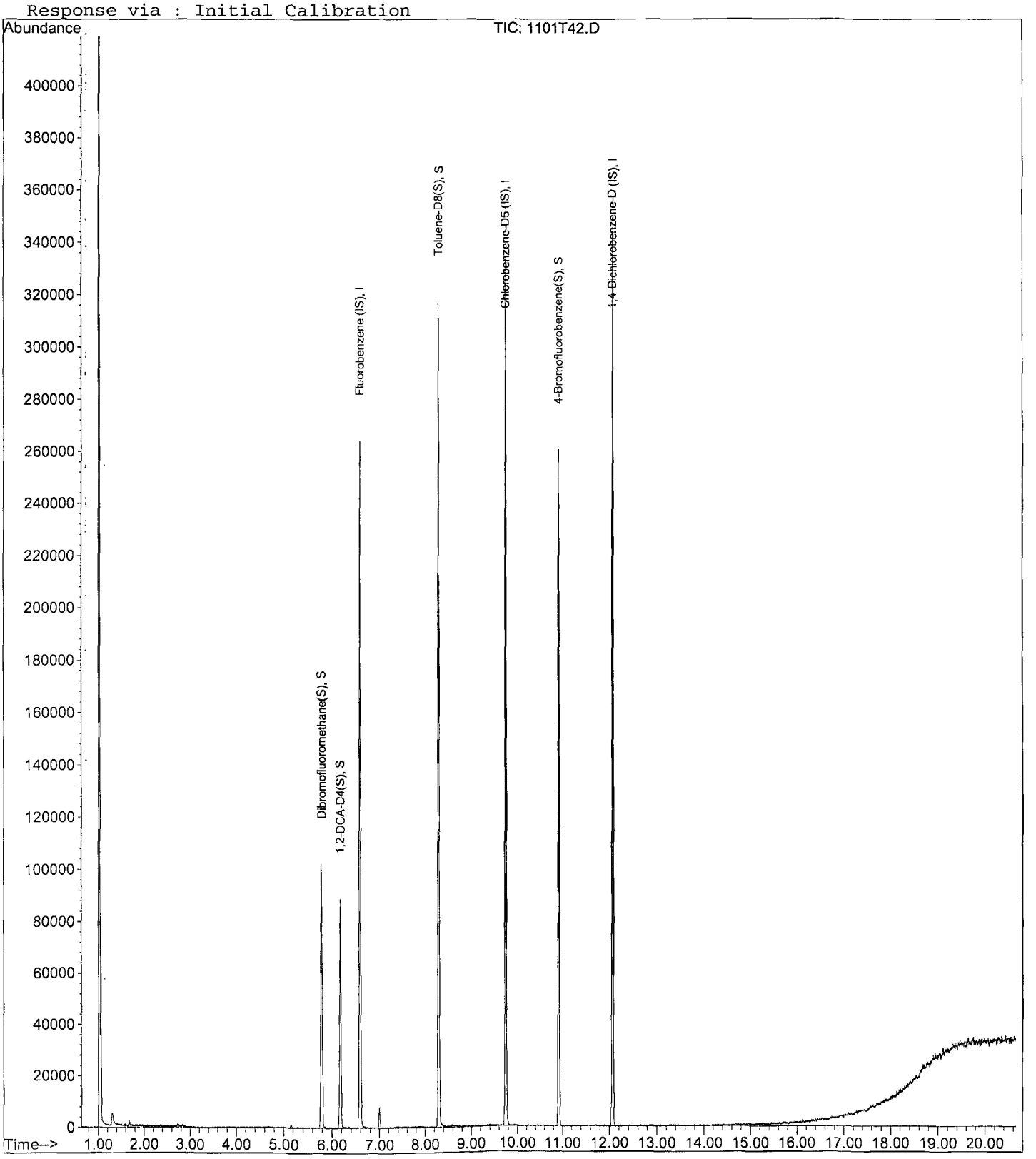
Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration

Data File : M:\THOR\DATA\T191028\1101T42.D Vial: 40
Acq On : 2 Nov 19 8:37 Operator:
Sample : BA02089W01 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Nov 4 13:53 2019 Quant Results File: T1023W.RES

Method : M:\THOR\DATA\T191023\T1023W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:55:52 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\THOR\DATA\T191028\1101T47.D Vial: 45
Acq On : 2 Nov 19 10:59 Operator:
Sample : BA02090W01 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Nov 4 13:57 2019 Quant Results File: T1023W.RES

Quant Method : M:\THOR\DATA\T191023\T1023W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:55:52 2019
Response via : Initial Calibration
DataAcq Meth : T8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	6.59	96	126552	25.00	ppb	0.00
65) Chlorobenzene-D5 (IS)	9.74	117	112152	25.00	ppb	0.00
80) 1,4-Dichlorobenzene-D (IS)	12.06	152	65400	25.00	ppb	0.00
System Monitoring Compounds						
40) Dibromofluoromethane(S)	5.78	111	59778	24.51	ppb	0.00
Spiked Amount 25.000			Recovery = 98.024%			
45) 1,2-DCA-D4(S)	6.17	65	68149	24.95	ppb	0.00
Spiked Amount 25.000			Recovery = 99.804%			
66) Toluene-D8(S)	8.30	98	207563	24.78	ppb	0.00
Spiked Amount 25.000			Recovery = 99.132%			
74) 4-Bromofluorobenzene(S)	10.91	174	81601	24.61	ppb	0.00
Spiked Amount 25.000			Recovery = 98.444%			

Target Compounds Qvalue

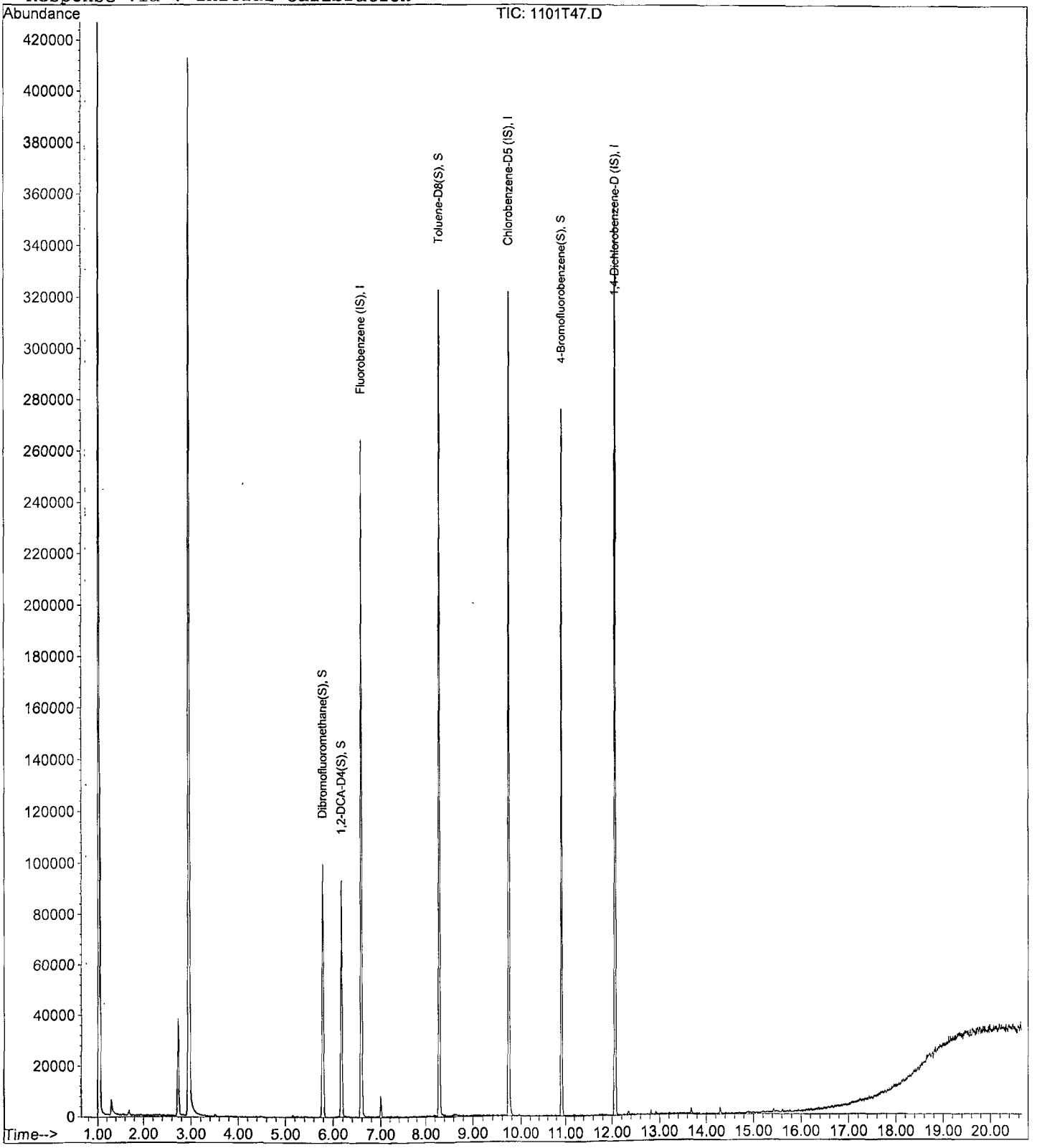
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\THOR\DATA\T191028\1101T47.D Vial: 45
Acq On : 2 Nov 19 10:59 Operator:
Sample : BA02090W01 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Nov 4 13:57 2019 Quant Results File: T1023W.RES

Method : M:\THOR\DATA\T191023\T1023W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:55:52 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\THOR\DATA\T191028\1101T24.D Vial: 22
Acq On : 2 Nov 19 00:09 Operator:
Sample : BA02091W01 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Nov 4 13:50 2019 Quant Results File: T1023W.RES

Quant Method : M:\THOR\DATA\T191023\T1023W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:55:52 2019
Response via : Initial Calibration
DataAcq Meth : T8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	6.59	96	131968	25.00	ppb	0.00
65) Chlorobenzene-D5 (IS)	9.74	117	120600	25.00	ppb	0.00
80) 1,4-Dichlorobenzene-D (IS)	12.06	152	66432	25.00	ppb	0.00
System Monitoring Compounds						
40) Dibromofluoromethane(S)	5.78	111	59976	23.58	ppb	0.00
Spiked Amount 25.000			Recovery =	94.312%		
45) 1,2-DCA-D4(S)	6.17	65	67382	23.66	ppb	0.00
Spiked Amount 25.000			Recovery =	94.628%		
66) Toluene-D8(S)	8.29	98	211821	23.52	ppb	0.00
Spiked Amount 25.000			Recovery =	94.076%		
74) 4-Bromofluorobenzene(S)	10.91	174	82186	23.05	ppb	0.00
Spiked Amount 25.000			Recovery =	92.204%		

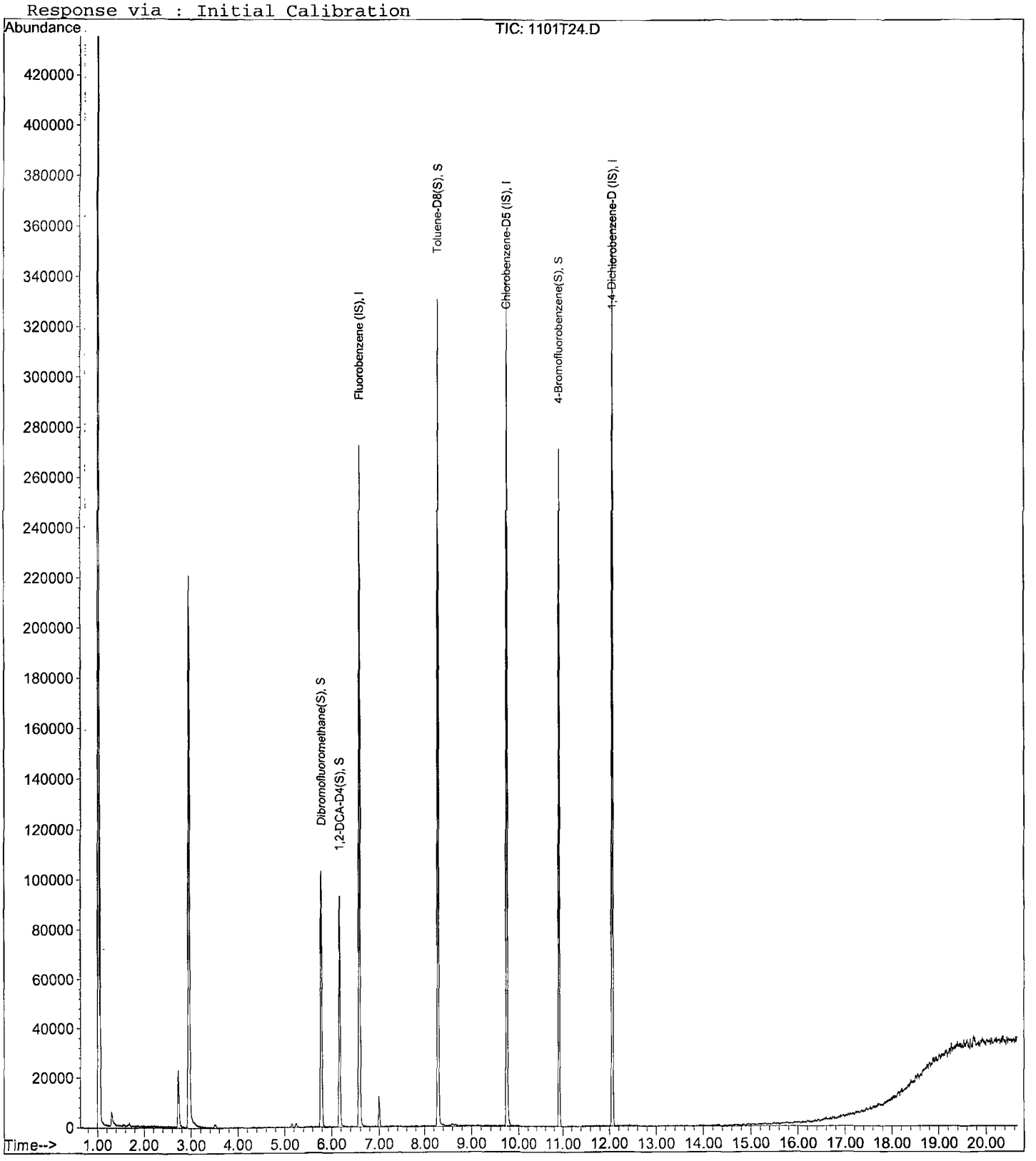
Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration

Data File : M:\THOR\DATA\T191028\1101T24.D Vial: 22
Acq On : 2 Nov 19 00:09 Operator:
Sample : BA02091W01 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Nov 4 13:50 2019 Quant Results File: T1023W.RES

Method : M:\THOR\DATA\T191023\T1023W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:55:52 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\THOR\DATA\T191028\1101T15.D Vial: 13
Acq On : 1 Nov 19 19:55 Operator:
Sample : 191101A BLK Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Nov 4 13:37 2019 Quant Results File: T1023W.RES

Quant Method : M:\THOR\DATA\T191023\T1023W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:55:52 2019
Response via : Initial Calibration
DataAcq Meth : T8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	6.59	96	123736	25.00	ppb	0.00
65) Chlorobenzene-D5 (IS)	9.74	117	117800	25.00	ppb	0.00
80) 1,4-Dichlorobenzene-D (IS)	12.06	152	63024	25.00	ppb	0.00
System Monitoring Compounds						
40) Dibromofluoromethane(S)	5.79	111	61205	25.66	ppb	0.00
Spiked Amount 25.000			Recovery = 102.648%			
45) 1,2-DCA-D4(S)	6.17	65	68626	25.70	ppb	0.00
Spiked Amount 25.000			Recovery = 102.788%			
66) Toluene-D8(S)	8.30	98	214919	24.43	ppb	0.00
Spiked Amount 25.000			Recovery = 97.724%			
74) 4-Bromofluorobenzene(S)	10.92	174	85506	24.55	ppb	0.00
Spiked Amount 25.000			Recovery = 98.208%			

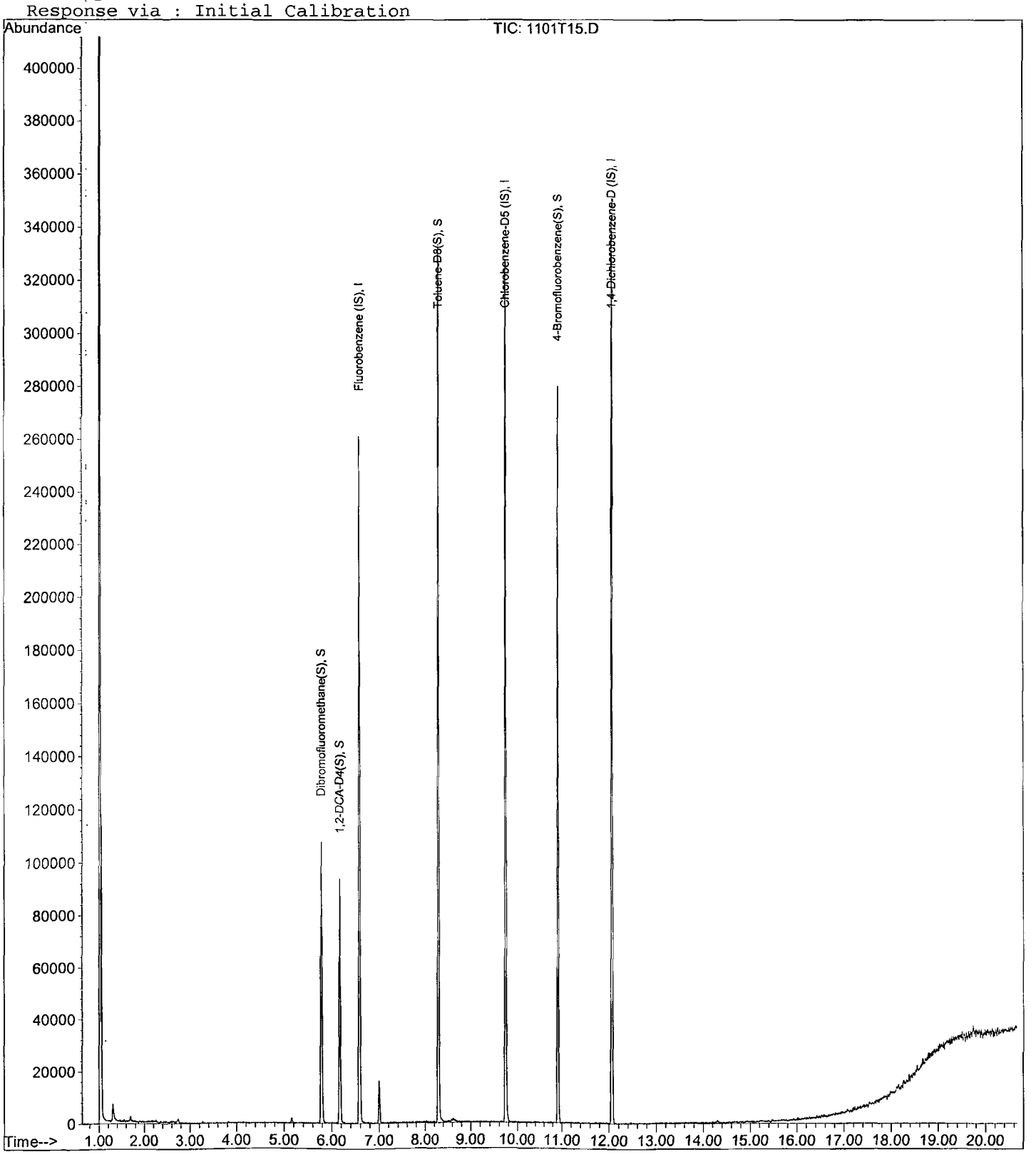
Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration

Data File : M:\THOR\DATA\T191028\1101T15.D Vial: 13
Acq On : 1 Nov 19 19:55 Operator:
Sample : 191101A BLK Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Nov 4 13:37 2019 Quant Results File: T1023W.RES

Method : M:\THOR\DATA\T191023\T1023W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:55:52 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\THOR\DATA\T191028\1101T05.D Vial: 3
Acq On : 1 Nov 19 15:11 Operator:
Sample : 191101A LCSD 10ug/L Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Nov 4 12:10 2019 Quant Results File: T1023W.RES

Quant Method : M:\THOR\DATA\T191023\T1023W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:55:52 2019
Response via : Initial Calibration
DataAcq Meth : T8260

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene (IS)	6.59	96	145024	25.00	ppb		0.00
65) Chlorobenzene-D5 (IS)	9.74	117	134720	25.00	ppb		0.00
80) 1,4-Dichlorobenzene-D (IS)	12.06	152	75120	25.00	ppb		0.00
System Monitoring Compounds							
40) Dibromofluoromethane(S)	5.79	111	65989	23.61	ppb		0.00
Spiked Amount 25.000			Recovery = 94.424%				
45) 1,2-DCA-D4(S)	6.17	65	72604	23.20	ppb		0.00
Spiked Amount 25.000			Recovery = 92.784%				
66) Toluene-D8(S)	8.30	98	231305	22.99	ppb		0.00
Spiked Amount 25.000			Recovery = 91.964%				
74) 4-Bromofluorobenzene(S)	10.91	174	92469	23.22	ppb		0.00
Spiked Amount 25.000			Recovery = 92.868%				
Target Compounds							Qvalue
3) Dichlorodifluoromethane	1.20	85	9980	7.42	ppb		99
4) Freon 114	1.32	85	6567	10.96	ppb		97
5) Chloromethane	1.36	50	11155	10.43	ppb		99
6) Vinyl chloride	1.46	62	8295	8.43	ppb		99
8) Bromomethane	1.75	96	4803	8.12	ppb		91
9) Chloroethane	1.85	64	5902	8.07	ppb		84
10) Dichlorofluoromethane	2.06	67	16908	9.47	ppb		90
11) Trichlorofluoromethane	2.12	101	15469	8.44	ppb		95
13) Acrolein	2.54	55	5137	92.54	ppb		85
14) Acetone	2.73	43	4325	12.11	ppb		99
15) Freon-113	2.69	101	6748	8.77	ppb	#	89
16) 1,1-DCE	2.66	61	11489	8.84	ppb		91
18) Acetonitrile	3.05	41	13213	111.83	ppb		98
19) t-Butanol	3.52	59	10450	108.56	ppb		93
20) Methyl Acetate	3.17	43	6309	9.58	ppb		97
21) Iodomethane	2.82	142	3542	6.83	ppb		90
22) Acrylonitrile	3.60	53	3019	9.09	ppb		82
23) Methylene chloride	3.27	49	11291	9.47	ppb		96
24) Carbon disulfide	2.89	76	22465	10.06	ppb		95
25) Methyl t-butyl ether (MtBE	3.72	73	26284	8.93	ppb	#	94
26) Trans-1,2-DCE	3.67	61	10992	8.65	ppb		95
28) Diisopropyl Ether	4.54	45	8539	7.73	ppb		95
30) 1,1-DCA	4.31	63	6238	8.44	ppb	#	96
31) Vinyl Acetate	4.54	87	8047	9.21	ppb		97
32) Ethyl tert Butyl Ether	5.05	59	25311	8.52	ppb		93
33) MEK (2-Butanone)	5.22	43	4006	10.60	ppb		94
34) Cis-1,2-DCE	5.16	61	15795	10.27	ppb		92
35) 2,2-Dichloropropane	5.14	77	6296	10.28	ppb		94
38) Chloroform	5.59	83	8966	8.89	ppb		96
39) Bromochloromethane	5.45	130	3957	9.14	ppb		90
41) 1,1,1-TCA	5.80	97	7987	9.37	ppb		91
42) Cyclohexane	5.87	84	10050	8.66	ppb	#	73
43) 1,1-Dichloropropene	6.01	75	10361	8.18	ppb		93
44) 2,2,4-Trimethylpentane	6.41	57	7797	8.81	ppb		96
46) Carbon Tetrachloride	6.01	119	14348	9.48	ppb		85
47) Tert Amyl Methyl Ether	6.45	73	27008	8.95	ppb		97
49) 1,2-DCA	6.26	62	7128	7.95	ppb		97
50) Benzene	6.25	78	35257	8.54	ppb		93
51) TCE	7.00	130	18477	14.43	ppb		94

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\THOR\DATA\T191028\1101T05.D Vial: 3
Acq On : 1 Nov 19 15:11 Operator:
Sample : 191101A LCSD 10ug/L Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Nov 4 12:10 2019 Quant Results File: T1023W.RES

Quant Method : M:\THOR\DATA\T191023\T1023W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:55:52 2019
Response via : Initial Calibration
DataAcq Meth : T8260

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
52)	2-Pentanone	7.22	43	71216	110.44	ppb		99
53)	1,2-Dichloropropane	7.23	63	9050	8.63	ppb		89
54)	Bromodichloromethane	7.53	83	13813	8.60	ppb		100
55)	Methyl Cyclohexane	7.22	83	11504	9.00	ppb		86
56)	Dibromomethane	7.34	174	9341	10.08	ppb		94
57)	MIBK (methyl isobutyl ket	9.05	43	2706	8.23	ppb		92
58)	1-Bromo-2-chloroethane	7.85	63	14201	10.51	ppb		97
60)	Cis-1,3-Dichloropropene	8.01	75	15153	9.02	ppb		98
61)	Toluene	8.36	91	39901	8.53	ppb		91
62)	Trans-1,3-Dichloropropene	8.59	75	9282	8.84	ppb		92
63)	1,1,2-TCA	8.77	97	9503	9.06	ppb		95
64)	2-Hexanone	8.20	43	4127	8.48	ppb		97
67)	1,2-EDB	9.25	107	5393	8.36	ppb		89
68)	Tetrachloroethene	8.92	166	13590	10.65	ppb		97
69)	1-Chlorohexane	9.77	91	9776	8.28	ppb		94
70)	1,1,1,2-Tetrachloroethane	9.86	131	12414	9.52	ppb		96
71)	m&p-Xylene	10.01	91	70406	18.04	ppb		100
72)	o-Xylene	10.40	91	35954	8.62	ppb		97
73)	Styrene	10.41	104	26112	8.83	ppb		97
75)	1,3-Dichloropropane	8.93	76	15133	9.01	ppb		92
76)	Dibromochloromethane	9.15	129	11854	9.06	ppb		97
77)	Chlorobenzene	9.77	112	18152	9.14	ppb		98
78)	Ethylbenzene	9.89	91	43282	8.89	ppb		99
79)	Bromoform	10.57	173	10305	9.79	ppb		93
81)	Isopropylbenzene	10.78	105	42188	9.14	ppb		98
82)	1,1,2,2-Tetrachloroethane	11.05	83	11862	9.78	ppb		98
83)	1,2,3-Trichloropropane	11.09	110	4204	10.22	ppb		95
84)	t-1,4-Dichloro-2-Butene	11.12	53	2288	9.31	ppb		92
85)	Bromobenzene	11.05	77	11327	9.42	ppb		90
86)	n-Propylbenzene	11.19	91	48050	9.37	ppb		99
87)	4-Ethyltoluene	11.30	105	41580	9.45	ppb		99
88)	2-Chlorotoluene	11.26	91	20501	9.64	ppb		98
89)	1,3,5-Trimethylbenzene	11.37	105	36729	9.39	ppb		99
90)	4-Chlorotoluene	11.37	91	23104	9.55	ppb		94
91)	Tert-Butylbenzene	11.69	119	31671	8.97	ppb		97
92)	1,2,4-Trimethylbenzene	11.74	105	36494	9.09	ppb		99
93)	Sec-Butylbenzene	11.91	105	40263	8.80	ppb		99
94)	p-Isopropyltoluene	12.06	119	36062	8.97	ppb		99
95)	Benzyl Chloride	12.22	91	8559	9.12	ppb		99
96)	1,3-DCB	12.00	146	15540	8.89	ppb		99
97)	1,4-DCB	12.09	146	24299	9.17	ppb		98
98)	n-Butylbenzene	12.46	91	28382	9.29	ppb		97
99)	1,2-DCB	12.45	146	15433	9.70	ppb		98
100)	Hexachloroethane	12.72	117	5097	10.43	ppb		91
101)	1,2-Dibromo-3-chloropropan	13.22	157	1887	10.93	ppb	#	76
102)	1,2,4-Trichlorobenzene	14.06	182	9848	10.32	ppb		96
103)	Hexachlorobutadiene	14.25	225	5664	9.69	ppb		90
104)	Naphthalene	14.30	128	24027	9.95	ppb		96
105)	1,2,3-Trichlorobenzene	14.54	182	12646	9.42	ppb		83

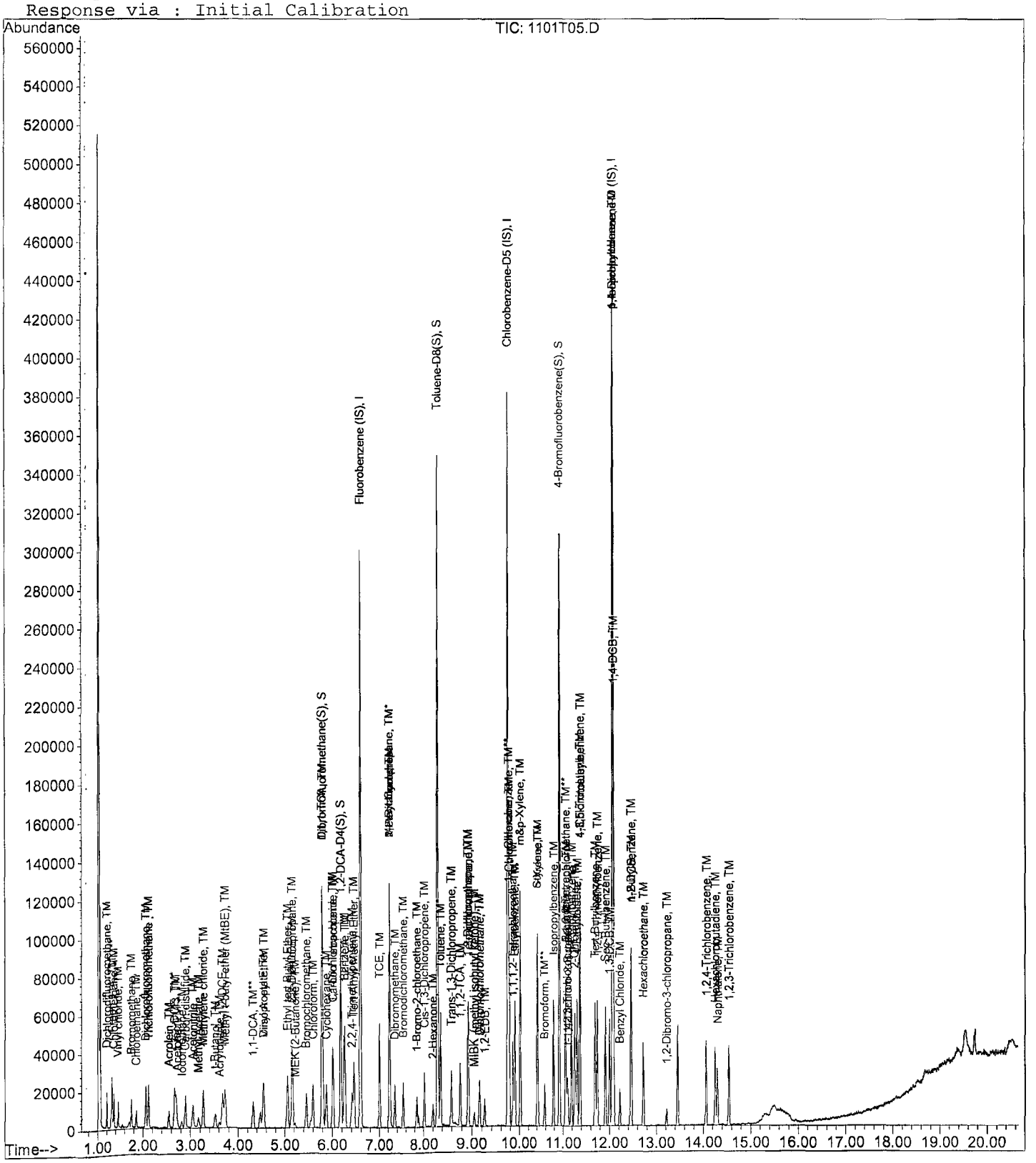
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\THOR\DATA\T191028\1101T05.D Vial: 3
Acq On : 1 Nov 19 15:11 Operator:
Sample : 191101A LCSD 10ug/L Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Nov 4 12:10 2019 Quant Results File: T1023W.RES

Method : M:\THOR\DATA\T191023\T1023W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:55:52 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\THOR\DATA\T191028\1101T40.D Vial: 38
Acq On : 2 Nov 19 7:41 Operator:
Sample : 191101B BLK Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Nov 4 13:44 2019 Quant Results File: T1023W.RES

Quant Method : M:\THOR\DATA\T191023\T1023W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:55:52 2019
Response via : Initial Calibration
DataAcq Meth : T8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	6.59	96	134144	25.00	ppb	0.00
65) Chlorobenzene-D5 (IS)	9.74	117	118384	25.00	ppb	0.00
80) 1,4-Dichlorobenzene-D (IS)	12.06	152	66672	25.00	ppb	0.00
System Monitoring Compounds						
40) Dibromofluoromethane(S)	5.78	111	60076	23.23	ppb	0.00
Spiked Amount 25.000			Recovery = 92.936%			
45) 1,2-DCA-D4(S)	6.17	65	67793	23.42	ppb	0.00
Spiked Amount 25.000			Recovery = 93.664%			
66) Toluene-D8(S)	8.30	98	214506	24.26	ppb	0.00
Spiked Amount 25.000			Recovery = 97.052%			
74) 4-Bromofluorobenzene(S)	10.92	174	82974	23.71	ppb	0.00
Spiked Amount 25.000			Recovery = 94.832%			

Target Compounds Qvalue

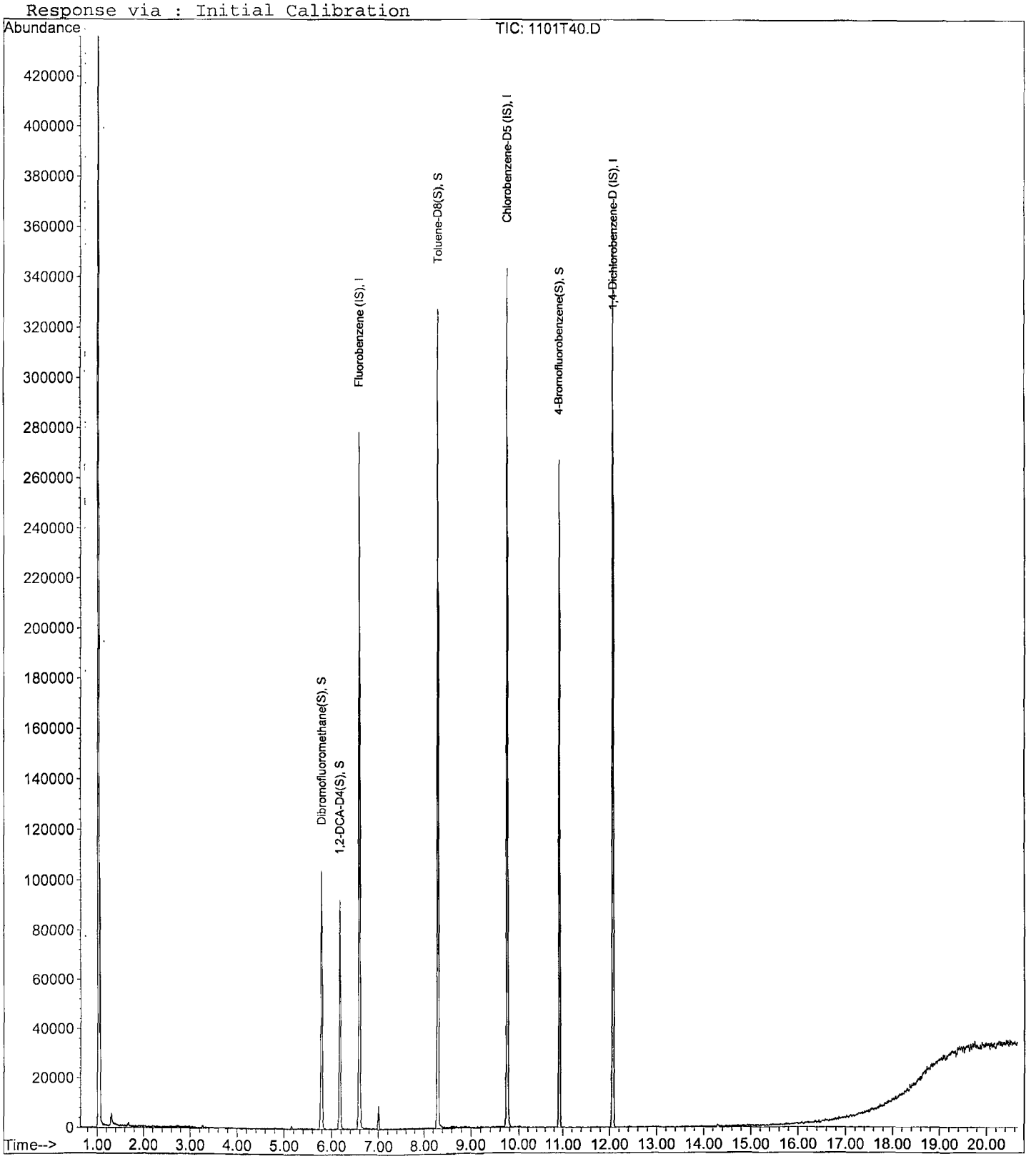
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\THOR\DATA\T191028\1101T40.D Vial: 38
Acq On : 2 Nov 19 7:41 Operator:
Sample : 191101B BLK Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Nov 4 13:44 2019 Quant Results File: T1023W.RES

Method : M:\THOR\DATA\T191023\T1023W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:55:52 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\THOR\DATA\T191028\1101T32.D Vial: 30
Acq On : 2 Nov 19 3:55 Operator:
Sample : 191101B LCS 10ug/L Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Nov 4 12:10 2019 Quant Results File: T1023W.RES

Quant Method : M:\THOR\DATA\T191023\T1023W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:55:52 2019
Response via : Initial Calibration
DataAcq Meth : T8260

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene (IS)	6.59	96	130328	25.00	ppb		0.00
65) Chlorobenzene-D5 (IS)	9.74	117	114384	25.00	ppb		0.00
80) 1,4-Dichlorobenzene-D (IS)	12.06	152	68736	25.00	ppb		0.00
System Monitoring Compounds							
40) Dibromofluoromethane(S)	5.78	111	61123	24.33	ppb		0.00
Spiked Amount 25.000			Recovery = 97.324%				
45) 1,2-DCA-D4(S)	6.17	65	68505	24.35	ppb		0.00
Spiked Amount 25.000			Recovery = 97.416%				
66) Toluene-D8(S)	8.29	98	218540	25.58	ppb		0.00
Spiked Amount 25.000			Recovery = 102.336%				
74) 4-Bromofluorobenzene(S)	10.92	174	87489	25.87	ppb		0.00
Spiked Amount 25.000			Recovery = 103.488%				
Target Compounds							Qvalue
3) Dichlorodifluoromethane	1.20	85	10250	8.48	ppb		99
4) Freon 114	1.32	85	6788	12.81	ppb		95
5) Chloromethane	1.36	50	10275	10.72	ppb		95
6) Vinyl chloride	1.46	62	8037	9.09	ppb		94
8) Bromomethane	1.75	96	5081	9.61	ppb		96
9) Chloroethane	1.86	64	6778	10.73	ppb		96
10) Dichlorofluoromethane	2.06	67	15776	9.83	ppb		93
11) Trichlorofluoromethane	2.11	101	15869	9.64	ppb		97
13) Acrolein	2.54	55	4471	89.63	ppb		82
14) Acetone	2.73	43	3233	10.07	ppb	#	87
15) Freon-113	2.69	101	7325	10.78	ppb		91
16) 1,1-DCE	2.66	61	10947	9.38	ppb		95
18) Acetonitrile	3.05	41	10304	96.61	ppb	#	95
19) t-Butanol	3.52	59	7660	88.55	ppb		97
20) Methyl Acetate	3.17	43	4845	7.97	ppb		98
21) Iodomethane	2.82	142	3162	6.81	ppb		99
22) Acrylonitrile	3.60	53	2496	8.36	ppb	#	76
23) Methylene chloride	3.26	49	10628	9.99	ppb		94
24) Carbon disulfide	2.89	76	21392	10.68	ppb		97
25) Methyl t-butyl ether (MtBE	3.72	73	23509	8.89	ppb	#	94
26) Trans-1,2-DCE	3.67	61	11061	9.69	ppb		90
28) Diisopropyl Ether	4.53	45	8643	8.71	ppb		94
30) 1,1-DCA	4.32	63	6216	9.50	ppb		98
31) Vinyl Acetate	4.53	87	7700	9.85	ppb		100
32) Ethyl tert Butyl Ether	5.05	59	22591	8.46	ppb		91
33) MEK (2-Butanone)	5.21	43	2702	7.96	ppb		95
34) Cis-1,2-DCE	5.15	61	13775	9.96	ppb		97
35) 2,2-Dichloropropane	5.15	77	5059	9.15	ppb		93
38) Chloroform	5.59	83	8682	9.58	ppb		96
39) Bromochloromethane	5.45	130	3742	9.62	ppb		96
41) 1,1,1-TCA	5.80	97	7917	10.44	ppb		96
42) Cyclohexane	5.88	84	9417	9.03	ppb		79
43) 1,1-Dichloropropene	6.01	75	10527	9.24	ppb		93
44) 2,2,4-Trimethylpentane	6.41	57	6106	7.63	ppb		94
46) Carbon Tetrachloride	6.01	119	13497	9.96	ppb		93
47) Tert Amyl Methyl Ether	6.45	73	23222	8.56	ppb		94
49) 1,2-DCA	6.26	62	7141	9.00	ppb		98
50) Benzene	6.25	78	34163	9.21	ppb		99
51) TCE	7.00	130	14306	12.43	ppb		94

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\THOR\DATA\T191028\1101T32.D Vial: 30
Acq On : 2 Nov 19 3:55 Operator:
Sample : 191101B LCS 10ug/L Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Nov 4 12:10 2019 Quant Results File: T1023W.RES

Quant Method : M:\THOR\DATA\T191023\T1023W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:55:52 2019
Response via : Initial Calibration
DataAcq Meth : T8260

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
52)	2-Pentanone	7.22	43	55066	95.02	ppb		100
53)	1,2-Dichloropropane	7.23	63	8873	9.41	ppb	#	98
54)	Bromodichloromethane	7.53	83	13127	9.10	ppb	#	95
55)	Methyl Cyclohexane	7.22	83	10403	9.05	ppb		98
56)	Dibromomethane	7.34	174	7837	9.38	ppb		93
57)	MIBK (methyl isobutyl ket	9.04	43	1939	6.67	ppb	#	83
58)	1-Bromo-2-chloroethane	7.85	63	11010	9.06	ppb		99
60)	Cis-1,3-Dichloropropene	8.01	75	13154	8.72	ppb		96
61)	Toluene	8.36	91	37705	8.97	ppb		94
62)	Trans-1,3-Dichloropropene	8.59	75	8105	8.59	ppb		95
63)	1,1,2-TCA	8.77	97	9380	9.95	ppb		97
64)	2-Hexanone	8.20	43	3250	7.51	ppb		94
67)	1,2-EDB	9.26	107	4900	8.95	ppb		95
68)	Tetrachloroethene	8.92	166	12357	11.40	ppb		96
69)	1-Chlorohexane	9.77	91	9388	9.41	ppb		95
70)	1,1,1,2-Tetrachloroethane	9.85	131	10821	9.78	ppb		89
71)	m&p-Xylene	10.02	91	65010	19.62	ppb		100
72)	o-Xylene	10.41	91	33702	9.52	ppb		100
73)	Styrene	10.41	104	23492	9.35	ppb		99
75)	1,3-Dichloropropane	8.93	76	13171	9.23	ppb		98
76)	Dibromochloromethane	9.15	129	11103	10.01	ppb		96
77)	Chlorobenzene	9.77	112	17368	10.30	ppb		98
78)	Ethylbenzene	9.89	91	38771	9.38	ppb		100
79)	Bromoform	10.58	173	9025	10.09	ppb		92
81)	Isopropylbenzene	10.78	105	39118	9.26	ppb		98
82)	1,1,2,2-Tetrachloroethane	11.05	83	9374	8.44	ppb		97
83)	1,2,3-Trichloropropane	11.09	110	3647	9.63	ppb		89
84)	t-1,4-Dichloro-2-Butene	11.11	53	1769	7.74	ppb		91
85)	Bromobenzene	11.06	77	10124	9.20	ppb		87
86)	n-Propylbenzene	11.19	91	42593	9.07	ppb		99
87)	4-Ethyltoluene	11.31	105	36719	9.12	ppb		97
88)	2-Chlorotoluene	11.26	91	19328	9.93	ppb		96
89)	1,3,5-Trimethylbenzene	11.37	105	33395	9.33	ppb		95
90)	4-Chlorotoluene	11.37	91	21376	9.65	ppb		93
91)	Tert-Butylbenzene	11.69	119	29840	9.23	ppb		99
92)	1,2,4-Trimethylbenzene	11.74	105	32964	8.98	ppb		94
93)	Sec-Butylbenzene	11.91	105	37722	9.01	ppb		98
94)	p-Isopropyltoluene	12.06	119	33034	8.98	ppb		97
95)	Benzyl Chloride	12.22	91	6084	7.08	ppb		95
96)	1,3-DCB	12.00	146	14481	9.05	ppb		98
97)	1,4-DCB	12.09	146	23408	9.66	ppb		97
98)	n-Butylbenzene	12.47	91	24872	8.90	ppb		97
99)	1,2-DCB	12.45	146	13677	9.39	ppb		94
100)	Hexachloroethane	12.72	117	4339	9.70	ppb		90
101)	1,2-Dibromo-3-chloropropan	13.22	157	1434	9.01	ppb	#	76
102)	1,2,4-Trichlorobenzene	14.06	182	7704	8.82	ppb		99
103)	Hexachlorobutadiene	14.25	225	5422	10.14	ppb		97
104)	Naphthalene	14.30	128	17587	7.96	ppb		96
105)	1,2,3-Trichlorobenzene	14.54	182	11045	8.99	ppb	#	82

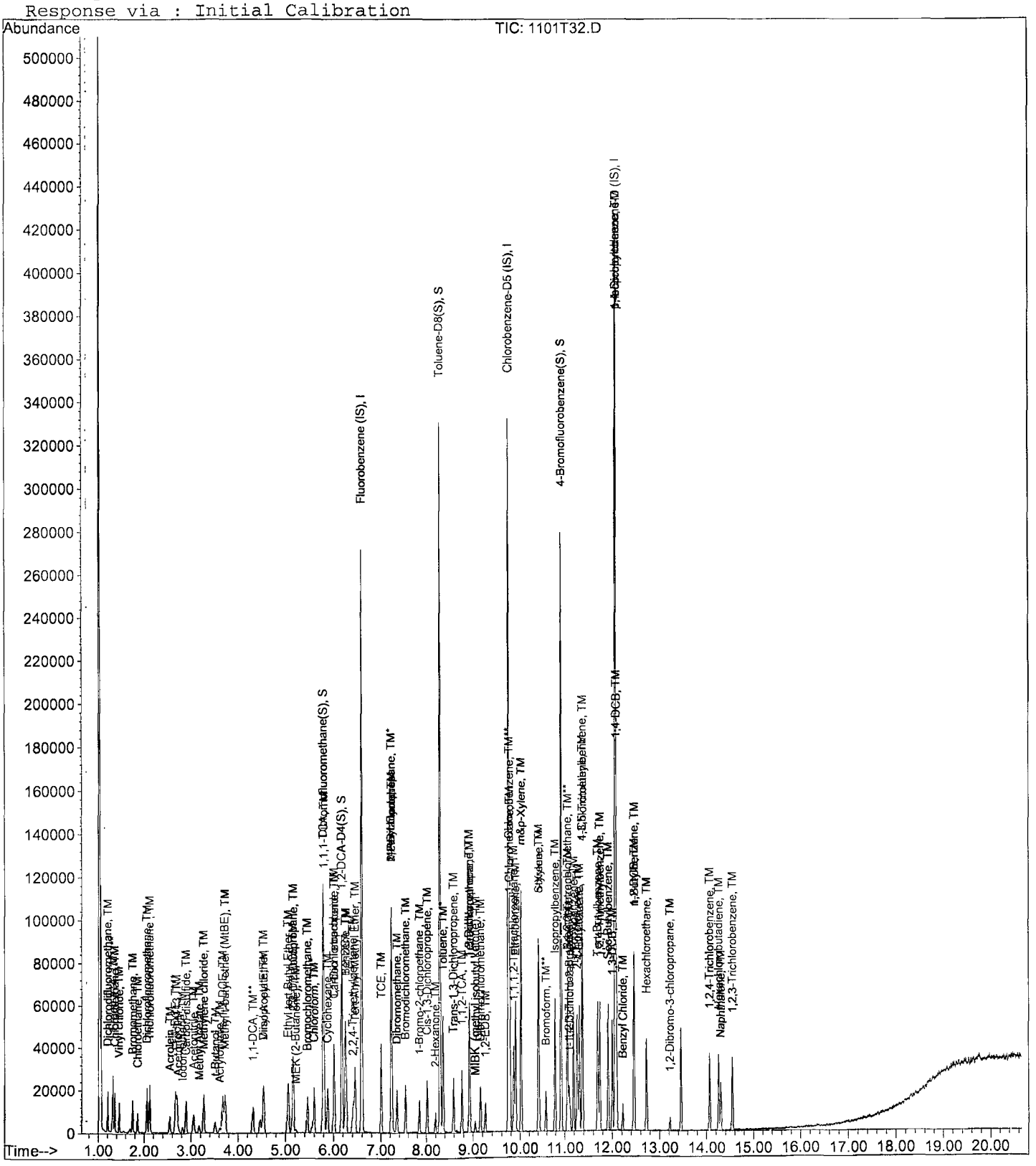
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\THOR\DATA\T191028\1101T32.D Vial: 30
Acq On : 2 Nov 19 3:55 Operator:
Sample : 191101B LCS 10ug/L Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Nov 4 12:10 2019 Quant Results File: T1023W.RES

Method : M:\THOR\DATA\T191023\T1023W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:55:52 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\THOR\DATA\T191028\1101T33.D Vial: 31
Acq On : 2 Nov 19 4:23 Operator:
Sample : 191101B LCSD 10ug/L Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Nov 4 12:10 2019 Quant Results File: T1023W.RES

Quant Method : M:\THOR\DATA\T191023\T1023W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:55:52 2019
Response via : Initial Calibration
DataAcq Meth : T8260

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene (IS)	6.59	96	138752	25.00	ppb		0.00
65) Chlorobenzene-D5 (IS)	9.74	117	128328	25.00	ppb		0.00
80) 1,4-Dichlorobenzene-D (IS)	12.06	152	74504	25.00	ppb		0.00
System Monitoring Compounds							
40) Dibromofluoromethane(S)	5.78	111	61542	23.01	ppb		0.00
Spiked Amount 25.000			Recovery = 92.044%				
45) 1,2-DCA-D4(S)	6.17	65	67608	22.58	ppb		0.00
Spiked Amount 25.000			Recovery = 90.304%				
66) Toluene-D8(S)	8.29	98	216668	22.61	ppb		0.00
Spiked Amount 25.000			Recovery = 90.436%				
74) 4-Bromofluorobenzene(S)	10.92	174	89376	23.56	ppb		0.00
Spiked Amount 25.000			Recovery = 94.232%				
Target Compounds							Qvalue
3) Dichlorodifluoromethane	1.20	85	9792	7.61	ppb		95
4) Freon 114	1.32	85	6026	10.46	ppb		91
5) Chloromethane	1.36	50	10755	10.52	ppb		94
6) Vinyl chloride	1.46	62	7538	8.01	ppb		92
8) Bromomethane	1.75	96	4882	8.64	ppb		92
9) Chloroethane	1.86	64	6157	8.94	ppb		94
10) Dichlorofluoromethane	2.06	67	15253	8.93	ppb		91
11) Trichlorofluoromethane	2.12	101	16016	9.13	ppb		97
13) Acrolein	2.54	55	4291	80.80	ppb		95
14) Acetone	2.73	43	3035	8.88	ppb		96
15) Freon-113	2.70	101	7347	10.11	ppb	#	90
16) 1,1-DCE	2.67	61	11156	8.98	ppb		98
18) Acetonitrile	3.05	41	10905	96.02	ppb	#	95
19) t-Butanol	3.51	59	7483	81.25	ppb		93
20) Methyl Acetate	3.17	43	4910	7.52	ppb		94
21) Iodomethane	2.82	142	3786	7.24	ppb		97
22) Acrylonitrile	3.61	53	2517	7.92	ppb	#	71
23) Methylene chloride	3.27	49	10869	9.54	ppb		96
24) Carbon disulfide	2.89	76	20950	9.81	ppb		96
25) Methyl t-butyl ether (MtBE	3.72	73	23741	8.38	ppb		98
26) Trans-1,2-DCE	3.67	61	11218	9.23	ppb		98
28) Diisopropyl Ether	4.54	45	8328	7.88	ppb		96
30) 1,1-DCA	4.31	63	5946	8.40	ppb		97
31) Vinyl Acetate	4.54	87	7549	9.02	ppb		96
32) Ethyl tert Butyl Ether	5.05	59	23461	8.25	ppb		93
33) MEK (2-Butanone)	5.21	43	2799	7.74	ppb	#	72
34) Cis-1,2-DCE	5.16	61	13792	9.37	ppb		91
35) 2,2-Dichloropropane	5.15	77	5159	8.75	ppb		96
38) Chloroform	5.59	83	8378	8.68	ppb		95
39) Bromochloromethane	5.46	130	3541	8.55	ppb		91
41) 1,1,1-TCA	5.80	97	7275	8.87	ppb		92
42) Cyclohexane	5.87	84	9766	8.79	ppb		84
43) 1,1-Dichloropropene	6.01	75	11305	9.32	ppb		94
44) 2,2,4-Trimethylpentane	6.40	57	6565	7.71	ppb		93
46) Carbon Tetrachloride	6.01	119	13848	9.57	ppb		77
47) Tert Amyl Methyl Ether	6.45	73	22857	7.91	ppb		99
49) 1,2-DCA	6.26	62	7278	8.56	ppb		99
50) Benzene	6.24	78	34416	8.72	ppb		97
51) TCE	7.00	130	13639	11.14	ppb		93

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\THOR\DATA\T191028\1101T33.D Vial: 31
Acq On : 2 Nov 19 4:23 Operator:
Sample : 191101B LCSD 10ug/L Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Nov 4 12:10 2019 Quant Results File: T1023W.RES

Quant Method : M:\THOR\DATA\T191023\T1023W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:55:52 2019
Response via : Initial Calibration
DataAcq Meth : T8260

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
52)	2-Pentanone	7.22	43	55538	90.02	ppb		98
53)	1,2-Dichloropropane	7.22	63	8359	8.33	ppb		97
54)	Bromodichloromethane	7.53	83	13583	8.84	ppb		91
55)	Methyl Cyclohexane	7.22	83	10683	8.73	ppb		96
56)	Dibromomethane	7.34	174	8132	9.13	ppb		95
57)	MIBK (methyl isobutyl ket	9.04	43	2041	6.60	ppb		90
58)	1-Bromo-2-chloroethane	7.84	63	10878	8.41	ppb		97
60)	Cis-1,3-Dichloropropene	8.01	75	13090	8.15	ppb		98
61)	Toluene	8.36	91	39065	8.73	ppb		96
62)	Trans-1,3-Dichloropropene	8.59	75	8182	8.15	ppb		86
63)	1,1,2-TCA	8.77	97	8341	8.31	ppb		98
64)	2-Hexanone	8.20	43	3214	7.02	ppb		91
67)	1,2-EDB	9.26	107	5161	8.40	ppb		91
68)	Tetrachloroethene	8.92	166	12518	10.30	ppb		96
69)	1-Chlorohexane	9.77	91	9153	8.13	ppb		94
70)	1,1,1,2-Tetrachloroethane	9.85	131	11171	9.00	ppb		94
71)	m&p-Xylene	10.01	91	65573	17.64	ppb		98
72)	o-Xylene	10.40	91	33322	8.39	ppb		97
73)	Styrene	10.41	104	24035	8.53	ppb		95
75)	1,3-Dichloropropane	8.93	76	13557	8.47	ppb		98
76)	Dibromochloromethane	9.15	129	10788	8.66	ppb		96
77)	Chlorobenzene	9.77	112	16896	8.93	ppb		97
78)	Ethylbenzene	9.89	91	40997	8.84	ppb		99
79)	Bromoform	10.57	173	8768	8.76	ppb		95
81)	Isopropylbenzene	10.78	105	39164	8.56	ppb		95
82)	1,1,2,2-Tetrachloroethane	11.05	83	9588	7.97	ppb		98
83)	1,2,3-Trichloropropane	11.09	110	3604	8.68	ppb		93
84)	t-1,4-Dichloro-2-Butene	11.12	53	1615	6.39	ppb		90
85)	Bromobenzene	11.06	77	10979	9.21	ppb		91
86)	n-Propylbenzene	11.19	91	42738	8.40	ppb		97
87)	4-Ethyltoluene	11.30	105	38027	8.71	ppb		99
88)	2-Chlorotoluene	11.26	91	17992	8.53	ppb		94
89)	1,3,5-Trimethylbenzene	11.37	105	34027	8.77	ppb		98
90)	4-Chlorotoluene	11.37	91	22744	9.48	ppb		97
91)	Tert-Butylbenzene	11.69	119	31018	8.86	ppb		96
92)	1,2,4-Trimethylbenzene	11.74	105	34087	8.56	ppb		98
93)	Sec-Butylbenzene	11.91	105	38367	8.45	ppb		97
94)	p-Isopropyltoluene	12.06	119	33768	8.47	ppb		98
95)	Benzyl Chloride	12.22	91	6073	6.52	ppb		96
96)	1,3-DCB	12.00	146	14851	8.56	ppb		92
97)	1,4-DCB	12.09	146	24168	9.20	ppb		98
98)	n-Butylbenzene	12.46	91	25399	8.38	ppb		95
99)	1,2-DCB	12.45	146	14890	9.44	ppb		96
100)	Hexachloroethane	12.72	117	4721	9.74	ppb		98
101)	1,2-Dibromo-3-chloropropan	13.22	157	1292	7.42	ppb		84
102)	1,2,4-Trichlorobenzene	14.06	182	8712	9.20	ppb		97
103)	Hexachlorobutadiene	14.25	225	4806	8.29	ppb		91
104)	Naphthalene	14.30	128	19959	8.34	ppb		99
105)	1,2,3-Trichlorobenzene	14.54	182	12486	9.38	ppb	#	85

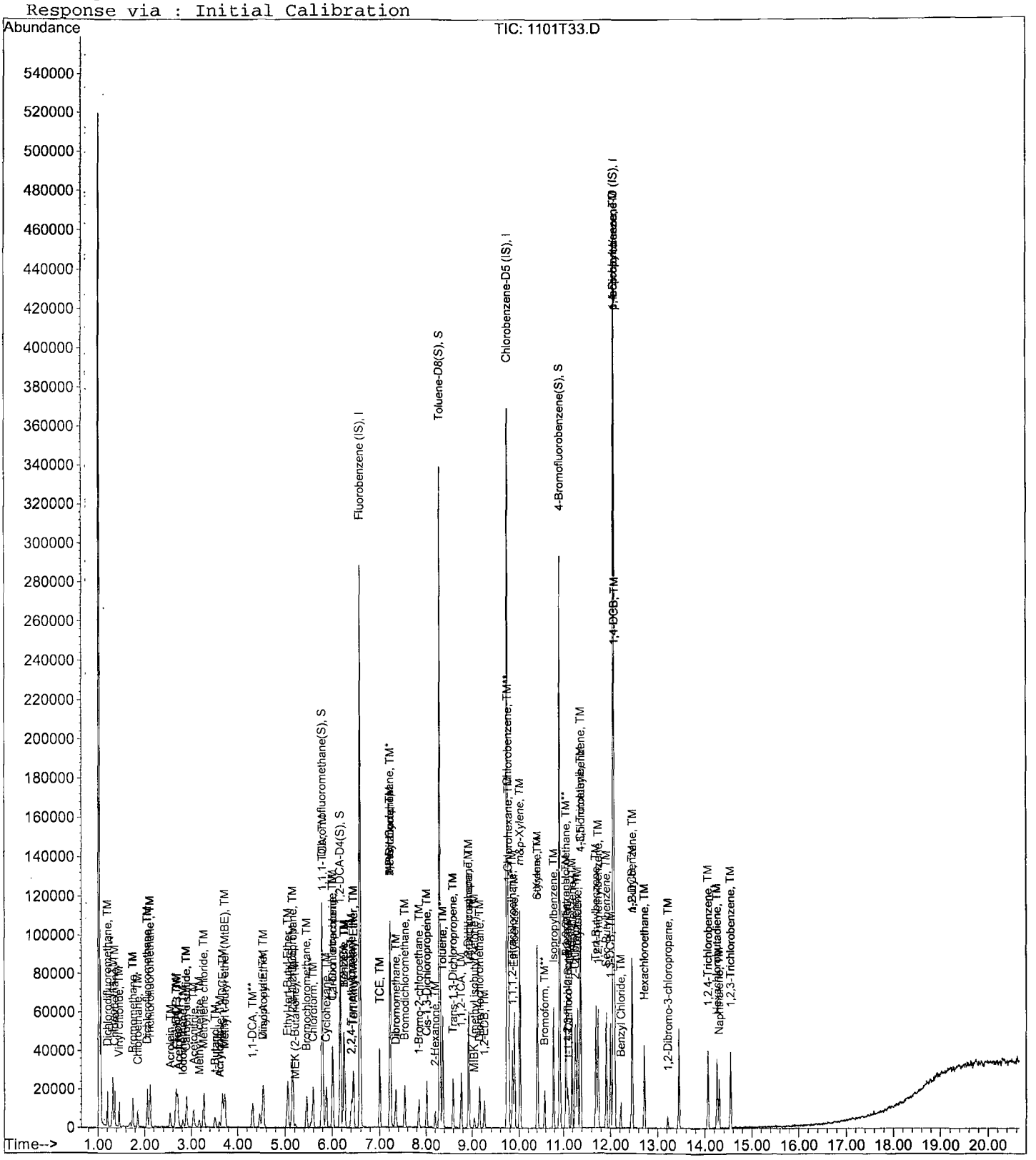
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\THOR\DATA\T191028\1101T33.D Vial: 31
Acq On : 2 Nov 19 4:23 Operator:
Sample : 191101B LCSD 10ug/L Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

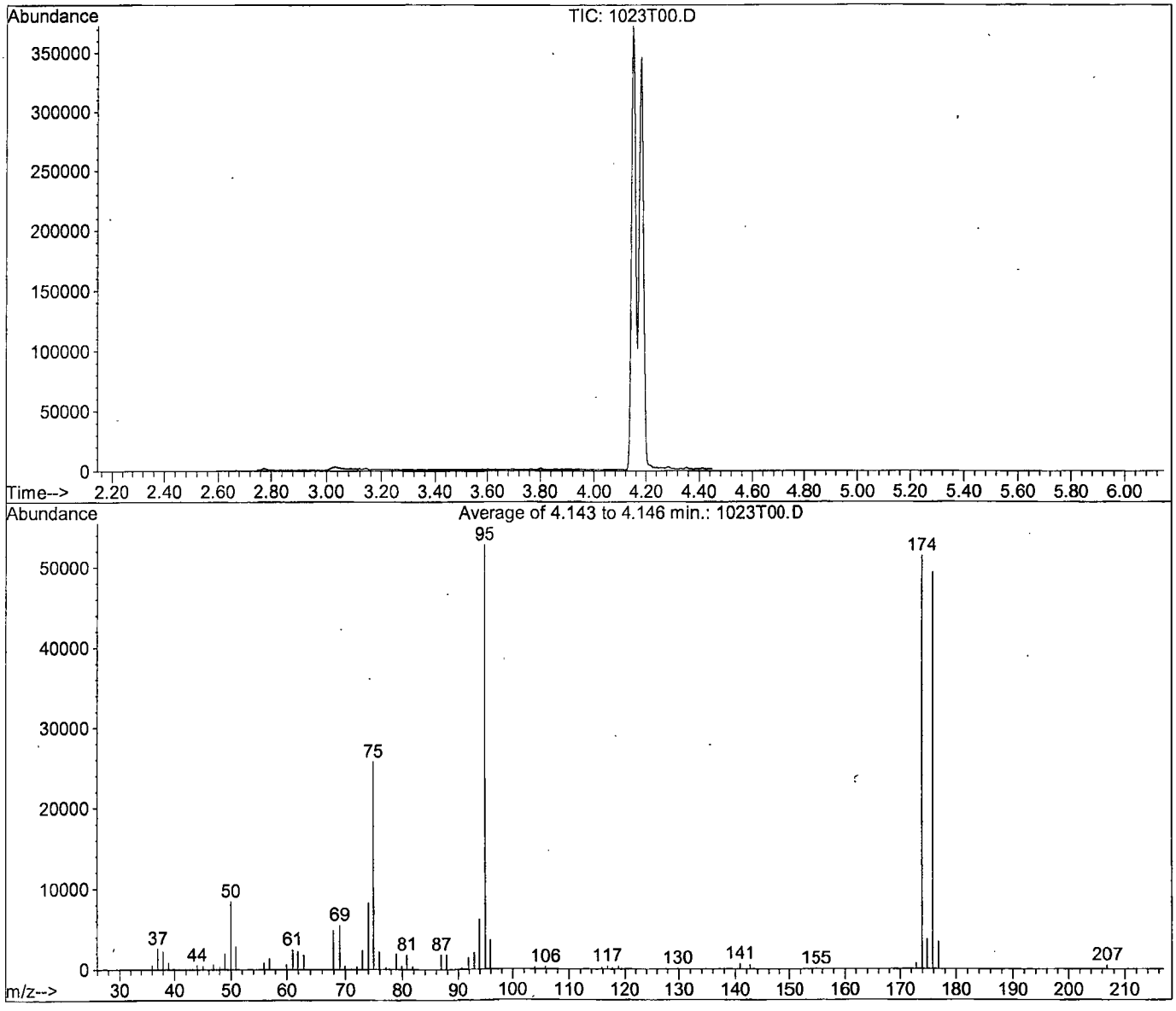
Quant Time: Nov 4 12:10 2019 Quant Results File: T1023W.RES

Method : M:\THOR\DATA\T191023\T1023W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:55:52 2019
Response via : Initial Calibration



Data File : M:\THOR\DATA\T191023\1023T00.D Vial: 1
Acq On : 23 Oct 19 16:48 Operator:
Sample : 25ug/L BFBSTD 10/10/19 Inst : Thor
Misc : 2ul BFB Multiplr: 1.00

Method : M:\THOR\DATA\T191023\T1023W.M (RTE Integrator)
Title : METHOD 8260B



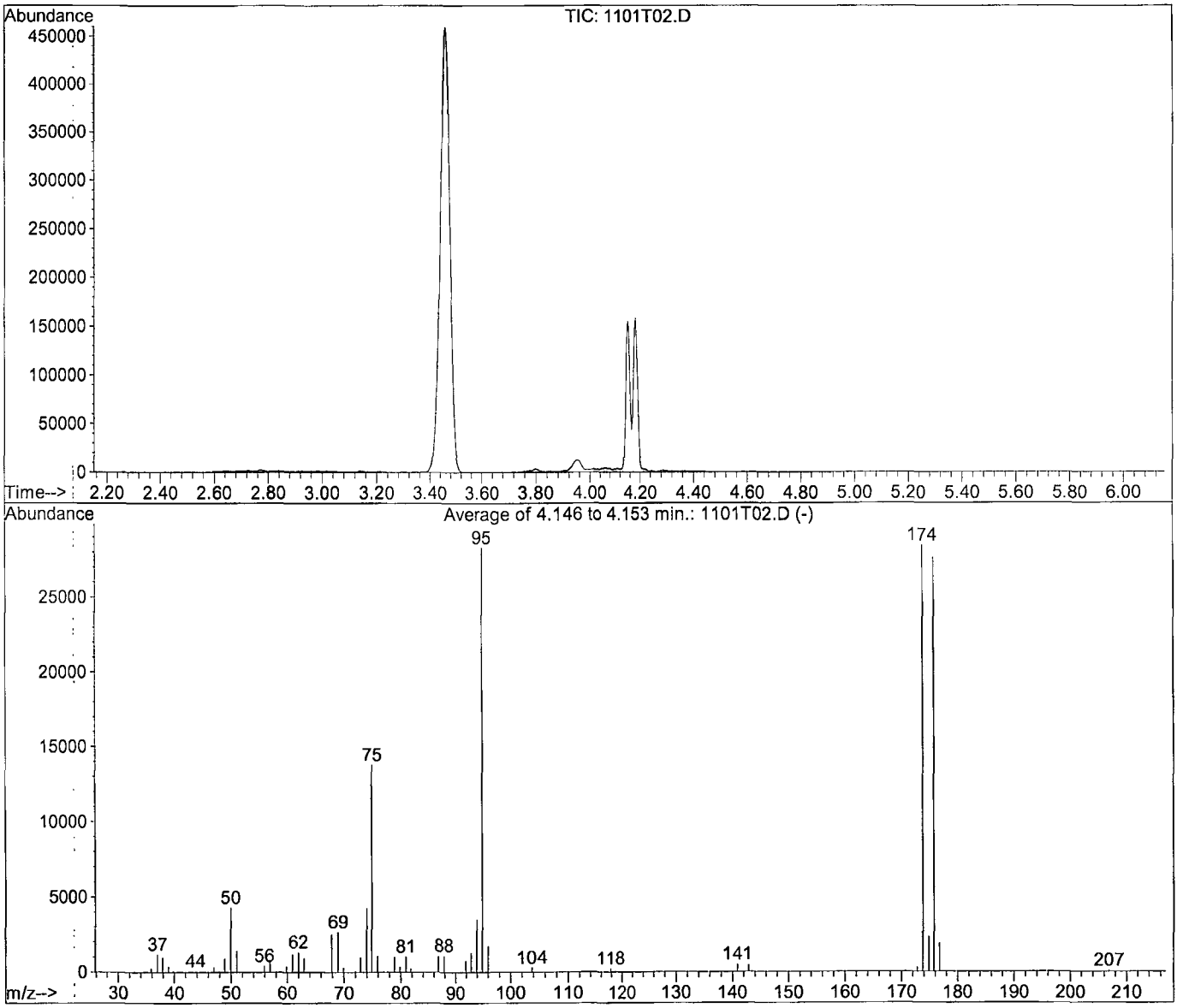
Spectrum Information: Average of 4.143 to 4.146 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	16.1	8507	PASS
75	95	30	60	48.8	25764	PASS
95	95	100	100	100.0	52848	PASS
96	95	5	9	7.0	3705	PASS
173	174	0.00	2	1.5	760	PASS
174	95	50	200	97.4	51468	PASS
175	174	5	9	7.4	3817	PASS
176	174	95	101	95.9	49368	PASS
177	176	5	9	7.0	3443	PASS

1023T00.D T1023W.M Thu Oct 24 10:02:33 2019

Data File : M:\THOR\DATA\T191028\1101T02.D Vial: 1
Acq On : 1 Nov 19 13:52 Operator:
Sample : 25ug/L BFBSTD 9/24/19 Inst : Thor
Misc : 2ul Multiplr: 1.00

Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C



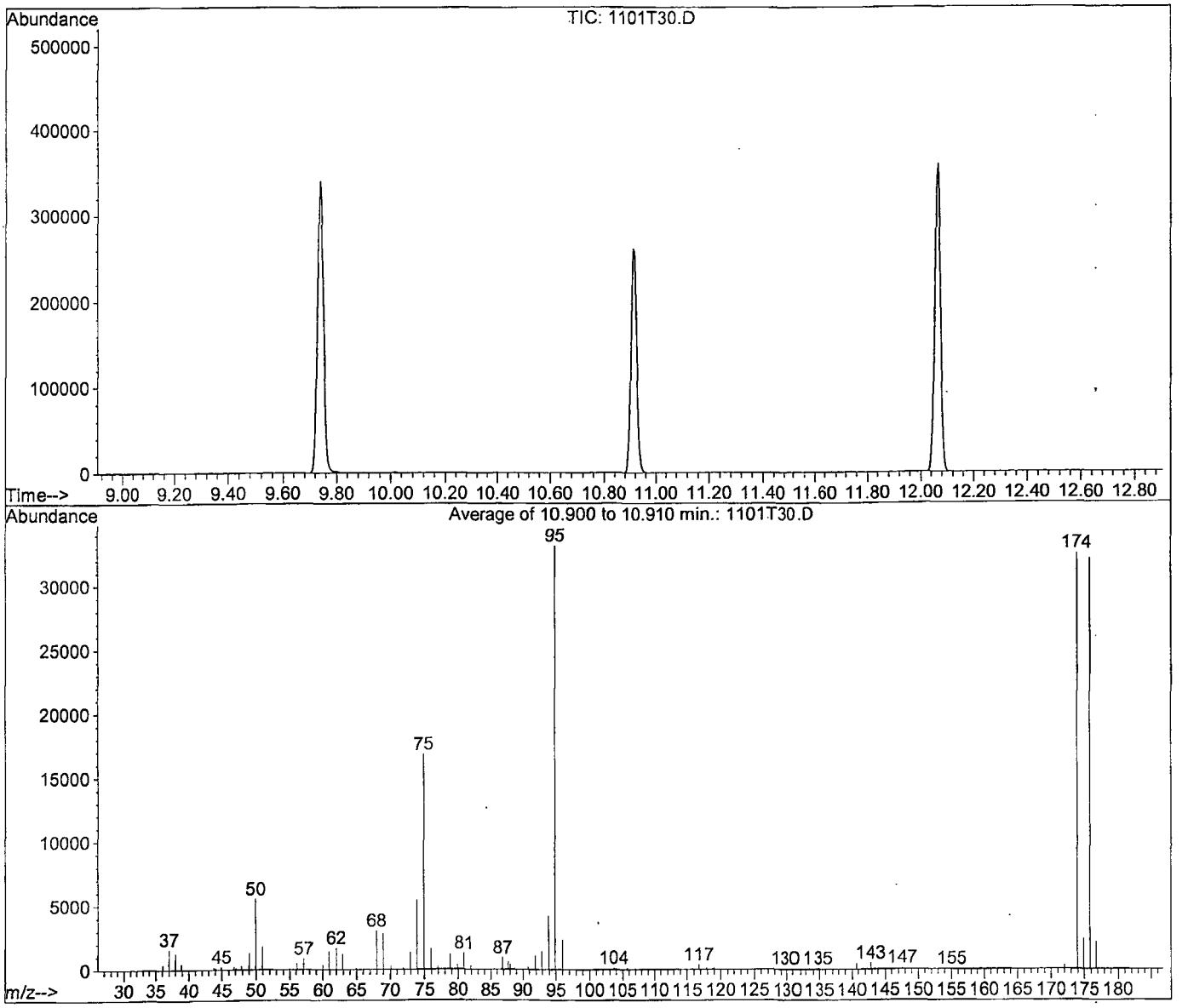
Spectrum Information: Average of 4.146 to 4.153 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	15.1	4281	PASS
75	95	30	60	48.7	13778	PASS
95	95	100	100	100.0	28280	PASS
96	95	5	9	6.1	1730	PASS
173	174	0.00	2	0.9	265	PASS
174	95	50	200	100.5	28408	PASS
175	174	5	9	8.1	2292	PASS
176	174	95	101	97.2	27605	PASS
177	176	5	9	6.7	1853	PASS

1101T02.D Y1121ND.M Wed Dec 04 11:32:26 2019

Data File : M:\THOR\DATA\T191028\1101t30.D Vial: 28
Acq On : 2 Nov 19 2:59 Operator:
Sample : 25ug/L BFBSTD 9/24/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Method : M:\THOR\DATA\T191028\T1023W.M (RTE Integrator)
Title : METHOD 8260B



Spectrum Information: Average of 10.900 to 10.910 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	16.6	5511	PASS
75	95	30	60	50.7	16806	PASS
95	95	100	100	100.0	33150	PASS
96	95	5	9	7.0	2319	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	200	98.0	32476	PASS
175	174	5	9	7.2	2354	PASS
176	174	95	101	98.8	32080	PASS
177	176	5	9	6.5	2088	PASS

Injection Log

Directory: M:\THOR\DATA\T191023\

Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1023T00.D	1	25ug/L BFBSTD 10/10/19	2ul BFB	23 Oct 19 16:48
6	1023T06.D	1	0.3ug/L VOC STD 10/23/19	IS&S 9/23/19	23 Oct 19 19:32
7	1023T07.D	1	0.5ug/L VOC STD 10/23/19	IS&S 9/23/19	23 Oct 19 20:01
8	1023T08.D	1	1.0ug/L VOC STD 10/23/19	IS&S 9/23/19	23 Oct 19 20:29
9	1023T09.D	1	2.0ug/L VOC STD 10/23/19	IS&S 9/23/19	23 Oct 19 20:58
10	1023T10.D	1	5.0ug/L VOC STD 10/23/19	IS&S 9/23/19	23 Oct 19 21:26
11	1023T11.D	1	10ug/L VOC STD 10/23/19	IS&S 9/23/19	23 Oct 19 21:55
12	1023T12.D	1	20ug/L VOC STD 10/23/19	IS&S 9/23/19	23 Oct 19 22:23
13	1023T13.D	1	40ug/L VOC STD 10/23/19	IS&S 9/23/19	23 Oct 19 22:52
14	1023T14.D	1	100ug/L VOC STD 10/23/19	IS&S 9/23/19	23 Oct 19 23:20
16	1023T16.D	1	(SS)10ug/L VOC STD 10/23/19	IS&S 9/23/19	24 Oct 19 00:17
1	1101T02.D	1	25ug/L BFBSTD 9/24/19	2ul	1 Nov 19 13:52
2	1101T04.D	1	191101A CCV/LCS 10ug/L	IS&S 9/23/19	1 Nov 19 14:42
3	1101T05.D	1	191101A LCSD 10ug/L	IS&S 9/23/19	1 Nov 19 15:11
13	1101T15.D	1	191101A BLK	IS&S 9/23/19	1 Nov 19 19:55
22	1101T24.D	1	BA02091W01	IS&S 9/23/19	2 Nov 19 00:09
25	1101T27.D	1	Ending CCV 10ug/L 11/1/19	IS&S 9/23/19	2 Nov 19 1:34
28	1101T30.D	1	25ug/L BFBSTD 9/24/19	IS&S 9/23/19	2 Nov 19 2:59
29	1101T31.D	1	191101B CCV 10ug/L	IS&S 9/23/19	2 Nov 19 3:27
30	1101T32.D	1	191101B LCS 10ug/L	IS&S 9/23/19	2 Nov 19 3:55
31	1101T33.D	1	191101B LCSD 10ug/L	IS&S 9/23/19	2 Nov 19 4:23
38	1101T40.D	1	191101B BLK	IS&S 9/23/19	2 Nov 19 7:41
40	1101T42.D	1	BA02089W01	IS&S 9/23/19	2 Nov 19 8:37
45	1101T47.D	1	BA02090W01	IS&S 9/23/19	2 Nov 19 10:59
52	1101T54.D	1	Ending CCV 10ug/L 11/1/19	IS&S 9/23/19	2 Nov 19 14:17

ORGANICS
Calibration Data

VOLATILE ORGANIC ANALYSIS
VOLATILE ORGANIC COMPOUNDS

Form 6
Initial Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Initial Cal. Date: 10/24/19
Matrix: Instrument: Thor Initials: DP

			1023T06 D	1023T07.D	1023T08 D	1023T09 D	1023T10.D	1023T11.D	1023T12.D	1023T13.D	1023T14 D							
		Compound	1	2	3	4	5	6	7	8	9		Avg	%RSD	Type	r^2	Q	MRF
1	I	Fluorobenzene (IS)																
2	S	Dibromofluoromethane(S)	0.5385	0.5240	0.4368	0.4526	0.4712	0.4842	0.4850	0.4883	0.4565		0.48	6.8	S			
3	S	1,2-DCA-D4(S)	0.5868	0.5920	0.4819	0.5140	0.5350	0.5510	0.5468	0.5434	0.5053		0.54	6.7	S			
4	I	Chlorobenzene-D5 (IS)																
5	S	Toluene-D8(S)	2.143	2.042	1.649	1.690	1.820	1.965	1.778	1.900	1.815		1.9	8.7	S			
6	S	4-Bromofluorobenzene(S)	0.8756	0.7804	0.6244	0.6442	0.7197	0.7700	0.7173	0.7521	0.7682		0.74	10	S			
7	I	1,4-Dichlorobenzene-D (IS)																
8																		
9																		
10																		
11																		
12																		
13																		
14																		
15																		
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35																		

Quantitation Report (Not Reviewed)

Data File : M:\THOR\DATA\T191023\1023T06.D Vial: 6
Acq On : 23 Oct 19 19:32 Operator:
Sample : 0.3ug/L VOC STD 10/23/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 24 9:47 2019 Quant Results File: TSUR1023.RES

Quant Method : M:\THOR\DATA\T191023\TSUR1023.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:27:29 2019
Response via : Initial Calibration
DataAcq Meth : T8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	6.59	96	178368	25.00	ppb	0.00
4) Chlorobenzene-D5 (IS)	9.74	117	160768	25.00	ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	12.07	152	91040	25.00	ppb	0.00
System Monitoring Compounds						
2) Dibromofluoromethane(S)	5.79	111	19209	5.59	ppb	0.00
Spiked Amount 25.000			Recovery = 22.348%			
3) 1,2-DCA-D4(S)	6.18	65	20935	5.44	ppb	0.00
Spiked Amount 25.000			Recovery = 21.752%			
5) Toluene-D8(S)	8.30	98	68918	5.74	ppb	0.00
Spiked Amount 25.000			Recovery = 22.960%			
6) 4-Bromofluorobenzene(S)	10.92	174	28153	5.92	ppb	0.00
Spiked Amount 25.000			Recovery = 23.692%			

Target Compounds Qvalue

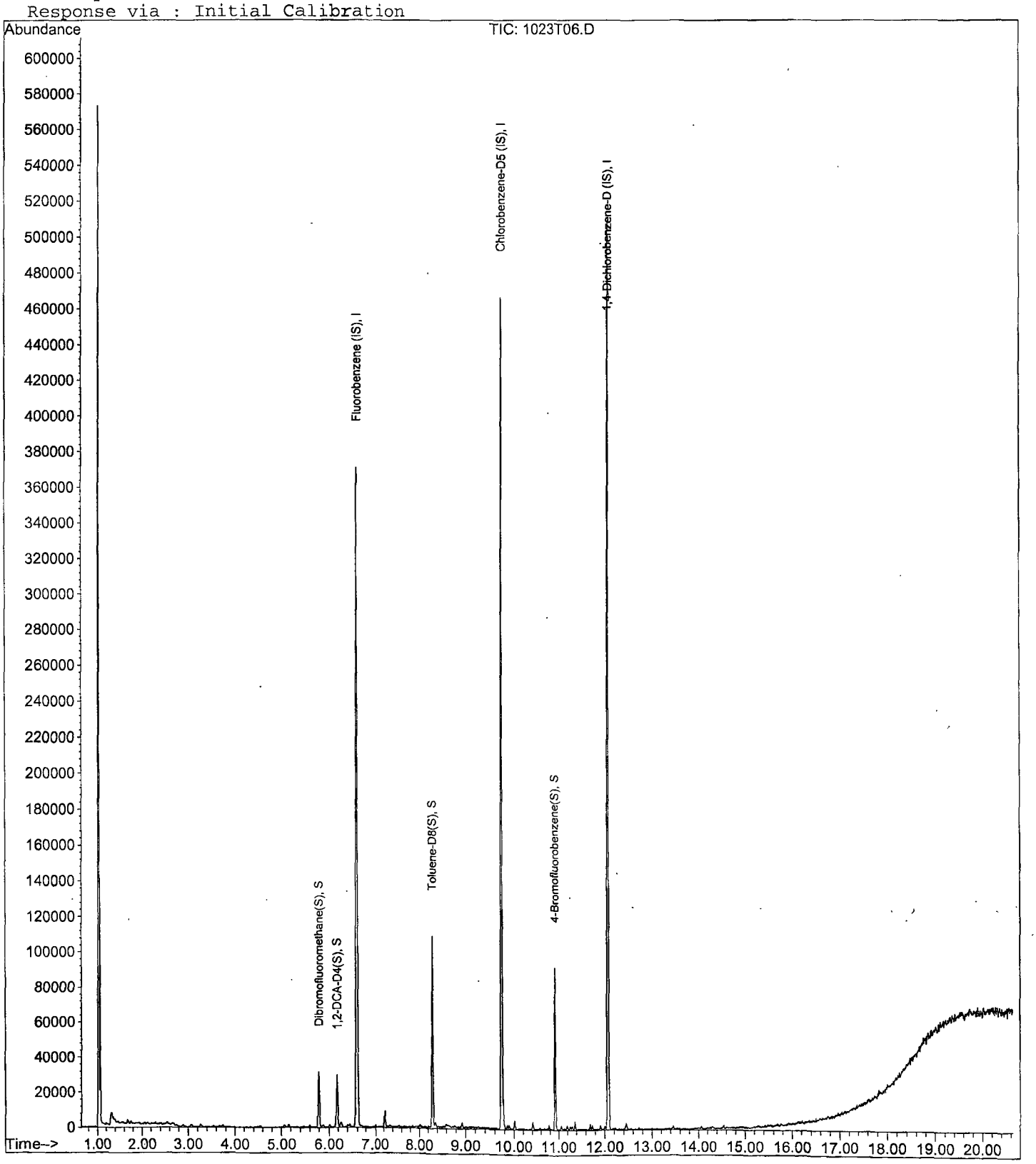
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\THOR\DATA\T191023\1023T06.D Vial: 6
Acq On : 23 Oct 19 19:32 Operator:
Sample : 0.3ug/L VOC STD 10/23/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 24 9:47 2019 Quant Results File: TSUR1023.RES

Method : M:\THOR\DATA\T191023\TSUR1023.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:27:29 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\THOR\DATA\T191023\1023T07.D Vial: 7
Acq On : 23 Oct 19 20:01 Operator:
Sample : 0.5ug/L VOC STD 10/23/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 24 9:47 2019 Quant Results File: TSUR1023.RES

Quant Method : M:\THOR\DATA\T191023\TSUR1023.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:27:29 2019
Response via : Initial Calibration
DataAcq Meth : T8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	6.59	96	177792	25.00	ppb	0.00
4) Chlorobenzene-D5 (IS)	9.74	117	164416	25.00	ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	12.07	152	92872	25.00	ppb	0.00
System Monitoring Compounds						
2) Dibromofluoromethane(S)	5.79	111	18632	5.44	ppb	0.00
Spiked Amount 25.000			Recovery =	21.748%		
3) 1,2-DCA-D4(S)	6.18	65	21049	5.49	ppb	0.00
Spiked Amount 25.000			Recovery =	21.940%		
5) Toluene-D8(S)	8.30	98	67127	5.47	ppb	0.00
Spiked Amount 25.000			Recovery =	21.868%		
6) 4-Bromofluorobenzene(S)	10.92	174	25663	5.28	ppb	0.00
Spiked Amount 25.000			Recovery =	21.120%		

Target Compounds Qvalue

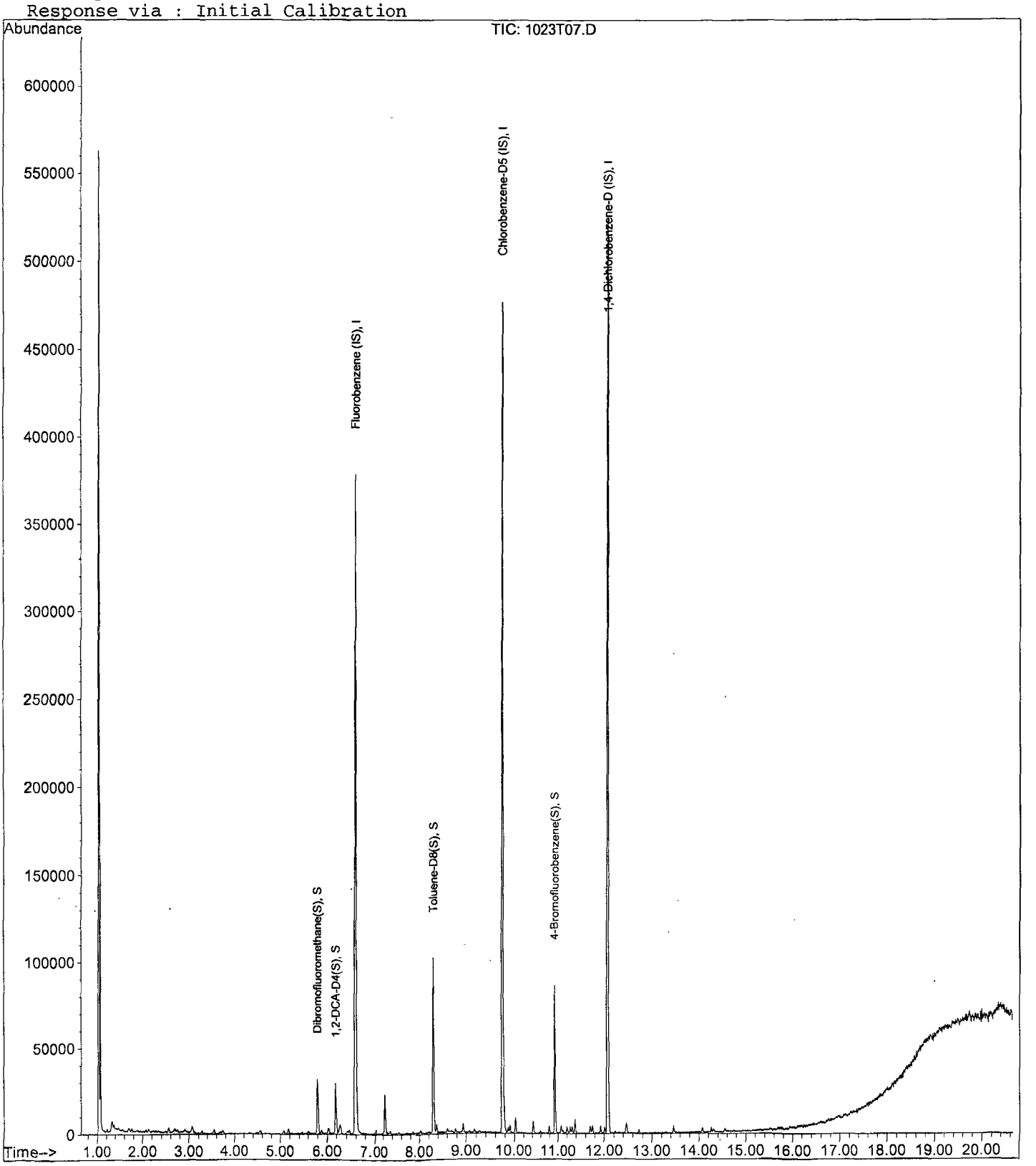
(#) = qualifier out of range (m) = manual integration
1023T07.D TSUR1023.M Thu Oct 24 09:47:47 2019 Page 1

Quantitation Report

Data File : M:\THOR\DATA\T191023\1023T07.D Vial: 7
Acq On : 23 Oct 19 20:01 Operator:
Sample : 0.5ug/L VOC STD 10/23/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 24 9:47 2019 Quant Results File: TSUR1023.RES

Method : M:\THOR\DATA\T191023\TSUR1023.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:27:29 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\THOR\DATA\T191023\1023T08.D Vial: 8
Acq On : 23 Oct 19 20:29 Operator:
Sample : 1.0ug/L VOC STD 10/23/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 24 9:47 2019 Quant Results File: TSUR1023.RES

Quant Method : M:\THOR\DATA\T191023\TSUR1023.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:27:29 2019
Response via : Initial Calibration
DataAcq Meth : T8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	6.59	96	186048	25.00	ppb	0.00
4) Chlorobenzene-D5 (IS)	9.74	117	170048	25.00	ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	12.07	152	96952	25.00	ppb	0.00
System Monitoring Compounds						
2) Dibromofluoromethane(S)	5.79	111	32509	9.07	ppb	0.00
Spiked Amount 25.000			Recovery =	36.260%		
3) 1,2-DCA-D4(S)	6.18	65	35862	8.93	ppb	0.00
Spiked Amount 25.000			Recovery =	35.724%		
5) Toluene-D8(S)	8.30	98	112166	8.83	ppb	0.00
Spiked Amount 25.000			Recovery =	35.332%		
6) 4-Bromofluorobenzene(S)	10.92	174	42473	8.45	ppb	0.00
Spiked Amount 25.000			Recovery =	33.796%		

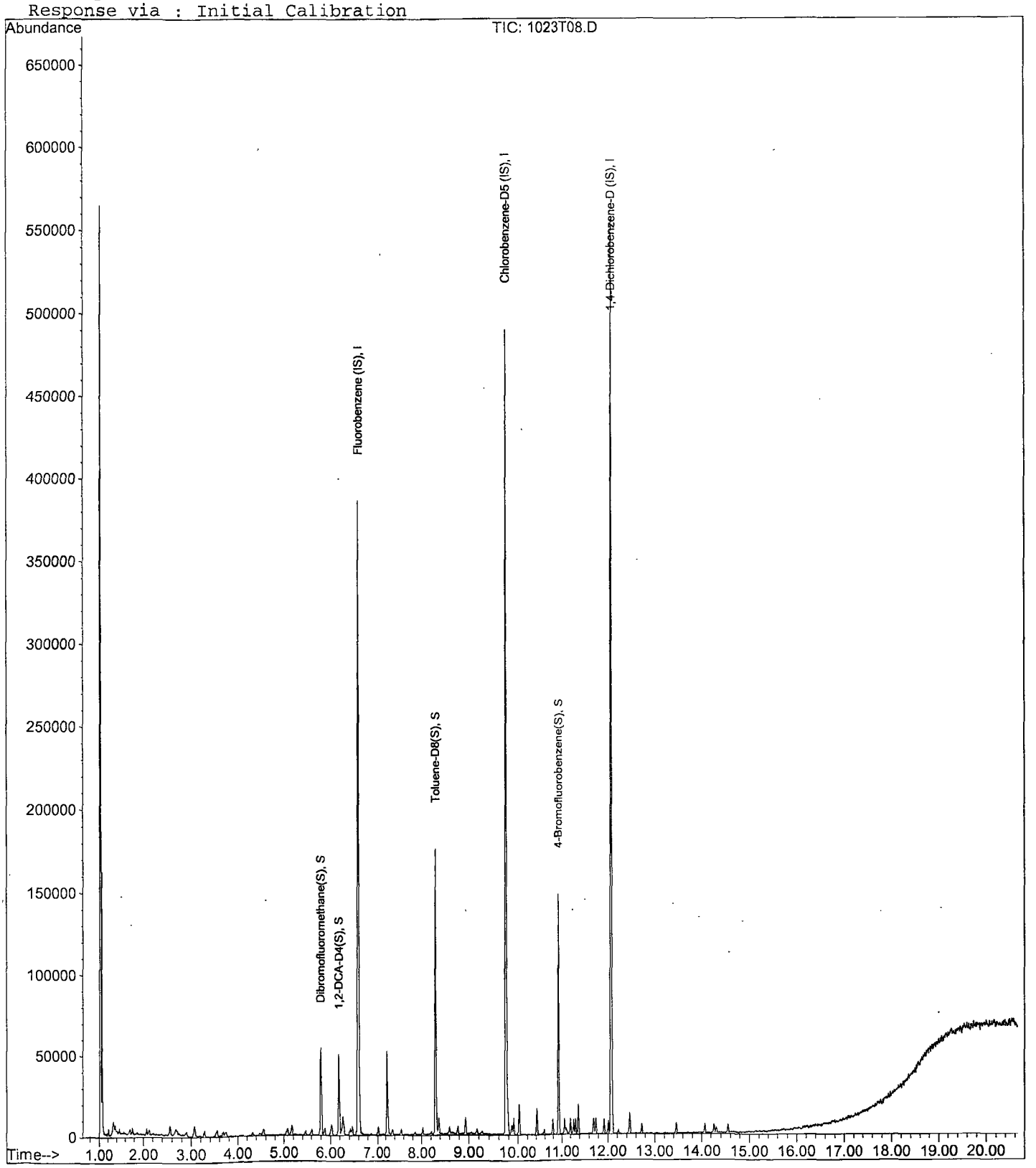
Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration
1023T08.D TSUR1023.M Thu Oct 24 09:47:50 2019 Page 1

Data File : M:\THOR\DATA\T191023\1023T08.D Vial: 8
Acq On : 23 Oct 19 20:29 Operator:
Sample : 1.0ug/L VOC STD 10/23/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 24 9:47 2019 Quant Results File: TSUR1023.RES

Method : M:\THOR\DATA\T191023\TSUR1023.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:27:29 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\THOR\DATA\T191023\1023T09.D Vial: 9
Acq On : 23 Oct 19 20:58 Operator:
Sample : 2.0ug/L VOC STD 10/23/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 24 9:47 2019 Quant Results File: TSUR1023.RES

Quant Method : M:\THOR\DATA\T191023\TSUR1023.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:27:29 2019
Response via : Initial Calibration
DataAcq Meth : T8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	6.59	96	182336	25.00	ppb	0.00
4) Chlorobenzene-D5 (IS)	9.74	117	173696	25.00	ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	12.07	152	94992	25.00	ppb	0.00
System Monitoring Compounds						
2) Dibromofluoromethane(S)	5.79	111	33009	9.39	ppb	0.00
Spiked Amount 25.000			Recovery =	37.568%		
3) 1,2-DCA-D4(S)	6.18	65	37488	9.53	ppb	0.00
Spiked Amount 25.000			Recovery =	38.104%		
5) Toluene-D8(S)	8.30	98	117350	9.05	ppb	0.00
Spiked Amount 25.000			Recovery =	36.188%		
6) 4-Bromofluorobenzene(S)	10.92	174	44756	8.72	ppb	0.00
Spiked Amount 25.000			Recovery =	34.864%		

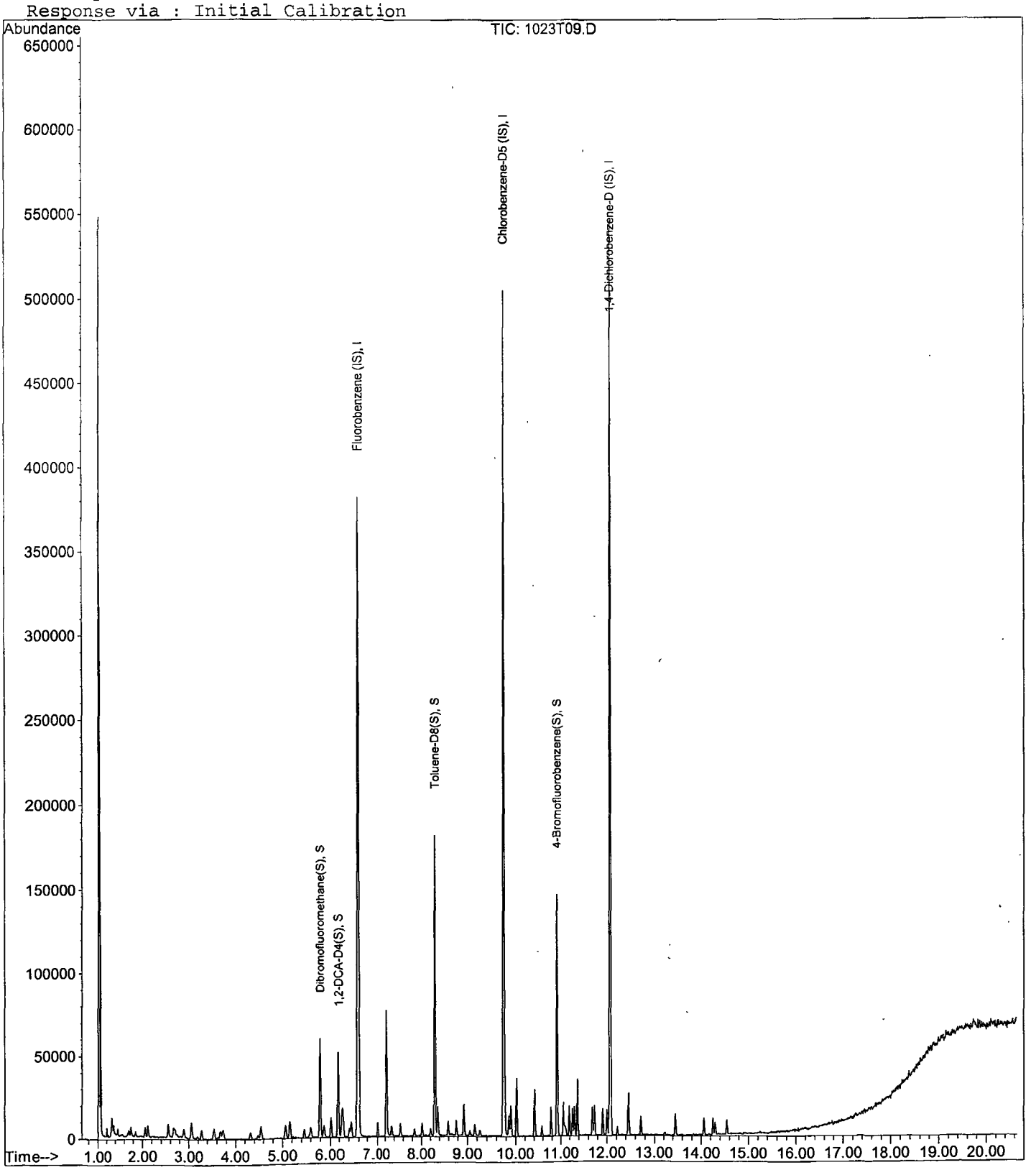
Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration
1023T09.D TSUR1023.M Thu Oct 24 09:47:53 2019 Page 1

Data File : M:\THOR\DATA\T191023\1023T09.D Vial: 9
Acq On : 23 Oct 19 20:58 Operator:
Sample : 2.0ug/L VOC STD 10/23/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 24 9:47 2019 Quant Results File: TSUR1023.RES

Method : M:\THOR\DATA\T191023\TSUR1023.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:27:29 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\THOR\DATA\T191023\1023T10.D Vial: 10
Acq On : 23 Oct 19 21:26 Operator:
Sample : 5.0ug/L VOC STD 10/23/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 24 9:47 2019 Quant Results File: TSUR1023.RES

Quant Method : M:\THOR\DATA\T191023\TSUR1023.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:27:29 2019
Response via : Initial Calibration
DataAcq Meth : T8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	6.59	96	183104	25.00	ppb	0.00
4) Chlorobenzene-D5 (IS)	9.74	117	171200	25.00	ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	12.06	152	96128	25.00	ppb	0.00
System Monitoring Compounds						
2) Dibromofluoromethane(S)	5.79	111	86276	24.44	ppb	0.00
Spiked Amount 25.000			Recovery = 97.780%			
3) 1,2-DCA-D4(S)	6.18	65	97911	24.78	ppb	0.00
Spiked Amount 25.000			Recovery = 99.104%			
5) Toluene-D8(S)	8.30	98	311553	24.37	ppb	0.00
Spiked Amount 25.000			Recovery = 97.476%			
6) 4-Bromofluorobenzene(S)	10.92	174	123213	24.34	ppb	0.00
Spiked Amount 25.000			Recovery = 97.376%			

Target Compounds	Qvalue

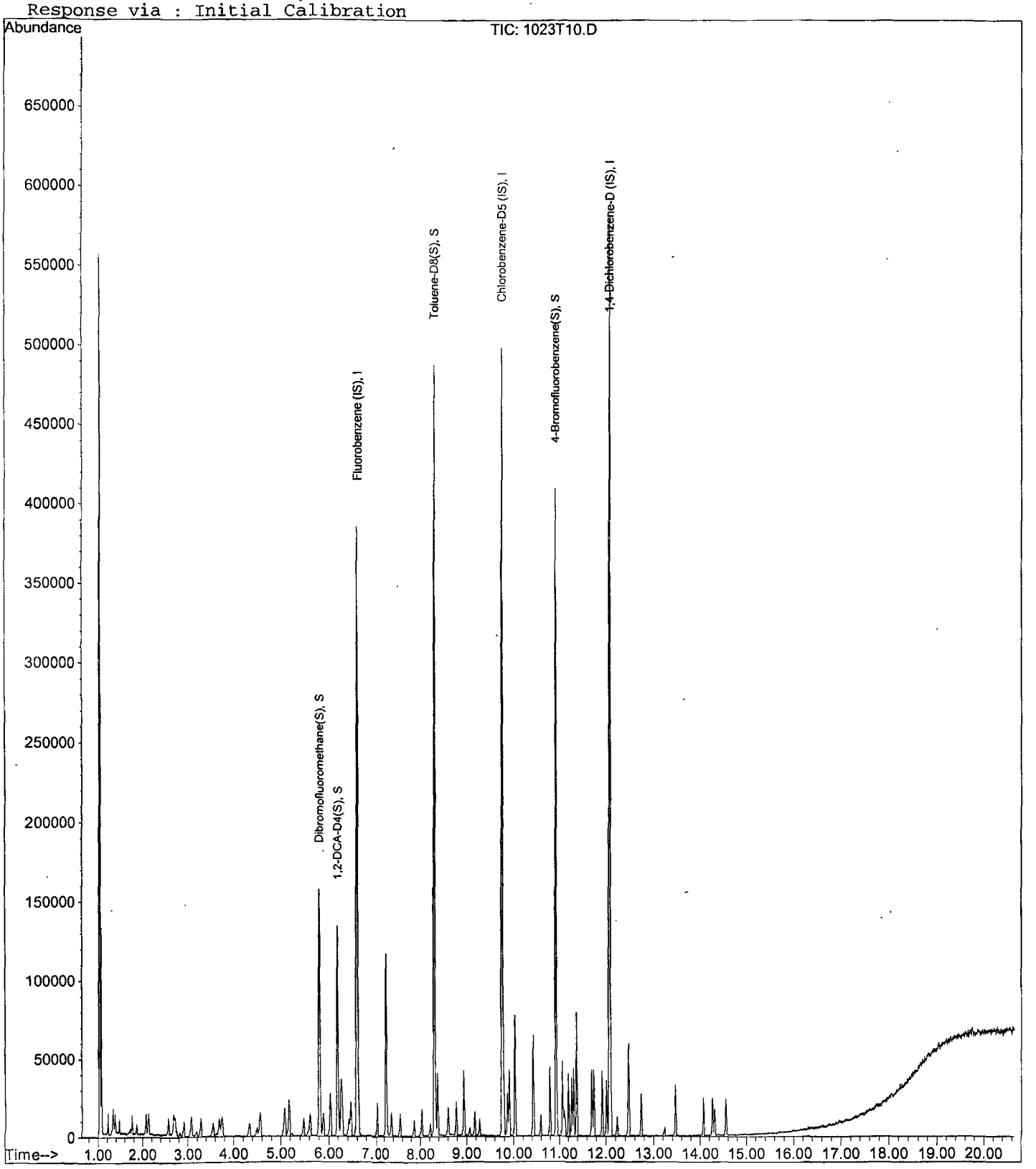
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\THOR\DATA\T191023\1023T10.D Vial: 10
Acq On : 23 Oct 19 21:26 Operator:
Sample : 5.0ug/L VOC STD 10/23/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 24 9:47 2019 Quant Results File: TSUR1023.RES

Method : M:\THOR\DATA\T191023\TSUR1023.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:27:29 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\THOR\DATA\T191023\1023T11.D Vial: 11
Acq On : 23 Oct 19 21:55 Operator:
Sample : 10ug/L VOC STD 10/23/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 24 9:47 2019 Quant Results File: TSUR1023.RES

Quant Method : M:\THOR\DATA\T191023\TSUR1023.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:27:29 2019
Response via : Initial Calibration
DataAcq Meth : T8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	6.59	96	178432	25.00	ppb	0.00
4) Chlorobenzene-D5 (IS)	9.74	117	159872	25.00	ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	12.06	152	97112	25.00	ppb	0.00
System Monitoring Compounds						
2) Dibromofluoromethane(S)	5.79	111	86393	25.12	ppb	0.00
Spiked Amount 25.000			Recovery =	100.476%		
3) 1,2-DCA-D4(S)	6.18	65	98312	25.53	ppb	0.00
Spiked Amount 25.000			Recovery =	102.112%		
5) Toluene-D8(S)	8.30	98	314020	26.30	ppb	0.00
Spiked Amount 25.000			Recovery =	105.208%		
6) 4-Bromofluorobenzene(S)	10.92	174	123099	26.04	ppb	0.00
Spiked Amount 25.000			Recovery =	104.180%		

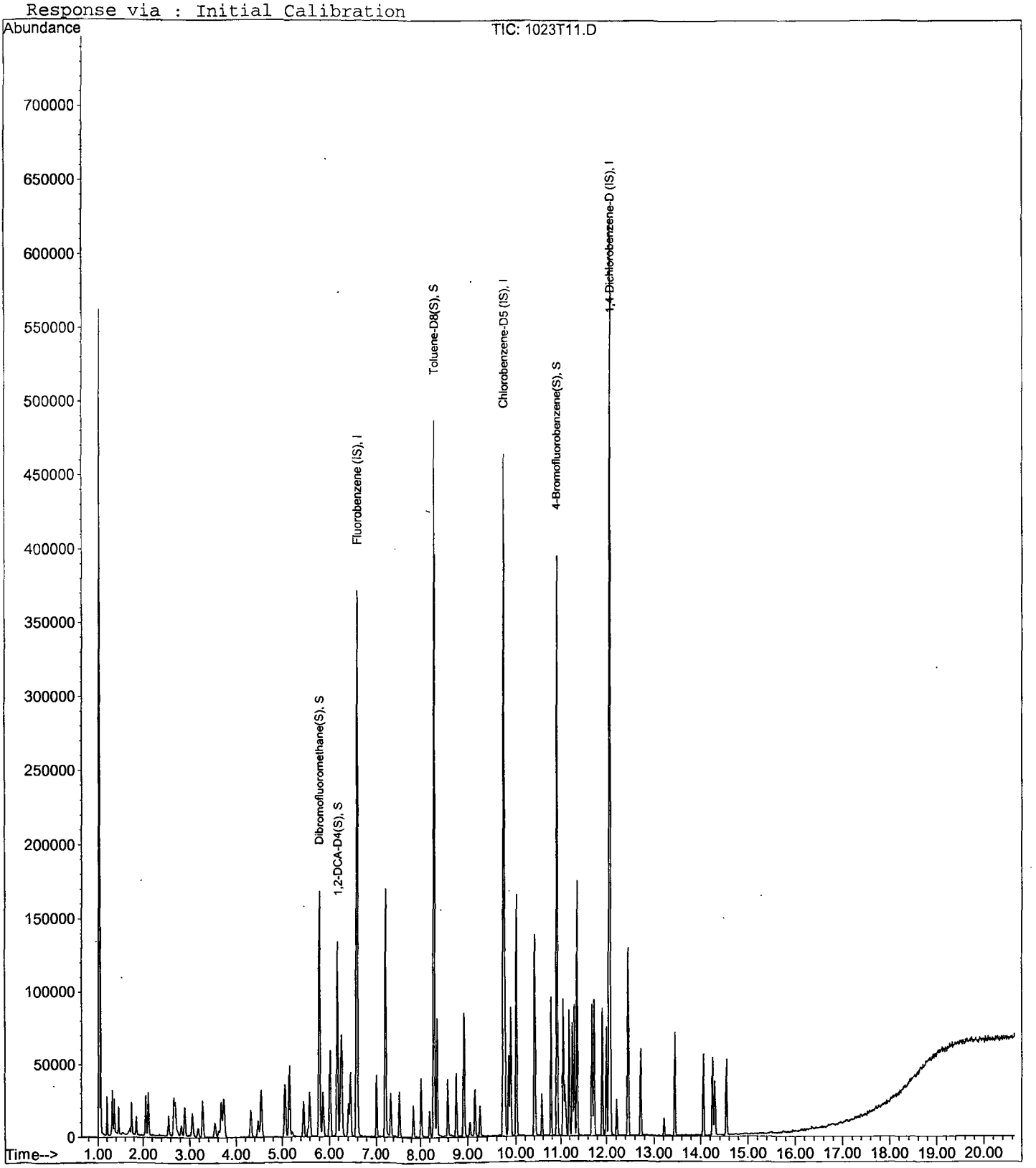
Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration
1023T11.D TSUR1023.M Thu Oct 24 09:47:58 2019 Page 1

Data File : M:\THOR\DATA\T191023\1023T11.D Vial: 11
Acq On : 23 Oct 19 21:55 Operator:
Sample : 10ug/L VOC STD 10/23/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 24 9:47 2019 Quant Results File: TSUR1023.RES

Method : M:\THOR\DATA\T191023\TSUR1023.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:27:29 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\THOR\DATA\T191023\1023T12.D Vial: 12
Acq On : 23 Oct 19 22:23 Operator:
Sample : 20ug/L VOC STD 10/23/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 24 9:47 2019 Quant Results File: TSUR1023.RES

Quant Method : M:\THOR\DATA\T191023\TSUR1023.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:27:29 2019
Response via : Initial Calibration
DataAcq Meth : T8260

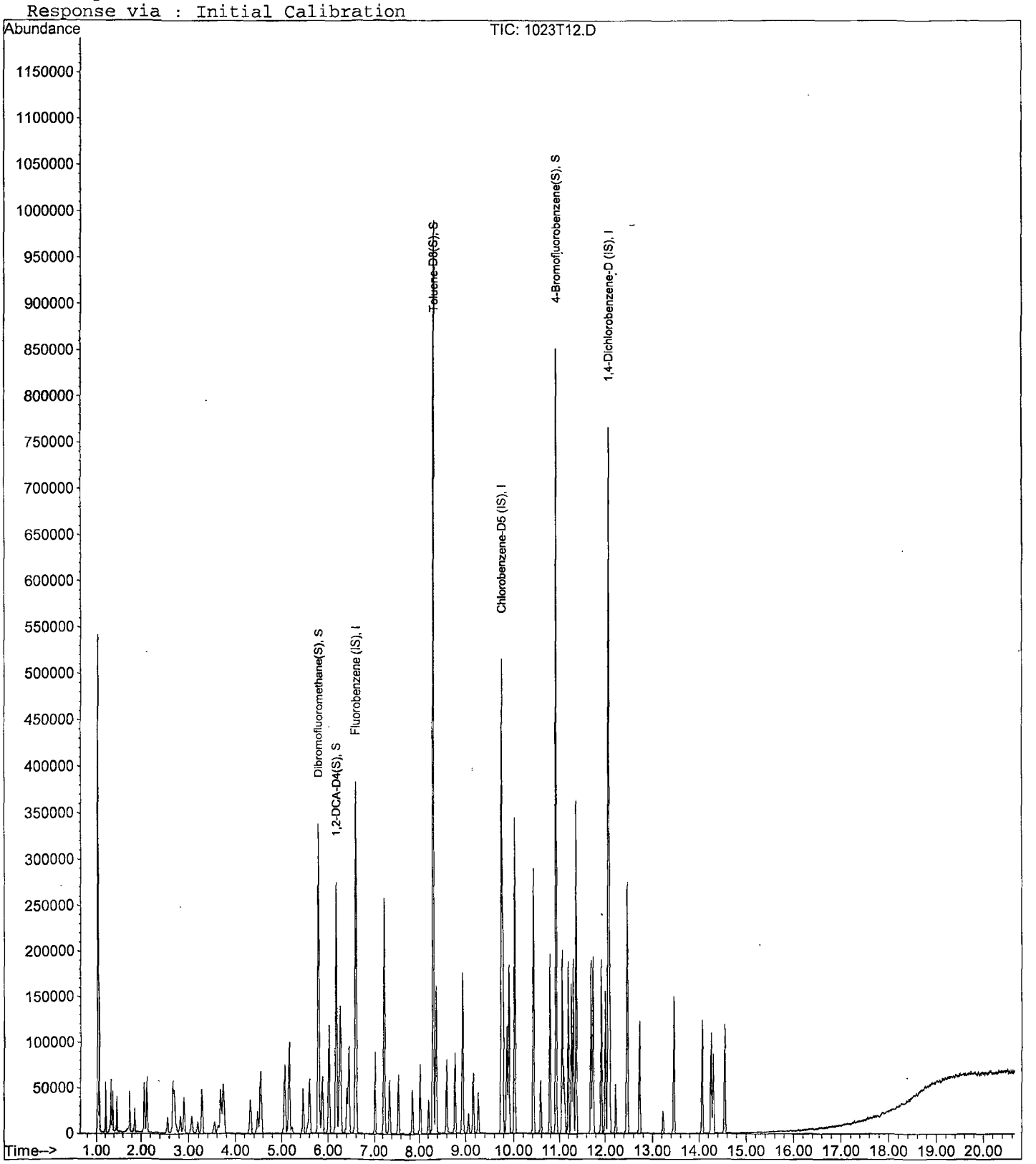
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	6.59	96	180864	25.00	ppb	0.00
4) Chlorobenzene-D5 (IS)	9.74	117	175808	25.00	ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	12.07	152	103912	25.00	ppb	0.00
System Monitoring Compounds						
2) Dibromofluoromethane(S)	5.79	111	175433	50.32	ppb	0.00
Spiked Amount 25.000			Recovery =	201.288%		
3) 1,2-DCA-D4(S)	6.18	65	197560	50.61	ppb	0.00
Spiked Amount 25.000			Recovery =	202.440%		
5) Toluene-D8(S)	8.30	98	624922	47.60	ppb	0.00
Spiked Amount 25.000			Recovery =	190.396%		
6) 4-Bromofluorobenzene(S)	10.92	174	252217	48.53	ppb	0.00
Spiked Amount 25.000			Recovery =	194.104%		
Target Compounds						Qvalue

(#) = qualifier out of range (m) = manual integration
1023T12.D TSUR1023.M Thu Oct 24 09:48:01 2019 Page 1

Data File : M:\THOR\DATA\T191023\1023T12.D Vial: 12
Acq On : 23 Oct 19 22:23 Operator:
Sample : 20ug/L VOC STD 10/23/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 24 9:47 2019 Quant Results File: TSUR1023.RES

Method : M:\THOR\DATA\T191023\TSUR1023.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:27:29 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\THOR\DATA\T191023\1023T13.D Vial: 13
Acq On : 23 Oct 19 22:52 Operator:
Sample : 40ug/L VOC STD 10/23/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 24 9:47 2019 Quant Results File: TSUR1023.RES

Quant Method : M:\THOR\DATA\T191023\TSUR1023.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:27:29 2019
Response via : Initial Calibration
DataAcq Meth : T8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	6.59	96	178368	25.00	ppb	0.00
4) Chlorobenzene-D5 (IS)	9.74	117	169472	25.00	ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	12.06	152	101648	25.00	ppb	0.00
System Monitoring Compounds						
2) Dibromofluoromethane(S)	5.79	111	174185	50.66	ppb	0.00
Spiked Amount 25.000			Recovery =	202.652%		
3) 1,2-DCA-D4(S)	6.18	65	193525	50.27	ppb	0.00
Spiked Amount 25.000			Recovery =	201.080%		
5) Toluene-D8(S)	8.30	98	644008	50.89	ppb	0.00
Spiked Amount 25.000			Recovery =	203.544%		
6) 4-Bromofluorobenzene(S)	10.92	174	254916	50.88	ppb	0.00
Spiked Amount 25.000			Recovery =	203.516%		

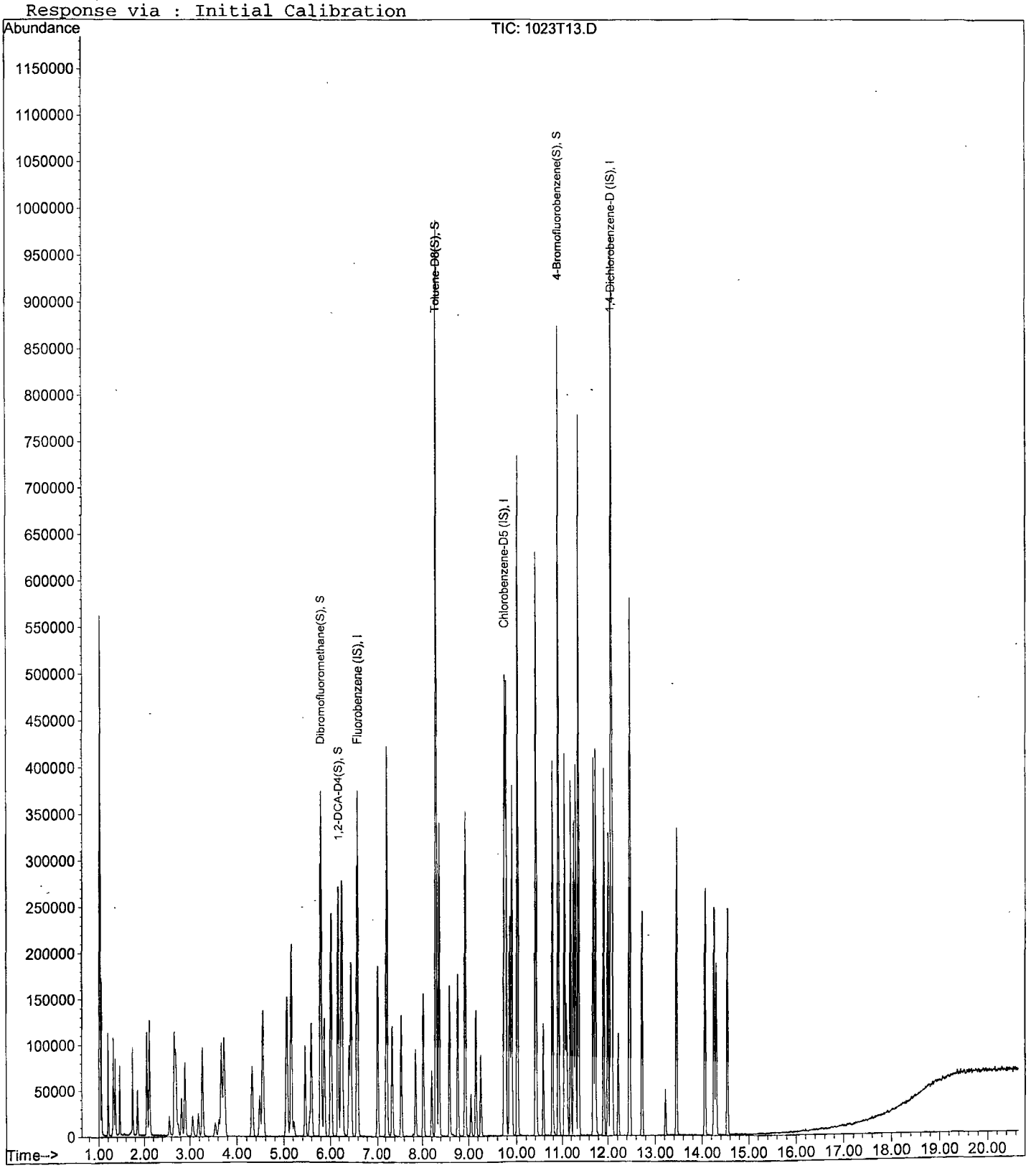
Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration
1023T13.D TSUR1023.M Thu Oct 24 09:48:03 2019 Page 1

Data File : M:\THOR\DATA\T191023\1023T13.D Vial: 13
Acq On : 23 Oct 19 22:52 Operator:
Sample : 40ug/L VOC STD 10/23/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 24 9:47 2019 Quant Results File: TSUR1023.RES

Method : M:\THOR\DATA\T191023\TSUR1023.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:27:29 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\THOR\DATA\T191023\1023T14.D Vial: 14
Acq On : 23 Oct 19 23:20 Operator:
Sample : 100ug/L VOC STD 10/23/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 24 9:47 2019 Quant Results File: TSUR1023.RES

Quant Method : M:\THOR\DATA\T191023\TSUR1023.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:27:29 2019
Response via : Initial Calibration
DataAcq Meth : T8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	6.59	96	177408	25.00	ppb	0.00
4) Chlorobenzene-D5 (IS)	9.74	117	165184	25.00	ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	12.06	152	110936	25.00	ppb	0.00
System Monitoring Compounds						
2) Dibromofluoromethane(S)	5.79	111	323935	94.73	ppb	0.00
Spiked Amount 25.000			Recovery = 378.912%			
3) 1,2-DCA-D4(S)	6.18	65	358548	93.64	ppb	0.00
Spiked Amount 25.000			Recovery = 374.564%			
5) Toluene-D8(S)	8.30	98	1198840	97.19	ppb	0.00
Spiked Amount 25.000			Recovery = 388.740%			
6) 4-Bromofluorobenzene(S)	10.92	174	507561	103.93	ppb	0.00
Spiked Amount 25.000			Recovery = 415.736%			

Target Compounds Qvalue

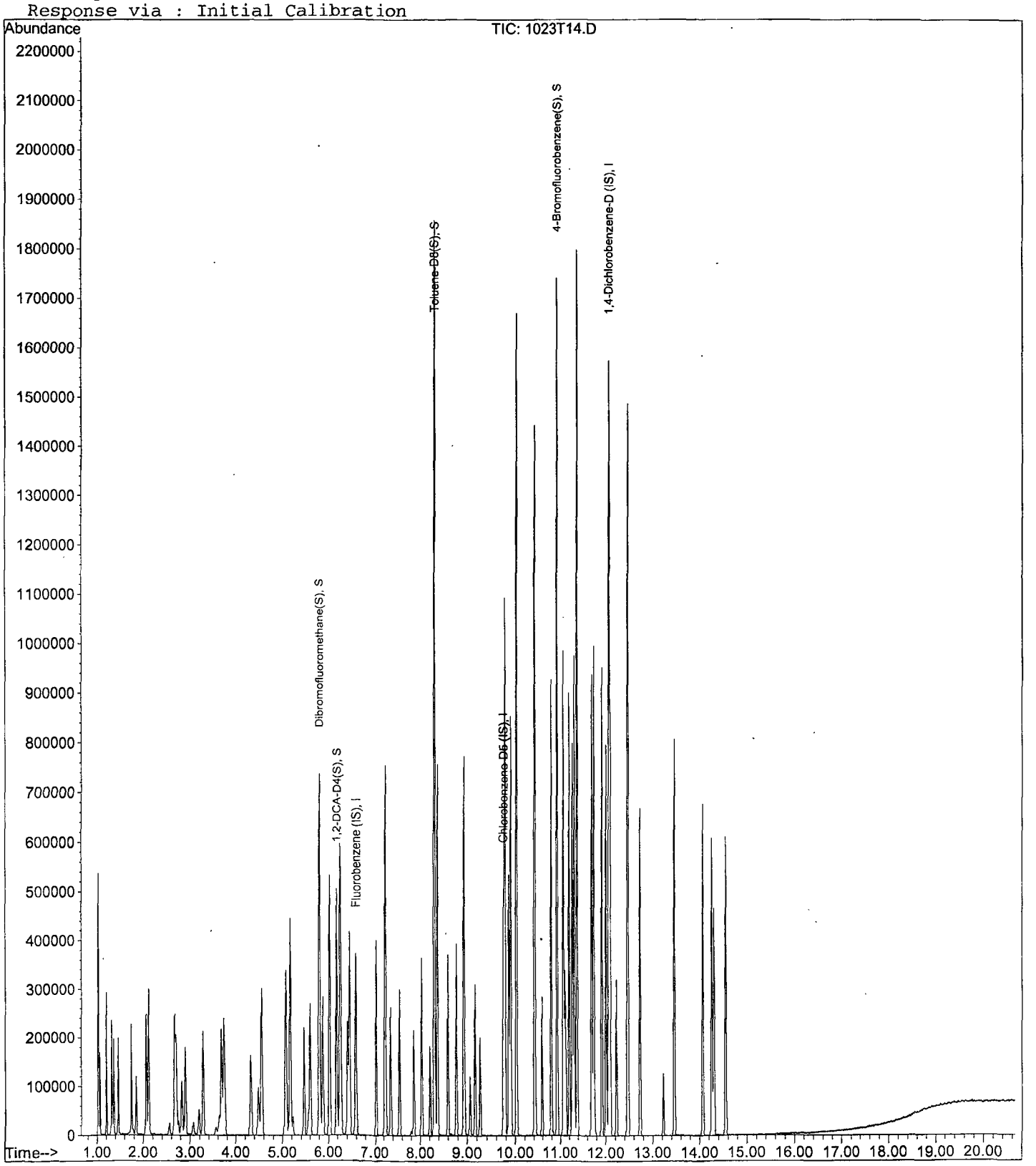
(#) = qualifier out of range (m) = manual integration
1023T14.D TSUR1023.M Thu Oct 24 09:48:06 2019 Page 1

Quantitation Report

Data File : M:\THOR\DATA\T191023\1023T14.D Vial: 14
Acq On : 23 Oct 19 23:20 Operator:
Sample : 100ug/L VOC STD 10/23/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 24 9:47 2019 Quant Results File: TSUR1023.RES

Method : M:\THOR\DATA\T191023\TSUR1023.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:27:29 2019
Response via : Initial Calibration



VOLATILE ORGANIC ANALYSIS
VOLATILE ORGANIC COMPOUNDS

Form 6
Initial Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Initial Cal. Date: 10/23/19
Matrix: water Instrument: Thor Initials: DG

1026T02.D 1026T03.D 1026T04.D 1026T05.D 1026T06.D 1026T07.D 1026T08.D

		Compound	1	2	3	4	5	6	7				Avg	%RSD	Type	r^2	Q	MRF
1	I	Fluorobenzene (IS)																
2	TMHBL	Gasoline C6-C10	12.7	5.185	2.689	1.053	0.7251	0.6177					3.8	122	TMHBL	0.991		
3	I	Chlorobenzene-D5 (IS)																
4	I	1,4-Dichlorobenzene-D (IS)																
5																		
6																		
7																		
8																		
9																		
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35																		

Quantitation Report (QT Reviewed)

Data File : M:\THOR\DATA\T191023\1026T02.D Vial: 2
Acq On : 26 Oct 19 12:41 Operator:
Sample : 20ug/L GAS 10/26/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 28 11:27 2019 Quant Results File: TGAS1026.RES

Quant Method : M:\THOR\DATA\T191023\TGAS1026.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 28 11:13:21 2019
Response via : Initial Calibration
DataAcq Meth : T8260

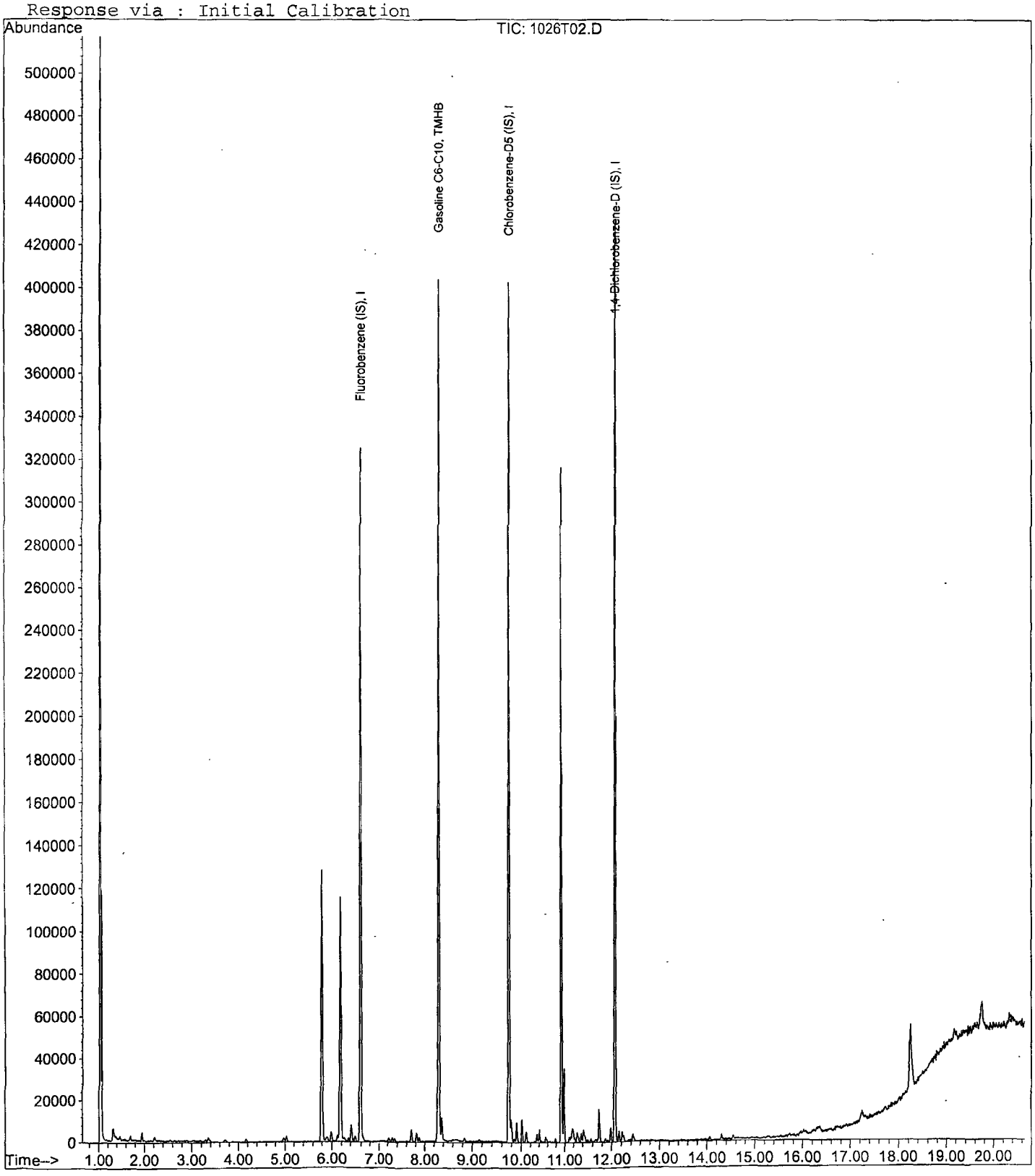
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene (IS)	6.59	TIC	325203	25.000 ppb	0.00
3) Chlorobenzene-D5 (IS)	9.74	TIC	402502	25.000 ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	12.07	TIC	430991	25.000 ppb	0.00
System Monitoring Compounds					
Target Compounds					Qvalue
2) Gasoline C6-C10	8.30	TIC	3299042m	24.154 ppb	100

(#) = qualifier out of range (m) = manual integration
1026T02.D TGAS1026.M Mon Oct 28 12:28:56 2019 Page 1

Data File : M:\THOR\DATA\T191023\1026T02.D Vial: 2
Acq On : 26 Oct 19 12:41 Operator:
Sample : 20ug/L GAS 10/26/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 28 11:27 2019 Quant Results File: TGAS1026.RES

Method : M:\THOR\DATA\T191023\TGAS1026.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 28 12:08:31 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\THOR\DATA\T191023\1026T03.D Vial: 3
Acq On : 26 Oct 19 13:09 Operator:
Sample : 50ug/L GAS 10/26/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 28 12:17 2019 Quant Results File: TGAS1026.RES

Quant Method : M:\THOR\DATA\T191023\TGAS1026.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 28 11:13:21 2019
Response via : Initial Calibration
DataAcq Meth : T8260

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene (IS)	6.59	TIC	321177	25.000 ppb	0.00
3) Chlorobenzene-D5 (IS)	9.74	TIC	392178	25.000 ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	12.07	TIC	407724	25.000 ppb	0.00
System Monitoring Compounds					
Target Compounds					Qvalue
2) Gasoline C6-C10	8.30	TIC	3330329m	43.721 ppb	100

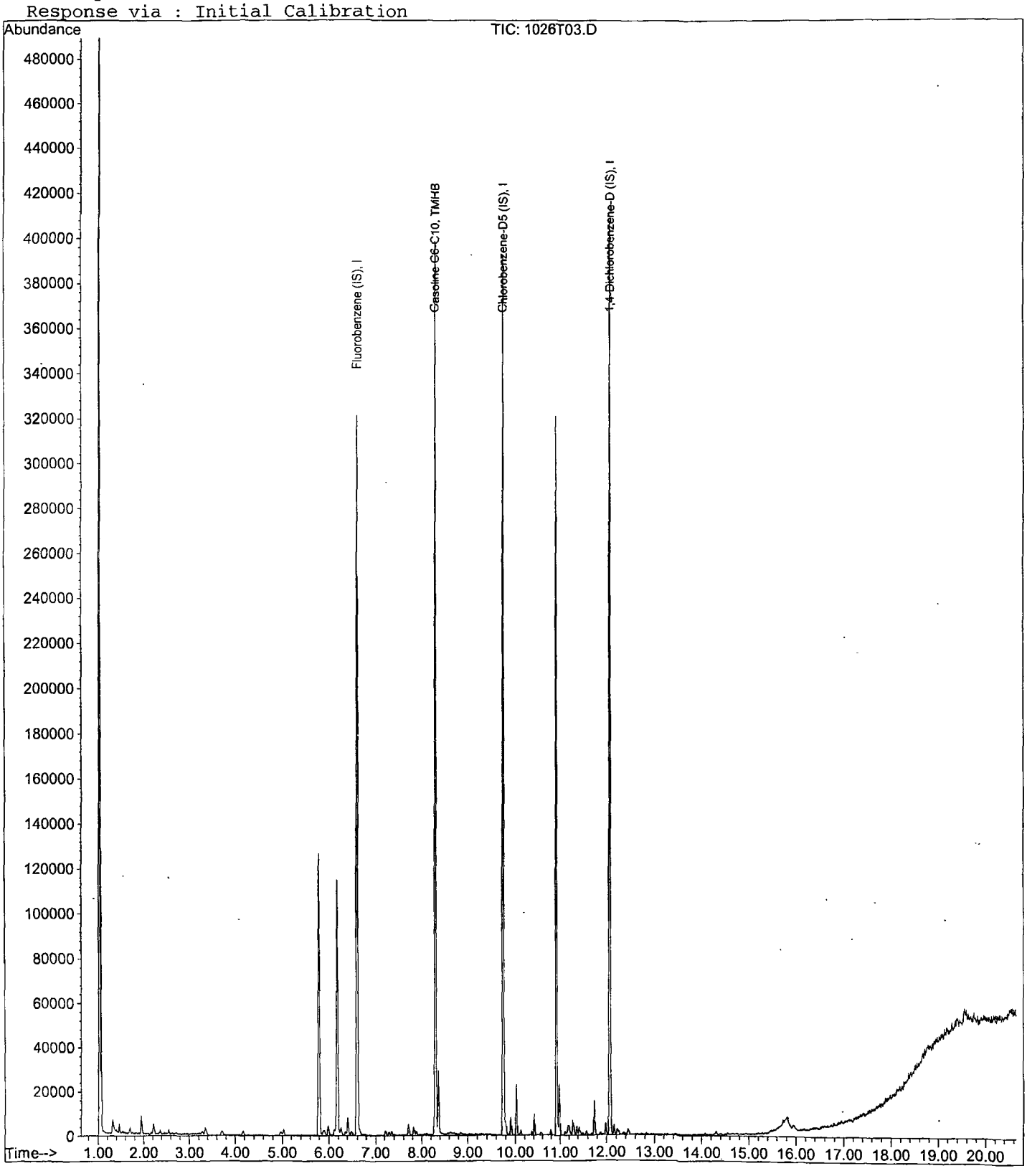
(#) = qualifier out of range (m) = manual integration
1026T03.D TGAS1026.M Mon Oct 28 12:28:58 2019 Page 1

Quantitation Report

Data File : M:\THOR\DATA\T191023\1026T03.D Vial: 3
Acq On : 26 Oct 19 13:09 Operator:
Sample : 50ug/L GAS 10/26/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 28 12:17 2019 Quant Results File: TGAS1026.RES

Method : M:\THOR\DATA\T191023\TGAS1026.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 28 12:08:31 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\THOR\DATA\T191023\1026T04.D Vial: 4
Acq On : 26 Oct 19 13:37 Operator:
Sample : 100ug/L GAS 10/26/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 28 12:21 2019 Quant Results File: TGAS1026.RES

Quant Method : M:\THOR\DATA\T191023\TGAS1026.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 28 11:13:21 2019
Response via : Initial Calibration
DataAcq Meth : T8260

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene (IS)	6.59	TIC	324811	25.000 ppb	0.00
3) Chlorobenzene-D5 (IS)	9.74	TIC	392744	25.000 ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	12.06	TIC	413459	25.000 ppb	0.00
System Monitoring Compounds					
Target Compounds					Qvalue
2) Gasoline C6-C10	8.30	TIC	3493186m	77.298 ppb	100

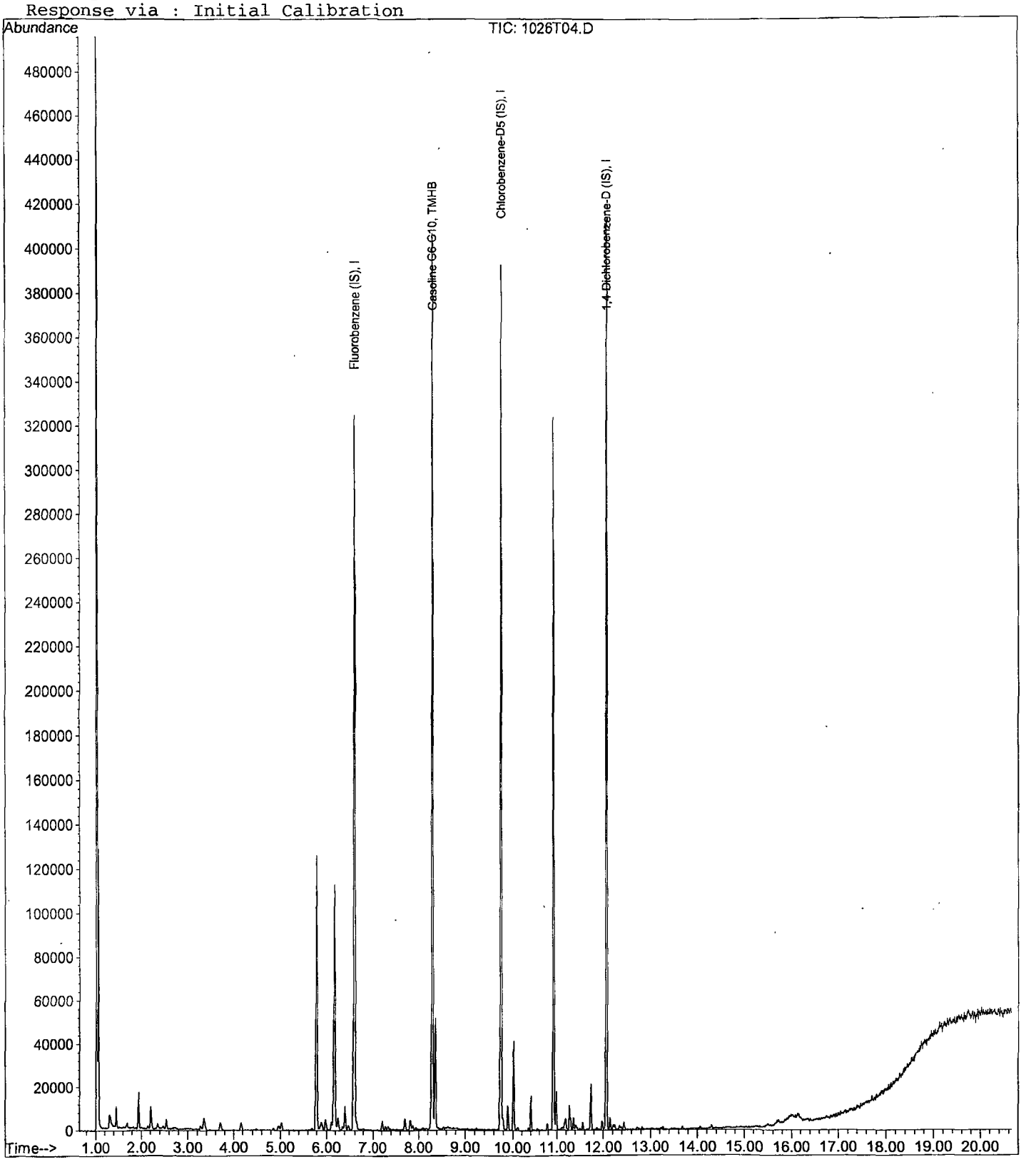
(#) = qualifier out of range (m) = manual integration
1026T04.D TGAS1026.M Mon Oct 28 12:29:00 2019 Page 1

Quantitation Report

Data File : M:\THOR\DATA\T191023\1026T04.D Vial: 4
Acq On : 26 Oct 19 13:37 Operator:
Sample : 100ug/L GAS 10/26/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 28 12:21 2019 Quant Results File: TGAS1026.RES

Method : M:\THOR\DATA\T191023\TGAS1026.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 28 12:08:31 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\THOR\DATA\T191023\1026T05.D Vial: 5
Acq On : 26 Oct 19 14:06 Operator:
Sample : 300ug/L GAS 10/26/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 28 12:14 2019 Quant Results File: TGAS1026.RES

Quant Method : M:\THOR\DATA\T191023\TGAS1026.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 28 11:13:21 2019
Response via : Initial Calibration
DataAcq Meth : T8260

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene (IS)	6.59	TIC	338187	25.000 ppb	0.00
3) Chlorobenzene-D5 (IS)	9.74	TIC	410094	25.000 ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	12.06	TIC	434804	25.000 ppb	0.00

System Monitoring Compounds

Target Compounds					Qvalue
2) Gasoline C6-C10	9.74	TIC	4271474m	240.747 ppb	100

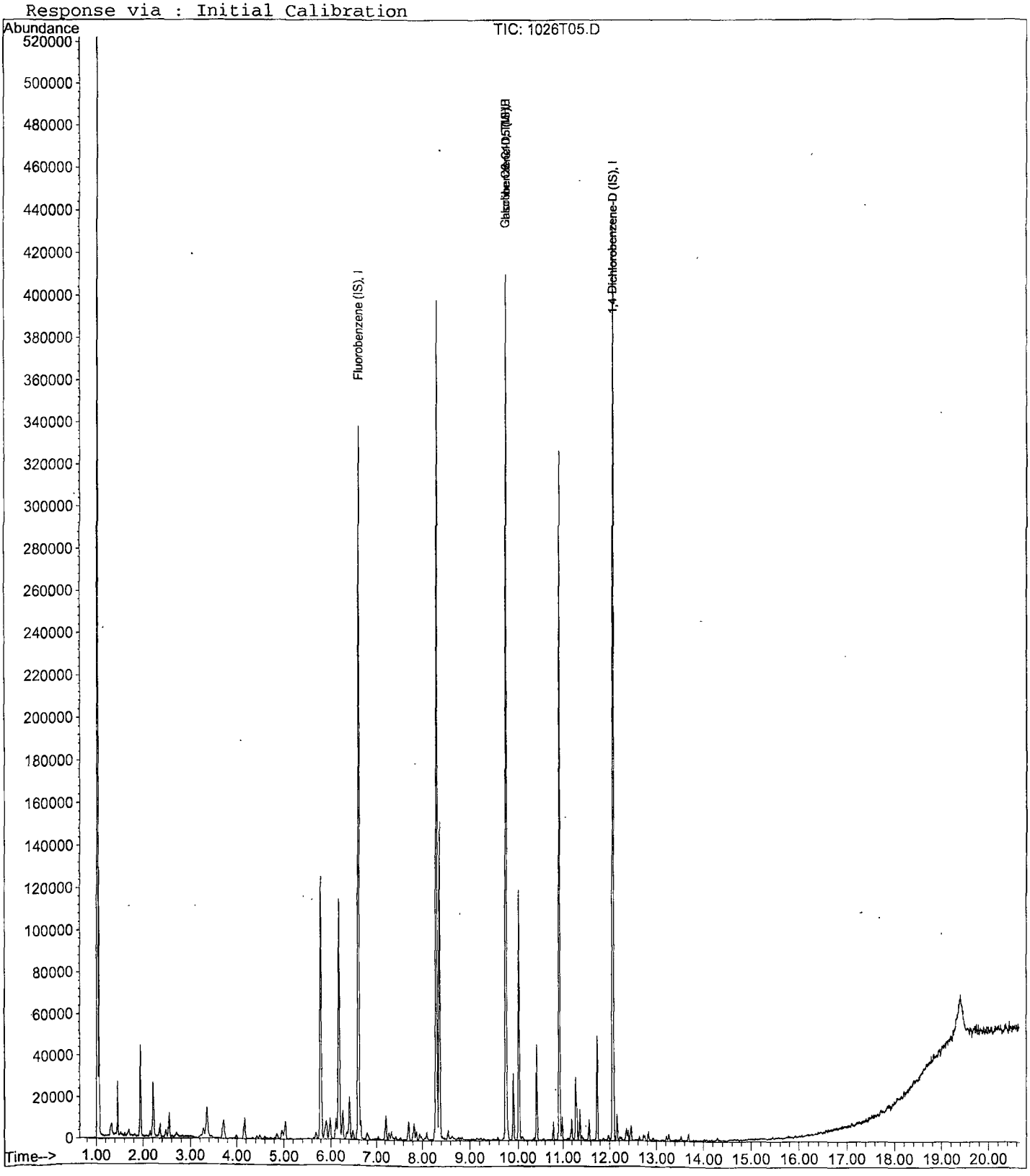
(#) = qualifier out of range (m) = manual integration
1026T05.D TGAS1026.M Mon Oct 28 12:29:02 2019 Page 1

Quantitation Report

Data File : M:\THOR\DATA\T191023\1026T05.D Vial: 5
Acq On : 26 Oct 19 14:06 Operator:
Sample : 300ug/L GAS 10/26/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 28 12:14 2019 Quant Results File: TGAS1026.RES

Method : M:\THOR\DATA\T191023\TGAS1026.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 28 12:08:31 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\THOR\DATA\T191023\1026T06.D Vial: 6
Acq On : 26 Oct 19 14:34 Operator:
Sample : 600ug/L GAS 10/26/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 28 11:30 2019 Quant Results File: TGAS1026.RES

Quant Method : M:\THOR\DATA\T191023\TGAS1026.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 28 11:13:21 2019
Response via : Initial Calibration
DataAcq Meth : T8260

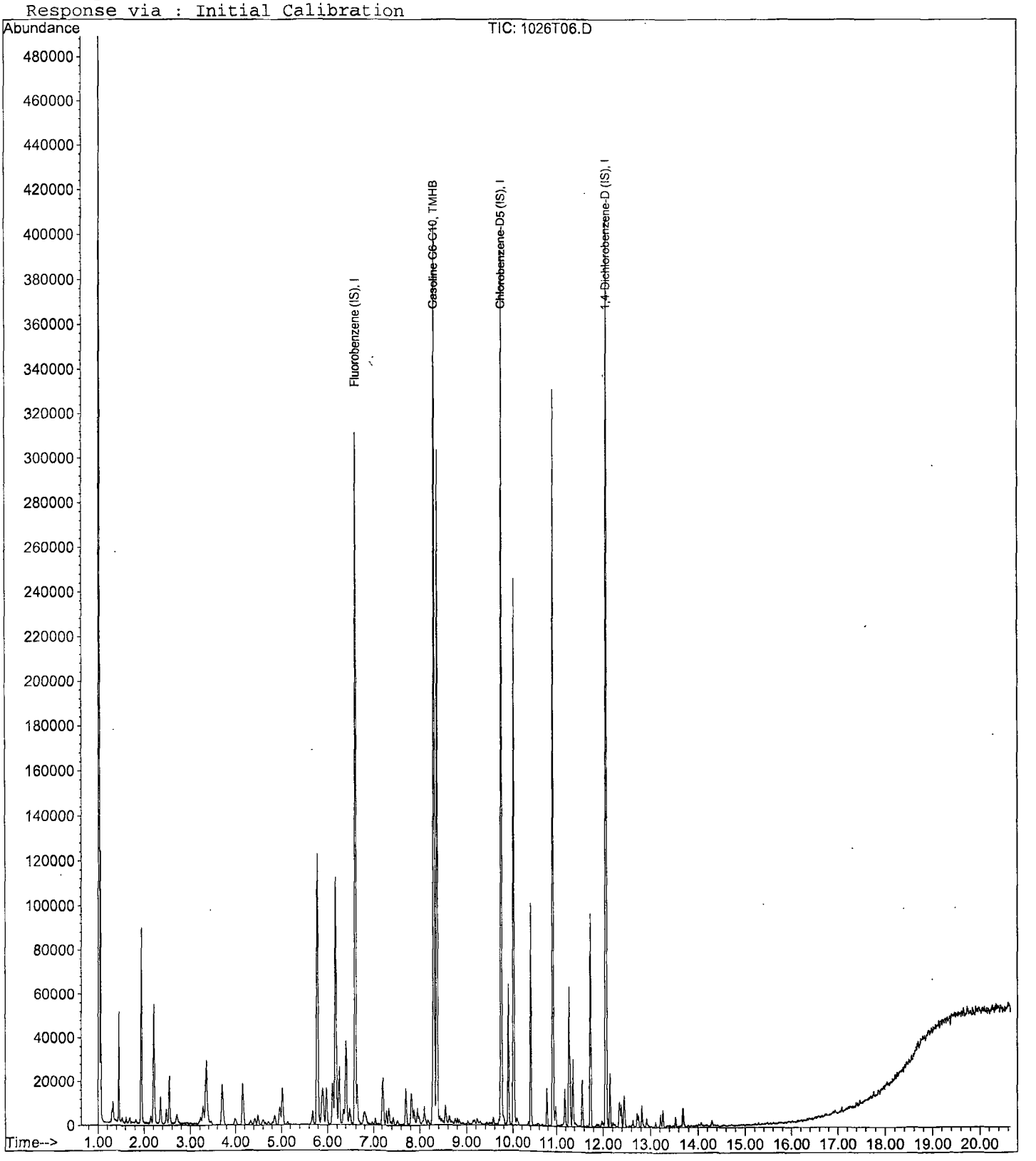
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene (IS)	6.59	TIC	311099	25.000 ppb	0.00
3) Chlorobenzene-D5 (IS)	9.74	TIC	392304	25.000 ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	12.06	TIC	407391	25.000 ppb	0.00
System Monitoring Compounds					
Target Compounds					Qvalue
2) Gasoline C6-C10	8.30	TIC	5413641m	656.442 ppb	100

(#) = qualifier out of range (m) = manual integration
1026T06.D TGAS1026.M Mon Oct 28 12:29:04 2019 Page 1

Data File : M:\THOR\DATA\T191023\1026T06.D Vial: 6
Acq On : 26 Oct 19 14:34 Operator:
Sample : 600ug/L GAS 10/26/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 28 11:30 2019 Quant Results File: TGAS1026.RES

Method : M:\THOR\DATA\T191023\TGAS1026.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 28 12:08:31 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\THOR\DATA\T191023\1026T07.D Vial: 7
Acq On : 26 Oct 19 15:03 Operator:
Sample : 800ug/L GAS 10/26/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 28 11:31 2019 Quant Results File: TGAS1026.RES

Quant Method : M:\THOR\DATA\T191023\TGAS1026.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 28 11:13:21 2019
Response via : Initial Calibration
DataAcq Meth : T8260

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene (IS)	6.59	TIC	329742	25.000 ppb	0.00
3) Chlorobenzene-D5 (IS)	9.74	TIC	399858	25.000 ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	12.06	TIC	434700	25.000 ppb	0.00
System Monitoring Compounds					
Target Compounds					Qvalue
2) Gasoline C6-C10	8.36	TIC	6517501m	862.391 ppb	100

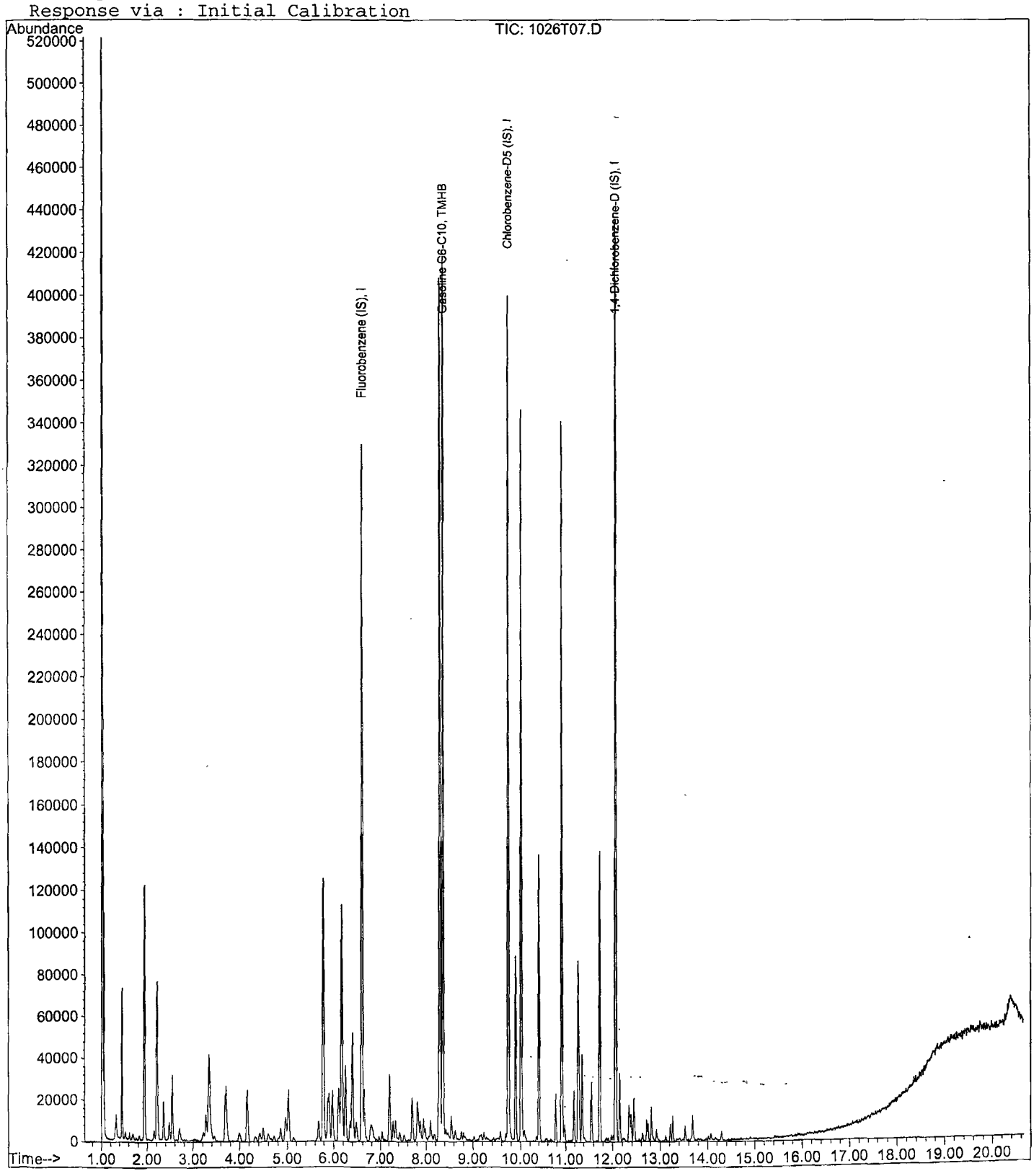
(#) = qualifier out of range (m) = manual integration
1026T07.D TGAS1026.M Mon Oct 28 12:29:06 2019 Page 1

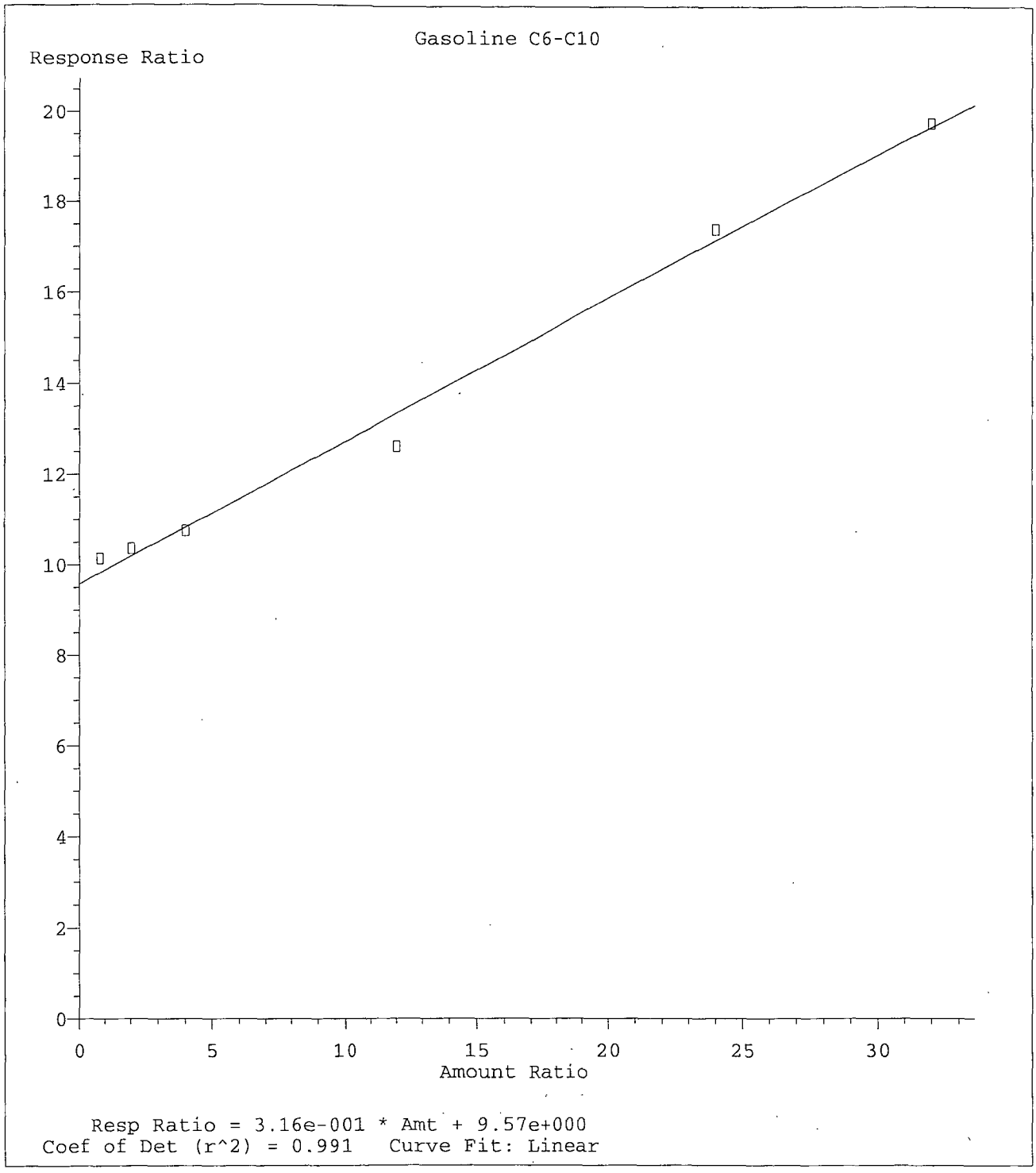
Quantitation Report

Data File : M:\THOR\DATA\T191023\1026T07.D Vial: 7
Acq On : 26 Oct 19 15:03 Operator:
Sample : 800ug/L GAS 10/26/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 28 11:31 2019 Quant Results File: TGAS1026.RES

Method : M:\THOR\DATA\T191023\TGAS1026.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 28 12:08:31 2019
Response via : Initial Calibration





Method Name: M:\THOR\DATA\T191023\TGAS1026.M
Calibration Table Last Updated: Mon Oct 28 12:08:31 2019

VOLATILE ORGANIC ANALYSIS
VOLATILE ORGANIC COMPOUNDS

Form 7

Second Source Calibration

Lab Name: APPL, Inc.
Case No:
Matrix:

SDG No:
Date Analyzed: 10/28/19
Instrument: Thor
Initial Cal. Date: 10/23/19
Data File: 1028T01.D

		Compound	MEAN	CCRF	%D		%Drift
1	TMHB	Gasoline C6-C10	3.825	1.077	72	TMHBL	11
2							
3							
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		Average			72.0		

Quantitation Report (QT Reviewed)

Data File : M:\THOR\DATA\T191028\1028T01.D Vial: 1
Acq On : 28 Oct 19 15:43 Operator:
Sample : (SS) 300ug/L GAS 10/28/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 28 16:45 2019 Quant Results File: TGAS1026.RES

Quant Method : M:\THOR\DATA\T191023\TGAS1026.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 28 12:08:31 2019
Response via : Initial Calibration
DataAcq Meth : T8260

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene (IS)	6.58	TIC	356344	25.00 ppb	0.00
3) Chlorobenzene-D5 (IS)	9.74	TIC	432263	25.00 ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	12.06	TIC	455917	25.00 ppb	0.00

System Monitoring Compounds

Target Compounds					Qvalue
2) Gasoline C6-C10	9.74	TIC	4607248m	265.64 ppb	100

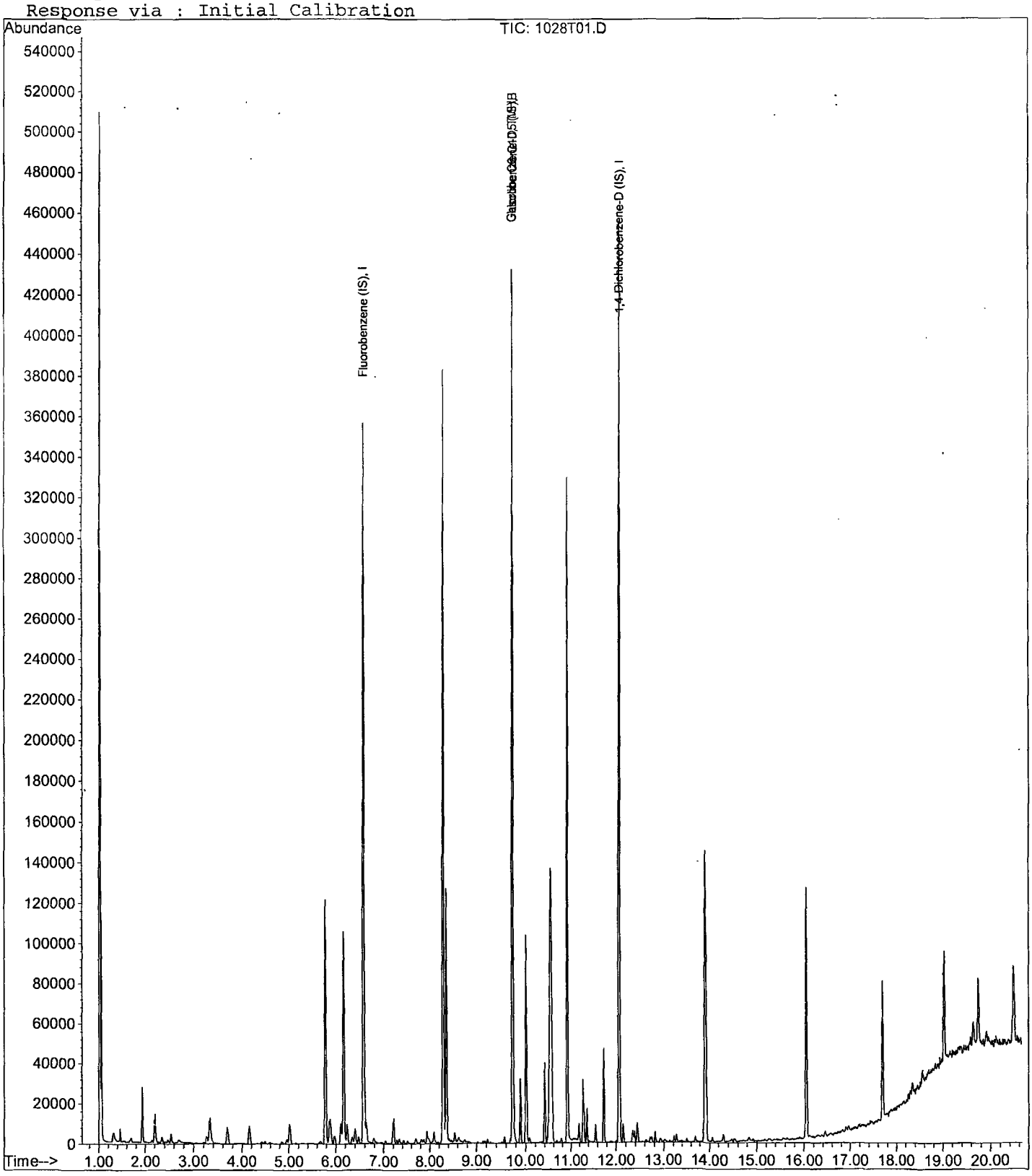
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\THOR\DATA\T191028\1028T01.D Vial: 1
Acq On : 28 Oct 19 15:43 Operator:
Sample : (SS) 300ug/L GAS 10/28/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 28 16:45 2019 Quant Results File: TGAS1026.RES

Method : M:\THOR\DATA\T191023\TGAS1026.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 28 12:08:31 2019
Response via : Initial Calibration



VOLATILE ORGANIC ANALYSIS
VOLATILE ORGANIC COMPOUNDS

Form 7

Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix:

SDG No:
Date Analyzed: 1 Nov 19 18:01
Instrument: Thor
Initial Cal. Date: 10/23/19
Data File: 1101T11.D

		Compound	MEAN	CCRF	%D		%Drift
1	I	Fluorobenzene (IS)	ISTD			I	
2	TMHB	Gasoline C6-C10	3.825	1.108	71	TMHBL	1.7
3	I	Chlorobenzene-D5 (IS)	ISTD			I	
4	I	1,4-Dichlorobenzene-D (IS)	ISTD			I	
5							
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40							
		Average			71.0		

VOLATILE ORGANIC ANALYSIS
VOLATILE ORGANIC COMPOUNDS

Form 7

Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix:

SDG No:
Date Analyzed: 1 Nov 19 18:01
Instrument: Thor
Initial Cal. Date: 10/23/19
Data File: 1101T11.D

		Compound	MEAN	CCRF	%D		%Drift
1	I	Fluorobenzene (IS)	ISTD			I	
2	S	Dibromofluoromethane(S)	0.4819	0.4787	0.67	S	
3	S	1,2-DCA-D4(S)	0.5396	0.5385	0.21	S	
4	I	Chlorobenzene-D5 (IS)	ISTD			I	
5	S	Toluene-D8(S)	1.867	1.834	1.8	S	
6	S	4-Bromofluorobenzene(S)	0.7391	0.7329	0.83	S	
7	I	1,4-Dichlorobenzene-D (IS)	ISTD			I	
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		Average			0.9		

Quantitation Report (QT Reviewed)

Data File : M:\THOR\DATA\T191028\1101T11.D Vial: 9
Acq On : 1 Nov 19 18:01 Operator:
Sample : 191101A CCV/LCS 300ug/L Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Nov 4 12:15 2019 Quant Results File: TGAS1026.RES

Quant Method : M:\THOR\DATA\T191028\TGAS1026.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 28 12:08:31 2019
Response via : Initial Calibration
DataAcq Meth : T8260

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene (IS)	6.59	TIC	278881	25.000 ppb	0.00
3) Chlorobenzene-D5 (IS)	9.74	TIC	346673	25.000 ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	12.06	TIC	382417	25.000 ppb	0.00
System Monitoring Compounds					
Target Compounds					Qvalue
2) Gasoline C6-C10	12.06	TIC	3709353m	295.042 ppb	100

(#) = qualifier out of range (m) = manual integration
1101T11.D TGAS1026.M Wed Dec 04 10:40:05 2019 Page 1

Quantitation Report (Not Reviewed)

Data File : M:\THOR\DATA\T191028\1101T11.D Vial: 9
Acq On : 1 Nov 19 18:01 Operator:
Sample : 191101A CCV/LCS 300ug/L Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Nov 4 14:35 2019 Quant Results File: TSUR1023.RES

Quant Method : M:\THOR\DATA\T191028\TSUR1023.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:27:29 2019
Response via : Initial Calibration
DataAcq Meth : T8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	6.59	96	133632	25.000	ppb	0.00
4) Chlorobenzene-D5 (IS)	9.74	117	121136	25.000	ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	12.06	152	70784	25.000	ppb	0.00
System Monitoring Compounds						
2) Dibromofluoromethane(S)	5.78	111	63965	24.833	ppb	0.00
Spiked Amount 25.000			Recovery =	99.332%		
3) 1,2-DCA-D4(S)	6.17	65	71955	24.948	ppb	0.00
Spiked Amount 25.000			Recovery =	99.792%		
5) Toluene-D8(S)	8.30	98	222139	24.556	ppb	0.00
Spiked Amount 25.000			Recovery =	98.224%		
6) 4-Bromofluorobenzene(S)	10.91	174	88786	24.792	ppb	0.00
Spiked Amount 25.000			Recovery =	99.168%		

Target Compounds Qvalue

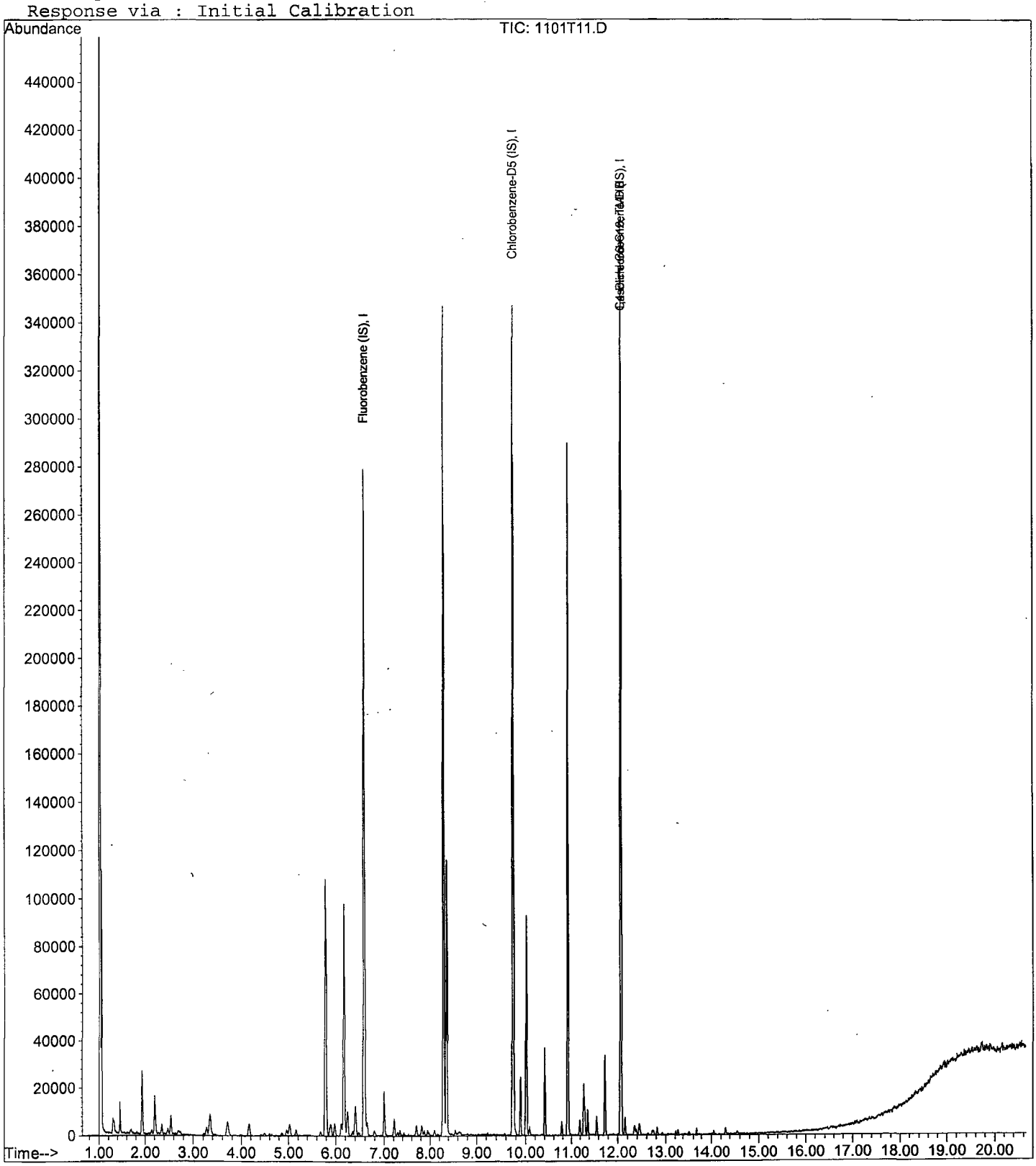
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\THOR\DATA\T191028\1101T11.D Vial: 9
Acq On : 1 Nov 19 18:01 Operator:
Sample : 191101A CCV/LCS 300ug/L Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Nov 4 12:15 2019 Quant Results File: TGAS1026.RES

Method : M:\THOR\DATA\T191028\TGAS1026.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 28 12:08:31 2019
Response via : Initial Calibration



VOLATILE ORGANIC ANALYSIS
VOLATILE ORGANIC COMPOUNDS

Form 7

Ending Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix:

SDG No:
Date Analyzed: 2 Nov 19 2:30
Instrument: Thor
Initial Cal. Date: 10/23/19
Data File: 1101T29.D

		Compound	MEAN	CCRF	%D		%Drift
1	I	Fluorobenzene (IS)	ISTD			I	
2	TMHB	Gasoline C6-C10	3.825	0.9929	74	TMHBL	38
3	I	Chlorobenzene-D5 (IS)	ISTD			I	
4	I	1,4-Dichlorobenzene-D (IS)	ISTD			I	
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39							
40							
		Average			74.0		

VOLATILE ORGANIC ANALYSIS
VOLATILE ORGANIC COMPOUNDS

Form 7

Continuing Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Date Analyzed: 2 Nov 19 2:30
Matrix: Instrument: Thor
Initial Cal. Date: 10/23/19
Data File: 1101T29.D

		Compound	MEAN	CCRF	%D	%Drift		
1	I	Fluorobenzene (IS)	ISTD			I		
2	S	Dibromofluoromethane(S)	0.4819	0.3821	21	S		* NT
3	S	1,2-DCA-D4(S)	0.5396	0.4357	19	S		
4	I	Chlorobenzene-D5 (IS)	ISTD			I		
5	S	Toluene-D8(S)	1.867	1.500	20	S		
6	S	4-Bromofluorobenzene(S)	0.7391	0.5958	19	S		
7	I	1,4-Dichlorobenzene-D (IS)	ISTD			I		
8								
9								
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40								
		Average			19.8			

Quantitation Report (QT Reviewed)

Data File : M:\THOR\DATA\T191028\1101T29.D Vial: 27
Acq On : 2 Nov 19 2:30 Operator:
Sample : Ending CCV 300ug/L 11/1/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Nov 4 12:22 2019 Quant Results File: TGAS1026.RES

Quant Method : M:\THOR\DATA\T191028\TGAS1026.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 28 12:08:31 2019
Response via : Initial Calibration
DataAcq Meth : T8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	6.59	TIC	334038	25.000	ppb	0.00
3) Chlorobenzene-D5 (IS)	9.74	TIC	421070	25.000	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	12.06	TIC	445478	25.000	ppb	0.00

System Monitoring Compounds

Target Compounds						Qvalue
2) Gasoline C6-C10	9.74	TIC	3979902m	185.364	ppb	100

(#) = qualifier out of range (m) = manual integration
1101T29.D TGAS1026.M Wed Dec 04 10:40:13 2019 Page 1

Quantitation Report (Not Reviewed)

Data File : M:\THOR\DATA\T191028\1101T29.D Vial: 27
Acq On : 2 Nov 19 2:30 Operator:
Sample : Ending CCV 300ug/L 11/1/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Dec 4 10:43 2019 Quant Results File: TSUR1023.RES

Quant Method : M:\THOR\DATA\T191028\TSUR1023.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:27:29 2019
Response via : Initial Calibration
DataAcq Meth : T8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	6.59	96	159296	25.000	ppb	0.00
4) Chlorobenzene-D5 (IS)	9.74	117	144384	25.000	ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	12.06	152	80456	25.000	ppb	0.00
System Monitoring Compounds						
2) Dibromofluoromethane(S)	5.78	111	60873	19.825	ppb	0.00
Spiked Amount 25.000			Recovery =	79.300%		
3) 1,2-DCA-D4(S)	6.17	65	69410	20.189	ppb	0.00
Spiked Amount 25.000			Recovery =	80.756%		
5) Toluene-D8(S)	8.30	98	216544	20.083	ppb	0.00
Spiked Amount 25.000			Recovery =	80.332%		
6) 4-Bromofluorobenzene(S)	10.91	174	86020	20.152	ppb	0.00
Spiked Amount 25.000			Recovery =	80.608%		

Target Compounds Qvalue

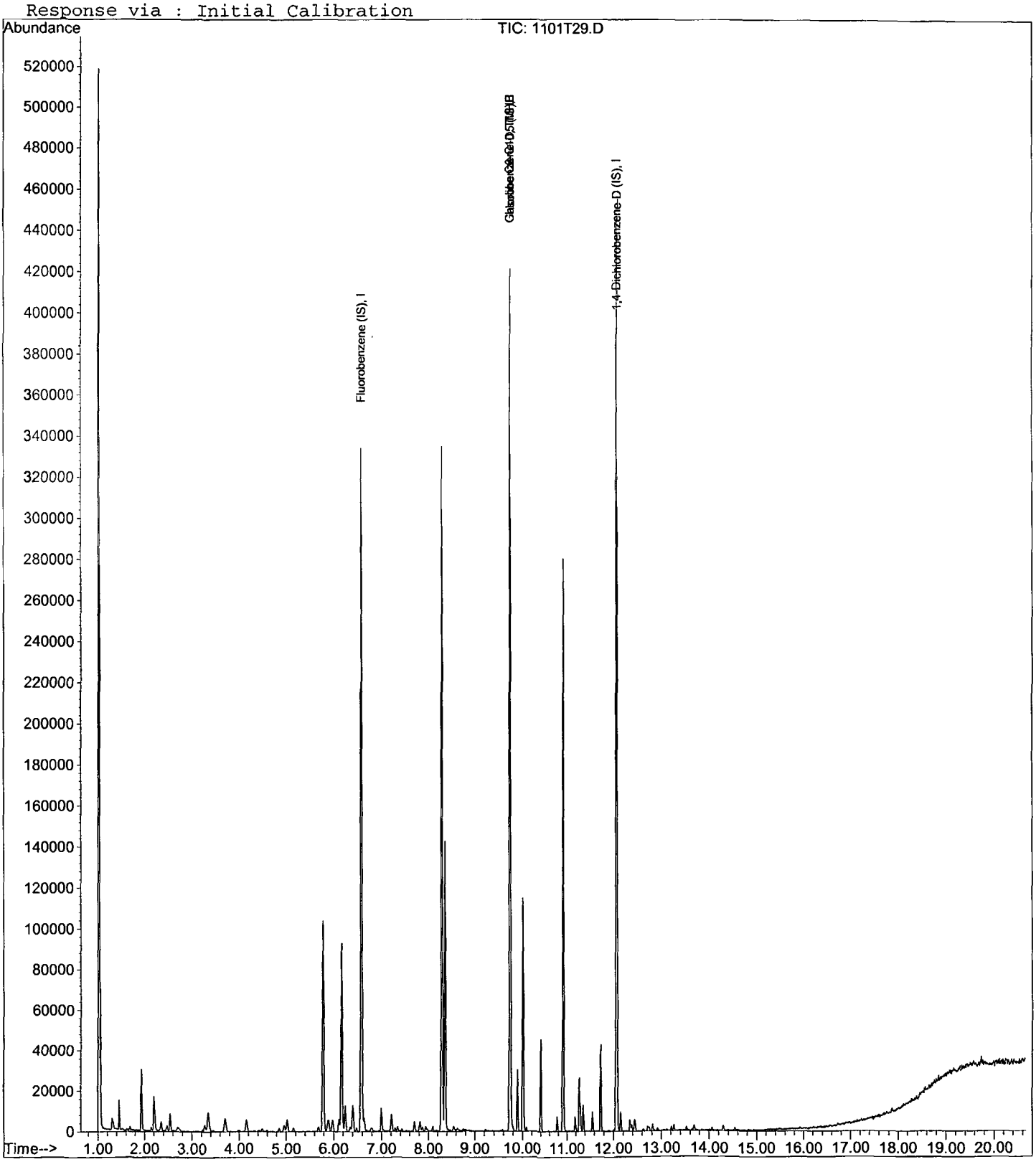
(#) = qualifier out of range (m) = manual integration
1101T29.D TSUR1023.M Wed Dec 04 10:43:40 2019 Page 1

Quantitation Report

Data File : M:\THOR\DATA\T191028\1101T29.D Vial: 27
Acq On : 2 Nov 19 2:30 Operator:
Sample : Ending CCV 300ug/L 11/1/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Nov 4 12:22 2019 Quant Results File: TGAS1026.RES

Method : M:\THOR\DATA\T191028\TGAS1026.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 28 12:08:31 2019
Response via : Initial Calibration



VOLATILE ORGANIC ANALYSIS
VOLATILE ORGANIC COMPOUNDS

Form 7

Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix:

SDG No:
Date Analyzed: 2 Nov 19 4:52
Instrument: Thor
Initial Cal. Date: 10/23/19
Data File: 1101T34.D

		Compound	MEAN	CCRF	%D	%Drift	
1	I	Fluorobenzene (IS)	ISTD			I	
2	TMHB	Gasoline C6-C10	3.825	1.055	72	TMHBL	19
3	I	Chlorobenzene-D5 (IS)	ISTD			I	
4	I	1,4-Dichlorobenzene-D (IS)	ISTD			I	
5							
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39							
40							
		Average			72.0		

VOLATILE ORGANIC ANALYSIS
VOLATILE ORGANIC COMPOUNDS

Form 7

Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix:

SDG No:
Date Analyzed: 2 Nov 19 4:52
Instrument: Thor
Initial Cal. Date: 10/23/19
Data File: 1101T34.D

		Compound	MEAN	CCRF	%D	%Drift	
1	I	Fluorobenzene (IS)	ISTD			I	
2	S	Dibromofluoromethane(S)	0.4819	0.4653	3.4	S	
3	S	1,2-DCA-D4(S)	0.5396	0.5146	4.6	S	
4	I	Chlorobenzene-D5 (IS)	ISTD			I	
5	S	Toluene-D8(S)	1.867	1.817	2.7	S	
6	S	4-Bromofluorobenzene(S)	0.7391	0.7401	0.14	S	
7	I	1,4-Dichlorobenzene-D (IS)	ISTD			I	
8							
9							
10							
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40							
		Average			2.7		

Quantitation Report (QT Reviewed)

Data File : M:\THOR\DATA\T191028\1101T34.D Vial: 32
Acq On : 2 Nov 19 4:52 Operator:
Sample : 191101B CCV/LCS 300ug/L Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Nov 4 13:29 2019 Quant Results File: TGAS1026.RES

Quant Method : M:\THOR\DATA\T191028\TGAS1026.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 28 12:08:31 2019
Response via : Initial Calibration
DataAcq Meth : T8260

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene (IS)	6.59	TIC	270443	25.000 ppb	0.00
3) Chlorobenzene-D5 (IS)	9.74	TIC	340141	25.000 ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	12.06	TIC	371374	25.000 ppb	0.00
System Monitoring Compounds					
Target Compounds					Qvalue
2) Gasoline C6-C10	9.74	TIC	3423167m	244.154 ppb	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\THOR\DATA\T191028\1101T34.D Vial: 32
Acq On : 2 Nov 19 4:52 Operator:
Sample : 191101B CCV/LCS 300ug/L Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Nov 4 14:58 2019 Quant Results File: TSUR1023.RES

Quant Method : M:\THOR\DATA\T191028\TSUR1023.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:27:29 2019
Response via : Initial Calibration
DataAcq Meth : T8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	6.59	96	130424	25.000	ppb	0.00
4) Chlorobenzene-D5 (IS)	9.74	117	116896	25.000	ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	12.06	152	66880	25.000	ppb	0.00
System Monitoring Compounds						
2) Dibromofluoromethane(S)	5.78	111	60686	24.139	ppb	0.00
Spiked Amount 25.000			Recovery =	96.556%		
3) 1,2-DCA-D4(S)	6.17	65	67114	23.842	ppb	0.00
Spiked Amount 25.000			Recovery =	95.368%		
5) Toluene-D8(S)	8.29	98	212419	24.333	ppb	0.00
Spiked Amount 25.000			Recovery =	97.332%		
6) 4-Bromofluorobenzene(S)	10.91	174	86519	25.035	ppb	0.00
Spiked Amount 25.000			Recovery =	100.140%		

Target Compounds Qvalue

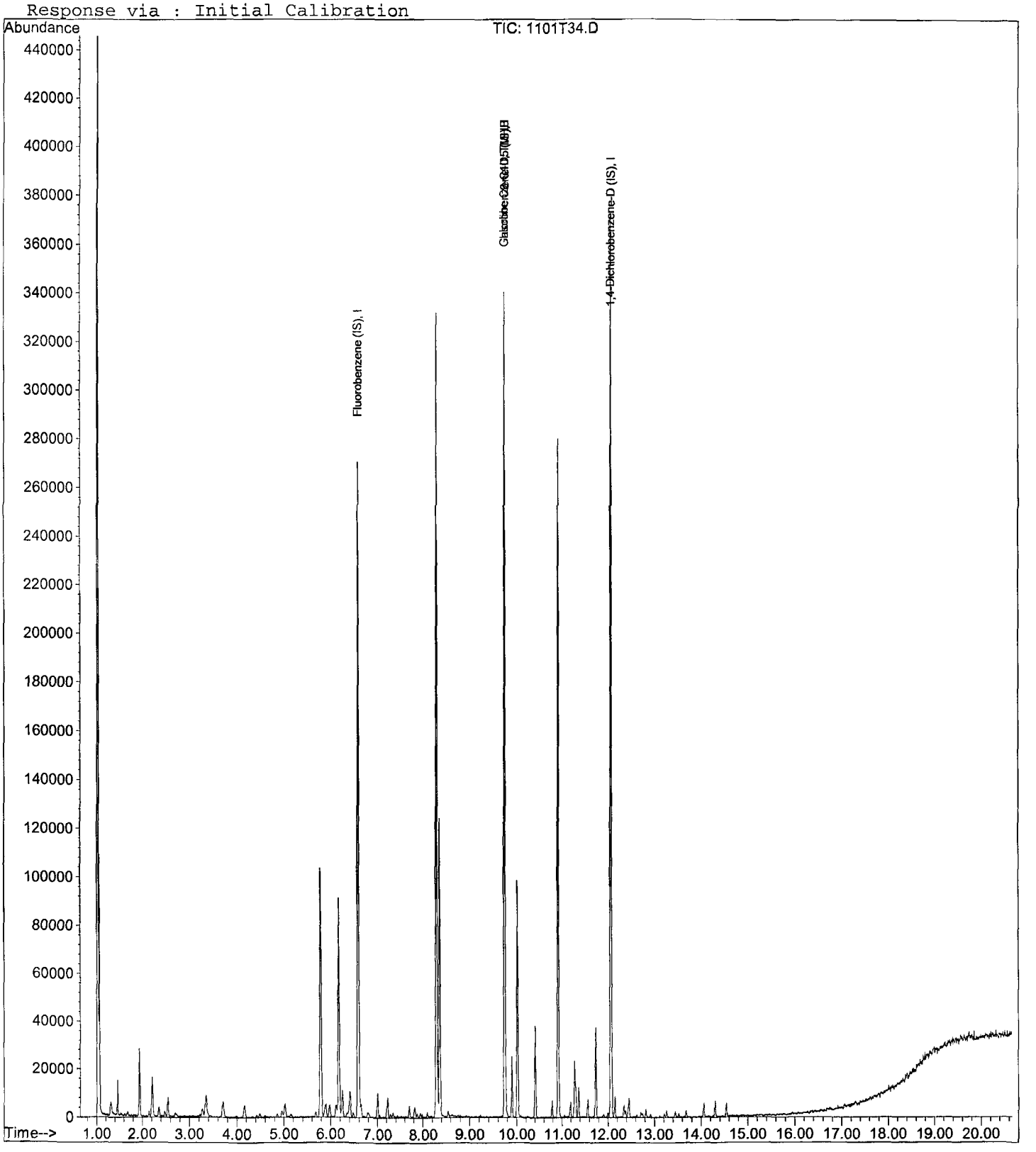
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\THOR\DATA\T191028\1101T34.D Vial: 32
Acq On : 2 Nov 19 4:52 Operator:
Sample : 191101B CCV/LCS 300ug/L Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Nov 4 13:29 2019 Quant Results File: TGAS1026.RES

Method : M:\THOR\DATA\T191028\TGAS1026.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 28 12:08:31 2019
Response via : Initial Calibration



VOLATILE ORGANIC ANALYSIS
VOLATILE ORGANIC COMPOUNDS

Form 7

Ending Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix:

SDG No:
Date Analyzed: 2 Nov 19 14:46
Instrument: Thor
Initial Cal. Date: 10/23/19
Data File: 1101T55.D

		Compound	MEAN	CCRF	%D	%Drift	
1	I	Fluorobenzene (IS)	ISTD			I	
2	TMHB	Gasoline C6-C10	3.825	0.9992	74	TMHBL	36
3	I	Chlorobenzene-D5 (IS)	ISTD			I	
4	I	1,4-Dichlorobenzene-D (IS)	ISTD			I	
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
30							
31							
32							
33							
34							
35							
36							
37							
38							
39							
40							
		Average			74.0		

VOLATILE ORGANIC ANALYSIS
VOLATILE ORGANIC COMPOUNDS

Form 7

Ending Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix:

SDG No:
Date Analyzed: 2 Nov 19 14:46
Instrument: Thor
Initial Cal. Date: 10/23/19
Data File: 1101T55.D

		Compound	MEAN	CCRF	%D		%Drift
1	I	Fluorobenzene (IS)	ISTD			I	
2	S	Dibromofluoromethane(S)	0.4819	0.4430	8.1	S	
3	S	1,2-DCA-D4(S)	0.5396	0.4913	9.0	S	
4	I	Chlorobenzene-D5 (IS)	ISTD			I	
5	S	Toluene-D8(S)	1.867	1.635	12	S	
6	S	4-Bromofluorobenzene(S)	0.7391	0.6513	12	S	
7	I	1,4-Dichlorobenzene-D (IS)	ISTD			I	
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
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24							
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26							
27							
28							
29							
30							
31							
32							
33							
34							
35							
36							
37							
38							
39							
40							
		Average			10.3		

Quantitation Report (QT Reviewed)

Data File : M:\THOR\DATA\T191028\1101T55.D Vial: 53
Acq On : 2 Nov 19 14:46 Operator:
Sample : Ending CCV 300ug/L 11/1/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Nov 4 13:34 2019 Quant Results File: TGAS1026.RES

Quant Method : M:\THOR\DATA\T191028\TGAS1026.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 28 12:08:31 2019
Response via : Initial Calibration
DataAcq Meth : T8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	6.59	TIC	284074	25.000	ppb	0.00
3) Chlorobenzene-D5 (IS)	9.74	TIC	363454	25.000	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	12.06	TIC	399464	25.000	ppb	0.00

System Monitoring Compounds

Target Compounds						Qvalue
2) Gasoline C6-C10	9.74	TIC	3406041m	191.334	ppb	100

(#) = qualifier out of range (m) = manual integration
1101T55.D TGAS1026.M Wed Dec 04 10:40:24 2019 Page 1

Quantitation Report (Not Reviewed)

Data File : M:\THOR\DATA\T191028\1101T55.D Vial: 53
Acq On : 2 Nov 19 14:46 Operator:
Sample : Ending CCV 300ug/L 11/1/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Dec 4 10:43 2019 Quant Results File: TSUR1023.RES

Quant Method : M:\THOR\DATA\T191028\TSUR1023.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:27:29 2019
Response via : Initial Calibration
DataAcq Meth : T8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	6.59	96	136064	25.000	ppb	0.00
4) Chlorobenzene-D5 (IS)	9.74	117	127768	25.000	ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	12.06	152	74424	25.000	ppb	0.00
System Monitoring Compounds						
2) Dibromofluoromethane(S)	5.79	111	60281	22.984	ppb	0.00
Spiked Amount 25.000			Recovery =	91.936%		
3) 1,2-DCA-D4(S)	6.17	65	66842	22.761	ppb	0.00
Spiked Amount 25.000			Recovery =	91.044%		
5) Toluene-D8(S)	8.30	98	208935	21.898	ppb	0.00
Spiked Amount 25.000			Recovery =	87.592%		
6) 4-Bromofluorobenzene(S)	10.92	174	83219	22.031	ppb	0.00
Spiked Amount 25.000			Recovery =	88.124%		

Target Compounds Qvalue

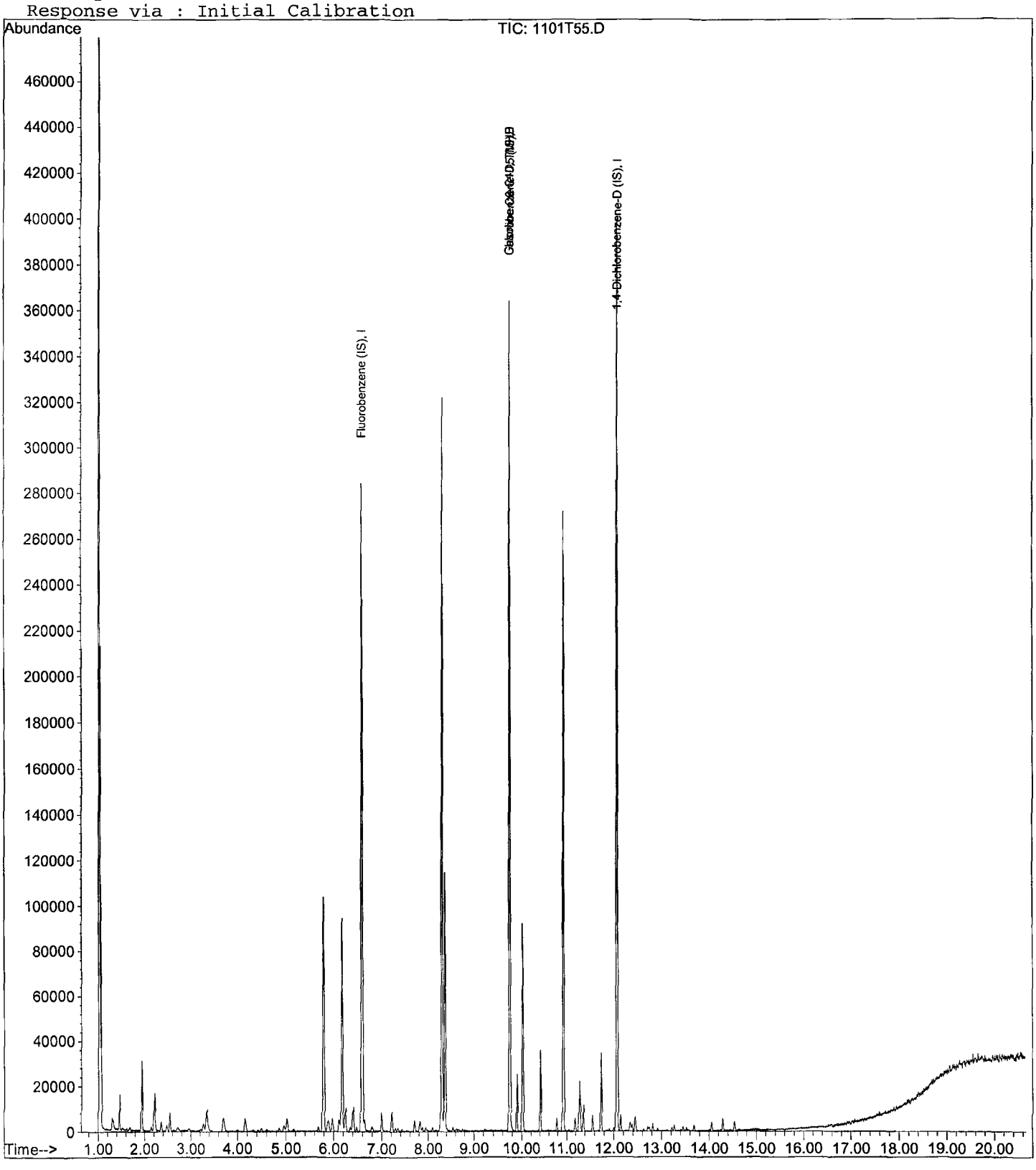
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\THOR\DATA\T191028\1101T55.D Vial: 53
Acq On : 2 Nov 19 14:46 Operator:
Sample : Ending CCV 300ug/L 11/1/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Nov 4 13:34 2019 Quant Results File: TGAS1026.RES

Method : M:\THOR\DATA\T191028\TGAS1026.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 28 12:08:31 2019
Response via : Initial Calibration



ORGANICS
Raw Data

Quantitation Report (QT Reviewed)

Data File : M:\THOR\DATA\T191028\1101T42.D Vial: 40
Acq On : 2 Nov 19 8:37 Operator:
Sample : BA02089W01 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Nov 4 15:04 2019 Quant Results File: TGAS1026.RES

Quant Method : M:\THOR\DATA\T191028\TGAS1026.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 28 12:08:31 2019
Response via : Initial Calibration
DataAcq Meth : T8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	6.59	TIC	263934	25.000	ppb	0.00
3) Chlorobenzene-D5 (IS)	9.74	TIC	334194	25.000	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	12.06	TIC	349245	25.000	ppb	0.00

System Monitoring Compounds

Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration
1101T42.D TGAS1026.M Wed Dec 04 10:40:20 2019 Page 1

Quantitation Report (Not Reviewed)

Data File : M:\THOR\DATA\T191028\1101T42.D Vial: 40
Acq On : 2 Nov 19 8:37 Operator:
Sample : BA02089W01 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Nov 4 15:04 2019 Quant Results File: TSUR1023.RES

Quant Method : M:\THOR\DATA\T191028\TSUR1023.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:27:29 2019
Response via : Initial Calibration
DataAcq Meth : T8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	6.59	96	124768	25.000	ppb	0.00
4) Chlorobenzene-D5 (IS)	9.74	117	116192	25.000	ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	12.06	152	64704	25.000	ppb	0.00
System Monitoring Compounds						
2) Dibromofluoromethane(S)	5.78	111	60104	24.992	ppb	0.00
Spiked Amount 25.000			Recovery =	99.968%		
3) 1,2-DCA-D4(S)	6.17	65	65369	24.275	ppb	0.00
Spiked Amount 25.000			Recovery =	97.100%		
5) Toluene-D8(S)	8.30	98	206662	23.817	ppb	0.00
Spiked Amount 25.000			Recovery =	95.268%		
6) 4-Bromofluorobenzene(S)	10.92	174	80525	23.442	ppb	0.00
Spiked Amount 25.000			Recovery =	93.768%		

Target Compounds Qvalue

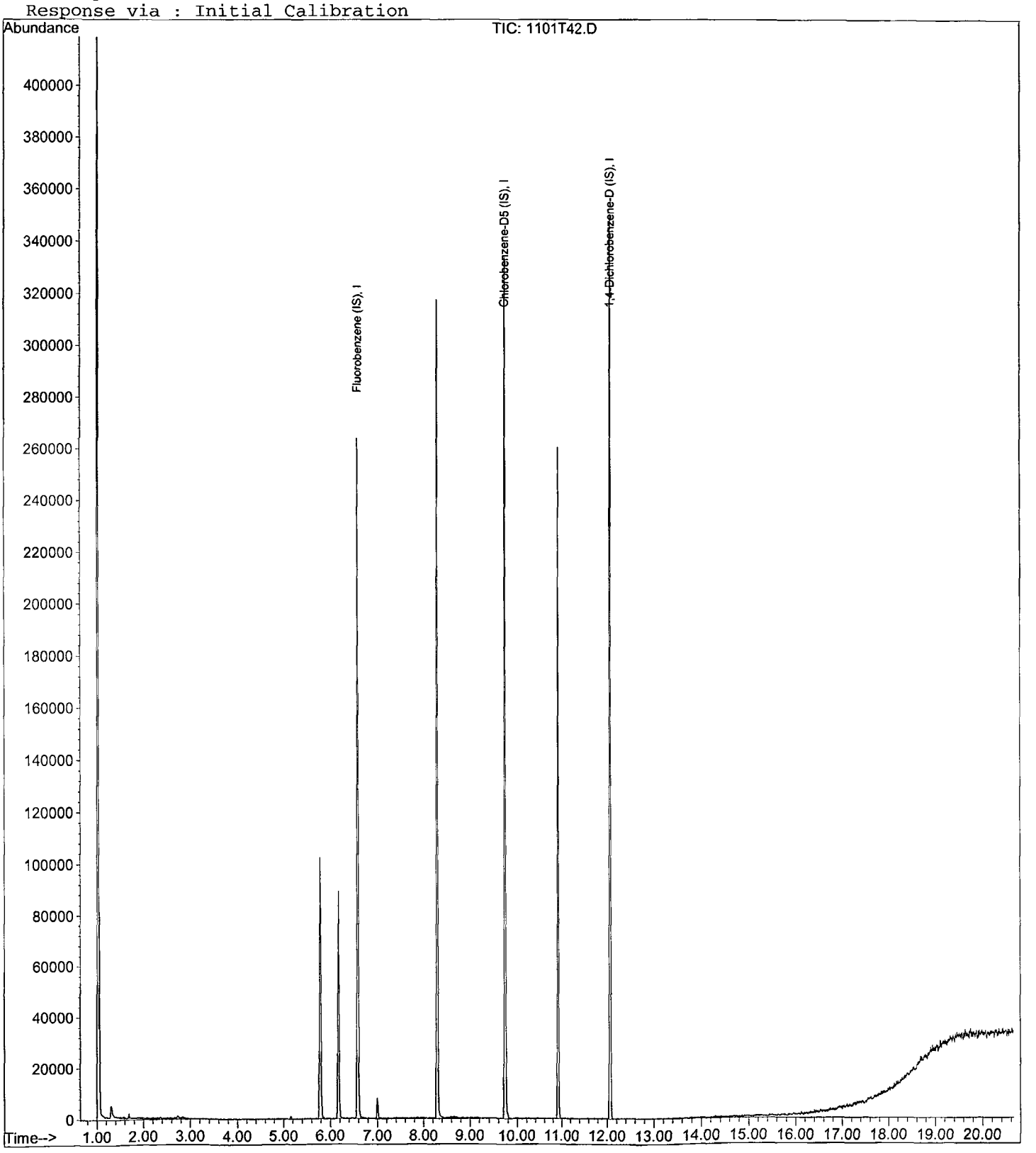
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\THOR\DATA\T191028\1101T42.D Vial: 40
Acq On : 2 Nov 19 8:37 Operator:
Sample : BA02089W01 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Nov 4 15:04 2019 Quant Results File: TGAS1026.RES

Method : M:\THOR\DATA\T191028\TGAS1026.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 28 12:08:31 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\THOR\DATA\T191028\1101T47.D Vial: 45
Acq On : 2 Nov 19 10:59 Operator:
Sample : BA02090W01 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Nov 4 13:59 2019 Quant Results File: TGAS1026.RES

Quant Method : M:\THOR\DATA\T191028\TGAS1026.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 28 12:08:31 2019
Response via : Initial Calibration
DataAcq Meth : T8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	6.59	TIC	264375	25.000	ppb	0.00
3) Chlorobenzene-D5 (IS)	9.74	TIC	321694	25.000	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	12.06	TIC	355772	25.000	ppb	0.00

System Monitoring Compounds

Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\THOR\DATA\T191028\1101T47.D Vial: 45
Acq On : 2 Nov 19 10:59 Operator:
Sample : BA02090W01 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Nov 4 15:05 2019 Quant Results File: TSUR1023.RES

Quant Method : M:\THOR\DATA\T191028\TSUR1023.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:27:29 2019
Response via : Initial Calibration
DataAcq Meth : T8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	6.59	96	126552	25.000	ppb	0.00
4) Chlorobenzene-D5 (IS)	9.74	117	112152	25.000	ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	12.06	152	65400	25.000	ppb	0.00
System Monitoring Compounds						
2) Dibromofluoromethane(S)	5.78	111	59778	24.506	ppb	0.00
Spiked Amount 25.000			Recovery =	98.024%		
3) 1,2-DCA-D4(S)	6.17	65	68149	24.951	ppb	0.00
Spiked Amount 25.000			Recovery =	99.804%		
5) Toluene-D8(S)	8.30	98	207563	24.783	ppb	0.00
Spiked Amount 25.000			Recovery =	99.132%		
6) 4-Bromofluorobenzene(S)	10.91	174	81601	24.611	ppb	0.00
Spiked Amount 25.000			Recovery =	98.444%		

Target Compounds Qvalue

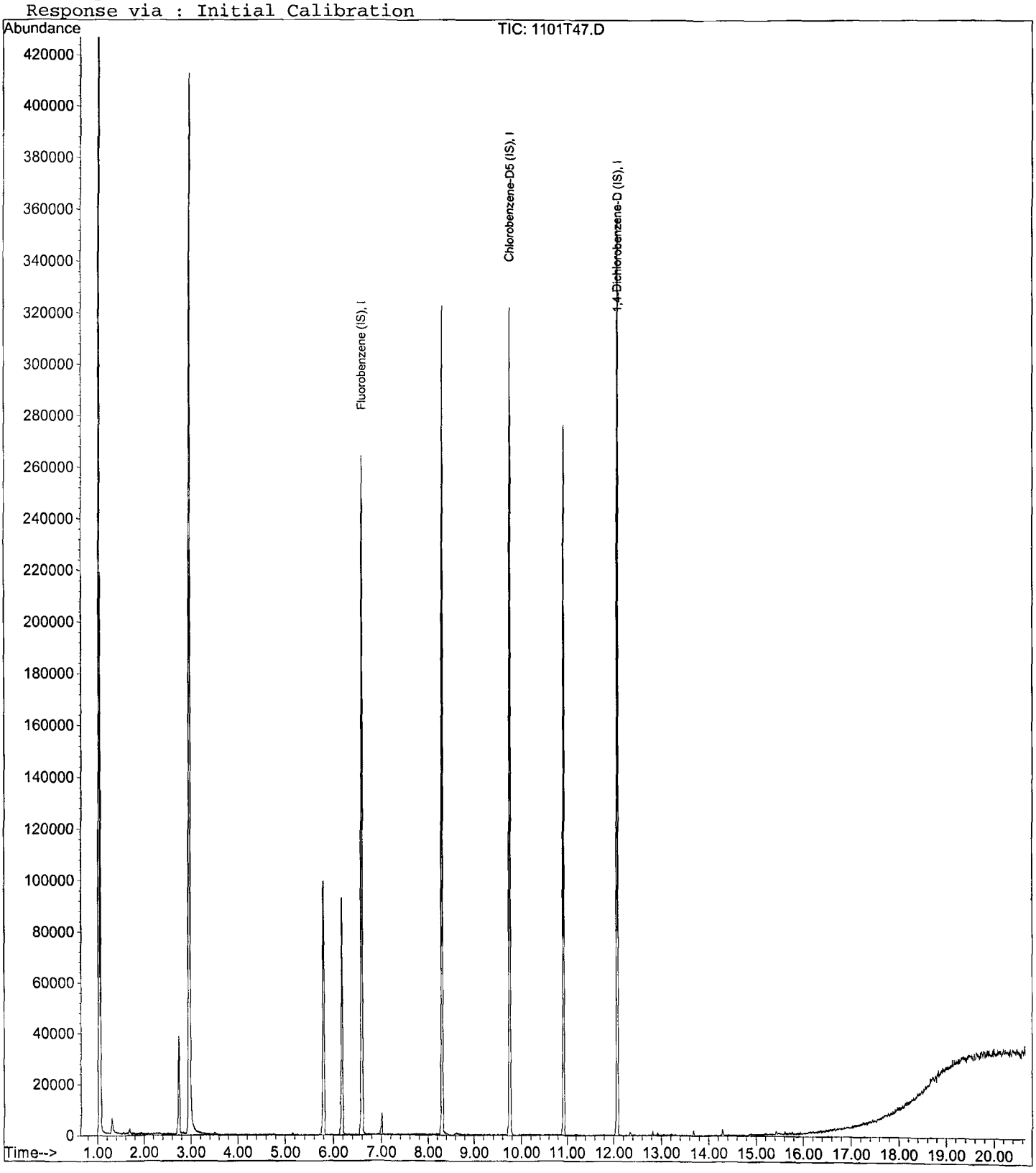
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\THOR\DATA\T191028\1101T47.D Vial: 45
Acq On : 2 Nov 19 10:59 Operator:
Sample : BA02090W01 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Nov 4 13:59 2019 Quant Results File: TGAS1026.RES

Method : M:\THOR\DATA\T191028\TGAS1026.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 28 12:08:31 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\THOR\DATA\T191028\1101T24.D Vial: 22
Acq On : 2 Nov 19 00:09 Operator:
Sample : BA02091W01 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Nov 4 13:51 2019 Quant Results File: TGAS1026.RES

Quant Method : M:\THOR\DATA\T191028\TGAS1026.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 28 12:08:31 2019
Response via : Initial Calibration
DataAcq Meth : T8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	6.59	TIC	272606	25.000	ppb	0.00
3) Chlorobenzene-D5 (IS)	9.74	TIC	346217	25.000	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	12.06	TIC	363179	25.000	ppb	0.00

System Monitoring Compounds

Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\THOR\DATA\T191028\1101T24.D Vial: 22
Acq On : 2 Nov 19 00:09 Operator:
Sample : BA02091W01 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Nov 4 14:35 2019 Quant Results File: TSUR1023.RES

Quant Method : M:\THOR\DATA\T191028\TSUR1023.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:27:29 2019
Response via : Initial Calibration
DataAcq Meth : T8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	6.59	96	131968	25.000	ppb	0.00
4) Chlorobenzene-D5 (IS)	9.74	117	120600	25.000	ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	12.06	152	66432	25.000	ppb	0.00
System Monitoring Compounds						
2) Dibromofluoromethane(S)	5.78	111	59976	23.578	ppb	0.00
Spiked Amount 25.000			Recovery =	94.312%		
3) 1,2-DCA-D4(S)	6.17	65	67382	23.657	ppb	0.00
Spiked Amount 25.000			Recovery =	94.628%		
5) Toluene-D8(S)	8.29	98	211821	23.519	ppb	0.00
Spiked Amount 25.000			Recovery =	94.076%		
6) 4-Bromofluorobenzene(S)	10.91	174	82186	23.051	ppb	0.00
Spiked Amount 25.000			Recovery =	92.204%		

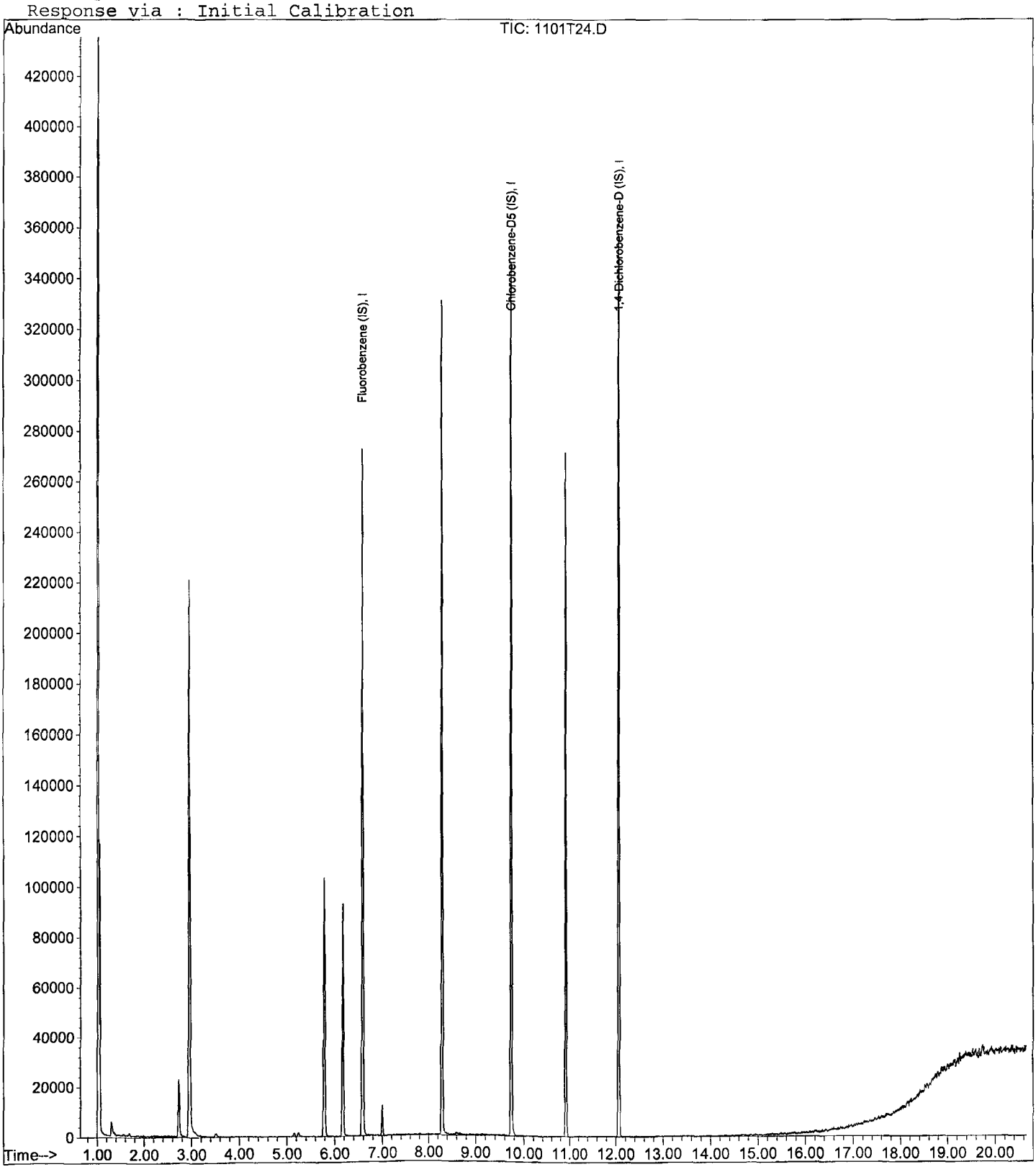
Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration

Data File : M:\THOR\DATA\T191028\1101T24.D Vial: 22
Acq On : 2 Nov 19 00:09 Operator:
Sample : BA02091W01 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Nov 4 13:51 2019 Quant Results File: TGAS1026.RES

Method : M:\THOR\DATA\T191028\TGAS1026.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 28 12:08:31 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\THOR\DATA\T191028\1101T15.D Vial: 13
Acq On : 1 Nov 19 19:55 Operator:
Sample : 191101A BLK Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Nov 4 14:36 2019 Quant Results File: TGAS1026.RES

Quant Method : M:\THOR\DATA\T191028\TGAS1026.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 28 12:08:31 2019
Response via : Initial Calibration
DataAcq Meth : T8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	6.59	TIC	260796	25.000	ppb	0.00
3) Chlorobenzene-D5 (IS)	9.74	TIC	335794	25.000	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	12.06	TIC	343340	25.000	ppb	0.00

System Monitoring Compounds

Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\THOR\DATA\T191028\1101T15.D Vial: 13
Acq On : 1 Nov 19 19:55 Operator:
Sample : 191101A BLK Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Nov 4 14:35 2019 Quant Results File: TSUR1023.RES

Quant Method : M:\THOR\DATA\T191028\TSUR1023.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:27:29 2019
Response via : Initial Calibration
DataAcq Meth : T8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	6.59	96	123736	25.000	ppb	0.00
4) Chlorobenzene-D5 (IS)	9.74	117	117800	25.000	ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	12.06	152	63024	25.000	ppb	0.00
System Monitoring Compounds						
2) Dibromofluoromethane(S)	5.79	111	61205	25.662	ppb	0.00
Spiked Amount 25.000			Recovery = 102.648%			
3) 1,2-DCA-D4(S)	6.17	65	68626	25.697	ppb	0.00
Spiked Amount 25.000			Recovery = 102.788%			
5) Toluene-D8(S)	8.30	98	214919	24.431	ppb	0.00
Spiked Amount 25.000			Recovery = 97.724%			
6) 4-Bromofluorobenzene(S)	10.92	174	85506	24.552	ppb	0.00
Spiked Amount 25.000			Recovery = 98.208%			

Target Compounds Qvalue

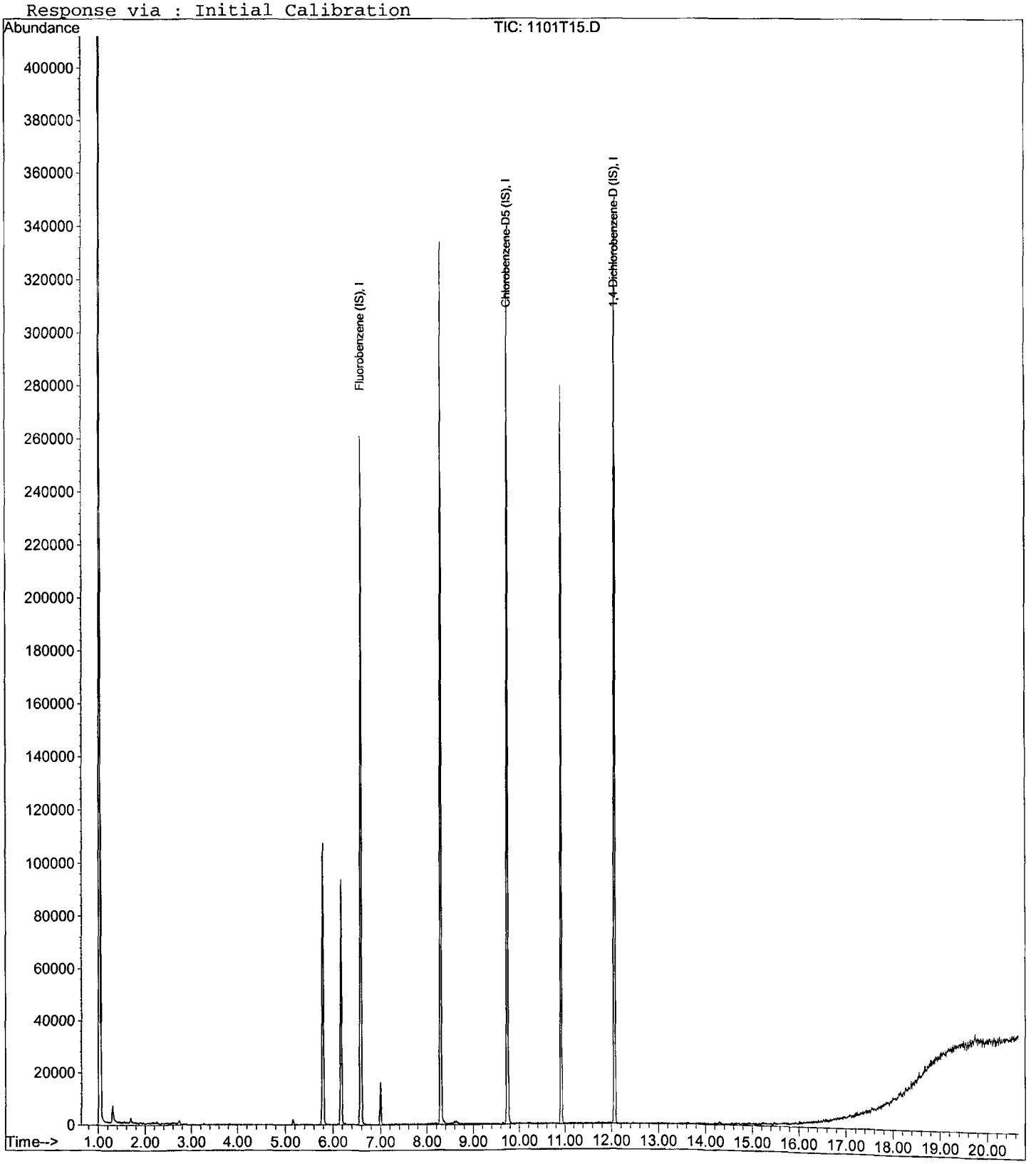
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\THOR\DATA\T191028\1101T15.D Vial: 13
Acq On : 1 Nov 19 19:55 Operator:
Sample : 191101A BLK Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Nov 4 14:36 2019 Quant Results File: TGAS1026.RES

Method : M:\THOR\DATA\T191028\TGAS1026.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 28 12:08:31 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\THOR\DATA\T191028\1101T11.D Vial: 9
Acq On : 1 Nov 19 18:01 Operator:
Sample : 191101A CCV/LCS 300ug/L Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Nov 4 12:15 2019 Quant Results File: TGAS1026.RES

Quant Method : M:\THOR\DATA\T191028\TGAS1026.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 28 12:08:31 2019
Response via : Initial Calibration
DataAcq Meth : T8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	6.59	TIC	278881	25.000	ppb	0.00
3) Chlorobenzene-D5 (IS)	9.74	TIC	346673	25.000	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	12.06	TIC	382417	25.000	ppb	0.00
System Monitoring Compounds						
Target Compounds						Qvalue
2) Gasoline C6-C10	12.06	TIC	3709353m	295.042	ppb	100

(#) = qualifier out of range (m) = manual integration
1101T11.D TGAS1026.M Wed Dec 04 10:40:05 2019 Page 1

Quantitation Report (Not Reviewed)

Data File : M:\THOR\DATA\T191028\1101T11.D Vial: 9
Acq On : 1 Nov 19 18:01 Operator:
Sample : 191101A CCV/LCS 300ug/L Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Nov 4 14:35 2019 Quant Results File: TSUR1023.RES

Quant Method : M:\THOR\DATA\T191028\TSUR1023.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:27:29 2019
Response via : Initial Calibration
DataAcq Meth : T8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	6.59	96	133632	25.000	ppb	0.00
4) Chlorobenzene-D5 (IS)	9.74	117	121136	25.000	ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	12.06	152	70784	25.000	ppb	0.00
System Monitoring Compounds						
2) Dibromofluoromethane(S)	5.78	111	63965	24.833	ppb	0.00
Spiked Amount 25.000			Recovery =	99.332%		
3) 1,2-DCA-D4(S)	6.17	65	71955	24.948	ppb	0.00
Spiked Amount 25.000			Recovery =	99.792%		
5) Toluene-D8(S)	8.30	98	222139	24.556	ppb	0.00
Spiked Amount 25.000			Recovery =	98.224%		
6) 4-Bromofluorobenzene(S)	10.91	174	88786	24.792	ppb	0.00
Spiked Amount 25.000			Recovery =	99.168%		

Target Compounds Qvalue

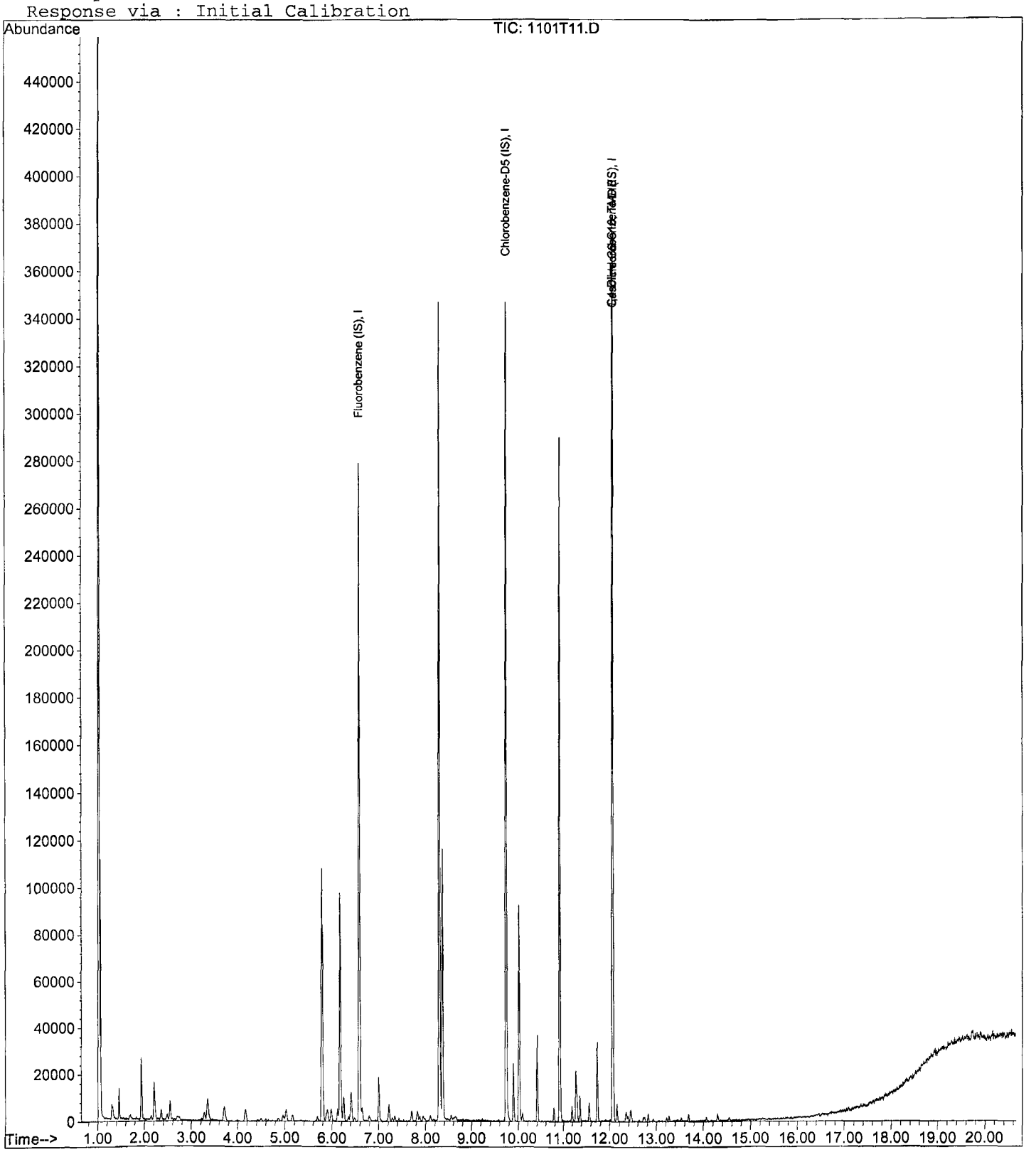
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\THOR\DATA\T191028\1101T11.D Vial: 9
Acq On : 1 Nov 19 18:01 Operator:
Sample : 191101A CCV/LCS 300ug/L Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Nov 4 12:15 2019 Quant Results File: TGAS1026.RES

Method : M:\THOR\DATA\T191028\TGAS1026.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 28 12:08:31 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\THOR\DATA\T191028\1101T12.D Vial: 10
Acq On : 1 Nov 19 18:30 Operator:
Sample : 191101A LCSD 300ug/L Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Nov 4 12:14 2019 Quant Results File: TGAS1026.RES

Quant Method : M:\THOR\DATA\T191028\TGAS1026.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 28 12:08:31 2019
Response via : Initial Calibration
DataAcq Meth : T8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	6.59	TIC	268771	25.000	ppb	0.00
3) Chlorobenzene-D5 (IS)	9.74	TIC	346974	25.000	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	12.06	TIC	382056	25.000	ppb	0.00

System Monitoring Compounds

Target Compounds						Qvalue
2) Gasoline C6-C10	9.74	TIC	3520103m	278.918	ppb	100

(#) = qualifier out of range (m) = manual integration
1101T12.D TGAS1026.M Wed Dec 04 10:40:07 2019 Page 1

Quantitation Report (Not Reviewed)

Data File : M:\THOR\DATA\T191028\1101T12.D Vial: 10
Acq On : 1 Nov 19 18:30 Operator:
Sample : 191101A LCSD 300ug/L Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Nov 4 14:35 2019 Quant Results File: TSUR1023.RES

Quant Method : M:\THOR\DATA\T191028\TSUR1023.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:27:29 2019
Response via : Initial Calibration
DataAcq Meth : T8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	6.59	96	128736	25.000	ppb	0.00
4) Chlorobenzene-D5 (IS)	9.74	117	122984	25.000	ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	12.06	152	69648	25.000	ppb	0.00
System Monitoring Compounds						
2) Dibromofluoromethane(S)	5.79	111	64751	26.094	ppb	0.00
Spiked Amount 25.000			Recovery = 104.376%			
3) 1,2-DCA-D4(S)	6.17	65	70809	25.485	ppb	0.00
Spiked Amount 25.000			Recovery = 101.940%			
5) Toluene-D8(S)	8.30	98	220068	23.962	ppb	0.00
Spiked Amount 25.000			Recovery = 95.848%			
6) 4-Bromofluorobenzene(S)	10.92	174	89308	24.563	ppb	0.00
Spiked Amount 25.000			Recovery = 98.252%			

Target Compounds Qvalue

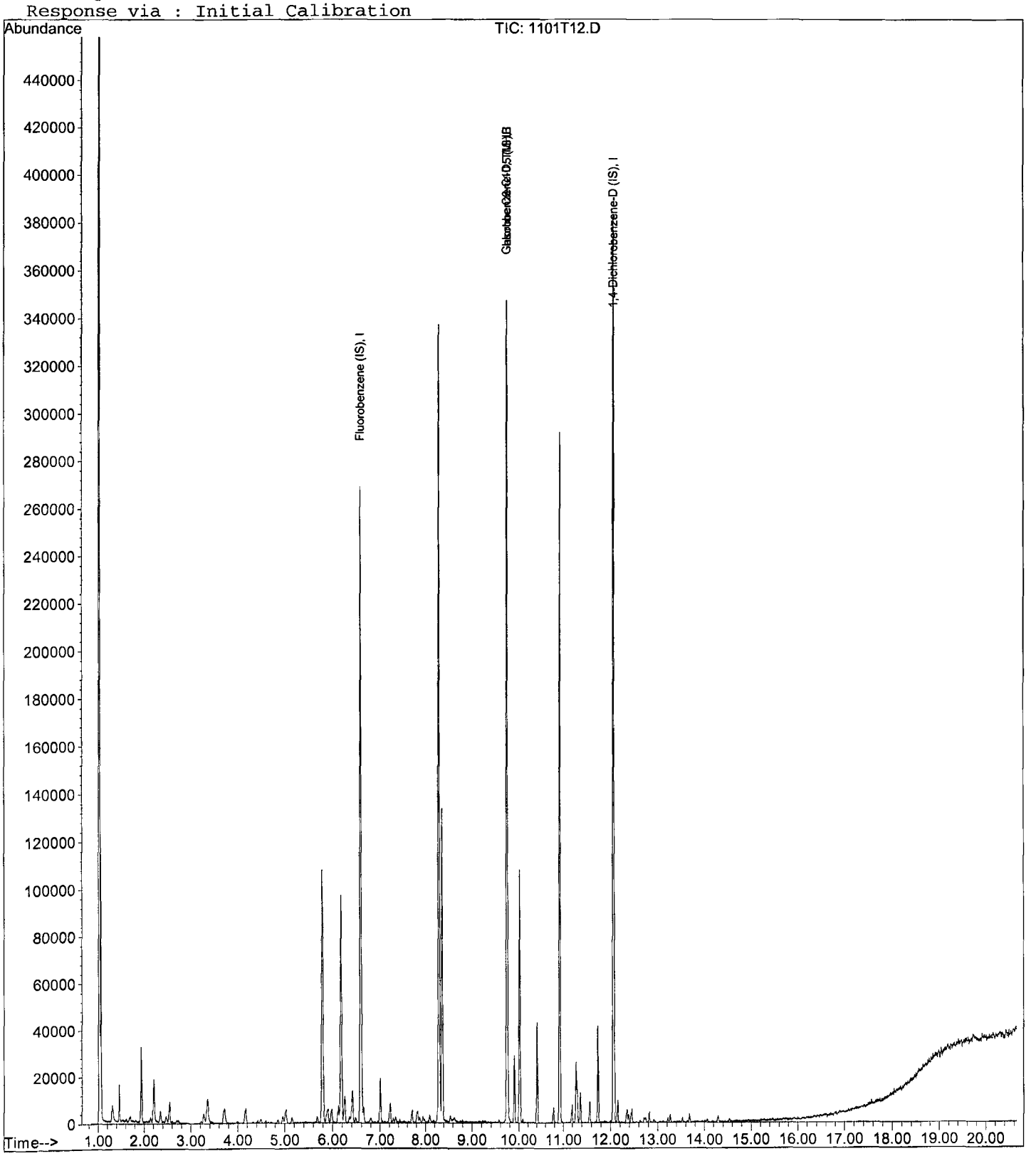
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\THOR\DATA\T191028\1101T12.D Vial: 10
Acq On : 1 Nov 19 18:30 Operator:
Sample : 191101A LCSD 300ug/L Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Nov 4 12:14 2019 Quant Results File: TGAS1026.RES

Method : M:\THOR\DATA\T191028\TGAS1026.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 28 12:08:31 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\THOR\DATA\T191028\1101T40.D Vial: 38
Acq On : 2 Nov 19 7:41 Operator:
Sample : 191101B BLK Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Nov 4 14:59 2019 Quant Results File: TGAS1026.RES

Quant Method : M:\THOR\DATA\T191028\TGAS1026.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 28 12:08:31 2019
Response via : Initial Calibration
DataAcq Meth : T8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	6.59	TIC	278295	25.000	ppb	0.00
3) Chlorobenzene-D5 (IS)	9.74	TIC	343324	25.000	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	12.06	TIC	363500	25.000	ppb	0.00

System Monitoring Compounds

Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration
1101T40.D TGAS1026.M Wed Dec 04 10:40:18 2019 Page 1

Quantitation Report (Not Reviewed)

Data File : M:\THOR\DATA\T191028\1101T40.D Vial: 38
Acq On : 2 Nov 19 7:41 Operator:
Sample : 191101B BLK Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Nov 4 14:58 2019 Quant Results File: TSUR1023.RES

Quant Method : M:\THOR\DATA\T191028\TSUR1023.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:27:29 2019
Response via : Initial Calibration
DataAcq Meth : T8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	6.59	96	134144	25.000	ppb	0.00
4) Chlorobenzene-D5 (IS)	9.74	117	118384	25.000	ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	12.06	152	66672	25.000	ppb	0.00
System Monitoring Compounds						
2) Dibromofluoromethane(S)	5.78	111	60076	23.234	ppb	0.00
Spiked Amount 25.000			Recovery =	92.936%		
3) 1,2-DCA-D4(S)	6.17	65	67793	23.416	ppb	0.00
Spiked Amount 25.000			Recovery =	93.664%		
5) Toluene-D8(S)	8.30	98	214506	24.263	ppb	0.00
Spiked Amount 25.000			Recovery =	97.052%		
6) 4-Bromofluorobenzene(S)	10.92	174	82974	23.708	ppb	0.00
Spiked Amount 25.000			Recovery =	94.832%		

Target Compounds Qvalue

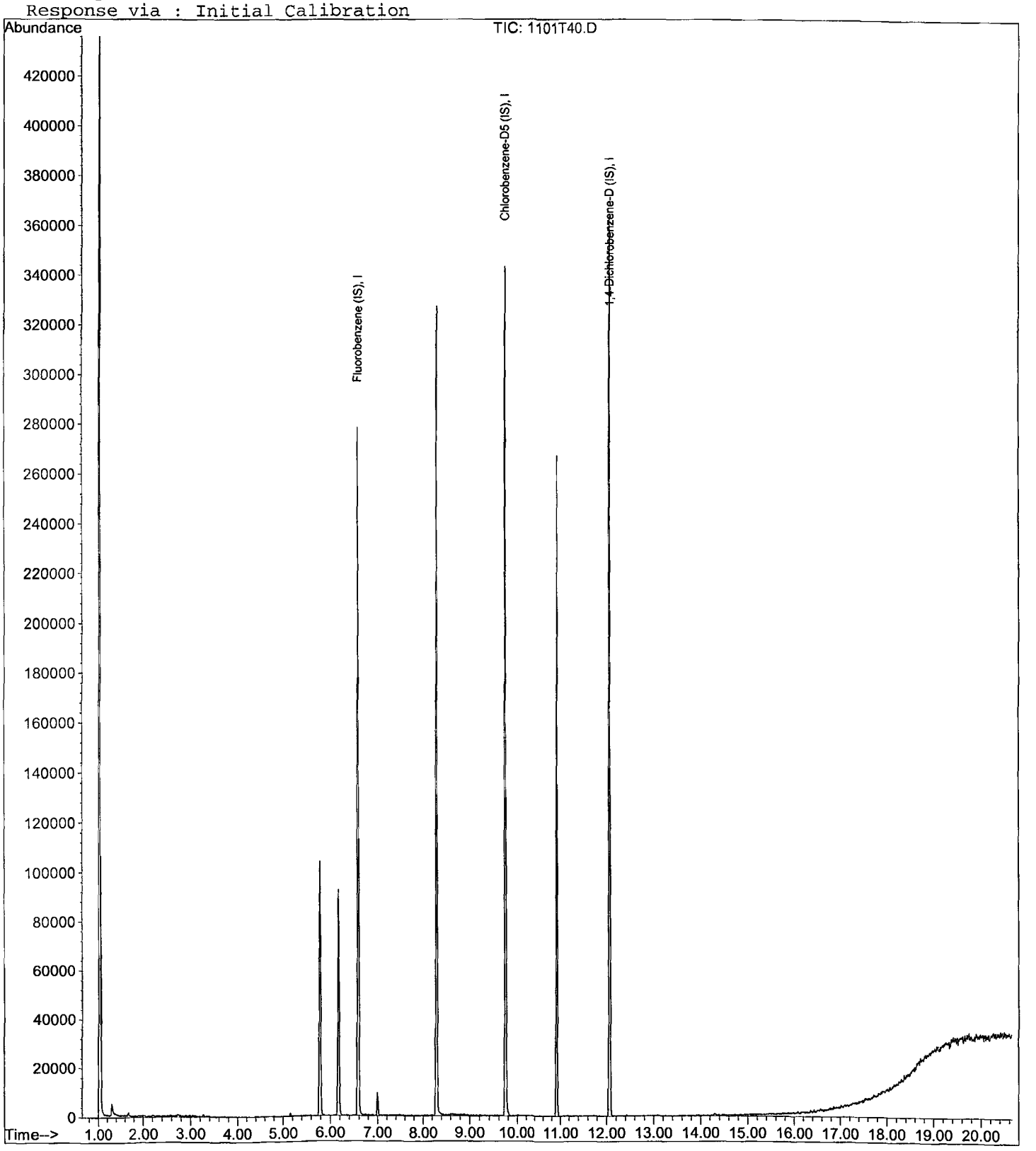
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\THOR\DATA\T191028\1101T40.D Vial: 38
Acq On : 2 Nov 19 7:41 Operator:
Sample : 191101B BLK Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Nov 4 14:59 2019 Quant Results File: TGAS1026.RES

Method : M:\THOR\DATA\T191028\TGAS1026.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 28 12:08:31 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\THOR\DATA\T191028\1101T34.D Vial: 32
Acq On : 2 Nov 19 4:52 Operator:
Sample : 191101B CCV/LCS 300ug/L Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Nov 4 13:29 2019 Quant Results File: TGAS1026.RES

Quant Method : M:\THOR\DATA\T191028\TGAS1026.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 28 12:08:31 2019
Response via : Initial Calibration
DataAcq Meth : T8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	6.59	TIC	270443	25.000	ppb	0.00
3) Chlorobenzene-D5 (IS)	9.74	TIC	340141	25.000	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	12.06	TIC	371374	25.000	ppb	0.00
System Monitoring Compounds						
Target Compounds						Qvalue
2) Gasoline C6-C10	9.74	TIC	3423167m	244.154	ppb	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\THOR\DATA\T191028\1101T34.D Vial: 32
Acq On : 2 Nov 19 4:52 Operator:
Sample : 191101B CCV/LCS 300ug/L Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Nov 4 14:58 2019 Quant Results File: TSUR1023.RES

Quant Method : M:\THOR\DATA\T191028\TSUR1023.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:27:29 2019
Response via : Initial Calibration
DataAcq Meth : T8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	6.59	96	130424	25.000	ppb	0.00
4) Chlorobenzene-D5 (IS)	9.74	117	116896	25.000	ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	12.06	152	66880	25.000	ppb	0.00
System Monitoring Compounds						
2) Dibromofluoromethane(S)	5.78	111	60686	24.139	ppb	0.00
Spiked Amount 25.000			Recovery =	96.556%		
3) 1,2-DCA-D4(S)	6.17	65	67114	23.842	ppb	0.00
Spiked Amount 25.000			Recovery =	95.368%		
5) Toluene-D8(S)	8.29	98	212419	24.333	ppb	0.00
Spiked Amount 25.000			Recovery =	97.332%		
6) 4-Bromofluorobenzene(S)	10.91	174	86519	25.035	ppb	0.00
Spiked Amount 25.000			Recovery =	100.140%		

Target Compounds Qvalue

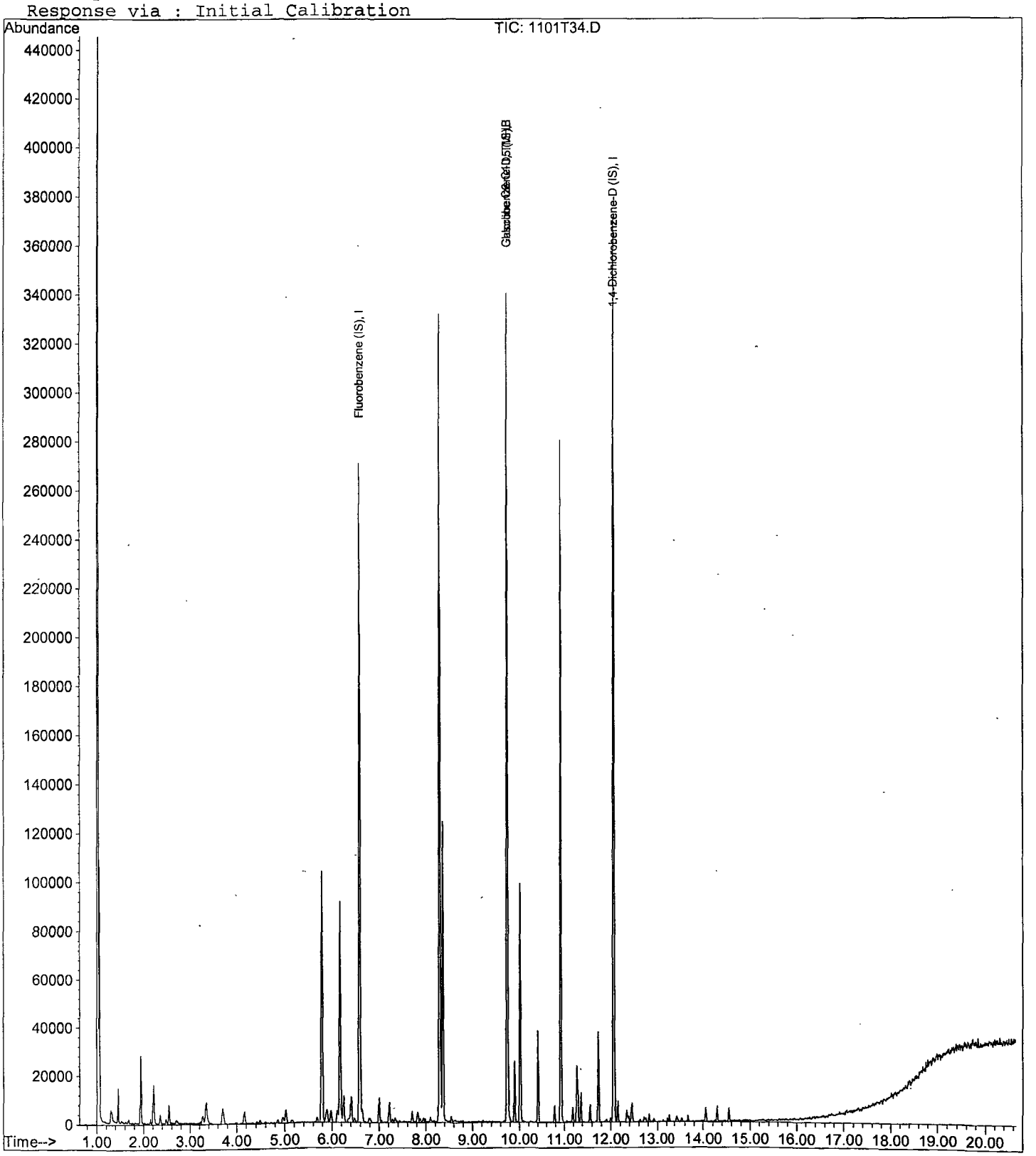
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\THOR\DATA\T191028\1101T34.D Vial: 32
Acq On : 2 Nov 19 4:52 Operator:
Sample : 191101B CCV/LCS 300ug/L Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Nov 4 13:29 2019 Quant Results File: TGAS1026.RES

Method : M:\THOR\DATA\T191028\TGAS1026.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 28 12:08:31 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\THOR\DATA\T191028\1101T35.D Vial: 33
Acq On : 2 Nov 19 5:20 Operator:
Sample : 191101B LCSD 300ug/L Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Nov 4 13:29 2019 Quant Results File: TGAS1026.RES

Quant Method : M:\THOR\DATA\T191028\TGAS1026.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 28 12:08:31 2019
Response via : Initial Calibration
DataAcq Meth : T8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	6.59	TIC	272579	25.000	ppb	0.00
3) Chlorobenzene-D5 (IS)	9.74	TIC	344136	25.000	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	12.06	TIC	368116	25.000	ppb	0.00
System Monitoring Compounds						
Target Compounds						Qvalue
2) Gasoline C6-C10	9.74	TIC	3416061m	234.245	ppb	100

(#) = qualifier out of range (m) = manual integration
1101T35.D TGAS1026.M Wed Dec 04 10:40:16 2019 Page 1

Quantitation Report (Not Reviewed)

Data File : M:\THOR\DATA\T191028\1101T35.D Vial: 33
Acq On : 2 Nov 19 5:20 Operator:
Sample : 191101B LCSD 300ug/L Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Nov 4 14:58 2019 Quant Results File: TSUR1023.RES

Quant Method : M:\THOR\DATA\T191028\TSUR1023.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:27:29 2019
Response via : Initial Calibration
DataAcq Meth : T8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	6.59	96	132032	25.000	ppb	0.00
4) Chlorobenzene-D5 (IS)	9.74	117	121784	25.000	ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	12.06	152	66944	25.000	ppb	0.00
System Monitoring Compounds						
2) Dibromofluoromethane(S)	5.78	111	59633	23.432	ppb	0.00
Spiked Amount 25.000			Recovery =	93.728%		
3) 1,2-DCA-D4(S)	6.17	65	66256	23.251	ppb	0.00
Spiked Amount 25.000			Recovery =	93.004%		
5) Toluene-D8(S)	8.29	98	209745	23.063	ppb	0.00
Spiked Amount 25.000			Recovery =	92.252%		
6) 4-Bromofluorobenzene(S)	10.91	174	84083	23.354	ppb	0.00
Spiked Amount 25.000			Recovery =	93.416%		

Target Compounds Qvalue

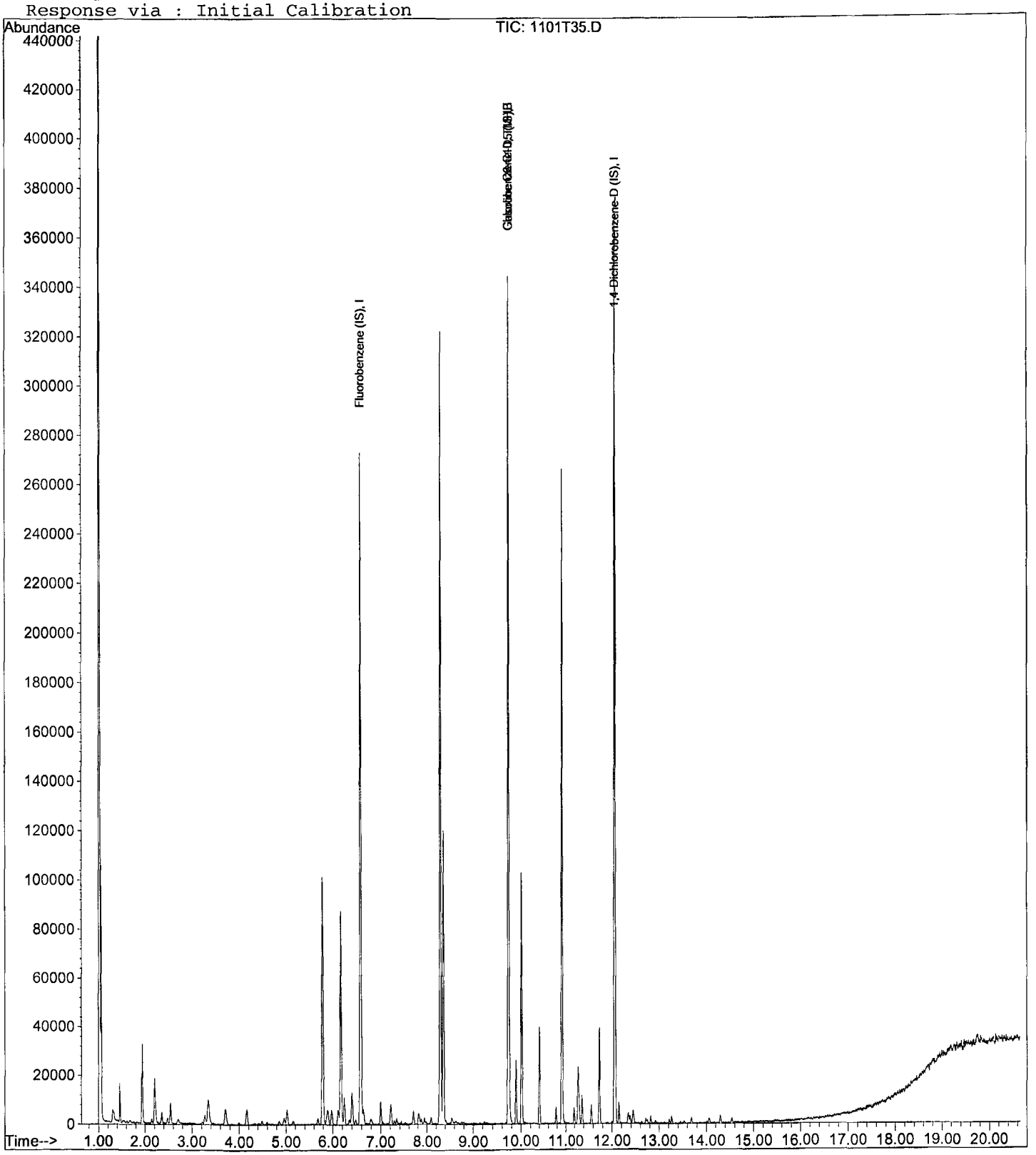
(#) = qualifier out of range (m) = manual integration
1101T35.D TSUR1023.M Wed Dec 04 10:38:44 2019 Page 1

Quantitation Report

Data File : M:\THOR\DATA\T191028\1101T35.D Vial: 33
Acq On : 2 Nov 19 5:20 Operator:
Sample : 191101B LCSD 300ug/L Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Nov 4 13:29 2019 Quant Results File: TGAS1026.RES

Method : M:\THOR\DATA\T191028\TGAS1026.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 28 12:08:31 2019
Response via : Initial Calibration



Thor 8260 Standard Prep

Thor 8260 Water Calibration Curve

0.3ug/L

Prepared: 10/23/19

Expires: 11/22/19

Prepared By (Initials): CH

Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)
VOA STD. 9	O2SI	0.3ug/L	5	Prepared 10/16/19	12/15/19	N/A	3uL	50mL	P&T Water	0.3
VOA STD. 10	O2SI		5	Prepared 10/16/19	12/15/19	N/A	3uL			0.3
VOA STD. 12	O2SI		5	Prepared 10/16/19	12/15/19	N/A	3uL			0.3
VOA STD. TBA	Various		250	Prepared 10/16/19	12/15/19	N/A	2uL			10

0.5ug/L

Prepared: 10/23/19

Expires: 11/22/19

Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)
VOA STD. 9	O2SI	0.5ug/L	5	Prepared 10/16/19	12/15/19	N/A	5uL	50mL	P&T Water	0.5
VOA STD. 10	O2SI		5	Prepared 10/16/19	12/15/19	N/A	5uL			0.5
VOA STD. 12	O2SI		5	Prepared 10/16/19	12/15/19	N/A	5uL			0.5
VOA STD. TBA	Various		250	Prepared 10/16/19	12/15/19	N/A	5uL			25

1.0ug/L

Prepared: 10/23/19

Expires: 11/22/19

Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)
VOA STD. 9	O2SI	1.0ug/L	5	Prepared 10/16/19	12/15/19	N/A	10uL	50mL	P&T Water	1
VOA STD. 10	O2SI		5	Prepared 10/16/19	12/15/19	N/A	10uL			1
VOA STD. 12	O2SI		5	Prepared 10/16/19	12/15/19	N/A	10uL			1
VOA STD. TBA	Various		250	Prepared 10/16/19	12/15/19	N/A	10uL			50

2.0ug/L

Prepared: 10/23/19

Expires: 11/22/19

Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)
VOA STD. 9	O2SI	2.0ug/L	5	Prepared 10/16/19	12/15/19	N/A	20uL	50mL	P&T Water	2
VOA STD. 10	O2SI		5	Prepared 10/16/19	12/15/19	N/A	20uL			2
VOA STD. 12	O2SI		5	Prepared 10/16/19	12/15/19	N/A	20uL			2
VOA STD. TBA	Various		250	Prepared 10/16/19	12/15/19	N/A	15uL			75

5ug/L

Prepared: 10/23/19

Expires: 11/22/19

Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)
VOA STD. 7	Various	5ug/L	50	Prepared 10/16/19	12/15/19	N/A	5uL	50mL	P&T Water	5
VOA STD. 8	Phenova		50	Prepared 10/16/19	12/04/19	N/A	5uL			5
VOA STD. 1	O2SI		50	Prepared 10/16/19	12/15/19	N/A	5uL			5
VOA STD. 2	O2SI		50	Prepared 10/16/19	12/15/19	N/A	5uL			5
VOA STD. TBA	Various		250	Prepared 10/16/19	12/15/19	N/A	20uL			100

10ug/L

Prepared: 10/23/19

Expires: 11/22/19

Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)
VOA STD. 7	Various	10ug/L	50	Prepared 10/16/19	12/15/19	N/A	10uL	50mL	P&T Water	10
VOA STD. 8	Phenova		50	Prepared 10/16/19	12/04/19	N/A	10uL			10
VOA STD. 1	O2SI		50	Prepared 10/16/19	12/15/19	N/A	10uL			10
VOA STD. 2	O2SI		50	Prepared 10/16/19	12/15/19	N/A	10uL			10
VOA STD. TBA	Various		250	Prepared 10/16/19	12/15/19	N/A	25uL			125

20ug/L

Prepared: 10/23/19

Expires: 11/22/19

Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)
VOA STD. 7	Various	20ug/L	50	Prepared 10/16/19	12/15/19	N/A	20uL	50mL	P&T Water	20
VOA STD. 8	Phenova		50	Prepared 10/16/19	12/04/19	N/A	20uL			20
VOA STD. 1	O2SI		50	Prepared 10/16/19	12/15/19	N/A	20uL			20
VOA STD. 2	O2SI		50	Prepared 10/16/19	12/15/19	N/A	20uL			20
VOA STD. TBA	Various		250	Prepared 10/16/19	12/15/19	N/A	30uL			150

40ug/L

Prepared: 10/23/19

Expires: 11/22/19

Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)
VOA STD. 7	Various	40ug/L	50	Prepared 10/16/19	12/15/19	N/A	40uL	50mL	P&T Water	40
VOA STD. 8	Phenova		50	Prepared 10/16/19	12/04/19	N/A	40uL			40
VOA STD. 1	O2SI		50	Prepared 10/16/19	12/15/19	N/A	40uL			40
VOA STD. 2	O2SI		50	Prepared 10/16/19	12/15/19	N/A	40uL			40
VOA STD. TBA	Various		250	Prepared 10/16/19	12/15/19	N/A	35uL			175

100ug/L

Prepared: 10/23/19

Expires: 11/22/19

Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)
VOA STD. 7	Various	100ug/L	50	Prepared 10/16/19	12/15/19	N/A	100uL	50mL	P&T Water	100
VOA STD. 8	Phenova		50	Prepared 10/16/19	12/04/19	N/A	100uL			100
VOA STD. 1	O2SI		50	Prepared 10/16/19	12/15/19	N/A	100uL			100
VOA STD. 2	O2SI		50	Prepared 10/16/19	12/15/19	N/A	100uL			100
VOA STD. TBA	Various		250	Prepared 10/16/19	12/15/19	N/A	40uL			200

Thor 8260 Water Second Source (SS)

Prepared: 10/23/19

Expires: 11/22/19

Prepared By (Initials): CH

Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)
VOA STD. 4	Phenova	8260 Water SS	50	Prepared 10/16/19	12/15/19	N/A	10uL	50mL	P&T Water	10
VOA STD. 5	O2SI	8260 Water SS	50	Prepared 10/16/19	12/15/19	N/A	10uL			10
VOA STD. 6	Various	8260 Water SS	50	Prepared 10/16/19	11/13/19	N/A	10uL			10
Voa STD. TBA	Various	8260 Water SS	250	Prepared 10/16/19	11/15/19	N/A	25uL			250

8260 Water Continuing Calibrations (CCV)/ Lab Control Spikes (LCS)

Prepared: 10/23/19

Expires: 10/24/19

Prepared By (Initials): CH

Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)
VOA STD. 7	Various	CCV/ LCS	50	Prepared 10/16/19	12/15/19	N/A	10uL	50mL	P&T Water	10
VOA STD. 8	Phenova	CCV/ LCS	50	Prepared 10/16/19	12/04/19	N/A	10uL			10
VOA STD. 1	O2SI	CCV/ LCS	50	Prepared 10/16/19	12/15/19	N/A	10uL			10
VOA STD. 2	O2SI	CCV/ LCS	50	Prepared 10/16/19	12/15/19	N/A	10uL			10
VOA STD. TBA	Various	CCV/ LCS	250	Prepared 10/16/19	12/15/19	N/A	25uL			125

LCS (X4 Ketones)

Prepared: 10/23/19

Expires: 10/24/19

Prepared By (Initials): CH

Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)
VOA STD. 7	Various	LCS X4 Ketones	50	Prepared 10/16/19	12/15/19	N/A	10uL	50mL	P&T Water	10
VOA STD. 8	Phenova	LCS X4 Ketones	50	Prepared 10/16/19	12/04/19	N/A	10uL			10
VOA STD. 1	O2SI	LCS X4 Ketones	50	Prepared 10/16/19	12/15/19	N/A	10uL			10
VOA STD. 2	O2SI	LCS X4 Ketones	50	Prepared 10/16/19	12/15/19	N/A	40uL			40
VOA STD. TBA	Various	LCS X4 Ketones	250	Prepared 10/16/19	12/15/19	N/A	25uL			125

Thor 8260 Surrogate

Prepared: 09/23/19
Expires: 09/12/20
Methanol Lot No: 58243

Prepared By (Initials): DG

Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr.)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
8260 Surrogate Solution	O2SI	120002-01	2,000	**348756-39339**	**09/12/20**	**02/10/22**	375uL	15mL	Methanol	50

Thor 8260 Internal Standard

Prepared: 11/11/19
Expires: 11/10/20
Methanol Lot No: 58243

Prepared By (Initials): DG

Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr.)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
Internal Standard Solution	Phenova	ALO-101215	2,500	**CL12444-40616**	**11/11/20**	**04/30/23**	300uL	15mL	Methanol	50

Primary and Secondary Working Standards

Primary Standards

VOA STD 7

Prepared: 10/16/19 A
Expires: 12/15/19
Prepared By (Initials): CH
Methanol Lot No. DW117-US-0095

Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
VOA Gasses STD	Phenova	ALO-101206	2,000	**CL13712-49316**	**10/16/20**	**06/30/24**	100uL	4mL	Methanol	50
Hexachloroethane	Absolute	70199	1,000	**091818-41284**	**10/16/20**	**09/18/23**	200uL			50
Benzyl Chloride	Accusta	M-8010-01	2,000	**061919-41289**	**10/16/20**	**06/19/20**	200uL			50

VOA STD 8

Prepared: 10/16/19 B
Expires: 10/30/19
Prepared By (Initials): CH
Methanol Lot No. DW117-US-0095

Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
VOA Additions STD	Phenova	ALO-130175	2,000	**CL12622-40992**	**10/16/20**	**06/30/20**	100uL	4mL	Methanol	50
502.2 Cal. Std.	Phenova	ALO-101200	2,000	**CL13742-41024**	**10/16/20**	**06/30/24**	100uL			50
Vinyl Acetate	Phenova	ALO-101228	2,000	**CL14220-49394**	**10/16/20**	**10/30/19**	100uL			50

VOA STD TBA

Prepared: 10/16/19 C
Expires: 10/30/19
Prepared By (Initials): CH
Methanol Lot No. DW117-US-0095

Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
Custom VOC Mix	Phenova	ALO-130176	2,000	**CL12734-49377**	**10/16/20**	**08/31/20**	500uL	4mL	Methanol	250
Acrolein	Phenova	ALO-130549	10,000	**CL14311-49395**	**10/16/20**	**10/30/19**	100uL			250

VOA STD 1

Prepared: 10/16/19 D
Expires: 12/15/19
Prepared By (Initials): CH
Methanol Lot No. DW117-US-0095

Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
2-CEVE	Absolute	82408	2,000	**071018-41299**	**10/16/20**	**07/10/21**	50	2mL	Methanol	50

VOA STD 2

Prepared: 10/16/19 E
Expires: 12/15/19
Prepared By (Initials): CH
Methanol Lot No. DW117-US-0095

Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
Ketones Std.	Phenova	ALO-109211	2,000	**CL13994-41247**	**10/16/20**	**08/31/29**	100	4mL	Methanol	50

VOA STD 9

Prepared: 10/16/19 F
Expires: 12/15/19
Prepared By (Initials): CH
Methanol Lot No. DW117-US-0095

Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
VOA STD. 7		VOA STD. 9	50	Prepared 10/16/19	**10/16/20**	N/A	200uL	2mL	Methanol	5
VOA STD. 8			50	Prepared 10/16/19	**10/16/20**	N/A	200uL			5

VOA STD. 10

Prepared: 10/16/19 G
Expires: 12/15/19
Prepared By (Initials): CH
Methanol Lot No. DW117-US-0095

Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
VOA STD. 1		VOA STD. 10	50	Prepared 10/16/19	**10/16/20**	N/A	200uL	2mL	Methanol	5

VOA STD. 12

Prepared: 10/16/19 H
Expires: 12/15/19
Prepared By (Initials): CH
Methanol Lot No. DW117-US-0095

Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
VOA STD. 2		VOA STD. 12	50	Prepared 10/16/19	**10/16/20**	N/A	200uL	2mL	Methanol	5

Second Source (SS) Standards

VOA STD. 3

Prepared: 10/16/19 I
Expires: 12/15/19
Prepared By (Initials): CH
Methanol Lot No. DW117-US-0095

Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
Ketones Standard	Phenova	ALO-101211	2,000	**CL12730-41075**	**10/16/20**	08/31/28	50uL	2mL	Methanol	50

VOA STD. 5

Prepared: 10/16/19 J
Expires: 12/15/19
Prepared By (Initials): CH
Methanol Lot No. DW117-US-0095

Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
8260 Gases (SS)	Phenova	ALO-101206	2,000	**CL14057-41319**	**10/16/20**	**08/31/24**	50uL	2mL	Methanol	50
2-CEVE (SS)	Absolute	82408	2,000	**061419-41292**	**10/16/20**	**06/14/22**	50uL			50

VOA STD. 6

Prepared: 10/16/19 K
Expires: 10/16/19
Prepared By (Initials): CH
Methanol Lot No. DW117-US-0095

Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
502.2 Calibration STD. (54-compounds)	Phenova	ALO-101200	2,000	**CL12490-40920**	**10/16/20**	**05/31/23**	50uL	2mL	Methanol	50
Vinyl Acetate	Phenova	ALO-101228	2,000	**CL14220-49312**	10/03/20	**10/16/19**	50uL			50
Hexachloroethane	Accustan	AS-E0011	1,000	**219061767-41120**	**10/16/20**	**06/28/29**	100uL			50
Benzyl Chloride	Accustan	M-8010-01	200	**219041664-40959**	**10/16/20**	**05/22/21**	500uL			50

VOA STD. TBA

Prepared: 10/16/19 L
Expires: 09/18/19
Prepared By (Initials): CH
Methanol Lot No. DW117-US-0095

Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
Custom VOA Mix (4-3)	Phenova	ALO-130176	2,000	**CL12228-41063**	**10/16/20**	**01/31/20**	250uL	2mL	Methanol	250
Acrolein	Phenova	ALO-101224	10,000	**CL14224-49313**	08/29/20	**09/18/19**	50uL			250

VOA STD. 0

Prepared: 10/16/19 M
Expires: 12/15/19
Prepared By (Initials): CH
Methanol Lot No. DW117-US-0095

Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
VOA Addition STD.	Phenova	ALO-130175	2,000	**CL12744-41387**	**10/16/20**	**08/31/20**	50uL	2mL	Methanol	50

BFB Tune

Prepared: 10/10/19
Expires: 01/19/21
Prepared By (Initials): DG
Methanol Lot No. 58243

Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
4-Bromofluorobenzene	O2SI	020135-03	2,500	**342387-39071**	**07/24/20**	**01/19/21**	20uL	2mL	Methanol	25

Thor 12/4/19

~~Loki~~ Gas Standard Prep

Gas Primary Working Standard

Prepared: 10/26/19
Expires: 10/25/20
Methanol Lot No. 58019-00962

Prepared By (Initials): CH

Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
50,000ug/mL Gas STD	Restek	30205	50,000	A0132443-39859	10/26/20	12/31/24	80uL	2mL	Methanol	2,000

Gas Second Source (SS) Working Standard

Prepared: 10/28/19
Expires: 07/16/20
Methanol Lot No. 58019-00962

Prepared By (Initials): CH

Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
Gasoline (50,000ppm)	Phenova	ALO-101543	50,000	CL11750-40999	07/16/20	02/28/27	80uL	2mL	Methanol	2,000

Loki Gas Calibration Curve

Prepared: 10/26/19
Expires: 12/25/19

Prepared By (Initials): CH

Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)
VOA Gasses Standards	Phenova	20ug/L	2,000	Prepared 10/26/19	10/25/20	N/A	1uL	100mL	P&T Water	20
VOA Gasses Standards	Phenova	50ug/L	2,000	Prepared 10/26/19	10/25/20	N/A	2.5uL	100mL	P&T Water	50
VOA Gasses Standards	Phenova	100ug/L	2,000	Prepared 10/26/19	10/25/20	N/A	5uL	100mL	P&T Water	100
VOA Gasses Standards	Phenova	300ug/L	2,000	Prepared 10/26/19	10/25/20	N/A	15uL	100mL	P&T Water	300
VOA Gasses Standards	Phenova	600ug/L	2,000	Prepared 10/26/19	10/25/20	N/A	30uL	100mL	P&T Water	600
VOA Gasses Standards	Phenova	800ug/L	2,000	Prepared 10/26/19	10/25/20	N/A	40uL	100mL	P&T Water	800
VOA Gasses Standards	Phenova	1,000ug/L	2,000	Prepared 10/26/19	10/25/20	N/A	50uL	100mL	P&T Water	1,000

Loki Gas Second Source

Prepared: 10/26/19
Expires: 12/25/19

Prepared By (Initials): CH

Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)
50,000ug/mL Gas STD	Phenova	SS 300ug/L	2,000	Prepared 10/28/19	07/16/20	N/A	15uL	100mL	P&T Water	300

Loki Gas Continuing Calibrations/Lab Control Spikes

Prepared: 10/26/19
Expires: 10/27/19

Prepared By (Initials): CH

Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
VOA Gasses Standards	Phenova	300ug/L	2,000	Prepared 10/26/19	10/25/20	N/A	15uL	100mL	P&T Water	300

Loki Gas Surrogate

Prepared: 08/30/18
Expires: 04/02/19
***Methanol* Lot No. 57159**

Prepared By (Initials): PC

Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr.)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
8260B Surrogate Solution	O2SI	120002-01	2,000	**275545-36329**	**06/09/19**	**04/02/19**	375uL	15mL	Methanol	50

Loki Gas Internal Standard

Prepared: 08/24/18
Expires: 04/13/19
Methanol Lot No. 57159

Prepared By (Initials): PC

Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr.)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)
IS Solution	O2SI	120004-02	2,000	**326533-38443**	**04/13/19**	**04/27/21**	375uL	15mL	Methanol	50

GASOLINE							
09/30/18							
Gasoline 2000ug/ml PRIMARY SOURCE					Date	Exp.	
Supplier	ID #		ug/ml	Lot #	Code	Date	uL
Restek		Unleaded Gasoline	50,000	A0132443-39859	07/16/19A-DG	12/31/24	80
OMNISOLV		Purge & Trap MeOH		58243	09/26/19	09/26/20	1920
09/30/18							
Gasoline 2000ug/ml SECONDARY SOURCE			Conc.		Date	Exp.	
Supplier	ID #		ug/ml	Lot #	Code	Date	uL
O2SI	020246-06	Unleaded Gasoline	50,000	CL11750-40999	07/16/19B-DG	02/28/27	80
OMNISOLV		Purge & Trap MeOH		58243	09/26/19	09/26/20	1920

Injection Log

Directory: M:\THOR\DATA\T191023\

Vial	FileName	Multiplier	SampleName	Misc Info	Injected
6	1023T06.D	1	0.3ug/L VOC STD 10/23/19	IS&S 9/23/19	23 Oct 19 19:32
7	1023T07.D	1	0.5ug/L VOC STD 10/23/19	IS&S 9/23/19	23 Oct 19 20:01
8	1023T08.D	1	1.0ug/L VOC STD 10/23/19	IS&S 9/23/19	23 Oct 19 20:29
9	1023T09.D	1	2.0ug/L VOC STD 10/23/19	IS&S 9/23/19	23 Oct 19 20:58
10	1023T10.D	1	5.0ug/L VOC STD 10/23/19	IS&S 9/23/19	23 Oct 19 21:26
11	1023T11.D	1	10ug/L VOC STD 10/23/19	IS&S 9/23/19	23 Oct 19 21:55
12	1023T12.D	1	20ug/L VOC STD 10/23/19	IS&S 9/23/19	23 Oct 19 22:23
13	1023T13.D	1	40ug/L VOC STD 10/23/19	IS&S 9/23/19	23 Oct 19 22:52
14	1023T14.D	1	100ug/L VOC STD 10/23/19	IS&S 9/23/19	23 Oct 19 23:20
2	1026T02.D	1	20ug/L GAS 10/26/19	IS&S 9/23/19	26 Oct 19 12:41
3	1026T03.D	1	50ug/L GAS 10/26/19	IS&S 9/23/19	26 Oct 19 13:09
4	1026T04.D	1	100ug/L GAS 10/26/19	IS&S 9/23/19	26 Oct 19 13:37
5	1026T05.D	1	300ug/L GAS 10/26/19	IS&S 9/23/19	26 Oct 19 14:06
6	1026T06.D	1	600ug/L GAS 10/26/19	IS&S 9/23/19	26 Oct 19 14:34
7	1026T07.D	1	800ug/L GAS 10/26/19	IS&S 9/23/19	26 Oct 19 15:03
1	1028T01.D	1	(SS) 300ug/L GAS 10/28/19	IS&S 9/23/19	28 Oct 19 15:43
9	1101T11.D	1	191101A CCV/LCS 300ug/L	IS&S 9/23/19	1 Nov 19 18:01
10	1101T12.D	1	191101A LCSD 300ug/L	IS&S 9/23/19	1 Nov 19 18:30
13	1101T15.D	1	191101A BLK	IS&S 9/23/19	1 Nov 19 19:55
22	1101T24.D	1	BA02091W01	IS&S 9/23/19	2 Nov 19 00:09
27	1101T29.D	1	Ending CCV 300ug/L 11/1/19	IS&S 9/23/19	2 Nov 19 2:30
32	1101T34.D	1	191101B CCV/LCS 300ug/L	IS&S 9/23/19	2 Nov 19 4:52
33	1101T35.D	1	191101B LCSD 300ug/L	IS&S 9/23/19	2 Nov 19 5:20
38	1101T40.D	1	191101B BLK	IS&S 9/23/19	2 Nov 19 7:41
40	1101T42.D	1	BA02089W01	IS&S 9/23/19	2 Nov 19 8:37
45	1101T47.D	1	BA02090W01	IS&S 9/23/19	2 Nov 19 10:59
53	1101T55.D	1	Ending CCV 300ug/L 11/1/19	IS&S 9/23/19	2 Nov 19 14:46

ORGANICS
Calibration Data

RSK 175
RSK 175

Form 6
Initial Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Initial Cal. Date: 10/02/19
Matrix: Instrument: 7890 Initials:

			1002R02.D	1002R03.D	1002R04.D	1002R05.D	1002R06.D	1002R07.D	1002R08.D								
		Compound	1	2	3	4	5	6	7				Avg	%RSD	Type	r^2	Q
1	ATM	Methane	63820	40452	36215	45202	48427	44031	45774				46274	19	ATM		
2	ATM	Ethane	42546	31037	26553	34655	37738	32771	32974				34039	15	ATM		
3	ATM	Ethene	32900	24299	20841	27689	29847	25551	26297				26775	15	ATM		
4																	
5																	
6																	
7																	
8																	
9																	
10																	
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32																	
33																	
34																	
35																	

1.377886

Quantitation Report (Not Reviewed)

Data File : G:\ROCKY\DATA\191002RS\1002R02.D Vial: 2
Acq On : 2 Oct 19 17:45 Operator: GA
Sample : RSK STD 1 10/2/19 Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 2 18:11 2019 Quant Results File: RSK1002.RES

Method : G:\ROCKY\DATA\190929RS\RSK1002.M (Chemstation Integrator)
Title : RSK 175
Last Update : Wed Oct 02 18:14:49 2019
Response via : Multiple Level Calibration

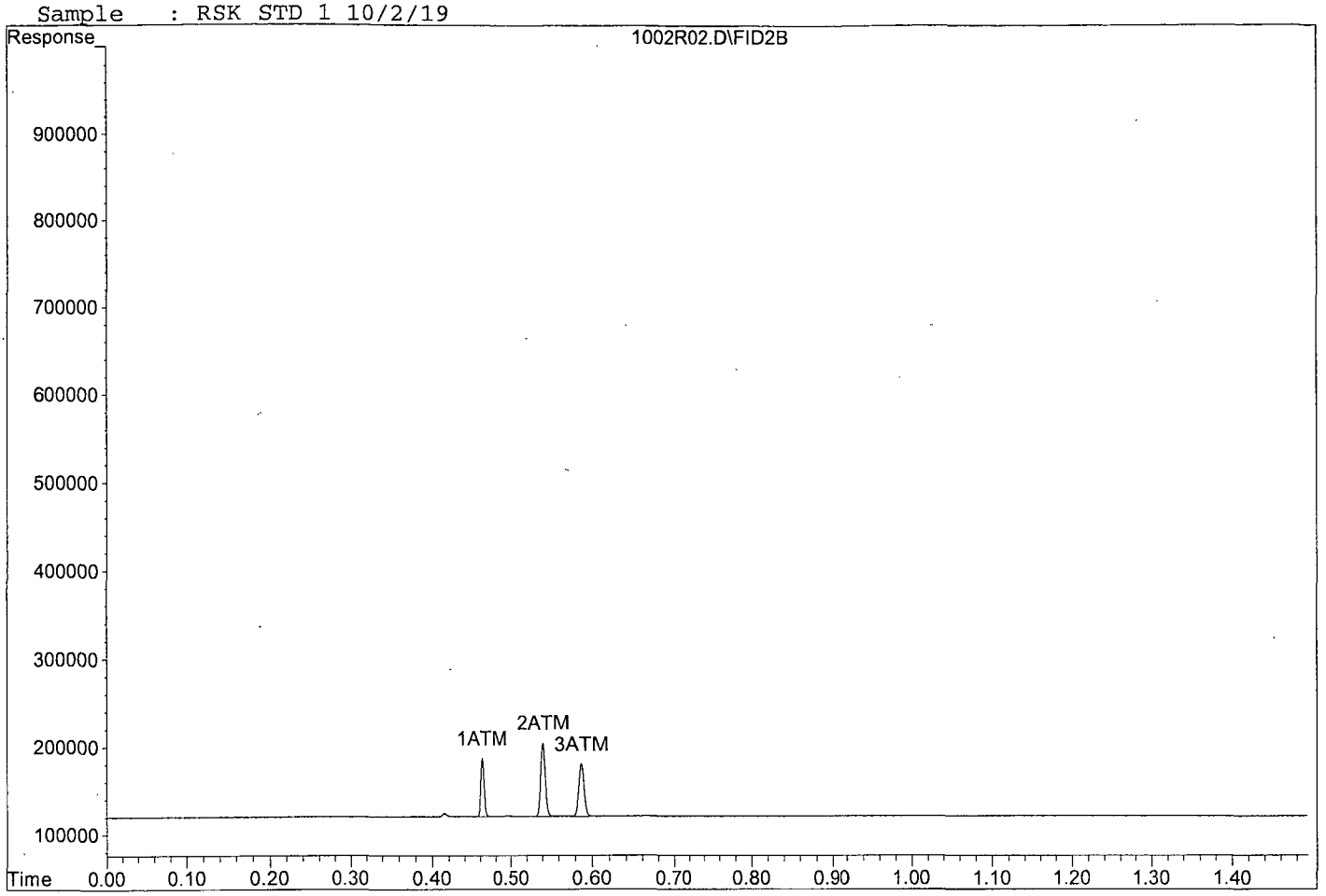
Volume Inj. : 0.500 mL
Signal Phase : CARBOPACK
Signal Info :

Compound	R.T.	Response	Conc Units
Target Compounds			
1) ATM Methane	0.46	66373	8.306 ppb
2) ATM Ethane	0.54	83177	6.216 ppb
3) ATM Ethene	0.59	60042	5.640 ppb

Target Compounds

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: G:\ROCKY\DATA\191002RS\1002R02.D
Sample : RSK STD 1 10/2/19



Quantitation Report (Not Reviewed)

Data File : G:\ROCKY\DATA\191002RS\1002R03.D Vial: 3
Acq On : 2 Oct 19 17:50 Operator: GA
Sample : RSK STD 2 10/2/19 Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 2 18:11 2019 Quant Results File: RSK1002.RES

Method : G:\ROCKY\DATA\190929RS\RSK1002.M (Chemstation Integrator)
Title : RSK 175
Last Update : Wed Oct 02 18:14:49 2019
Response via : Multiple Level Calibration

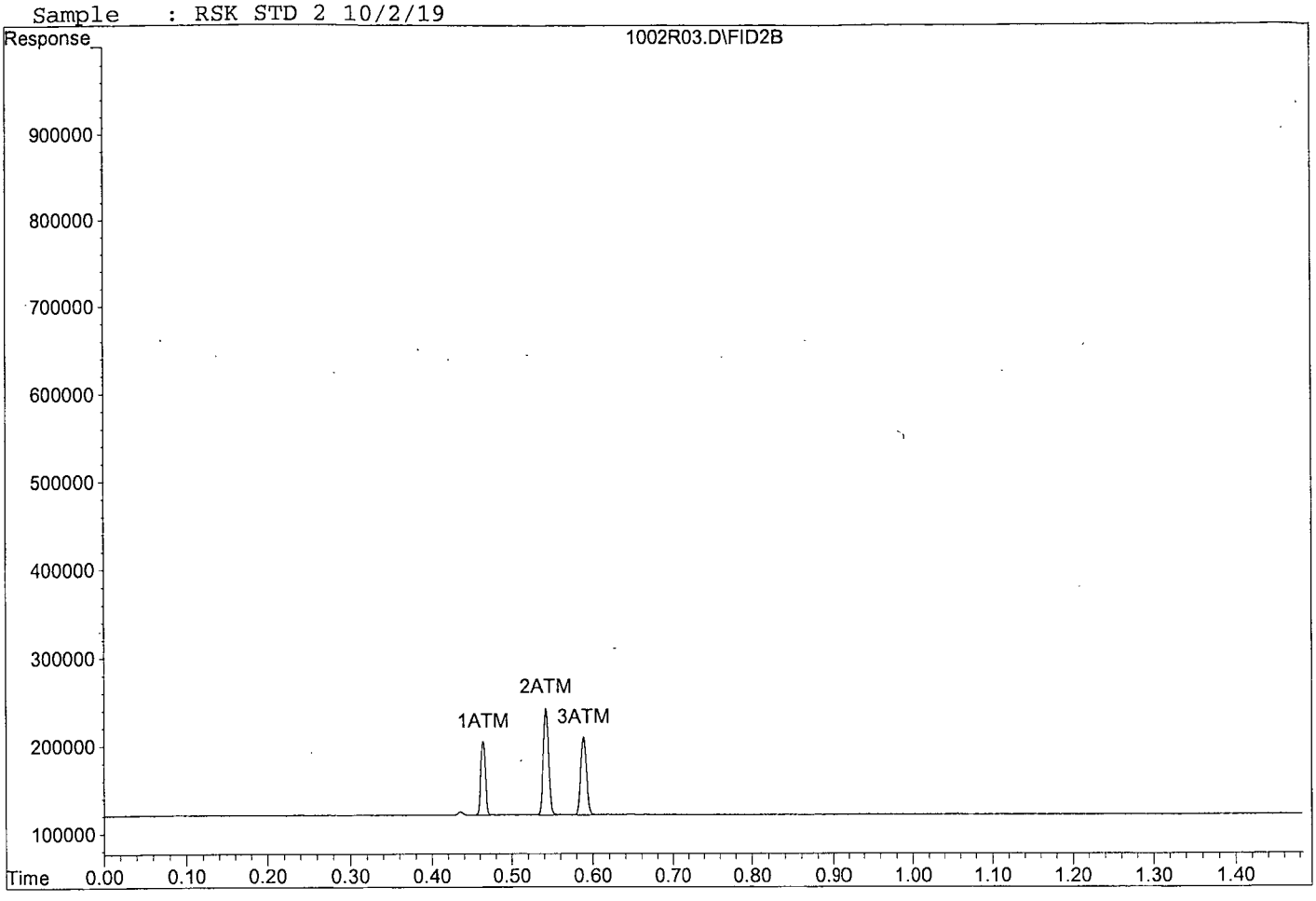
Volume Inj. : 0.500 mL
Signal Phase : CARBOPACK
Signal Info :

Compound	R.T.	Response	Conc Units
Target Compounds			
1) ATM Methane	0.46	84140	9.332 ppb
2) ATM Ethane	0.54	121200	9.058 ppb
3) ATM Ethene	0.59	88693	8.332 ppb

Target Compounds

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: G:\ROCKY\DATA\191002RS\1002R03.D
Sample : RSK STD 2 10/2/19



Quantitation Report (Not Reviewed)

Data File : G:\ROCKY\DATA\191002RS\1002R04.D Vial: 4
Acq On : 2 Oct 19 17:52 Operator: GA
Sample : RSK STD 3 10/2/19 Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 2 18:11 2019 Quant Results File: RSK1002.RES

Method : G:\ROCKY\DATA\190929RS\RSK1002.M (Chemstation Integrator)
Title : RSK 175
Last Update : Wed Oct 02 18:14:49 2019
Response via : Multiple Level Calibration

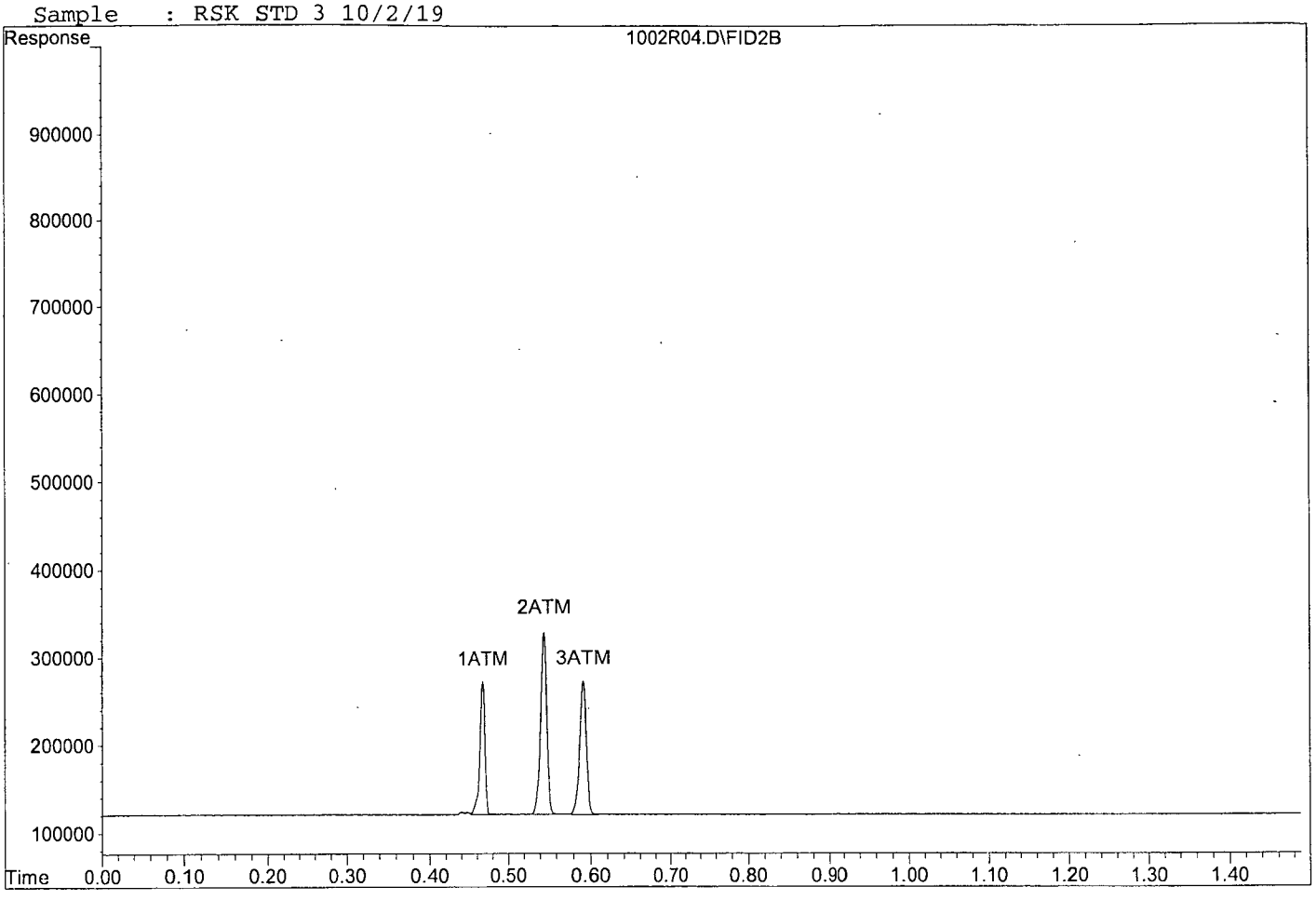
Volume Inj. : 0.500 mL
Signal Phase : CARBOPACK
Signal Info :

Compound	R.T.	Response	Conc Units
Target Compounds			
1) ATM Methane	0.47	151018	13.195 ppb
2) ATM Ethane	0.55	207113	15.479 ppb
3) ATM Ethene	0.59	152138	14.292 ppb

Target Compounds

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: G:\ROCKY\DATA\191002RS\1002R04.D
Sample : RSK STD 3 10/2/19



Quantitation Report (Not Reviewed)

Data File : G:\ROCKY\DATA\191002RS\1002R05.D Vial: 5
Acq On : 2 Oct 19 17:57 Operator: GA
Sample : RSK STD 4 10/2/19 Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 2 18:11 2019 Quant Results File: RSK1002.RES

Method : G:\ROCKY\DATA\190929RS\RSK1002.M (Chemstation Integrator)
Title : RSK 175
Last Update : Wed Oct 02 18:14:49 2019
Response via : Multiple Level Calibration

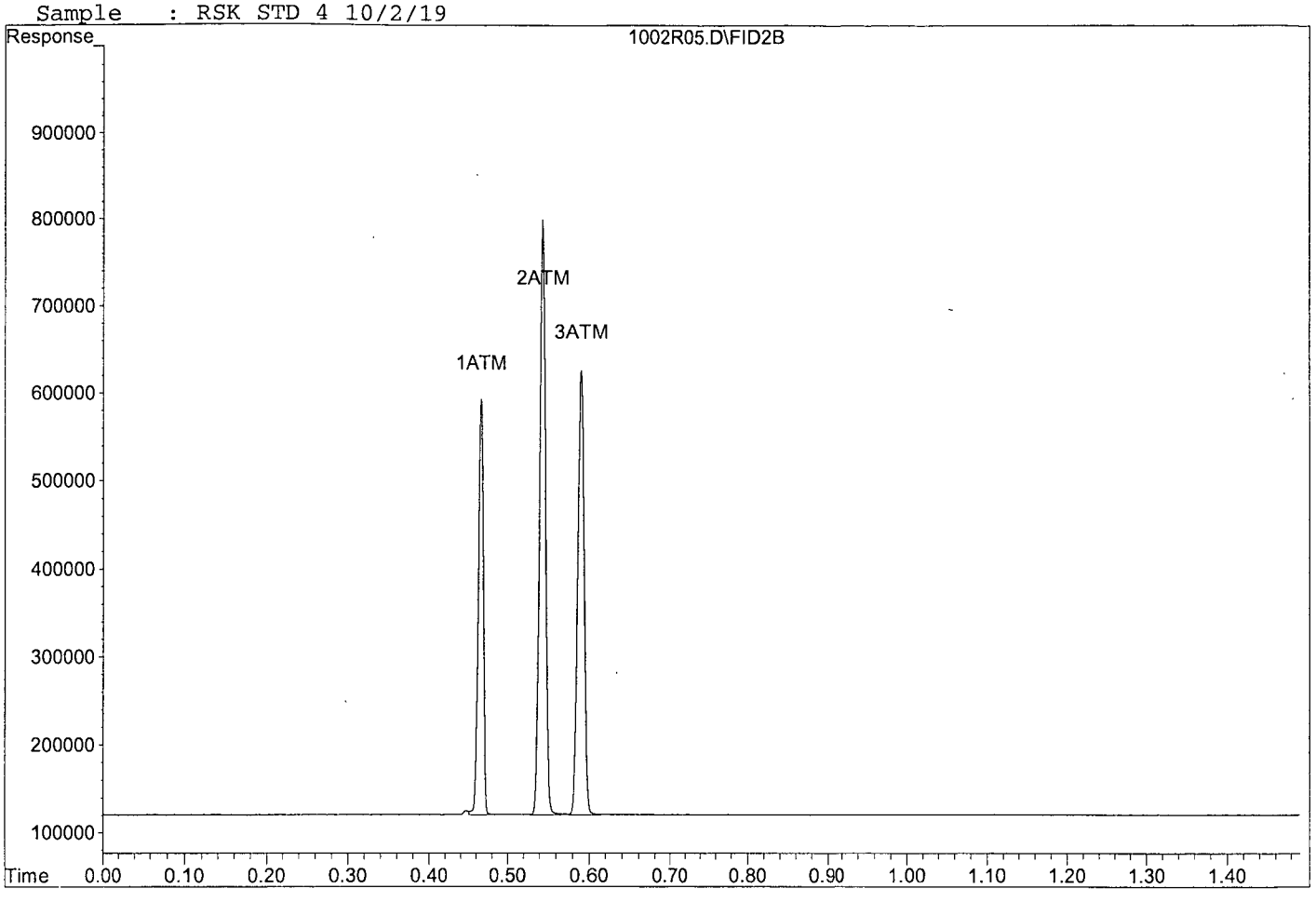
Volume Inj. : 0.500 mL
Signal Phase : CARBOPACK
Signal Info :

Compound	R.T.	Response	Conc Units
Target Compounds			
1) ATM Methane	0.47	471234	31.689 ppb
2) ATM Ethane	0.54	677330	50.623 ppb
3) ATM Ethene	0.59	504779	47.419 ppb

Target Compounds

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: G:\ROCKY\DATA\191002RS\1002R05.D
Sample : RSK STD 4 10/2/19



Quantitation Report (Not Reviewed)

Data File : G:\ROCKY\DATA\191002RS\1002R06.D Vial: 6
Acq On : 2 Oct 19 17:59 Operator: GA
Sample : RSK STD 5 10/2/19 Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 2 18:11 2019 Quant Results File: RSK1002.RES

Method : G:\ROCKY\DATA\190929RS\RSK1002.M (Chemstation Integrator)
Title : RSK 175
Last Update : Wed Oct 02 18:14:49 2019
Response via : Multiple Level Calibration

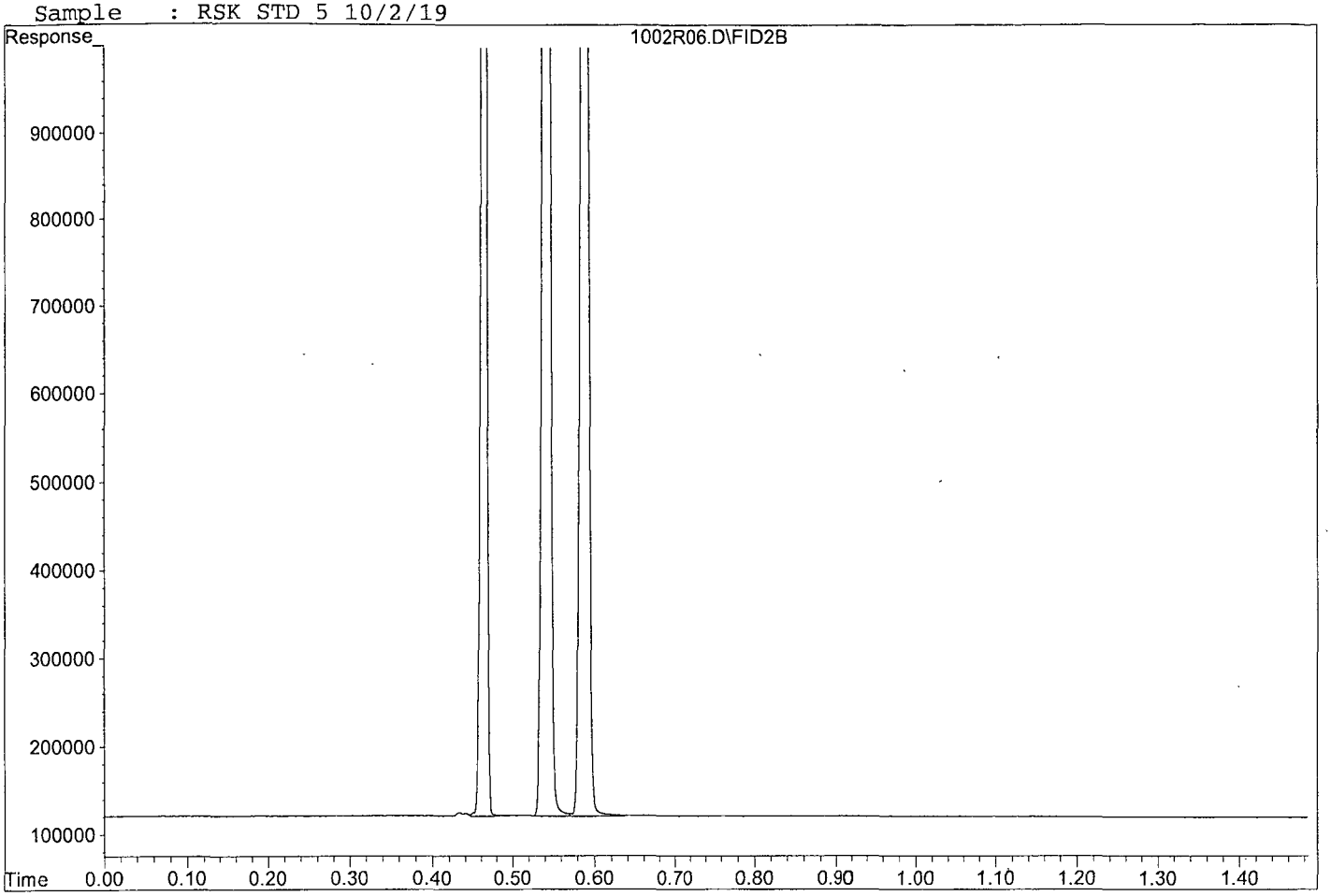
Volume Inj. : 0.500 mL
Signal Phase : CARBOPACK
Signal Info :

Compound	R.T.	Response	Conc Units
Target Compounds			
1) ATM Methane	0.46	2019402	121.105 ppb
2) ATM Ethane	0.54	2950189	220.492 ppb
3) ATM Ethene	0.59	2176445	204.454 ppb

Target Compounds

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: G:\ROCKY\DATA\191002RS\1002R06.D
Sample : RSK STD 5 10/2/19



Quantitation Report (Not Reviewed)

Data File : G:\ROCKY\DATA\191002RS\1002R07.D Vial: 7
Acq On : 2 Oct 19 18:05 Operator: GA
Sample : RSK STD 6 10/2/19 Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 2 18:11 2019 Quant Results File: RSK1002.RES

Method : G:\ROCKY\DATA\190929RS\RSK1002.M (Chemstation Integrator)
Title : RSK 175
Last Update : Wed Oct 02 18:14:49 2019
Response via : Multiple Level Calibration

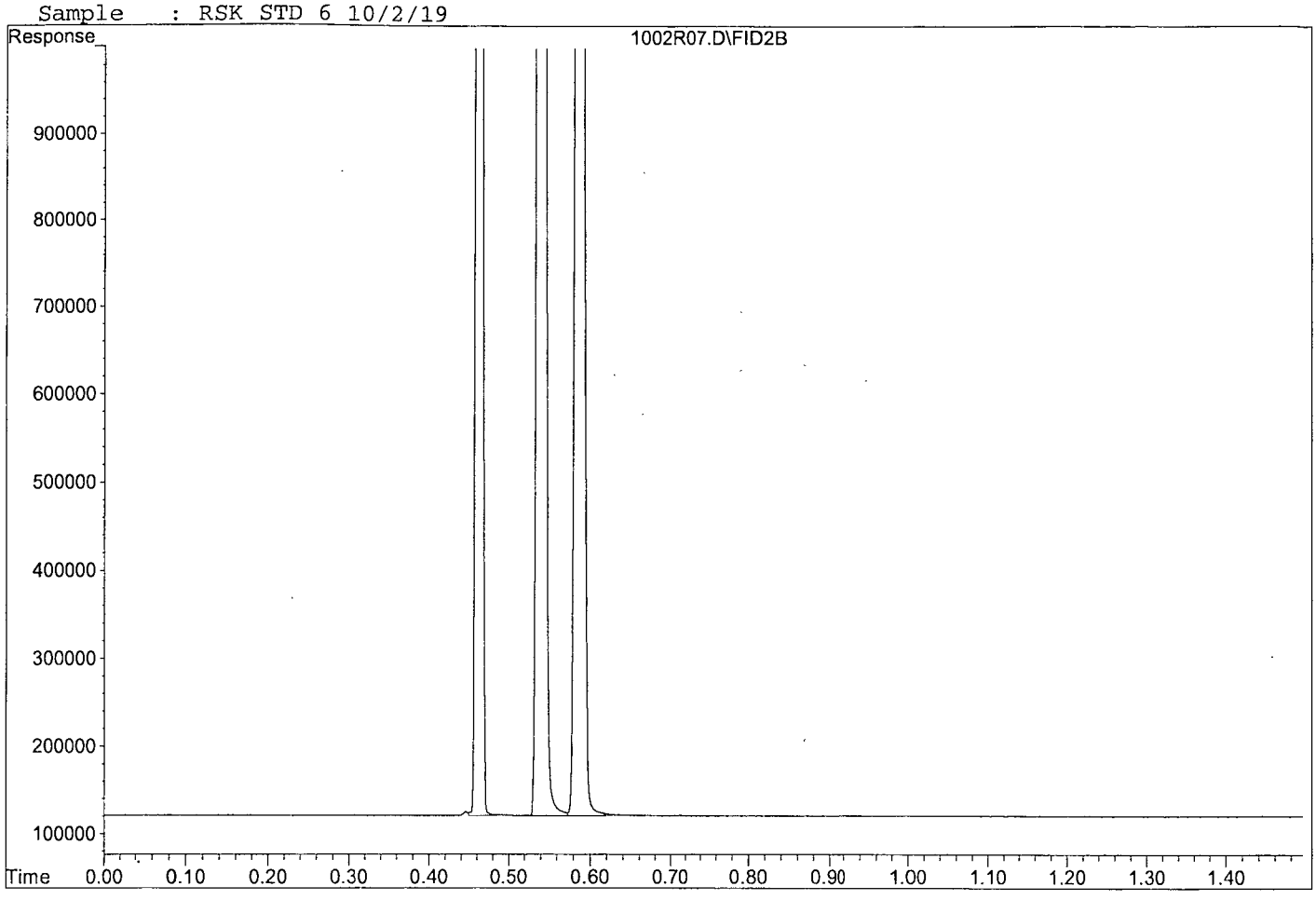
Volume Inj. : 0.500 mL
Signal Phase : CARBOPACK
Signal Info :

Compound	R.T.	Response	Conc Units
Target Compounds			
1) ATM Methane	0.46	4590194	269.583 ppb
2) ATM Ethane	0.54	6405030	478.702 ppb
3) ATM Ethene	0.59	4657966	437.567 ppb

Target Compounds

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: G:\ROCKY\DATA\191002RS\1002R07.D
Sample : RSK STD 6 10/2/19



Quantitation Report (Not Reviewed)

Data File : G:\ROCKY\DATA\191002RS\1002R08.D Vial: 8
Acq On : 2 Oct 19 18:07 Operator: GA
Sample : RSK STD 7 10/2/19 Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 2 18:11 2019 Quant Results File: RSK1002.RES

Method : G:\ROCKY\DATA\190929RS\RSK1002.M (Chemstation Integrator)
Title : RSK 175
Last Update : Wed Oct 02 18:14:49 2019
Response via : Multiple Level Calibration

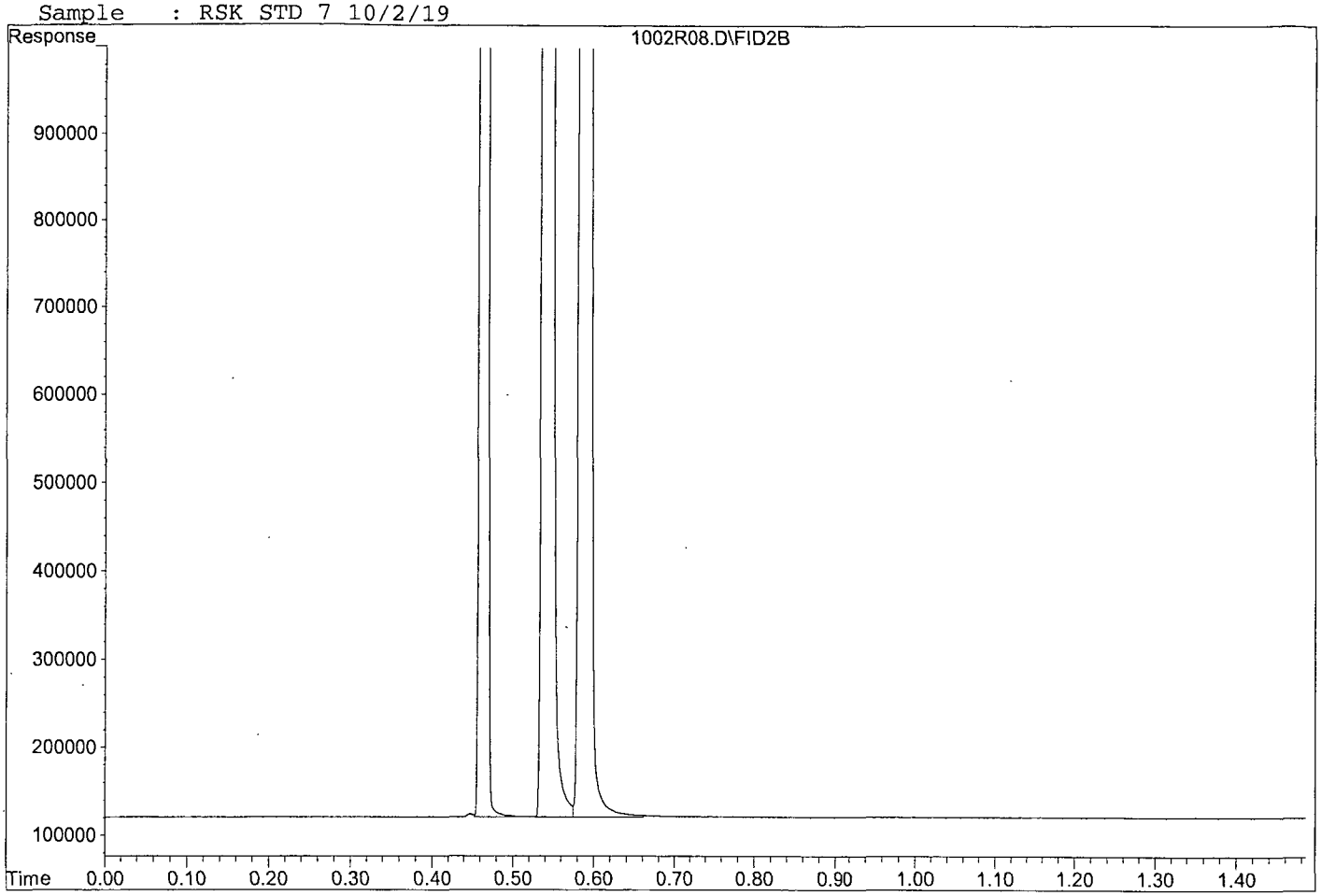
Volume Inj. : 0.500 mL
Signal Phase : CARBOPACK
Signal Info :

Compound	R.T.	Response	Conc	Units
Target Compounds				
1) ATM Methane	0.46	19087907	1106.909	ppb
2) ATM Ethane	0.54	25777712	1926.584	ppb
3) ATM Ethene	0.59	19176068	1801.389	ppb

Target Compounds

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: G:\ROCKY\DATA\191002RS\1002R08.D
Sample : RSK STD 7 10/2/19



Form 7

Second Source Calibration

Lab Name: APPL, Inc.
Case No:
Matrix:

SDG No:
Date Analyzed: 2 Oct 19 18:24
Instrument: 7890
Initial Cal. Date: 10/02/19
Data File: 1002R10.D

		Compound	MEAN	CCRF	%D		%Drift
1	ATM	Methane	46275	50203	8.5	ATM	
2	ATM	Ethane	34039	37011	8.7	ATM	
3	ATM	Ethene	26775	28699	7.2	ATM	
4							
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40							
		Average			8.1		

Quantitation Report (Not Reviewed)

Data File : G:\ROCKY\DATA\191002RS\1002R10.D Vial: 10
Acq On : 2 Oct 19 18:24 Operator: GA
Sample : SS RSK STD 5 10/2/19 Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 2 18:27 2019 Quant Results File: RSK1002.RES

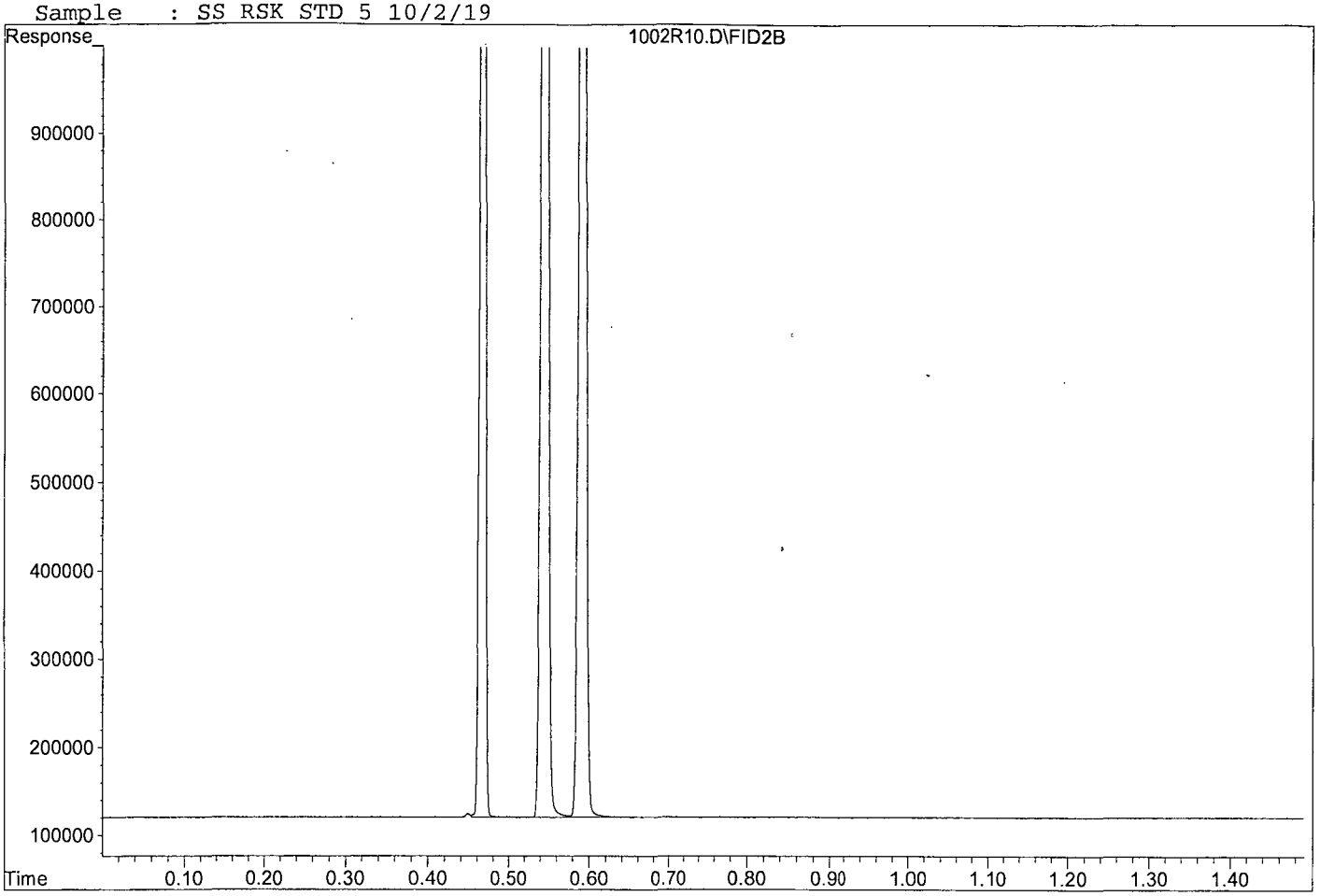
Method : G:\ROCKY\DATA\190929RS\RSK1002.M (Chemstation Integrator)
Title : RSK 175
Last Update : Wed Oct 02 18:14:49 2019
Response via : Multiple Level Calibration

Volume Inj. : 0.500 mL
Signal Phase : CARBOPACK
Signal Info :

Compound	R.T.	Response	Conc Units
Target Compounds			
1) ATM Methane	0.47	2093456	90.480 ppb
2) ATM Ethane	0.54	2893356	170.002 ppb
3) ATM Ethene	0.59	2092707	156.318 ppb

Target Compounds

Data File: G:\ROCKY\DATA\191002RS\1002R10.D
Sample : SS RSK STD 5 10/2/19



Form 7

Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix:

SDG No:
Date Analyzed: 10/31/19
Instrument: 7890
Initial Cal. Date: 10/02/19
Data File: 1031R03.D

		Compound	MEAN	CCRF	%D		%Drift
1	ATM	Methane	46275	47978	3.7	ATM	
2	ATM	Ethane	34039	43042	26	ATM	
3	ATM	Ethene	26775	32709	22	ATM	
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40							
		Average			17.2		

* NT

Quantitation Report (Not Reviewed)

Data File : G:\ROCKY\DATA\191002RS\1031R03.D Vial: 3
Acq On : 31 Oct 19 17:03 Operator: GA
Sample : 191031A LCS/CCV RSK STD 5 Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 31 17:06 2019 Quant Results File: RSK1002.RES

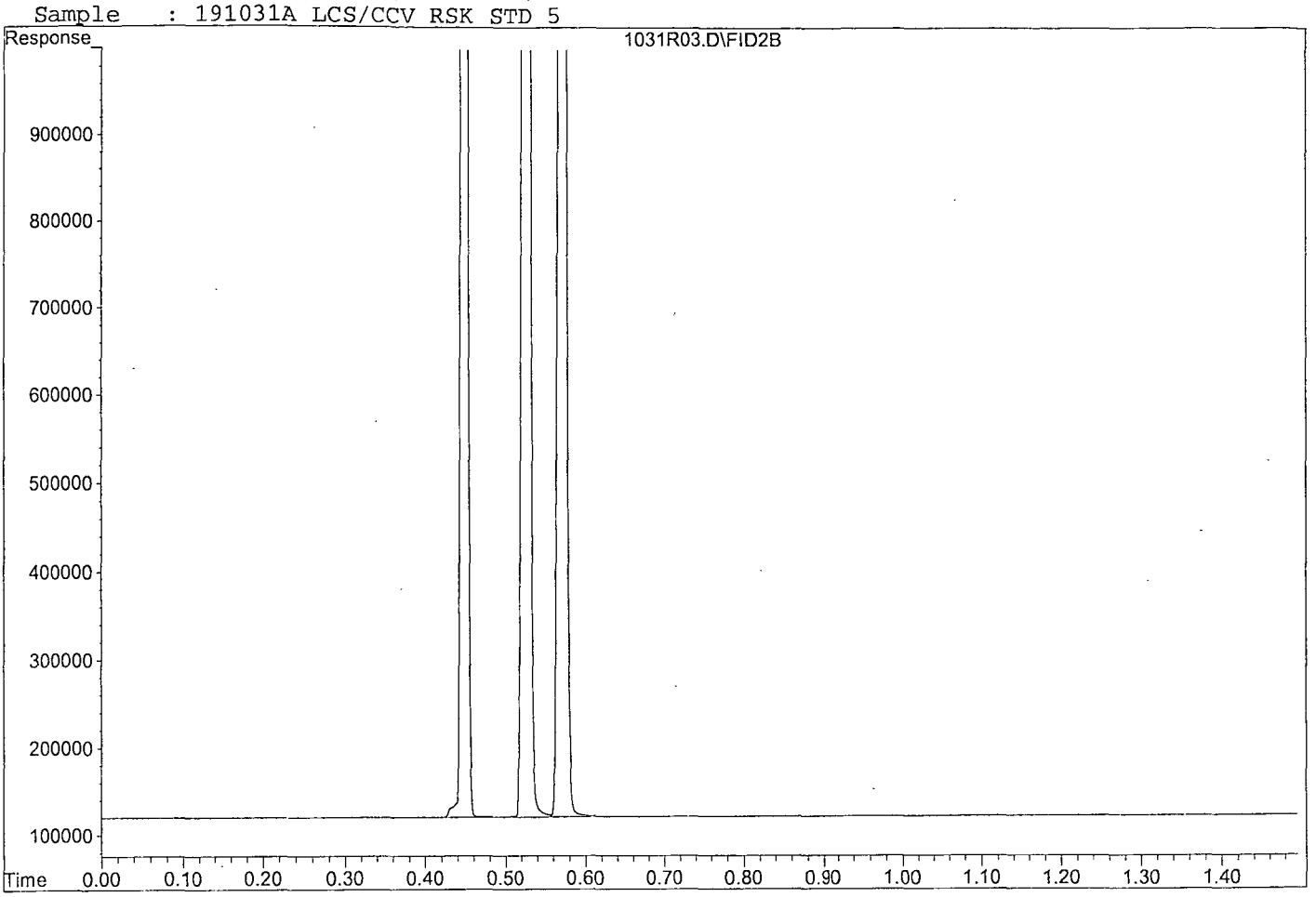
Method : G:\ROCKY\DATA\190929RS\RSK1002.M (Chemstation Integrator)
Title : RSK 175
Last Update : Wed Oct 30 17:49:29 2019
Response via : Multiple Level Calibration

Volume Inj. : 0.500 mL
Signal Phase : CARBOPACK
Signal Info :

Compound	R.T.	Response	Conc Units
Target Compounds			
1) ATM Methane	0.45	2000669	86.470 ppb
2) ATM Ethane	0.53	3364804	197.702 ppb
3) ATM Ethene	0.57	2385102	178.159 ppb

Target Compounds

Data File: G:\ROCKY\DATA\191002RS\1031R03.D
Sample : 191031A LCS/CCV RSK STD 5



Form 7

Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix:

SDG No:
Date Analyzed: 10/31/19
Instrument: 7890
Initial Cal. Date: 10/02/19
Data File: 1031R15.D

		Compound	MEAN	CCRF	%D		%Drift	
1	ATM	Methane	46275	52604	14	ATM		
2	ATM	Ethane	34039	43002	26	ATM		*
3	ATM	Ethene	26775	32348	21	ATM		
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40								
		Average			20.3			

Quantitation Report (Not Reviewed)

Data File : G:\ROCKY\DATA\191002RS\1031R15.D Vial: 15
Acq On : 31 Oct 19 17:42 Operator: GA
Sample : ENDING CCV RSK STD 5 10/31/19 Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 31 17:44 2019 Quant Results File: RSK1002.RES

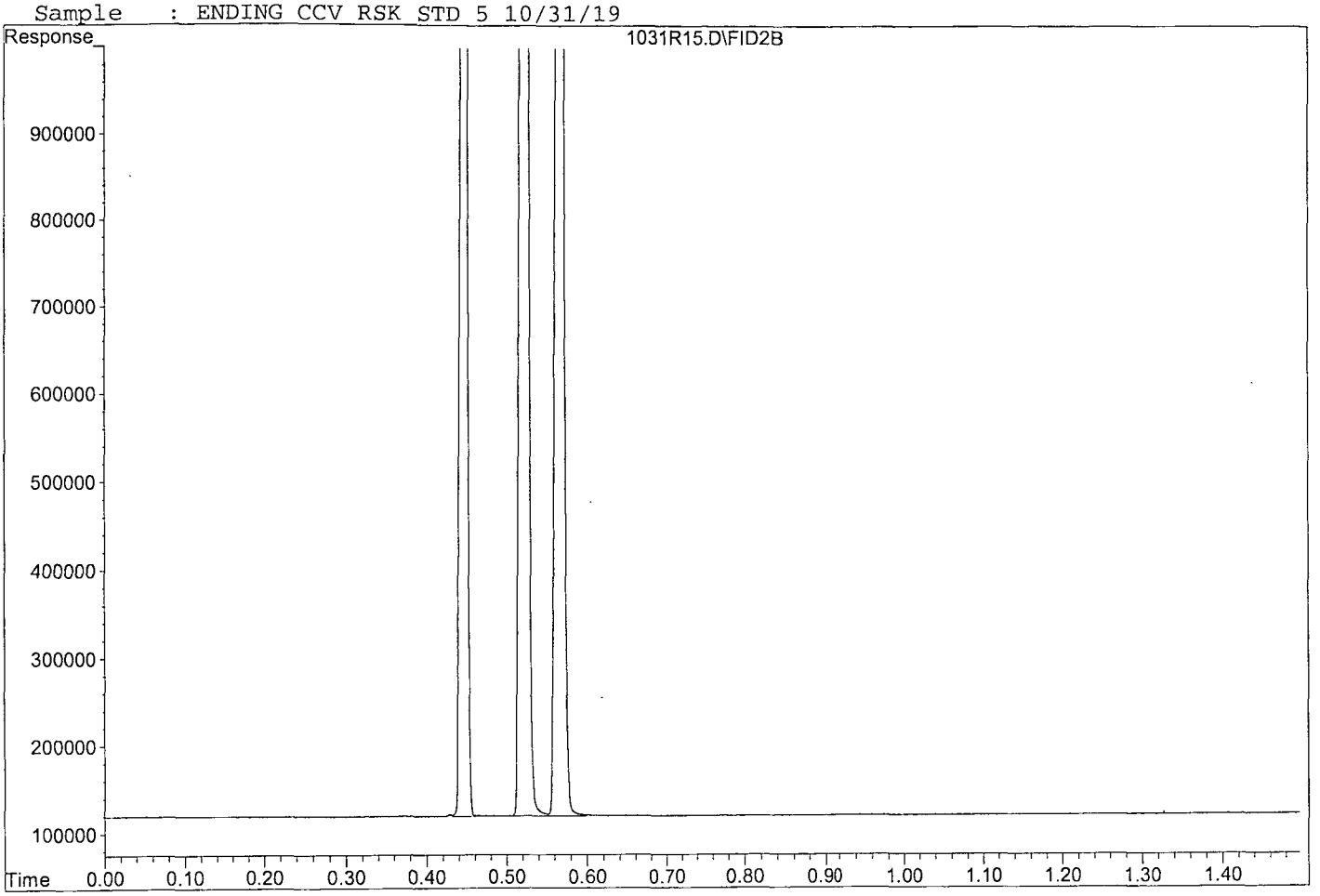
Method : G:\ROCKY\DATA\190929RS\RSK1002.M (Chemstation Integrator)
Title : RSK 175
Last Update : Wed Oct 30 17:49:29 2019
Response via : Multiple Level Calibration

Volume Inj. : 0.500 mL
Signal Phase : CARBOPACK
Signal Info :

Compound	R.T.	Response	Conc Units
Target Compounds			
1) ATM Methane	0.45	2193578	94.807 ppb
2) ATM Ethane	0.52	3361712	197.521 ppb
3) ATM Ethene	0.57	2358813	176.195 ppb

Target Compounds

Data File: G:\ROCKY\DATA\191002RS\1031R15.D
Sample : ENDING CCV RSK STD 5 10/31/19



ORGANICS
Raw Data

Quantitation Report (QT Reviewed)

Data File : G:\ROCKY\DATA\191002RS\1031R08.D Vial: 8
Acq On : 31 Oct 19 17:20 Operator: GA
Sample : BA02089W02 Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 31 17:23 2019 Quant Results File: RSK1002.RES

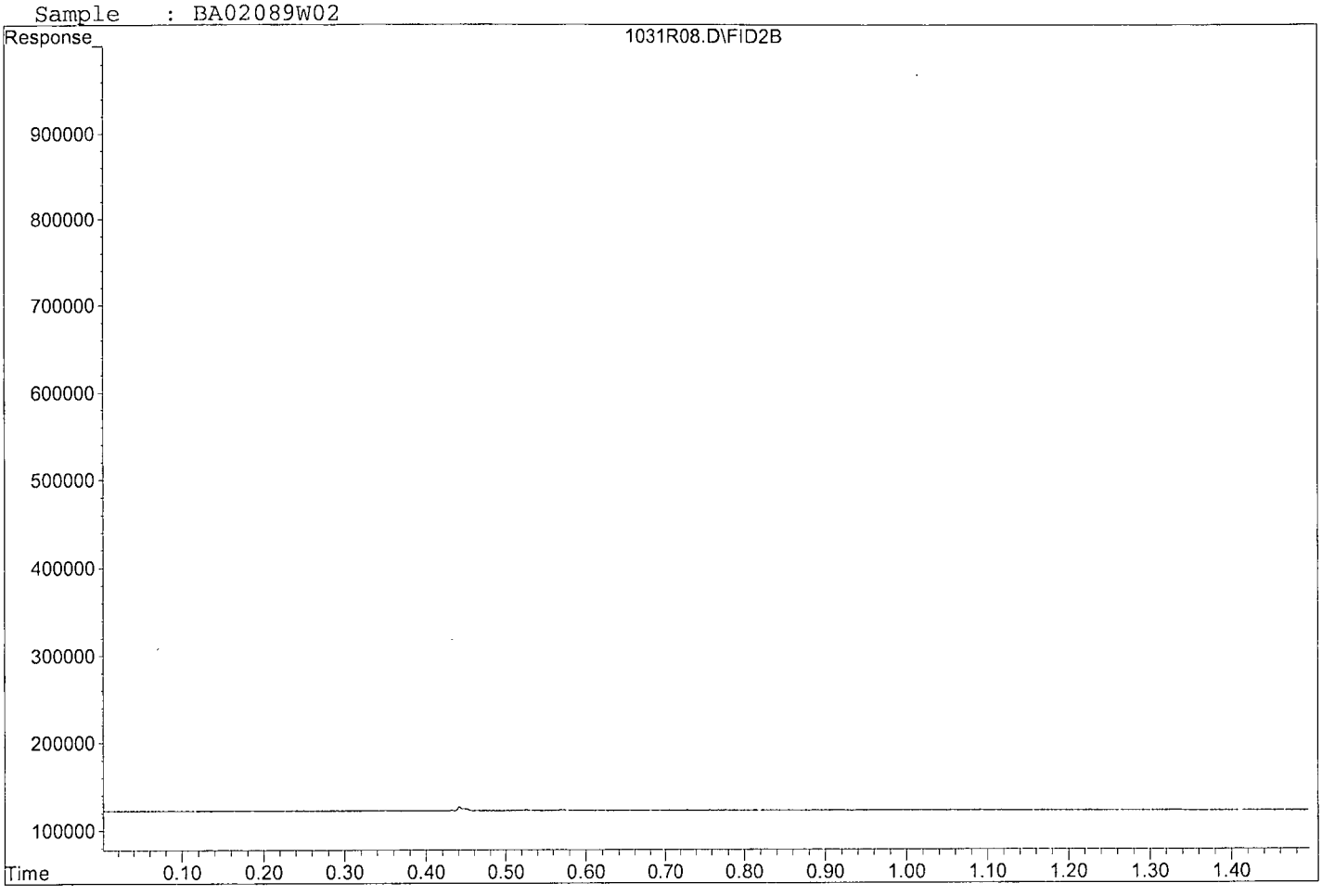
Method : G:\ROCKY\DATA\190929RS\RSK1002.M (Chemstation Integrator)
Title : RSK 175
Last Update : Wed Oct 30 17:49:29 2019
Response via : Multiple Level Calibration

Volume Inj. : 0.500 mL
Signal Phase : CARBOPACK
Signal Info :

Compound	R.T.	Response	Conc	Units	
Target Compounds					
Target Compounds					
1) ATM Methane	0.00	0	N.D.	ppb	d
2) ATM Ethane	0.00	0	N.D.	ppb	d
3) ATM Ethene	0.00	0	N.D.	ppb	d

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: G:\ROCKY\DATA\191002RS\1031R08.D
Sample : BA02089W02



Quantitation Report (QT Reviewed)

Data File : G:\ROCKY\DATA\191002RS\1031R09.D Vial: 9
Acq On : 31 Oct 19 17:23 Operator: GA
Sample : BA02090W02 Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 31 17:27 2019 Quant Results File: RSK1002.RES

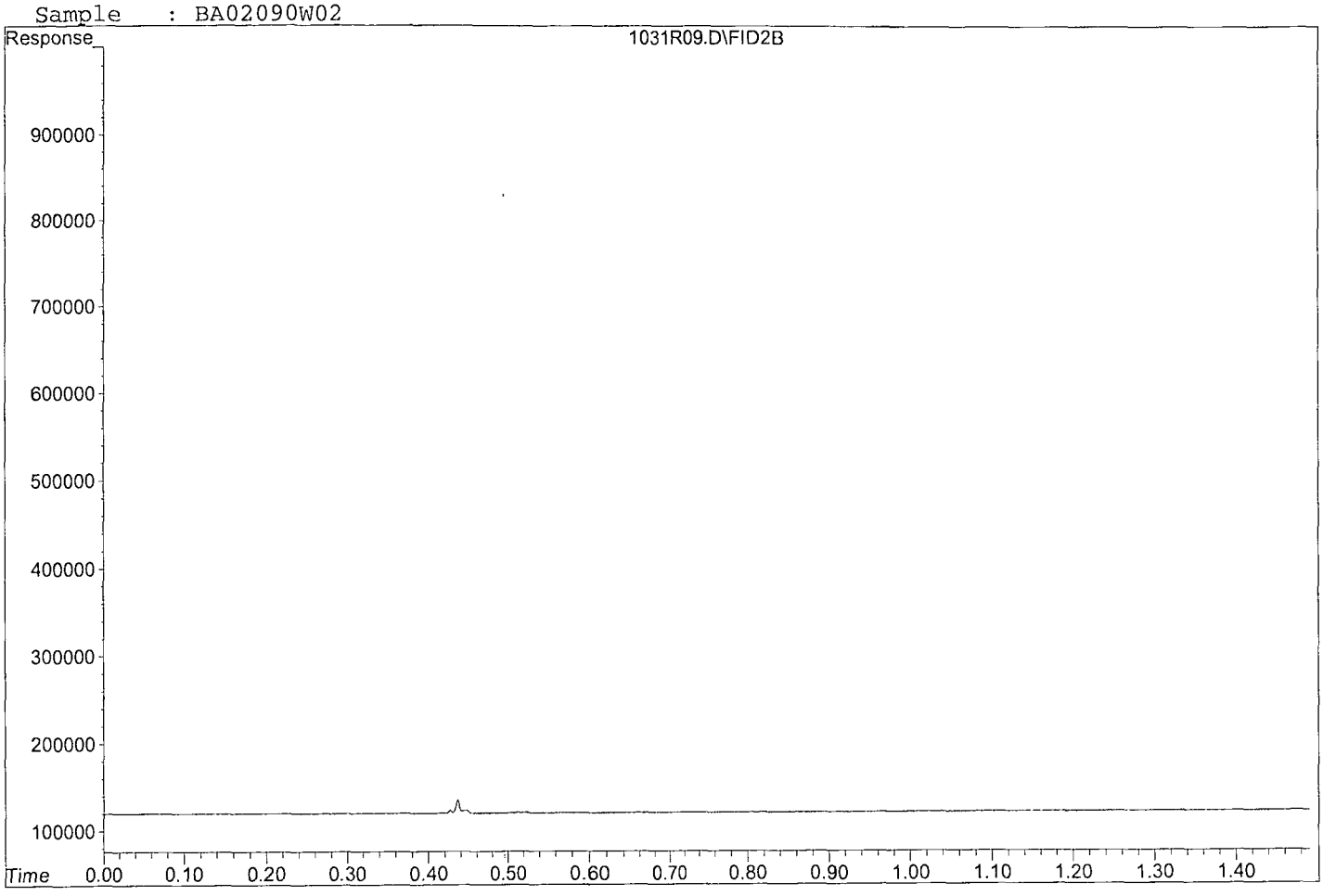
Method : G:\ROCKY\DATA\190929RS\RSK1002.M (Chemstation Integrator)
Title : RSK 175
Last Update : Wed Oct 30 17:49:29 2019
Response via : Multiple Level Calibration

Volume Inj. : 0.500 mL
Signal Phase : CARBOPACK
Signal Info :

Compound	R.T.	Response	Conc	Units	
Target Compounds					
Target Compounds					
1) ATM Methane	0.00	0	N.D.	ppb	d
2) ATM Ethane	0.00	0	N.D.	ppb	d
3) ATM Ethene	0.00	0	N.D.	ppb	d

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: G:\ROCKY\DATA\191002RS\1031R09.D
Sample : BA02090W02



Quantitation Report (QT Reviewed)

Data File : G:\ROCKY\DATA\191002RS\1031R05.D Vial: 5
Acq On : 31 Oct 19 17:12 Operator: GA
Sample : 191031A BLK Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 31 17:14 2019 Quant Results File: RSK1002.RES

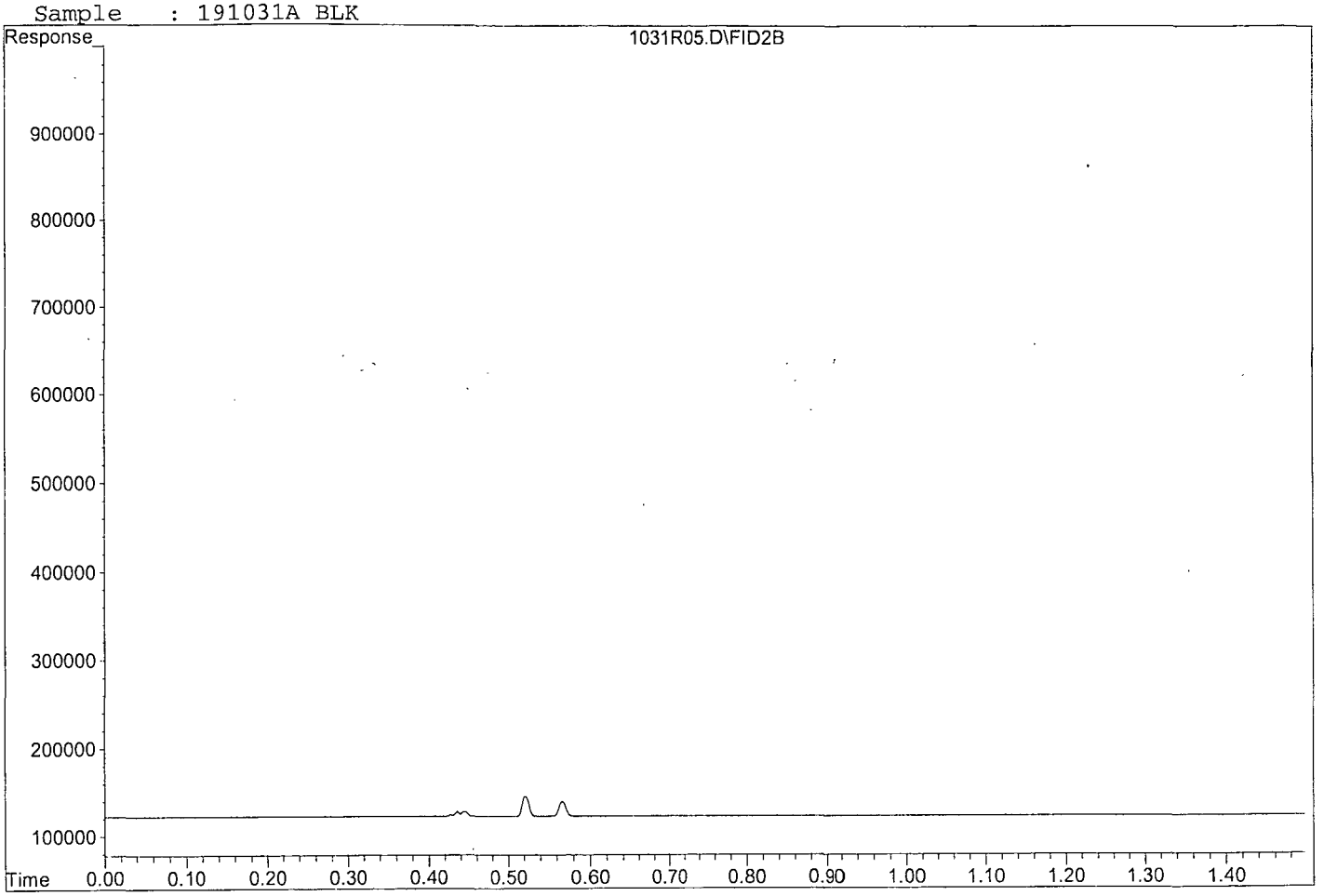
Method : G:\ROCKY\DATA\190929RS\RSK1002.M (Chemstation Integrator)
Title : RSK 175
Last Update : Wed Oct 30 17:49:29 2019
Response via : Multiple Level Calibration

Volume Inj. : 0.500 mL
Signal Phase : CARBOPACK
Signal Info :

Compound	R.T.	Response	Conc	Units	
Target Compounds					
Target Compounds					
1) ATM Methane	0.00	0	N.D.	ppb	d
2) ATM Ethane	0.00	0	N.D.	ppb	d
3) ATM Ethene	0.00	0	N.D.	ppb	d

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: G:\ROCKY\DATA\191002RS\1031R05.D
Sample : 191031A BLK



Quantitation Report (Not Reviewed)

Data File : G:\ROCKY\DATA\191002RS\1031R03.D Vial: 3
Acq On : 31 Oct 19 17:03 Operator: GA
Sample : 191031A LCS/CCV RSK STD 5 Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 31 17:06 2019 Quant Results File: RSK1002.RES

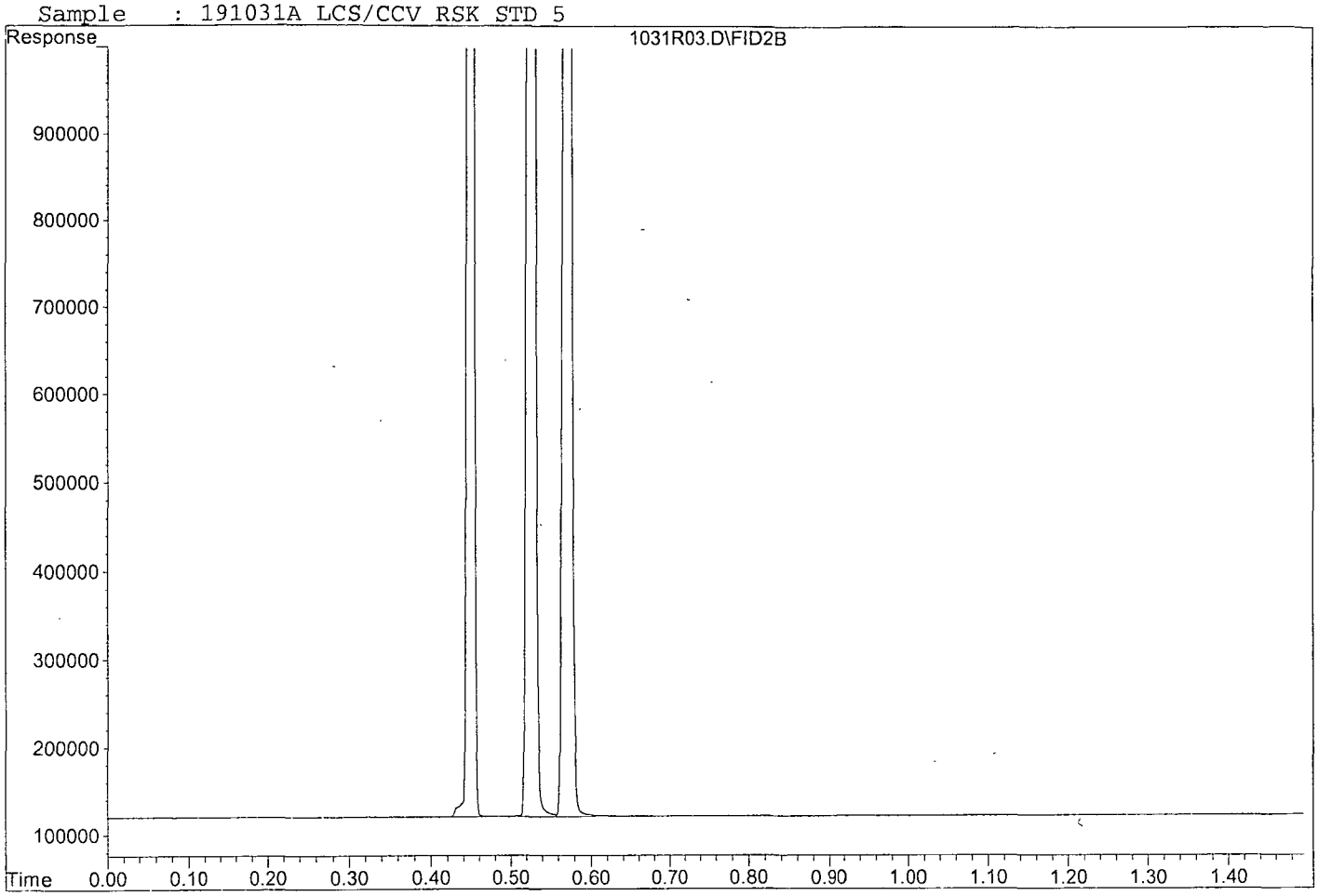
Method : G:\ROCKY\DATA\190929RS\RSK1002.M (Chemstation Integrator)
Title : RSK 175
Last Update : Wed Oct 30 17:49:29 2019
Response via : Multiple Level Calibration

Volume Inj. : 0.500 mL
Signal Phase : CARBOPACK
Signal Info :

Compound	R.T.	Response	Conc Units
Target Compounds			
1) ATM Methane	0.45	2000669	86.470 ppb
2) ATM Ethane	0.53	3364804	197.702 ppb
3) ATM Ethene	0.57	2385102	178.159 ppb

Target Compounds

Data File: G:\ROCKY\DATA\191002RS\1031R03.D
Sample : 191031A LCS/CCV RSK STD 5



Quantitation Report (Not Reviewed)

Data File : G:\ROCKY\DATA\191002RS\1031R04.D Vial: 4
Acq On : 31 Oct 19 17:08 Operator: GA
Sample : 191031A LCSD Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 31 17:10 2019 Quant Results File: RSK1002.RES

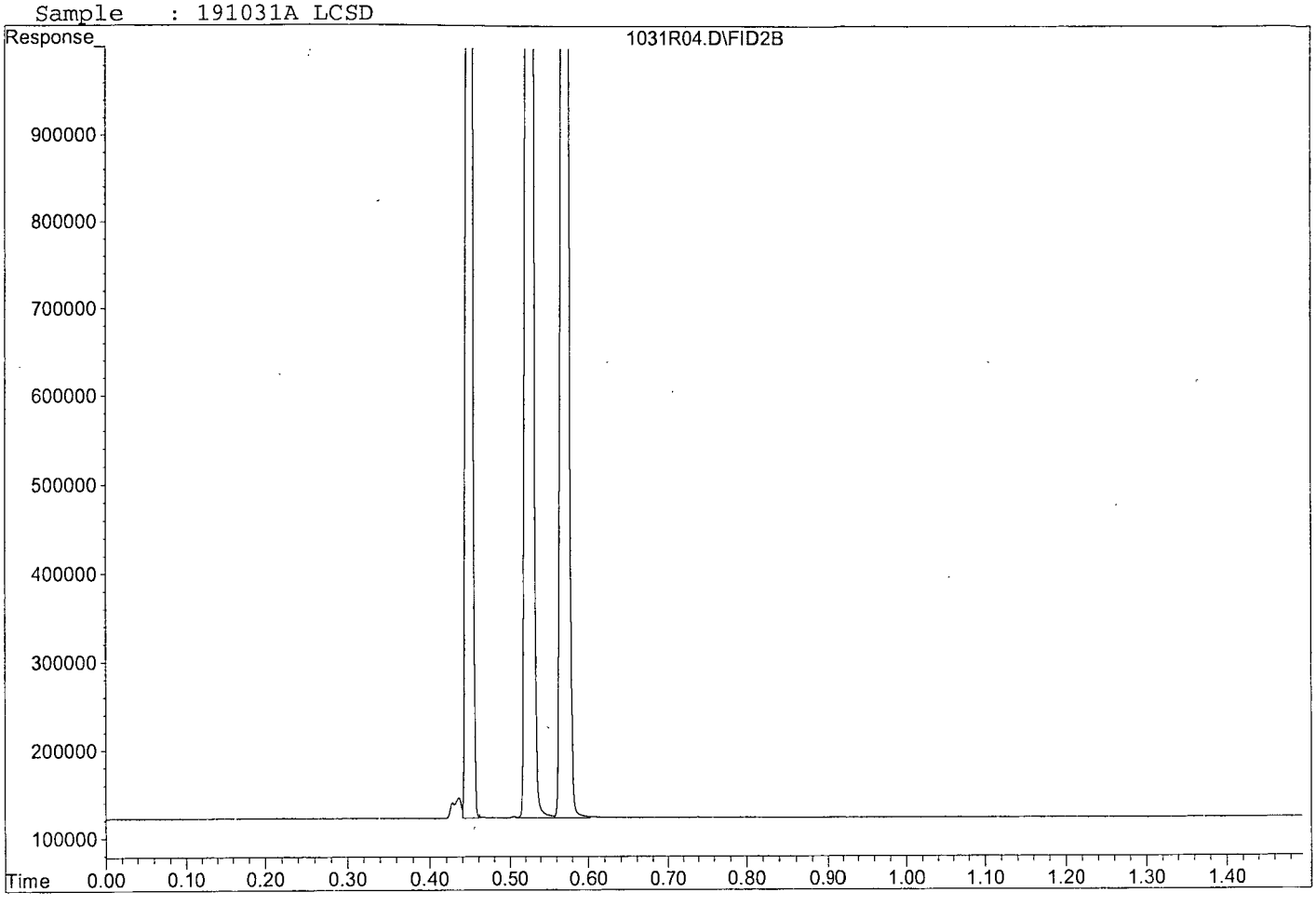
Method : G:\ROCKY\DATA\190929RS\RSK1002.M (Chemstation Integrator)
Title : RSK 175
Last Update : Wed Oct 30 17:49:29 2019
Response via : Multiple Level Calibration

Volume Inj. : 0.500 mL
Signal Phase : CARBOPACK
Signal Info :

Compound	R.T.	Response	Conc Units
Target Compounds			
1) ATM Methane	0.45	2041583	88.238 ppb
2) ATM Ethane	0.53	3245936	190.718 ppb
3) ATM Ethene	0.57	2292409	171.235 ppb

Target Compounds

Data File: G:\ROCKY\DATA\191002RS\1031R04.D
Sample : 191031A LCSD



Primary Stock Source
10,000ppmV **Manufacture Expiration:** 09/21/21
RSK Gas Mix (Scott Specialty Gas) CAT#X04NI97CP140001 LOT#160-401558175-1
1% Gas Concentration Moles = 10,000ppmV Methane, Ethane, Ethene

RSK Calibration Curve (prepared in 1.0 L Tedlar Bags at room temp) **01/02/19** **10/02/19**

Analyte	Conc Std 1 (1/2 = LOD) (ug/L)	Conc Std 2 (LOQ Chk) (ug/L)	Conc Std 3 (ug/L)	Conc Std 4 (ug/L)	Conc Std 5 (ug/L)	Conc Std 6 (ug/L)	Conc Std 7 (ug/L)
Methane (MW 16.04)	2.08	4.16	8.34	20.85	83.40	208.5	834.0
Ethane (MW 30.07)	3.91	7.81	15.6	39.09	156.35	390.9	1563.5
Ethene (MW 28.05)	3.65	7.30	14.6	36.46	145.84	364.6	1458.4
Stock Source	160-401558175-1	160-401558175-1	160-401558175-1	160-401558175-1	160-401558175-1	160-401558175-1	160-401558175-1
Stock Conc (ppmv)	10,000 ppmV	10,000 ppmV	10,000 ppmV	10,000 ppmV	10,000 ppmV	10,000 ppmV	10,000 ppmV
Stock Aliquot (mL)	0.010	0.020	0.040	0.100	0.400	1.00	4.00
Final Volume P&T Water	32 mL	32 mL	32 mL	32 mL	32 mL	32 mL	32 mL

Second Source Stock Standard 10,000ppmV **Manufacturer Exp date 9-21-2021**
RSK Gas Mix (Scott Specialty Gas) Cat.# 23452, Lot # 160-401303032-1-39774
1% Gas Concentration Moles = 10,000ppmV Methane, Ethane, Ethene

Second Source **Expires 10/03/19** **10/02/19**
2.0mL of SS from tank into 980 mL Nitrogen
final conc: 13.3ug/L Methane, 25.0 ug/L Ethane, and 23.3 ug/L Ethene

CCV/LCS/LCSD **GA 10/31/19**
Spike 0.400mL of 10,000ppmV into 32mL DI water, with 8mL Nitrogen headspace
final conc: 83.40ug/L Methane, 156.35ug/L Ethane, and 145.84ug/L Ethene

Injection Log

Directory: G:\ROCKY\DATA\191002RS\

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	2	1002R02.D	1	RSK STD 1 10/2/19		2 Oct 19 17:45
2	3	1002R03.D	1	RSK STD 2 10/2/19		2 Oct 19 17:50
3	4	1002R04.D	1	RSK STD 3 10/2/19		2 Oct 19 17:52
4	5	1002R05.D	1	RSK STD 4 10/2/19		2 Oct 19 17:57
5	6	1002R06.D	1	RSK STD 5 10/2/19		2 Oct 19 17:59
6	7	1002R07.D	1	RSK STD 6 10/2/19		2 Oct 19 18:05
7	8	1002R08.D	1	RSK STD 7 10/2/19		2 Oct 19 18:07
8	10	1002R10.D	1	SS RSK STD 5 10/2/19		2 Oct 19 18:24
9	3	1031R03.D	1	191031A LCS/CCV RSK STD 5		31 Oct 19 17:03
10	4	1031R04.D	1	191031A LCSD		31 Oct 19 17:08
11	5	1031R05.D	1	191031A BLK		31 Oct 19 17:12
12	8	1031R08.D	1	BA02089W02		31 Oct 19 17:20
13	9	1031R09.D	1	BA02090W02		31 Oct 19 17:23
16	15	1031R15.D	1	ENDING CCV RSK STD 5 10/31/19		31 Oct 19 17:42

METALS

Calibration Data

A.P.P.L. INC.

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: A.P.P.L. INC. Contract: AECOM

ARF No: 90587 SDG: 90587

Analysis Date: 11/05/19 Concentration Units: ug/L

Analyte	Initial Calibration			Continuing Calibration						M
	True	Found 10:17	%R(1)	True CCV2	Found 12:34	%R(1)	True	Found	%R(1)	
Calcium (Ca)	12500	12480	99.8	18750	18350	97.9				P
Potassium (K)	12500	11990	95.9	7500	7204	96.1				P
Magnesium (Mg)	12500	12780	102	18750	18900	101				P
Manganese (Mn)	500	491.8	98.4	375	368	98.1				P
Sodium (Na)	12500	12270	98.2	9375	9286	99.1				P

(1) Control Limits: Metals 90-110

ILM02.0

A.P.P.L. INC.
3
BLANKS

Lab Name: A.P.P.L. INC. Contract: AECOM

ARF No.: 90587 SDG: 90587

Preparation Blank Matrix (soil/water): water

Preparation Blank Concentration Units (ug/L or mg/kg): ug/L

Analysis Date: 11/05/19

Analyte	Initial Calibration Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Preparation Blank	C	M
	10:31		12:54						11:24		
Calcium (Ca)	1000.00	U	1000.00	U					1000.00	U	P
Potassium (K)	3000.00	U	3000.00	U					3000.00	U	P
Magnesium (Mg)	500.00	U	500.00	U					500.00	U	P
Manganese (Mn)	10.00	U	10.00	U					10.00	U	P
Sodium (Na)	5000.00	U	5000.00	U					5000.00	U	P

A.P.P.L. INC.
4
ICP INTERFERENCE CHECK SAMPLE

Lab Name:	A.P.P.L. INC.	Contract:	AECOM
ARF No.:	90587	SDG:	90587
ICP ID Number:	Phoebe	ICS Source:	Environmental Express

Analysis Date: 11/05/19 Concentration Units: ug/L

Analyte	True		Initial Found		
	Sol A	Sol AB	Sol A 10:55	Sol AB 10:59	%R(1)
Aluminum (Al)	100000	100000	104500	101900	102
Calcium (Ca)	100000	100000	101800	99570	99.6
Iron (Fe)	100000	100000	97870	96190	96.2
Potassium (K)			-43.11	-28.18	
Magnesium (Mg)	100000	100000	102600	101200	101
Manganese (Mn)		250	-1.811	247.3	98.9
Sodium (Na)			141.3	130	

(1) Control Limits: Metals 80-120

Low Level ICV

Sample Name	Acq Date Time	Run Sequence	Analyte	Actual Conc (ug/L)	Spiked Conc (ug/L)	Control Limits	% Recovery	QC Flag
LLICVX6	11/5/19 10:45 AM	191105A	Silver	3.464	3	80-120%	115	
	#VALUE!	191105A	Aluminum			80-120%	#VALUE!	#VALUE!
LLICVX2	11/5/19 10:40 AM	191105A	Arsenic	3.40	4	80-120%	85	
LLICV	11/5/19 10:35 AM	191105A	Boron	29.53	25	80-120%	118	
LLICV	11/5/19 10:35 AM	191105A	Barium	1.799	1.5	80-120%	120	
LLICV	11/5/19 10:35 AM	191105A	Beryllium	0.810	1	80-120%	81	
LLICV	11/5/19 10:35 AM	191105A	Calcium	50.83	50	80-120%	102	
LLICVX2	11/5/19 10:40 AM	191105A	Cadmium	0.53	0.5	80-120%	106	
LLICV	11/5/19 10:35 AM	191105A	Cobalt	2.472	2.5	80-120%	99	
LLICV	11/5/19 10:35 AM	191105A	Chromium	0.54	0.5	80-120%	107	
LLICV	11/5/19 10:35 AM	191105A	Copper	2.46	2.5	80-120%	98	
LLICV	11/5/19 10:35 AM	191105A	Iron	25.97	25	80-120%	104	
LLICV	11/5/19 10:35 AM	191105A	Potassium	420.0	500	80-120%	84	
LLICV	11/5/19 10:35 AM	191105A	Magnesium	24.45	25	80-120%	98	
LLICV	11/5/19 10:35 AM	191105A	Manganese	1.10	1	80-120%	110	
LLICV	11/5/19 10:35 AM	191105A	Molybdenum	1.15	1	80-120%	115	
LLICV	11/5/19 10:35 AM	191105A	Sodium	502.1	500	80-120%	100	
LLICV	11/5/19 10:35 AM	191105A	Nickel	1.121	1	80-120%	112	
LLICV	11/5/19 10:35 AM	191105A	Phosphorus	11.34	12.5	80-120%	91	
LLICVX6	11/5/19 10:45 AM	191105A	Lead	10.71	9	80-120%	119	
LLICVX2	11/5/19 10:40 AM	191105A	Antimony	3.91	4	80-120%	98	
LLICV	11/5/19 10:35 AM	191105A	Selenium	2.07	2	80-120%	103	
LLICV	11/5/19 10:35 AM	191105A	Tin	2.436	3	80-120%	81	
LLICVX6	11/5/19 10:45 AM	191105A	Strontium	6.428	6	80-120%	107	
LLICV	11/5/19 10:35 AM	191105A	Titanium	2.18	2.5	80-120%	87	
LLICV10	11/5/19 10:35 AM	191105A	Thallium	11.16	10	80-120%	112	
LLICVX2	11/5/19 10:40 AM	191105A	Vanadium	1.15	1	80-120%	115	
LLICVX2	11/5/19 10:40 AM	191105A	Zinc	52.78	50	80-120%	106	

Sequence No.: 1
Sample ID: CalBlk 191105 I:PB O:PW
Analyst:
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 11/05/19 9:23:05 AM
Data Type: Reprocessed on 11/06/19 8:31:34 AM

Initial Sample Vol:
Sample Prep Vol:

Mean Data: CalBlk 191105 I:PB O:PW

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Y 371.029	1254241.9	7189.23	0.57%	100.0	%
Y 371.029 Radial	1197089.9	7711.21	0.64%	100.00	%
Ag 338.289†	-375.8	9.92	2.64%	[0.00]	ug/L
Al 308.215†	17.1	11.05	64.73%	[0.00]	ug/L
As 188.979†	-58.3	3.17	5.43%	[0.00]	ug/L
B†	-240.0	3.81	1.59%	[0.00]	ug/L
Ba 233.527†	68.6	12.78	18.64%	[0.00]	ug/L
Be 313.107†	22.0	8.92	40.49%	[0.00]	ug/L
Ca 315.887†	-81.2	15.35	18.89%	[0.00]	ug/L
Cd 214.440†	-315.5	13.80	4.37%	[0.00]	ug/L
Co 228.616†	76.1	6.64	8.73%	[0.00]	ug/L
Cr 267.716†	251.8	21.23	8.43%	[0.00]	ug/L
Cu 327.393†	-589.9	148.83	25.23%	[0.00]	ug/L
Fe 273.955†	-51.9	13.09	25.23%	[0.00]	ug/L
K 766.490†	1196.4	81.01	6.77%	[0.00]	ug/L
Mg 285.213†	-29.0	3.14	10.82%	[0.00]	ug/L
Mn 257.610†	-77.1	3.16	4.09%	[0.00]	ug/L
Mo 202.031†	60.4	1.53	2.53%	[0.00]	ug/L
Na 589.592†	283.3	12.86	4.54%	[0.00]	ug/L
Ni 231.604†	47.9	9.41	19.65%	[0.00]	ug/L
P 213.617†	-94.9	4.54	4.79%	[0.00]	ug/L
Pb 220.353†	16.4	17.16	104.93%	[0.00]	ug/L
Sb 206.836†	-27.5	4.29	15.58%	[0.00]	ug/L
Se 196.026†	-0.9	12.92	>999.9%	[0.00]	ug/L
Sn 189.927†	10.0	3.17	31.60%	[0.00]	ug/L
Sr 421.552†	55.1	13.09	23.74%	[0.00]	ug/L
Ti 337.279†	-119.4	4.81	4.03%	[0.00]	ug/L
Tl 190.801†	-102.1	10.53	10.32%	[0.00]	ug/L
V 292.402†	-372.4	27.08	7.27%	[0.00]	ug/L
Zn 206.200†	-411.8	11.20	2.72%	[0.00]	ug/L

Sequence No.: 2
Sample ID: STD 1 191105 I:PB O:PW
Analyst:
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:

Autosampler Location: 2
Date Collected: 11/05/19 9:38:02 AM
Data Type: Reprocessed on 11/06/19 8:31:54 AM
Initial Sample Vol:
Sample Prep Vol:

Mean Data: STD 1 191105 I:PB O:PW

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Calib Conc.	Units
Y 371.029	1256685.1	7171.77	0.57%	100.2	%
Y 371.029 Radial	1199483.5	7444.65	0.62%	100.2	%
Ag 338.289†	42.7	14.08	32.94%	[0.5]	ug/L
Al 308.215†	35.1	4.86	13.83%	[50]	ug/L
As 188.979†	2.0	7.04	347.20%	[2]	ug/L
B†	1140.9	9.46	0.83%	[25]	ug/L
Ba 233.527†	191.1	12.31	6.44%	[1.5]	ug/L
Be 313.107†	49.5	7.37	14.90%	[1]	ug/L
Ca 315.887†	71.3	11.74	16.47%	[50]	ug/L
Cd 214.440†	37.2	13.44	36.14%	[0.25]	ug/L
Co 228.616†	113.6	20.32	17.88%	[2.5]	ug/L
Cr 267.716†	35.2	4.67	13.27%	[0.5]	ug/L
Cu 327.393†	283.3	66.57	23.50%	[2.5]	ug/L
Fe 273.955†	438.9	14.46	3.29%	[25]	ug/L
K 766.490†	850.4	76.91	9.04%	[500]	ug/L
Mg 285.213†	49.5	9.37	18.93%	[25]	ug/L
Mn 257.610†	5.4	1.25	23.14%	[1]	ug/L
Mo 202.031†	31.1	12.42	39.94%	[1]	ug/L
Na 589.592†	1544.5	150.73	9.76%	[500]	ug/L
Ni 231.604†	33.3	7.17	21.51%	[1]	ug/L
P 213.617†	34.9	5.77	16.53%	[12.5]	ug/L
Pb 220.353†	9.5	12.85	134.93%	[1.5]	ug/L
Sb 206.836†	10.2	1.14	11.24%	[2]	ug/L
Se 196.026†	2.2	3.06	140.63%	[2]	ug/L
Sn 189.927†	21.4	3.90	18.21%	[3]	ug/L
Sr 421.552†	236.6	12.54	5.30%	[1]	ug/L
Ti 337.279†	14.5	20.26	139.72%	[2.5]	ug/L
Tl 190.801†	7.0	2.48	35.33%	[2]	ug/L
V 292.402†	86.2	66.40	77.04%	[0.5]	ug/L
Zn 206.200†	1336.2	5.19	0.39%	[25]	ug/L

Sequence No.: 3
Sample ID: STD 2 191105 I:PB O:PW
Analyst:
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:

Autosampler Location: 3
Date Collected: 11/05/19 9:42:45 AM
Data Type: Reprocessed on 11/06/19 8:31:55 AM
Initial Sample Vol:
Sample Prep Vol:

Mean Data: STD 2 191105 I:PB O:PW

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Y 371.029	1190378.8	9708.41	0.82%	94.91	%
Y 371.029 Radial	1132394.2	9938.33	0.88%	94.60	%
Ag 338.289†	19095.0	90.36	0.47%	[250]	ug/L
Al 308.215†	2663.7	22.39	0.84%	[10000]	ug/L
As 188.979†	1685.6	11.84	0.70%	[500]	ug/L
B†	21263.0	221.16	1.04%	[500]	ug/L
Ba 233.527†	56443.0	431.36	0.76%	[500]	ug/L
Be 313.107†	32194.3	630.34	1.96%	[500]	ug/L
Ca 315.887†	33403.5	224.74	0.67%	[25000]	ug/L
Cd 214.440†	71400.1	723.51	1.01%	[500]	ug/L
Co 228.616†	24082.6	200.35	0.83%	[500]	ug/L
Cr 267.716†	38835.5	202.40	0.52%	[500]	ug/L
Cu 327.393†	42945.8	322.34	0.75%	[500]	ug/L
Fe 273.955†	160606.9	1196.42	0.74%	[10000]	ug/L
K 766.490†	18933.0	185.48	0.98%	[10000]	ug/L
Mg 285.213†	53048.2	828.28	1.56%	[25000]	ug/L
Mn 257.610†	2928.0	18.22	0.62%	[500]	ug/L
Mo 202.031†	13133.8	76.23	0.58%	[500]	ug/L
Na 589.592†	37998.3	588.70	1.55%	[12500]	ug/L
Ni 231.604†	19855.0	218.71	1.10%	[500]	ug/L
P 213.617†	8820.4	75.51	0.86%	[2500]	ug/L
Pb 220.353†	5352.6	49.30	0.92%	[500]	ug/L
Sb 206.836†	2081.6	24.60	1.18%	[500]	ug/L
Se 196.026†	1431.5	25.07	1.75%	[500]	ug/L
Sn 189.927†	4775.0	37.75	0.79%	[500]	ug/L
Sr 421.552†	69094.6	936.65	1.36%	[500]	ug/L
Ti 337.279†	3454.3	26.86	0.78%	[500]	ug/L
Tl 190.801†	2154.0	21.47	1.00%	[500]	ug/L
V 292.402†	69887.9	389.58	0.56%	[500]	ug/L
Zn 206.200†	24836.0	292.58	1.18%	[500]	ug/L

Sequence No.: 4
Sample ID: STD 3 191105 I:PB O:PW
Analyst:
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:

Autosampler Location: 4
Date Collected: 11/05/19 9:47:26 AM
Data Type: Reprocessed on 11/06/19 8:31:56 AM
Initial Sample Vol:
Sample Prep Vol:

Mean Data: STD 3 191105 I:PB O:PW

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Y 371.029	1169324.3	5315.29	0.45%	93.23	%
Y 371.029 Radial	1111293.8	5560.45	0.50%	92.83	%
Ag 338.289†	38315.6	198.23	0.52%	[500]	ug/L
Al 308.215†	5294.7	138.39	2.61%	[20000]	ug/L
As 188.979†	3373.6	29.00	0.86%	[1000]	ug/L
B†	43114.2	257.45	0.60%	[1000]	ug/L
Ba 233.527†	112401.8	613.65	0.55%	[1000]	ug/L
Be 313.107†	64026.9	753.93	1.18%	[1000]	ug/L
Ca 315.887†	66765.4	1300.91	1.95%	[50000]	ug/L
Cd 214.440†	142195.3	641.40	0.45%	[1000]	ug/L
Co 228.616†	47840.0	194.31	0.41%	[1000]	ug/L
Cr 267.716†	77433.9	273.38	0.35%	[1000]	ug/L
Cu 327.393†	86266.7	479.14	0.56%	[1000]	ug/L
Fe 273.955†	320157.1	1437.49	0.45%	[20000]	ug/L
K 766.490†	38416.4	372.10	0.97%	[20000]	ug/L
Mg 285.213†	104768.8	876.37	0.84%	[50000]	ug/L
Mn 257.610†	5858.2	99.89	1.71%	[1000]	ug/L
Mo 202.031†	27117.0	147.98	0.55%	[1000]	ug/L
Na 589.592†	75956.5	500.85	0.66%	[25000]	ug/L
Ni 231.604†	39082.7	102.05	0.26%	[1000]	ug/L
P 213.617†	17648.2	107.61	0.61%	[5000]	ug/L
Pb 220.353†	10408.0	49.06	0.47%	[1000]	ug/L
Sb 206.836†	4120.1	29.52	0.72%	[1000]	ug/L
Se 196.026†	2846.4	21.61	0.76%	[1000]	ug/L
Sn 189.927†	9384.0	50.53	0.54%	[1000]	ug/L
Sr 421.552†	137090.8	931.22	0.68%	[1000]	ug/L
Ti 337.279†	6968.5	175.30	2.52%	[1000]	ug/L
Tl 190.801†	4219.1	31.96	0.76%	[1000]	ug/L
V 292.402†	140285.5	653.73	0.47%	[1000]	ug/L
Zn 206.200†	49241.7	197.51	0.40%	[1000]	ug/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 338.289	3	Lin Thru 0	0.0	76.58	0.00000	0.999999	
Al 308.215	3	Lin Thru 0	0.0	0.2651	0.00000	0.999990	
As 188.979	3	Lin Thru 0	0.0	3.373	0.00000	0.999999	
B	3	Lin Thru 0	0.0	43.00	0.00000	0.999984	
Ba 233.527	3	Lin Thru 0	0.0	112.5	0.00000	0.999999	
Be 313.107	3	Lin Thru 0	0.0	64.10	0.00000	0.999997	
Ca 315.887	3	Lin Thru 0	0.0	1.335	0.00000	1.000000	
Cd 214.440	3	Lin Thru 0	0.0	142.3	0.00000	0.999999	
Co 228.616	3	Lin Thru 0	0.0	47.91	0.00000	0.999996	
Cr 267.716	3	Lin Thru 0	0.0	77.48	0.00000	0.999999	
Cu 327.393	3	Lin Thru 0	0.0	86.19	0.00000	0.999998	
Fe 273.955	3	Lin Thru 0	0.0	16.02	0.00000	0.999999	
K 766.490	3	Lin Thru 0	0.0	1.915	0.00000	0.999980	
Mg 285.213	3	Lin Thru 0	0.0	2.101	0.00000	0.999987	
Mn 257.610	3	Lin Thru 0	0.0	5.858	0.00000	1.000000	
Mo 202.031	3	Lin Thru 0	0.0	26.95	0.00000	0.999921	
Na 589.592	3	Lin Thru 0	0.0	3.039	0.00000	1.000000	
Ni 231.604	3	Lin Thru 0	0.0	39.21	0.00000	0.999980	
P 213.617	3	Lin Thru 0	0.0	3.529	0.00000	1.000000	
Pb 220.353	3	Lin Thru 0	0.0	10.47	0.00000	0.999935	
Sb 206.836	3	Lin Thru 0	0.0	4.129	0.00000	0.999991	
Se 196.026	3	Lin Thru 0	0.0	2.850	0.00000	0.999997	
Sn 189.927	3	Lin Thru 0	0.0	9.417	0.00000	0.999975	
Sr 421.552	3	Lin Thru 0	0.0	137.3	0.00000	0.999995	

Ti 337.279	3	Lin Thru 0	0.0	6.957	0.00000	0.999994
Tl 190.801	3	Lin Thru 0	0.0	4.237	0.00000	0.999965
V 292.402	3	Lin Thru 0	0.0	140.2	0.00000	0.999999
Zn 206.200	3	Lin Thru 0	0.0	49.33	0.00000	0.999992

Sequence No.: 5
Sample ID: ICV 191105 I:PB O:PW
Analyst:
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:

Autosampler Location: 5
Date Collected: 11/05/19 10:17:01 AM
Data Type: Reprocessed on 11/06/19 8:31:57 AM

Initial Sample Vol:
Sample Prep Vol:

Mean Data: ICV 191105 I:PB O:PW

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	1215247.5	96.89	%	0.325				0.34%
Y 371.029 Radial	1158074.6	96.74	%	0.321				0.33%
Ag 338.289†	19062.0	251.1	ug/L	2.00	251.1	ug/L	2.00	0.79%
QC value within limits for Ag 338.289 Recovery = 100.42%								
Al 308.215†	3330.8	12570	ug/L	67.7	12570	ug/L	67.7	0.54%
QC value within limits for Al 308.215 Recovery = 100.58%								
As 188.979†	1656.9	495.5	ug/L	0.80	495.5	ug/L	0.80	0.16%
QC value within limits for As 188.979 Recovery = 99.11%								
B†	21592.6	502.2	ug/L	2.99	502.2	ug/L	2.99	0.60%
QC value within limits for B Recovery = 100.44%								
Ba 233.527†	55967.4	496.7	ug/L	0.93	496.7	ug/L	0.93	0.19%
QC value within limits for Ba 233.527 Recovery = 99.34%								
Be 313.107†	30939.3	484.2	ug/L	7.31	484.2	ug/L	7.31	1.51%
QC value within limits for Be 313.107 Recovery = 96.83%								
Ca 315.887†	16676.1	12480	ug/L	45.5	12480	ug/L	45.5	0.36%
QC value within limits for Ca 315.887 Recovery = 99.87%								
Cd 214.440†	70843.3	497.7	ug/L	1.47	497.7	ug/L	1.47	0.29%
QC value within limits for Cd 214.440 Recovery = 99.53%								
Co 228.616†	24240.6	504.1	ug/L	1.39	504.1	ug/L	1.39	0.28%
QC value within limits for Co 228.616 Recovery = 100.81%								
Cr 267.716†	38226.1	492.6	ug/L	2.21	492.6	ug/L	2.21	0.45%
QC value within limits for Cr 267.716 Recovery = 98.53%								
Cu 327.393†	43023.4	500.5	ug/L	4.63	500.5	ug/L	4.63	0.92%
QC value within limits for Cu 327.393 Recovery = 100.10%								
Fe 273.955†	217904.4	13560	ug/L	39.8	13560	ug/L	39.8	0.29%
QC value within limits for Fe 273.955 Recovery = 108.48%								
K 766.490†	22990.7	11990	ug/L	221.1	11990	ug/L	221.1	1.84%
QC value within limits for K 766.490 Recovery = 95.94%								
Mg 285.213†	26809.0	12780	ug/L	67.6	12780	ug/L	67.6	0.53%
QC value within limits for Mg 285.213 Recovery = 102.21%								
Mn 257.610†	2876.8	491.8	ug/L	1.96	491.8	ug/L	1.96	0.40%
QC value within limits for Mn 257.610 Recovery = 98.35%								
Mo 202.031†	12745.6	473.3	ug/L	1.55	473.3	ug/L	1.55	0.33%
QC value within limits for Mo 202.031 Recovery = 94.65%								
Na 589.592†	37244.7	12270	ug/L	156.7	12270	ug/L	156.7	1.28%
QC value within limits for Na 589.592 Recovery = 98.14%								
Ni 231.604†	19726.2	499.5	ug/L	1.36	499.5	ug/L	1.36	0.27%
QC value within limits for Ni 231.604 Recovery = 99.90%								
P 213.617†	8589.0	2434	ug/L	9.6	2434	ug/L	9.6	0.39%
QC value within limits for P 213.617 Recovery = 97.34%								
Pb 220.353†	5257.6	504.8	ug/L	1.28	504.8	ug/L	1.28	0.25%
QC value within limits for Pb 220.353 Recovery = 100.96%								
Sb 206.836†	1918.0	464.6	ug/L	0.48	464.6	ug/L	0.48	0.10%
QC value within limits for Sb 206.836 Recovery = 92.91%								
Se 196.026†	1408.0	500.0	ug/L	0.50	500.0	ug/L	0.50	0.10%
QC value within limits for Se 196.026 Recovery = 99.99%								
Sn 189.927†	2313.7	249.2	ug/L	1.49	249.2	ug/L	1.49	0.60%
QC value within limits for Sn 189.927 Recovery = 99.70%								
Sr 421.552†	65785.6	479.0	ug/L	4.30	479.0	ug/L	4.30	0.90%
QC value within limits for Sr 421.552 Recovery = 95.79%								
Ti 337.279†	3403.9	489.0	ug/L	1.79	489.0	ug/L	1.79	0.37%
QC value within limits for Ti 337.279 Recovery = 97.80%								
Tl 190.801†	2172.1	525.0	ug/L	1.82	525.0	ug/L	1.82	0.35%
QC value within limits for Tl 190.801 Recovery = 104.99%								
V 292.402†	68352.9	494.6	ug/L	2.09	494.6	ug/L	2.09	0.42%
QC value within limits for V 292.402 Recovery = 98.93%								
Zn 206.200†	24739.6	505.1	ug/L	2.04	505.1	ug/L	2.04	0.40%
QC value within limits for Zn 206.200 Recovery = 101.02%								

All analyte(s) passed QC.

Sequence No.: 6
Sample ID: ICB 191105 I:PB O:PW
Analyst:
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 11/05/19 10:31:10 AM
Data Type: Reprocessed on 11/06/19 8:31:59 AM
Initial Sample Vol:
Sample Prep Vol:

Mean Data: ICB 191105 I:PB O:PW

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	1267072.1	101.0	%	0.54				0.53%
Y 371.029 Radial	1209879.9	101.1	%	0.56				0.56%
Ag 338.289†	54.3	0.706	ug/L	0.6474	0.706	ug/L	0.6474	91.68%
QC value within limits for Ag 338.289 Recovery = Not calculated								
Al 308.215†	25.7	96.85	ug/L	10.493	96.85	ug/L	10.493	10.83%
QC value within limits for Al 308.215 Recovery = Not calculated								
As 188.979†	-2.2	-0.667	ug/L	0.7980	-0.667	ug/L	0.7980	119.68%
QC value within limits for As 188.979 Recovery = Not calculated								
B†	95.5	2.222	ug/L	0.0783	2.222	ug/L	0.0783	3.52%
QC value within limits for B Recovery = Not calculated								
Ba 233.527†	-10.4	-0.100	ug/L	0.0215	-0.100	ug/L	0.0215	21.54%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-19.9	-0.311	ug/L	0.0858	-0.311	ug/L	0.0858	27.62%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 315.887†	-17.7	-13.22	ug/L	2.758	-13.22	ug/L	2.758	20.86%
QC value within limits for Ca 315.887 Recovery = Not calculated								
Cd 214.440†	26.5	0.188	ug/L	0.0516	0.188	ug/L	0.0516	27.42%
QC value within limits for Cd 214.440 Recovery = Not calculated								
Co 228.616†	-6.3	-0.132	ug/L	0.1747	-0.132	ug/L	0.1747	132.46%
QC value within limits for Co 228.616 Recovery = Not calculated								
Cr 267.716†	11.6	0.151	ug/L	0.2813	0.151	ug/L	0.2813	186.60%
QC value within limits for Cr 267.716 Recovery = Not calculated								
Cu 327.393†	-46.8	-0.576	ug/L	0.4453	-0.576	ug/L	0.4453	77.25%
QC value within limits for Cu 327.393 Recovery = Not calculated								
Fe 273.955†	-5.5	-0.341	ug/L	0.2270	-0.341	ug/L	0.2270	66.52%
QC value within limits for Fe 273.955 Recovery = Not calculated								
K 766.490†	-123.4	-64.46	ug/L	39.430	-64.46	ug/L	39.430	61.17%
QC value within limits for K 766.490 Recovery = Not calculated								
Mg 285.213†	1.7	0.794	ug/L	2.3759	0.794	ug/L	2.3759	299.17%
QC value within limits for Mg 285.213 Recovery = Not calculated								
Mn 257.610†	-6.1	-1.026	ug/L	0.4150	-1.026	ug/L	0.4150	40.44%
QC value within limits for Mn 257.610 Recovery = Not calculated								
Mo 202.031†	5.5	0.205	ug/L	0.1013	0.205	ug/L	0.1013	49.53%
QC value within limits for Mo 202.031 Recovery = Not calculated								
Na 589.592†	26.2	8.645	ug/L	21.8411	8.645	ug/L	21.8411	252.65%
QC value within limits for Na 589.592 Recovery = Not calculated								
Ni 231.604†	5.8	0.144	ug/L	0.1338	0.144	ug/L	0.1338	92.67%
QC value within limits for Ni 231.604 Recovery = Not calculated								
P 213.617†	-4.6	-1.314	ug/L	2.4508	-1.314	ug/L	2.4508	186.51%
QC value within limits for P 213.617 Recovery = Not calculated								
Pb 220.353†	16.3	1.573	ug/L	2.1476	1.573	ug/L	2.1476	136.57%
QC value within limits for Pb 220.353 Recovery = Not calculated								
Sb 206.836†	-0.2	-0.037	ug/L	0.4639	-0.037	ug/L	0.4639	>999.9%
QC value within limits for Sb 206.836 Recovery = Not calculated								
Se 196.026†	6.0	2.097	ug/L	4.1880	2.097	ug/L	4.1880	199.76%
QC value within limits for Se 196.026 Recovery = Not calculated								
Sn 189.927†	2.3	0.239	ug/L	0.4628	0.239	ug/L	0.4628	193.37%
QC value within limits for Sn 189.927 Recovery = Not calculated								
Sr 421.552†	145.6	1.060	ug/L	0.2749	1.060	ug/L	0.2749	25.92%
QC value within limits for Sr 421.552 Recovery = Not calculated								
Ti 337.279†	-0.8	-0.112	ug/L	0.9313	-0.112	ug/L	0.9313	834.79%
QC value within limits for Ti 337.279 Recovery = Not calculated								
Tl 190.801†	11.2	2.634	ug/L	0.9131	2.634	ug/L	0.9131	34.67%
QC value within limits for Tl 190.801 Recovery = Not calculated								
V 292.402†	-4.9	-0.031	ug/L	0.1829	-0.031	ug/L	0.1829	585.85%
QC value within limits for V 292.402 Recovery = Not calculated								
Zn 206.200†	-7.6	-0.265	ug/L	0.3830	-0.265	ug/L	0.3830	144.64%
QC value within limits for Zn 206.200 Recovery = Not calculated								

All analyte(s) passed QC.

Sequence No.: 7
Sample ID: LLICV 191105 I:PB O:PW
Analyst:
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:

Autosampler Location: 2
Date Collected: 11/05/19 10:35:50 AM
Data Type: Reprocessed on 11/06/19 8:32:01 AM
Initial Sample Vol:
Sample Prep Vol:

Mean Data: LLICV 191105 I:PB O:PW

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	1272707.4	101.5	%	0.41				0.40%
Y 371.029 Radial	1215667.5	101.6	%	0.44				0.43%
Ag 338.289†	115.1	1.528	ug/L	1.2463	1.528	ug/L	1.2463	81.55%
QC value greater than the upper limit for Ag 338.289 Recovery = 305.63%								
Al 308.215†	41.0	154.7	ug/L	16.43	154.7	ug/L	16.43	10.62%
QC value greater than the upper limit for Al 308.215 Recovery = 309.40%								
As 188.979†	3.7	1.121	ug/L	1.1589	1.121	ug/L	1.1589	103.37%
QC value less than the lower limit for As 188.979 Recovery = 56.06%								
B†	1269.7	29.53	ug/L	0.235	29.53	ug/L	0.235	0.79%
QC value within limits for B Recovery = 118.11%								
Ba 233.527†	203.8	1.799	ug/L	0.0448	1.799	ug/L	0.0448	2.49%
QC value within limits for Ba 233.527 Recovery = 119.93%								
Be 313.107†	51.5	0.810	ug/L	0.1527	0.810	ug/L	0.1527	18.86%
QC value within limits for Be 313.107 Recovery = 80.95%								
Ca 315.887†	68.0	50.83	ug/L	2.790	50.83	ug/L	2.790	5.49%
QC value within limits for Ca 315.887 Recovery = 101.67%								
Cd 214.440†	50.7	0.357	ug/L	0.0905	0.357	ug/L	0.0905	25.35%
QC value greater than the upper limit for Cd 214.440 Recovery = 142.82%								
Co 228.616†	119.0	2.472	ug/L	0.4216	2.472	ug/L	0.4216	17.05%
QC value within limits for Co 228.616 Recovery = 98.89%								
Cr 267.716†	42.2	0.535	ug/L	0.2246	0.535	ug/L	0.2246	42.01%
QC value within limits for Cr 267.716 Recovery = 106.93%								
Cu 327.393†	216.6	2.461	ug/L	0.8081	2.461	ug/L	0.8081	32.83%
QC value within limits for Cu 327.393 Recovery = 98.46%								
Fe 273.955†	416.3	25.97	ug/L	0.397	25.97	ug/L	0.397	1.53%
QC value within limits for Fe 273.955 Recovery = 103.90%								
K 766.490†	804.4	420.0	ug/L	120.55	420.0	ug/L	120.55	28.71%
QC value within limits for K 766.490 Recovery = 83.99%								
Mg 285.213†	51.5	24.45	ug/L	3.089	24.45	ug/L	3.089	12.64%
QC value within limits for Mg 285.213 Recovery = 97.78%								
Mn 257.610†	6.3	1.096	ug/L	0.4811	1.096	ug/L	0.4811	43.88%
QC value within limits for Mn 257.610 Recovery = 109.63%								
Mo 202.031†	31.3	1.151	ug/L	0.2970	1.151	ug/L	0.2970	25.81%
QC value within limits for Mo 202.031 Recovery = 115.10%								
Na 589.592†	1526.1	502.1	ug/L	17.42	502.1	ug/L	17.42	3.47%
QC value within limits for Na 589.592 Recovery = 100.43%								
Ni 231.604†	45.5	1.121	ug/L	0.2080	1.121	ug/L	0.2080	18.55%
QC value within limits for Ni 231.604 Recovery = 112.14%								
P 213.617†	40.0	11.34	ug/L	0.492	11.34	ug/L	0.492	4.34%
QC value within limits for P 213.617 Recovery = 90.71%								
Pb 220.353†	26.1	2.505	ug/L	0.9275	2.505	ug/L	0.9275	37.03%
QC value greater than the upper limit for Pb 220.353 Recovery = 166.98%								
Sb 206.836†	6.5	1.586	ug/L	1.0496	1.586	ug/L	1.0496	66.17%
QC value less than the lower limit for Sb 206.836 Recovery = 79.31%								
Se 196.026†	5.9	2.069	ug/L	3.4988	2.069	ug/L	3.4988	169.07%
QC value within limits for Se 196.026 Recovery = 103.47%								
Sn 189.927†	22.8	2.436	ug/L	0.2815	2.436	ug/L	0.2815	11.56%
QC value within limits for Sn 189.927 Recovery = 81.21%								
Sr 421.552†	295.1	2.149	ug/L	0.2971	2.149	ug/L	0.2971	13.83%
QC value greater than the upper limit for Sr 421.552 Recovery = 214.87%								
Ti 337.279†	15.2	2.181	ug/L	0.2487	2.181	ug/L	0.2487	11.40%
QC value within limits for Ti 337.279 Recovery = 87.26%								
Tl 190.801†	15.9	3.789	ug/L	0.7598	3.789	ug/L	0.7598	20.05%
QC value greater than the upper limit for Tl 190.801 Recovery = 189.46%								
V 292.402†	42.6	0.317	ug/L	0.1560	0.317	ug/L	0.1560	49.19%
QC value less than the lower limit for V 292.402 Recovery = 63.44%								
Zn 206.200†	1547.5	31.21	ug/L	0.540	31.21	ug/L	0.540	1.73%
QC value greater than the upper limit for Zn 206.200 Recovery = 124.84%								

QC Failed. Continue with analysis.

Sequence No.: 11
Sample ID: ICSA 191105 I:PB O:PW
Analyst:
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 11/05/19 10:55:00 AM
Data Type: Reprocessed on 11/06/19 8:32:06 AM
Initial Sample Vol:
Sample Prep Vol:

Mean Data: ICSA 191105 I:PB O:PW

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	1151419.8	91.80	%	0.700				0.76%
Y 371.029 Radial	1091726.7	91.20	%	0.760				0.83%
Ag 338.289†	62.0	-0.083	ug/L	0.8713	-0.083	ug/L	0.8713	>999.9%
QC value within limits for Ag 338.289 Recovery = Not calculated								
Al 308.215†	27713.1	104500	ug/L	514.3	104500	ug/L	514.3	0.49%
QC value within limits for Al 308.215 Recovery = 104.53%								
As 188.979†	-68.1	2.762	ug/L	2.4277	2.762	ug/L	2.4277	87.89%
QC value within limits for As 188.979 Recovery = Not calculated								
B†	-1239.8	-28.84	ug/L	0.763	-28.84	ug/L	0.763	2.65%
QC value within limits for B Recovery = Not calculated								
Ba 233.527†	981.3	-0.556	ug/L	0.2126	-0.556	ug/L	0.2126	38.22%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-19.0	0.227	ug/L	0.0712	0.227	ug/L	0.0712	31.38%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 315.887†	135900.3	101800	ug/L	1756.7	101800	ug/L	1756.7	1.73%
QC value within limits for Ca 315.887 Recovery = 101.75%								
Cd 214.440†	544.6	0.460	ug/L	0.1265	0.460	ug/L	0.1265	27.52%
QC value within limits for Cd 214.440 Recovery = Not calculated								
Co 228.616†	353.8	0.489	ug/L	0.2395	0.489	ug/L	0.2395	48.93%
QC value within limits for Co 228.616 Recovery = Not calculated								
Cr 267.716†	-67.9	0.582	ug/L	0.1290	0.582	ug/L	0.1290	22.15%
QC value within limits for Cr 267.716 Recovery = Not calculated								
Cu 327.393†	-575.7	-1.235	ug/L	0.5979	-1.235	ug/L	0.5979	48.40%
QC value within limits for Cu 327.393 Recovery = Not calculated								
Fe 273.955†	1567981.6	97870	ug/L	413.5	97870	ug/L	413.5	0.42%
QC value within limits for Fe 273.955 Recovery = 97.87%								
K 766.490†	61.1	-43.11	ug/L	35.251	-43.11	ug/L	35.251	81.77%
QC value within limits for K 766.490 Recovery = Not calculated								
Mg 285.213†	215380.1	102600	ug/L	1844.9	102600	ug/L	1844.9	1.80%
QC value within limits for Mg 285.213 Recovery = 102.64%								
Mn 257.610†	-40.9	-1.811	ug/L	1.6088	-1.811	ug/L	1.6088	88.85%
QC value within limits for Mn 257.610 Recovery = Not calculated								
Mo 202.031†	-168.5	-1.783	ug/L	0.3964	-1.783	ug/L	0.3964	22.24%
QC value within limits for Mo 202.031 Recovery = Not calculated								
Na 589.592†	103.1	141.3	ug/L	8.93	141.3	ug/L	8.93	6.32%
QC value within limits for Na 589.592 Recovery = Not calculated								
Ni 231.604†	75.0	-0.635	ug/L	0.5619	-0.635	ug/L	0.5619	88.48%
QC value within limits for Ni 231.604 Recovery = Not calculated								
P 213.617†	-62.5	-17.70	ug/L	1.081	-17.70	ug/L	1.081	6.11%
QC value within limits for P 213.617 Recovery = Not calculated								
Pb 220.353†	-130.3	0.894	ug/L	0.3514	0.894	ug/L	0.3514	39.29%
QC value within limits for Pb 220.353 Recovery = Not calculated								
Sb 206.836†	-12.8	-3.104	ug/L	1.0030	-3.104	ug/L	1.0030	32.31%
QC value within limits for Sb 206.836 Recovery = Not calculated								
Se 196.026†	-108.3	4.742	ug/L	1.0383	4.742	ug/L	1.0383	21.90%
QC value within limits for Se 196.026 Recovery = Not calculated								
Sn 189.927†	-30.3	0.533	ug/L	0.3786	0.533	ug/L	0.3786	70.97%
QC value within limits for Sn 189.927 Recovery = Not calculated								
Sr 421.552†	304.9	1.166	ug/L	0.1976	1.166	ug/L	0.1976	16.94%
QC value within limits for Sr 421.552 Recovery = Not calculated								
Ti 337.279†	-14.2	-4.119	ug/L	0.1939	-4.119	ug/L	0.1939	4.71%
QC value within limits for Ti 337.279 Recovery = Not calculated								
Tl 190.801†	-22.6	1.733	ug/L	2.5286	1.733	ug/L	2.5286	145.90%
QC value within limits for Tl 190.801 Recovery = Not calculated								
V 292.402†	2842.4	-0.449	ug/L	0.5783	-0.449	ug/L	0.5783	128.72%
QC value within limits for V 292.402 Recovery = Not calculated								
Zn 206.200†	479.6	3.420	ug/L	0.4381	3.420	ug/L	0.4381	12.81%
QC value within limits for Zn 206.200 Recovery = Not calculated								

All analyte(s) passed QC.

Sequence No.: 12
Sample ID: ICSAB 191105 I:PB O:PW
Analyst:
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 11/05/19 10:59:46 AM
Data Type: Reprocessed on 11/06/19 8:32:09 AM
Initial Sample Vol:
Sample Prep Vol:

Mean Data: ICSAB 191105 I:PB O:PW

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	1162459.1	92.68	%	0.162				0.18%
Y 371.029 Radial	1104253.9	92.24	%	0.175				0.19%
Ag 338.289†	40525.2	526.1	ug/L	1.34	526.1	ug/L	1.34	0.25%
QC value within limits for Ag 338.289 Recovery = 105.21%								
Al 308.215†	27002.8	101900	ug/L	172.2	101900	ug/L	172.2	0.17%
QC value within limits for Al 308.215 Recovery = 101.86%								
As 188.979†	756.7	245.8	ug/L	1.72	245.8	ug/L	1.72	0.70%
QC value within limits for As 188.979 Recovery = 98.31%								
B†	-1189.7	-27.67	ug/L	1.497	-27.67	ug/L	1.497	5.41%
QC value within limits for B Recovery = Not calculated								
Ba 233.527†	29810.0	256.1	ug/L	0.73	256.1	ug/L	0.73	0.29%
QC value within limits for Ba 233.527 Recovery = 102.44%								
Be 313.107†	16228.0	253.7	ug/L	1.10	253.7	ug/L	1.10	0.43%
QC value within limits for Be 313.107 Recovery = 101.49%								
Ca 315.887†	132992.3	99570	ug/L	487.9	99570	ug/L	487.9	0.49%
QC value within limits for Ca 315.887 Recovery = 99.57%								
Cd 214.440†	69164.1	482.8	ug/L	0.29	482.8	ug/L	0.29	0.06%
QC value within limits for Cd 214.440 Recovery = 96.56%								
Co 228.616†	12186.7	247.5	ug/L	0.52	247.5	ug/L	0.52	0.21%
QC value within limits for Co 228.616 Recovery = 99.02%								
Cr 267.716†	19725.7	255.5	ug/L	0.63	255.5	ug/L	0.63	0.25%
QC value within limits for Cr 267.716 Recovery = 102.21%								
Cu 327.393†	21800.4	257.9	ug/L	1.48	257.9	ug/L	1.48	0.57%
QC value within limits for Cu 327.393 Recovery = 103.17%								
Fe 273.955†	1541533.0	96190	ug/L	118.5	96190	ug/L	118.5	0.12%
QC value within limits for Fe 273.955 Recovery = 96.19%								
K 766.490†	90.0	-28.18	ug/L	69.430	-28.18	ug/L	69.430	246.39%
QC value within limits for K 766.490 Recovery = Not calculated								
Mg 285.213†	212250.6	101200	ug/L	565.2	101200	ug/L	565.2	0.56%
QC value within limits for Mg 285.213 Recovery = 101.15%								
Mn 257.610†	1419.5	247.3	ug/L	1.21	247.3	ug/L	1.21	0.49%
QC value within limits for Mn 257.610 Recovery = 98.94%								
Mo 202.031†	6305.6	238.3	ug/L	0.84	238.3	ug/L	0.84	0.35%
QC value within limits for Mo 202.031 Recovery = 95.34%								
Na 589.592†	72.8	130.0	ug/L	12.35	130.0	ug/L	12.35	9.50%
QC value within limits for Na 589.592 Recovery = Not calculated								
Ni 231.604†	19047.6	481.9	ug/L	1.55	481.9	ug/L	1.55	0.32%
QC value within limits for Ni 231.604 Recovery = 96.37%								
P 213.617†	-124.8	-35.36	ug/L	1.120	-35.36	ug/L	1.120	3.17%
QC value within limits for P 213.617 Recovery = Not calculated								
Pb 220.353†	4951.2	486.6	ug/L	4.41	486.6	ug/L	4.41	0.91%
QC value within limits for Pb 220.353 Recovery = 97.33%								
Sb 206.836†	989.4	239.6	ug/L	0.48	239.6	ug/L	0.48	0.20%
QC value within limits for Sb 206.836 Recovery = 95.85%								
Se 196.026†	584.7	247.3	ug/L	6.86	247.3	ug/L	6.86	2.78%
QC value within limits for Se 196.026 Recovery = 98.91%								
Sn 189.927†	-39.2	-0.447	ug/L	0.2196	-0.447	ug/L	0.2196	49.16%
QC value within limits for Sn 189.927 Recovery = Not calculated								
Sr 421.552†	282.7	1.026	ug/L	0.0144	1.026	ug/L	0.0144	1.40%
QC value within limits for Sr 421.552 Recovery = Not calculated								
Ti 337.279†	-9.2	-3.361	ug/L	1.1470	-3.361	ug/L	1.1470	34.12%
QC value within limits for Ti 337.279 Recovery = Not calculated								
Tl 190.801†	1016.2	249.9	ug/L	2.15	249.9	ug/L	2.15	0.86%
QC value within limits for Tl 190.801 Recovery = 99.95%								
V 292.402†	36898.3	248.1	ug/L	0.36	248.1	ug/L	0.36	0.14%
QC value within limits for V 292.402 Recovery = 99.22%								
Zn 206.200†	24659.7	495.9	ug/L	1.79	495.9	ug/L	1.79	0.36%
QC value within limits for Zn 206.200 Recovery = 99.18%								

All analyte(s) passed QC.

Sequence No.: 29
Sample ID: CCV2 191105 I:PB O:PW
Analyst:
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 11/05/19 12:34:29 PM
Data Type: Reprocessed on 11/06/19 8:32:42 AM
Initial Sample Vol:
Sample Prep Vol:

Mean Data: CCV2 191105 I:PB O:PW

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	1209556.9	96.44	%	0.404				0.42%
Y 371.029 Radial	1153721.2	96.38	%	0.417				0.43%
Ag 338.289†	14109.3	185.8	ug/L	0.66	185.8	ug/L	0.66	0.36%
QC value within limits for Ag 338.289 Recovery = 99.08%								
Al 308.215†	1984.2	7489	ug/L	35.5	7489	ug/L	35.5	0.47%
QC value within limits for Al 308.215 Recovery = 99.85%								
As 188.979†	1218.9	363.6	ug/L	0.99	363.6	ug/L	0.99	0.27%
QC value within limits for As 188.979 Recovery = 96.97%								
B†	15745.0	366.2	ug/L	3.43	366.2	ug/L	3.43	0.94%
QC value within limits for B Recovery = 97.65%								
Ba 233.527†	42176.6	374.5	ug/L	1.46	374.5	ug/L	1.46	0.39%
QC value within limits for Ba 233.527 Recovery = 99.86%								
Be 313.107†	22978.0	359.6	ug/L	3.39	359.6	ug/L	3.39	0.94%
QC value within limits for Be 313.107 Recovery = 95.89%								
Ca 315.887†	24515.2	18350	ug/L	90.0	18350	ug/L	90.0	0.49%
QC value within limits for Ca 315.887 Recovery = 97.89%								
Cd 214.440†	52708.3	370.4	ug/L	2.42	370.4	ug/L	2.42	0.65%
QC value within limits for Cd 214.440 Recovery = 98.77%								
Co 228.616†	17819.0	370.7	ug/L	2.64	370.7	ug/L	2.64	0.71%
QC value within limits for Co 228.616 Recovery = 98.85%								
Cr 267.716†	28736.8	370.2	ug/L	2.07	370.2	ug/L	2.07	0.56%
QC value within limits for Cr 267.716 Recovery = 98.73%								
Cu 327.393†	32272.0	374.6	ug/L	0.57	374.6	ug/L	0.57	0.15%
QC value within limits for Cu 327.393 Recovery = 99.90%								
Fe 273.955†	118876.7	7387	ug/L	45.9	7387	ug/L	45.9	0.62%
QC value within limits for Fe 273.955 Recovery = 98.49%								
K 766.490†	13817.2	7204	ug/L	82.4	7204	ug/L	82.4	1.14%
QC value within limits for K 766.490 Recovery = 96.06%								
Mg 285.213†	39696.5	18900	ug/L	81.8	18900	ug/L	81.8	0.43%
QC value within limits for Mg 285.213 Recovery = 100.82%								
Mn 257.610†	2156.0	368.0	ug/L	2.26	368.0	ug/L	2.26	0.61%
QC value within limits for Mn 257.610 Recovery = 98.13%								
Mo 202.031†	10133.8	376.1	ug/L	1.24	376.1	ug/L	1.24	0.33%
QC value within limits for Mo 202.031 Recovery = 100.29%								
Na 589.592†	28183.4	9286	ug/L	76.7	9286	ug/L	76.7	0.83%
QC value within limits for Na 589.592 Recovery = 99.05%								
Ni 231.604†	14618.8	370.1	ug/L	2.67	370.1	ug/L	2.67	0.72%
QC value within limits for Ni 231.604 Recovery = 98.70%								
P 213.617†	6267.8	1776	ug/L	7.0	1776	ug/L	7.0	0.39%
QC value within limits for P 213.617 Recovery = 94.71%								
Pb 220.353†	3926.0	376.5	ug/L	1.86	376.5	ug/L	1.86	0.49%
QC value within limits for Pb 220.353 Recovery = 100.40%								
Sb 206.836†	1530.9	370.8	ug/L	1.58	370.8	ug/L	1.58	0.43%
QC value within limits for Sb 206.836 Recovery = 98.88%								
Se 196.026†	1048.8	371.2	ug/L	0.64	371.2	ug/L	0.64	0.17%
QC value within limits for Se 196.026 Recovery = 98.98%								
Sn 189.927†	3502.2	374.9	ug/L	1.46	374.9	ug/L	1.46	0.39%
QC value within limits for Sn 189.927 Recovery = 99.96%								
Sr 421.552†	50698.3	369.0	ug/L	4.21	369.0	ug/L	4.21	1.14%
QC value within limits for Sr 421.552 Recovery = 98.41%								
Ti 337.279†	2547.3	365.8	ug/L	0.40	365.8	ug/L	0.40	0.11%
QC value within limits for Ti 337.279 Recovery = 97.56%								
Tl 190.801†	1602.2	387.2	ug/L	1.27	387.2	ug/L	1.27	0.33%
QC value within limits for Tl 190.801 Recovery = 103.26%								
V 292.402†	52085.5	377.7	ug/L	1.28	377.7	ug/L	1.28	0.34%
QC value within limits for V 292.402 Recovery = 100.73%								
Zn 206.200†	18528.8	377.0	ug/L	3.06	377.0	ug/L	3.06	0.81%
QC value within limits for Zn 206.200 Recovery = 100.53%								

All analyte(s) passed QC.

Sequence No.: 30
Sample ID: CCB 191105 I:PB O:PW
Analyst:
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 11/05/19 12:54:39 PM
Data Type: Reprocessed on 11/06/19 8:32:45 AM
Initial Sample Vol:
Sample Prep Vol:

Mean Data: CCB 191105 I:PB O:PW

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	1265865.4	100.9	%	0.40				0.39%
Y 371.029 Radial	1210549.1	101.1	%	0.42				0.42%
Ag 338.289†	63.4	0.828	ug/L	1.0005	0.828	ug/L	1.0005	120.76%
QC value within limits for Ag 338.289 Recovery = Not calculated								
Al 308.215†	12.5	47.27	ug/L	27.042	47.27	ug/L	27.042	57.21%
QC value within limits for Al 308.215 Recovery = Not calculated								
As 188.979†	-3.7	-1.094	ug/L	0.4505	-1.094	ug/L	0.4505	41.17%
QC value within limits for As 188.979 Recovery = Not calculated								
B†	63.2	1.470	ug/L	0.1948	1.470	ug/L	0.1948	13.25%
QC value within limits for B Recovery = Not calculated								
Ba 233.527†	10.2	0.087	ug/L	0.1018	0.087	ug/L	0.1018	116.99%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-12.1	-0.188	ug/L	0.0697	-0.188	ug/L	0.0697	36.98%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 315.887†	-9.4	-7.029	ug/L	5.9165	-7.029	ug/L	5.9165	84.17%
QC value within limits for Ca 315.887 Recovery = Not calculated								
Cd 214.440†	21.2	0.150	ug/L	0.0154	0.150	ug/L	0.0154	10.21%
QC value within limits for Cd 214.440 Recovery = Not calculated								
Co 228.616†	-16.1	-0.339	ug/L	0.2136	-0.339	ug/L	0.2136	63.07%
QC value within limits for Co 228.616 Recovery = Not calculated								
Cr 267.716†	8.6	0.108	ug/L	0.0799	0.108	ug/L	0.0799	73.86%
QC value within limits for Cr 267.716 Recovery = Not calculated								
Cu 327.393†	141.3	1.623	ug/L	1.3412	1.623	ug/L	1.3412	82.64%
QC value within limits for Cu 327.393 Recovery = Not calculated								
Fe 273.955†	-3.0	-0.142	ug/L	0.9872	-0.142	ug/L	0.9872	696.06%
QC value within limits for Fe 273.955 Recovery = Not calculated								
K 766.490†	-144.8	-75.63	ug/L	21.163	-75.63	ug/L	21.163	27.98%
QC value within limits for K 766.490 Recovery = Not calculated								
Mg 285.213†	0.7	0.312	ug/L	1.2015	0.312	ug/L	1.2015	384.95%
QC value within limits for Mg 285.213 Recovery = Not calculated								
Mn 257.610†	1.2	0.209	ug/L	0.1946	0.209	ug/L	0.1946	93.20%
QC value within limits for Mn 257.610 Recovery = Not calculated								
Mo 202.031†	-3.2	-0.121	ug/L	0.0708	-0.121	ug/L	0.0708	58.66%
QC value within limits for Mo 202.031 Recovery = Not calculated								
Na 589.592†	104.0	34.25	ug/L	20.576	34.25	ug/L	20.576	60.07%
QC value within limits for Na 589.592 Recovery = Not calculated								
Ni 231.604†	-13.4	-0.346	ug/L	0.3029	-0.346	ug/L	0.3029	87.55%
QC value within limits for Ni 231.604 Recovery = Not calculated								
P 213.617†	-12.2	-3.453	ug/L	1.0591	-3.453	ug/L	1.0591	30.67%
QC value within limits for P 213.617 Recovery = Not calculated								
Pb 220.353†	9.2	0.877	ug/L	1.3350	0.877	ug/L	1.3350	152.16%
QC value within limits for Pb 220.353 Recovery = Not calculated								
Sb 206.836†	1.8	0.435	ug/L	0.5144	0.435	ug/L	0.5144	118.28%
QC value within limits for Sb 206.836 Recovery = Not calculated								
Se 196.026†	5.7	2.013	ug/L	2.7571	2.013	ug/L	2.7571	137.00%
QC value within limits for Se 196.026 Recovery = Not calculated								
Sn 189.927†	-7.2	-0.768	ug/L	0.1632	-0.768	ug/L	0.1632	21.24%
QC value within limits for Sn 189.927 Recovery = Not calculated								
Sr 421.552†	140.3	1.022	ug/L	0.2437	1.022	ug/L	0.2437	23.85%
QC value within limits for Sr 421.552 Recovery = Not calculated								
Ti 337.279†	1.8	0.263	ug/L	0.8671	0.263	ug/L	0.8671	329.94%
QC value within limits for Ti 337.279 Recovery = Not calculated								
Tl 190.801†	9.6	2.261	ug/L	1.0593	2.261	ug/L	1.0593	46.85%
QC value within limits for Tl 190.801 Recovery = Not calculated								
V 292.402†	-68.8	-0.492	ug/L	0.6663	-0.492	ug/L	0.6663	135.47%
QC value within limits for V 292.402 Recovery = Not calculated								
Zn 206.200†	-10.0	-0.261	ug/L	0.0671	-0.261	ug/L	0.0671	25.68%
QC value within limits for Zn 206.200 Recovery = Not calculated								

All analyte(s) passed QC.

METALS

Raw Data

Sequence No.: 27
Sample ID: BA02090W20 DF5
Analyst: P
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution: 5X

Autosampler Location: 24
Date Collected: 11/05/19 12:24:48 PM
Data Type: Reprocessed on 11/06/19 8:32:37 AM
Initial Sample Vol:
Sample Prep Vol:

Mean Data: BA02090W20 DF5

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	1262570.7	100.7	%	0.68				0.68%
Y 371.029 Radial	1207446.1	100.9	%	0.72				0.71%
Ag 338.289†	112.2	1.442	ug/L	1.0397	7.211	ug/L	5.1985	72.10%
Al 308.215†	25.2	94.68	ug/L	18.329	473.4	ug/L	91.64	19.36%
As 188.979†	-5.3	-1.575	ug/L	1.1660	-7.873	ug/L	5.8298	74.05%
B†	604.0	14.05	ug/L	0.406	70.23	ug/L	2.028	2.89%
Ba 233.527†	61.7	0.537	ug/L	0.0891	2.684	ug/L	0.4457	16.61%
Be 313.107†	-1.7	-0.025	ug/L	0.1880	-0.126	ug/L	0.9399	747.30%
Ca 315.887†	2066.6	1547	ug/L	77.0	7736	ug/L	385.0	4.98%
Cd 214.440†	-35.8	-0.255	ug/L	0.1337	-1.275	ug/L	0.6687	52.44%
Co 228.616†	15.7	0.309	ug/L	0.2404	1.545	ug/L	1.2022	77.80%
Cr 267.716†	81.9	1.039	ug/L	0.1098	5.194	ug/L	0.5490	10.57%
Cu 327.393†	103.6	1.080	ug/L	0.9674	5.401	ug/L	4.8370	89.56%
Fe 273.955†	530.8	32.42	ug/L	0.898	162.1	ug/L	4.49	2.77%
K 766.490†	532.4	278.0	ug/L	24.73	1390	ug/L	123.7	8.90%
Mg 285.213†	3709.3	1764	ug/L	82.6	8821	ug/L	413.1	4.68%
Mn 257.610†	9.0	1.467	ug/L	0.4601	7.336	ug/L	2.3006	31.36%
Mo 202.031†	8.7	0.214	ug/L	0.3717	1.070	ug/L	1.8587	173.66%
Na 589.592†	21924.0	7216	ug/L	268.9	36080	ug/L	1344.5	3.73%
Ni 231.604†	-6.8	-0.190	ug/L	0.4662	-0.948	ug/L	2.3309	245.80%
P 213.617†	39.1	11.08	ug/L	1.696	55.39	ug/L	8.482	15.31%
Pb 220.353†	-1.8	-0.197	ug/L	0.6689	-0.984	ug/L	3.3443	339.88%
Sb 206.836†	0.5	0.120	ug/L	0.6162	0.600	ug/L	3.0809	513.42%
Se 196.026†	3.8	1.252	ug/L	2.9380	6.261	ug/L	14.6899	234.64%
Sn 189.927†	-6.3	-0.612	ug/L	0.2778	-3.060	ug/L	1.3888	45.39%
Sr 421.552†	1818.8	13.23	ug/L	0.512	66.14	ug/L	2.558	3.87%
Ti 337.279†	-0.0	-0.022	ug/L	0.6662	-0.108	ug/L	3.3309	>999.9%
Tl 190.801†	8.3	2.054	ug/L	0.9170	10.27	ug/L	4.585	44.65%
V 292.402†	435.4	3.120	ug/L	1.2293	15.60	ug/L	6.146	39.39%
Zn 206.200†	67.3	1.271	ug/L	0.1360	6.357	ug/L	0.6799	10.69%

Sequence No.: 15
Sample ID: 191104A BLK
Analyst: P
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:

Autosampler Location: 26
Date Collected: 11/05/19 11:24:58 AM
Data Type: Reprocessed on 11/06/19 8:32:13 AM
Initial Sample Vol:
Sample Prep Vol:

Mean Data: 191104A BLK

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	1266248.3	101.0	%	0.22				0.22%
Y 371.029 Radial	1209907.9	101.1	%	0.23				0.23%
Ag 338.289†	121.1	1.567	ug/L	0.4145	1.567	ug/L	0.4145	26.45%
Al 308.215†	24.4	92.19	ug/L	38.211	92.19	ug/L	38.211	41.45%
As 188.979†	-10.3	-3.062	ug/L	2.6485	-3.062	ug/L	2.6485	86.49%
B†	155.7	3.621	ug/L	0.1398	3.621	ug/L	0.1398	3.86%
Ba 233.527†	14.4	0.121	ug/L	0.0720	0.121	ug/L	0.0720	59.58%
Be 313.107†	-6.4	-0.102	ug/L	0.0444	-0.102	ug/L	0.0444	43.48%
Ca 315.887†	21.9	16.42	ug/L	3.031	16.42	ug/L	3.031	18.47%
Cd 214.440†	41.5	0.292	ug/L	0.0113	0.292	ug/L	0.0113	3.85%
Co 228.616†	8.3	0.175	ug/L	0.1680	0.175	ug/L	0.1680	96.29%
Cr 267.716†	-2.5	-0.031	ug/L	0.2027	-0.031	ug/L	0.2027	644.34%
Cu 327.393†	49.9	0.558	ug/L	0.5867	0.558	ug/L	0.5867	105.11%
Fe 273.955†	410.1	25.57	ug/L	0.595	25.57	ug/L	0.595	2.33%
K 766.490†	-93.9	-49.05	ug/L	131.375	-49.05	ug/L	131.375	267.81%
Mg 285.213†	13.0	6.193	ug/L	4.8006	6.193	ug/L	4.8006	77.51%
Mn 257.610†	4.5	0.770	ug/L	0.1353	0.770	ug/L	0.1353	17.57%
Mo 202.031†	0.3	0.011	ug/L	0.1385	0.011	ug/L	0.1385	>999.9%
Na 589.592†	246.0	81.00	ug/L	43.240	81.00	ug/L	43.240	53.38%
Ni 231.604†	-17.3	-0.443	ug/L	0.2922	-0.443	ug/L	0.2922	66.02%
P 213.617†	-4.6	-1.316	ug/L	2.6627	-1.316	ug/L	2.6627	202.30%
Pb 220.353†	7.7	0.745	ug/L	0.9452	0.745	ug/L	0.9452	126.91%
Sb 206.836†	4.7	1.145	ug/L	0.6392	1.145	ug/L	0.6392	55.85%
Se 196.026†	7.6	2.680	ug/L	0.8886	2.680	ug/L	0.8886	33.15%
Sn 189.927†	-3.2	-0.347	ug/L	0.3619	-0.347	ug/L	0.3619	104.39%
Sr 421.552†	111.7	0.813	ug/L	0.2734	0.813	ug/L	0.2734	33.61%
Ti 337.279†	-7.9	-1.141	ug/L	1.3751	-1.141	ug/L	1.3751	120.53%
Tl 190.801†	-1.4	-0.333	ug/L	0.9626	-0.333	ug/L	0.9626	288.95%
V 292.402†	40.3	0.283	ug/L	0.5107	0.283	ug/L	0.5107	180.39%
Zn 206.200†	31.0	0.540	ug/L	0.0740	0.540	ug/L	0.0740	13.70%

Sequence No.: 16
Sample ID: 191104A LCS
Analyst: P
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:

Autosampler Location: 27
Date Collected: 11/05/19 11:29:41 AM
Data Type: Reprocessed on 11/06/19 8:32:15 AM
Initial Sample Vol:
Sample Prep Vol:

Mean Data: 191104A LCS

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	1203064.3	95.92	%	0.945				0.99%
Y 371.029 Radial	1146789.4	95.80	%	1.028				1.07%
Ag 338.289†	7583.1	99.92	ug/L	0.711	99.92	ug/L	0.711	0.71%
Al 308.215†	556.1	2097	ug/L	15.6	2097	ug/L	15.6	0.74%
As 188.979†	821.6	244.0	ug/L	2.10	244.0	ug/L	2.10	0.86%
B†	10451.7	243.1	ug/L	1.45	243.1	ug/L	1.45	0.59%
Ba 233.527†	28698.3	255.1	ug/L	1.41	255.1	ug/L	1.41	0.55%
Be 313.107†	3028.1	47.99	ug/L	0.421	47.99	ug/L	0.421	0.88%
Ca 315.887†	33244.2	24890	ug/L	225.4	24890	ug/L	225.4	0.91%
Cd 214.440†	7110.4	50.10	ug/L	0.428	50.10	ug/L	0.428	0.85%
Co 228.616†	12632.0	263.0	ug/L	2.35	263.0	ug/L	2.35	0.90%
Cr 267.716†	19813.1	255.0	ug/L	3.20	255.0	ug/L	3.20	1.26%
Cu 327.393†	21841.4	252.2	ug/L	1.84	252.2	ug/L	1.84	0.73%
Fe 273.955†	16443.7	1000	ug/L	8.7	1000	ug/L	8.7	0.87%
K 766.490†	9272.7	4834	ug/L	64.9	4834	ug/L	64.9	1.34%
Mg 285.213†	52090.6	24790	ug/L	30.0	24790	ug/L	30.0	0.12%
Mn 257.610†	1460.8	248.5	ug/L	2.54	248.5	ug/L	2.54	1.02%
Mo 202.031†	7099.7	263.0	ug/L	1.88	263.0	ug/L	1.88	0.72%
Na 589.592†	75420.0	24830	ug/L	13.8	24830	ug/L	13.8	0.06%
Ni 231.604†	10126.5	256.2	ug/L	1.76	256.2	ug/L	1.76	0.69%
P 213.617†	6948.6	1969	ug/L	14.5	1969	ug/L	14.5	0.74%
Pb 220.353†	2665.1	254.8	ug/L	1.70	254.8	ug/L	1.70	0.67%
Sb 206.836†	990.7	240.0	ug/L	1.38	240.0	ug/L	1.38	0.57%
Se 196.026†	679.5	238.5	ug/L	2.57	238.5	ug/L	2.57	1.08%
Sn 189.927†	2411.3	258.5	ug/L	2.39	258.5	ug/L	2.39	0.93%
Sr 421.552†	33725.7	245.4	ug/L	0.28	245.4	ug/L	0.28	0.12%
Ti 337.279†	1756.1	252.1	ug/L	3.23	252.1	ug/L	3.23	1.28%
Tl 190.801†	1070.8	258.8	ug/L	2.64	258.8	ug/L	2.64	1.02%
V 292.402†	35624.1	259.3	ug/L	1.51	259.3	ug/L	1.51	0.58%
Zn 206.200†	24532.2	496.6	ug/L	4.04	496.6	ug/L	4.04	0.81%

Sequence No.: 17
Sample ID: 191104A LCSD
Analyst: P
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:

Autosampler Location: 28
Date Collected: 11/05/19 11:34:35 AM
Data Type: Reprocessed on 11/06/19 8:32:16 AM
Initial Sample Vol:
Sample Prep Vol:

Mean Data: 191104A LCSD

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	1199111.2	95.60	%	0.812				0.85%
Y 371.029 Radial	1142690.2	95.46	%	0.848				0.89%
Ag 338.289†	7329.1	96.61	ug/L	1.461	96.61	ug/L	1.461	1.51%
Al 308.215†	543.0	2047	ug/L	22.3	2047	ug/L	22.3	1.09%
As 188.979†	811.2	240.9	ug/L	4.30	240.9	ug/L	4.30	1.78%
B†	10409.2	242.1	ug/L	1.21	242.1	ug/L	1.21	0.50%
Ba 233.527†	28410.3	252.5	ug/L	1.60	252.5	ug/L	1.60	0.63%
Be 313.107†	3009.8	47.71	ug/L	0.701	47.71	ug/L	0.701	1.47%
Ca 315.887†	33043.7	24740	ug/L	312.0	24740	ug/L	312.0	1.26%
Cd 214.440†	7047.1	49.65	ug/L	0.572	49.65	ug/L	0.572	1.15%
Co 228.616†	12476.0	259.7	ug/L	3.20	259.7	ug/L	3.20	1.23%
Cr 267.716†	19769.8	254.5	ug/L	0.77	254.5	ug/L	0.77	0.30%
Cu 327.393†	21545.0	248.8	ug/L	1.68	248.8	ug/L	1.68	0.67%
Fe 273.955†	16271.7	989.7	ug/L	4.34	989.7	ug/L	4.34	0.44%
K 766.490†	9257.1	4826	ug/L	26.0	4826	ug/L	26.0	0.54%
Mg 285.213†	52047.3	24770	ug/L	288.5	24770	ug/L	288.5	1.16%
Mn 257.610†	1455.4	247.6	ug/L	3.65	247.6	ug/L	3.65	1.47%
Mo 202.031†	7028.5	260.3	ug/L	3.05	260.3	ug/L	3.05	1.17%
Na 589.592†	75220.0	24770	ug/L	237.3	24770	ug/L	237.3	0.96%
Ni 231.604†	10016.6	253.4	ug/L	2.76	253.4	ug/L	2.76	1.09%
P 213.617†	6858.2	1943	ug/L	21.4	1943	ug/L	21.4	1.10%
Pb 220.353†	2656.4	253.9	ug/L	2.86	253.9	ug/L	2.86	1.13%
Sb 206.836†	976.1	236.4	ug/L	3.91	236.4	ug/L	3.91	1.66%
Se 196.026†	668.3	234.6	ug/L	2.55	234.6	ug/L	2.55	1.09%
Sn 189.927†	2382.9	255.5	ug/L	3.25	255.5	ug/L	3.25	1.27%
Sr 421.552†	33788.1	245.8	ug/L	2.44	245.8	ug/L	2.44	0.99%
Ti 337.279†	1756.6	252.1	ug/L	3.54	252.1	ug/L	3.54	1.40%
Tl 190.801†	1060.1	256.2	ug/L	2.12	256.2	ug/L	2.12	0.83%
V 292.402†	35324.1	257.2	ug/L	1.49	257.2	ug/L	1.49	0.58%
Zn 206.200†	24250.8	491.0	ug/L	2.05	491.0	ug/L	2.05	0.42%

ICP-OES Calibration Standard Prep

Prepared: 11/05/19
Expires: 11/12/19
1% HNO3 / 5% HCl Prep: 11/04/19
Prepared By (Initials): PW

Calibration Standard 3

Initial Standard Information						Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier Part No.	Conc. Range (ug/mL)	Lot Number - QA Number/ APPL Prep Date	Exp Date	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. Range (ug/L)
Solution A	Texas Scientific	HP1810-250	200 - 5,000	m2meb662248-38391	10/11/20	500uL	100mL	1% HNO3 / 5% HCl	1000 - 25,000
Solution B	Texas Scientific	HP1810-250	4000 - 10,000	m2meb662249-38389	10/11/20	500uL			2000 - 50,000
Solution C	Texas Scientific	HP1810-250	100 - 200	m2meb662250-38394	10/11/20	500uL			500 - 1000
Calibration Standard 2									
ICP-OES Calib Standard 3	Texas Scientific	Standard 2/CCV1	0.5 - 50	Prepared 11/05/19	11/12/19	25mL	50mL	1% HNO3 / 5% HCl	250 - 25,000
Calibration Standard 1									
200.7 LDL	O2SI	160634-01-01	0.05 - 100	10080366-1-39117	11/16/19	250uL	50mL	1% HNO3 / 5% HCl	0.25 - 200

ICP-OES ICV (SS)

Prepared: 11/05/19
Expires: 08/09/19
1% HNO3 / 5% HCl Prep: 11/05/19
Prepared By (Initials): PW

ICP-OES ICV 1

Initial Standard Information						Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier Part No.	Conc. Range (ug/mL)	Lot Number - QA Number	Exp Date	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. Range (ug/mL)
QCS ICV Soln A	CPI	4400-070615RH01	50 - 500	10062445-8-40746	10/30/20	250uL	50mL	1% HNO3 / 5% HCl	0.25 - 2.5
QCS ICV Soln B	CPI	4400-070615RH01	2,500	10062445-9-40747	10/30/20	250uL			12.5

ICP-OES ICV Ba

Initial Standard Information						Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier Part No.	Conc. Range (ug/mL)	Lot Number - QA Number	Exp Date	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. Range (ug/mL)
Custom 23 Element Mix #314	O2SI	161314-01-03	5 - 25,00	1064561-8-38870	08/09/19	1mL	50mL	1% HNO3 / 5% HCl	0.1 - 50
Custom 23 Element Mix #315	O2SI	161314-01-03	10 - 25	1064561-7-38869	08/09/19	1mL			0.2 - 0.5

ICP-OES CCV2

Initial Standard Information						Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier Part No.	Conc. Range (ug/mL)	APPL Prep Date	Exp Date	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. Range (ug/mL)
ICP-OES Calib Standard 3	Texas Scientific	CCV2	0.5 - 50	Prepared 11/05/19	11/12/19	15mL	40mL	1% HNO3 / 5% HCl	0.15 - 15

ICP-OES Low Levels (LLICV)

Prepared: 10/31/19
Expires: 11/14/19
1% HNO3 / 5% HCl Prep: 10/31/19
Prepared By (Initials): PW

LLICV

Initial Standard Information						Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier Part No.	Conc. Range ug/mL	Lot Number - QA Number	Exp Date	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. Range (ug/L)
200.7 LDL	O2SI	160634-01-01	0.05 - 100	10080366-1-39117	11/16/19	250uL	50mL	1% HNO3 / 5% HCl	0.25 - 200
LLICVX2									
200.7 LDL	O2SI	160634-01-01	0.05 - 100	10080366-1-39117	11/16/19	500uL	50mL	1% HNO3 / 5% HCl	0.50 - 400
LLICVX6									
200.7 LDL	O2SI	160634-01-01	0.05 - 100	10080366-1-39117	11/16/19	1.5mL	50mL	1% HNO3 / 5% HCl	1.5 - 1,200
LLICVX10									
200.7 LDL	O2SI	160634-01-01	0.05 - 100	10080366-1-39117	11/16/19	2.5mL	50mL	1% HNO3 / 5% HCl	2.5 - 2,000
LLICV 10									
ICP-OES Calib Standard 3	Texas Scientific	HP1810-250	0.5 - 50	10080366-1-39117	11/12/19	500uL	50mL	1% HNO3 / 5% HCl	5 - 500
LLICV 50									
ICP-OES Calib Standard 3	Texas Scientific	HP1810-250	0.5 - 50	10080366-1-39117	11/12/19	2.5mL	50mL	1% HNO3 / 5% HCl	25 - 2,500

ICP-OES Interference Check Solution A

Prepared: 11/04/19
Expires: 11/18/19
1% HNO3 / 5% HCl Prep: 11/04/19
Prepared By (Initials): PW

Initial Standard Information						Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier Part No.	Conc. (ug/mL)	Lot Number - QA Number	Exp Date	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
Aluminum	Inorganic Ventures	35-APPLTSP-6010ICSA	10,000	N2-MEB670092-39414	07/25/22	500uL	50mL	1% HNO3 / 5% HCl	100
Calcium			10,000						100
Magnesium			10,000						100
Iron			10,000						100
ICP-OES Interference Check Solution AB									
Aluminum	Inorganic Ventures	35-APPLTSP-6010ICSA	10,000	N2-MEB670092-39414	07/25/22	500uL	50mL	1% HNO3 / 5% HCl	100
Calcium			10,000						100
Magnesium			10,000						100
Iron			10,000						100
Special Mix (Interference)	O2SI	160495-01-01	100	10081266-39276	12/13/19	250uL			0.5

ICP-OES Internal Standards

Prepared: 11/05/18
Expires: 12/06/18
1% HNO3 / 5% HCl Prep: 11/05/18
Prepared By (Initials): PW

Initial Standard Information						Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier Part No.	Conc. (mg/L)	Lot Number - QA Number	Exp Date	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (mg/L)
Yttrium	O2SI	060039-04-03	1,000	10083563-39466	01/27/20	4mL	2L	1% HNO3 / 5% HCl	2

Metals Digestion Worksheet

Method Name 3010A Digestion (Field Filter) **Prep Method** M3010F **Set** 191104A **Units** mL

Spikes	
Spiked ID 1	LCSW LOT# 10064561-11-41208 Pipette AP-21
Spiked ID 2	LCSW LOT# 10064561-12-41210
Spiked ID 3	
Spiked ID 4	
Spiked By	NM Date: 11/04/19 8:30:00 AM
Witnessed By	PW Date: 11/04/19 8:30:00 AM

Starting Temp:	SLOT 17 THERM:MT1 95.2
Ending Temp:	SLOT 17 95.2
Temperature Type:	Mod Block
Sufficient Vol for Matrix QC:	YES
End Date/Time	11/04/19 11:45

	Sample	Sample Container	Spike Amount	Spike ID	Digested Amount	Final Volume	Start Date/Time	Comments
1	191104A Blk				50mL	50mL	11/04/19 8:30	equip: Modblock2
2	191104A LCS		500uL	1+2	50mL	50mL	11/04/19 8:30	equip: Modblock2
3	191104A LCSD		500uL	1+2	50mL	50mL	11/04/19 8:30	equip: Modblock1
4	BA00756	BA00756W07			50mL	50mL	11/04/19 8:30	equip: Modblock2
5	BA00757	BA00757W06			50mL	50mL	11/04/19 8:30	equip: Modblock2
6	BA00758	BA00758W05			50mL	50mL	11/04/19 8:30	equip: Modblock2
7	BA00759	BA00759W07			50mL	50mL	11/04/19 8:30	equip: Modblock2
8	BA00760	BA00760W07			50mL	50mL	11/04/19 8:30	equip: Modblock2
9	BA00761	BA00761W05			50mL	50mL	11/04/19 8:30	equip: Modblock2
10	BA00761 DUP	BA00761W05			50mL	50mL	11/04/19 8:30	equip: Modblock2
11	BA00761 MS	BA00761W05	500uL	1+2	50mL	50mL	11/04/19 8:30	equip: Modblock2
12	BA01630	BA01630W07			50mL	50mL	11/04/19 8:30	equip: Modblock2 90531
13	BA01631	BA01631W07			50mL	50mL	11/04/19 8:30	equip: Modblock2 90531
14	BA01632	BA01632W07			50mL	50mL	11/04/19 8:30	equip: Modblock2 90531
15	BA01633	BA01633W07			50mL	50mL	11/04/19 8:30	equip: Modblock2 90531
16	BA01634	BA01634W07			50mL	50mL	11/04/19 8:30	equip: Modblock2 90531
17	BA01635	BA01635W07			50mL	50mL	11/04/19 8:30	equip: Modblock2 90531
18	BA01637	BA01637W07			50mL	50mL	11/04/19 8:30	equip: Modblock1 90531
19	BA01638	BA01638W07			50mL	50mL	11/04/19 8:30	equip: Modblock2 90531
20	BA01639	BA01639W07			50mL	50mL	11/04/19 8:30	equip: Modblock2 90531
21	BA01640	BA01640W07			50mL	50mL	11/04/19 8:30	equip: Modblock2 90531
22	BA01641	BA01641W07			50mL	50mL	11/04/19 8:30	equip: Modblock2 90531
23	BA02090	BA02090W20			50mL	50mL	11/04/19 8:30	equip: Modblock2

Solvent and Lot#
HNO3 BDH 1119020 15586
1:1 HCL 10-22-19
50mL vesssel 190916

Sample COC Transfer	
Sample prep employee Initials	nm
Analyst's initials	AW
Date	11/5/19
Time	1621
Moved to	M6941

Technician's Initials	
Scanned By	nm
Sample Preparation	nm
Digestion	nm
Bring up to volume	
Modified	11/04/19 8:29:34 AM

Reviewed By: PW **Date:**

Metals Digestion Worksheet

Method Name 3010A Digestion (Field Filter) **Prep Method** M3010F **Set** 191104A **Units** mL

Spike	
Spiked ID 1	LCSW LOT# 10064561-11-41208 Pipette AP-21
Spiked ID 2	LCSW LOT# 10064561-12-41210
Spiked ID 3	
Spiked ID 4	
Spiked By	NM Date: 11/04/19 8:30:00 AM
Witnessed By	PW Date: 11/04/19 8:30:00 AM

Starting Temp:	SLOT 17 THERM:MT1 95.2
Ending Temp:	SLOT 17 95.2
Temperature Type:	Mod Block
Sufficient Vol for Matrix QC:	YES
End Date/Time	11/04/19 11:45

	Sample	Sample Container	Spike Amount	Spike ID	Digested Amount	Final Volume	Start Date/Time	Comments
24	BA02214	BA02214W24			50mL	50mL	11/04/19 8:30	equip: Modblock2

Solvent and Lot#
HNO3 BDH 1119020 15586
1:1 HCL 10-22-19
50mL vesssel 190916

Sample COC Transfer	
Sample prep employee Initials	nm
Analyst's initials	PW
Date	11/15/19
Time	1621
Moved to	METALS

Technician's Initials	
Scanned By	nm
Sample Preparation	nm
Digestion	nm
Bring up to volume	
Modified	11/04/19 8:29:34 AM

Reviewed By: PW **Date:**

6010C/3010A Injection Log

Directory: K:\ICAP PHOEBE\Backup Excel\

RunID	Injected		Sample Name	Misc Info	FileName	Multiplier
1	05 Nov 2019	09:23	CalBlk 191105 I:PB O:PW		191105A200	1.
2	05 Nov 2019	09:38	STD 1 191105 I:PB O:PW		191105A200	1.
3	05 Nov 2019	09:42	STD 2 191105 I:PB O:PW		191105A200	1.
4	05 Nov 2019	09:47	STD 3 191105 I:PB O:PW		191105A200	1.
5	05 Nov 2019	10:17	ICV 191105 I:PB O:PW		191105A200	1.
6	05 Nov 2019	10:31	ICB 191105 I:PB O:PW		191105A200	1.
7	05 Nov 2019	10:35	LLICV 191105 I:PB O:PW		191105A200	1.
11	05 Nov 2019	10:55	ICSA 191105 I:PB O:PW		191105A200	1.
12	05 Nov 2019	10:59	ICSAB 191105 I:PB O:PW		191105A200	1.
15	05 Nov 2019	11:24	191104A BLK		191105A200	1.
16	05 Nov 2019	11:29	191104A LCS		191105A200	1.
17	05 Nov 2019	11:34	191104A LCSD		191105A200	1.
27	05 Nov 2019	12:24	BA02090W20 DF5		191105A200	5.
29	05 Nov 2019	12:34	CCV2 191105 I:PB O:PW		191105A200	1.
30	05 Nov 2019	12:54	CCB 191105 I:PB O:PW		191105A200	1.

INORGANIC ANALYSIS
Calibration Data

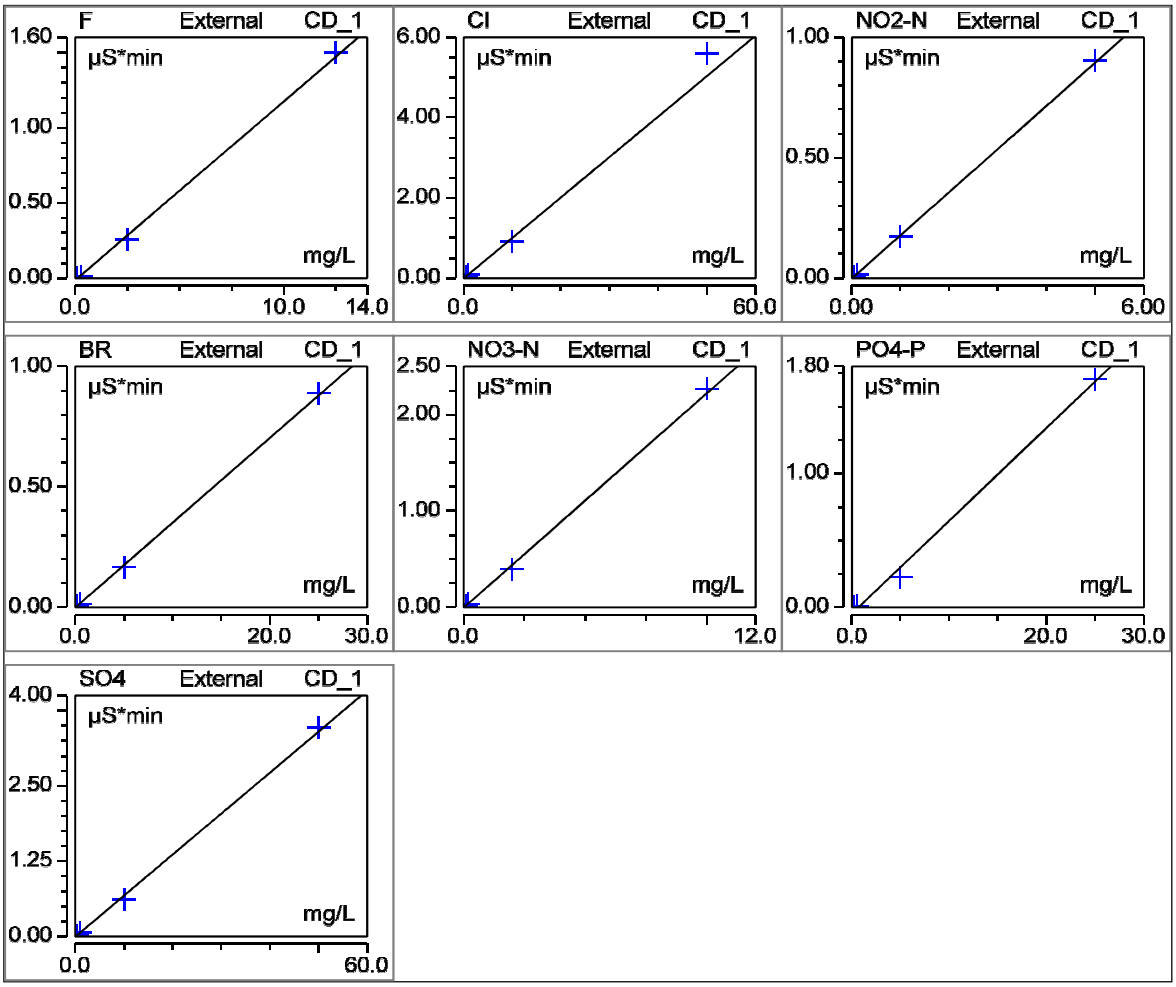
Calibration Batch Report

Sequence:	**191030iCal**	*Injection Volume:*	**25.00**
Instrument Method:	**Anions IM**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**30-Oct-2019 / 18:44**	*Run Time:*	**5.1**

Calibration Summary

Peak Name	Eval.Type	Cal.Type	Points	Offset (C0)	Slope (C1)	Curve (C2)	Coeff.Det. %
F	Area	Lin, WithOffset, 1/A	4.000	-0.014	0.119	0.000	99.7003
Cl	Area	Lin, WithOffset, 1/A²	4.000	-0.007	0.101	0.000	99.0220
NO2-N	Area	Lin, WithOffset, 1/A	4.000	-0.001	0.179	0.000	99.9623
BR	Area	Lin, WithOffset, 1/A	4.000	-0.001	0.035	0.000	99.9272
NO3-N	Area	Lin, WithOffset, 1/A	4.000	-0.005	0.223	0.000	99.7595
PO4-P	Area	Lin, WithOffset	4.000	-0.047	0.069	0.000	99.5917
SO4	Area	Lin, WithOffset, 1/A	4.000	-0.007	0.068	0.000	99.7957

Injection Name	Amount mg/L CD_1 F	Amount mg/L CD_1 Cl	Amount mg/L CD_1 NO2-N	Amount mg/L CD_1 BR	Amount mg/L CD_1 NO3-N	Amount mg/L CD_1 PO4-P	Amount mg/L CD_1 SO4
ICAL1 191030	0.125	0.4074	0.0426	0.2137	0.0909	0.7550	0.4460
ICAL2 191030	0.206	0.9606	0.0968	0.4887	0.1893	0.8434	0.9617
ICAL5 191030	2.259	9.1156	0.9605	4.7141	1.7941	3.8911	9.0418
ICAL8 191030	12.760	55.4700	5.0402	25.2835	10.2057	25.2105	50.9505

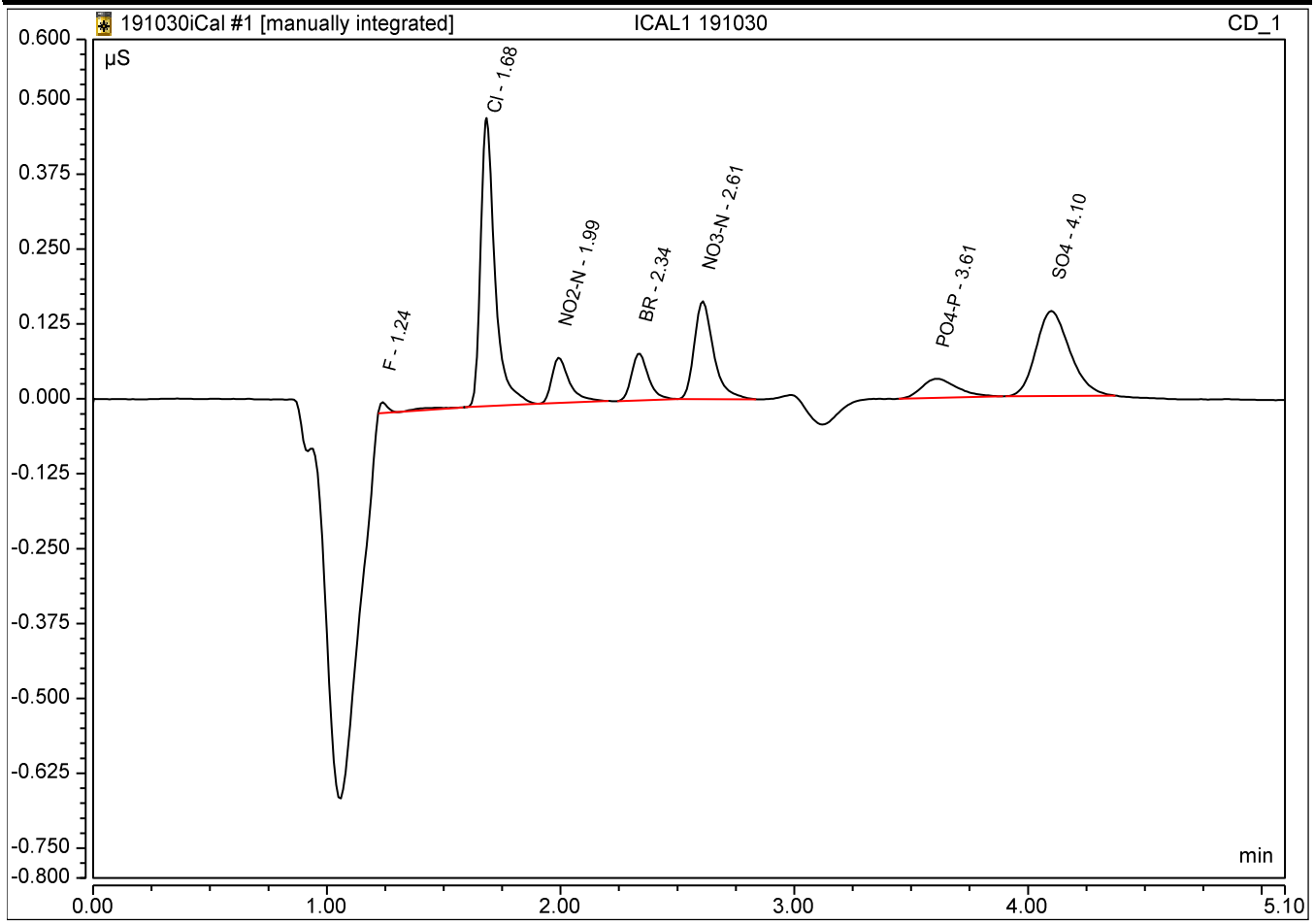


Logged on User: BW
Instrument: Charlie System_1
Sequence: 191030iCal

Peak Integration Report

Sample Name:	**ICAL1 191030**	*Inj. Vol.:*	**25uL**
Injection Type:	**Calibration Standard**	*Dilution Factor:*	**1.00**
Program:	**Anion APM 191030**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**30-Oct-2019 / 18:22**	*Run Time:*	**5.10**

No.	Time (min) min	Peak Name	Peak Type	Area (µS*min) µS*min	Height (µS) µS	Amount mg/L	Spike Level mg/L	Recovery
1	1.24	**F**	M *	0.001	0.018	0.13	0.1	125.3%
2	1.68	**Cl**	bMB*	0.034	0.481	0.41	0.4	101.8%
3	1.99	**NO2-N**	BMB	0.007	0.076	0.04	0.04	106.4%
4	2.34	**BR**	BMB	0.007	0.078	0.21	0.2	106.8%
5	2.61	**NO3-N**	BMB	0.016	0.163	0.09	0.08	113.6%
6	3.61	**PO4-P**	BMB*	0.006	0.032	0.76	0.2	377.5%
7	4.10	**SO4**	BMB	0.024	0.142	0.45	0.4	111.5%

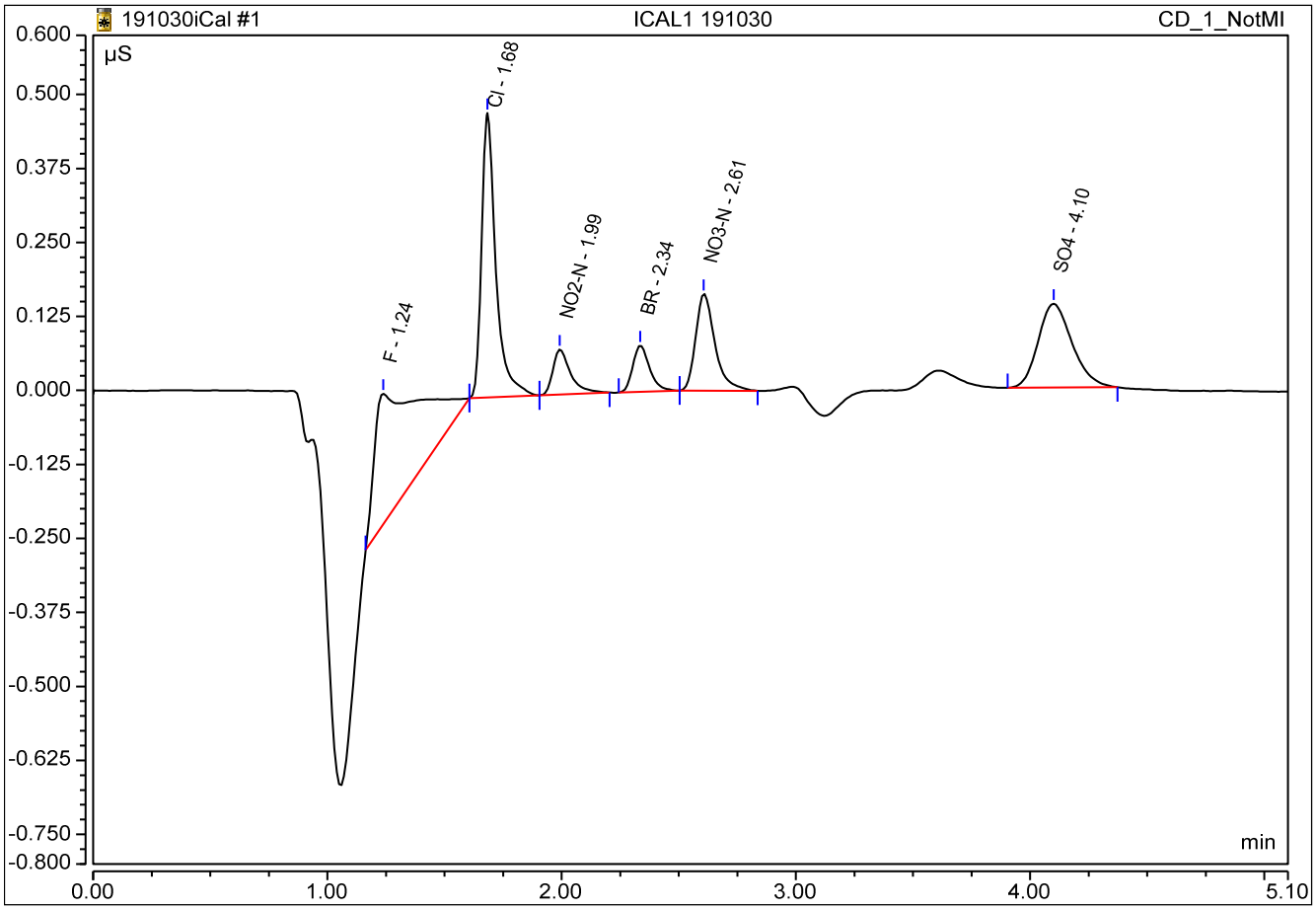


MI1 BW 191031

Not Manipulated Peak Integration Report

Sample Name:	**ICAL1 191030**	*Inj. Vol.:*	**25uL**
Injection Type:	**Calibration Standard**	*Dilution Factor:*	**1.0000**
Program:	**Anion APM 191030**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**30-Oct-2019 / 18:22**	*Run Time:*	**5.10**

No.	Time min	Peak Name	Peak Type	Area µS*min	Height µS	Ammount mg/L
1	1.24	**F**	M *	0.048	0.221	0.0926
2	1.68	**Cl**	bMB*	0.034	0.480	0.4073
3	1.99	**NO2-N**	BMB	0.007	0.076	0.0426
4	2.34	**BR**	BMB	0.007	0.078	0.2137
5	2.61	**NO3-N**	BMB	0.016	0.163	0.0909
6	n.a.	**PO4-P**	BMB*	n.a.	n.a.	n.a.
7	4.10	**SO4**	BMB	0.024	0.142	0.4460

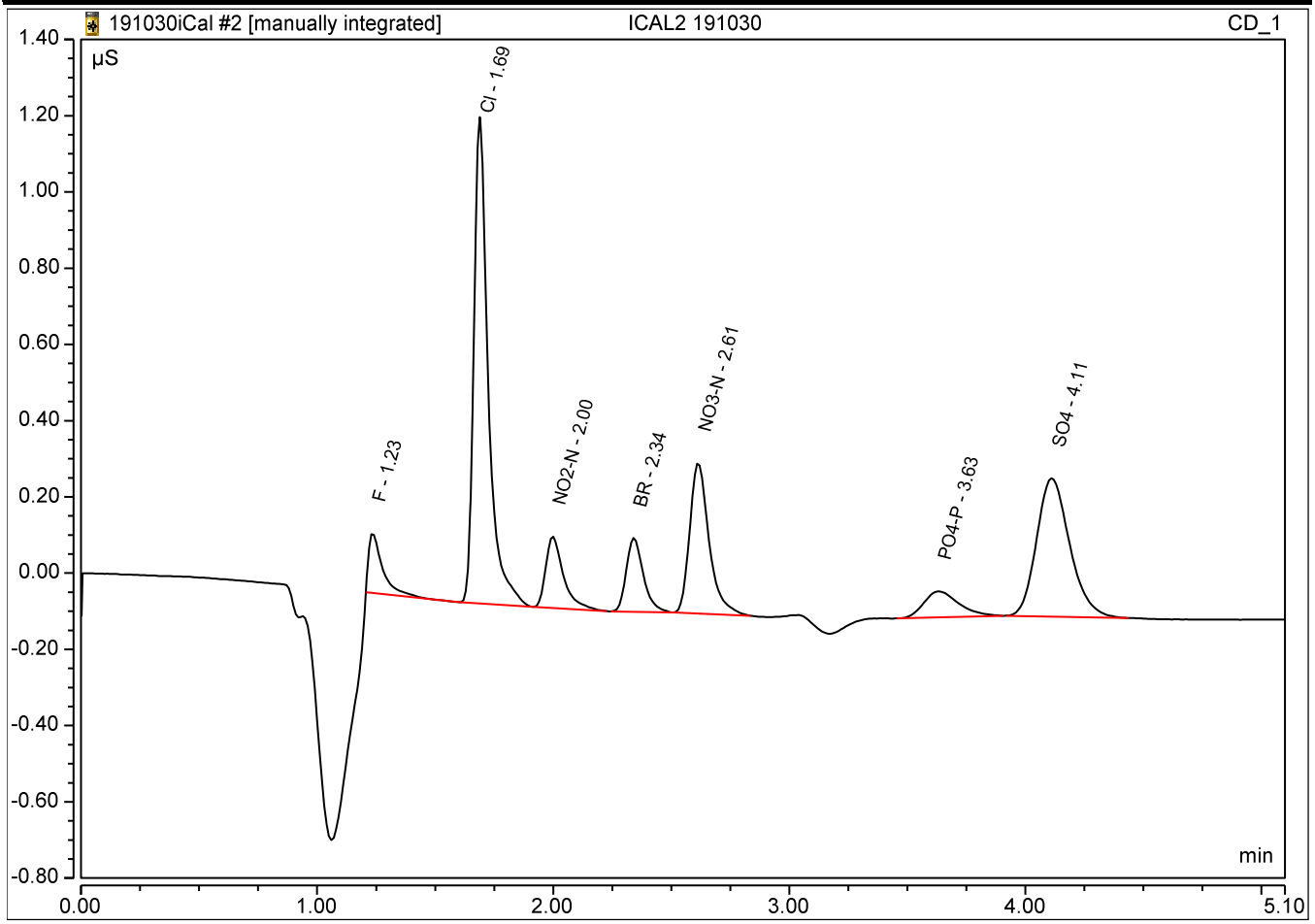


Logged on User: BW
Instrument: Charlie System_1
Sequence: 191030iCal

Peak Integration Report

Sample Name:	**ICAL2 191030**	*Inj. Vol.:*	**25uL**
Injection Type:	**Calibration Standard**	*Dilution Factor:*	**1.00**
Program:	**Anion APM 191030**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**30-Oct-2019 / 18:29**	*Run Time:*	**5.10**

No.	Time (min) min	Peak Name	Peak Type	Area (µS*min) µS*min	Height (µS) µS	Amount mg/L	Spike Level mg/L	Recovery
1	1.23	**F**	Mb*	0.011	0.157	0.21	0.25	82.3%
2	1.69	**Cl**	bMB*	0.090	1.276	0.96	1	96.1%
3	2.00	**NO2-N**	BMB	0.016	0.188	0.10	0.1	96.8%
4	2.34	**BR**	BMB	0.016	0.194	0.49	0.5	97.7%
5	2.61	**NO3-N**	BMB	0.038	0.395	0.19	0.2	94.6%
6	3.63	**PO4-P**	BMB*	0.012	0.068	0.84	0.5	168.7%
7	4.11	**SO4**	BMB	0.059	0.363	0.96	1	96.2%

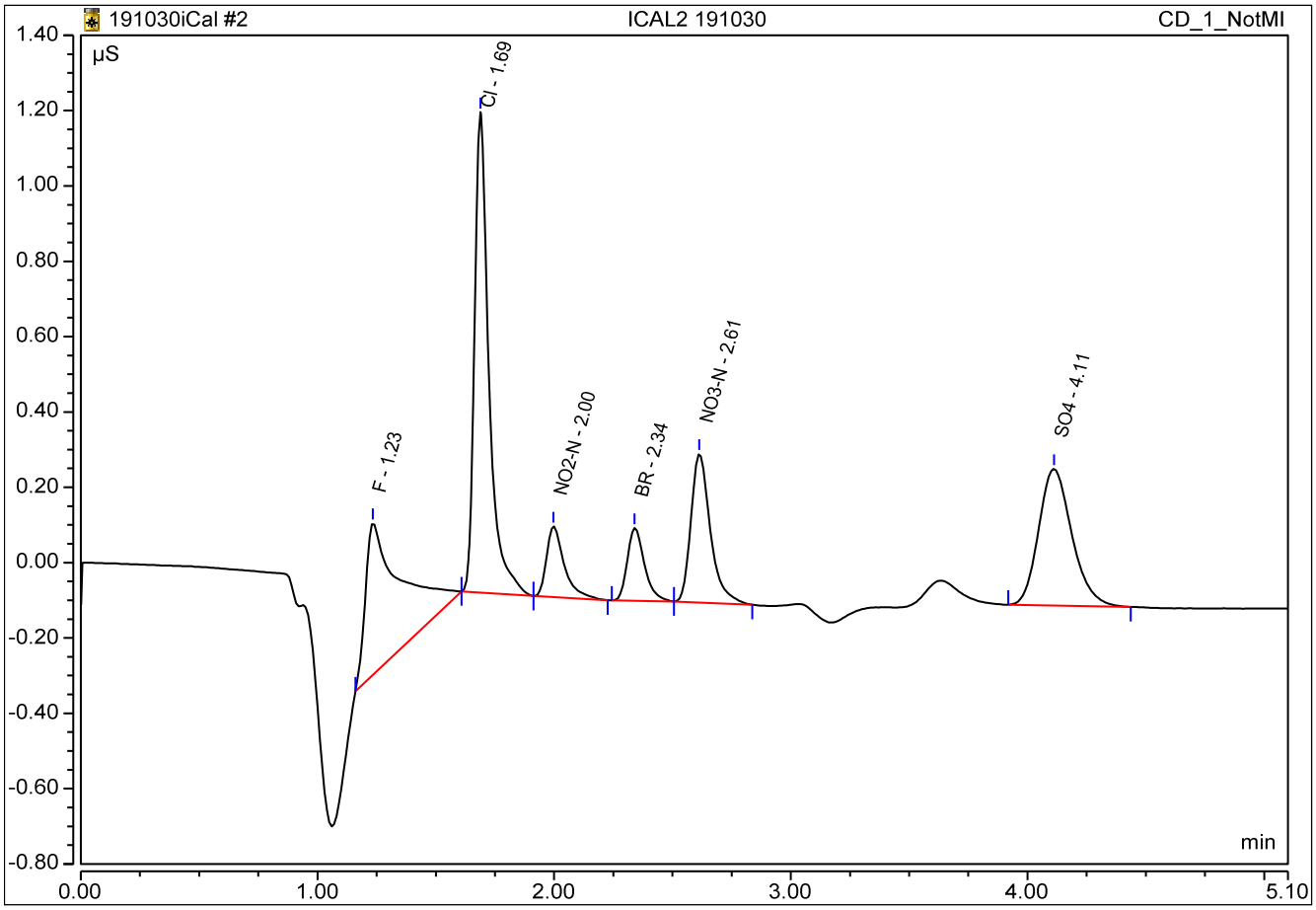


MI1 BW 190931

Not Manipulated Peak Integration Report

Sample Name:	**ICAL2 191030**	*Inj. Vol.:*	**25uL**
Injection Type:	**Calibration Standard**	*Dilution Factor:*	**1.0000**
Program:	**Anion APM 191030**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**30-Oct-2019 / 18:29**	*Run Time:*	**5.10**

No.	Time min	Peak Name	Peak Type	Area µS*min	Height µS	Ammount mg/L
1	1.23	**F**	Mb*	0.069	0.404	0.2711
2	1.69	**Cl**	bMB*	0.090	1.276	0.9610
3	2.00	**NO2-N**	BMB	0.016	0.188	0.0968
4	2.34	**BR**	BMB	0.016	0.194	0.4887
5	2.61	**NO3-N**	BMB	0.038	0.395	0.1893
6	n.a.	**PO4-P**	BMB*	n.a.	n.a.	n.a.
7	4.11	**SO4**	BMB	0.059	0.363	0.9617

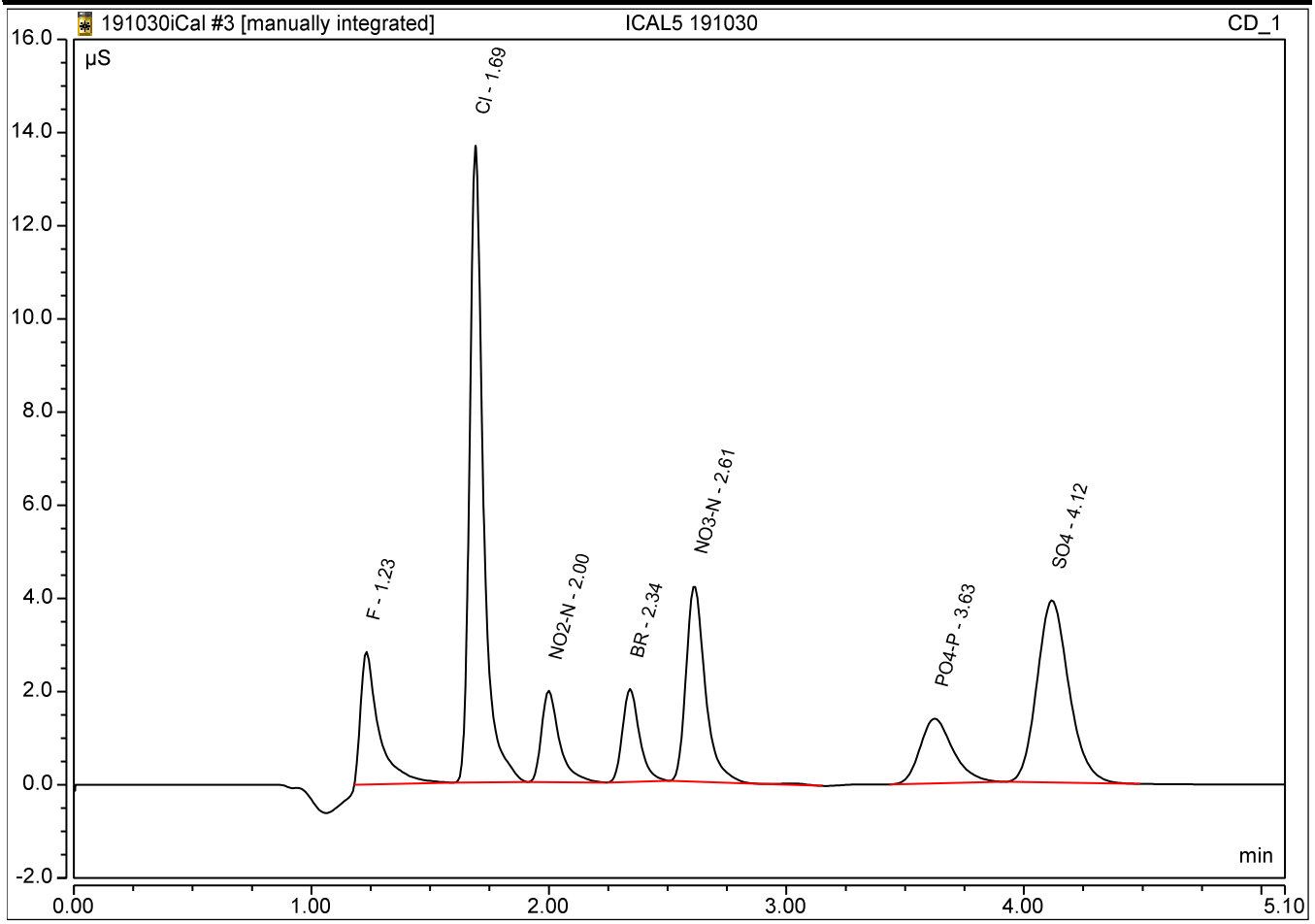


Logged on User: BW
Instrument: Charlie System_1
Sequence: 191030iCal

Peak Integration Report

Sample Name:	**ICAL5 191030**	*Inj. Vol.:*	**25uL**
Injection Type:	**Calibration Standard**	*Dilution Factor:*	**1.00**
Program:	**Anion APM 191030**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**30-Oct-2019 / 18:37**	*Run Time:*	**5.10**

No.	Time (min) min	Peak Name	Peak Type	Area (µS*min) µS*min	Height (µS) µS	Amount mg/L	Spike Level mg/L	Recovery
1	1.23	**F**	MB*	0.255	2.859	2.26	2.5	90.4%
2	1.69	**Cl**	BMB	0.913	13.668	9.12	10	91.2%
3	2.00	**NO2-N**	BMB	0.171	1.960	0.96	1	96.1%
4	2.34	**BR**	BMB	0.165	1.998	4.71	5	94.3%
5	2.61	**NO3-N**	BMB	0.395	4.211	1.79	2	89.7%
7	3.63	**PO4-P**	BMB	0.223	1.389	3.89	5	77.8%
8	4.12	**SO4**	BMB	0.610	3.910	9.04	10	90.4%

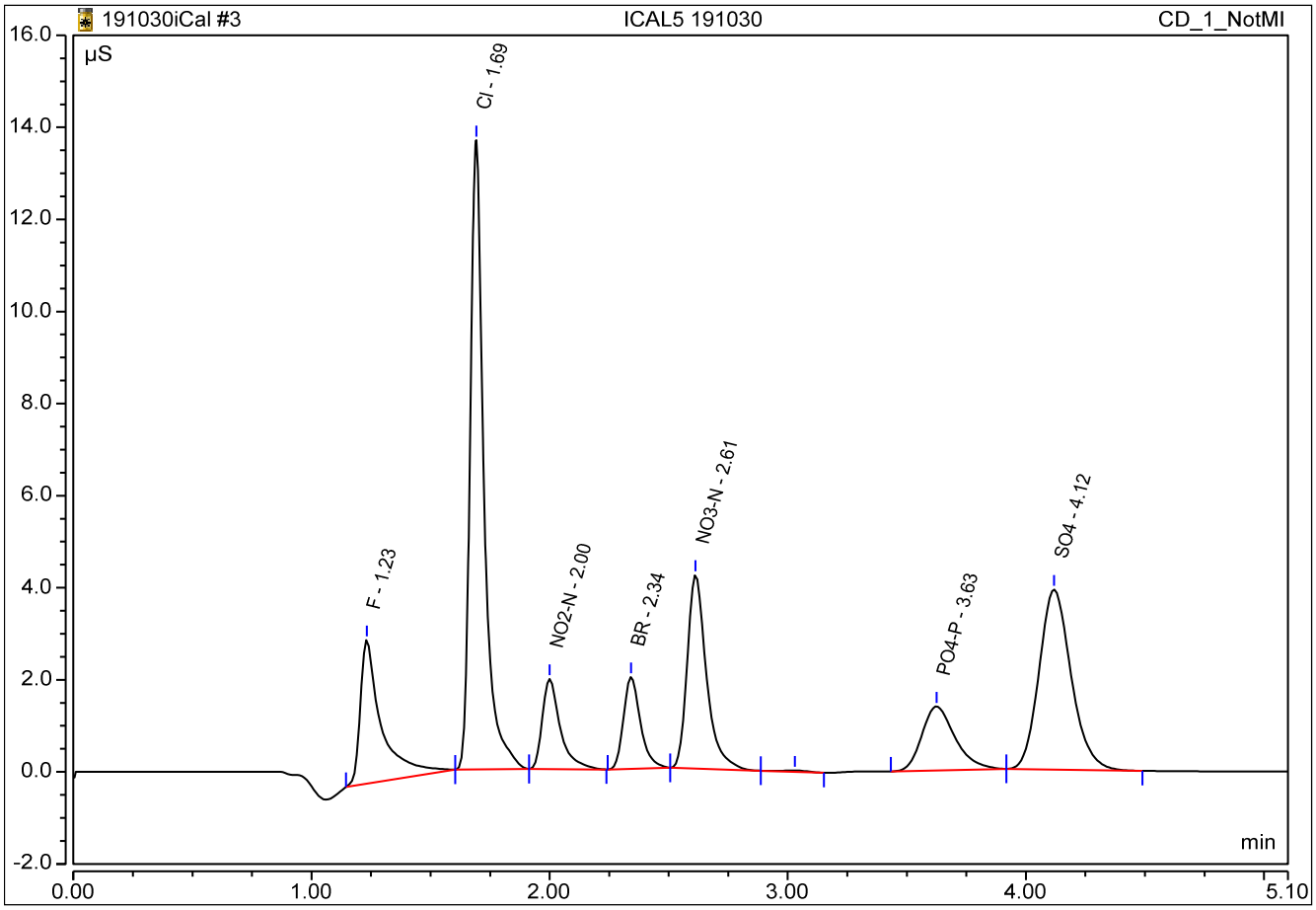


MI1 BW 190931

Not Manipulated Peak Integration Report

Sample Name:	**ICAL5 191030**	*Inj. Vol.:*	**25uL**
Injection Type:	**Calibration Standard**	*Dilution Factor:*	**1.0000**
Program:	**Anion APM 191030**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**30-Oct-2019 / 18:37**	*Run Time:*	**5.10**

No.	Time min	Peak Name	Peak Type	Area µS*min	Height µS	Ammount mg/L
1	1.23	**F**	MB*	0.321	3.121	2.4710
2	1.69	**Cl**	BMB	0.913	13.668	9.1151
3	2.00	**NO2-N**	BMB	0.171	1.960	0.9605
4	2.34	**BR**	BMB	0.165	1.998	4.7141
5	2.61	**NO3-N**	BMB	0.395	4.211	1.7941
7	3.63	**PO4-P**	BMB	0.223	1.389	5.0000
8	4.12	**SO4**	BMB	0.610	3.910	9.0418

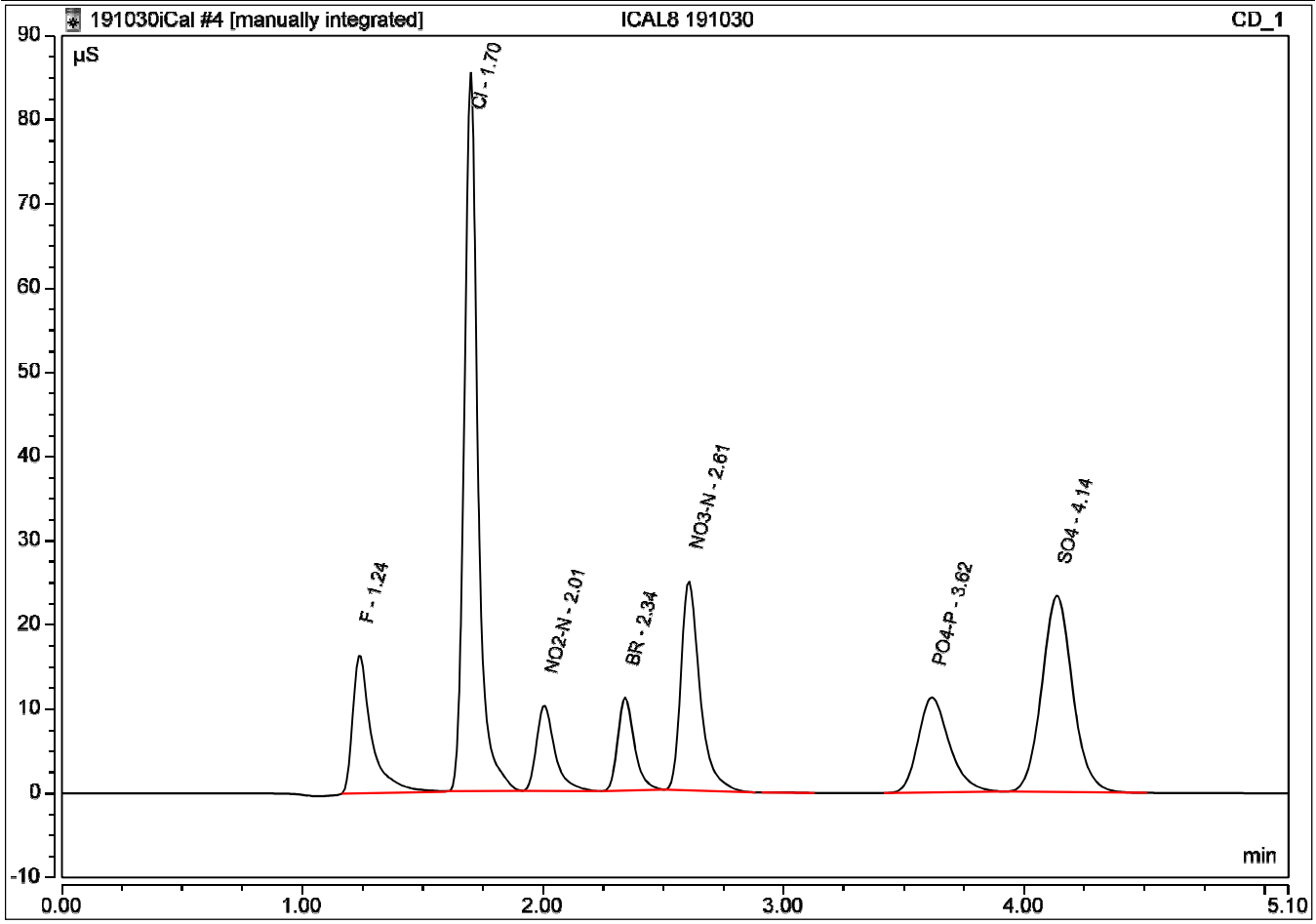


Logged on User: BW
Instrument: Charlie System_1
Sequence: 191030iCal

Peak Integration Report

Sample Name:	**ICAL8 191030**	*Inj. Vol.:*	**25uL**
Injection Type:	**Calibration Standard**	*Dilution Factor:*	**1.00**
Program:	**Anion APM 191030**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**30-Oct-2019 / 18:44**	*Run Time:*	**5.10**

No.	Time (min) min	Peak Name	Peak Type	Area (µS*min) µS*min	Height (µS) µS	Amount mg/L	Spike Level mg/L	Recovery
1	1.24	**F**	BM *	1.503	16.491	12.76	12.5	102.1%
2	1.70	**Cl**	BMB	5.591	85.358	55.47	50	110.9%
3	2.01	**NO2-N**	BMB	0.903	10.178	5.04	5	100.8%
4	2.34	**BR**	BMB	0.890	11.073	25.28	25	101.1%
5	2.61	**NO3-N**	BMB	2.269	24.891	10.21	10	102.1%
7	3.62	**PO4-P**	BMB	1.704	11.286	25.21	25	100.8%
8	4.14	**SO4**	BMB	3.469	23.343	50.95	50	101.9%

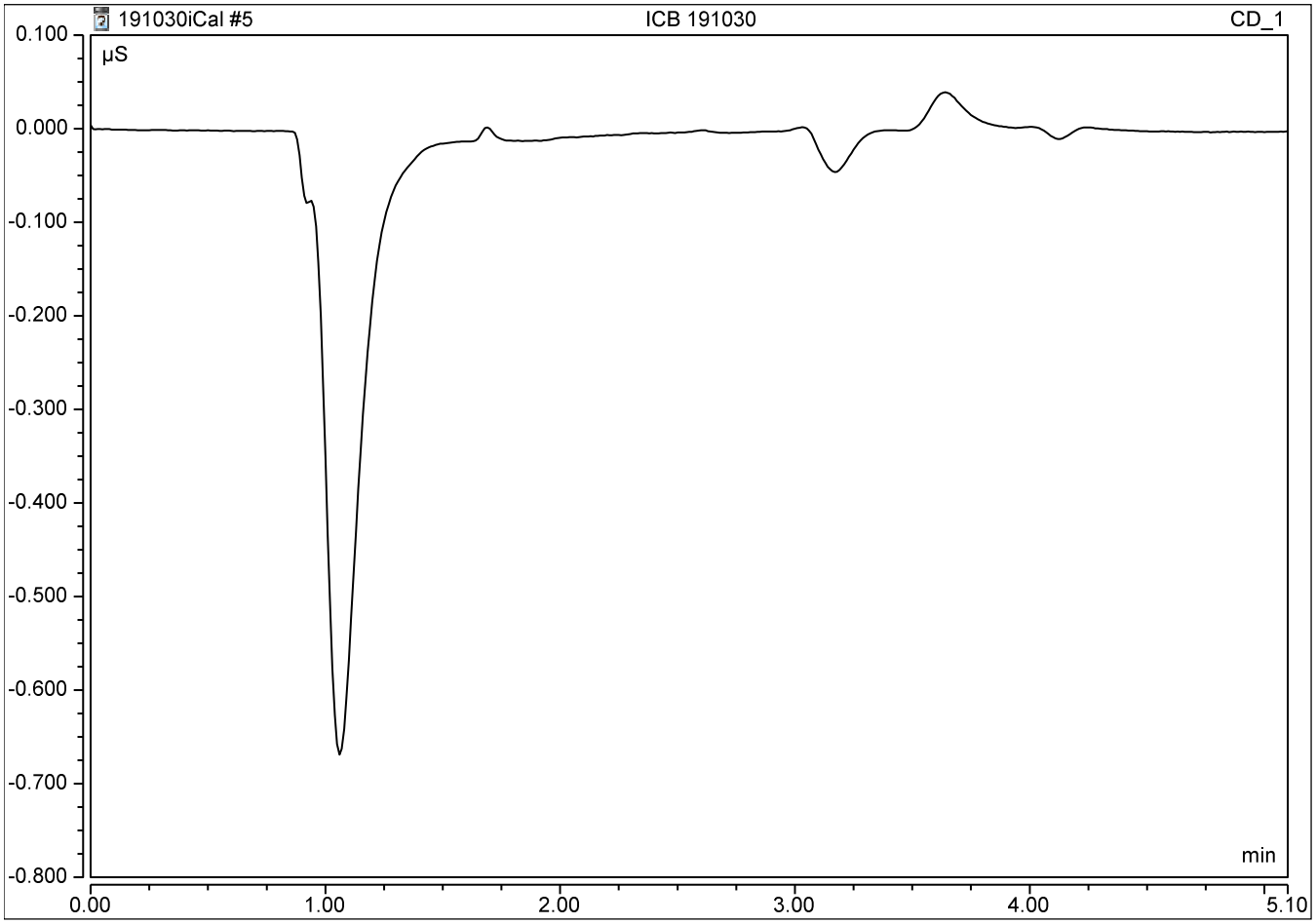


Logged on User: BW
Instrument: Charlie System_1
Sequence: 191030iCal

Peak Integration Report

Sample Name:	**ICB 191030**	*Inj. Vol.:*	**25uL**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.00**
Program:	**Anion APM 191030**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**30-Oct-2019 / 18:52**	*Run Time:*	**5.10**

No.	Time (min) min	Peak Name	Peak Type	Area (µS*min) µS*min	Height (µS) µS	Amount mg/L	Spike Level mg/L	Recovery

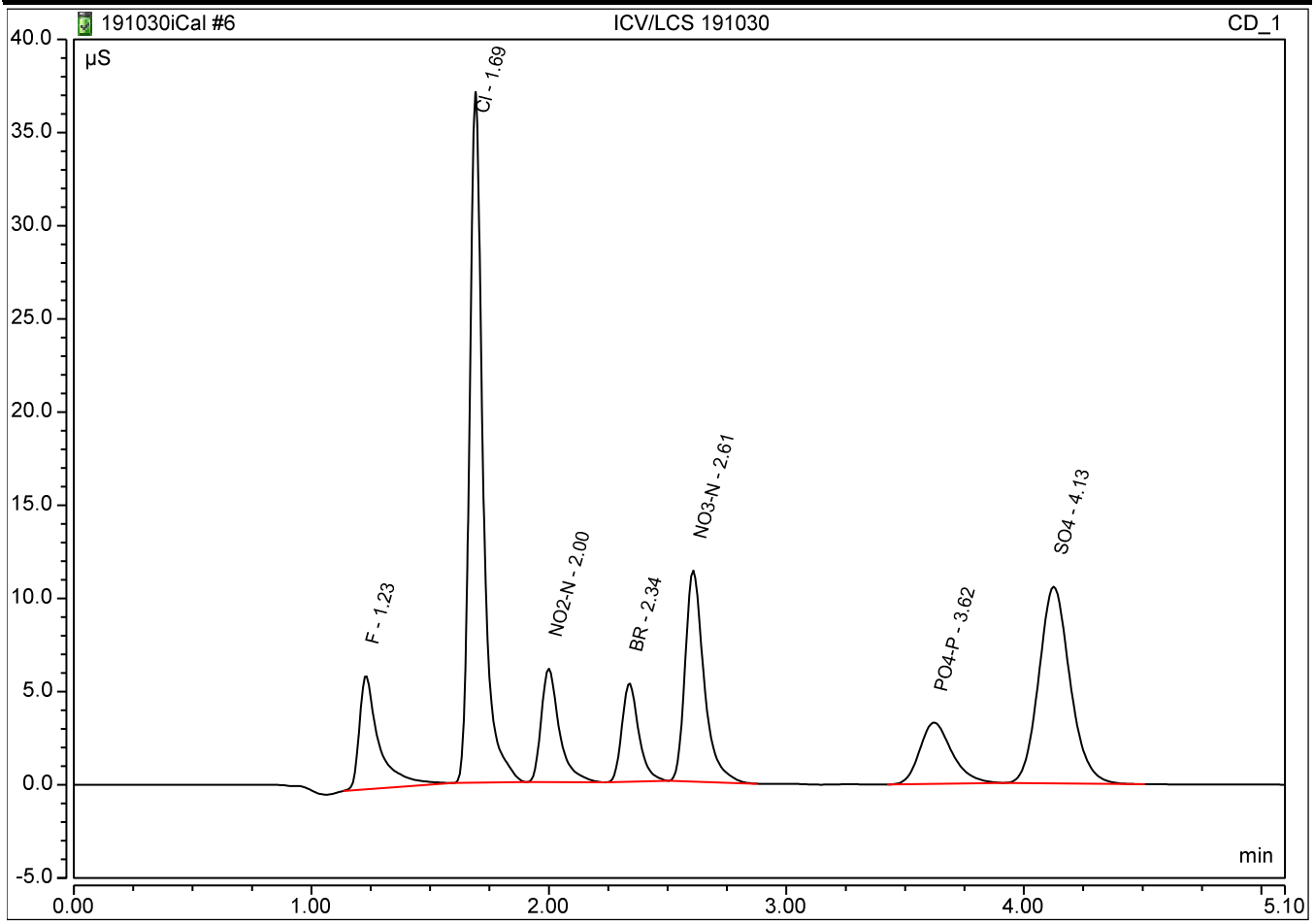


Logged on User: BW
Instrument: Charlie System_1
Sequence: 191030iCal

Peak Integration Report

Sample Name:	**ICV/LCS 191030**	*Inj. Vol.:*	**25uL**
Injection Type:	**Check Standard**	*Dilution Factor:*	**1.00**
Program:	**Anion APM 191030**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**30-Oct-2019 / 18:59**	*Run Time:*	**5.10**

No.	Time (min) min	Peak Name	Peak Type	Area (µS*min) µS*min	Height (µS) µS	Amount mg/L	Spike Level mg/L	Recovery
1	1.23	**F**	BMB	0.589	6.116	5.07	5	101.5%
2	1.69	**Cl**	BMB	2.435	37.074	24.19	25	96.8%
3	2.00	**NO2-N**	BMB	0.539	6.101	3.01	3.04	99.1%
4	2.34	**BR**	BMB	0.435	5.293	12.37	12.5	99.0%
5	2.61	**NO3-N**	BMB	1.049	11.325	4.73	5	94.5%
6	3.62	**PO4-P**	BMB	0.517	3.291	8.12	10	81.2%
7	4.13	**SO4**	BMB	1.608	10.548	23.67	25	94.7%



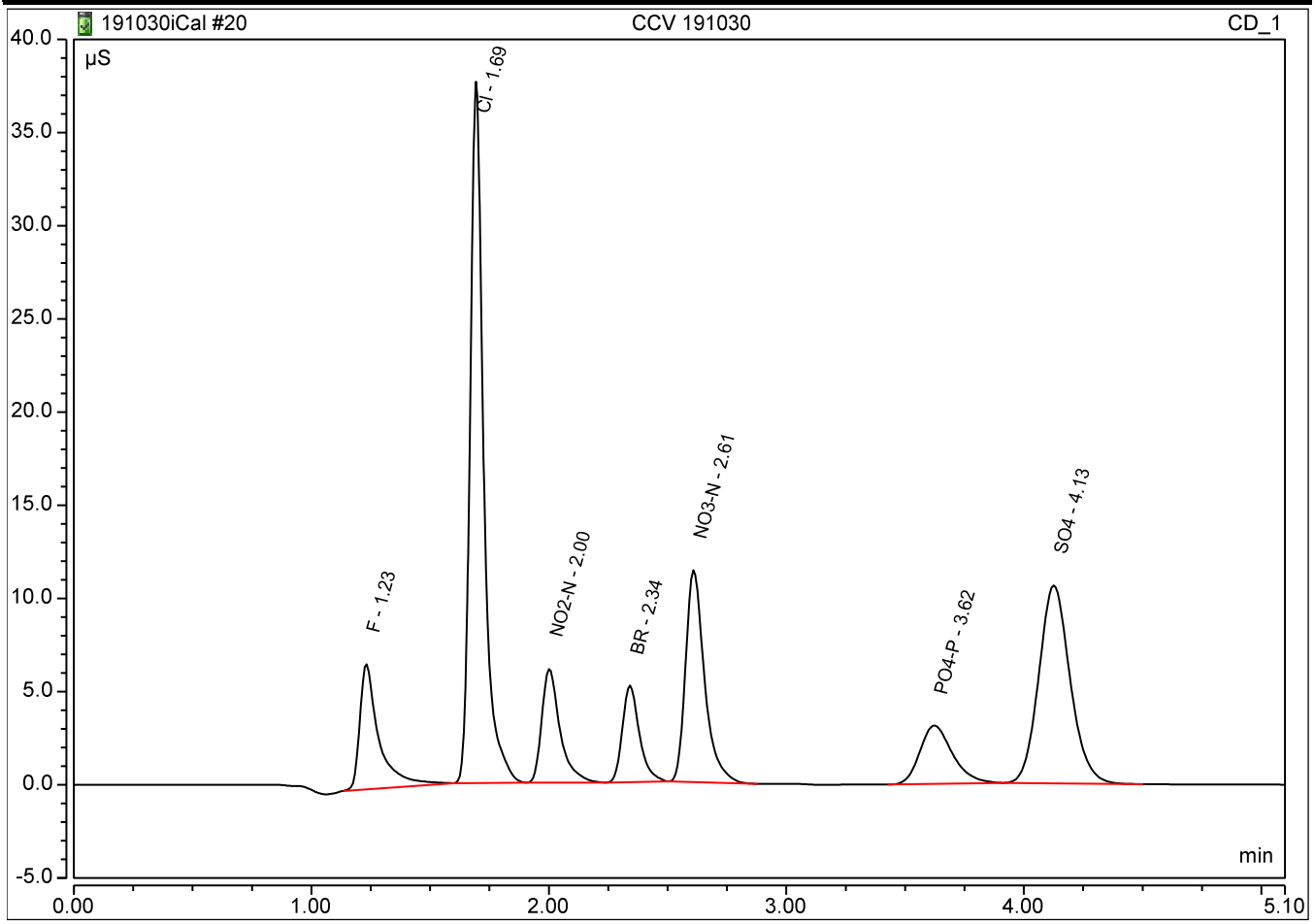
Algorithm Check
y = Peak Area
x = mg/L S04
y = 0.0682 x + -0.0066
y = 1.6082 therefor x =

Logged on User: BW
Instrument: Charlie System_1
Sequence: 191030iCal

Peak Integration Report

Sample Name:	**CCV 191030**	*Inj. Vol.:*	**25uL**
Injection Type:	**Check Standard**	*Dilution Factor:*	**1.00**
Program:	**Anion APM 191030**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**30-Oct-2019 / 20:44**	*Run Time:*	**5.10**

No.	Time (min) min	Peak Name	Peak Type	Area (µS*min) µS*min	Height (µS) µS	Amount mg/L	Spike Level mg/L	Recovery
1	1.23	**F**	BMB	0.625	6.726	5.37	5	107.4%
2	1.69	**Cl**	BMB	2.473	37.640	24.57	25	98.3%
3	2.00	**NO2-N**	BMB	0.543	6.116	3.03	3.04	99.8%
4	2.34	**BR**	BMB	0.431	5.187	12.25	12.5	98.0%
5	2.61	**NO3-N**	BMB	1.054	11.378	4.75	5	95.1%
6	3.62	**PO4-P**	BMB	0.497	3.129	7.83	10	78.3%
7	4.13	**SO4**	BMB	1.622	10.621	23.88	25	95.5%

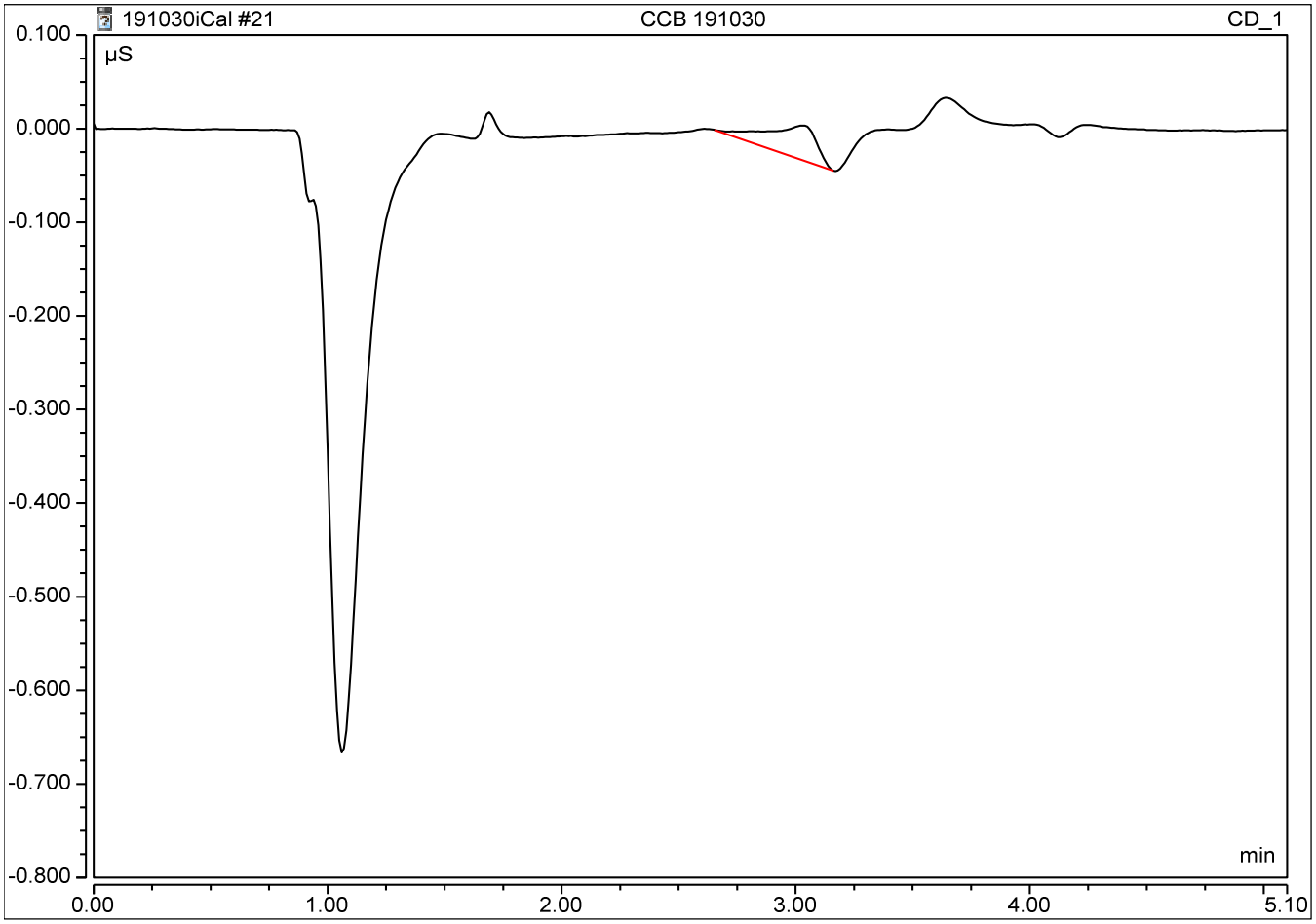


Logged on User: BW
Instrument: Charlie System_1
Sequence: 191030iCal

Peak Integration Report

Sample Name:	**CCB 191030**	*Inj. Vol.:*	**25uL**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.00**
Program:	**Anion APM 191030**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**30-Oct-2019 / 20:52**	*Run Time:*	**5.10**

No.	Time (min) min	Peak Name	Peak Type	Area (µS*min) µS*min	Height (µS) µS	Amount mg/L	Spike Level mg/L	Recovery



A.P.P.L. INC.
2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: A.P.P.L. INC. Contract: AECOM
ARF No: 90587 SDG: 90587
Initial Calibration Source: Inorganic Ventures
Continuing Calibration Source: o2si
Analysis Date: 11/01/19

Analyte	Calibration Verification									M
	True ICV	Found 16:24	%R(1)	True CCV1	Found 16:41	%R(1)	True	Found	%R(1)	
TOXN	3	2.924	97.5	3	2.9897	99.7				

(1) Control Limits: 90-110

A.P.P.L. INC.
3
BLANKS

Lab Name: A.P.P.L. INC. Contract: AECOM

ARF No.: 90587 SDG: 90587

Preparation Blank Matrix (soil/water): water

Preparation Blank Concentration Units (ug/L or mg/kg): mg/L

Analyte	Calibration Blanks										M
	ICB 11/01/19 16:26	C	CCB 11/01/19 16:42	C		C		C		C	
TOXN	.100	U	.100	U							

INORGANIC ANALYSIS
Raw Data

TOTAL ORGANIC CARBON

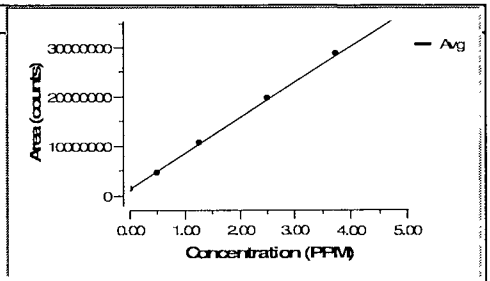
Method: WetChem
Analyte: TOC
Analyst: AR

Units mg/L
QCG: 191109B
Final Volume: 40mL

Instrument: Tic Toc

Date	Time	Appl ID	[TOC]	Raw	% Recovery
10/31/19	19:20	QC blank	0.00	1130.000	
10/31/19	19:56	Ical 1	0.50	7935.000	
10/31/19	20:28	Ical 2	2.00	24866.000	
10/31/19	21:02	Ical 3	5.00	59510.000	
10/31/19	21:35	Ical 4	10.00	118117.000	
10/31/19	22:08	Ical 5	20 00	235471.000	
11/01/19	10:03	ICB	0.08	883 000	
11/01/19	10:39	ICV	10.40	121613.000	104.0%

r^2= 0.9987



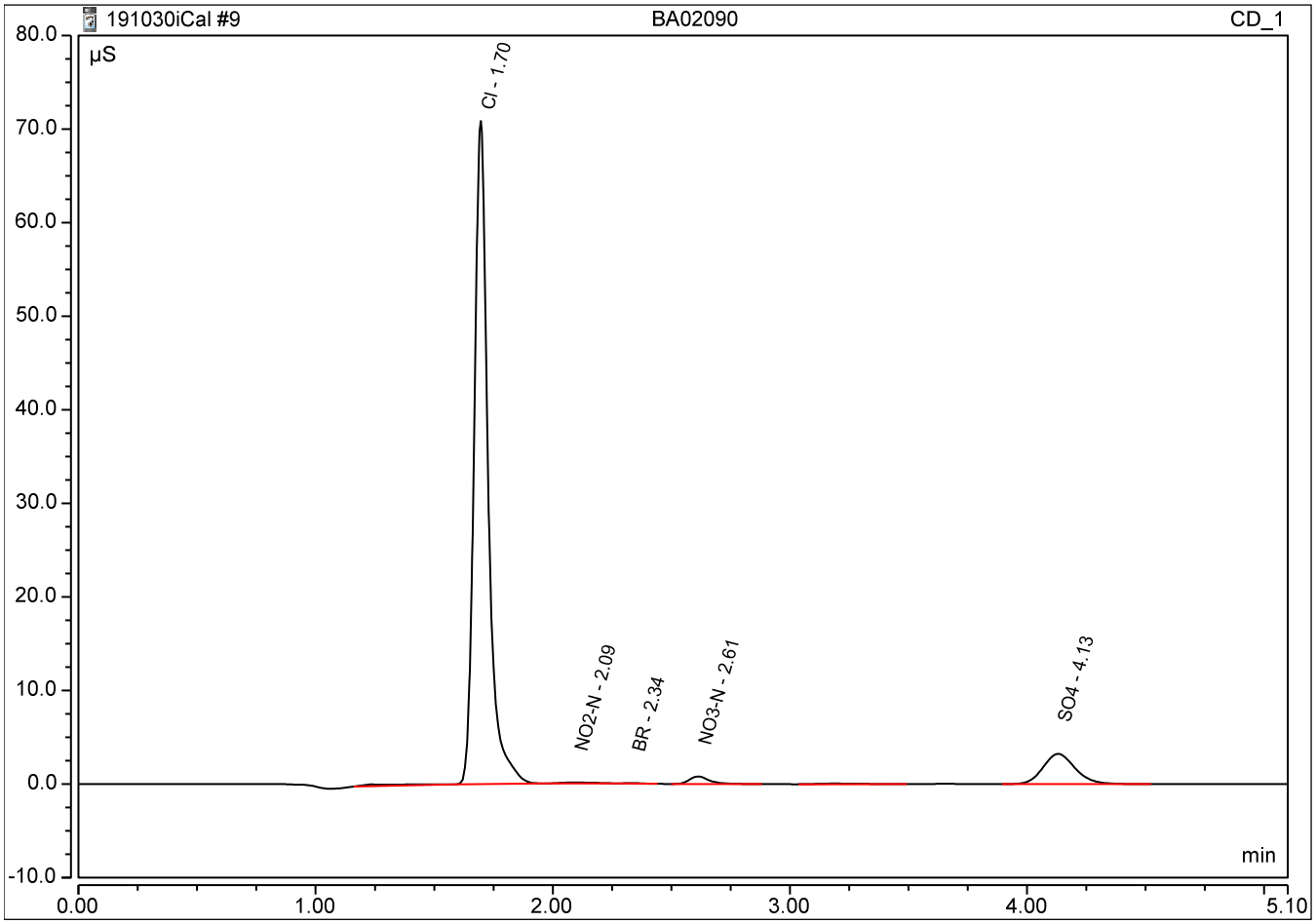
Date	Time	Appl ID	DF	Raw Result	SubSample Amount	Filter Blank Subtract	Calc Conc	Result	Range (mg/L)	QC True	% Recovery
2019-11-10	05:57 PM	CCV (using only 2 reps)	1	30693	40mL	0.000	5.092	5.09	5.02	5.00	101.8%
2019-11-10	06:33 PM	CCB	1	3132	40mL	0.000	0.132	0.13	0.03		
2019-11-10	07:09 PM	191107B LCS	1	61937	40mL	0.000	5.161	5 16	0.00	5.00	103.2%
2019-11-10	07:45 PM	191107B LCSD	1	61458	40mL	0.000	5.12	5.12	0.11	5.00	102.4%
2019-11-10	08:22 PM	BA01829W13	1	3442	40mL	0.000	0 29	0.29	0.00		
2019-11-10	08:55 PM	BA01831W18	1	3097	40mL	0.000	0 261	0.26	0.00		
2019-11-10	09:28 PM	BA01833W18	1	3748	40mL	0.000	0.316	0.32	0.01		
2019-11-10	10:01 PM	BA01943W05	1	11113	40mL	0.000	0.946	0.95	0.03		
2019-11-10	10.34 PM	BA01944W05	1	9966	40mL	0.000	0.848	0.85	0.02		
2019-11-10	11:07 PM	BA01945W05	1	80872	40mL	0.000	6.912	6.91	0.28		
2019-11-10	11:41 PM	BA01946W05	1	133487	40mL	0.000	11.412	11.41	0.22		
2019-11-11	12:15 AM	BA02090W11	1	5880	40mL	0.000	0.499	0.50	0.20		
2019-11-11	12:49 AM	BA02160W05	1	59396	40mL	0.000	5.075	5.08	0.62		
2019-11-11	01:23 AM	BA02160W05 DUP	1	62368	40mL	0.000	5.33	5.33	0.06		
2019-11-11	01:57 AM	BA02160W06 MS	1	107404	40mL	0.000	9.181	9.18	0.10		
2019-11-11	02:32 AM	BA02160W06 MSD	1	96261	40mL	0.000	8 229	8.23	3.77		
2019-11-11	03.06 AM	BA02214W15	1	3797	40mL	0 000	0.321	0.32	0.01		
2019-11-11	03.39 AM	CCV	1	60889	40mL	0.000	5.071	5.07	0.05	5.00	101.4%
2019-11-11	04:15 AM	CCB	1	2581	40mL	0.000	0.084	0.08	0.01		
2019-11-11	04:51 AM	BA02216W08	1	9510	40mL	0.000	0 809	0.81	0.01		
2019-11-11	05:24 AM	BA02216W08 DUP	1	9608	40mL	0.000	0.818	0.82	0.01		
2019-11-11	05:58 AM	BA02301W19	1	158152	40mL	0.000	13.521	13.52	0.09		
2019-11-11	06:32 AM	BA02053W10	1	72253	40mL	0.000	6.175	6 18	0.02		
2019-11-11	07:06 AM	BA02054W10	1	42094	40mL	0.000	3.596	3 60	0.01		
2019-11-11	07:40 AM	BA02401W01	1	16638	40mL	0.000	1.419	1.42	0.01		
2019-11-11	08:13 AM	BA02402W01	1	14218	40mL	0.000	1.212	1.21	0.01		
2019-11-11	08:46 AM	BA02403W01	1	10362	40mL	0.000	0.882	0.88	0.00		
2019-11-11	09:19 AM	BA02404W01	1	21221	40mL	0.000	1.811	1.81	0.05		
2019-11-11	09:52 AM	BA02405W01	1	5819	40mL	0.000	0 493	0.49	0.01		
2019-11-11	10:25 AM	BA02406W01	1	14849	40mL	0.000	1 266	1.27	0.02		
2019-11-11	10:59 AM	CCV	1	62637	40mL	0.000	5 221	5.22	0.02	5.00	104.4%
2019-11-11	11:35 AM	CCB	1	2582	40mL	0.000	0.085	0.09	0.00		

Logged on User: BW
Instrument: Charlie System_1
Sequence: 191030iCal

Peak Integration Report

Sample Name:	**BA02090**	*Inj. Vol.:*	**25uL**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.00**
Program:	**Anion APM 191030**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**30-Oct-2019 / 19:22**	*Run Time:*	**5.10**

No.	Time (min) min	Peak Name	Peak Type	Area (µS*min) µS*min	Height (µS) µS	Amount mg/L	Spike Level mg/L	Recovery
2	1.70	**Cl**	BMB	4.822	70.863	47.84		
3	2.09	**NO2-N**	BMB	0.016	0.097	0.09		
4	2.34	**BR**	BMB	0.004	0.053	0.14		
5	2.61	**NO3-N**	BMB	0.080	0.809	0.38		
7	4.13	**SO4**	BMB	0.508	3.229	7.54		

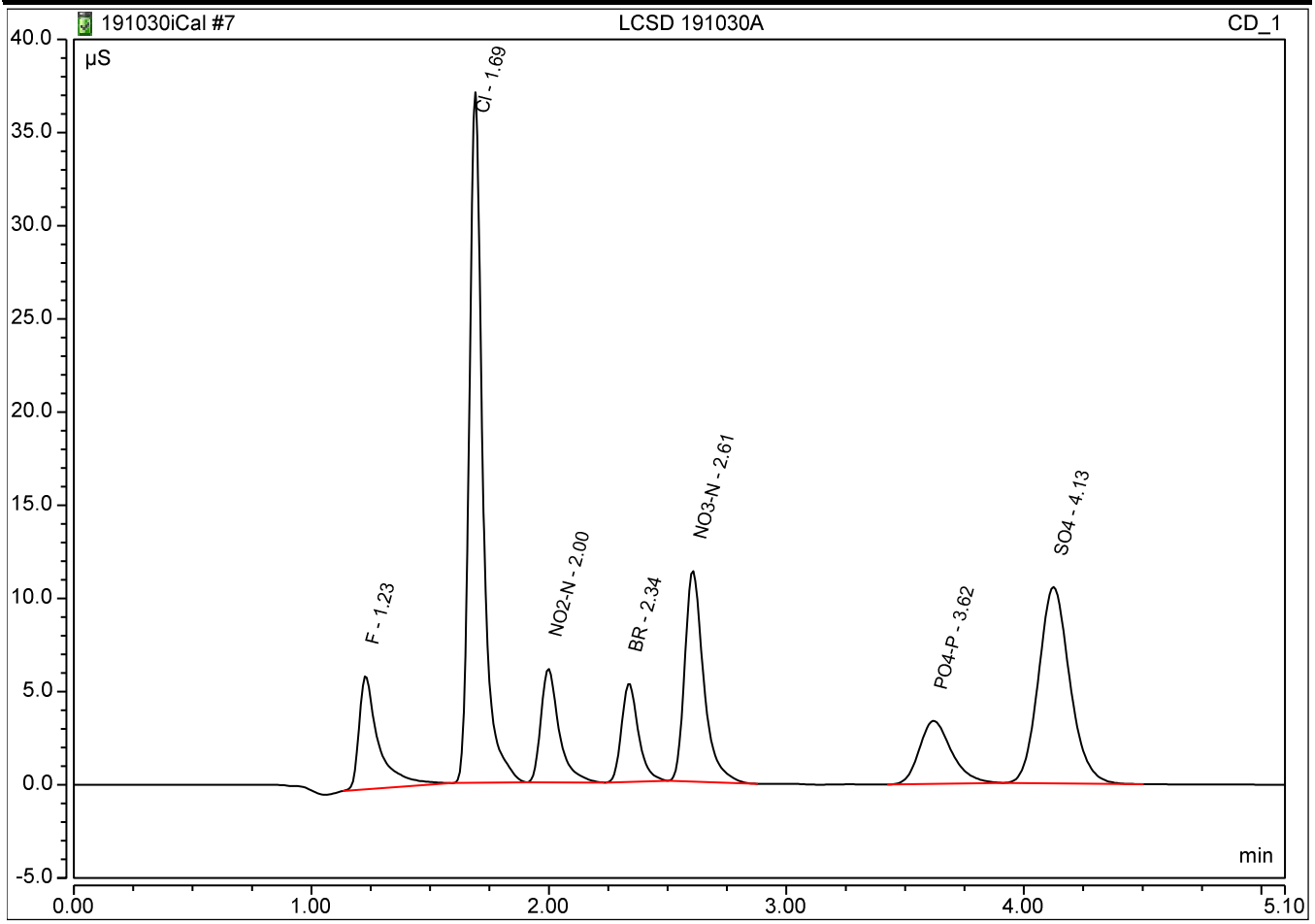


Logged on User: BW
Instrument: Charlie System_1
Sequence: 191030iCal

Peak Integration Report

Sample Name:	**LCSD 191030A**	*Inj. Vol.:*	**25uL**
Injection Type:	**Check Standard**	*Dilution Factor:*	**1.00**
Program:	**Anion APM 191030**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**30-Oct-2019 / 19:07**	*Run Time:*	**5.10**

No.	Time (min) min	Peak Name	Peak Type	Area (µS*min) µS*min	Height (µS) µS	Amount mg/L	Spike Level mg/L	Recovery
1	1.23	**F**	BMB	0.587	6.096	5.05	5	101.1%
2	1.69	**Cl**	BMB	2.434	37.053	24.19	25	96.8%
3	2.00	**NO2-N**	BMB	0.539	6.101	3.01	3.04	99.0%
4	2.34	**BR**	BMB	0.435	5.290	12.37	12.5	99.0%
5	2.61	**NO3-N**	BMB	1.049	11.323	4.73	5	94.5%
6	3.62	**PO4-P**	BMB	0.531	3.381	8.31	10	83.1%
7	4.13	**SO4**	BMB	1.608	10.538	23.67	25	94.7%



Anion Chromatography Working Standard

Prep Date: 10/30/19

Exp Date: 10/30/19

Prep'd By (Initials): BW

Initial Standard Information						Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier Part No.	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date	Aliquot from Stock	Final Volume	Solvent	Final Standard Conc (µg/mL)
Ion Chromatography Standard Fluoride 1000 µg/mL in H2O	o2si	O2SI-062002-01-01	1000	687393-38-40744	10/30/20	312.5 µL	25 mL	Millipore Water	12.5
Ion Chromatography Standard Nitrite 1000 µg/mL in H2O	Inorganic Ventures	ICN021	1000	N2-NOX672889-40759	05/01/20	411 µL	25 mL	Millipore Water	5 as NO2-N
Ion Chromatography Standard Chloride 5000 µg/mL in H2O	o2si	062001-08-03	5000	10084781-1-39578	02/21/20	250 µL	25 mL	Millipore Water	50
Ortho-Phosphate as P Standard	Ultra Scientific	ICC-005A	1000	G34-CP-3323-39057	08/31/23	625 µL	25 mL	Millipore Water	25
Ion Chromatography Standard Nitrate as N 1000 µg/mL in H2O	o2si	062003-01-03	1000	880117-4-39577	02/21/20	250 µL	25 mL	Millipore Water	10
Bromide Standard	Ultra Scientific	ICC-001	1000	CR-5372-39521	12/31/21	625 µL	25 mL	Millipore Water	25
Sulfate Standard	Agilent	ICC-006	1000	CS-0688-41050	03/31/22	1250 µL	25 mL	Millipore Water	50

Anion Chromatography Calibration Curve

Prep Date: 10/30/19

Exp Date: 10/30/19

Prep'd By (Initials): BW

Initial Standard Information						Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. Range (ug/mL)	Reference To APPL Prep Date	Exp. Date	Aliquot from Stock	Final Volume	Solvent	Final Standard Conc. Range (µg/mL)
Anion Chromatography Working Standard	Varies	ICal1	5.0-50.0	Prepared 10/30/19	10/30/19	200 µL	25000 µL	Millipore Water	0.04-0.40
Anion Chromatography Working Standard	Varies	ICal2	5.0-50.0	Prepared 10/30/19	10/30/19	20 µL	1000 µL	Millipore Water	0.1-1.0
Anion Chromatography Working Standard	Varies	ICal5	5.0-50.0	Prepared 10/30/19	10/30/19	200 µL	1000 µL	Millipore Water	1.0-10.0
Anion Chromatography Working Standard	Varies	ICal8	5.0-50.0	Prepared 10/30/19	10/30/19	1000 µL	1000 µL	Millipore Water	5.0-50.0

Anion Chromatography LCS/ICV

Prep Date: See injection Log

Exp Date: 24 hours after prep

Prep'd By (Initials): BW

Initial Standard Information						Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier Part No.	Conc. Range (ug/mL)	Lot Number - QA Number	Exp. Date	Aliquot from Stock	Final Volume	Solvent	Final Standard Conc (µg/mL)
Flouride	Inorganic Ventures	ICF1	993-999	K-F652018-39801	10/23/19	125 µL	25 mL	Millipore Water	5
Nitrite	Inorganic Ventures	ICNO21	993-1001	M2-NOX660562-40468	08/25/21	250 µL	25 mL	Millipore Water	10
Chloride	Inorganic Ventures	ICCL1	995-1001	N2-CL664868-39905	11/26/19	625 µL	25 mL	Millipore Water	25
O-Phosphate as P	Inorganic Ventures	ICPPO41	1001-1009	M2-POX655826-39803	10/23/19	250 µL	25 mL	Millipore Water	10
Nitrate as N	Inorganic Ventures	ICNNO31	997-1005	P2-NOX675324-49391	02/14/23	125 µL	25 mL	Millipore Water	5
Ion Chromatography Standard Bromide, 1000 µg/mL in H2O	CPI International	4400-IC8M	995-1005	161681-8-39539	02/06/20	312.5 µL	25 mL	Millipore Water	12.5
Sulfate	Inorganic Ventures	ICSO41	998-1006	N2-SOX664928-39507	11/27/19	625 µL	25 mL	Millipore Water	25

Anion Chromatography CCV

Prep Date: See injection Log

Exp Date: 24 hours after prep

Prep'd By (Initials): BW

Initial Standard Information						Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier Part No.	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date	Aliquot from Stock	Final Volume	Solvent	Final Standard Conc (µg/mL)
Ion Chromatography Standard Fluoride 1000 µg/mL in H2O	o2si	O2SI-062002-01-01	1000	687393-38-40744	10/30/20	125 µL	25 mL	Millipore Water	5
Ion Chromatography Standard Nitrite 1000 µg/mL in H2O	Inorganic Ventures	ICN021	1000	N2-NOX672889-40759	05/01/20	250 µL	25 mL	Millipore Water	10
Ion Chromatography Standard Chloride 5000 µg/mL in H2O	o2si	062001-08-03	5000	10084781-1-39578	02/21/20	125 µL	25 mL	Millipore Water	25
Ortho-Phosphate as P Standard	Ultra Scientific	ICC-005A	1000	G34-CP-3323-39057	08/31/23	250 µL	25 mL	Millipore Water	10
Ion Chromatography Standard Nitrate as N 1000 µg/mL in H2O	o2si	062003-01-03	1000	880117-4-39577	02/21/20	125 µL	25 mL	Millipore Water	5
Bromide Standard	Ultra Scientific	ICC-001	1000	CR-5372-39521	12/31/21	312.5 µL	25 mL	Millipore Water	12.5
Sulfate Standard	Agilent	ICC-006	1000	CS-0688-41050	03/31/22	625 µL	25 mL	Millipore Water	25

Method 300 and 9056 Injection Log

No.	Position	Injection Description	Inject Time		Type	Comment
1	GE1	ICAL1 191030	30/Oct/2019	18:22	Calibration Standard	
2	GE2	ICAL2 191030	30/Oct/2019	18:29	Calibration Standard	
3	GE3	ICAL5 191030	30/Oct/2019	18:37	Calibration Standard	
4	GE4	ICAL8 191030	30/Oct/2019	18:44	Calibration Standard	
5	R1	ICB 191030	30/Oct/2019	18:52	Unknown	
6	R3	ICV/LCS 191030	30/Oct/2019	18:59	Check Standard	
7	R3	LCSD 191030A	30/Oct/2019	19:07	Check Standard	
8	BA1	BA01825W07	30/Oct/2019	19:14	Unknown	filtered
9	BA2	BA02090	30/Oct/2019	19:22	Unknown	
10	BA3	BA02160	30/Oct/2019	19:29	Unknown	
11	BA4	BA02049W12	30/Oct/2019	19:37	Unknown	filtered
12	BA5	BA02050W07	30/Oct/2019	19:44	Unknown	filtered
13	BA6	BA02053W08	30/Oct/2019	19:52	Unknown	filtered
14	BA7	BA02054W08	30/Oct/2019	19:59	Unknown	filtered
15	BA8	BA01390W01 DF20	30/Oct/2019	20:07	Unknown	NDF20 Cl
16	BB1	BA01390W01 DF5	30/Oct/2019	20:14	Unknown	NDF5 SO4
17	BB2	BA01391W01 DF5	30/Oct/2019	20:22	Unknown	NDF5 Cl SO4
18	BB3	BA01391W01 DF2	30/Oct/2019	20:29	Unknown	NDF2 NO3-N
19	BB4	BA01392W01 DF20	30/Oct/2019	20:37	Unknown	NDF20 Cl
20	R2	CCV 191030	30/Oct/2019	20:44	Check Standard	
21	R1	CCB 191030	30/Oct/2019	20:52	Unknown	
22	BB5	BA01393W01 DF10	30/Oct/2019	20:59	Unknown	NDF10 Cl SO4 NO3-N
23	BB6	BA01459W01 DF10	30/Oct/2019	21:07	Unknown	NDF10 Cl
24	BB7	BA01459W01 DF5	30/Oct/2019	21:14	Unknown	NDF5 SO4
25	BB8	BA01460W01 DF10	30/Oct/2019	21:22	Unknown	NDF10 Cl
26	BC1	BA01460W01 DF5	30/Oct/2019	21:29	Unknown	NDF5 SO4
27	BC2	BA01461W01 DF50	30/Oct/2019	21:37	Unknown	NDF50 Cl
28	BC3	BA01461W01 DF5	30/Oct/2019	21:44	Unknown	NDF5 SO4
29	BC4	BA01875 DF2	30/Oct/2019	21:52	Unknown	SO4 NO3 NO2 Cl filtered; NDF2 SC
30	BC5	BA01876 DF2	30/Oct/2019	21:59	Unknown	SO4 NO3 NO2 Cl filtered; NDF2 SC
31	R2	CCV 191030	30/Oct/2019	22:06	Check Standard	
32	R1	CCB 191030	30/Oct/2019	22:14	Unknown	
33	BC2	Stop	n.a.		Unknown	

Logged on User: BW
Instrument: Charlie System_1
Sequence: 191030iCal

Method 300 and 9056 Injection Log

No.	Position	Injection Description	Inject Time		Type	Comment
1	GE1	ICAL1 191030	30/Oct/2019	18:22	Calibration Standard	
2	GE2	ICAL2 191030	30/Oct/2019	18:29	Calibration Standard	
3	GE3	ICAL5 191030	30/Oct/2019	18:37	Calibration Standard	
4	GE4	ICAL8 191030	30/Oct/2019	18:44	Calibration Standard	
5	R1	ICB 191030	30/Oct/2019	18:52	Unknown	
6	R3	ICV/LCS 191030	30/Oct/2019	18:59	Check Standard	
7	R3	LCSD 191030A	30/Oct/2019	19:07	Check Standard	
8	BA1	BA01825W07	30/Oct/2019	19:14	Unknown	filtered
9	BA2	BA02090	30/Oct/2019	19:22	Unknown	
10	BA3	BA02160	30/Oct/2019	19:29	Unknown	
11	BA4	BA02049W12	30/Oct/2019	19:37	Unknown	filtered
12	BA5	BA02050W07	30/Oct/2019	19:44	Unknown	filtered
13	BA6	BA02053W08	30/Oct/2019	19:52	Unknown	filtered
14	BA7	BA02054W08	30/Oct/2019	19:59	Unknown	filtered
15	BA8	BA01390W01 DF20	30/Oct/2019	20:07	Unknown	NDF20 Cl
16	BB1	BA01390W01 DF5	30/Oct/2019	20:14	Unknown	NDF5 SO4
17	BB2	BA01391W01 DF5	30/Oct/2019	20:22	Unknown	NDF5 Cl SO4
18	BB3	BA01391W01 DF2	30/Oct/2019	20:29	Unknown	NDF2 NO3-N
19	BB4	BA01392W01 DF20	30/Oct/2019	20:37	Unknown	NDF20 Cl
20	R2	CCV 191030	30/Oct/2019	20:44	Check Standard	
21	R1	CCB 191030	30/Oct/2019	20:52	Unknown	
22	BB5	BA01393W01 DF10	30/Oct/2019	20:59	Unknown	NDF10 Cl SO4 NO3-N
23	BB6	BA01459W01 DF10	30/Oct/2019	21:07	Unknown	NDF10 Cl
24	BB7	BA01459W01 DF5	30/Oct/2019	21:14	Unknown	NDF5 SO4
25	BB8	BA01460W01 DF10	30/Oct/2019	21:22	Unknown	NDF10 Cl
26	BC1	BA01460W01 DF5	30/Oct/2019	21:29	Unknown	NDF5 SO4
27	BC2	BA01461W01 DF50	30/Oct/2019	21:37	Unknown	NDF50 Cl
28	BC3	BA01461W01 DF5	30/Oct/2019	21:44	Unknown	NDF5 SO4
29	BC4	BA01875 DF2	30/Oct/2019	21:52	Unknown	SO4 NO3 NO2 Cl filtered; NDF2 SC
30	BC5	BA01876 DF2	30/Oct/2019	21:59	Unknown	SO4 NO3 NO2 Cl filtered; NDF2 SC
31	R2	CCV 191030	30/Oct/2019	22:06	Check Standard	
32	R1	CCB 191030	30/Oct/2019	22:14	Unknown	
33	BC2	Stop	n.a.		Unknown	

TOTAL ORGANIC CARBON

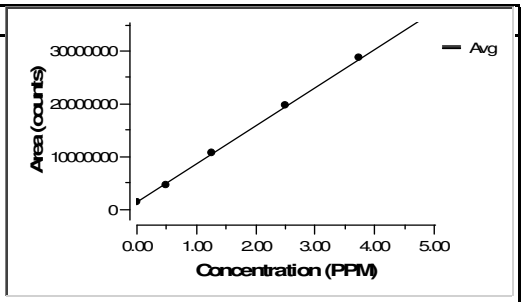
Method: WetChem | Units mg/L | Instrument: Tic Toc

Analyte: DOC | QCG: 191105B

Analyist: AR | Final Volume: 40mL

Date	Time	Appl ID	[TOC]	Raw	% Recovery
10/31/19	19:20	QC blank	0.00	1130.000	
10/31/19	19:56	Ical 1	0.50	7935.000	
10/31/19	20:28	Ical 2	2.00	24866.000	
10/31/19	21:02	Ical 3	5.00	59510.000	
10/31/19	21:35	Ical 4	10.00	118117.000	
10/31/19	22:08	Ical 5	20.00	235471.000	
11/01/19	10:03	ICB	0.08	883.000	
11/01/19	10:39	ICV	10.40	121613.000	104.0%

r^2= 0.9987



Date	Time	Appl ID	DF	Raw Result	SubSample Amount	Filter Blank Subtract	Calc Conc	Result	Range (mg/L)	QC True	% Recovery
2019-11-06	08:11 AM	CCV	1	61980	40mL	0.010	5.165	5.16	0.04	5.00	103.1%
2019-11-06	08:48 AM	CCB	1	1790	40mL	0.010	0.017	0.01	0.01		
2019-11-06	09:24 AM	191105B LCS	1	63799	40mL	0.010	5.32	5.31	0.00	5.00	106.2%
2019-11-06	10:00 AM	191105B LCSD	1	63054	40mL	0.010	5.256	5.25	0.09	5.00	104.9%
2019-11-06	10:36 AM	BA01821W09	1	79556	40mL	0.010	6.8	6.79	0.26		
2019-11-06	11:10 AM	BA01822W27	1	41131	40mL	0.010	3.514	3.50	0.04		
2019-11-06	11:43 AM	BA01822W27 DUP	1	34958	40mL	0.010	2.986	2.98	1.91		
2019-11-06	12:16 PM	BA01822W27 MS	1	87129	40mL	0.010	7.447	7.44	4.30		
2019-11-06	12:50 PM	BA01822W27 MSD	1	101635	40mL	0.010	8.688	8.68	0.20		
2019-11-06	01:23 PM	BA01823W09	1	26016	40mL	0.010	2.22	2.21	0.04		
2019-11-06	01:56 PM	BA01824W13	1	67228	40mL	0.010	5.745	5.74	0.03		
2019-11-06	02:29 PM	BA01825W14	1	129488	40mL	0.010	11.07	11.06	0.00		
2019-11-06	03:03 PM	BA01826W09	1	193050	40mL	0.010	16.506	16.50	0.29		
2019-11-06	03:36 PM	BA01869W09	1	15030	40mL	0.010	1.282	1.27	0.09		
2019-11-06	04:09 PM	BA01870W09	1	77222	40mL	0.010	6.6	6.59	0.10		
2019-11-06	04:42 PM	BA01873W09	1	30378	40mL	0.010	2.594	2.58	0.02		
2019-11-06	05:49 PM	CCV	1	64243	40mL	0.010	5.358	5.35	0.28	5.00	107.0%
2019-11-06	06:25 PM	CCB	1	2149	40mL	0.010	0.048	0.04	0.06		
2019-11-07	01:35 PM	CCV	1	64082	40mL	0.010	5.344	5.33	0.12	5.00	106.7%
2019-11-07	02:11 PM	CCB	1	1950	40mL	0.010	0.03	0.02	0.02		
2019-11-07	02:47 PM	BA01872W39	1	81042	40mL	0.010	6.927	6.92	0.09		
2019-11-07	03:20 PM	BA01872W39 DUP	1	83233	40mL	0.010	7.114	7.10	0.23		
2019-11-07	03:53 PM	BA01872W39 MS	1	137212	40mL	0.010	11.73	11.72	0.06		
2019-11-07	04:26 PM	BA01872W39 MSD	1	139273	40mL	0.010	11.907	11.90	0.04		
2019-11-07	04:59 PM	BA01875W13	1	107158	40mL	0.010	9.16	9.15	2.88		
2019-11-07	05:32 PM	BA01876W13	1	107154	40mL	0.010	9.16	9.15	2.37		
2019-11-07	06:05 PM	BA01877W13	1	141639	40mL	0.010	12.109	12.10	3.69		
2019-11-07	06:38 PM	BA02090W11	1	4734	40mL	0.010	0.401	0.39	0.25		
2019-11-07	07:11 PM	BA02049W14	1	203035	40mL	0.010	17.36	17.35	0.33		
2019-11-07	07:45 PM	BA02050W13	1	135327	40mL	0.010	11.57	11.56	2.37		
2019-11-07	08:18 PM	BA02053W10	1	68296	40mL	0.010	5.837	5.84	0.31		
2019-11-07	08:51 PM	BA02054W10	1	33426	40mL	0.010	2.854	2.85	1.61		
2019-11-07	09:24 PM	BA02214W15	1	4625	40mL	0.010	0.392	0.39	0.01		
2019-11-07	09:57 PM	CCV	1	62756	40mL	0.010	5.231	5.23	0.00	5.00	104.6%
2019-11-07	10:33 PM	CCB	1	1786	40mL	0.010	0.017	0.02	0.00		
			1		40mL			#VALUE!	0.00		
			1		40mL			#VALUE!	0.00		
			1		40mL			#VALUE!	0.00		
			1		40mL			#VALUE!	0.00		

Silica — Rev 2, 04/05/19 controlled copy

Method SM4500SiD — Units mg/L — Instrument: Genisis Spectrometer
Analyte Silica — QCG: 191106A — Wavelength: 410 nm
Analyist FJR — Final Volume: 25mL — Units: mg/L

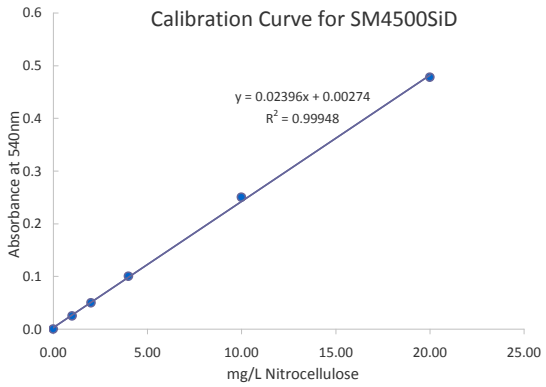
Date	Time	Appl ID	[SiO2]	Absorbance	% Recovery
11/06/19	21:16	ICB	0.00	0.000	
11/06/19	21:16	Ical 1	1.00	0.025	92.9%
11/06/19	21:17	Ical 2	2.00	0.050	98.6%
11/06/19	21:17	Ical 3	4.00	0.100	95.2%
11/06/19	21:18	Ical 4	10.00	0.250	103.2%
11/06/19	21:18	Ical 5	20.00	0.478	99.2%
11/06/19	21:19	ICV	4.00	0.097	98.3%
11/06/19	21:20	ICB	0.00	0.001	

Slope	0.023960729
Intercept	0.002742174
Coefficient of Determination	0.999482494

Algortithm Check:	Appl ID	Absorbance	Result
	191106A 4 LCS	0.094	3.81

Result = (Absorbance-Raw Blk-Intercept)/ Slope

Test:	11/06/19	FJR	3.810



	Date	Time	Appl ID	DF	Raw Result	Sample Amount	Raw BLK	Calc Conc	Result	QC True	% Recovery
id	11/06/19	21:16	ICB	1	0.000	25.0mL		-0.11	-0.11		
id	11/06/19	21:16	Ical 1	1	0.025	25.0mL		0.93	0.93	1.00	92.9%
id	11/06/19	21:17	Ical 2	1	0.050	25.0mL		1.97	1.97	2.00	98.6%
id	11/06/19	21:17	Ical 3	1	0.094	25.0mL		3.81	3.81	4.00	95.2%
id	11/06/19	21:18	Ical 4	1	0.250	25.0mL		10.32	10.32	10.00	103.2%
id	11/06/19	21:18	Ical 5	1	0.478	25.0mL		19.83	19.83	20.00	99.2%
id	11/06/19	21:19	ICV	1	0.097	25.0mL		3.93	3.93	4.00	98.3%
id	11/06/19	21:20	ICB	1	0.001	25.0mL		-0.07	-0.07		
	11/06/19	21:20	191106A CCV1 4	1	0.245	25mL		10.11	10.11	10.00	101.1%
	11/06/19	21:21	191106A CCB	1	0.002	25mL		-0.03	-0.03		
	11/06/19	21:22	191106A BLK	1	0.001	25mL		-0.07	-0.07		
	11/06/19	21:22	191106A 4 LCS	1	0.094	25mL		3.81	3.81	4.00	95.2%
	11/06/19	21:23	191106A 4 LCSD	1	0.095	25mL		3.85	3.85	4.00	96.3%
	11/06/19	21:23	BA02090W09 Total DF5	5	0.238	25mL		9.82	49.09		
	11/06/19	21:24	BA02214W14 Total DF5	5	0.218	25mL		8.98	44.92		
	11/06/19	21:25	BA02301W09 Total DF5	5	0.224	25mL		9.23	46.17		
	11/06/19	21:25	BA02466W14 Total DF5	5	0.211	25mL		8.69	43.46		
	11/06/19	21:26	BA02525W14 Total DF5	5	0.216	25mL		8.90	44.50		
	11/06/19	21:27	BA02525W14 MS Total	5	0.297	25mL		12.28	61.40		
	11/06/19	21:27	BA02525W14 MSD Tot	5	0.298	25mL		12.32	61.61		
	11/06/19	21:28	BA02090w08 Dissolved	5	0.219	25mL		9.03	45.13		
	11/06/19	21:28	BA02214W12 Dissolve	5	0.193	25mL		7.94	39.70		
	11/06/19	21:29	BA02301w08 Dissolved	5	0.207	25mL		8.52	42.62		
	11/06/19	21:29	BA02466W13 Dissolved	5	0.193	25mL		7.94	39.70		
	11/06/19	21:30	BA02525w12 Dissolved	5	0.201	25mL		8.27	41.37		
	11/06/19	21:30	BA02525w12 MS Dissolv	5	0.286	25mL		11.82	59.11		
	11/06/19	21:31	BA02525w12 MSD Diss	5	0.287	25mL		11.86	59.32		
	11/06/19	21:31	191106A CCV1 3	1	0.096	25mL		3.89	3.89	4.00	97.3%
	11/06/19	21:32	191106A CCB	1	-0.001	25mL		-0.16	-0.16		

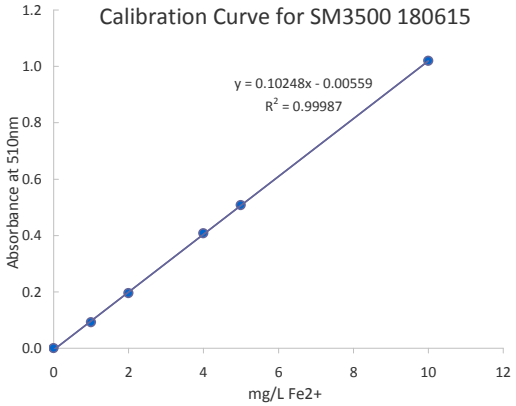
Ferrous Iron — Rev 2, 04-05-19

Method SM3500Fe | Units mg/L | Instrument: Genisis Spectrometer
Analyte Fe2+ | QCG: 191029 | Wavelength: 510 nm
Analyist fjr | Final Volume: 50mL | Units: mg/L

Date	Time	Appl ID	[Fe2+]	Absorbance	% Recovery
06/28/19	12:48	ICB	0.00	0.000	
06/28/19	12:49	Ical 1	1.00	0.092	95.2%
06/28/19	12:50	Ical 2	2.00	0.195	97.9%
06/28/19	12:51	Ical 3	4.00	0.408	100.9%
06/28/19	12:51	Ical 4	5.00	0.507	100.0%
06/28/19	12:52	Ical 5	10.00	1.019	100.0%
06/28/19	13:08	ICV	3.00	0.326	107.9%
06/28/19	12:53	ICB	0.00	0.002	

Slope	0.102479592
Intercept	-0.005591837
Coefficient of Determination	0.999872044

Algortithm Check:	**Appl ID**	**Absorbance**	**Result**
	ICV/LCS 191029A	0.310	3.08
Result = (Absorbance-Raw Blk-Intercept)/ Slope			
Test:	FJR	10/29/19	3.08



Date	Time	Appl ID	DF	Raw Result	SubSample Amount	Raw BLK	Calc Conc	Result	QC True	% Recovery
10/29/19	23:35	CCV 4.0 191029	1	0.414	25mL		4.09	4.09	4.00	102.4%
10/29/19	23:34	CCB 191029	1	0.000	25mL		0.05	0.05		
10/29/19	23:36	ICV/LCS 191029A	1	0.310	25mL		3.08	3.08	3.00	102.7%
10/29/19	23:36	ICV/LCSD 191029A	1	0.312	25mL		3.10	3.10	3.00	103.3%
10/29/19	23:38	BA02090W12	1	0.003	25mL		0.08	0.08		
10/29/19	23:39	BA02090W12 MSD	1	0.306	25mL		3.04	3.04		
10/29/19	23:39	BA02090W12 MSD	1	0.305	25mL		3.03	3.03		
10/29/19	23:39	CCV 4.0 191029	1	0.413	25mL		4.08	4.08	4.00	102.1%
10/29/19	23:40	CCB 191029	1	-0.001	25mL		0.04	0.04		

AQ2 Report

Serial Number:	190170
Software Version:	2.1.0
Report Requested By:	Eve V
Date & Time:	2019-11-04 08:41:25
Tray Number:	3
Tray Name:	191101A TOXN

TOXN

Calibration Chart

Type	Absorbance	Calc mg/L	Target mg/L	% Error
S1	0.0081	-0.0079	0.0000	
S90	0.0148	0.1085	0.1000	8.45
S91	0.0803	1.2459	1.2000	3.83
S92	0.1797	2.9715	3.0000	-0.95
S93	0.2785	4.6857	4.8000	-2.38
S94	0.3597	6.0964	6.0000	1.61
S0	0.0095	0.0160	0.0000	

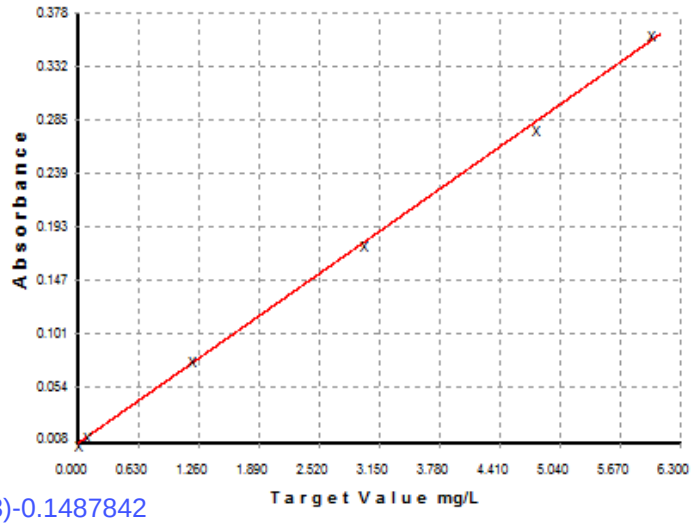
Polynomial Order:	1
Correlation Coefficient:	0.9996
Carryover(%):	0.4
Calibration equation:	y = bx + a
y =:	Concentration mg/L
x =:	Measured absorbance
a =:	-1.487842E-001
b =:	1.736073E+001
Date & Time:	2019-11-01 16:18:10

Algorithm check

y = 17.36073(0.176993)-0.1487842

y = 2.92

Calibration Graph



Reagents

Name	Batch	Prepared By	Expiry Date
NO3 W Buffer	EV 11/04/19	Joel	
Sulfa-NEDD		Joel	

Cup	Type	ID	Result	Units	QC Pro	Raw Data	Auto Dil.	Man Dil.	User	Time/Date
	S1	Standard 1	0.0081			0.008113			Ev	2019-11-01 16:05:02
	S90	Standard 90	0.0148			0.014817			Ev	2019-11-01 16:07:14
	S91	Standard 91	0.0803			0.080336			Ev	2019-11-01 16:09:25
	S92	Standard 92	0.1797			0.179732			Ev	2019-11-01 16:11:36
	S93	Standard 93	0.2785			0.278473			Ev	2019-11-01 16:13:48
	S94	Standard 94	0.3597			0.359728			Ev	2019-11-01 16:15:59
	S0	Standard 0	0.0095			0.009490			Ev	2019-11-01 16:18:10
	CCV	CCV	3.1575	mg/L		0.190446			Ev	2019-11-01 16:20:22
	CCB	CCB	0.0077	mg/L		0.009012			Ev	2019-11-01 16:22:33
3	U1	✓ICV TOXN	2.9240	mg/L		0.176993			Ev	2019-11-01 16:24:45
4	U2	ICB TOXN	0.0060	mg/L		0.008917			Ev	2019-11-01 16:26:57
5	U3	191101A BLK	-0.0030	mg/L		0.008399			Ev	2019-11-01 16:29:11
6	U4	191101A LCS	3.1020	mg/L		0.187249			Ev	2019-11-01 16:31:22
7	U5	191101A LCSD	2.9866	mg/L		0.180601			Ev	2019-11-01 16:33:34
8	U6	1ppm NO3	1.0309	mg/L		0.067952			Ev	2019-11-01 16:35:46
9	U7	BA02090W11	0.4101	mg/L		0.032195			Ev	2019-11-01 16:37:59
10	U8	BA02090W11 MS	3.7099	mg/L		0.222263			Ev	2019-11-01 16:39:05
11	U9	BA02090W11 MSD	3.8559	mg/L		0.230675			Ev	2019-11-01 16:40:01
12	U10	BA02160W08	0.0290	mg/L		0.010241			Ev	2019-11-01 16:40:57
	CCV	CCV	2.9897	mg/L		0.180783			Ev	2019-11-01 16:41:53
	CCB	CCB	-0.0063	mg/L		0.008209			Ev	2019-11-01 16:42:50
13	U11	BA02214W15	0.3897	mg/L		0.031017			Ev	2019-11-01 16:43:47
14	U12	BA02216W08	1.2323	mg/L		0.079550			Ev	2019-11-01 16:44:43
	CCV	CCV	3.0243	mg/L		0.182772			Ev	2019-11-01 16:45:39
	CCB	CCB	-0.0027	mg/L		0.008413			Ev	2019-11-01 16:46:35

Metrohm 814/809 Titrando Data

Sample ID	Analysis Date/Time	Method	Titration Volume (to 8.3)	Titration Volume (total)	OH	CO3	HCO3	Total Alk	Unit	Sample Vol	N	Batch	Initials
BA02090W10	2019-10-31 10:33:58 UTC-8	Alkalinity	0.000	1.324	0.00	0.00	55.08	55.08	mg/L	25 mL	0.0208	191031A	CD
191031A LCSD	2019-10-31 09:41:56 UTC-8	Alkalinity	0.094	5.852	0.00	7.82	235.62	243.44	mg/L	25 mL	0.0208	191031A	CD
191031A LCS	2019-10-31 09:32:18 UTC-8	Alkalinity	0.086	5.896	0.00	7.16	238.12	245.27	mg/L	25 mL	0.0208	191031A	CD
191031A BLK	2019-10-31 09:29:58 UTC-8	Alkalinity	0.000	0.000	0.00	0.00	0.00	0.00	mg/L	25 mL	0.0208	191031A	CD

Nitrite

High Point @ 1.5 mg/L
0.2463 mL NO2 Inorganic Ventures lot N2-NOX672889-40759 exp: 05/01/20
50 mL DI Water

CCV @ 0.75 mg/L
0.1232 mL NO2 Inorganic Ventures lot N2-NOX672889-40759 exp: 05/01/20
50 mL DI Water

ICV/LCS @ 0.73 mg/L
0.120 mL NO2 Inorganic Ventures lot M2-NOX660562-40468 exp: 08/25/21
50 mL DI Water

1 mg/L NO2
400 uL of High point and 200 uL of DI made directly into a sample cup

Prep 10/25/19
Exp 11/01/19
EV

Nitrate/TOXN

High Point @ 6 mg/L
0.300 mL NO3 O2Si lot 880117-4-39577 exp: 2/21/20
50 mL DI Water

CCV @ 3.0 mg/L
0.150 mL NO3 O2Si lot 880117-4-39577 exp: 2/21/20
50 mL DI Water

ICV/LCS @ 3.0 mg/L
0.150 mL NO3 Inorganic Ventures lot P2-NOX675324-49391 exp: 02/14/23
50 mL DI Water

1 mg/L NO3
100 uL of High point and 500 uLof DI made directly into a sample cup

MS @ 0.73 mg/L NO2 and 2.5 mg/L NO3
0.120 mL NO2 Inorganic Ventures lot M2-NOX660562-40468 exp: 08/25/21and
0.125 mL NO3 Inorganic Ventures lot P2-NOX675324-49391 exp: 02/14/23
Final volume 50 mL of sample

Prep 10/25/19
Exp 11/01/19
EV

Standard Prep

	Ferrous Iron Standards		Prep'd By (Initials)		FJR		
Prep Date	06/28/18						
Exp Date	06/28/19						
Stock Label	Supplier	Batch Number	Exp Date	Aliquot from Stock	Final Volume	Solvent	Ferrous Iron Concentration
Ferrous Ammonium Sulfate	J.T.Baker	0000184592	08/21/20	0.351	250mL	5ml H2SO4 (0000167828) Diluted with water	200ug/L
Ferrous Sulfate	Mallinckrodt	Lot 5056 KDRX	NA	0.250	250mL	5ml H2SO4 (0000167828) Diluted with water	200ug/L
Ferrous Iron CCV/LCS/MS/ICV			Prep'd By (Initials)		FJR		
Prep Date	See Injection Log						
Exp Date	24 Hours						
Initial Standard Information	Supplier	Batch Number	Exp Date	Final Standard Information			
Ferrous Iron CCV	J.T.Baker	0000184592	06/14/19	500uL	25mL	Deionized water	4mg/L
Ferrous Iron ICV/LCS	Mallinckrodt	Lot 5056 KDRX	06/14/19	375uL	25mL	Deionized water	3mg/L
	Ferrous Iron Calibration Curve		Prep'd By (Initials)		FJR		
Prep Date	06/28/18						
Exp Date	06/28/19						
Final Standard Information							
Point Label	Supplier	Batch Number	Exp Date	Aliquot from Stock (mL)	Final Volume	Solvent	Ferrous Iron Concentration
CCB	J.T.Baker	0000184592	06/14/19	0	25mL	Deionized water	0mg/L
Ical 1	J.T.Baker	0000184592	06/14/19	0.125	25mL	Deionized water	1mg/L
Ical 2	J.T.Baker	0000184592	06/14/19	0.25	25mL	Deionized water	2mg/L
Ical 3	J.T.Baker	0000184592	06/14/19	0.5	25mL	Deionized water	4mg/L
Ical 4	J.T.Baker	0000184592	06/14/19	0.625	25mL	Deionized water	5mg/L
Ical 5	J.T.Baker	0000184592	06/14/19	1.25	25mL	Deionized water	10mg/L
ICV	Mallinckrodt	Lot 5056 KDRX	06/14/19	0.375	25mL	Deionized water	3mg/L

Reagent Prep

Reagent	Chemical Lot #	Chemical	Chemical Expiration Date	Amount	Date Prep
Colorizer	0747C107	1,10-phenanthroline	na	1.00g 1L DI	10/24/19
		10% HCL conc	na	enough to dissolve	01/15/19
Buffer	Z28B018	Ammonia Acetate	na	248.2G	09/26/19
	2018071399	Glacial Acetic Acid	06/27/20	700mL	

Tiamo Alkalinity Standard Prep

Prep Date:

Exp Date:

Prep'd By (Initials): AR

Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Unit	Conc	Lot Number - QA Number	Prep/Opened	Exp. Date	Aliquot from Stock	Final Volume	Solvent	Final Standard Conc
Sulfuric Acid (H2SO4)	J.T.Baker	NA	NA	167828	NA	NA	PURCHASED	NA	NA	NA
0.10N Sulfuric Acid (H2SO4)	J.T.Baker	Normality	0.1N	167828	05/24/19	05/24/20	3ml	1L	DI	0.10N
0.02N Sulfuric Acid (H2SO4)	J.T.Baker	Normality	0.02N	167828	05/24/19	05/24/20	200mL	1L	DI	0.02N
Inorganic Spike(NaHCO3)	BDH	NA	NA	1575C510	10/18/18	08/14/20	PURCHASED	NA	NA	NA
Inorganic Spike Solution	BDH	Milligrams/Liters	250mg/L	1575C510	09/17/19	03/17/20	3.5g	500mL	DI	250mg/L
Standarizing Solution(NaCO3)	J.T.Baker	Normality	1N	178494	07/25/17	07/25/19	PURCHASED	NA	NA	NA

Name of Final Standard TOC Calibration Curve — **Prep'd By (Initials)** AR

Prep Date 06/11/19

Exp Date 07/09/19

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from contianer Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
Total Organic Carbon (TOC) Standard	Agilent	IQC-1 06-5	1000 mg/L	CS-5157-40233	11/30/20	20 uL	40 mL	DI Water	0.5 ppm
Total Organic Carbon (TOC) Standard	Agilent	IQC-1 06-5	1000 mg/L	CS-5157-40233	11/30/20	50 uL	40 mL	DI Water	1.25 ppm
Total Organic Carbon (TOC) Standard	Agilent	IQC-1 06-5	1000 mg/L	CS-5157-40233	11/30/20	100 uL	40 mL	DI Water	2.5 ppm
Total Organic Carbon (TOC) Standard	Agilent	IQC-1 06-5	1000 mg/L	CS-5157-40233	11/30/20	150 uL	40 mL	DI Water	3.75 ppm
Total Organic Carbon (TOC) Standard	Agilent	IQC-1 06-5	1000 mg/L	CS-5157-40233	11/30/20	200 uL	40 mL	DI Water	5 ppm

Name of Final Standard ICV (TOC) — **Prep'd By (Initials)** AR

Prep Date 06/11/19

Exp Date 07/09/19

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from contianer Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
1000 PPM ICV TOC Intermediate	APPL Inc.	Prep: 2/11/19	1000 mg/L	Prep: 2/11/19	07/09/19	100 uL	40mL	DI Water	2.5 ppm

Name of Final Standard CCV (TOC) — **Prep'd By (Initials)** AR

Prep Date See Data

Exp Date 1 year

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from contianer Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
Total Organic Carbon (TOC) Standard	Agilent	IQC-1 06-5	1000 mg/L	CS-5157-40233	11/30/20	100 uL	40 mL	DI Water	2.5 ppm

Name of Final Standard TOC_LCS/LCSD — **Prep'd By (Initials)** AR

Prep Date See Data

Exp Date 1 year

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from contianer Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
Total Organic Carbon (TOC) Standard	ULTRA Scientific	IQC-106-5	1000 mg/L	CR-0328-37639	02/28/19	100 uL	40 mL	DI Water	2.5 ppm

Name of Final Standard TOC_MS/MSD — **Prep'd By (Initials)** AR

Prep Date See Data

Exp Date 1 year

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from contianer Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
Total Organic Carbon (TOC) Standard	ULTRA Scientific	IQC-106-5	1000 mg/L	CR-0328-37639	02/28/19	100 uL	40 mL	sample	2.5 ppm

EPA 353.2 Injection Log

Directory: I:\EVE\Export\2019\

RunID	Injected		Sample Name	Misc Info	FileName	Multiplier
1	01 Nov 2019	16:05	Standard 1 TOXN/NO3		191101A TO	1.
2	01 Nov 2019	16:07	Standard 90 TOXN/NO3		191101A TO	1.
3	01 Nov 2019	16:09	Standard 91 TOXN/NO3		191101A TO	1.
4	01 Nov 2019	16:11	Standard 92 TOXN/NO3		191101A TO	1.
5	01 Nov 2019	16:13	Standard 93 TOXN/NO3		191101A TO	1.
6	01 Nov 2019	16:15	Standard 94 TOXN/NO3		191101A TO	1.
7	01 Nov 2019	16:18	Standard 0 TOXN/NO3		191101A TO	1.
10	01 Nov 2019	16:24	ICV TOXN		191101A TO	1.
11	01 Nov 2019	16:26	ICB TOXN		191101A TO	1.
12	01 Nov 2019	16:29	191101A BLK TOXN/NO3		191101A TO	1.
13	01 Nov 2019	16:31	191101A LCS TOXN/NO3		191101A TO	1.
14	01 Nov 2019	16:33	191101A LCSD TOXN/NO3		191101A TO	1.
16	01 Nov 2019	16:37	BA02090W11 TOXN/NO3		191101A TO	1.
20	01 Nov 2019	16:41	CCV TOXN/NO3		191101A TO	1.
21	01 Nov 2019	16:42	CCB TOXN/NO3		191101A TO	1.

908 North Temperance Ave. ∇ Clovis, CA 93611 ∇ Phone 559-275-2175 ∇ Fax 559-275-4422

Certification Number: CA1312
NELAP Certification number: CA00046
DoD-ELAP Certificate number: 4064.01

Data Validatable Report

December 3, 2019

AECOM
1001 Bishop Street, Suite 1600
Honolulu, Hawaii 96813

Attn: Margie Pascua

Title: Report of Data: Case 90599

Project: 60571032 CV18F0126 Red Hill Fuel Storage. HI

Contract #: Prime contract # for DoD: NAVY CLEAN N62742-17-F-1800, CV18F0126
Subcontract: 18S-22209-HI27

Dear Ms. Pascua:

Two water samples were received October 30, 2019. Written results for the requested analyses are being provided on this December 3, 2019.

Results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

If you have any questions or require further information, please contact your APPL Project Manager, Libby Cheeseborough, libby@applinc.com, at your convenience. Thank you for choosing APPL, Inc.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. These test results meet all requirements of NELAC and DoD QSM. Release of the hard copy has been authorized by the Laboratory Manager or her designee, as verified by the following signature.

Paula McCartney

Paula McCartney, Laboratory Director
APPL, Inc.

PM/lac
Enclosure
cc: File

Data Validation Package
for
60481245 CIV 0053 Red Hill Fuel Storage
APPL SDG 90599
TABLE OF CONTENTS

LABORATORY NAME: *APPL, Inc.*

CASE NARRATIVE

Case Narrative

ARF: 90599

Project: 60571032 CV18F0126 Red Hill Fuel Storage. HI

Sample Receipt Information:

Two water samples were received October 30, 2019, at 2.9°C. The sample group was assigned Analytical Request Form (ARF) number 90599.

Sample Preparation and Analysis Information:

For the EPA 8015B analysis, the sample was extracted according to EPA method 3520C. The sample extract was silica gel cleaned according to APPL's SOP CLN004 and placed on hold.

For the EPA 8270D SIM analysis, the sample was extracted according to EPA method 3520C.

For the EPA 8270D Phenol analysis, the sample was extracted according to EPA method 3520C.

For the APPL SOP ANA2MEE analysis, the sample was extracted according to EPA method 3535.

For the EPA 8260B analysis, the samples were purged according to EPA method 5030B.

For the RSK-175 analysis, the samples were allowed to equilibrate for 10 minutes at 40°C and a portion of the headspace was analyzed.

For the EPA 9060A, 300.0, 353.2, SM 2320B, and SM 3500FeB analyses, the sample was prepared according to the methods.

Only the portion of the injection log relative to these samples is included. A full sequence log is available upon request. Measurement uncertainty can be reported upon request.

Analytical Exceptions, Deviations and Abnormalities.

EPA 8015B: Manual integrations were performed in accordance with APPL's SOP. Chromatograms of before and after manual integration are enclosed.

APPL SOP ANA2MEE: Manual integrations are performed according to the SOP. 2-MEE was manually integrated in one of the ICAL standards. Before and after chromatograms are included.

SDG	Received	Client ID	APPL ID	Collected DateTime	Matrix	Method	Method Description	Prep DateTime	Analysis DateTime
90599	10/30/2019	ERH937	BA02159	10/29/2019 8:00:00 AM	WATER	EPA 8260B	EPA 8260B BTEX WATER	11/2/2019 11:27:00 AM	11/2/2019 11:27:00 AM
90599	10/30/2019	ERH937	BA02159	10/29/2019 8:00:00 AM	WATER	EPA 8260-GAS	EPA 8260 with GAS		
90599	10/30/2019	ERH937	BA02159	10/29/2019 8:00:00 AM	WATER	EPA 8260B	EPA 8260B GRO WATER	11/2/2019 11:27:00 AM	11/2/2019 11:27:00 AM
90599	10/30/2019	ERH937	BA02159	10/29/2019 8:00:00 AM	WATER	RSK 175	METHANE BY RSK 175	10/31/2019 5:29:00 PM	10/31/2019 5:29:00 PM
90599	10/30/2019	ERH938	BA02160	10/29/2019 8:50:00 AM	WATER	SM 2320B	Wetlab 2320B - Water	11/1/2019 11:29:18 AM	11/1/2019 11:29:18 AM
90599	10/30/2019	ERH938	BA02160	10/29/2019 8:50:00 AM	WATER	EPA 300.0	Wetlab 300.0 - Water	10/30/2019 7:29:00 PM	10/30/2019 7:29:00 PM
90599	10/30/2019	ERH938	BA02160	10/29/2019 8:50:00 AM	WATER	EPA 300.0	Wetlab 300.0 - Water	11/2/2019 11:55:31 AM	11/2/2019 11:55:31 AM
90599	10/30/2019	ERH938	BA02160	10/29/2019 8:50:00 AM	WATER	SM3500FeB	Ferrous Iron	10/30/2019 11:28:00 PM	10/30/2019 11:28:00 PM
90599	10/30/2019	ERH938	BA02160	10/29/2019 8:50:00 AM	WATER	EPA 353.2	EPA 353.2 - WATER	11/1/2019 4:40:00 PM	11/1/2019 4:40:00 PM
90599	10/30/2019	ERH938	BA02160	10/29/2019 8:50:00 AM	WATER	EPA 8260B	EPA 8260B BTEX WATER	11/2/2019 11:56:00 AM	11/2/2019 11:56:00 AM
90599	10/30/2019	ERH938	BA02160	10/29/2019 8:50:00 AM	WATER	EPA 8270D	EPA 8270D WATER	11/4/2019 1:35:00 PM	11/7/2019 7:36:00 PM
90599	10/30/2019	ERH938	BA02160	10/29/2019 8:50:00 AM	WATER	EPA 8270D	EPA 8270D MODIFIED WATER	10/31/2019 3:15:00 PM	11/8/2019 6:17:00 PM
90599	10/30/2019	ERH938	BA02160	10/29/2019 8:50:00 AM	WATER	EPA 300.0	Wetlab 300.0 - Water		
90599	10/30/2019	ERH938	BA02160	10/29/2019 8:50:00 AM	WATER	SM3500FeB	Ferrous Iron		
90599	10/30/2019	ERH938	BA02160	10/29/2019 8:50:00 AM	WATER	EPA 8270D	EPA 8270D WATER		
90599	10/30/2019	ERH938	BA02160	10/29/2019 8:50:00 AM	WATER	EPA 300.0	Wetlab 300.0 - Water		
90599	10/30/2019	ERH938	BA02160	10/29/2019 8:50:00 AM	WATER	SM3500FeB	Ferrous Iron		
90599	10/30/2019	ERH938	BA02160	10/29/2019 8:50:00 AM	WATER	EPA 8270D	EPA 8270D WATER		
90599	10/30/2019	ERH938	BA02160	10/29/2019 8:50:00 AM	WATER	EPA 8015B-eLL	EPA 8015B TPH LIQ-LIQ	11/4/2019 1:40:00 PM	11/14/2019 11:37:00 PM
90599	10/30/2019	ERH938	BA02160	10/29/2019 8:50:00 AM	WATER	EPA 8260-GAS	EPA 8260 with GAS		
90599	10/30/2019	ERH938	BA02160	10/29/2019 8:50:00 AM	WATER	EPA 8260B	EPA 8260B GRO WATER	11/2/2019 11:56:00 AM	11/2/2019 11:56:00 AM
90599	10/30/2019	ERH938	BA02160	10/29/2019 8:50:00 AM	WATER	RSK 175	METHANE BY RSK 175	10/31/2019 5:31:00 PM	10/31/2019 5:31:00 PM
90599	10/30/2019	ERH938	BA02160	10/29/2019 8:50:00 AM	WATER	8270D-SIM	EPA 8270D SIM LIQ-LIQ	11/4/2019 1:35:00 PM	11/12/2019 11:55:00 AM
90599	10/30/2019	ERH938	BA02160	10/29/2019 8:50:00 AM	WATER	SW846 9060A	9060A TOC	11/10/2019 5:57:00 PM	11/11/2019 12:49:00 AM

APPL Inc.
Abbreviations and Flags

FLAG	DESCRIPTION
#	Recovery or RPD outside control limits
*	Recovery or RPD outside control limits
B	Analyte detected in associated method blank
C1	Reason for correction: wrote incorrect response
C2	Reason for correction: calculated incorrectly
C3	Reason for correction: needs to be rechecked
C4	Reason for correction: data not usable
DO	Diluted out
E	Exceeds linear range
F	Estimated value
G1	Includes a wide range of hydrocarbons which does not match our gasoline standard
G10	Includes a match to hydrocarbon profiles within the range of mineral spirits
G11	Includes a match to hydrocarbon profiles within the range of JP-4
G12	Pattern does not match the gasoline standard; the carbon range for this sample is consistent with JP8
G13	Closely resembles the hydrocarbon profile of aviation gasoline
G14	Analyte concentration may be biased due to carry over
G2	Closely resembles the boiling point hydrocarbon profile consistent with weathered gasoline
G3	Includes higher boiling hydrocarbons
G4	Includes dominant peak(s) not indicative of petroleum hydrocarbons
G5	Is mainly dominant peak(s) not indicative of petroleum hydrocarbons
G6	Contains recognizable contaminant peak(s) which has been removed from quantitation
G7	Is mainly a match to hydrocarbons within the range of gasoline
G8	Closely resembles the boiling point hydrocarbon profile consistent with weathered gasoline
G9	Includes hydrocarbons within the range of kerosene
J	Estimated value
M	Matrix effect
MI1	Manual integration: integration does not follow baseline
MI2	Manual integration: non-target peak interference
MI3	Manual integration: to split a peak that was integrated as one peak by the computer.
MI4	Manual integration: to integrate a split peak
MI5	Manual integration: the whole peak or part of the peak was not integrated
MI6	Manual integration: computer integrated wrong peak
MI7	Manual integration: other – (See case narrative)
MDL	Method detection limit
ND	Not detected
NT	Non-target
Q	Acceptance criteria not met
T1 I	Includes wide range of hydrocarbons not indicative of diesel
T1 M	Is mainly wide range of hydrocarbons not necessarily indicative of diesel
T2 I	Includes lower boiling hydrocarbons, e.g. mineral spirits, kerosene, stoddard solvent, white gas
T2 M	Is mainly lower boiling hydrocarbons, e.g. mineral spirits, kerosene, stoddard solvent, white gas
T3 I	Includes higher boiling hydrocarbons, e.g. asphaltene, waste oil, motor oil, or weathered diesel fuel
T3 M	Is mainly higher boiling hydrocarbons, e.g. asphaltene, waste oil, motor oil, or weathered diesel fuel
T4 I	Includes dominant peak(s) not indicative of hydrocarbons
T4 M	Is mainly dominant peak(s) not indicative of hydrocarbons
T5	Contains recognizable contaminant peak(s) which has been removed from quantitation
T6	Is mainly a match to hydrocarbons within range of diesel fuel
T7	Closely resembles the boiling point hydrocarbon profile consistent with diesel fuel
T8	Includes a match to hydrocarbon profiles within range of diesel and kerosene fuel
T9 I	Includes non-diesel hydrocarbons within boiling point range of diesel fuel
T9 M	Is mainly non-diesel hydrocarbons within boiling point range of diesel fuel
U	Not detected
Y	Percent difference between primary and confirmation column > 40%

SAMPLE RECORDS MANAGEMENT

CHAIN OF CUSTODY,

ARF, CRF, AND

CLIENT COMMUNICATION

APPL - Analysis Request Form 90599

Client: AECOM
Address: 1001 Bishop Street, Suite 1600
Honolulu, HI 96813
Attn: Margie Pascua
Phone: 808-356-5373 Fax: 808-523-8950
Job: 60571032 CV18F0126 Red Hill Fuel Storage
PO #: 18S-22209-HI27 PO# 102604
Chain of Custody (Y/N): Y # 116
RAD Screen (Y/N): Y pH (Y/N): Y
Turn Around Type: 1 WEEK

Received by: AAR
Date Received: 10/30/19 Time: 10:00
Delivered by: FEDEX
Shuttle Custody Seals (Y/N): Y Time Zone: -10
Chest Temp(s): 2.9°C
Color: VFRG/A-Grn
Samples Chilled until Placed in Refrig/Freezer: Y
Project Manager: Libby Cheesebor
QC Report Type: DVP4DOD/EQUIS/HI
Due Date:

Comments:
PM: login and F1s to Margie.Pascua@aecom.com
AN: 7 day TAT for Form 1s; 21 day TAT for PKG STYLE 1; DOD v5.1; DOD Forms: LOD database
Wetlab: Nitrate by EPA 300 and 353.2
8270 SIM: 1-methylnaphthalene, 2-methylnaphthalene & naphthalene only.
TPH D & O both with and w/o SGC, reverse surrogate for the SGC; analyze SGC if detections
RSK: Methane only; 8011: EDB only; $87DC53W5: report phenol ONLY
FR: 2 labeled CDs to Margie AFTER validation; email ftp info to Margie, Stella, trommelfanger@lab-data
EDD: AECOM EQuIS EDD 2.5.3 Red Hill 87DMEE->3535A to Margie.Pascua@aecom.com & jecklund@lab-data.com

Sample Distribution:
GC: 1-$87DC53W5, 1-$87DMEEW5, 1-$DOC53W5LIQ, 1-$SIM53LIQ51
Extractions: 1- LIQ003, 1- LIQ005, 1- MWE2MEE
VOA: 2-$86BTOTXDOD5W, 2-$GASBL, 2-$GRO86BW, 2-$RSKMETH
Wetlab: 1-$232W(HCO3,CO3,ALK), 1-$300W(CL,SO4), 1-$35FE, 1-$35OF(NO3), 1-$TOCW53

Charges:

Invoice To:
ACCOUNTS PAYABLE
1001 Bishop Street, Ste 1600
USAPImaging@aecom.com
mary.basano@aecom.com

	Client ID		APPL ID	Sampled	Analyses Requested
1.	ERH937	LCSD	BA02159W	10/29/19 08:00	$86BTOTXDOD5W, $GASBL, $GRO86BW, $RSKMETH
2.	ERH938	LCSD	BA02160W	10/29/19 08:50	$232W(HCO3,CO3,ALK), $300W(CL,SO4), $35FE, $35OF(NO3), $86BTOTXDOD5W, $87DC53W5, $87DMEEW5, $DOC53W5LIQ, $GASBL, $GRO86BW, $RSKMETH, $SIM53LIQ51, $TOCW53 -- see comments

Note: All times, excluding sample collection times, are Pacific Time Zone unless noted otherwise. Collection times are in: -10 UTC
Page 1 Client Code: AECOM-REDHILL *Printed 10/31/19 2:15:18 PM* Computer: APPL-LC **# 90599**

APPL Sample Receipt Form

ARF# **90599**

Sample	Container Type	Count	p
BA02159	[13] VOAs - HCL	4	NA
BA02160	[3] PL 250mL	1	NA
	[10] PL 250mL - H2SO4	1	1.7
	[13] VOAs - HCL	4	NA
	[17] Amber Liter	4	NA
	[32] Clear VOA - H2SO4	2	NA
	[38] 250mL brn poly, HCl prsvd	1	1.7
	[40] 500mL Amber, unprsrvd	3	NA

Sample	Container Type	Count	p

90599

APPL LABS

APPL, Inc.
908 N Temperance Ave
Clovis, CA 93611
www.applinc.com

Phone: (559) 275-2175
Fax: (559) 275-4422
coc@applinc.com

CHAIN OF CUSTODY RECORD

C.O.C. 116

Report to: PLEASE PRINT	Invoice to: PLEASE PRINT
Company Name: AECOM Phone: 808-356-5373	Company Name: AECOM Phone: 808-529-7249
Address: 1001 Bishop St, Suite 1600 Honolulu, HI 96813 Fax: 808-523-8950	Address: 1001 Bishop St, Suite 1600 Honolulu, HI 96813 Fax: 808-523-8950
Attn: Margie Pascua	Attn: Mary Basano
Email: margie.pascua@aecom.com	Email: mary.basano@aecom.com; usapimaging@aecom.com

Project Name/Number: CV18F0126 / 60571032
Purchase Order Number: 102604
Sampler (Print): MH, MC, SM
Sampler (Signature): MH for MH, MC, SM

Date Shipped:
Carrier: FedEx
Waybill No.:
Comments:

Sample Identification	Location	Date Collected	Time Collected	Time Zone	No. of Containers	Matrix: Aq	Sed.	Soil	8260C BTEX,TPH-g	8260C DCA 8011 EDB	8015C TPH-d/o	3630/8015C TPH-d/o w/ SGT	8270DSIM PAHs short list	8270D Phenol, ~~Hes~~ MW/SC	8270D 2-(2-methoxy ethoxy)-ethanol	RSK175M Methane	SM3500-Fe Ferrous Iron	353.2 Nitrate-Nitrite N	SM2320B Alkalinity 300.0 Nitrate,Sulfate,Chlorido	300.0 Bromide/Fluoride 6010 Total Ca,Mg,Mn,K,Na SM4500 Total & Dissolved Silica	9060A TOC	9040B	DRO
ERH937	Trip Blank	10/29/19	08:00	HST	4	X			X							X							
ERH938	RHMW11-05	10/29/19	08:50	HST	16	X			X		X	X*	X	X	X	X	X	X	X		X		

SB 10/29/19

*Analyze TPH w/SGT only if TPH-d/o detected.

TPH-d/o & PAHs need liquid-liquid extraction.

Shuttle Temperature: RH @ 10.4 2.5/2.9

Turnaround Requested: Check one
☐ Standard 2-3 wk ☒ One week ☐ 3 days ☐ 24/48 Hrs. ☐ Other:

Sample Disposal:
☐ Return to client ☒ Disposal by Lab (30-day retention)

Relinquished by sampler: AECOM	Date 10/29/19	Time 12:30	Received by:	Relinquished by:	Date	Time	Received by:
Relinquished by:	Date	Time	Received by:	Relinquished by:	Date 10-30-19	Time 1000	Received at lab by:

See page 2 for Container Preservative and Sampling Information

COOLER RECEIPT FORM **ARF: 90599**

1) Project: 60571032 CV18F0126 Red Hill Fuel Storage Date Received: 10/30/19

2) Coolers: Number of Coolers: 1

3) YES Were custody seals present and intact?
How many? 2 Name/Date on seal? E. 10/29/19

4) YES Was there a shipping slip? Carrier name: FEDEX

5) Type of packing in cooler: X bubble wrap __ popcorn __ foam X plastic bags __ other
X wet ice __ dry ice __ no ice __ gel ice

6) YES Were cooler temperatures acceptable?

7) Serial number of certified NIST thermometer use R4 @ +0.4°C

8) Cooler temp(s): In °C. Thermometer Temp / Corrected Temp

1: 2.9	2:	3:	4:	5:	6:
7:	8:	9:	10:	11:	12:

Chain of custody:

9) YES Was a chain of custody received?

10) YES Were the custody papers complete/signed in the appropriate places?

Sample Labels:

11) YES Were all sample labels complete (sample ID, date/time of sampling, etc.)?

12) YES Did all container labels agree with custody papers?

Sample Containers:

13) No Were all containers sealed in separate bags?

14) Yes Did all containers arrive in good condition:(unbroken, no leakage, no cracked/broken lids)?

15) YES Were correct containers and preservatives used for the tests indicated?

16) YES Was a sufficient amount of sample sent for tests indicated?

17) NA Were bubbles present in volatile samples?
If yes, the following were received with air bubbles:
Larger than a pea:
Smaller than a pea:

Preservation Hold time:

18) Yes Was a sufficient amount of holding time remaining to analyze the samples?

19) Yes ~~NA~~ Was the pH taken of all non-VOA preserved samples and written on the sample container?

20) Yes ~~NA~~ Was the pH of acid preserved non-VOA samples < 2?

21) AA NA Was the pH of sodium hydroxide preserved samples for Cyanide > 12 and Sulfide >9?

22) NO Were unpreserved VOA Vials received?

23) NA Are unpreserved VOA vials noted in the ADD TEST FIELD on the ARF?
pH strip lot number: 90B2031
Lab notified if pH was not adequate:

Notes/Deficiencies:

Personnel receiving samples: ZG Second reviewer: AA
Personnel labeling samples: RB
Project manager notified: ZG Date/Time of notification 10/30/19 10:49:00 AM
Name of client notified: Date/Time of notification

Revision: 22, November 5, 2013

SAMPLE RESULTS

EPA 8015B TPH LIQ-LIQ

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 90599

Sample ID: ERH938

APPL ID: BA02160

Sample Collection Date: 10/29/19

QCG: #DOC53-191104A-247204

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8015B-eL	DIESEL (C10-C24)	25.00 U	40.0	25.00	13.07	ug/L	11/04/19	11/14/19
EPA 8015B-eL	OIL (C24-C40)	40.00 U	40.0	40.00	5.54	ug/L	11/04/19	11/14/19
EPA 8015B-eL	SURROGATE: OCTACOSANE (S)	104	60-142			%	11/04/19	11/14/19
EPA 8015B-eL	SURROGATE: ORTHO-TERPHENYL (S)	123	56-125			%	11/04/19	11/14/19

Quant Method:	DOC1114.M
Run #:	1114015
Instrument:	Apollo
Sequence:	191114
Dilution Factor:	1
Initials:	LPO

Printed: 11/16/19 5:31:01 AM

APPL-F1-SC-NoMC-REG MDLs-DOD

EPA 8270D SIM LIQ-LIQ

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

Attn: Margie Pascua

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Project: 60571032 CV18F0126 Red Hill Fuel Storage
Sample ID: ERH938
Sample Collection Date: 10/29/19

ARF: 90599
APPL ID: BA02160
QCG: #SIM53-191104A-247109

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
8270D-SIM	1-METHYLNAPHTHALENE	0.10 U	0.2	0.10	0.04	ug/L	11/04/19	11/12/19
8270D-SIM	2-METHYLNAPHTHALENE	0.10 U	0.2	0.10	0.04	ug/L	11/04/19	11/12/19
8270D-SIM	NAPHTHALENE	0.10 U	0.2	0.10	0.04	ug/L	11/04/19	11/12/19
8270D-SIM	SURROGATE: 2-METHYLNAPHTHALEN	85.9	39-114			%	11/04/19	11/12/19
8270D-SIM	SURROGATE: FLUORANTHENE-D10 (S	93.6	58-120			%	11/04/19	11/12/19

Quant Method: L1028.M
Run #: 1028L264
Instrument: Linus
Sequence: L191028
Dilution Factor: 1
Initials: MA

Printed: 12/10/2019 1:50:53 PM
APPL-F1-SC-NoMC-REG MDLs-DOD

EPA 8270D WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 90599

Sample ID: ERH938

APPL ID: BA02160

Sample Collection Date: 10/29/19

QCG: #87DC5-191104A-247478

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8270D	PHENOL	4.00 U	5.0	4.00	1.00	ug/L	11/04/19	11/07/19
EPA 8270D	SURROGATE: 2,4,6-TRIBROMOPHENO	75.9	43-140			%	11/04/19	11/07/19
EPA 8270D	SURROGATE: 2-FLUORBIPHENYL (S)	74.3	44-119			%	11/04/19	11/07/19
EPA 8270D	SURROGATE: 2-FLUOROPHENOL (S)	72.1	19-119			%	11/04/19	11/07/19
EPA 8270D	SURROGATE: NITROBENZENE-D5 (S)	81.6	44-120			%	11/04/19	11/07/19
EPA 8270D	SURROGATE: PHENOL-D6 (S)	62.5	10-115			%	11/04/19	11/07/19
EPA 8270D	SURROGATE: TERPHENYL-D14 (S)	81.2	50-134			%	11/04/19	11/07/19

Quant Method: Y1015NC.M
Run #: 1030Y287
Instrument: Yoda
Sequence: Y191030
Dilution Factor: 1
Initials: JPR

Printed: 12/03/19 12:37:15 PM
APPL-F1-SC-NoMC-REG MDLs-DOD

EPA 8270D MODIFIED WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua
Project: 60571032 CV18F0126 Red Hill Fuel Storage
Sample ID: ERH938
Sample Collection Date: 10/29/19

ARF: 90599
APPL ID: BA02160
QCG: #87DME-191031A-247175

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8270D	2-(2-METHOXYETHOXY)-ETHANOL	80.0 U	100	80.0	40.0	ug/L	10/31/19	11/08/19

Quant Method: YMEE1030.M
Run #: 1030L052
Instrument: Linus
Sequence: L191030M
Dilution Factor: 1
Initials: MA

Printed: 11/15/19 12:50:08 PM
APPL-F1-SC-NoMC-REG MDLs-DOD

EPA 8260B BTEX WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

Sample ID: ERH937

Sample Collection Date: 10/29/19

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

ARF: 90599

APPL ID: BA02159

QCG: #86BTO-191101BT1-246727

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8260B	BENZENE	0.30 U	1.0	0.30	0.15	ug/L	11/02/19	11/02/19
EPA 8260B	ETHYLBENZENE	0.50 U	1.0	0.50	0.23	ug/L	11/02/19	11/02/19
EPA 8260B	TOLUENE	0.30 U	1.0	0.30	0.15	ug/L	11/02/19	11/02/19
EPA 8260B	XYLENES (TOTAL)	0.30 U	2.0	0.30	0.15	ug/L	11/02/19	11/02/19
EPA 8260B	SURROGATE: 1,2-DICHLOROETHANE-	98.9	81-118			%	11/02/19	11/02/19
EPA 8260B	SURROGATE: 4-BROMOFLUOROBENZ	97.3	85-114			%	11/02/19	11/02/19
EPA 8260B	SURROGATE: DIBROMOFLUOROMETH	98.5	80-119			%	11/02/19	11/02/19
EPA 8260B	SURROGATE: TOLUENE-D8 (S)	98.0	89-112			%	11/02/19	11/02/19

Quant Method: T1023W.M
Run #: 1101T48
Instrument: Thor
Sequence: T191028
Dilution Factor: 1
Initials: DPO

Printed: 11/04/19 5:11:17 PM
APPL-F1-SC-NoMC-REG MDLs-DOD

EPA 8260B BTEX WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 90599

Sample ID: ERH938

APPL ID: BA02160

Sample Collection Date: 10/29/19

QCG: #86BTO-191101BT1-246727

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8260B	BENZENE	0.30 U	1.0	0.30	0.15	ug/L	11/02/19	11/02/19
EPA 8260B	ETHYLBENZENE	0.50 U	1.0	0.50	0.23	ug/L	11/02/19	11/02/19
EPA 8260B	TOLUENE	0.30 U	1.0	0.30	0.15	ug/L	11/02/19	11/02/19
EPA 8260B	XYLENES (TOTAL)	0.30 U	2.0	0.30	0.15	ug/L	11/02/19	11/02/19
EPA 8260B	SURROGATE: 1,2-DICHLOROETHANE-	99.7	81-118			%	11/02/19	11/02/19
EPA 8260B	SURROGATE: 4-BROMOFLUOROBENZ	101	85-114			%	11/02/19	11/02/19
EPA 8260B	SURROGATE: DIBROMOFLUOROMETH	102	80-119			%	11/02/19	11/02/19
EPA 8260B	SURROGATE: TOLUENE-D8 (S)	99.3	89-112			%	11/02/19	11/02/19

Quant Method: T1023W.M
Run #: 1101T49
Instrument: Thor
Sequence: T191028
Dilution Factor: 1
Initials: DPO

Printed: 11/04/19 5:11:17 PM
APPL-F1-SC-NoMC-REG MDLs-DOD

EPA 8260B GRO WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

Sample ID: ERH937

Sample Collection Date: 10/29/19

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

ARF: 90599

APPL ID: BA02159

QCG: #GRO86-191101BT-246725

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8260B	GASOLINE RANGE ORGANICS	18.0 U	20	18.0	8.6	ug/L	11/02/19	11/02/19
EPA 8260B	SURROGATE: 4-BROMOFLUOROBENZ	97.3	85-114			%	11/02/19	11/02/19

Quant Method: TGAS1026.M
Run #: 1101T48
Instrument: Thor
Sequence: T191028
Dilution Factor: 1
Initials: DPO

Printed: 11/04/19 5:20:59 PM
APPL-F1-SC-NoMC-REG MDLs-DOD

EPA 8260B GRO WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 90599

Sample ID: ERH938

APPL ID: BA02160

Sample Collection Date: 10/29/19

QCG: #GRO86-191101BT-246725

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8260B	GASOLINE RANGE ORGANICS	18.0 U	20	18.0	8.6	ug/L	11/02/19	11/02/19
EPA 8260B	SURROGATE: 4-BROMOFLUOROBENZ	101	85-114			%	11/02/19	11/02/19

Quant Method: TGAS1026.M
Run #: 1101T49
Instrument: Thor
Sequence: T191028
Dilution Factor: 1
Initials: DPO

Printed: 11/04/19 5:20:59 PM
APPL-F1-SC-NoMC-REG MDLs-DOD

METHANE

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

Attn: Margie Pascua
Project: 60571032 CV18F0126 Red Hill Fuel Storage
Sample ID: ERH937
Sample Collection Date: 10/29/19

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

ARF: 90599
APPL ID: BA02159
QCG: #RSKME-191031A-246650

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
RSK 175	METHANE	1.00 U	5.0	1.00	0.25	ug/L	10/31/19	10/31/19

Quant Method: RSK1002.M
Run #: 1031R11
Instrument: Rocky
Sequence: 191002
Dilution Factor: 1
Initials: GAG

Printed: 11/15/19 2:00:04 PM
APPL-F1-SC-NoMC-REG MDLs-DOD

METHANE

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

Sample ID: ERH938

Sample Collection Date: 10/29/19

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

ARF: 90599

APPL ID: BA02160

QCG: #RSKME-191031A-246650

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
RSK 175	METHANE	1.00 U	5.0	1.00	0.25	ug/L	10/31/19	10/31/19

Quant Method:	RSK1002.M
Run #:	1031R12
Instrument:	Rocky
Sequence:	191002
Dilution Factor:	1
Initials:	GAG

Printed: 11/15/19 2:00:04 PM
APPL-F1-SC-NoMC-REG MDLs-DOD

Wet Lab Analysis

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

Sample ID: ERH938

APPL ID: BA02160

Sample Collection Date: 10/29/19

ARF: 90599

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
EPA 300.0	CHLORIDE	50.9	2.0	0.40	0.16	mg/L	2	11/02/19	11/02/19
EPA 300.0	NITRATE	0.16 J	0.5	0.18	0.04	mg/L	1	10/30/19	10/30/19
EPA 300.0	SULFATE	10.9	1.0	0.20	0.09	mg/L	1	10/30/19	10/30/19

J = Estimated value.

Printed: 12/02/19 10:56:59 AM

APPL-F1-SC-NoMC-REG MDLs

Wet Lab Analysis

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

Sample ID: ERH938

Sample Collection Date: 10/29/19

APPL ID: BA02160

ARF: 90599

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
EPA 353.2	NITRATE-NITRITE-N	0.029 J	0.10	0.090	0.028	mg/L	1	11/01/19	11/01/19
SM 2320B	BICARBONATE AS CACO3	100	2.0	1.70	0.85	mg/L	1	11/01/19	11/01/19
SM 2320B	CARBONATE AS CACO3	5.0	2.0	1.70	0.85	mg/L	1	11/01/19	11/01/19
SM 2320B	TOTAL ALKALINITY AS CACO	105	2.0	1.70	0.85	mg/L	1	11/01/19	11/01/19
SM3500FeB	FERROUS IRON	0.32 U	1.0	0.32	0.16	mg/L	1	10/30/19	10/30/19
SW846 9060A	TOTAL ORGANIC CARBON	5.1	0.93	0.350	0.130	mg/L	1	11/10/19	11/11/19

J = Estimated value.

Printed: 12/09/19 10:33:29 AM

APPL-F1-SC-NoMC-REG MDLs

QC FORMS

EPA 8015B-eLL

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 90599

Case No: 90599 Date Analyzed: 11/14/19

Matrix: WATER Instrument: Apollo

APPL ID.	Client Sample No.	SURROGATE: OCTACOSANE (S)			SURROGATE: ORTHO-TERPHENYL (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
191104A-BLK	Blank	60-142	105		56-125	113	
191104A-LCS	Lab Control Spike	60-142	72.0		56-125	105	
191104A-LCSD	Lab Control SpikeD	60-142	63.3		56-125	106	
BA02160	ERH938	60-142	104		56-125	123	

Comments: Batch: #DOC53-191104A

EPA 8015B-eL

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 90599

Case No: 90599 Date Analyzed: 11/14/19

Matrix: WATER Instrument: Apollo

Blank ID: 191104A-BLK Time Analyzed: 2159

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191104A-BLK	Blank	1114010	11/14/19 2159
191104A-LCS	Lab Control Spike	1114011	11/14/19 2218
191104A-LCSD	Lab Control SpikeD	1114012	11/14/19 2238
BA02160	ERH938	1114015	11/14/19 2337

Comments: Batch: #DOC53-191104A

Method Blank
EPA 8015B TPH LIQ-LIQ

Blank Name/QCG: **191104W-02090 - 247204**
Batch ID: #DOC53-191104A

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	DIESEL (C10-C24)	25.00 U	40.0	25.00	13.07	ug/L	11/04/19	11/14/19
BLANK	OIL (C24-C40)	40.00 U	40.0	40.00	5.54	ug/L	11/04/19	11/14/19
BLANK	SURROGATE: OCTACOSANE (S)	105	60-142			%	11/04/19	11/14/19
BLANK	SURROGATE: ORTHO-TERPHEN	113	56-125			%	11/04/19	11/14/19

Quant Method: DOC1114.M
Run #: 1114010
Instrument: Apollo
Sequence: 191114
Initials: LPO

GC SC-Blank-REG MDLs-DOD
Printed: 11/16/19 5:31:00 AM

EPA 8015B-eL

Form 4

LCS Summary

Lab Name: APPL, Inc. SDG No: 90599

Case No: 90599 Date Analyzed: 11/14/19

Matrix: WATER Instrument: Apollo

LCS ID: 191104A-LCS Time Analyzed: 2218

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191104A-BLK	Blank	1114010	11/14/19 2159
191104A-LCS	Lab Control Spike	1114011	11/14/19 2218
191104A-LCSD	Lab Control SpikeD	1114012	11/14/19 2238
BA02160	ERH938	1114015	11/14/19 2337

Comments: Batch: #DOC53-191104A

Printed: 11/16/19 5:31:03 AM
Form 4, LCS Summary

Laboratory Control Spike Recoveries

EPA 8015B TPH LIQ-LIQ

APPL ID: **191104W-02090 LCS - 247204**
Batch ID: #DOC53-191104A

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Lvl ug/L	SPK Result ug/L	DUP Result ug/L	SPK % Recovery	DUP % Recovery	Recovery Limits	RPD %	RPD Limits
DIESEL (C10-C24)	1250	1310	1330	105	106	36-132	1.5	30
OIL (C24-C40)	2500	2400	2390	96.0	95.6	41-113	0.42	30
SURROGATE: OCTACOSANE (S)	75.0	54.0	47.5	72.0	63.3	60-142		
SURROGATE: ORTHO-TERPHENYL (S)	75.0	78.4	79.4	105	106	56-125		

Comments: _____

Primary	SPK	DUP
Quant Method :	DOC1114.M	DOC1114.M
Extraction Date :	11/04/19	11/04/19
Analysis Date :	11/14/19	11/14/19
Instrument :	Apollo	Apollo
Run :	1114011	1114012
Initials :	LPO	

Printed: 11/16/19 5:31:01 AM
APPL Standard LCSD

8270D-SIM

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 90599

Case No: 90599 Date Analyzed: 11/12/19

Matrix: WATER Instrument: Linus

APPL ID.	Client Sample No.	SURROGATE: 2-METHYLNAPHTHALENE-D10 (S)			SURROGATE: FLUORANTHENE-D10 (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
191104A-BLK	Blank	39-114	88.3		58-120	105	
191104A-LCS	Lab Control Spike	39-114	96.5		58-120	105	
191104A-LCSD	Lab Control SpikeD	39-114	88.2		58-120	103	
BA02160	ERH938	39-114	85.9		58-120	93.6	

Comments: Batch: #SIM53-191104A

8270D-SIM

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 90599

Case No: 90599 Date Analyzed: 11/12/19

Matrix: WATER Instrument: Linus

Blank ID: 191104A-BLK Time Analyzed: 1004

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191104A-BLK	Blank	1028L259	11/12/19 1004
191104A-LCS	Lab Control Spike	1028L260	11/12/19 1026
191104A-LCSD	Lab Control SpikeD	1028L261	11/12/19 1048
BA02160	ERH938	1028L264	11/12/19 1155

Comments: Batch: #SIM53-191104A

Printed: 11/14/19 9:43:03 AM
Form 4, Blank Summary

Method Blank
EPA 8270D SIM LIQ-LIQ

Blank Name/QCG: **191104W-02090 - 247109**
Batch ID: #SIM53-191104A

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	1-METHYLNAPHTHALENE	0.10 U	0.2	0.10	0.04	ug/L	11/4/2019	11/12/2019
BLANK	2-METHYLNAPHTHALENE	0.10 U	0.2	0.10	0.04	ug/L	11/4/2019	11/12/2019
BLANK	NAPHTHALENE	0.10 U	0.2	0.10	0.04	ug/L	11/4/2019	11/12/2019
BLANK	SURROGATE: 2-METHYLNAPHT	88.3	39-114			%	11/4/2019	11/12/2019
BLANK	SURROGATE: FLUORANTHENE-	105	58-120			%	11/4/2019	11/12/2019

Quant Method: L1028.M
Run #: 1028L259
Instrument: Linus
Sequence: L191028
Initials: MA

GC SC-Blank-REG MDLs-DOD
Printed: 12/10/2019 1:50:57 PM

8270D-SIM

Form 4

LCS Summary

Lab Name: APPL, Inc. SDG No: 90599

Case No: 90599 Date Analyzed: 11/12/19

Matrix: WATER Instrument: Linus

LCS ID: 191104A-LCS Time Analyzed: 1026

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191104A-BLK	Blank	1028L259	11/12/19 1004
191104A-LCS	Lab Control Spike	1028L260	11/12/19 1026
191104A-LCSD	Lab Control SpikeD	1028L261	11/12/19 1048
BA02160	ERH938	1028L264	11/12/19 1155

Comments: Batch: #SIM53-191104A

Printed: 11/14/19 9:43:04 AM
Form 4, LCS Summary

Laboratory Control Spike Recoveries

EPA 8270D SIM LIQ-LIQ

APPL ID: **191104W-02090 LCS - 247109**
Batch ID: #SIM53-191104A

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Lvl ug/L	SPK Result ug/L	DUP Result ug/L	SPK % Recovery	DUP % Recovery	Recovery Limits	RPD %	RPD Limits
1-METHYLNAPHTHALENE	6.25	6.55	5.92	105	94.7	41-115	10.1	20
2-METHYLNAPHTHALENE	6.25	6.65	5.98	106	95.7	39-114	10.6	20
NAPHTHALENE	6.25	6.67	6.03	107	96.5	43-114	10.1	20
SURROGATE: 2-METHYLNAPHTHALEN	6.25	6.03	5.51	96.5	88.2	39-114		
SURROGATE: FLUORANTHENE-D10 (S)	6.25	6.54	6.46	105	103	58-120		

Comments: _____

Primary	SPK	DUP
Quant Method :	L1028.M	L1028.M
Extraction Date :	11/04/19	11/04/19
Analysis Date :	11/12/19	11/12/19
Instrument :	Linus	Linus
Run :	1028L260	1028L261
Initials :	MA	

Printed: 12/02/19 4:16:29 PM
APPL Standard LCSD

Form 5
Tune Summary

Lab Name: APPL Inc.
Case No:
Matrix: Water
ID: 1028L002.D

SDG No:
Date Analyzed: 10/28/19
Instrument: Linus
Time Analyzed: 10:20

	Client Sample No.	APPL ID.	File ID.	Date Analyzed
1		5 SIM 10/28/19(2)	1028L004.D	10/28/19 12:26
2		0.1 SIM 10/28/19	1028L005.D	10/28/19 12:51
3		0.2 SIM 10/28/19	1028L006.D	10/28/19 13:13
4		0.5 SIM 10/28/19	1028L007.D	10/28/19 13:35
5		1 SIM 10/28/19	1028L008.D	10/28/19 13:57
6		20 SIM 10/28/19	1028L009.D	10/28/19 14:19
7		50 SIM 10/28/19	1028L010.D	10/28/19 14:42
8		100 SIM 10/28/19	1028L011.D	10/28/19 15:04
9		SS SIM 10/28/19	1028L012.D	10/28/19 15:55
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				

m/e		
51	9.95 - 80.1% of mass 198	44.0
68	0 - 2.05% of mass 69	0.0
70	0 - 2% of mass 69	0.3
127	10 - 80% of mass 198	66.3
197	0 - 2% of mass 198	0.0
198	100 - 100% of mass 198	100.0
199	5 - 9% of mass 198	6.8
275	10 - 60% of mass 198	23.0
365	1 - 100% of mass 198	3.1
441	0.01 - 24% of mass 442	15.5
442	50 - 500% of mass 198	95.8
443	15 - 24% of mass 442	19.6

Form 5
Tune Summary

Lab Name: APPL Inc.
Case No: 90599
Matrix: Water
ID: 1028L257.D

SDG No: 90599
Date Analyzed: 11/12/19
Instrument: Linus
Time Analyzed: 9:18

	Client Sample No.	APPL ID.	File ID.	Date Analyzed
1		5 SIM 10/28/19 (1)	1028L258.D	11/12/19 9:35
2	Blank	191104A BLK 1/800	1028L259.D	11/12/19 10:04
3	Lab Control Spike	191104A LCS-2 1/800	1028L260.D	11/12/19 10:26
4	Lab Control SpikeD	191104A LCSD-2 1/800	1028L261.D	11/12/19 10:48
5	ERH938	BA02160W16 1/800	1028L264.D	11/12/19 11:55
6		5 SIM 10/28/19 (1)	1028L268.D	11/12/19 13:40
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				

m/e		
51	9.95 - 80.1% of mass 198	51.2
68	0 - 2.05% of mass 69	0.0
70	0 - 2% of mass 69	0.7
127	10 - 80% of mass 198	65.7
197	0 - 2% of mass 198	0.0
198	100 - 100% of mass 198	100.0
199	5 - 9% of mass 198	7.1
275	10 - 60% of mass 198	21.2
365	1 - 100% of mass 198	3.2
441	0.01 - 24% of mass 442	17.4
442	50 - 500% of mass 198	71.1
443	15 - 24% of mass 442	21.1

8A

INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: APPL Inc. Contract: _____

Lab Code: _____ SDG No.: _____

Lab File ID (Standard): 1028L258.D Date Analyzed: 11/12/19

Instrument ID: Linus Time Analyzed: 9:35

GC Column: _____ ID: Heated Purge: (Y/N) _____

	Napthalene-D8(IS)		Acenaphthene-D10(IS)		Phenanthrene-D10(IS)	
	AREA #	RT #	AREA #	RT #	AREA #	RT #
12 HOUR STD	42226	4.27	17230	6.27	30075	7.98
UPPER LIMIT	84452	4.44	34460	6.44	60150	8.15
LOWER LIMIT	21113	4.10	8615	6.10	15038	7.81
SAMPLE NO.						
01 191104A BLK 1/800	41490	4.26	17274	6.27	30878	7.98
02 191104A LCS-2 1/800	38137	4.27	15916	6.27	30577	7.98
03 191104A LCSD-2 1/800	42346	4.27	17317	6.27	31965	7.98
04 BA02160W16 1/800	43672	4.27	17631	6.27	31911	7.98
05 5 SIM 10/28/19 (1)	53473	4.27	20055	6.27	37410	7.98
06						
07						
08						
09						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = -50% of internal standard area.
RT UPPER LIMIT = +0.17 minutes of internal standard RT
RT LOWER LIMIT = -0.17 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: APPL Inc. Contract: _____

Lab Code: _____ SDG No.: _____

Lab File ID (Standard): 1028L258.D Date Analyzed: 11/12/19

Instrument ID: Linus Time Analyzed: 9:35

GC Column: _____ ID: Heated Purge: (Y/N) _____

		Chrysene-D12(IS)		Perylene-D12(IS)			
		AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	35927	11.10	34153	13.52		
	UPPER LIMIT	71854	11.27	68306	13.69		
	LOWER LIMIT	17964	10.93	17077	13.35		
	SAMPLE NO.						
01	191104A BLK 1/800	37096	11.10	38223	13.52		
02	191104A LCS-2 1/800	37171	11.10	38425	13.52		
03	191104A LCSD-2 1/800	38068	11.10	38812	13.52		
04	BA02160W16 1/800	38596	11.10	33752	13.53		
05	5 SIM 10/28/19 (1)	46428	11.11	47184	13.53		
06							
07							
08							
09							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = -50% of internal standard area.
RT UPPER LIMIT = +0.17 minutes of internal standard RT
RT LOWER LIMIT = -0.17 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

EPA 8270D

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 90599

Case No: 90599 Date Analyzed: 11/07/19

Matrix: WATER Instrument: Yoda

APPL ID.	Client Sample No.	SURROGATE: 2,4,6-TRIBROMOPHENOL (S)			SURROGATE: 2-FLUORBIPHENYL (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
191104A-BLK	Blank	43-140	84.2		44-119	77.6	
191104A-LCS	Lab Control Spike	43-140	76.4		44-119	68.6	
191104A-LCSD	Lab Control SpikeD	43-140	74.8		44-119	67.0	
BA02160	ERH938	43-140	75.9		44-119	74.3	

Comments: Batch: #87DC5-191104A

EPA 8270D

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 90599

Case No: 90599 Date Analyzed: 11/07/19

Matrix: WATER Instrument: Yoda

APPL ID.	Client Sample No.	SURROGATE: 2-FLUOROPHENOL (S)			SURROGATE: NITROBENZENE-D5 (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
191104A-BLK	Blank	19-119	81.4		44-120	83.8	
191104A-LCS	Lab Control Spike	19-119	71.2		44-120	69.7	
191104A-LCSD	Lab Control SpikeD	19-119	69.6		44-120	69.1	
BA02160	ERH938	19-119	72.1		44-120	81.6	

Comments: Batch: #87DC5-191104A

EPA 8270D

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 90599

Case No: 90599 Date Analyzed: 11/07/19

Matrix: WATER Instrument: Yoda

APPL ID.	Client Sample No.	SURROGATE: PHENOL-D6 (S)			SURROGATE: TERPHENYL-D14 (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
191104A-BLK	Blank	10-115	86.1		50-134	84.2	
191104A-LCS	Lab Control Spike	10-115	74.8		50-134	75.7	
191104A-LCSD	Lab Control SpikeD	10-115	73.6		50-134	75.7	
BA02160	ERH938	10-115	62.5		50-134	81.2	

Comments: Batch: #87DC5-191104A

EPA 8270D

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 90599

Case No: 90599 Date Analyzed: 11/07/19

Matrix: WATER Instrument: Yoda

Blank ID: 191104A-BLK Time Analyzed: 1648

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191104A-BLK	Blank	1030Y281	11/07/19 1648
191104A-LCS	Lab Control Spike	1030Y282	11/07/19 1716
191104A-LCSD	Lab Control SpikeD	1030Y283	11/07/19 1744
BA02160	ERH938	1030Y287	11/07/19 1936

Comments: Batch: #87DC5-191104A

Printed: 12/03/19 12:37:20 PM
Form 4, Blank Summary

Method Blank
EPA 8270D WATER

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Blank Name/QCG: **191104W-02160 - 247478**
Batch ID: #87DC5-191104A

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	PHENOL	4.00 U	5.0	4.00	1.00	ug/L	11/04/19	11/07/19
BLANK	SURROGATE: 2,4,6-TRIBROMOP	84.2	43-140			%	11/04/19	11/07/19
BLANK	SURROGATE: 2-FLUORBIPHENY	77.6	44-119			%	11/04/19	11/07/19
BLANK	SURROGATE: 2-FLUOROPHENO	81.4	19-119			%	11/04/19	11/07/19
BLANK	SURROGATE: NITROBENZENE-	83.8	44-120			%	11/04/19	11/07/19
BLANK	SURROGATE: PHENOL-D6 (S)	86.1	10-115			%	11/04/19	11/07/19
BLANK	SURROGATE: TERPHENYL-D14 (	84.2	50-134			%	11/04/19	11/07/19

Quant Method:Y1015NC.M
Run #:1030Y281
Instrument:Yoda
Sequence:Y191030
Initials:JPR

GC SC-Blank-REG MDLs-DOD
Printed: 12/03/19 12:37:22 PM

EPA 8270D

Form 4

LCS Summary

Lab Name: APPL, Inc. SDG No: 90599

Case No: 90599 Date Analyzed: 11/07/19

Matrix: WATER Instrument: Yoda

LCS ID: 191104A-LCS Time Analyzed: 1716

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191104A-BLK	Blank	1030Y281	11/07/19 1648
191104A-LCS	Lab Control Spike	1030Y282	11/07/19 1716
191104A-LCSD	Lab Control SpikeD	1030Y283	11/07/19 1744
BA02160	ERH938	1030Y287	11/07/19 1936

Comments: Batch: #87DC5-191104A

Printed: 12/03/19 12:37:26 PM
Form 4, LCS Summary

Laboratory Control Spike Recoveries
EPA 8270D WATER

APPL ID: **191104W-02160 LCS - 247478**
Batch ID: #87DC5-191104A

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Lvl ug/L	SPK Result ug/L	DUP Result ug/L	SPK % Recovery	DUP % Recovery	Recovery Limits	RPD %	RPD Limits
PHENOL	62.5	45.9	46.8	73.4	74.9	10-115	1.9	20
SURROGATE: 2,4,6-TRIBROMOPHENOL	250	191	187	76.4	74.8	43-140		
SURROGATE: 2-FLUORBIPHENYL (S)	125	85.7	83.8	68.6	67.0	44-119		
SURROGATE: 2-FLUOROPHENOL (S)	250	178	174	71.2	69.6	19-119		
SURROGATE: NITROBENZENE-D5 (S)	125	87.1	86.4	69.7	69.1	44-120		
SURROGATE: PHENOL-D6 (S)	250	187	184	74.8	73.6	10-115		
SURROGATE: TERPHENYL-D14 (S)	125	94.6	94.6	75.7	75.7	50-134		

Comments: _____

Primary	SPK	DUP
Quant Method :	Y1015NC.M	Y1015NC.M
Extraction Date :	11/04/19	11/04/19
Analysis Date :	11/07/19	11/07/19
Instrument :	Yoda	Yoda
Run :	1030Y282	1030Y283
Initials :	JPR	

Printed: 12/03/19 12:37:28 PM
APPL Standard LCSD

Form 5
Tune Summary

Lab Name: APPL Inc.
Case No:
Matrix: Soil
ID: 1121Y002.D

SDG No:
Date Analyzed: 11/21/19
Instrument: Yoda
Time Analyzed: 13:52

	Client Sample No.	APPL ID.	File ID.	Date Analyzed
1		4ug/ml 8270 11/21/19	1121Y003.D	11/21/19 14:07
2		5ug/ml 8270 11/21/19	1121Y004.D	11/21/19 14:35
3		10ug/ml 8270 11/21/1	1121Y005.D	11/21/19 15:37
4		20ug/ml 8270 11/21/1	1121Y006.D	11/21/19 16:05
5		40ug/ml 8270 11/21/1	1121Y007.D	11/21/19 16:33
6		50ug/ml 8270 11/21/1	1121Y008.D	11/21/19 17:01
7		60ug/ml 8270 11/21/1	1121Y009.D	11/21/19 17:30
8		80ug/ml 8270 11/21/1	1121Y010.D	11/21/19 17:58
9		100ug/ml 8270 11/21/	1121Y011.D	11/21/19 18:26
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				

m/e		
51	9.95 - 80.04% of mass 198	27.9
68	0 - 2% of mass 69	0.0
70	0 - 2% of mass 69	0.7
127	10 - 80% of mass 198	43.6
197	0 - 2% of mass 198	0.0
198	100 - 100% of mass 198	100.0
199	5 - 9% of mass 198	6.9
275	10 - 60% of mass 198	32.2
365	1 - 100% of mass 198	3.9
441	0.01 - 24% of mass 442	16.6
442	50 - 500% of mass 198	139.4
443	15 - 24% of mass 442	19.7

Form 5
Tune Summary

Lab Name: APPL Inc.
Case No:
Matrix: Soil
ID: 1121Y030.D

SDG No:
Date Analyzed: 11/22/19
Instrument: Yoda
Time Analyzed: 13:23

	Client Sample No.	APPL ID.	File ID.	Date Analyzed
1		SS 8270 11/22/19	1121Y031.D	11/22/19 13:38
2				
3				
4				
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6				
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8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				

m/e		
51	9.95 - 80.04% of mass 198	26.5
68	0 - 2% of mass 69	0.0
70	0 - 2% of mass 69	0.4
127	10 - 80% of mass 198	41.9
197	0 - 2% of mass 198	0.0
198	100 - 100% of mass 198	100.0
199	5 - 9% of mass 198	6.7
275	10 - 60% of mass 198	33.3
365	1 - 100% of mass 198	4.2
441	0.01 - 24% of mass 442	16.3
442	50 - 500% of mass 198	154.9
443	15 - 24% of mass 442	19.0

Form 5
Tune Summary

Lab Name: APPL Inc.
Case No: 90599
Matrix: Water
ID: 1121Y148.D

SDG No: 90599
Date Analyzed: 11/26/19
Instrument: Yoda
Time Analyzed: 18:16

	Client Sample No.	APPL ID.	File ID.	Date Analyzed
1		50ug/ml 8270 11/21/1	1121Y154.D	11/26/19 20:50
2	Blank	191104A BLK 2/800	1121Y155.D	11/26/19 21:18
3	Lab Control Spike	191104A LCS-1 2/800	1121Y156.D	11/26/19 21:46
4	Lab Control SpikeD	191104A LCSD-1 2/800	1121Y157.D	11/26/19 22:14
5	ERH938	BA02160W16 2/800	1121Y160.D	11/26/19 23:37
6		50ug/ml 8270 11/21/1	1121Y172.D	11/27/19 5:11
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8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				

m/e		
51	9.95 - 80.04% of mass 198	30.7
68	0 - 2% of mass 69	0.0
70	0 - 2% of mass 69	0.2
127	10 - 80% of mass 198	45.8
197	0 - 2% of mass 198	0.0
198	100 - 100% of mass 198	100.0
199	5 - 9% of mass 198	7.0
275	10 - 60% of mass 198	30.9
365	1 - 100% of mass 198	3.6
441	0.01 - 24% of mass 442	16.2
442	50 - 500% of mass 198	125.7
443	15 - 24% of mass 442	19.6

8A
INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: APPL Inc. Contract: _____

Lab Code: _____ SDG No.: _____

Lab File ID (Standard): 1121Y154.D Date Analyzed: 11/26/19

Instrument ID: Yoda Time Analyzed: 20:50

GC Column: _____ ID: Heated Purge: (Y/N) _____

		1,4-dichlorobenzene-D4(IS)		Napthalene-D8(IS)		Acenaphthene-D10(IS)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	179473	5.47	719514	6.91	453439	8.93
	UPPER LIMIT	358946	5.64	1439028	7.08	906878	9.10
	LOWER LIMIT	89737	5.30	359757	6.74	226720	8.76
	SAMPLE NO.						
01	191104A BLK 2/800	174092	5.47	683374	6.91	442513	8.93
02	191104A LCS-1 2/800	150012	5.47	600754	6.91	417278	8.93
03	191104A LCSD-1 2/800	138243	5.47	560201	6.91	405413	8.93
04	BA02160W16 2/800	142831	5.47	578493	6.91	424953	8.93
05	50ug/ml 8270 11/21/19 (	184992	5.47	734252	6.91	456477	8.93
06							
07							
08							
09							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = -50% of internal standard area.
RT UPPER LIMIT = +0.17 minutes of internal standard RT
RT LOWER LIMIT = -0.17 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

8A
INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: APPL Inc. Contract: _____

Lab Code: _____ SDG No.: _____

Lab File ID (Standard): 1121Y154.D Date Analyzed: 11/26/19

Instrument ID: Yoda Time Analyzed: 20:50

GC Column: _____ ID: Heated Purge: (Y/N) _____

		Phenanthrene-D10(IS)		Chrysene-D12(IS)		Perylene-D12(IS)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	869953	10.67	1038490	13.76	946185	15.62
	UPPER LIMIT	1739906	10.84	2076980	13.93	1892370	15.79
	LOWER LIMIT	434977	10.50	519245	13.59	473093	15.45
	SAMPLE NO.						
01	191104A BLK 2/800	890536	10.66	909385	13.75	920577	15.62
02	191104A LCS-1 2/800	853592	10.67	1179960	13.76	888601	15.62
03	191104A LCSD-1 2/800	822436	10.66	1006520	13.75	875772	15.63
04	BA02160W16 2/800	869547	10.66	961288	13.75	875761	15.61
05	50ug/ml 8270 11/21/19 (	870891	10.67	1025140	13.76	935612	15.62
06							
07							
08							
09							
10							
11							
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13							
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16							
17							
18							
19							
20							
21							
22							

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = -50% of internal standard area.
RT UPPER LIMIT = +0.17 minutes of internal standard RT
RT LOWER LIMIT = -0.17 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

EPA 8270D

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 90599

Case No: 90599 Date Analyzed: 11/08/19

Matrix: WATER Instrument: Linus

Blank ID: 191031A-BLK Time Analyzed: 1421

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191031A-BLK	Blank	1030L043	11/08/19 1421
191031A-LCS	Lab Control Spike	1030L044	11/08/19 1549
191031A-LCSD	Lab Control SpikeD	1030L047	11/08/19 1645
BA02160	ERH938	1030L052	11/08/19 1817

Comments: Batch: #87DME-191031A

Printed: 11/15/19 12:50:13 PM
Form 4, Blank Summary

Method Blank

EPA 8270D MODIFIED WATER

Blank Name/QCG: **191031W-01829 - 247175**
Batch ID: #87DME-191031A

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	2-(2-METHOXYETHOXY)-ETHAN	80.0 U	100	80.0	40.0	ug/L	10/31/19	11/08/19

Quant Method:YMEE1030.M
Run #:1030L043
Instrument:Linus
Sequence:L191030M
Initials:MA

GC SC-Blank-REG MDLs-DOD
Printed: 11/15/19 12:50:07 PM

EPA 8270D

Form 4

LCS Summary

Lab Name: APPL, Inc. SDG No: 90599

Case No: 90599 Date Analyzed: 11/08/19

Matrix: WATER Instrument: Linus

LCS ID: 191031A-LCS Time Analyzed: 1549

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191031A-BLK	Blank	1030L043	11/08/19 1421
191031A-LCS	Lab Control Spike	1030L044	11/08/19 1549
191031A-LCSD	Lab Control SpikeD	1030L047	11/08/19 1645
BA02160	ERH938	1030L052	11/08/19 1817

Comments: Batch: #87DME-191031A

Printed: 11/15/19 12:50:14 PM
Form 4, LCS Summary

Laboratory Control Spike Recoveries
EPA 8270D MODIFIED WATER

APPL ID: **191031W-01829 LCS - 247175**
Batch ID: #87DME-191031A

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Lvl ug/L	SPK Result ug/L	DUP Result ug/L	SPK % Recovery	DUP % Recovery	Recovery Limits	RPD %	RPD Limits
2-(2-METHOXYETHOXY)-ETHANOL	80.0	92.2	82.6	115	103	30-130	11.0	20

Comments: _____

Primary	SPK	DUP
Quant Method :	YMEE1030.M	YMEE1030.M
Extraction Date :	10/31/19	10/31/19
Analysis Date :	11/08/19	11/08/19
Instrument :	Linus	Linus
Run :	1030L044	1030L047
Initials :	MA	

Printed: 11/15/19 12:50:10 PM
APPL Standard LCSD

Form 5
Tune Summary

Lab Name: APPL Inc.
Case No:
Matrix: Water
ID: 1030L002.D

SDG No:
Date Analyzed: 10/31/19
Instrument: Linus
Time Analyzed: 9:39

	Client Sample No.	APPL ID.	File ID.	Date Analyzed
1		50 2MEE 4/30/19	1030L004.D	10/31/19 11:50
2		100 2MEE 4/30/19	1030L005.D	10/31/19 12:10
3		200 2MEE 4/30/19	1030L006.D	10/31/19 12:29
4		500 2MEE 4/30/19	1030L008.D	10/31/19 13:07
5		600 2MEE 4/30/19	1030L009.D	10/31/19 13:25
6		800 2MEE 4/30/19	1030L010.D	10/31/19 13:43
7		1000 2MEE 4/30/19	1030L011.D	10/31/19 14:02
8				
9				
10				
11				
12				
14				
15				
16				
17				
18				
19				
20				
21				
22				

m/e		
51	9.95 - 80.04% of mass 198	47.5
68	0 - 2.04% of mass 69	0.0
70	0 - 2.04% of mass 69	0.6
127	10 - 80% of mass 198	64.9
197	0 - 2% of mass 198	0.0
198	100 - 100% of mass 198.1	100.0
199	5 - 9% of mass 198	6.2
275	10 - 60% of mass 198	21.7
365	1 - 100% of mass 198	3.2
441	0.01 - 24% of mass 442	14.5
442	50 - 500% of mass 198.1	95.4
443	15 - 24% of mass 442	18.6

Form 5

Form 5
Tune Summary

Lab Name: APPL Inc.
Case No:
Matrix: Water
ID: 1030L014.D

SDG No:
Date Analyzed: 11/01/19
Instrument: Linus
Time Analyzed: 15:17

	Client Sample No.	APPL ID.	File ID.	Date Analyzed
1		SS 2MEE 11/1/19	1030L016.D	11/01/19 17:11
2				
3				
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5				
6				
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8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				

m/e		
51	9.95 - 80.04% of mass 198	50.2
68	0 - 2.04% of mass 69	0.0
70	0 - 2.04% of mass 69	0.7
127	10 - 80% of mass 198	65.2
197	0 - 2% of mass 198	0.0
198	100 - 100% of mass 198	100.0
199	5 - 9% of mass 198	7.0
275	10 - 60% of mass 198	22.3
365	1 - 100% of mass 198	3.1
441	0.01 - 24% of mass 442	18.5
442	50 - 500% of mass 198	81.1
443	15 - 24% of mass 442	19.7

Form 5
Tune Summary

Lab Name: APPL Inc.
Case No:
Matrix: Water
ID: 1030L041.D

SDG No:
Date Analyzed: 11/08/19
Instrument: Linus
Time Analyzed: 12:30

	Client Sample No.	APPL ID.	File ID.	Date Analyzed
1		500 2MEE 4/30/19	1030L042.D	11/08/19 13:13
2	Blank	191031A BLK 2/500	1030L043.D	11/08/19 14:21
3	Lab Control Spike	191031A LCS-1 2/500	1030L044.D	11/08/19 15:49
4	Lab Control SpikeD	191031A LCSD-1 2/500	1030L047.D	11/08/19 16:45
5		BA02160W10 2/500	1030L052.D	11/08/19 18:17
6		500 2MEE 4/30/19	1030L061.D	11/08/19 21:02
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				

m/e		
51	9.95 - 80.04% of mass 198	46.6
68	0 - 2.04% of mass 69	0.0
70	0 - 2.04% of mass 69	0.6
127	10 - 80% of mass 198	60.1
197	0 - 2% of mass 198	0.0
198	100 - 100% of mass 198	100.0
199	5 - 9% of mass 198	6.6
275	10 - 60% of mass 198	22.2
365	1 - 100% of mass 198	3.6
441	0.01 - 24% of mass 442	17.0
442	50 - 500% of mass 198	82.6
443	15 - 24% of mass 442	20.2

8A
INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: APPL Inc. Contract: _____

Lab Code: _____ SDG No.: _____

Lab File ID (Standard): 1030L042.D Date Analyzed: 8 Nov 19 13:13

Instrument ID: Linus Time Analyzed: 8 Nov 19 13:13

GC Column: _____ ID: Heated Purge: (Y/N) _____

	1,4-dichlorobenzene-D4(IS)		Napthalene-D8(IS)		Acenaphthene-D10(IS)	
	AREA #	RT #	AREA #	RT #	AREA #	RT #
12 HOUR STD	742292	3.67	3312060	4.62	1556560	6.01
UPPER LIMIT	1484584	3.84	6624120	4.79	3113120	6.18
LOWER LIMIT	371146	3.50	1656030	4.45	778280	5.84
SAMPLE NO.						
01 191031A BLK 2/500	699122	3.67	3106330	4.62	1436560	6.01
02 191031A LCS-1 2/500	835190	3.66	3596710	4.62	1685480	6.01
03 191031A LCSD-1 2/500	968441	3.66	4015250	4.62	1942620	6.01
04 BA02160W10 2/500	524780	3.66	2114670	4.61	1377860	6.01
05 500 2MEE 4/30/19	772424	3.67	3311190	4.61	1654190	6.01
06						
07						
08						
09						
10						
11						
12						
13						
14						
15						
16						
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19						
20						
21						
22						

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = -50% of internal standard area.
RT UPPER LIMIT = +0.17 minutes of internal standard RT
RT LOWER LIMIT = -0.17 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

8A
INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: APPL Inc. Contract: _____

Lab Code: _____ SDG No.: _____

Lab File ID (Standard): 1030L042.D Date Analyzed: 8 Nov 19 13:13

Instrument ID: Linus Time Analyzed: 8 Nov 19 13:13

GC Column: _____ ID: Heated Purge: (Y/N) _____

		Phenanthrene-D10(IS)		Chrysene-D12(IS)		Perylene-D12(IS)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	2759130	7.22	2199350	9.42	2536270	10.65
	UPPER LIMIT	5518260	7.39	4398700	9.59	5072540	10.82
	LOWER LIMIT	1379565	7.05	1099675	9.25	1268135	10.48
	SAMPLE NO.						
01	191031A BLK 2/500	2646760	7.22	2042230	9.44	2139010	10.68
02	191031A LCS-1 2/500	2974820	7.22	2366380	9.43	2671220	10.66
03	191031A LCSD-1 2/500	3543240	7.22	2703110	9.41	3165690	10.63
04	BA02160W10 2/500	2666410	7.22	1983250	9.39	2143430	10.59
05	500 2MEE 4/30/19	3011210	7.22	2583760	9.39	2584580	10.57
06							
07							
08							
09							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = -50% of internal standard area.
RT UPPER LIMIT = +0.17 minutes of internal standard RT
RT LOWER LIMIT = -0.17 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

EPA 8260B

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 90599

Case No: 90599 Date Analyzed: 11/02/19

Matrix: WATER Instrument: Thor

APPL ID.	Client Sample No.	SURROGATE: 1,2-DICHLOROETHANE-D4 (S)			SURROGATE: 4-BROMOFLUOROBENZENE (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
191101BT1-LCS	Lab Control Spike	81-118	97.6		85-114	104	
191101BT1-LCSD	Lab Control SpikeD	81-118	90.4		85-114	94.4	
191101BT1-BLK	Blank	81-118	93.7		85-114	94.8	
BA02159	ERH937	81-118	98.9		85-114	97.3	
BA02160	ERH938	81-118	99.7		85-114	101	

Comments: Batch: #86BTO-191101BT

EPA 8260B

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 90599

Case No: 90599 Date Analyzed: 11/02/19

Matrix: WATER Instrument: Thor

APPL ID.	Client Sample No.	SURROGATE: DIBROMOFLUOROMETHANE (S)			SURROGATE: TOLUENE-D8 (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
191101BT1-LCS	Lab Control Spike	80-119	97.2		89-112	102	
191101BT1-LCSD	Lab Control SpikeD	80-119	92.0		89-112	90.4	
191101BT1-BLK	Blank	80-119	92.9		89-112	97.1	
BA02159	ERH937	80-119	98.5		89-112	98.0	
BA02160	ERH938	80-119	102		89-112	99.3	

Comments: Batch: #86BTO-191101BT

EPA 8260B

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 90599

Case No: 90599 Date Analyzed: 11/02/19

Matrix: WATER Instrument: Thor

Blank ID: 191101BT1-BLK Time Analyzed: 0741

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191101BT1-LCS	Lab Control Spike	1101T32	11/02/19 0355
191101BT1-LCSD	Lab Control SpikeD	1101T33	11/02/19 0423
191101BT1-BLK	Blank	1101T40	11/02/19 0741
BA02159	ERH937	1101T48	11/02/19 1127
BA02160	ERH938	1101T49	11/02/19 1156

Comments: Batch: #86BTO-191101BT

Printed: 11/04/19 5:10:00 PM

Form 4, Blank Summary

Method Blank

EPA 8260B BTEX WATER

Blank Name/QCG: **191101W-02215 - 246727**
Batch ID: #86BTO-191101BT1

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	BENZENE	0.30 U	1.0	0.30	0.15	ug/L	11/02/19	11/02/19
BLANK	ETHYLBENZENE	0.50 U	1.0	0.50	0.23	ug/L	11/02/19	11/02/19
BLANK	TOLUENE	0.30 U	1.0	0.30	0.15	ug/L	11/02/19	11/02/19
BLANK	XYLENES (TOTAL)	0.30 U	2.0	0.30	0.15	ug/L	11/02/19	11/02/19
BLANK	SURROGATE: 1,2-DICHLOROET	93.7	81-118			%	11/02/19	11/02/19
BLANK	SURROGATE: 4-BROMOFLUORO	94.8	85-114			%	11/02/19	11/02/19
BLANK	SURROGATE: DIBROMOFLUOR	92.9	80-119			%	11/02/19	11/02/19
BLANK	SURROGATE: TOLUENE-D8 (S)	97.1	89-112			%	11/02/19	11/02/19

Quant Method:T1023W.M
Run #:1101T40
Instrument:Thor
Sequence:T191028
Initials:DPO

GC SC-Blank-REG MDLs-DOD
Printed: 11/04/19 5:10:05 PM

EPA 8260B

Form 4

LCS Summary

Lab Name: APPL, Inc. SDG No: 90599

Case No: 90599 Date Analyzed: 11/02/19

Matrix: WATER Instrument: Thor

LCS ID: 191101BT1-LCS Time Analyzed: 0355

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191101BT1-LCS	Lab Control Spike	1101T32	11/02/19 0355
191101BT1-LCSD	Lab Control SpikeD	1101T33	11/02/19 0423
191101BT1-BLK	Blank	1101T40	11/02/19 0741
BA02159	ERH937	1101T48	11/02/19 1127
BA02160	ERH938	1101T49	11/02/19 1156

Comments: Batch: #86BTO-191101BT

Printed: 11/04/19 5:09:58 PM
Form 4, LCS Summary

Laboratory Control Spike Recoveries

EPA 8260B BTEX WATER

APPL ID: **191102W-02215 LCS - 246727**
Batch ID: #86BTO-191101BT1

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Lvl ug/L	SPK Result ug/L	DUP Result ug/L	SPK % Recovery	DUP % Recovery	Recovery Limits	RPD %	RPD Limits
BENZENE	10.00	9.21	8.72	92.1	87.2	79-120	5.5	20
ETHYLBENZENE	10.00	9.38	8.84	93.8	88.4	79-121	5.9	20
TOLUENE	10.00	8.97	8.73	89.7	87.3	80-121	2.7	20
XYLENES (TOTAL)	30.0	29.1	26.0	97.0	86.7	79-121	11.3	20
SURROGATE: 1,2-DICHLOROETHANE-D	25.0	24.4	22.6	97.6	90.4	81-118		
SURROGATE: 4-BROMOFLUOROBENZE	25.0	25.9	23.6	104	94.4	85-114		
SURROGATE: DIBROMOFLUOROMETH	25.0	24.3	23.0	97.2	92.0	80-119		
SURROGATE: TOLUENE-D8 (S)	25.0	25.6	22.6	102	90.4	89-112		

Comments:

Primary	SPK	DUP
Quant Method :	T1023W.M	T1023W.M
Extraction Date :	11/02/19	11/02/19
Analysis Date :	11/02/19	11/02/19
Instrument :	Thor	Thor
Run :	1101T32	1101T33
Initials :	DPO	

Printed: 11/04/19 5:10:01 PM
APPL Standard LCSD

Form 5
Tune Summary

Lab Name: APPL Inc.
Case No:
Matrix: Water
ID: 1023T00.D

SDG No:
Date Analyzed: 10/23/2019
Instrument: Thor
Time Analyzed: 16:48

	Client Sample No.	APPL ID.	File ID.	Date Analyzed
1		0.3ug/L VOC STD 10/2	1023T06.D	10/23/2019 19:32
2		0.5ug/L VOC STD 10/2	1023T07.D	10/23/2019 20:01
3		1.0ug/L VOC STD 10/2	1023T08.D	10/23/2019 20:29
4		2.0ug/L VOC STD 10/2	1023T09.D	10/23/2019 20:58
5		5.0ug/L VOC STD 10/2	1023T10.D	10/23/2019 21:26
6		10ug/L VOC STD 10/23	1023T11.D	10/23/2019 21:55
7		20ug/L VOC STD 10/23	1023T12.D	10/23/2019 22:23
8		40ug/L VOC STD 10/23	1023T13.D	10/23/2019 22:52
9		100ug/L VOC STD 10/2	1023T14.D	10/23/2019 23:20
10		(SS)10ug/L VOC STD 1	1023T16.D	10/24/2019 0:17
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				

m/e		
50	15 - 40% of mass 95	16.1
75	30 - 60% of mass 95	48.8
95	100 - 100% of mass 95	100.0
96	5 - 9% of mass 95	7.0
173	0 - 2.05% of mass 174	1.5
174	50 - 200% of mass 95	97.4
175	5 - 9% of mass 174	7.4
176	95 - 101% of mass 174	95.9
177	5 - 9% of mass 176	7.0

Form 5
Tune Summary

Lab Name: APPL Inc.
Case No: 90599
Matrix: Water
ID: 1101T30.D

SDG No: 90599
Date Analyzed: 11/2/2019
Instrument: Thor
Time Analyzed: 2:59

	Client Sample No.	APPL ID.	File ID.	Date Analyzed
1		191101B CCV 10ug/L	1101T31.D	11/2/2019 3:27
2	Lab Control Spike	191101B LCS 10ug/L	1101T32.D	11/2/2019 3:55
3	Lab Control SpikeD	191101B LCSD 10ug/L	1101T33.D	11/2/2019 4:23
4	Blank	191101B BLK	1101T40.D	11/2/2019 7:41
5	ERH937	BA02159W01	1101T48.D	11/2/2019 11:27
6	ERH938	BA02160W01	1101T49.D	11/2/2019 11:56
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				

m/e		
50	15 - 40% of mass 95	16.6
75	30 - 60% of mass 95	50.7
95	100 - 100% of mass 95	100.0
96	5 - 9% of mass 95	7.0
173	0 - 2.05% of mass 174	0.0
174	50 - 200% of mass 95	98.0
175	5 - 9% of mass 174	7.2
176	95 - 101% of mass 174	98.8
177	5 - 9% of mass 176	6.5

8A
INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: APPL Inc. Contract: _____

Lab Code: _____ SDG No.: _____

Lab File ID (Standard): 1101T31.D Date Analyzed: 2 Nov 19 3:27

Instrument ID: Thor Time Analyzed: 2 Nov 19 3:27

GC Column: _____ ID: Heated Purge: (Y/N) _____

		Fluorobenzene (IS)		Chlorobenzene-D5 (IS)		1,4-Dichlorobenzene-D (IS)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	132672	6.59	120960	9.74	73080	12.06
	UPPER LIMIT	265344	6.76	241920	9.91	146160	12.23
	LOWER LIMIT	66336	6.42	60480	9.57	36540	11.89
	SAMPLE NO.						
01	191101B LCS 10ug/L	130328	6.59	114384	9.74	68736	12.06
02	191101B LCSD 10ug/L	138752	6.59	128328	9.74	74504	12.06
03	191101B BLK	134144	6.59	118384	9.74	66672	12.06
04	BA02159W01	128400	6.59	115784	9.74	62296	12.06
05	BA02160W01	126816	6.59	113904	9.74	63304	12.06
06	Ending CCV 10ug/L 11/1	127256	6.59	115520	9.74	69184	12.06
07							
08							
09							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = -50% of internal standard area.
RT UPPER LIMIT = +0.17 minutes of internal standard RT
RT LOWER LIMIT = -0.17 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

EPA 8260B

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 90599

Case No: 90599 Date Analyzed: 11/02/19

Matrix: WATER Instrument: Thor

APPL ID.	Client Sample No.	SURROGATE: 4-BROMOFLUOROBENZENE (S)					
		Limits	Result	Qualifier	Limits	Result	Qualifier
191101BT-LCS	Lab Control Spike	85-114	100				
191101BT-LCSD	Lab Control SpikeD	85-114	93.6				
191101BT-BLK	Blank	85-114	94.8				
BA02159	ERH937	85-114	97.3				
BA02160	ERH938	85-114	101				

Comments: Batch: #GRO86-191101BT

EPA 8260B

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 90599

Case No: 90599 Date Analyzed: 11/02/19

Matrix: WATER Instrument: Thor

Blank ID: 191101BT-BLK Time Analyzed: 0741

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191101BT-LCS	Lab Control Spike	1101T34	11/02/19 0452
191101BT-LCSD	Lab Control SpikeD	1101T35	11/02/19 0520
191101BT-BLK	Blank	1101T40	11/02/19 0741
BA02159	ERH937	1101T48	11/02/19 1127
BA02160	ERH938	1101T49	11/02/19 1156

Comments: Batch: #GRO86-191101BT

Printed: 11/04/19 5:21:03 PM
Form 4, Blank Summary

Method Blank
EPA 8260B GRO WATER

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Blank Name/QCG: **191101W-02214 - 246725**
Batch ID: #GRO86-191101BT

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	GASOLINE RANGE ORGANICS	18.0 U	20	18.0	8.6	ug/L	11/02/19	11/02/19
BLANK	SURROGATE: 4-BROMOFLUORO	94.8	85-114			%	11/02/19	11/02/19

Quant Method:TGAS1026.M
Run #:1101T40
Instrument:Thor
Sequence:T191028
Initials:DPO

GC SC-Blank-REG MDLs-DOD
Printed: 11/04/19 5:21:09 PM

EPA 8260B

Form 4

LCS Summary

Lab Name: APPL, Inc. SDG No: 90599

Case No: 90599 Date Analyzed: 11/02/19

Matrix: WATER Instrument: Thor

LCS ID: 191101BT-LCS Time Analyzed: 0452

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191101BT-LCS	Lab Control Spike	1101T34	11/02/19 0452
191101BT-LCSD	Lab Control SpikeD	1101T35	11/02/19 0520
191101BT-BLK	Blank	1101T40	11/02/19 0741
BA02159	ERH937	1101T48	11/02/19 1127
BA02160	ERH938	1101T49	11/02/19 1156

Comments: Batch: #GRO86-191101BT

Printed: 11/04/19 5:21:02 PM
Form 4, LCS Summary

Laboratory Control Spike Recoveries
EPA 8260B GRO WATER

APPL ID: **191102W-02214 LCS - 246725**
Batch ID: #GRO86-191101BT

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Lvl ug/L	SPK Result ug/L	DUP Result ug/L	SPK % Recovery	DUP % Recovery	Recovery Limits	RPD %	RPD Limits
GASOLINE RANGE ORGANICS	300	244	234	81.3	78.0	78-122	4.2	20
SURROGATE: 4-BROMOFLUOROBENZE	25.0	25.0	23.4	100	93.6	85-114		

Comments:

Primary	SPK	DUP
Quant Method :	TGAS1026.M	TGAS1026.M
Extraction Date :	11/02/19	11/02/19
Analysis Date :	11/02/19	11/02/19
Instrument :	Thor	Thor
Run :	1101T34	1101T35
Initials :	DPO	

Printed: 11/04/19 5:21:05 PM
APPL Standard LCSD

RSK 175

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 90599

Case No: 90599 Date Analyzed: 10/31/19

Matrix: WATER Instrument: Rocky

Blank ID: 191031A-BLK Time Analyzed: 1712

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191031A-LCS	Lab Control Spike	1031R03	10/31/19 1703
191031A-LCSD	Lab Control SpikeD	1031R04	10/31/19 1708
191031A-BLK	Blank	1031R05	10/31/19 1712
BA02159	ERH937	1031R11	10/31/19 1729
BA02160	ERH938	1031R12	10/31/19 1731

Comments: Batch: #RSKME-191031A

Printed: 11/15/19 2:00:27 PM
Form 4, Blank Summary

Method Blank
METHANE

Blank Name/QCG: **191031W-01830 - 246650**
Batch ID: #RSKME-191031A

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	METHANE	1.00 U	5.0	1.00	0.25	ug/L	10/31/19	10/31/19

Quant Method:RSK1002.M
Run #:1031R05
Instrument:Rocky
Sequence:191002
Initials:GAG

GC SC-Blank-REG MDLs-DOD
Printed: 11/15/19 2:00:03 PM

RSK 175

Form 4

LCS Summary

Lab Name: APPL, Inc. SDG No: 90599

Case No: 90599 Date Analyzed: 10/31/19

Matrix: WATER Instrument: Rocky

LCS ID: 191031A-LCS Time Analyzed: 1703

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191031A-LCS	Lab Control Spike	1031R03	10/31/19 1703
191031A-LCSD	Lab Control SpikeD	1031R04	10/31/19 1708
191031A-BLK	Blank	1031R05	10/31/19 1712
BA02159	ERH937	1031R11	10/31/19 1729
BA02160	ERH938	1031R12	10/31/19 1731

Comments: Batch: #RSKME-191031A

Printed: 11/15/19 2:00:28 PM
Form 4, LCS Summary

Laboratory Control Spike Recoveries

METHANE

APPL ID: **191031W-01830 LCS - 246650**
Batch ID: #RSKME-191031A

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Lvl ug/L	SPK Result ug/L	DUP Result ug/L	SPK % Recovery	DUP % Recovery	Recovery Limits	RPD %	RPD Limits
METHANE	83.4	86.5	88.2	104	106	72-125	1.9	30

Comments: _____

Primary	SPK	DUP
Quant Method :	RSK1002.M	RSK1002.M
Extraction Date :	10/31/19	10/31/19
Analysis Date :	10/31/19	10/31/19
Instrument :	Rocky	Rocky
Run :	1031R03	1031R04
Initials :	GAG	

Printed: 11/15/19 2:00:10 PM
APPL Standard LCSD

EPA 300.0

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 90599

Case No: 90599 Date Analyzed: 10/30/19

Matrix: WATER Instrument: Charlie

Blank ID: 191030iR-BLK Time Analyzed: 1852

APPL ID.	Client Sample No.	File ID.	Date Analyzed
BA02160	ERH938	11	10/30/19 1929
191030iR-BLK	Blank	6	10/30/19 1852
191030iR-LCS	Lab Control Spike	7	10/30/19 1859
191030iR-LCSD	Lab Control SpikeD	8	10/30/19 1907

Comments: Batch: #300W-191030iR

Printed: 12/02/19 10:57:37 AM
Form 4, Blank Summary

EPA 300.0

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 90599

Case No: 90599 Date Analyzed: 11/02/19

Matrix: WATER Instrument: Charlie

Blank ID: 191102di1-BLK Time Analyzed: 1040

APPL ID.	Client Sample No.	File ID.	Date Analyzed
BA02160	ERH938	12	11/02/19 1155
191102di1-BLK	Blank	2	11/02/19 1040
191102di1-LCS	Lab Control Spike	3	11/02/19 1048
191102di1-LCSD	Lab Control SpikeD	4	11/02/19 1055

Comments: Batch: #300WD-191102di1

Printed: 12/02/19 10:57:37 AM
Form 4, Blank Summary

WETLAB BLANK

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Method	Analyte	Result	LOQ	LOD	DL	Units	Prep Date	Analysis Date	QC Group
EPA 300.0	CHLORIDE	0.20 U	1.0	0.20	0.08	mg/L	10/30/19	10/30/19	#300W-191030iR-BA02090
EPA 300.0	NITRATE	0.18 U	0.5	0.18	0.04	mg/L	10/30/19	10/30/19	#300W-191030iR-BA02090
EPA 300.0	SULFATE	0.20 U	1.0	0.20	0.09	mg/L	10/30/19	10/30/19	#300W-191030iR-BA02090
EPA 300.0	CHLORIDE	0.20 U	1.0	0.20	0.08	mg/L	11/02/19	11/02/19	300WD-191102di1-BA02160

Wetlab SC-Blank-REG MDLs
Printed: 12/02/19 10:57:26 AM

EPA 300.0

Form 4

LCS Summary

Lab Name: APPL, Inc. SDG No: 90599

Case No: 90599 Date Analyzed: 10/30/19

Matrix: WATER Instrument: Charlie

LCS ID: 191030iR-LCS Time Analyzed: 1859

APPL ID.	Client Sample No.	File ID.	Date Analyzed
BA02160	ERH938	11	10/30/19 1929
191030iR-BLK	Blank	6	10/30/19 1852
191030iR-LCS	Lab Control Spike	7	10/30/19 1859
191030iR-LCSD	Lab Control SpikeD	8	10/30/19 1907

Comments: Batch: #300W-191030iR

Printed: 12/02/19 10:59:02 AM
Form 4, LCS Summary

EPA 300.0

Form 4

LCS Summary

Lab Name: APPL, Inc. SDG No: 90599

Case No: 90599 Date Analyzed: 11/02/19

Matrix: WATER Instrument: Charlie

LCS ID: 191102di1-LCS Time Analyzed: 1048

APPL ID.	Client Sample No.	File ID.	Date Analyzed
BA02160	ERH938	12	11/02/19 1155
191102di1-BLK	Blank	2	11/02/19 1040
191102di1-LCS	Lab Control Spike	3	11/02/19 1048
191102di1-LCSD	Lab Control SpikeD	4	11/02/19 1055

Comments: Batch: #300WD-191102di1

Printed: 12/02/19 10:59:02 AM
Form 4, LCS Summary

Laboratory Control Spike Recoveries

WETLAB

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Method	Compound Name	Spike Lvl mg/L	SPK Res mg/L	DUP Res mg/L	SPK % Recov	DUP % Recov	RPD	RPD Max	QC Limits	Extract Date-Spk	Analysis Date-Spk	Extract Date-Dup	Analysis Date-Dup	QC Group
EPA 300.0	CHLORIDE	25.0	24.7	24.8	98.8	99.2	0.40	20	90-110	11/02/19	11/02/19	11/02/19	11/02/19	#300WD-191102di1-BA021
EPA 300.0	CHLORIDE	25.0	24.2	24.2	96.8	96.8	0.0	20	90-110	10/30/19	10/30/19	10/30/19	10/30/19	#300W-191030iR-BA02090
EPA 300.0	NITRATE	22.1	20.9	20.9	94.6	94.6	0.0	20	90-110	10/30/19	10/30/19	10/30/19	10/30/19	#300W-191030iR-BA02090
EPA 300.0	SULFATE	25.0	23.7	23.7	94.8	94.8	0.0	20	90-110	10/30/19	10/30/19	10/30/19	10/30/19	#300W-191030iR-BA02090

Comments:

Printed: 12/02/19 10:59:01 AM
APPL Standard LCSD

EPA 353.2

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 90599

Case No: 90599 Date Analyzed: 11/01/19

Matrix: WATER Instrument: EVE

Blank ID: 191101A-BLK Time Analyzed: 1629

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191101A-BLK	Blank	12	11/01/19 1629
191101A-LCS	Lab Control Spike	13	11/01/19 1631
191101A-LCSD	Lab Control SpikeD	14	11/01/19 1633
BA02160	ERH938	19	11/01/19 1640

Comments: Batch: #35OF-191101A

Printed: 12/02/19 11:07:20 AM
Form 4, Blank Summary

SM 2320B

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 90599

Case No: 90599 Date Analyzed: 11/01/19

Matrix: WATER Instrument: Tiamo

Blank ID: 191101A-BLK Time Analyzed: 1034

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191101A-BLK	Blank	1	11/01/19 1034
191101A-LCS	Lab Control Spike	2	11/01/19 1043
191101A-LCSD	Lab Control SpikeD	3	11/01/19 1053
BA02160	ERH938	7	11/01/19 1129

Comments: Batch: #232W-191101A

Printed: 12/02/19 11:07:20 AM
Form 4, Blank Summary

SM3500FeB

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 90599

Case No: 90599 Date Analyzed: 10/30/19

Matrix: WATER Instrument: Manual Spec

Blank ID: A191030-BLK Time Analyzed: 2326

APPL ID.	Client Sample No.	File ID.	Date Analyzed
A191030-BLK	Blank	32	10/30/19 2326
A191030-LCS	Lab Control Spike	33	10/30/19 2327
A191030-LCSD	Lab Control SpikeD	35	10/30/19 2328
BA02160	ERH938	36	10/30/19 2328

Comments: Batch: #35FE-A191030

Printed: 12/02/19 11:07:20 AM
Form 4, Blank Summary

SW846 9060A

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 90599

Case No: 90599 Date Analyzed: 11/10/19

Matrix: WATER Instrument: TICTOC

Blank ID: 191107B-BLK Time Analyzed: 1833

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191107B-BLK	Blank	10	11/10/19 1833
191107B-LCS	Lab Control Spike	11	11/10/19 1909
191107B-LCSD	Lab Control SpikeD	12	11/10/19 1945
BA02160	ERH938	21	11/11/19 0049

Comments: Batch: #TOCW5-191107B

Printed: 12/02/19 11:07:20 AM
Form 4, Blank Summary

WETLAB BLANK

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Method	Analyte	Result	LOQ	LOD	DL	Units	Prep Date	Analysis Date	QC Group
SM 2320B	BICARBONATE AS	1.70 U	2.0	1.70	0.85	mg/L	11/01/19	11/01/19	#232W-191101A-BA02216
SM 2320B	CARBONATE AS C	1.70 U	2.0	1.70	0.85	mg/L	11/01/19	11/01/19	#232W-191101A-BA02216
SM 2320B	TOTAL ALKALINITY	1.70 U	2.0	1.70	0.85	mg/L	11/01/19	11/01/19	#232W-191101A-BA02216
SM3500Fe	FERROUS IRON	0.32 U	1.0	0.32	0.16	mg/L	10/30/19	10/30/19	#35FE-A191030-BA02160
EPA 353.2	NITRATE-NITRITE-	0.090 U	0.10	0.090	0.028	mg/L	11/01/19	11/01/19	#35OF-191101A-BA02090
SW846 90	TOTAL ORGANIC C	0.13 J	0.93	0.350	0.130	mg/L	11/10/19	11/10/19	#TOCW5-191107B-BA01829

J = Estimated value.

Wetlab SC-Blank-REG MDLs
Printed: 12/09/19 10:33:29 AM

EPA 353.2

Form 4

LCS Summary

Lab Name: APPL, Inc. SDG No: 90599

Case No: 90599 Date Analyzed: 11/01/19

Matrix: WATER Instrument: EVE

LCS ID: 191101A-LCS Time Analyzed: 1631

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191101A-BLK	Blank	12	11/01/19 1629
191101A-LCS	Lab Control Spike	13	11/01/19 1631
191101A-LCSD	Lab Control SpikeD	14	11/01/19 1633
BA02160	ERH938	19	11/01/19 1640

Comments: Batch: #35OF-191101A

Printed: 12/02/19 11:07:21 AM
Form 4, LCS Summary

SM 2320B

Form 4

LCS Summary

Lab Name: APPL, Inc. SDG No: 90599

Case No: 90599 Date Analyzed: 11/01/19

Matrix: WATER Instrument: Tiamo

LCS ID: 191101A-LCS Time Analyzed: 1043

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191101A-BLK	Blank	1	11/01/19 1034
191101A-LCS	Lab Control Spike	2	11/01/19 1043
191101A-LCSD	Lab Control SpikeD	3	11/01/19 1053
BA02160	ERH938	7	11/01/19 1129

Comments: Batch: #232W-191101A

Printed: 12/02/19 11:07:21 AM
Form 4, LCS Summary

SM3500FeB

Form 4

LCS Summary

Lab Name: APPL, Inc. SDG No: 90599

Case No: 90599 Date Analyzed: 10/30/19

Matrix: WATER Instrument: Manual Spec

LCS ID: A191030-LCS Time Analyzed: 2327

APPL ID.	Client Sample No.	File ID.	Date Analyzed
A191030-BLK	Blank	32	10/30/19 2326
A191030-LCS	Lab Control Spike	33	10/30/19 2327
A191030-LCSD	Lab Control SpikeD	35	10/30/19 2328
BA02160	ERH938	36	10/30/19 2328

Comments: Batch: #35FE-A191030

SW846 9060A

Form 4

LCS Summary

Lab Name: APPL, Inc. SDG No: 90599

Case No: 90599 Date Analyzed: 11/10/19

Matrix: WATER Instrument: TICTOC

LCS ID: 191107B-LCS Time Analyzed: 1909

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191107B-BLK	Blank	10	11/10/19 1833
191107B-LCS	Lab Control Spike	11	11/10/19 1909
191107B-LCSD	Lab Control SpikeD	12	11/10/19 1945
BA02160	ERH938	21	11/11/19 0049

Comments: Batch: #TOCW5-191107B

Printed: 12/02/19 11:07:21 AM
Form 4, LCS Summary

Laboratory Control Spike Recoveries

WETLAB

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Method	Compound Name	Spike Lvl mg/L	SPK Res mg/L	DUP Res mg/L	SPK % Recov	DUP % Recov	RPD	RPD Max	QC Limits	Extract Date-Spk	Analysis Date-Spk	Extract Date-Dup	Analysis Date-Dup	QC Group
EPA 353.2	NITRATE-NITRITE-N	3.00	3.10	2.99	103	99.7	3.6	20	90-110	11/01/19	11/01/19	11/01/19	11/01/19	#35OF-191101A-BA02090
SM 2320B	BICARBONATE AS CACO3	237.2	237	232	99.9	97.8	2.1	20	90-110	11/01/19	11/01/19	11/01/19	11/01/19	#232W-191101A-BA02216
SM 2320B	CARBONATE AS CACO3	12.8	9.32	16.3	72.8 #	127 #	54.5 #	20	90-110	11/01/19	11/01/19	11/01/19	11/01/19	#232W-191101A-BA02216
SM 2320B	TOTAL ALKALINITY AS CA	250	247	249	98.8	99.6	0.81	20	90-110	11/01/19	11/01/19	11/01/19	11/01/19	#232W-191101A-BA02216
SM3500Fe	FERROUS IRON	3.00	3.02	3.01	101	100	0.33	20	80-120	10/30/19	10/30/19	10/30/19	10/30/19	#35FE-A191030-BA02160
SW846 90	TOTAL ORGANIC CARBO	5.00	5.16	5.12	103	102	0.78	20	80-120	11/10/19	11/10/19	11/10/19	11/10/19	#TOCW5-191107B-BA018

= Recovery is outside QC limits.

Comments:

Printed: 12/09/19 10:33:39 AM
APPL Standard LCSD

Matrix Spike Recoveries

WETLAB

APPL ID: **191030W-01833 MS - 246656**

Sample ID: BA01833

Client ID: ERH953

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Method	Compound Name	Spike Lvl mg/L	Matrix Res mg/L	SPK Res mg/L	DUP Res mg/L	SPK % Recovery	DUP % Recovery	RPD	RPD Max	Recovery Limits	Extract Date-Spk	Analysis Date-Spk	Extract Date-Dup	Analysis Date-Dup	QC Group	QC Sample
SM 4500-Si	SILICA W	10.0	63.1	75.9	76.3	128 #	132 #	0.53	20	80-120	10/30/19	10/30/19	10/30/19	10/30/19	246656	BA01833
SM 4500-Si	DISSOLVED SILICA	10.0	61.1	70.8	71.2	97.0	101	0.56	20	80-120	10/30/19	10/30/19	10/30/19	10/30/19	246657	BA01833

= Recovery is outside QC limits.

Comments: _____

WETLAB

Sample/Sample Duplicate Results

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

Sample ID: BA01833
Client ID: ERH953

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

ARF: 90559

Method	Analyte	Sample ID	Sample Result	Sample Dup Result	RPD	RPD Max	MDL	PQL	Units	Sample Extract Date	Sample Analysis Date	Sample Dup Extract Date	Sample Dup Analysis Date
SW846 9060A	DISSOLVED ORG	BA01833	0.40	0.36	11	20	0.130	0.93	mg/L	11/05/19	11/06/19	11/06/19	11/06/19

Printed: 12/16/19 12:55:58 PM
Dup-SCII (NoMC)

WETLAB

Sample/Sample Duplicate Results

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

Sample ID: BA02160
Client ID: ERH938

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

ARF: 90599

Method	Analyte	Sample ID	Sample Result	Sample Dup Result	RPD	RPD Max	MDL	PQL	Units	Sample Extract Date	Sample Analysis Date	Sample Dup Extract Date	Sample Dup Analysis Date
SW846 9060A	TOTAL ORGANIC	BA02160	5.1	5.3	3.8	20	0.130	0.93	mg/L	11/10/19	11/11/19	11/11/19	11/11/19

Printed: 12/17/19 11:52:37 AM
Dup-SCII (NoMC)

Matrix Spike Recoveries

WETLAB

APPL ID: **191030W-02160 MS - 246638**

Sample ID: BA02160

Client ID: ERH938

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Method	Compound Name	Spike Lvl mg/L	Matrix Res mg/L	SPK Res mg/L	DUP Res mg/L	SPK % Recovery	DUP % Recovery	RPD	RPD Max	Recovery Limits	Extract Date-Spk	Analysis Date-Spk	Extract Date-Dup	Analysis Date-Dup	QC Group	QC Sample
SM3500Fe	FERROUS IRON	3.0	0.14	3.08	3.11	98.0	99.0	0.97	20	80-120	10/30/19	10/30/19	10/30/19	10/30/19	246638	BA02160
SW846 90	TOTAL ORGANIC CAR	5.0	5.1	9.18	8.23	81.6	62.6 #	10.9	20	80-120	11/11/19	11/11/19	11/11/19	11/11/19	246998	BA02160

= Recovery is outside QC limits.

Comments: _____

ORGANICS
Calibration Data

TPH Extractables
DOC1114

Form 6
Initial Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Initial Cal. Date: 11/14/19
Matrix: Water Instrument: Apollo
Initials:

1114003.D 1114004.D 1114005.D 1114006.D 1114007.D 1114008.D

		Compound	1	2	3	4	5	6					Avg	%RSD	Type	r^2	Q
1	HATM	Diesel (C10-C24)	2027964	1336430	1489661	1454530	1384113	1359697					1508733	17	HATM		
2	HBTM	Motor Oil (C24-C40)	776455	819947	771703	744158	810038	798760					786843	3.6	HBTM		
3	SAL	Ortho-Terphenyl(S)	2345827	1504455	1492939	1513819	1376726	1360942					1599118	23	SA	0.997	
4	SA	Octacosane(S)	1517911	1093917	1010508	997320	1111697	1064489					1132640	17	SA		
5																	
6																	
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1.749733

Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\191114\1114003.D Vial: 3
Acq On : 11-14-19 19:39:49 Operator: BT
Sample : Diesel Motor Oil - 1 11/14/19 Inst : Apollo
Misc : water Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 15 9:20 2019 Quant Results File: DOC1114.RES

Method : G:\APOLLO\DATA\191114\DOC1114.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Nov 15 09:19:04 2019
Response via : Multiple Level Calibration

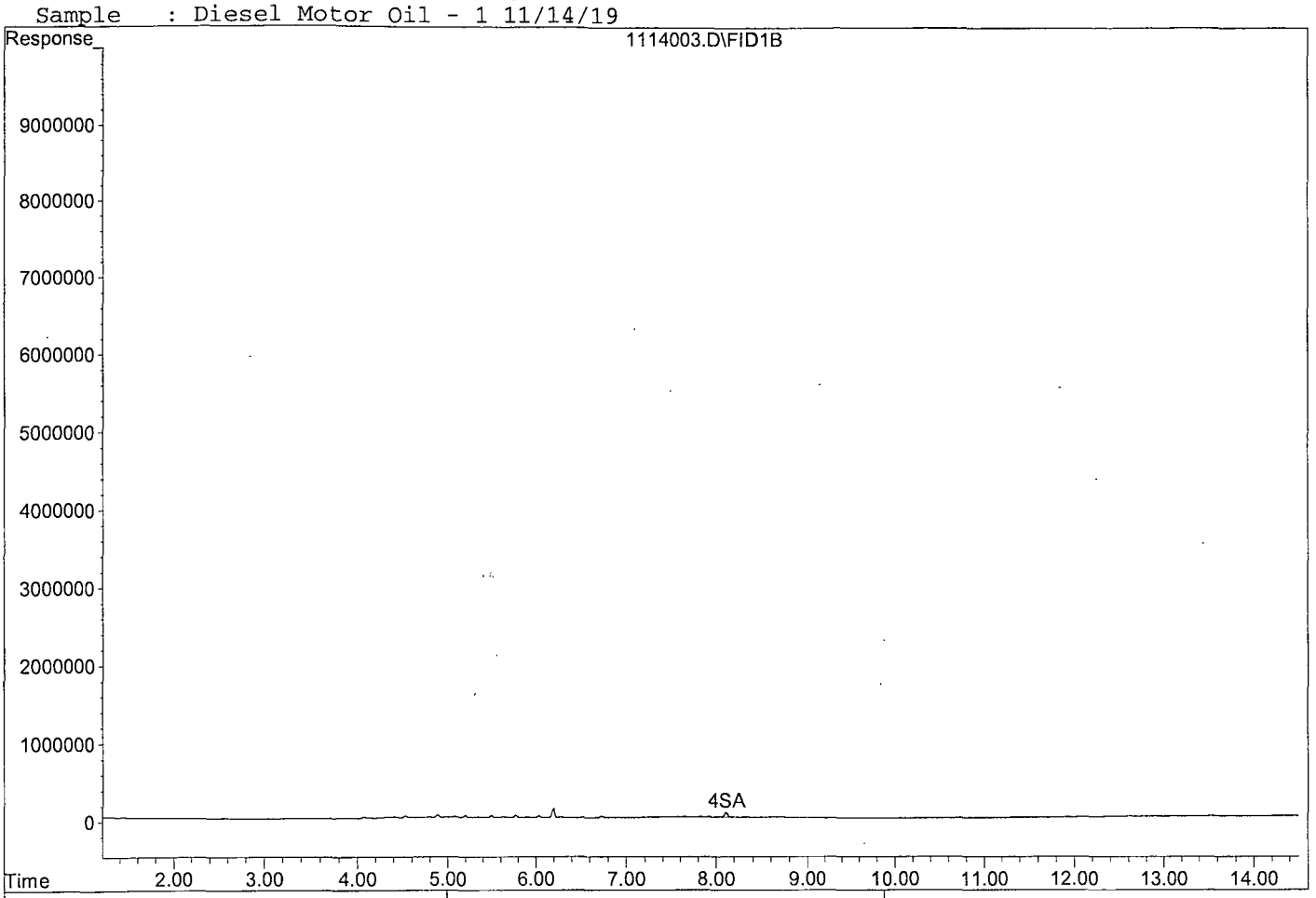
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

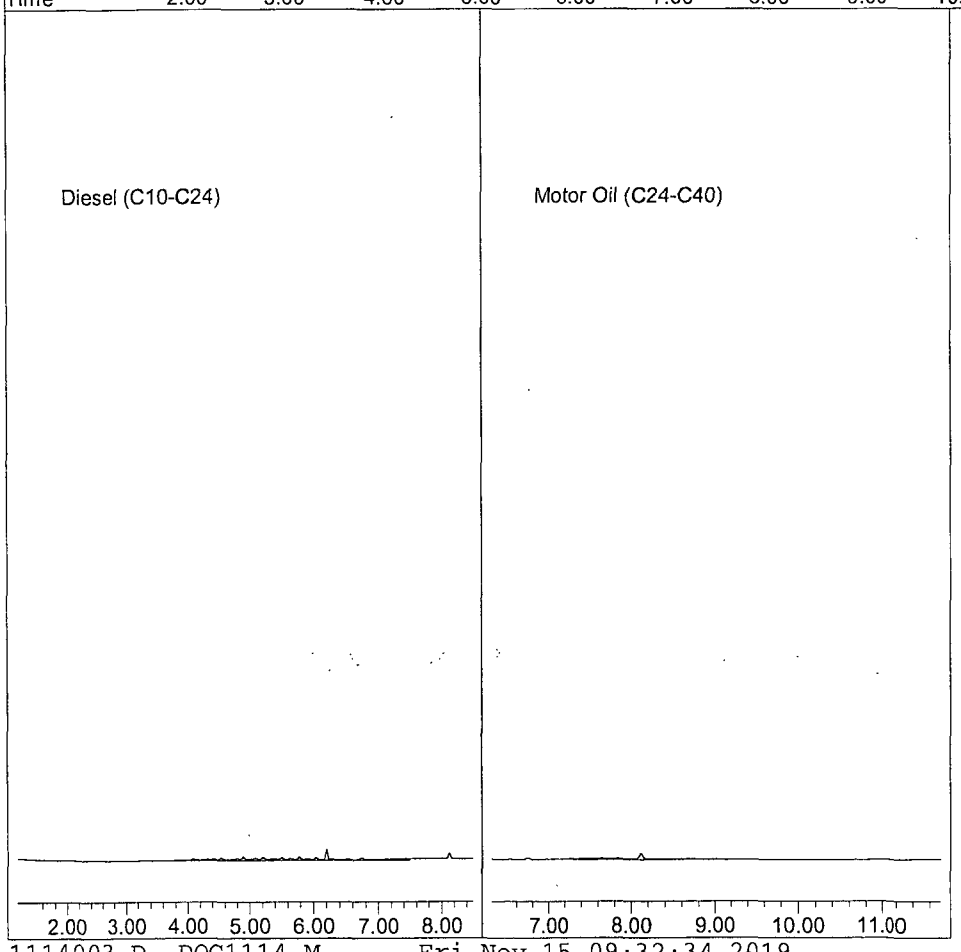
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) SA Ortho-Terphenyl(S)	6.20	2345827	N.D. ppb
Surrogate Spike 30.000	Recovery =		0.00%
4) SA Octacosane(S)	8.11	1517911	0.670 ppb
Surrogate Spike 30.000	Recovery =		2.23%
Target Compounds			
1) HATM Diesel (C10-C24)	4.42	40559274	13.446 ppb
2) HBTM Motor Oil (C24-C40)	9.01	15529092	9.868 ppb

Target Compounds

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: G:\APOLLO\DATA\191114\1114003.D
Sample : Diesel Motor Oil - 1 11/14/19

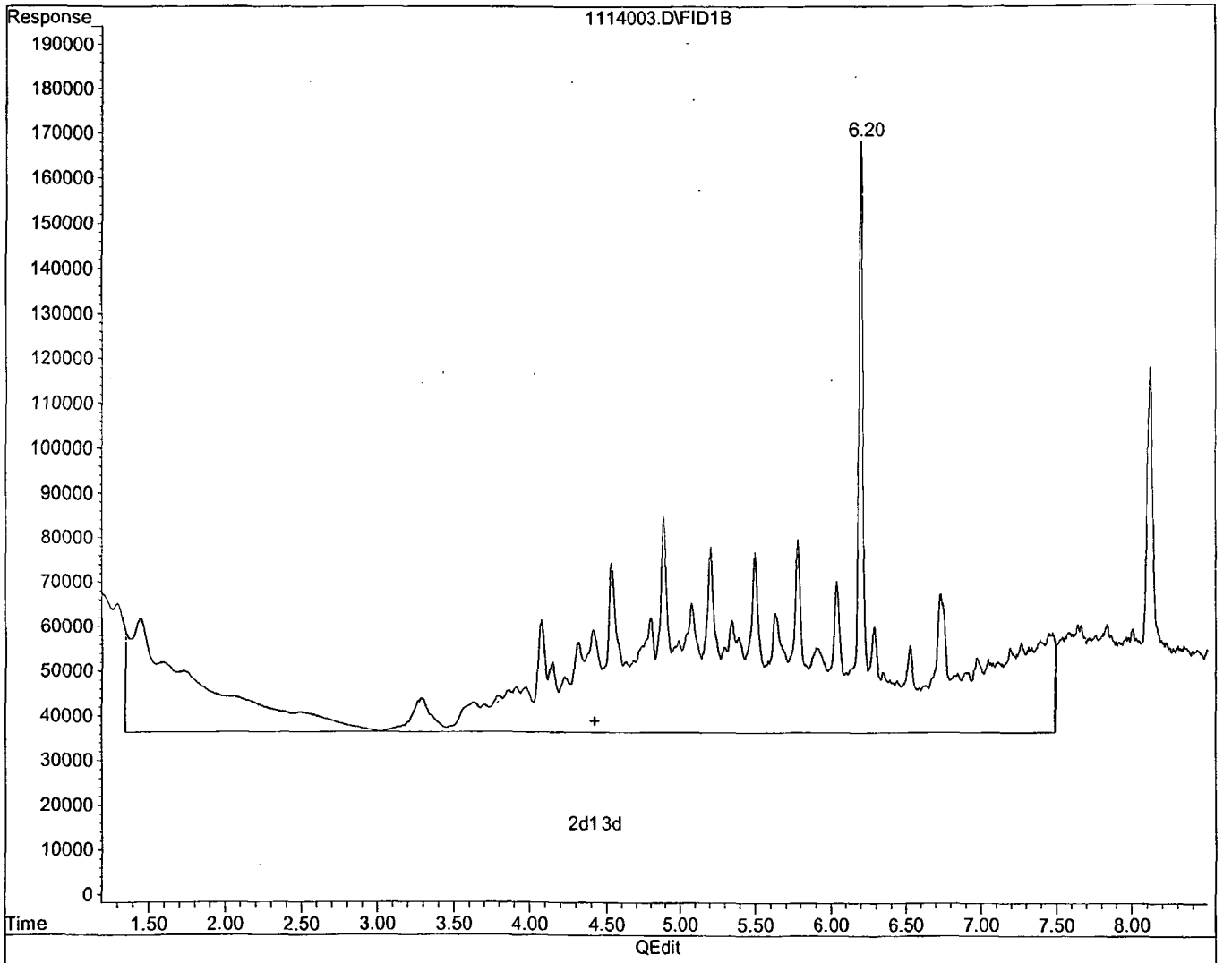




Quantitation Report

Data File : G:\APOLLO\DATA\191114\1114003.D Vial: 3
Acq On : 11-14-19 19:39:49 Operator: BT
Sample : Diesel Motor Oil - 1 11/14/19 Inst : Apollo
Misc : water Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 15 9:19 2019 Quant Results File: DOC1114.RES

Method : G:\APOLLO\DATA\191114\DOC1114.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Nov 15 09:19:04 2019
Response via : Multiple Level Calibration



(1) Diesel (C10-C24) (HATM)

4.42min 16.132ppb m

response 48662424

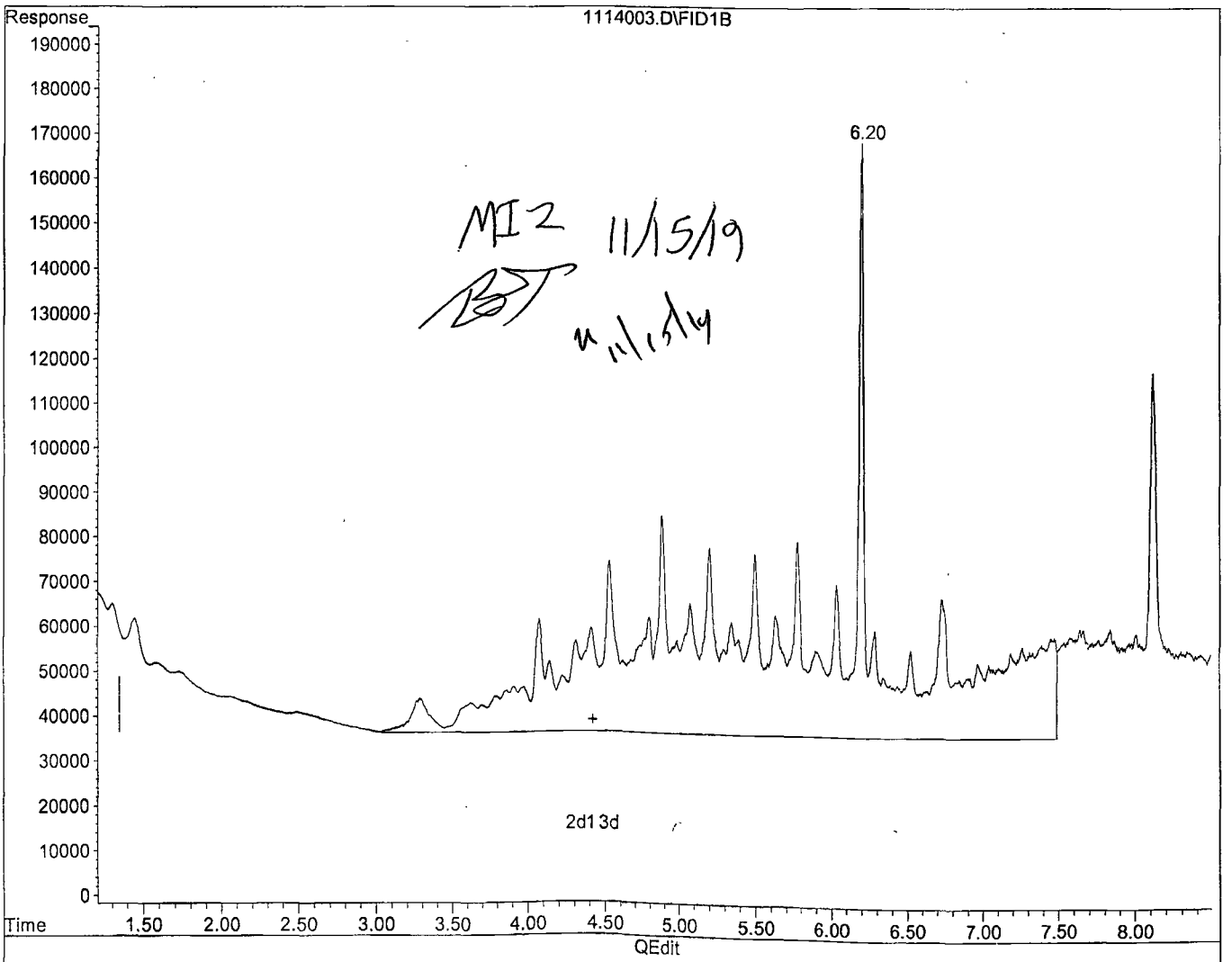
(+) = Expected Retention Time

1114003.D DOC1114.M Fri Nov 15 09:20:13 2019

Quantitation Report

Data File : G:\APOLLO\DATA\191114\1114003.D Vial: 3
Acq On : 11-14-19 19:39:49 Operator: BT
Sample : Diesel Motor Oil - 1 11/14/19 Inst : Apollo
Misc : water Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 15 9:19 2019 Quant Results File: DOC1114.RES

Method : G:\APOLLO\DATA\191114\DOC1114.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Nov 15 09:19:04 2019
Response via : Multiple Level Calibration



(1) Diesel (C10-C24) (HATM)

4.42min 13.446ppb m

response 40559274

(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\191114\1114004.D Vial: 4
Acq On : 11-14-19 19:59:46 Operator: BT
Sample : Diesel Motor Oil - 2 11/14/19 Inst : Apollo
Misc : water Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 15 9:21 2019 Quant Results File: DOC1114.RES

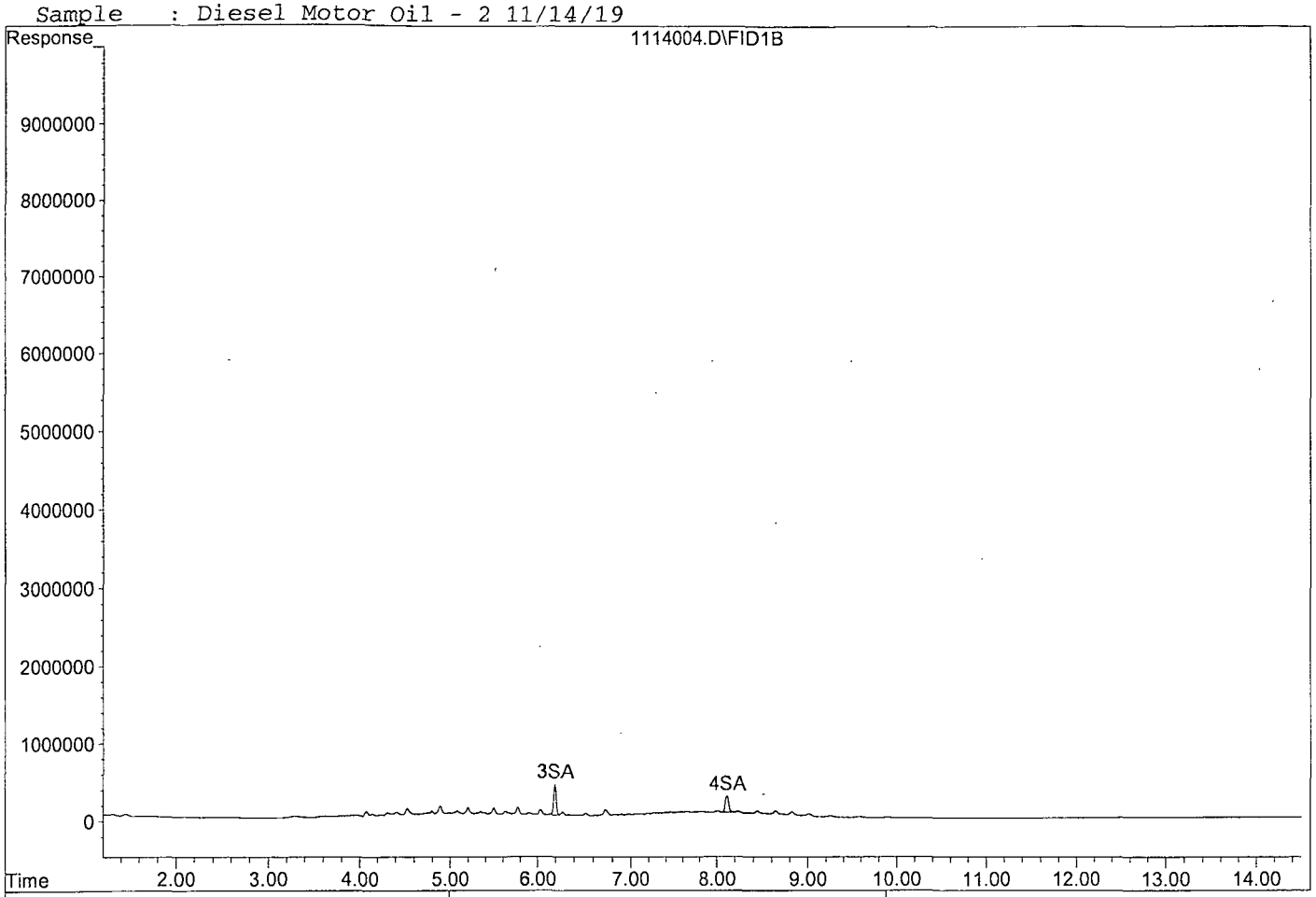
Method : G:\APOLLO\DATA\191114\DOC1114.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Nov 15 09:19:04 2019
Response via : Multiple Level Calibration

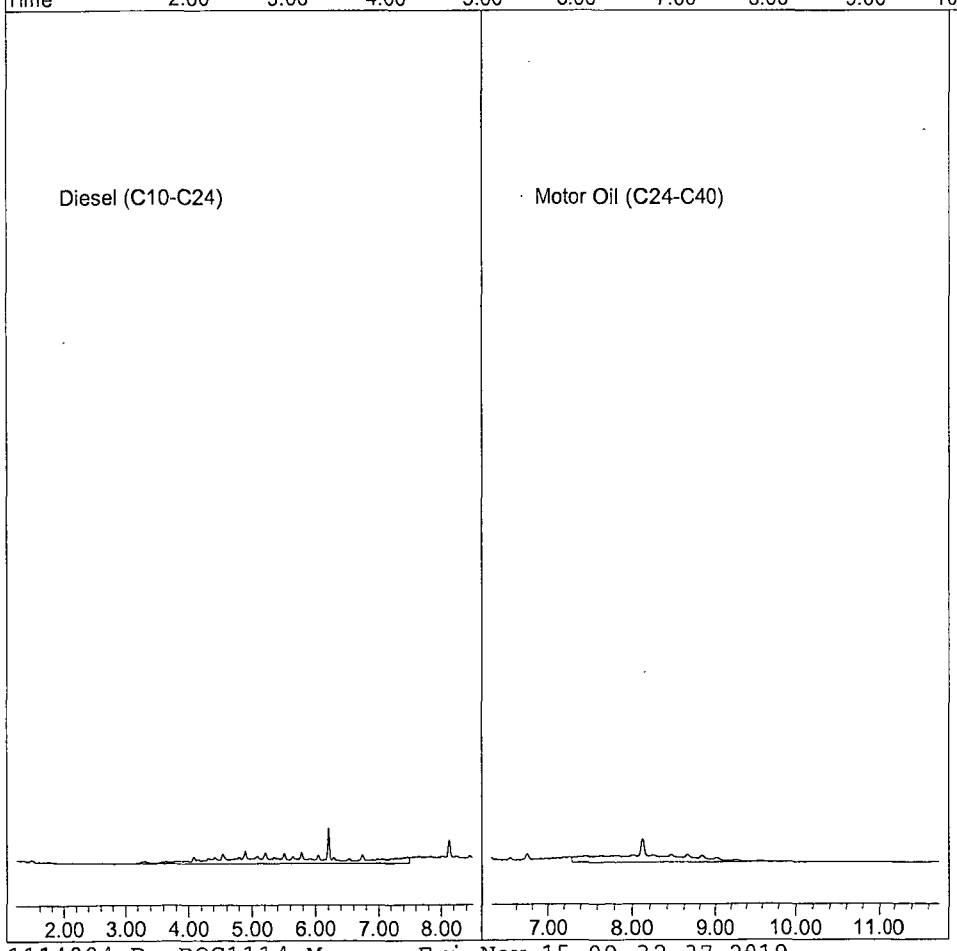
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) SA Ortho-Terphenyl(S)	6.20	7522274	1.503 ppb
Surrogate Spike 30.000	Recovery =		5.01%
4) SA Octacosane(S)	8.12	5469585	2.415 ppb
Surrogate Spike 30.000	Recovery =		8.05%
Target Compounds			
1) HATM Diesel (C10-C24)	4.42	133643009	44.304 ppb
2) HBTM Motor Oil (C24-C40)	9.01	81994744	52.104 ppb

Target Compounds

Data File: G:\APOLLO\DATA\191114\1114004.D
Sample : Diesel Motor Oil - 2 11/14/19

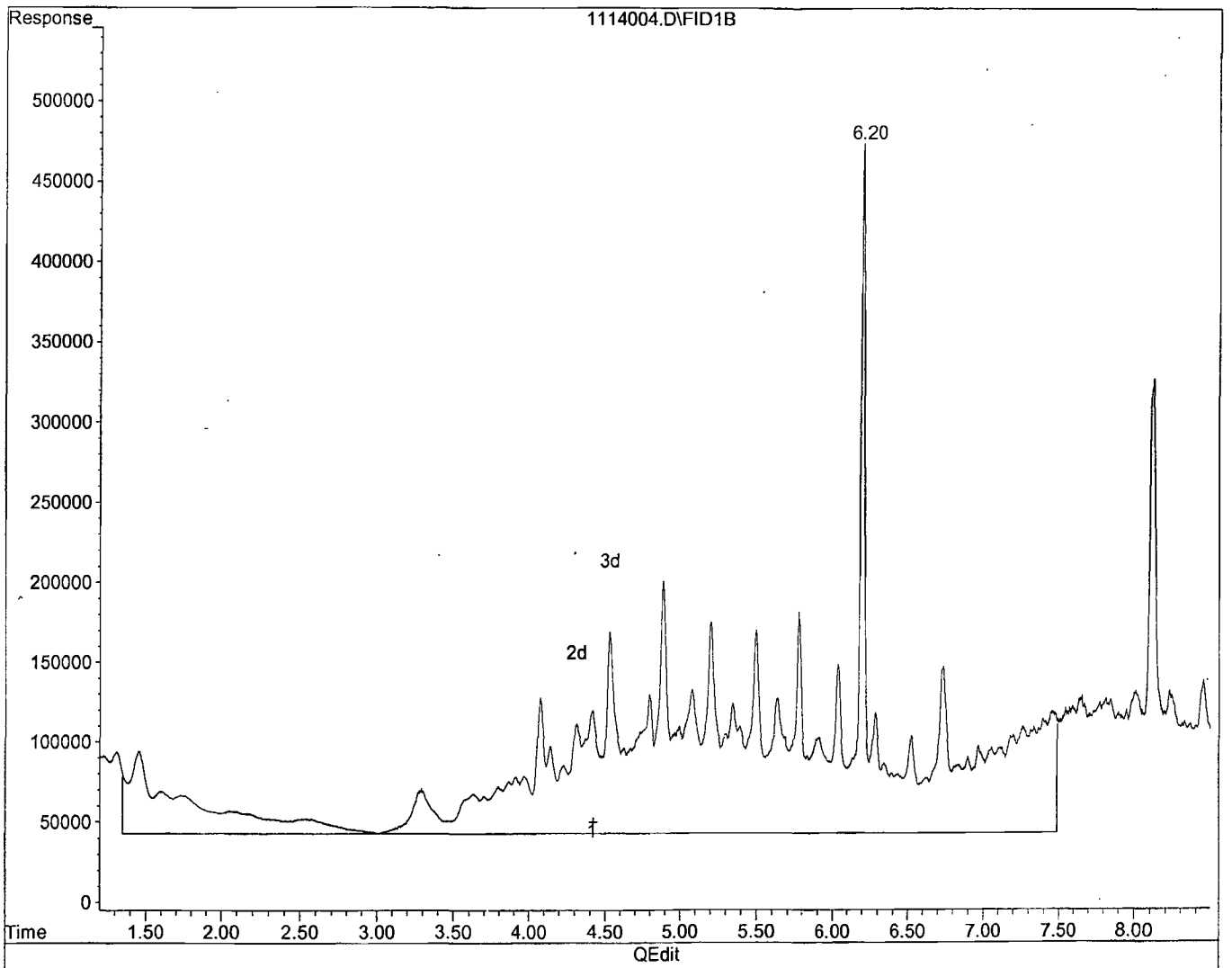




Quantitation Report

Data File : G:\APOLLO\DATA\191114\1114004.D Vial: 4
Acq On : 11-14-19 19:59:46 Operator: BT
Sample : Diesel Motor Oil - 2 11/14/19 Inst : Apollo
Misc : water Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 15 9:19 2019 Quant Results File: DOC1114.RES

Method : G:\APOLLO\DATA\191114\DOC1114.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Nov 15 09:19:04 2019
Response via : Multiple Level Calibration



(1) Diesel (C10-C24) (HATM)

4.42min 48.922ppb m

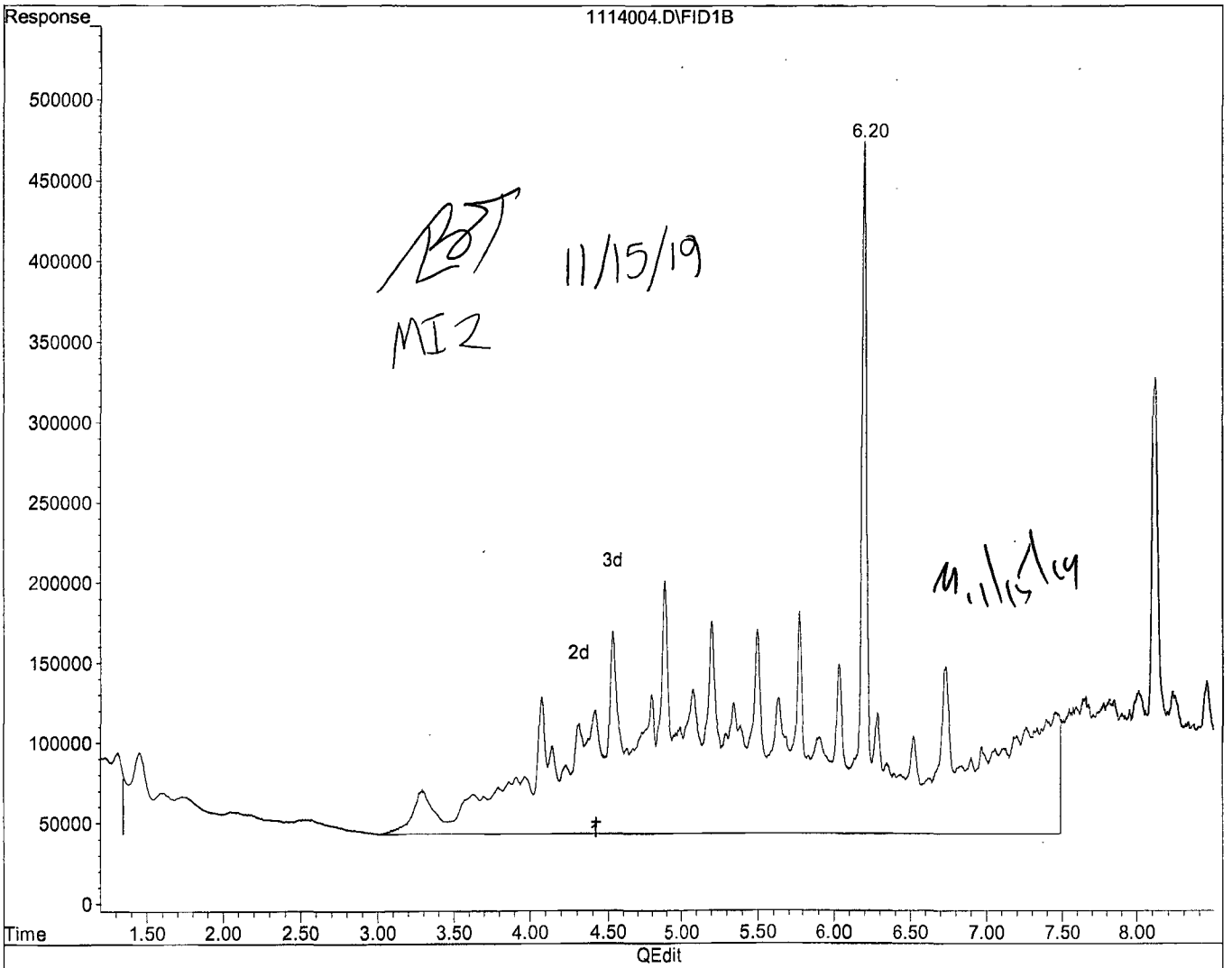
response 147576006

(+) = Expected Retention Time

Quantitation Report

Data File : G:\APOLLO\DATA\191114\1114004.D Vial: 4
Acq On : 11-14-19 19:59:46 Operator: BT
Sample : Diesel Motor Oil - 2 11/14/19 Inst : Apollo
Misc : water Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 15 9:19 2019 Quant Results File: DOC1114.RES

Method : G:\APOLLO\DATA\191114\DOC1114.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Nov 15 09:19:04 2019
Response via : Multiple Level Calibration



(1) Diesel (C10-C24) (HATM)

4.42min 44.304ppb m

response 133643009

(+) = Expected Retention Time

Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\191114\1114005.D Vial: 5
Acq On : 11-14-19 20:19:39 Operator: BT
Sample : Diesel Motor Oil - 3 11/14/19 Inst : Apollo
Misc : water Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 15 9:19 2019 Quant Results File: DOC1114.RES

Method : G:\APOLLO\DATA\191114\DOC1114.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Nov 15 09:19:04 2019
Response via : Multiple Level Calibration

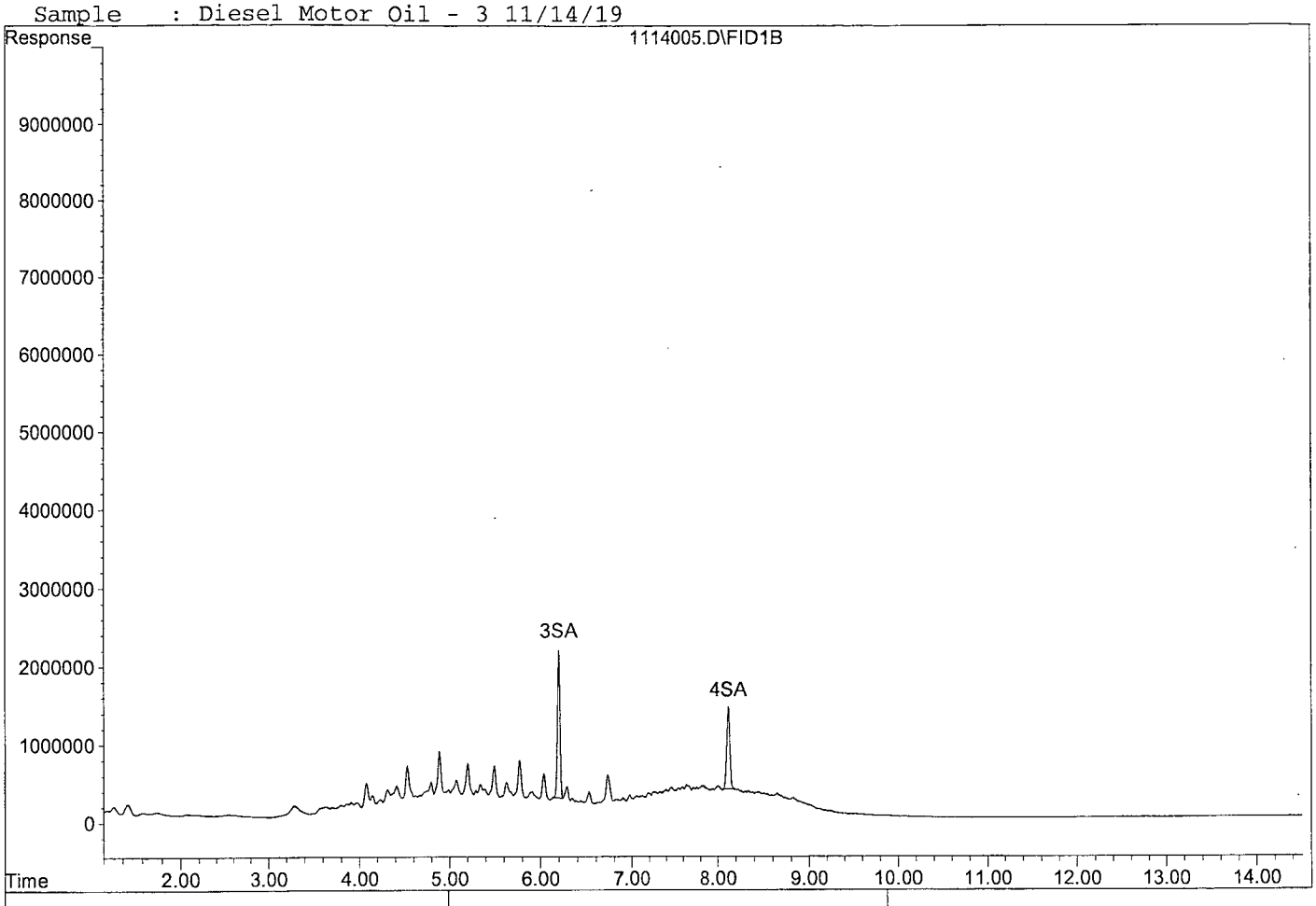
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

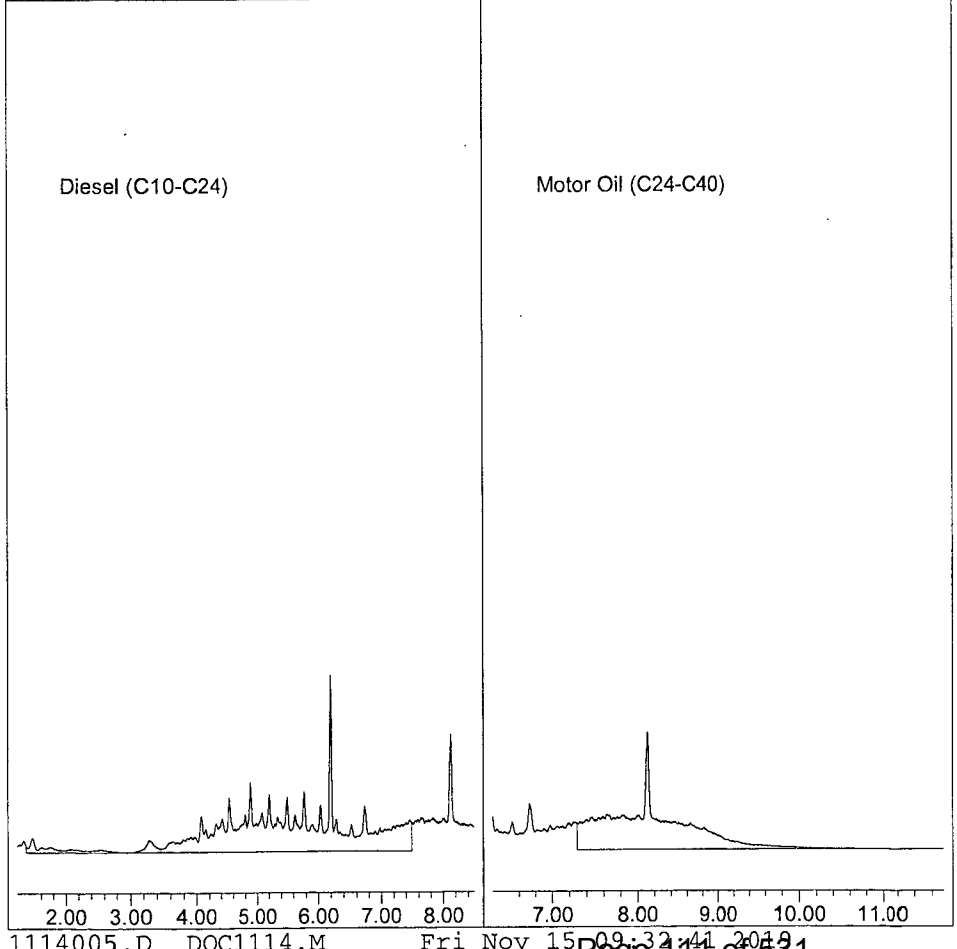
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) SA Ortho-Terphenyl(S)	6.20	37323483	12.416 ppb
Surrogate Spike 30.000	Recovery =		41.39%
4) SA Octacosane(S)	8.12	25262712	11.152 ppb
Surrogate Spike 30.000	Recovery =		37.17%
Target Compounds			
1) HATM Diesel (C10-C24)	4.42	744830742	246.917 ppb
2) HBTM Motor Oil (C24-C40)	9.01	385851504	245.190 ppb

Target Compounds

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: G:\APOLLO\DATA\191114\1114005.D
Sample : Diesel Motor Oil - 3 11/14/19





Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\191114\1114006.D Vial: 6
Acq On : 11-14-19 20:39:34 Operator: BT
Sample : Diesel Motor Oil - 4 11/14/19 Inst : Apollo
Misc : water Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 15 9:19 2019 Quant Results File: DOC1114.RES

Method : G:\APOLLO\DATA\191114\DOC1114.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Nov 15 09:19:04 2019
Response via : Multiple Level Calibration

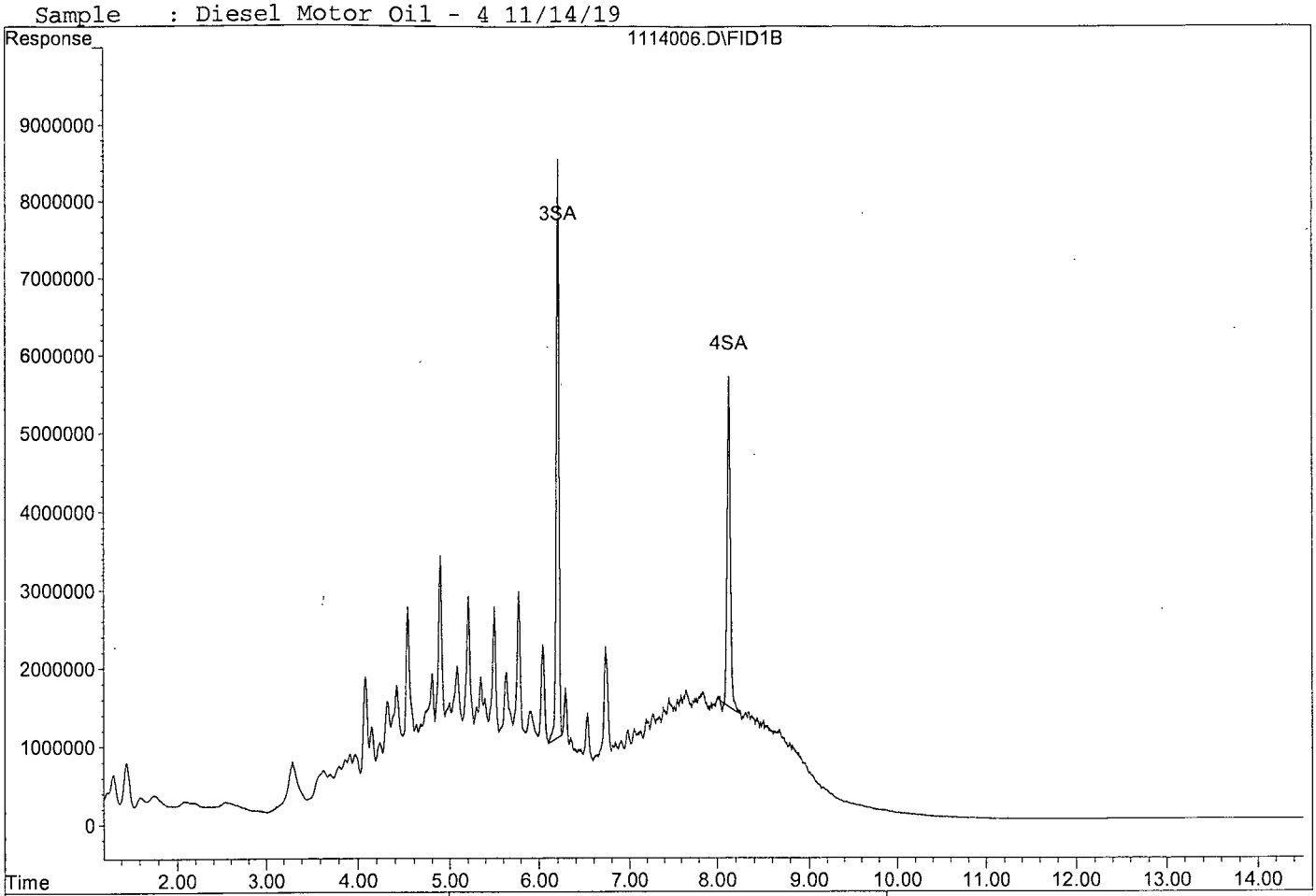
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

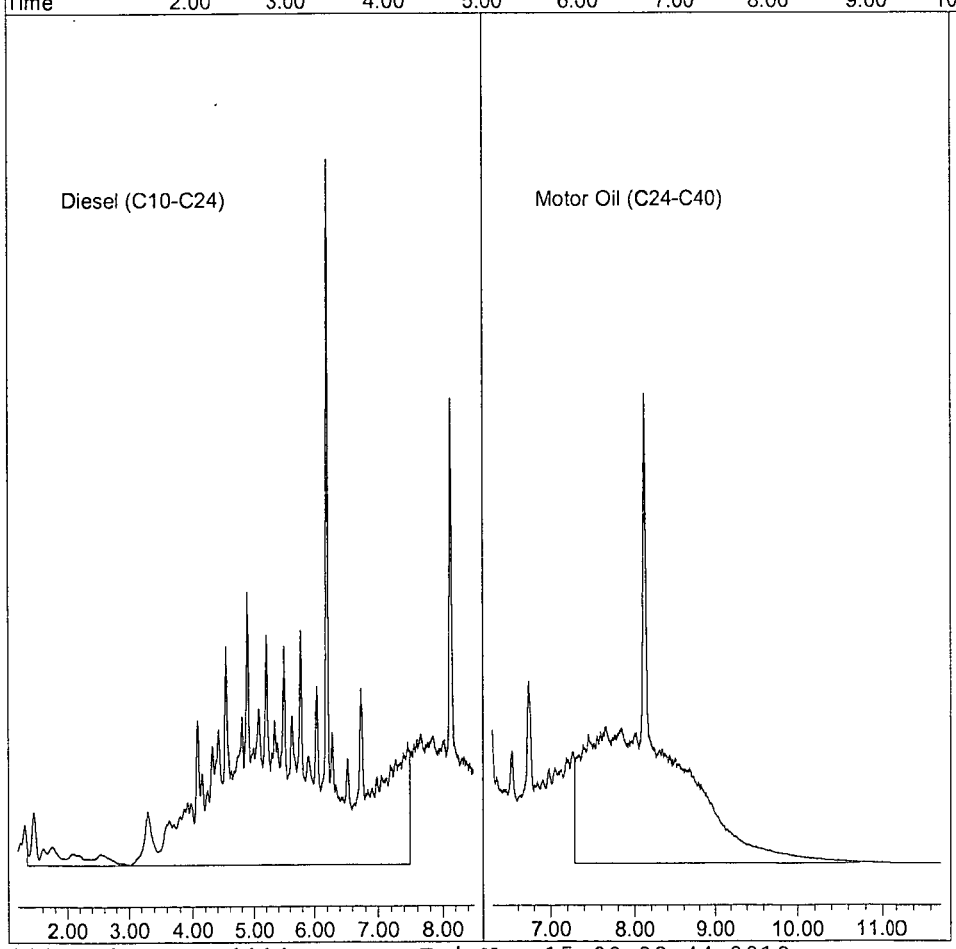
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) SA Ortho-Terphenyl(S)	6.21	151381863	54.183 ppb
Surrogate Spike 30.000	Recovery =		180.61%
4) SA Octacosane(S)	8.12	99731952	44.026 ppb
Surrogate Spike 30.000	Recovery =		146.75%
Target Compounds			
1) HATM Diesel (C10-C24)	4.42	2909060509	964.374 ppb
2) HBTM Motor Oil (C24-C40)	9.01	1488315692	945.751 ppb

Target Compounds

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: G:\APOLLO\DATA\191114\1114006.D
Sample : Diesel Motor Oil - 4 11/14/19





1114006.D DOC1114.M Fri Nov 15 09:32:44 2019

Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\191114\1114007.D Vial: 7
Acq On : 11-14-19 20:59:26 Operator: BT
Sample : Diesel Motor Oil - 5 11/14/19 Inst : Apollo
Misc : water Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 15 9:19 2019 Quant Results File: DOC1114.RES

Method : G:\APOLLO\DATA\191114\DOC1114.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Nov 15 09:19:04 2019
Response via : Multiple Level Calibration

Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

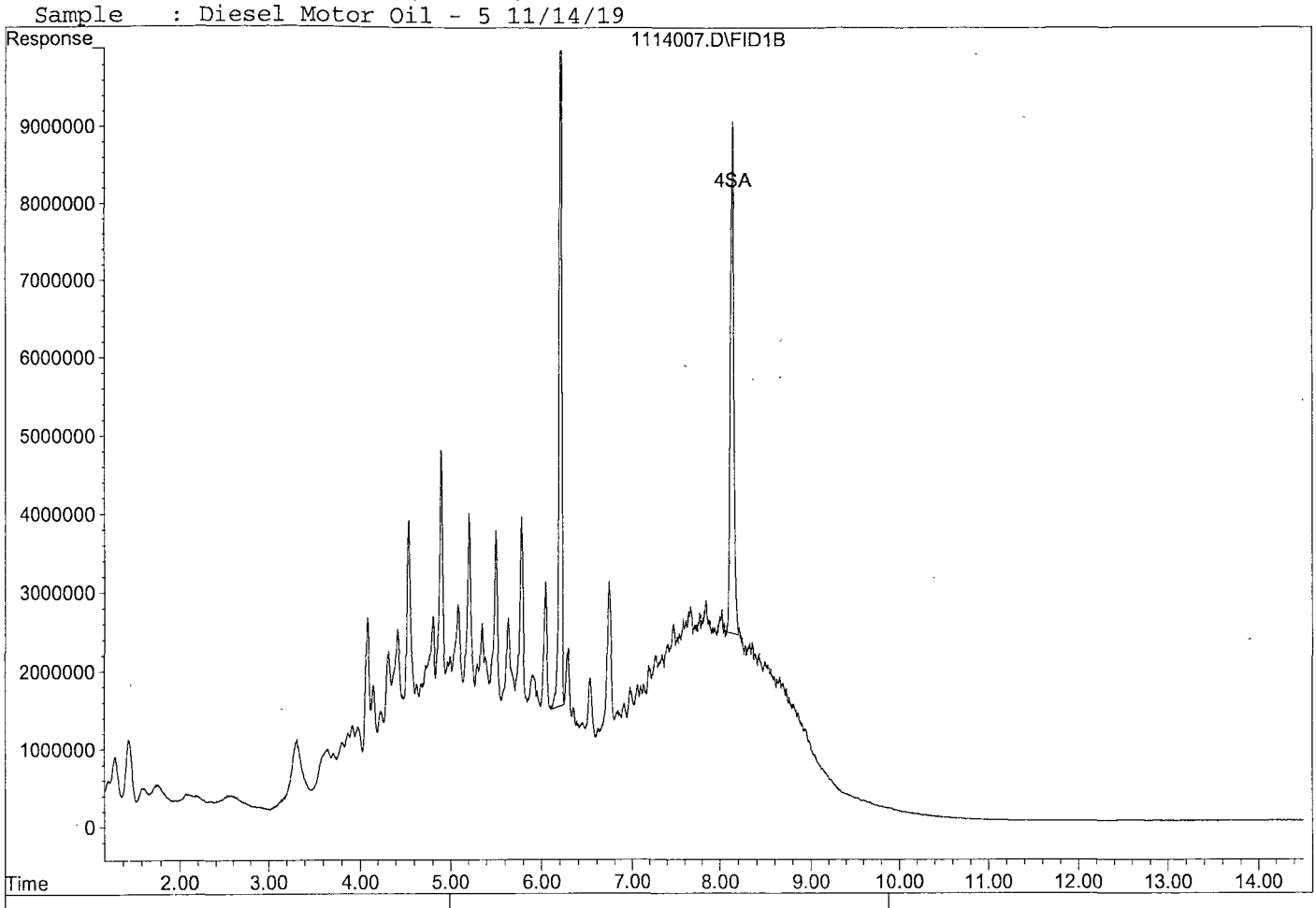
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) SA Ortho-Terphenyl(S)	6.21	206508954	74.370 ppb
Surrogate Spike 30.000		Recovery =	247.90%
4) SA Octacosane(S)	8.13	166754564	73.613 ppb
Surrogate Spike 30.000		Recovery =	245.38%
Target Compounds			
1) HATM Diesel (C10-C24)	4.42	4152339086	1376.529 ppb
2) HBTM Motor Oil (C24-C40)	9.01	2430112740	1544.216 ppb

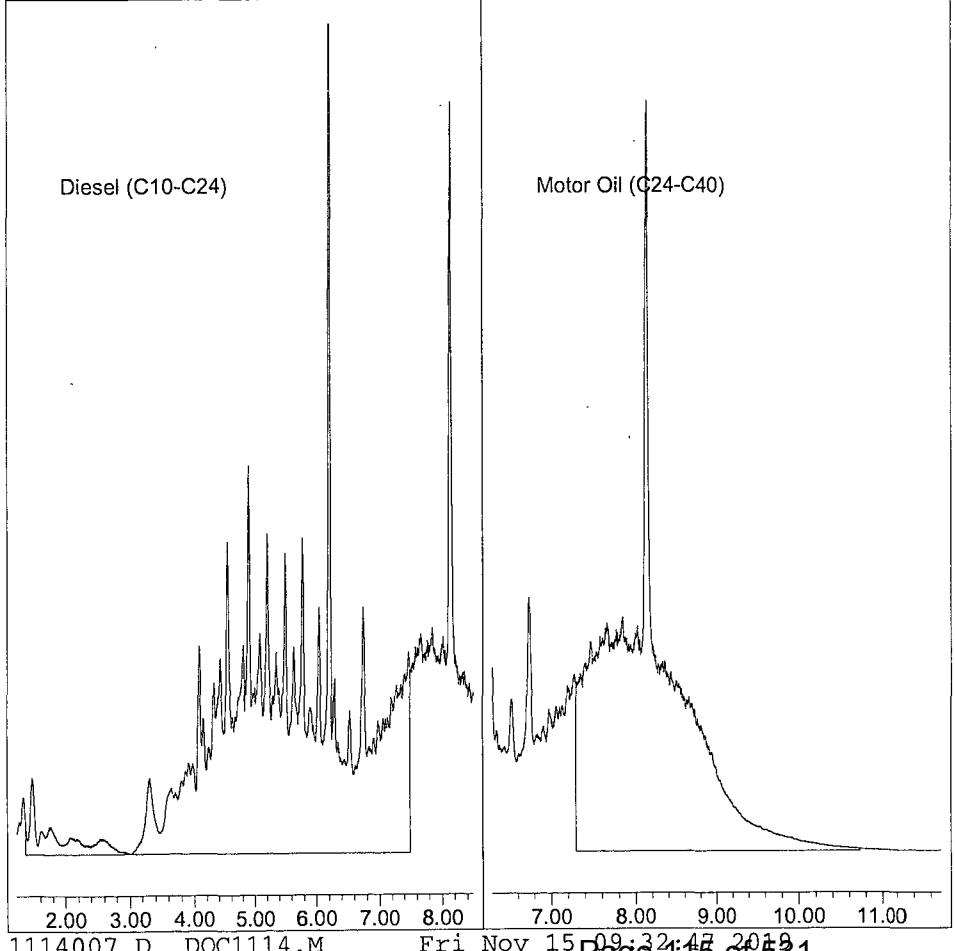
Target Compounds

(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File: G:\APOLLO\DATA\191114\1114007.D
Sample : Diesel Motor Oil - 5 11/14/19





Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\191114\1114008.D Vial: 8
Acq On : 11-14-19 21:19:19 Operator: BT
Sample : Diesel Motor Oil - 6 11/14/19 Inst : Apollo
Misc : water Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 15 9:19 2019 Quant Results File: DOC1114.RES

Method : G:\APOLLO\DATA\191114\DOC1114.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Nov 15 09:19:04 2019
Response via : Multiple Level Calibration

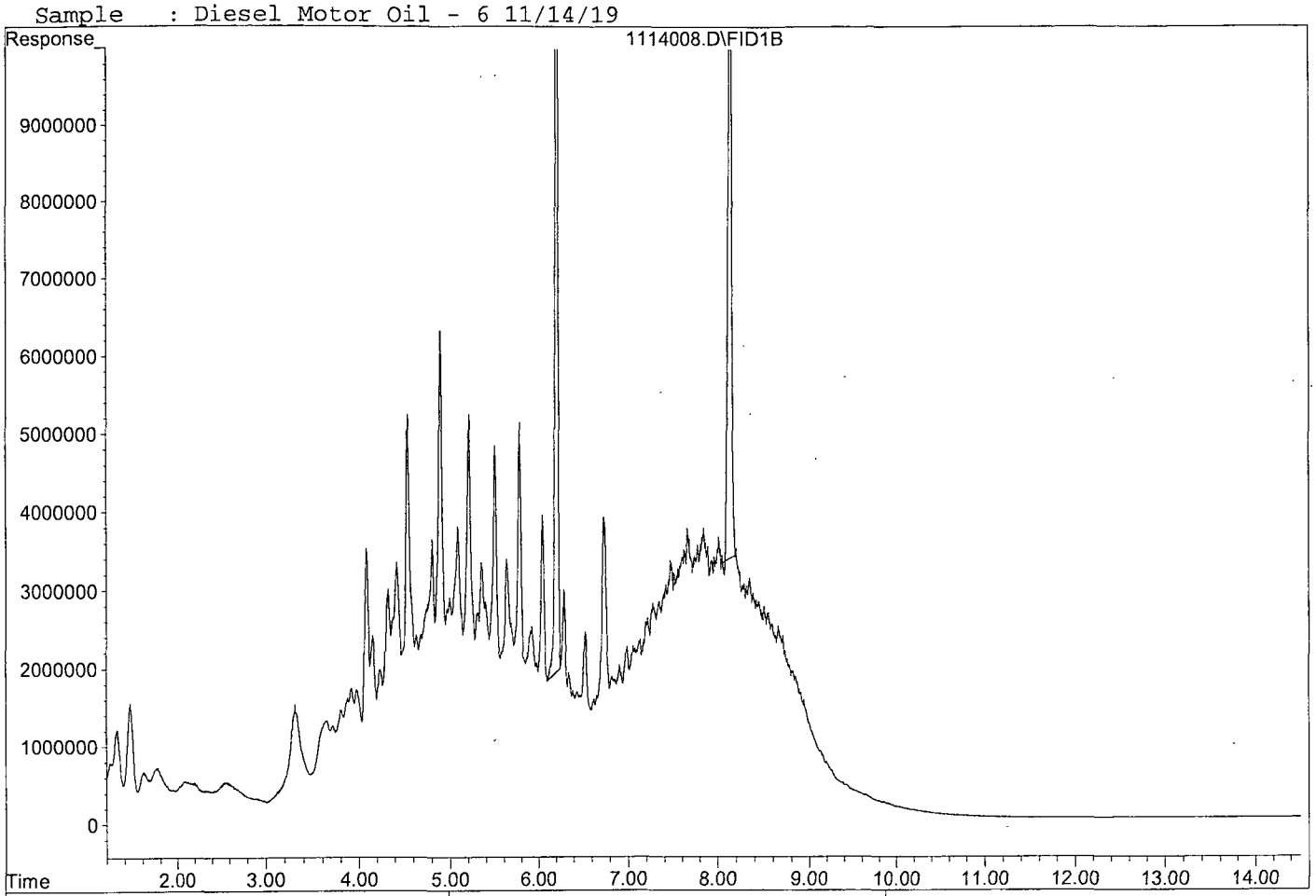
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

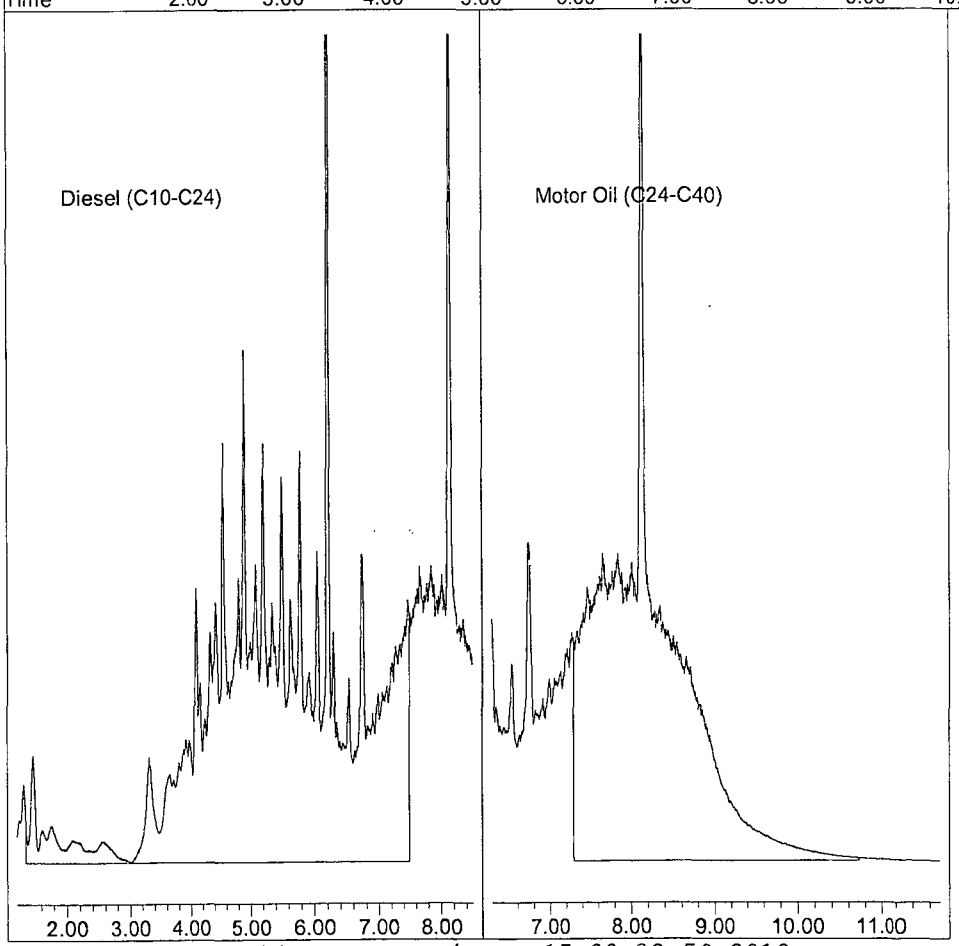
Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
3) SA Ortho-Terphenyl(S)	6.21	272188350	98.421	ppb
Surrogate Spike 30.000	Recovery =		328.07%	
4) SA Octacosane(S)	8.14	212897820	93.983	ppb
Surrogate Spike 30.000	Recovery =		313.28%	
Target Compounds				
1) HATM Diesel (C10-C24)	4.42	5438788689	1802.996	ppb
2) HBTM Motor Oil (C24-C40)	9.01	3195039251	2030.289	ppb

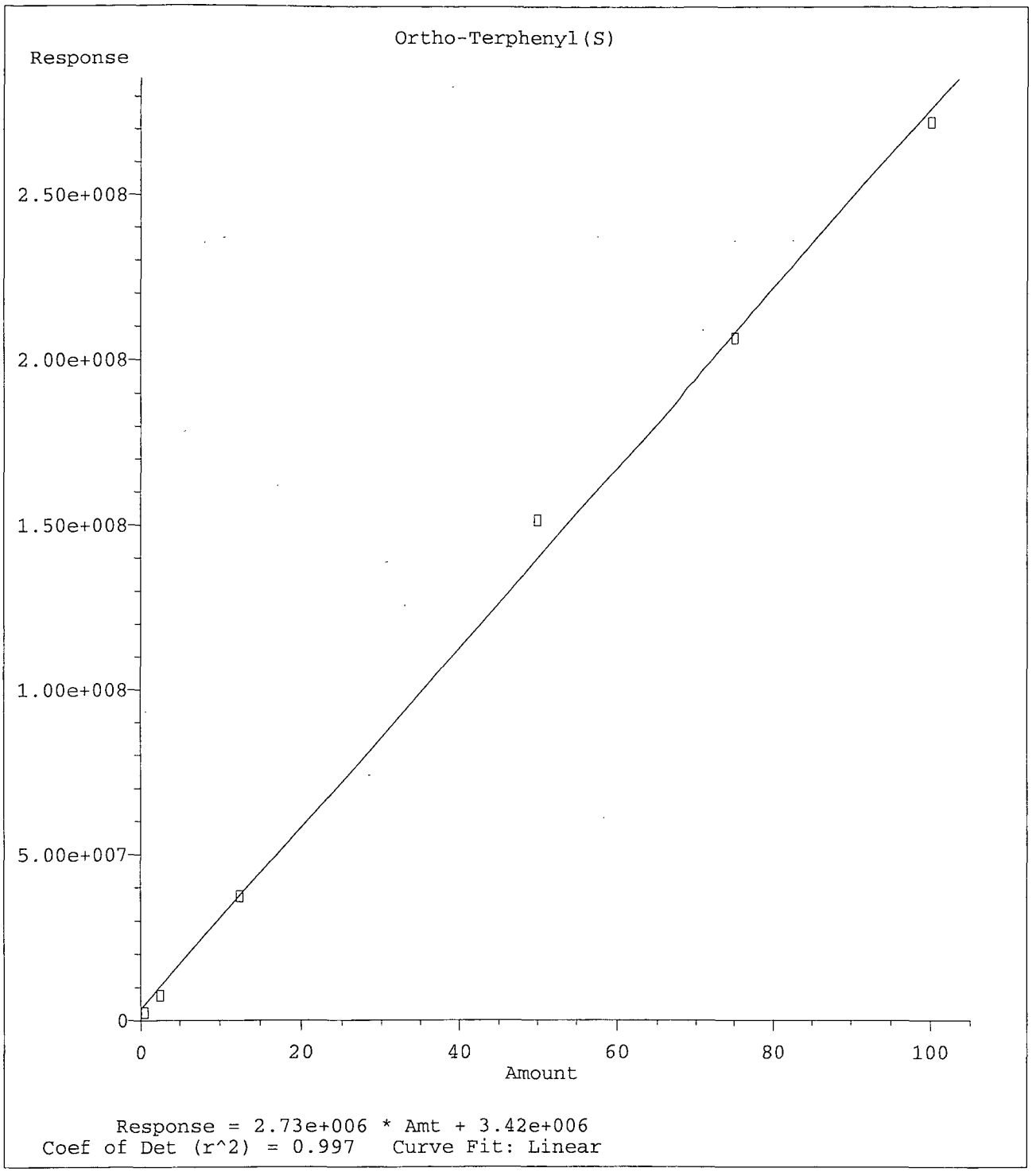
Target Compounds

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: G:\APOLLO\DATA\191114\1114008.D
Sample : Diesel Motor Oil - 6 11/14/19







Method Name: G:\APOLLO\DATA\191114\DOC1114.M
Calibration Table Last Updated: Fri Nov 15 09:19:04 2019

TPH Extractables
DOC1114

Form 7

Second Source Calibration

Lab Name: APPL, Inc.
Case No:
Matrix: Water

SDG No:
Date Analyzed: 11/14/19
Instrument: Apollo
Initial Cal. Date: 11/14/19
Data File: 1114009.D

		Compound	MEAN	CCRF	%D		%Drift
1	HATM	Diesel (C10-C24)	1508730	1766620	17	HATM	
2	HBTM	Motor Oil (C24-C40)	786843	841695	7.0	HBTM	
3							
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38							
39							
40							
		Average			12.0		

Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\191114\1114009.D Vial: 9
Acq On : 11-14-19 21:39:10 Operator: BT
Sample : Diesel Motor Oil Second Source 1/15/19 Inst : Apollo
Misc : water Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 15 9:29 2019 Quant Results File: DOC1114.RES

Method : G:\APOLLO\DATA\191114\DOC1114.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Nov 15 09:19:04 2019
Response via : Multiple Level Calibration

Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

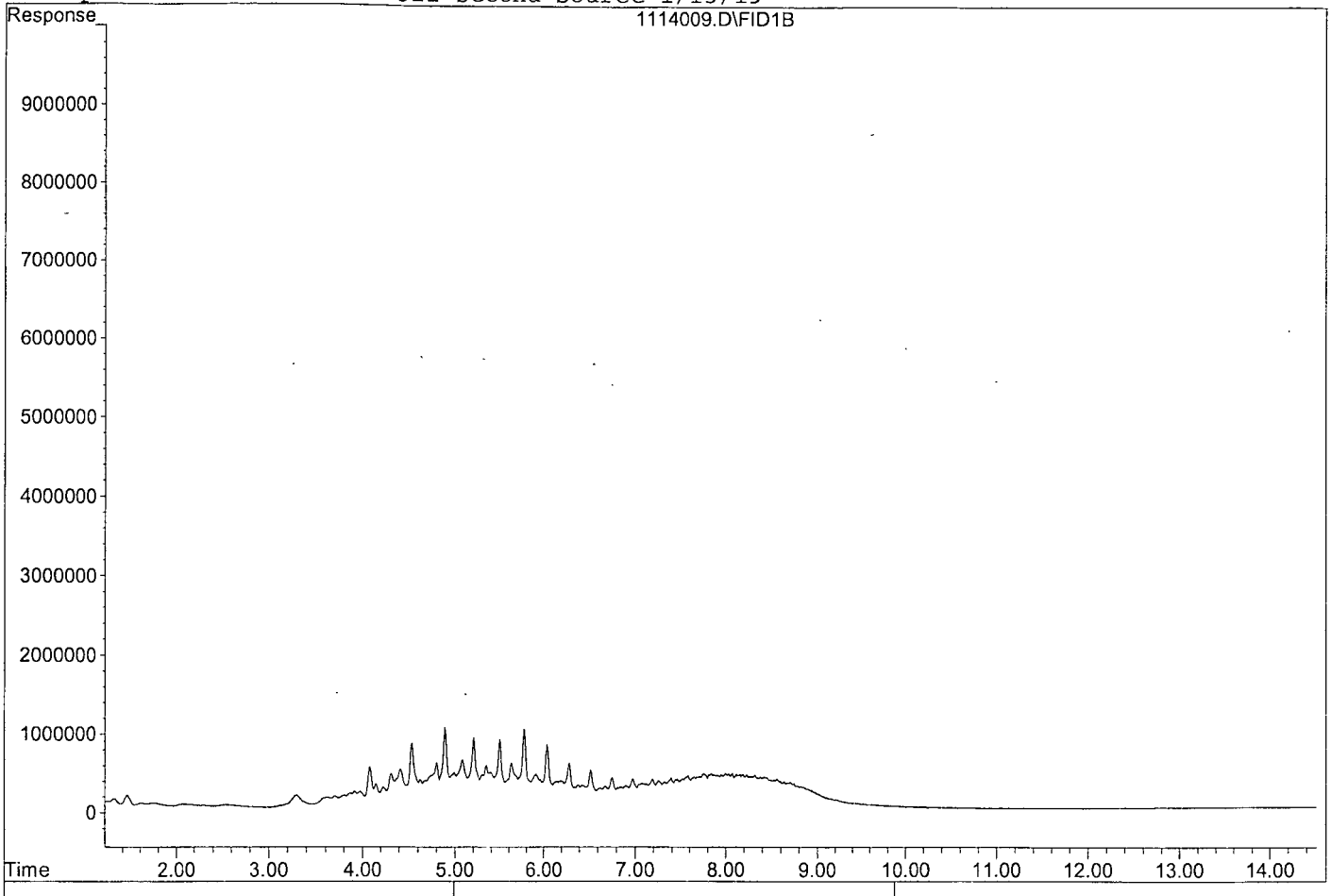
Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds					
3) SA Ortho-Terphenyl(S)	0.00	0	N.D.	ppb	d
Surrogate Spike 30.000	Recovery	=	0.00%		
4) SA Octacosane(S)	0.00	0	N.D.	ppb	d
Surrogate Spike 30.000	Recovery	=	0.00%		
Target Compounds					
1) HATM Diesel (C10-C24)	4.42	883311718	292.733	ppb	
2) HBTM Motor Oil (C24-C40)	9.01	420847463	267.428	ppb	

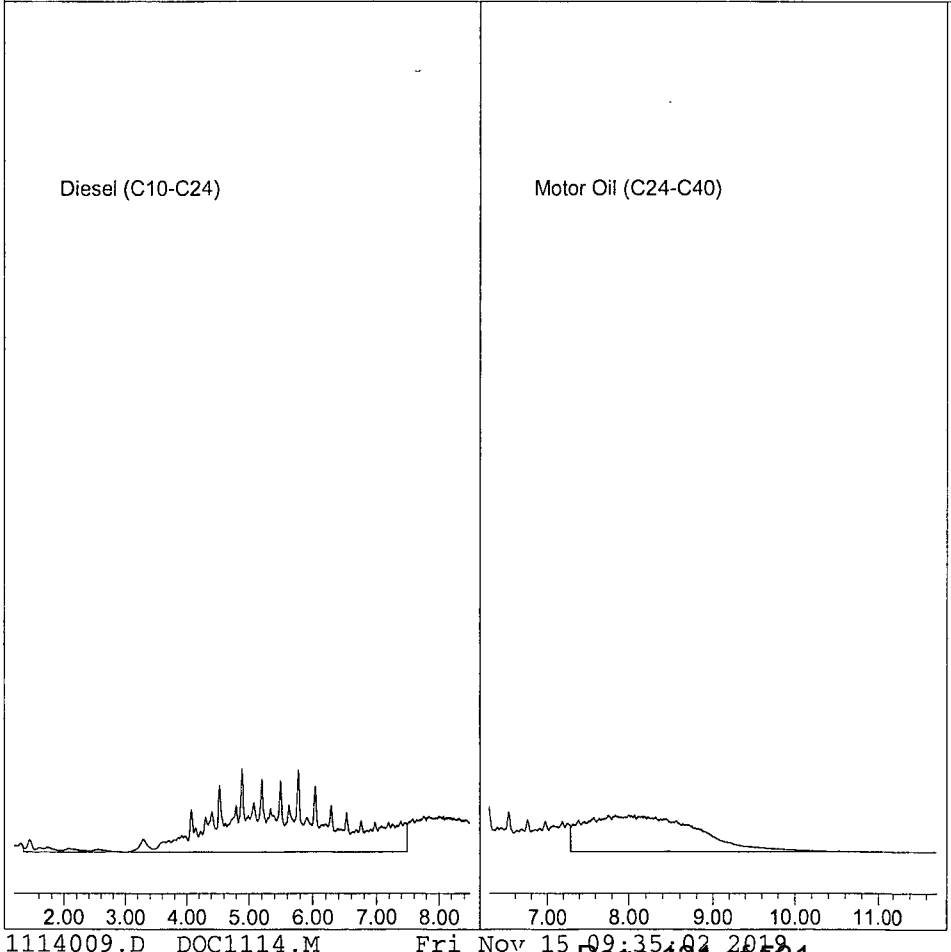
Target Compounds

(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File: G:\APOLLO\DATA\191114\1114009.D
Sample : Diesel Motor Oil Second Source 1/15/19





TPH Extractables
DOC1114

Form 7

Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix: Water

SDG No:
Date Analyzed: 11/15/19
Instrument: Apollo
Initial Cal. Date: 11/14/19
Data File: 1114019.D

		Compound	MEAN	CCRF	%D	%Drift	
1	HATM	Diesel (C10-C24)	1508730	1589330	5.3	HATM	
2	HBTM	Motor Oil (C24-C40)	786843	782904	0.50	HBTM	
3	SAL	Ortho-Terphenyl(S)	1599120	1656820	3.6	SAL	11
4	SA	Octacosane(S)	1132640	1105010	2.4	SA	
5							
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39							
40							
		Average			3.0		

Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\191114\1114019.D Vial: 19
Acq On : 11-15-19 0:55:27 Operator: BT
Sample : Diesel Motor Oil CCV 11/14/19 Inst : Apollo
Misc : water Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 15 14:46 2019 Quant Results File: DOC1114.RES

Method : G:\APOLLO\DATA\191114\DOC1114.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Nov 15 09:19:04 2019
Response via : Multiple Level Calibration

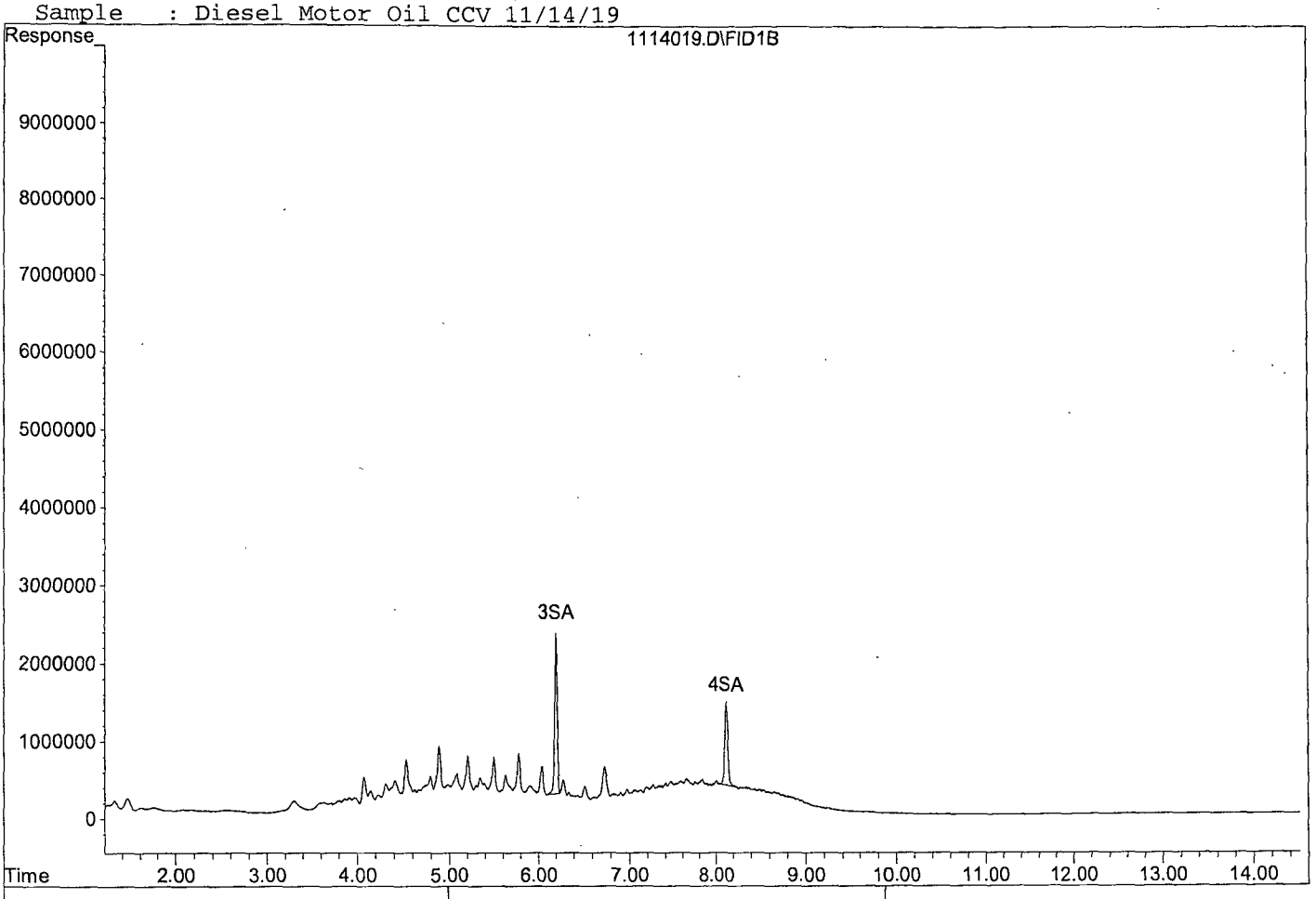
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

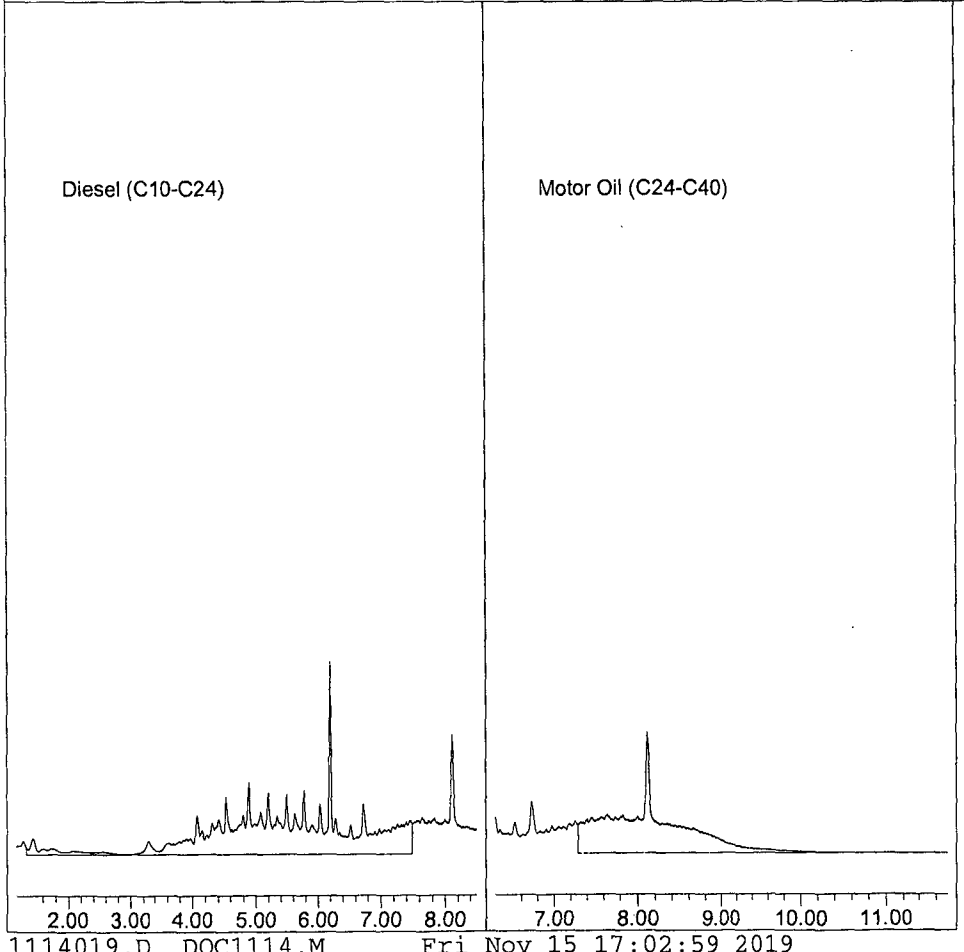
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) SA Ortho-Terphenyl(S)	6.20	41420415	13.916 ppb
Surrogate Spike 30.000	Recovery =		46.39%
4) SA Octacosane(S)	8.12	27625341	12.195 ppb
Surrogate Spike 30.000	Recovery =		40.65%
Target Compounds			
1) HATM Diesel (C10-C24)	4.42	794663386	263.355 ppb
2) HBTM Motor Oil (C24-C40)	9.01	391452103	248.748 ppb

Target Compounds

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: G:\APOLLO\DATA\191114\1114019.D
Sample : Diesel Motor Oil CCV 11/14/19





1114019.D DOC1114.M Fri Nov 15 17:02:59 2019

ORGANICS
Raw Data

Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\191114\1114015.D Vial: 15
Acq On : 11-14-19 23:37:38 Operator: BT
Sample : BA02160W15 2/800 Inst : Apollo
Misc : water Multiplr: 2.50
IntFile : events.e
Quant Time: Nov 15 15:02 2019 Quant Results File: DOC1114.RES

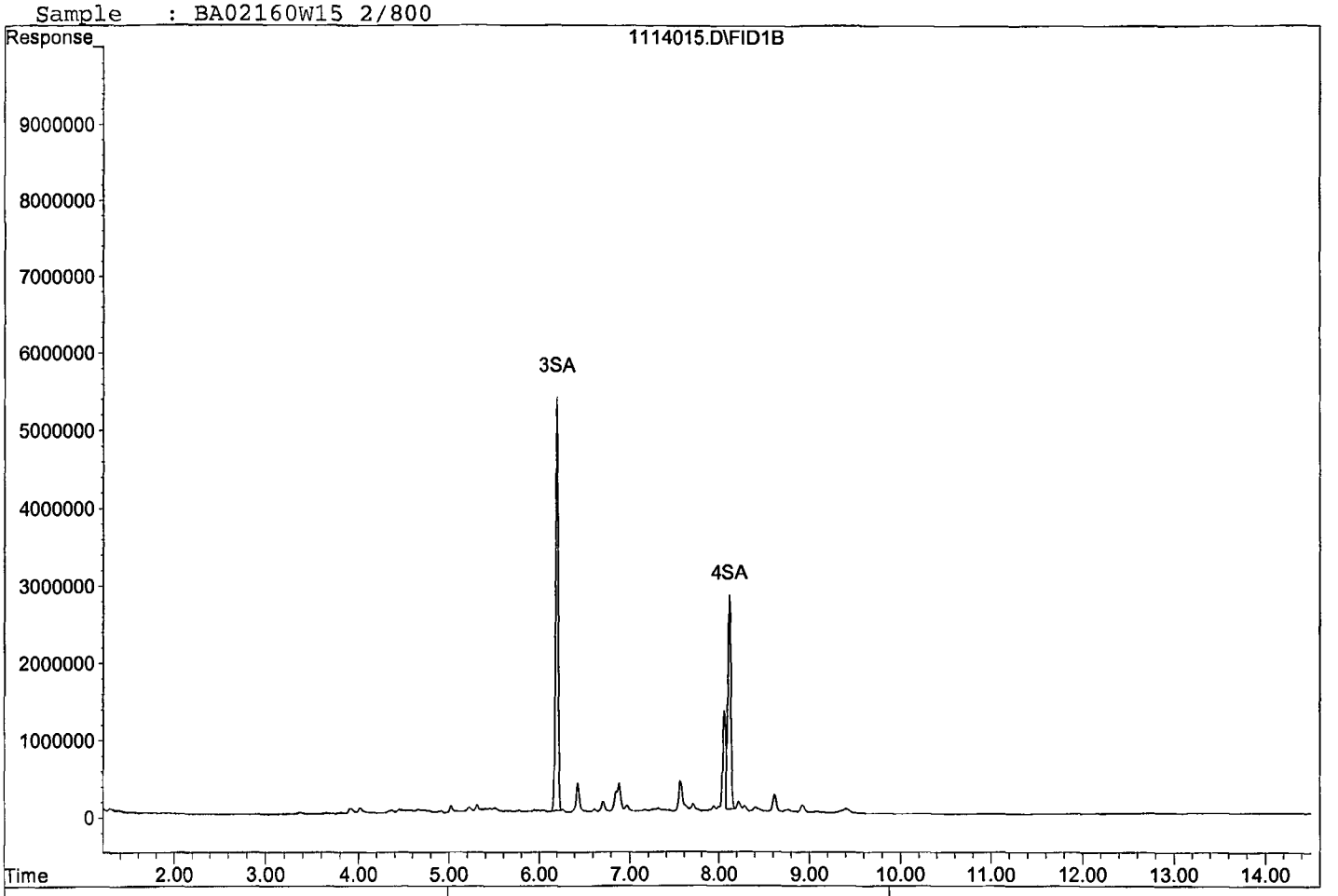
Method : G:\APOLLO\DATA\191114\DOC1114.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Nov 15 09:19:04 2019
Response via : Multiple Level Calibration

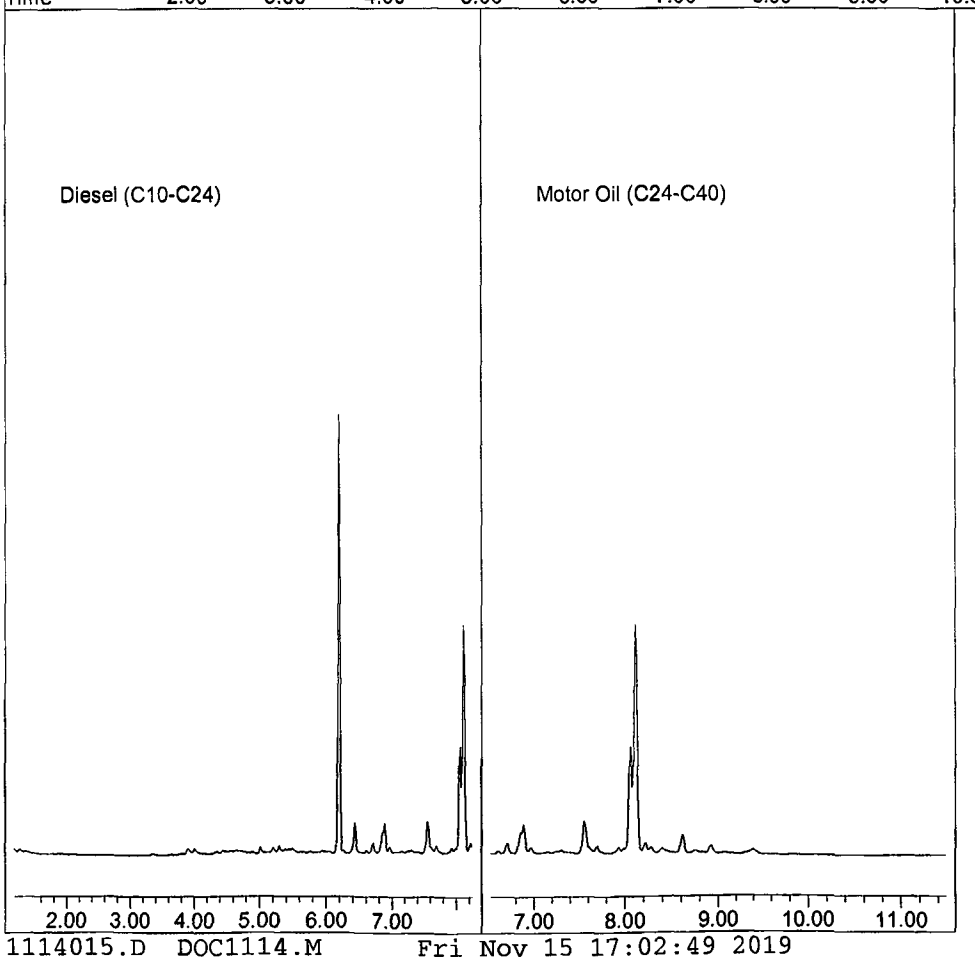
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds					
3) SA Ortho-Terphenyl(S)	6.20	103836594	91.931	ppb	
Surrogate Spike 75.000		Recovery =	122.57%		
4) SA Octacosane(S)	8.12	70650809	77.971	ppb	m
Surrogate Spike 75.000		Recovery =	103.96%		
Target Compounds					
Target Compounds					
1) HATM Diesel (C10-C24)	0.00	0	N.D.	ppb	
2) HBTM Motor Oil (C24-C40)	0.00	0	N.D.	ppb	

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: G:\APOLLO\DATA\191114\1114015.D
Sample : BA02160W15 2/800



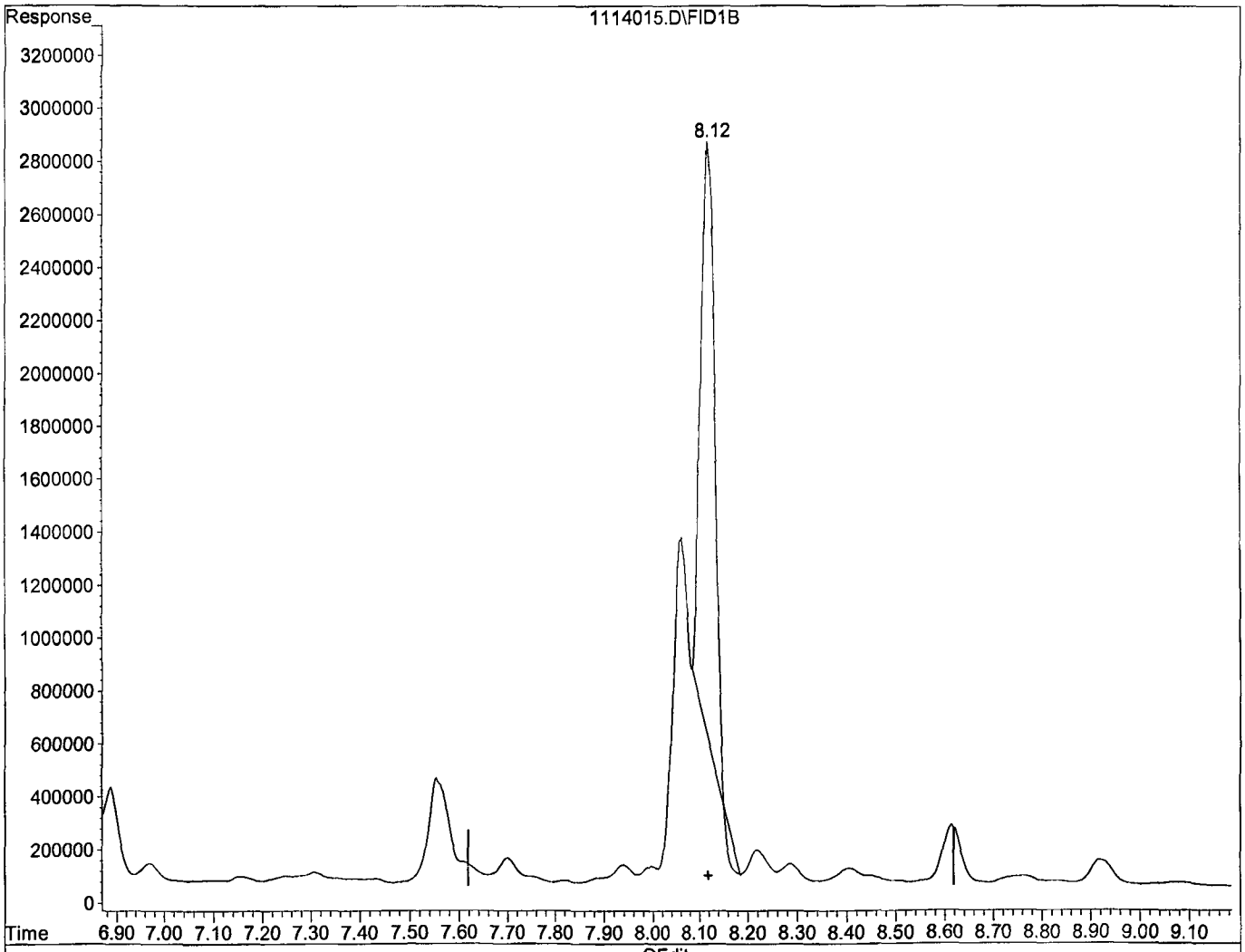


1114015.D DOC1114.M Fri Nov 15 17:02:49 2019 Page 2

Quantitation Report

Data File : G:\APOLLO\DATA\191114\1114015.D Vial: 15
Acq On : 11-14-19 23:37:38 Operator: BT
Sample : BA02160W15 2/800 Inst : Apollo
Misc : water Multiplr: 2.50
IntFile : events.e
Quant Time: Nov 15 14:45 2019 Quant Results File: DOC1114.RES

Method : G:\APOLLO\DATA\191114\DOC1114.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Nov 15 09:19:04 2019
Response via : Multiple Level Calibration



(4) Octacosane(S) (SA)

8.12min 49.862ppb

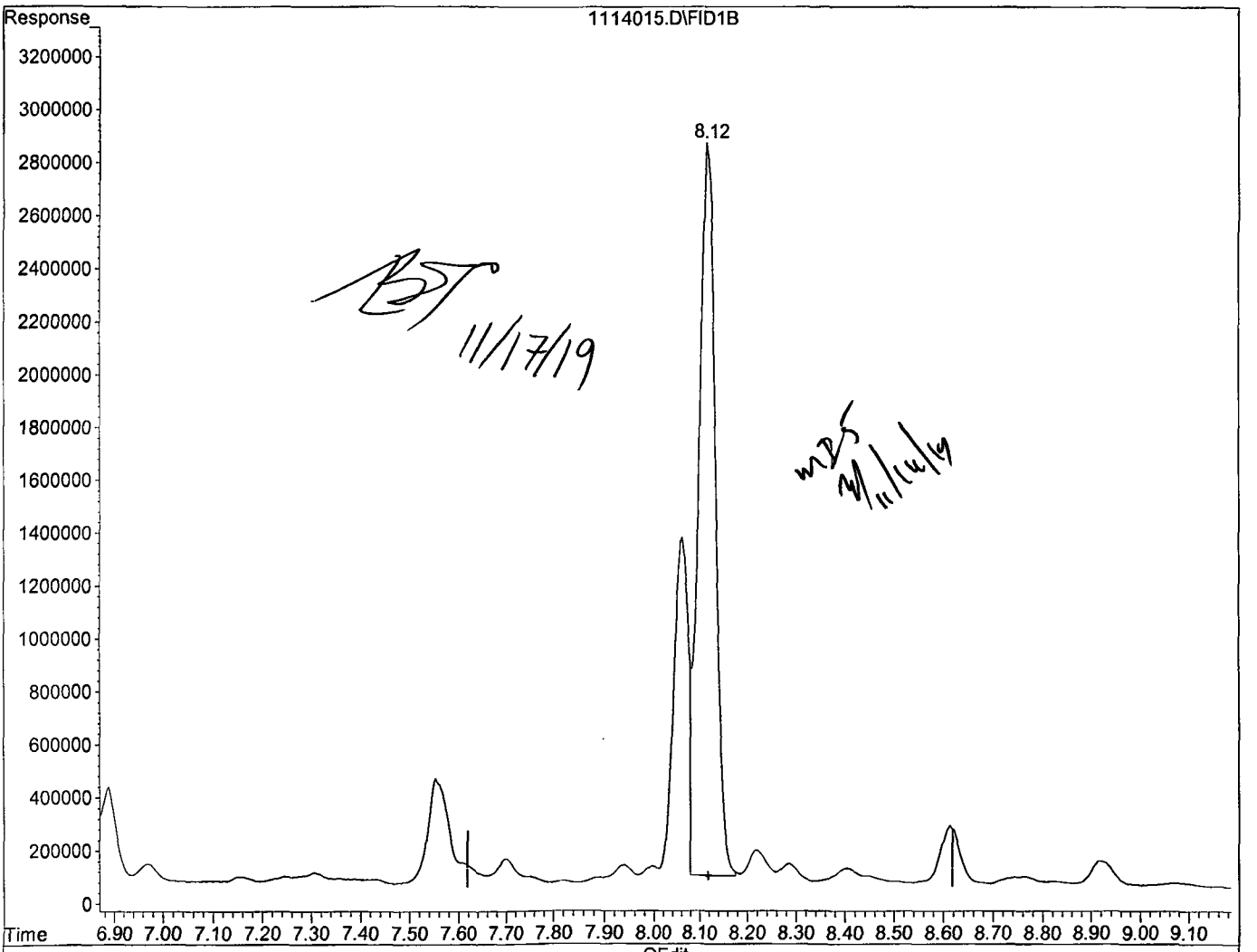
response 45180540

(+) = Expected Retention Time
1114015.D DOC1114.M Fri Nov 15 15:02:10 2019

Quantitation Report

Data File : G:\APOLLO\DATA\191114\1114015.D Vial: 15
Acq On : 11-14-19 23:37:38 Operator: BT
Sample : BA02160W15 2/800 Inst : Apollo
Misc : water Multiplr: 2.50
IntFile : events.e
Quant Time: Nov 15 14:45 2019 Quant Results File: DOC1114.RES

Method : G:\APOLLO\DATA\191114\DOC1114.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Nov 15 09:19:04 2019
Response via : Multiple Level Calibration



(4) Octacosane(S) (SA)

8.12min 77.971ppb m

response 70650809

(+) = Expected Retention Time
1114015.D DOC1114.M Fri Nov 15 15:02:18 2019

Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\191114\1114010.D Vial: 10
Acq On : 11-14-19 21:59:00 Operator: BT
Sample : 191104A BLK 2/800 Inst : Apollo
Misc : water Multiplr: 2.50
IntFile : events.e
Quant Time: Nov 15 14:47 2019 Quant Results File: DOC1114.RES

Method : G:\APOLLO\DATA\191114\DOC1114.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Nov 15 09:19:04 2019
Response via : Multiple Level Calibration

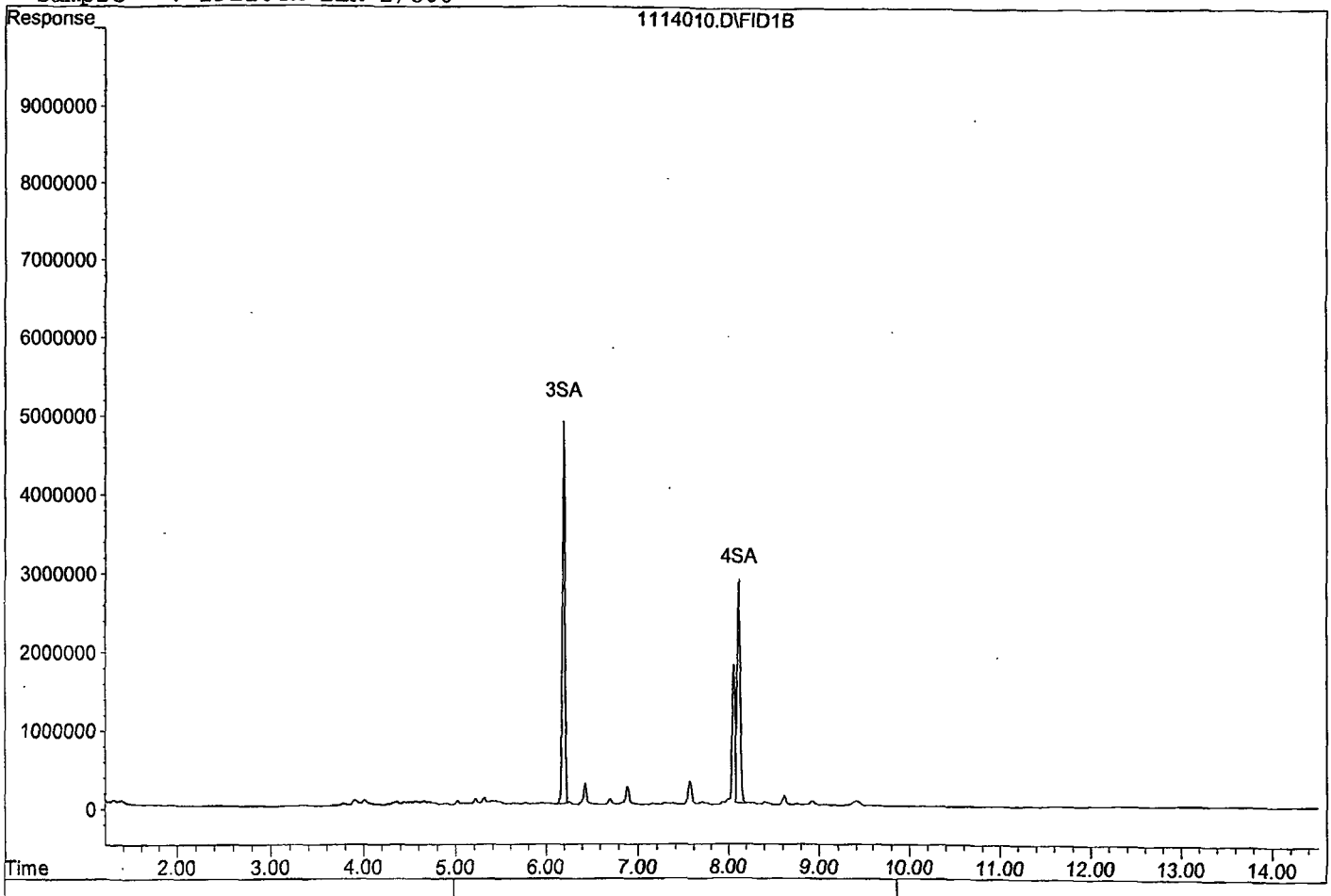
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

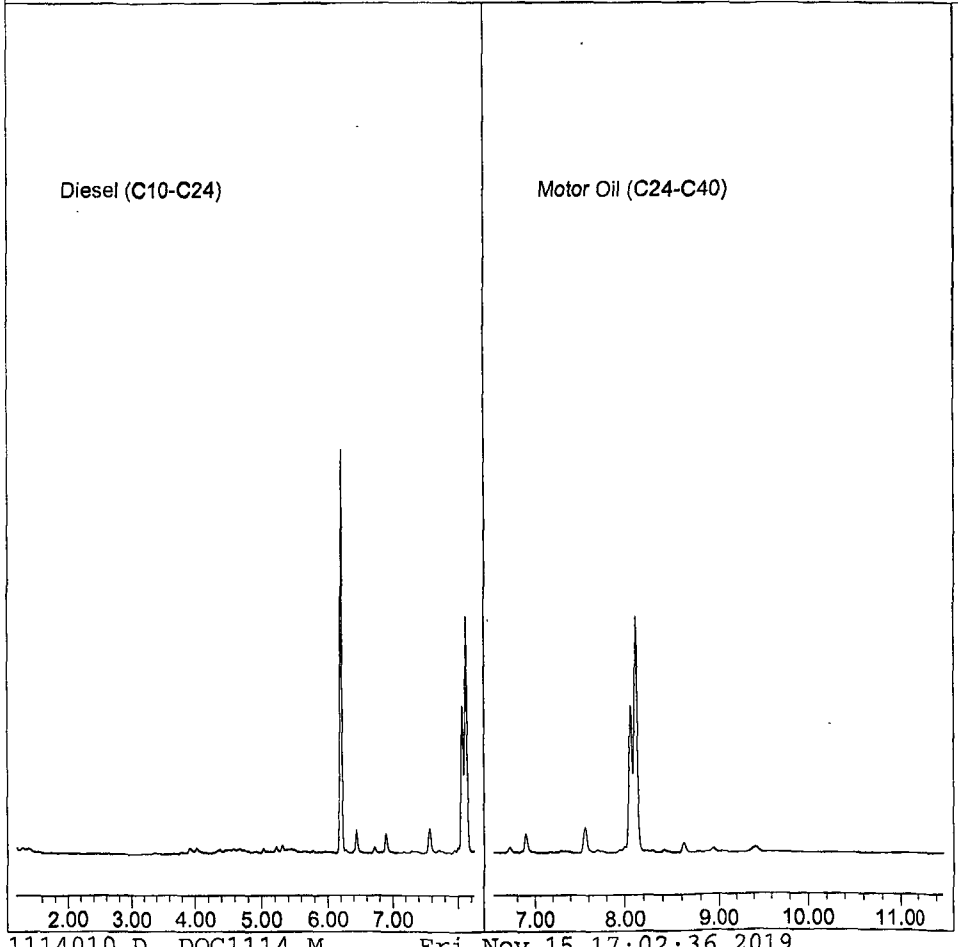
Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds					
3) SA Ortho-Terphenyl(S)	6.20	95718085	84.498	ppb	
Surrogate Spike 75.000	Recovery =		112.66%		
4) SA Octacosane(S)	8.12	71527670	78.939	ppb	m
Surrogate Spike 75.000	Recovery =		105.25%		
Target Compounds					
Target Compounds					
1) HATM Diesel (C10-C24)	0.00	0	N.D.	ppb	
2) HBTM Motor Oil (C24-C40)	0.00	0	N.D.	ppb	

(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File: G:\APOLLO\DATA\191114\1114010.D
Sample : 191104A BLK 2/800



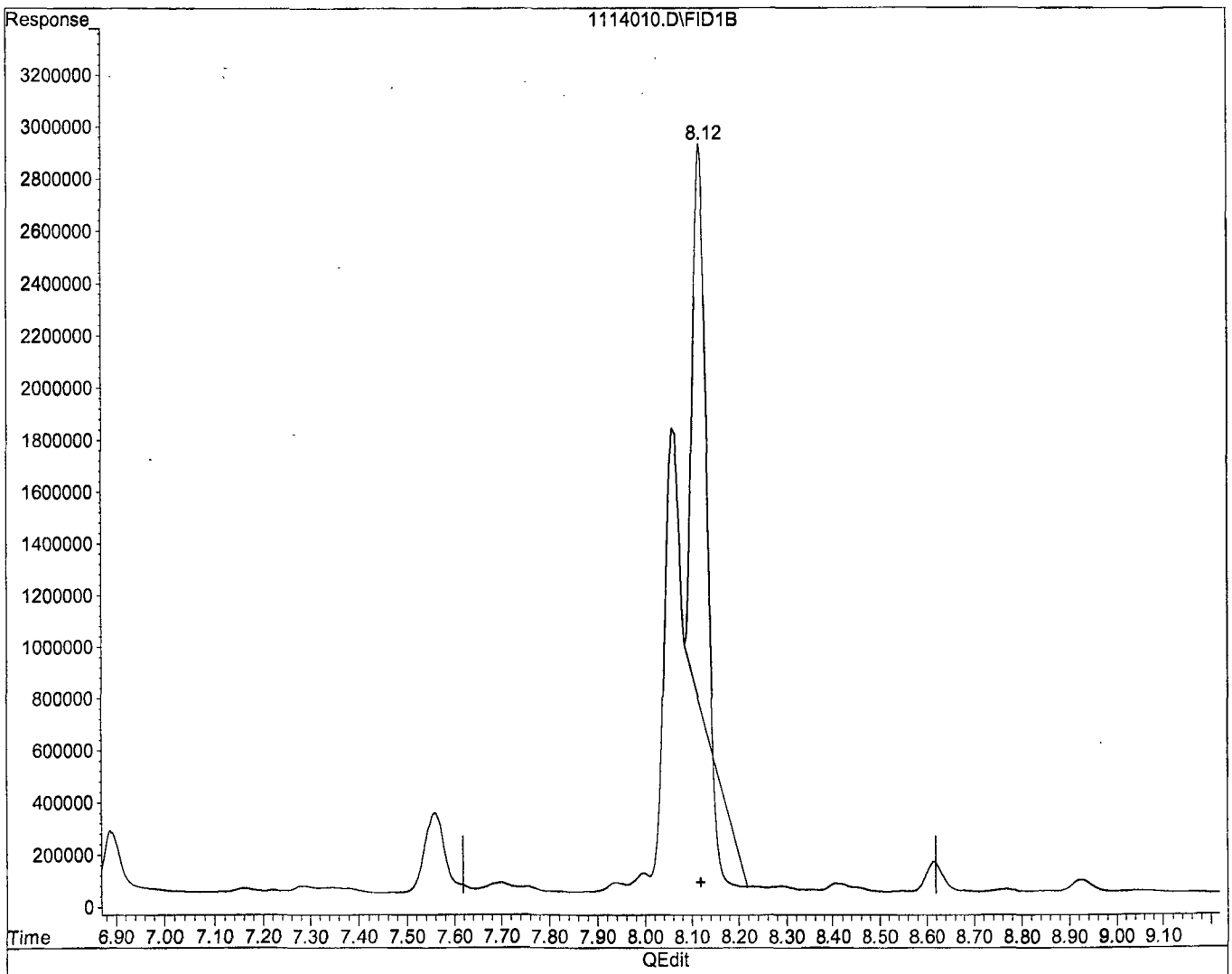


1114010.D DOC1114.M Fri Nov 15 17:02:36 2019

Quantitation Report

Data File : G:\APOLLO\DATA\191114\1114010.D Vial: 10
Acq On : 11-14-19 21:59:00 Operator: BT
Sample : 191104A BLK 2/800 Inst : Apollo
Misc : water Multiplr: 2.50
IntFile : events.e
Quant Time: Nov 15 14:45 2019 Quant Results File: DOC1114.RES

Method : G:\APOLLO\DATA\191114\DOC1114.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Nov 15 09:19:04 2019
Response via : Multiple Level Calibration



(4) Octacosane(S) (SA)

8.12min 35.782ppb

response 32422455

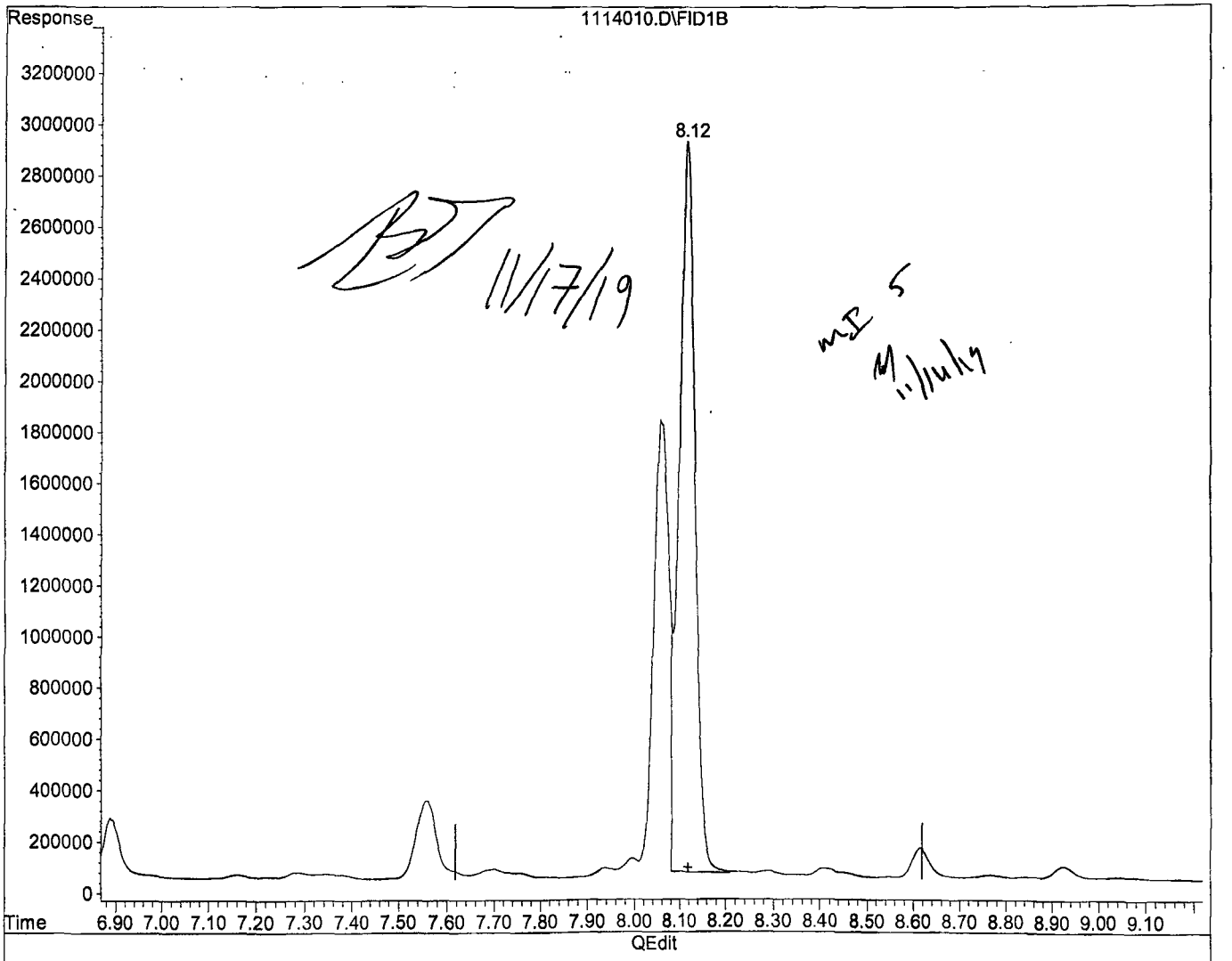
(+) = Expected Retention Time

1114010.D DOC1114.M Fri Nov 15 14:47:39 2019

Quantitation Report

Data File : G:\APOLLO\DATA\191114\1114010.D Vial: 10
Acq On : 11-14-19 21:59:00 Operator: BT
Sample : 191104A BLK 2/800 Inst : Apollo
Misc : water Multiplr: 2.50
IntFile : events.e
Quant Time: Nov 15 14:45 2019 Quant Results File: DOC1114.RES

Method : G:\APOLLO\DATA\191114\DOC1114.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Nov 15 09:19:04 2019
Response via : Multiple Level Calibration



(4) Octacosane(S) (SA)

8.12min 78.939ppb m

response 71527670

(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\191114\1114011.D Vial: 11
Acq On : 11-14-19 22:18:47 Operator: BT
Sample : 191104A LCS-1 2/800 Inst : Apollo
Misc : water Multiplr: 2.50
IntFile : events.e
Quant Time: Nov 15 14:45 2019 Quant Results File: DOC1114.RES

Method : G:\APOLLO\DATA\191114\DOC1114.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Nov 15 09:19:04 2019
Response via : Multiple Level Calibration

Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

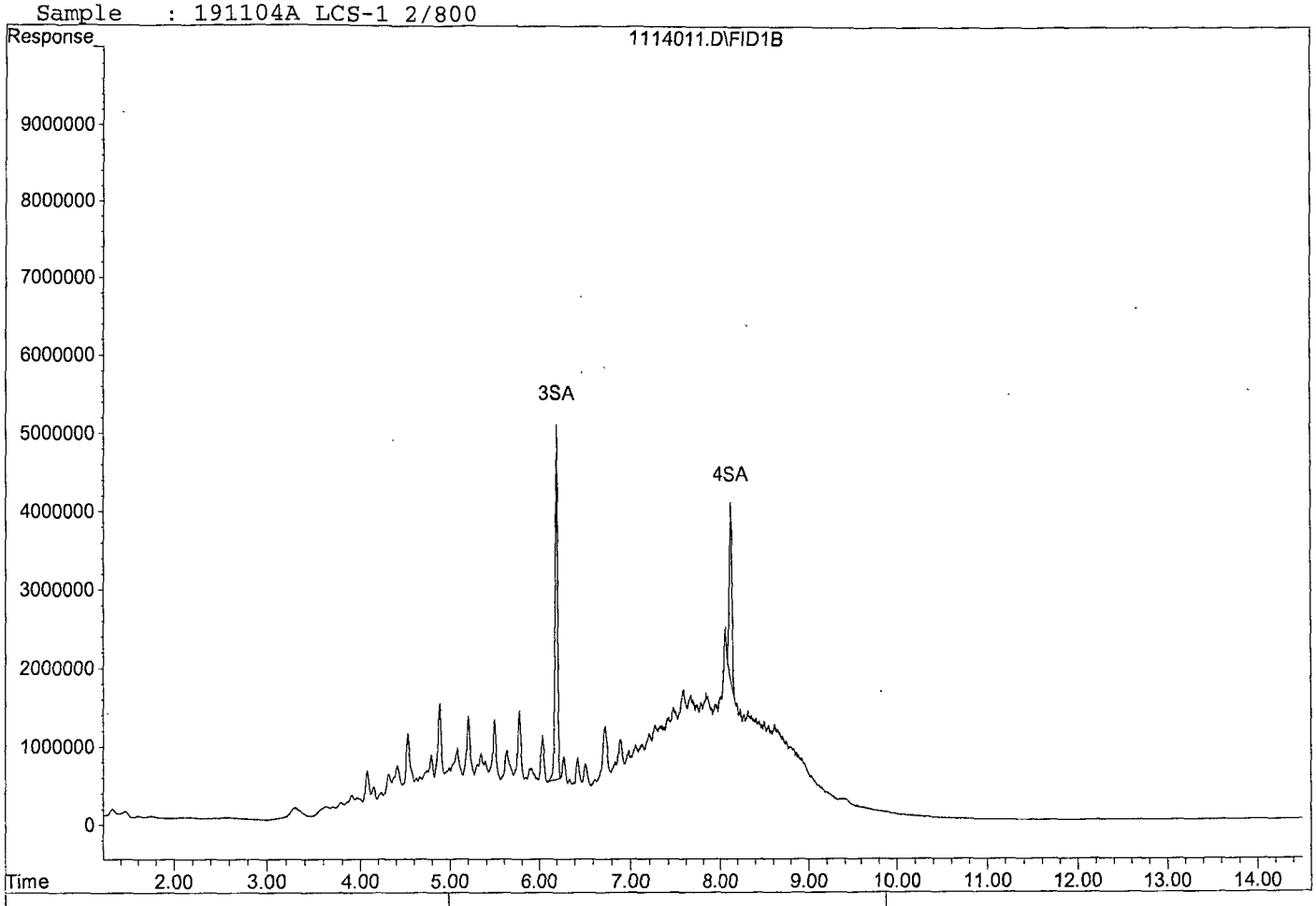
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) SA Ortho-Terphenyl(S)	6.20	89048685	78.393 ppb
Surrogate Spike 75.000	Recovery =		104.52%
4) SA Octacosane(S)	8.13	48942841	54.014 ppb
Surrogate Spike 75.000	Recovery =		72.02%
Target Compounds			
1) HATM Diesel (C10-C24)	4.42	1582024905	1310.723 ppb
2) HBTM Motor Oil (C24-C40)	9.01	1508069917	2395.759 ppb

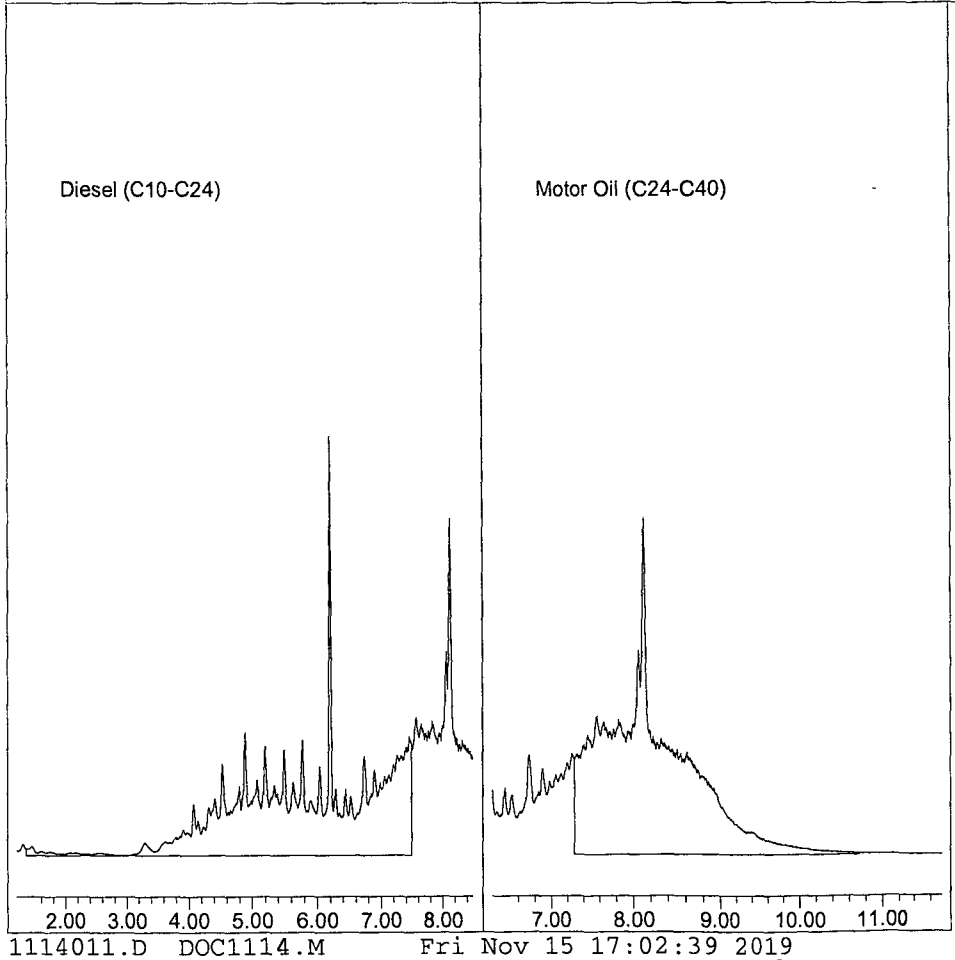
Target Compounds

(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File: G:\APOLLO\DATA\191114\1114011.D
Sample : 191104A LCS-1 2/800





Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\191114\1114012.D Vial: 12
Acq On : 11-14-19 22:38:34 Operator: BT
Sample : 191104A LCSD-1 2/800 Inst : Apollo
Misc : water Multiplr: 2.50
IntFile : events.e
Quant Time: Nov 15 14:45 2019 Quant Results File: DOC1114.RES

Method : G:\APOLLO\DATA\191114\DOC1114.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Nov 15 09:19:04 2019
Response via : Multiple Level Calibration

Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

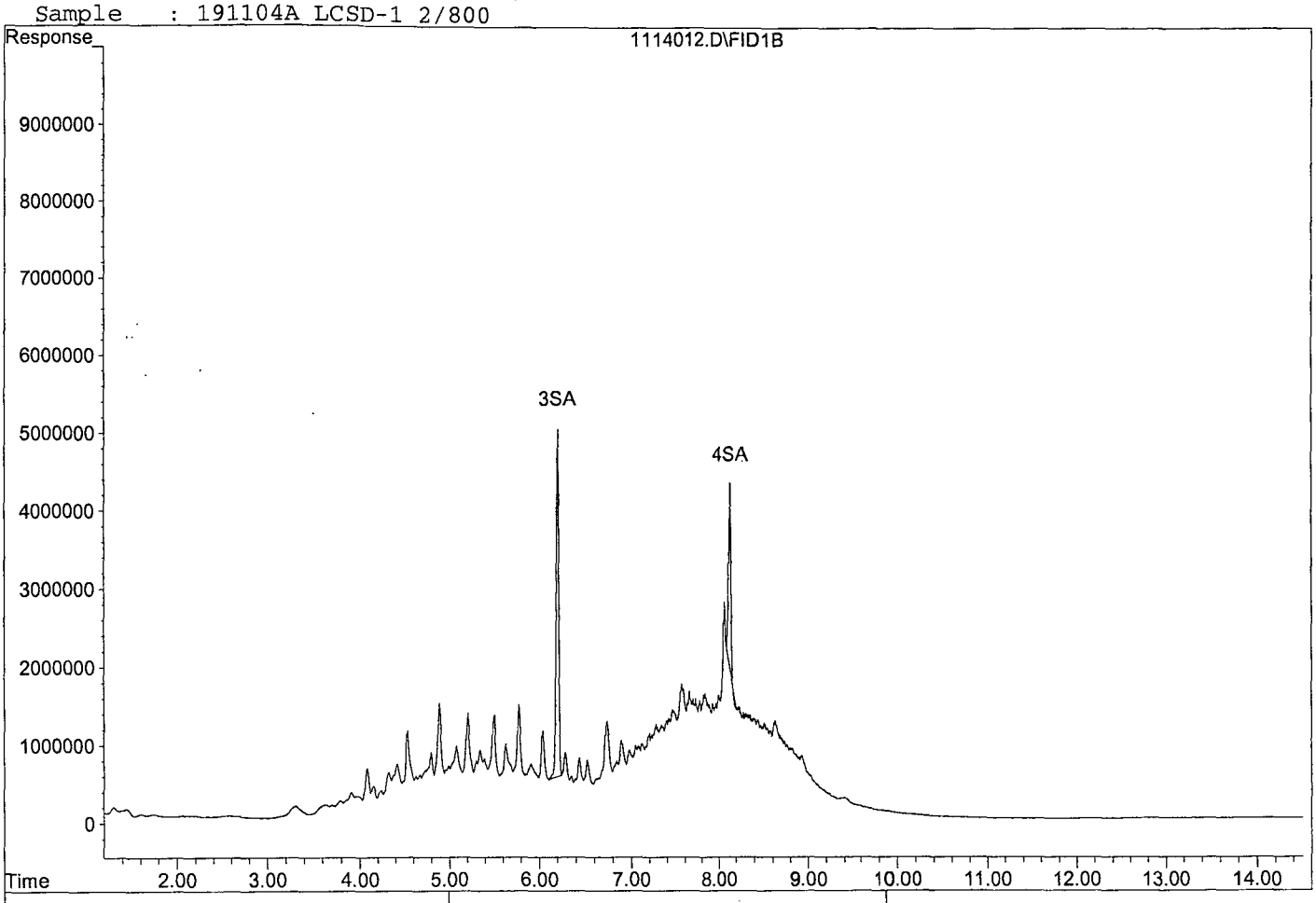
Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
3) SA Ortho-Terphenyl(S)	6.20	90161570	79.412	ppb
Surrogate Spike 75.000	Recovery =		105.88%	
4) SA Octacosane(S)	8.13	43035554	47.495	ppb
Surrogate Spike 75.000	Recovery =		63.33%	
Target Compounds				
1) HATM Diesel (C10-C24)	4.42	1607261609	1331.632	ppb
2) HBTM Motor Oil (C24-C40)	9.01	1502955315	2387.634	ppb

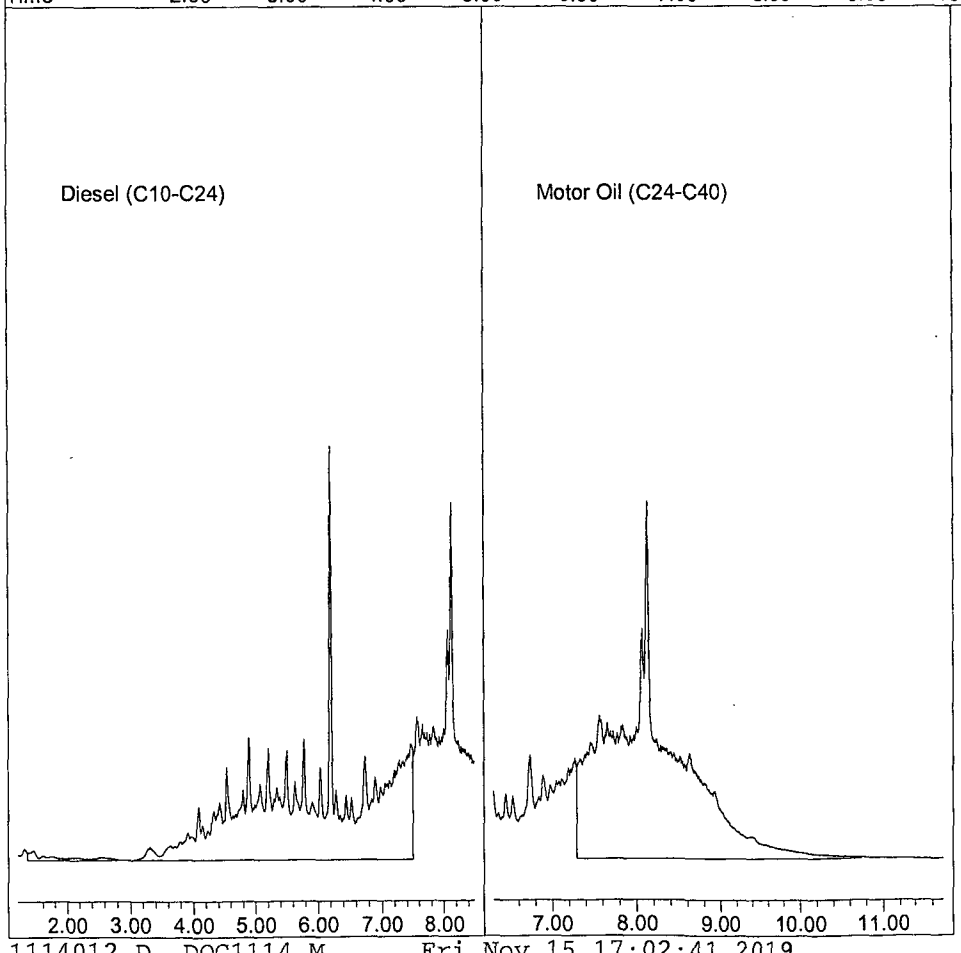
Target Compounds

(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File: G:\APOLLO\DATA\191114\1114012.D
Sample : 191104A LCSD-1 2/800





1114012.D DOC1114.M Fri Nov 15 17:02:41 2019

Diesel / Motor Oil Calibration Curve

Prepared: 11/14/19

Expires: 05/13/20

Prepared By (Initials): BT

Methylene Chloride Lot No. 58059

Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference to APPL Prep Date	Exp. Date	Exp. Date (Manufacturer)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
Diesel / Motor Oil Calibration STD	APPL	Diesel / Motor Oil - 1	2,000	Prepared 11/14/19	09/11/20	N/A	5uL	1mL	MC	10
Diesel / Motor Oil Calibration STD	APPL	Diesel / Motor Oil -2	2,000	Prepared 11/14/19	09/11/20	N/A	25uL	1mL	MC	50
Diesel / Motor Oil Calibration STD	APPL	Diesel / Motor Oil - 3	2,000	Prepared 11/14/19	09/11/20	N/A	125uL	1mL	MC	250
Diesel / Motor Oil Calibration STD	APPL	Diesel / Motor Oil - 4	2,000	Prepared 11/14/19	09/11/20	N/A	500uL	1mL	MC	1000
Diesel / Motor Oil Calibration STD	APPL	Diesel / Motor Oil - 5	2,000	Prepared 11/14/19	09/11/20	N/A	750uL	1mL	MC	1500
Diesel / Motor Oil Calibration STD	APPL	Diesel / Motor Oil - 6	2,000	Prepared 11/14/19	09/11/20	N/A	100uL	100uL	N/A	2,000

Diesel / Motor Oil Second Source (SS)

Prepared: 01/15/19

Expires: 01/15/20

Prepared By (Initials): DP

Methylene Chloride Lot No. 56278

Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier Part No.	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr.)	Exp. Date (Manufacturer)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
Diesel Fuel #2	O2SI	G34-011598-03	50,000	**G34-319187-38958**	**08/02/19**	**09/29/21**	50uL	10mL	MC	250
Motor Oil Second Source	O2SI	116390-02-SS	50,000	**301142-37652**	**07/13/19**	**03/05/22**	50uL			

Diesel / Motor Oil Calibration Standard

Prepared: 11/14/19 **Prepared By (Initials): BT**

Expires: 09/11/20

Methylene Chloride Lot No. 58059

Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier Part No.	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr.)	Exp. Date (Manufacturer)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
Diesel Fuel #2	Restek	31258	50,000	**A0149066-41325**	**09/24/20**	**06/03/26**	400uL	10mL	MC	2000
Motor Oil	Restek	31464	50,000	**A0147736-41330**	**09/11/20**	**05/31/26**	400uL			2000
THC Surrogate	Phenova	ALO-130161	600	**CL13256-49449**	**11/13/20**	**11/28/24**	1666uL			100

THC Surrogate

Prepared: 10/29/19 **Prepared By (Initials): BT**

Expires: 10/29/20

Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier Part No.	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr.)	Exp. Date (Manufacturer)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
O-terphenyl / Octacosane Mix	Phenova	ALO-130161	600	**CL13256-49450**	**10/29/20**	**02/31/2024**	N/A	N/A	N/A	600

Diesel Spike

Prepared: 10/28/19 **Prepared By (Initials): BT**

Expires: 10/28/20

Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier Part No.	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr.)	Exp. Date (Manufacturer)	From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
Diesel Fuel #2	Restek	31258	50,000	**A0149066-41319**	**10/28/20**	**06/03/26**	N/A	N/A	N/A	50,000

Motor Oil Spike

Prepared: 10/30/19

Expires: 10/30/20

Prepared By (Initials): BT

Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier Part No.	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr.)	Exp. Date (Manufacturer)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
Motor Oil Composite	Restek	31464	50,000	A0147736-41328	10/30/20	05/31/26	N/A	N/A	N/A	50,000

Organic Extraction Worksheet

Method	Continuous Liq/Liq TPH-Diesel/MO 3520C	Extraction Set	191104A	Extraction Method	LIQ005	Units	mL

Spiked ID 1	Diesel Spike 10/28/19 10/28/20		Surrogate ID 1	THC Surrogate 10/29/19 10/29/20	
Spiked ID 2	Motor Oil Spike 10/30/19 10/30/20		Surrogate ID 2		
Spiked ID 3			Surrogate ID 3		
Spiked ID 4			Surrogate ID 4		
Spiked ID 5			Surrogate ID 5		
Spiked ID 6			Sufficient Vol for Matrix QC:		
Spiked ID 7			Ext. Start Time:	11/04/19 13:40	
Spiked ID 8			Ext. End Time:	11/05/19 10:40	
			GC Requires Extract By:		

pH1			Water Bath Temp 1 °C	75/74.2 °C
pH2			Water Bath Temp 2 °C	75/74.9
pH3			Water Bath Temp 3 °C	80/79.9 °C

Spiked By: DL **Date** 11/04/19 **Witnessed By:** YL **Date** 11/04/19

	Sample	Sample Container	Spike Amount	Spike ID	Surrogate Amount	Surrogate ID	Extract Amount	Final Volume	pH	Extract Date/Time	Comments
1	191104A Blk				1	0.100 equip	800	2	2Y	11/04/19 13:40	
2	191104A LCS-1		0.020,0.040	1,2	1	0.100 equip	800	2	2Y	11/04/19 13:40	
3	191104A LCSD-1		0.020,0.040	1,2	1	0.100 equip	800	2	2Y	11/04/19 13:40	
4	BA02090	BA02090W17			1	0.100 equip	800	2	2Y	11/04/19 13:40	90587
5	BA02091	BA02091W11			1	0.100 equip	800	2	2Y	11/04/19 13:40	90587
6	BA02160	BA02160W15			1	0.100 equip	800	2	2Y	11/04/19 13:40	90599
7	BA02214	BA02214W23			1	0.100 equip	800	2	2Y	11/04/19 13:40	90611
8	BA02216	BA02216W16			1	0.100 equip	800	2	2Y	11/04/19 13:40	90611
9	BA02301	BA02301W14			1	0.100 equip	800	2	2Y	11/04/19 13:40	90625

Solvent and Lot#	
1+1 HCL	.6-15-19
PH Strips	HC863463
Dicholormethane (DCM)	59130
Filter Paper	.400171
B. Sodium Sulfate	2019020631
Silica Gel (*)	.

Extraction COC Transfer	
Extraction lab employee Initials	
GC analyst's initials	
Date	
Time	
Refrigerator	

	Technician's Initials
Scanned By	DS
Sample Preparation	DL YL RB
Extraction	DL
Concentration	DL

Modified	11/16/19 5:34:48 AM

Reviewed By: **Date**

Injection Log

Directory: G:\APOLLO\DATA\191114\

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	3	1114003.D	1	Diesel Motor Oil - 1 11/14/19	water	11-14-19 19:39:49
2	4	1114004.D	1	Diesel Motor Oil - 2 11/14/19	water	11-14-19 19:59:46
3	5	1114005.D	1	Diesel Motor Oil - 3 11/14/19	water	11-14-19 20:19:39
4	6	1114006.D	1	Diesel Motor Oil - 4 11/14/19	water	11-14-19 20:39:34
5	7	1114007.D	1	Diesel Motor Oil - 5 11/14/19	water	11-14-19 20:59:26
6	8	1114008.D	1	Diesel Motor Oil - 6 11/14/19	water	11-14-19 21:19:19
7	9	1114009.D	1	Diesel Motor Oil Second Source 1/15/19	water	11-14-19 21:39:10
8	10	1114010.D	2.5	191104A BLK 2/800	water	11-14-19 21:59:00
9	11	1114011.D	2.5	191104A LCS-1 2/800	water	11-14-19 22:18:47
10	12	1114012.D	2.5	191104A LCSD-1 2/800	water	11-14-19 22:38:34
11	15	1114015.D	2.5	BA02160W15 2/800	water	11-14-19 23:37:38
12	19	1114019.D	1	Diesel Motor Oil CCV 11/14/19	water	11-15-19 0:55:27

ORGANICS
Calibration Data

PAH by GCMS SIM
EPA 8270 SIM

Form 6
Initial Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Initial Cal. Date: 10/28/19
Matrix: Instrument: Linus
Initials: MA LCP

			1028L005.D	1028L006.D	1028L007.D	1028L008.D	1028L004.D	1028L009 D	1028L010.D	1028L011.D								
		Compound	0.1	0.2	0.5	1	5	20	50	100			Avg	%RSD	Type	r^2	Q	MRF
1	I	Napthalene-D8(IS)																
2	S	Surrogate Recovery (NBZ)	0.6154	0.4960	0.4602	0.4714	0.4325	0.4265	0.4474	0.4616			0.48	13	S			
3	TM	Naphthalene	1.353	1.324	1.228	1.322	1.154	1.233	1.170	1.137			1.2	6.8	TM			0.700
4	S	2-Methylnaphthalene-D10 (2M	1.381	1.311	1.233	1.321	1.228	1.192	1.177	1.148			1.2	6.5	S			
5	TM	2-Methylnaphthalene	0.7871	0.7676	0.7353	0.7876	0.7127	0.7463	0.6996	0.6884			0.74	5.2	TM			0.400
6	TM	1-Methylnaphthalene	0.8729	0.8587	0.7207	0.7851	0.7016	0.7332	0.6925	0.6878			0.76	9.8	TM			
7	I	Acenaphthene-D10(IS)																
8	S	Surrogate Recovery (FBP)	2.084	2.067	1.863	2.099	1.844	1.830	1.715	1.653			1.9	9.1	S			
9	TM	Acenaphthylene	5.495	5.363	5.078	5.658	5.251	5.751	5.010	4.930			5.3	5.7	TM			0.900
10	*TM	Acenaphthene	1.708	1.625	1.517	1.618	1.412	1.529	1.338	1.439			1.5	8.1	*TM			0.900
11	TM	Fluorene	1.748	1.717	1.628	1.812	1.633	1.776	1.673	1.592			1.7	4.6	TM			0.900
12	I	Phenanthrene-D10(IS)																
13	TM	Phenanthrene	1.669	1.541	1.498	1.635	1.381	1.470	1.355	1.265			1.5	9.4	TM			0.700
14	TM	Anthracene	1.260	1.193	1.201	1.358	1.291	1.363	1.276	1.260			1.3	4.9	TM			0.700
15	S	Fluoranthene-D10 (FRT)	1.894	1.787	1.721	1.903	1.860	1.907	1.799	1.683			1.8	4.7	S			
16	*TM	Fluoranthene	2.125	1.989	1.963	2.216	2.039	2.159	1.845	1.771			2.0	7.6	*TM			0.600
17	I	Chrysene-D12(IS)																
18	TM	Pyrene	1.917	1.787	1.752	1.917	1.747	1.808	1.714	1.669			1.8	5.0	TM			0.600
19	S	Surrogate Recovery (TPH)	1.035	0.9626	0.9160	0.9919	0.9371	0.9175	0.9804	0.9502			0.96	4.2	S			
20	TM	Benz (a) anthracene	1.534	1.359	1.345	1.415	1.416	1.448	1.430	1.415			1.4	4.0	TM			0.800
21	TM	Chrysene	1.877	1.680	1.536	1.668	1.444	1.534	1.433	1.409			1.6	10	TM			0.700
22	TM	Indeno (1,2,3-cd) pyrene	1.476	1.215	1.084	1.244	1.392	1.511	1.583	1.595			1.4	14	TM			0.500
23	I	Perylene-D12(IS)																
24	TM	Benzo (b) fluoranthene	1.329	1.058	1.106	1.231	1.301	1.421	1.375	1.322			1.3	10	TM			0.700
25	TM	Benzo (k) fluoranthene	1.285	1.483	1.360	1.569	1.476	1.628	1.346	1.365			1.4	8.3	TM			0.700
26	*TM	Benzo (a) pyrene	1.142	0.9908	0.9637	1.073	1.246	1.377	1.283	1.260			1.2	13	*TM			0.700
27	TM	Dibenz (a,h) anthracene	1.207	1.035	0.9842	1.085	1.167	1.279	1.208	1.243			1.2	9.1	TM			0.400
28	TM	Benzo (g,h,i) perylene	1.405	1.180	1.137	1.241	1.225	1.358	1.281	1.283			1.3	7.0	TM			0.500
29																		
30																		
31																		
32																		
33																		
34																		
35																		

Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L191028\1028L004.D Vial: 4
Acq On : 28 Oct 19 12:26 Operator: MA
Sample : 5 SIM 10/28/19(2) Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 30 10:37 2019 Quant Results File: L1028.RES

Quant Method : M:\LINUS\DATA\L191028\L1028.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 30 10:36:52 2019
Response via : Initial Calibration
DataAcq Meth : SIM_2

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Napthalene-D8(IS)	4.27	136	42509	2.50000 ppb		0.00
7) Acenaphthene-D10(IS)	6.27	164	17630	2.50000 ppb		0.00
12) Phenanthrene-D10(IS)	7.99	188	30825	2.50000 ppb		0.00
17) Chrysene-D12(IS)	11.11	240	35746	2.50000 ppb		0.00
23) Perylene-D12(IS)	13.53	264	35057	2.50000 ppb		0.00
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	3.49	82	18387	2.26999 ppb		0.00
Spiked Amount 5.000			Recovery	= 45.400%		
4) 2-Methylnaphthalene-D10 (2	5.05	152	52219	2.45912 ppb		0.00
Spiked Amount 5.000			Recovery	= 49.180%		
8) Surrogate Recovery (FBP)	5.52	172	32516	2.43389 ppb		0.00
Spiked Amount 5.000			Recovery	= 48.680%		
15) Fluoranthene-D10 (FRT)	9.37	212	57325	2.55457 ppb		0.00
Spiked Amount 5.000			Recovery	= 51.100%		
19) Surrogate Recovery (TPH)	9.86	244	33496	2.43703 ppb		0.00
Spiked Amount 5.000			Recovery	= 48.740%		
Target Compounds						Qvalue
3) Naphthalene	4.30	128	98104	4.65241 ppb		100
5) 2-Methylnaphthalene	5.08	142	60590	4.81172 ppb		100
6) 1-Methylnaphthalene	5.19	142	59650	4.63689 ppb		100
9) Acenaphthylene	6.11	152	185151	4.93782 ppb		100
10) Acenaphthene	6.30	154	49783	4.63497 ppb		100
11) Fluorene	6.90	166	57596	4.81102 ppb		100
13) Phenanthrene	8.01	178	85147	4.67624 ppb		100
14) Anthracene	8.08	178	79570	5.06096 ppb		100
16) Fluoranthene	9.39	202	125700	5.02216 ppb		100
18) Pyrene	9.64	202	124886	4.88571 ppb		100
20) Benz (a) anthracene	11.09	228	101233	4.98555 ppb		100
21) Chrysene	11.14	228	103205	4.58223 ppb		100
22) Indeno (1,2,3-cd) pyrene	15.00	276	99497	5.01530 ppb	#	100
24) Benzo (b) fluoranthene	12.90	252	91200	5.12901 ppb		100
25) Benzo (k) fluoranthene	12.95	252	103463	5.12718 ppb		100
26) Benzo (a) pyrene	13.43	252	87360	5.33556 ppb		100
27) Dibenz (a,h) anthracene	15.05	278	81789	5.06796 ppb		100
28) Benzo (g,h,i) perylene	15.38	276	85903	4.84757 ppb		100

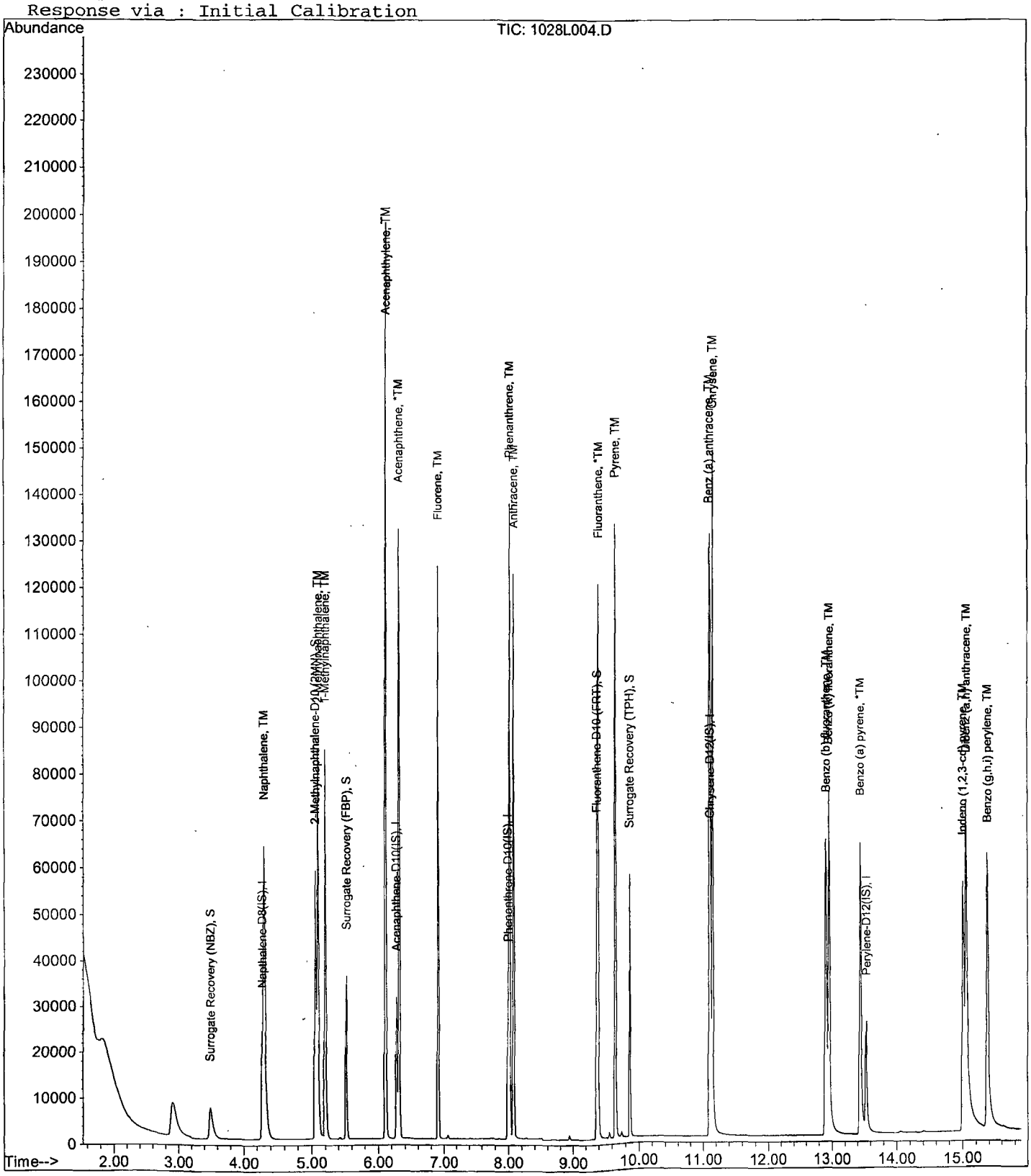
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L191028\1028L004.D Vial: 4
Acq On : 28 Oct 19 12:26 Operator: MA
Sample : 5 SIM 10/28/19(2) Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 30 10:37 2019 Quant Results File: L1028.RES

Method : M:\LINUS\DATA\L191028\L1028.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 30 10:39:31 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L191028\1028L005.D Vial: 5
Acq On : 28 Oct 19 12:51 Operator: MA
Sample : 0.1 SIM 10/28/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 30 10:34 2019 Quant Results File: L1028.RES

Quant Method : M:\LINUS\DATA\L191028\L1028.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 30 10:34:31 2019
Response via : Initial Calibration
DataAcq Meth : SIM_2

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Napthalene-D8(IS)	4.27	136	39324	2.50000 ppb		0.00
7) Acenaphthene-D10(IS)	6.27	164	16174	2.50000 ppb		0.00
12) Phenanthrene-D10(IS)	7.99	188	28360	2.50000 ppb		0.00
17) Chrysene-D12(IS)	11.10	240	31560	2.50000 ppb		-0.01
23) Perylene-D12(IS)	13.52	264	31724	2.50000 ppb		-0.01
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	3.49	82	484	0.06459 ppb		0.00
Spiked Amount 5.000			Recovery = 1.300%			
4) 2-Methylnaphthalene-D10 (2	5.05	152	1086	0.05528 ppb		0.00
Spiked Amount 5.000			Recovery = 1.100%			
8) Surrogate Recovery (FBP)	5.52	172	674	0.05499 ppb		0.00
Spiked Amount 5.000			Recovery = 1.100%			
15) Fluoranthene-D10 (FRT)	9.36	212	1074	0.05202 ppb		-0.01
Spiked Amount 5.000			Recovery = 1.040%			
19) Surrogate Recovery (TPH)	9.86	244	653	0.05381 ppb		0.00
Spiked Amount 5.000			Recovery = 1.080%			
Target Compounds						Qvalue
3) Naphthalene	4.30	128	2128	0.10909 ppb		99
5) 2-Methylnaphthalene	5.08	142	1238	0.10628 ppb		99
6) 1-Methylnaphthalene	5.19	142	1373	0.11537 ppb		95
9) Acenaphthylene	6.11	152	3555	0.10334 ppb		99
10) Acenaphthene	6.30	154	1105	0.11214 ppb		95
11) Fluorene	6.90	166	1131	0.10298 ppb		98
13) Phenanthrene	8.02	178	1893	0.11300 ppb		98
14) Anthracene	8.08	178	1429	0.09879 ppb		99
16) Fluoranthene	9.38	202	2411	0.10470 ppb	#	85
18) Pyrene	9.64	202	2420	0.10723 ppb		94
20) Benz (a) anthracene	11.09	228	1936	0.10799 ppb		99
21) Chrysene	11.14	228	2369	0.11913 ppb		96
22) Indeno (1,2,3-cd) pyrene	15.00	276	1863	0.10636 ppb	#	93
24) Benzo (b) fluoranthene	12.89	252	1687	0.10484 ppb		98
25) Benzo (k) fluoranthene	12.95	252	1630	0.08926 ppb		96
26) Benzo (a) pyrene	13.43	252	1449	0.09780 ppb		96
27) Dibenz (a,h) anthracene	15.04	278	1531	0.10483 ppb	#	91
28) Benzo (g,h,i) perylene	15.37	276	1783	0.11119 ppb		99

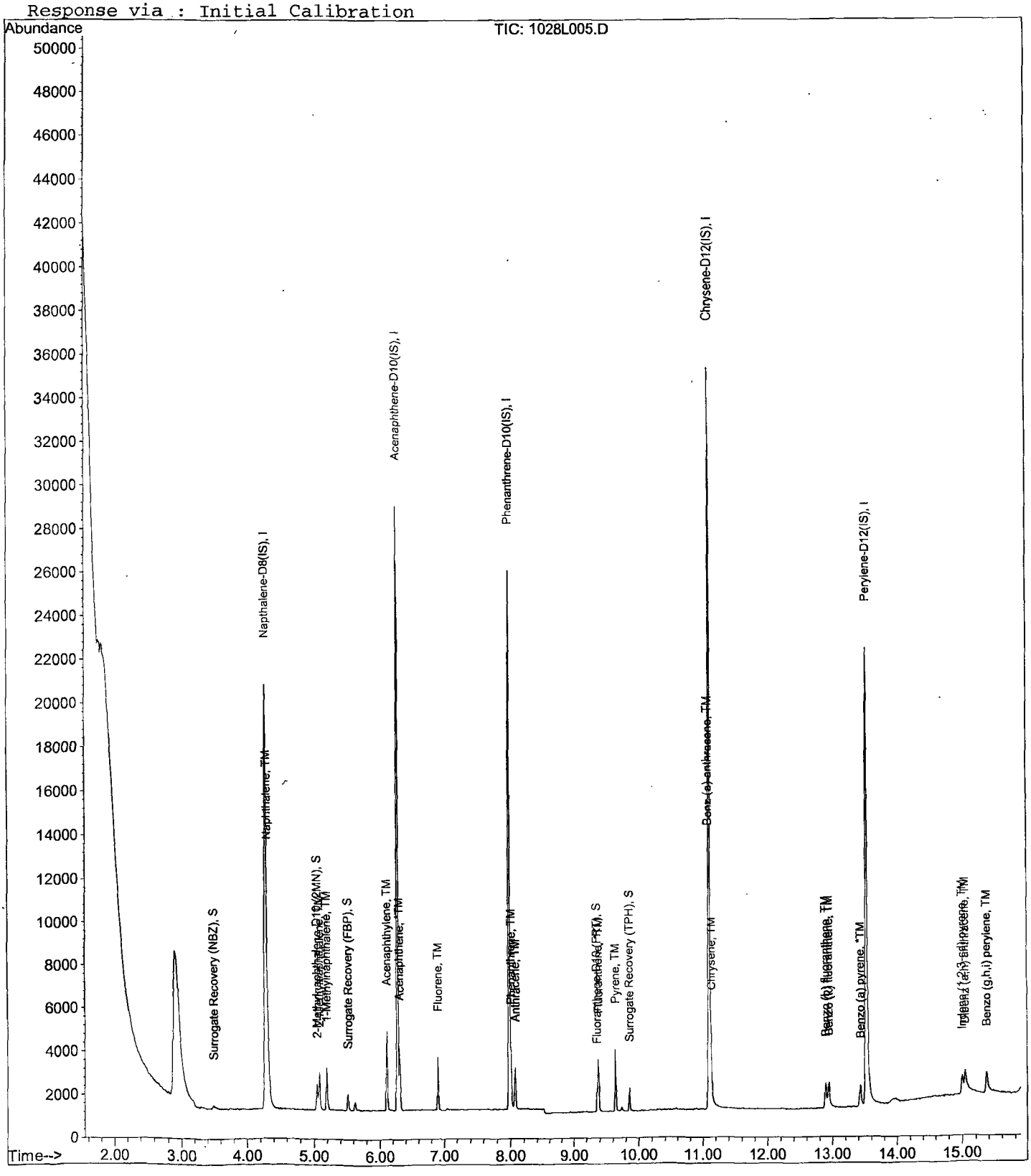
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L191028\1028L005.D Vial: 5
Acq On : 28 Oct 19 12:51 Operator: MA
Sample : 0.1 SIM 10/28/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 30 10:34 2019 Quant Results File: L1028.RES

Method : M:\LINUS\DATA\L191028\L1028.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 30 10:39:31 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L191028\1028L006.D Vial: 6
Acq On : 28 Oct 19 13:13 Operator: MA
Sample : 0.2 SIM 10/28/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 30 10:34 2019 Quant Results File: L1028.RES

Quant Method : M:\LINUS\DATA\L191028\L1028.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 30 10:34:31 2019
Response via : Initial Calibration
DataAcq Meth : SIM_2

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Napthalene-D8(IS)	4.27	136	38562	2.50000	ppb		0.00
7) Acenaphthene-D10(IS)	6.27	164	15986	2.50000	ppb		0.00
12) Phenanthrene-D10(IS)	7.99	188	28375	2.50000	ppb		0.00
17) Chrysene-D12(IS)	11.10	240	31295	2.50000	ppb		-0.01
23) Perylene-D12(IS)	13.52	264	30972	2.50000	ppb		-0.01
System Monitoring Compounds							
2) Surrogate Recovery (NBZ)	3.49	82	765	0.10411	ppb		0.00
Spiked Amount 5.000			Recovery = 2.080%				
4) 2-Methylnaphthalene-D10 (2	5.05	152	2022	0.10497	ppb		0.00
Spiked Amount 5.000			Recovery = 2.100%				
8) Surrogate Recovery (FBP)	5.52	172	1322	0.10913	ppb		0.00
Spiked Amount 5.000			Recovery = 2.180%				
15) Fluoranthene-D10 (FRT)	9.36	212	2028	0.09818	ppb		-0.01
Spiked Amount 5.000			Recovery = 1.960%				
19) Surrogate Recovery (TPH)	9.86	244	1205	0.10014	ppb		0.00
Spiked Amount 5.000			Recovery = 2.000%				
Target Compounds							Qvalue
3) Naphthalene	4.30	128	4084	0.21350	ppb		99
5) 2-Methylnaphthalene	5.08	142	2368	0.20730	ppb		97
6) 1-Methylnaphthalene	5.19	142	2649	0.22700	ppb		98
9) Acenaphthylene	6.11	152	6859	0.20174	ppb		99
10) Acenaphthene	6.30	154	2078	0.21337	ppb		99
11) Fluorene	6.90	166	2196	0.20230	ppb		97
13) Phenanthrene	8.01	178	3498	0.20870	ppb		99
14) Anthracene	8.08	178	2709	0.18718	ppb		100
16) Fluoranthene	9.38	202	4516	0.19601	ppb	#	82
18) Pyrene	9.64	202	4473	0.19988	ppb		94
20) Benz (a) anthracene	11.09	228	3402	0.19137	ppb		98
21) Chrysene	11.14	228	4205	0.21325	ppb		96
22) Indeno (1,2,3-cd) pyrene	15.00	276	3043	0.17520	ppb	#	80
24) Benzo (b) fluoranthene	12.89	252	2622	0.16691	ppb	#	95
25) Benzo (k) fluoranthene	12.95	252	3675	0.20614	ppb		97
26) Benzo (a) pyrene	13.43	252	2455	0.16972	ppb	#	93
27) Dibenz (a,h) anthracene	15.04	278	2564	0.17983	ppb		95
28) Benzo (g,h,i) perylene	15.37	276	2923	0.18670	ppb		93

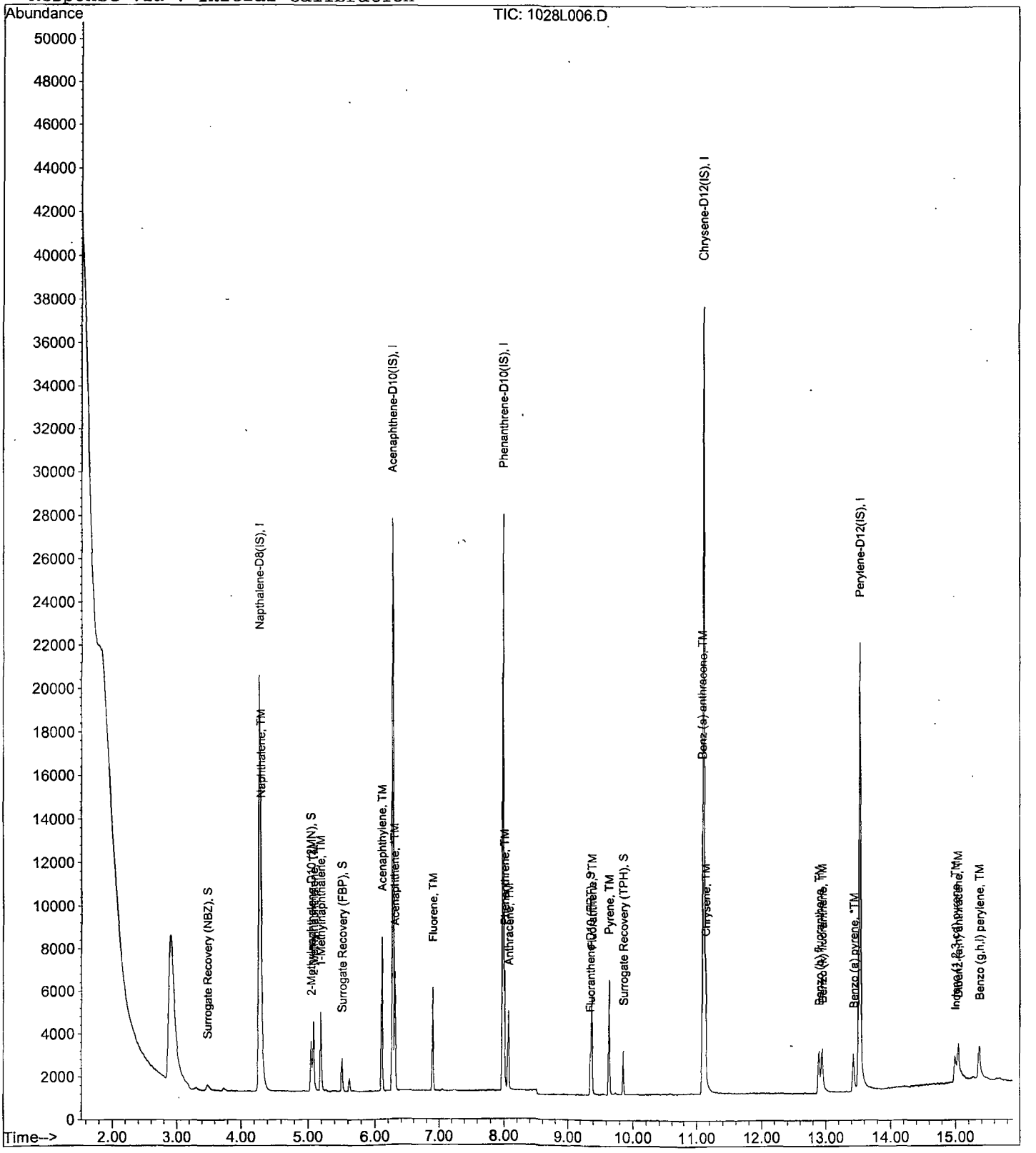
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L191028\1028L006.D Vial: 6
Acq On : 28 Oct 19 13:13 Operator: MA
Sample : 0.2 SIM 10/28/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 30 10:34 2019 Quant Results File: L1028.RES

Method : M:\LINUS\DATA\L191028\L1028.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 30 10:39:31 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L191028\1028L007.D Vial: 7
Acq On : 28 Oct 19 13:35 Operator: MA
Sample : 0.5 SIM 10/28/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 30 10:35 2019 Quant Results File: L1028.RES

Quant Method : M:\LINUS\DATA\L191028\L1028.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 30 10:34:31 2019
Response via : Initial Calibration
DataAcq Meth : SIM_2

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Napthalene-D8(IS)	4.27	136	37004	2.50000	ppb		0.00
7) Acenaphthene-D10(IS)	6.28	164	15527	2.50000	ppb		0.01
12) Phenanthrene-D10(IS)	7.99	188	27459	2.50000	ppb		0.00
17) Chrysene-D12(IS)	11.11	240	30862	2.50000	ppb		0.00
23) Perylene-D12(IS)	13.53	264	29964	2.50000	ppb		0.00
System Monitoring Compounds							
2) Surrogate Recovery (NBZ)	3.49	82	1703	0.24152	ppb		0.00
Spiked Amount 5.000			Recovery	= 4.840%			
4) 2-Methylnaphthalene-D10 (2	5.05	152	4562	0.24680	ppb		0.00
Spiked Amount 5.000			Recovery	= 4.940%			
8) Surrogate Recovery (FBP)	5.52	172	2893	0.24588	ppb		0.00
Spiked Amount 5.000			Recovery	= 4.920%			
15) Fluoranthene-D10 (FRT)	9.37	212	4727	0.23647	ppb		0.00
Spiked Amount 5.000			Recovery	= 4.720%			
19) Surrogate Recovery (TPH)	9.86	244	2827	0.23823	ppb		0.00
Spiked Amount 5.000			Recovery	= 4.760%			
Target Compounds							Qvalue
3) Naphthalene	4.30	128	9091	0.49526	ppb		99
5) 2-Methylnaphthalene	5.08	142	5442	0.49647	ppb		100
6) 1-Methylnaphthalene	5.19	142	5334	0.47632	ppb		96
9) Acenaphthylene	6.11	152	15769	0.47751	ppb		100
10) Acenaphthene	6.30	154	4710	0.49791	ppb		98
11) Fluorene	6.90	166	5056	0.47953	ppb		98
13) Phenanthrene	8.02	178	8228	0.50727	ppb		98
14) Anthracene	8.08	178	6595	0.47089	ppb		99
16) Fluoranthene	9.39	202	10783	0.48363	ppb		98
18) Pyrene	9.64	202	10814	0.49001	ppb		96
20) Benz (a) anthracene	11.09	228	8304	0.47368	ppb		99
21) Chrysene	11.14	228	9479	0.48746	ppb		99
22) Indeno (1,2,3-cd) pyrene	15.00	276	6693	0.39076	ppb	#	90
24) Benzo (b) fluoranthene	12.89	252	6629	0.43618	ppb	#	95
25) Benzo (k) fluoranthene	12.95	252	8149	0.47247	ppb		97
26) Benzo (a) pyrene	13.44	252	5775	0.41266	ppb		95
27) Dibenz (a,h) anthracene	15.04	278	5898	0.42758	ppb	#	89
28) Benzo (g,h,i) perylene	15.37	276	6815	0.44994	ppb		95

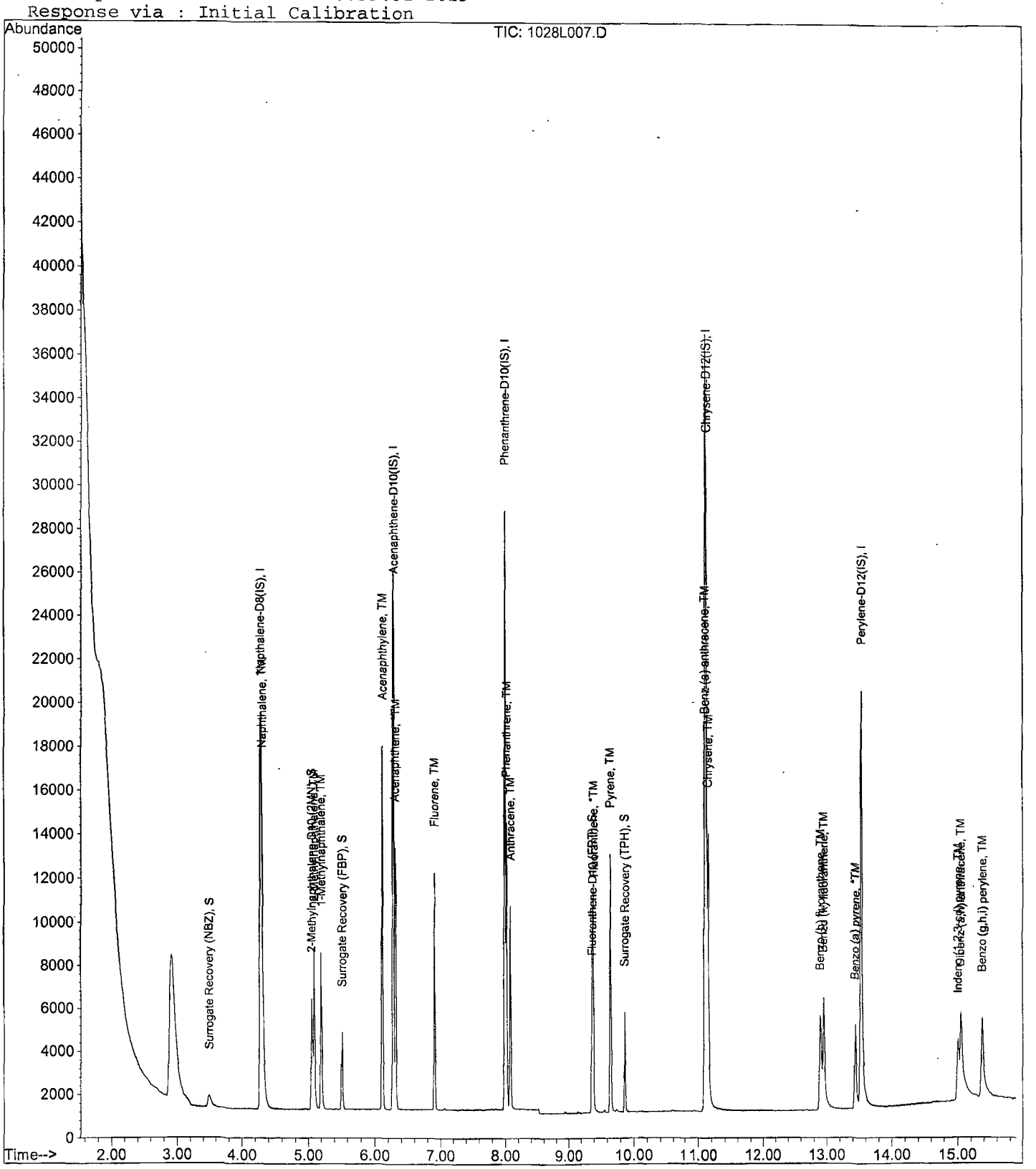
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L191028\1028L007.D Vial: 7
Acq On : 28 Oct 19 13:35 Operator: MA
Sample : 0.5 SIM 10/28/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 30 10:35 2019 Quant Results File: L1028.RES

Method : M:\LINUS\DATA\L191028\L1028.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 30 10:39:31 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L191028\1028L008.D Vial: 8
Acq On : 28 Oct 19 13:57 Operator: MA
Sample : 1 SIM 10/28/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 30 10:35 2019 Quant Results File: L1028.RES

Quant Method : M:\LINUS\DATA\L191028\L1028.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 30 10:34:31 2019
Response via : Initial Calibration
DataAcq Meth : SIM_2

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Napthalene-D8(IS)	4.29	136	32025	2.50000 ppb		0.01
7) Acenaphthene-D10(IS)	6.28	164	13099	2.50000 ppb		0.01
12) Phenanthrene-D10(IS)	7.99	188	23028	2.50000 ppb		0.00
17) Chrysene-D12(IS)	11.11	240	26425	2.50000 ppb		0.00
23) Perylene-D12(IS)	13.53	264	25032	2.50000 ppb		0.00
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	3.49	82	3019	0.49473 ppb		0.00
Spiked Amount 5.000			Recovery	= 9.900%		
4) 2-Methylnaphthalene-D10 (2	5.05	152	8459	0.52876 ppb		0.00
Spiked Amount 5.000			Recovery	= 10.580%		
8) Surrogate Recovery (FBP)	5.52	172	5500	0.55409 ppb		0.00
Spiked Amount 5.000			Recovery	= 11.080%		
15) Fluoranthene-D10 (FRT)	9.37	212	8766	0.52290 ppb		0.00
Spiked Amount 5.000			Recovery	= 10.460%		
19) Surrogate Recovery (TPH)	9.86	244	5242	0.51591 ppb		0.00
Spiked Amount 5.000			Recovery	= 10.320%		
Target Compounds						Qvalue
3) Naphthalene	4.30	128	16930	1.06571 ppb		100
5) 2-Methylnaphthalene	5.08	142	10089	1.06351 ppb		99
6) 1-Methylnaphthalene	5.19	142	10057	1.03771 ppb		97
9) Acenaphthylene	6.11	152	29648	1.06419 ppb		99
10) Acenaphthene	6.31	154	8477	1.06224 ppb		88
11) Fluorene	6.90	166	9496	1.06758 ppb		97
13) Phenanthrene	8.01	178	15064	1.10743 ppb		100
14) Anthracene	8.08	178	12506	1.06475 ppb		100
16) Fluoranthene	9.39	202	20409	1.09150 ppb		100
18) Pyrene	9.64	202	20263	1.07233 ppb		98
20) Benz (a) anthracene	11.10	228	14953	0.99617 ppb		97
21) Chrysene	11.14	228	17636	1.05923 ppb		99
22) Indeno (1,2,3-cd) pyrene	15.00	276	13150	0.89665 ppb	#	94
24) Benzo (b) fluoranthene	12.90	252	12330	0.97114 ppb		99
25) Benzo (k) fluoranthene	12.95	252	15715	1.09065 ppb		99
26) Benzo (a) pyrene	13.43	252	10748	0.91934 ppb		99
27) Dibenz (a,h) anthracene	15.05	278	10865	0.94286 ppb		98
28) Benzo (g,h,i) perylene	15.37	276	12422	0.98172 ppb	#	89

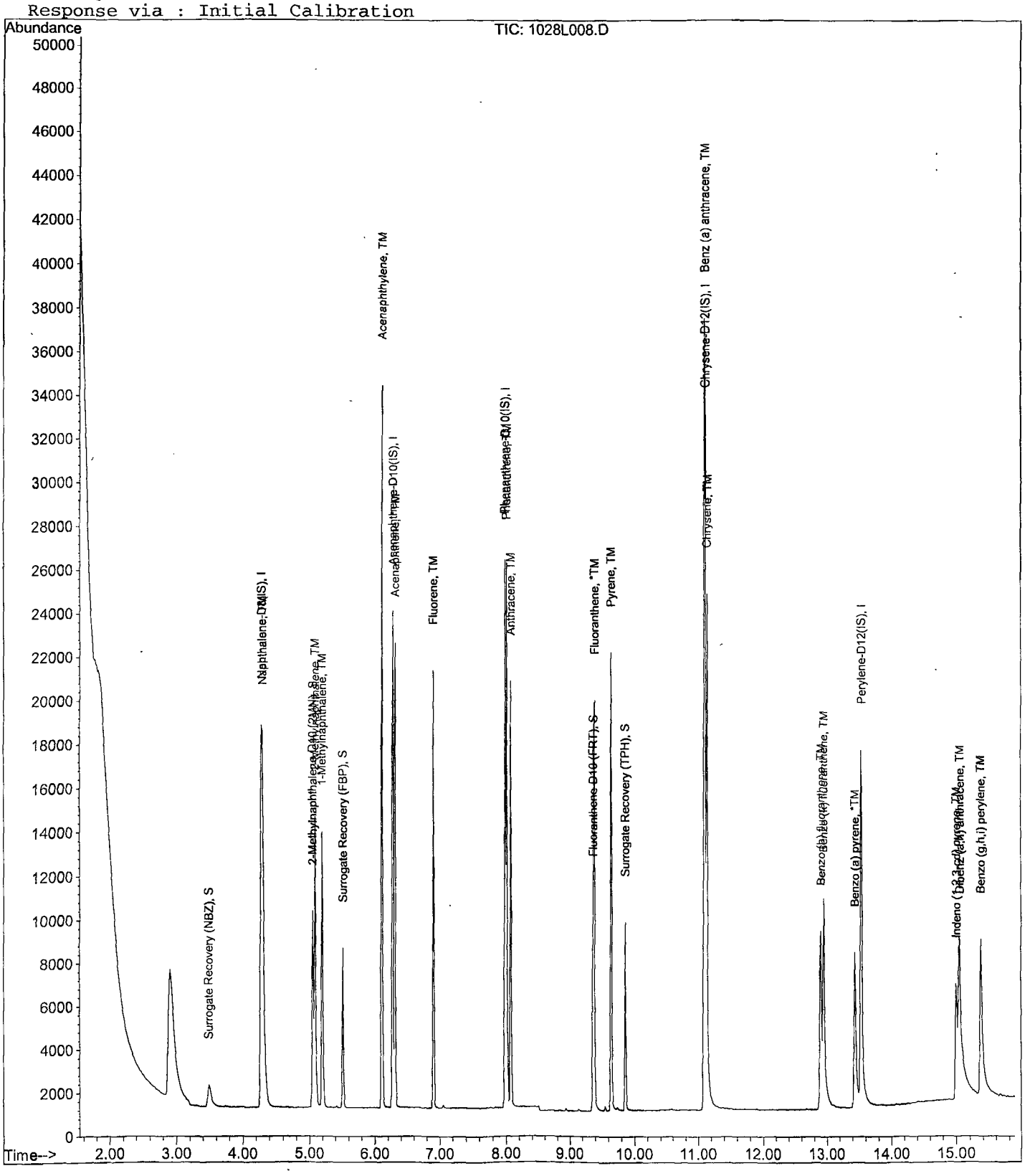
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L191028\1028L008.D Vial: 8
Acq On : 28 Oct 19 13:57 Operator: MA
Sample : 1 SIM 10/28/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 30 10:35 2019 Quant Results File: L1028.RES

Method : M:\LINUS\DATA\L191028\L1028.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 30 10:39:31 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L191028\1028L009.D Vial: 9
Acq On : 28 Oct 19 14:19 Operator: MA
Sample : 20 SIM 10/28/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 30 10:35 2019 Quant Results File: L1028.RES

Quant Method : M:\LINUS\DATA\L191028\L1028.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 30 10:34:31 2019
Response via : Initial Calibration
DataAcq Meth : SIM_2

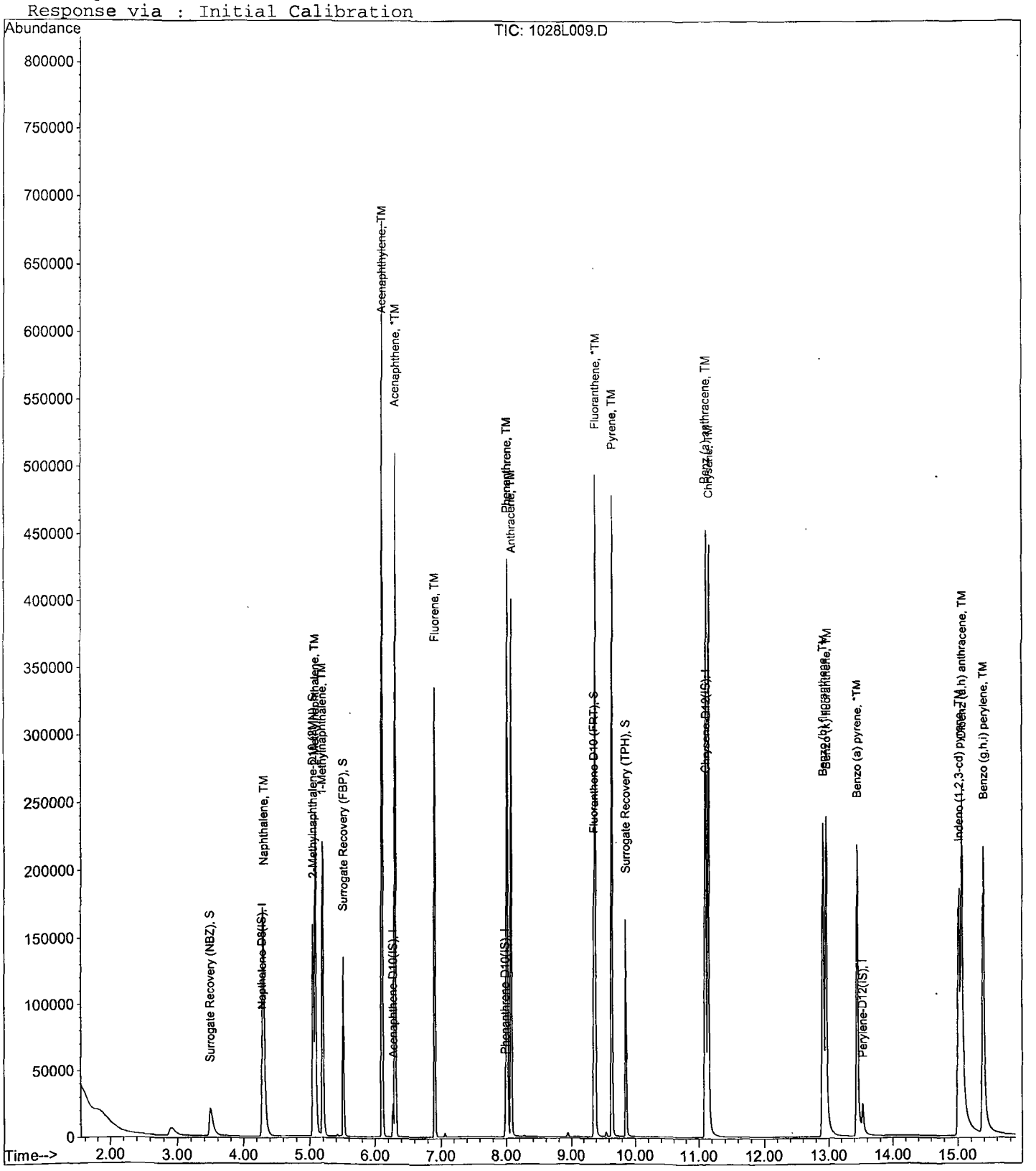
Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Napthalene-D8(IS)	4.29	136	32869	2.50000 ppb		0.01
7) Acenaphthene-D10(IS)	6.28	164	13416	2.50000 ppb		0.01
12) Phenanthrene-D10(IS)	7.99	188	23677	2.50000 ppb		0.00
17) Chrysene-D12(IS)	11.11	240	28661	2.50000 ppb		0.00
23) Perylene-D12(IS)	13.53	264	27623	2.50000 ppb		0.00
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	3.49	82	56078	8.95364 ppb		0.00
Spiked Amount 5.000			Recovery	= 179.080%		
4) 2-Methylnaphthalene-D10 (2	5.05	152	156708	9.54415 ppb		0.00
Spiked Amount 5.000			Recovery	= 190.880%		
8) Surrogate Recovery (FBP)	5.52	172	98204	9.65967 ppb		0.00
Spiked Amount 5.000			Recovery	= 193.200%		
15) Fluoranthene-D10 (FRT)	9.37	212	180565	10.47571 ppb		0.00
Spiked Amount 5.000			Recovery	= 209.520%		
19) Surrogate Recovery (TPH)	9.86	244	105182	9.54434 ppb		0.00
Spiked Amount 5.000			Recovery	= 190.880%		
Target Compounds						Qvalue
3) Naphthalene	4.31	128	324267	19.88786 ppb		99
5) 2-Methylnaphthalene	5.08	142	196246	20.15556 ppb		98
6) 1-Methylnaphthalene	5.19	142	192793	19.38213 ppb		96
9) Acenaphthylene	6.11	152	617256	21.63237 ppb		99
10) Acenaphthene	6.31	154	164055	20.07171 ppb		88
11) Fluorene	6.90	166	190667	20.92904 ppb		96
13) Phenanthrene	8.01	178	278373	19.90356 ppb		99
14) Anthracene	8.08	178	258173	21.37818 ppb		98
16) Fluoranthene	9.39	202	408909	21.26956 ppb	#	88
18) Pyrene	9.65	202	414663	20.23232 ppb	#	88
20) Benz (a) anthracene	11.10	228	331965	20.39010 ppb		99
21) Chrysene	11.15	228	351823	19.48211 ppb		99
22) Indeno (1,2,3-cd) pyrene	15.02	276	346411	21.77783 ppb	#	80
24) Benzo (b) fluoranthene	12.91	252	314014	22.41257 ppb		98
25) Benzo (k) fluoranthene	12.97	252	359815	22.62958 ppb	#	94
26) Benzo (a) pyrene	13.45	252	304231	23.58169 ppb		98
27) Dibenz (a,h) anthracene	15.07	278	282549	22.21959 ppb		96
28) Benzo (g,h,i) perylene	15.39	276	300183	21.49840 ppb	#	87

(#) = qualifier out of range (m) = manual integration

Data File : M:\LINUS\DATA\L191028\1028L009.D Vial: 9
Acq On : 28 Oct 19 14:19 Operator: MA
Sample : 20 SIM 10/28/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 30 10:35 2019 Quant Results File: L1028.RES

Method : M:\LINUS\DATA\L191028\L1028.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 30 10:39:31 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L191028\1028L010.D Vial: 10
Acq On : 28 Oct 19 14:42 Operator: MA
Sample : 50 SIM 10/28/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 30 10:39 2019 Quant Results File: L1028.RES

Quant Method : M:\LINUS\DATA\L191028\L1028.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 30 10:39:03 2019
Response via : Initial Calibration
DataAcq Meth : SIM_2

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Napthalene-D8(IS)	4.29	136	36782	2.50000	ppb		0.01
7) Acenaphthene-D10(IS)	6.28	164	15743	2.50000	ppb		0.01
12) Phenanthrene-D10(IS)	7.99	188	27764	2.50000	ppb		0.00
17) Chrysene-D12(IS)	11.12	240	31502	2.50000	ppb		0.01
23) Perylene-D12(IS)	13.54	264	33834	2.50000	ppb		0.01
System Monitoring Compounds							
2) Surrogate Recovery (NBZ)	3.49	82	164569	23.48044	ppb		0.00
Spiked Amount 5.000			Recovery = 469.600%				
4) 2-Methylnaphthalene-D10 (2	5.05	152	432823	23.55633	ppb		0.00
Spiked Amount 5.000			Recovery = 471.120%				
8) Surrogate Recovery (FBP)	5.52	172	269987	22.63141	ppb		0.00
Spiked Amount 5.000			Recovery = 452.620%				
15) Fluoranthene-D10 (FRT)	9.38	212	499535	24.71499	ppb		0.01
Spiked Amount 5.000			Recovery = 494.300%				
19) Surrogate Recovery (TPH)	9.87	244	308848	25.49780	ppb		0.01
Spiked Amount 5.000			Recovery = 509.960%				
Target Compounds							Qvalue
3) Naphthalene	4.31	128	860769	47.17621	ppb		99
5) 2-Methylnaphthalene	5.10	142	514626	47.23207	ppb		96
6) 1-Methylnaphthalene	5.20	142	509460	45.76902	ppb		97
9) Acenaphthylene	6.11	152	1577589	47.11599	ppb		99
10) Acenaphthene	6.31	154	421153	43.91071	ppb		92
11) Fluorene	6.92	166	526911	49.28860	ppb		97
13) Phenanthrene	8.03	178	752594	45.88906	ppb		99
14) Anthracene	8.09	178	708446	50.02779	ppb		99
16) Fluoranthene	9.40	202	1024241	45.43376	ppb	#	91
18) Pyrene	9.66	202	1079871	47.93751	ppb	#	84
20) Benz (a) anthracene	11.11	228	900763	50.33740	ppb		98
21) Chrysene	11.16	228	902898	45.48872	ppb		98
22) Indeno (1,2,3-cd) pyrene	15.04	276	997292	57.04250	ppb	#	80
24) Benzo (b) fluoranthene	12.92	252	930609	54.22848	ppb		100
25) Benzo (k) fluoranthene	12.99	252	911111	46.78279	ppb		100
26) Benzo (a) pyrene	13.47	252	868154	54.93963	ppb		97
27) Dibenz (a,h) anthracene	15.09	278	817460	52.48391	ppb		97
28) Benzo (g,h,i) perylene	15.42	276	866669	50.67466	ppb		93

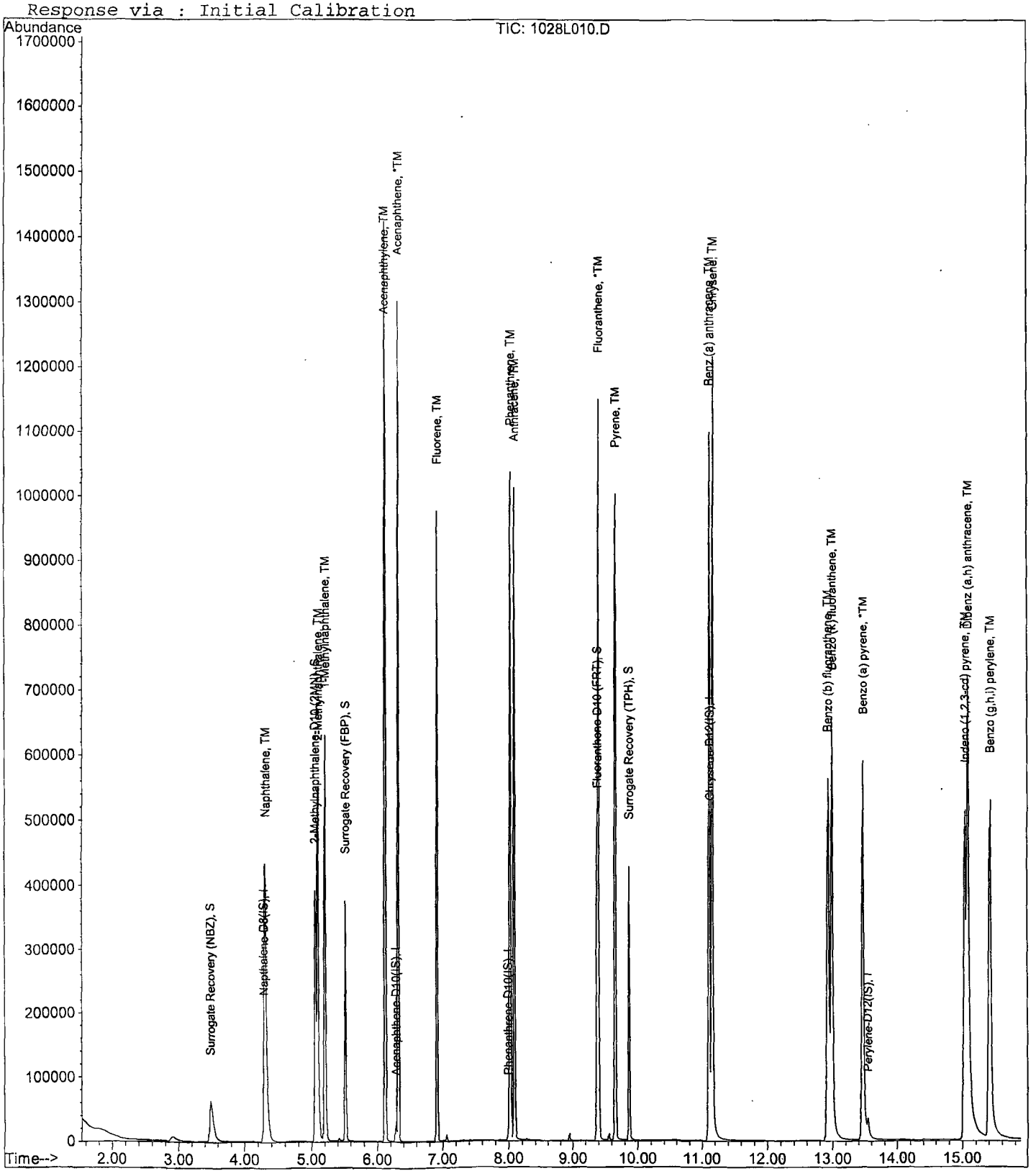
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L191028\1028L010.D Vial: 10
Acq On : 28 Oct 19 14:42 Operator: MA
Sample : 50 SIM 10/28/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 30 10:39 2019 Quant Results File: L1028.RES

Method : M:\LINUS\DATA\L191028\L1028.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 30 10:39:31 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L191028\1028L011.D Vial: 11
Acq On : 28 Oct 19 15:04 Operator: MA
Sample : 100 SIM 10/28/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 30 10:39 2019 Quant Results File: L1028.RES

Quant Method : M:\LINUS\DATA\L191028\L1028.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 30 10:39:03 2019
Response via : Initial Calibration
DataAcq Meth : SIM_2

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Napthalene-D8(IS)	4.29	136	35886	2.50000 ppb		0.01
7) Acenaphthene-D10(IS)	6.28	164	15357	2.50000 ppb		0.01
12) Phenanthrene-D10(IS)	7.99	188	27888	2.50000 ppb		0.00
17) Chrysene-D12(IS)	11.13	240	31266	2.50000 ppb		0.02
23) Perylene-D12(IS)	13.54	264	33574	2.50000 ppb		0.01
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	3.49	82	331274	48.44577 ppb		0.00
Spiked Amount 5.000			Recovery	= 968.920%		
4) 2-Methylnaphthalene-D10 (2	5.06	152	824254	45.97997 ppb		0.01
Spiked Amount 5.000			Recovery	= 919.600%		
8) Surrogate Recovery (FBP)	5.52	172	507607	43.61919 ppb		0.00
Spiked Amount 5.000			Recovery	= 872.380%		
15) Fluoranthene-D10 (FRT)	9.38	212	938946	46.24873 ppb		0.01
Spiked Amount 5.000			Recovery	= 924.980%		
19) Surrogate Recovery (TPH)	9.87	244	594165	49.42319 ppb		0.01
Spiked Amount 5.000			Recovery	= 988.460%		
Target Compounds						Qvalue
3) Naphthalene	4.31	128	1632322	91.69646 ppb		99
5) 2-Methylnaphthalene	5.09	142	988093	92.95084 ppb		96
6) 1-Methylnaphthalene	5.20	142	987228	90.90531 ppb		97
9) Acenaphthylene	6.12	152	3028365	92.71793 ppb		98
10) Acenaphthene	6.33	154	884058	94.49143 ppb		81
11) Fluorene	6.92	166	977828	93.76761 ppb		99
13) Phenanthrene	8.03	178	1410719	85.63545 ppb		98
14) Anthracene	8.10	178	1405385	98.80172 ppb		98
16) Fluoranthene	9.41	202	1975643	87.24682 ppb	#	93
18) Pyrene	9.67	202	2087655	93.37447 ppb	#	79
20) Benz (a) anthracene	11.12	228	1769567	99.63525 ppb		98
21) Chrysene	11.17	228	1761570	89.41920 ppb	#	95
22) Indeno (1,2,3-cd) pyrene	15.08	276	1994441	114.93788 ppb	#	97
24) Benzo (b) fluoranthene	12.95	252	1775337	104.25365 ppb		98
25) Benzo (k) fluoranthene	13.01	252	1833100	94.85304 ppb		98
26) Benzo (a) pyrene	13.49	252	1692412	107.93077 ppb		96
27) Dibenz (a,h) anthracene	15.12	278	1669599	108.02446 ppb		94
28) Benzo (g,h,i) perylene	15.46	276	1722719	101.50847 ppb		96

(#) = qualifier out of range (m) = manual integration

Quantitation Report

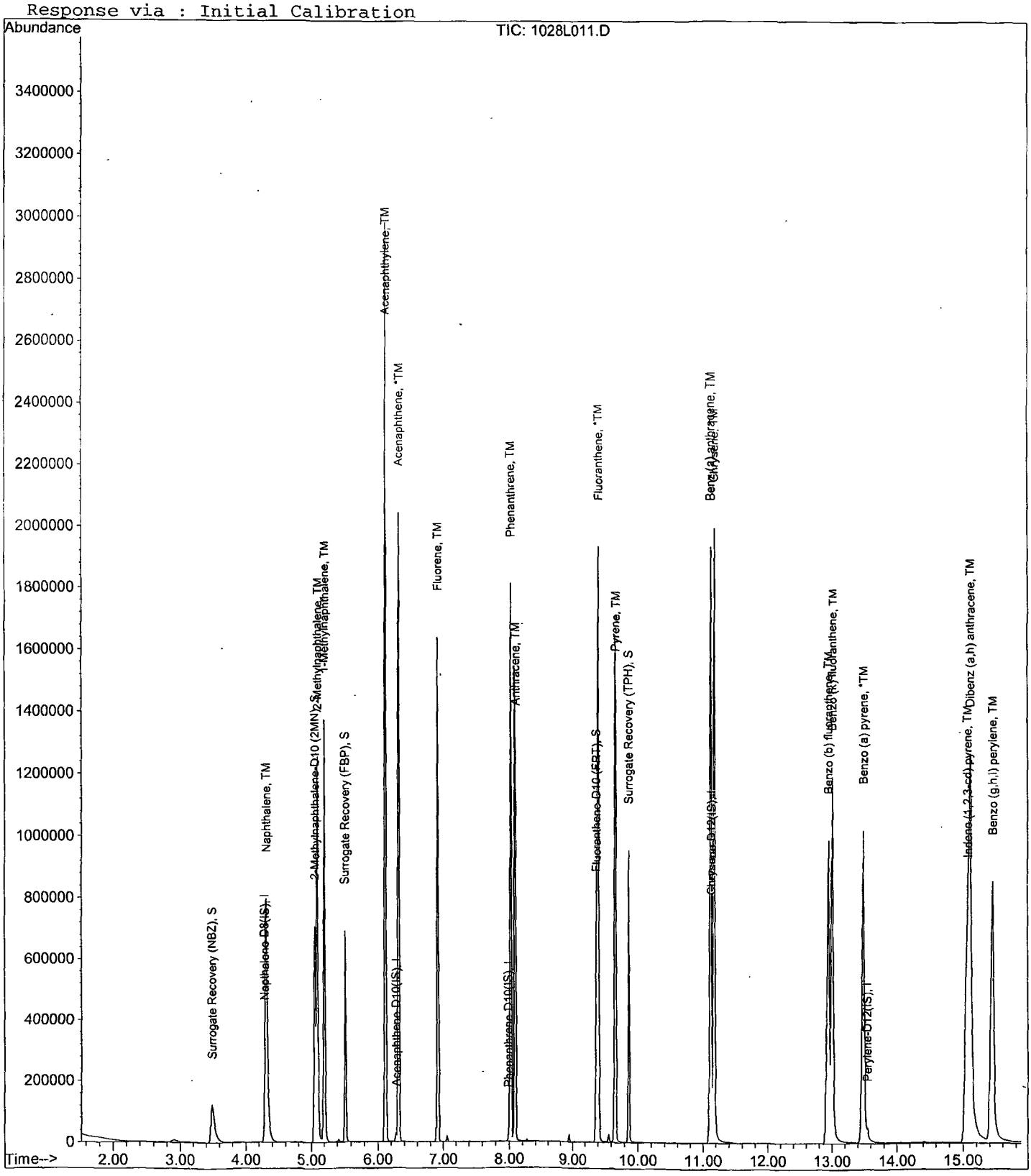
Data File : M:\LINUS\DATA\L191028\1028L011.D
Acq On : 28 Oct 19 15:04
Sample : 100 SIM 10/28/19
Misc :

Vial: 11
Operator: MA
Inst : Linus
Multiplr: 1.00

Quant Time: Oct 30 10:39 2019

Quant Results File: L1028.RES

Method : M:\LINUS\DATA\L191028\L1028.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 30 10:39:31 2019
Response via : Initial Calibration



PAH by GCMS SIM
EPA 8270 SIM

Form 7

Second Source Calibration

Lab Name: APPL, Inc.
Case No:
Matrix:

SDG No:
Date Analyzed: 10/28/19
Instrument: Linus
Initial Cal. Date: 10/28/19
Data File: 1028L012.D

		Compound	MEAN	CCRF	%D		%Drift
1	TM	Naphthalene	1.240	1.222	1.4	TM	
2	TM	2-Methylnaphthalene	0.7406	0.7386	0.26	TM	
3	TM	1-Methylnaphthalene	0.7566	0.7450	1.5	TM	
4	TM	Acenaphthylene	5.317	5.695	7.1	TM	
5	*TM	Acenaphthene	1.523	1.515	0.52	*TM	
6	TM	Fluorene	1.698	1.746	2.9	TM	
7	TM	Phenanthrene	1.477	1.538	4.1	TM	
8	TM	Anthracene	1.275	1.367	7.2	TM	
9	*TM	Fluoranthene	2.013	2.171	7.8	*TM	
10	TM	Pyrene	1.789	1.816	1.5	TM	
11	TM	Benz (a) anthracene	1.420	1.330	6.4	TM	
12	TM	Chrysene	1.573	1.539	2.2	TM	
13	TM	Indeno (1,2,3-cd) pyrene	1.387	1.255	9.5	TM	
14	TM	Benzo (b) fluoranthene	1.268	1.334	5.2	TM	
15	TM	Benzo (k) fluoranthene	1.439	1.585	10	TM	
16	*TM	Benzo (a) pyrene	1.167	1.265	8.4	*TM	
17	TM	Dibenz (a,h) anthracene	1.151	1.126	2.2	TM	
18	TM	Benzo (g,h,i) perylene	1.264	1.235	2.3	TM	
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
30							
31							
32							
33							
34							
35							
36							
37							
38							
39							
40							
		Average			4.5		

Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L191028\1028L012.D Vial: 12
Acq On : 28 Oct 19 15:55 Operator: MA
Sample : SS SIM 10/28/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 30 10:44 2019 Quant Results File: L1028.RES

Quant Method : M:\LINUS\DATA\L191028\L1028.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 30 10:39:31 2019
Response via : Initial Calibration
DataAcq Meth : SIM_2

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Napthalene-D8(IS)	4.29	136	37041	2.50000 ppb		0.01
7) Acenaphthene-D10(IS)	6.28	164	15072	2.50000 ppb		0.01
12) Phenanthrene-D10(IS)	7.99	188	26057	2.50000 ppb		0.00
17) Chrysene-D12(IS)	11.11	240	32042	2.50000 ppb		0.00
23) Perylene-D12(IS)	13.53	264	29024	2.50000 ppb		0.00
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	0.00	82	0d	0.00000 ppb		
Spiked Amount 5.000			Recovery	= 0.000%		
4) 2-Methylnaphthalene-D10 (2	0.00	152	0d	0.00000 ppb		
Spiked Amount 5.000			Recovery	= 0.000%		
8) Surrogate Recovery (FBP)	0.00	172	0d	0.00000 ppb		
Spiked Amount 5.000			Recovery	= 0.000%		
15) Fluoranthene-D10 (FRT)	0.00	212	0d	0.00000 ppb		
Spiked Amount 5.000			Recovery	= 0.000%		
19) Surrogate Recovery (TPH)	0.00	244	0d	0.00000 ppb		
Spiked Amount 5.000			Recovery	= 0.000%		
Target Compounds						Qvalue
3) Naphthalene	4.30	128	90550	4.92808 ppb		100
5) 2-Methylnaphthalene	5.08	142	54717	4.98678 ppb		97
6) 1-Methylnaphthalene	5.19	142	55190	4.92351 ppb		97
9) Acenaphthylene	6.11	152	171659	5.35498 ppb		99
10) Acenaphthene	6.31	154	45673	4.97401 ppb		89
11) Fluorene	6.90	166	52636	5.14291 ppb		95
13) Phenanthrene	8.01	178	80127	5.20577 ppb		98
14) Anthracene	8.08	178	71254	5.36132 ppb		99
16) Fluoranthene	9.39	202	113116	5.39024 ppb	#	93
18) Pyrene	9.65	202	116362	5.07511 ppb	#	86
20) Benz (a) anthracene	11.10	228	85204	4.68122 ppb		98
21) Chrysene	11.14	228	98596	4.89203 ppb	#	96
22) Indeno (1,2,3-cd) pyrene	15.01	276	80441	4.52347 ppb		88
24) Benzo (b) fluoranthene	12.90	252	77412	5.25853 ppb		99
25) Benzo (k) fluoranthene	12.96	252	92007	5.50721 ppb		99
26) Benzo (a) pyrene	13.45	252	73458	5.42211 ppb		97
27) Dibenz (a,h) anthracene	15.05	278	65335	4.88992 ppb	#	94
28) Benzo (g,h,i) perylene	15.38	276	71685	4.88610 ppb	#	92

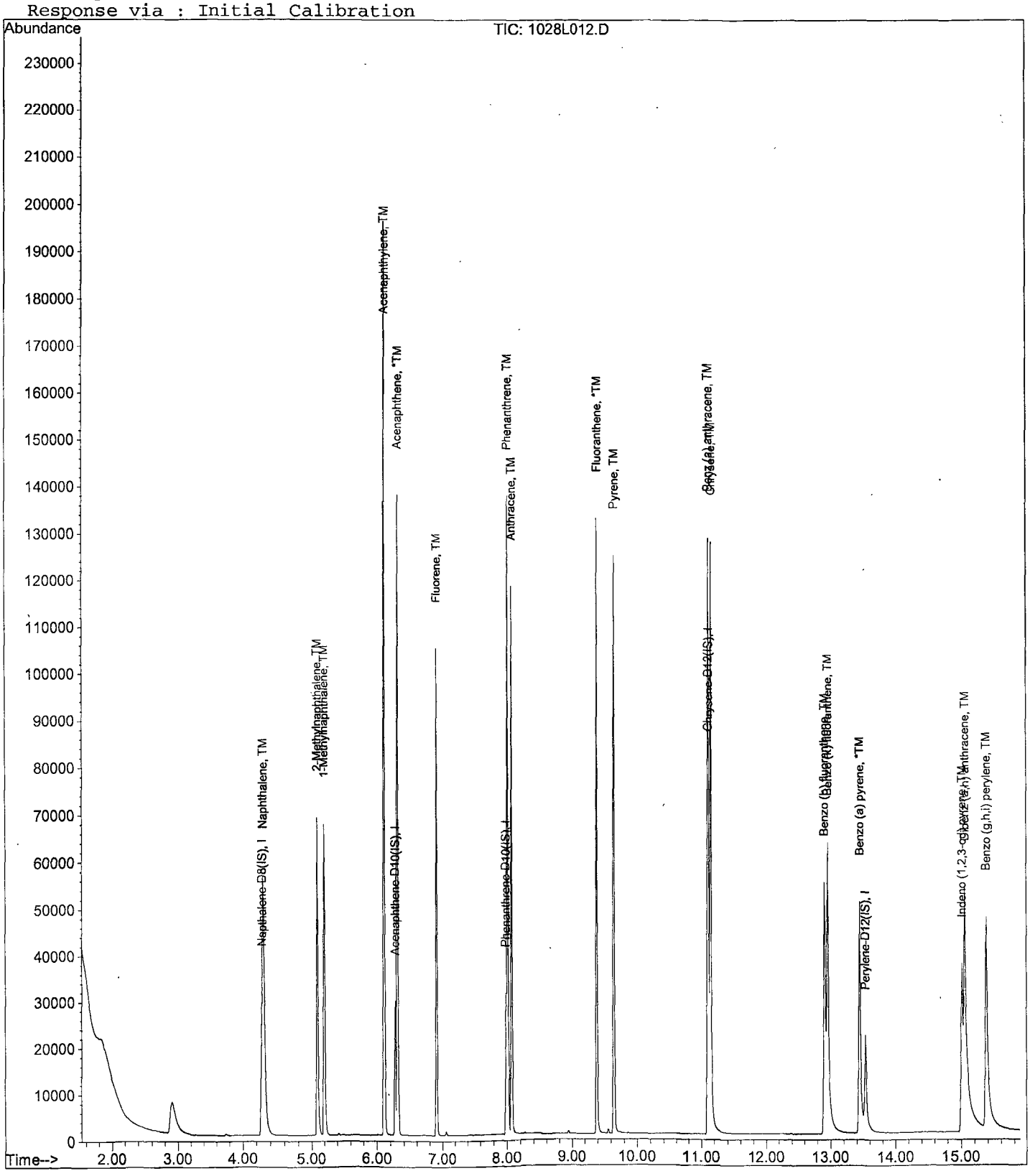
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L191028\1028L012.D Vial: 12
Acq On : 28 Oct 19 15:55 Operator: MA
Sample : SS SIM 10/28/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 30 10:44 2019 Quant Results File: L1028.RES

Method : M:\LINUS\DATA\L191028\L1028.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 30 10:39:31 2019
Response via : Initial Calibration



PAH by GCMS SIM
EPA 8270 SIM

Form 7

Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix:

SDG No:
Date Analyzed: 11/12/19
Instrument: Linus
Initial Cal. Date: 10/28/19
Data File: 1028L258.D

		Compound	MEAN	CCRF	%D		%Drift
1	I	Napthalene-D8(IS)	ISTD			I	
2	S	Surrogate Recovery (NBZ)	0.4764	0.4387	7.9	S	
3	TM	Naphthalene	1.240	1.213	2.2	TM	
4	S	2-Methylnaphthalene-D10 (2MN)	1.249	1.175	5.9	S	
5	TM	2-Methylnaphthalene	0.7406	0.7296	1.5	TM	
6	TM	1-Methylnaphthalene	0.7566	0.7306	3.4	TM	
7	I	Acenaphthene-D10(IS)	ISTD			I	
8	S	Surrogate Recovery (FBP)	1.894	1.817	4.1	S	
9	TM	Acenaphthylene	5.317	5.487	3.2	TM	
10	*TM	Acenaphthene	1.523	1.488	2.3	*TM	
11	TM	Fluorene	1.698	1.700	0.12	TM	
12	I	Phenanthrene-D10(IS)	ISTD			I	
13	TM	Phenanthrene	1.477	1.472	0.34	TM	
14	TM	Anthracene	1.275	1.335	4.7	TM	
15	S	Fluoranthene-D10 (FRT)	1.819	1.825	0.33	S	
16	*TM	Fluoranthene	2.013	2.140	6.3	*TM	
17	I	Chrysene-D12(IS)	ISTD			I	
18	TM	Pyrene	1.789	1.797	0.43	TM	
19	S	Surrogate Recovery (TPH)	0.9613	0.9421	2.0	S	
20	TM	Benz (a) anthracene	1.420	1.350	4.9	TM	
21	TM	Chrysene	1.573	1.501	4.5	TM	
22	TM	Indeno (1,2,3-cd) pyrene	1.387	1.330	4.1	TM	
23	I	Perylene-D12(IS)	ISTD			I	
24	TM	Benzo (b) fluoranthene	1.268	1.234	2.7	TM	
25	TM	Benzo (k) fluoranthene	1.439	1.592	11	TM	
26	*TM	Benzo (a) pyrene	1.167	1.232	5.6	*TM	
27	TM	Dibenz (a,h) anthracene	1.151	1.150	0.11	TM	
28	TM	Benzo (g,h,i) perylene	1.264	1.243	1.7	TM	
29							
30							
31							
32							
33							
34							
35							
36							
37							
38							
39							
40							
		Average			3.4		

Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L191028\1028L258.D Vial: 58
Acq On : 12 Nov 19 9:35 Operator: MA
Sample : 5 SIM 10/28/19 (1) Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Nov 12 9:58 2019 Quant Results File: L1028.RES

Quant Method : M:\LINUS\DATA\L191028\L1028.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 30 10:39:31 2019
Response via : Initial Calibration
DataAcq Meth : SIM_2

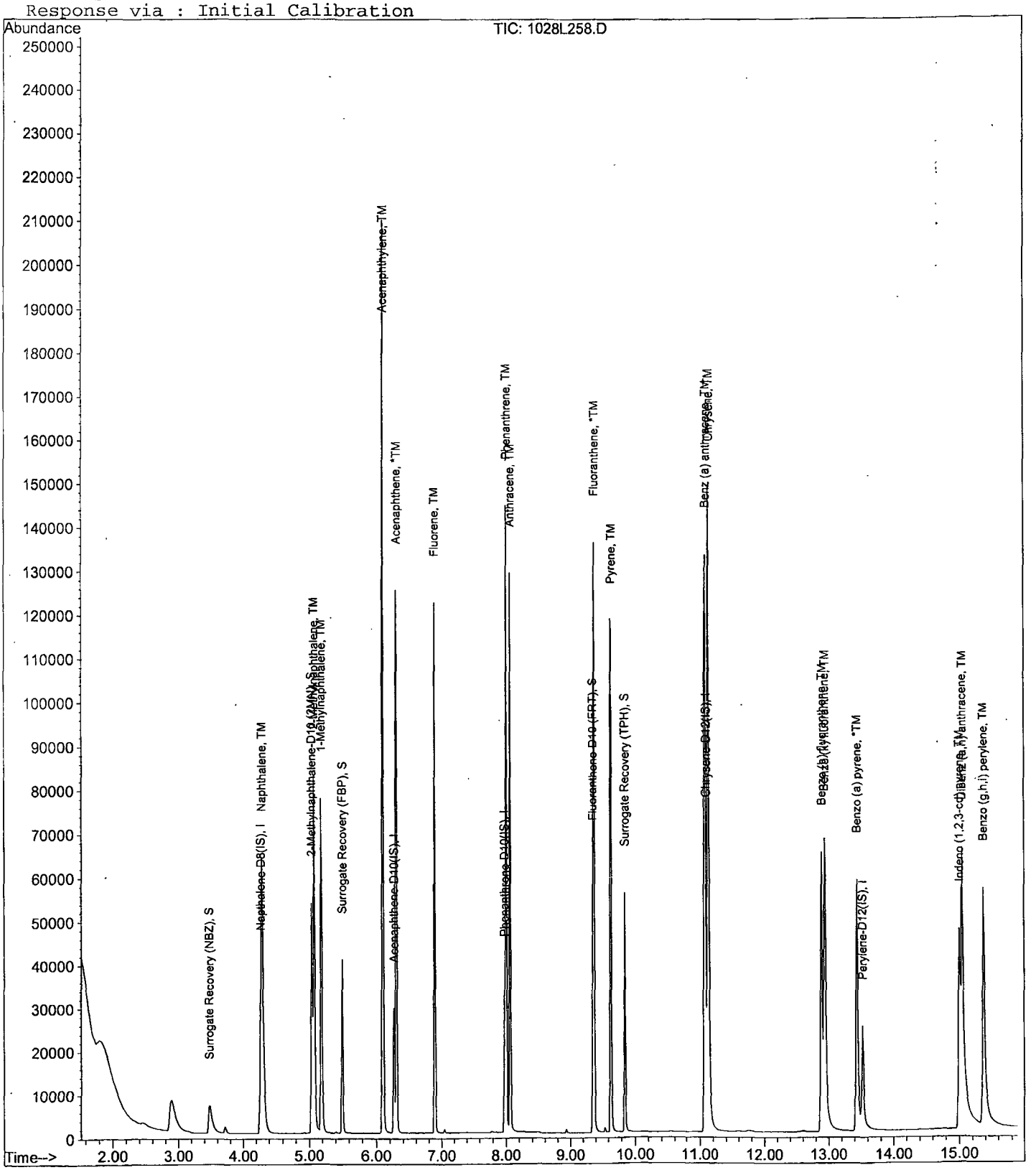
Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Napthalene-D8(IS)	4.27	136	42226	2.50000 ppb		0.00
7) Acenaphthene-D10(IS)	6.27	164	17230	2.50000 ppb		0.00
12) Phenanthrene-D10(IS)	7.98	188	30075	2.50000 ppb		-0.01
17) Chrysene-D12(IS)	11.10	240	35927	2.50000 ppb		-0.01
23) Perylene-D12(IS)	13.52	264	34153	2.50000 ppb		-0.01
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	3.48	82	18525	2.30235 ppb		-0.01
Spiked Amount 5.000			Recovery	= 46.040%		
4) 2-Methylnaphthalene-D10 (2	5.03	152	49602	2.35154 ppb		-0.01
Spiked Amount 5.000			Recovery	= 47.040%		
8) Surrogate Recovery (FBP)	5.51	172	31305	2.39764 ppb		-0.01
Spiked Amount 5.000			Recovery	= 47.960%		
15) Fluoranthene-D10 (FRT)	9.36	212	54895	2.50828 ppb		-0.01
Spiked Amount 5.000			Recovery	= 50.160%		
19) Surrogate Recovery (TPH)	9.85	244	33847	2.45016 ppb		-0.01
Spiked Amount 5.000			Recovery	= 49.000%		
Target Compounds						Qvalue
3) Naphthalene	4.29	128	102434	4.89031 ppb		100
5) 2-Methylnaphthalene	5.07	142	61617	4.92608 ppb		99
6) 1-Methylnaphthalene	5.18	142	61697	4.82815 ppb		96
9) Acenaphthylene	6.10	152	189092	5.16000 ppb		99
10) Acenaphthene	6.30	154	51262	4.88347 ppb		86
11) Fluorene	6.89	166	58569	5.00587 ppb		97
13) Phenanthrene	8.00	178	88522	4.98283 ppb		99
14) Anthracene	8.06	178	80306	5.23515 ppb		99
16) Fluoranthene	9.38	202	128699	5.31347 ppb		97
18) Pyrene	9.64	202	129090	5.02141 ppb	#	82
20) Benz (a) anthracene	11.09	228	97038	4.75488 ppb		97
21) Chrysene	11.13	228	107882	4.77395 ppb		99
22) Indeno (1,2,3-cd) pyrene	15.00	276	95573	4.79323 ppb		88
24) Benzo (b) fluoranthene	12.89	252	84258	4.86403 ppb		96
25) Benzo (k) fluoranthene	12.93	252	108752	5.53193 ppb	#	95
26) Benzo (a) pyrene	13.43	252	84141	5.27795 ppb		95
27) Dibenz (a,h) anthracene	15.04	278	78522	4.99431 ppb		96
28) Benzo (g,h,i) perylene	15.37	276	84882	4.91674 ppb	#	89

(#) = qualifier out of range (m) = manual integration

Data File : M:\LINUS\DATA\L191028\1028L258.D Vial: 58
Acq On : 12 Nov 19 9:35 Operator: MA
Sample : 5 SIM 10/28/19 (1) Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Nov 12 9:58 2019 Quant Results File: L1028.RES

Method : M:\LINUS\DATA\L191028\L1028.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 30 10:39:31 2019
Response via : Initial Calibration



PAH by GCMS SIM
EPA 8270 SIM

Form 7

Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix:

SDG No:
Date Analyzed: 11/12/19
Instrument: Linus
Initial Cal. Date: 10/28/19
Data File: 1028L268.D

		Compound	MEAN	CCRF	%D		%Drift
1	I	Napthalene-D8(IS)	ISTD			I	
2	S	Surrogate Recovery (NBZ)	0.4764	0.4531	4.9	S	
3	TM	Naphthalene	1.240	1.195	3.6	TM	
4	S	2-Methylnaphthalene-D10 (2MN)	1.249	1.164	6.8	S	
5	TM	2-Methylnaphthalene	0.7406	0.7246	2.2	TM	
6	TM	1-Methylnaphthalene	0.7566	0.7153	5.5	TM	
7	I	Acenaphthene-D10(IS)	ISTD			I	
8	S	Surrogate Recovery (FBP)	1.894	1.981	4.6	S	
9	TM	Acenaphthylene	5.317	5.967	12	TM	
10	*TM	Acenaphthene	1.523	1.583	3.9	*TM	
11	TM	Fluorene	1.698	1.820	7.2	TM	
12	I	Phenanthrene-D10(IS)	ISTD			I	
13	TM	Phenanthrene	1.477	1.439	2.6	TM	
14	TM	Anthracene	1.275	1.336	4.7	TM	
15	S	Fluoranthene-D10 (FRT)	1.819	1.932	6.2	S	
16	*TM	Fluoranthene	2.013	2.118	5.2	*TM	
17	I	Chrysene-D12(IS)	ISTD			I	
18	TM	Pyrene	1.789	1.705	4.7	TM	
19	S	Surrogate Recovery (TPH)	0.9613	0.9680	0.70	S	
20	TM	Benz (a) anthracene	1.420	1.405	1.0	TM	
21	TM	Chrysene	1.573	1.412	10	TM	
22	TM	Indeno (1,2,3-cd) pyrene	1.387	1.371	1.2	TM	
23	I	Perylene-D12(IS)	ISTD			I	
24	TM	Benzo (b) fluoranthene	1.268	1.207	4.8	TM	
25	TM	Benzo (k) fluoranthene	1.439	1.471	2.2	TM	
26	*TM	Benzo (a) pyrene	1.167	1.195	2.4	*TM	
27	TM	Dibenz (a,h) anthracene	1.151	1.119	2.7	TM	
28	TM	Benzo (g,h,i) perylene	1.264	1.155	8.6	TM	
29							
30							
31							
32							
33							
34							
35							
36							
37							
38							
39							
40							
		Average			4.7		

Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L191028\1028L268.D Vial: 68
Acq On : 12 Nov 19 13:40 Operator: MA
Sample : 5 SIM 10/28/19 (1) Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Nov 12 14:13 2019 Quant Results File: L1028.RES

Quant Method : M:\LINUS\DATA\L191028\L1028.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 30 10:39:31 2019
Response via : Initial Calibration
DataAcq Meth : SIM_2

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Napthalene-D8(IS)	4.27	136	53473	2.50000 ppb		0.00
7) Acenaphthene-D10(IS)	6.27	164	20055	2.50000 ppb		0.00
12) Phenanthrene-D10(IS)	7.98	188	37410	2.50000 ppb		-0.01
17) Chrysene-D12(IS)	11.11	240	46428	2.50000 ppb		0.00
23) Perylene-D12(IS)	13.53	264	47184	2.50000 ppb		0.00
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	3.49	82	24228	2.37781 ppb		0.00
Spiked Amount 5.000			Recovery	= 47.560%		
4) 2-Methylnaphthalene-D10 (2	5.05	152	62241	2.33010 ppb		0.00
Spiked Amount 5.000			Recovery	= 46.600%		
8) Surrogate Recovery (FBP)	5.51	172	39722	2.61375 ppb		-0.01
Spiked Amount 5.000			Recovery	= 52.280%		
15) Fluoranthene-D10 (FRT)	9.36	212	72284	2.65523 ppb		-0.01
Spiked Amount 5.000			Recovery	= 53.100%		
19) Surrogate Recovery (TPH)	9.86	244	44941	2.51744 ppb		0.00
Spiked Amount 5.000			Recovery	= 50.340%		
Target Compounds						Qvalue
3) Naphthalene	4.30	128	127804	4.81817 ppb		99
5) 2-Methylnaphthalene	5.08	142	77492	4.89219 ppb		100
6) 1-Methylnaphthalene	5.19	142	76496	4.72717 ppb		100
9) Acenaphthylene	6.11	152	239348	5.61137 ppb		99
10) Acenaphthene	6.30	154	63497	5.19695 ppb		96
11) Fluorene	6.90	166	72996	5.36010 ppb		99
13) Phenanthrene	8.01	178	107669	4.87229 ppb		100
14) Anthracene	8.08	178	99935	5.23741 ppb		100
16) Fluoranthene	9.38	202	158489	5.26042 ppb	#	77
18) Pyrene	9.64	202	158350	4.76641 ppb		99
20) Benz (a) anthracene	11.09	228	130498	4.94814 ppb		99
21) Chrysene	11.14	228	131121	4.48996 ppb		100
22) Indeno (1,2,3-cd) pyrene	15.01	276	127343	4.94208 ppb	#	98
24) Benzo (b) fluoranthene	12.90	252	113868	4.75796 ppb		98
25) Benzo (k) fluoranthene	12.96	252	138820	5.11123 ppb		99
26) Benzo (a) pyrene	13.45	252	112769	5.12013 ppb		96
27) Dibenz (a,h) anthracene	15.05	278	105625	4.86278 ppb	#	93
28) Benzo (g,h,i) perylene	15.39	276	108994	4.56982 ppb		98

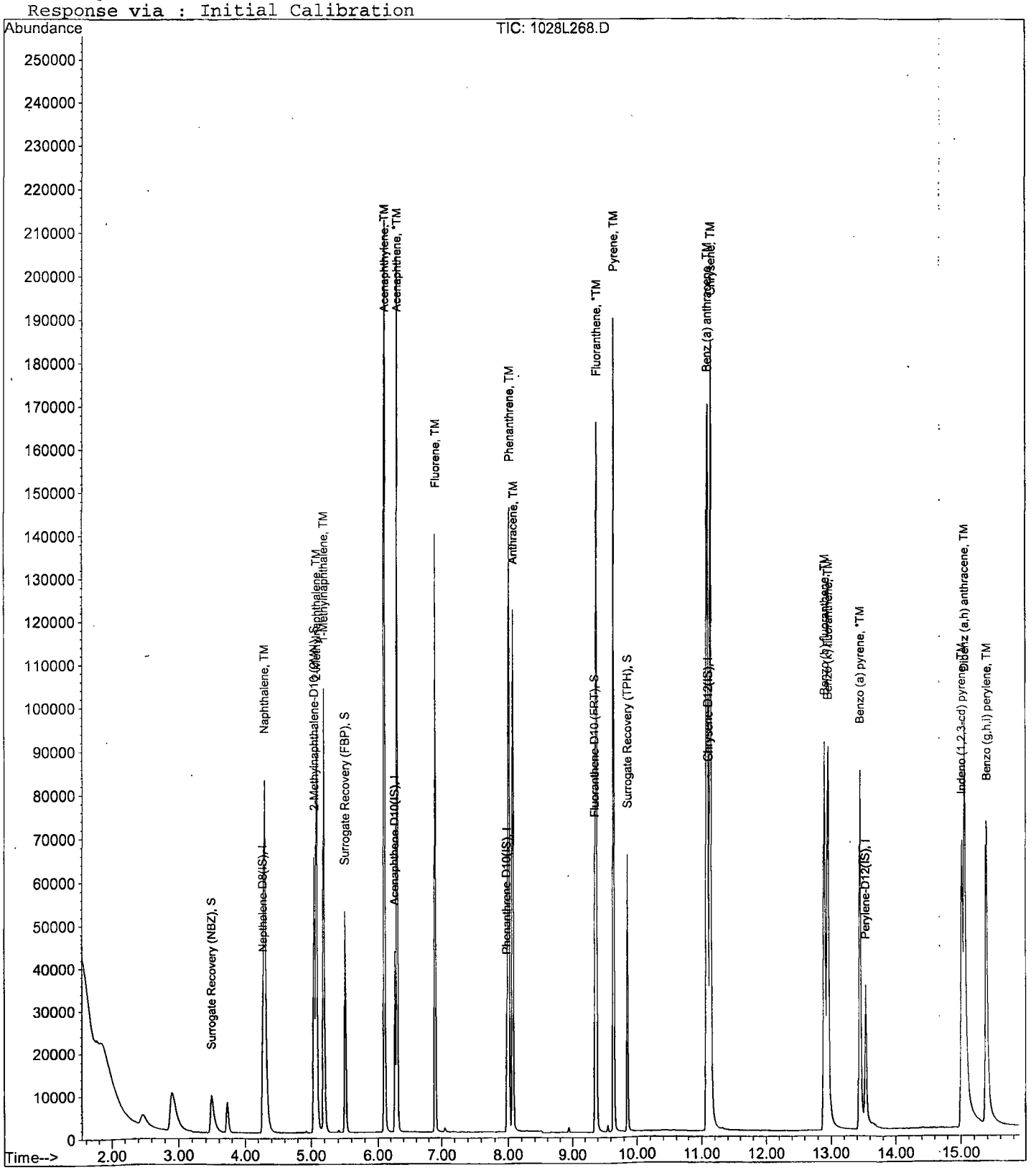
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L191028\1028L268.D Vial: 68
Acq On : 12 Nov 19 13:40 Operator: MA
Sample : 5 SIM 10/28/19 (1) Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Nov 12 14:13 2019 Quant Results File: L1028.RES

Method : M:\LINUS\DATA\L191028\L1028.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 30 10:39:31 2019
Response via : Initial Calibration



ORGANICS
Raw Data

Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L191028\1028L264.D Vial: 64
Acq On : 12 Nov 19 11:55 Operator: MA
Sample : BA02160W16 1/800 Inst : Linus
Misc : Multiplr: 1.25

Quant Time: Nov 12 12:25 2019 Quant Results File: L1028.RES

Quant Method : M:\LINUS\DATA\L191028\L1028.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 30 10:39:31 2019
Response via : Initial Calibration
DataAcq Meth : SIM_2

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Napthalene-D8(IS)	4.27	136	43672	2.50000 ppb	0.00
7) Acenaphthene-D10(IS)	6.27	164	17631	2.50000 ppb	0.00
12) Phenanthrene-D10(IS)	7.98	188	31911	2.50000 ppb	-0.01
17) Chrysene-D12(IS)	11.10	240	38596	2.50000 ppb	-0.01
23) Perylene-D12(IS)	13.53	264	33752	2.50000 ppb	0.00
System Monitoring Compounds					
2) Surrogate Recovery (NBZ)	3.49	82	610370	91.68403 ppb	0.00
Spiked Amount 6.250			Recovery	= 1466.944%	
4) 2-Methylnaphthalene-D10 (2	5.05	152	93720	5.36997 ppb	0.00
Spiked Amount 6.250			Recovery	= 85.920%	
8) Surrogate Recovery (FBP)	5.52	172	836402	78.25363 ppb	0.00
Spiked Amount 6.250			Recovery	= 1252.064%	
15) Fluoranthene-D10 (FRT)	9.36	212	108680	5.85015 ppb	-0.01
Spiked Amount 6.250			Recovery	= 93.600%	
19) Surrogate Recovery (TPH)	9.87	244	992718	83.61604 ppb	0.01
Spiked Amount 6.250			Recovery	= 1337.856%	

Target Compounds Qvalue

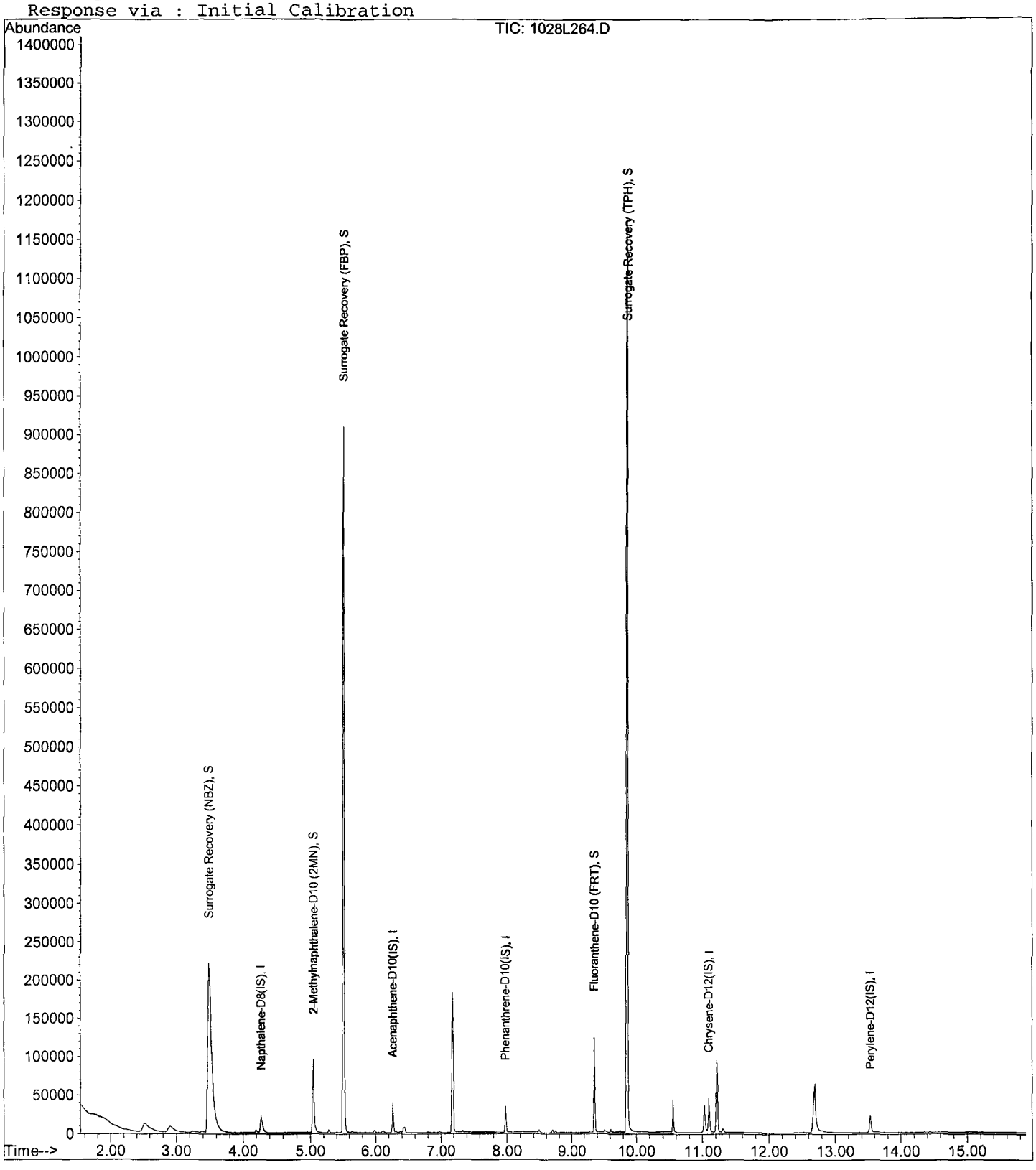
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L191028\1028L264.D Vial: 64
Acq On : 12 Nov 19 11:55 Operator: MA
Sample : BA02160W16 1/800 Inst : Linus
Misc : Multiplr: 1.25

Quant Time: Nov 12 12:25 2019 Quant Results File: L1028.RES

Method : M:\LINUS\DATA\L191028\L1028.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 30 10:39:31 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L191028\1028L259.D Vial: 59
Acq On : 12 Nov 19 10:04 Operator: MA
Sample : 191104A BLK 1/800 Inst : Linus
Misc : Multiplr: 1.25

Quant Time: Nov 12 10:44 2019 Quant Results File: L1028.RES

Quant Method : M:\LINUS\DATA\L191028\L1028.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 30 10:39:31 2019
Response via : Initial Calibration
DataAcq Meth : SIM_2

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Napthalene-D8(IS)	4.26	136	41490	2.50000 ppb	-0.01
7) Acenaphthene-D10(IS)	6.27	164	17274	2.50000 ppb	0.00
12) Phenanthrene-D10(IS)	7.98	188	30878	2.50000 ppb	-0.01
17) Chrysene-D12(IS)	11.10	240	37096	2.50000 ppb	-0.01
23) Perylene-D12(IS)	13.52	264	38223	2.50000 ppb	-0.01
System Monitoring Compounds					
2) Surrogate Recovery (NBZ)	3.48	82	621569	98.27646 ppb	-0.01
Spiked Amount 6.250			Recovery	= 1572.416%	
4) 2-Methylnaphthalene-D10 (2	5.03	152	91477	5.51710 ppb	-0.01
Spiked Amount 6.250			Recovery	= 88.272%	
8) Surrogate Recovery (FBP)	5.51	172	815996	77.92225 ppb	-0.01
Spiked Amount 6.250			Recovery	= 1246.752%	
15) Fluoranthene-D10 (FRT)	9.36	212	118382	6.58559 ppb	-0.01
Spiked Amount 6.250			Recovery	= 105.376%	
19) Surrogate Recovery (TPH)	9.86	244	1001899	87.80169 ppb	0.00
Spiked Amount 6.250			Recovery	= 1404.832%	

Target Compounds Qvalue

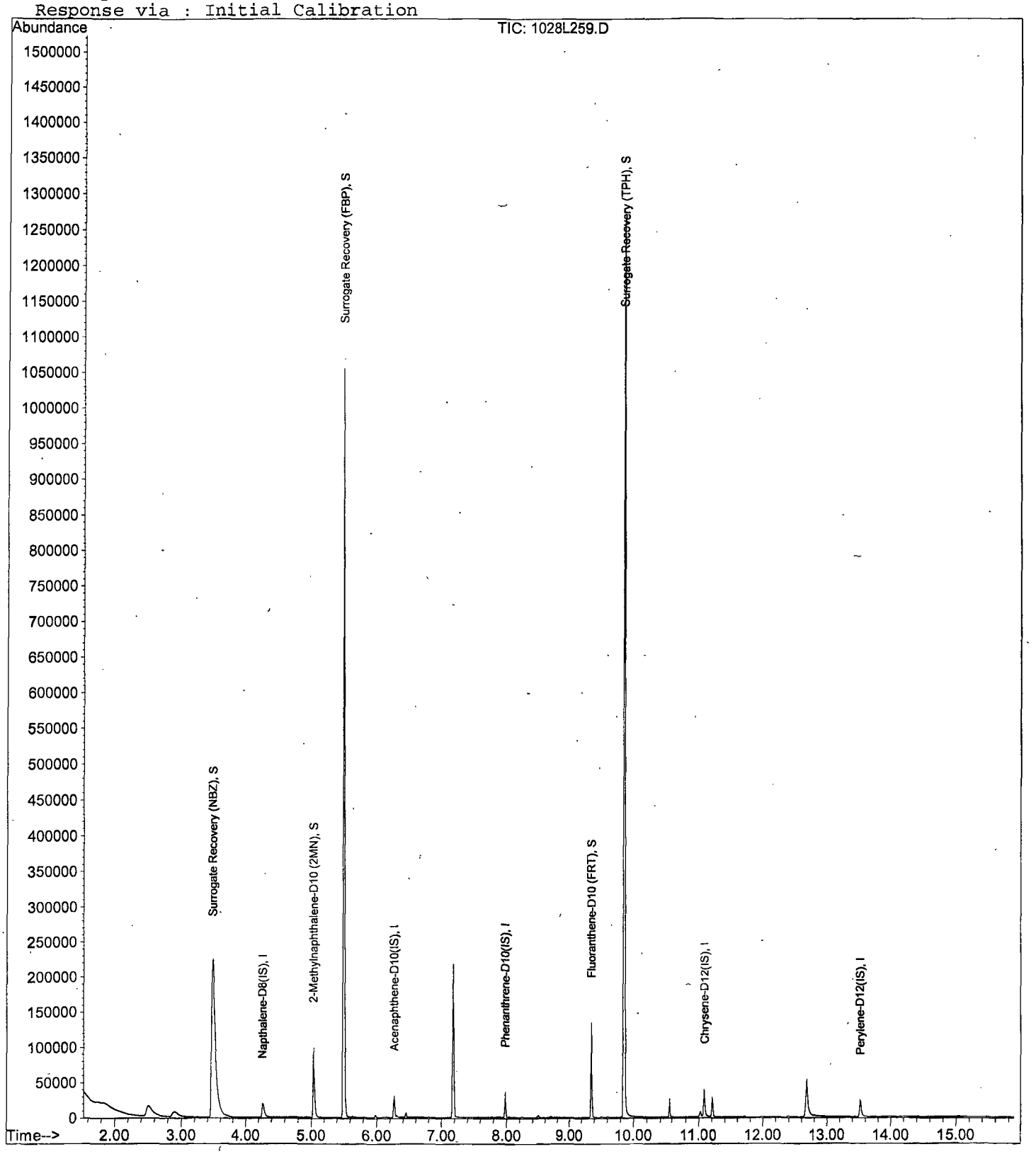
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L191028\1028L259.D Vial: 59
Acq On : 12 Nov 19 10:04 Operator: MA
Sample : 191104A BLK 1/800 Inst : Linus
Misc : Multiplr: 1.25

Quant Time: Nov 12 10:44 2019 Quant Results File: L1028.RES

Method : M:\LINUS\DATA\L191028\L1028.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 30 10:39:31 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L191028\1028L260.D Vial: 60
Acq On : 12 Nov 19 10:26 Operator: MA
Sample : 191104A LCS-2 1/800 Inst : Linus
Misc : Multiplr: 1.25

Quant Time: Nov 12 10:44 2019 Quant Results File: L1028.RES

Quant Method : M:\LINUS\DATA\L191028\L1028.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 30 10:39:31 2019
Response via : Initial Calibration
DataAcq Meth : SIM_2

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Napthalene-D8(IS)	4.27	136	38137	2.50000 ppb		0.00
7) Acenaphthene-D10(IS)	6.27	164	15916	2.50000 ppb		0.00
12) Phenanthrene-D10(IS)	7.98	188	30577	2.50000 ppb		-0.01
17) Chrysene-D12(IS)	11.10	240	37171	2.50000 ppb		-0.01
23) Perylene-D12(IS)	13.52	264	38425	2.50000 ppb		-0.01
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	3.43	82	110	0.01892 ppb		-0.06
Spiked Amount 6.250			Recovery	= 0.304%		
4) 2-Methylnaphthalene-D10 (2	5.03	152	91841	6.02605 ppb		-0.01
Spiked Amount 6.250			Recovery	= 96.416%		
8) Surrogate Recovery (FBP)	5.51	172	41	0.00425 ppb		-0.01
Spiked Amount 6.250			Recovery	= 0.064%		
15) Fluoranthene-D10 (FRT)	9.36	212	116417	6.54003 ppb		-0.01
Spiked Amount 6.250			Recovery	= 104.640%		
19) Surrogate Recovery (TPH)	9.85	244	656	0.05737 ppb		-0.01
Spiked Amount 6.250			Recovery	= 0.912%		
Target Compounds						Qvalue
3) Naphthalene	4.30	128	100989	6.67282 ppb		99
5) 2-Methylnaphthalene	5.07	142	60088	6.64862 ppb		98
6) 1-Methylnaphthalene	5.18	142	60498	6.55241 ppb		94
9) Acenaphthylene	6.10	152	198210	7.31920 ppb		99
10) Acenaphthene	6.30	154	52099	6.71620 ppb		89
11) Fluorene	6.89	166	62062	7.17792 ppb		95
13) Phenanthrene	8.00	178	94114	6.51328 ppb		99
14) Anthracene	8.06	178	81213	6.50919 ppb		99
16) Fluoranthene	9.38	202	138415	7.02598 ppb	#	91
18) Pyrene	9.64	202	143455	6.74179 ppb	#	86
20) Benz (a) anthracene	11.09	228	114358	6.77003 ppb		97
21) Chrysene	11.13	228	116810	6.24505 ppb	#	97
22) Indeno (1,2,3-cd) pyrene	15.00	276	111769	6.77238 ppb	#	94
24) Benzo (b) fluoranthene	12.89	252	101882	6.53442 ppb		98
25) Benzo (k) fluoranthene	12.95	252	125220	7.07682 ppb		100
26) Benzo (a) pyrene	13.43	252	92944	6.47745 ppb		97
27) Dibenz (a,h) anthracene	15.04	278	92971	6.56987 ppb		95
28) Benzo (g,h,i) perylene	15.37	276	96991	6.24192 ppb	#	88

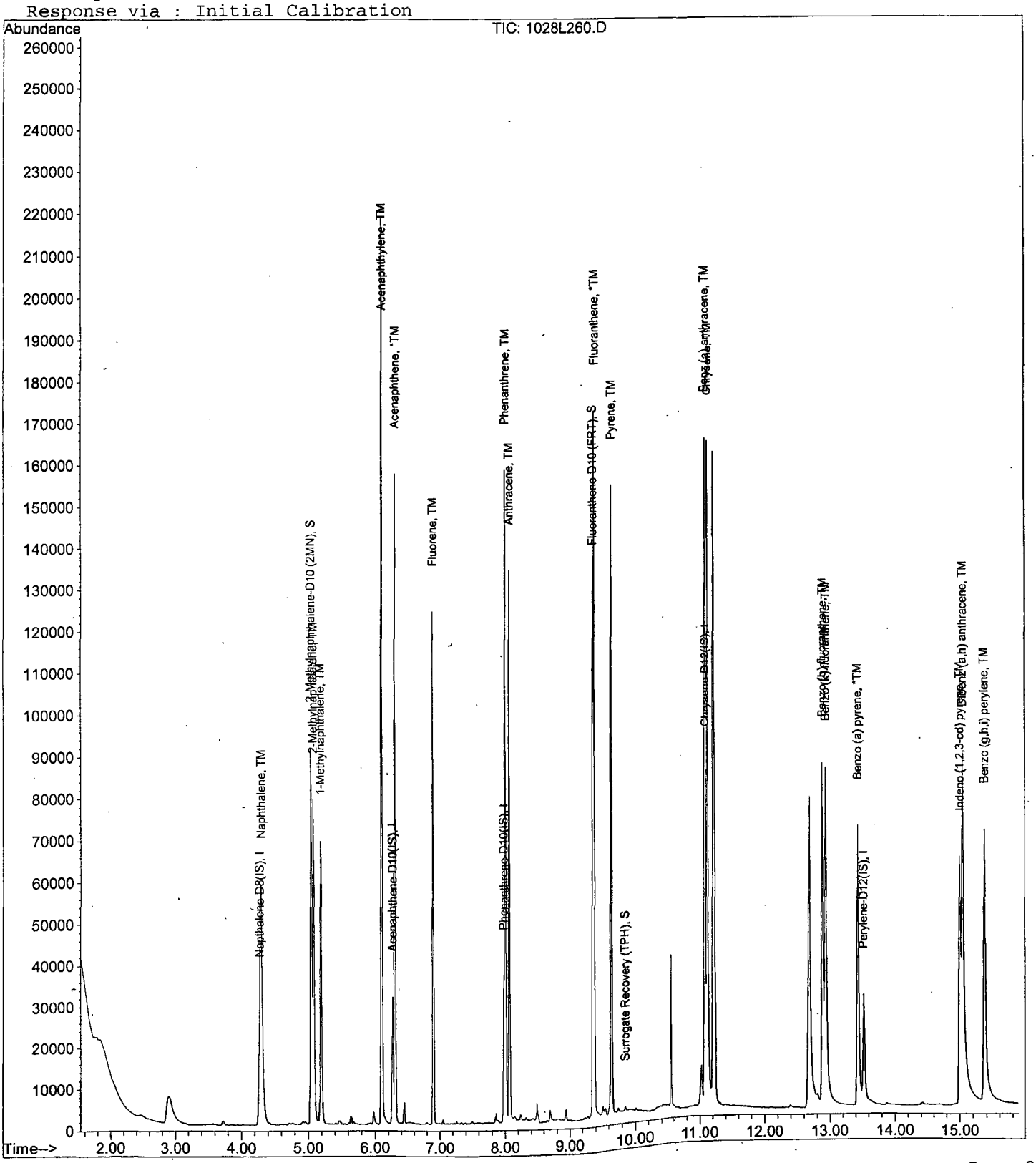
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L191028\1028L260.D Vial: 60
Acq On : 12 Nov 19 10:26 Operator: MA
Sample : 191104A LCS-2 1/800 Inst : Linus
Misc : Multiplr: 1.25

Quant Time: Nov 12 10:44 2019 Quant Results File: L1028.RES

Method : M:\LINUS\DATA\L191028\L1028.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 30 10:39:31 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L191028\1028L261.D Vial: 61
Acq On : 12 Nov 19 10:48 Operator: MA
Sample : 191104A LCSD-2 1/800 Inst : Linus
Misc : Multiplr: 1.25

Quant Time: Nov 12 11:06 2019 Quant Results File: L1028.RES

Quant Method : M:\LINUS\DATA\L191028\L1028.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 30 10:39:31 2019
Response via : Initial Calibration
DataAcq Meth : SIM_2

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Napthalene-D8(IS)	4.27	136	42346	2.50000	ppb		0.00
7) Acenaphthene-D10(IS)	6.27	164	17317	2.50000	ppb		0.00
12) Phenanthrene-D10(IS)	7.98	188	31965	2.50000	ppb		-0.01
17) Chrysene-D12(IS)	11.10	240	38068	2.50000	ppb		-0.01
23) Perylene-D12(IS)	13.52	264	38812	2.50000	ppb		-0.01
System Monitoring Compounds							
2) Surrogate Recovery (NBZ)	3.49	82	49	0.00759	ppb		0.00
Spiked Amount 6.250			Recovery	= 0.128%			
4) 2-Methylnaphthalene-D10 (2	5.03	152	93203	5.50757	ppb		-0.01
Spiked Amount 6.250			Recovery	= 88.128%			
8) Surrogate Recovery (FBP)	5.50	172	49	0.00467	ppb		-0.01
Spiked Amount 6.250			Recovery	= 0.080%			
15) Fluoranthene-D10 (FRT)	9.36	212	120142	6.45622	ppb		-0.01
Spiked Amount 6.250			Recovery	= 103.296%			
19) Surrogate Recovery (TPH)	9.85	244	483	0.04125	ppb		-0.01
Spiked Amount 6.250			Recovery	= 0.656%			
Target Compounds							Qvalue
3) Naphthalene	4.30	128	101393	6.03361	ppb		100
5) 2-Methylnaphthalene	5.07	142	60057	5.98469	ppb		95
6) 1-Methylnaphthalene	5.19	142	60646	5.91557	ppb		98
9) Acenaphthylene	6.10	152	201592	6.84183	ppb		98
10) Acenaphthene	6.30	154	52512	6.22177	ppb		91
11) Fluorene	6.89	166	62293	6.62176	ppb		94
13) Phenanthrene	8.00	178	93353	6.18008	ppb		99
14) Anthracene	8.06	178	84268	6.46077	ppb		99
16) Fluoranthene	9.38	202	139408	6.76911	ppb	#	91
18) Pyrene	9.64	202	143036	6.56370	ppb	#	86
20) Benz (a) anthracene	11.09	228	115634	6.68427	ppb		98
21) Chrysene	11.13	228	118796	6.20157	ppb		97
22) Indeno (1,2,3-cd) pyrene	15.00	276	112692	6.66741	ppb	#	96
24) Benzo (b) fluoranthene	12.89	252	113890	7.23175	ppb		98
25) Benzo (k) fluoranthene	12.95	252	113527	6.35201	ppb		99
26) Benzo (a) pyrene	13.43	252	97543	6.73018	ppb		98
27) Dibenz (a,h) anthracene	15.05	278	94122	6.58488	ppb		99
28) Benzo (g,h,i) perylene	15.37	276	96903	6.17408	ppb	#	85

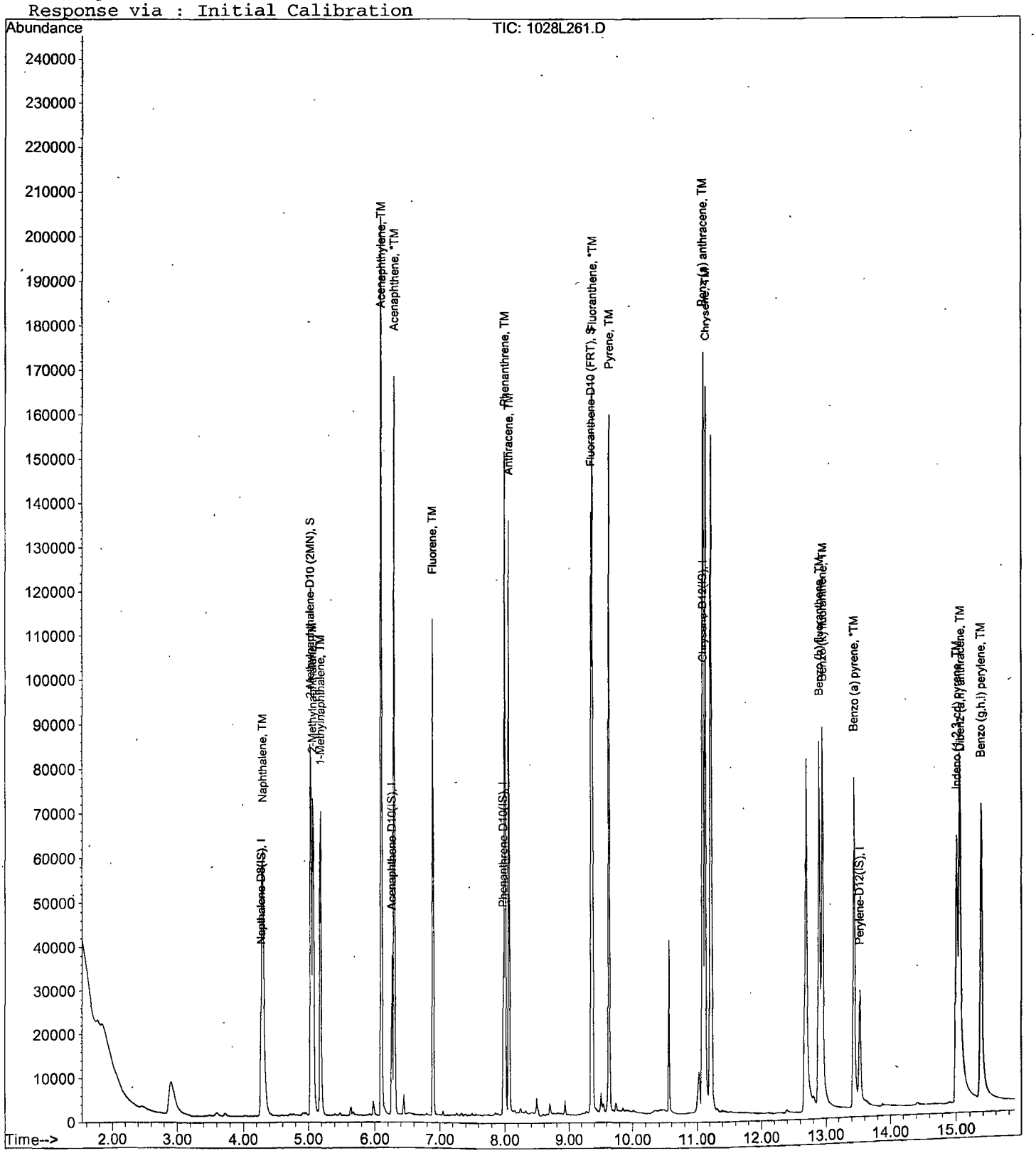
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L191028\1028L261.D Vial: 61
Acq On : 12 Nov 19 10:48 Operator: MA
Sample : 191104A LCSD-2 1/800 Inst : Linus
Misc : Multiplr: 1.25

Quant Time: Nov 12 11:06 2019 Quant Results File: L1028.RES

Method : M:\LINUS\DATA\L191028\L1028.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 30 10:39:31 2019
Response via : Initial Calibration

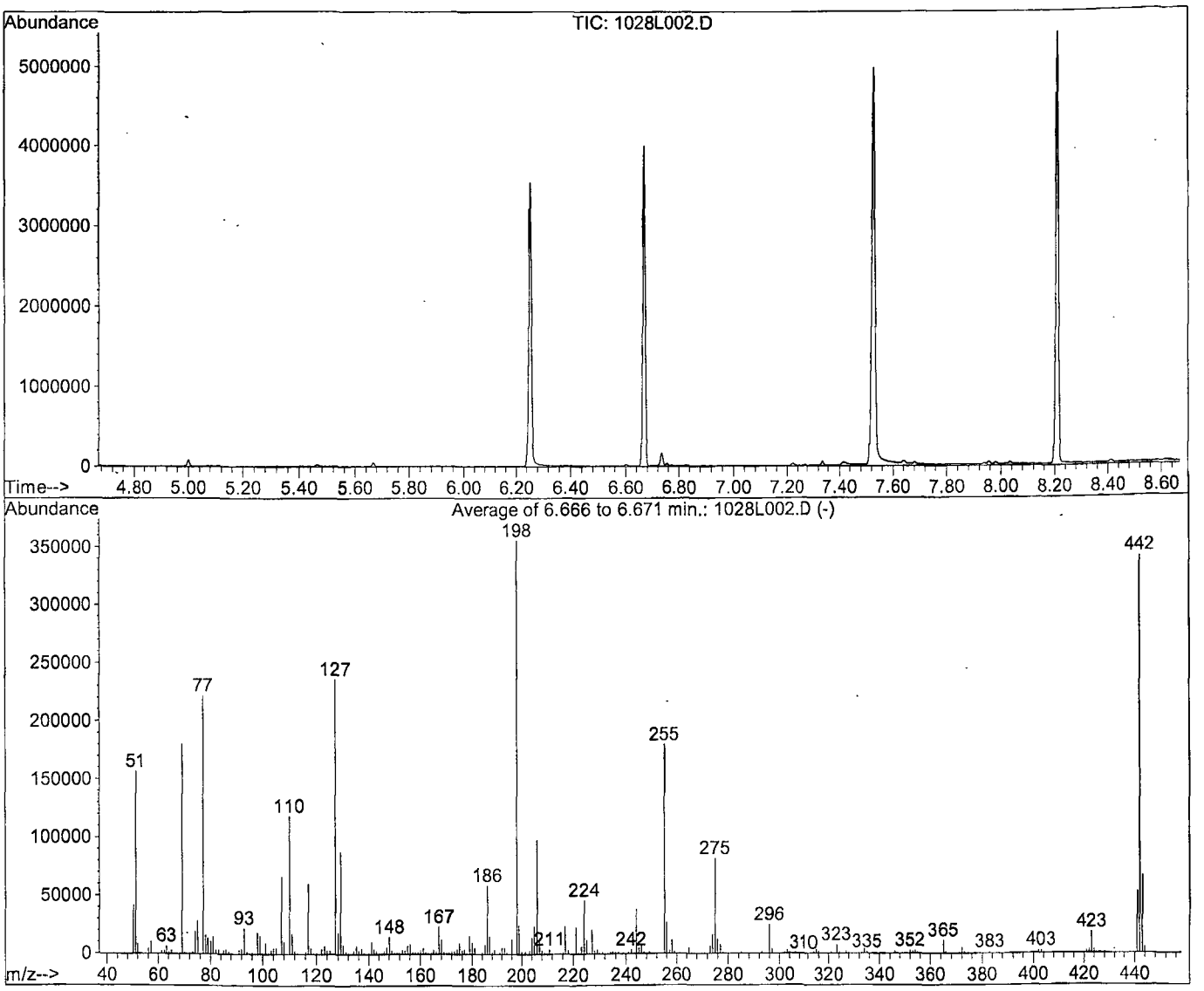


DFTPP

Data File : M:\LINUS\DATA\L191028\1028L002.D
Acq On : 28 Oct 19 10:20
Sample : SV Tune 07/11/19
Misc :

Vial: 2
Operator: MA
Inst : Linus
Multiplr: 1.00

Method : M:\LINUS\DATA\L191028\L1028.M (RTE Integrator)
Title : EPA 8270



AutoFind: Scans 1639, 1640, 1641; Background Corrected with Scan 1630

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	44.0	156621	PASS
68	69	0.00	2	0.0	0	PASS
70	69	0.00	2	0.3	628	PASS
127	198	10	80	66.3	235925	PASS
197	198	0.00	2	0.0	0	PASS
198	198	100	100	100.0	355968	PASS
199	198	5	9	6.8	24237	PASS
275	198	10	60	23.0	81733	PASS
365	198	1	100	3.1	10977	PASS
441	442	0.01	24	15.5	52947	PASS
442	198	50	500	95.8	340885	PASS
443	442	15	24	19.6	66771	PASS

Data File Name:	**1028L002.D**
Data File Path:	**M:\LINUS\DATA\L191028**
Operator:	**MA**
Date Acquired:	**28 Oct 2019 10:20**
Method File:	**DFTPP2.M**
Sample Name:	**SV Tune 07/11/19**
Vial Number:	**2**
Instrument Name:	**Linus**

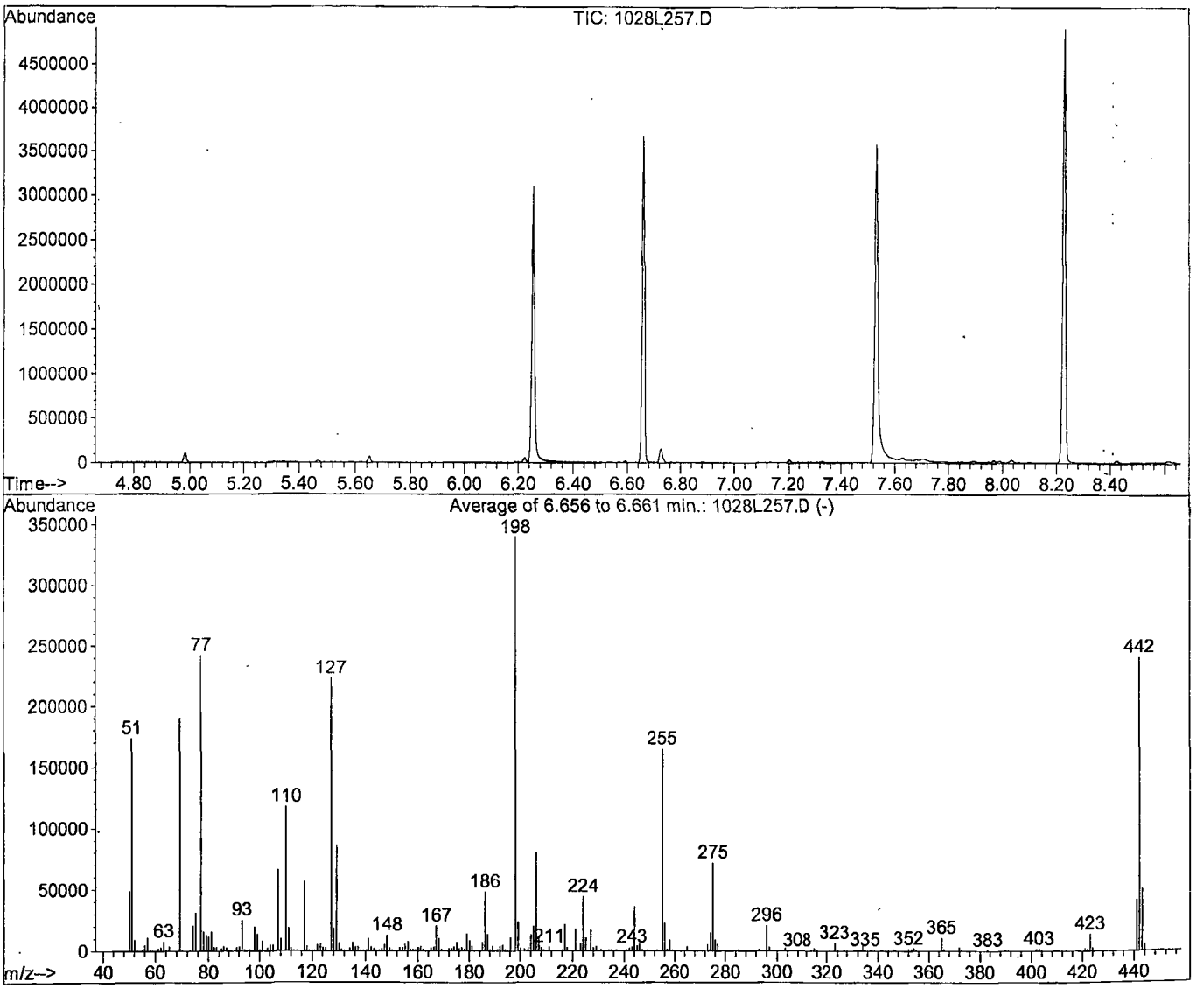
#	Name	Ret Time	Target Response
1)	DDT	8.21	37737600
2)	DDD	7.96	199800
3)	DDE	7.25	192158

Breakdown **1.03**

DFTPP

Data File : M:\LINUS\DATA\L191028\1028L257.D Vial: 57
Acq On : 12 Nov 19 9:18 Operator: MA
Sample : SV Tune 10/01/19 Inst : Linus
Misc : Multiplr: 1.00

Method : M:\LINUS\DATA\L191028\L1028.M (RTE Integrator)
Title : EPA 8270



AutoFind: Scans 1635, 1636, 1637; Background Corrected with Scan 1627

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	51.2	174024	PASS
68	69	0.00	2	0.0	0	PASS
70	69	0.00	2	0.7	1243	PASS
127	198	10	80	65.7	223509	PASS
197	198	0.00	2	0.0	0	PASS
198	198	100	100	100.0	340181	PASS
199	198	5	9	7.1	23997	PASS
275	198	10	60	21.2	72056	PASS
365	198	1	100	3.2	10859	PASS
441	442	0.01	24	17.4	41941	PASS
442	198	50	500	71.1	241728	PASS
443	442	15	24	21.1	50888	PASS

Data File Name:	**1028L257.D**
Data File Path:	**M:\LINUS\DATA\L191028**
Operator:	**MA**
Date Acquired:	**12 Nov 2019 09:18**
Method File:	**DFTPP2.M**
Sample Name:	**SV Tune 10/01/19**
Vial Number:	**57**
Instrument Name:	**Linus**

#	Name	Ret Time	Target Response
1)	DDT	8.21	34843200
2)	DDD	7.98	128973
3)	DDE	8.15	0

Breakdown **0.37**

Name of Final Standard	**Semivolatile (SV) Tuning Solution**
Prep Date	**10/01/19**
Exp Date	**11/30/20**

Prep'd By (Initials) JP

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from contianer Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
Semivolatile GC/MS Tuning Standard	Ultra Scientific	GCM-150-1	1,000 ug/mL	CR3789-38879	11/30/20	1,250 uL	25 mL	MC #58240	50 ug/mL

Name of Final Standard	**8270 SIM PAH Internal Standard**
Prep Date	**10/28/19**
Exp Date	**10/28/20**

Prep'd By (Initials) **MA**

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from contianer Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
SV Internal Standard	Restek	31206	2000 ug/mL	**A0151843-49414**	**07/35/25**	625uL	10mL	**MC 59130**	125 ug/mL

Name of Final Standard	**SIM Curve**
Prep Date	**07/28/19**
Exp Date	**01/24/20**

Prep'd By (Initials) **MA**

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from container Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
1.0 ug/mL SIM	APPL	1.0 ug/mL SIM	1.0 ug/mL	**08/10/19**	**01/24/20**	10 uL	100uL	**MC 59130 90uL**	0.1 ug/mL
SIM Internal Standard	APPL	SIM Internal Standard	125 ug/mL	**10/28/19**	**10/28/20**	2 uL	*	*	2.5ug/mL
1.0 ug/mL SIM	APPL	1.0 ug/mL SIM	1.0 ug/mL	**08/10/19**	**01/24/20**	20 uL	100uL	**MC 59130 80uL**	0.2 ug/mL
SIM Internal Standard	APPL	SIM Internal Standard	125 ug/mL	**10/28/19**	**10/28/20**	2 uL	*	*	2.5ug/mL
5.0 ug/mL SIM	APPL	5.0 ug/mL SIM	5.0 ug/mL	**08/10/19**	**01/24/20**	10 uL	100uL	**MC 59130 90uL**	0.5 ug/mL
SIM Internal Standard	APPL	SIM Internal Standard	125 ug/mL	**10/28/19**	**10/28/20**	2 uL	*	*	2.5ug/mL
5.0 ug/mL SIM	APPL	5.0 ug/mL SIM	5.0 ug/mL	**08/10/19**	**01/24/20**	20 uL	100uL	**MC 59130 80 uL**	1.0 ug/mL
SIM Internal Standard	APPL	SIM Internal Standard	125 ug/mL	**10/28/19**	**10/28/20**	2 uL	*	*	2.5ug/mL

SIM STOCK	APPL	PAH SIM STOCK	200 ug/mL	**08/10/19**	**08/10/20**	5 uL	200uL	**MC 59130 190 uL**	5.0 ug/mL
SIM 2S SURROGATE	APPL	SIM 2S SURR	100 ug/mL	**05/17/19**	**01/24/20**	5 uL	*	*	2.5ug/mL
SIM Internal Standard	APPL	SIM Internal Standard	125 ug/mL	**10/28/19**	**10/28/20**	4 uL	*	*	2.5ug/mL
SIM STOCK	APPL	PAH SIM STOCK	200 ug/mL	**08/10/19**	**08/10/20**	10 uL	100 uL	**MC 59130 80 uL**	20 ug/mL
SIM 2S SURROGATE	APPL	SIM 2S SURROGATE	100 ug/mL	**05/17/19**	**01/24/20**	10 uL	*	*	10 ug/mL
SIM Internal Standard	APPL	SIM Internal Standard	125 ug/mL	**10/28/19**	**10/28/20**	2 uL	*	*	2.5ug/mL
SIM STOCK	APPL	PAH SIM STOCK	200	**08/10/19**	**08/10/20**	25 uL	100uL	**MC 59130 50 uL**	50 ug/mL
SIM 2S SURROGATE	APPL	SIM 2S SURROGATE	100 ug/mL	**05/17/19**	**01/24/20**	25 uL	*	*	25 ug/mL
SIM Internal Standard	APPL	SIM Internal Standard	125 ug/mL	**10/28/19**	**10/28/20**	2 uL	*	*	2.5ug/mL
SIM STOCK	APPL	PAH SIM STOCK	200 ug/mL	**08/10/19**	**08/10/20**	50 uL	100uL	**na**	100 ug/mL
SIM 2S SURROGATE	APPL	SIM 2S SURROGATE	100 ug/mL	**05/17/19**	**01/24/20**	50 uL	*	*	50 ug/mL
SIM Internal Standard	APPL	SIM Internal Standard	125 ug/mL	**10/28/19**	**10/28/20**	2 uL	*	*	2.5ug/mL

Name of Final Standard **8270 PAH SIM Second Source** **Prep'd By (Initials)** **MA**

Prep Date **10/28/19**

Exp Date **12/28/19**

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from container Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
PAH SIM SS Stock	Phenova	AL0-130490	200 ug/mL	**12/28/18**	**12/28/19**	5 uL	200uL	**MC 59130 195uL**	5 ug/mL
SIM Internal Standard	APPL	SIM Internal Standard	125 ug/mL	**10/28/19**	**10/28/20**	4 uL	*	*	2.5ug/mL

Name of Final Standard	**PAH SIM Stock (Ampule)**
Prep Date	**08/10/19**
Exp Date	**08/10/20**

Prep'd By (I **MA**

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from contianer Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
Custom PAH SIM Mix	Phenova	ALO-130490	200 ug/mL	**CL13121-41102**	**08/10/20**	1000 uL	1mL	**NA**	200ug/mL

Name of Final Standard	**PAH SIM 2nd Source Stock (Ampule)**	**Prep'd By (Initials)**	**GA**
Prep Date	**12/28/18**		
Exp Date	**12/28/19**		

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from container Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
Custom PAH SIM Mix	Phenova	AL0-130490	200 ug/mL	**CL13121 - 40082**	**12/28/19**	1 mL	na	**na**	200 ug/mL

Name of Final Standard	SIM 2S Surrogate	Prep'd By (Initials)	GA
Prep Date	05/17/19		
Exp Date	01/24/20		

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from contianer Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
SIM Surrogate Mix	Restek	33913	2000 ug/mL	**A0137718 - 39318**	**01/24/20**	250 uL	5 mL	**Acetone #030817A**	100 ug/mL
8270 B/N surrog mix	Restek	31086	5000 ug/mL	**A0141697 - 40112**	**04/10/20**	100 uL	*	*	*

Name of Final Standard	SIM Spike
Prep Date	11/13/19
Exp Date	11/13/20

Prep'd By (Initials) SJ

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from contianer Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
Custom PAH Sim Mix	Phenova	AL0-130490	200 ug/mL	CL13121- 41100,41223	12/31/22	2 mL	10 mL	Acetone 0231086	40 ug/mL

Name of Final Standard	**SIM Surrogate**	**Prep'd By (Initials)**	**MA**
Prep Date	**09/03/19**		
Exp Date	**03/03/20**		

Initial Standard Information						Final Standard Information			
Standard (from	Supplier	P/N# (or	Conc.(range)	# (or	Exp Date	from	Volume	Solvent +	Standard
Sim Surrogate Deuterated	Restek	33913	2000 ug/mL	**A0145699-40651,41234, 41236**	**1/31/25, 4/20/25**	2500 uL	50 mL	**Acetone #217497**	100 ug/mL

LIQ003

Organic Extraction Worksheet

Method	Continuous Liquid/Liquid SVOC 3520C	Extraction Set	191104A	Extraction Method	LIQ003	Units	mL

Spiked ID 1	8270T Spike 10/3/19 ex 10/3/20		Surrogate ID 1	8270 Surrogate 10/3/19 ex 10/3/20	
Spiked ID 2	Sim Spike 9/30/19 ex 9/30/20		Surrogate ID 2	SIM Surrogate 10/25/19 ex 10/25/20	
Spiked ID 3			Surrogate ID 3		
Spiked ID 4			Surrogate ID 4		
Spiked ID 5			Surrogate ID 5		
Spiked ID 6			Sufficient Vol for Matrix QC:	no	
Spiked ID 7			Ext. Start Time:	11/04/19 13:35	
Spiked ID 8			Ext. End Time:	11/06/19 6:30	
			GC Requires Extract By:		

pH1	2	11/05/19 10:40	Water Bath Temp 1 °C	EWB5 75/74.2 °
pH2	14	11/06/19 13:00	Water Bath Temp 2 °C	
pH3			Water Bath Temp 3 °C	

Spiked By: DL **Date** 11/04/19 **Witnessed By:** YL **Date** 11/04/19

	Sample	Sample Container	Spike Amount	Spike ID	Surrogate Amount	Surrogate ID	Extract Amount	Final Volume	pH	Extract Date/Time	Comments
1	191104A Blk				1,0.050	1,2	800	1	2/1	11/04/19 13:35	
						equip	EWB5				
2	191104A LCS-1		1	1	1	1	800	1	2/1	11/04/19 13:35	
						equip	EWB5				
3	191104A LCS-2		0.125	2	0.050	2	800	1	2/1	11/04/19 13:35	
						equip	EWB5				
4	191104A LCSD-1		1	1	1	1	800	1	2/1	11/04/19 13:35	
						equip	EWB5				
5	191104A LCSD-2		0.125	2	0.050	2	800	1	2/1	11/04/19 13:35	
						equip	EWB5				
6	BA02090	BA02090W19			1,0.050	1,2	800	1	2/1	11/04/19 13:35	90587
						equip	EWB5				
7	BA02091	BA02091W14			1,0.050	1,2	800	1	2/1	11/04/19 13:35	90587
						equip	EWB5				
8	BA02160	BA02160W16			1,0.050	1,2	800	1	2/1	11/04/19 13:35	90599
						equip	EWB5				
9	BA02214	BA02214W21			1,0.050	1,2	800	1	2/1	11/04/19 13:35	90611
						equip	EWB5				
10	BA02216	BA02216W13			1,0.050	1,2	800	1	2/1	11/04/19 13:35	90611
						equip	EWB5				
11	BA02301	BA02301W13			1,0.050	1,2	800	1	2/1	11/04/19 13:35	90625
						equip	EWB5				

Solvent and Lot#	
PH Strips	HC863463
Dichloromethane (DCM)	59130
1+1 H2SO4	11/1/19
10N NaOH	10/25/19
Filter Paper	400171
B. Na2SO4	2019020631

Extraction COC Transfer	
Extraction lab employee Initials	SS
GC analyst's initials	MA
Date	11/7/19
Time	1:30 pm
Refrigerator	GC_C

	Technician's Initials
Scanned By	DL
Sample Preparation	DL,YL,RB
Extraction	RB,DL
Concentration	DL

Modified	11/14/19 9:54:11 AM

Reviewed By: MA **Date** 11/14/19

11/14/19 9:56:39 AM Ext_ID 64958 Page 1 of 1

Injection Log

Directory: M:\LINUS\DATA\L191028\

Vial	FileName	Multiplier	SampleName	Misc Info	Injected
2	1028L002.D	1	SV Tune 10/01/19		28 Oct 19 10:20
4	1028L004.D	1	5 SIM 10/28/19(2)		28 Oct 19 12:26
5	1028L005.D	1	0.1 SIM 10/28/19		28 Oct 19 12:51
6	1028L006.D	1	0.2 SIM 10/28/19		28 Oct 19 13:13
7	1028L007.D	1	0.5 SIM 10/28/19		28 Oct 19 13:35
8	1028L008.D	1	1 SIM 10/28/19		28 Oct 19 13:57
9	1028L009.D	1	20 SIM 10/28/19		28 Oct 19 14:19
10	1028L010.D	1	50 SIM 10/28/19		28 Oct 19 14:42
11	1028L011.D	1	100 SIM 10/28/19		28 Oct 19 15:04
12	1028L012.D	1	SS SIM 10/28/19		28 Oct 19 15:55
57	1028L257.D	1	SV Tune 10/01/19		12 Nov 19 9:18
58	1028L258.D	1	5 SIM 10/28/19 (1)		12 Nov 19 9:35
59	1028L259.D	1.25	191104A BLK 1/800		12 Nov 19 10:04
60	1028L260.D	1.25	191104A LCS-2 1/800		12 Nov 19 10:26
61	1028L261.D	1.25	191104A LCSD-2 1/800		12 Nov 19 10:48
64	1028L264.D	1.25	BA02160W16 1/800		12 Nov 19 11:55
68	1028L268.D	1	5 SIM 10/28/19 (1)		12 Nov 19 13:40

ORGANICS
Calibration Data

Semi-Volatile Analysis by GC-MS
EPA 8270

Form 6
Initial Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Initial Cal. Date: 11/21/19
Matrix: Instrument: Yoda
Initials: MA

			1121Y003.D	1121Y004.D	1121Y005 D	1121Y006.D	1121Y007.D	1121Y008.D	1121Y009.D	1121Y010.D	1121Y011.D							
		Compound	4	5	10	20	40	50	60	80	91		Avg	%RSD	Type	r^2	Q	MRF
1	I	1,4-dichlorobenzene-D4(IS)	ISTD															
2		1,4-Dioxane	0.4131	0.4262	0.6088	0.5154	0.4095	0.4466	0.4353	0.4216	0.5029		0.46	14				
3	TM	n-Nitrosodimethylamine	0.7472	0.7900	0.7145	0.6353	0.6209	0.6613	0.7224	0.7296	0.7209		0.70	7.8	TM			
4	TM	Pyridine	1.503	1.671	1.847	1.602	1.612	1.772	1.882	1.932	1.865		1.7	8.6	TM			
5	S	2-Fluorophenol (S)	1.487	1.348	1.400	1.254	1.237	1.355	1.453	1.534	1.468		1.4	7.4	S			
6	S	Phenol-D6 (S)	1.756	1.549	1.642	1.478	1.476	1.633	1.747	1.861	1.785		1.7	8.4	S			
7	*TM	Phenol	1.749	1.801	1.921	1.714	1.815	1.992	2.160	2.248	2.228		2.0	11	*TM			0.800
8	TM	Aniline			1.047	1.052	1.148	1.169	1.201	1.269	1.211		1.2	7.1	TM			
9	TM	Bis (2-chloroethyl) ether	0.7596	0.7864	0.8586	0.7722	0.7720	0.8416	0.9033	0.9359	0.9016		0.84	8.0	TM			0.700
10	TM	2-Chlorophenol	1.357	1.382	1.497	1.364	1.378	1.499	1.627	1.645	1.601		1.5	8.0	TM			0.800
11	TM	1,3-DCB	1.536	1.641	1.694	1.502	1.551	1.693	1.828	1.878	1.803		1.7	8.1	TM			
12	*TM	1,4-DCB	1.556	1.618	1.733	1.554	1.576	1.738	1.843	1.912	1.838		1.7	8.0	*TM			
13	TM	Benzyl alcohol	0.7592	0.7688	0.8337	0.7639	0.7868	0.8726	0.9274	0.9523	0.9245		0.84	9.2	TM			
14	TM	1,2-DCB	1.441	1.559	1.644	1.456	1.460	1.604	1.710	1.771	1.713		1.6	7.8	TM			
15	TM	2-Methylphenol	1.088	1.109	1.215	1.070	1.076	1.253	1.346	1.314	1.342		1.2	9.8	TM			0.700
16	TM	Bis (2-chloroisopropyl) ether	0.8788	0.9016	0.9685	0.8381	0.8636	0.9380	0.9966	1.034	0.9974		0.94	7.3	TM			
17	TM	Acetophenone	1.946	1.990	2.180	1.908	1.996	2.186	2.386	2.456	2.392		2.2	9.8	TM			0.010
18	TM	3&4-Methylphenol	1.435	1.509	1.633	1.441	1.512	1.696	1.829	1.913	1.862		1.6	11	TM			0.600
19	**TM	n-Nitrosodi-n-propylamine	1.093	1.149	1.236	1.108	1.128	1.259	1.349	1.390	1.363		1.2	9.5	**TM			0.500
20	TM	Hexachloroethane	0.5962	0.6514	0.7001	0.6119	0.6291	0.6831	0.7309	0.7571	0.7360		0.68	8.6	TM			0.300
21	I	Napthalene-D8(IS)	ISTD															
22	S	Nitrobenzene-D5(S)	0.4909	0.4400	0.4480	0.4249	0.4251	0.4425	0.4519	0.4695	0.4641		0.45	4.7	S			
23	TM	Nitrobenzene	0.4203	0.4487	0.4724	0.4405	0.4454	0.4667	0.4790	0.4868	0.4882		0.46	5.1	TM			0.200
24	TM	Isophorone	0.6864	0.7296	0.7374	0.7047	0.7298	0.7674	0.7743	0.7950	0.7997		0.75	5.3	TM			0.400
25	*TM	2-Nitrophenol	0.1792	0.1931	0.2068	0.2007	0.2081	0.2209	0.2244	0.2308	0.2328		0.21	8.6	*TM			0.100
26	TM	2,4-Dimethylphenol	0.2989	0.3139	0.3292	0.3055	0.3201	0.3373	0.3422	0.3500	0.3576		0.33	6.2	TM			0.200
27	TML	Benzoic acid	0.0982	0.1215	0.1867	0.2338	0.2843	0.3119	0.3253	0.3097	0.3131		0.24	36	TML	0.998		
28	TM	Bis (2-chloroethoxy) methane	0.3582	0.3873	0.3992	0.3839	0.3958	0.4153	0.4208	0.4286	0.4365		0.40	6.2	TM			0.300
29	*TM	2,4-Dichlorophenol	0.2978	0.3162	0.3333	0.3182	0.3286	0.3510	0.3576	0.3652	0.3745		0.34	7.6	*TM			0.200
30	TM	1,2,4-Trichlorobenzene	0.3477	0.3741	0.3873	0.3624	0.3854	0.3994	0.4100	0.4254	0.4290		0.39	7.0	TM			
31	TM	3,4-Dimethylphenol	0.4850	0.4923	0.5178	0.4946	0.5265	0.5486	0.5603	0.5755	0.5762		0.53	6.8	TM			
32	TM	Naphthalene	0.9679	1.050	1.070	1.002	1.044	1.102	1.121	1.156	1.183		1.1	6.5	TM			0.700
33	TM	4-Chloroaniline			0.3471	0.3393	0.3746	0.4069	0.3980	0.3986	0.3929		0.38	7.1	TM			0.010
34	TM	2,6-Dichlorophenol	0.2883	0.3109	0.3193	0.3043	0.3167	0.3407	0.3496	0.3553	0.3608		0.33	7.7	TM			
35	TM	Hexachloropropene	0.2899	0.3123	0.3296	0.3193	0.3388	0.3526	0.3667	0.3769	0.3786		0.34	9.0	TM			

Semi-Volatile Analysis by GC-MS
EPA 8270

Form 6
Initial Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Initial Cal. Date: 11/21/19
Matrix: Instrument: Yoda Initials:

		Compound	4	5	10	20	40	50	60	80	91		Avg	%RSD	Type		Q	
36	*TM	Hexachlorobutadiene	0.2483	0.2674	0.2753	0.2570	0.2714	0.2788	0.2882	0.2985	0.3013		0.28	6.4	*TM			0.010
37	TM	Caprolactum	0.1060	0.1109	0.1188	0.1116	0.1158	0.1233	0.1260	0.1284	0.1285		0.12	6.9	TM			0.010
38	*TM	4-Chloro-3-methylphenol	0.3450	0.3598	0.3803	0.3528	0.3721	0.3927	0.4005	0.4114	0.4181		0.38	6.8	*TM			0.200
39	TM	2-Methylnaphthalene	0.6586	0.6946	0.7298	0.6852	0.7108	0.7591	0.7694	0.7921	0.8092		0.73	7.0	TM			0.400
40	TM	1-Methylnaphthalene	0.6864	0.7167	0.7473	0.6960	0.7403	0.7824	0.7954	0.8312	0.8369		0.76	7.3	TM			
41	I	Acenaphthene-D10(IS)	ISTD															
42	**TM	Hexachlorocyclopentadiene			0.4047	0.4452	0.5371	0.5778	0.5356	0.5014	0.5552		0.51	12	**TM			0.050
43	TM	1,2,4,5-Tetrachlorobenzene	0.6252	0.6692	0.6757	0.6442	0.6972	0.7328	0.7295	0.7660	0.7864		0.70	7.8	TM			0.010
44	*TM	2,4,6-Trichlorophenol	0.3803	0.4337	0.4321	0.4274	0.4438	0.4740	0.4637	0.4817	0.4911		0.45	7.7	*TM			0.200
45	TM	2,4,5-Trichlorophenol	0.4406	0.4440	0.4619	0.4489	0.4678	0.5007	0.4912	0.5126	0.5208		0.48	6.4	TM			0.200
46	S	2-Fluorobiphenyl(S)	1.652	1.486	1.453	1.406	1.410	1.509	1.468	1.538	1.539		1.5	5.1	S			
47	TM	1,1'-Biphenyl	1.417	1.439	1.478	1.431	1.492	1.585	1.553	1.631	1.656		1.5	5.9	TM			0.010
48	TM	2-Chloronaphthalene	1.135	1.191	1.236	1.169	1.228	1.300	1.273	1.322	1.343		1.2	5.7	TM			0.800
49	TM	2-Nitroaniline	0.3493	0.3785	0.3935	0.3749	0.3886	0.4159	0.4088	0.4204	0.4192		0.39	6.1	TM			0.010
50	TM	Dimethyl phthalate	1.421	1.459	1.487	1.426	1.501	1.600	1.555	1.609	1.614		1.5	5.1	TM			0.010
51	TM	2,6-DNT	0.2894	0.2971	0.3276	0.3293	0.3389	0.3693	0.3603	0.3705	0.3755		0.34	9.4	TM			0.200
52	TM	Acenaphthylene	1.775	1.825	1.867	1.810	1.887	2.003	1.960	2.039	2.040		1.9	5.3	TM			0.900
53	TM	3-Nitroaniline	0.3368	0.3525	0.3811	0.3775	0.3933	0.4173	0.4102	0.4186	0.4220		0.39	7.8	TM			0.010
54	*TM	Acenaphthene	1.162	1.167	1.230	1.200	1.284	1.375	1.344	1.412	1.459		1.3	8.5	*TM			0.900
55	**TM	2,4-Dinitrophenol				0.1695	0.2095	0.2326	0.2385	0.2537	0.2583		0.23	15	**TM			0.010
56	**TM	4-Nitrophenol	0.0201	0.0218	0.0251	0.0236	0.0259	0.0275	0.0256	0.0271	0.0273		0.02	10	**TM			0.010
57	TM	Dibenzofuran	1.703	1.732	1.754	1.677	1.756	1.875	1.851	1.925	1.953		1.8	5.6	TM			0.800
58	TM	2,4-DNT	0.4206	0.4414	0.4553	0.4644	0.4861	0.5108	0.5051	0.5266	0.5373		0.48	8.3	TM			0.200
59	TM	2,3,4,6-Tetrachlorophenol	0.3407	0.3718	0.3800	0.3806	0.4047	0.4310	0.4264	0.4400	0.4478		0.40	9.0	TM			0.010
60	TM	Diethyl phthalate	1.477	1.526	1.527	1.479	1.516	1.617	1.570	1.621	1.623		1.6	3.8	TM			0.010
61	TM	4-Chlorophenyl phenyl ether	0.7839	0.8192	0.8394	0.8083	0.8621	0.9335	0.9288	0.9951	1.013		0.89	9.4	TM			0.400
62	TM	Fluorene	1.340	1.374	1.424	1.371	1.476	1.601	1.583	1.705	1.729		1.5	9.8	TM			0.900
63	TM	4-Nitroaniline	0.2712	0.2968	0.3093	0.2988	0.3132	0.3343	0.3188	0.3244	0.3253		0.31	6.2	TM			0.010
64	S	2,4,6-Tribromophenol(S)	0.3026	0.2844	0.2722	0.2744	0.2883	0.3138	0.3195	0.3429	0.3559		0.31	9.7	S			
65	I	Phenanthrene-D10(IS)	ISTD															
66	TM	4,6-Dinitro-2-methylphenol			0.1316	0.1466	0.1593	0.1737	0.1764	0.1861	0.1865		0.17	13	TM			0.010
67	TM	Diphenyl amine		0.5641	0.5584	0.5578	0.6050	0.6307	0.6433	0.6780	0.6789		0.61	8.3	TM			
68	*TM	n-Nitrosodiphenylamine		0.5641	0.5584	0.5578	0.6050	0.6307	0.6433	0.6780	0.6789		0.61	8.3	*TM			0.010
69	TM	1,2-Diphenylhydrazine	0.6919	0.7397	0.7428	0.7141	0.7574	0.7929	0.7830	0.8128	0.8106		0.76	5.6	TM			
70	TM	4-Bromophenyl phenyl ether	0.2326	0.2459	0.2506	0.2455	0.2597	0.2772	0.2835	0.2942	0.2998		0.27	9.0	TM			0.100

Semi-Volatile Analysis by GC-MS
EPA 8270

Form 6
Initial Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Initial Cal. Date: 11/21/19
Matrix: Instrument: Yoda Initials:

		Compound	4	5	10	20	40	50	60	80	91		Avg	%RSD	Type		Q	
71	TM	Hexachlorobenzene	0.2473	0.2716	0.2574	0.2566	0.2765	0.2965	0.2962	0.3085	0.3143		0.28	8.7	TM			0.100
72	TM	Atrazine		0.2382	0.2260	0.2098	0.2296	0.2382	0.2397	0.2449	0.2454		0.23	5.1	TM			0.010
73	*TM	Pentachlorophenol			0.1444	0.1557	0.1763	0.1911	0.1903	0.2076	0.2104		0.18	14	*TM			0.050
74	TM	Phenanthrene	1.008	1.049	1.046	1.011	1.056	1.105	1.113	1.171	1.184		1.1	5.9	TM			0.700
75	TM	Anthracene	1.045	1.093	1.101	1.059	1.117	1.168	1.172	1.234	1.241		1.1	6.3	TM			0.700
76	TM	Carbazol	0.9216	0.9673	1.003	0.9601	1.009	1.064	1.071	1.110	1.101		1.0	6.5	TM			0.010
77	TM	Di-n-butylphthalate	1.193	1.246	1.258	1.241	1.312	1.394	1.408	1.456	1.478		1.3	7.9	TM			0.010
78		2-Nitrodiphenylamine	0.2511	0.2717	0.2895	0.3048	0.3243	0.3416	0.3486	0.3566	0.3603		0.32	12				
79	*TM	Fluoranthene	1.196	1.214	1.252	1.210	1.307	1.376	1.389	1.459	1.454		1.3	8.0	*TM			0.600
80	I	Chrysene-D12(IS)	ISTD															
81	TM	Benzidine				0.2277	0.2870	0.3338	0.3091	0.3109	0.3119		0.30	12	TM			
82	TM	Pyrene	1.206	1.248	1.263	1.203	1.189	1.276	1.188	1.182	1.180		1.2	3.1	TM			0.600
83	S	Terphenyl-D14(S)	1.165	1.060	0.9868	0.9558	0.9291	0.9737	0.9485	0.9434	1.038		1.0	7.6	S			
84	TM	Butyl benzylphthalate	0.5532	0.5683	0.5820	0.5395	0.5376	0.5742	0.5448	0.5336	0.5306		0.55	3.4	TM			0.010
85	TM	3,3'-Dichlorobenzidine	0.3670	0.3556	0.3061	0.3163	0.3591	0.4126	0.3916	0.3865	0.3878		0.36	9.7	TM			0.010
86	TM	Benz (a) anthracene	1.298	1.428	1.370	1.289	1.276	1.359	1.302	1.327	1.342		1.3	3.6	TM			0.800
87	TM	Bis (2-ethylhexyl) phthalate	0.8211	0.8729	0.8848	0.8315	0.8196	0.8736	0.8456	0.8374	0.8443		0.85	2.8	TM			0.010
88	TM	Chrysene	1.232	1.177	1.234	1.165	1.158	1.248	1.193	1.137	1.138		1.2	3.6	TM			0.700
89	*TM	Di-n-octylphthalate	1.291	1.381	1.388	1.305	1.300	1.379	1.301	1.309	1.309		1.3	3.1	*TM			0.010
90	I	Perylene-D12(IS)	ISTD															
91	TM	Benzo (b) fluoranthene	1.124	1.138	1.268	1.226	1.210	1.412	1.326	1.337	1.342		1.3	7.8	TM			0.700
92	TM	Benzo (k) fluoranthene	1.085	1.156	1.043	1.031	1.178	1.140	1.189	1.320	1.346		1.2	9.5	TM			0.700
93	*TM	Benzo (a) pyrene	1.031	1.054	1.091	1.052	1.118	1.191	1.159	1.226	1.243		1.1	7.0	*TM			0.700
94	TM	Indeno (1,2,3-cd) pyrene	1.226	1.291	1.300	1.259	1.321	1.402	1.382	1.439	1.448		1.3	6.0	TM			0.500
95	TM	Dibenz (a,h) anthracene	1.076	1.111	1.142	1.090	1.166	1.251	1.222	1.280	1.306		1.2	7.2	TM			0.400
96	TM	Benzo (g,h,i) perylene	1.006	1.037	1.048	1.011	1.049	1.115	1.089	1.123	1.129		1.1	4.5	TM			0.500
97																		
98																		
99																		
100																		
101																		
102																		
103																		
104																		
105																		

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y191121\1121Y003.D Vial: 3
Acq On : 21 Nov 19 14:07 Operator: MA,SS
Sample : 4ug/ml 8270 11/21/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 22 15:55 2019 Quant Results File: Y1121ND.RES

Quant Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 15:42:05 2019
Response via : Initial Calibration
DataAcq Meth : SVOC1011

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.47	152	171877	40.00000 ppb		0.00
21) Napthalene-D8(IS)	6.91	136	699682	40.00000 ppb		0.00
41) Acenaphthene-D10(IS)	8.93	164	435091	40.00000 ppb		0.00
65) Phenanthrene-D10(IS)	10.66	188	880555	40.00000 ppb		0.00
80) Chrysene-D12(IS)	13.75	240	903111	40.00000 ppb		0.00
90) Perylene-D12(IS)	15.62	264	1002643	40.00000 ppb		0.00
System Monitoring Compounds						
5) 2-Fluorophenol (S)	3.90	112	51113	8.54001 ppb		0.00
Spiked Amount 200.000			Recovery	= 4.270%		
6) Phenol-D6 (S)	5.06	99	60351	8.46840 ppb		-0.02
Spiked Amount 200.000			Recovery	= 4.234%		
22) Nitrobenzene-D5(S)	6.09	82	34346	4.35589 ppb		0.00
Spiked Amount 100.000			Recovery	= 4.356%		
46) 2-Fluorobiphenyl(S)	8.14	172	71869	4.41801 ppb		0.00
Spiked Amount 100.000			Recovery	= 4.418%		
64) 2,4,6-Tribromophenol(S)	9.85	330	26335	7.91248 ppb		0.00
Spiked Amount 200.000			Recovery	= 3.956%		
83) Terphenyl-D14(S)	12.52	244	105225	4.66036 ppb		0.00
Spiked Amount 100.000			Recovery	= 4.660%		
Target Compounds						Qvalue
2) 1,4-Dioxane	1.74	58	710	0.35582	#	1
3) n-Nitrosodimethylamine	1.96	42	12843	4.24143 ppb		88
4) Pyridine	1.99	79	25828	3.44888 ppb		97
7) Phenol	5.08	94	30055	3.57098 ppb		83
8) Aniline	5.10	93	15130	3.19391 ppb	#	74
9) Bis (2-chloroethyl) ether	5.17	63	13055	3.63084 ppb		94
10) 2-Chlorophenol	5.24	128	23332	3.66070 ppb		97
11) 1,3-DCB	5.41	146	26394	3.65488 ppb		96
12) 1,4-DCB	5.49	146	26744	3.64508 ppb		99
13) Benzyl alcohol	5.63	108	13049	3.60134 ppb		94
14) 1,2-DCB	5.67	146	24759	3.61216 ppb		99
15) 2-Methylphenol	5.76	107	18692	3.62060 ppb		99
16) Bis (2-chloroisopropyl) et	5.78	45	15104	3.75895 ppb		95
17) Acetophenone	5.93	105	33450	3.60387 ppb		95
18) 3&4-Methylphenol	5.93	107	49324	6.96583 ppb		95
19) n-Nitrosodi-n-propylamine	5.92	70	18786	3.55298 ppb		92
20) Hexachloroethane	6.05	117	10248	3.52118 ppb		89
23) Nitrobenzene	6.11	77	29406	3.64767 ppb		98
24) Isophorone	6.38	82	48023	3.67460 ppb		96
25) 2-Nitrophenol	6.47	139	12539	3.40134 ppb		93
26) 2,4-Dimethylphenol	6.52	122	20911	3.64149 ppb		98
27) Benzoic acid	6.59	105	6870	6.98276 ppb		94
28) Bis (2-chloroethoxy) metha	6.62	93	25066	3.55718 ppb		98
29) 2,4-Dichlorophenol	6.75	162	20834	3.52351 ppb		92
30) 1,2,4-Trichlorobenzene	6.84	180	24329	3.55547 ppb		98
31) 3,4-Dimethylphenol	6.86	107	33935	3.65526 ppb		98
32) Naphthalene	6.94	128	67722	3.59329 ppb		99
33) 4-Chloroaniline	6.99	127	21792	3.39619 ppb		92
34) 2,6-Dichlorophenol	7.00	162	20174	3.52345 ppb		97
35) Hexachloropropene	7.04	213	20281	3.40479 ppb		98
36) Hexachlorobutadiene	7.08	225	17375	3.59566 ppb		96
37) Caprolactum	7.36	55	7420	3.57025 ppb		94

(#) = qualifier out of range (m) = manual integration

Data File : M:\YODA\DATA\Y191121\1121Y003.D Vial: 3
Acq On : 21 Nov 19 14:07 Operator: MA,SS
Sample : 4ug/ml 8270 11/21/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 22 15:55 2019 Quant Results File: Y1121ND.RES

Quant Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 15:42:05 2019
Response via : Initial Calibration
DataAcq Meth : SVOC1011

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
38)	4-Chloro-3-methylphenol	7.55	107	24140	3.61824	ppb		96
39)	2-Methylnaphthalene	7.73	142	46079	3.58746	ppb		99
40)	1-Methylnaphthalene	7.84	142	48029	3.61675	ppb		98
42)	Hexachlorocyclopentadiene	7.90	237	13066	2.36391	ppb		98
43)	1,2,4,5-Tetrachlorobenzene	7.91	216	27200	3.55745	ppb		99
44)	2,4,6-Trichlorophenol	8.05	196	16547	3.39912	ppb		95
45)	2,4,5-Trichlorophenol	8.10	196	19169	3.69855	ppb		94
47)	1,1'-Biphenyl	8.26	154	61663	3.72896	ppb		98
48)	2-Chloronaphthalene	8.28	162	49376	3.64897	ppb		99
49)	2-Nitroaniline	8.39	65	15196	3.54290	ppb		96
50)	Dimethyl phthalate	8.61	163	61840	3.74213	ppb		99
51)	2,6-DNT	8.67	165	12592	3.40721	ppb		98
52)	Acenaphthylene	8.77	152	77248	3.71436	ppb		99
53)	3-Nitroaniline	8.39	138	14652	3.45457	ppb		92
54)	Acenaphthene	8.97	154	50577	3.59732	ppb		98
55)	2,4-Dinitrophenol	9.00	184	2218	0.89820	ppb		90
56)	4-Nitrophenol	8.67	65	876	3.23673	ppb	#	74
57)	Dibenzofuran	9.17	168	74089	3.77841	ppb		99
58)	2,4-DNT	9.15	165	18301	3.48292	ppb		89
59)	2,3,4,6-Tetrachlorophenol	9.31	232	14824	3.38549	ppb		97
60)	Diethyl phthalate	9.43	149	64247	3.80951	ppb		98
61)	4-Chlorophenyl phenyl ethe	9.56	204	34106	3.53499	ppb		95
62)	Fluorene	9.56	166	58288	3.54590	ppb		99
63)	4-Nitroaniline	8.87	138	11801	3.49716	ppb		98
66)	4,6-Dinitro-2-methylphenol	9.62	198	7216	1.97776	ppb	#	77
67)	Diphenyl amine	9.69	169	94212	6.96393	ppb		99
68)	n-Nitrosodiphenylamine	9.69	169	94212	6.96393	ppb		99
69)	1,2-Diphenylhydrazine	9.75	77	60929	3.63908	ppb		97
70)	4-Bromophenyl phenyl ether	10.13	248	20479	3.50463	ppb		93
71)	Hexachlorobenzene	10.21	284	21775	3.52596	ppb		93
72)	Atrazine	10.32	200	9503	1.84482	ppb		97
73)	Pentachlorophenol	10.45	266	10529	2.62448	ppb		88
74)	Phenanthrene	10.69	178	88775	3.72528	ppb		99
75)	Anthracene	10.74	178	92014	3.67778	ppb		98
76)	Carbazol	10.93	167	81154	3.60423	ppb		100
77)	Di-n-butylphthalate	11.34	149	105020	3.58164	ppb		99
78)	2-Nitrodiphenylamine	11.51	167	11054	1.58658	ppb		92
79)	Fluoranthene	12.08	202	105288	3.63060	ppb	#	97
81)	Benzidine	12.23	184	26925	4.01919	ppb		99
82)	Pyrene	12.34	202	108905	3.96999	ppb		99
84)	Butyl benzylphthalate	13.08	149	49960	4.01214	ppb		91
85)	3,3'-Dichlorobenzidine	13.69	252	33143	4.02465	ppb		99
86)	Benz (a) anthracene	13.73	228	117193	3.89605	ppb		99
87)	Bis (2-ethylhexyl) phthala	13.75	149	74158	3.87394	ppb	#	95
88)	Chrysene	13.77	228	111291	4.15296	ppb		99
89)	Di-n-octylphthalate	14.51	149	116580	3.88466	ppb		94
91)	Benzo (b) fluoranthene	15.05	252	112725	3.55542	ppb		99
92)	Benzo (k) fluoranthene	15.09	252	108771	3.72354	ppb	#	98
93)	Benzo (a) pyrene	15.52	252	103381	3.65175	ppb		97
94)	Indeno (1,2,3-cd) pyrene	17.50	276	122956	3.65819	ppb		96
95)	Dibenz (a,h) anthracene	17.54	278	107866	3.63839	ppb		100
96)	Benzo (g,h,i) perylene	18.07	276	100853	3.76901	ppb		99

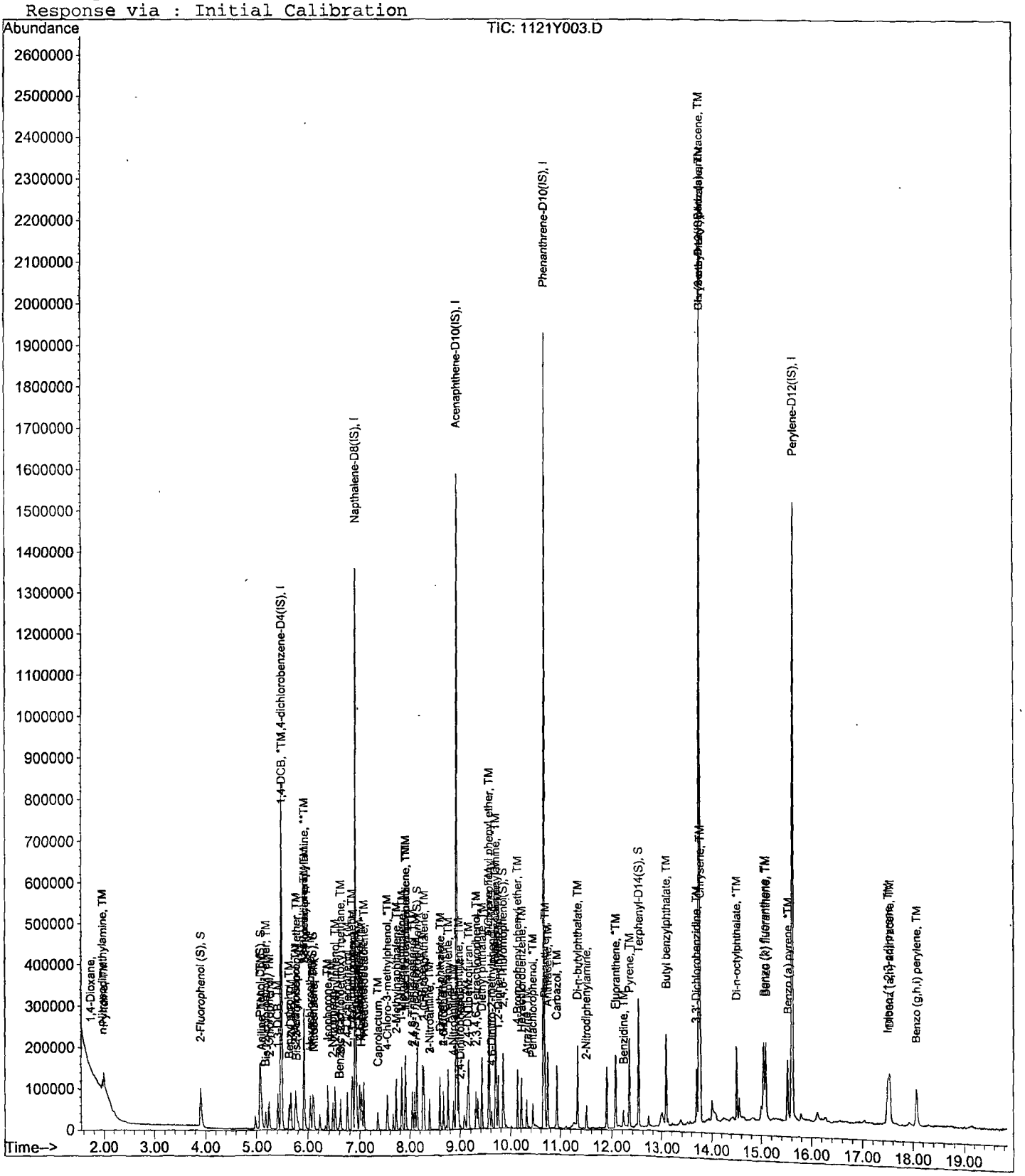
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y191121\1121Y003.D Vial: 3
Acq On : 21 Nov 19 14:07 Operator: MA,SS
Sample : 4ug/ml 8270 11/21/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 22 15:55 2019 Quant Results File: Y1121ND.RES

Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 18:04:15 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y191121\1121Y004.D Vial: 4
Acq On : 21 Nov 19 14:35 Operator: MA,SS
Sample : 5ug/ml 8270 11/21/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 22 17:59 2019 Quant Results File: Y1121ND.RES

Quant Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 16:12:45 2019
Response via : Initial Calibration
DataAcq Meth : SVOC1011

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.48	152	178119	40.00000 ppb	0.00
21) Napthalene-D8(IS)	6.91	136	701942	40.00000 ppb	0.00
41) Acenaphthene-D10(IS)	8.93	164	437841	40.00000 ppb	0.00
65) Phenanthrene-D10(IS)	10.66	188	878554	40.00000 ppb	0.00
80) Chrysene-D12(IS)	13.75	240	894953	40.00000 ppb	0.00
90) Perylene-D12(IS)	15.61	264	1003571	40.00000 ppb	0.00
System Monitoring Compounds					
5) 2-Fluorophenol (S)	3.91	112	60020	9.67677 ppb	0.00
Spiked Amount 200.000			Recovery	= 4.839%	
6) Phenol-D6 (S)	5.07	99	68975	9.33934 ppb	0.00
Spiked Amount 200.000			Recovery	= 4.670%	
22) Nitrobenzene-D5(S)	6.09	82	38608	4.88065 ppb	0.00
Spiked Amount 100.000			Recovery	= 4.881%	
46) 2-Fluorobiphenyl(S)	8.14	172	81328	4.96808 ppb	0.00
Spiked Amount 100.000			Recovery	= 4.968%	
64) 2,4,6-Tribromophenol(S)	9.85	330	31127	9.29352 ppb	0.00
Spiked Amount 200.000			Recovery	= 4.647%	
83) Terphenyl-D14(S)	12.51	244	118567	5.29914 ppb	0.00
Spiked Amount 100.000			Recovery	= 5.299%	
Target Compounds					Qvalue
2) 1,4-Dioxane	1.75	58	949	0.45892 #	1
3) n-Nitrosodimethylamine	1.96	42	17590	5.60557 ppb	78
4) Pyridine	1.99	79	37212	4.79487 ppb	97
7) Phenol	5.08	94	40110	4.59865 ppb	87
8) Aniline	5.10	93	21048	4.28749 ppb #	77
9) Bis (2-chloroethyl) ether	5.17	63	17508	4.69867 ppb	96
10) 2-Chlorophenol	5.24	128	30773	4.65897 ppb	94
11) 1,3-DCB	5.40	146	36544	4.88305 ppb	97
12) 1,4-DCB	5.50	146	36021	4.73744 ppb	96
13) Benzyl alcohol	5.63	108	17118	4.55877 ppb	99
14) 1,2-DCB	5.66	146	34722	4.88817 ppb	99
15) 2-Methylphenol	5.76	107	24694	4.61556 ppb	98
16) Bis (2-chloroisopropyl) et	5.78	45	20074	4.82076 ppb	92
17) Acetophenone	5.92	105	44298	4.60536 ppb	100
18) 3&4-Methylphenol	5.93	107	67207	9.15876 ppb	97
19) n-Nitrosodi-n-propylamine	5.92	70	25583	4.66893 ppb	97
20) Hexachloroethane	6.05	117	14504	4.80888 ppb	98
23) Nitrobenzene	6.11	77	39369	4.86780 ppb	97
24) Isophorone	6.38	82	64013	4.88234 ppb	95
25) 2-Nitrophenol	6.47	139	16944	4.58144 ppb	87
26) 2,4-Dimethylphenol	6.52	122	27539	4.78027 ppb	99
27) Benzoic acid	6.60	105	10661	5.63187 ppb	89
28) Bis (2-chloroethoxy) metha	6.62	93	33987	4.80766 ppb	95
29) 2,4-Dichlorophenol	6.75	162	27742	4.67670 ppb	96
30) 1,2,4-Trichlorobenzene	6.84	180	32824	4.78149 ppb	97
31) 3,4-Dimethylphenol	6.86	107	43196	4.63781 ppb	98
32) Naphthalene	6.94	128	92144	4.87336 ppb	98
33) 4-Chloroaniline	6.99	127	29189	4.53434 ppb	94
34) 2,6-Dichlorophenol	7.00	162	27277	4.74867 ppb	96
35) Hexachloropropene	7.04	213	27403	4.58562 ppb	96
36) Hexachlorobutadiene	7.08	225	23460	4.83929 ppb	98
37) Caprolactum	7.35	55	9733	4.66811 ppb	97

(#) = qualifier out of range (m) = manual integration

Data File : M:\YODA\DATA\Y191121\1121Y004.D Vial: 4
Acq On : 21 Nov 19 14:35 Operator: MA,SS
Sample : 5ug/ml 8270 11/21/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 22 17:59 2019 Quant Results File: Y1121ND.RES

Quant Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 16:12:45 2019
Response via : Initial Calibration
DataAcq Meth : SVOC1011

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
38)	4-Chloro-3-methylphenol	7.55	107	31574	4.71725	ppb		98
39)	2-Methylnaphthalene	7.73	142	60949	4.72988	ppb		100
40)	1-Methylnaphthalene	7.84	142	62883	4.72006	ppb		100
42)	Hexachlorocyclopentadiene	7.91	237	19448	3.49645	ppb		97
43)	1,2,4,5-Tetrachlorobenzene	7.92	216	36627	4.76031	ppb		96
44)	2,4,6-Trichlorophenol	8.05	196	23738	4.84568	ppb		98
45)	2,4,5-Trichlorophenol	8.10	196	24300	4.65910	ppb		95
47)	1,1'-Biphenyl	8.26	154	78756	4.73271	ppb		97
48)	2-Chloronaphthalene	8.28	162	65185	4.78703	ppb		97
49)	2-Nitroaniline	8.39	65	20713	4.79884	ppb		95
50)	Dimethyl phthalate	8.61	163	79858	4.80211	ppb		99
51)	2,6-DNT	8.68	165	16261	4.37236	ppb	#	77
52)	Acenaphthylene	8.76	152	99907	4.77371	ppb		99
53)	3-Nitroaniline	8.39	138	19292	4.52000	ppb		93
54)	Acenaphthene	8.97	154	63851	4.51292	ppb		98
55)	2,4-Dinitrophenol	9.00	184	3397	1.36701	ppb	#	84
56)	4-Nitrophenol	8.67	65	1191	4.37298	ppb	#	74
57)	Dibenzofuran	9.16	168	94779	4.80321	ppb		98
58)	2,4-DNT	9.15	165	24158	4.56870	ppb		98
59)	2,3,4,6-Tetrachlorophenol	9.31	232	20347	4.61764	ppb		93
60)	Diethyl phthalate	9.42	149	83497	4.91984	ppb		99
61)	4-Chlorophenyl phenyl ethe	9.56	204	44837	4.61804	ppb		93
62)	Fluorene	9.56	166	75174	4.54443	ppb		96
63)	4-Nitroaniline	8.87	138	16245	4.78388	ppb		94
66)	4,6-Dinitro-2-methylphenol	9.62	198	10573	2.90445	ppb	#	74
67)	Diphenyl amine	9.70	169	123899	9.17918	ppb		100
68)	n-Nitrosodiphenylamine	9.70	169	123899	9.17918	ppb		100
69)	1,2-Diphenylhydrazine	9.75	77	81228	4.86252	ppb		97
70)	4-Bromophenyl phenyl ether	10.14	248	27005	4.63197	ppb		89
71)	Hexachlorobenzene	10.21	284	29823	4.84015	ppb		95
72)	Atrazine	10.31	200	13082	2.54540	ppb		93
73)	Pentachlorophenol	10.44	266	13695	3.42141	ppb		96
74)	Phenanthrene	10.69	178	115216	4.84584	ppb		99
75)	Anthracene	10.75	178	120056	4.80954	ppb		98
76)	Carbazol	10.93	167	106227	4.72853	ppb		99
77)	Di-n-butylphthalate	11.34	149	136821	4.67682	ppb		99
78)	2-Nitrodiphenylamine	11.51	167	14920	2.14635	ppb		97
79)	Fluoranthene	12.08	202	133347	4.60862	ppb	#	97
81)	Benzidine	12.23	184	22751	3.42708	ppb		99
82)	Pyrene	12.34	202	139635	5.13662	ppb		99
84)	Butyl benzylphthalate	13.08	149	63571	5.15174	ppb		88
85)	3,3'-Dichlorobenzidine	13.69	252	39776	4.87415	ppb		97
86)	Benz (a) anthracene	13.73	228	159783	5.36036	ppb		100
87)	Bis (2-ethylhexyl) phthala	13.75	149	97649	5.14758	ppb	#	96
88)	Chrysene	13.78	228	131677	4.95848	ppb		100
89)	Di-n-octylphthalate	14.51	149	154516	5.19570	ppb		96
91)	Benzo (b) fluoranthene	15.05	252	142727	4.49753	ppb		99
92)	Benzo (k) fluoranthene	15.09	252	145010	4.95951	ppb		98
93)	Benzo (a) pyrene	15.52	252	132183	4.66482	ppb		96
94)	Indeno (1,2,3-cd) pyrene	17.50	276	161903	4.81249	ppb		99
95)	Dibenz (a,h) anthracene	17.54	278	139369	4.69666	ppb		98
96)	Benzo (g,h,i) perylene	18.06	276	130106	4.85773	ppb		100

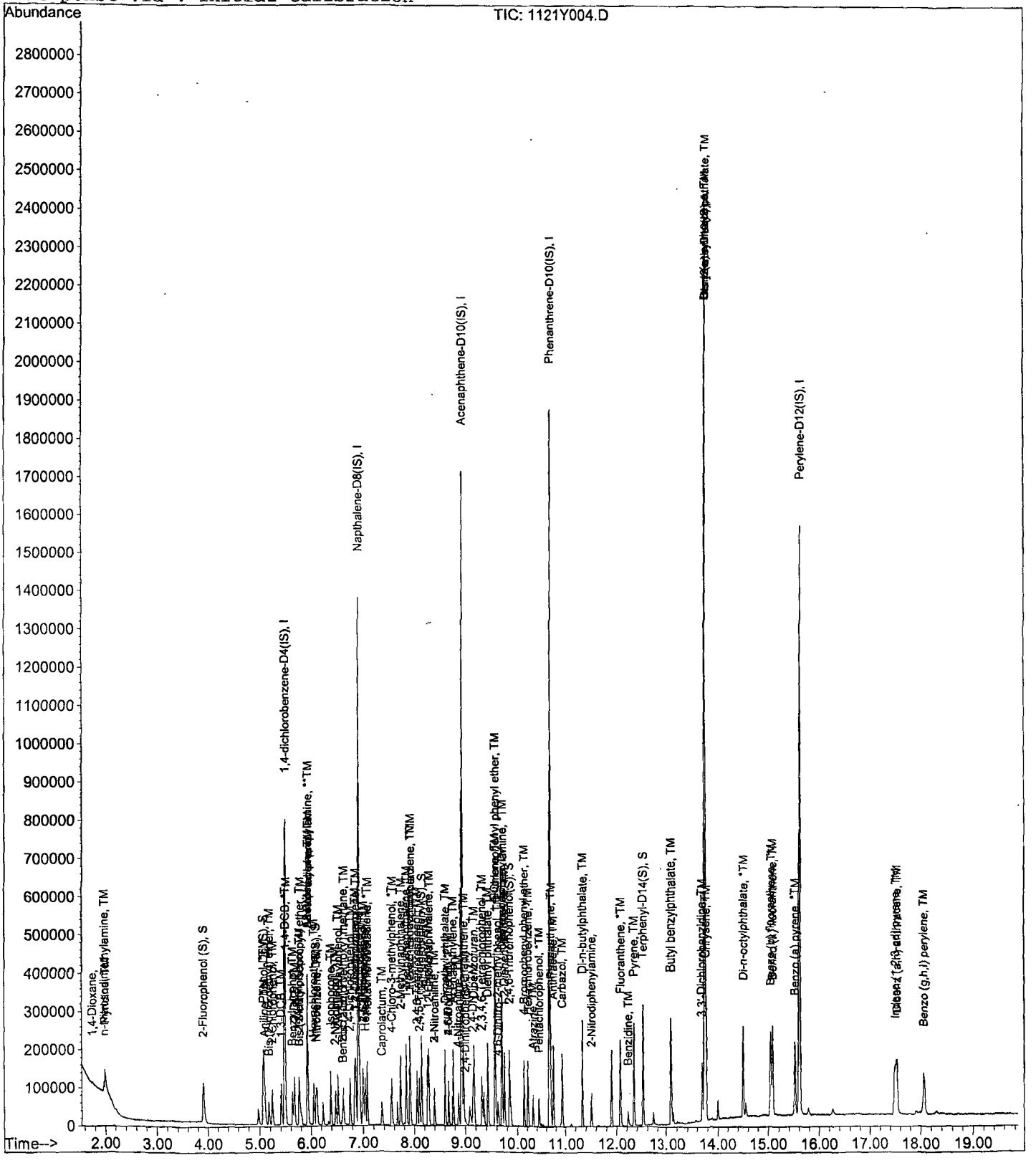
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y191121\1121Y004.D Vial: 4
Acq On : 21 Nov 19 14:35 Operator: MA,SS
Sample : 5ug/ml 8270 11/21/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 22 17:59 2019 Quant Results File: Y1121ND.RES

Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 18:04:15 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y191121\1121Y005.D Vial: 5
Acq On : 21 Nov 19 15:37 Operator: MA,SS
Sample : 10ug/ml 8270 11/21/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 22 15:55 2019 Quant Results File: Y1121ND.RES

Quant Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 15:42:05 2019
Response via : Initial Calibration
DataAcq Meth : SVOC1011

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.47	152	168977	40.00000 ppb		0.00
21) Napthalene-D8(IS)	6.91	136	683114	40.00000 ppb		0.00
41) Acenaphthene-D10(IS)	8.93	164	434378	40.00000 ppb		0.00
65) Phenanthrene-D10(IS)	10.66	188	872989	40.00000 ppb		0.00
80) Chrysene-D12(IS)	13.75	240	893214	40.00000 ppb		0.00
90) Perylene-D12(IS)	15.62	264	988297	40.00000 ppb		0.00
System Monitoring Compounds						
5) 2-Fluorophenol (S)	3.90	112	118316	20.10761 ppb		0.00
Spiked Amount 200.000			Recovery =	10.054%		
6) Phenol-D6 (S)	5.06	99	138757	19.80441 ppb		-0.02
Spiked Amount 200.000			Recovery =	9.902%		
22) Nitrobenzene-D5(S)	6.09	82	76517	9.93955 ppb		0.00
Spiked Amount 100.000			Recovery =	9.940%		
46) 2-Fluorobiphenyl(S)	8.14	172	157762	9.71403 ppb		0.00
Spiked Amount 100.000			Recovery =	9.714%		
64) 2,4,6-Tribromophenol(S)	9.85	330	59109	17.78875 ppb		0.00
Spiked Amount 200.000			Recovery =	8.895%		
83) Terphenyl-D14(S)	12.52	244	220345	9.86711 ppb		0.00
Spiked Amount 100.000			Recovery =	9.867%		
Target Compounds						Qvalue
2) 1,4-Dioxane	1.74	58	2572	1.31107		53
3) n-Nitrosodimethylamine	1.96	42	30183	10.13908 ppb		98
4) Pyridine	1.98	79	78020	10.59700 ppb		97
7) Phenol	5.08	94	81147	9.80693 ppb		92
8) Aniline	5.10	93	44216	9.49410 ppb	#	72
9) Bis (2-chloroethyl) ether	5.17	63	36273	10.26135 ppb		98
10) 2-Chlorophenol	5.24	128	63228	10.09048 ppb		95
11) 1,3-DCB	5.41	146	71562	10.07954 ppb		99
12) 1,4-DCB	5.49	146	73207	10.14901 ppb		96
13) Benzyl alcohol	5.63	108	35220	9.88705 ppb		98
14) 1,2-DCB	5.67	146	69444	10.30527 ppb		96
15) 2-Methylphenol	5.76	107	51325	10.11217 ppb		95
16) Bis (2-chloroisopropyl) et	5.78	45	40914	10.35705 ppb		95
17) Acetophenone	5.93	105	92082	10.09107 ppb		99
18) 3&4-Methylphenol	5.93	107	137956	19.81735 ppb		96
19) n-Nitrosodi-n-propylamine	5.93	70	52205	10.04294 ppb		99
20) Hexachloroethane	6.05	117	29576	10.33662 ppb		87
23) Nitrobenzene	6.11	77	80674	10.24991 ppb		99
24) Isophorone	6.38	82	125937	9.87010 ppb		98
25) 2-Nitrophenol	6.47	139	35318	9.81274 ppb		95
26) 2,4-Dimethylphenol	6.52	122	56214	10.02667 ppb		98
27) Benzoic acid	6.62	105	31882	11.03508 ppb		96
28) Bis (2-chloroethoxy) metha	6.62	93	68176	9.90969 ppb		98
29) 2,4-Dichlorophenol	6.75	162	56920	9.85995 ppb		96
30) 1,2,4-Trichlorobenzene	6.84	180	66134	9.89930 ppb		98
31) 3,4-Dimethylphenol	6.86	107	88422	9.75524 ppb		94
32) Naphthalene	6.94	128	182795	9.93422 ppb		99
33) 4-Chloroaniline	6.99	127	59273	9.46150 ppb	#	93
34) 2,6-Dichlorophenol	7.00	162	54536	9.75589 ppb		97
35) Hexachloropropene	7.04	213	56293	9.67972 ppb		99
36) Hexachlorobutadiene	7.08	225	47021	9.96674 ppb		98
37) Caprolactum	7.36	55	20280	9.99472 ppb		97

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y191121\1121Y005.D Vial: 5
Acq On : 21 Nov 19 15:37 Operator: MA,SS
Sample : 10ug/ml 8270 11/21/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 22 15:55 2019 Quant Results File: Y1121ND.RES

Quant Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 15:42:05 2019
Response via : Initial Calibration
DataAcq Meth : SVOC1011

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
38)	4-Chloro-3-methylphenol	7.55	107	64955	9.97194 ppb		93
39)	2-Methylnaphthalene	7.73	142	124627	9.93812 ppb		98
40)	1-Methylnaphthalene	7.84	142	127619	9.84323 ppb		99
42)	Hexachlorocyclopentadiene	7.91	237	43952	7.96489 ppb		99
43)	1,2,4,5-Tetrachlorobenzene	7.92	216	73379	9.61289 ppb		97
44)	2,4,6-Trichlorophenol	8.05	196	46928	9.65586 ppb		94
45)	2,4,5-Trichlorophenol	8.10	196	50161	9.69416 ppb		97
47)	1,1'-Biphenyl	8.26	154	160463	9.71963 ppb		98
48)	2-Chloronaphthalene	8.28	162	134240	9.93686 ppb		98
49)	2-Nitroaniline	8.39	65	42728	9.97826 ppb		95
50)	Dimethyl phthalate	8.61	163	161526	9.79049 ppb		100
51)	2,6-DNT	8.68	165	35573	9.64134 ppb		76
52)	Acenaphthylene	8.77	152	202717	9.76335 ppb		99
53)	3-Nitroaniline	8.39	138	41383	9.77309 ppb		97
54)	Acenaphthene	8.97	154	133593	9.51748 ppb		99
55)	2,4-Dinitrophenol	9.00	184	13612	5.52138 ppb		97
56)	4-Nitrophenol	8.67	65	2725	10.08512 ppb	#	74
57)	Dibenzofuran	9.16	168	190431	9.72759 ppb		97
58)	2,4-DNT	9.15	165	49448	9.42604 ppb		99
59)	2,3,4,6-Tetrachlorophenol	9.31	232	41263	9.43906 ppb		93
60)	Diethyl phthalate	9.42	149	165836	9.84934 ppb		96
61)	4-Chlorophenyl phenyl ethe	9.56	204	91155	9.46347 ppb		92
62)	Fluorene	9.56	166	154613	9.42120 ppb		99
63)	4-Nitroaniline	8.87	138	33585	9.96907 ppb		96
66)	4,6-Dinitro-2-methylphenol	9.62	198	28721	7.94008 ppb	#	73
67)	Diphenyl amine	9.70	169	243760	18.17433 ppb		100
68)	n-Nitrosodiphenylamine	9.70	169	243760	18.17433 ppb		100
69)	1,2-Diphenylhydrazine	9.75	77	162117	9.76662 ppb		95
70)	4-Bromophenyl phenyl ether	10.14	248	54692	9.44072 ppb		93
71)	Hexachlorobenzene	10.21	284	56169	9.17412 ppb	#	88
72)	Atrazine	10.32	200	24663	4.82934 ppb		95
73)	Pentachlorophenol	10.45	266	31516	7.92382 ppb		96
74)	Phenanthrene	10.69	178	228351	9.66539 ppb		99
75)	Anthracene	10.75	178	240259	9.68633 ppb		99
76)	Carbazol	10.94	167	218795	9.80140 ppb		98
77)	Di-n-butylphthalate	11.34	149	274648	9.44787 ppb		98
78)	2-Nitrodiphenylamine	11.51	167	31586	4.57283 ppb		99
79)	Fluoranthene	12.08	202	273290	9.50542 ppb		98
81)	Benzidine	12.23	184	38752	5.84874 ppb		96
82)	Pyrene	12.34	202	281971	10.39279 ppb		99
84)	Butyl benzylphthalate	13.08	149	129957	10.55210 ppb		81
85)	3,3'-Dichlorobenzidine	13.70	252	68357	8.39277 ppb		99
86)	Benz (a) anthracene	13.73	228	305978	10.28485 ppb		100
87)	Bis (2-ethylhexyl) phthala	13.75	149	197577	10.43558 ppb		98
88)	Chrysene	13.78	228	275483	10.39389 ppb		99
89)	Di-n-octylphthalate	14.51	149	309876	10.44006 ppb		97
91)	Benzo (b) fluoranthene	15.06	252	313332	10.02614 ppb		99
92)	Benzo (k) fluoranthene	15.10	252	257771	8.95233 ppb		100
93)	Benzo (a) pyrene	15.52	252	269584	9.66082 ppb		99
94)	Indeno (1,2,3-cd) pyrene	17.51	276	321122	9.69272 ppb		98
95)	Dibenz (a,h) anthracene	17.55	278	282097	9.65343 ppb		99
96)	Benzo (g,h,i) perylene	18.08	276	259057	9.82182 ppb		98

(#) = qualifier out of range (m) = manual integration

Quantitation Report

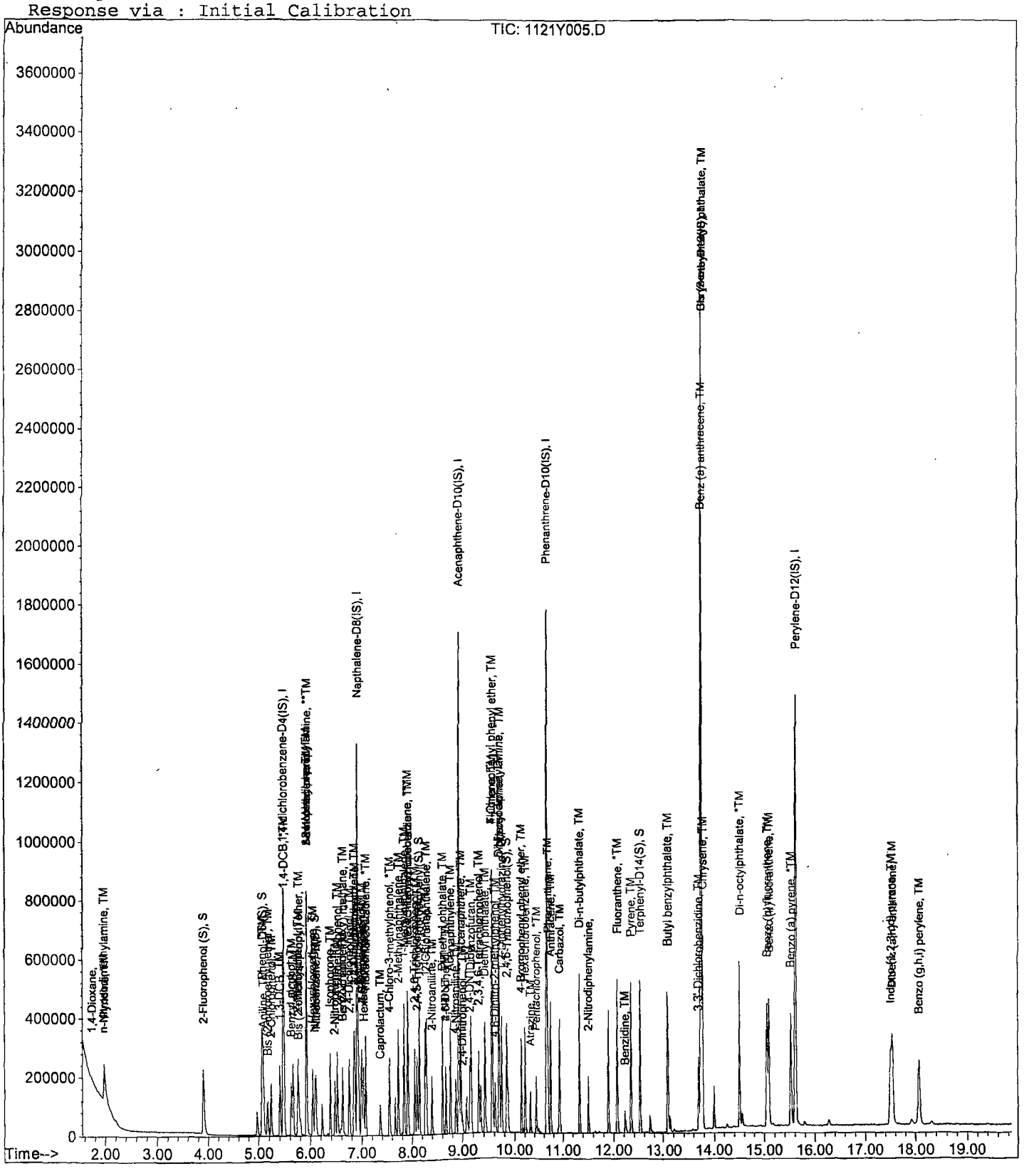
Data File : M:\YODA\DATA\Y191121\1121Y005.D
Acq On : 21 Nov 19 15:37
Sample : 10ug/ml 8270 11/21/19
Misc :

Vial: 5
Operator: MA,SS
Inst : Yoda
Multiplr: 1.00

Quant Time: Nov 22 15:55 2019

Quant Results File: Y1121ND.RES

Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 18:04:15 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y191121\1121Y006.D Vial: 6
Acq On : 21 Nov 19 16:05 Operator: MA,SS
Sample : 20ug/ml 8270 11/21/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 22 15:55 2019 Quant Results File: Y1121ND.RES

Quant Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 15:42:05 2019
Response via : Initial Calibration
DataAcq Meth : SVOC1011

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.48	152	199064	40.00000	ppb		0.00
21) Napthalene-D8(IS)	6.91	136	758291	40.00000	ppb		0.00
41) Acenaphthene-D10(IS)	8.93	164	470271	40.00000	ppb		0.00
65) Phenanthrene-D10(IS)	10.66	188	939739	40.00000	ppb		0.00
80) Chrysene-D12(IS)	13.75	240	1001332	40.00000	ppb		0.00
90) Perylene-D12(IS)	15.61	264	1078368	40.00000	ppb		0.00
System Monitoring Compounds							
5) 2-Fluorophenol (S)	3.91	112	249667	36.01745	ppb		0.00
Spiked Amount 200.000			Recovery =	18.009%			
6) Phenol-D6 (S)	5.07	99	294157	35.63864	ppb		0.00
Spiked Amount 200.000			Recovery =	17.820%			
22) Nitrobenzene-D5(S)	6.09	82	161107	18.85299	ppb		0.00
Spiked Amount 100.000			Recovery =	18.853%			
46) 2-Fluorobiphenyl(S)	8.14	172	330526	18.79846	ppb		0.00
Spiked Amount 100.000			Recovery =	18.798%			
64) 2,4,6-Tribromophenol(S)	9.85	330	129026	35.86647	ppb		0.00
Spiked Amount 200.000			Recovery =	17.933%			
83) Terphenyl-D14(S)	12.51	244	478561	19.11619	ppb		0.00
Spiked Amount 100.000			Recovery =	19.116%			
Target Compounds							Qvalue
2) 1,4-Dioxane	1.74	58	5130	2.21977			94
3) n-Nitrosodimethylamine	1.96	42	63235	18.03137	ppb		94
4) Pyridine	1.98	79	159447	18.38350	ppb		96
7) Phenol	5.08	94	170623	17.50383	ppb		91
8) Aniline	5.10	93	104728	19.08852	ppb	#	76
9) Bis (2-chloroethyl) ether	5.17	63	76855	18.45559	ppb		95
10) 2-Chlorophenol	5.24	128	135758	18.39089	ppb		96
11) 1,3-DCB	5.41	146	149508	17.87547	ppb		100
12) 1,4-DCB	5.50	146	154683	18.20323	ppb		99
13) Benzyl alcohol	5.63	108	76033	18.11817	ppb		97
14) 1,2-DCB	5.67	146	144896	18.25222	ppb		98
15) 2-Methylphenol	5.76	107	106477	17.80762	ppb		97
16) Bis (2-chloroisopropyl) et	5.78	45	83414	17.92413	ppb		92
17) Acetophenone	5.92	105	189886	17.66405	ppb		99
18) 3&4-Methylphenol	5.93	107	286947	34.98981	ppb		99
19) n-Nitrosodi-n-propylamine	5.92	70	110325	18.01596	ppb		98
20) Hexachloroethane	6.05	117	60903	18.06811	ppb		95
23) Nitrobenzene	6.12	77	166997	19.11404	ppb		94
24) Isophorone	6.39	82	267166	18.86283	ppb		100
25) 2-Nitrophenol	6.47	139	76084	19.04342	ppb		90
26) 2,4-Dimethylphenol	6.52	122	115838	18.61318	ppb		99
27) Benzoic acid	6.60	105	88654	18.85200	ppb		98
28) Bis (2-chloroethoxy) metha	6.62	93	145536	19.05708	ppb		99
29) 2,4-Dichlorophenol	6.75	162	120650	18.82758	ppb		96
30) 1,2,4-Trichlorobenzene	6.84	180	137408	18.52887	ppb		97
31) 3,4-Dimethylphenol	6.86	107	187529	18.63818	ppb		98
32) Naphthalene	6.94	128	379858	18.59722	ppb		100
33) 4-Chloroaniline	6.99	127	128659	18.50122	ppb		96
34) 2,6-Dichlorophenol	7.00	162	115378	18.59362	ppb		98
35) Hexachloropropene	7.04	213	121057	18.75235	ppb		99
36) Hexachlorobutadiene	7.08	225	97450	18.60804	ppb		100
37) Caprolactum	7.38	55	42312	18.78553	ppb		97

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y191121\1121Y006.D Vial: 6
Acq On : 21 Nov 19 16:05 Operator: MA,SS
Sample : 20ug/ml 8270 11/21/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 22 15:55 2019 Quant Results File: Y1121ND.RES

Quant Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 15:42:05 2019
Response via : Initial Calibration
DataAcq Meth : SVOC1011

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
38)	4-Chloro-3-methylphenol	7.55	107	133766	18.49994 ppb		96
39)	2-Methylnaphthalene	7.73	142	259800	18.66330 ppb		100
40)	1-Methylnaphthalene	7.84	142	263891	18.33598 ppb		98
42)	Hexachlorocyclopentadiene	7.91	237	104680	17.52202 ppb		100
43)	1,2,4,5-Tetrachlorobenzene	7.92	216	151479	18.32966 ppb		99
44)	2,4,6-Trichlorophenol	8.05	196	100488	19.09822 ppb		99
45)	2,4,5-Trichlorophenol	8.10	196	105541	18.84018 ppb		93
47)	1,1'-Biphenyl	8.26	154	336399	18.82129 ppb		97
48)	2-Chloronaphthalene	8.28	162	274932	18.79801 ppb		98
49)	2-Nitroaniline	8.39	65	88142	19.01274 ppb		97
50)	Dimethyl phthalate	8.61	163	335325	18.77360 ppb		99
51)	2,6-DNT	8.68	165	77433	19.38486 ppb		79
52)	Acenaphthylene	8.76	152	425705	18.93812 ppb		99
53)	3-Nitroaniline	8.39	138	88770	19.36402 ppb		99
54)	Acenaphthene	8.97	154	282238	18.57264 ppb		99
55)	2,4-Dinitrophenol	9.00	184	39846	14.92897 ppb		95
56)	4-Nitrophenol	8.68	65	5546	18.95893 ppb		95
57)	Dibenzofuran	9.16	168	394383	18.60825 ppb		96
58)	2,4-DNT	9.15	165	109203	19.22802 ppb		98
59)	2,3,4,6-Tetrachlorophenol	9.31	232	89499	18.91062 ppb		95
60)	Diethyl phthalate	9.43	149	347798	19.07985 ppb		99
61)	4-Chlorophenyl phenyl ethe	9.56	204	190055	18.22506 ppb		91
62)	Fluorene	9.56	166	322405	18.14603 ppb		98
63)	4-Nitroaniline	8.88	138	70247	19.26001 ppb		80
66)	4,6-Dinitro-2-methylphenol	9.63	198	68893	17.69303 ppb		97
67)	Diphenyl amine	9.70	169	524220	36.30873 ppb		99
68)	n-Nitrosodiphenylamine	9.70	169	524220	36.30873 ppb		99
69)	1,2-Diphenylhydrazine	9.75	77	335520	18.77740 ppb		93
70)	4-Bromophenyl phenyl ether	10.14	248	115339	18.49521 ppb		93
71)	Hexachlorobenzene	10.21	284	120551	18.29110 ppb		91
72)	Atrazine	10.32	200	49292	8.96643 ppb		97
73)	Pentachlorophenol	10.44	266	73146	17.08423 ppb		99
74)	Phenanthrene	10.69	178	475206	18.68529 ppb		100
75)	Anthracene	10.75	178	497372	18.62784 ppb		99
76)	Carbazol	10.94	167	451106	18.77287 ppb		97
77)	Di-n-butylphthalate	11.34	149	583123	18.63456 ppb		99
78)	2-Nitrodiphenylamine	11.51	167	71614	9.63141 ppb		99
79)	Fluoranthene	12.08	202	568406	18.36571 ppb		98
81)	Benzidine	12.23	184	114011	15.34943 ppb		98
82)	Pyrene	12.34	202	602482	19.80839 ppb		99
84)	Butyl benzylphthalate	13.08	149	270124	19.56501 ppb		85
85)	3,3'-Dichlorobenzidine	13.69	252	158377	17.34569 ppb	#	99
86)	Benz (a) anthracene	13.74	228	645189	19.34516 ppb		98
87)	Bis (2-ethylhexyl) phthala	13.75	149	416311	19.61443 ppb	#	97
88)	Chrysene	13.78	228	583044	19.62285 ppb		100
89)	Di-n-octylphthalate	14.51	149	653172	19.62998 ppb		96
91)	Benzo (b) fluoranthene	15.06	252	660853	19.38003 ppb		100
92)	Benzo (k) fluoranthene	15.09	252	555866	17.69263 ppb		99
93)	Benzo (a) pyrene	15.52	252	567068	18.62410 ppb		99
94)	Indeno (1,2,3-cd) pyrene	17.51	276	678920	18.78083 ppb		99
95)	Dibenz (a,h) anthracene	17.55	278	587950	18.43929 ppb		99
96)	Benzo (g,h,i) perylene	18.08	276	545235	18.94528 ppb		98

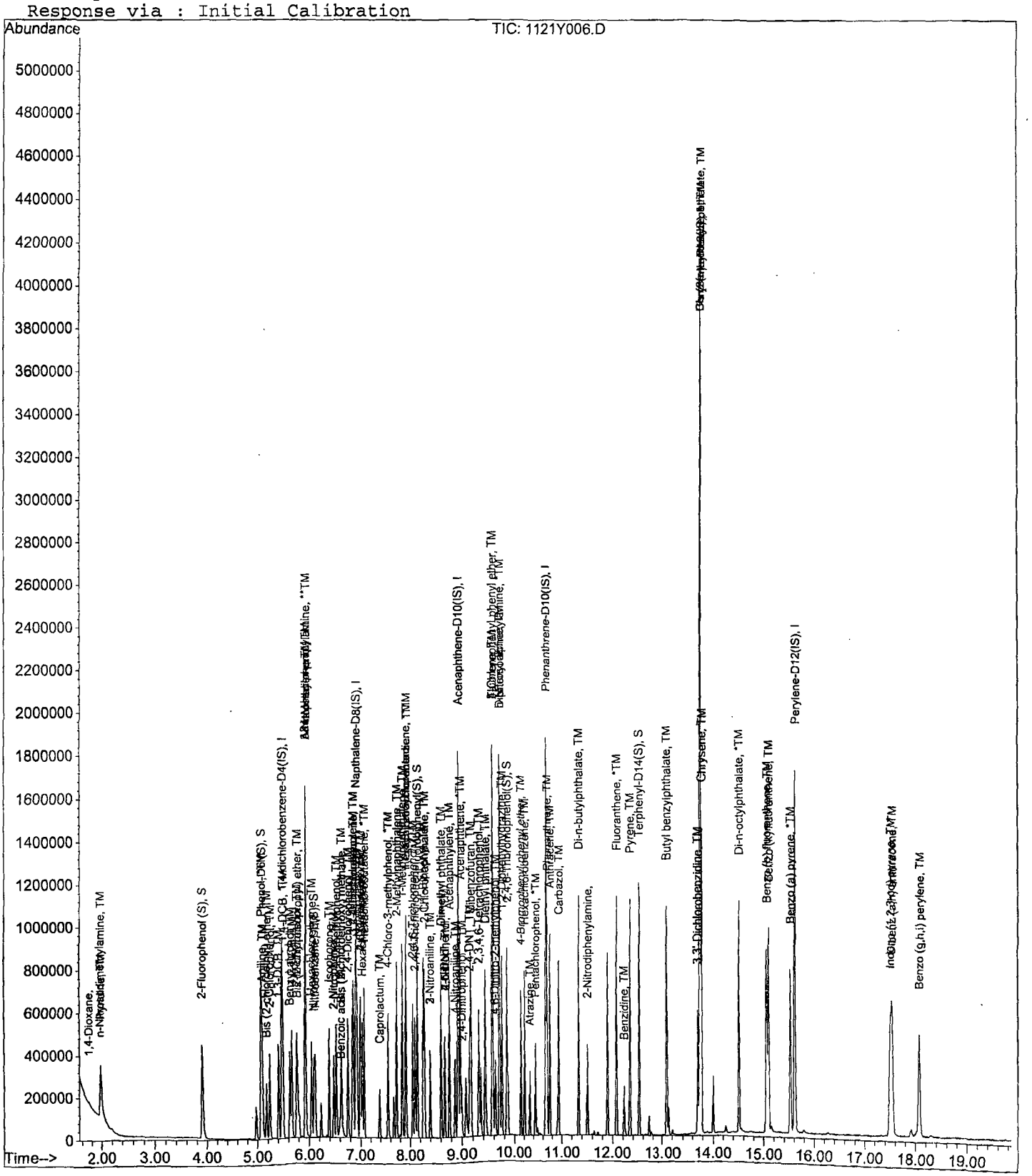
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y191121\1121Y006.D Vial: 6
Acq On : 21 Nov 19 16:05 Operator: MA,SS
Sample : 20ug/ml 8270 11/21/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 22 15:55 2019 Quant Results File: Y1121ND.RES

Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 18:04:15 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y191121\1121Y007.D Vial: 7
Acq On : 21 Nov 19 16:33 Operator: MA,SS
Sample : 40ug/ml 8270 11/21/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 22 15:55 2019 Quant Results File: Y1121ND.RES

Quant Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 15:42:05 2019
Response via : Initial Calibration
DataAcq Meth : SVOC1011

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.48	152	193290	40.00000 ppb	0.00
21) Napthalene-D8(IS)	6.91	136	718227	40.00000 ppb	0.00
41) Acenaphthene-D10(IS)	8.93	164	443843	40.00000 ppb	0.00
65) Phenanthrene-D10(IS)	10.67	188	873650	40.00000 ppb	0.00
80) Chrysene-D12(IS)	13.75	240	1011815	40.00000 ppb	0.00
90) Perylene-D12(IS)	15.61	264	1014443	40.00000 ppb	0.00
System Monitoring Compounds					
5) 2-Fluorophenol (S)	3.91	112	478213	71.04877 ppb	0.00
Spiked Amount 200.000			Recovery = 35.525%		
6) Phenol-D6 (S)	5.07	99	570499	71.18363 ppb	0.00
Spiked Amount 200.000			Recovery = 35.592%		
22) Nitrobenzene-D5(S)	6.10	82	305289	37.71822 ppb	0.00
Spiked Amount 100.000			Recovery = 37.718%		
46) 2-Fluorobiphenyl(S)	8.14	172	625810	37.71186 ppb	0.00
Spiked Amount 100.000			Recovery = 37.712%		
64) 2,4,6-Tribromophenol(S)	9.85	330	255942	75.38271 ppb	0.00
Spiked Amount 200.000			Recovery = 37.692%		
83) Terphenyl-D14(S)	12.52	244	940108	37.16368 ppb	0.00
Spiked Amount 100.000			Recovery = 37.164%		
Target Compounds					Qvalue
2) 1,4-Dioxane	1.74	58	7916	3.52761	59
3) n-Nitrosodimethylamine	1.96	42	120018	35.24528 ppb	96
4) Pyridine	1.98	79	311631	37.00290 ppb	98
7) Phenol	5.09	94	350876	37.07084 ppb	97
8) Aniline	5.10	93	221824	41.63910 ppb	86
9) Bis (2-chloroethyl) ether	5.18	63	149223	36.90413 ppb	95
10) 2-Chlorophenol	5.24	128	266304	37.15338 ppb	95
11) 1,3-DCB	5.41	146	299866	36.92356 ppb	98
12) 1,4-DCB	5.50	146	304720	36.93093 ppb	100
13) Benzyl alcohol	5.64	108	152088	37.32419 ppb	99
14) 1,2-DCB	5.66	146	282123	36.60001 ppb	98
15) 2-Methylphenol	5.77	107	208047	35.83397 ppb	99
16) Bis (2-chloroisopropyl) et	5.79	45	166924	36.94036 ppb	99
17) Acetophenone	5.93	105	385878	36.96841 ppb	91
18) 3&4-Methylphenol	5.93	107	584480	73.39947 ppb	95
19) n-Nitrosodi-n-propylamine	5.93	70	218037	36.66883 ppb	100
20) Hexachloroethane	6.05	117	121590	37.14970 ppb	95
23) Nitrobenzene	6.12	77	319916	38.65930 ppb	98
24) Isophorone	6.39	82	524152	39.07122 ppb	96
25) 2-Nitrophenol	6.48	139	149445	39.49181 ppb	97
26) 2,4-Dimethylphenol	6.53	122	229872	38.99686 ppb	98
27) Benzoic acid	6.64	105	204208	38.00783 ppb	98
28) Bis (2-chloroethoxy) metha	6.63	93	284276	39.30071 ppb	99
29) 2,4-Dichlorophenol	6.75	162	236041	38.88919 ppb	95
30) 1,2,4-Trichlorobenzene	6.84	180	276835	39.41234 ppb	97
31) 3,4-Dimethylphenol	6.86	107	378173	39.68257 ppb	99
32) Naphthalene	6.94	128	750123	38.77336 ppb	100
33) 4-Chloroaniline	6.99	127	269013	40.84206 ppb	97
34) 2,6-Dichlorophenol	7.01	162	227469	38.70236 ppb	99
35) Hexachloropropene	7.04	213	243359	39.80039 ppb	98
36) Hexachlorobutadiene	7.08	225	194922	39.29649 ppb	100
37) Caprolactum	7.40	55	83188	38.99372 ppb	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y191121\1121Y007.D Vial: 7
Acq On : 21 Nov 19 16:33 Operator: MA,SS
Sample : 40ug/ml 8270 11/21/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 22 15:55 2019 Quant Results File: Y1121ND.RES

Quant Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 15:42:05 2019
Response via : Initial Calibration
DataAcq Meth : SVOC1011

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
38)	4-Chloro-3-methylphenol	7.55	107	267287	39.02802 ppb		90
39)	2-Methylnaphthalene	7.73	142	510524	38.72037 ppb		99
40)	1-Methylnaphthalene	7.84	142	531683	39.00376 ppb		100
42)	Hexachlorocyclopentadiene	7.91	237	238400	42.28104 ppb		99
43)	1,2,4,5-Tetrachlorobenzene	7.92	216	309462	39.67603 ppb		98
44)	2,4,6-Trichlorophenol	8.05	196	196965	39.66310 ppb		98
45)	2,4,5-Trichlorophenol	8.10	196	207639	39.27277 ppb	#	91
47)	1,1'-Biphenyl	8.26	154	662128	39.25142 ppb		99
48)	2-Chloronaphthalene	8.29	162	544895	39.47465 ppb		99
49)	2-Nitroaniline	8.40	65	172460	39.41567 ppb		93
50)	Dimethyl phthalate	8.62	163	666101	39.51306 ppb		99
51)	2,6-DNT	8.68	165	150437	39.90341 ppb		96
52)	Acenaphthylene	8.76	152	837454	39.47372 ppb		100
53)	3-Nitroaniline	8.40	138	174570	40.34761 ppb		95
54)	Acenaphthene	8.97	154	569769	39.72608 ppb		98
55)	2,4-Dinitrophenol	9.01	184	93000	36.91875 ppb		94
56)	4-Nitrophenol	8.68	65	11500	41.65342 ppb		100
57)	Dibenzofuran	9.17	168	779361	38.96231 ppb		98
58)	2,4-DNT	9.15	165	215764	40.25297 ppb		89
59)	2,3,4,6-Tetrachlorophenol	9.31	232	179644	40.21787 ppb	#	93
60)	Diethyl phthalate	9.43	149	672653	39.09829 ppb		97
61)	4-Chlorophenyl phenyl ethe	9.56	204	382649	38.87845 ppb		87
62)	Fluorene	9.57	166	655165	39.07053 ppb		99
63)	4-Nitroaniline	8.88	138	138994	40.37790 ppb		93
66)	4,6-Dinitro-2-methylphenol	9.63	198	139175	38.44661 ppb	#	79
67)	Diphenyl amine	9.71	169	1057137	78.75870 ppb		99
68)	n-Nitrosodiphenylamine	9.71	169	1057137	78.75870 ppb		99
69)	1,2-Diphenylhydrazine	9.75	77	661686	39.83262 ppb	#	88
70)	4-Bromophenyl phenyl ether	10.14	248	226910	39.13870 ppb		97
71)	Hexachlorobenzene	10.21	284	241564	39.42494 ppb	#	83
72)	Atrazine	10.32	200	100285	19.62226 ppb		99
73)	Pentachlorophenol	10.44	266	153986	38.68619 ppb		100
74)	Phenanthrene	10.70	178	922442	39.01456 ppb		100
75)	Anthracene	10.75	178	975577	39.30179 ppb		100
76)	Carbazol	10.94	167	881170	39.44405 ppb		99
77)	Di-n-butylphthalate	11.34	149	1146641	39.41451 ppb		98
78)	2-Nitrodiphenylamine	11.51	167	141659	20.49302 ppb		98
79)	Fluoranthene	12.08	202	1141702	39.67999 ppb		99
81)	Benzidine	12.23	184	290367	38.68742 ppb		98
82)	Pyrene	12.35	202	1203115	39.14616 ppb		100
84)	Butyl benzylphthalate	13.09	149	543907	38.98688 ppb		97
85)	3,3'-Dichlorobenzidine	13.70	252	363359	39.38333 ppb		100
86)	Benz (a) anthracene	13.74	228	1291293	38.31661 ppb		99
87)	Bis (2-ethylhexyl) phthala	13.75	149	829295	38.66730 ppb		97
88)	Chrysene	13.78	228	1171969	39.03498 ppb		99
89)	Di-n-octylphthalate	14.51	149	1315078	39.11298 ppb		98
91)	Benzo (b) fluoranthene	15.06	252	1227741	38.27328 ppb		99
92)	Benzo (k) fluoranthene	15.09	252	1195396	40.44580 ppb		99
93)	Benzo (a) pyrene	15.53	252	1134185	39.59711 ppb		99
94)	Indeno (1,2,3-cd) pyrene	17.52	276	1340147	39.40832 ppb		100
95)	Dibenz (a,h) anthracene	17.55	278	1182851	39.43422 ppb		98
96)	Benzo (g,h,i) perylene	18.09	276	1063705	39.28962 ppb		99

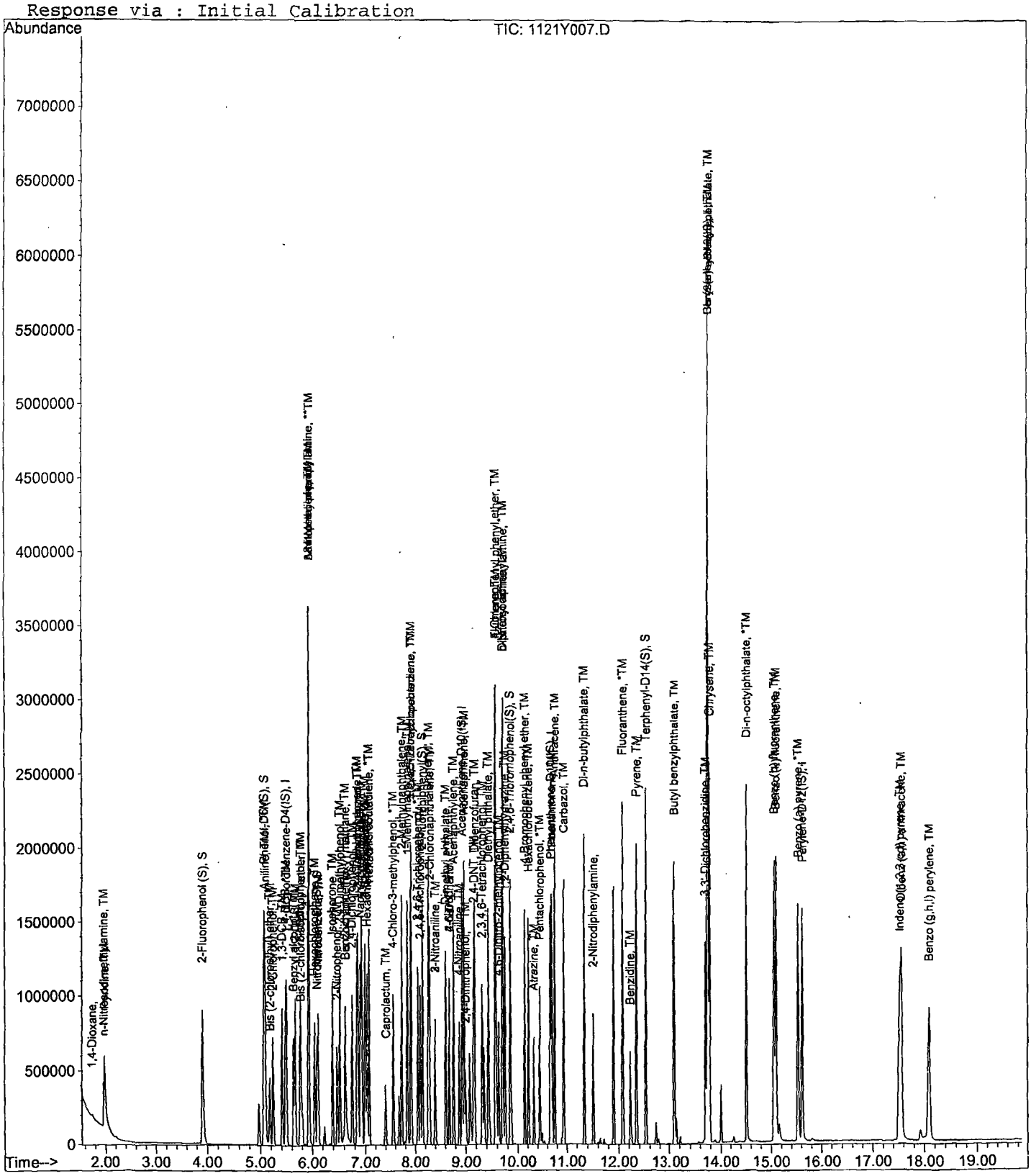
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y191121\1121Y007.D Vial: 7
Acq On : 21 Nov 19 16:33 Operator: MA,SS
Sample : 40ug/ml 8270 11/21/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 22 15:55 2019 Quant Results File: Y1121ND.RES

Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 18:04:15 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y191121\1121Y008.D Vial: 8
Acq On : 21 Nov 19 17:01 Operator: MA,SS
Sample : 50ug/ml 8270 11/21/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 22 15:55 2019 Quant Results File: Y1121ND.RES

Quant Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 15:42:05 2019
Response via : Initial Calibration
DataAcq Meth : SVOC1011

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.48	152	171005	40.00000 ppb	0.00
21) Napthalene-D8(IS)	6.92	136	663771	40.00000 ppb	0.00
41) Acenaphthene-D10(IS)	8.93	164	407738	40.00000 ppb	0.00
65) Phenanthrene-D10(IS)	10.67	188	815726	40.00000 ppb	0.00
80) Chrysene-D12(IS)	13.75	240	934599	40.00000 ppb	0.00
90) Perylene-D12(IS)	15.61	264	938399	40.00000 ppb	0.00
System Monitoring Compounds					
5) 2-Fluorophenol (S)	3.91	112	579236	97.27277 ppb	0.00
Spiked Amount 200.000			Recovery =	48.637%	
6) Phenol-D6 (S)	5.08	99	698019	98.44487 ppb	0.00
Spiked Amount 200.000			Recovery =	49.223%	
22) Nitrobenzene-D5(S)	6.10	82	367148	49.08227 ppb	0.00
Spiked Amount 100.000			Recovery =	49.082%	
46) 2-Fluorobiphenyl(S)	8.15	172	768989	50.44333 ppb	0.00
Spiked Amount 100.000			Recovery =	50.443%	
64) 2,4,6-Tribromophenol(S)	9.86	330	319887	102.55928 ppb	0.00
Spiked Amount 200.000			Recovery =	51.280%	
83) Terphenyl-D14(S)	12.52	244	1137526	48.68309 ppb	0.00
Spiked Amount 100.000			Recovery =	48.683%	
Target Compounds					Qvalue
2) 1,4-Dioxane	1.74	58	9546	4.80835	100
3) n-Nitrosodimethylamine	1.96	42	141360	46.92256 ppb	100
4) Pyridine	1.98	79	378779	50.83719 ppb	100
7) Phenol	5.09	94	425758	50.84429 ppb	100
8) Aniline	5.10	93	249856	53.01309 ppb	100
9) Bis (2-chloroethyl) ether	5.18	63	179891	50.28624 ppb	100
10) 2-Chlorophenol	5.25	128	320461	50.53548 ppb	100
11) 1,3-DCB	5.41	146	361793	50.35436 ppb	100
12) 1,4-DCB	5.50	146	371417	50.88053 ppb	100
13) Benzyl alcohol	5.64	108	186524	51.74052 ppb	100
14) 1,2-DCB	5.66	146	342793	50.26610 ppb	100
15) 2-Methylphenol	5.77	107	267866	52.14968 ppb	100
16) Bis (2-chloroisopropyl) et	5.78	45	200510	50.15555 ppb	100
17) Acetophenone	5.93	105	467300	50.60310 ppb	100
18) 3&4-Methylphenol	5.94	107	725121	102.92818 ppb	100
19) n-Nitrosodi-n-propylamine	5.93	70	269072	51.14886 ppb	100
20) Hexachloroethane	6.04	117	146012	50.42507 ppb	100
23) Nitrobenzene	6.12	77	387198	50.62844 ppb	100
24) Isophorone	6.40	82	636697	51.35420 ppb	100
25) 2-Nitrophenol	6.48	139	183318	52.41725 ppb	100
26) 2,4-Dimethylphenol	6.53	122	279872	51.37437 ppb	100
27) Benzoic acid	6.65	105	258747	50.49164 ppb	100
28) Bis (2-chloroethoxy) metha	6.63	93	344576	51.54525 ppb	100
29) 2,4-Dichlorophenol	6.76	162	291193	51.91177 ppb	100
30) 1,2,4-Trichlorobenzene	6.85	180	331385	51.04903 ppb	100
31) 3,4-Dimethylphenol	6.86	107	455150	51.67819 ppb	100
32) Naphthalene	6.94	128	913992	51.11952 ppb	100
33) 4-Chloroaniline	6.99	127	337587	55.45792 ppb	100
34) 2,6-Dichlorophenol	7.01	162	282687	52.04326 ppb	100
35) Hexachloropropene	7.04	213	292552	51.77099 ppb	100
36) Hexachlorobutadiene	7.07	225	231300	50.45591 ppb	100
37) Caprolactum	7.41	55	102304	51.88838 ppb	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y191121\1121Y008.D Vial: 8
Acq On : 21 Nov 19 17:01 Operator: MA,SS
Sample : 50ug/ml 8270 11/21/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 22 15:55 2019 Quant Results File: Y1121ND.RES

Quant Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 15:42:05 2019
Response via : Initial Calibration
DataAcq Meth : SVOC1011

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
38)	4-Chloro-3-methylphenol	7.56	107	325787	51.47257	ppb	100
39)	2-Methylnaphthalene	7.72	142	629795	51.68518	ppb	100
40)	1-Methylnaphthalene	7.84	142	649196	51.53153	ppb	100
42)	Hexachlorocyclopentadiene	7.91	237	294464	56.84860	ppb	100
43)	1,2,4,5-Tetrachlorobenzene	7.92	216	373513	52.12844	ppb	100
44)	2,4,6-Trichlorophenol	8.05	196	241595	52.95826	ppb	100
45)	2,4,5-Trichlorophenol	8.11	196	255196	52.54176	ppb	100
47)	1,1'-Biphenyl	8.26	154	808031	52.14223	ppb	100
48)	2-Chloronaphthalene	8.29	162	662366	52.23381	ppb	100
49)	2-Nitroaniline	8.40	65	211988	52.73999	ppb	100
50)	Dimethyl phthalate	8.62	163	815644	52.66831	ppb	100
51)	2,6-DNT	8.68	165	188199	54.34015	ppb	100
52)	Acenaphthylene	8.76	152	1021037	52.38859	ppb	100
53)	3-Nitroaniline	8.40	138	212688	53.51054	ppb	100
54)	Acenaphthene	8.97	154	700903	53.19649	ppb	100
55)	2,4-Dinitrophenol	9.01	184	118563	51.23438	ppb	100
56)	4-Nitrophenol	8.68	65	14018	55.26970	ppb	100
57)	Dibenzofuran	9.17	168	955387	51.99165	ppb	100
58)	2,4-DNT	9.15	165	260352	52.87228	ppb	100
59)	2,3,4,6-Tetrachlorophenol	9.32	232	219669	53.53321	ppb	100
60)	Diethyl phthalate	9.44	149	823957	52.13381	ppb	100
61)	4-Chlorophenyl phenyl ethe	9.57	204	475789	52.62244	ppb	100
62)	Fluorene	9.57	166	815787	52.95702	ppb	100
63)	4-Nitroaniline	8.88	138	170405	53.88627	ppb	100
66)	4,6-Dinitro-2-methylphenol	9.64	198	177142	52.40968	ppb	100
67)	Diphenyl amine	9.71	169	1286170	102.62633	ppb	100
68)	n-Nitrosodiphenylamine	9.71	169	1286170	102.62633	ppb	100
69)	1,2-Diphenylhydrazine	9.76	77	808449	52.12339	ppb	100
70)	4-Bromophenyl phenyl ether	10.14	248	282643	52.21366	ppb	100
71)	Hexachlorobenzene	10.22	284	302354	52.85033	ppb	100
72)	Atrazine	10.32	200	121452	25.45135	ppb	100
73)	Pentachlorophenol	10.44	266	194818	52.41999	ppb	100
74)	Phenanthrene	10.69	178	1126250	51.01708	ppb	100
75)	Anthracene	10.75	178	1190869	51.38164	ppb	100
76)	Carbazol	10.94	167	1084434	51.98980	ppb	100
77)	Di-n-butylphthalate	11.34	149	1421631	52.33699	ppb	100
78)	2-Nitrodiphenylamine	11.51	167	174136	26.98010	ppb	100
79)	Fluoranthene	12.08	202	1403330	52.23623	ppb	100
81)	Benzidine	12.23	184	389926	56.24456	ppb	100
82)	Pyrene	12.35	202	1490379	52.49942	ppb	100
84)	Butyl benzylphthalate	13.09	149	670791	52.05433	ppb	100
85)	3,3'-Dichlorobenzidine	13.70	252	482025	56.56162	ppb	100
86)	Benz (a) anthracene	13.74	228	1587379	50.99396	ppb	100
87)	Bis (2-ethylhexyl) phthala	13.75	149	1020587	51.51820	ppb	100
88)	Chrysene	13.79	228	1457437	52.55371	ppb	100
89)	Di-n-octylphthalate	14.51	149	1611365	51.88467	ppb	100
91)	Benzo (b) fluoranthene	15.07	252	1656567	55.82619	ppb	100
92)	Benzo (k) fluoranthene	15.10	252	1337361	48.91594	ppb	100
93)	Benzo (a) pyrene	15.53	252	1397191	52.73214	ppb	100
94)	Indeno (1,2,3-cd) pyrene	17.53	276	1644836	52.28754	ppb	100
95)	Dibenz (a,h) anthracene	17.56	278	1467340	52.88276	ppb	100
96)	Benzo (g,h,i) perylene	18.10	276	1307740	52.21774	ppb	100

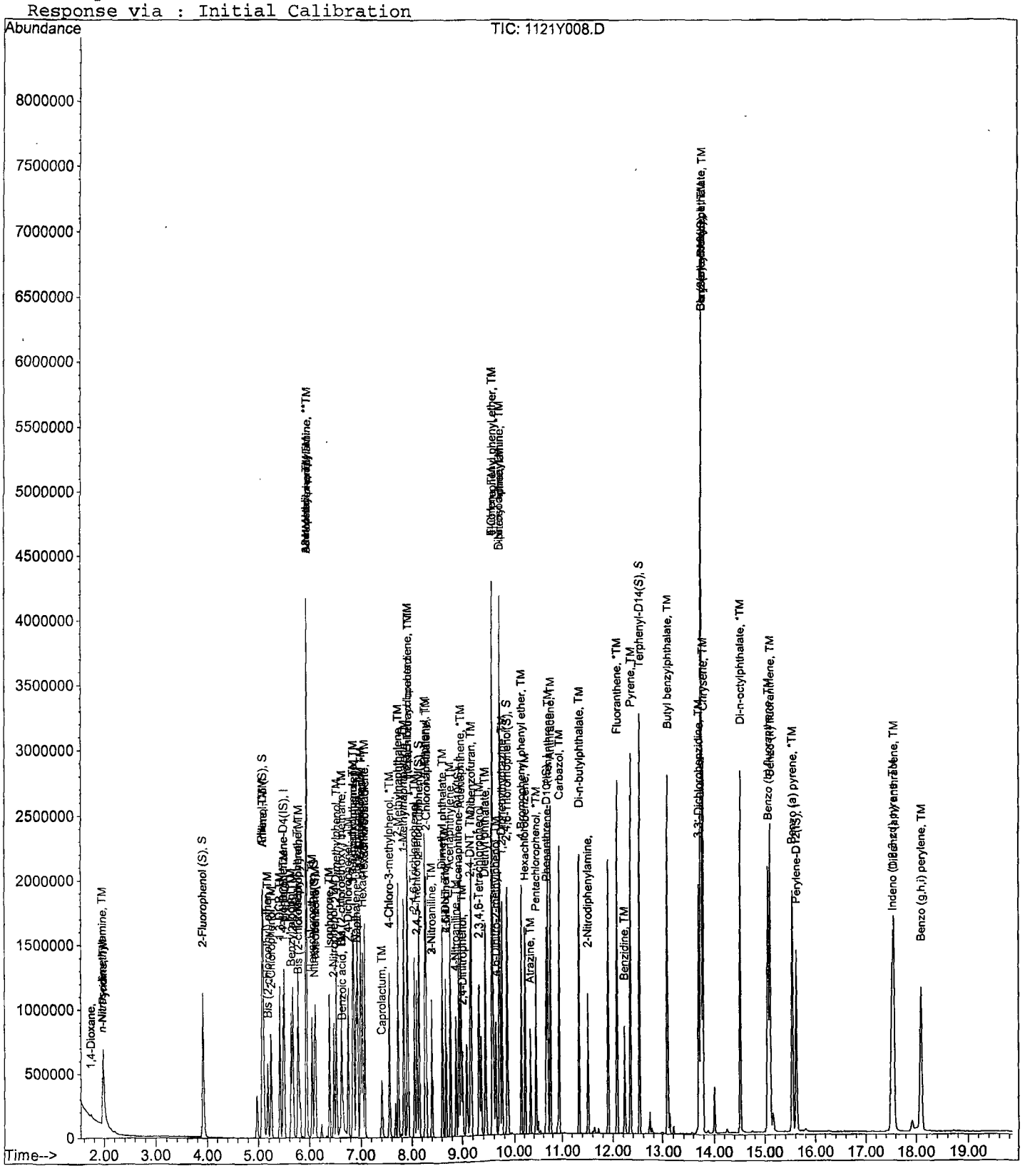
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y191121\1121Y008.D Vial: 8
Acq On : 21 Nov 19 17:01 Operator: MA,SS
Sample : 50ug/ml 8270 11/21/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 22 15:55 2019 Quant Results File: Y1121ND.RES

Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 18:04:15 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y191121\1121Y009.D Vial: 9
Acq On : 21 Nov 19 17:30 Operator: MA,SS
Sample : 60ug/ml 8270 11/21/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 22 15:55 2019 Quant Results File: Y1121ND.RES

Quant Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 15:42:05 2019
Response via : Initial Calibration
DataAcq Meth : SVOC1011

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.48	152	167367	40.00000 ppb		0.00
21) Napthalene-D8(IS)	6.92	136	682970	40.00000 ppb		0.00
41) Acenaphthene-D10(IS)	8.93	164	436434	40.00000 ppb		0.00
65) Phenanthrene-D10(IS)	10.67	188	853269	40.00000 ppb		0.00
80) Chrysene-D12(IS)	13.76	240	1039035	40.00000 ppb		0.00
90) Perylene-D12(IS)	15.61	264	1002354	40.00000 ppb		0.00
System Monitoring Compounds						
5) 2-Fluorophenol (S)	3.91	112	729383	125.14986 ppb		0.00
Spiked Amount 200.000			Recovery =	62.575%		
6) Phenol-D6 (S)	5.08	99	877326	126.42292 ppb		0.00
Spiked Amount 200.000			Recovery =	63.212%		
22) Nitrobenzene-D5(S)	6.10	82	462991	60.15513 ppb		0.00
Spiked Amount 100.000			Recovery =	60.155%		
46) 2-Fluorobiphenyl(S)	8.15	172	960712	58.87615 ppb		0.00
Spiked Amount 100.000			Recovery =	58.876%		
64) 2,4,6-Tribromophenol(S)	9.86	330	418277	125.28670 ppb		0.00
Spiked Amount 200.000			Recovery =	62.644%		
83) Terphenyl-D14(S)	12.52	244	1478351	56.91011 ppb		0.00
Spiked Amount 100.000			Recovery =	56.910%		
Target Compounds						Qvalue
2) 1,4-Dioxane	1.74	58	10929	5.62464		78
3) n-Nitrosodimethylamine	1.96	42	181363	61.50958 ppb		98
4) Pyridine	1.98	79	472362	64.77533 ppb		99
7) Phenol	5.10	94	542251	66.16354 ppb		91
8) Aniline	5.11	93	301632	65.38976 ppb	#	76
9) Bis (2-chloroethyl) ether	5.18	63	226768	64.76800 ppb		100
10) 2-Chlorophenol	5.25	128	408420	65.80625 ppb		99
11) 1,3-DCB	5.41	146	458825	65.24737 ppb		99
12) 1,4-DCB	5.50	146	462750	64.77020 ppb		99
13) Benzyl alcohol	5.64	108	232819	65.98625 ppb		97
14) 1,2-DCB	5.66	146	429263	64.31403 ppb		100
15) 2-Methylphenol	5.77	107	337894	67.21303 ppb		99
16) Bis (2-chloroisopropyl) et	5.78	45	250202	63.94590 ppb		97
17) Acetophenone	5.93	105	599064	66.28169 ppb		92
18) 3&4-Methylphenol	5.94	107	918482	133.20896 ppb		99
19) n-Nitrosodi-n-propylamine	5.93	70	338621	65.76885 ppb		96
20) Hexachloroethane	6.04	117	183498	64.74829 ppb		99
23) Nitrobenzene	6.12	77	490695	62.35765 ppb		99
24) Isophorone	6.40	82	793249	62.18267 ppb		99
25) 2-Nitrophenol	6.48	139	229856	63.87658 ppb		99
26) 2,4-Dimethylphenol	6.53	122	350532	62.53618 ppb		99
27) Benzoic acid	6.67	105	333277	62.42385 ppb		97
28) Bis (2-chloroethoxy) metha	6.63	93	431089	62.67397 ppb		100
29) 2,4-Dichlorophenol	6.76	162	366318	63.46873 ppb		98
30) 1,2,4-Trichlorobenzene	6.85	180	420058	62.88985 ppb		98
31) 3,4-Dimethylphenol	6.87	107	573978	63.33804 ppb		96
32) Naphthalene	6.94	128	1148408	62.42481 ppb		100
33) 4-Chloroaniline	7.00	127	407727	65.09745 ppb		95
34) 2,6-Dichlorophenol	7.01	162	358099	64.07349 ppb		99
35) Hexachloropropene	7.04	213	375716	64.61892 ppb		99
36) Hexachlorobutadiene	7.07	225	295237	62.59272 ppb		99
37) Caprolactum	7.42	55	129071	63.62427 ppb		99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y191121\1121Y009.D Vial: 9
Acq On : 21 Nov 19 17:30 Operator: MA,SS
Sample : 60ug/ml 8270 11/21/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 22 15:55 2019 Quant Results File: Y1121ND.RES

Quant Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 15:42:05 2019
Response via : Initial Calibration
DataAcq Meth : SVOC1011

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
38)	4-Chloro-3-methylphenol	7.56	107	410265	62.99749 ppb		97
39)	2-Methylnaphthalene	7.72	142	788195	62.86619 ppb		99
40)	1-Methylnaphthalene	7.84	142	814831	62.86101 ppb		100
42)	Hexachlorocyclopentadiene	7.91	237	350656	63.24577 ppb		98
43)	1,2,4,5-Tetrachlorobenzene	7.92	216	477589	62.27101 ppb		99
44)	2,4,6-Trichlorophenol	8.06	196	303584	62.17091 ppb		96
45)	2,4,5-Trichlorophenol	8.10	196	321535	61.84743 ppb		99
47)	1,1'-Biphenyl	8.26	154	1016984	61.31099 ppb		100
48)	2-Chloronaphthalene	8.29	162	833303	61.39306 ppb		99
49)	2-Nitroaniline	8.40	65	267591	62.19606 ppb		98
50)	Dimethyl phthalate	8.62	163	1017940	61.40921 ppb		100
51)	2,6-DNT	8.69	165	235838	63.61799 ppb		77
52)	Acenaphthylene	8.77	152	1283418	61.52137 ppb		99
53)	3-Nitroaniline	8.40	138	268555	63.12367 ppb		99
54)	Acenaphthene	8.98	154	879704	62.37697 ppb		99
55)	2,4-Dinitrophenol	9.01	184	156158	63.04333 ppb		98
56)	4-Nitrophenol	8.68	65	16756	61.72115 ppb		100
57)	Dibenzofuran	9.17	168	1211806	61.60982 ppb		100
58)	2,4-DNT	9.15	165	330641	62.73161 ppb		94
59)	2,3,4,6-Tetrachlorophenol	9.32	232	279128	63.55073 ppb		99
60)	Diethyl phthalate	9.44	149	1027987	60.76663 ppb		99
61)	4-Chlorophenyl phenyl ethe	9.57	204	608036	62.82731 ppb		99
62)	Fluorene	9.57	166	1036089	62.83570 ppb		99
63)	4-Nitroaniline	8.88	138	208716	61.66151 ppb		83
66)	4,6-Dinitro-2-methylphenol	9.64	198	225751	63.85252 ppb	#	86
67)	Diphenyl amine	9.71	169	1646816	125.62146 ppb		100
68)	n-Nitrosodiphenylamine	9.71	169	1646816	125.62146 ppb		100
69)	1,2-Diphenylhydrazine	9.76	77	1002105	61.76630 ppb		98
70)	4-Bromophenyl phenyl ether	10.14	248	362845	64.08043 ppb		96
71)	Hexachlorobenzene	10.22	284	379070	63.34462 ppb		98
72)	Atrazine	10.33	200	153425	30.73694 ppb		98
73)	Pentachlorophenol	10.44	266	243544	62.64748 ppb		99
74)	Phenanthrene	10.69	178	1424318	61.68024 ppb		100
75)	Anthracene	10.75	178	1499952	61.86994 ppb		99
76)	Carbazol	10.94	167	1370757	62.82519 ppb		100
77)	Di-n-butylphthalate	11.34	149	1802593	63.44215 ppb		100
78)	2-Nitrodiphenylamine	11.51	167	223110	33.04703 ppb		96
79)	Fluoranthene	12.08	202	1777159	63.24069 ppb		99
81)	Benzidine	12.23	184	481715	62.50052 ppb		100
82)	Pyrene	12.35	202	1851615	58.66831 ppb		100
84)	Butyl benzylphthalate	13.09	149	849128	59.27041 ppb		100
85)	3,3'-Dichlorobenzidine	13.70	252	610343	64.42010 ppb		97
86)	Benz (a) anthracene	13.74	228	2029724	58.65030 ppb		99
87)	Bis (2-ethylhexyl) phthala	13.75	149	1317864	59.83790 ppb		99
88)	Chrysene	13.78	228	1859803	60.32199 ppb		100
89)	Di-n-octylphthalate	14.51	149	2028250	58.74377 ppb		99
91)	Benzo (b) fluoranthene	15.07	252	1993390	62.89088 ppb		100
92)	Benzo (k) fluoranthene	15.10	252	1788270	61.23522 ppb		99
93)	Benzo (a) pyrene	15.54	252	1743187	61.59281 ppb		99
94)	Indeno (1,2,3-cd) pyrene	17.53	276	2077884	61.83912 ppb		99
95)	Dibenz (a,h) anthracene	17.56	278	1837837	62.00929 ppb		99
96)	Benzo (g,h,i) perylene	18.11	276	1637386	61.20884 ppb		100

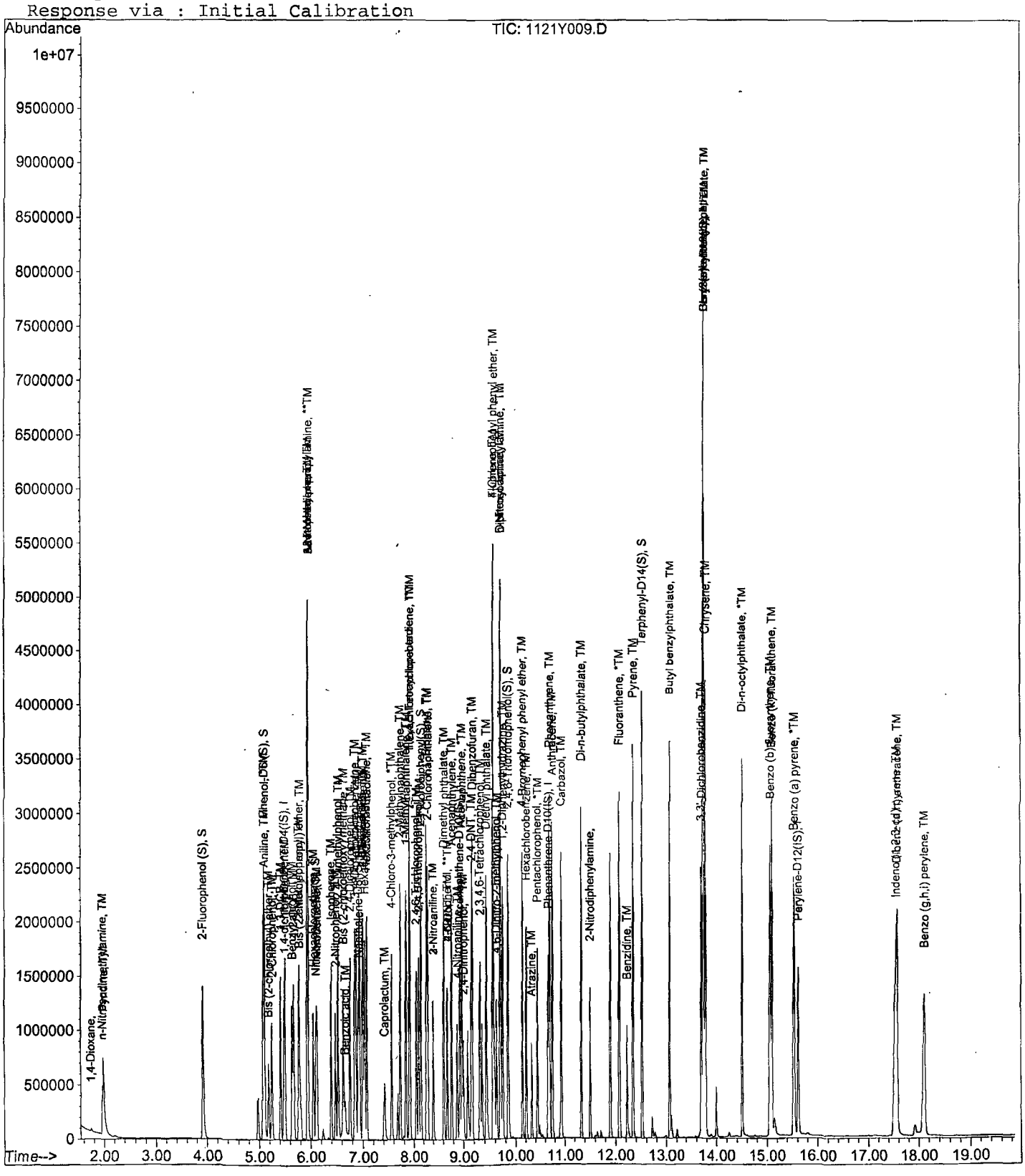
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y191121\1121Y009.D Vial: 9
Acq On : 21 Nov 19 17:30 Operator: MA,SS
Sample : 60ug/ml 8270 11/21/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 22 15:55 2019 Quant Results File: Y1121ND.RES

Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 18:04:15 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y191121\1121Y010.D Vial: 10
Acq On : 21 Nov 19 17:58 Operator: MA,SS
Sample : 80ug/ml 8270 11/21/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 22 15:55 2019 Quant Results File: Y1121ND.RES

Quant Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 15:42:05 2019
Response via : Initial Calibration
DataAcq Meth : SVOC1011

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.48	152	161505	40.00000 ppb		0.00
21) Napthalene-D8(IS)	6.92	136	659343	40.00000 ppb		0.00
41) Acenaphthene-D10(IS)	8.93	164	420757	40.00000 ppb		0.00
65) Phenanthrene-D10(IS)	10.67	188	817022	40.00000 ppb		0.00
80) Chrysene-D12(IS)	13.76	240	1057013	40.00000 ppb		0.00
90) Perylene-D12(IS)	15.62	264	952132	40.00000 ppb		0.00
System Monitoring Compounds						
5) 2-Fluorophenol (S)	3.92	112	990840	176.18224 ppb		0.00
Spiked Amount 200.000			Recovery =	88.091%		
6) Phenol-D6 (S)	5.09	99	1202244	179.53177 ppb		0.00
Spiked Amount 200.000			Recovery =	89.766%		
22) Nitrobenzene-D5(S)	6.11	82	619066	83.31579 ppb		0.00
Spiked Amount 100.000			Recovery =	83.316%		
46) 2-Fluorobiphenyl(S)	8.15	172	1294339	82.27758 ppb		0.00
Spiked Amount 100.000			Recovery =	82.278%		
64) 2,4,6-Tribromophenol(S)	9.86	330	577082	179.29400 ppb		0.00
Spiked Amount 200.000			Recovery =	89.647%		
83) Terphenyl-D14(S)	12.52	244	1994267	75.46491 ppb		0.00
Spiked Amount 100.000			Recovery =	75.465%		
Target Compounds						Qvalue
2) 1,4-Dioxane	1.74	58	13617	7.26239		84
3) n-Nitrosodimethylamine	1.96	42	235667	82.82792 ppb		94
4) Pyridine	1.98	79	624008	88.67653 ppb		98
7) Phenol	5.10	94	726252	91.83105 ppb		93
8) Aniline	5.11	93	409792	92.06184 ppb		96
9) Bis (2-chloroethyl) ether	5.18	63	302296	89.47362 ppb		97
10) 2-Chlorophenol	5.25	128	531400	88.72900 ppb		97
11) 1,3-DCB	5.41	146	606639	89.39847 ppb		98
12) 1,4-DCB	5.50	146	617470	89.56298 ppb		99
13) Benzyl alcohol	5.64	108	307594	90.34346 ppb		97
14) 1,2-DCB	5.67	146	572108	88.82682 ppb		97
15) 2-Methylphenol	5.77	107	424481	87.50142 ppb		98
16) Bis (2-chloroisopropyl) et	5.78	45	333832	88.41659 ppb	#	86
17) Acetophenone	5.94	105	793424	90.97238 ppb		96
18) 3&4-Methylphenol	5.95	107	1235710	185.72194 ppb		100
19) n-Nitrosodi-n-propylamine	5.94	70	449037	90.38001 ppb		99
20) Hexachloroethane	6.05	117	244557	89.42540 ppb		81
23) Nitrobenzene	6.13	77	641878	84.49302 ppb		96
24) Isophorone	6.41	82	1048398	85.12875 ppb		99
25) 2-Nitrophenol	6.48	139	304374	87.61603 ppb		94
26) 2,4-Dimethylphenol	6.54	122	461574	85.29730 ppb		97
27) Benzoic acid	6.68	105	408452	78.92895 ppb		96
28) Bis (2-chloroethoxy) metha	6.63	93	565143	85.10769 ppb		100
29) 2,4-Dichlorophenol	6.76	162	481524	86.41909 ppb		96
30) 1,2,4-Trichlorobenzene	6.85	180	560904	86.98614 ppb		98
31) 3,4-Dimethylphenol	6.87	107	758867	86.74117 ppb		99
32) Naphthalene	6.94	128	1524779	85.85353 ppb		99
33) 4-Chloroaniline	7.00	127	525627	86.92855 ppb		97
34) 2,6-Dichlorophenol	7.01	162	468519	86.83458 ppb		98
35) Hexachloropropene	7.04	213	497069	88.55374 ppb		99
36) Hexachlorobutadiene	7.08	225	393639	86.44530 ppb		99
37) Caprolactum	7.44	55	169346	86.46877 ppb		97

(#) = qualifier out of range (m) = manual integration

Data File : M:\YODA\DATA\Y191121\1121Y010.D Vial: 10
Acq On : 21 Nov 19 17:58 Operator: MA,SS
Sample : 80ug/ml 8270 11/21/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 22 15:55 2019 Quant Results File: Y1121ND.RES

Quant Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 15:42:05 2019
Response via : Initial Calibration
DataAcq Meth : SVOC1011

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
38)	4-Chloro-3-methylphenol	7.56	107	542466	86.28226 ppb		91
39)	2-Methylnaphthalene	7.73	142	1044506	86.29480 ppb		99
40)	1-Methylnaphthalene	7.84	142	1096138	87.59298 ppb		99
42)	Hexachlorocyclopentadiene	7.91	237	421952	78.94061 ppb		98
43)	1,2,4,5-Tetrachlorobenzene	7.93	216	644608	87.17953 ppb		97
44)	2,4,6-Trichlorophenol	8.06	196	405336	86.10151 ppb		97
45)	2,4,5-Trichlorophenol	8.10	196	431346	86.06100 ppb		95
47)	1,1'-Biphenyl	8.27	154	1372352	85.81772 ppb		98
48)	2-Chloronaphthalene	8.29	162	1112347	85.00487 ppb		98
49)	2-Nitroaniline	8.41	65	353796	85.29656 ppb		92
50)	Dimethyl phthalate	8.61	163	1354088	84.73161 ppb		99
51)	2,6-DNT	8.69	165	311799	87.24250 ppb		89
52)	Acenaphthylene	8.77	152	1715728	85.30874 ppb		100
53)	3-Nitroaniline	8.41	138	352251	85.88127 ppb		94
54)	Acenaphthene	8.98	154	1188456	87.40938 ppb		98
55)	2,4-Dinitrophenol	9.01	184	213465	89.38997 ppb		90
56)	4-Nitrophenol	8.69	65	22795	87.09445 ppb		98
57)	Dibenzofuran	9.17	168	1619716	85.41674 ppb		99
58)	2,4-DNT	9.16	165	443127	87.20575 ppb		96
59)	2,3,4,6-Tetrachlorophenol	9.32	232	370261	87.44043 ppb		96
60)	Diethyl phthalate	9.44	149	1363775	83.61948 ppb		97
61)	4-Chlorophenyl phenyl ethe	9.57	204	837406	89.75166 ppb		98
62)	Fluorene	9.57	166	1434471	90.23778 ppb		100
63)	4-Nitroaniline	8.88	138	272975	83.65050 ppb		92
66)	4,6-Dinitro-2-methylphenol	9.65	198	304020	89.80545 ppb		95
67)	Diphenyl amine	9.72	169	2215854	176.52740 ppb		99
68)	n-Nitrosodiphenylamine	9.72	169	2215854	176.52740 ppb		99
69)	1,2-Diphenylhydrazine	9.76	77	1328140	85.49377 ppb		95
70)	4-Bromophenyl phenyl ether	10.14	248	480779	88.67516 ppb		94
71)	Hexachlorobenzene	10.22	284	504135	87.98109 ppb		92
72)	Atrazine	10.33	200	200128	41.87209 ppb		100
73)	Pentachlorophenol	10.44	266	339237	91.13425 ppb		98
74)	Phenanthrene	10.69	178	1913358	86.53416 ppb		100
75)	Anthracene	10.76	178	2016161	86.85199 ppb		99
76)	Carbazol	10.94	167	1813480	86.80372 ppb		98
77)	Di-n-butylphthalate	11.34	149	2379965	87.47883 ppb		99
78)	2-Nitrodiphenylamine	11.51	167	291341	45.06789 ppb		96
79)	Fluoranthene	12.09	202	2383800	88.59156 ppb		98
81)	Benzidine	12.23	184	657175	83.81550 ppb		100
82)	Pyrene	12.35	202	2499582	77.85207 ppb		99
84)	Butyl benzylphthalate	13.09	149	1127954	77.39377 ppb		93
85)	3,3'-Dichlorobenzidine	13.71	252	817041	84.76979 ppb		99
86)	Benz (a) anthracene	13.74	228	2804468	79.65877 ppb		100
87)	Bis (2-ethylhexyl) phthala	13.76	149	1770210	79.00970 ppb	#	90
88)	Chrysene	13.78	228	2404541	76.66388 ppb		99
89)	Di-n-octylphthalate	14.52	149	2767567	78.79312 ppb		94
91)	Benzo (b) fluoranthene	15.07	252	2546511	84.57946 ppb		99
92)	Benzo (k) fluoranthene	15.11	252	2513489	90.60854 ppb		100
93)	Benzo (a) pyrene	15.54	252	2333955	86.81655 ppb		99
94)	Indeno (1,2,3-cd) pyrene	17.53	276	2739905	85.84233 ppb		100
95)	Dibenz (a,h) anthracene	17.58	278	2438265	86.60732 ppb		100
96)	Benzo (g,h,i) perylene	18.12	276	2139103	84.18191 ppb		100

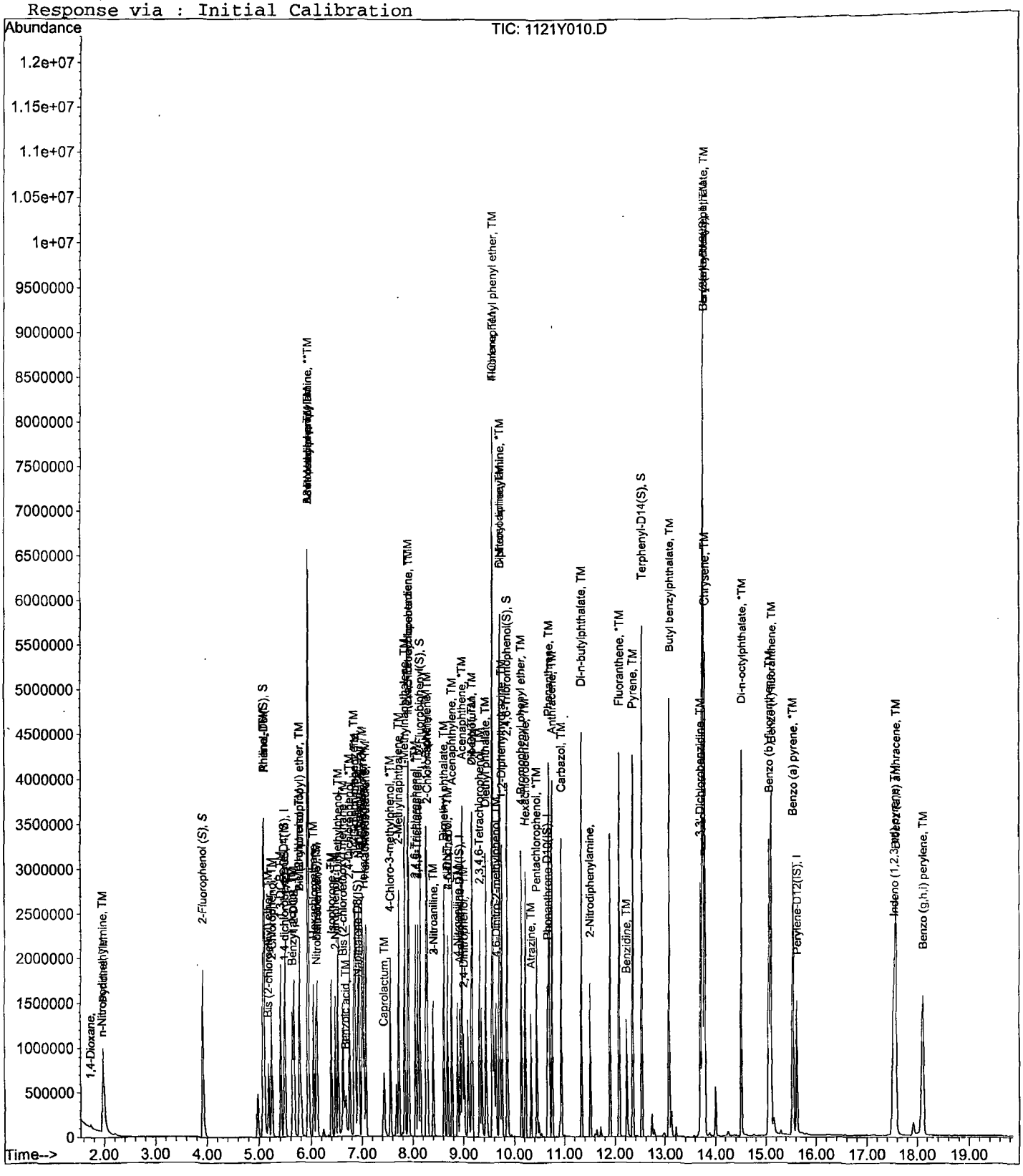
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y191121\1121Y010.D Vial: 10
Acq On : 21 Nov 19 17:58 Operator: MA,SS
Sample : 80ug/ml 8270 11/21/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 22 15:55 2019 Quant Results File: Y1121ND.RES

Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 18:04:15 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y191121\1121Y011.D Vial: 11
Acq On : 21 Nov 19 18:26 Operator: MA,SS
Sample : 100ug/ml 8270 11/21/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 22 15:55 2019 Quant Results File: Y1121ND.RES

Quant Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 15:42:05 2019
Response via : Initial Calibration
DataAcq Meth : SVOC1011

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.48	152	165464	40.00000 ppb	0.00
21) Napthalene-D8(IS)	6.92	136	652211	40.00000 ppb	0.00
41) Acenaphthene-D10(IS)	8.93	164	415860	40.00000 ppb	0.00
65) Phenanthrene-D10(IS)	10.67	188	819523	40.00000 ppb	0.00
80) Chrysene-D12(IS)	13.76	240	1060730	40.00000 ppb	0.00
90) Perylene-D12(IS)	15.62	264	938773	40.00000 ppb	0.00
System Monitoring Compounds					
5) 2-Fluorophenol (S)	3.92	112	1214721	210.82280 ppb	0.01
Spiked Amount 200.000				Recovery = 105.412%	
6) Phenol-D6 (S)	5.09	99	1477093	215.29750 ppb	0.00
Spiked Amount 200.000				Recovery = 107.649%	
22) Nitrobenzene-D5(S)	6.11	82	756797	102.96581 ppb	0.01
Spiked Amount 100.000				Recovery = 102.966%	
46) 2-Fluorobiphenyl(S)	8.15	172	1600159	102.91550 ppb	0.00
Spiked Amount 100.000				Recovery = 102.916%	
64) 2,4,6-Tribromophenol(S)	9.86	330	739921	232.59361 ppb	0.00
Spiked Amount 200.000				Recovery = 116.297%	
83) Terphenyl-D14(S)	12.52	244	2504948	94.45739 ppb	0.00
Spiked Amount 100.000				Recovery = 94.457%	
Target Compounds					Qvalue
2) 1,4-Dioxane	1.74	58	18929	9.85390	95
3) n-Nitrosodimethylamine	1.96	42	271356	93.08932 ppb	93
4) Pyridine	1.98	79	702025	97.37636 ppb	100
7) Phenol	5.10	94	838607	103.50067 ppb	90
8) Aniline	5.11	93	455808	99.94949 ppb	91
9) Bis (2-chloroethyl) ether	5.18	63	339378	98.04574 ppb	96
10) 2-Chlorophenol	5.25	128	602478	98.19009 ppb	96
11) 1,3-DCB	5.41	146	678718	97.62737 ppb	98
12) 1,4-DCB	5.50	146	691769	97.93912 ppb	99
13) Benzyl alcohol	5.65	108	347998	99.76497 ppb	99
14) 1,2-DCB	5.67	146	644684	97.70020 ppb	97
15) 2-Methylphenol	5.78	107	505332	101.67545 ppb	97
16) Bis (2-chloroisopropyl) et	5.79	45	375455	97.06131 ppb #	85
17) Acetophenone	5.94	105	900554	100.78512 ppb	98
18) 3&4-Methylphenol	5.95	107	1402122	205.69082 ppb	100
19) n-Nitrosodi-n-propylamine	5.94	70	512893	100.76263 ppb	99
20) Hexachloroethane	6.05	117	277059	98.88616 ppb	77
23) Nitrobenzene	6.13	77	724399	96.39831 ppb	97
24) Isophorone	6.41	82	1186602	97.40437 ppb	99
25) 2-Nitrophenol	6.48	139	345383	100.50791 ppb	95
26) 2,4-Dimethylphenol	6.54	122	530631	99.13108 ppb	98
27) Benzoic acid	6.70	105	464552	90.96933 ppb	98
28) Bis (2-chloroethoxy) metha	6.63	93	647653	98.59982 ppb	99
29) 2,4-Dichlorophenol	6.76	162	555679	100.81822 ppb	95
30) 1,2,4-Trichlorobenzene	6.85	180	636557	99.79806 ppb	98
31) 3,4-Dimethylphenol	6.87	107	854975	98.79530 ppb	97
32) Naphthalene	6.95	128	1756038	99.95590 ppb	100
33) 4-Chloroaniline	7.00	127	582992	97.46992 ppb	96
34) 2,6-Dichlorophenol	7.01	162	535409	100.31698 ppb	99
35) Hexachloropropene	7.04	213	561742	101.16969 ppb	99
36) Hexachlorobutadiene	7.08	225	447133	99.26663 ppb	99
37) Caprolactum	7.45	55	190606	98.38846 ppb	98

(#) = qualifier out of range (m) = manual integration

Data File : M:\YODA\DATA\Y191121\1121Y011.D Vial: 11
Acq On : 21 Nov 19 18:26 Operator: MA,SS
Sample : 100ug/ml 8270 11/21/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 22 15:55 2019 Quant Results File: Y1121ND.RES

Quant Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 15:42:05 2019
Response via : Initial Calibration
DataAcq Meth : SVOC1011

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
38)	4-Chloro-3-methylphenol	7.56	107	620360	99.75072	ppb		90
39)	2-Methylnaphthalene	7.73	142	1200691	100.28321	ppb		99
40)	1-Methylnaphthalene	7.85	142	1241758	100.31464	ppb		100
42)	Hexachlorocyclopentadiene	7.91	237	525248	99.42281	ppb		100
43)	1,2,4,5-Tetrachlorobenzene	7.93	216	743990	101.80524	ppb		97
44)	2,4,6-Trichlorophenol	8.06	196	464648	99.86283	ppb		98
45)	2,4,5-Trichlorophenol	8.11	196	492676	99.45490	ppb		95
47)	1,1'-Biphenyl	8.27	154	1566999	99.14353	ppb		98
48)	2-Chloronaphthalene	8.29	162	1270438	98.22934	ppb		99
49)	2-Nitroaniline	8.41	65	396579	96.73698	ppb		89
50)	Dimethyl phthalate	8.62	163	1527158	96.68670	ppb		100
51)	2,6-DNT	8.69	165	355236	100.56678	ppb		90
52)	Acenaphthylene	8.77	152	1930263	97.10593	ppb		99
53)	3-Nitroaniline	8.41	138	399288	98.49557	ppb		94
54)	Acenaphthene	8.98	154	1379881	102.68352	ppb		99
55)	2,4-Dinitrophenol	9.02	184	244377	103.53964	ppb		93
56)	4-Nitrophenol	8.69	65	25792	99.70573	ppb		97
57)	Dibenzofuran	9.17	168	1847326	98.56707	ppb		100
58)	2,4-DNT	9.16	165	508284	101.20631	ppb		96
59)	2,3,4,6-Tetrachlorophenol	9.32	232	423645	101.22566	ppb		98
60)	Diethyl phthalate	9.44	149	1535193	95.23836	ppb		97
61)	4-Chlorophenyl phenyl ethe	9.57	204	958012	103.88708	ppb		98
62)	Fluorene	9.57	166	1635750	104.11127	ppb		99
63)	4-Nitroaniline	8.89	138	307746	95.41624	ppb		95
66)	4,6-Dinitro-2-methylphenol	9.65	198	347696	102.39361	ppb	#	87
67)	Diphenyl amine	9.72	169	2531599	201.06594	ppb		100
68)	n-Nitrosodiphenylamine	9.72	169	2531599	201.06594	ppb		100
69)	1,2-Diphenylhydrazine	9.76	77	1511310	96.98772	ppb		94
70)	4-Bromophenyl phenyl ether	10.14	248	558947	102.77789	ppb		94
71)	Hexachlorobenzene	10.22	284	585989	101.95407	ppb		94
72)	Atrazine	10.33	200	226263	47.19575	ppb		100
73)	Pentachlorophenol	10.44	266	392286	105.06398	ppb		99
74)	Phenanthrene	10.70	178	2206608	99.49222	ppb		100
75)	Anthracene	10.76	178	2313072	99.33821	ppb		99
76)	Carbazol	10.95	167	2052704	97.95452	ppb		98
77)	Di-n-butylphthalate	11.34	149	2755900	100.98770	ppb		99
78)	2-Nitrodiphenylamine	11.51	167	332160	51.22542	ppb		97
79)	Fluoranthene	12.09	202	2710719	100.43374	ppb		98
81)	Benzidine	12.23	184	752592	95.64854	ppb		100
82)	Pyrene	12.35	202	2846621	88.35027	ppb		100
84)	Butyl benzylphthalate	13.09	149	1280524	87.55436	ppb		93
85)	3,3'-Dichlorobenzidine	13.71	252	935925	96.76400	ppb		99
86)	Benz (a) anthracene	13.74	228	3237968	91.64972	ppb		100
87)	Bis (2-ethylhexyl) phthala	13.75	149	2037331	90.61345	ppb		99
88)	Chrysene	13.79	228	2746558	87.26154	ppb		99
89)	Di-n-octylphthalate	14.52	149	3158477	89.60729	ppb		94
91)	Benzo (b) fluoranthene	15.07	252	2866820	96.57314	ppb		99
92)	Benzo (k) fluoranthene	15.11	252	2873942	105.07677	ppb		100
93)	Benzo (a) pyrene	15.55	252	2654481	100.14430	ppb		98
94)	Indeno (1,2,3-cd) pyrene	17.54	276	3092876	98.27998	ppb		99
95)	Dibenz (a,h) anthracene	17.58	278	2789126	100.47972	ppb		99
96)	Benzo (g,h,i) perylene	18.13	276	2411552	96.25433	ppb		99

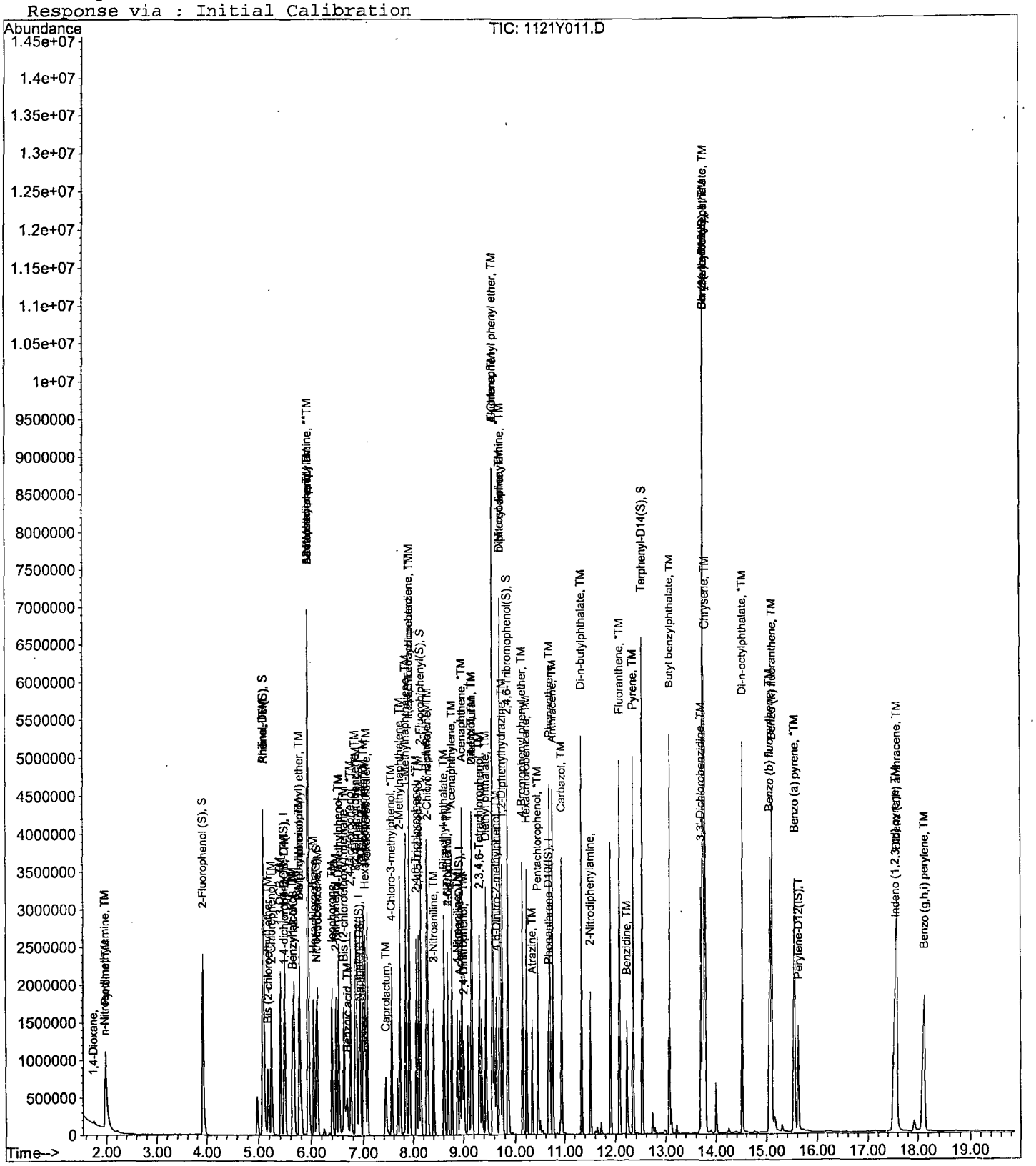
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y191121\1121Y011.D Vial: 11
Acq On : 21 Nov 19 18:26 Operator: MA,SS
Sample : 100ug/ml 8270 11/21/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 22 15:55 2019 Quant Results File: Y1121ND.RES

Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 18:04:15 2019
Response via : Initial Calibration



Semi-Volatile Analysis by GC-MS
EPA 8270

Form 7

Second Source Calibration

Lab Name: APPL, Inc.
Case No:
Matrix:

SDG No:
Date Analyzed: 11/22/19
Instrument: Yoda
Initial Cal. Date: 11/21/19
Data File: 1121Y031.D

		Compound	MEAN	CCRF	%D		%Drift
1		1,4-Dioxane	0.4644	0.4187	9.8		
2	TM	n-Nitrosodimethylamine	0.7047	0.7350	4.3	TM	
3	TM	Pyridine	1.743	1.856	6.5	TM	
4	*TM	Phenol	1.959	2.048	4.5	*TM	
5	TM	Aniline	1.157	1.383	20	TM	
6	TM	Bis (2-chloroethyl) ether	0.8368	0.8714	4.1	TM	
7	TM	2-Chlorophenol	1.483	1.540	3.8	TM	
8	TM	1,3-DCB	1.681	1.730	2.9	TM	
9	*TM	1,4-DCB	1.708	1.750	2.5	*TM	
10	TM	Benzyl alcohol	0.8432	0.9373	11	TM	
11	TM	1,2-DCB	1.595	1.611	1.0	TM	
12	TM	2-Methylphenol	1.201	1.217	1.3	TM	
13	TM	Bis (2-chloroisopropyl) ether	0.9351	0.9909	6.0	TM	
14	TM	Acetophenone	2.160	2.216	2.6	TM	
15	TM	3&4-Methylphenol	1.648	1.689	2.5	TM	
16	**TM	n-Nitrosodi-n-propylamine	1.231	1.296	5.3	**TM	
17	TM	Hexachloroethane	0.6773	0.7009	3.5	TM	
18	TM	Nitrobenzene	0.4609	0.4732	2.7	TM	
19	TM	Isophorone	0.7471	0.7881	5.5	TM	
20	*TM	2-Nitrophenol	0.2108	0.2226	5.6	*TM	
21	TM	2,4-Dimethylphenol	0.3283	0.3485	6.2	TM	
22	TML	Benzoic acid	0.2427	0.3209	32	TML	5.0
23	TM	Bis (2-chloroethoxy) methane	0.4028	0.4376	8.6	TM	
24	*TM	2,4-Dichlorophenol	0.3380	0.3552	5.1	*TM	
25	TM	1,2,4-Trichlorobenzene	0.3912	0.4061	3.8	TM	
26	TM	3,4-Dimethylphenol	0.5307	0.5603	5.6	TM	
27	TM	Naphthalene	1.077	1.149	6.7	TM	
28	TM	4-Chloroaniline	0.3796	0.4520	19	TM	
29	TM	2,6-Dichlorophenol	0.3273	0.3457	5.6	TM	
30	TM	Hexachloropropene	0.3405	0.3575	5.0	TM	
31	*TM	Hexachlorobutadiene	0.2763	0.2845	3.0	*TM	
32	TM	Caprolactum	0.1188	0.1277	7.5	TM	
33	*TM	4-Chloro-3-methylphenol	0.3814	0.4051	6.2	*TM	
34	TM	2-Methylnaphthalene	0.7343	0.7998	8.9	TM	
35	TM	1-Methylnaphthalene	0.7592	0.7910	4.2	TM	
36	**TM	Hexachlorocyclopentadiene	0.5081	0.5178	1.9	**TM	
37	TM	1,2,4,5-Tetrachlorobenzene	0.7029	0.7210	2.6	TM	
38	*TM	2,4,6-Trichlorophenol	0.4475	0.4698	5.0	*TM	
39	TM	2,4,5-Trichlorophenol	0.4765	0.4958	4.1	TM	
40	TM	1,1'-Biphenyl	1.520	1.591	4.7	TM	
		Average			6.3		

Semi-Volatile Analysis by GC-MS
EPA 8270

Form 7

Second Source Calibration

Lab Name: APPL, Inc.
Case No:
Matrix: 0

SDG No:
Date Analyzed: 11/22/19
Instrument: Yoda
Cal. Date: 11/21/19
Data File: 1121Y031.D

		Compound	MEAN	CCRF	%D		%Drift
41	TM	2-Chloronaphthalene	1.244	1.270	2.1	TM	
42	TM	2-Nitroaniline	0.3943	0.4363	11	TM	
43	TM	Dimethyl phthalate	1.519	1.581	4.0	TM	
44	TM	2,6-DNT	0.3398	0.3503	3.1	TM	
45	TM	Acenaphthylene	1.912	2.013	5.3	TM	
46	TM	3-Nitroaniline	0.3899	0.4282	9.8	TM	
47	*TM	Acenaphthene	1.293	1.374	6.3	*TM	
48	**TM	2,4-Dinitrophenol	0.2270	0.2078	8.5	**TM	
49	**TM	4-Nitrophenol	0.0249	0.0255	2.5	**TM	
50	TM	Dibenzofuran	1.803	1.948	8.0	TM	
51	TM	2,4-DNT	0.4831	0.5081	5.2	TM	
52	TM	2,3,4,6-Tetrachlorophenol	0.4026	0.4217	4.8	TM	
53	TM	Diethyl phthalate	1.550	1.616	4.2	TM	
54	TM	4-Chlorophenyl phenyl ether	0.8870	0.9201	3.7	TM	
55	TM	Fluorene	1.511	1.605	6.2	TM	
56	TM	4-Nitroaniline	0.3102	0.3481	12	TM	
57	TM	4,6-Dinitro-2-methylphenol	0.1657	0.1692	2.1	TM	
58	TM	Diphenyl amine	0.6145	0.6582	7.1	TM	
59	*TM	n-Nitrosodiphenylamine	0.6145	0.6582	7.1	*TM	
60	TM	1,2-Diphenylhydrazine	0.7606	0.7882	3.6	TM	
61	TM	4-Bromophenyl phenyl ether	0.2654	0.2802	5.6	TM	
62	TM	Hexachlorobenzene	0.2805	0.2914	3.9	TM	
63	TM	Atrazine	0.2340	0.2529	8.1	TM	
64	*TM	Pentachlorophenol	0.1822	0.1839	0.90	*TM	
65	TM	Phenanthrene	1.083	1.158	6.9	TM	
66	TM	Anthracene	1.137	1.193	5.0	TM	
67	TM	Carbazol	1.023	1.086	6.1	TM	
68	TM	Di-n-butylphthalate	1.332	1.413	6.1	TM	
69		2-Nitrodiphenylamine	0.3165	0.3476	9.8		
70	*TM	Fluoranthene	1.317	1.408	6.9	*TM	
71	TM	Benzidine	0.2967	0.3285	11	TM	
72	TM	Pyrene	1.215	1.271	4.6	TM	
73	TM	Butyl benzylphthalate	0.5515	0.5707	3.5	TM	
74	TM	3,3'-Dichlorobenzidine	0.3647	0.4360	20	TM	
75	TM	Benz (a) anthracene	1.332	1.397	4.9	TM	
76	TM	Bis (2-ethylhexyl) phthalate	0.8479	0.9274	9.4	TM	
77	TM	Chrysene	1.187	1.239	4.4	TM	
78	*TM	Di-n-octylphthalate	1.329	1.443	8.6	*TM	
79	TM	Benzo (b) fluoranthene	1.265	1.319	4.3	TM	
80	TM	Benzo (k) fluoranthene	1.165	1.283	10	TM	
		Average			6.4		

Semi-Volatile Analysis by GC-MS
EPA 8270

Form 7

Second Source Calibration

Lab Name: APPL, Inc.
Case No:
Matrix: 0

SDG No:
Date Analyzed: 11/22/19
Instrument: Yoda
Cal. Date: 11/21/19
Data File: 1121Y031.D

		Compound	MEAN	CCRF	%D	%Drift	
81	*TM	Benzo (a) pyrene	1.129	1.217	7.8	*TM	
82	TM	Indeno (1,2,3-cd) pyrene	1.341	1.394	3.9	TM	
83	TM	Dibenz (a,h) anthracene	1.183	1.278	8.1	TM	
84	TM	Benzo (g,h,i) perylene	1.068	1.226	15	TM	
85							
86							
87							
88							
89							
90							
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118							
119							
120							
		Average			8.7		

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y191121\1121Y031.D Vial: 31
Acq On : 22 Nov 19 13:38 Operator: MA,SS
Sample : SS 8270 11/22/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 25 11:24 2019 Quant Results File: Y1121ND.RES

Quant Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 18:04:15 2019
Response via : Initial Calibration
DataAcq Meth : SVOC1011

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.47	152	171421	40.00000 ppb	0.00
21) Napthalene-D8(IS)	6.91	136	662584	40.00000 ppb	0.00
41) Acenaphthene-D10(IS)	8.93	164	418442	40.00000 ppb	0.00
65) Phenanthrene-D10(IS)	10.66	188	824762	40.00000 ppb	0.00
80) Chrysene-D12(IS)	13.75	240	956637	40.00000 ppb	0.00
90) Perylene-D12(IS)	15.62	264	963616	40.00000 ppb	0.00
System Monitoring Compounds					
5) 2-Fluorophenol (S)	0.00	112	0	0.00000 ppb	
Spiked Amount 200.000			Recovery	= 0.000%	
6) Phenol-D6 (S)	0.00	99	0	0.00000 ppb	
Spiked Amount 200.000			Recovery	= 0.000%	
22) Nitrobenzene-D5(S)	6.05	82	44357	5.94050 ppb	-0.05
Spiked Amount 100.000			Recovery	= 5.940%	
46) 2-Fluorobiphenyl(S)	8.10	172	717	0.04583 ppb	-0.05
Spiked Amount 100.000			Recovery	= 0.046%	
64) 2,4,6-Tribromophenol(S)	0.00	330	0	0.00000 ppb	
Spiked Amount 200.000			Recovery	= 0.000%	
83) Terphenyl-D14(S)	12.52	244	529	0.02212 ppb	0.00
Spiked Amount 100.000			Recovery	= 0.022%	
Target Compounds					Qvalue
2) 1,4-Dioxane	1.73	58	8972	4.50826	97
3) n-Nitrosodimethylamine	1.94	42	157497	52.15215 ppb	85
4) Pyridine	1.97	79	397706	53.24792 ppb	97
7) Phenol	5.08	94	438769	52.27091 ppb	95
8) Aniline	5.09	93	296448	59.80681 ppb	97
9) Bis (2-chloroethyl) ether	5.17	63	186730	52.07133 ppb	97
10) 2-Chlorophenol	5.24	128	329970	51.90873 ppb	96
11) 1,3-DCB	5.41	146	370675	51.46536 ppb	99
12) 1,4-DCB	5.49	146	374910	51.23440 ppb	98
13) Benzyl alcohol	5.63	108	200832	55.57427 ppb	95
14) 1,2-DCB	5.67	146	345304	50.51143 ppb	97
15) 2-Methylphenol	5.76	107	260765	50.64401 ppb	98
16) Bis (2-chloroisopropyl) et	5.78	45	212330	52.98331 ppb	89
17) Acetophenone	5.93	105	474785	51.28887 ppb	89
18) 3&4-Methylphenol	5.94	107	723826	102.49502 ppb	98
19) n-Nitrosodi-n-propylamine	5.93	70	277635	52.64855 ppb	98
20) Hexachloroethane	6.05	117	150185	51.74034 ppb	85
23) Nitrobenzene	6.12	77	391946	51.34108 ppb	94
24) Isophorone	6.39	82	652688	52.73830 ppb	97
25) 2-Nitrophenol	6.47	139	184402	52.82167 ppb	89
26) 2,4-Dimethylphenol	6.53	122	288651	53.08080 ppb	96
27) Benzoic acid	6.65	105	265773	52.52237 ppb	98
28) Bis (2-chloroethoxy) metha	6.62	93	362438	54.31436 ppb	99
29) 2,4-Dichlorophenol	6.75	162	294151	52.53304 ppb	95
30) 1,2,4-Trichlorobenzene	6.85	180	336307	51.90006 ppb	97
31) 3,4-Dimethylphenol	6.86	107	464030	52.78082 ppb	99
32) Naphthalene	6.94	128	951836	53.33151 ppb	100
33) 4-Chloroaniline	6.99	127	374395	59.53877 ppb	96
34) 2,6-Dichlorophenol	7.00	162	286319	52.80635 ppb	98
35) Hexachloropropene	7.04	213	296131	52.49822 ppb	99
36) Hexachlorobutadiene	7.08	225	235619	51.49013 ppb	99
37) Caprolactum	7.41	55	105792	53.75361 ppb	98

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y191121\1121Y031.D Vial: 31
Acq On : 22 Nov 19 13:38 Operator: MA,SS
Sample : SS 8270 11/22/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 25 11:24 2019 Quant Results File: Y1121ND.RES

Quant Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 18:04:15 2019
Response via : Initial Calibration
DataAcq Meth : SVOC1011

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
38)	4-Chloro-3-methylphenol	7.55	107	335513	53.10419 ppb		90
39)	2-Methylnaphthalene	7.73	142	662441	54.46172 ppb		99
40)	1-Methylnaphthalene	7.84	142	655119	52.09484 ppb		99
42)	Hexachlorocyclopentadiene	7.91	237	270848	50.95175 ppb		98
43)	1,2,4,5-Tetrachlorobenzene	7.92	216	377114	51.28467 ppb		99
44)	2,4,6-Trichlorophenol	8.05	196	245742	52.48934 ppb		97
45)	2,4,5-Trichlorophenol	8.10	196	259336	52.02828 ppb		93
47)	1,1'-Biphenyl	8.27	154	832163	52.32581 ppb		98
48)	2-Chloronaphthalene	8.28	162	664290	51.04548 ppb		97
49)	2-Nitroaniline	8.40	65	228214	55.32443 ppb		91
50)	Dimethyl phthalate	8.61	163	826771	52.02114 ppb		99
51)	2,6-DNT	8.68	165	183246	51.55656 ppb		92
52)	Acenaphthylene	8.77	152	1052996	52.64630 ppb		100
53)	3-Nitroaniline	8.40	138	223977	54.90928 ppb		95
54)	Acenaphthene	8.97	154	718729	53.15403 ppb		98
55)	2,4-Dinitrophenol	9.01	184	108675	45.76019 ppb		96
56)	4-Nitrophenol	8.68	65	13343	51.26258 ppb		96
57)	Dibenzofuran	9.17	168	1018717	54.01990 ppb		97
58)	2,4-DNT	9.16	165	265741	52.58617 ppb		95
59)	2,3,4,6-Tetrachlorophenol	9.31	232	220565	52.37656 ppb		94
60)	Diethyl phthalate	9.43	149	845111	52.10442 ppb		98
61)	4-Chlorophenyl phenyl ethe	9.56	204	481244	51.86421 ppb		92
62)	Fluorene	9.57	166	839435	53.09820 ppb		98
63)	4-Nitroaniline	8.88	138	182054	56.09730 ppb		94
66)	4,6-Dinitro-2-methylphenol	9.63	198	174409	51.03576 ppb	#	72
67)	Diphenyl amine	9.70	169	1357188	107.10657 ppb		100
68)	n-Nitrosodiphenylamine	9.70	169	1357188	107.10657 ppb		100
69)	1,2-Diphenylhydrazine	9.75	77	812596	51.81678 ppb		91
70)	4-Bromophenyl phenyl ether	10.14	248	288847	52.77515 ppb		93
71)	Hexachlorobenzene	10.21	284	300398	51.93315 ppb	#	86
72)	Atrazine	10.33	200	130350	27.01674 ppb		98
73)	Pentachlorophenol	10.45	266	189568	50.44853 ppb		99
74)	Phenanthrene	10.69	178	1193495	53.47084 ppb		100
75)	Anthracene	10.75	178	1230249	52.49920 ppb		100
76)	Carbazol	10.94	167	1119240	53.07059 ppb		99
77)	Di-n-butylphthalate	11.34	149	1456976	53.05055 ppb		98
78)	2-Nitrodiphenylamine	11.51	167	179156	27.45378 ppb		94
79)	Fluoranthene	12.08	202	1451245	53.42793 ppb		99
81)	Benzidine	12.23	184	392760	55.34822 ppb		97
82)	Pyrene	12.35	202	1519982	52.30875 ppb		99
84)	Butyl benzylphthalate	13.08	149	682425	51.73717 ppb		84
85)	3,3'-Dichlorobenzidine	13.70	252	521346	59.76631 ppb		98
86)	Benz (a) anthracene	13.74	228	1670654	52.43277 ppb		99
87)	Bis (2-ethylhexyl) phthala	13.75	149	1108962	54.68968 ppb	#	95
88)	Chrysene	13.78	228	1481718	52.19841 ppb		100
89)	Di-n-octylphthalate	14.51	149	1725602	54.28301 ppb		96
91)	Benzo (b) fluoranthene	15.06	252	1589370	52.15999 ppb		99
92)	Benzo (k) fluoranthene	15.10	252	1545615	55.05372 ppb		99
93)	Benzo (a) pyrene	15.53	252	1465947	53.87924 ppb		99
94)	Indeno (1,2,3-cd) pyrene	17.52	276	1678695	51.96740 ppb		99
95)	Dibenz (a,h) anthracene	17.56	278	1539902	54.04555 ppb		98
96)	Benzo (g,h,i) perylene	18.10	276	1476910	57.42940 ppb		100

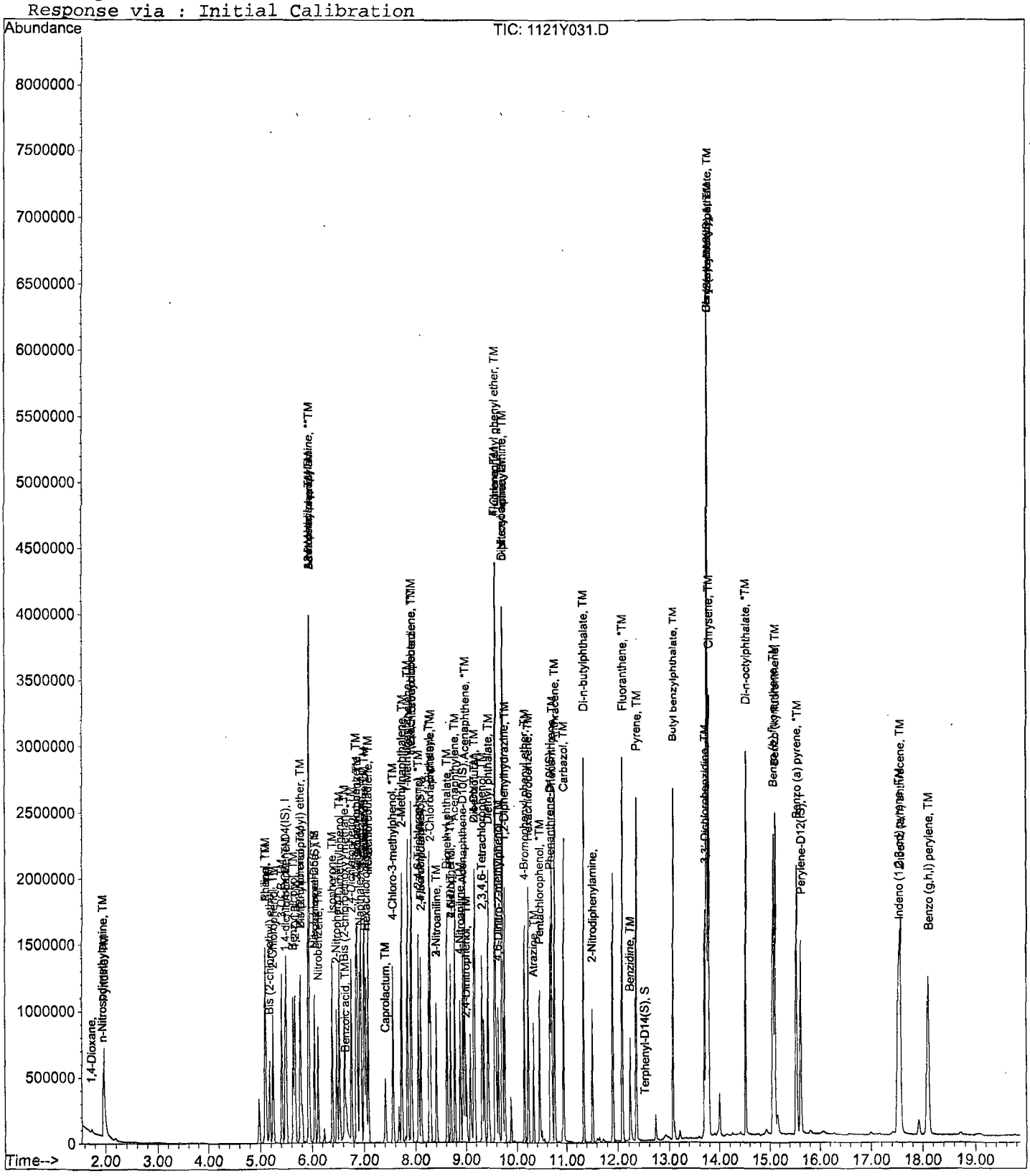
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y191121\1121Y031.D Vial: 31
Acq On : 22 Nov 19 13:38 Operator: MA,SS
Sample : SS 8270 11/22/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 25 11:24 2019 Quant Results File: Y1121ND.RES

Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 18:04:15 2019
Response via : Initial Calibration



Semi-Volatile Analysis by GC-MS
EPA 8270

Form 7

Ending Continuing Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Date Analyzed: 11/26/19
Matrix: Instrument: Yoda
Initial Cal. Date: 11/21/19
Data File: 1121Y154.D

		Compound	MEAN	CCRF	%D		%Drift
1	I	1,4-dichlorobenzene-D4(IS)	ISTD			I	
2		1,4-Dioxane	0.4644	0.4740	2.1		
3	TM	n-Nitrosodimethylamine	0.7047	0.8639	23	TM	
4	TM	Pyridine	1.743	2.050	18	TM	
5	S	2-Fluorophenol (S)	1.393	1.435	3.0	S	
6	S	Phenol-D6 (S)	1.659	1.762	6.2	S	
7	*TM	Phenol	1.959	2.184	11	*TM	
8	TM	Aniline	1.157	1.329	15	TM	
9	TM	Bis (2-chloroethyl) ether	0.8368	0.9543	14	TM	
10	TM	2-Chlorophenol	1.483	1.581	6.6	TM	
11	TM	1,3-DCB	1.681	1.715	2.0	TM	
12	*TM	1,4-DCB	1.708	1.760	3.1	*TM	
13	TM	Benzyl alcohol	0.8432	0.9323	11	TM	
14	TM	1,2-DCB	1.595	1.638	2.7	TM	
15	TM	2-Methylphenol	1.201	1.355	13	TM	
16	TM	Bis (2-chloroisopropyl) ether	0.9351	1.121	20	TM	
17	TM	Acetophenone	2.160	2.372	9.8	TM	
18	TM	3&4-Methylphenol	1.648	1.838	12	TM	
19	**TM	n-Nitrosodi-n-propylamine	1.231	1.442	17	**TM	
20	TM	Hexachloroethane	0.6773	0.7210	6.4	TM	
21	I	Napthalene-D8(IS)	ISTD			I	
22	S	Nitrobenzene-D5(S)	0.4508	0.4694	4.1	S	
23	TM	Nitrobenzene	0.4609	0.4980	8.1	TM	
24	TM	Isophorone	0.7471	0.8098	8.4	TM	
25	*TM	2-Nitrophenol	0.2108	0.2193	4.1	*TM	
26	TM	2,4-Dimethylphenol	0.3283	0.3480	6.0	TM	
27	TML	Benzoic acid	0.2427	0.3340	38	TML	9.0
28	TM	Bis (2-chloroethoxy) methane	0.4028	0.4317	7.2	TM	
29	*TM	2,4-Dichlorophenol	0.3380	0.3497	3.5	*TM	
30	TM	1,2,4-Trichlorobenzene	0.3912	0.3971	1.5	TM	
31	TM	3,4-Dimethylphenol	0.5307	0.5743	8.2	TM	
32	TM	Naphthalene	1.077	1.129	4.8	TM	
33	TM	4-Chloroaniline	0.3796	0.4418	16	TM	
34	TM	2,6-Dichlorophenol	0.3273	0.3346	2.2	TM	
35	TM	Hexachloropropene	0.3405	0.2967	13	TM	
36	*TM	Hexachlorobutadiene	0.2763	0.2758	0.17	*TM	
37	TM	Caprolactum	0.1188	0.1334	12	TM	
38	*TM	4-Chloro-3-methylphenol	0.3814	0.4063	6.5	*TM	
39	TM	2-Methylnaphthalene	0.7343	0.7765	5.8	TM	
40	TM	1-Methylnaphthalene	0.7592	0.7902	4.1	TM	
		Average			9.2		

Semi-Volatile Analysis by GC-MS
EPA 8270

Form 7

Ending Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix: 0

SDG No:
Date Analyzed: 11/26/19
Instrument: Yoda
Cal. Date: 11/21/19
Data File: 1121Y154.D

		Compound	MEAN	CCRF	%D		%Drift
41	I	Acenaphthene-D10(IS)	ISTD			I	
42	**TM	Hexachlorocyclopentadiene	0.5081	0.3896	23	**TM	
43	TM	1,2,4,5-Tetrachlorobenzene	0.7029	0.6995	0.49	TM	
44	*TM	2,4,6-Trichlorophenol	0.4475	0.4551	1.7	*TM	
45	TM	2,4,5-Trichlorophenol	0.4765	0.4851	1.8	TM	
46	S	2-Fluorobiphenyl(S)	1.496	1.445	3.4	S	
47	TM	1,1'-Biphenyl	1.520	1.603	5.4	TM	
48	TM	2-Chloronaphthalene	1.244	1.292	3.9	TM	
49	TM	2-Nitroaniline	0.3943	0.4473	13	TM	
50	TM	Dimethyl phthalate	1.519	1.591	4.7	TM	
51	TM	2,6-DNT	0.3398	0.3560	4.8	TM	
52	TM	Acenaphthylene	1.912	1.972	3.2	TM	
53	TM	3-Nitroaniline	0.3899	0.4205	7.8	TM	
54	*TM	Acenaphthene	1.293	1.313	1.6	*TM	
55	**TM	2,4-Dinitrophenol	0.2270	0.1474	35	**TM	
56	**TM	4-Nitrophenol	0.0249	0.0292	17	**TM	
57	TM	Dibenzofuran	1.803	1.851	2.7	TM	
58	TM	2,4-DNT	0.4831	0.5120	6.0	TM	
59	TM	2,3,4,6-Tetrachlorophenol	0.4026	0.4054	0.70	TM	
60	TM	Diethyl phthalate	1.550	1.605	3.5	TM	
61	TM	4-Chlorophenyl phenyl ether	0.8870	0.9205	3.8	TM	
62	TM	Fluorene	1.511	1.612	6.7	TM	
63	TM	4-Nitroaniline	0.3102	0.3431	11	TM	
64	S	2,4,6-Tribromophenol(S)	0.3060	0.2897	5.3	S	
65	I	Phenanthrene-D10(IS)	ISTD			I	
66	TM	4,6-Dinitro-2-methylphenol	0.1657	0.1247	25	TM	
67	TM	Diphenyl amine	0.6145	0.6755	9.9	TM	
68	*TM	n-Nitrosodiphenylamine	0.6145	0.6755	9.9	*TM	
69	TM	1,2-Diphenylhydrazine	0.7606	0.8649	14	TM	
70	TM	4-Bromophenyl phenyl ether	0.2654	0.2751	3.6	TM	
71	TM	Hexachlorobenzene	0.2805	0.2811	0.22	TM	
72	TM	Atrazine	0.2340	0.2208	5.6	TM	
73	*TM	Pentachlorophenol	0.1822	0.1782	2.2	*TM	
74	TM	Phenanthrene	1.083	1.145	5.7	TM	
75	TM	Anthracene	1.137	1.205	6.0	TM	
76	TM	Carbazol	1.023	1.096	7.2	TM	
77	TM	Di-n-butylphthalate	1.332	1.457	9.4	TM	
78		2-Nitrodiphenylamine	0.3165	0.3573	13		
79	*TM	Fluoranthene	1.317	1.407	6.8	*TM	
80	I	Chrysene-D12(IS)	ISTD			I	
		Average			7.7		

Semi-Volatile Analysis by GC-MS
EPA 8270

Form 7

Ending Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix: 0

SDG No:
Date Analyzed: 11/26/19
Instrument: Yoda
Cal. Date: 11/21/19
Data File: 1121Y154.D

		Compound	MEAN	CCRF	%D		%Drift
81	TM	Benzidine	0.2967	0.3296	11	TM	
82	TM	Pyrene	1.215	1.222	0.57	TM	
83	S	Terphenyl-D14(S)	1.000	0.9423	5.8	S	
84	TM	Butyl benzylphthalate	0.5515	0.5704	3.4	TM	
85	TM	3,3'-Dichlorobenzidine	0.3647	0.4696	29	TM	
86	TM	Benz (a) anthracene	1.332	1.326	0.46	TM	
87	TM	Bis (2-ethylhexyl) phthalate	0.8479	0.9572	13	TM	
88	TM	Chrysene	1.187	1.161	2.1	TM	
89	*TM	Di-n-octylphthalate	1.329	1.409	6.0	*TM	
90	I	Perylene-D12(IS)	ISTD			I	
91	TM	Benzo (b) fluoranthene	1.265	1.329	5.0	TM	
92	TM	Benzo (k) fluoranthene	1.165	1.261	8.2	TM	
93	*TM	Benzo (a) pyrene	1.129	1.179	4.4	*TM	
94	TM	Indeno (1,2,3-cd) pyrene	1.341	1.356	1.1	TM	
95	TM	Dibenz (a,h) anthracene	1.183	1.195	1.0	TM	
96	TM	Benzo (g,h,i) perylene	1.068	1.073	0.49	TM	
97							
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118							
119							
120							
		Average			6.1		

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y191121\1121Y154.D Vial: 54
Acq On : 26 Nov 19 20:50 Operator: MA,SS
Sample : 50ug/ml 8270 11/21/19 (1) Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 27 7:38 2019 Quant Results File: Y1121ND.RES

Quant Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 18:04:15 2019
Response via : Initial Calibration
DataAcq Meth : SVOC1011

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.47	152	179473	40.00000 ppb		0.00
21) Napthalene-D8(IS)	6.91	136	719514	40.00000 ppb		0.00
41) Acenaphthene-D10(IS)	8.93	164	453439	40.00000 ppb		0.00
65) Phenanthrene-D10(IS)	10.67	188	869953	40.00000 ppb		0.00
80) Chrysene-D12(IS)	13.76	240	1038491	40.00000 ppb		0.00
90) Perylene-D12(IS)	15.62	264	946185	40.00000 ppb		0.00
System Monitoring Compounds						
5) 2-Fluorophenol (S)	3.90	112	643790	103.01244 ppb		0.00
Spiked Amount 200.000			Recovery = 51.506%			
6) Phenol-D6 (S)	5.07	99	790641	106.24656 ppb		0.00
Spiked Amount 200.000			Recovery = 53.124%			
22) Nitrobenzene-D5(S)	6.10	82	422202	52.06943 ppb		0.00
Spiked Amount 100.000			Recovery = 52.069%			
46) 2-Fluorobiphenyl(S)	8.14	172	819046	48.31191 ppb		0.00
Spiked Amount 100.000			Recovery = 48.312%			
64) 2,4,6-Tribromophenol(S)	9.86	330	328385	94.67254 ppb		0.00
Spiked Amount 200.000			Recovery = 47.337%			
83) Terphenyl-D14(S)	12.52	244	1223267	47.11515 ppb		0.00
Spiked Amount 100.000			Recovery = 47.115%			
Target Compounds						Qvalue
2) 1,4-Dioxane	1.72	58	10634	5.10366		75
3) n-Nitrosodimethylamine	1.94	42	193799	61.29377 ppb		100
4) Pyridine	1.96	79	459851	58.80612 ppb		99
7) Phenol	5.09	94	489897	55.74345 ppb		90
8) Aniline	5.10	93	298240	57.46890 ppb		90
9) Bis (2-chloroethyl) ether	5.17	63	214083	57.02058 ppb		91
10) 2-Chlorophenol	5.24	128	354618	53.28336 ppb		96
11) 1,3-DCB	5.40	146	384680	51.01363 ppb		97
12) 1,4-DCB	5.49	146	394790	51.53065 ppb		98
13) Benzyl alcohol	5.64	108	209164	55.28314 ppb		98
14) 1,2-DCB	5.66	146	367467	51.34183 ppb		99
15) 2-Methylphenol	5.77	107	304001	56.39216 ppb		96
16) Bis (2-chloroisopropyl) et	5.78	45	251533	59.94978 ppb	#	73
17) Acetophenone	5.93	105	532131	54.90471 ppb		89
18) 3&4-Methylphenol	5.94	107	824480	111.50995 ppb		99
19) n-Nitrosodi-n-propylamine	5.93	70	323406	58.57674 ppb		96
20) Hexachloroethane	6.04	117	161743	53.22224 ppb		96
23) Nitrobenzene	6.12	77	447941	54.03327 ppb		98
24) Isophorone	6.39	82	728304	54.19197 ppb		94
25) 2-Nitrophenol	6.48	139	197237	52.02793 ppb		98
26) 2,4-Dimethylphenol	6.53	122	313026	53.00862 ppb		99
27) Benzoic acid	6.67	105	300385	54.51101 ppb		97
28) Bis (2-chloroethoxy) metha	6.63	93	388252	53.57921 ppb		99
29) 2,4-Dichlorophenol	6.76	162	314516	51.72573 ppb		99
30) 1,2,4-Trichlorobenzene	6.84	180	357184	50.76047 ppb		97
31) 3,4-Dimethylphenol	6.86	107	516511	54.10175 ppb		99
32) Naphthalene	6.94	128	1015093	52.37563 ppb		100
33) 4-Chloroaniline	6.99	127	397384	58.19449 ppb		98
34) 2,6-Dichlorophenol	7.01	162	300931	51.10985 ppb		99
35) Hexachloropropene	7.04	213	266832	43.56125 ppb		99
36) Hexachlorobutadiene	7.08	225	248033	49.91429 ppb		100
37) Caprolactum	7.42	55	119960	56.12973 ppb		94

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y191121\1121Y154.D Vial: 54
Acq On : 26 Nov 19 20:50 Operator: MA,SS
Sample : 50ug/ml 8270 11/21/19 (1) Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 27 7:38 2019 Quant Results File: Y1121ND.RES

Quant Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 18:04:15 2019
Response via : Initial Calibration
DataAcq Meth : SVOC1011

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
38)	4-Chloro-3-methylphenol	7.56	107	365424	53.26209 ppb		95
39)	2-Methylnaphthalene	7.72	142	698402	52.87511 ppb		100
40)	1-Methylnaphthalene	7.84	142	710656	52.03980 ppb		100
42)	Hexachlorocyclopentadiene	7.91	237	220800	38.33090 ppb		99
43)	1,2,4,5-Tetrachlorobenzene	7.92	216	396483	49.75720 ppb		100
44)	2,4,6-Trichlorophenol	8.05	196	257942	50.84288 ppb		100
45)	2,4,5-Trichlorophenol	8.11	196	274951	50.90359 ppb		95
47)	1,1'-Biphenyl	8.26	154	908359	52.70860 ppb		99
48)	2-Chloronaphthalene	8.29	162	732391	51.93487 ppb		99
49)	2-Nitroaniline	8.40	65	253528	56.71749 ppb		95
50)	Dimethyl phthalate	8.62	163	901594	52.35065 ppb		100
51)	2,6-DNT	8.69	165	201795	52.39336 ppb		82
52)	Acenaphthylene	8.76	152	1117973	51.58089 ppb		99
53)	3-Nitroaniline	8.40	138	238316	53.91528 ppb		99
54)	Acenaphthene	8.97	154	744268	50.79451 ppb		99
55)	2,4-Dinitrophenol	9.01	184	83537	32.46037 ppb		88
56)	4-Nitrophenol	8.68	65	16549	58.67257 ppb		97
57)	Dibenzofuran	9.17	168	1049257	51.34504 ppb		100
58)	2,4-DNT	9.15	165	290218	52.99730 ppb		86
59)	2,3,4,6-Tetrachlorophenol	9.32	232	229755	50.34795 ppb		97
60)	Diethyl phthalate	9.43	149	909668	51.75593 ppb		96
61)	4-Chlorophenyl phenyl ethe	9.56	204	521741	51.88883 ppb	#	84
62)	Fluorene	9.57	166	913843	53.34340 ppb		99
63)	4-Nitroaniline	8.88	138	194469	55.29788 ppb		87
66)	4,6-Dinitro-2-methylphenol	9.64	198	135601	37.61849 ppb	#	85
67)	Diphenyl amine	9.71	169	1469100	109.91585 ppb		100
68)	n-Nitrosodiphenylamine	9.71	169	1469100	109.91585 ppb		100
69)	1,2-Diphenylhydrazine	9.76	77	940567	56.86150 ppb		98
70)	4-Bromophenyl phenyl ether	10.14	248	299176	51.82284 ppb		96
71)	Hexachlorobenzene	10.22	284	305728	50.10899 ppb		96
72)	Atrazine	10.32	200	120041	23.58763 ppb		98
73)	Pentachlorophenol	10.44	266	193784	48.89160 ppb		99
74)	Phenanthrene	10.69	178	1244623	52.86486 ppb		100
75)	Anthracene	10.75	178	1310274	53.00961 ppb		100
76)	Carbazol	10.94	167	1191847	53.57770 ppb		98
77)	Di-n-butylphthalate	11.34	149	1584063	54.68180 ppb		98
78)	2-Nitrodiphenylamine	11.51	167	194295	28.22703 ppb		99
79)	Fluoranthene	12.08	202	1530294	53.41157 ppb		99
81)	Benzidine	12.23	184	427883	55.54512 ppb		99
82)	Pyrene	12.35	202	1586188	50.28460 ppb		99
84)	Butyl benzylphthalate	13.09	149	740503	51.71529 ppb		99
85)	3,3'-Dichlorobenzidine	13.70	252	609564	64.37158 ppb	#	98
86)	Benz (a) anthracene	13.74	228	1721546	49.77134 ppb		100
87)	Bis (2-ethylhexyl) phthala	13.75	149	1242523	56.44658 ppb		99
88)	Chrysene	13.79	228	1507683	48.92673 ppb		100
89)	Di-n-octylphthalate	14.51	149	1828785	52.99445 ppb		96
91)	Benzo (b) fluoranthene	15.07	252	1571322	52.51769 ppb		98
92)	Benzo (k) fluoranthene	15.10	252	1491286	54.09713 ppb		99
93)	Benzo (a) pyrene	15.54	252	1394881	52.21175 ppb		99
94)	Indeno (1,2,3-cd) pyrene	17.54	276	1603749	50.56191 ppb		98
95)	Dibenz (a,h) anthracene	17.57	278	1413122	50.50966 ppb		99
96)	Benzo (g,h,i) perylene	18.12	276	1268799	50.24594 ppb		98

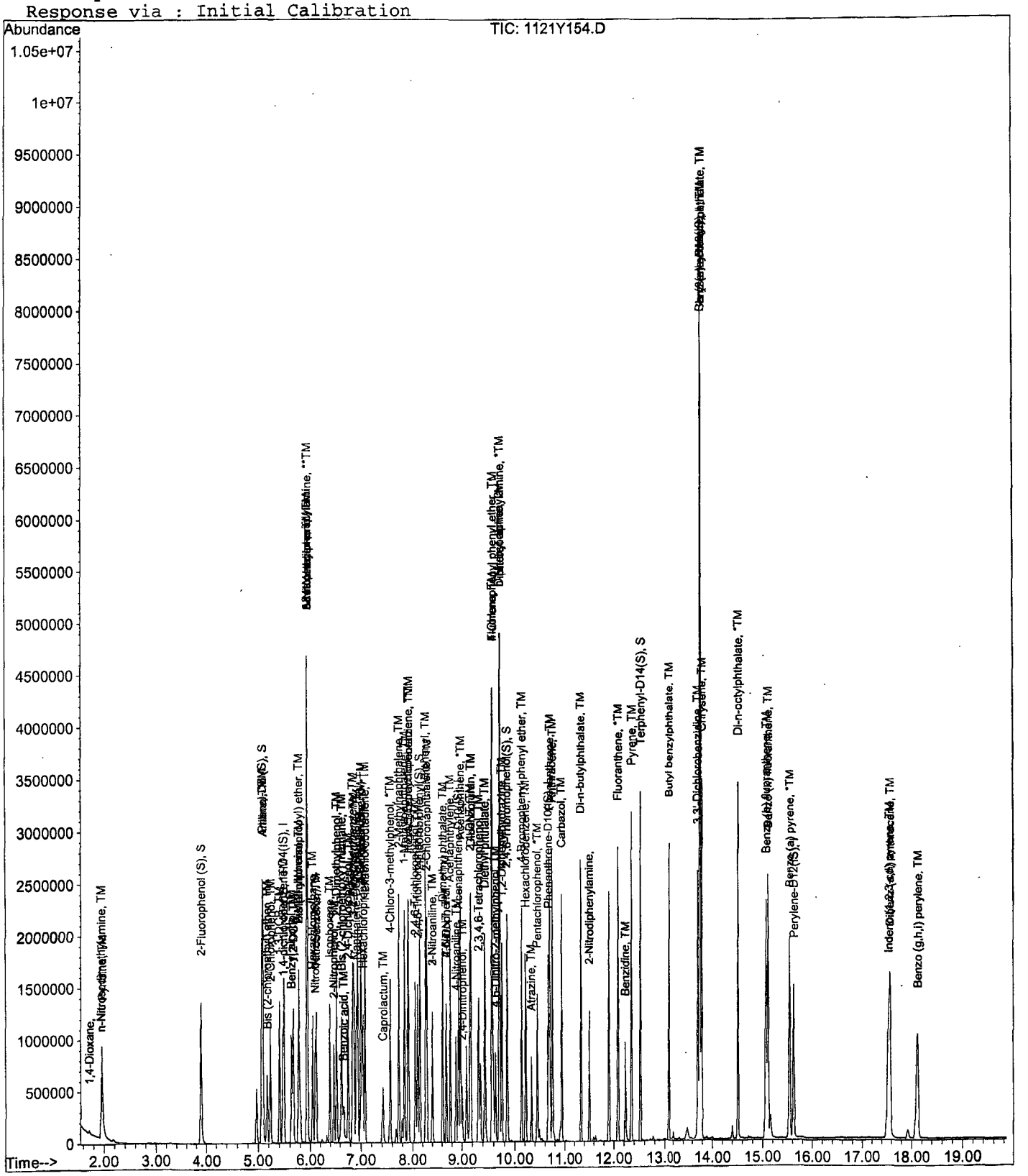
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y191121\1121Y154.D Vial: 54
Acq On : 26 Nov 19 20:50 Operator: MA,SS
Sample : 50ug/ml 8270 11/21/19 (1) Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 27 7:38 2019 Quant Results File: Y1121ND.RES

Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 18:04:15 2019
Response via : Initial Calibration



Semi-Volatile Analysis by GC-MS
EPA 8270

Form 7

Ending Continuing Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Date Analyzed: 11/27/19
Matrix: Instrument: Yoda
Initial Cal. Date: 11/21/19
Data File: 1121Y172.D

		Compound	MEAN	CCRF	%D		%Drift
1	I	1,4-dichlorobenzene-D4(IS)	ISTD			I	
2		1,4-Dioxane	0.4644	0.4417	4.9		
3	TM	n-Nitrosodimethylamine	0.7047	0.8379	19	TM	
4	TM	Pyridine	1.743	1.952	12	TM	
5	S	2-Fluorophenol (S)	1.393	1.379	1.0	S	
6	S	Phenol-D6 (S)	1.659	1.703	2.7	S	
7	*TM	Phenol	1.959	2.067	5.5	*TM	
8	TM	Aniline	1.157	1.091	5.6	TM	
9	TM	Bis (2-chloroethyl) ether	0.8368	0.9041	8.0	TM	
10	TM	2-Chlorophenol	1.483	1.502	1.2	TM	
11	TM	1,3-DCB	1.681	1.676	0.29	TM	
12	*TM	1,4-DCB	1.708	1.702	0.30	*TM	
13	TM	Benzyl alcohol	0.8432	0.8845	4.9	TM	
14	TM	1,2-DCB	1.595	1.559	2.3	TM	
15	TM	2-Methylphenol	1.201	1.294	7.7	TM	
16	TM	Bis (2-chloroisopropyl) ether	0.9351	1.075	15	TM	
17	TM	Acetophenone	2.160	2.289	6.0	TM	
18	TM	3&4-Methylphenol	1.648	1.757	6.6	TM	
19	**TM	n-Nitrosodi-n-propylamine	1.231	1.402	14	**TM	
20	TM	Hexachloroethane	0.6773	0.7003	3.4	TM	
21	I	Napthalene-D8(IS)	ISTD			I	
22	S	Nitrobenzene-D5(S)	0.4508	0.4617	2.4	S	
23	TM	Nitrobenzene	0.4609	0.4820	4.6	TM	
24	TM	Isophorone	0.7471	0.7816	4.6	TM	
25	*TM	2-Nitrophenol	0.2108	0.2130	1.1	*TM	
26	TM	2,4-Dimethylphenol	0.3283	0.3335	1.6	TM	
27	TML	Benzoic acid	0.2427	0.3303	36	TML	7.9
28	TM	Bis (2-chloroethoxy) methane	0.4028	0.4235	5.1	TM	
29	*TM	2,4-Dichlorophenol	0.3380	0.3384	0.10	*TM	
30	TM	1,2,4-Trichlorobenzene	0.3912	0.3808	2.7	TM	
31	TM	3,4-Dimethylphenol	0.5307	0.5599	5.5	TM	
32	TM	Naphthalene	1.077	1.087	0.90	TM	
33	TM	4-Chloroaniline	0.3796	0.3954	4.1	TM	
34	TM	2,6-Dichlorophenol	0.3273	0.3292	0.58	TM	
35	TM	Hexachloropropene	0.3405	0.2996	12	TM	
36	*TM	Hexachlorobutadiene	0.2763	0.2674	3.2	*TM	
37	TM	Caprolactum	0.1188	0.1328	12	TM	
38	*TM	4-Chloro-3-methylphenol	0.3814	0.3947	3.5	*TM	
39	TM	2-Methylnaphthalene	0.7343	0.7458	1.6	TM	
40	TM	1-Methylnaphthalene	0.7592	0.7694	1.3	TM	
		Average			5.9		

Semi-Volatile Analysis by GC-MS
EPA 8270

Form 7

Ending Continuing Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Date Analyzed: 11/27/19
Matrix: 0 Instrument: Yoda
Cal. Date: 11/21/19
Data File: 1121Y172.D

		Compound	MEAN	CCRF	%D		%Drift
41	I	Acenaphthene-D10(IS)	ISTD			I	
42	**TM	Hexachlorocyclopentadiene	0.5081	0.3947	22	**TM	
43	TM	1,2,4,5-Tetrachlorobenzene	0.7029	0.6869	2.3	TM	
44	*TM	2,4,6-Trichlorophenol	0.4475	0.4440	0.80	*TM	
45	TM	2,4,5-Trichlorophenol	0.4765	0.4706	1.2	TM	
46	S	2-Fluorobiphenyl(S)	1.496	1.423	4.9	S	
47	TM	1,1'-Biphenyl	1.520	1.561	2.7	TM	
48	TM	2-Chloronaphthalene	1.244	1.262	1.4	TM	
49	TM	2-Nitroaniline	0.3943	0.4340	10	TM	
50	TM	Dimethyl phthalate	1.519	1.541	1.4	TM	
51	TM	2,6-DNT	0.3398	0.3449	1.5	TM	
52	TM	Acenaphthylene	1.912	1.932	1.0	TM	
53	TM	3-Nitroaniline	0.3899	0.4015	3.0	TM	
54	*TM	Acenaphthene	1.293	1.230	4.8	*TM	
55	**TM	2,4-Dinitrophenol	0.2270	0.1679	26	**TM	
56	**TM	4-Nitrophenol	0.0249	0.0294	18	**TM	
57	TM	Dibenzofuran	1.803	1.828	1.4	TM	
58	TM	2,4-DNT	0.4831	0.4959	2.7	TM	
59	TM	2,3,4,6-Tetrachlorophenol	0.4026	0.3916	2.7	TM	
60	TM	Diethyl phthalate	1.550	1.560	0.62	TM	
61	TM	4-Chlorophenyl phenyl ether	0.8870	0.9068	2.2	TM	
62	TM	Fluorene	1.511	1.591	5.3	TM	
63	TM	4-Nitroaniline	0.3102	0.3289	6.0	TM	
64	S	2,4,6-Tribromophenol(S)	0.3060	0.2874	6.1	S	
65	I	Phenanthrene-D10(IS)	ISTD			I	
66	TM	4,6-Dinitro-2-methylphenol	0.1657	0.1350	19	TM	
67	TM	Diphenyl amine	0.6145	0.6626	7.8	TM	
68	*TM	n-Nitrosodiphenylamine	0.6145	0.6626	7.8	*TM	
69	TM	1,2-Diphenylhydrazine	0.7606	0.8556	12	TM	
70	TM	4-Bromophenyl phenyl ether	0.2654	0.2698	1.6	TM	
71	TM	Hexachlorobenzene	0.2805	0.2786	0.69	TM	
72	TM	Atrazine	0.2340	0.2257	3.5	TM	
73	*TM	Pentachlorophenol	0.1822	0.1785	2.1	*TM	
74	TM	Phenanthrene	1.083	1.106	2.1	TM	
75	TM	Anthracene	1.137	1.165	2.5	TM	
76	TM	Carbazol	1.023	1.060	3.7	TM	
77	TM	Di-n-butylphthalate	1.332	1.424	6.9	TM	
78		2-Nitrodiphenylamine	0.3165	0.3451	9.0		
79	*TM	Fluoranthene	1.317	1.373	4.2	*TM	
80	I	Chrysene-D12(IS)	ISTD			I	
		Average			5.7		

Semi-Volatile Analysis by GC-MS
EPA 8270

Form 7

Ending Continuing Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Date Analyzed: 11/27/19
Matrix: 0 Instrument: Yoda
Cal. Date: 11/21/19
Data File: 1121Y172.D

		Compound	MEAN	CCRF	%D		%Drift	
81	TM	Benzidine	0.2967	0.0557	81	TM		*
82	TM	Pyrene	1.215	1.214	0.09	TM		
83	S	Terphenyl-D14(S)	1.000	0.9343	6.6	S		
84	TM	Butyl benzylphthalate	0.5515	0.5760	4.4	TM		
85	TM	3,3'-Dichlorobenzidine	0.3647	0.4464	22	TM		
86	TM	Benz (a) anthracene	1.332	1.318	1.1	TM		
87	TM	Bis (2-ethylhexyl) phthalate	0.8479	0.9482	12	TM		
88	TM	Chrysene	1.187	1.170	1.5	TM		
89	*TM	Di-n-octylphthalate	1.329	1.404	5.6	*TM		
90	I	Perylene-D12(IS)	ISTD			I		
91	TM	Benzo (b) fluoranthene	1.265	1.316	4.0	TM		
92	TM	Benzo (k) fluoranthene	1.165	1.232	5.7	TM		
93	*TM	Benzo (a) pyrene	1.129	1.183	4.8	*TM		
94	TM	Indeno (1,2,3-cd) pyrene	1.341	1.357	1.2	TM		
95	TM	Dibenz (a,h) anthracene	1.183	1.204	1.8	TM		
96	TM	Benzo (g,h,i) perylene	1.068	1.065	0.25	TM		
97								
98								
99								
100								
101								
102								
103								
104								
105								
106								
107								
108								
109								
110								
111								
112								
113								
114								
115								
116								
117								
118								
119								
120								
		Average			10.1			

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y191121\1121Y172.D Vial: 72
Acq On : 27 Nov 19 5:11 Operator: MA,SS
Sample : 50ug/ml 8270 11/21/19 (2) Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 27 7:32 2019 Quant Results File: Y1121ND.RES

Quant Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 18:04:15 2019
Response via : Initial Calibration
DataAcq Meth : SVOC1011

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.47	152	184992	40.00000 ppb		0.00
21) Napthalene-D8(IS)	6.91	136	734252	40.00000 ppb		0.00
41) Acenaphthene-D10(IS)	8.93	164	456477	40.00000 ppb		0.00
65) Phenanthrene-D10(IS)	10.67	188	870891	40.00000 ppb		0.00
80) Chrysene-D12(IS)	13.76	240	1025135	40.00000 ppb		0.00
90) Perylene-D12(IS)	15.62	264	935612	40.00000 ppb		0.00
System Monitoring Compounds						
5) 2-Fluorophenol (S)	3.90	112	637612	98.98015 ppb		0.00
Spiked Amount 200.000			Recovery =	49.490%		
6) Phenol-D6 (S)	5.07	99	787677	102.69041 ppb		0.00
Spiked Amount 200.000			Recovery =	51.345%		
22) Nitrobenzene-D5(S)	6.10	82	423758	51.21233 ppb		0.00
Spiked Amount 100.000			Recovery =	51.212%		
46) 2-Fluorobiphenyl(S)	8.14	172	811938	47.57390 ppb		0.00
Spiked Amount 100.000			Recovery =	47.574%		
64) 2,4,6-Tribromophenol(S)	9.86	330	327984	93.92762 ppb		0.00
Spiked Amount 200.000			Recovery =	46.964%		
83) Terphenyl-D14(S)	12.52	244	1197240	46.71348 ppb		0.00
Spiked Amount 100.000			Recovery =	46.713%		
Target Compounds						Qvalue
2) 1,4-Dioxane	1.72	58	10213	4.75537		80
3) n-Nitrosodimethylamine	1.94	42	193764	59.45441 ppb		95
4) Pyridine	1.96	79	451366	55.99901 ppb		99
7) Phenol	5.09	94	478022	52.76952 ppb		91
8) Aniline	5.10	93	252352	47.17587 ppb		91
9) Bis (2-chloroethyl) ether	5.17	63	209067	54.02330 ppb		91
10) 2-Chlorophenol	5.24	128	347270	50.62258 ppb		95
11) 1,3-DCB	5.40	146	387517	49.85670 ppb		98
12) 1,4-DCB	5.49	146	393673	49.85185 ppb		98
13) Benzyl alcohol	5.63	108	204538	52.44764 ppb		85
14) 1,2-DCB	5.66	146	360520	48.86844 ppb		98
15) 2-Methylphenol	5.77	107	299339	53.87077 ppb		95
16) Bis (2-chloroisopropyl) et	5.78	45	248574	57.47706 ppb	#	73
17) Acetophenone	5.92	105	529331	52.98642 ppb		87
18) 3&4-Methylphenol	5.94	107	812630	106.62831 ppb		98
19) n-Nitrosodi-n-propylamine	5.93	70	324178	56.96483 ppb		97
20) Hexachloroethane	6.04	117	161933	51.69508 ppb		91
23) Nitrobenzene	6.12	77	442354	52.28830 ppb		99
24) Isophorone	6.39	82	717342	52.30493 ppb		94
25) 2-Nitrophenol	6.48	139	195512	50.53772 ppb		99
26) 2,4-Dimethylphenol	6.53	122	306094	50.79430 ppb		99
27) Benzoic acid	6.67	105	303196	53.95801 ppb		98
28) Bis (2-chloroethoxy) metha	6.63	93	388659	52.55880 ppb		100
29) 2,4-Dichlorophenol	6.76	162	310575	50.05235 ppb		99
30) 1,2,4-Trichlorobenzene	6.84	180	349522	48.67459 ppb		98
31) 3,4-Dimethylphenol	6.86	107	513912	52.74905 ppb		99
32) Naphthalene	6.94	128	997778	50.44887 ppb		99
33) 4-Chloroaniline	6.99	127	362861	52.07220 ppb		98
34) 2,6-Dichlorophenol	7.01	162	302183	50.29233 ppb		98
35) Hexachloropropene	7.04	213	275007	43.99469 ppb		99
36) Hexachlorobutadiene	7.07	225	245404	48.39396 ppb		100
37) Caprolactum	7.42	55	121852	55.87059 ppb		93

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y191121\1121Y172.D Vial: 72
Acq On : 27 Nov 19 5:11 Operator: MA,SS
Sample : 50ug/ml 8270 11/21/19 (2) Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 27 7:32 2019 Quant Results File: Y1121ND.RES

Quant Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 18:04:15 2019
Response via : Initial Calibration
DataAcq Meth : SVOC1011

Compound	R.T.	QIon	Response	Conc Unit		Qvalue
38) 4-Chloro-3-methylphenol	7.56	107	362279	51.74381 ppb		95
39) 2-Methylnaphthalene	7.72	142	684488	50.78153 ppb		99
40) 1-Methylnaphthalene	7.84	142	706153	50.67213 ppb		99
42) Hexachlorocyclopentadiene	7.91	237	225216	38.83731 ppb		99
43) 1,2,4,5-Tetrachlorobenzene	7.92	216	391941	48.85984 ppb		100
44) 2,4,6-Trichlorophenol	8.05	196	253330	49.60149 ppb		97
45) 2,4,5-Trichlorophenol	8.10	196	268521	49.38230 ppb		96
47) 1,1'-Biphenyl	8.26	154	890689	51.33931 ppb		99
48) 2-Chloronaphthalene	8.29	162	720008	50.71697 ppb		100
49) 2-Nitroaniline	8.40	65	247641	55.03178 ppb		95
50) Dimethyl phthalate	8.62	163	879421	50.72334 ppb		99
51) 2,6-DNT	8.69	165	196771	50.74893 ppb		83
52) Acenaphthylene	8.76	152	1102374	50.52269 ppb		100
53) 3-Nitroaniline	8.40	138	229101	51.48559 ppb		98
54) Acenaphthene	8.97	154	702020	47.59232 ppb		98
55) 2,4-Dinitrophenol	9.01	184	95794	36.97540 ppb		88
56) 4-Nitrophenol	8.68	65	16756	59.01110 ppb		97
57) Dibenzofuran	9.17	168	1043326	50.71502 ppb		99
58) 2,4-DNT	9.15	165	282953	51.32674 ppb		84
59) 2,3,4,6-Tetrachlorophenol	9.32	232	223457	48.64192 ppb		98
60) Diethyl phthalate	9.43	149	890191	50.31070 ppb		96
61) 4-Chlorophenyl phenyl ethe	9.56	204	517414	51.11602 ppb	#	85
62) Fluorene	9.57	166	907725	52.63363 ppb		100
63) 4-Nitroaniline	8.88	138	187675	53.01082 ppb		86
66) 4,6-Dinitro-2-methylphenol	9.64	198	147009	40.73938 ppb	#	80
67) Diphenyl amine	9.71	169	1442713	107.82535 ppb		100
68) n-Nitrosodiphenylamine	9.71	169	1442713	107.82535 ppb		100
69) 1,2-Diphenylhydrazine	9.75	77	931386	56.24582 ppb	#	84
70) 4-Bromophenyl phenyl ether	10.14	248	293678	50.81569 ppb		98
71) Hexachlorobenzene	10.22	284	303272	49.65292 ppb		97
72) Atrazine	10.32	200	122867	24.11693 ppb		95
73) Pentachlorophenol	10.44	266	194283	48.96471 ppb		99
74) Phenanthrene	10.69	178	1203605	51.06758 ppb		99
75) Anthracene	10.75	178	1268023	51.24502 ppb		100
76) Carbazol	10.94	167	1154451	51.84072 ppb		100
77) Di-n-butylphthalate	11.33	149	1550566	53.46784 ppb	#	98
78) 2-Nitrodiphenylamine	11.51	167	187833	27.25885 ppb		99
79) Fluoranthene	12.08	202	1494235	52.09684 ppb		99
81) Benzidine	12.23	184	71385	9.38749 ppb		99
82) Pyrene	12.35	202	1555591	49.95713 ppb		100
84) Butyl benzylphthalate	13.09	149	738067	52.21673 ppb		99
85) 3,3'-Dichlorobenzidine	13.70	252	571991	61.19074 ppb	#	97
86) Benz (a) anthracene	13.74	228	1688421	49.44964 ppb		100
87) Bis (2-ethylhexyl) phthala	13.75	149	1215094	55.91969 ppb		99
88) Chrysene	13.79	228	1498662	49.26762 ppb		100
89) Di-n-octylphthalate	14.51	149	1798749	52.80317 ppb		98
91) Benzo (b) fluoranthene	15.07	252	1538723	52.00932 ppb		99
92) Benzo (k) fluoranthene	15.10	252	1440477	52.84451 ppb	#	99
93) Benzo (a) pyrene	15.54	252	1383860	52.38459 ppb		99
94) Indeno (1,2,3-cd) pyrene	17.53	276	1586518	50.58391 ppb		98
95) Dibenz (a,h) anthracene	17.57	278	1407996	50.89516 ppb		99
96) Benzo (g,h,i) perylene	18.11	276	1245326	49.87369 ppb		98

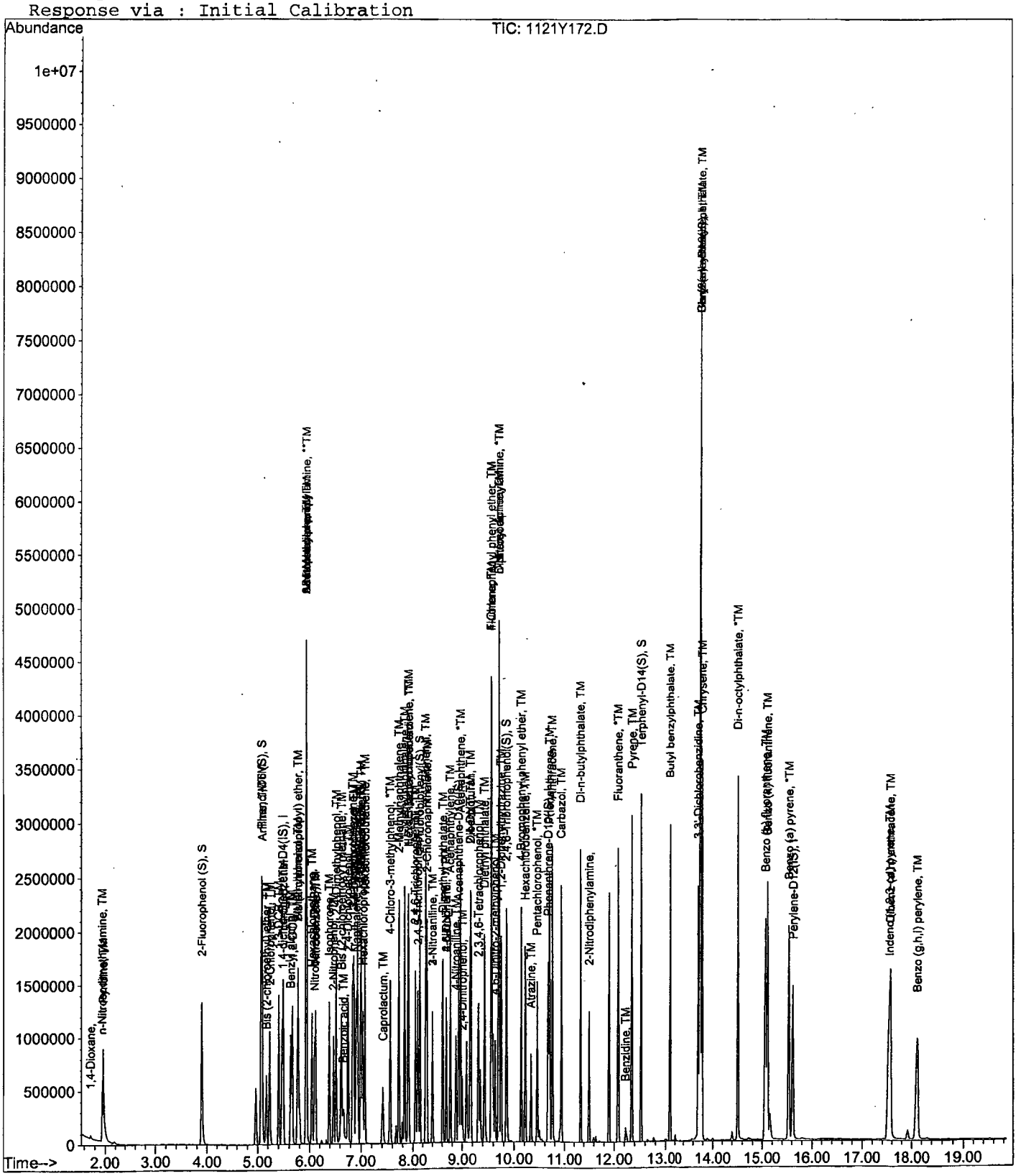
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y191121\1121Y172.D Vial: 72
Acq On : 27 Nov 19 5:11 Operator: MA,SS
Sample : 50ug/ml 8270 11/21/19 (2) Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 27 7:32 2019 Quant Results File: Y1121ND.RES

Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 18:04:15 2019
Response via : Initial Calibration



ORGANICS
Raw Data

Quantitation Report (QT Reviewed)

Data File : M:\YODA\DATA\Y191121\1121Y160.D Vial: 60
Acq On : 26 Nov 19 23:37 Operator: MA,SS
Sample : BA02160W16 2/800 Inst : Yoda
Misc : Multiplr: 1.25

Quant Time: Dec 3 12:00 2019 Quant Results File: Y1121ND.RES

Quant Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 18:04:15 2019
Response via : Initial Calibration
DataAcq Meth : SVOC1011

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.47	152	142831	40.00000 ppb	0.00
21) Napthalene-D8(IS)	6.91	136	578493	40.00000 ppb	0.00
41) Acenaphthene-D10(IS)	8.93	164	424953	40.00000 ppb	0.00
65) Phenanthrene-D10(IS)	10.66	188	869547	40.00000 ppb	0.00
80) Chrysene-D12(IS)	13.75	240	961288	40.00000 ppb	0.00
90) Perylene-D12(IS)	15.61	264	875761	40.00000 ppb	0.00
System Monitoring Compounds					
5) 2-Fluorophenol (S)	3.90	112	844933	212.35103 ppb	0.00
Spiked Amount 250.000			Recovery =	84.940%	
6) Phenol-D6 (S)	5.07	99	887408	187.30335 ppb	0.00
Spiked Amount 250.000			Recovery =	74.921%	
22) Nitrobenzene-D5(S)	6.09	82	680758	130.52883 ppb	0.00
Spiked Amount 125.000			Recovery =	104.423%	
46) 2-Fluorobiphenyl(S)	8.14	172	1355839	106.66994 ppb	0.00
Spiked Amount 125.000			Recovery =	85.336%	
64) 2,4,6-Tribromophenol(S)	9.85	330	531331	204.31199 ppb	0.00
Spiked Amount 250.000			Recovery =	81.725%	
83) Terphenyl-D14(S)	12.52	244	1946194	101.22428 ppb	0.00
Spiked Amount 125.000			Recovery =	80.979%	

Target Compounds Qvalue

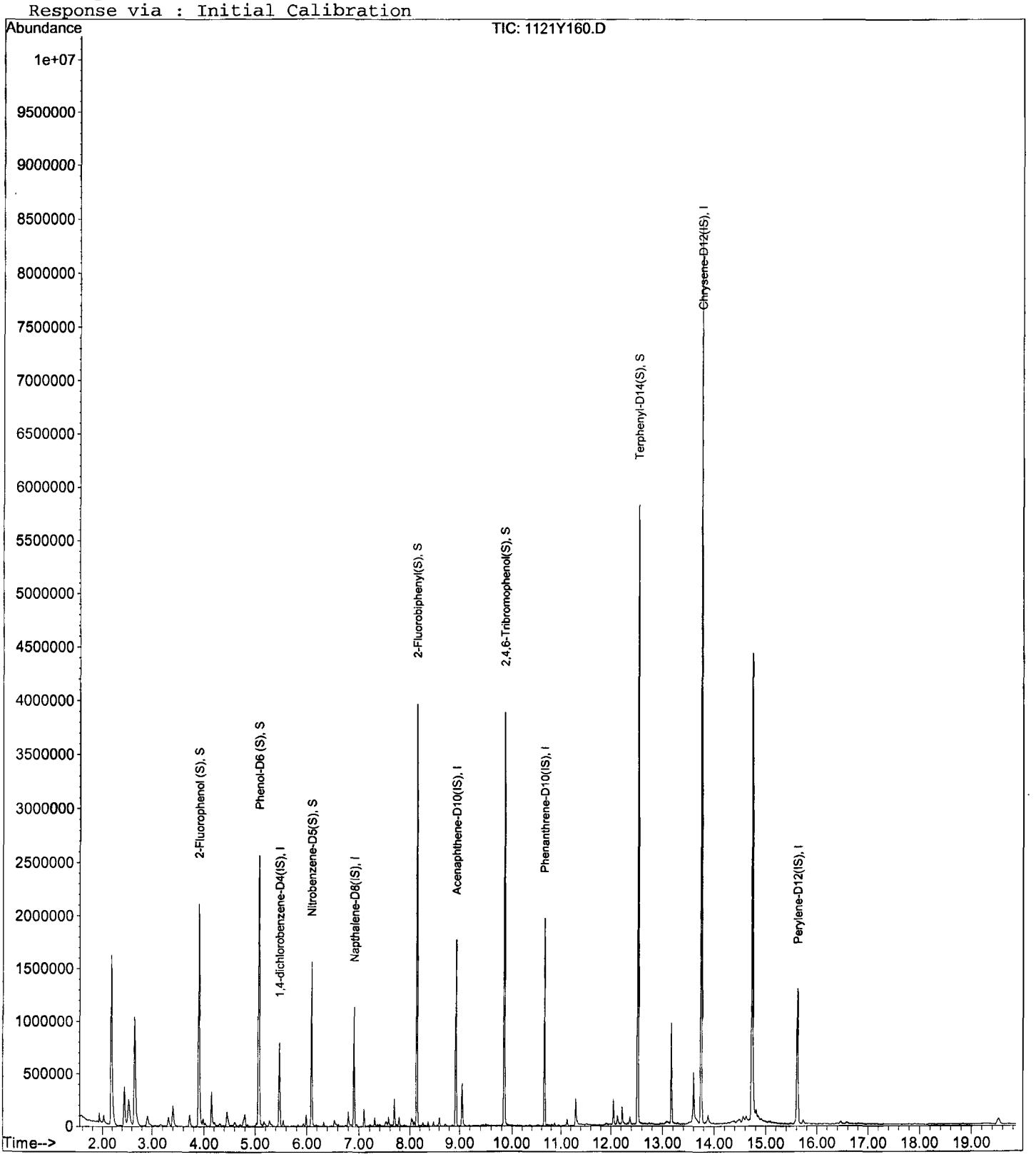
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y191121\1121Y160.D Vial: 60
Acq On : 26 Nov 19 23:37 Operator: MA,SS
Sample : BA02160W16 2/800 Inst : Yoda
Misc : Multiplr: 1.25

Quant Time: Dec 3 12:00 2019 Quant Results File: Y1121ND.RES

Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 18:04:15 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\YODA\DATA\Y191121\1121Y155.D Vial: 55
Acq On : 26 Nov 19 21:18 Operator: MA,SS
Sample : 191104A BLK 2/800 Inst : Yoda
Misc : Multiplr: 1.25

Quant Time: Dec 3 11:53 2019 Quant Results File: Y1121ND.RES

Quant Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 18:04:15 2019
Response via : Initial Calibration
DataAcq Meth : SVOC1011

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.47	152	174092	40.00000 ppb	0.00
21) Napthalene-D8(IS)	6.91	136	683374	40.00000 ppb	0.00
41) Acenaphthene-D10(IS)	8.93	164	442513	40.00000 ppb	0.00
65) Phenanthrene-D10(IS)	10.66	188	890536	40.00000 ppb	0.00
80) Chrysene-D12(IS)	13.75	240	909385	40.00000 ppb	0.00
90) Perylene-D12(IS)	15.62	264	920577	40.00000 ppb	0.00
System Monitoring Compounds					
5) 2-Fluorophenol (S)	3.91	112	1025276	211.40563 ppb	0.00
Spiked Amount 250.000			Recovery =	84.562%	
6) Phenol-D6 (S)	5.07	99	1306134	226.17968 ppb	-0.01
Spiked Amount 250.000			Recovery =	90.472%	
22) Nitrobenzene-D5(S)	6.09	82	731731	118.76946 ppb	-0.01
Spiked Amount 125.000			Recovery =	95.015%	
46) 2-Fluorobiphenyl(S)	8.14	172	1480607	111.86355 ppb	0.00
Spiked Amount 125.000			Recovery =	89.491%	
64) 2,4,6-Tribromophenol(S)	9.85	330	609236	224.97233 ppb	0.00
Spiked Amount 250.000			Recovery =	89.989%	
83) Terphenyl-D14(S)	12.52	244	2189854	120.39805 ppb	0.00
Spiked Amount 125.000			Recovery =	96.318%	

Target Compounds Qvalue

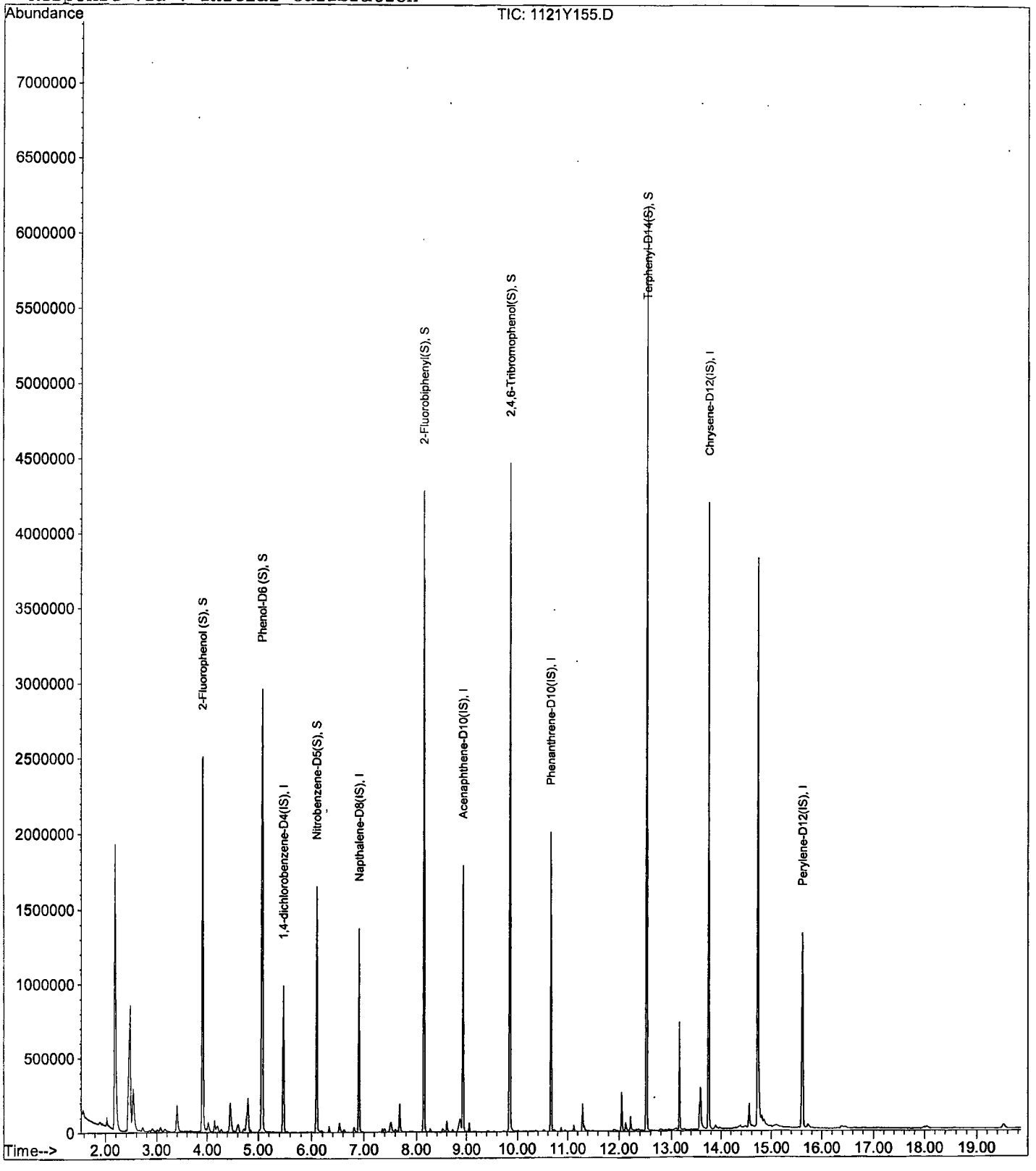
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y191121\1121Y155.D Vial: 55
Acq On : 26 Nov 19 21:18 Operator: MA,SS
Sample : 191104A BLK 2/800 Inst : Yoda
Misc : Multiplr: 1.25

Quant Time: Dec 3 11:53 2019 Quant Results File: Y1121ND.RES

Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 18:04:15 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y191121\1121Y156.D Vial: 56
Acq On : 26 Nov 19 21:46 Operator: MA,SS
Sample : 191104A LCS-1 2/800 Inst : Yoda
Misc : Multiplr: 1.25

Quant Time: Nov 27 8:02 2019 Quant Results File: Y1121ND.RES

Quant Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 18:04:15 2019
Response via : Initial Calibration
DataAcq Meth : SVOC1011

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.47	152	150012	40.00000 ppb		0.00
21) Napthalene-D8(IS)	6.91	136	600754	40.00000 ppb		0.00
41) Acenaphthene-D10(IS)	8.93	164	417278	40.00000 ppb		0.00
65) Phenanthrene-D10(IS)	10.67	188	853592	40.00000 ppb		0.00
80) Chrysene-D12(IS)	13.76	240	1179958	40.00000 ppb		0.00
90) Perylene-D12(IS)	15.62	264	888601	40.00000 ppb		0.00
System Monitoring Compounds						
5) 2-Fluorophenol (S)	3.91	112	1002367	239.85862 ppb		0.00
Spiked Amount 250.000			Recovery =	95.944%		
6) Phenol-D6 (S)	5.08	99	1297655	260.78218 ppb		0.00
Spiked Amount 250.000			Recovery =	104.313%		
22) Nitrobenzene-D5(S)	6.10	82	686931	126.83182 ppb		0.00
Spiked Amount 125.000			Recovery =	101.466%		
46) 2-Fluorobiphenyl(S)	8.15	172	1377704	110.38378 ppb		0.00
Spiked Amount 125.000			Recovery =	88.307%		
64) 2,4,6-Tribromophenol(S)	9.86	330	590841	231.37409 ppb		0.00
Spiked Amount 250.000			Recovery =	92.550%		
83) Terphenyl-D14(S)	12.52	244	2043176	86.57476 ppb		0.00
Spiked Amount 125.000			Recovery =	69.260%		
Target Compounds						Qvalue
2) 1,4-Dioxane	1.72	58	8724	6.26157		97
3) n-Nitrosodimethylamine	1.94	42	170662	80.72067 ppb		98
4) Pyridine	1.97	79	257399	49.22609 ppb		99
7) Phenol	5.10	94	409296	69.64817 ppb		89
8) Aniline	5.10	93	64712	18.64812 ppb	#	1
9) Bis (2-chloroethyl) ether	5.17	63	188247	74.98262 ppb		93
10) 2-Chlorophenol	5.24	128	309646	69.57921 ppb		94
11) 1,3-DCB	5.40	146	297762	59.05260 ppb		98
12) 1,4-DCB	5.49	146	305086	59.55317 ppb		97
13) Benzyl alcohol	5.64	108	177530	70.17148 ppb		96
14) 1,2-DCB	5.66	146	290793	60.76032 ppb		97
15) 2-Methylphenol	5.77	107	268820	74.57417 ppb		97
16) Bis (2-chloroisopropyl) et	5.78	45	225958	80.53850 ppb	#	68
17) Acetophenone	5.92	105	481917	74.36121 ppb		82
18) 3&4-Methylphenol	5.94	107	717426	145.10880 ppb		100
19) n-Nitrosodi-n-propylamine	5.93	70	283826	76.87983 ppb		96
20) Hexachloroethane	6.04	117	111182	54.71234 ppb		92
23) Nitrobenzene	6.12	77	415854	75.09896 ppb		97
24) Isophorone	6.39	82	643393	71.67227 ppb		95
25) 2-Nitrophenol	6.48	139	177235	69.99230 ppb		97
26) 2,4-Dimethylphenol	6.53	122	279024	70.73922 ppb		99
27) Benzoic acid	6.68	105	280628	75.67835 ppb		99
28) Bis (2-chloroethoxy) metha	6.63	93	334094	69.02460 ppb		98
29) 2,4-Dichlorophenol	6.76	162	279403	68.79353 ppb		98
30) 1,2,4-Trichlorobenzene	6.84	180	280779	59.73803 ppb		96
31) 3,4-Dimethylphenol	6.86	107	457727	71.77792 ppb		99
32) Naphthalene	6.94	128	858639	66.32643 ppb		100
33) 4-Chloroaniline	7.00	127	27505	6.03026 ppb	#	78
34) 2,6-Dichlorophenol	7.00	162	268048	68.15580 ppb		96
35) Hexachloropropene	7.04	213	88439	21.61518 ppb		99
36) Hexachlorobutadiene	7.07	225	167393	50.43190 ppb		99
37) Caprolactum	7.41	55	109970	77.03415 ppb		89

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y191121\1121Y156.D Vial: 56
Acq On : 26 Nov 19 21:46 Operator: MA,SS
Sample : 191104A LCS-1 2/800 Inst : Yoda
Misc : Multiplr: 1.25

Quant Time: Nov 27 8:02 2019 Quant Results File: Y1121ND.RES

Quant Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 18:04:15 2019
Response via : Initial Calibration
DataAcq Meth : SVOC1011

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
38)	4-Chloro-3-methylphenol	7.56	107	331132	72.25616 ppb		91
39)	2-Methylnaphthalene	7.72	142	584393	66.23743 ppb		99
40)	1-Methylnaphthalene	7.84	142	616888	67.62934 ppb		100
42)	Hexachlorocyclopentadiene	7.91	237	53200	12.54483 ppb		98
43)	1,2,4,5-Tetrachlorobenzene	7.92	216	328401	55.98081 ppb		100
44)	2,4,6-Trichlorophenol	8.06	196	234961	62.90820 ppb		97
45)	2,4,5-Trichlorophenol	8.10	196	243042	61.11922 ppb	#	87
47)	1,1'-Biphenyl	8.26	154	779609	61.44749 ppb		99
48)	2-Chloronaphthalene	8.29	162	630149	60.69636 ppb		99
49)	2-Nitroaniline	8.40	65	142393	43.26962 ppb		95
50)	Dimethyl phthalate	8.62	163	843658	66.53970 ppb		100
51)	2,6-DNT	8.69	165	183119	64.58068 ppb		80
52)	Acenaphthylene	8.76	152	952252	59.67780 ppb		100
53)	3-Nitroaniline	8.40	138	128039	39.34634 ppb		99
54)	Acenaphthene	8.97	154	623609	57.81003 ppb		99
55)	2,4-Dinitrophenol	9.01	184	93422	49.30911 ppb		94
56)	4-Nitrophenol	8.68	65	14681	70.70049 ppb		99
57)	Dibenzofuran	9.17	168	924809	61.47125 ppb		99
58)	2,4-DNT	9.15	165	257623	63.90244 ppb		84
59)	2,3,4,6-Tetrachlorophenol	9.32	232	209573	62.38146 ppb		98
60)	Diethyl phthalate	9.43	149	843289	65.17140 ppb		95
61)	4-Chlorophenyl phenyl ethe	9.56	204	462757	62.51371 ppb	#	84
62)	Fluorene	9.57	166	810454	64.26002 ppb		99
63)	4-Nitroaniline	8.88	138	28838	11.13850 ppb		99
66)	4,6-Dinitro-2-methylphenol	9.64	198	135350	47.83571 ppb		95
67)	Diphenyl amine	9.71	169	796279	75.89789 ppb		99
68)	n-Nitrosodiphenylamine	9.71	169	796279	75.89789 ppb		99
69)	1,2-Diphenylhydrazine	9.75	77	649736	50.04042 ppb	#	85
70)	4-Bromophenyl phenyl ether	10.14	248	270202	59.62638 ppb		99
71)	Hexachlorobenzene	10.21	284	266763	55.70081 ppb	#	75
72)	Atrazine	10.32	200	34598	8.66086 ppb		97
73)	Pentachlorophenol	10.44	266	183001	58.82004 ppb		99
74)	Phenanthrene	10.69	178	1114472	60.30508 ppb		100
75)	Anthracene	10.75	178	1127153	58.09394 ppb		100
76)	Carbazol	10.94	167	961828	55.08285 ppb		99
77)	Di-n-butylphthalate	11.34	149	1461171	64.25795 ppb		99
78)	2-Nitrodiphenylamine	11.51	167	7435	1.37607 ppb		97
79)	Fluoranthene	12.08	202	1366910	60.77933 ppb		99
82)	Pyrene	12.35	202	1389313	48.45367 ppb		100
84)	Butyl benzylphthalate	13.09	149	664662	51.06687 ppb		97
85)	3,3'-Dichlorobenzidine	13.70	252	30928	3.59313 ppb		98
86)	Benz (a) anthracene	13.74	228	1530981	48.69414 ppb		100
87)	Bis (2-ethylhexyl) phthala	13.76	149	3442060	172.02748 ppb	#	92
88)	Chrysene	13.79	228	1329301	47.45759 ppb		100
89)	Di-n-octylphthalate	14.51	149	1687020	53.78166 ppb		96
91)	Benzo (b) fluoranthene	15.07	252	1377259	61.26823 ppb		99
92)	Benzo (k) fluoranthene	15.10	252	1255218	60.60545 ppb	#	98
93)	Benzo (a) pyrene	15.54	252	1162989	57.94100 ppb		99
94)	Indeno (1,2,3-cd) pyrene	17.53	276	1403478	58.89413 ppb		98
95)	Dibenz (a,h) anthracene	17.57	278	1245481	59.25312 ppb		99
96)	Benzo (g,h,i) perylene	18.11	276	1109564	58.48437 ppb		100

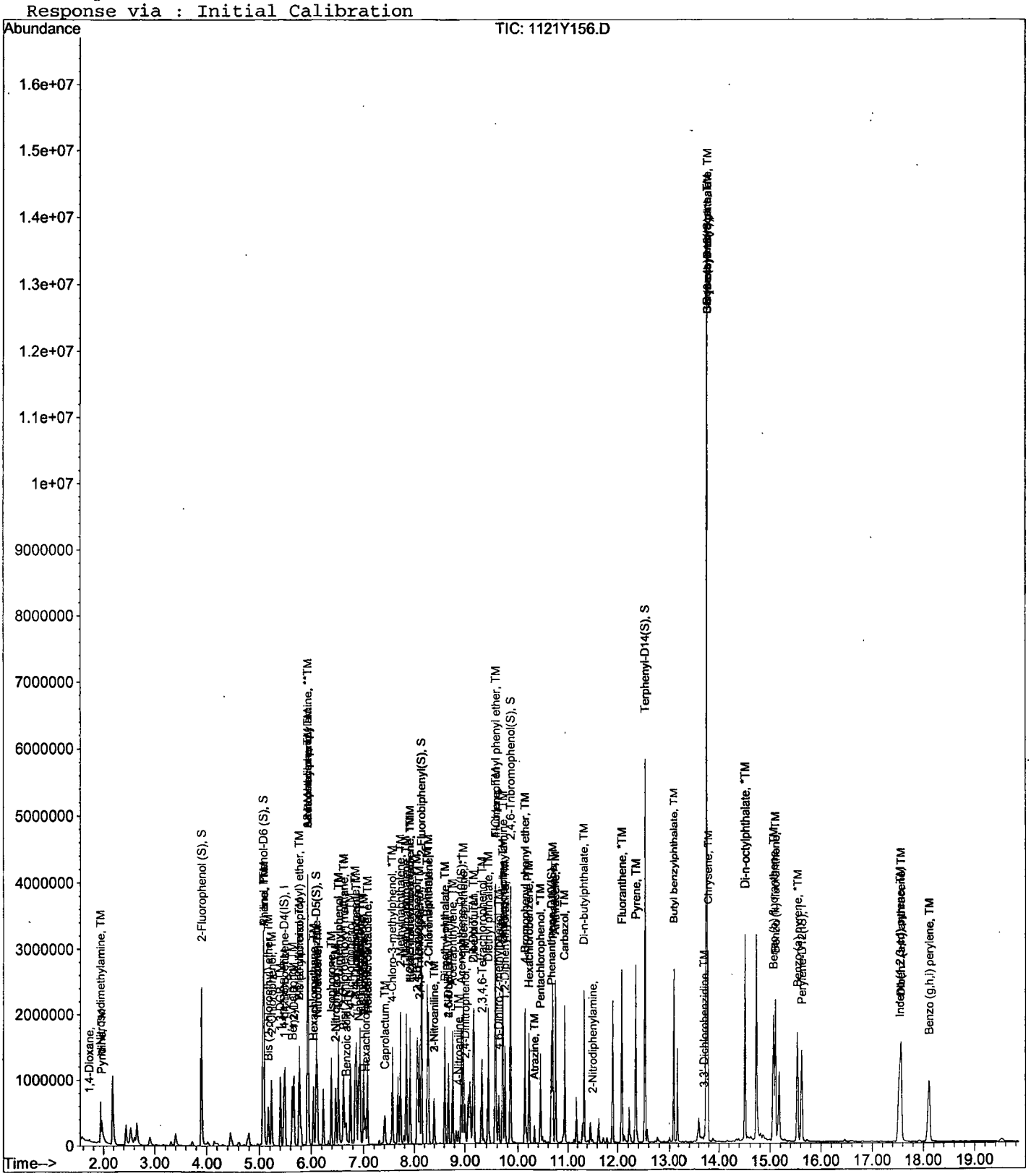
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y191121\1121Y156.D Vial: 56
Acq On : 26 Nov 19 21:46 Operator: MA,SS
Sample : 191104A LCS-1 2/800 Inst : Yoda
Misc : Multiplr: 1.25

Quant Time: Nov 27 8:02 2019 Quant Results File: Y1121ND.RES

Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 18:04:15 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y191121\1121Y157.D Vial: 57
Acq On : 26 Nov 19 22:14 Operator: MA,SS
Sample : 191104A LCSD-1 2/800 Inst : Yoda
Misc : Multiplr: 1.25

Quant Time: Nov 27 8:02 2019 Quant Results File: Y1121ND.RES

Quant Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 18:04:15 2019
Response via : Initial Calibration
DataAcq Meth : SVOC1011

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.47	152	138243	40.00000 ppb		0.00
21) Napthalene-D8(IS)	6.91	136	560201	40.00000 ppb		0.00
41) Acenaphthene-D10(IS)	8.93	164	405413	40.00000 ppb		0.00
65) Phenanthrene-D10(IS)	10.66	188	822436	40.00000 ppb		0.00
80) Chrysene-D12(IS)	13.75	240	1006521	40.00000 ppb		0.00
90) Perylene-D12(IS)	15.63	264	875772	40.00000 ppb		0.01
System Monitoring Compounds						
5) 2-Fluorophenol (S)	3.90	112	989505	256.93864 ppb		0.00
Spiked Amount 250.000			Recovery = 102.776%			
6) Phenol-D6 (S)	5.08	99	1297791	283.01293 ppb		0.00
Spiked Amount 250.000			Recovery = 113.205%			
22) Nitrobenzene-D5(S)	6.10	82	680099	134.66044 ppb		0.00
Spiked Amount 125.000			Recovery = 107.728%			
46) 2-Fluorobiphenyl(S)	8.14	172	1344694	110.89210 ppb		0.00
Spiked Amount 125.000			Recovery = 88.714%			
64) 2,4,6-Tribromophenol(S)	9.86	330	569779	229.65630 ppb		0.00
Spiked Amount 250.000			Recovery = 91.862%			
83) Terphenyl-D14(S)	12.53	244	2014105	100.04868 ppb		0.00
Spiked Amount 125.000			Recovery = 80.039%			
Target Compounds						Qvalue
2) 1,4-Dioxane	1.71	58	8448	6.57968		100
3) n-Nitrosodimethylamine	1.94	42	165355	84.86881 ppb		93
4) Pyridine	1.96	79	346814	71.97273 ppb		97
7) Phenol	5.09	94	425312	78.53490 ppb		90
8) Aniline	5.09	93	203328	63.58141 ppb	#	47
9) Bis (2-chloroethyl) ether	5.17	63	186617	80.66156 ppb		96
10) 2-Chlorophenol	5.24	128	306127	74.64462 ppb		96
11) 1,3-DCB	5.41	146	288569	62.10153 ppb		99
12) 1,4-DCB	5.49	146	299212	63.37887 ppb		97
13) Benzyl alcohol	5.63	108	181662	77.91764 ppb		87
14) 1,2-DCB	5.66	146	286588	64.97959 ppb		98
15) 2-Methylphenol	5.77	107	261593	78.74733 ppb		96
16) Bis (2-chloroisopropyl) et	5.78	45	224359	86.77650 ppb	#	82
17) Acetophenone	5.93	105	479129	80.22496 ppb		86
18) 3&4-Methylphenol	5.94	107	706210	155.00059 ppb		97
19) n-Nitrosodi-n-propylamine	5.94	70	283204	83.24199 ppb		97
20) Hexachloroethane	6.05	117	110262	58.87888 ppb		84
23) Nitrobenzene	6.12	77	409995	79.40071 ppb		100
24) Isophorone	6.39	82	645078	77.06192 ppb		96
25) 2-Nitrophenol	6.47	139	175265	74.22475 ppb		85
26) 2,4-Dimethylphenol	6.53	122	250472	68.09742 ppb		98
27) Benzoic acid	6.67	105	246747	71.62861 ppb		98
28) Bis (2-chloroethoxy) metha	6.62	93	338600	75.01964 ppb		98
29) 2,4-Dichlorophenol	6.75	162	275636	72.77886 ppb		95
30) 1,2,4-Trichlorobenzene	6.84	180	275337	62.82082 ppb		98
31) 3,4-Dimethylphenol	6.86	107	454029	76.35205 ppb		98
32) Naphthalene	6.94	128	860465	71.27907 ppb		99
33) 4-Chloroaniline	6.99	127	174399	41.00349 ppb		99
34) 2,6-Dichlorophenol	7.00	162	266739	72.73268 ppb		96
35) Hexachloropropene	7.03	213	93007	24.37718 ppb		99
36) Hexachlorobutadiene	7.08	225	168655	54.49040 ppb		100
37) Caprolactum	7.41	55	113079	84.94617 ppb		96

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y191121\1121Y157.D Vial: 57
Acq On : 26 Nov 19 22:14 Operator: MA,SS
Sample : 191104A LCSD-1 2/800 Inst : Yoda
Misc : Multiplr: 1.25

Quant Time: Nov 27 8:02 2019 Quant Results File: Y1121ND.RES

Quant Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 18:04:15 2019
Response via : Initial Calibration
DataAcq Meth : SVOC1011

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
38)	4-Chloro-3-methylphenol	7.56	107	326475	76.39703 ppb		96
39)	2-Methylnaphthalene	7.73	142	585352	71.14892 ppb		100
40)	1-Methylnaphthalene	7.84	142	600381	70.58437 ppb		99
42)	Hexachlorocyclopentadiene	7.91	237	46872	11.37613 ppb		98
43)	1,2,4,5-Tetrachlorobenzene	7.92	216	325126	57.04456 ppb		98
44)	2,4,6-Trichlorophenol	8.05	196	230717	63.57976 ppb		98
45)	2,4,5-Trichlorophenol	8.11	196	239542	62.00204 ppb		95
47)	1,1'-Biphenyl	8.27	154	774901	62.86391 ppb		99
48)	2-Chloronaphthalene	8.29	162	617692	61.23775 ppb		99
49)	2-Nitroaniline	8.40	65	218647	68.38578 ppb		98
50)	Dimethyl phthalate	8.61	163	841414	68.30492 ppb		99
51)	2,6-DNT	8.68	165	179924	65.31097 ppb		98
52)	Acenaphthylene	8.77	152	968358	62.46327 ppb		99
53)	3-Nitroaniline	8.40	138	198901	62.91104 ppb		99
54)	Acenaphthene	8.97	154	666328	63.57797 ppb		99
55)	2,4-Dinitrophenol	9.01	184	91626	49.77652 ppb		99
56)	4-Nitrophenol	8.68	65	14571	72.22440 ppb		100
57)	Dibenzofuran	9.17	168	922162	63.08920 ppb		98
58)	2,4-DNT	9.16	165	255374	65.19845 ppb		95
59)	2,3,4,6-Tetrachlorophenol	9.31	232	203597	62.37627 ppb	#	91
60)	Diethyl phthalate	9.43	149	818199	65.08297 ppb		96
61)	4-Chlorophenyl phenyl ethe	9.56	204	456413	63.46117 ppb		89
62)	Fluorene	9.57	166	795776	64.94282 ppb		100
63)	4-Nitroaniline	8.88	138	136446	54.24381 ppb		96
66)	4,6-Dinitro-2-methylphenol	9.64	198	136332	50.00806 ppb		94
67)	Diphenyl amine	9.71	169	1225625	121.24679 ppb		99
68)	n-Nitrosodiphenylamine	9.71	169	1225625	121.24679 ppb		99
69)	1,2-Diphenylhydrazine	9.75	77	829947	66.34109 ppb		88
70)	4-Bromophenyl phenyl ether	10.14	248	261807	59.96245 ppb		95
71)	Hexachlorobenzene	10.21	284	267387	57.94613 ppb	#	82
72)	Atrazine	10.33	200	96546	25.08376 ppb		97
73)	Pentachlorophenol	10.45	266	176286	58.80820 ppb		98
74)	Phenanthrene	10.70	178	1088739	61.14441 ppb		99
75)	Anthracene	10.75	178	1136847	60.81325 ppb		99
76)	Carbazol	10.94	167	1052079	62.53391 ppb		99
77)	Di-n-butylphthalate	11.34	149	1447537	66.06991 ppb		98
78)	2-Nitrodiphenylamine	11.51	167	5706	1.09607 ppb		94
79)	Fluoranthene	12.08	202	1327524	61.26417 ppb		100
81)	Benzidine	12.23	184	28664	4.79896 ppb	#	94
82)	Pyrene	12.35	202	1393214	56.96238 ppb		100
84)	Butyl benzylphthalate	13.08	149	663043	59.72055 ppb		79
85)	3,3'-Dichlorobenzidine	13.70	252	357212	48.65089 ppb		97
86)	Benz (a) anthracene	13.74	228	1494248	55.71515 ppb		100
87)	Bis (2-ethylhexyl) phthala	13.75	149	1708731	100.11446 ppb		98
88)	Chrysene	13.79	228	1310591	54.85210 ppb		99
89)	Di-n-octylphthalate	14.51	149	1643179	61.41048 ppb		99
91)	Benzo (b) fluoranthene	15.07	252	1451844	65.53230 ppb		100
92)	Benzo (k) fluoranthene	15.11	252	1161209	56.88774 ppb		99
93)	Benzo (a) pyrene	15.54	252	1178813	59.58968 ppb		98
94)	Indeno (1,2,3-cd) pyrene	17.54	276	1403370	59.75226 ppb		99
95)	Dibenz (a,h) anthracene	17.56	278	1249306	60.30574 ppb		98
96)	Benzo (g,h,i) perylene	18.11	276	1104140	59.05101 ppb		99

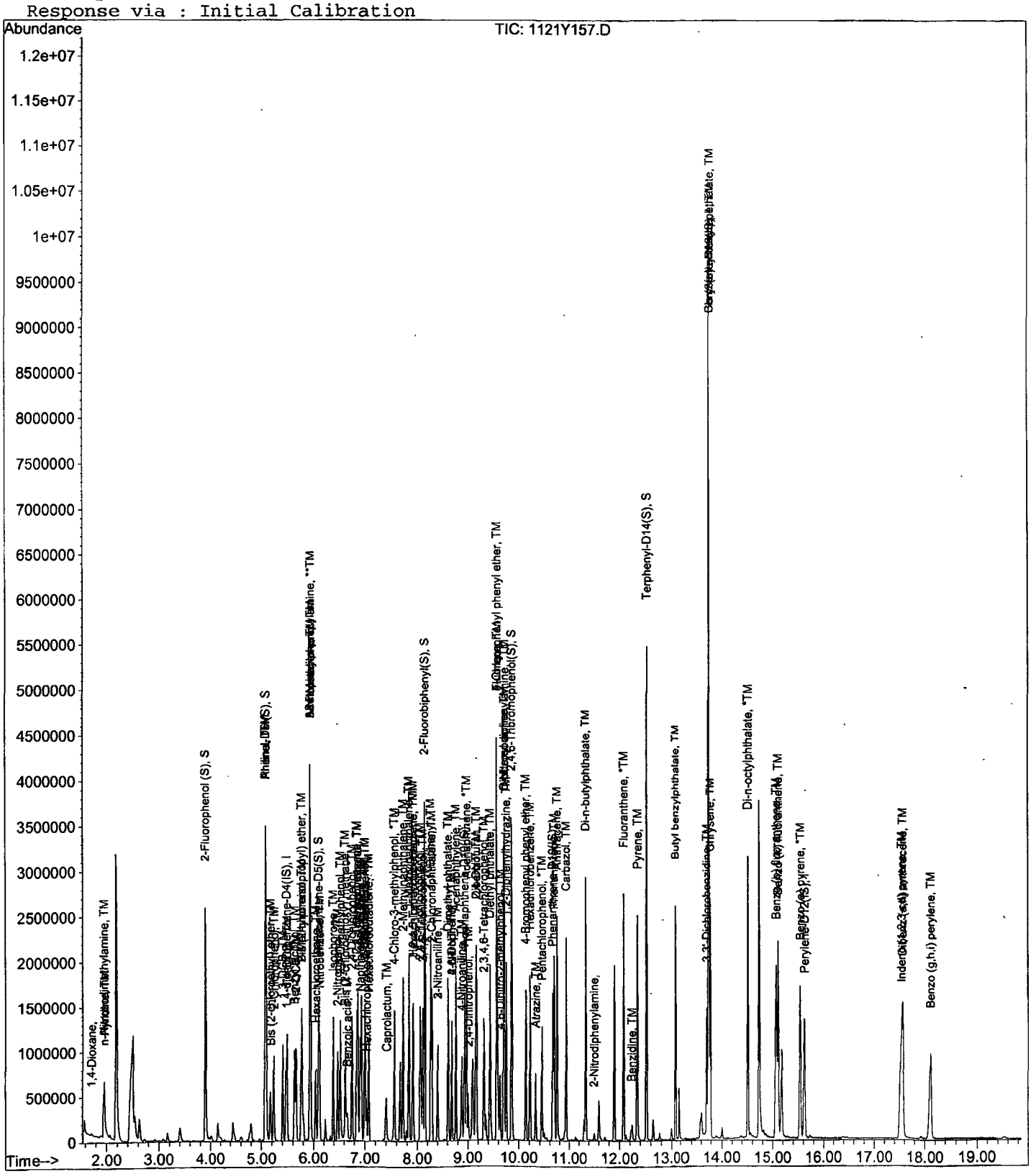
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y191121\1121Y157.D Vial: 57
Acq On : 26 Nov 19 22:14 Operator: MA,SS
Sample : 191104A LCSD-1 2/800 Inst : Yoda
Misc : Multiplr: 1.25

Quant Time: Nov 27 8:02 2019 Quant Results File: Y1121ND.RES

Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 18:04:15 2019
Response via : Initial Calibration

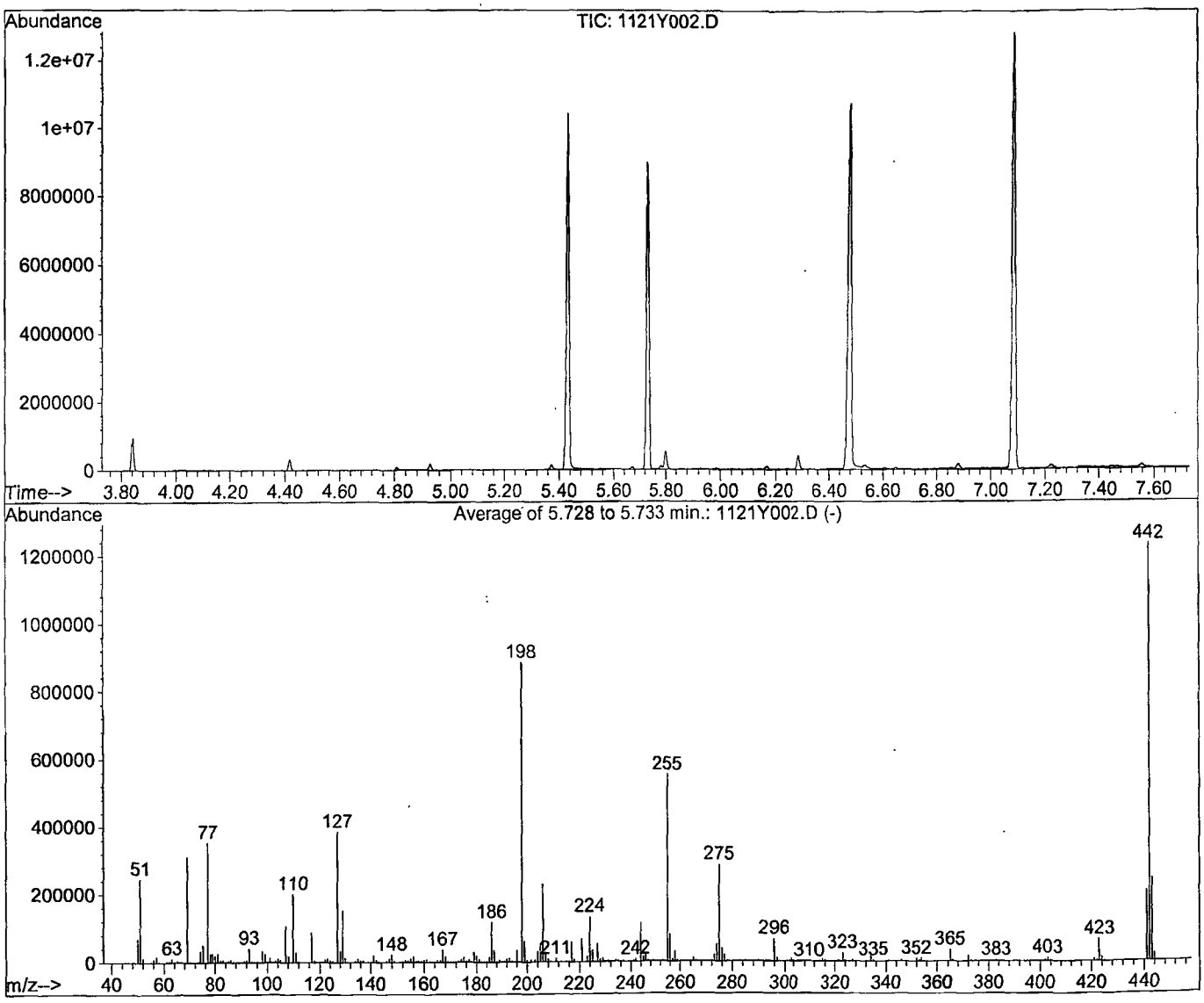


DFTPP

Data File : M:\YODA\DATA\Y191121\1121Y002.D
Acq On : 21 Nov 19 13:52
Sample : SV TUNE 10/01/19
Misc :

Vial: 2
Operator: MA,SS
Inst : Yoda
Multiplr: 1.00

Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C



Spectrum Information: Average of 5.728 to 5.733 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	27.9	246367	PASS
68	69	0.00	2	0.0	0	PASS
70	69	0.00	2	0.7	2239	PASS
127	198	10	80	43.6	385771	PASS
197	198	0.00	2	0.0	0	PASS
198	198	100	100	100.0	884437	PASS
199	198	5	9	6.9	61053	PASS
275	198	10	60	32.2	284928	PASS
365	198	1	100	3.9	34467	PASS
441	442	0.01	24	16.6	205141	PASS
442	198	50	500	139.4	1232555	PASS
443	442	15	24	19.7	243243	PASS

Data File Name:	**1121Y002.D**
Data File Path:	**M:\YODA\DATA\Y191121**
Operator:	**MA,SS**
Date Acquired:	**21 Nov 2019 13:52**
Method File:	**DFTPP2.M**
Sample Name:	**SV TUNE 10/01/19**
Vial Number:	**2**
Instrument Name:	**Yoda**

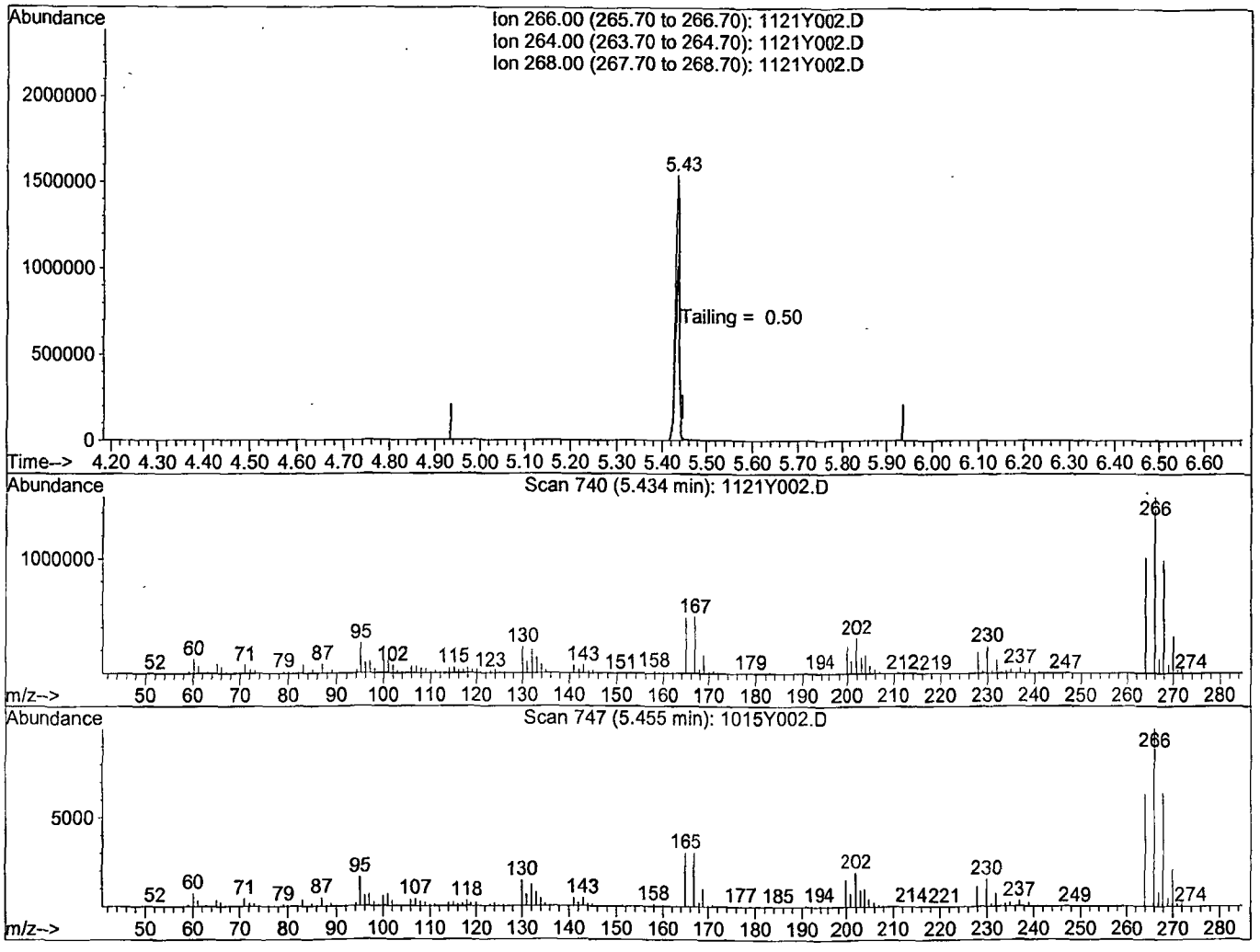
#	Name	Ret Time	Target Response
1)	DDT	7.09	103687000
2)	DDD	6.88	1239160
3)	DDE	6.61	214961

Breakdown **1.38**

Quantitation Report

Data File : M:\YODA\DATA\Y191121\1121Y002.D Vial: 2
Acq On : 21 Nov 19 13:52 Operator: MA,SS
Sample : SV TUNE 10/01/19 Inst : Yoda
Misc : Multiplr: 1.00
Quant Time: Nov 25 11:35 2019 Quant Results File: temp.res

Method : M:\YODA\DATA\Y191121\DFTPP2.M (Chemstation Integrator)
Title :
Last Update : Mon Nov 25 11:35:23 2019
Response via : Single Level Calibration



TIC: 1121Y002.D

(5) Pentachlorophenol

5.43min 0.0000

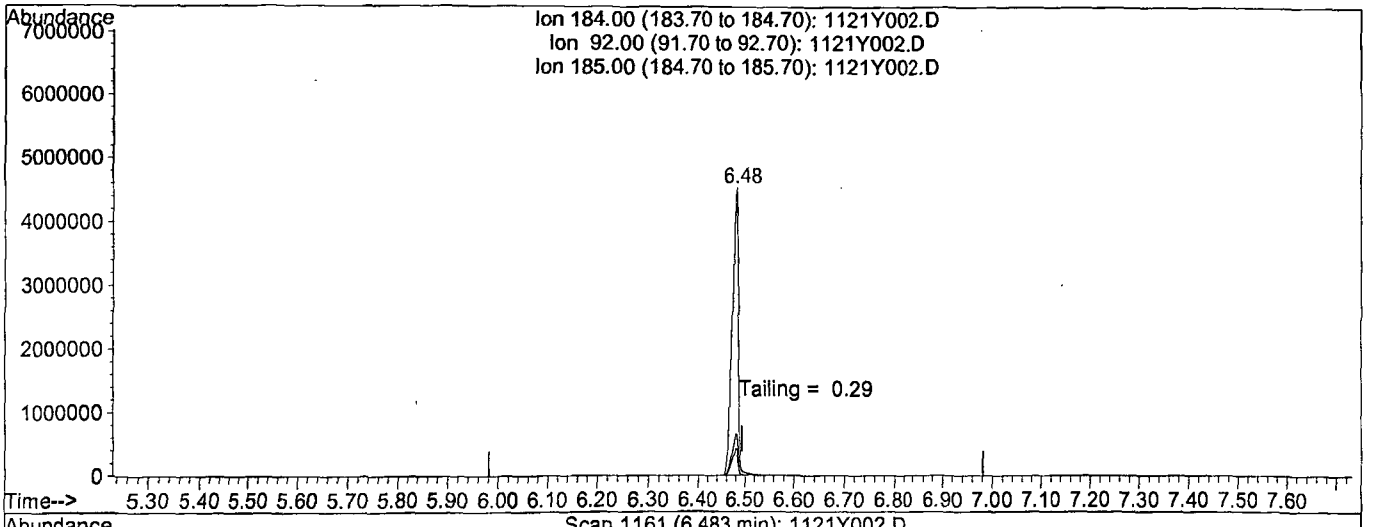
response 10183664

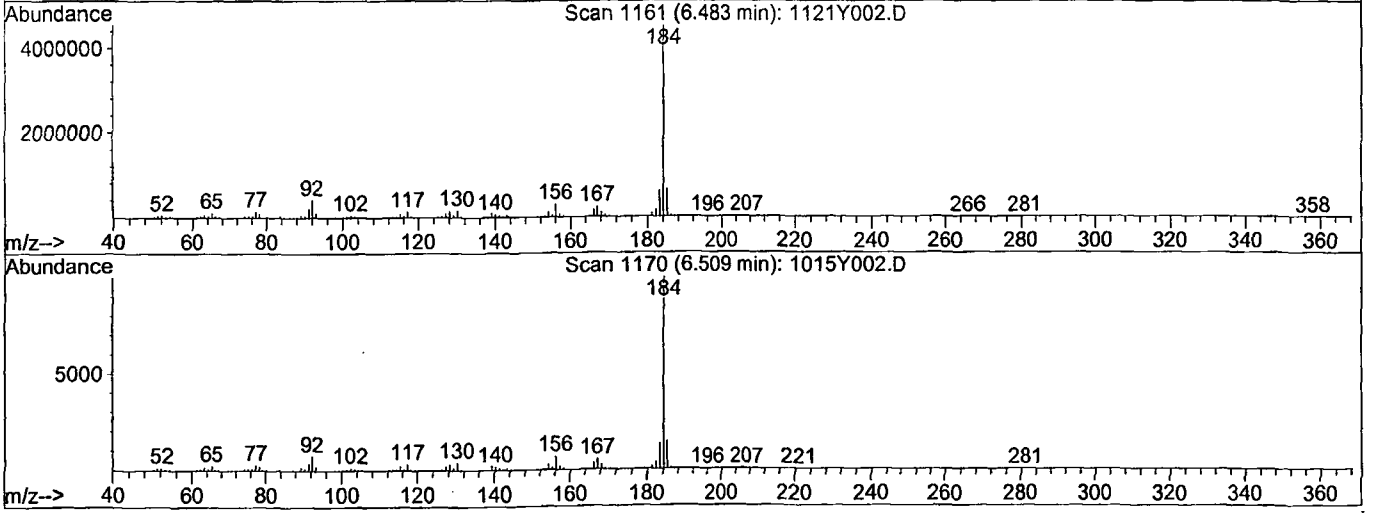
Ion	Exp%	Act%
266.00	100	100
264.00	65.50	63.47
268.00	64.40	63.76
0.00	0.00	0.00

Quantitation Report

Data File : M:\YODA\DATA\Y191121\1121Y002.D Vial: 2
Acq On : 21 Nov 19 13:52 Operator: MA,SS
Sample : SV TUNE 10/01/19 Inst : Yoda
Misc : Multiplr: 1.00
Quant Time: Nov 25 11:35 2019 Quant Results File: temp.res

Method : M:\YODA\DATA\Y191121\DFTPP2.M (Chemstation Integrator)
Title :
Last Update : Mon Nov 25 11:35:23 2019
Response via : Single Level Calibration





TIC: 1121Y002.D

(6) Benzidine

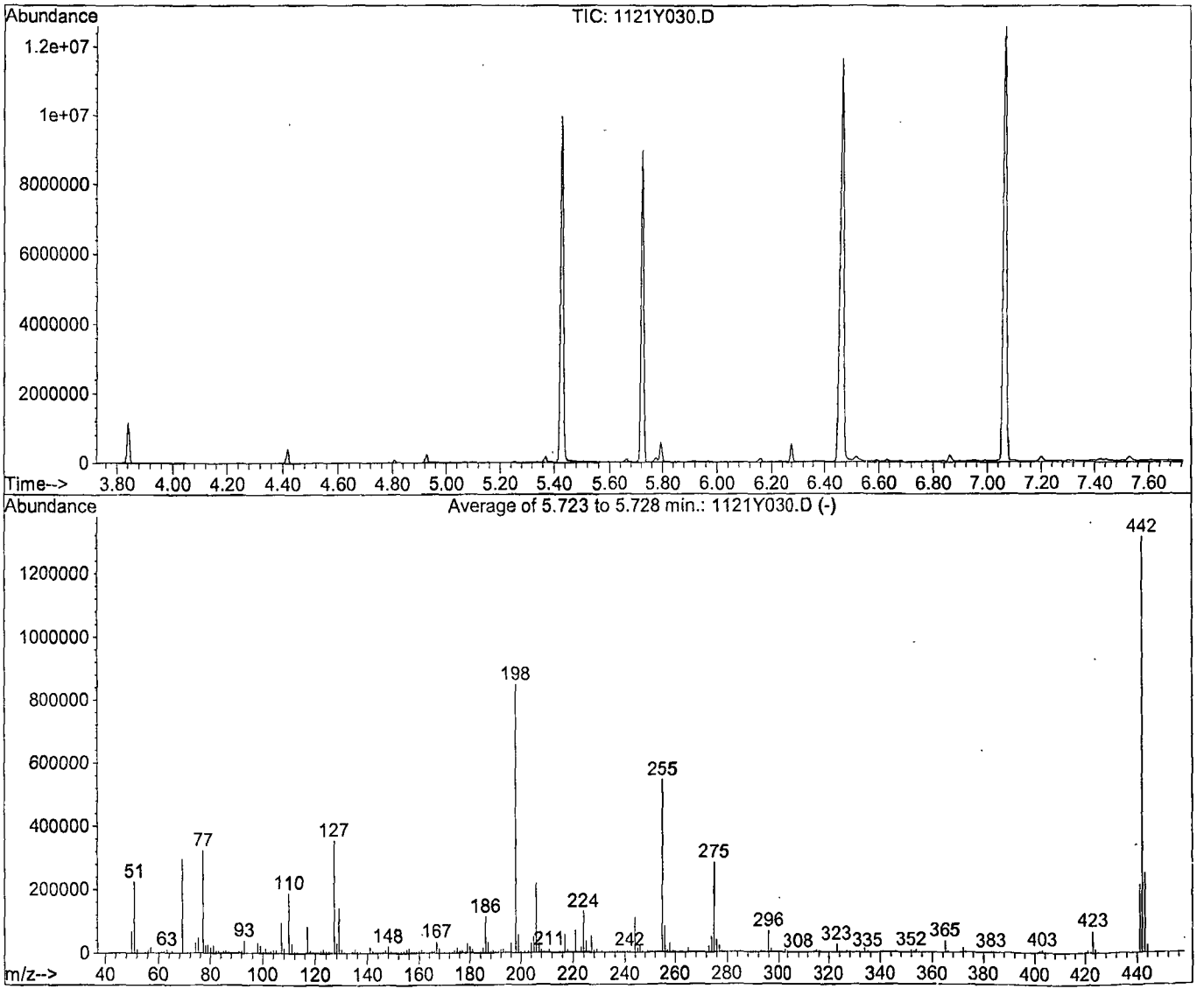
6.48min 0.0000

response 41952279

Ion	Exp%	Act%
184.00	100	100
92.00	9.20	8.85
185.00	14.30	14.28
0.00	0.00	0.00

Data File : M:\YODA\DATA\Y191121\1121Y030.D Vial: 30
Acq On : 22 Nov 19 13:23 Operator: MA,SS
Sample : SV TUNE 10/01/19 Inst : Yoda
Misc : Multiplr: 1.00

Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C



Spectrum Information: Average of 5.723 to 5.728 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	26.5	224439	PASS
68	69	0.00	2	0.0	0	PASS
70	69	0.00	2	0.4	1281	PASS
127	198	10	80	41.9	354859	PASS
197	198	0.00	2	0.0	0	PASS
198	198	100	100	100.0	847637	PASS
199	198	5	9	6.7	57211	PASS
275	198	10	60	33.3	282091	PASS
365	198	1	100	4.2	35747	PASS
441	442	0.01	24	16.3	213781	PASS
442	198	50	500	154.9	1313109	PASS
443	442	15	24	19.0	249600	PASS

Data File Name:	**1121Y030.D**
Data File Path:	**M:\YODA\DATA\Y191121**
Operator:	**MA,SS**
Date Acquired:	**22 Nov 2019 13:23**
Method File:	**DFTPP2.M**
Sample Name:	**SV TUNE 10/01/19**
Vial Number:	**30**
Instrument Name:	**Yoda**

#	Name	Ret Time	Target Response
1)	DDT	7.09	106455000
2)	DDD	6.88	1407220
3)	DDE	6.61	235872

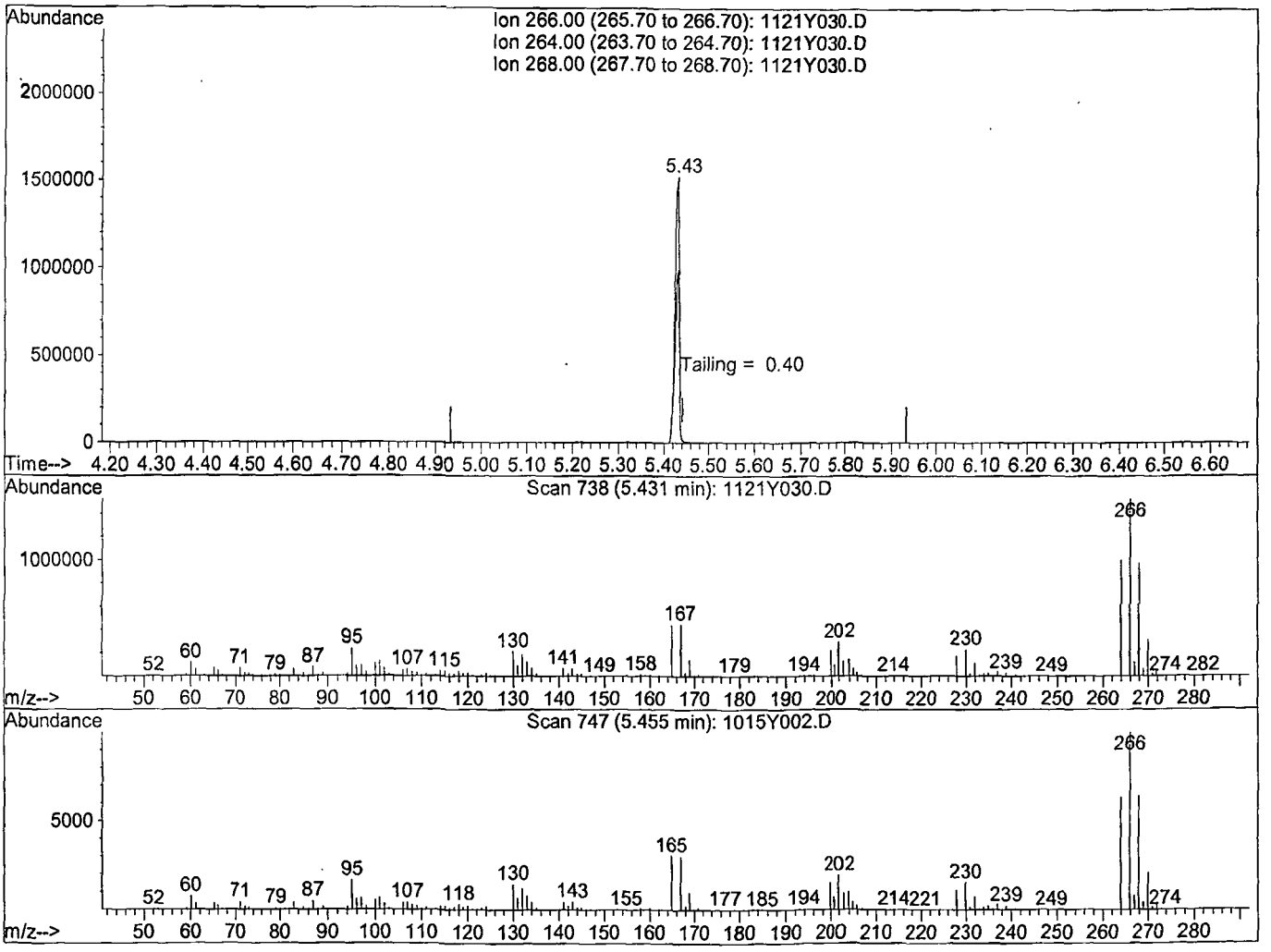
Breakdown **1.52**

Quantitation Report

Data File : M:\YODA\DATA\Y191121\1121Y030.D
Acq On : 22 Nov 19 13:23
Sample : SV TUNE 10/01/19
Misc :
Quant Time: Nov 25 11:36 2019

Vial: 30
Operator: MA,SS
Inst : Yoda
Multiplr: 1.00
Quant Results File: temp.res

Method : M:\YODA\DATA\Y191121\DFTPP2.M (Chemstation Integrator)
Title :
Last Update : Mon Nov 25 11:35:23 2019
Response via : Single Level Calibration



TIC: 1121Y030.D

(5) Pentachlorophenol

5.43min 0.0000

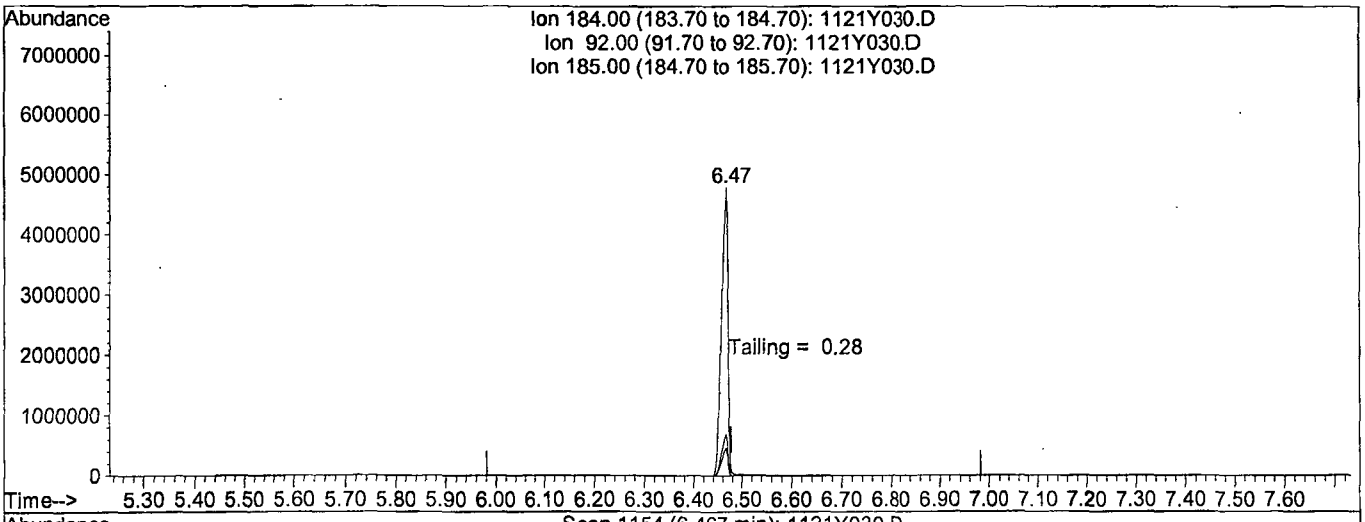
response 10296121

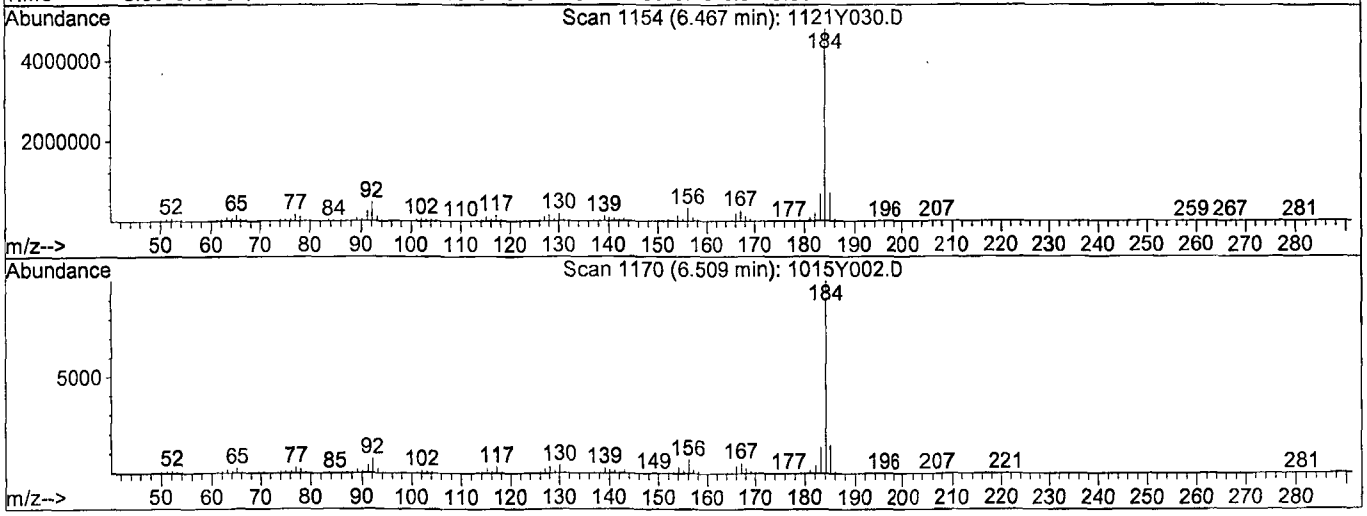
Ion	Exp%	Act%
266.00	100	100
264.00	65.50	63.86
268.00	64.40	63.64
0.00	0.00	0.00

Quantitation Report

Data File : M:\YODA\DATA\Y191121\1121Y030.D Vial: 30
Acq On : 22 Nov 19 13:23 Operator: MA,SS
Sample : SV TUNE 10/01/19 Inst : Yoda
Misc : Multiplr: 1.00
Quant Time: Nov 25 11:36 2019 Quant Results File: temp.res

Method : M:\YODA\DATA\Y191121\DFTPP2.M (Chemstation Integrator)
Title :
Last Update : Mon Nov 25 11:35:23 2019
Response via : Single Level Calibration





TIC: 1121Y030.D

(6) Benzidine

6.47min 0.0000

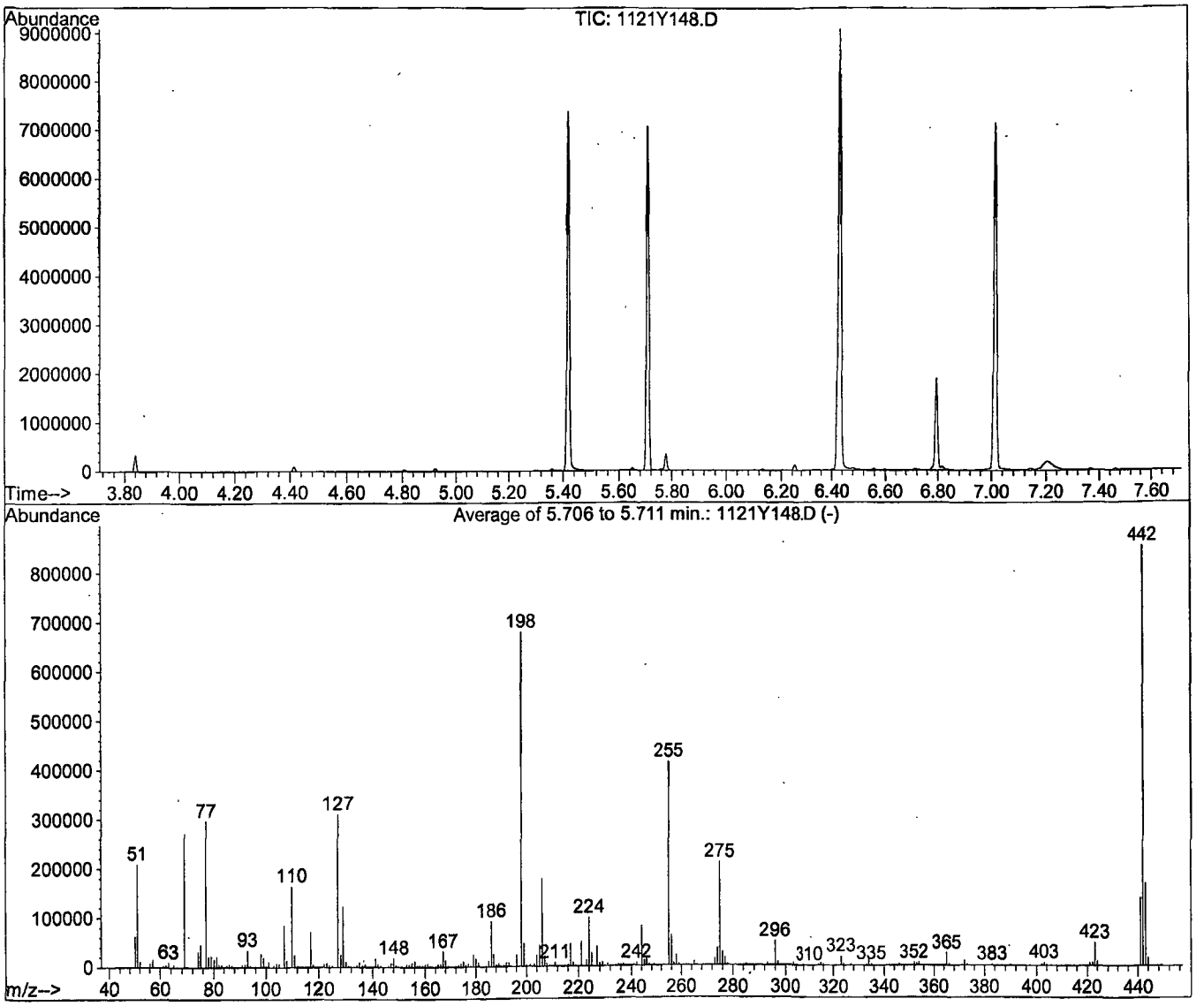
response 43745170

Ion	Exp%	Act%
184.00	100	100
92.00	9.20	9.26
185.00	14.30	14.55
0.00	0.00	0.00

DFTPP

Data File : M:\YODA\DATA\Y191121\1121Y148.D Vial: 48
Acq On : 26 Nov 19 18:16 Operator: MA,SS
Sample : SV TUNE 10/01/19 Inst : Yoda
Misc : Multiplr: 1.00

Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C



Spectrum Information: Average of 5.706 to 5.711 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	30.7	208917	PASS
68	69	0.00	2	0.0	0	PASS
70	69	0.00	2	0.2	654	PASS
127	198	10	80	45.8	311232	PASS
197	198	0.00	2	0.0	0	PASS
198	198	100	100	100.0	679979	PASS
199	198	5	9	7.0	47424	PASS
275	198	10	60	30.9	209792	PASS
365	198	1	100	3.6	24760	PASS
441	442	0.01	24	16.2	138283	PASS
442	198	50	500	125.7	854912	PASS
443	442	15	24	19.6	167749	PASS

1121Y148.D Y1121ND.M Tue Nov 26 17:14:11 2019

Data File Name:	**1121Y148.D**
Data File Path:	**M:\YODA\DATA\Y191121**
Operator:	**MA,SS**
Date Acquired:	**26 Nov 2019 18:16**
Method File:	**DFTPP2.M**
Sample Name:	**SV TUNE 10/01/19**
Vial Number:	**48**
Instrument Name:	**Yoda**

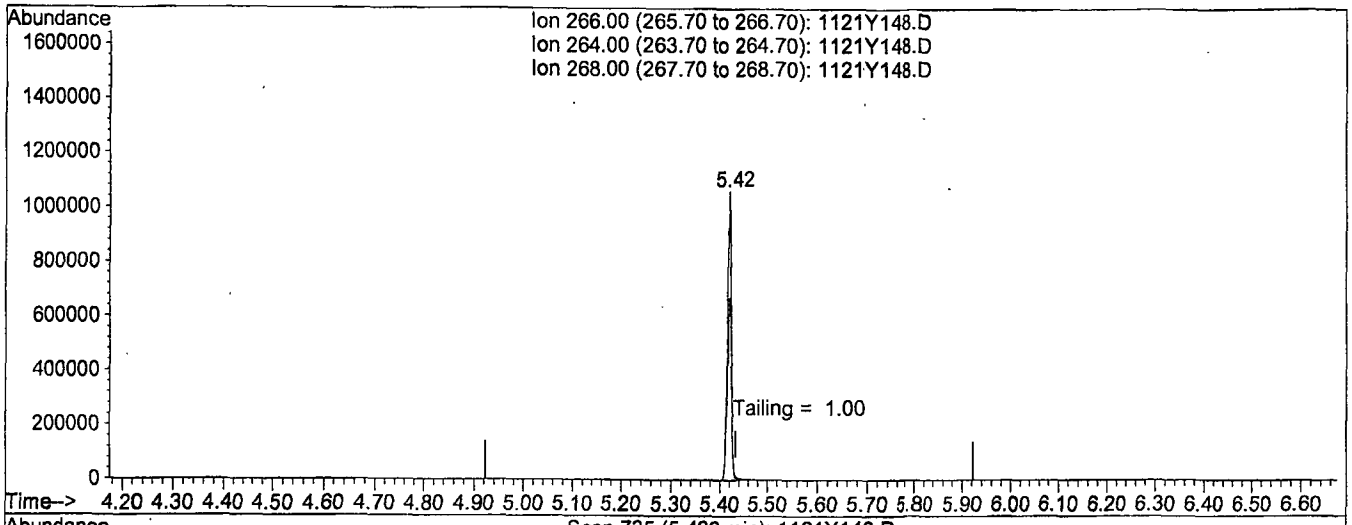
#	Name	Ret Time	Target Response
1)	DDT	7.03	50149300
2)	DDD	6.83	496078
3)	DDE	6.65	0

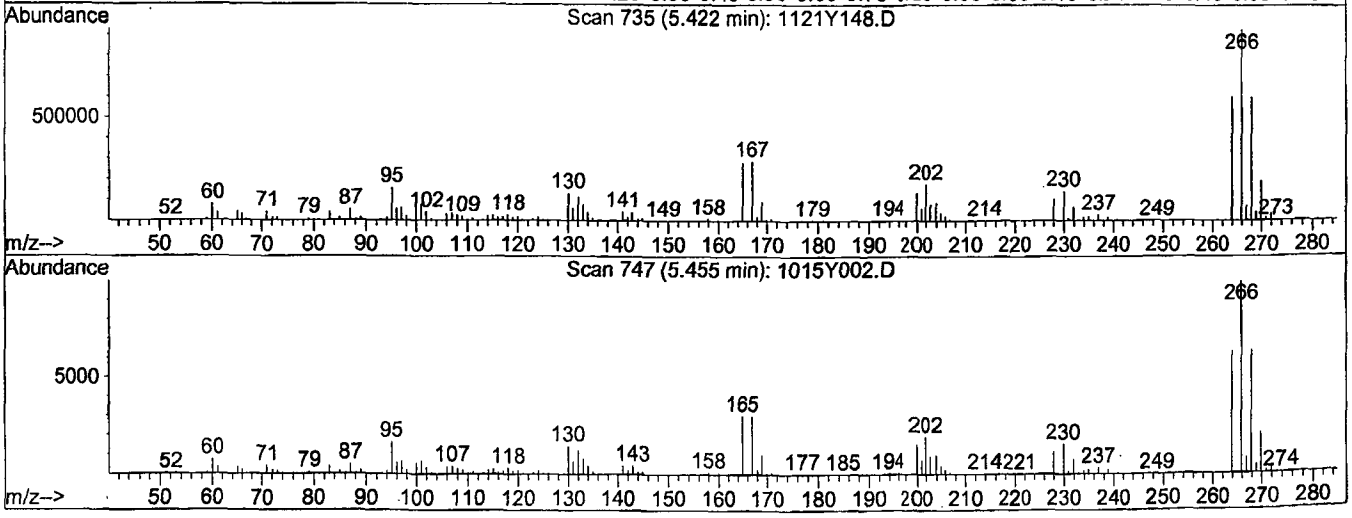
Breakdown **0.98**

Quantitation Report

Data File : M:\YODA\DATA\Y191121\1121Y148.D Vial: 48
Acq On : 26 Nov 19 18:16 Operator: MA,SS
Sample : SV TUNE 10/01/19 Inst : Yoda
Misc : Multiplr: 1.00
Quant Time: Nov 26 17:13 2019 *Quant Results File: temp.res*

Method : M:\YODA\DATA\Y191121\DFTPP2.M (Chemstation Integrator)
Title :
Last Update : Mon Nov 25 12:03:01 2019
Response via : Single Level Calibration





TIC: 1121Y148.D

(5) Pentachlorophenol

5.42min 0.0000

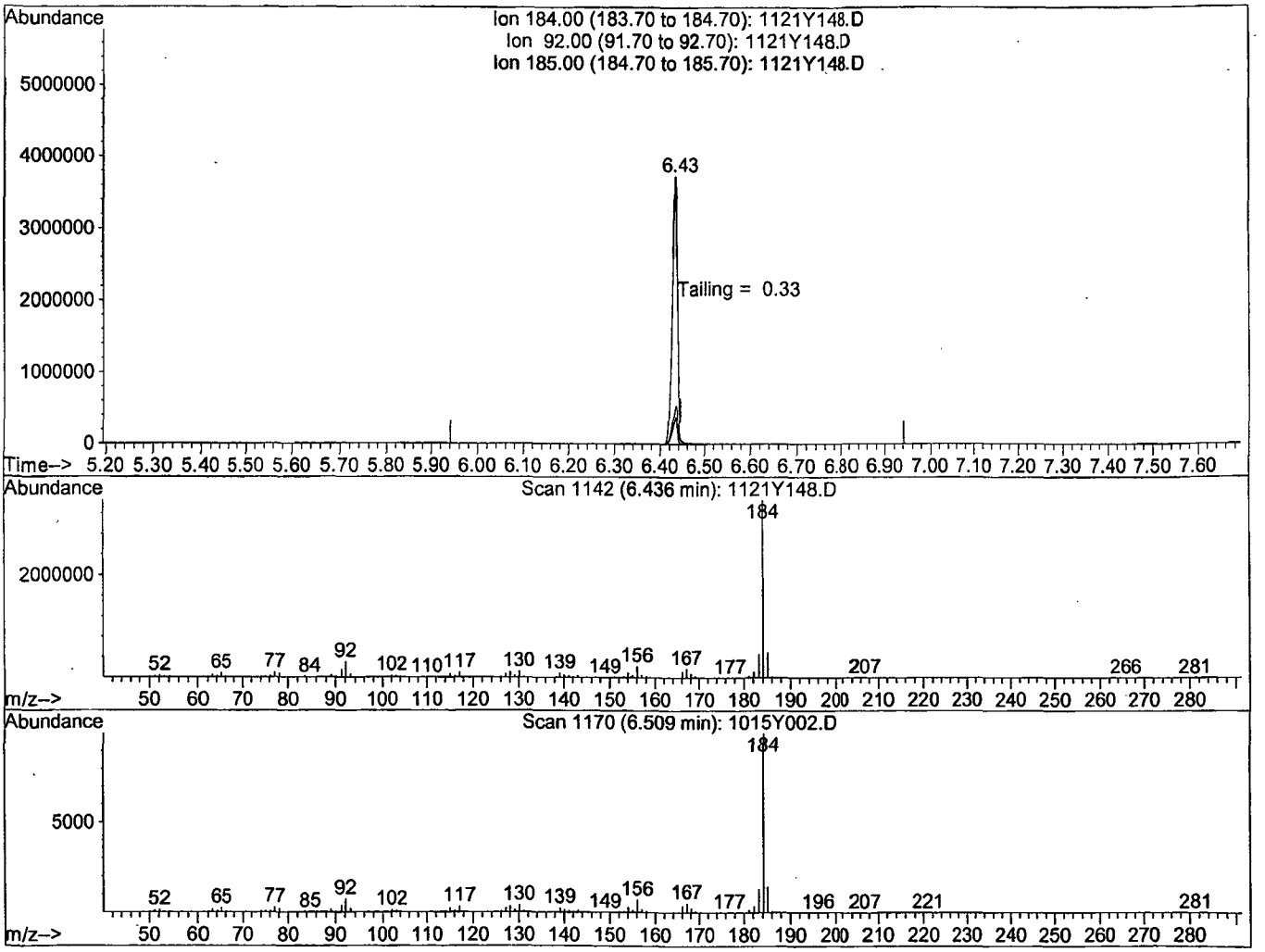
response 6348230

Ion	Exp%	Act%
266.00	100	100
264.00	64.40	64.10
268.00	63.20	63.12
0.00	0.00	0.00

Quantitation Report

Data File : M:\YODA\DATA\Y191121\1121Y148.D Vial: 48
Acq On : 26 Nov 19 18:16 Operator: MA,SS
Sample : SV TUNE 10/01/19 Inst : Yoda
Misc : Multiplr: 1.00
Quant Time: Nov 26 17:13 2019 Quant Results File: temp.res

Method : M:\YODA\DATA\Y191121\DFTPP2.M (Chemstation Integrator)
Title :
Last Update : Mon Nov 25 12:03:01 2019
Response via : Single Level Calibration



TIC: 1121Y148.D

(6) Benzidine

6.44min 0.0000

response 29597434

Ion	Exp%	Act%
184.00	100	100
92.00	9.40	9.28
185.00	14.10	14.36
0.00	0.00	0.00

Name of Final Standard	8270 Full Scan Stock Spike	Prep'd By (Initials)	JP
Prep Date	011/21/2019		
Exp Date	011/21/2020		

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from contianer Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
10001	Absolute	10001	2000	081419 - 49302	08/14/22	1.0 mL	11 mL	NA	181.82 ug/mL
10002	Absolute	10002	2000	090919-49211	09/09/22	1.0 mL	*	*	181.82 ug/mL
10004	Absolute	10004	2000	071618-99221	07/16/23	1.0 mL	*	*	181.82 ug/mL
10005	Absolute	10005	2000	032018-40234	03/20/23	1.0 mL	*	*	181.82 ug/mL
10006	Absolute	10006	2000	030119-49242	03/01/22	1.0 mL	*	*	181.82 ug/mL
10007	Absolute	10007	2000	080116-40254	08/01/21	1.0 mL	*	*	181.82 ug/mL
10018	Absolute	10018	2000	051719-49262	05/17/24	1.0 mL	*	*	181.82 ug/mL
70023	Absolute	70023	1000	012819-49268	01/28/24	1.0 mL	*	*	90.91ug/mL
82705	Absolute	82705	2000	090919-49293	09/09/22	1.0 mL	*	*	181.82 ug/mL
94552	Absolute	94552	various	053119-49284	05/31/21	1.0 mL	*	*	various
72304	Absolute	70023	1000	090519-49455 - 41159	09/05/24	1.0 mL	*	*	90.91ug/mL

Name of Final Standard	8270 Internal Standard Ampules (2)	Prep'd By (Initials)	JP
Prep Date	11/20/19		
Exp Date	11/20/20		

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from contianer Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
Semivolatile Internal Standard	Restek	31206	2000 ug/mL	**A0151843-49411 A0151843-49412**	**07/31/25**	2 mL	2 mL	NA	2000ug/mL

Name of Final Standard	**8270 SS STOCK**	**Prep'd By (Initials)**	**JP**
Prep Date	**11/20/19**		
Exp Date	**11/20/20**		

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from contianer Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
10001	Absolute	10001	2000 ug/mL	051019-40534	05/10/21	1.0 mL	20 mL	**Methanol Lot 208858**	100 ug/mL
10002	Absolute	10002	2000 ug/mL	020217-39199	02/02/20	1.0 mL	*	*	100 ug/mL
10004	Absolute	10004	2000 ug/mL	051018-39196	05/10/21	1.0 mL	*	*	100 ug/mL
10005	Absolute	10005	2000 ug/mL	031618-39207	03/16/23	1.0 mL	*	*	100 ug/mL
10006	Absolute	10006	2000 ug/mL	011718-39208	01/17/21	1.0 mL	*	*	100 ug/mL
10007	Absolute	10007	2000 ug/mL	060118-39213	06/01/23	1.0 mL	*	*	100 ug/mL
10018	Absolute	10018	2000 ug/mL	062718-40535	06/27/23	1.0 mL	*	*	100 ug/mL
70023	Absolute	70023	1000 ug/mL	051618-39214	05/16/23	1.0 mL	*	*	50 ug/mL
82705	Absolute	82705	2000 ug/mL	090617-40540	09/06/20	1.0 mL	*	*	100 ug/mL
94552	Absolute	94552	various	013118-40542	01/31/20	1.0 mL	*	*	various
72304	Absolute	72304	1000 ug/mL	110719-49477	11/07/24	1.0 mL	*	*	50 ug/mL

Name of Final Standard	**8270 Full Scan Second Source**	**Prep'd By (Initials)**	**JP**
Prep Date	**11/22/19**		
Exp Date	**11/22/20**		

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from container Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
8270 SS Stock	APPL	8270 SS Stock	100:50 ug/mL	**11/20/19**	**11/20/20**	100 uL	200uL	**MC DW717 150uL**	50:25 ug/mL
SV Internal Standard	APPL	SV Internal Standard	2000 ug/mL	**11/20/19**	**11/20/19**	4 uL	*	*	*

Name of Final Standard	8270 Full Scan Standard Curve	Prep'd By (Initials)	JP
Prep Date	011/21/2019		
Exp Date	011/21/2020		

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from container Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
8270 Stock	APPL	8270 Stock	182:91 ug/mL	011/21/2019	011/21/2020	4.4 uL	200uL	MC DW717 150uL	4 ug/mL
8270 Surrogate	APPL	8270 Surrogate	200:400 ug/mL	07/10/19	06/24/20	4 uL	*	*	*
SV Internal Standard	APPL	SV Internal Standard	2000 ug/mL	011/20/2019	07/31/25	4 uL	*	*	*
8270 Stock	APPL	8270 Stock	182:91 ug/mL	011/21/2019	011/21/2020	11 uL	400uL	MC DW717 150uL	5 ug/mL
8270 Surrogate	APPL	8270 Surrogate	200:400 ug/mL	07/10/19	06/24/20	10 uL	*	*	*
SV Internal Standard	APPL	SV Internal Standard	2000 ug/mL	011/20/2019	07/31/25	8 uL	*	*	*
8270 Stock	APPL	8270 Stock	182:91 ug/mL	011/21/2019	011/21/2020	11 uL	200uL	MC DW717 150uL	10 ug/mL
8270 Surrogate	APPL	8270 Surrogate	200:400 ug/mL	07/10/19	06/24/20	10 uL	*	*	*
SV Internal Standard	APPL	SV Internal Standard	2000 ug/mL	011/20/2019	07/31/25	4 uL	*	*	*
8270 Stock	APPL	8270 Stock	182:91 ug/mL	011/21/2019	011/21/2020	11 uL	100uL	MC DW717 150uL	20 ug/mL
8270 Surrogate	APPL	8270 Surrogate	200:400 ug/mL	07/10/19	06/24/20	10 uL	*	*	*
SV Internal Standard	APPL	SV Internal Standard	2000 ug/mL	011/20/2019	07/31/25	2 uL	*	*	*
8270 Stock	APPL	8270 Stock	182:91 ug/mL	011/21/2019	011/21/2020	22 uL	100uL	MC DW717 150uL	40 ug/mL
8270 Surrogate	APPL	8270 Surrogate	200:400 ug/mL	07/10/19	06/24/20	20 uL	*	*	*
SV Internal Standard	APPL	SV Internal Standard	2000 ug/mL	011/20/2019	07/31/25	2 uL	*	*	*
8270 Stock	APPL	8270 Stock	182:91 ug/mL	011/21/2019	011/21/2020	55 uL	200 uL	MC DW717 150uL	50 ug/mL
8270 Surrogate	APPL	8270 Surrogate	200:400 ug/mL	07/10/19	06/24/20	50 uL	*	*	*
SV Internal Standard	APPL	SV Internal Standard	2000 ug/mL	011/20/2019	07/31/25	4 uL	*	*	*
8270 Stock	APPL	8270 Stock	182:91 ug/mL	011/21/2019	011/21/2020	33 uL	100uL	MC DW717 150uL	60 ug/mL
8270 Surrogate	APPL	8270 Surrogate	200:400 ug/mL	07/10/19	06/24/20	30 uL	*	*	*
SV Internal Standard	APPL	SV Internal Standard	2000 ug/mL	011/20/2019	07/31/25	2 uL	*	*	*
8270 Stock	APPL	8270 Stock	182:91 ug/mL	011/21/2019	011/21/2020	44 uL	100uL	MC DW717 150uL	80 ug/mL
8270 Surrogate	APPL	8270 Surrogate	200:400 ug/mL	07/10/19	06/24/20	40 uL	*	*	*
SV Internal Standard	APPL	SV Internal Standard	2000 ug/mL	011/20/2019	07/31/25	2 uL	*	*	*
8270 Stock	APPL	8270 Stock	182:91 ug/mL	011/21/2019	011/21/2020	50 uL	100uL	na	91 ug/mL
8270 Surrogate	APPL	8270 Surrogate	200:400 ug/mL	07/10/19	06/24/20	50 uL	*	*	*
SV Internal Standard	APPL	SV Internal Standard	2000 ug/mL	011/20/2019	07/31/25	2 uL	*	*	*

Name of Final Standard	Semivolatile (SV) Tuning Solution	Prep'd By (Initials)	JP
Prep Date	10/01/19		
Exp Date	11/30/20		

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from contianer Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
Semivolatile GC/MS Tuning Standard	Ultra Scientific	GCM-150-1	1,000 ug/mL	CR3789-38879	**11/30/20**	1,250 uL	25 mL	**MC #58240**	50 ug/mL

Organic Extraction Worksheet

Method	Continuous Liquid/Liquid SVOC 3520C	Extraction Set	191104A	Extraction Method	LIQ003	Units	mL

Spiked ID 1	8270T Spike 10/3/19 ex 10/3/20		Surrogate ID 1	8270 Surrogate 10/3/19 ex 10/3/20	
Spiked ID 2	Sim Spike 9/30/19 ex 9/30/20		Surrogate ID 2	SIM Surrogate 10/25/19 ex 10/25/20	
Spiked ID 3			Surrogate ID 3		
Spiked ID 4			Surrogate ID 4		
Spiked ID 5			Surrogate ID 5		
Spiked ID 6			Sufficient Vol for Matrix QC:	no	
Spiked ID 7			Ext. Start Time:	11/04/19 13:35	
Spiked ID 8			Ext. End Time:	11/06/19 6:30	
			GC Requires Extract By:		

pH1	2	11/05/19 10:40	Water Bath Temp 1 °C	EWB5 75/74.2 °
pH2	14	11/06/19 13:00	Water Bath Temp 2 °C	
pH3			Water Bath Temp 3 °C	

Spiked By: DL **Date** 11/04/19 **Witnessed By:** YL **Date** 11/04/19

	Sample	Sample Container	Spike Amount	Spike ID	Surrogate Amount	Surrogate ID	Extract Amount	Final Volume	pH	Extract Date/Time	Comments
1	191104A Blk				1,0.050	1,2	800	1	2/1	11/04/19 13:35	
						equip	EWB5				
2	191104A LCS-1		1	1	1	1	800	1	2/1	11/04/19 13:35	
						equip	EWB5				
3	191104A LCS-2		0.125	2	0.050	2	800	1	2/1	11/04/19 13:35	
						equip	EWB5				
4	191104A LCSD-1		1	1	1	1	800	1	2/1	11/04/19 13:35	
						equip	EWB5				
5	191104A LCSD-2		0.125	2	0.050	2	800	1	2/1	11/04/19 13:35	
						equip	EWB5				
6	BA02090	BA02090W19			1,0.050	1,2	800	1	2/1	11/04/19 13:35	90587
						equip	EWB5				
7	BA02091	BA02091W14			1,0.050	1,2	800	1	2/1	11/04/19 13:35	90587
						equip	EWB5				
8	BA02160	BA02160W16			1,0.050	1,2	800	1	2/1	11/04/19 13:35	90599
						equip	EWB5				
9	BA02214	BA02214W21			1,0.050	1,2	800	1	2/1	11/04/19 13:35	90611
						equip	EWB5				
10	BA02216	BA02216W13			1,0.050	1,2	800	1	2/1	11/04/19 13:35	90611
						equip	EWB5				
11	BA02301	BA02301W13			1,0.050	1,2	800	1	2/1	11/04/19 13:35	90625
						equip	EWB5				

Solvent and Lot#	
PH Strips	HC863463
Dichloromethane (DCM)	59130
1+1 H2SO4	11/1/19
10N NaOH	10/25/19
Filter Paper	400171
B. Na2SO4	2019020631

Extraction COC Transfer	
Extraction lab employee Initials	SS
GC analyst's initials	MA
Date	11/7/19
Time	1330
Refrigerator	GC_C

	Technician's Initials
Scanned By	DL
Sample Preparation	DL,YL,RB
Extraction	RB,DL
Concentration	DL

Modified	11/14/19 9:54:11 AM

Reviewed By: **Date**

Injection Log

Directory: M:\YODA\DATA\Y191121\

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	2	1121Y002.D	1	SV TUNE 10/01/19		21 Nov 19 13:52
2	3	1121Y003.D	1	4ug/ml 8270 11/21/19		21 Nov 19 14:07
3	4	1121Y004.D	1	5ug/ml 8270 11/21/19		21 Nov 19 14:35
4	5	1121Y005.D	1	10ug/ml 8270 11/21/19		21 Nov 19 15:37
5	6	1121Y006.D	1	20ug/ml 8270 11/21/19		21 Nov 19 16:05
6	7	1121Y007.D	1	40ug/ml 8270 11/21/19		21 Nov 19 16:33
7	8	1121Y008.D	1	50ug/ml 8270 11/21/19		21 Nov 19 17:01
8	9	1121Y009.D	1	60ug/ml 8270 11/21/19		21 Nov 19 17:30
9	10	1121Y010.D	1	80ug/ml 8270 11/21/19		21 Nov 19 17:58
10	11	1121Y011.D	1	100ug/ml 8270 11/21/19		21 Nov 19 18:26
11	31	1121Y031.D	1	SS 8270 11/22/19		22 Nov 19 13:38
12	48	1121Y148.D	1	SV TUNE 10/01/19		26 Nov 19 18:16
13	54	1121Y154.D	1	50ug/ml 8270 11/21/19 (1)		26 Nov 19 20:50
14	55	1121Y155.D	1.25	191104A BLK 2/800		26 Nov 19 21:18
15	56	1121Y156.D	1.25	191104A LCS-1 2/800		26 Nov 19 21:46
16	57	1121Y157.D	1.25	191104A LCSD-1 2/800		26 Nov 19 22:14
17	60	1121Y160.D	1.25	BA02160W16 2/800		26 Nov 19 23:37
18	72	1121Y172.D	1	50ug/ml 8270 11/21/19 (2)		27 Nov 19 5:11

ORGANICS
Calibration Data

2MEE
EPA 8270

Form 6
Initial Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Initial Cal. Date: 10/31/19
Matrix: Instrument: Linus
Initials: MA/JM

			1030L004.D	1030L005.D	1030L006.D	1030L007.D	1030L008.D	1030L009.D	1030L010 D	1030L011.D								
		Compound	1	2	3	4	5	6	7	8			Avg	%RSD	Type	r^2	Q	MRF
1	I	1,4-dichlorobenzene-D4(IS)																
2	TM	2-(2-Methoxyethoxy)ethanol	0.1255	0.1270	0.1199	*	0.1601	0.1377	0.1599	0.1385			0.14	12	TM			
3	I	Napthalene-D8(IS)																
4	I	Acenaphthene-D10(IS)																
5	I	Phenanthrene-D10(IS)																
6	I	Chrysene-D12(IS)																
7	I	Perylene-D12(IS)																
8																		
9																		
10																		
11																		
12																		
13		* It was concentrated. Deleted from the ICAL																
14																		
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Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L191030M\1030L004.D Vial: 4
Acq On : 31 Oct 19 11:50 Operator: MA
Sample : 50 2MEE 4/30/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 31 12:28 2019 Quant Results File: YMEE1030.RES

Quant Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Oct 31 11:46:50 2019
Response via : Initial Calibration
DataAcq Meth : GED

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	3.67	152	924546	40.00000 ppb	0.00
3) Napthalene-D8(IS)	4.62	136	3824592	40.00000 ppb	0.00
4) Acenaphthene-D10(IS)	6.02	164	1847509	40.00000 ppb	0.00
5) Phenanthrene-D10(IS)	7.22	188	3070665	40.00000 ppb	0.00
6) Chrysene-D12(IS)	9.42	240	2379935	40.00000 ppb	0.02
7) Perylene-D12(IS)	10.65	264	2480690	40.00000 ppb	0.06

System Monitoring Compounds

Target Compounds					Qvalue
2) 2-(2-Methoxyethoxy)ethanol	3.19	45	145043m	63.19099 ppb	98

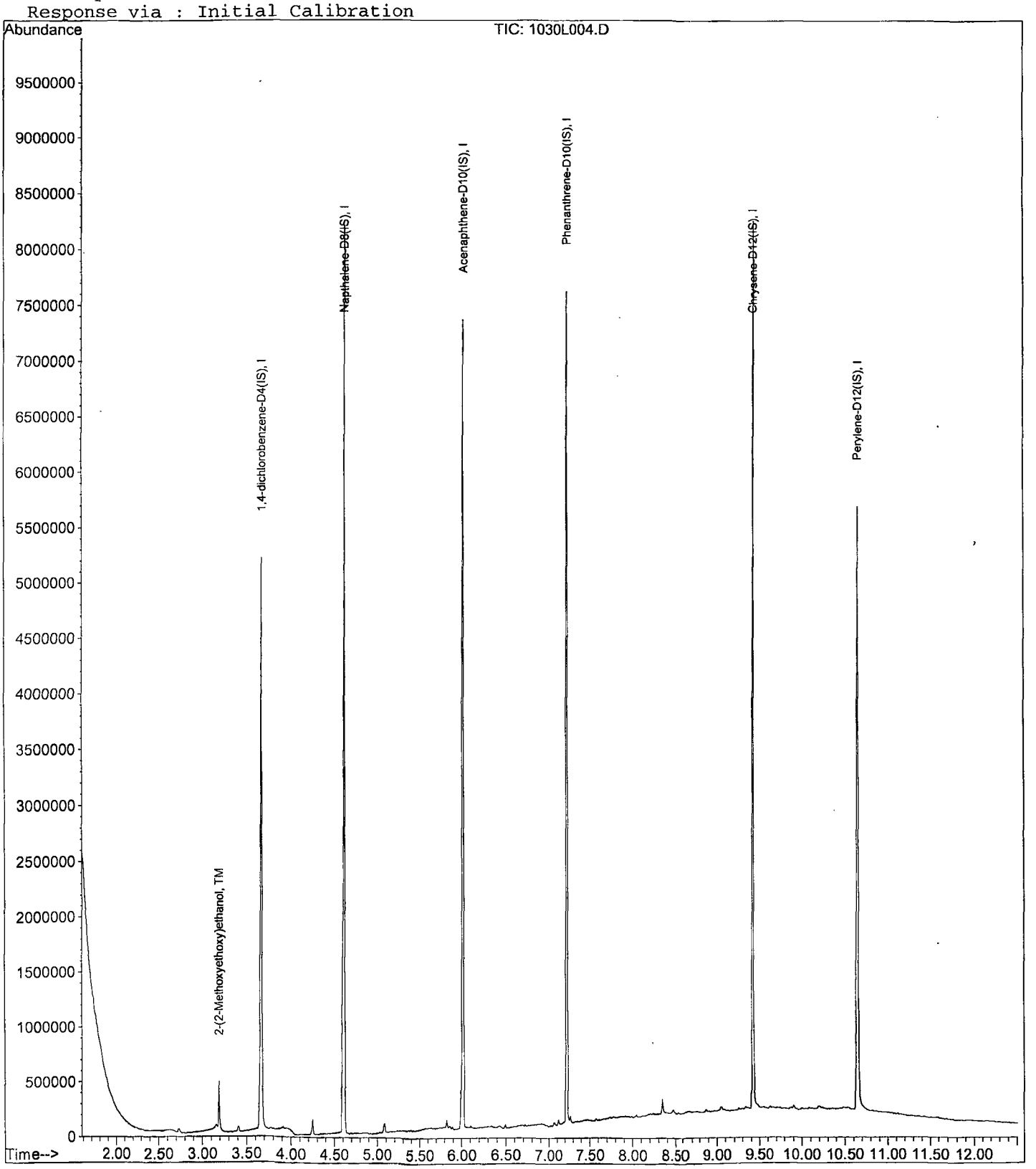
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L191030M\1030L004.D Vial: 4
Acq On : 31 Oct 19 11:50 Operator: MA
Sample : 50 2MEE 4/30/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 31 12:28 2019 Quant Results File: YMEE1030.RES

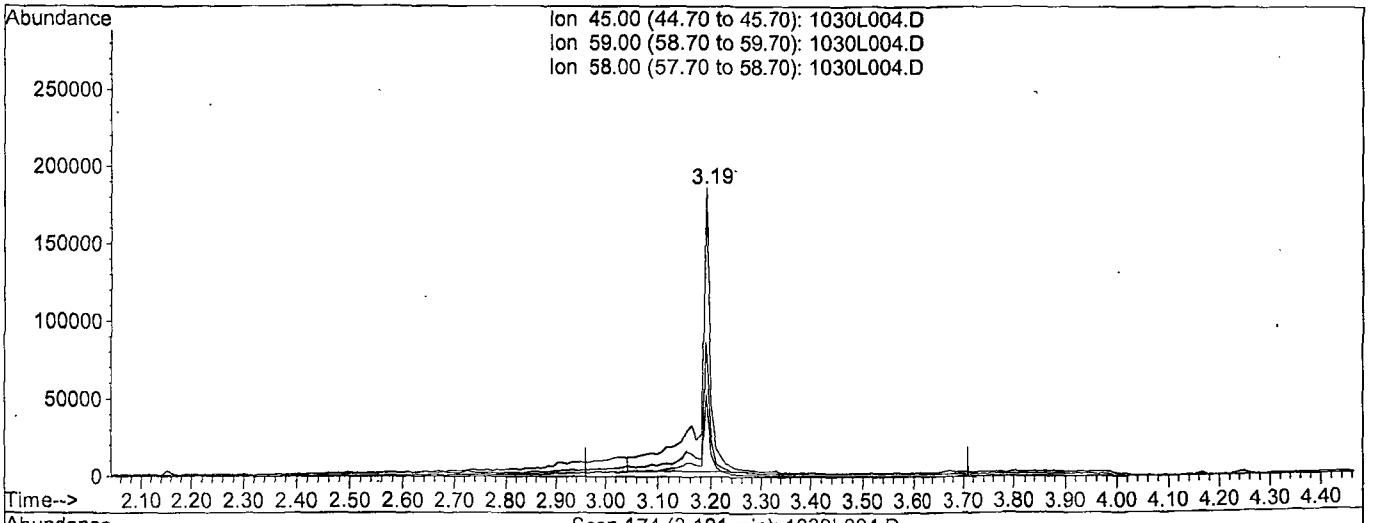
Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Oct 31 14:18:15 2019
Response via : Initial Calibration

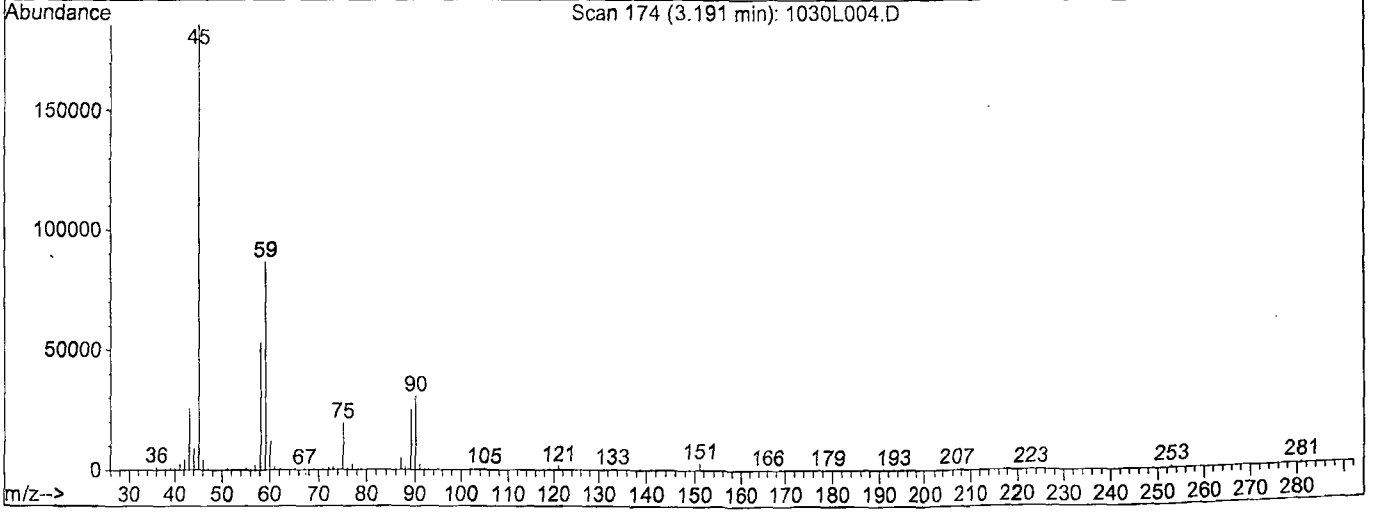


Quantitation Report

Data File : M:\LINUS\DATA\L191030M\1030L004.D Vial: 4
Acq On : 31 Oct 19 11:50 Operator: MA
Sample : 50 2MEE 4/30/19 Inst : Linus
Misc : Multiplr: 1.00
Quant Time: Oct 31 12:04 2019 Quant Results File: temp.res

Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Oct 31 11:46:50 2019
Response via : Multiple Level Calibration





TIC: 1030L004.D

(2) 2-(2-Methoxyethoxy)ethanol (TM)

3.19min 99.2279ppb

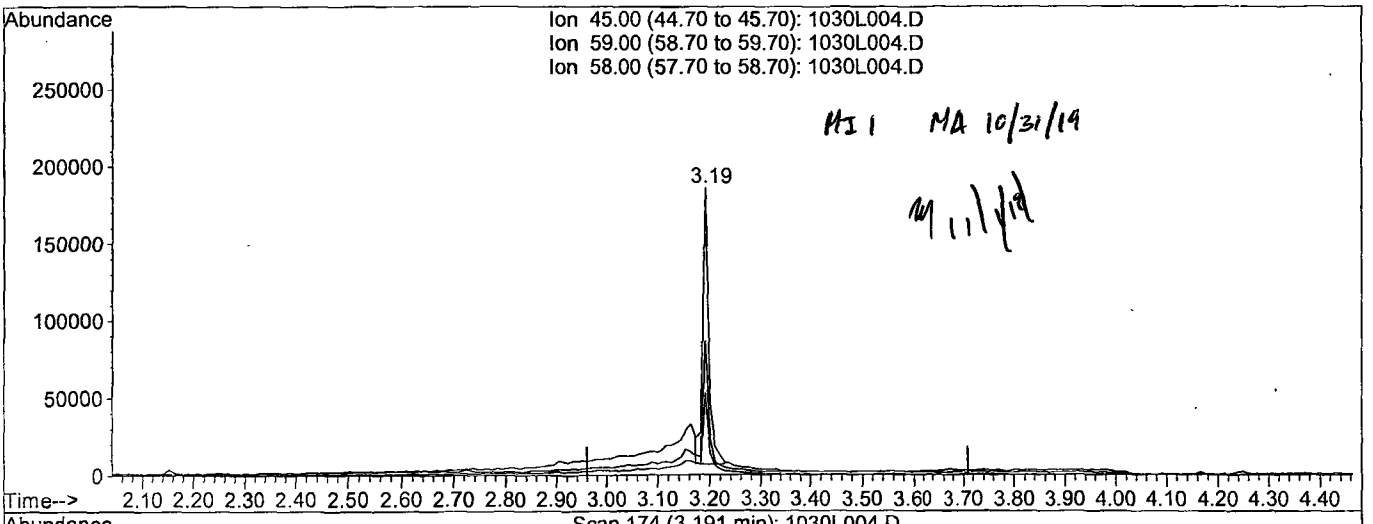
response 284001

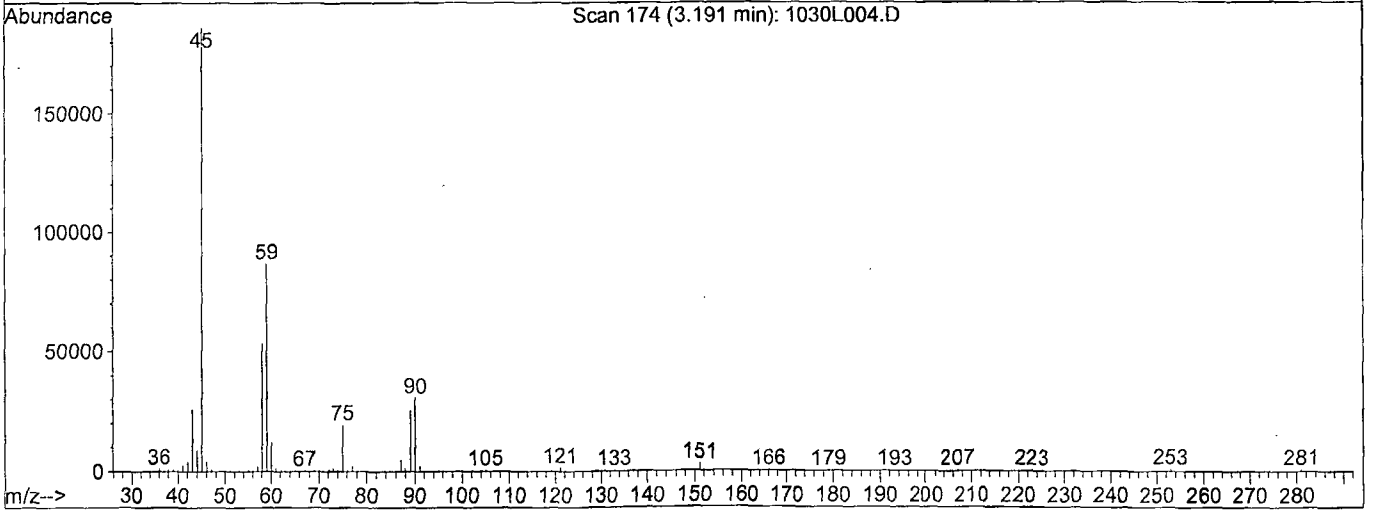
Ion	Exp%	Act%
45.00	100	100
59.00	48.10	46.59
58.00	29.40	28.49
0.00	0.00	0.00

Quantitation Report

Data File : M:\LINUS\DATA\L191030M\1030L004.D Vial: 4
Acq On : 31 Oct 19 11:50 Operator: MA
Sample : 50 2MEE 4/30/19 Inst : Linus
Misc : Multiplr: 1.00
Quant Time: Oct 31 12:28 2019 Quant Results File: temp.res

Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Oct 31 11:46:50 2019
Response via : Multiple Level Calibration





TIC: 1030L004.D

(2) 2-(2-Methoxyethoxy)ethanol (TM)

3.19min 63.1910ppb m

response 145043

Ion	Exp%	Act%
45.00	100	100
59.00	48.10	46.59
58.00	29.40	28.49
0.00	0.00	0.00

Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L191030M\1030L005.D Vial: 5
Acq On : 31 Oct 19 12:10 Operator: MA
Sample : 100 2MEE 4/30/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 31 13:29 2019 Quant Results File: YMEE1030.RES

Quant Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Oct 31 13:28:52 2019
Response via : Initial Calibration
DataAcq Meth : GED

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	3.66	152	802143	40.00000 ppb	0.00
3) Napthalene-D8(IS)	4.62	136	3947022	40.00000 ppb	0.00
4) Acenaphthene-D10(IS)	6.02	164	1905798	40.00000 ppb	0.00
5) Phenanthrene-D10(IS)	7.23	188	3352515	40.00000 ppb	0.00
6) Chrysene-D12(IS)	9.39	240	2935825	40.00000 ppb	0.00
7) Perylene-D12(IS)	10.58	264	2243163	40.00000 ppb	-0.02
System Monitoring Compounds					
Target Compounds					Qvalue
2) 2-(2-Methoxyethoxy)ethanol	3.19	45	254665	101.69486 ppb	93

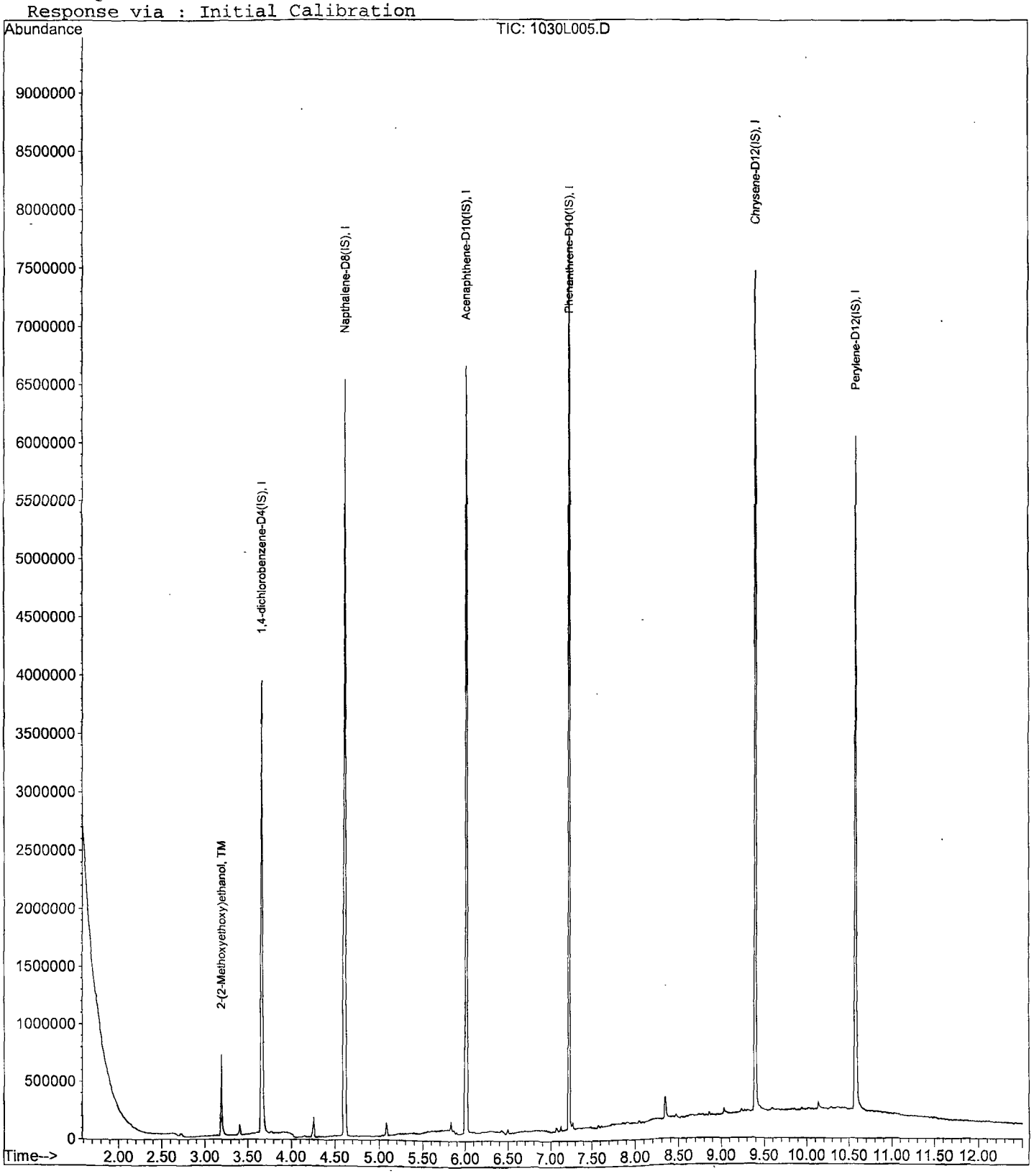
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L191030M\1030L005.D Vial: 5
Acq On : 31 Oct 19 12:10 Operator: MA
Sample : 100 2MEE 4/30/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 31 13:29 2019 Quant Results File: YMEE1030.RES

Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Oct 31 14:18:15 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L191030M\1030L006.D Vial: 6
Acq On : 31 Oct 19 12:29 Operator: MA
Sample : 200 2MEE 4/30/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 31 13:30 2019 Quant Results File: YMEE1030.RES

Quant Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Oct 31 13:28:52 2019
Response via : Initial Calibration
DataAcq Meth : GED

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	3.67	152	867176	40.00000 ppb	0.00
3) Napthalene-D8(IS)	4.62	136	3930052	40.00000 ppb	0.00
4) Acenaphthene-D10(IS)	6.02	164	2009214	40.00000 ppb	0.00
5) Phenanthrene-D10(IS)	7.22	188	3319659	40.00000 ppb	0.00
6) Chrysene-D12(IS)	9.40	240	3235629	40.00000 ppb	0.00
7) Perylene-D12(IS)	10.58	264	2613264	40.00000 ppb	-0.02

System Monitoring Compounds

Target Compounds					Qvalue
2) 2-(2-Methoxyethoxy)ethanol	3.20	45	519817	166.78709 ppb	99

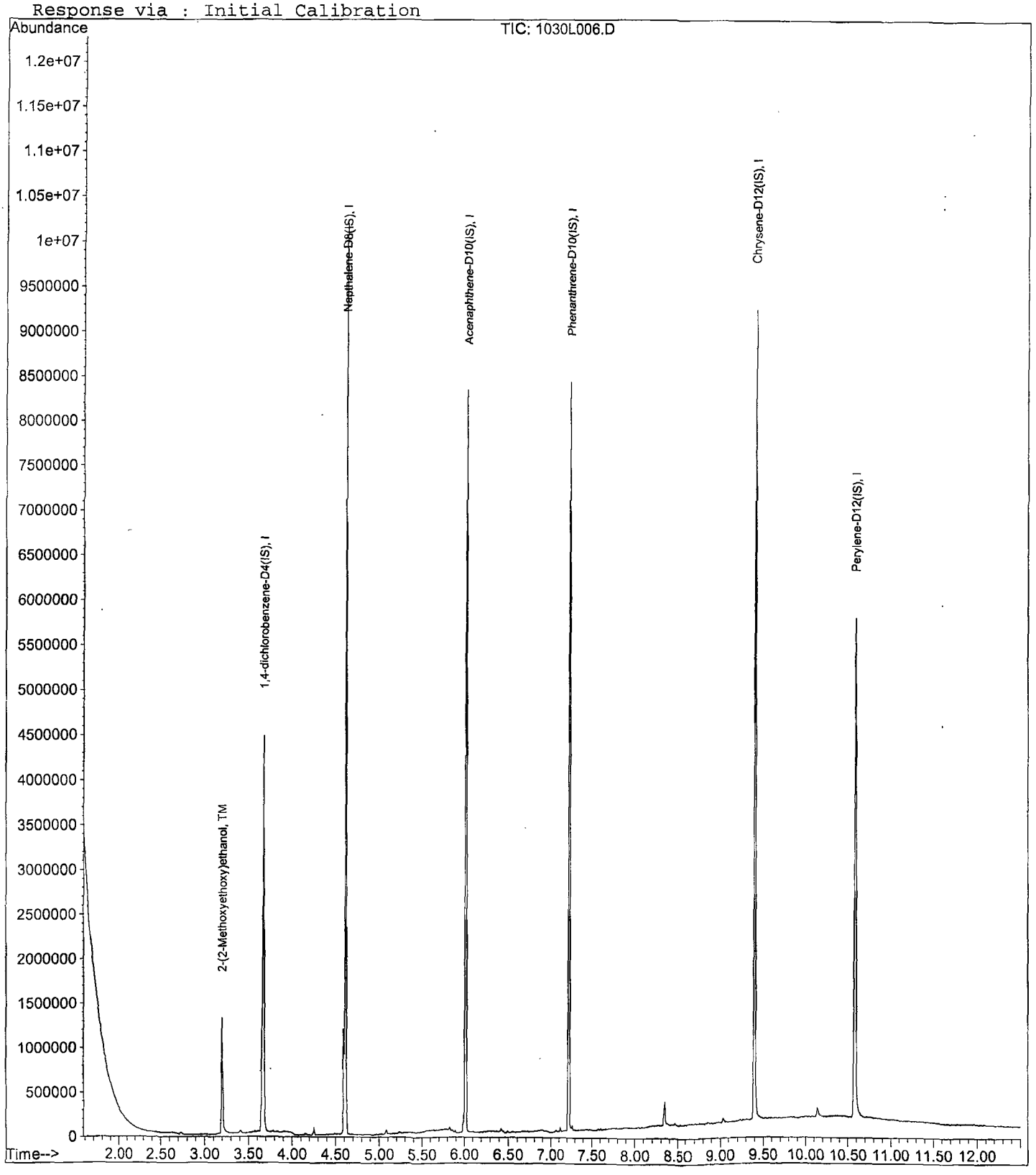
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L191030M\1030L006.D Vial: 6
Acq On : 31 Oct 19 12:29 Operator: MA
Sample : 200 2MEE 4/30/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 31 13:30 2019 Quant Results File: YMEE1030.RES

Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Oct 31 14:18:15 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L191030M\1030L007.D Vial: 7
Acq On : 31 Oct 19 12:49 Operator: MA
Sample : 400 2MEE 4/30/19 not used. It got concen Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 31 13:30 2019 Quant Results File: YMEE1030.RES

Quant Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Oct 31 13:28:52 2019
Response via : Initial Calibration
DataAcq Meth : GED

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	3.67	152	768222	40.00000 ppb	0.00
3) Napthalene-D8(IS)	4.62	136	3846001	40.00000 ppb	0.00
4) Acenaphthene-D10(IS)	6.02	164	2102228	40.00000 ppb	0.00
5) Phenanthrene-D10(IS)	7.23	188	3529522	40.00000 ppb	0.00
6) Chrysene-D12(IS)	9.40	240	2845578	40.00000 ppb	0.00
7) Perylene-D12(IS)	10.60	264	2568289	40.00000 ppb	0.00

System Monitoring Compounds

Target Compounds					Qvalue
2) 2-(2-Methoxyethoxy)ethanol	3.22	45	1438559	476.21754 ppb	94

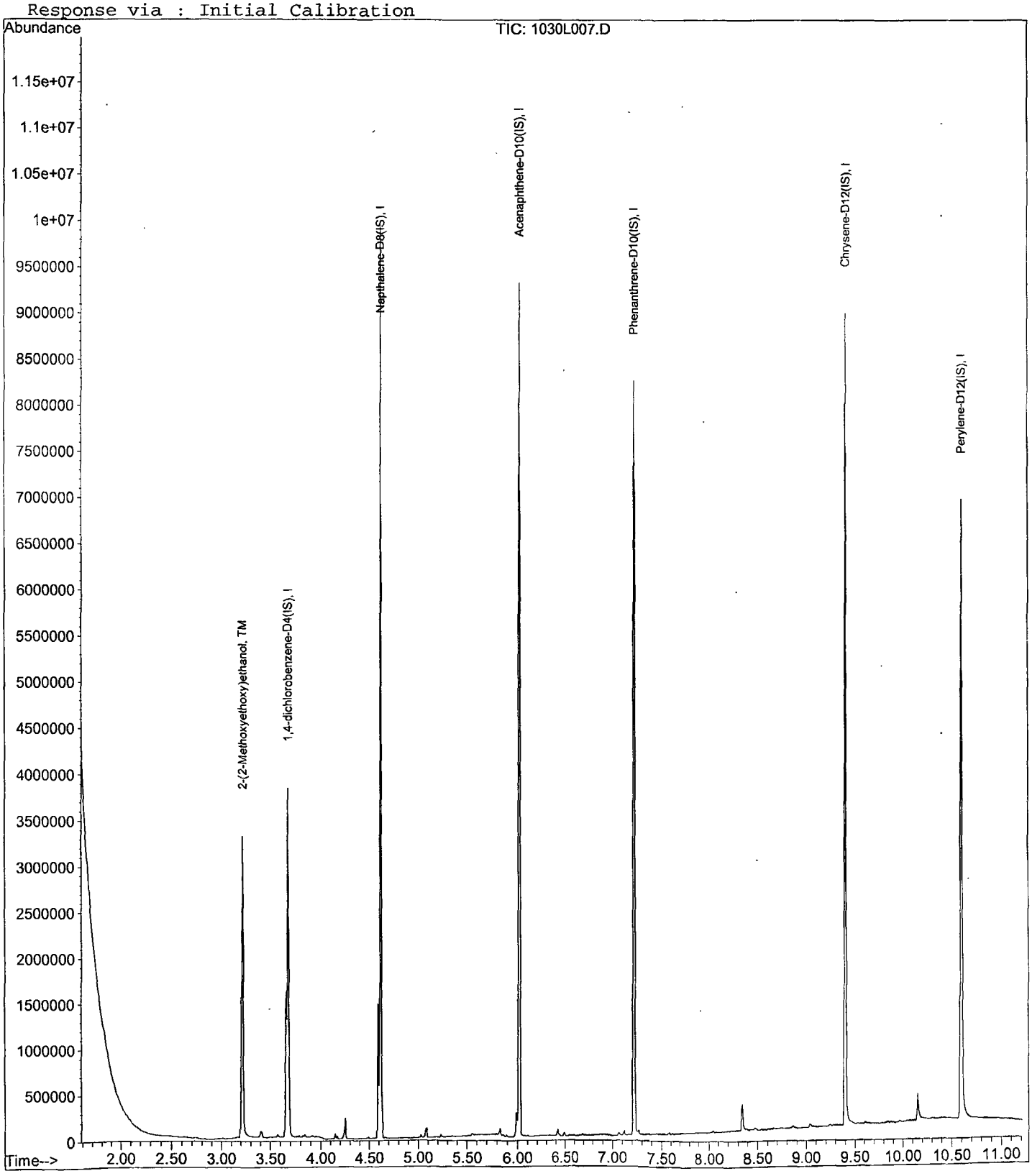
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L191030M\1030L007.D Vial: 7
Acq On : 31 Oct 19 12:49 Operator: MA
Sample : 400 2MEE 4/30/19 not used. It got concen Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 31 13:30 2019 Quant Results File: YMEE1030.RES

Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Oct 31 14:18:15 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L191030M\1030L008.D Vial: 8
Acq On : 31 Oct 19 13:07 Operator: MA
Sample : 500 2MEE 4/30/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 31 14:14 2019 Quant Results File: YMEE1030.RES

Quant Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Oct 31 14:14:39 2019
Response via : Initial Calibration
DataAcq Meth : GED

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	3.67	152	772292	40.00000 ppb	0.00
3) Napthalene-D8(IS)	4.62	136	3394425	40.00000 ppb	0.00
4) Acenaphthene-D10(IS)	6.02	164	1712966	40.00000 ppb	0.00
5) Phenanthrene-D10(IS)	7.22	188	2832000	40.00000 ppb	0.00
6) Chrysene-D12(IS)	9.40	240	2510708	40.00000 ppb	0.00
7) Perylene-D12(IS)	10.60	264	2441015	40.00000 ppb	0.00

System Monitoring Compounds

Target Compounds					Qvalue
2) 2-(2-Methoxyethoxy)ethanol	3.21	45	1545173	578.42618 ppb	100

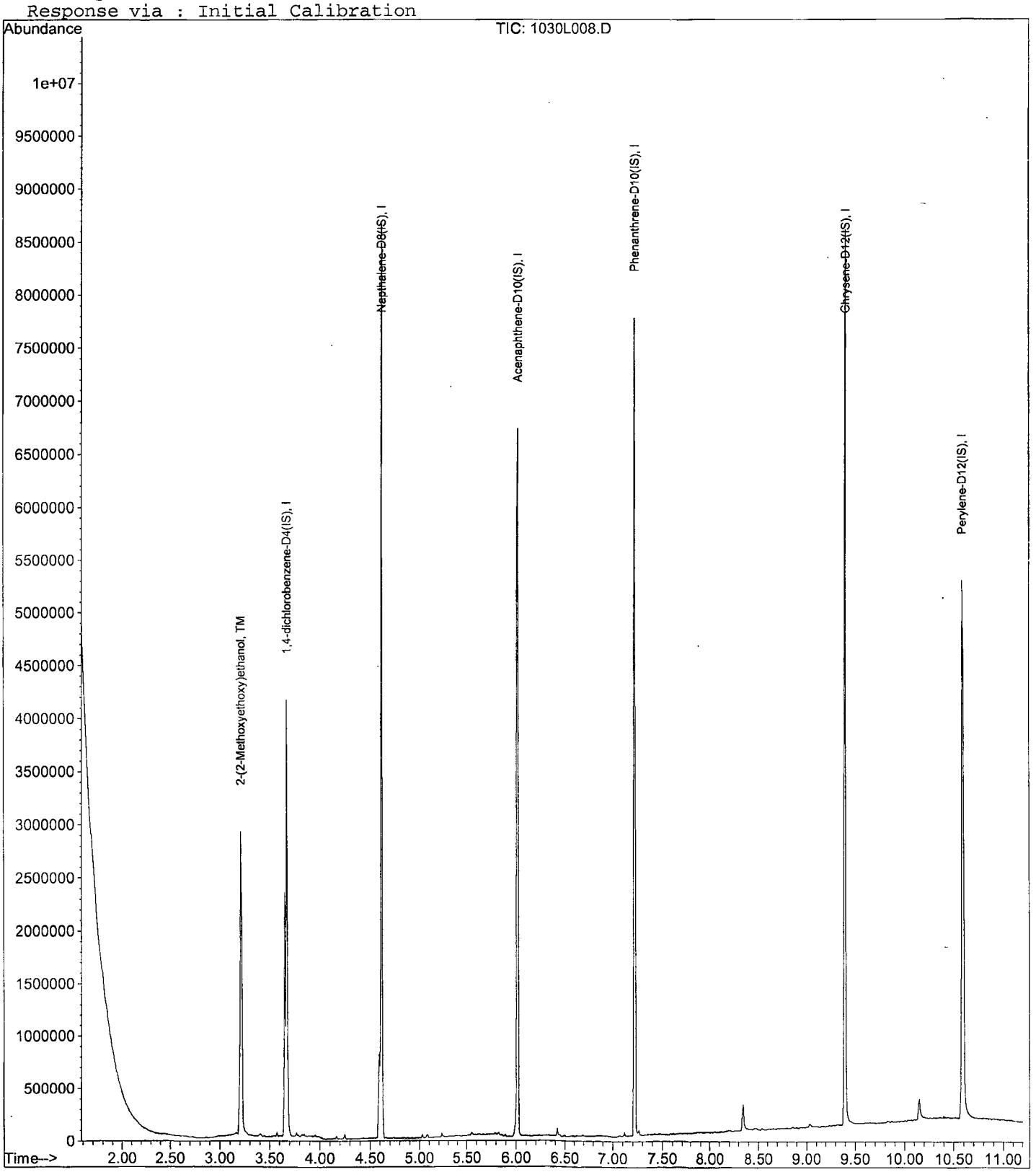
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L191030M\1030L008.D Vial: 8
Acq On : 31 Oct 19 13:07 Operator: MA
Sample : 500 2MEE 4/30/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 31 14:14 2019 Quant Results File: YMEE1030.RES

Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Oct 31 14:18:15 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L191030M\1030L009.D Vial: 9
Acq On : 31 Oct 19 13:25 Operator: MA
Sample : 600 2MEE 4/30/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 31 13:40 2019 Quant Results File: YMEE1030.RES

Quant Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Oct 31 13:28:52 2019
Response via : Initial Calibration
DataAcq Meth : GED

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	3.67	152	918679	40.00000 ppb	0.00
3) Napthalene-D8(IS)	4.62	136	3995417	40.00000 ppb	0.00
4) Acenaphthene-D10(IS)	6.02	164	2035544	40.00000 ppb	0.00
5) Phenanthrene-D10(IS)	7.23	188	3476903	40.00000 ppb	0.00
6) Chrysene-D12(IS)	9.40	240	2887642	40.00000 ppb	0.00
7) Perylene-D12(IS)	10.59	264	2390309	40.00000 ppb	0.00

System Monitoring Compounds

Target Compounds					Qvalue
2) 2-(2-Methoxyethoxy)ethanol	3.22	45	1897302	517.69156 ppb	98

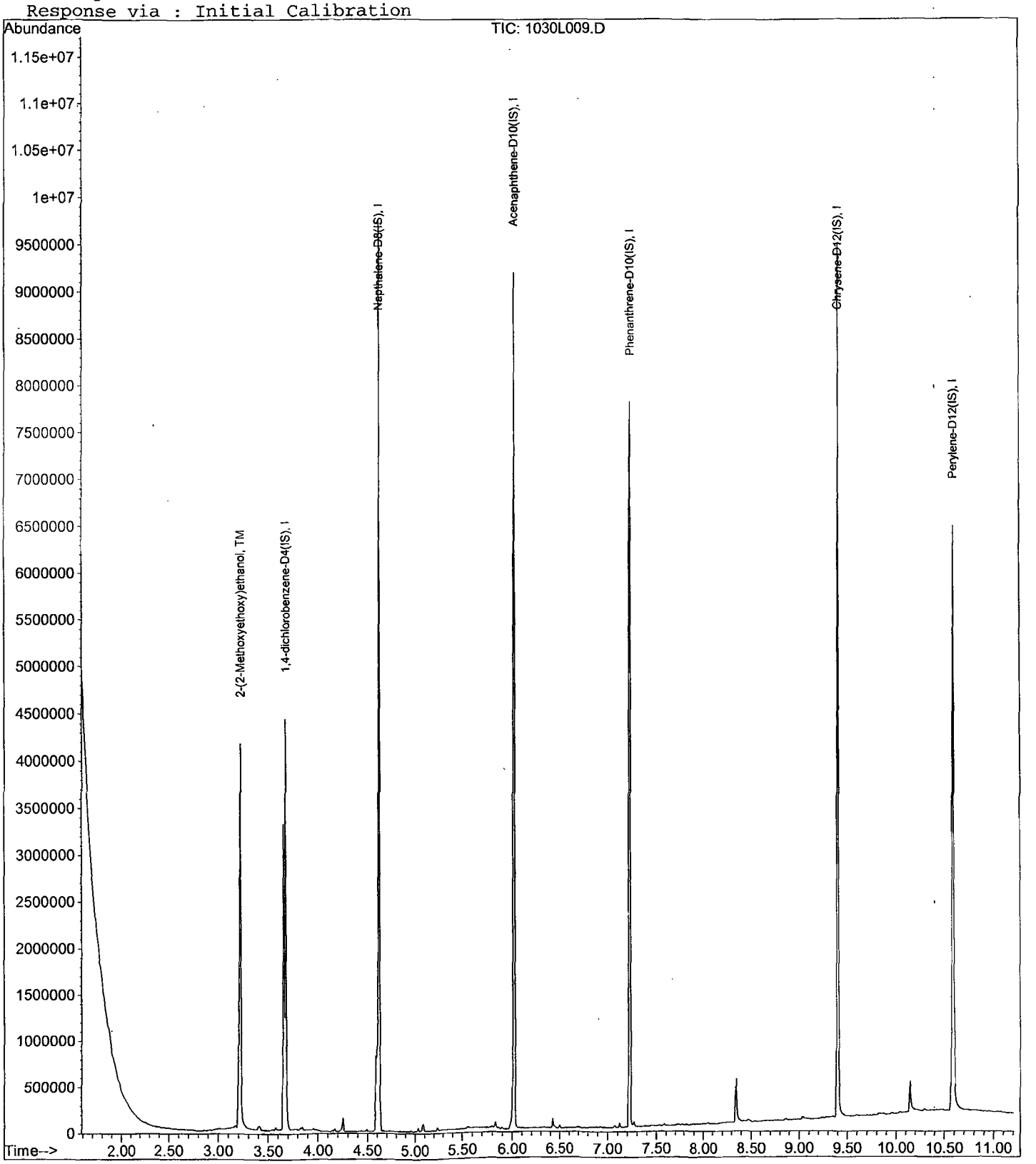
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L191030M\1030L009.D Vial: 9
Acq On : 31 Oct 19 13:25 Operator: MA
Sample : 600 2MEE 4/30/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 31 13:40 2019 Quant Results File: YMEE1030.RES

Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Oct 31 14:18:15 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L191030M\1030L010.D Vial: 10
Acq On : 31 Oct 19 13:43 Operator: MA
Sample : 800 2MEE 4/30/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 31 14:12 2019 Quant Results File: YMEE1030.RES

Quant Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Oct 31 13:28:52 2019
Response via : Initial Calibration
DataAcq Meth : GED

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	3.67	152	781913	40.00000 ppb	0.00
3) Napthalene-D8(IS)	4.62	136	3819124	40.00000 ppb	0.00
4) Acenaphthene-D10(IS)	6.02	164	2060420	40.00000 ppb	0.00
5) Phenanthrene-D10(IS)	7.23	188	3432435	40.00000 ppb	0.00
6) Chrysene-D12(IS)	9.41	240	3218071	40.00000 ppb	0.00
7) Perylene-D12(IS)	10.61	264	2421844	40.00000 ppb	0.00

System Monitoring Compounds

Target Compounds					Qvalue
2) 2-(2-Methoxyethoxy)ethanol	3.23	45	2499934	802.74185 ppb	98

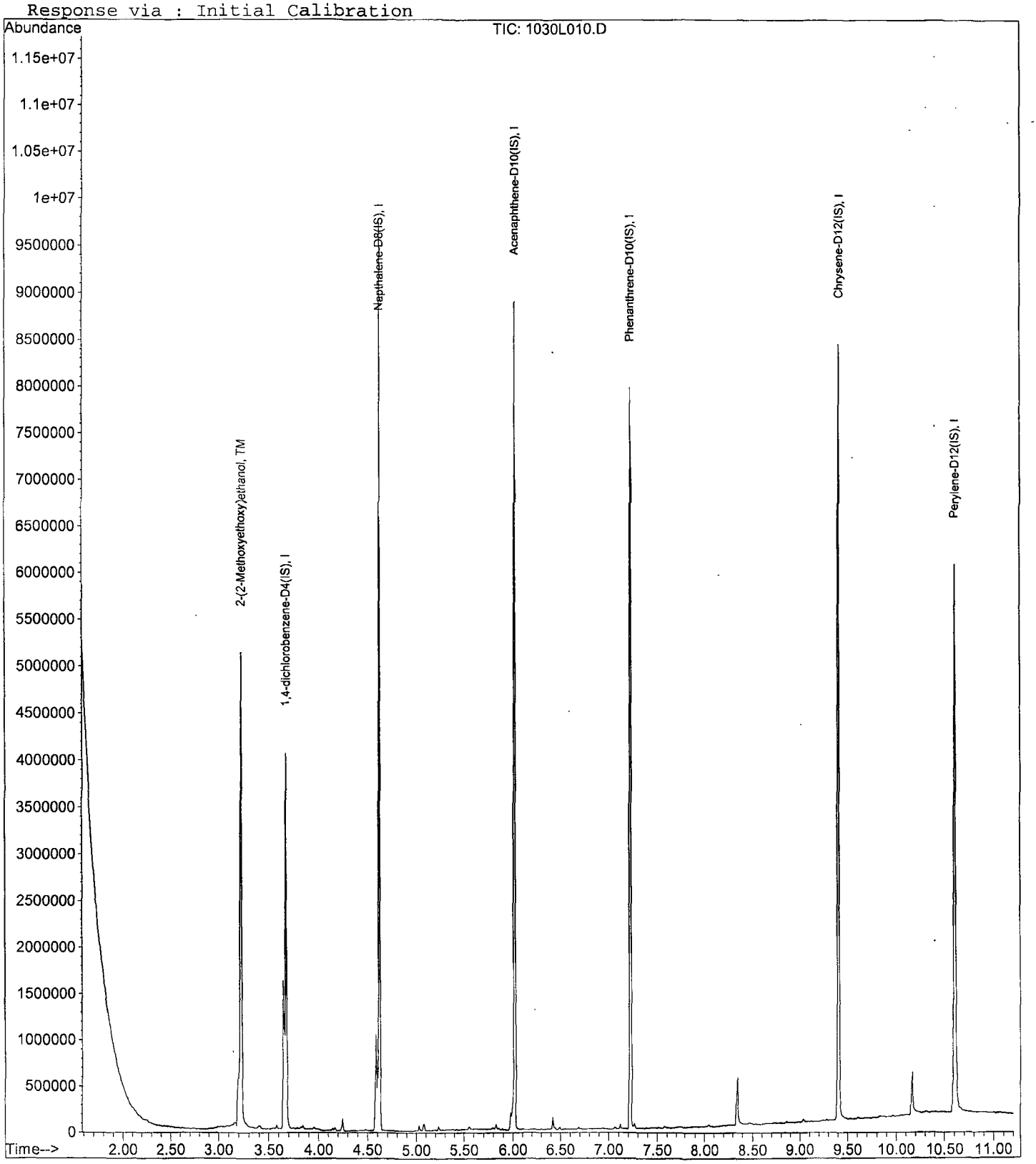
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L191030M\1030L010.D Vial: 10
Acq On : 31 Oct 19 13:43 Operator: MA
Sample : 800 2MEE 4/30/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 31 14:12 2019 Quant Results File: YMEE1030.RES

Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Oct 31 14:18:15 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L191030M\1030L011.D Vial: 11
Acq On : 31 Oct 19 14:02 Operator: MA
Sample : 1000 2MEE 4/30/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 31 14:13 2019 Quant Results File: YMEE1030.RES

Quant Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Oct 31 13:28:52 2019
Response via : Initial Calibration
DataAcq Meth : GED

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	3.67	152	893999	40.00000 ppb	0.00
3) Napthalene-D8(IS)	4.62	136	4002209	40.00000 ppb	0.00
4) Acenaphthene-D10(IS)	6.02	164	2003789	40.00000 ppb	0.00
5) Phenanthrene-D10(IS)	7.22	188	3346119	40.00000 ppb	0.00
6) Chrysene-D12(IS)	9.40	240	2853107	40.00000 ppb	0.00
7) Perylene-D12(IS)	10.60	264	2370540	40.00000 ppb	0.00

System Monitoring Compounds

Target Compounds					Qvalue
2) 2-(2-Methoxyethoxy)ethanol	3.23	45	3096034	880.60620 ppb	98

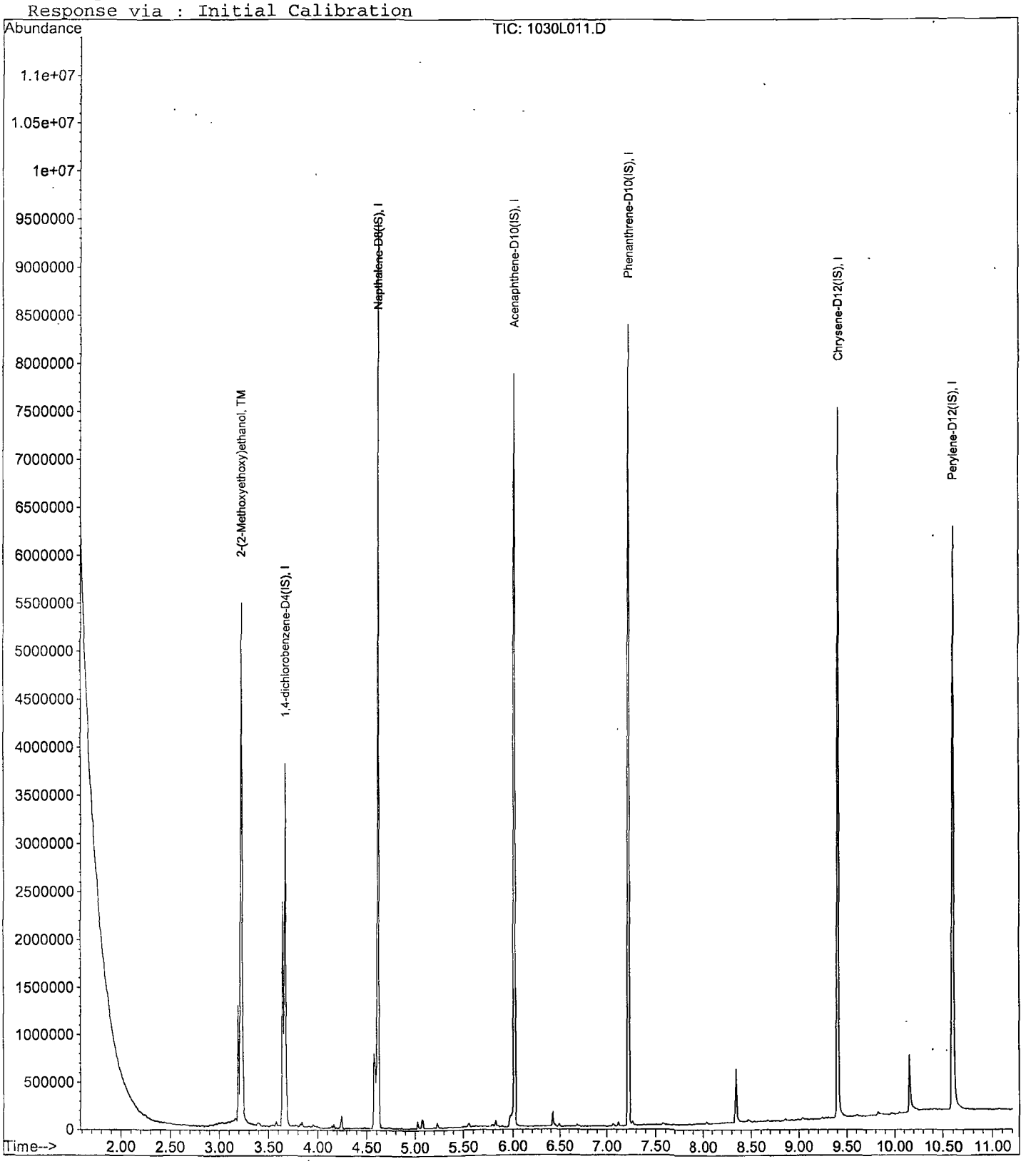
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L191030M\1030L011.D Vial: 11
Acq On : 31 Oct 19 14:02 Operator: MA
Sample : 1000 2MEE 4/30/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 31 14:13 2019 Quant Results File: YMEE1030.RES

Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Oct 31 14:18:15 2019
Response via : Initial Calibration



2MEE
EPA 8270

Form 7

Secon Source Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix:

SDG No:
Date Analyzed: 1 Nov 19 17:11
Instrument: Linus
Initial Cal. Date: 10/31/19
Data File: 1030L016.D

		Compound	MEAN	CCRF	%D		%Drift
1	I	1,4-dichlorobenzene-D4(IS)	ISTD			I	
2	TM	2-(2-Methoxyethoxy)ethanol	0.1384	0.1658	20	TM	
3	I	Napthalene-D8(IS)	ISTD			I	
4	I	Acenaphthene-D10(IS)	ISTD			I	
5	I	Phenanthrene-D10(IS)	ISTD			I	
6	I	Chrysene-D12(IS)	ISTD			I	
7	I	Perylene-D12(IS)	ISTD			I	
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
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28							
29							
30							
31							
32							
33							
34							
35							
36							
37							
38							
39							
40							
		Average			20.0		

Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L191030M\1030L016.D Vial: 16
Acq On : 1 Nov 19 17:11 Operator: MA
Sample : SS 2MEE 11/1/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Nov 1 17:27 2019 Quant Results File: YMEE1030.RES

Quant Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 01 17:06:59 2019
Response via : Initial Calibration
DataAcq Meth : GED

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	3.67	152	966230	40.00000 ppb	0.00
3) Napthalene-D8(IS)	4.62	136	4151555	40.00000 ppb	0.00
4) Acenaphthene-D10(IS)	6.02	164	2209408	40.00000 ppb	0.00
5) Phenanthrene-D10(IS)	7.23	188	4025811	40.00000 ppb	0.00
6) Chrysene-D12(IS)	9.40	240	2795621	40.00000 ppb	0.00
7) Perylene-D12(IS)	10.59	264	3078419	40.00000 ppb	0.00

System Monitoring Compounds

Target Compounds					Qvalue
2) 2-(2-Methoxyethoxy)ethanol	3.20	45	2003024	599.31894 ppb	100

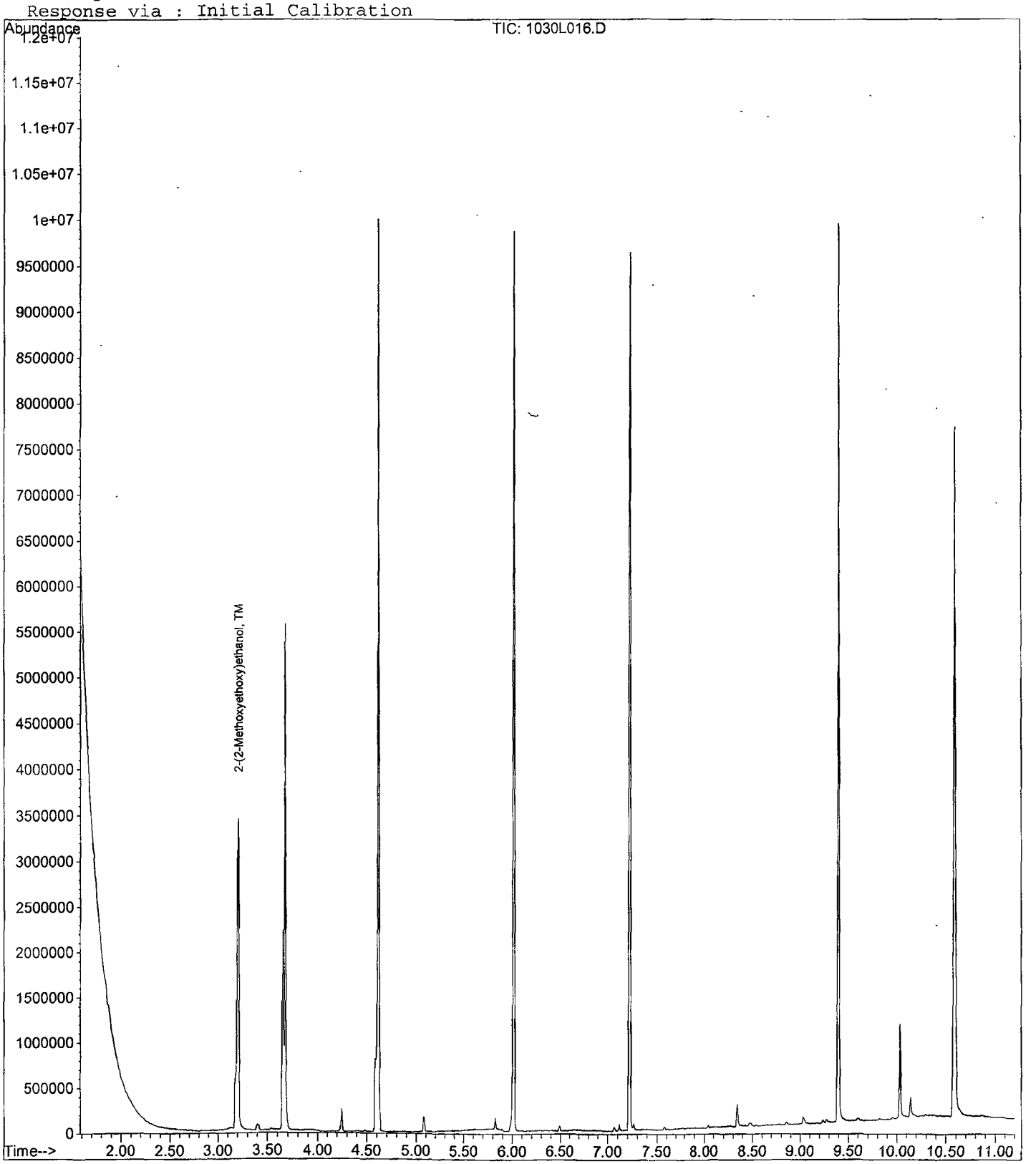
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L191030M\1030L016.D Vial: 16
Acq On : 1 Nov 19 17:11 Operator: MA
Sample : SS 2MEE 11/1/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Nov 1 17:27 2019 Quant Results File: YMEE1030.RES

Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 01 17:44:15 2019
Response via : Initial Calibration



2MEE
EPA 8270

Form 7

Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix:

SDG No:
Date Analyzed: 8 Nov 19 13:13
Instrument: Linus
Initial Cal. Date: 10/31/19
Data File: 1030L042.D

		Compound	MEAN	CCRF	%D		%Drift
1	I	1,4-dichlorobenzene-D4(IS)	ISTD			I	
2	TM	2-(2-Methoxyethoxy)ethanol	0.1384	0.1387	0.23	TM	
3	I	Napthalene-D8(IS)	ISTD			I	
4	I	Acenaphthene-D10(IS)	ISTD			I	
5	I	Phenanthrene-D10(IS)	ISTD			I	
6	I	Chrysene-D12(IS)	ISTD			I	
7	I	Perylene-D12(IS)	ISTD			I	
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
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28							
29							
30							
31							
32							
33							
34							
35							
36							
37							
38							
39							
40							
		Average			0.2		

Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L191030M\1030L042.D Vial: 42
Acq On : 8 Nov 19 13:13 Operator: MA
Sample : 500 2MEE 4/30/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Nov 8 13:31 2019 Quant Results File: YMEE1030.RES

Quant Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 01 17:44:15 2019
Response via : Initial Calibration
DataAcq Meth : GED

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	3.67	152	742292m	40.00000	ppb	0.00
3) Napthalene-D8(IS)	4.62	136	3312063	40.00000	ppb	0.00
4) Acenaphthene-D10(IS)	6.01	164	1556563	40.00000	ppb	0.00
5) Phenanthrene-D10(IS)	7.22	188	2759126	40.00000	ppb	0.00
6) Chrysene-D12(IS)	9.42	240	2199352	40.00000	ppb	0.02
7) Perylene-D12(IS)	10.65	264	2536267	40.00000	ppb	0.05

System Monitoring Compounds

Target Compounds						Qvalue
2) 2-(2-Methoxyethoxy)ethanol	3.20	45	1286778	501.16556	ppb	98

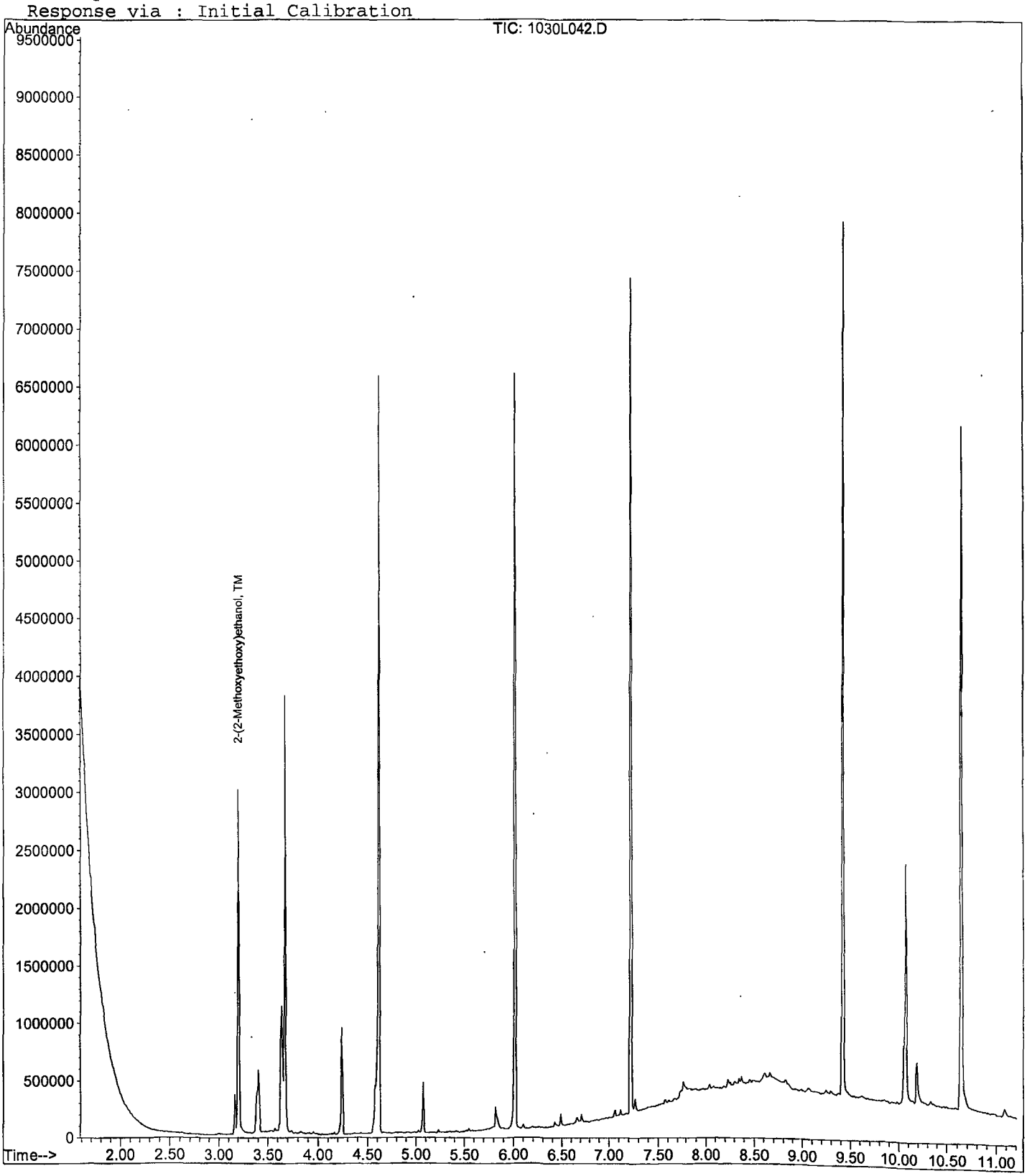
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L191030M\1030L042.D Vial: 42
Acq On : 8 Nov 19 13:13 Operator: MA
Sample : 500 2MEE 4/30/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Nov 8 13:31 2019 Quant Results File: YMEE1030.RES

Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 01 17:44:15 2019
Response via : Initial Calibration



2MEE
EPA 8270

Form 7

Ending Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix:

SDG No:
Date Analyzed: 8 Nov 19 21:02
Instrument: Linus
Initial Cal. Date: 10/31/19
Data File: 1030L061.D

		Compound	MEAN	CCRF	%D		%Drift
1	I	1,4-dichlorobenzene-D4(IS)	ISTD			I	
2	TM	2-(2-Methoxyethoxy)ethanol	0.1384	0.1103	20	TM	
3	I	Napthalene-D8(IS)	ISTD			I	
4	I	Acenaphthene-D10(IS)	ISTD			I	
5	I	Phenanthrene-D10(IS)	ISTD			I	
6	I	Chrysene-D12(IS)	ISTD			I	
7	I	Perylene-D12(IS)	ISTD			I	
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
30							
31							
32							
33							
34							
35							
36							
37							
38							
39							
40							
		Average			20.0		

Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L191030M\1030L061.D Vial: 61
Acq On : 8 Nov 19 21:02 Operator: MA
Sample : 500 2MEE 4/30/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Nov 11 9:47 2019 Quant Results File: YMEE1030.RES

Quant Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 01 17:44:15 2019
Response via : Initial Calibration
DataAcq Meth : GED

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	3.67	152	772424m	40.00000	ppb	0.00
3) Napthalene-D8(IS)	4.61	136	3311191	40.00000	ppb	0.00
4) Acenaphthene-D10(IS)	6.01	164	1654193	40.00000	ppb	0.00
5) Phenanthrene-D10(IS)	7.22	188	3011207	40.00000	ppb	0.00
6) Chrysene-D12(IS)	9.39	240	2583758	40.00000	ppb	0.00
7) Perylene-D12(IS)	10.57	264	2584578	40.00000	ppb	-0.03
System Monitoring Compounds						
Target Compounds						Qvalue
2) 2-(2-Methoxyethoxy)ethanol	3.19	45	1065305	398.72234	ppb	96

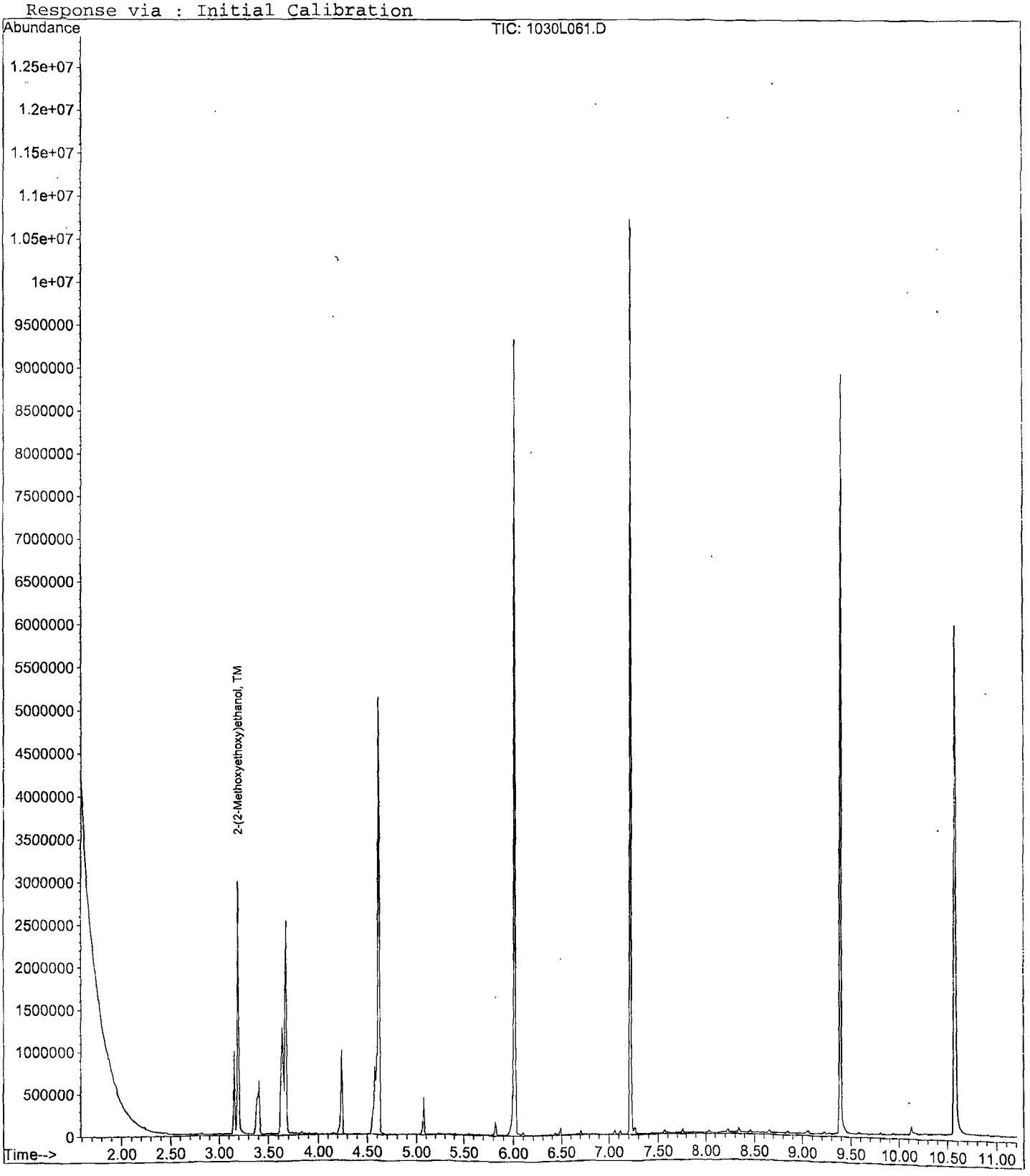
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L191030M\1030L061.D Vial: 61
Acq On : 8 Nov 19 21:02 Operator: MA
Sample : 500 2MEE 4/30/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Nov 11 9:47 2019 Quant Results File: YMEE1030.RES

Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 01 17:44:15 2019
Response via : Initial Calibration



ORGANICS
Raw Data

Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L191030M\1030L052.D Vial: 52
Acq On : 8 Nov 19 18:17 Operator: MA
Sample : BA02160W10 2/500 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Nov 11 9:44 2019 Quant Results File: YMEE1030.RES

Quant Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 01 17:44:15 2019
Response via : Initial Calibration
DataAcq Meth : GED

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	3.66	152	524780	40.00000	ppb	0.00
3) Napthalene-D8(IS)	4.61	136	2114668	40.00000	ppb	0.00
4) Acenaphthene-D10(IS)	6.01	164	1377860	40.00000	ppb	0.00
5) Phenanthrene-D10(IS)	7.22	188	2666408	40.00000	ppb	0.00
6) Chrysene-D12(IS)	9.39	240	1983251	40.00000	ppb	0.00
7) Perylene-D12(IS)	10.59	264	2143430	40.00000	ppb	0.00

System Monitoring Compounds

Target Compounds Qvalue

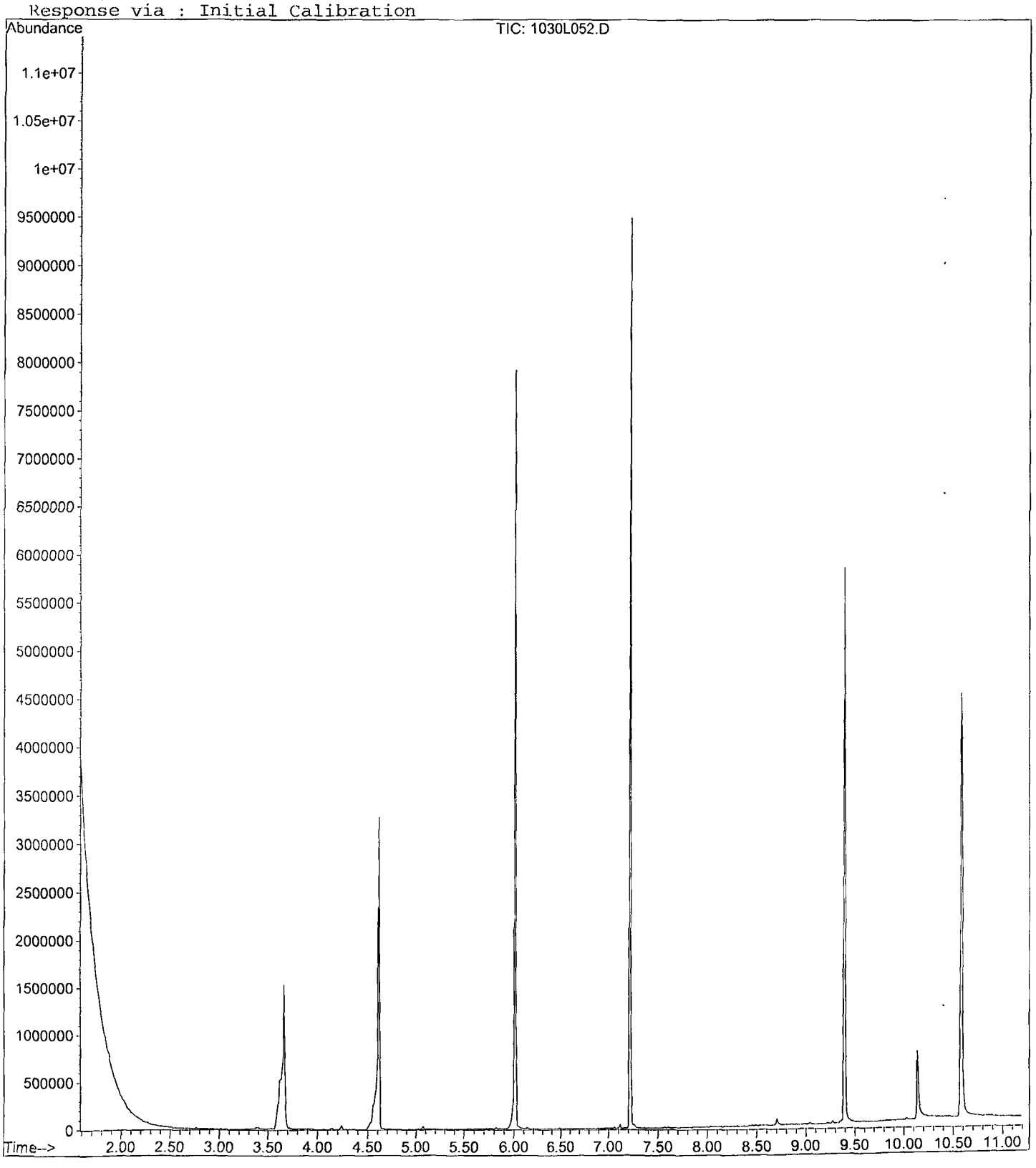
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L191030M\1030L052.D Vial: 52
Acq On : 8 Nov 19 18:17 Operator: MA
Sample : BA02160W10 2/500 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Nov 11 9:44 2019 Quant Results File: YMEE1030.RES

Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 01 17:44:15 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L191030M\1030L043.D Vial: 43
Acq On : 8 Nov 19 14:21 Operator: MA
Sample : 191031A BLK 2/500 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Nov 8 16:32 2019 Quant Results File: YMEE1030.RES

Quant Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 01 17:44:15 2019
Response via : Initial Calibration
DataAcq Meth : GED

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	3.67	152	699122	40.00000 ppb	0.00
3) Napthalene-D8(IS)	4.62	136	3106332	40.00000 ppb	0.00
4) Acenaphthene-D10(IS)	6.01	164	1436563	40.00000 ppb	0.00
5) Phenanthrene-D10(IS)	7.22	188	2646764	40.00000 ppb	0.00
6) Chrysene-D12(IS)	9.44	240	2042225	40.00000 ppb	0.04
7) Perylene-D12(IS)	10.68	264	2139011	40.00000 ppb	0.08

System Monitoring Compounds

Target Compounds Qvalue

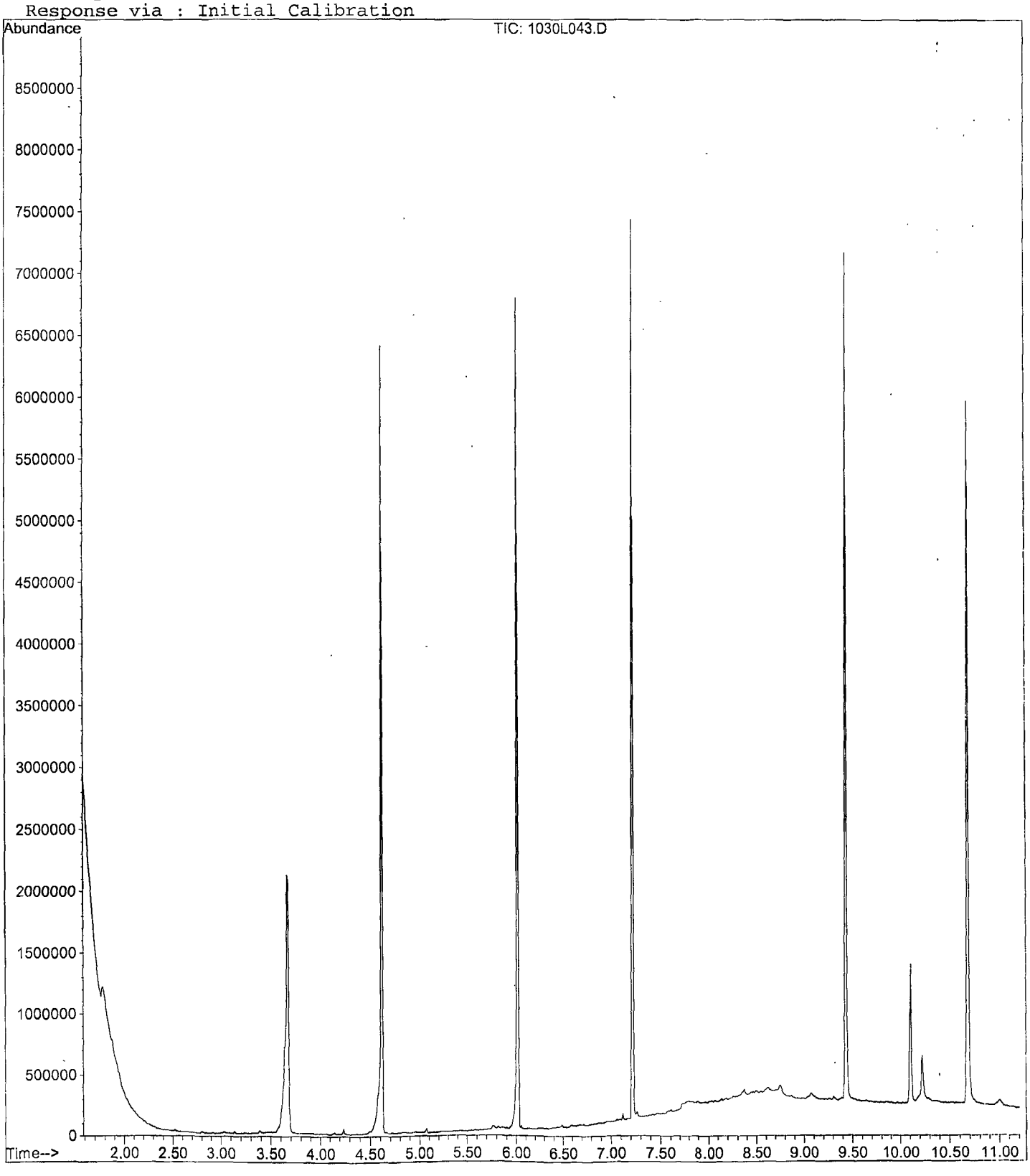
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L191030M\1030L043.D Vial: 43
Acq On : 8 Nov 19 14:21 Operator: MA
Sample : 191031A BLK 2/500 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Nov 8 16:32 2019 Quant Results File: YMEE1030.RES

Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 01 17:44:15 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L191030M\1030L044.D Vial: 44
Acq On : 8 Nov 19 15:49 Operator: MA
Sample : 191031A LCS-1 2/500 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Nov 8 16:33 2019 Quant Results File: YMEE1030.RES

Quant Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 01 17:44:15 2019
Response via : Initial Calibration
DataAcq Meth : GED

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	3.66	152	835190	40.00000 ppb	0.00
3) Napthalene-D8(IS)	4.62	136	3596714	40.00000 ppb	0.00
4) Acenaphthene-D10(IS)	6.01	164	1685475	40.00000 ppb	0.00
5) Phenanthrene-D10(IS)	7.22	188	2974818	40.00000 ppb	0.00
6) Chrysene-D12(IS)	9.43	240	2366376	40.00000 ppb	0.03
7) Perylene-D12(IS)	10.66	264	2671224	40.00000 ppb	0.07
System Monitoring Compounds					
Target Compounds					Qvalue
2) 2-(2-Methoxyethoxy)ethanol	3.22	45	266233	92.15714 ppb	97

(#) = qualifier out of range (m) = manual integration
1030L044.D YMEE1030.M Mon Nov 11 09:52:43 2019 Page 1

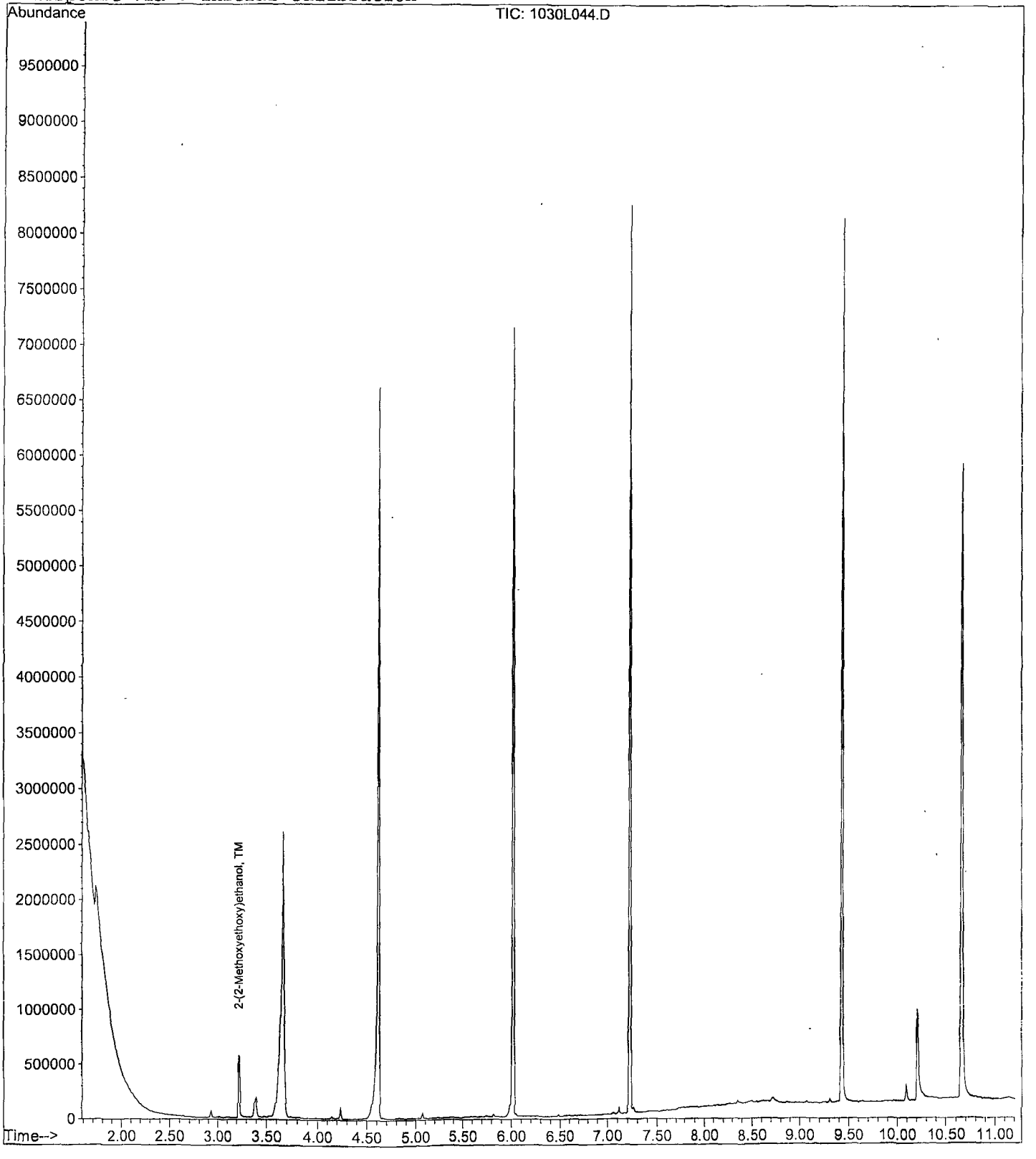
Quantitation Report

Data File : M:\LINUS\DATA\L191030M\1030L044.D
Acq On : 8 Nov 19 15:49
Sample : 191031A LCS-1 2/500
Misc :

Vial: 44
Operator: MA
Inst : Linus
Multiplr: 1.00

Quant Time: Nov 8 16:33 2019 Quant Results File: YMEE1030.RES

Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 01 17:44:15 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L191030M\1030L047.D Vial: 47
Acq On : 8 Nov 19 16:45 Operator: MA
Sample : 191031A LCSD-1 2/500 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Nov 8 17:18 2019 Quant Results File: YMEE1030.RES

Quant Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 01 17:44:15 2019
Response via : Initial Calibration
DataAcq Meth : GED

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	3.66	152	968441	40.00000	ppb	0.00
3) Napthalene-D8(IS)	4.62	136	4015248	40.00000	ppb	0.00
4) Acenaphthene-D10(IS)	6.01	164	1942615	40.00000	ppb	0.00
5) Phenanthrene-D10(IS)	7.22	188	3543239	40.00000	ppb	0.00
6) Chrysene-D12(IS)	9.41	240	2703109	40.00000	ppb	0.00
7) Perylene-D12(IS)	10.63	264	3165685	40.00000	ppb	0.03

System Monitoring Compounds

Target Compounds						Qvalue
2) 2-(2-Methoxyethoxy)ethanol	3.22	45	276813	82.63531	ppb	91

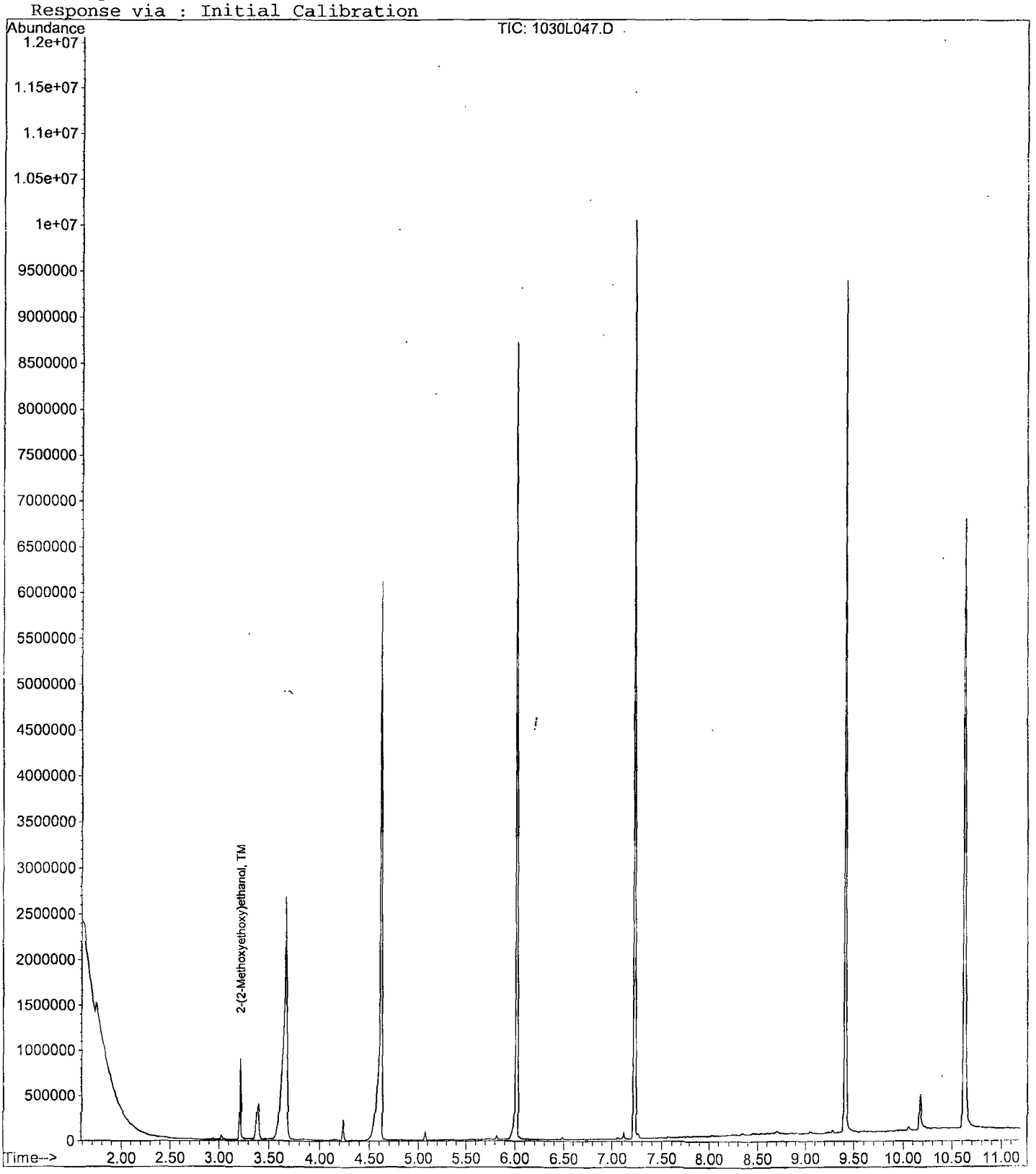
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L191030M\1030L047.D Vial: 47
Acq On : 8 Nov 19 16:45 Operator: MA
Sample : 191031A LCSD-1 2/500 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Nov 8 17:18 2019 Quant Results File: YMEE1030.RES

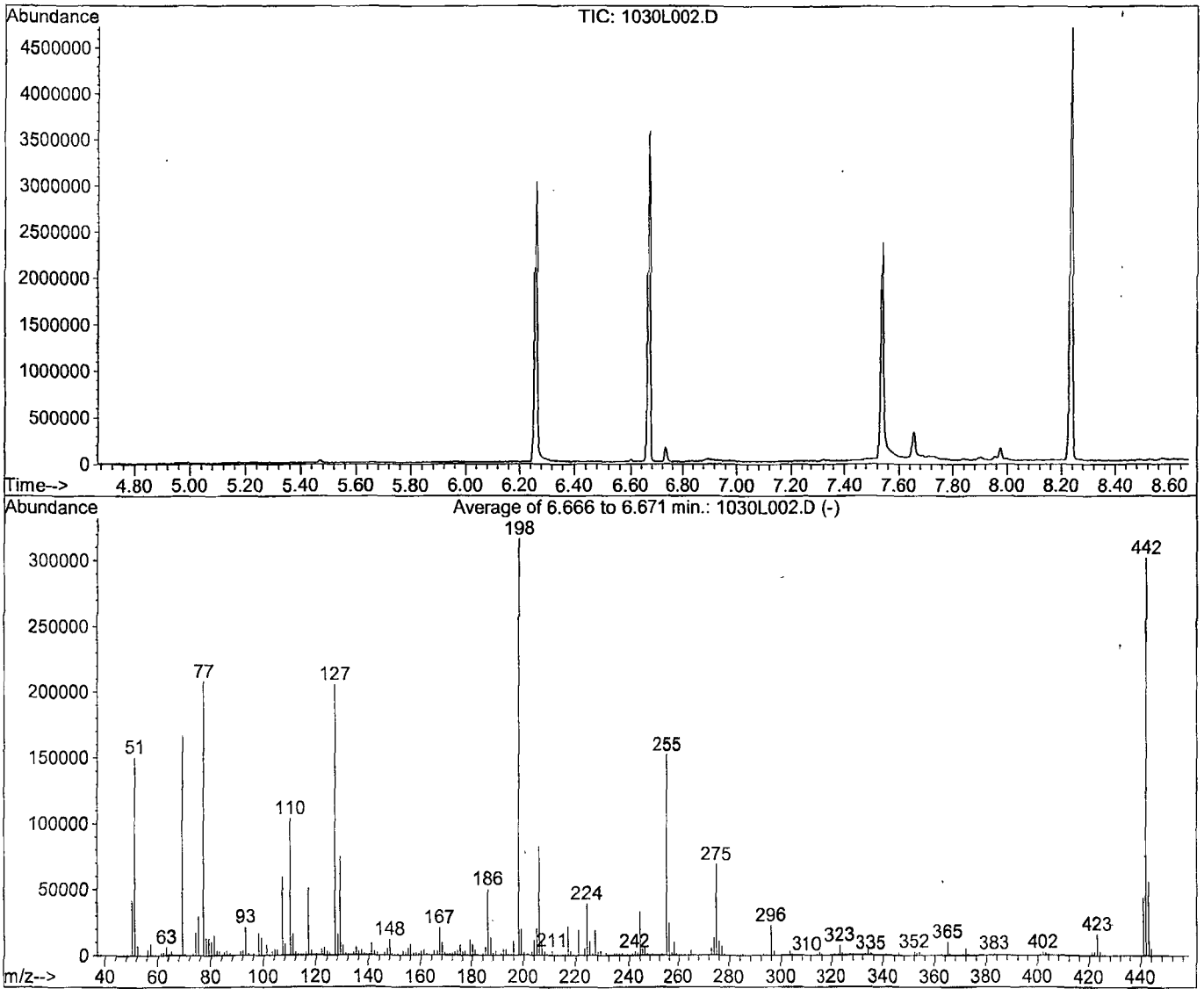
Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 01 17:44:15 2019
Response via : Initial Calibration



DFTPP

Data File : M:\LINUS\DATA\L191030M\1030L002.D Vial: 86
Acq On : 31 Oct 19 9:39 Operator: MA
Sample : SV Tune 10/01/19 Inst : Linus
Misc : Multiplr: 1.00

Method : *M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)*
Title : EPA 8270C



AutoFind: Scans 1639, 1640, 1641; Background Corrected with Scan 1629

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	47.5	150243	PASS
68	69	0.00	2	0.0	0	PASS
70	69	0.00	2	0.6	922	PASS
127	198	10	80	64.9	205418	PASS
197	198	0.00	2	0.0	0	PASS
198	198	100	100	100.0	316523	PASS
199	198	5	9	6.2	19776	PASS
275	198	10	60	21.7	68701	PASS
365	198	1	100	3.2	9986	PASS
441	442	0.01	24	14.5	43648	PASS
442	198	50	500	95.4	301909	PASS
443	442	15	24	18.6	56149	PASS

Data File Name:	**1030L002.D**
Data File Path:	**M:\LINUS\DATA\L191030M**
Operator:	**MA**
Date Acquired:	**31 Oct 2019 09:39**
Method File:	**DFTPP2.M**
Sample Name:	**SV Tune 07/11/19**
Vial Number:	**86**
Instrument Name:	**Linus**

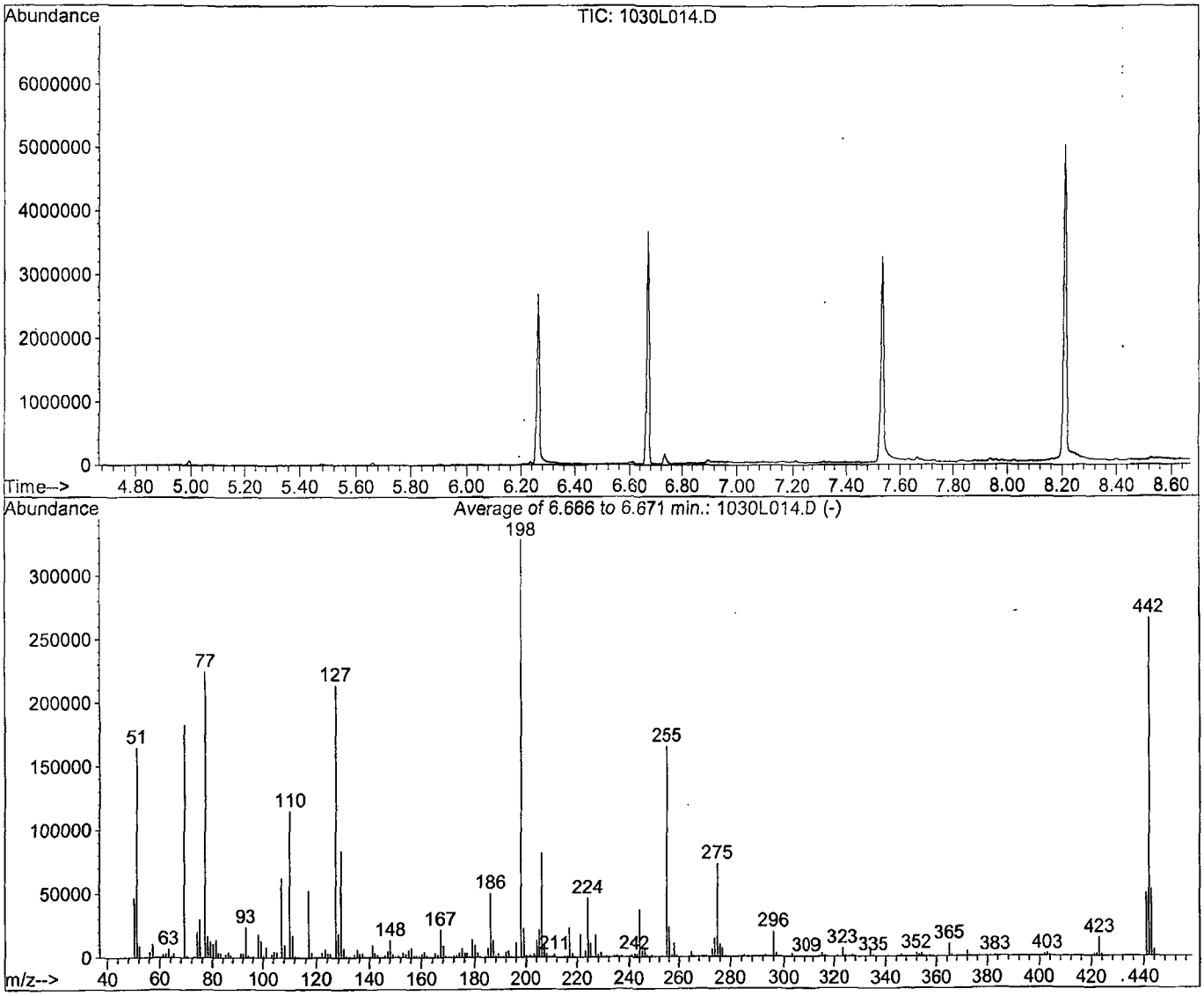
#	Name	Ret Time	Target Response
1)	DDT	8.21	32088400
2)	DDD	7.98	1040940
3)	DDE	8.00	701952

Breakdown **5.15**

DFTPP

Data File : M:\LINUS\DATA\L191030M\1030L014.D Vial: 14
Acq On : 1 Nov 19 15:17 Operator: MA
Sample : SV Tune 10/01/19 Inst : Linus
Misc : Multiplr: 1.00

Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C



AutoFind: Scans 1639, 1640, 1641; Background Corrected with Scan 1630

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	50.2	164951	PASS
68	69	0.00	2	0.0	0	PASS
70	69	0.00	2	0.7	1364	PASS
127	198	10	80	65.2	214229	PASS
197	198	0.00	2	0.0	0	PASS
198	198	100	100	100.0	328597	PASS
199	198	5	9	7.0	22899	PASS
275	198	10	60	22.3	73325	PASS
365	198	1	100	3.1	10112	PASS
441	442	0.01	24	18.5	49301	PASS
442	198	50	500	81.1	266539	PASS
443	442	15	24	19.7	52437	PASS

Data File Name:	**1030L014.D**
Data File Path:	**M:\LINUS\DATA\L191030M**
Operator:	**MA**
Date Acquired:	**1 Nov 19 15:17**
Method File:	**DFTPP2.M**
Sample Name:	**SV Tune 10/01/19**
Vial Number:	**14**
Instrument Name:	**Linus**

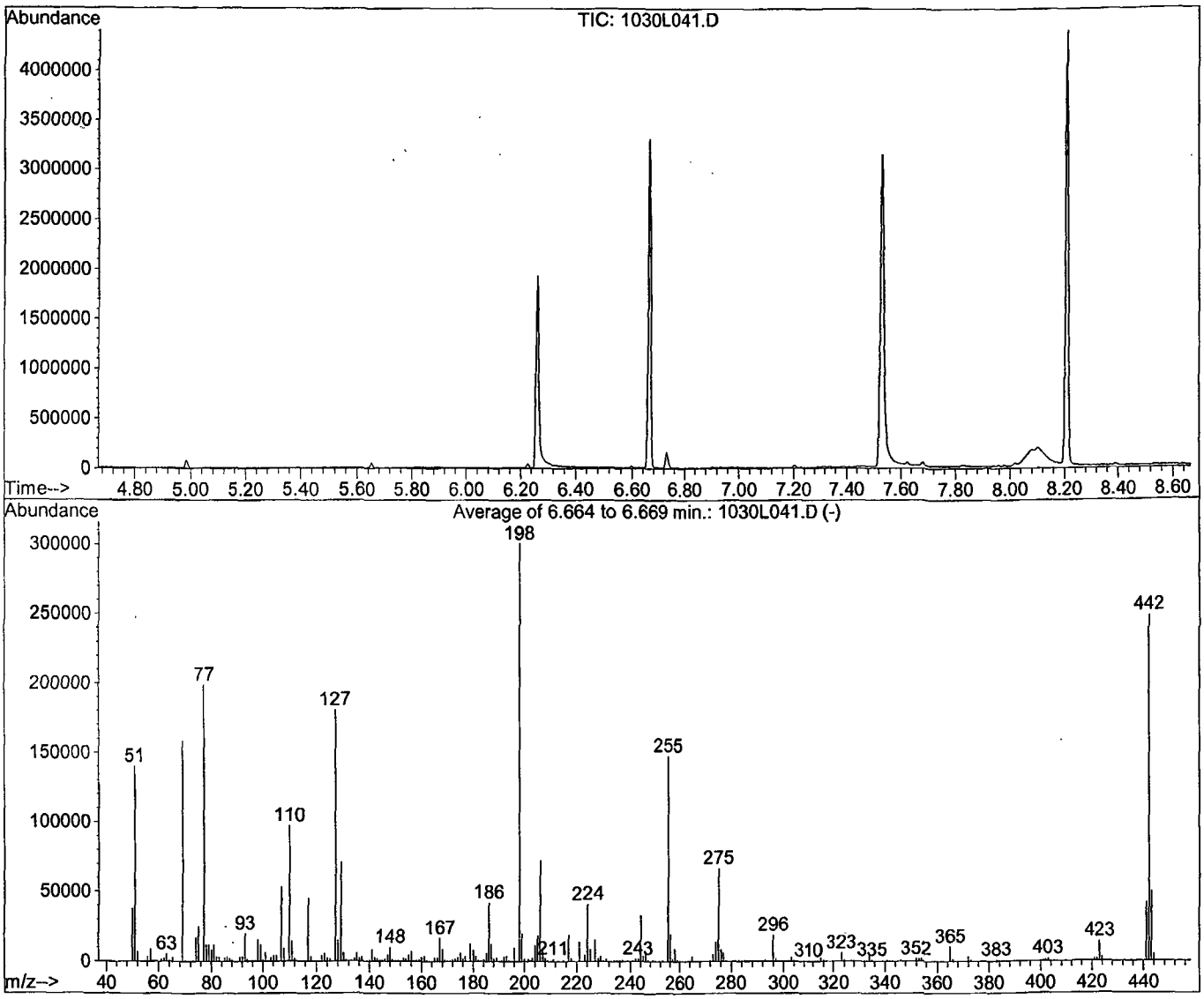
#	Name	Ret Time	Target Response
1)	DDT	8.21	38086400
2)	DDD	7.98	224750
3)	DDE	8.00	113996

Breakdown **0.88**

DFTPP

Data File : M:\LINUS\DATA\L191030M\1030L041.D Vial: 41
Acq On : 8 Nov 19 12:30 Operator: MA
Sample : SV Tune 10/01/19 Inst : Linus
Misc : Multiplr: 1.00

Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C



AutoFind: Scans 1638, 1639, 1640; Background Corrected with Scan 1629

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	46.6	140225	PASS
68	69	0.00	2	0.0	0	PASS
70	69	0.00	2	0.6	933	PASS
127	198	10	80	60.1	180957	PASS
197	198	0.00	2	0.0	0	PASS
198	198	100	100	100.0	300928	PASS
199	198	5	9	6.6	19924	PASS
275	198	10	60	22.2	66765	PASS
365	198	1	100	3.6	10732	PASS
441	442	0.01	24	17.0	42301	PASS
442	198	50	500	82.6	248469	PASS
443	442	15	24	20.2	50115	PASS

Data File Name:	**1030L041.D**
Data File Path:	**M:\LINUS\DATA\L191030M**
Operator:	**MA**
Date Acquired:	**8 Nov 19 12:30**
Method File:	**DFTPP2.M**
Sample Name:	**SV Tune 10/01/19**
Vial Number:	**41**
Instrument Name:	**Linus**

#	Name	Ret Time	Target Response
1)	DDT	8.21	31052200
2)	DDD	7.98	158999
3)	DDE	8.00	92340

Breakdown **0.80**

Name of Final Standard Diethylene Glycol **Prep'd By (Initials)** GA

Prep Date 01/31/19

Exp Date 01/31/20

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from contianer Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc.(range)
Diethylene glycol methyl ether	AccuStandard	S-72273	2000 ug/mL	**218101558-39888 39889**	**01/31/20**	2.0 mL	4 mL	**Methanol #042317C**	1000 ug/mL

Given to Extraction to do **MEE M STD Stock** (used for ICAL) Final concentration 2000ug/L

_MWE2MEE

Organic Extraction Worksheet

Method	Solid Phase Extraction of 2MEE in Water	Extraction Set	190429A	Extraction Method	MWE2MEE	Units	mL

Spiked ID 1	Diethylene Glycol 1-31-19 EXP 1-31-20		Surrogate ID 1		
Spiked ID 2	2MEE SS 10320ug/mL 8-3-18 exp 8-3-19		Surrogate ID 2		
Spiked ID 3			Surrogate ID 3		
Spiked ID 4			Surrogate ID 4		
Spiked ID 5			Surrogate ID 5		
Spiked ID 6			Sufficient Vol for Matrix QC:	YES	
Spiked ID 7			Ext. Start Time:	04/29/19 10:50	
Spiked ID 8			Ext. End Time:	04/29/19 16:40	
			GC Requires Extract By:	04/30/19 0:00	

pH1			Water Bath Temp Criteria	
pH2				
pH3				

M STD AND SS PREPARATION

HA 5/1/19

Spiked By: KY **Date** 04/29/19 **Witnessed By:** DL **Date** 04/29/19

	Sample	Sample Container	Spike Amount	Spike ID	Surrogate Amount	Surrogate ID	Extract Amount	Final Volume	pH	Extract Date/Time	Comments
1	190429A Blk				NA	NA equip	500	2	7	04/29/19 10:50	
2	190429A LCS-1		0.040	1	NA	NA equip	500	2	7	04/29/19 10:50	
3	190429A LCSD-1		0.040	1	NA	NA equip	500	2	7	04/29/19 10:50	
4	AZ89958 MS-1	AZ89958W23	0.040	1	NA	NA equip	510	2	7	04/29/19 10:50	88687
5	AZ89958 MSD-1	AZ89958W22	0.040	1	NA	NA equip	510	2	7	04/29/19 10:50	88687
6	AZ89958	AZ89958W24			NA	NA equip	500	2	7	04/29/19 10:50	88687
7	AZ89959	AZ89959W06			NA	NA equip	480	2	7	04/29/19 10:50	88687
8	AZ89961	AZ89961W22			NA	NA equip	510	2	7	04/29/19 10:50	88687
9	AZ90051 MS-1	AZ90051W21	0.040	1	NA	NA equip	500	2	7	04/29/19 10:50	88701
10	AZ90051 MSD-1	AZ90051W25	0.040	1	NA	NA equip	500	2	7	04/29/19 10:50	88701
11	AZ90051	AZ90051W22			NA	NA equip	500	2	7	04/29/19 10:50	88701
12	AZ90052	AZ90052W05			NA	NA equip	505	2	7	04/29/19 10:50	88701
13	AZ90054	AZ90054W16			NA	NA equip	510	2	7	04/29/19 10:50	88701
14	AZ90056	AZ90056W16			NA	NA equip	510	2	7	04/29/19 10:50	88701
15	AZ90058	AZ90058W17			NA	NA equip	500	2	7	04/29/19 10:50	88701
16	AZ90060	AZ90060W17			NA	NA equip	505	2	7	04/29/19 10:50	88701

Solvent and Lot#	
ENVI-Carb Plus 400MG/1ML	
Reverible Tube Lot:	11225702
PH Strip	HC 863463
Di Water	4-29-19
Dichloromethane	58240
Methanol	58179

Extraction COC Transfer	
Extraction lab employee Initials	KY
GC analyst's initials	
Date	
Time	
Refrigerator	

	Technician's Initials
Scanned By	DL
Sample Preparation	DL
Extraction	DL
Concentration	DL

Modified	04/29/19 2:46:49 PM

Reviewed By: **Date**

Organic Extraction Worksheet

Method	Solid Phase Extraction of 2MEE in Water	Extraction Set	190429A	Extraction Method	MWE2MEE	Units	mL

Spiked ID 1	Diethylene Glycol 1-31-19 EXP 1-31-20		Surrogate ID 1		
Spiked ID 2	2MEE SS 10320ug/mL 8-3-18 exp 8-3-19		Surrogate ID 2		
Spiked ID 3			Surrogate ID 3		
Spiked ID 4			Surrogate ID 4		
Spiked ID 5			Surrogate ID 5		
Spiked ID 6			Sufficient Vol for Matrix QC:	YES	
Spiked ID 7			Ext. Start Time:	04/29/19 10:50	
Spiked ID 8			Ext. End Time:	04/29/19 16:40	
			GC Requires Extract By:	04/30/19 0:00	

pH1			Water Bath Temp Criteria	
pH2				
pH3				

Spiked By: KY **Date** 04/29/19 **Witnessed By:** DL **Date** 04/29/19

	Sample	Sample Container	Spike Amount	Spike ID	Surrogate Amount	Surrogate ID	Extract Amount	Final Volume	pH	Extract Date/Time	Comments
17	AZ90100	AZ90100W17			NA	NA equip	510	2	7	04/29/19 10:50	88714
18	AZ90102	AZ90102W16			NA	NA equip	395	2	7	04/29/19 10:50	88714
19	AZ90103	AZ90103W04			NA	NA equip	250	2	7	04/29/19 10:50	88714
20	AZ90105	AZ90105W16			NA	NA equip	500	2	7	04/29/19 10:50	88714
21	AZ90107	AZ90107W16			NA	NA equip	510	2	7	04/29/19 10:50	88714
22	AZ90109	AZ90109W17			NA	NA equip	505	2	7	04/29/19 10:50	88714
23	AZ90213	AZ90213W15			NA	NA equip	505	2	7	04/29/19 10:50	88736
24	AZ90215	AZ90215W16			NA	NA equip	500	2	7	04/29/19 10:50	88736
25	M STD		1	1	NA	NA equip	500	2	7	04/29/19 10:50	
26	SS		0.097	2	NA	NA equip	500	2	7	04/29/19 10:50	

Solvent and Lot#	
ENVI-Carb Plus 400MG/1ML	
Reverible Tube Lot:	11225702
PH Strip	HC 863463
Di Water	4-29-19
Dichloromethane	58240
Methanol	58179

Extraction COC Transfer	
Extraction lab employee Initials	KY
GC analyst's initials	
Date	
Time	
Refrigerator	

	Technician's Initials
Scanned By	DL
Sample Preparation	DL
Extraction	DL
Concentration	DL

Modified	04/29/19 2:46:49 PM

Reviewed By: **Date**

Name of Final Standard	**MEE Curve**	**Prep'd By (Initials)**	**SS**
Prep Date	**04/30/19**		
Exp Date	**10/30/19**		

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from container Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
MEE M STD Stock	APPL		2000 ug/mL	04/29/19	01/31/20	5 uL	200uL	Methanol 195uL Lot# 208858	50 ug/mL
SV Internal Standard	APPL	8270 I.S.	2000 ug/mL	03/12/19	03/12/20	4 uL	"	"	"
MEE M STD Stock	APPL		2000 ug/mL	04/29/19	01/31/20	5 uL	100uL	Methanol 95uL Lot# 208858	100 ug/mL
SV Internal Standard	APPL	8270 I.S.	2000 ug/mL	03/12/19	03/12/20	2 uL	"	"	"
MEE M STD Stock	APPL		2000 ug/mL	04/29/19	01/31/20	10 uL	100uL	Methanol 90uL Lot# 208858	200 ug/mL
SV Internal Standard	APPL	8270 I.S.	2000 ug/mL	03/12/19	03/12/20	2 uL	"	"	"
MEE M STD Stock	APPL		2000 ug/mL	04/29/19	01/31/20	20 uL	100uL	Methanol 80 uL Lot# 208858	400 ug/mL
SV Internal Standard	APPL	8270 I.S.	2000 ug/mL	03/12/19	03/12/20	2 uL	"	"	"
MEE M STD Stock	APPL		2000 ug/mL	04/29/19	01/31/20	50 uL	200 uL	Methanol 150 uL	500 ug/mL
SV Internal Standard	APPL	8270 I.S.	2000 ug/mL	03/12/19	03/12/20	4 uL	"	"	"
MEE M STD Stock	APPL		2000 ug/mL	04/29/19	01/31/20	30 uL	100uL	Methanol 70 uL Lot# 208858	600 ug/mL
SV Internal Standard	APPL	8270 I.S.	2000 ug/mL	03/12/19	03/12/20	2 uL	"	"	"
MEE M STD Stock	APPL		2000 ug/mL	04/29/19	01/31/20	40 uL	100uL	Methanol 60 uL Lot# 208858	800 ug/mL
SV Internal Standard	APPL	8270 I.S.	2000 ug/mL	03/12/19	03/12/20	2 uL	"	"	"
MEE M STD Stock	APPL		2000 ug/mL	04/29/19	01/31/20	50 uL	100uL	Methanol 50uL Lot# 208858	1000 ug/mL
SV Internal Standard	APPL	8270 I.S.	2000 ug/mL	03/12/19	03/12/20	2 uL	"	"	"

Name of Final Standard	**MEE Second Source**	**Prep'd By (Initials)**	**SS**
Prep Date	**04/30/19**		
Exp Date	**08/03/19**		

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from container Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
MEE SS	APPL		2000 ug/mL	04/29/19	08/03/19	50 uL	200uL	Methanol 150uL Lot# 208858	500 ug/mL
SV Internal Standard	APPL	8270 I.S.	2000 ug/mL	03/12/19	03/12/20	4 uL	"	"	"

Name of Final Standard 2MEE Second Source Stock **Prep'd By (Initials)** JP

Prep Date 10/28/19
Exp Date 10/28/20

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from contianer Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc. (range)
Methoxyethanol-Neat	Chem Service	N-12404-1G	Neat 99.5%	**7079100 - 39417**	**07/31/22**	0.1022g	10 mL	**MC #56258**	10220 ug/mL

Given to Extraction to do **MEE SS** (used for ICAL SS)
0.097ml were spiked in 500ml of water and extracted on 10/28/2019 . Final concentration is 2000ug/L

Name of Final Standard: MEE Second Source
Prep Date: 11/01/19
Exp Date: 11/01/20
Prep'd By (Initials): MA

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from container Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
MEE SS	APPL		2000 ug/mL	10/28/19	10/28/20	50 uL	200uL	Methanol 150uL Lot# 208858	500 ug/mL
SV Internal Standard	APPL	8270 I.S.	2000 ug/mL	10/28/19	10/28/20	4 uL			

_MWE2MEE

Organic Extraction Worksheet

Method	Solid Phase Extraction of 2MEE in Water	Extraction Set	191028A	Extraction Method	MWE2MEE	Units	mL

Spiked ID 1	Diethylene Glycol 1-31-19 EXP 1-31-20		Surrogate ID 1		
Spiked ID 2	2MEE SS 10200ug/mL10/28/19 10/28/20		Surrogate ID 2		
Spiked ID 3			Surrogate ID 3		
Spiked ID 4			Surrogate ID 4		
Spiked ID 5			Surrogate ID 5		
Spiked ID 6			Sufficient Vol for Matrix QC:		
Spiked ID 7			Ext. Start Time:	10/28/19 16:10	
Spiked ID 8			Ext. End Time:	10/30/19 14:30	
			GC Requires Extract By:		

pH1			Water Bath Temp 1 °C	
pH2			Water Bath Temp 2 °C	
pH3			Water Bath Temp 3 °C	

Spiked By: **Date** **Witnessed By:** **Date**

	Sample	Sample Container	Spike Amount	Spike ID	Surrogate Amount	Surrogate ID	Extract Amount	Final Volume	pH	Extract Date/Time	Comments
1	191028A Blk				NA	NA equip	500	2	7Y	10/28/19 11:10	
2	191028A LCS-1		0.040	1	NA	NA equip	500	2	7Y	10/28/19 11:10	
3	191028A LCSD-1		0.040	1	NA	NA equip	500	2	7Y	10/28/19 11:10	
4	BA01579 MS-1	BA01579W21	0.040	1	NA	NA equip	500	2	7Y	10/28/19 11:10	
5	BA01579 MSD-1	BA01579W18	0.040	1	NA	NA equip	500	2	7Y	10/28/19 11:10	
6	BA01579	BA01579W16			NA	NA equip	500	2	7Y	10/28/19 11:10	90524
7	BA01580	BA01580W06			NA	NA equip	500	2	7Y	10/28/19 11:10	90524
8	BA01582	BA01582W12			NA	NA equip	500	2	7Y	10/28/19 11:10	90524
9	BA01651	BA01651W11			NA	NA equip	500	2	7Y	10/28/19 11:10	90532
10	BA01652	BA01652W07			NA	NA equip	500	2	7Y	10/28/19 11:10	90532
11	BA01654	BA01654W10			NA	NA equip	500	2	7Y	10/28/19 11:10	90532
12	BA01656	BA01656W10			NA	NA equip	500	2	7Y	10/28/19 11:10	90532
13	BA01658	BA01658W11			NA	NA equip	500	2	7Y	10/28/19 11:10	90532
14	BA01660	BA01660W10			NA	NA equip	500	2	7Y	10/28/19 11:10	90532
15	BA01662	BA01662W17			NA	NA equip	500	2	7Y	10/28/19 11:10	90532
16	BA01664	BA01664W18			NA	NA equip	500	2	7Y	10/28/19 11:10	90532

Solvent and Lot#	
ENVI-Carb Plus 400MG/1ML	1169450
PH Strip	HC863463
Di Water	10/30/19
Dichloromethane	59130
Methanol	59129

Extraction COC Transfer	
Extraction lab employee Initials	SS
GC analyst's initials	JP
Date	
Time	
Refrigerator	Hobard

	Technician's Initials
Scanned By	DL
Sample Preparation	DL
Extraction	DL
Concentration	DL

Modified	10/28/19 12:42:46 PM

Reviewed By: **Date**

Organic Extraction Worksheet

Method	Solid Phase Extraction of 2MEE in Water	Extraction Set	191028A	Extraction Method	MWE2MEE	Units	mL

Spiked ID 1	Diethylene Glycol 1-31-19 EXP 1-31-20		Surrogate ID 1		
Spiked ID 2	2MEE SS 10200ug/mL10/28/19 10/28/20		Surrogate ID 2		
Spiked ID 3			Surrogate ID 3		
Spiked ID 4			Surrogate ID 4		
Spiked ID 5			Surrogate ID 5		
Spiked ID 6			Sufficient Vol for Matrix QC:		
Spiked ID 7			Ext. Start Time:	10/28/19 16:10	
Spiked ID 8			Ext. End Time:	10/30/19 14:30	
			GC Requires Extract By:		

pH1			Water Bath Temp 1 °C	
pH2			Water Bath Temp 2 °C	
pH3			Water Bath Temp 3 °C	

Spiked By: **Date** **Witnessed By:** **Date**

	Sample	Sample Container	Spike Amount	Spike ID	Surrogate Amount	Surrogate ID	Extract Amount	Final Volume	pH	Extract Date/Time	Comments
17	BA01775	BA01775W07			NA	NA equip	500	2	7Y	10/28/19 11:10	90551
18	BA01777	BA01777W08			NA	NA equip	500	2	7Y	10/28/19 11:10	90551
19	BA01779	BA01779W08			NA	NA equip	500	2	7Y	10/28/19 11:10	90551
20	BA01781	BA01781W09			NA	NA equip	500	2	7Y	10/28/19 11:10	90551
21	BA01782	BA01782W07			NA	NA equip	500	2	7Y	10/28/19 11:10	90551
22	BA01784	BA01784W13			NA	NA equip	500	2	7Y	10/28/19 11:10	90551
23	SS		0.097	2	NA	NA equip	500	2	7Y	10/28/19 11:10	90551

Solvent and Lot#	
ENVI-Carb Plus 400MG/1ML	1169450
PH Strip	HC863463
Di Water	10/30/19
Dichloromethane	59130
Methanol	59129

Extraction COC Transfer	
Extraction lab employee Initials	SS
GC analyst's initials	JP
Date	
Time	
Refrigerator	Hobard

	Technician's Initials
Scanned By	DL
Sample Preparation	DL
Extraction	DL
Concentration	DL

Modified	10/28/19 12:42:46 PM

Reviewed By: **Date**

Organic Extraction Worksheet

Method	Solid Phase Extraction of 2MEE in Water	Extraction Set	191031A	Extraction Method	MWE2MEE	Units	mL

Spiked ID 1	Diethylene Glycol 1-31-19 EXP 1-31-20		Surrogate ID 1		
Spiked ID 2	2MEE SS 10320ug/mL 10/28/19 exp 10/28/20		Surrogate ID 2		
Spiked ID 3			Surrogate ID 3		
Spiked ID 4			Surrogate ID 4		
Spiked ID 5			Surrogate ID 5		
Spiked ID 6			Sufficient Vol for Matrix QC:	no	
Spiked ID 7			Ext. Start Time:	10/31/19 15:15	
Spiked ID 8			Ext. End Time:	11/06/19 13:30	
			GC Requires Extract By:		

pH1			Water Bath Temp 1 °C	
pH2			Water Bath Temp 2 °C	
pH3			Water Bath Temp 3 °C	

Spiked By: DL **Date** 10/31/19 **Witnessed By:** RP **Date** 10/31/19

	Sample	Sample Container	Spike Amount	Spike ID	Surrogate Amount	Surrogate ID	Extract Amount	Final Volume	pH	Extract Date/Time	Comments
1	191031A Blk				NA	NA equip	500	2	7Y	10/31/19 15:15	
2	191031A LCS-1		0.040	1	NA	NA equip	500	2	7Y	10/31/19 15:15	
3	191031A LCSD-1		0.040	1	NA	NA equip	500	2	7Y	10/31/19 15:15	
4	BA01829	BA01829W08		1	NA	NA equip	500	2	7Y	10/31/19 15:15	90559
5	BA01831	BA01831W11			NA	NA equip	500	2	7Y	10/31/19 15:15	90559
6	BA01833	BA01833W12			NA	NA equip	500	2	7Y	10/31/19 15:15	90559
7	BA02090	BA02090W13			NA	NA equip	500	2	7Y	10/31/19 15:15	90587
8	BA02091	BA02091W10			NA	NA equip	500	2	7Y	10/31/19 15:15	90587
9	BA02160	BA02160W10			NA	NA equip	500	2	7Y	10/31/19 15:15	90599
10	SS		0.097	2	NA	NA equip	500	2	7Y	10/31/19 15:15	

Solvent and Lot#	
ENVI-Carb Plus 400MG/1ML	11694501
Reverible Tube Lot:	11694501
pH Strip	HC863463
DI Water	11/6/19
Dichloromethane	59130
Methanol	59129

Extraction COC Transfer	
Extraction lab employee Initials	SS
GC analyst's initials	MA
Date	11/6/19
Time	1:30
Refrigerator	GC_C

	Technician's Initials
Scanned By	DL
Sample Preparation	DL
Extraction	DL
Concentration	DL

Modified	10/31/19 2:47:49 PM

Reviewed By: MA **Date** 11/19/19

Injection Log

Directory: M:\LINUS\DATA\L191030M\

Vial	FileName	Multiplier	SampleName	Misc Info	Injected
86	1030L002.D	1	SV Tune 10/01/19		31 Oct 19 9:39
4	1030L004.D	1	50 2MEE 4/30/19		31 Oct 19 11:50
5	1030L005.D	1	100 2MEE 4/30/19		31 Oct 19 12:10
6	1030L006.D	1	200 2MEE 4/30/19		31 Oct 19 12:29
8	1030L008.D	1	500 2MEE 4/30/19		31 Oct 19 13:07
9	1030L009.D	1	600 2MEE 4/30/19		31 Oct 19 13:25
10	1030L010.D	1	800 2MEE 4/30/19		31 Oct 19 13:43
11	1030L011.D	1	1000 2MEE 4/30/19		31 Oct 19 14:02
14	1030L014.D	1	SV Tune 10/01/19		1 Nov 19 15:17
16	1030L016.D	1	SS 2MEE 11/1/19		1 Nov 19 17:11
41	1030L041.D	1	SV Tune 10/01/19		8 Nov 19 12:30
42	1030L042.D	1	500 2MEE 4/30/19		8 Nov 19 13:13
43	1030L043.D	1	191031A BLK 2/500		8 Nov 19 14:21
44	1030L044.D	1	191031A LCS-1 2/500		8 Nov 19 15:49
47	1030L047.D	1	191031A LCSD-1 2/500		8 Nov 19 16:45
52	1030L052.D	1	BA02160W10 2/500		8 Nov 19 18:17
61	1030L061.D	1	500 2MEE 4/30/19		8 Nov 19 21:02

ORGANICS
Calibration Data

VOLATILE ORGANIC ANALYSIS
VOLATILE ORGANIC COMPOUNDS

Form 6
Initial Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Initial Cal. Date: 10/23/2019
Matrix: Instrument: Thor Initials:

			1023T06 D	1023T07.D	1023T08.D	1023T09 D	1023T10.D	1023T11.D	1023T12.D	1023T13.D	1023T14.D							
		Compound	1	2	3	4	5	6	7	8	9		Avg	%RSD	Type	r^2	Q	MRF
1	I	Fluorobenzene (IS)																
2	TM	Chlorotrifluoroethene													TM			
3	TM	Dichlorodifluoromethane		0.2635	0.2974	0.2177	0.1924	0.2092	0.2232	0.2234	0.2273		0.23	14	TM			
4	TML	Freon 114		0.1488	0.1532	0.1309	0.0936	0.1075	0.1061	0.1016	0.0918		0.12	21	TML	0.998		
5	TM**L	Chloromethane		0.3470	0.2838	0.2274	0.1882	0.1949	0.1769	0.1792	0.1673		0.22	29	TM**L	0.999		
6	TM*	Vinyl chloride		0.2045	0.2053	0.1544	0.1472	0.1629	0.1574	0.1616	0.1630		0.17	13	TM*			
7	TM	2-Chloro-1,1,1-trifluoroethane													TM			
8	TML	Bromomethane		0.1364	0.1701	0.1326	0.1025	0.0971	0.0973	0.0998	0.0989		0.12	23	TML	1.000		
9	TML	Chloroethane		0.5439	0.3418	0.1686	0.1126	0.1183	0.1159	0.1115	0.1078		0.20	79	TML	1.000		
10	TM	Dichlorofluoromethane		0.2987	0.3792	0.3293	0.2792	0.2956	0.3000	0.3099	0.2707		0.31	11	TM			
11	TM	Trichlorofluoromethane		0.3546	0.3702	0.3204	0.2669	0.2914	0.3067	0.3120	0.3052		0.32	10	TM			
12	TM	Diethyl ether													TM			
13	TM	Acrolein		0.0091	0.0102	0.0093	0.0090	0.0099	0.0090	0.0094	0.0107		0.01	6.5	TM			
14	TML	Acetone					0.0850	0.0694	0.0573	0.0525	0.0436		0.06	26	TML	0.993		
15	TML	Freon-113		0.0900	0.0943	0.1495	0.1217	0.1326	0.1349	0.1331	0.1190		0.12	17	TML	0.997		
16	TM*	1,1-DCE		0.2461	0.2741	0.2375	0.2011	0.1994	0.2212	0.2174	0.1945		0.22	12	TM*			
17	TM	2-Propanol													TM			
18	TML	Acetonitrile		0.0231	0.0203	0.0205	0.0204	0.0205	0.0204	0.0201			0.02	5.0	TML	0.999		
19	TM	t-Butanol	0.0186	0.0170	0.0165	0.0163	0.0166	0.0164	0.0165	0.0162	0.0151		0.02	5.5	TM			
20	TML	Methyl Acetate		0.1825	0.1427	0.1250	0.1098	0.1167	0.1135	0.1109	0.0979		0.12	21	TML	0.997		
21	TML	Iodomethane			0.0515	0.0317	0.0309	0.0938	0.1285	0.1563	0.1730		0.10	62	TML	0.997		
22	TM	Acrylonitrile			0.0579	0.0653	0.0505	0.0563	0.0575	0.0589	0.0544		0.06	7.9	TM			
23	TML	Methylene chloride		0.3088	0.2765	0.2310	0.1876	0.2049	0.2008	0.2073	0.1755		0.22	21	TML	0.995		
24	TML	Carbon disulfide		0.4997	0.5113	0.4516	0.3454	0.3784	0.3694	0.3894			0.42	16	TML	0.997		
25	TML	Methyl t-butyl ether (MtBE)		0.7185	0.5653	0.5427	0.4770	0.5079	0.4926	0.5094	0.4544		0.53	15	TML	0.998		
26	TM	Trans-1,2-DCE		0.2379	0.2419	0.2386	0.1914	0.2112	0.2110	0.2265	0.1937		0.22	9.2	TM			
27	TM	Hexane													TM			
28	TM	Diisopropyl Ether		0.2261	0.2133	0.2022	0.1735	0.1673	0.1872	0.1843	0.1687		0.19	11	TM			
29	TM**	2,2-Dichloro-1,1,1-trifluoroethane													TM**			
30	TM**L	1,1-DCA		0.1617	0.1772	0.1442	0.1175	0.1246	0.1250	0.1246	0.1101		0.14	17	TM**L	0.997		
31	TML	Vinyl Acetate		0.0970	0.1887	0.1478	0.1332	0.1470	0.1495	0.1560	0.1383		0.14	18	TML	0.997		
32	TM	Ethyl tert Butyl Ether		0.5563	0.5078	0.5374	0.4655	0.5217	0.5147	0.5270	0.4675		0.51	6.2	TM			
33	TML	MEK (2-Butanone)		0.0765	0.1107	0.0883	0.0675	0.0684	0.0667	0.0726	0.0638		0.08	20	TML	0.997		
34	TM	Cis-1,2-DCE		0.2725	0.2659	0.2822	0.2450	0.2650	0.2688	0.2788	0.2434		0.27	5.4	TM			
35	TML	2,2-Dichloropropane		0.1769	0.1489	0.1233	0.0973	0.0982	0.1074	0.1129	0.0987		0.12	24	TML	0.996		

VOLATILE ORGANIC ANALYSIS
VOLATILE ORGANIC COMPOUNDS

Form 6
Initial Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Initial Cal. Date: 10/23/2019
Matrix: Instrument: Thor Initials:

		Compound	1	2	3	4	5	6	7	8	9		Avg	%RSD	Type		Q	MRF
36	TM	2-Methylpentane													TM			
37	TM	3-Methylpentane													TM			
38	TM*	Chloroform		0.1766	0.2016	0.1713	0.1616	0.1730	0.1737	0.1778	0.1552		0.17	7.8	TM*			
39	TM	Bromochloromethane		0.0894	0.0865	0.0750	0.0644	0.0729	0.0733	0.0722	0.0632		0.07	12	TM			
40	S	Dibromofluoromethane(S)	0.5385	0.5240	0.4368	0.4526	0.4712	0.4842	0.4850	0.4883	0.4565		0.48	6.8	S			
41	TML	1,1,1-TCA		0.2129	0.1588	0.1638	0.1363	0.1488	0.1422	0.1490	0.1319		0.16	16	TML	0.998		
42	TM	Cyclohexane		0.2261	0.2534	0.2165	0.1723	0.1768	0.1838	0.1960	0.1759		0.20	15	TM			
43	TM	1,1-Dichloropropene		0.2534	0.2616	0.2105	0.1953	0.2043	0.2079	0.2218	0.1929		0.22	12	TM			
44	TML	2,2,4-Trimethylpentane		0.2331	0.2307	0.1631	0.1311	0.1417	0.1530	0.1543	0.1467		0.17	24	TML	0.999		
45	S	1,2-DCA-D4(S)	0.5868	0.5920	0.4819	0.5140	0.5350	0.5510	0.5468	0.5434	0.5053		0.54	6.7	S			
46	TML	Carbon Tetrachloride		0.1055	0.3400	0.2537	0.2272	0.2464	0.2563	0.2777	0.2389		0.24	27	TML	0.996		
47	TM	Tert Amyl Methyl Ether		0.5745	0.5621	0.5367	0.4861	0.4912	0.5084	0.5332	0.4716		0.52	7.1	TM			
48	TM	Methylcyclopentane													TM			
49	TML	1,2-DCA		0.1966	0.3107	0.1541	0.1327	0.1395	0.1555	0.1500	0.1332		0.17	35	TML	0.997		
50	TM	Benzene		0.8485	0.8036	0.7185	0.6643	0.6662	0.6757	0.6931	0.6211		0.71	11	TM			
51	TM	TCE		0.2722	0.2470	0.2286	0.1953	0.2056	0.2059	0.2205	0.1905		0.22	13	TM			
52	TM	2-Pentanone		0.1108	0.1149	0.1111	0.1099	0.1099	0.1143	0.1151	0.1033		0.11	3.5	TM			
53	TM*	1,2-Dichloropropane		0.1853	0.2044	0.2111	0.1592	0.1711	0.1716	0.1804	0.1632		0.18	10	TM*			
54	TM	Bromodichloromethane		0.3065	0.2886	0.2968	0.2566	0.2672	0.2716	0.2766	0.2507		0.28	7.0	TM			
55	TM	Methyl Cyclohexane		0.2264	0.2806	0.2220	0.1998	0.2057	0.2142	0.2154	0.1995		0.22	12	TM			
56	TML	Dibromomethane		0.0397	0.1774	0.1298	0.1310	0.1452	0.1650	0.1731	0.1500		0.14	32	TML	0.996		
57	TML	MIBK (methyl isobutyl ketone)		0.0844	0.0692	0.0637	0.0572	0.0554	0.0541	0.0581	0.0607		0.06	16	TML	0.999		
58	TM	1-Bromo-2-chloroethane		0.2573	0.2182	0.2514	0.2085	0.2346	0.2347	0.2443	0.2149		0.23	7.6	TM			
59	TM	2-Chloroethyl vinyl ether													TM			
60	TM	Cis-1,3-Dichloropropene		0.3335	0.3178	0.2936	0.2532	0.2842	0.2741	0.2944	0.2653		0.29	9.2	TM			
61	TM*	Toluene		0.9098	0.9112	0.8100	0.7171	0.7733	0.7816	0.8151	0.7330		0.81	9.0	TM*			
62	TM	Trans-1,3-Dichloropropene		0.2312	0.1717	0.1734	0.1593	0.1756	0.1793	0.1867	0.1706		0.18	12	TM			
63	TM	1,1,2-TCA		0.1921	0.1936	0.1959	0.1649	0.1831	0.1763	0.1788	0.1619		0.18	7.1	TM			
64	TML	2-Hexanone		0.1190	0.1019	0.0917	0.0683	0.0836	0.0845	0.0859	0.0908		0.09	16	TML	0.999		
65	I	Chlorobenzene-D5 (IS)																
66	S	Toluene-D8(S)	2.143	2.042	1.649	1.690	1.820	1.965	1.778	1.900	1.815		1.9	8.7	S			
67	TM	1,2-EDB		0.1280	0.1257	0.1213	0.1171	0.1178	0.1147	0.1206	0.1124		0.12	4.4	TM			
68	TM	Tetrachloroethene		0.2621	0.1636	0.2604	0.2344	0.2586	0.2354	0.2538	0.2261		0.24	14	TM			
69	TML	1-Chlorohexane		0.2348	0.3409	0.1975	0.2087	0.2225	0.2148	0.2169	0.2095		0.23	20	TML	1.000		
70	TM	1,1,1,2-Tetrachloroethane		0.2959	0.2482	0.2317	0.2188	0.2393	0.2266	0.2473	0.2274		0.24	10.0	TM			

VOLATILE ORGANIC ANALYSIS
VOLATILE ORGANIC COMPOUNDS

Form 6
Initial Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Initial Cal. Date: 10/23/2019
Matrix: Instrument: Thor Initials:

		Compound	1	2	3	4	5	6	7	8	9		Avg	%RSD	Type		Q	MRF
71	TM	m&p-Xylene		0.7498	0.7821	0.7043	0.6485	0.7359	0.6995	0.7681	0.7042		0.72	6.0	TM			
72	TM	o-Xylene		0.8311	0.8492	0.7438	0.6798	0.8011	0.7259	0.8069	0.7531		0.77	7.5	TM			
73	TM	Styrene		0.6076	0.5684	0.4928	0.4722	0.5586	0.5232	0.5954	0.5736		0.55	8.8	TM			
74	S	4-Bromofluorobenzene(S)	0.8756	0.7804	0.6244	0.6442	0.7197	0.7700	0.7173	0.7521	0.7682		0.74	10	S			
75	TM	1,3-Dichloropropane		0.3214	0.3602	0.3177	0.2956	0.3152	0.2972	0.3054	0.2819		0.31	7.6	TM			
76	TML	Dibromochloromethane		0.0593	0.2424	0.2370	0.2108	0.2612	0.2356	0.2509	0.2387		0.22	30	TML	0.999		
77	TM**	Chlorobenzene		0.4023	0.3965	0.3492	0.3439	0.3893	0.3469	0.3743	0.3468		0.37	6.7	TM**			
78	TM*	Ethylbenzene		0.9902	0.9200	0.9273	0.8019	0.9160	0.8708	0.9368	0.8660		0.90	6.3	TM*			
79	TM**L	Bromoform		0.0742	0.1464	0.1916	0.1780	0.2077	0.1939	0.1995	0.1988		0.17	26	TM**L	1.000		
80	I	1,4-Dichlorobenzene-D (IS)																
81	TM	Isopropylbenzene		1.591	1.840	1.530	1.427	1.549	1.443	1.591	1.317		1.5	10	TM			
82	TM**	1,1,2,2-Tetrachloroethane		0.4738	0.3664	0.4444	0.3665	0.4152	0.4009	0.3990	0.3637		0.40	9.9	TM**			
83	TML	1,2,3-Trichloropropane		0.0485	0.1436	0.1330	0.1331	0.1434	0.1385	0.1396	0.1228		0.13	25	TML	0.997		
84	TML	t-1,4-Dichloro-2-Butene		0.0264	0.0609	0.0805	0.0930	0.0833	0.0809	0.0819	0.0749		0.07	29	TML	0.999		
85	TM	Bromobenzene		0.4205	0.4747	0.4052	0.3679	0.4011	0.3708	0.4040	0.3574		0.40	9.3	TM			
86	TM	n-Propylbenzene		1.966	1.913	1.738	1.541	1.638	1.619	1.750	1.493		1.7	9.8	TM			
87	TM	4-Ethyltoluene		1.598	1.501	1.504	1.355	1.436	1.406	1.581	1.337		1.5	6.7	TM			
88	TM	2-Chlorotoluene		0.7020	0.8063	0.7557	0.6917	0.6698	0.6817	0.7216	0.6330		0.71	7.6	TM			
89	TM	1,3,5-Trimethylbenzene		1.259	1.494	1.251	1.244	1.304	1.280	1.391	1.196		1.3	7.4	TM			
90	TM	4-Chlorotoluene		0.7780	0.8172	0.8811	0.7244	0.8125	0.7871	0.9000	0.7433		0.81	7.6	TM			
91	TM	Tert-Butylbenzene		1.225	1.170	1.311	1.208	1.130	1.115	1.210	1.033		1.2	7.1	TM			
92	TM	1,2,4-Trimethylbenzene		1.331	1.543	1.367	1.254	1.300	1.276	1.402	1.212		1.3	7.8	TM			
93	TM	Sec-Butylbenzene		1.667	1.641	1.503	1.393	1.510	1.463	1.615	1.396		1.5	7.0	TM			
94	TM	p-Isopropyltoluene		1.283	1.416	1.335	1.225	1.374	1.326	1.466	1.277		1.3	5.9	TM			
95	TM	Benzyl Chloride		0.3521	0.3298	0.2742	0.3076	0.2905	0.3003	0.3140	0.3307		0.31	8.0	TM			
96	TM	1,3-DCB		0.7074	0.6746	0.6224	0.5443	0.5435	0.5187	0.5507	0.4944		0.58	13	TM			
97	TM	1,4-DCB		1.117	0.9190	0.9501	0.7911	0.8213	0.8035	0.8716	0.7780		0.88	13	TM			
98	TM	n-Butylbenzene		1.085	1.065	1.005	0.8899	0.9728	0.9890	1.126	0.9982		1.0	7.3	TM			
99	TM	1,2-DCB		0.5874	0.5719	0.5274	0.4788	0.5258	0.4932	0.5480	0.5036		0.53	7.2	TM			
100	TM	Hexachloroethane		0.1594	0.1599	0.1796	0.1534	0.1690	0.1464	0.1699	0.1641		0.16	6.4	TM			
101	TML	1,2-Dibromo-3-chloropropane		0.1001	0.0554	0.0561	0.0637	0.0530	0.0547	0.0600	0.0551		0.06	25	TML	0.999		
102	TM	1,2,4-Trichlorobenzene		0.3419	0.3602	0.2846	0.2815	0.3090	0.3105	0.3407	0.3131		0.32	8.8	TM			
103	TM	Hexachlorobutadiene		0.2380	0.1957	0.1659	0.1794	0.1971	0.1781	0.2086	0.1932		0.19	11	TM			
104	TM	Naphthalene		0.9319	0.8032	0.7281	0.6839	0.7404	0.8006	0.9091	0.8287		0.80	11	TM			
105	TML	1,2,3-Trichlorobenzene		0.1330	0.5188	0.4190	0.4062	0.3909	0.4349	0.4897	0.4316		0.40	29	TML	0.997		

Quantitation Report (QT Reviewed)

Data File : M:\THOR\DATA\T191023\1023T06.D Vial: 6
Acq On : 23 Oct 19 19:32 Operator:
Sample : 0.3ug/L VOC STD 10/23/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 24 9:00 2019 Quant Results File: T1023W.RES

Quant Method : M:\THOR\DATA\T191023\T1023W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:55:52 2019
Response via : Initial Calibration
DataAcq Meth : T8260

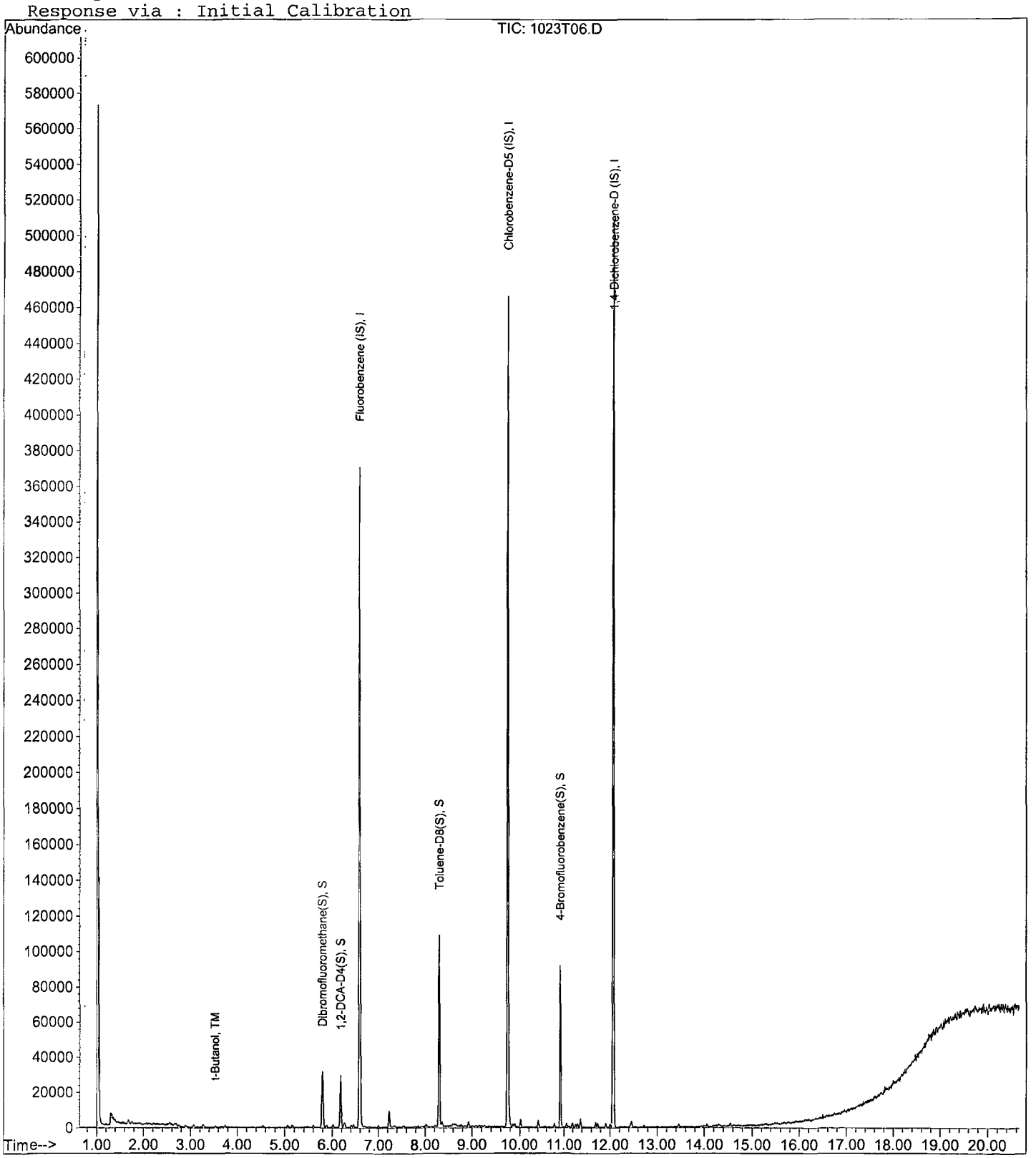
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene (IS)	6.59	96	178368	25.00	ppb		0.00
65) Chlorobenzene-D5 (IS)	9.74	117	160768	25.00	ppb		0.00
80) 1,4-Dichlorobenzene-D (IS)	12.07	152	91040	25.00	ppb		0.00
System Monitoring Compounds							
40) Dibromofluoromethane(S)	5.79	111	19209	5.59	ppb		0.00
Spiked Amount 25.000			Recovery = 22.348%				
45) 1,2-DCA-D4(S)	6.18	65	20935	5.44	ppb		0.00
Spiked Amount 25.000			Recovery = 21.752%				
66) Toluene-D8(S)	8.30	98	68918	5.74	ppb		0.00
Spiked Amount 25.000			Recovery = 22.960%				
74) 4-Bromofluorobenzene(S)	10.92	174	28153	5.92	ppb		0.00
Spiked Amount 25.000			Recovery = 23.692%				
Target Compounds							Qvalue
19) t-Butanol	3.53	59	1328	11.22	ppb	#	83

(#) = qualifier out of range (m) = manual integration

Data File : M:\THOR\DATA\T191023\1023T06.D Vial: 6
Acq On : 23 Oct 19 19:32 Operator:
Sample : 0.3ug/L VOC STD 10/23/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 24 9:00 2019 Quant Results File: T1023W.RES

Method : M:\THOR\DATA\T191023\T1023W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:55:52 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\THOR\DATA\T191023\1023T07.D Vial: 7
Acq On : 23 Oct 19 20:01 Operator:
Sample : 0.5ug/L VOC STD 10/23/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 24 8:58 2019 Quant Results File: T1023W.RES

Quant Method : M:\THOR\DATA\T191023\T1023W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:55:52 2019
Response via : Initial Calibration
DataAcq Meth : T8260

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene (IS)	6.59	96	177792	25.00	ppb		0.00
65) Chlorobenzene-D5 (IS)	9.74	117	164416	25.00	ppb		0.00
80) 1,4-Dichlorobenzene-D (IS)	12.07	152	92872	25.00	ppb		0.00
System Monitoring Compounds							
40) Dibromofluoromethane(S)	5.79	111	18632	5.44	ppb		0.00
Spiked Amount 25.000			Recovery = 21.748%				
45) 1,2-DCA-D4(S)	6.18	65	21049	5.49	ppb		0.00
Spiked Amount 25.000			Recovery = 21.940%				
66) Toluene-D8(S)	8.30	98	67127	5.47	ppb		0.00
Spiked Amount 25.000			Recovery = 21.868%				
74) 4-Bromofluorobenzene(S)	10.92	174	25663	5.28	ppb		0.00
Spiked Amount 25.000			Recovery = 21.120%				
Target Compounds							Qvalue
3) Dichlorodifluoromethane	1.21	85	937	0.57	ppb		95
4) Freon 114	1.32	85	529	-0.55	ppb	#	68
6) Vinyl chloride	1.46	62	727	0.60	ppb	#	51
8) Bromomethane	1.76	96	485	0.41	ppb		92
9) Chloroethane	1.87	64	1934	1.06	ppb	#	42
10) Dichlorofluoromethane	2.06	67	1062	0.49	ppb		89
11) Trichlorofluoromethane	2.12	101	1261	0.56	ppb		86
13) Acrolein	2.56	55	1625	23.88	ppb		94
14) Acetone	2.74	43	1532	3.50	ppb	#	76
15) Freon-113	2.70	101	320	-0.57	ppb	#	77
16) 1,1-DCE	2.68	61	875	0.55	ppb		95
18) Acetonitrile	3.06	41	4102	25.90	ppb	#	90
19) t-Butanol	3.54	59	3028	25.66	ppb	#	72
20) Methyl Acetate	3.19	43	649	-0.56	ppb	#	51
23) Methylene chloride	3.27	49	1098	-0.66	ppb	#	86
24) Carbon disulfide	2.90	76	1777	0.45	ppb	#	92
25) Methyl t-butyl ether (MtBE	3.74	73	2555	-0.20	ppb	#	83
26) Trans-1,2-DCE	3.68	61	846	0.54	ppb		85
28) Diisopropyl Ether	4.55	45	804	0.59	ppb		91
30) 1,1-DCA	4.33	63	575	-0.56	ppb	#	66
31) Vinyl Acetate	4.55	87	345	-0.38	ppb	#	37
32) Ethyl tert Butyl Ether	5.06	59	1978	0.54	ppb	#	82
33) MEK (2-Butanone)	5.23	43	272	0.59	ppb	#	52
34) Cis-1,2-DCE	5.16	61	969	0.51	ppb	#	84
35) 2,2-Dichloropropane	5.16	77	629	0.49	ppb	#	56
38) Chloroform	5.60	83	628	0.51	ppb		87
39) Bromochloromethane	5.47	130	318	0.60	ppb	#	74
41) 1,1,1-TCA	5.80	97	757	-0.21	ppb		81
42) Cyclohexane	5.87	84	804	0.57	ppb	#	75
43) 1,1-Dichloropropene	6.01	75	901	0.58	ppb	#	78
44) 2,2,4-Trimethylpentane	6.41	57	829	0.47	ppb		88
46) Carbon Tetrachloride	6.01	119	375	-0.52	ppb	#	17
47) Tert Amyl Methyl Ether	6.45	73	2043	0.55	ppb	#	80
49) 1,2-DCA	6.27	62	699	-0.50	ppb	#	72
50) Benzene	6.25	78	3017	0.60	ppb		95
51) TCE	7.01	130	968	0.62	ppb	#	70
52) 2-Pentanone	7.23	43	19699	24.92	ppb		100
53) 1,2-Dichloropropane	7.23	63	659	0.51	ppb	#	71
54) Bromodichloromethane	7.53	83	1090	0.55	ppb	#	91

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\THOR\DATA\T191023\1023T07.D Vial: 7
Acq On : 23 Oct 19 20:01 Operator:
Sample : 0.5ug/L VOC STD 10/23/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 24 8:58 2019 Quant Results File: T1023W.RES

Quant Method : M:\THOR\DATA\T191023\T1023W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:55:52 2019
Response via : Initial Calibration
DataAcq Meth : T8260

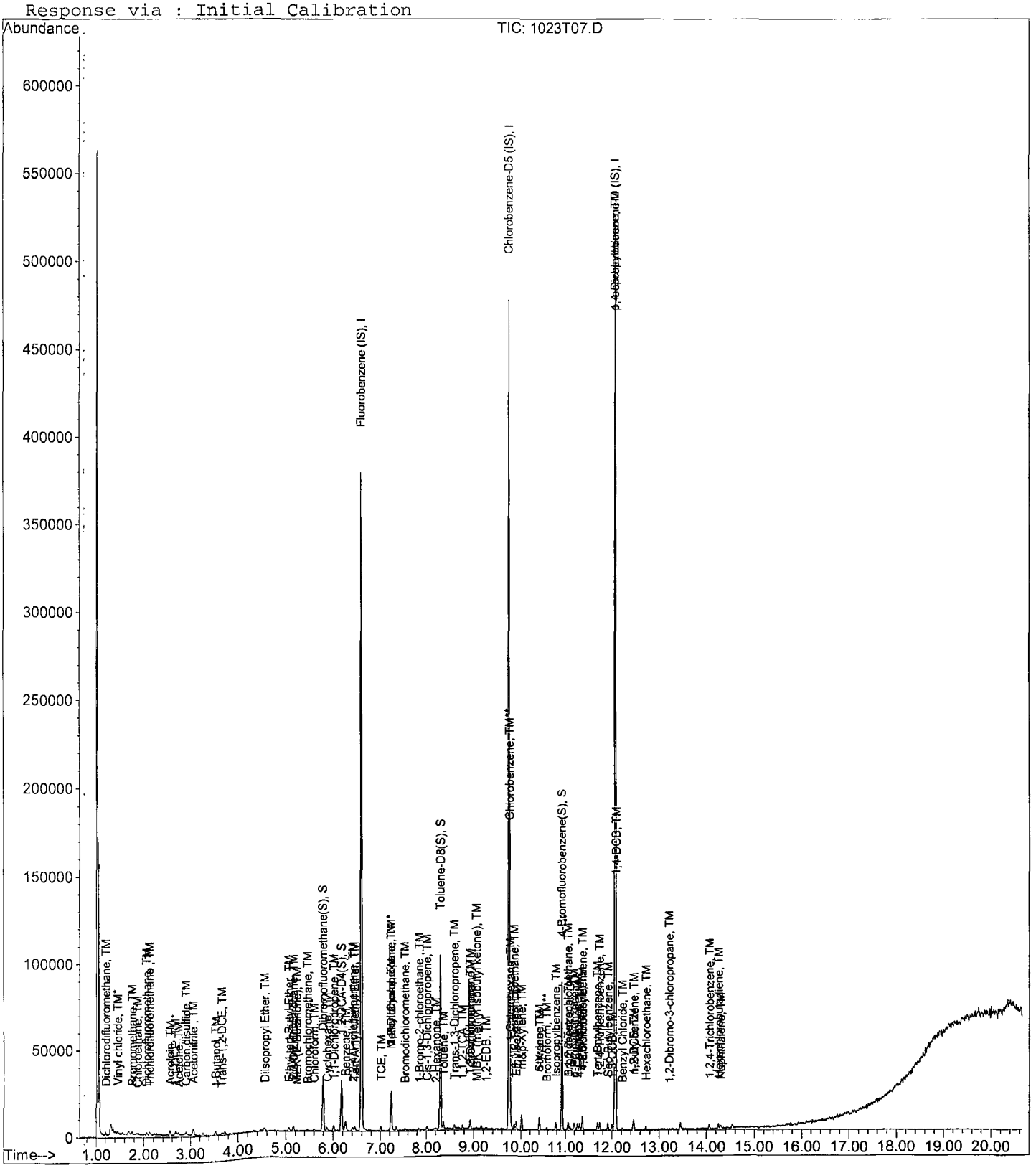
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
55)	Methyl Cyclohexane	7.22	83	805	0.51	ppb		89
56)	Dibromomethane	7.35	174	141	-0.35	ppb		91
57)	MIBK (methyl isobutyl ket	9.05	43	300	1.22	ppb	#	77
58)	1-Bromo-2-chloroethane	7.85	63	915	0.55	ppb		90
60)	Cis-1,3-Dichloropropene	8.02	75	1186	0.58	ppb	#	82
61)	Toluene	8.36	91	3235	0.56	ppb		96
62)	Trans-1,3-Dichloropropene	8.59	75	822	0.64	ppb	#	72
63)	1,1,2-TCA	8.77	97	683	0.53	ppb		87
64)	2-Hexanone	8.20	43	423	1.29	ppb	#	62
67)	1,2-EDB	9.26	107	421	0.53	ppb		92
68)	Tetrachloroethene	8.93	166	862	0.55	ppb		89
69)	1-Chlorohexane	9.78	91	772	0.19	ppb	#	65
70)	1,1,1,2-Tetrachloroethane	9.86	131	973	0.61	ppb		95
71)	m&p-Xylene	10.02	91	4931	1.04	ppb		98
72)	o-Xylene	10.40	91	2733	0.54	ppb		96
73)	Styrene	10.41	104	1998	0.55	ppb		96
75)	1,3-Dichloropropane	8.94	76	1057	0.52	ppb		93
77)	Chlorobenzene	9.77	112	1323	0.55	ppb		83
78)	Ethylbenzene	9.90	91	3256	0.55	ppb		88
79)	Bromoform	10.58	173	244	0.38	ppb	#	64
81)	Isopropylbenzene	10.78	105	2955	0.52	ppb	#	92
82)	1,1,2,2-Tetrachloroethane	11.06	83	880	0.59	ppb	#	85
83)	1,2,3-Trichloropropane	11.10	110	90	-0.89	ppb	#	19
84)	t-1,4-Dichloro-2-Butene	11.13	53	49	-0.64	ppb	#	16
85)	Bromobenzene	11.06	77	781	0.53	ppb		91
86)	n-Propylbenzene	11.19	91	3651	0.58	ppb		89
87)	4-Ethyltoluene	11.31	105	2968	0.55	ppb	#	90
88)	2-Chlorotoluene	11.26	91	1304	0.50	ppb		95
89)	1,3,5-Trimethylbenzene	11.37	105	2339	0.48	ppb		95
90)	4-Chlorotoluene	11.37	91	1445	0.48	ppb		98
91)	Tert-Butylbenzene	11.69	119	2276	0.52	ppb		96
92)	1,2,4-Trimethylbenzene	11.74	105	2473	0.50	ppb		97
93)	Sec-Butylbenzene	11.91	105	3096	0.55	ppb		95
94)	p-Isopropyltoluene	12.06	119	2383	0.48	ppb	#	81
95)	Benzyl Chloride	12.22	91	654	0.56	ppb	#	74
96)	1,3-DCB	12.00	146	1008	0.47	ppb		89
97)	1,4-DCB	12.09	146	2074	0.63	ppb		94
98)	n-Butylbenzene	12.47	91	2016	0.53	ppb		95
99)	1,2-DCB	12.46	146	1091	0.55	ppb		84
100)	Hexachloroethane	12.71	117	296	0.49	ppb	#	38
101)	1,2-Dibromo-3-chloropropan	13.22	157	186	0.50	ppb	#	50
102)	1,2,4-Trichlorobenzene	14.07	182	635	0.54	ppb	#	81
103)	Hexachlorobutadiene	14.25	225	442	0.61	ppb	#	43
104)	Naphthalene	14.30	128	1731	0.58	ppb	#	85

(#) = qualifier out of range (m) = manual integration

Data File : M:\THOR\DATA\T191023\1023T07.D Vial: 7
Acq On : 23 Oct 19 20:01 Operator:
Sample : 0.5ug/L VOC STD 10/23/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 24 8:58 2019 Quant Results File: T1023W.RES

Method : M:\THOR\DATA\T191023\T1023W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:55:52 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\THOR\DATA\T191023\1023T08.D Vial: 8
Acq On : 23 Oct 19 20:29 Operator:
Sample : 1.0ug/L VOC STD 10/23/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 24 8:58 2019 Quant Results File: T1023W.RES

Quant Method : M:\THOR\DATA\T191023\T1023W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:55:52 2019
Response via : Initial Calibration
DataAcq Meth : T8260

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene (IS)	6.59	96	186048	25.00	ppb		0.00
65) Chlorobenzene-D5 (IS)	9.74	117	170048	25.00	ppb		0.00
80) 1,4-Dichlorobenzene-D (IS)	12.07	152	96952	25.00	ppb		0.00
System Monitoring Compounds							
40) Dibromofluoromethane(S)	5.79	111	32509	9.07	ppb		0.00
Spiked Amount 25.000			Recovery = 36.260%				
45) 1,2-DCA-D4(S)	6.18	65	35862	8.93	ppb		0.00
Spiked Amount 25.000			Recovery = 35.724%				
66) Toluene-D8(S)	8.30	98	112166	8.83	ppb		0.00
Spiked Amount 25.000			Recovery = 35.332%				
74) 4-Bromofluorobenzene(S)	10.92	174	42473	8.45	ppb		0.00
Spiked Amount 25.000			Recovery = 33.796%				
Target Compounds							Qvalue
3) Dichlorodifluoromethane	1.21	85	2213	1.28	ppb	#	81
4) Freon 114	1.32	85	1140	0.31	ppb		93
5) Chloromethane	1.36	50	2112	0.60	ppb		96
6) Vinyl chloride	1.46	62	1528	1.21	ppb		96
8) Bromomethane	1.75	96	1266	1.45	ppb		96
9) Chloroethane	1.86	64	2544	1.72	ppb		98
10) Dichlorofluoromethane	2.06	67	2822	1.23	ppb		92
11) Trichlorofluoromethane	2.12	101	2755	1.17	ppb		99
13) Acrolein	2.55	55	3800	53.36	ppb		80
14) Acetone	2.74	43	1592	3.48	ppb	#	79
15) Freon-113	2.69	101	702	-0.16	ppb	#	84
16) 1,1-DCE	2.66	61	2040	1.22	ppb		90
18) Acetonitrile	3.06	41	7539	47.94	ppb		92
19) t-Butanol	3.54	59	6157	49.86	ppb		96
21) Iodomethane	2.82	142	383	3.68	ppb		94
22) Acrylonitrile	3.62	53	431	1.01	ppb	#	78
24) Carbon disulfide	2.90	76	3805	1.15	ppb	#	93
25) Methyl t-butyl ether (MtBE	3.73	73	4207	0.25	ppb	#	89
26) Trans-1,2-DCE	3.67	61	1800	1.10	ppb		93
28) Diisopropyl Ether	4.55	45	1587	1.12	ppb	#	83
30) 1,1-DCA	4.32	63	1319	0.31	ppb	#	79
31) Vinyl Acetate	4.56	87	1404	0.62	ppb		91
32) Ethyl tert Butyl Ether	5.06	59	3779	0.99	ppb	#	77
33) MEK (2-Butanone)	5.25	43	824	1.70	ppb	#	52
34) Cis-1,2-DCE	5.16	61	1979	1.00	ppb	#	70
35) 2,2-Dichloropropane	5.15	77	1108	1.09	ppb	#	58
38) Chloroform	5.60	83	1500	1.16	ppb		98
39) Bromochloromethane	5.46	130	644	1.16	ppb	#	48
41) 1,1,1-TCA	5.80	97	1182	0.18	ppb	#	79
42) Cyclohexane	5.87	84	1886	1.27	ppb		78
43) 1,1-Dichloropropene	6.02	75	1947	1.20	ppb		85
44) 2,2,4-Trimethylpentane	6.41	57	1717	1.24	ppb		93
46) Carbon Tetrachloride	6.01	119	2530	0.67	ppb		77
47) Tert Amyl Methyl Ether	6.45	73	4183	1.08	ppb		95
49) 1,2-DCA	6.26	62	2312	1.08	ppb	#	90
50) Benzene	6.25	78	5980	1.13	ppb	#	88
51) TCE	7.01	130	1838	1.12	ppb		87
52) 2-Pentanone	7.23	43	42744	51.67	ppb		96
53) 1,2-Dichloropropane	7.23	63	1521	1.13	ppb	#	88

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\THOR\DATA\T191023\1023T08.D Vial: 8
Acq On : 23 Oct 19 20:29 Operator:
Sample : 1.0ug/L VOC STD 10/23/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 24 8:58 2019 Quant Results File: T1023W.RES

Quant Method : M:\THOR\DATA\T191023\T1023W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:55:52 2019
Response via : Initial Calibration
DataAcq Meth : T8260

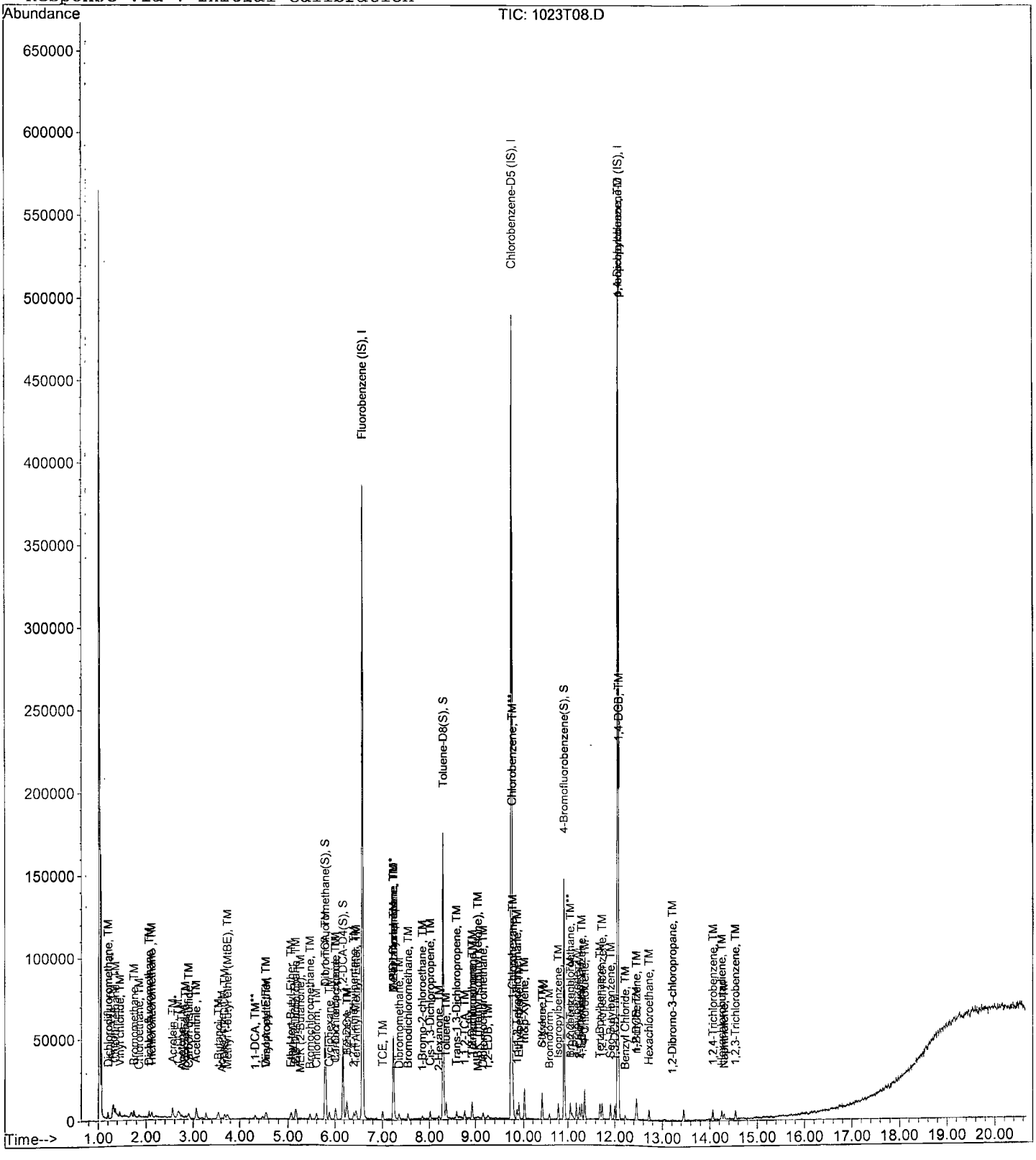
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
54)	Bromodichloromethane	7.54	83	2148	1.04	ppb	#	68
55)	Methyl Cyclohexane	7.22	83	2088	1.27	ppb		88
56)	Dibromomethane	7.35	174	1320	0.68	ppb		90
57)	MIBK (methyl isobutyl ket	9.05	43	515	1.66	ppb	#	73
58)	1-Bromo-2-chloroethane	7.85	63	1624	0.94	ppb		83
60)	Cis-1,3-Dichloropropene	8.02	75	2365	1.10	ppb		98
61)	Toluene	8.37	91	6781	1.13	ppb		100
62)	Trans-1,3-Dichloropropene	8.59	75	1278	0.95	ppb	#	28
63)	1,1,2-TCA	8.77	97	1441	1.07	ppb		94
64)	2-Hexanone	8.21	43	758	1.76	ppb	#	71
67)	1,2-EDB	9.26	107	855	1.05	ppb	#	75
68)	Tetrachloroethene	8.92	166	1113	0.69	ppb		92
69)	1-Chlorohexane	9.78	91	2319	1.25	ppb		95
70)	1,1,1,2-Tetrachloroethane	9.86	131	1688	1.03	ppb		79
71)	m&p-Xylene	10.02	91	10640	2.16	ppb		91
72)	o-Xylene	10.40	91	5776	1.10	ppb		92
73)	Styrene	10.42	104	3866	1.04	ppb		93
75)	1,3-Dichloropropane	8.93	76	2450	1.16	ppb		87
76)	Dibromochloromethane	9.16	129	1649	0.91	ppb	#	81
77)	Chlorobenzene	9.77	112	2697	1.08	ppb	#	91
78)	Ethylbenzene	9.90	91	6258	1.02	ppb		96
79)	Bromoform	10.58	173	996	0.93	ppb	#	30
81)	Isopropylbenzene	10.78	105	7137	1.20	ppb		96
82)	1,1,2,2-Tetrachloroethane	11.06	83	1421	0.91	ppb	#	91
85)	Bromobenzene	11.06	77	1841	1.19	ppb		91
86)	n-Propylbenzene	11.19	91	7417	1.12	ppb		92
87)	4-Ethyltoluene	11.31	105	5822	1.02	ppb		92
88)	2-Chlorotoluene	11.26	91	3127	1.14	ppb		94
89)	1,3,5-Trimethylbenzene	11.31	105	5746	1.14	ppb		84
90)	4-Chlorotoluene	11.37	91	3169	1.01	ppb	#	85
91)	Tert-Butylbenzene	11.69	119	4538	1.00	ppb		93
92)	1,2,4-Trimethylbenzene	11.74	105	5982	1.15	ppb		91
93)	Sec-Butylbenzene	11.91	105	6363	1.08	ppb	#	92
94)	p-Isopropyltoluene	12.06	119	5492	1.06	ppb	#	89
95)	Benzyl Chloride	12.22	91	1279	1.06	ppb	#	92
96)	1,3-DCB	12.00	146	2616	1.16	ppb		92
97)	1,4-DCB	12.09	146	3564	1.04	ppb		99
98)	n-Butylbenzene	12.47	91	4131	1.05	ppb	#	83
99)	1,2-DCB	12.46	146	2218	1.08	ppb		96
100)	Hexachloroethane	12.72	117	620	0.98	ppb		92
101)	1,2-Dibromo-3-chloropropan	13.22	157	215	0.59	ppb	#	74
102)	1,2,4-Trichlorobenzene	14.06	182	1397	1.13	ppb		94
103)	Hexachlorobutadiene	14.25	225	759	1.01	ppb	#	33
104)	Naphthalene	14.30	128	3115	1.00	ppb		96
105)	1,2,3-Trichlorobenzene	14.54	182	2012	0.99	ppb	#	69

(#) = qualifier out of range (m) = manual integration

Data File : M:\THOR\DATA\T191023\1023T08.D Vial: 8
Acq On : 23 Oct 19 20:29 Operator:
Sample : 1.0ug/L VOC STD 10/23/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 24 8:58 2019 Quant Results File: T1023W.RES

Method : M:\THOR\DATA\T191023\T1023W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:55:52 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\THOR\DATA\T191023\1023T09.D Vial: 9
Acq On : 23 Oct 19 20:58 Operator:
Sample : 2.0ug/L VOC STD 10/23/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 24 8:58 2019 Quant Results File: T1023W.RES

Quant Method : M:\THOR\DATA\T191023\T1023W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:55:52 2019
Response via : Initial Calibration
DataAcq Meth : T8260

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene (IS)	6.59	96	182336	25.00	ppb		0.00
65) Chlorobenzene-D5 (IS)	9.74	117	173696	25.00	ppb		0.00
80) 1,4-Dichlorobenzene-D (IS)	12.07	152	94992	25.00	ppb		0.00
System Monitoring Compounds							
40) Dibromofluoromethane(S)	5.79	111	33009	9.39	ppb		0.00
Spiked Amount 25.000			Recovery = 37.568%				
45) 1,2-DCA-D4(S)	6.18	65	37488	9.53	ppb		0.00
Spiked Amount 25.000			Recovery = 38.104%				
66) Toluene-D8(S)	8.30	98	117350	9.05	ppb		0.00
Spiked Amount 25.000			Recovery = 36.188%				
74) 4-Bromofluorobenzene(S)	10.92	174	44756	8.72	ppb		0.00
Spiked Amount 25.000			Recovery = 34.864%				
Target Compounds							Qvalue
3) Dichlorodifluoromethane	1.20	85	3175	1.88	ppb		97
4) Freon 114	1.32	85	1910	1.49	ppb		85
5) Chloromethane	1.36	50	3317	1.63	ppb	#	81
6) Vinyl chloride	1.46	62	2252	1.82	ppb		90
8) Bromomethane	1.75	96	1934	2.41	ppb		83
9) Chloroethane	1.86	64	2460	1.68	ppb	#	73
10) Dichlorofluoromethane	2.06	67	4804	2.14	ppb		89
11) Trichlorofluoromethane	2.12	101	4673	2.03	ppb		97
13) Acrolein	2.55	55	5067	72.60	ppb		97
14) Acetone	2.74	43	2190	4.88	ppb	#	76
15) Freon-113	2.70	101	2181	1.55	ppb	#	88
16) 1,1-DCE	2.67	61	3464	2.12	ppb		92
18) Acetonitrile	3.06	41	11213	74.43	ppb		97
19) t-Butanol	3.54	59	8922	73.72	ppb		93
20) Methyl Acetate	3.18	43	1823	1.05	ppb	#	78
21) Iodomethane	2.82	142	462	3.74	ppb		88
22) Acrylonitrile	3.62	53	953	2.28	ppb		92
23) Methylene chloride	3.27	49	3370	1.08	ppb		87
24) Carbon disulfide	2.89	76	6588	2.19	ppb		98
25) Methyl t-butyl ether (MtBE	3.73	73	7916	1.39	ppb	#	89
26) Trans-1,2-DCE	3.68	61	3481	2.18	ppb		89
28) Diisopropyl Ether	4.55	45	2949	2.12	ppb		97
30) 1,1-DCA	4.32	63	2103	1.32	ppb	#	92
31) Vinyl Acetate	4.55	87	2156	1.39	ppb		99
32) Ethyl tert Butyl Ether	5.06	59	7839	2.10	ppb		99
33) MEK (2-Butanone)	5.22	43	1288	2.71	ppb	#	73
34) Cis-1,2-DCE	5.16	61	4117	2.13	ppb		95
35) 2,2-Dichloropropane	5.16	77	1799	2.05	ppb		93
38) Chloroform	5.59	83	2498	1.97	ppb		97
39) Bromochloromethane	5.46	130	1094	2.01	ppb		90
41) 1,1,1-TCA	5.80	97	2390	1.46	ppb		94
42) Cyclohexane	5.87	84	3158	2.16	ppb		79
43) 1,1-Dichloropropene	6.02	75	3070	1.93	ppb		92
44) 2,2,4-Trimethylpentane	6.41	57	2379	1.89	ppb		99
46) Carbon Tetrachloride	6.01	119	3701	1.36	ppb		88
47) Tert Amyl Methyl Ether	6.46	73	7829	2.06	ppb		95
49) 1,2-DCA	6.27	62	2248	1.06	ppb		93
50) Benzene	6.25	78	10480	2.02	ppb		95
51) TCE	7.00	130	3335	2.07	ppb		95

(#) = qualifier out of range (m) = manual integration

Data File : M:\THOR\DATA\T191023\1023T09.D Vial: 9
Acq On : 23 Oct 19 20:58 Operator:
Sample : 2.0ug/L VOC STD 10/23/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 24 8:58 2019 Quant Results File: T1023W.RES

Quant Method : M:\THOR\DATA\T191023\T1023W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:55:52 2019
Response via : Initial Calibration
DataAcq Meth : T8260

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
52)	2-Pentanone	7.23	43	60760	74.94	ppb		97
53)	1,2-Dichloropropane	7.23	63	3079	2.34	ppb	#	98
54)	Bromodichloromethane	7.54	83	4329	2.14	ppb		99
55)	Methyl Cyclohexane	7.22	83	3239	2.01	ppb		85
56)	Dibromomethane	7.34	174	1893	1.22	ppb		97
57)	MIBK (methyl isobutyl ket	9.05	43	929	2.63	ppb	#	84
58)	1-Bromo-2-chloroethane	7.85	63	3667	2.16	ppb		98
60)	Cis-1,3-Dichloropropene	8.02	75	4282	2.03	ppb		95
61)	Toluene	8.37	91	11816	2.01	ppb		97
62)	Trans-1,3-Dichloropropene	8.59	75	2529	1.92	ppb	#	65
63)	1,1,2-TCA	8.77	97	2858	2.17	ppb		79
64)	2-Hexanone	8.20	43	1337	2.66	ppb	#	89
67)	1,2-EDB	9.26	107	1686	2.03	ppb		80
68)	Tetrachloroethene	8.92	166	3619	2.20	ppb		93
69)	1-Chlorohexane	9.77	91	2745	1.51	ppb		92
70)	1,1,1,2-Tetrachloroethane	9.85	131	3220	1.92	ppb		97
71)	m&p-Xylene	10.02	91	19574	3.89	ppb		100
72)	o-Xylene	10.40	91	10335	1.92	ppb		93
73)	Styrene	10.42	104	6848	1.80	ppb		90
75)	1,3-Dichloropropane	8.93	76	4414	2.04	ppb		96
76)	Dibromochloromethane	9.16	129	3293	1.87	ppb		83
77)	Chlorobenzene	9.77	112	4853	1.89	ppb		96
78)	Ethylbenzene	9.90	91	12886	2.05	ppb		92
79)	Bromoform	10.58	173	2663	2.11	ppb		90
81)	Isopropylbenzene	10.78	105	11630	1.99	ppb	#	92
82)	1,1,2,2-Tetrachloroethane	11.05	83	3377	2.20	ppb	#	92
83)	1,2,3-Trichloropropane	11.09	110	1011	1.06	ppb	#	76
84)	t-1,4-Dichloro-2-Butene	11.12	53	612	1.33	ppb		90
85)	Bromobenzene	11.06	77	3079	2.02	ppb		80
86)	n-Propylbenzene	11.19	91	13209	2.04	ppb		98
87)	4-Ethyltoluene	11.31	105	11432	2.05	ppb		97
88)	2-Chlorotoluene	11.26	91	5743	2.14	ppb		91
89)	1,3,5-Trimethylbenzene	11.37	105	9508	1.92	ppb		97
90)	4-Chlorotoluene	11.37	91	6696	2.19	ppb		96
91)	Tert-Butylbenzene	11.69	119	9964	2.23	ppb		86
92)	1,2,4-Trimethylbenzene	11.74	105	10392	2.05	ppb		92
93)	Sec-Butylbenzene	11.91	105	11421	1.97	ppb		97
94)	p-Isopropyltoluene	12.06	119	10147	2.00	ppb		99
95)	Benzyl Chloride	12.22	91	2084	1.76	ppb		96
96)	1,3-DCB	12.00	146	4196	1.90	ppb		97
97)	1,4-DCB	12.09	146	7220	2.16	ppb		97
98)	n-Butylbenzene	12.47	91	7641	1.98	ppb		98
99)	1,2-DCB	12.46	146	4008	1.99	ppb		96
100)	Hexachloroethane	12.72	117	1365	2.21	ppb		88
101)	1,2-Dibromo-3-chloropropan	13.22	157	426	1.62	ppb	#	79
102)	1,2,4-Trichlorobenzene	14.06	182	2163	1.79	ppb	#	84
103)	Hexachlorobutadiene	14.26	225	1261	1.71	ppb		95
104)	Naphthalene	14.30	128	5533	1.81	ppb		93
105)	1,2,3-Trichlorobenzene	14.55	182	3184	1.72	ppb	#	75

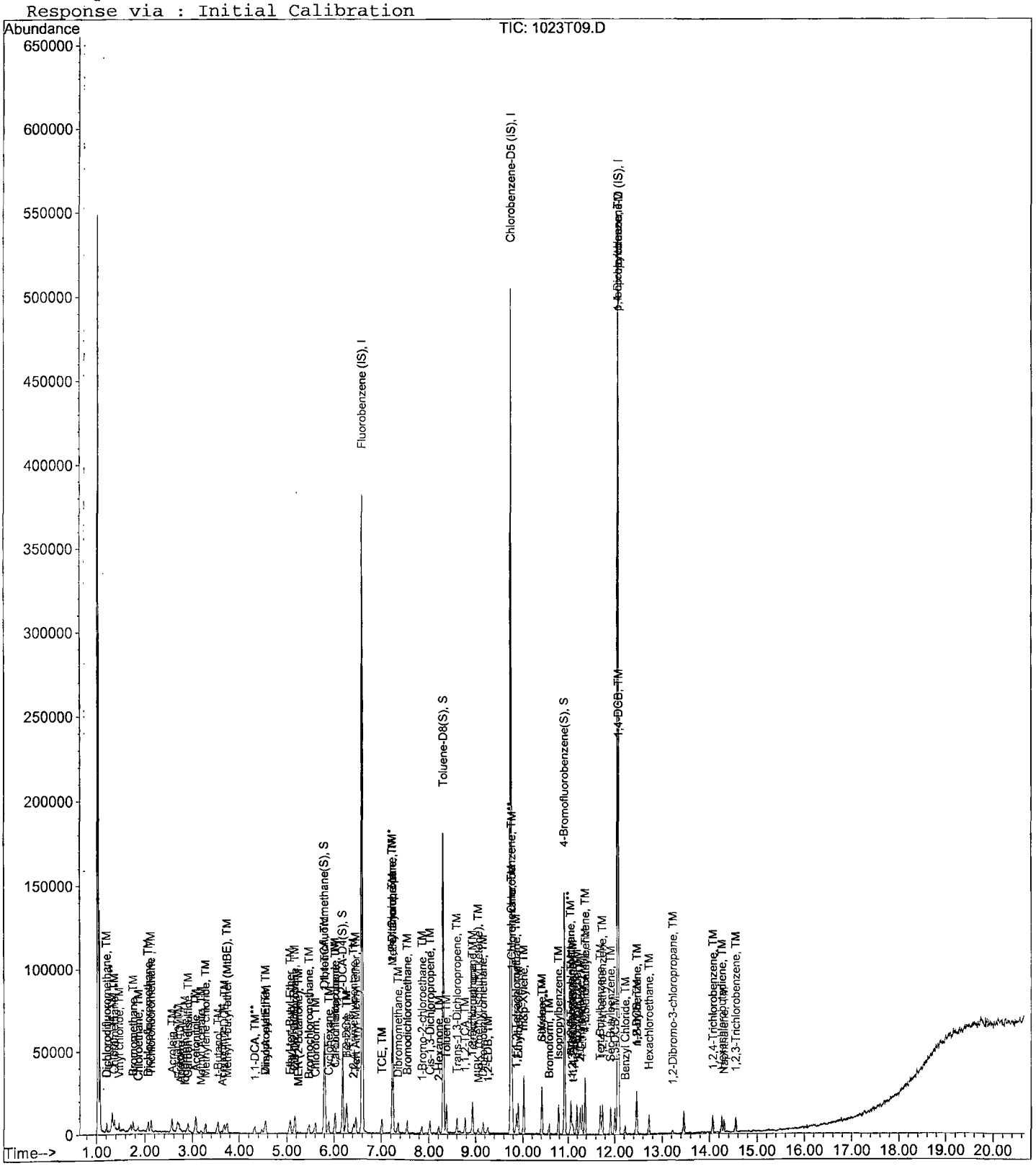
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\THOR\DATA\T191023\1023T09.D Vial: 9
Acq On : 23 Oct 19 20:58 Operator:
Sample : 2.0ug/L VOC STD 10/23/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 24 8:58 2019 Quant Results File: T1023W.RES

Method : M:\THOR\DATA\T191023\T1023W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:55:52 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\THOR\DATA\T191023\1023T10.D Vial: 10
Acq On : 23 Oct 19 21:26 Operator:
Sample : 5.0ug/L VOC STD 10/23/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 24 8:58 2019 Quant Results File: T1023W.RES

Quant Method : M:\THOR\DATA\T191023\T1023W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:55:52 2019
Response via : Initial Calibration
DataAcq Meth : T8260

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene (IS)	6.59	96	183104	25.00	ppb		0.00
65) Chlorobenzene-D5 (IS)	9.74	117	171200	25.00	ppb		0.00
80) 1,4-Dichlorobenzene-D (IS)	12.06	152	96128	25.00	ppb		0.00
System Monitoring Compounds							
40) Dibromofluoromethane(S)	5.79	111	86276	24.44	ppb		0.00
Spiked Amount 25.000			Recovery = 97.780%				
45) 1,2-DCA-D4(S)	6.18	65	97911	24.78	ppb		0.00
Spiked Amount 25.000			Recovery = 99.104%				
66) Toluene-D8(S)	8.30	98	311553	24.37	ppb		0.00
Spiked Amount 25.000			Recovery = 97.476%				
74) 4-Bromofluorobenzene(S)	10.92	174	123213	24.34	ppb		0.00
Spiked Amount 25.000			Recovery = 97.376%				
Target Compounds							Qvalue
3) Dichlorodifluoromethane	1.21	85	7047	4.15	ppb		100
4) Freon 114	1.32	85	3426	3.73	ppb		92
5) Chloromethane	1.36	50	6891	4.54	ppb		97
6) Vinyl chloride	1.46	62	5392	4.34	ppb		92
8) Bromomethane	1.75	96	3752	4.92	ppb		100
9) Chloroethane	1.86	64	4122	3.80	ppb		90
10) Dichlorofluoromethane	2.06	67	10226	4.54	ppb		92
11) Trichlorofluoromethane	2.12	101	9773	4.22	ppb		99
13) Acrolein	2.55	55	6587	93.99	ppb		94
14) Acetone	2.74	43	3112	6.90	ppb		91
15) Freon-113	2.70	101	4455	4.13	ppb		94
16) 1,1-DCE	2.66	61	7366	4.49	ppb		96
18) Acetonitrile	3.06	41	14951	99.89	ppb		97
19) t-Butanol	3.54	59	12184	100.25	ppb		95
20) Methyl Acetate	3.18	43	4022	4.10	ppb		97
21) Iodomethane	2.82	142	1130	4.26	ppb		96
22) Acrylonitrile	3.62	53	1849	4.41	ppb	#	79
23) Methylene chloride	3.27	49	6871	3.77	ppb		95
24) Carbon disulfide	2.89	76	12647	4.37	ppb	#	93
25) Methyl t-butyl ether (MtBE	3.73	73	17467	4.24	ppb		95
26) Trans-1,2-DCE	3.68	61	7009	4.37	ppb		93
28) Diisopropyl Ether	4.55	45	6353	4.56	ppb		90
30) 1,1-DCA	4.32	63	4303	4.02	ppb		96
31) Vinyl Acetate	4.54	87	4879	4.04	ppb		84
32) Ethyl tert Butyl Ether	5.06	59	17047	4.54	ppb	#	89
33) MEK (2-Butanone)	5.23	43	2473	5.18	ppb	#	57
34) Cis-1,2-DCE	5.16	61	8972	4.62	ppb	#	84
35) 2,2-Dichloropropane	5.15	77	3565	4.40	ppb		95
38) Chloroform	5.60	83	5919	4.65	ppb		98
39) Bromochloromethane	5.47	130	2359	4.32	ppb		83
41) 1,1,1-TCA	5.81	97	4991	4.13	ppb		94
42) Cyclohexane	5.88	84	6309	4.31	ppb		80
43) 1,1-Dichloropropene	6.02	75	7151	4.47	ppb		96
44) 2,2,4-Trimethylpentane	6.41	57	4801	4.13	ppb		99
46) Carbon Tetrachloride	6.02	119	8319	3.96	ppb		83
47) Tert Amyl Methyl Ether	6.46	73	17800	4.67	ppb		97
49) 1,2-DCA	6.27	62	4860	3.72	ppb		96
50) Benzene	6.25	78	24326	4.67	ppb		97
51) TCE	7.01	130	7152	4.42	ppb		92

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\THOR\DATA\T191023\1023T10.D Vial: 10
Acq On : 23 Oct 19 21:26 Operator:
Sample : 5.0ug/L VOC STD 10/23/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 24 8:58 2019 Quant Results File: T1023W.RES

Quant Method : M:\THOR\DATA\T191023\T1023W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:55:52 2019
Response via : Initial Calibration
DataAcq Meth : T8260

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
52)	2-Pentanone	7.23	43	80479	98.85	ppb		98
53)	1,2-Dichloropropane	7.23	63	5830	4.40	ppb	#	84
54)	Bromodichloromethane	7.54	83	9397	4.63	ppb	#	98
55)	Methyl Cyclohexane	7.22	83	7317	4.53	ppb		96
56)	Dibromomethane	7.35	174	4797	3.82	ppb		91
57)	MIBK (methyl isobutyl ket	9.05	43	2096	5.25	ppb	#	86
58)	1-Bromo-2-chloroethane	7.85	63	7637	4.48	ppb		98
60)	Cis-1,3-Dichloropropene	8.02	75	9274	4.37	ppb		97
61)	Toluene	8.37	91	26261	4.45	ppb		98
62)	Trans-1,3-Dichloropropene	8.59	75	5833	4.40	ppb		85
63)	1,1,2-TCA	8.77	97	6039	4.56	ppb		96
64)	2-Hexanone	8.20	43	2503	4.40	ppb		92
67)	1,2-EDB	9.26	107	4010	4.89	ppb		89
68)	Tetrachloroethene	8.92	166	8026	4.95	ppb		98
69)	1-Chlorohexane	9.77	91	7147	4.60	ppb		95
70)	1,1,1,2-Tetrachloroethane	9.86	131	7493	4.52	ppb		96
71)	m&p-Xylene	10.02	91	44412	8.96	ppb		98
72)	o-Xylene	10.41	91	23275	4.39	ppb		96
73)	Styrene	10.42	104	16167	4.30	ppb		97
75)	1,3-Dichloropropane	8.93	76	10123	4.74	ppb		100
76)	Dibromochloromethane	9.16	129	7218	4.29	ppb		94
77)	Chlorobenzene	9.77	112	11774	4.66	ppb		100
78)	Ethylbenzene	9.89	91	27457	4.44	ppb		96
79)	Bromoform	10.58	173	6093	4.66	ppb		92
81)	Isopropylbenzene	10.78	105	27436	4.65	ppb		98
82)	1,1,2,2-Tetrachloroethane	11.06	83	7046	4.54	ppb	#	94
83)	1,2,3-Trichloropropane	11.09	110	2559	4.29	ppb		89
84)	t-1,4-Dichloro-2-Butene	11.12	53	1788	5.37	ppb	#	61
85)	Bromobenzene	11.06	77	7073	4.60	ppb		88
86)	n-Propylbenzene	11.19	91	29626	4.51	ppb		97
87)	4-Ethyltoluene	11.31	105	26056	4.63	ppb		97
88)	2-Chlorotoluene	11.26	91	13299	4.89	ppb		95
89)	1,3,5-Trimethylbenzene	11.37	105	23914	4.78	ppb		96
90)	4-Chlorotoluene	11.37	91	13927	4.50	ppb		97
91)	Tert-Butylbenzene	11.69	119	23226	5.14	ppb		98
92)	1,2,4-Trimethylbenzene	11.74	105	24100	4.69	ppb		95
93)	Sec-Butylbenzene	11.91	105	26773	4.57	ppb		96
94)	p-Isopropyltoluene	12.06	119	23556	4.58	ppb		96
95)	Benzyl Chloride	12.22	91	5914	4.92	ppb		99
96)	1,3-DCB	12.00	146	9295	4.15	ppb		97
97)	1,4-DCB	12.09	146	15209	4.49	ppb		97
98)	n-Butylbenzene	12.46	91	17108	4.38	ppb		97
99)	1,2-DCB	12.45	146	9205	4.52	ppb		96
100)	Hexachloroethane	12.72	117	2949	4.71	ppb		96
101)	1,2-Dibromo-3-chloropropan	13.22	157	1225	5.34	ppb	#	67
102)	1,2,4-Trichlorobenzene	14.06	182	5412	4.43	ppb		98
103)	Hexachlorobutadiene	14.25	225	3450	4.61	ppb	#	55
104)	Naphthalene	14.30	128	13148	4.26	ppb		98
105)	1,2,3-Trichlorobenzene	14.54	182	7810	4.45	ppb	#	78

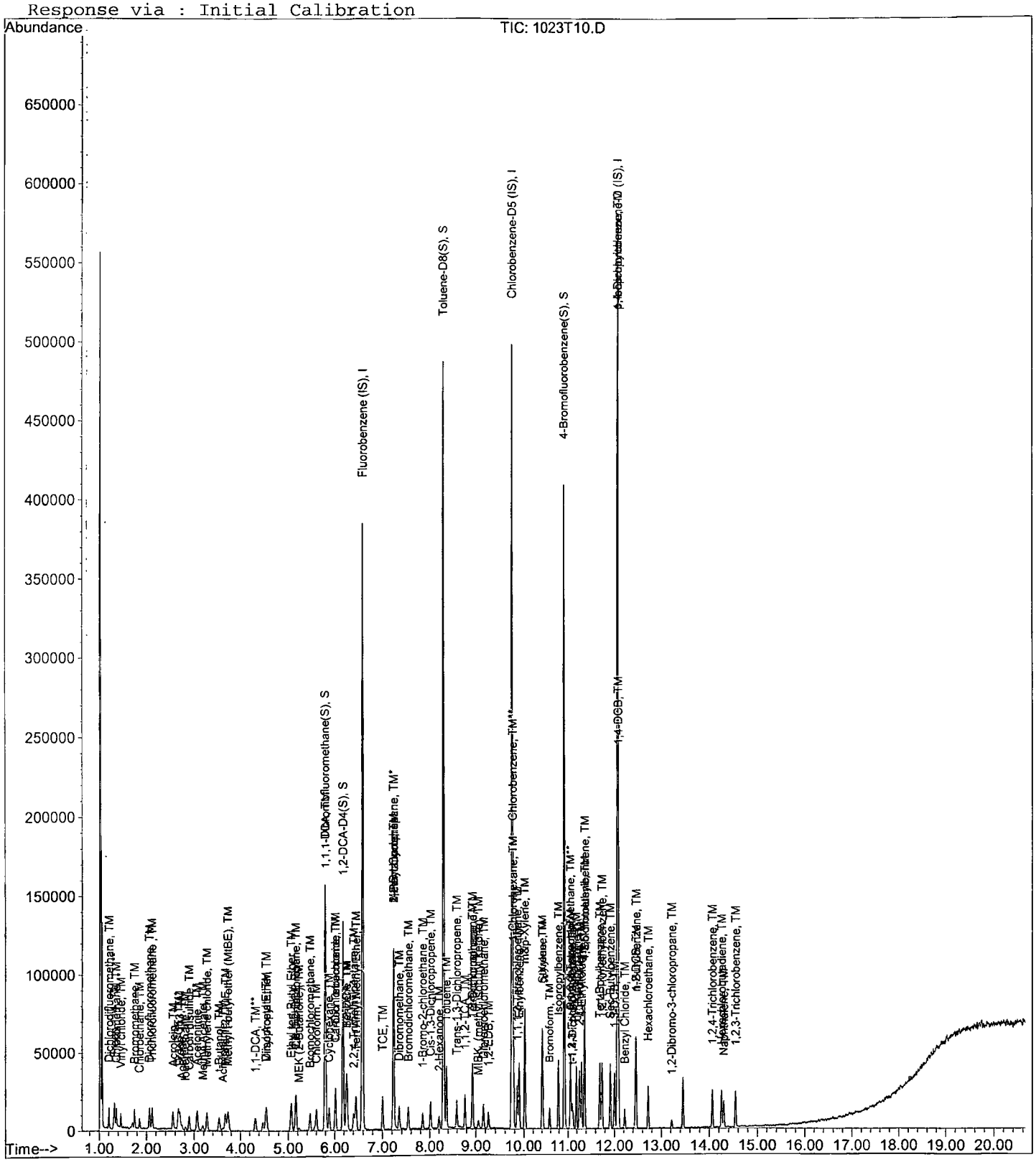
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\THOR\DATA\T191023\1023T10.D Vial: 10
Acq On : 23 Oct 19 21:26 Operator:
Sample : 5.0ug/L VOC STD 10/23/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 24 8:58 2019 Quant Results File: T1023W.RES

Method : M:\THOR\DATA\T191023\T1023W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:55:52 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\THOR\DATA\T191023\1023T11.D Vial: 11
Acq On : 23 Oct 19 21:55 Operator:
Sample : 10ug/L VOC STD 10/23/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 24 8:58 2019 Quant Results File: T1023W.RES

Quant Method : M:\THOR\DATA\T191023\T1023W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:55:52 2019
Response via : Initial Calibration
DataAcq Meth : T8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	6.59	96	178432	25.00	ppb	0.00
65) Chlorobenzene-D5 (IS)	9.74	117	159872	25.00	ppb	0.00
80) 1,4-Dichlorobenzene-D (IS)	12.06	152	97112	25.00	ppb	0.00
System Monitoring Compounds						
40) Dibromofluoromethane(S)	5.79	111	86393	25.12	ppb	0.00
Spiked Amount 25.000			Recovery = 100.476%			
45) 1,2-DCA-D4(S)	6.18	65	98312	25.53	ppb	0.00
Spiked Amount 25.000			Recovery = 102.112%			
66) Toluene-D8(S)	8.30	98	314020	26.30	ppb	0.00
Spiked Amount 25.000			Recovery = 105.208%			
74) 4-Bromofluorobenzene(S)	10.92	174	123099	26.04	ppb	0.00
Spiked Amount 25.000			Recovery = 104.180%			
Target Compounds						Qvalue
3) Dichlorodifluoromethane	1.20	85	14932	9.03	ppb	100
4) Freon 114	1.32	85	7672	10.34	ppb	100
5) Chloromethane	1.36	50	13913	10.59	ppb	100
6) Vinyl chloride	1.46	62	11629	9.61	ppb	100
8) Bromomethane	1.75	96	6929	9.57	ppb	100
9) Chloroethane	1.86	64	8442	9.63	ppb	100
10) Dichlorofluoromethane	2.06	67	21099	9.60	ppb	100
11) Trichlorofluoromethane	2.12	101	20797	9.22	ppb	100
13) Acrolein	2.55	55	8793	128.75	ppb	100
14) Acetone	2.74	43	4950	11.27	ppb	100
15) Freon-113	2.70	101	9462	10.12	ppb	100
16) 1,1-DCE	2.67	61	14233	8.91	ppb	100
18) Acetonitrile	3.06	41	18272	126.10	ppb	100
19) t-Butanol	3.53	59	14643	123.64	ppb	100
20) Methyl Acetate	3.18	43	8327	10.39	ppb	100
21) Iodomethane	2.82	142	6698	8.68	ppb	100
22) Acrylonitrile	3.62	53	4020	9.84	ppb	100
23) Methylene chloride	3.27	49	14626	10.05	ppb	100
24) Carbon disulfide	2.90	76	27007	9.83	ppb	100
25) Methyl t-butyl ether (MtBE	3.73	73	36251	10.13	ppb	100
26) Trans-1,2-DCE	3.68	61	15076	9.64	ppb	100
28) Diisopropyl Ether	4.55	45	11939	8.79	ppb	100
30) 1,1-DCA	4.32	63	8893	9.98	ppb	100
31) Vinyl Acetate	4.54	87	10490	9.80	ppb	100
32) Ethyl tert Butyl Ether	5.06	59	37233	10.18	ppb	100
33) MEK (2-Butanone)	5.23	43	4883	10.51	ppb	100
34) Cis-1,2-DCE	5.16	61	18914	9.99	ppb	100
35) 2,2-Dichloropropane	5.16	77	7007	9.26	ppb	100
38) Chloroform	5.60	83	12348	9.95	ppb	100
39) Bromochloromethane	5.46	130	5202	9.77	ppb	100
41) 1,1,1-TCA	5.80	97	10621	10.21	ppb	100
42) Cyclohexane	5.88	84	12619	8.84	ppb	100
43) 1,1-Dichloropropene	6.02	75	14583	9.35	ppb	100
44) 2,2,4-Trimethylpentane	6.41	57	10115	9.30	ppb	100
46) Carbon Tetrachloride	6.01	119	17586	9.45	ppb	100
47) Tert Amyl Methyl Ether	6.46	73	35058	9.44	ppb	100
49) 1,2-DCA	6.27	62	9957	9.19	ppb	100
50) Benzene	6.25	78	47545	9.36	ppb	100
51) TCE	7.01	130	14677	9.32	ppb	100

(#) = qualifier out of range (m) = manual integration

Data File : M:\THOR\DATA\T191023\1023T11.D Vial: 11
Acq On : 23 Oct 19 21:55 Operator:
Sample : 10ug/L VOC STD 10/23/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 24 8:58 2019 Quant Results File: T1023W.RES

Quant Method : M:\THOR\DATA\T191023\T1023W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:55:52 2019
Response via : Initial Calibration
DataAcq Meth : T8260

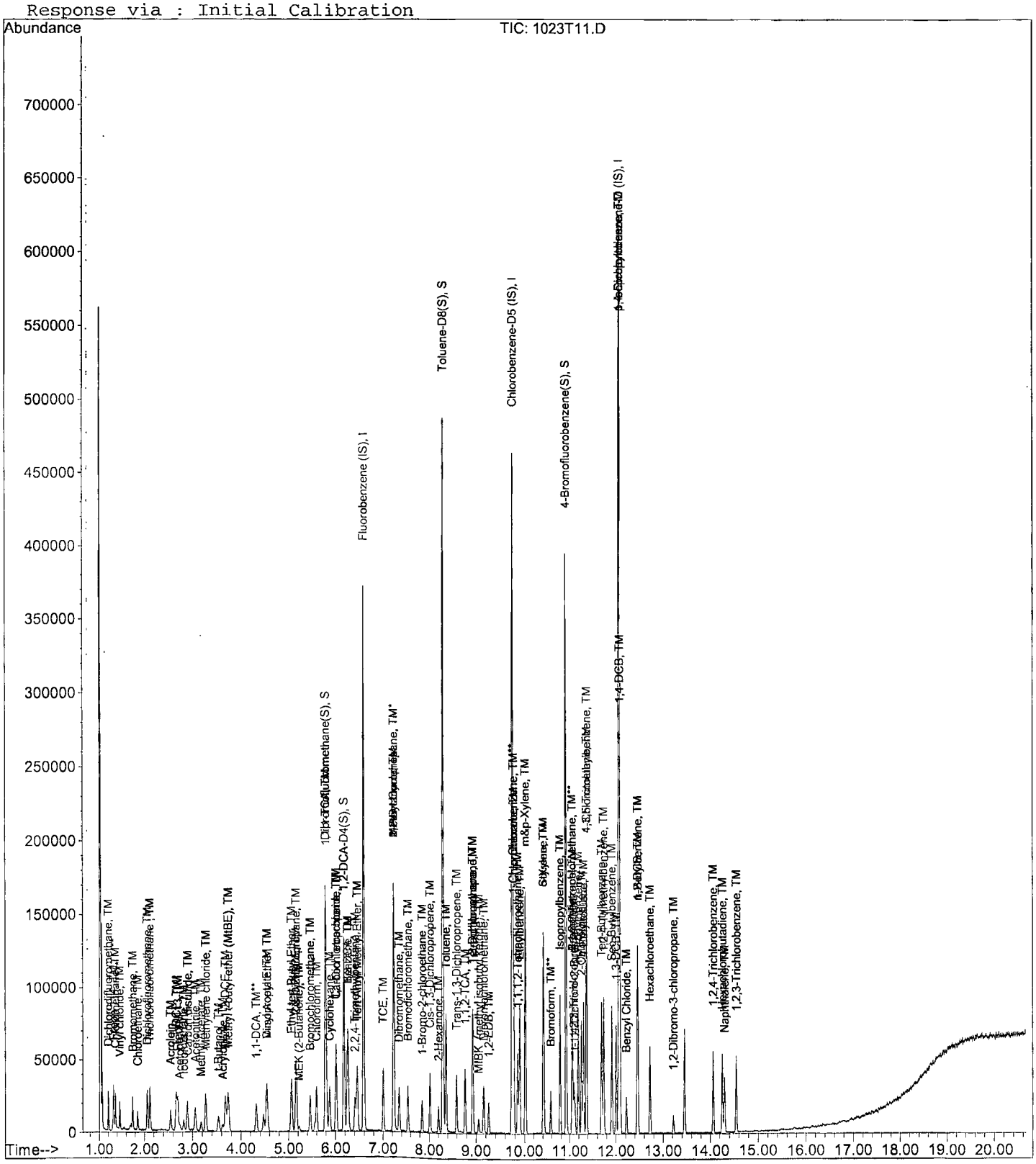
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
52)	2-Pentanone	7.23	43	98031	123.56	ppb	100
53)	1,2-Dichloropropane	7.23	63	12213	9.46	ppb	100
54)	Bromodichloromethane	7.54	83	19074	9.65	ppb	100
55)	Methyl Cyclohexane	7.22	83	14678	9.33	ppb	100
56)	Dibromomethane	7.35	174	10360	9.04	ppb	100
57)	MIBK (methyl isobutyl ket	9.05	43	3951	9.67	ppb	100
58)	1-Bromo-2-chloroethane	7.85	63	16743	10.07	ppb	100
60)	Cis-1,3-Dichloropropene	8.02	75	20283	9.82	ppb	100
61)	Toluene	8.37	91	55194	9.59	ppb	100
62)	Trans-1,3-Dichloropropene	8.59	75	12534	9.70	ppb	100
63)	1,1,2-TCA	8.77	97	13065	10.12	ppb	100
64)	2-Hexanone	8.20	43	5964	9.85	ppb	100
67)	1,2-EDB	9.26	107	7535	9.84	ppb	100
68)	Tetrachloroethene	8.92	166	16538	10.92	ppb	100
69)	1-Chlorohexane	9.78	91	14226	10.24	ppb	100
70)	1,1,1,2-Tetrachloroethane	9.86	131	15300	9.89	ppb	100
71)	m&p-Xylene	10.02	91	94120	20.33	ppb	100
72)	o-Xylene	10.40	91	51227	10.35	ppb	100
73)	Styrene	10.42	104	35722	10.18	ppb	100
75)	1,3-Dichloropropane	8.93	76	20155	10.11	ppb	100
76)	Dibromochloromethane	9.15	129	16704	10.78	ppb	100
77)	Chlorobenzene	9.77	112	24896	10.56	ppb	100
78)	Ethylbenzene	9.90	91	58576	10.14	ppb	100
79)	Bromoform	10.58	173	13279	10.61	ppb	100
81)	Isopropylbenzene	10.78	105	60153	10.08	ppb	100
82)	1,1,2,2-Tetrachloroethane	11.05	83	16130	10.28	ppb	100
83)	1,2,3-Trichloropropane	11.09	110	5570	10.50	ppb	100
84)	t-1,4-Dichloro-2-Butene	11.12	53	3236	10.26	ppb	100
85)	Bromobenzene	11.06	77	15582	10.02	ppb	100
86)	n-Propylbenzene	11.19	91	63613	9.59	ppb	100
87)	4-Ethyltoluene	11.31	105	55797	9.81	ppb	100
88)	2-Chlorotoluene	11.26	91	26018	9.46	ppb	100
89)	1,3,5-Trimethylbenzene	11.37	105	50646	10.01	ppb	100
90)	4-Chlorotoluene	11.37	91	31560	10.09	ppb	100
91)	Tert-Butylbenzene	11.69	119	43879	9.61	ppb	100
92)	1,2,4-Trimethylbenzene	11.74	105	50506	9.74	ppb	100
93)	Sec-Butylbenzene	11.91	105	58662	9.91	ppb	100
94)	p-Isopropyltoluene	12.06	119	53371	10.27	ppb	100
95)	Benzyl Chloride	12.22	91	11283	9.30	ppb	100
96)	1,3-DCB	12.00	146	21112	9.34	ppb	100
97)	1,4-DCB	12.09	146	31903	9.32	ppb	100
98)	n-Butylbenzene	12.46	91	37788	9.57	ppb	100
99)	1,2-DCB	12.45	146	20424	9.93	ppb	100
100)	Hexachloroethane	12.72	117	6566	10.39	ppb	100
101)	1,2-Dibromo-3-chloropropan	13.22	157	2059	9.16	ppb	100
102)	1,2,4-Trichlorobenzene	14.06	182	12002	9.73	ppb	100
103)	Hexachlorobutadiene	14.25	225	7655	10.13	ppb	100
104)	Naphthalene	14.30	128	28762	9.22	ppb	100
105)	1,2,3-Trichlorobenzene	14.54	182	15183	8.74	ppb	100

(#) = qualifier out of range (m) = manual integration

Data File : M:\THOR\DATA\T191023\1023T11.D Vial: 11
Acq On : 23 Oct 19 21:55 Operator:
Sample : 10ug/L VOC STD 10/23/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 24 8:58 2019 Quant Results File: T1023W.RES

Method : M:\THOR\DATA\T191023\T1023W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:55:52 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\THOR\DATA\T191023\1023T12.D Vial: 12
Acq On : 23 Oct 19 22:23 Operator:
Sample : 20ug/L VOC STD 10/23/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 24 8:58 2019 Quant Results File: T1023W.RES

Quant Method : M:\THOR\DATA\T191023\T1023W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:55:52 2019
Response via : Initial Calibration
DataAcq Meth : T8260

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene (IS)	6.59	96	180864	25.00	ppb		0.00
65) Chlorobenzene-D5 (IS)	9.74	117	175808	25.00	ppb		0.00
80) 1,4-Dichlorobenzene-D (IS)	12.07	152	103912	25.00	ppb		0.00
System Monitoring Compounds							
40) Dibromofluoromethane(S)	5.79	111	175433	50.32	ppb		0.00
Spiked Amount 25.000			Recovery = 201.288%				
45) 1,2-DCA-D4(S)	6.18	65	197560	50.61	ppb		0.00
Spiked Amount 25.000			Recovery = 202.440%				
66) Toluene-D8(S)	8.30	98	624922	47.60	ppb		0.00
Spiked Amount 25.000			Recovery = 190.396%				
74) 4-Bromofluorobenzene(S)	10.92	174	252217	48.53	ppb		0.00
Spiked Amount 25.000			Recovery = 194.104%				
Target Compounds							Qvalue
3) Dichlorodifluoromethane	1.20	85	32288	19.26	ppb		97
4) Freon 114	1.32	85	15354	21.74	ppb		96
5) Chloromethane	1.36	50	25641	20.15	ppb		100
6) Vinyl chloride	1.46	62	22773	18.57	ppb		100
8) Bromomethane	1.75	96	14084	19.47	ppb		95
9) Chloroethane	1.85	64	16775	20.31	ppb		100
10) Dichlorofluoromethane	2.06	67	43411	19.49	ppb		96
11) Trichlorofluoromethane	2.12	101	44383	19.42	ppb		95
13) Acrolein	2.55	55	9785	141.35	ppb		92
14) Acetone	2.74	43	8290	18.61	ppb		97
15) Freon-113	2.69	101	19524	21.58	ppb		94
16) 1,1-DCE	2.67	61	32010	19.76	ppb		93
18) Acetonitrile	3.06	41	22103	151.11	ppb	#	88
19) t-Butanol	3.54	59	17879	148.94	ppb	#	93
20) Methyl Acetate	3.18	43	16422	21.63	ppb		90
21) Iodomethane	2.82	142	18596	17.90	ppb		96
22) Acrylonitrile	3.62	53	8318	20.08	ppb		98
23) Methylene chloride	3.27	49	29061	21.18	ppb		94
24) Carbon disulfide	2.89	76	53453	19.39	ppb		95
25) Methyl t-butyl ether (MtBE	3.73	73	71271	20.58	ppb	#	94
26) Trans-1,2-DCE	3.67	61	30537	19.27	ppb		96
28) Diisopropyl Ether	4.55	45	27088	19.67	ppb		93
30) 1,1-DCA	4.32	63	18088	21.33	ppb		96
31) Vinyl Acetate	4.54	87	21636	20.70	ppb		98
32) Ethyl tert Butyl Ether	5.06	59	74470	20.10	ppb		96
33) MEK (2-Butanone)	5.22	43	9649	20.48	ppb	#	90
34) Cis-1,2-DCE	5.16	61	38891	20.27	ppb		97
35) 2,2-Dichloropropane	5.15	77	15543	20.72	ppb		95
38) Chloroform	5.60	83	25136	19.99	ppb		96
39) Bromochloromethane	5.46	130	10607	19.65	ppb		92
41) 1,1,1-TCA	5.80	97	20576	20.43	ppb		89
42) Cyclohexane	5.88	84	26588	18.37	ppb		90
43) 1,1-Dichloropropene	6.02	75	30088	19.04	ppb		94
44) 2,2,4-Trimethylpentane	6.41	57	22144	20.47	ppb		99
46) Carbon Tetrachloride	6.01	119	37078	20.44	ppb		91
47) Tert Amyl Methyl Ether	6.45	73	73559	19.54	ppb		98
49) 1,2-DCA	6.27	62	22504	22.02	ppb		96
50) Benzene	6.25	78	97763	19.00	ppb		97
51) TCE	7.01	130	29788	18.66	ppb		95

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\THOR\DATA\T191023\1023T12.D Vial: 12
Acq On : 23 Oct 19 22:23 Operator:
Sample : 20ug/L VOC STD 10/23/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 24 8:58 2019 Quant Results File: T1023W.RES

Quant Method : M:\THOR\DATA\T191023\T1023W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:55:52 2019
Response via : Initial Calibration
DataAcq Meth : T8260

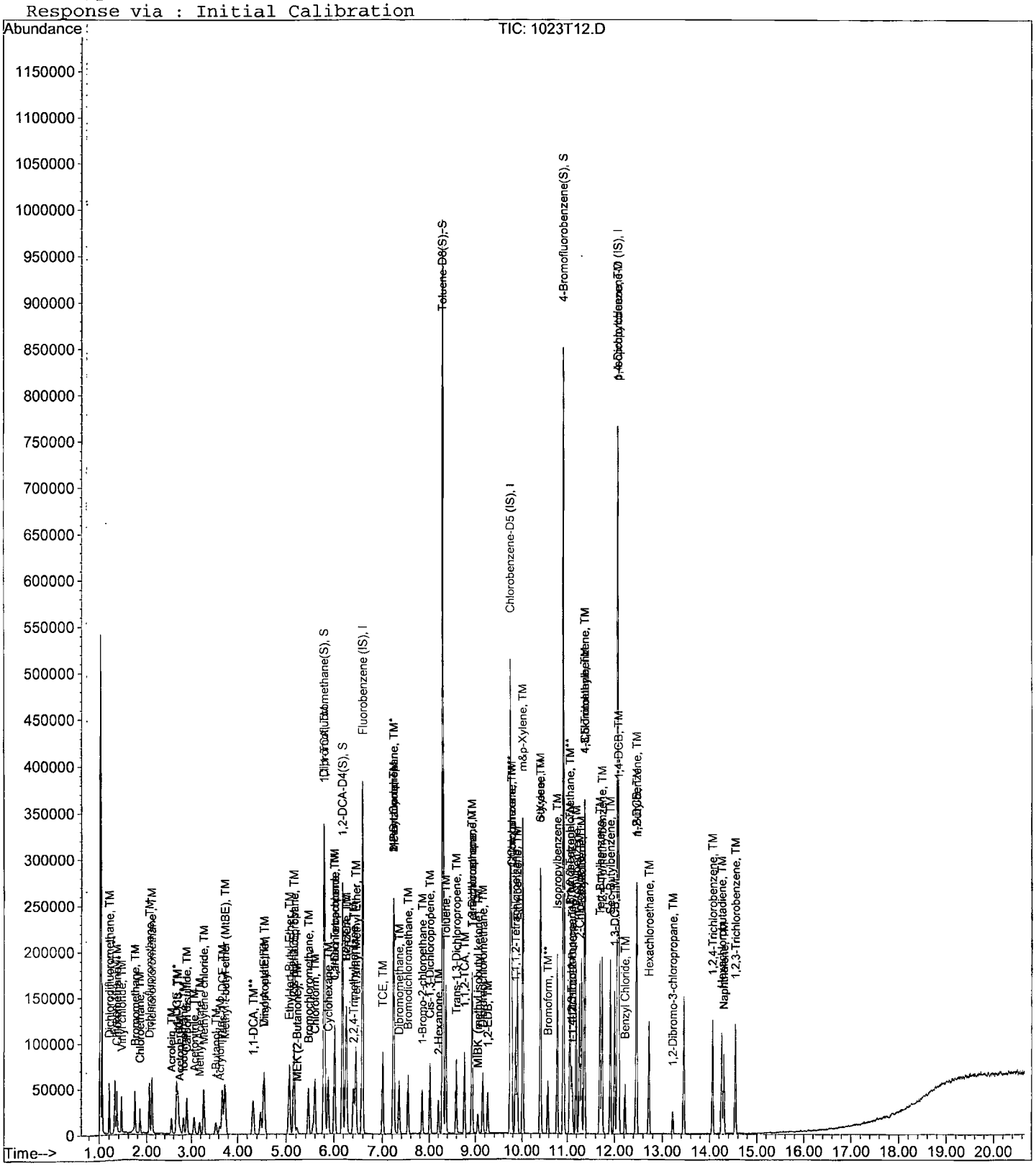
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
52)	2-Pentanone	7.23	43	124053	154.25	ppb		96
53)	1,2-Dichloropropane	7.23	63	24827	18.98	ppb		100
54)	Bromodichloromethane	7.54	83	39295	19.62	ppb	#	94
55)	Methyl Cyclohexane	7.22	83	30988	19.43	ppb		98
56)	Dibromomethane	7.35	174	23876	21.17	ppb		96
57)	MIBK (methyl isobutyl ket	9.05	43	7826	18.40	ppb		95
58)	1-Bromo-2-chloroethane	7.85	63	33960	20.15	ppb		97
60)	Cis-1,3-Dichloropropene	8.02	75	39658	18.93	ppb		96
61)	Toluene	8.36	91	113096	19.39	ppb		100
62)	Trans-1,3-Dichloropropene	8.59	75	25936	19.81	ppb		100
63)	1,1,2-TCA	8.77	97	25504	19.50	ppb		99
64)	2-Hexanone	8.20	43	12225	19.26	ppb		96
67)	1,2-EDB	9.26	107	16136	19.17	ppb		87
68)	Tetrachloroethene	8.92	166	33107	19.88	ppb		96
69)	1-Chlorohexane	9.77	91	30211	20.12	ppb		97
70)	1,1,1,2-Tetrachloroethane	9.86	131	31868	18.73	ppb		98
71)	m&p-Xylene	10.02	91	196759	38.64	ppb		99
72)	o-Xylene	10.40	91	102100	18.76	ppb		97
73)	Styrene	10.42	104	73591	19.06	ppb		100
75)	1,3-Dichloropropane	8.93	76	41806	19.06	ppb		97
76)	Dibromochloromethane	9.15	129	33143	19.54	ppb		99
77)	Chlorobenzene	9.77	112	48784	18.82	ppb		97
78)	Ethylbenzene	9.90	91	122474	19.27	ppb		99
79)	Bromoform	10.58	173	27267	19.65	ppb		91
81)	Isopropylbenzene	10.78	105	119982	18.79	ppb		97
82)	1,1,2,2-Tetrachloroethane	11.05	83	33329	19.86	ppb		96
83)	1,2,3-Trichloropropane	11.09	110	11514	21.30	ppb	#	88
84)	t-1,4-Dichloro-2-Butene	11.12	53	6726	20.70	ppb		93
85)	Bromobenzene	11.05	77	30824	18.53	ppb		92
86)	n-Propylbenzene	11.19	91	134615	18.97	ppb		97
87)	4-Ethyltoluene	11.31	105	116893	19.20	ppb		98
88)	2-Chlorotoluene	11.26	91	56665	19.26	ppb		97
89)	1,3,5-Trimethylbenzene	11.37	105	106438	19.66	ppb		97
90)	4-Chlorotoluene	11.37	91	65432	19.54	ppb		96
91)	Tert-Butylbenzene	11.69	119	92727	18.98	ppb		98
92)	1,2,4-Trimethylbenzene	11.74	105	106050	19.10	ppb		100
93)	Sec-Butylbenzene	11.91	105	121580	19.20	ppb		99
94)	p-Isopropyltoluene	12.06	119	110194	19.82	ppb		98
95)	Benzyl Chloride	12.22	91	24960	19.22	ppb		96
96)	1,3-DCB	12.00	146	43120	17.83	ppb		99
97)	1,4-DCB	12.09	146	66795	18.23	ppb		94
98)	n-Butylbenzene	12.47	91	82217	19.46	ppb		94
99)	1,2-DCB	12.46	146	41000	18.63	ppb		100
100)	Hexachloroethane	12.72	117	12173	18.00	ppb		86
101)	1,2-Dibromo-3-chloropropan	13.22	157	4549	19.35	ppb	#	86
102)	1,2,4-Trichlorobenzene	14.06	182	25808	19.54	ppb		96
103)	Hexachlorobutadiene	14.25	225	14803	18.31	ppb		89
104)	Naphthalene	14.30	128	66553	19.93	ppb		100
105)	1,2,3-Trichlorobenzene	14.54	182	36151	19.68	ppb		84

(#) = qualifier out of range (m) = manual integration

Data File : M:\THOR\DATA\T191023\1023T12.D Vial: 12
Acq On : 23 Oct 19 22:23 Operator:
Sample : 20ug/L VOC STD 10/23/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 24 8:58 2019 Quant Results File: T1023W.RES

Method : M:\THOR\DATA\T191023\T1023W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:55:52 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\THOR\DATA\T191023\1023T13.D Vial: 13
Acq On : 23 Oct 19 22:52 Operator:
Sample : 40ug/L VOC STD 10/23/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 24 8:58 2019 Quant Results File: T1023W.RES

Quant Method : M:\THOR\DATA\T191023\T1023W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:55:52 2019
Response via : Initial Calibration
DataAcq Meth : T8260

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene (IS)	6.59	96	178368	25.00	ppb		0.00
65) Chlorobenzene-D5 (IS)	9.74	117	169472	25.00	ppb		0.00
80) 1,4-Dichlorobenzene-D (IS)	12.06	152	101648	25.00	ppb		0.00
System Monitoring Compounds							
40) Dibromofluoromethane(S)	5.79	111	174185	50.66	ppb		0.00
Spiked Amount 25.000			Recovery = 202.652%				
45) 1,2-DCA-D4(S)	6.18	65	193525	50.27	ppb		0.00
Spiked Amount 25.000			Recovery = 201.080%				
66) Toluene-D8(S)	8.30	98	644008	50.89	ppb		0.00
Spiked Amount 25.000			Recovery = 203.544%				
74) 4-Bromofluorobenzene(S)	10.92	174	254916	50.88	ppb		0.00
Spiked Amount 25.000			Recovery = 203.516%				
Target Compounds							Qvalue
3) Dichlorodifluoromethane	1.20	85	63760	38.56	ppb		95
4) Freon 114	1.32	85	29000	42.87	ppb		96
5) Chloromethane	1.36	50	51152	41.89	ppb		99
6) Vinyl chloride	1.46	62	46109	38.12	ppb		98
8) Bromomethane	1.74	96	28488	40.22	ppb		94
9) Chloroethane	1.85	64	31831	40.46	ppb		97
10) Dichlorofluoromethane	2.06	67	88454	40.27	ppb		97
11) Trichlorofluoromethane	2.11	101	89037	39.50	ppb		97
13) Acrolein	2.55	55	11710	171.52	ppb		99
14) Acetone	2.74	43	14990	34.13	ppb		96
15) Freon-113	2.70	101	37981	43.49	ppb	#	93
16) 1,1-DCE	2.66	61	62037	38.83	ppb		96
18) Acetonitrile	3.06	41	25122	174.65	ppb		98
19) t-Butanol	3.54	59	20185	170.50	ppb		97
20) Methyl Acetate	3.18	43	31651	43.69	ppb		95
21) Iodomethane	2.82	142	44603	38.69	ppb		97
22) Acrylonitrile	3.62	53	16801	41.12	ppb		93
23) Methylene chloride	3.27	49	59157	45.35	ppb		93
24) Carbon disulfide	2.89	76	111137	41.12	ppb		97
25) Methyl t-butyl ether (MtBE	3.73	73	145366	43.62	ppb		95
26) Trans-1,2-DCE	3.67	61	64627	41.36	ppb		100
28) Diisopropyl Ether	4.54	45	52598	38.74	ppb		97
30) 1,1-DCA	4.32	63	35560	43.80	ppb		97
31) Vinyl Acetate	4.54	87	44516	43.98	ppb		99
32) Ethyl tert Butyl Ether	5.06	59	150408	41.16	ppb		92
33) MEK (2-Butanone)	5.22	43	20713	44.58	ppb	#	85
34) Cis-1,2-DCE	5.16	61	79565	42.05	ppb		99
35) 2,2-Dichloropropane	5.15	77	32216	43.95	ppb		96
38) Chloroform	5.60	83	50728	40.90	ppb		98
39) Bromochloromethane	5.46	130	20600	38.70	ppb		93
41) 1,1,1-TCA	5.80	97	42512	43.91	ppb		91
42) Cyclohexane	5.88	84	55927	39.18	ppb		87
43) 1,1-Dichloropropene	6.02	75	63308	40.62	ppb		90
44) 2,2,4-Trimethylpentane	6.41	57	44048	41.62	ppb		99
46) Carbon Tetrachloride	6.01	119	79257	45.17	ppb		88
47) Tert Amyl Methyl Ether	6.45	73	152156	40.97	ppb		99
49) 1,2-DCA	6.27	62	42800	43.61	ppb		96
50) Benzene	6.25	78	197816	38.98	ppb		96
51) TCE	7.00	130	62914	39.96	ppb		96

(#) = qualifier out of range (m) = manual integration

Data File : M:\THOR\DATA\T191023\1023T13.D Vial: 13
Acq On : 23 Oct 19 22:52 Operator:
Sample : 40ug/L VOC STD 10/23/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 24 8:58 2019 Quant Results File: T1023W.RES

Quant Method : M:\THOR\DATA\T191023\T1023W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:55:52 2019
Response via : Initial Calibration
DataAcq Meth : T8260

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
52)	2-Pentanone	7.23	43	143761	181.26 ppb	99
53)	1,2-Dichloropropane	7.23	63	51484	39.91 ppb	95
54)	Bromodichloromethane	7.54	83	78938	39.97 ppb	96
55)	Methyl Cyclohexane	7.22	83	61467	39.08 ppb	97
56)	Dibromomethane	7.35	174	49408	44.96 ppb	97
57)	MIBK (methyl isobutyl ket	9.05	43	16584	38.93 ppb	92
58)	1-Bromo-2-chloroethane	7.85	63	69691	41.92 ppb	92
60)	Cis-1,3-Dichloropropene	8.02	75	84020	40.68 ppb	97
61)	Toluene	8.37	91	232623	40.43 ppb	98
62)	Trans-1,3-Dichloropropene	8.59	75	53280	41.27 ppb	97
63)	1,1,2-TCA	8.77	97	51015	39.54 ppb	95
64)	2-Hexanone	8.20	43	24520	38.52 ppb	96
67)	1,2-EDB	9.26	107	32704	40.30 ppb	89
68)	Tetrachloroethene	8.92	166	68825	42.87 ppb	96
69)	1-Chlorohexane	9.77	91	58810	41.01 ppb	96
70)	1,1,1,2-Tetrachloroethane	9.86	131	67043	40.89 ppb	97
71)	m&p-Xylene	10.02	91	416560	84.87 ppb	100
72)	o-Xylene	10.40	91	218808	41.71 ppb	95
73)	Styrene	10.42	104	161433	43.38 ppb	96
75)	1,3-Dichloropropane	8.93	76	82807	39.17 ppb	98
76)	Dibromochloromethane	9.16	129	68039	41.72 ppb	98
77)	Chlorobenzene	9.77	112	101480	40.61 ppb	96
78)	Ethylbenzene	9.90	91	254015	41.47 ppb	96
79)	Bromoform	10.58	173	54091	40.23 ppb	95
81)	Isopropylbenzene	10.78	105	258833	41.44 ppb	97
82)	1,1,2,2-Tetrachloroethane	11.06	83	64889	39.53 ppb	98
83)	1,2,3-Trichloropropane	11.09	110	22702	44.03 ppb	85
84)	t-1,4-Dichloro-2-Butene	11.12	53	13317	42.74 ppb	94
85)	Bromobenzene	11.06	77	65704	40.38 ppb	92
86)	n-Propylbenzene	11.19	91	284550	41.00 ppb	99
87)	4-Ethyltoluene	11.31	105	257138	43.17 ppb	99
88)	2-Chlorotoluene	11.26	91	117349	40.78 ppb	97
89)	1,3,5-Trimethylbenzene	11.37	105	226201	42.72 ppb	99
90)	4-Chlorotoluene	11.37	91	146368	44.69 ppb	96
91)	Tert-Butylbenzene	11.69	119	196787	41.18 ppb	97
92)	1,2,4-Trimethylbenzene	11.74	105	227965	41.98 ppb	96
93)	Sec-Butylbenzene	11.91	105	262624	42.40 ppb	100
94)	p-Isopropyltoluene	12.06	119	238398	43.83 ppb	99
95)	Benzyl Chloride	12.22	91	51064	40.20 ppb	96
96)	1,3-DCB	12.00	146	89560	37.85 ppb	97
97)	1,4-DCB	12.09	146	141760	39.56 ppb	98
98)	n-Butylbenzene	12.47	91	183127	44.31 ppb	96
99)	1,2-DCB	12.46	146	89128	41.40 ppb	98
100)	Hexachloroethane	12.72	117	27632	41.77 ppb	99
101)	1,2-Dibromo-3-chloropropan	13.22	157	9753	42.89 ppb	82
102)	1,2,4-Trichlorobenzene	14.06	182	55408	42.90 ppb	97
103)	Hexachlorobutadiene	14.25	225	33920	42.89 ppb	96
104)	Naphthalene	14.30	128	147855	45.27 ppb	99
105)	1,2,3-Trichlorobenzene	14.55	182	79646	44.56 ppb	85

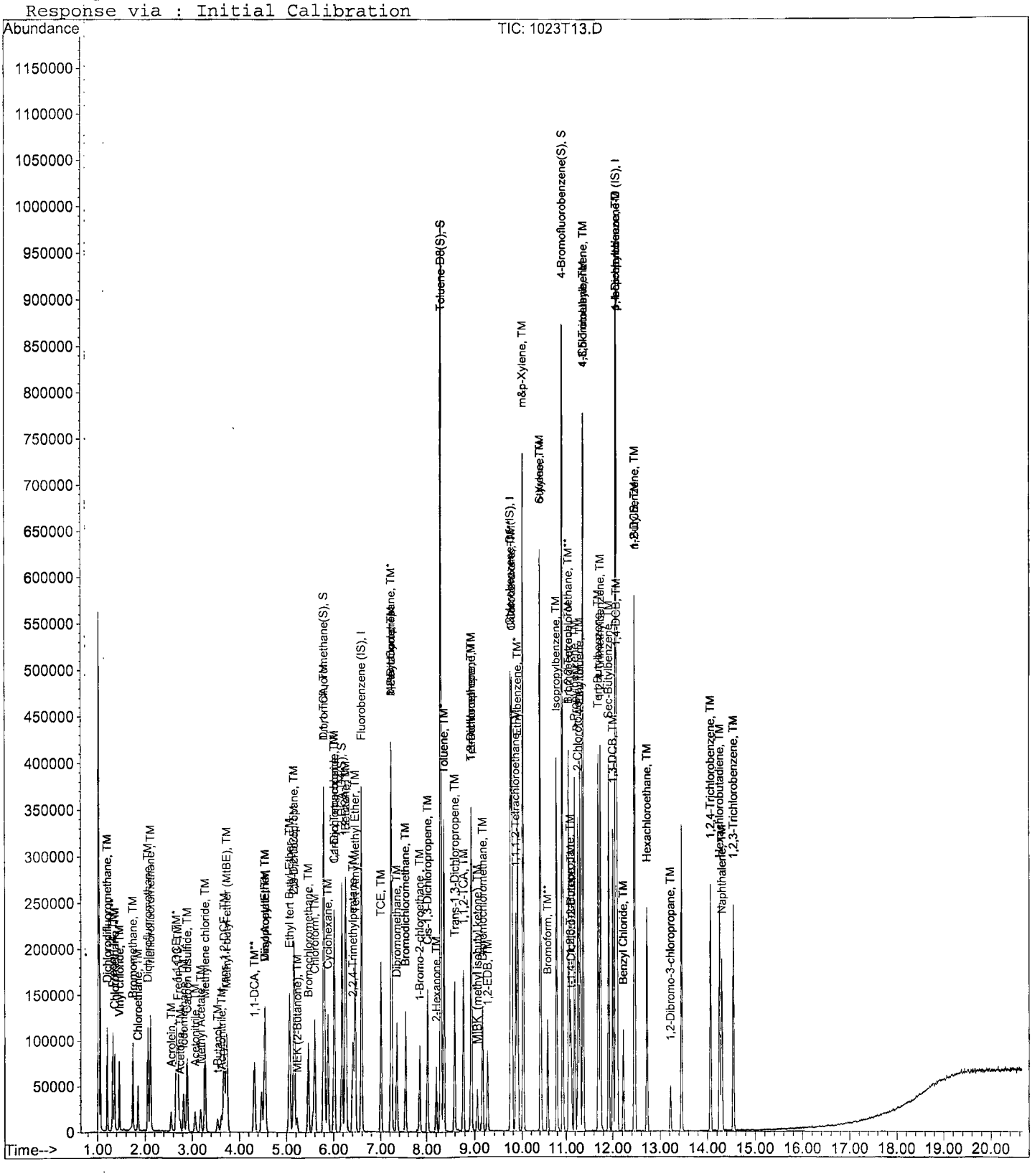
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\THOR\DATA\T191023\1023T13.D Vial: 13
Acq On : 23 Oct 19 22:52 Operator:
Sample : 40ug/L VOC STD 10/23/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 24 8:58 2019 Quant Results File: T1023W.RES

Method : M:\THOR\DATA\T191023\T1023W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:55:52 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\THOR\DATA\T191023\1023T14.D Vial: 14
Acq On : 23 Oct 19 23:20 Operator:
Sample : 100ug/L VOC STD 10/23/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 24 8:58 2019 Quant Results File: T1023W.RES

Quant Method : M:\THOR\DATA\T191023\T1023W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:55:52 2019
Response via : Initial Calibration
DataAcq Meth : T8260

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene (IS)	6.59	96	177408	25.00	ppb		0.00
65) Chlorobenzene-D5 (IS)	9.74	117	165184	25.00	ppb		0.00
80) 1,4-Dichlorobenzene-D (IS)	12.06	152	110936	25.00	ppb		0.00
System Monitoring Compounds							
40) Dibromofluoromethane(S)	5.79	111	323935	94.73	ppb		0.00
Spiked Amount 25.000			Recovery = 378.912%				
45) 1,2-DCA-D4(S)	6.18	65	358548	93.64	ppb		0.00
Spiked Amount 25.000			Recovery = 374.564%				
66) Toluene-D8(S)	8.30	98	1198840	97.19	ppb		0.00
Spiked Amount 25.000			Recovery = 388.740%				
74) 4-Bromofluorobenzene(S)	10.92	174	507561	103.93	ppb		0.00
Spiked Amount 25.000			Recovery = 415.736%				
Target Compounds							Qvalue
3) Dichlorodifluoromethane	1.20	85	161280	98.07	ppb		94
4) Freon 114	1.32	85	65160	98.56	ppb		98
5) Chloromethane	1.36	50	118541	99.05	ppb		98
6) Vinyl chloride	1.46	62	115637	96.12	ppb		97
8) Bromomethane	1.74	96	70192	100.05	ppb		95
9) Chloroethane	1.84	64	76471	99.85	ppb		98
10) Dichlorofluoromethane	2.06	67	192115	87.94	ppb		95
11) Trichlorofluoromethane	2.11	101	216549	96.59	ppb		94
13) Acrolein	2.55	55	15173	223.45	ppb		84
14) Acetone	2.75	43	30975	70.91	ppb		99
15) Freon-113	2.69	101	84420	98.35	ppb		90
16) 1,1-DCE	2.66	61	138039	86.87	ppb		98
18) Acetonitrile	3.07	41	28302	198.25	ppb		98
19) t-Butanol	3.56	59	24074	204.45	ppb		90
20) Methyl Acetate	3.18	43	69485	98.24	ppb		100
21) Iodomethane	2.82	142	122737	101.05	ppb		98
22) Acrylonitrile	3.62	53	38523	94.80	ppb		89
23) Methylene chloride	3.27	49	124543	97.71	ppb		94
24) Carbon disulfide	2.89	76	244994	91.39	ppb		97
25) Methyl t-butyl ether (MtBE	3.73	73	322426	98.48	ppb		96
26) Trans-1,2-DCE	3.67	61	137420	88.41	ppb		95
28) Diisopropyl Ether	4.55	45	119684	88.62	ppb		95
30) 1,1-DCA	4.32	63	78104	98.29	ppb		97
31) Vinyl Acetate	4.55	87	98071	98.30	ppb		99
32) Ethyl tert Butyl Ether	5.06	59	331724	91.26	ppb		92
33) MEK (2-Butanone)	5.22	43	45284	97.99	ppb	#	90
34) Cis-1,2-DCE	5.16	61	172748	91.79	ppb		96
35) 2,2-Dichloropropane	5.15	77	70056	96.54	ppb		94
38) Chloroform	5.60	83	110152	89.29	ppb		99
39) Bromochloromethane	5.46	130	44816	84.64	ppb		90
41) 1,1,1-TCA	5.80	97	93568	98.40	ppb		93
42) Cyclohexane	5.88	84	124790	87.89	ppb		86
43) 1,1-Dichloropropene	6.02	75	136901	88.30	ppb		93
44) 2,2,4-Trimethylpentane	6.41	57	104128	99.37	ppb		99
46) Carbon Tetrachloride	6.01	119	169517	97.97	ppb		91
47) Tert Amyl Methyl Ether	6.45	73	334682	90.62	ppb		99
49) 1,2-DCA	6.27	62	94504	98.32	ppb		98
50) Benzene	6.25	78	440766	87.32	ppb		99
51) TCE	7.00	130	135158	86.30	ppb		96

(#) = qualifier out of range (m) = manual integration

Data File : M:\THOR\DATA\T191023\1023T14.D Vial: 14
Acq On : 23 Oct 19 23:20 Operator:
Sample : 100ug/L VOC STD 10/23/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 24 8:58 2019 Quant Results File: T1023W.RES

Quant Method : M:\THOR\DATA\T191023\T1023W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:55:52 2019
Response via : Initial Calibration
DataAcq Meth : T8260

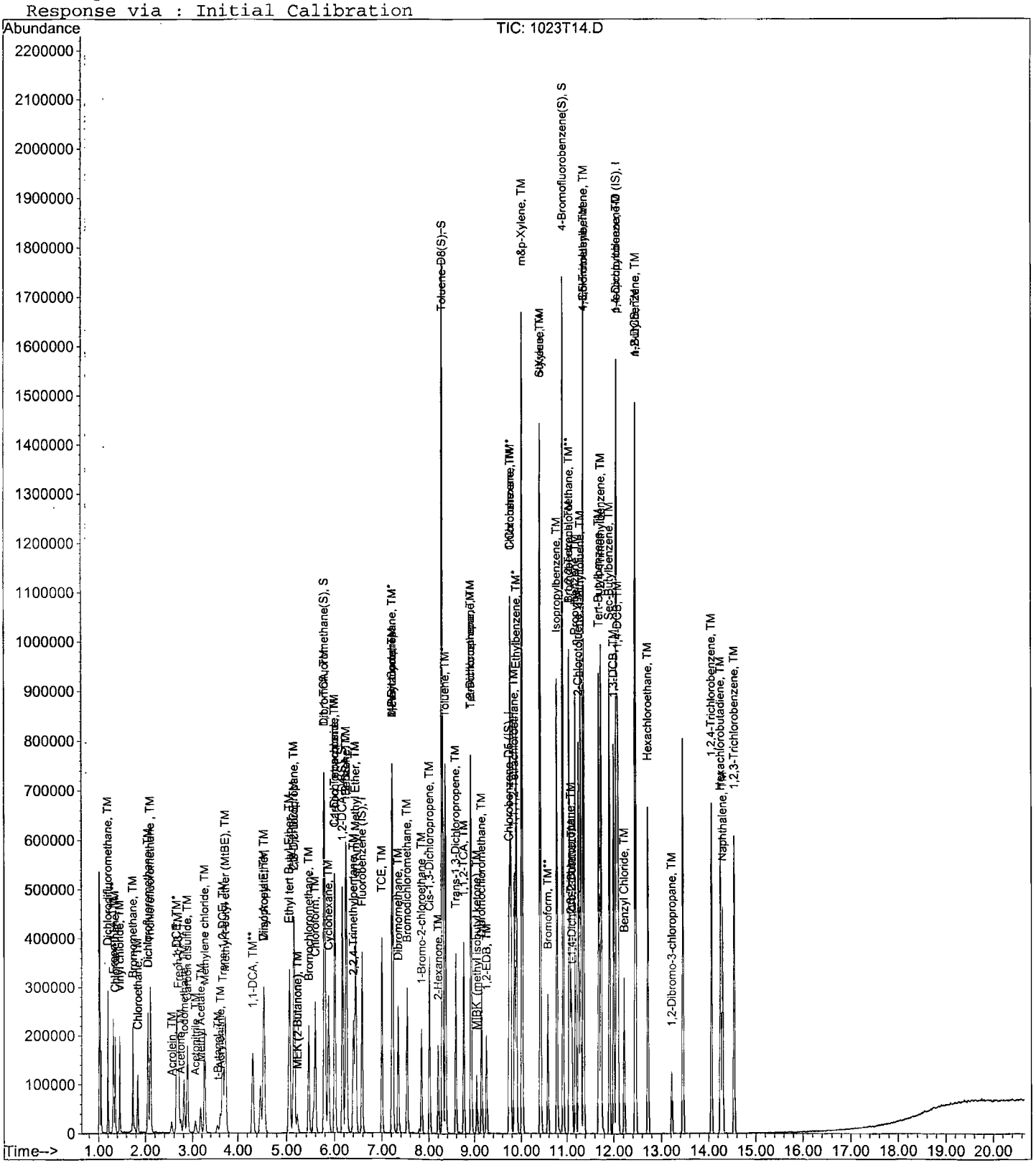
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
52)	2-Pentanone	7.23	43	164997	209.16	ppb		98
53)	1,2-Dichloropropane	7.23	63	115843	90.29	ppb		98
54)	Bromodichloromethane	7.54	83	177908	90.56	ppb	#	98
55)	Methyl Cyclohexane	7.22	83	141548	90.49	ppb		93
56)	Dibromomethane	7.35	174	106467	97.96	ppb		95
57)	MIBK (methyl isobutyl ket	9.05	43	43040	100.75	ppb		90
58)	1-Bromo-2-chloroethane	7.85	63	152471	92.22	ppb		95
60)	Cis-1,3-Dichloropropene	8.02	75	188241	91.63	ppb		96
61)	Toluene	8.37	91	520145	90.90	ppb		99
62)	Trans-1,3-Dichloropropene	8.59	75	121088	94.29	ppb		100
63)	1,1,2-TCA	8.77	97	114901	89.55	ppb		97
64)	2-Hexanone	8.20	43	64448	100.76	ppb		95
67)	1,2-EDB	9.26	107	74256	93.88	ppb		91
68)	Tetrachloroethene	8.92	166	149403	95.48	ppb		94
69)	1-Chlorohexane	9.77	91	138433	99.58	ppb		99
70)	1,1,1,2-Tetrachloroethane	9.86	131	150233	94.00	ppb		98
71)	m&p-Xylene	10.02	91	930569	194.51	ppb		99
72)	o-Xylene	10.41	91	497624	97.32	ppb		96
73)	Styrene	10.42	104	378992	104.49	ppb		97
75)	1,3-Dichloropropane	8.93	76	186261	90.40	ppb		99
76)	Dibromochloromethane	9.16	129	157727	99.37	ppb		96
77)	Chlorobenzene	9.77	112	229120	94.07	ppb		96
78)	Ethylbenzene	9.90	91	572206	95.84	ppb		97
79)	Bromoform	10.58	173	131325	99.93	ppb		93
81)	Isopropylbenzene	10.78	105	584266	85.72	ppb		98
82)	1,1,2,2-Tetrachloroethane	11.05	83	161391	90.08	ppb		98
83)	1,2,3-Trichloropropane	11.09	110	54492	98.15	ppb		87
84)	t-1,4-Dichloro-2-Butene	11.12	53	33220	98.75	ppb		96
85)	Bromobenzene	11.06	77	158592	89.31	ppb		95
86)	n-Propylbenzene	11.19	91	662551	87.46	ppb		99
87)	4-Ethyltoluene	11.31	105	593199	91.26	ppb		100
88)	2-Chlorotoluene	11.26	91	280887	89.44	ppb		97
89)	1,3,5-Trimethylbenzene	11.37	105	530500	91.80	ppb		99
90)	4-Chlorotoluene	11.37	91	329856	92.29	ppb		97
91)	Tert-Butylbenzene	11.69	119	458246	87.86	ppb		98
92)	1,2,4-Trimethylbenzene	11.74	105	537692	90.73	ppb		98
93)	Sec-Butylbenzene	11.91	105	619321	91.62	ppb		100
94)	p-Isopropyltoluene	12.06	119	566466	95.43	ppb		99
95)	Benzyl Chloride	12.22	91	146752	105.86	ppb		98
96)	1,3-DCB	12.00	146	219392	84.95	ppb		98
97)	1,4-DCB	12.09	146	345218	88.27	ppb		98
98)	n-Butylbenzene	12.46	91	442939	98.20	ppb		97
99)	1,2-DCB	12.46	146	223488	95.11	ppb		99
100)	Hexachloroethane	12.72	117	72808	100.84	ppb		98
101)	1,2-Dibromo-3-chloropropan	13.22	157	24448	99.05	ppb	#	81
102)	1,2,4-Trichlorobenzene	14.06	182	138944	98.56	ppb		95
103)	Hexachlorobutadiene	14.25	225	85720	99.32	ppb		97
104)	Naphthalene	14.30	128	367747	103.17	ppb		99
105)	1,2,3-Trichlorobenzene	14.54	182	191498	98.40	ppb		84

(#) = qualifier out of range (m) = manual integration

Data File : M:\THOR\DATA\T191023\1023T14.D Vial: 14
Acq On : 23 Oct 19 23:20 Operator:
Sample : 100ug/L VOC STD 10/23/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 24 8:58 2019 Quant Results File: T1023W.RES

Method : M:\THOR\DATA\T191023\T1023W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:55:52 2019
Response via : Initial Calibration



VOLATILE ORGANIC ANALYSIS
VOLATILE ORGANIC COMPOUNDS

Form 7

Second Source Calibration

Lab Name: APPL, Inc.
Case No:
Matrix:

SDG No:
Date Analyzed: 10/24/2019
Instrument: Thor
Initial Cal. Date: 10/23/2019
Data File: 1023T16.D

		Compound	MEAN	CCRF	%D	%Drift		
1	TM	Dichlorodifluoromethane	0.2318	0.2193	5.4	TM		
2	TML	Freon 114	0.1167	0.1499	28	TML	49	nt
3	TM**L	Chloromethane	0.2206	0.1984	10	TM**L	7.9	
4	TM*	Vinyl chloride	0.1695	0.1774	4.7	TM*		
5	TM	2-Chloro-1,1,1-trifluoroethane	0.0000	0.0033	0.00	TM		
6	TML	Bromomethane	0.1168	0.1128	3.5	TML	12	
7	TML	Chloroethane	0.2026	0.1323	35	TML	9.5	
8	TM	Dichlorofluoromethane	0.3078	0.3001	2.5	TM		
9	TM	Trichlorofluoromethane	0.3159	0.2995	5.2	TM		
10	TM	Acrolein	0.0096	0.0112	18	TM		
11	TML	Acetone	0.0616	0.0554	10.0	TML	10.0	
12	TML	Freon-113	0.1219	0.1457	20	TML	12	
13	TM*	1,1-DCE	0.2239	0.2001	11	TM*		
14	TM	2-Propanol	0.0000	0.0000	0.00	TM		
15	TML	Acetonitrile	0.0207	0.0162	22	TML	21	nt
16	TM	t-Butanol	0.0166	0.0133	20	TM		
17	TML	Methyl Acetate	0.1249	0.1273	1.9	TML	15	
18	TML	Iodomethane	0.0951	0.0641	33	TML	30	nt
19	TM	Acrylonitrile	0.0573	0.0640	12	TM		
20	TML	Methylene chloride	0.2241	0.1875	16	TML	9.4	
21	TML	Carbon disulfide	0.4208	0.4590	9.1	TML	20	
22	TML	Methyl t-butyl ether (MtBE)	0.5335	0.5214	2.3	TML	4.3	
23	TM	Trans-1,2-DCE	0.2190	0.2083	4.9	TM		
24	TM	Diisopropyl Ether	0.1903	0.1867	1.9	TM		
25	TM**L	1,1-DCA	0.1356	0.1114	18	TM**L	12	
26	TML	Vinyl Acetate	0.1447	0.1570	8.5	TML	5.2	
27	TM	Ethyl tert Butyl Ether	0.5122	0.5159	0.73	TM		
28	TML	MEK (2-Butanone)	0.0768	0.0670	13	TML	2.8	
29	TM	Cis-1,2-DCE	0.2652	0.2502	5.7	TM		
30	TML	2,2-Dichloropropane	0.1205	0.1062	12	TML	0.49	
31	TM	3-Methylpentane	0.0000	0.1118	0.00	TM		
32	TM*	Chloroform	0.1738	0.1625	6.5	TM*		
33	TM	Bromochloromethane	0.0746	0.0630	16	TM		
34	TML	1,1,1-TCA	0.1555	0.1321	15	TML	11	
35	TM	Cyclohexane	0.2001	0.2050	2.5	TM		
36	TM	1,1-Dichloropropene	0.2185	0.1948	11	TM		
37	TML	2,2,4-Trimethylpentane	0.1692	0.1696	0.19	TML	12	
38	TML	Carbon Tetrachloride	0.2432	0.2335	4.0	TML	11	
39	TM	Tert Amyl Methyl Ether	0.5205	0.5251	0.89	TM		
40	TM	Methylcyclopentane	0.0000	0.0302	0.00	TM		
		Average			9.8			

VOLATILE ORGANIC ANALYSIS
VOLATILE ORGANIC COMPOUNDS

Form 7

Second Source Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Date Analyzed: 10/24/2019
Matrix: 0 Instrument: Thor
Cal. Date: 10/23/2019
Data File: 1023T16.D

		Compound	MEAN	CCRF	%D		%Drift	
41	TML	1,2-DCA	0.1715	0.1289	25	TML	16	
42	TM	Benzene	0.7114	0.6162	13	TM		
43	TM	TCE	0.2207	0.1896	14	TM		
44	TM	2-Pentanone	0.1112	0.0883	21	TM		nt
45	TM*	1,2-Dichloropropane	0.1808	0.1591	12	TM*		
46	TM	Bromodichloromethane	0.2768	0.2438	12	TM		
47	TM	Methyl Cyclohexane	0.2204	0.2355	6.8	TM		
48	TML	Dibromomethane	0.1389	0.1511	8.8	TML	5.7	
49	TML	MIBK (methyl isobutyl ketone)	0.0628	0.0468	25	TML	17	
50	TM	1-Bromo-2-chloroethane	0.2330	0.2366	1.5	TM		
51	TM	2-Chloroethyl vinyl ether	0.0000	0.0003	0.00	TM		
52	TM	Cis-1,3-Dichloropropene	0.2895	0.2553	12	TM		
53	TM*	Toluene	0.8064	0.7207	11	TM*		
54	TM	Trans-1,3-Dichloropropene	0.1810	0.1646	9.1	TM		
55	TM	1,1,2-TCA	0.1808	0.1646	9.0	TM		
56	TML	2-Hexanone	0.0907	0.0766	16	TML	9.2	
57	TM	1,2-EDB	0.1197	0.1061	11	TM		
58	TM	Tetrachloroethene	0.2368	0.2406	1.6	TM		
59	TML	1-Chlorohexane	0.2307	0.2346	1.7	TML	8.2	
60	TM	1,1,1,2-Tetrachloroethane	0.2419	0.2138	12	TM		
61	TM	m&p-Xylene	0.7241	0.6656	8.1	TM		
62	TM	o-Xylene	0.7739	0.7175	7.3	TM		
63	TM	Styrene	0.5490	0.5082	7.4	TM		
64	TM	1,3-Dichloropropane	0.3118	0.2867	8.1	TM		
65	TML	Dibromochloromethane	0.2170	0.2142	1.3	TML	12	
66	TM**	Chlorobenzene	0.3686	0.3346	9.2	TM**		
67	TM*	Ethylbenzene	0.9036	0.8620	4.6	TM*		
68	TM**L	Bromoform	0.1737	0.1747	0.52	TM**L	10	
69	TM	Isopropylbenzene	1.536	1.414	7.9	TM		
70	TM**	1,1,2,2-Tetrachloroethane	0.4037	0.3702	8.3	TM**		
71	TML	1,2,3-Trichloropropane	0.1253	0.1278	2.0	TML	7.6	
72	TML	t-1,4-Dichloro-2-Butene	0.0727	0.0898	24	TML	11	
73	TM	Bromobenzene	0.4002	0.3609	9.8	TM		
74	TM	n-Propylbenzene	1.707	1.544	9.6	TM		
75	TM	4-Ethyltoluene	1.465	1.535	4.8	TM		
76	TM	2-Chlorotoluene	0.7078	0.6820	3.6	TM		
77	TM	1,3,5-Trimethylbenzene	1.302	1.250	4.0	TM		
78	TM	4-Chlorotoluene	0.8054	0.7723	4.1	TM		
79	TM	Tert-Butylbenzene	1.175	1.037	12	TM		
80	TM	1,2,4-Trimethylbenzene	1.336	1.253	6.2	TM		
		Average			9.1			

VOLATILE ORGANIC ANALYSIS
VOLATILE ORGANIC COMPOUNDS

Form 7

Second Source Calibration

Lab Name: APPL, Inc.
Case No:
Matrix: 0

SDG No:
Date Analyzed: 10/24/2019
Instrument: Thor
Cal. Date: 10/23/2019
Data File: 1023T16.D

		Compound	MEAN	CCRF	%D	%Drift		
81	TM	Sec-Butylbenzene	1.523	1.403	7.9	TM		
82	TM	p-Isopropyltoluene	1.338	1.290	3.6	TM		
83	TM	Benzyl Chloride	0.3124	0.2611	16	TM		
84	TM	1,3-DCB	0.5820	0.5032	14	TM		
85	TM	1,4-DCB	0.8814	0.7951	9.8	TM		
86	TM	n-Butylbenzene	1.016	1.002	1.4	TM		
87	TM	1,2-DCB	0.5295	0.4923	7.0	TM		
88	TM	Hexachloroethane	0.1627	0.1495	8.1	TM		
89	TML	1,2-Dibromo-3-chloropropane	0.0623	0.0560	10	TML	3.0	
90	TM	1,2,4-Trichlorobenzene	0.3177	0.3716	17	TM		
91	TM	Hexachlorobutadiene	0.1945	0.1920	1.3	TM		
92	TM	Naphthalene	0.8033	1.276	59	TM		nt
93	TML	1,2,3-Trichlorobenzene	0.4030	0.5563	38	TML	25	nt
94								
95								
96								
97								
98								
99								
100								
101								
102								
103								
104								
105								
106								
107								
108								
109								
110								
111								
112								
113								
114								
115								
116								
117								
118								
119								
120								
		Average			14.9			

Quantitation Report (Not Reviewed)

Data File : M:\THOR\DATA\T191023\1023T16.D Vial: 16
Acq On : 24 Oct 19 00:17 Operator:
Sample : (SS)10ug/L VOC STD 10/23/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 24 9:01 2019 Quant Results File: T1023W.RES

Quant Method : M:\THOR\DATA\T191023\T1023W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:55:52 2019
Response via : Initial Calibration
DataAcq Meth : T8260

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene (IS)	6.59	96	189056	25.00	ppb		0.00
65) Chlorobenzene-D5 (IS)	9.74	117	176576	25.00	ppb		0.00
80) 1,4-Dichlorobenzene-D (IS)	12.07	152	104576	25.00	ppb		0.00
System Monitoring Compounds							
40) Dibromofluoromethane(S)	5.79	111	88311	24.23	ppb		0.00
Spiked Amount 25.000			Recovery = 96.936%				
45) 1,2-DCA-D4(S)	6.18	65	99051	24.28	ppb		0.00
Spiked Amount 25.000			Recovery = 97.100%				
66) Toluene-D8(S)	8.30	98	317868	24.11	ppb		0.00
Spiked Amount 25.000			Recovery = 96.424%				
74) 4-Bromofluorobenzene(S)	10.92	174	125676	24.07	ppb		0.00
Spiked Amount 25.000			Recovery = 96.300%				
Target Compounds							Qvalue
3) Dichlorodifluoromethane	1.20	85	16584	9.46	ppb		95
4) Freon 114	1.32	85	11332	14.95	ppb		94
5) Chloromethane	1.36	50	15001	10.79	ppb		100
6) Vinyl chloride	1.46	62	13419	10.47	ppb		94
8) Bromomethane	1.75	96	8529	11.16	ppb		91
9) Chloroethane	1.85	64	10004	10.95	ppb		94
10) Dichlorofluoromethane	2.06	67	22695	9.75	ppb		94
11) Trichlorofluoromethane	2.12	101	22652	9.48	ppb		93
13) Acrolein	2.55	55	10633	146.94	ppb		91
14) Acetone	2.74	43	4192	9.00	ppb	#	85
15) Freon-113	2.70	101	11017	11.22	ppb		94
16) 1,1-DCE	2.67	61	15133	8.94	ppb		94
18) Acetonitrile	3.06	41	15283	98.86	ppb		93
19) t-Butanol	3.53	59	12569	100.17	ppb		90
20) Methyl Acetate	3.18	43	9624	11.47	ppb		100
21) Iodomethane	2.82	142	4850	7.01	ppb		96
22) Acrylonitrile	3.62	53	4841	11.18	ppb		92
23) Methylene chloride	3.27	49	14178	9.06	ppb		95
24) Carbon disulfide	2.89	76	34712	11.97	ppb		96
25) Methyl t-butyl ether (MtBE	3.73	73	39432	10.43	ppb	#	94
26) Trans-1,2-DCE	3.67	61	15749	9.51	ppb		99
28) Diisopropyl Ether	4.54	45	14117	9.81	ppb		93
30) 1,1-DCA	4.32	63	8425	8.79	ppb		96
31) Vinyl Acetate	4.55	87	11869	10.52	ppb		94
32) Ethyl tert Butyl Ether	5.06	59	39017	10.07	ppb		95
33) MEK (2-Butanone)	5.22	43	5065	10.28	ppb		96
34) Cis-1,2-DCE	5.16	61	18921	9.43	ppb		98
35) 2,2-Dichloropropane	5.16	77	8030	10.05	ppb		93
38) Chloroform	5.60	83	12288	9.35	ppb		98
39) Bromochloromethane	5.46	130	4761	8.44	ppb		92
41) 1,1,1-TCA	5.80	97	9986	8.94	ppb		93
42) Cyclohexane	5.88	84	15506	10.25	ppb		83
43) 1,1-Dichloropropene	6.02	75	14729	8.92	ppb		93
44) 2,2,4-Trimethylpentane	6.41	57	12822	11.20	ppb		96
46) Carbon Tetrachloride	6.01	119	17655	8.91	ppb		94
47) Tert Amyl Methyl Ether	6.45	73	39710	10.09	ppb		97
49) 1,2-DCA	6.26	62	9746	8.40	ppb		96
50) Benzene	6.25	78	46595	8.66	ppb		96
51) TCE	7.01	130	14335	8.59	ppb		94

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\THOR\DATA\T191023\1023T16.D Vial: 16
Acq On : 24 Oct 19 00:17 Operator:
Sample : (SS)10ug/L VOC STD 10/23/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 24 9:01 2019 Quant Results File: T1023W.RES

Quant Method : M:\THOR\DATA\T191023\T1023W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:55:52 2019
Response via : Initial Calibration
DataAcq Meth : T8260

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
52)	2-Pentanone	7.23	43	83503	99.33	ppb		97
53)	1,2-Dichloropropane	7.23	63	12032	8.80	ppb		99
54)	Bromodichloromethane	7.54	83	18434	8.81	ppb		96
55)	Methyl Cyclohexane	7.22	83	17807	10.68	ppb		99
56)	Dibromomethane	7.35	174	11427	9.43	ppb		89
57)	MIBK (methyl isobutyl ket	9.05	43	3541	8.26	ppb		91
58)	1-Bromo-2-chloroethane	7.85	63	17889	10.15	ppb		98
60)	Cis-1,3-Dichloropropene	8.02	75	19310	8.82	ppb		95
61)	Toluene	8.36	91	54500	8.94	ppb		98
62)	Trans-1,3-Dichloropropene	8.59	75	12446	9.09	ppb		91
63)	1,1,2-TCA	8.77	97	12450	9.10	ppb		95
64)	2-Hexanone	8.21	43	5795	9.08	ppb		91
67)	1,2-EDB	9.26	107	7497	8.87	ppb		92
68)	Tetrachloroethene	8.93	166	16992	10.16	ppb		93
69)	1-Chlorohexane	9.77	91	16573	10.82	ppb		96
70)	1,1,1,2-Tetrachloroethane	9.86	131	15099	8.84	ppb		99
71)	m&p-Xylene	10.02	91	94029	18.39	ppb		98
72)	o-Xylene	10.41	91	50679	9.27	ppb		97
73)	Styrene	10.42	104	35896	9.26	ppb		98
75)	1,3-Dichloropropane	8.93	76	20248	9.19	ppb		99
76)	Dibromochloromethane	9.15	129	15128	8.82	ppb		94
77)	Chlorobenzene	9.77	112	23632	9.08	ppb		94
78)	Ethylbenzene	9.90	91	60882	9.54	ppb		94
79)	Bromoform	10.58	173	12336	8.96	ppb		94
81)	Isopropylbenzene	10.78	105	59167	9.21	ppb		98
82)	1,1,2,2-Tetrachloroethane	11.05	83	15484	9.17	ppb		96
83)	1,2,3-Trichloropropane	11.09	110	5345	9.24	ppb		95
84)	t-1,4-Dichloro-2-Butene	11.12	53	3757	11.13	ppb		96
85)	Bromobenzene	11.06	77	15098	9.02	ppb		92
86)	n-Propylbenzene	11.19	91	64588	9.04	ppb		100
87)	4-Ethyltoluene	11.31	105	64214	10.48	ppb		98
88)	2-Chlorotoluene	11.26	91	28529	9.64	ppb		93
89)	1,3,5-Trimethylbenzene	11.37	105	52305	9.60	ppb		99
90)	4-Chlorotoluene	11.37	91	32304	9.59	ppb		96
91)	Tert-Butylbenzene	11.69	119	43377	8.82	ppb		98
92)	1,2,4-Trimethylbenzene	11.74	105	52394	9.38	ppb		99
93)	Sec-Butylbenzene	11.91	105	58680	9.21	ppb		96
94)	p-Isopropyltoluene	12.06	119	53966	9.64	ppb		97
95)	Benzyl Chloride	12.22	91	10920	8.36	ppb		98
96)	1,3-DCB	12.00	146	21048	8.65	ppb		97
97)	1,4-DCB	12.09	146	33259	9.02	ppb		98
98)	n-Butylbenzene	12.47	91	41925	9.86	ppb		97
99)	1,2-DCB	12.45	146	20592	9.30	ppb		98
100)	Hexachloroethane	12.72	117	6254	9.19	ppb		99
101)	1,2-Dibromo-3-chloropropan	13.22	157	2343	9.70	ppb		86
102)	1,2,4-Trichlorobenzene	14.06	182	15546	11.70	ppb		98
103)	Hexachlorobutadiene	14.25	225	8031	9.87	ppb		99
104)	Naphthalene	14.30	128	53370	15.88	ppb		98
105)	1,2,3-Trichlorobenzene	14.54	182	23272	12.52	ppb	#	81

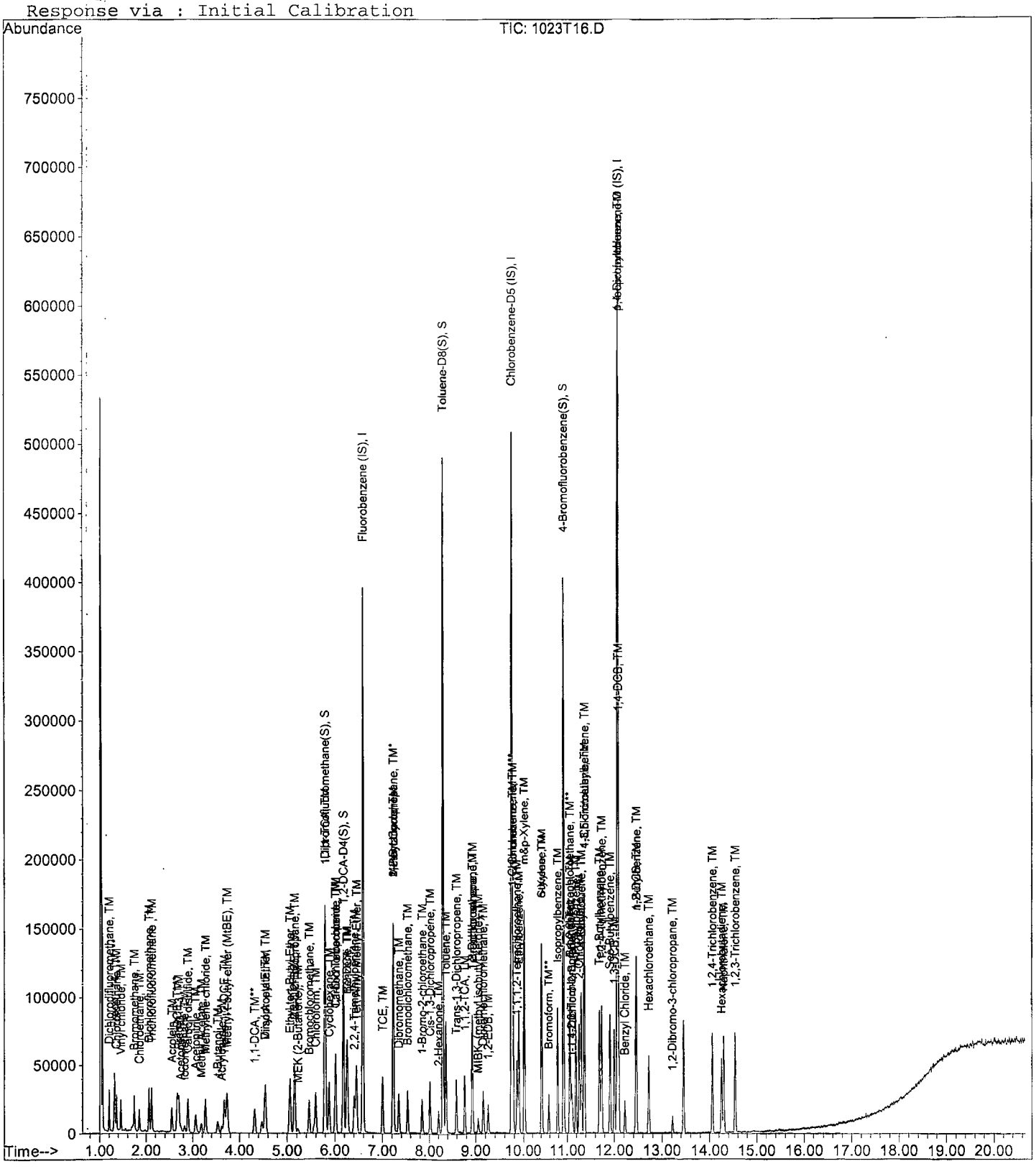
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\THOR\DATA\T191023\1023T16.D Vial: 16
Acq On : 24 Oct 19 00:17 Operator:
Sample : (SS)10ug/L VOC STD 10/23/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 24 9:01 2019 Quant Results File: T1023W.RES

Method : M:\THOR\DATA\T191023\T1023W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:55:52 2019
Response via : Initial Calibration



VOLATILE ORGANIC ANALYSIS
VOLATILE ORGANIC COMPOUNDS

Form 7

Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix:

SDG No:
Date Analyzed: 2 Nov 19 3:27
Instrument: Thor
Initial Cal. Date: 10/23/2019
Data File: 1101T31.D

		Compound	MEAN	CCRF	%D		%Drift	
1	I	Fluorobenzene (IS)	ISTD			I		
2	TM	Dichlorodifluoromethane	0.2318	0.1938	16	TM		
3	TML	Freon 114	0.1167	0.1230	5.4	TML	20	
4	TM**L	Chloromethane	0.2206	0.1997	9.5	TM**L	8.7	
5	TM*	Vinyl chloride	0.1695	0.1515	11	TM*		
6	TM	2-Chloro-1,1,1-trifluoroethane	0.0000	0.0034	0.00	TM		
7	TML	Bromomethane	0.1168	0.0869	26	TML	15	
8	TML	Chloroethane	0.2026	0.1213	40	TML	0.91	
9	TM	Dichlorofluoromethane	0.3078	0.2950	4.2	TM		
10	TM	Trichlorofluoromethane	0.3159	0.3182	0.72	TM		
11	TM	Diethyl ether	0.0000	0.0004	0.00	TM		
12	TM	Acrolein	0.0096	0.0062	36	TM		nt
13	TML	Acetone	0.0616	0.0603	2.0	TML	2.0	
14	TML	Freon-113	0.1219	0.1369	12	TML	4.8	
15	TM*	1,1-DCE	0.2239	0.2229	0.46	TM*		
16	TML	Acetonitrile	0.0207	0.0161	23	TML	21	nt
17	TM	t-Butanol	0.0166	0.0108	35	TM		nt
18	TML	Methyl Acetate	0.1249	0.0835	33	TML	30	nt
19	TML	Iodomethane	0.0951	0.0551	42	TML	35	nt
20	TM	Acrylonitrile	0.0573	0.0488	15	TM		
21	TML	Methylene chloride	0.2241	0.1995	11	TML	2.5	
22	TML	Carbon disulfide	0.4208	0.4167	0.96	TML	8.5	
23	TML	Methyl t-butyl ether (MtBE)	0.5335	0.4446	17	TML	13	
24	TM	Trans-1,2-DCE	0.2190	0.2082	4.9	TM		
25	TM	Hexane	0.0000	0.0584	0.00	TM		
26	TM	Diisopropyl Ether	0.1903	0.1643	14	TM		
27	TM**L	1,1-DCA	0.1356	0.1253	7.6	TM**L	0.46	
28	TML	Vinyl Acetate	0.1447	0.1423	1.7	TML	5.4	
29	TM	Ethyl tert Butyl Ether	0.5122	0.4335	15	TM		
30	TML	MEK (2-Butanone)	0.0768	0.0503	35	TML	23	nt
31	TM	Cis-1,2-DCE	0.2652	0.2589	2.4	TM		
32	TML	2,2-Dichloropropane	0.1205	0.0938	22	TML	12	
33	TM	3-Methylpentane	0.0000	0.0852	0.00	TM		
34	TM*	Chloroform	0.1738	0.1673	3.8	TM*		
35	TM	Bromochloromethane	0.0746	0.0650	13	TM		
36	S	Dibromofluoromethane(S)	0.4819	0.4666	3.2	S		
37	TML	1,1,1-TCA	0.1555	0.1437	7.6	TML	1.8	
38	TM	Cyclohexane	0.2001	0.1837	8.2	TM		
39	TM	1,1-Dichloropropene	0.2185	0.2075	5.0	TM		
40	TML	2,2,4-Trimethylpentane	0.1692	0.1432	15	TML	5.9	
		Average			12.8			

VOLATILE ORGANIC ANALYSIS
VOLATILE ORGANIC COMPOUNDS

Form 7

Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix: 0

SDG No:
Date Analyzed: 2 Nov 19 3:27
Instrument: Thor
Cal. Date: 10/23/2019
Data File: 1101T31.D

		Compound	MEAN	CCRF	%D		%Drift	
41	S	1,2-DCA-D4(S)	0.5396	0.5094	5.6	S		
42	TML	Carbon Tetrachloride	0.2432	0.2628	8.1	TML	1.2	
43	TM	Tert Amyl Methyl Ether	0.5205	0.4142	20	TM		
44	TM	Methylcyclopentane	0.0000	0.0273	0.00	TM		
45	TML	1,2-DCA	0.1715	0.1387	19	TML	8.7	
46	TM	Benzene	0.7114	0.6548	8.0	TM		
47	TM	TCE	0.2207	0.2779	26	TM		nt
48	TM	2-Pentanone	0.1112	0.0789	29	TM		nt
49	TM*	1,2-Dichloropropane	0.1808	0.1659	8.2	TM*		
50	TM	Bromodichloromethane	0.2768	0.2421	13	TM		
51	TM	Methyl Cyclohexane	0.2204	0.2182	0.99	TM		
52	TML	Dibromomethane	0.1389	0.1511	8.8	TML	5.7	
53	TML	MIBK (methyl isobutyl ketone)	0.0628	0.0372	41	TML	33	nt
54	TM	1-Bromo-2-chloroethane	0.2330	0.2046	12	TM		
55	TM	2-Chloroethyl vinyl ether	0.0000	0.0005	0.00	TM		
56	TM	Cis-1,3-Dichloropropene	0.2895	0.2504	14	TM		
57	TM*	Toluene	0.8064	0.7239	10	TM*		
58	TM	Trans-1,3-Dichloropropene	0.1810	0.1438	21	TM		
59	TM	1,1,2-TCA	0.1808	0.1505	17	TM		
60	TML	2-Hexanone	0.0907	0.0585	35	TML	29	*NT
61	I	Chlorobenzene-D5 (IS)	ISTD			I		
62	S	Toluene-D8(S)	1.867	1.816	2.7	S		
63	TM	1,2-EDB	0.1197	0.1099	8.2	TM		
64	TM	Tetrachloroethene	0.2368	0.2631	11	TM		
65	TML	1-Chlorohexane	0.2307	0.1895	18	TML	13	
66	TM	1,1,1,2-Tetrachloroethane	0.2419	0.2223	8.1	TM		
67	TM	m&p-Xylene	0.7241	0.6556	9.5	TM		
68	TM	o-Xylene	0.7739	0.7065	8.7	TM		
69	TM	Styrene	0.5490	0.4947	9.9	TM		
70	S	4-Bromofluorobenzene(S)	0.7391	0.7362	0.39	S		
71	TM	1,3-Dichloropropane	0.3118	0.2729	12	TM		
72	TML	Dibromochloromethane	0.2170	0.2287	5.4	TML	5.7	
73	TM**	Chlorobenzene	0.3686	0.3436	6.8	TM**		
74	TM*	Ethylbenzene	0.9036	0.8274	8.4	TM*		
75	TM**L	Bromoform	0.1737	0.1442	17	TM**L	26	nt
76	I	1,4-Dichlorobenzene-D (IS)	ISTD			I		
77	TM	Isopropylbenzene	1.536	1.386	9.8	TM		
78	TM**	1,1,2,2-Tetrachloroethane	0.4037	0.3213	20	TM**		
79	TML	1,2,3-Trichloropropane	0.1253	0.1088	13	TML	23	nt
80	TML	t-1,4-Dichloro-2-Butene	0.0727	0.0513	29	TML	40	nt
		Average			13.0			

*NT Detailing NT

VOLATILE ORGANIC ANALYSIS
VOLATILE ORGANIC COMPOUNDS

Form 7

Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix: 0

SDG No:
Date Analyzed: 2 Nov 19 3:27
Instrument: Thor
Cal. Date: 10/23/2019
Data File: 1101T31.D

		Compound	MEAN	CCRF	%D		%Drift	
81	TM	Bromobenzene	0.4002	0.3537	12	TM		
82	TM	n-Propylbenzene	1.707	1.472	14	TM		
83	TM	4-Ethyltoluene	1.465	1.310	11	TM		
84	TM	2-Chlorotoluene	0.7078	0.5900	17	TM		
85	TM	1,3,5-Trimethylbenzene	1.302	1.199	7.9	TM		
86	TM	4-Chlorotoluene	0.8054	0.7323	9.1	TM		
87	TM	Tert-Butylbenzene	1.175	1.123	4.4	TM		
88	TM	1,2,4-Trimethylbenzene	1.336	1.127	16	TM		
89	TM	Sec-Butylbenzene	1.523	1.297	15	TM		
90	TM	p-Isopropyltoluene	1.338	1.157	14	TM		
91	TM	Benzyl Chloride	0.3124	0.1942	38	TM		nt
92	TM	1,3-DCB	0.5820	0.4918	16	TM		
93	TM	1,4-DCB	0.8814	0.7649	13	TM		
94	TM	n-Butylbenzene	1.016	0.7927	22	TM		nt
95	TM	1,2-DCB	0.5295	0.4354	18	TM		
96	TM	Hexachloroethane	0.1627	0.1617	0.62	TM		
97	TML	1,2-Dibromo-3-chloropropane	0.0623	0.0425	32	TML	27	nt
98	TM	1,2,4-Trichlorobenzene	0.3177	0.2199	31	TM		nt
99	TM	Hexachlorobutadiene	0.1945	0.1547	20	TM		
100	TM	Naphthalene	0.8033	0.4850	40	TM		nt
101	TML	1,2,3-Trichlorobenzene	0.4030	0.3266	19	TML	27	nt
102								
103								
104								
105								
106								
107								
108								
109								
110								
111								
112								
113								
114								
115								
116								
117								
118								
119								
120								
		Average			17.6			

Quantitation Report (Not Reviewed)

Data File : M:\THOR\DATA\T191028\1101T31.D Vial: 29
Acq On : 2 Nov 19 3:27 Operator:
Sample : 191101B CCV 10ug/L Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Nov 4 12:10 2019 Quant Results File: T1023W.RES

Quant Method : M:\THOR\DATA\T191023\T1023W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:55:52 2019
Response via : Initial Calibration
DataAcq Meth : T8260

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene (IS)	6.59	96	132672	25.00	ppb		0.00
65) Chlorobenzene-D5 (IS)	9.74	117	120960	25.00	ppb		0.00
80) 1,4-Dichlorobenzene-D (IS)	12.06	152	73080	25.00	ppb		0.00
System Monitoring Compounds							
40) Dibromofluoromethane(S)	5.78	111	61901	24.21	ppb		0.00
Spiked Amount 25.000			Recovery = 96.820%				
45) 1,2-DCA-D4(S)	6.17	65	67582	23.60	ppb		0.00
Spiked Amount 25.000			Recovery = 94.408%				
66) Toluene-D8(S)	8.29	98	219687	24.32	ppb		0.00
Spiked Amount 25.000			Recovery = 97.280%				
74) 4-Bromofluorobenzene(S)	10.91	174	89051	24.90	ppb		0.00
Spiked Amount 25.000			Recovery = 99.608%				
Target Compounds							Qvalue
3) Dichlorodifluoromethane	1.20	85	10286	8.36	ppb		98
4) Freon 114	1.32	85	6528	12.03	ppb		93
5) Chloromethane	1.36	50	10597	10.87	ppb		97
6) Vinyl chloride	1.46	62	8040	8.94	ppb		91
8) Bromomethane	1.75	96	4612	8.54	ppb		99
9) Chloroethane	1.86	64	6436	9.91	ppb		93
10) Dichlorofluoromethane	2.06	67	15654	9.58	ppb		93
11) Trichlorofluoromethane	2.11	101	16886	10.07	ppb		93
13) Acrolein	2.54	55	4084	80.42	ppb		98
14) Acetone	2.73	43	3200	9.80	ppb		99
15) Freon-113	2.69	101	7264	10.48	ppb	#	85
16) 1,1-DCE	2.67	61	11829	9.95	ppb		95
18) Acetonitrile	3.05	41	10655	98.19	ppb		98
19) t-Butanol	3.52	59	7183	81.57	ppb		99
20) Methyl Acetate	3.17	43	4432	7.01	ppb		91
21) Iodomethane	2.82	142	2922	6.49	ppb		91
22) Acrylonitrile	3.60	53	2591	8.53	ppb	#	69
23) Methylene chloride	3.27	49	10589	9.75	ppb		90
24) Carbon disulfide	2.89	76	22114	10.85	ppb		100
25) Methyl t-butyl ether (MtBE	3.72	73	23597	8.75	ppb		96
26) Trans-1,2-DCE	3.67	61	11051	9.51	ppb	#	82
28) Diisopropyl Ether	4.54	45	8718	8.63	ppb		93
30) 1,1-DCA	4.32	63	6650	10.05	ppb		98
31) Vinyl Acetate	4.53	87	7551	9.46	ppb		91
32) Ethyl tert Butyl Ether	5.05	59	23006	8.46	ppb	#	87
33) MEK (2-Butanone)	5.21	43	2670	7.73	ppb	#	88
34) Cis-1,2-DCE	5.15	61	13737	9.76	ppb	#	93
35) 2,2-Dichloropropane	5.15	77	4979	8.83	ppb		98
38) Chloroform	5.59	83	8877	9.62	ppb		94
39) Bromochloromethane	5.45	130	3448	8.71	ppb		87
41) 1,1,1-TCA	5.80	97	7627	9.82	ppb		93
42) Cyclohexane	5.87	84	9751	9.18	ppb		92
43) 1,1-Dichloropropene	6.01	75	11013	9.50	ppb		92
44) 2,2,4-Trimethylpentane	6.41	57	7601	9.41	ppb		98
46) Carbon Tetrachloride	6.01	119	13946	10.12	ppb		85
47) Tert Amyl Methyl Ether	6.45	73	21982	7.96	ppb		94
49) 1,2-DCA	6.26	62	7361	9.13	ppb		96
50) Benzene	6.25	78	34748	9.20	ppb		97
51) TCE	7.00	130	14750	12.59	ppb		97

(#) = qualifier out of range (m) = manual integration

Data File : M:\THOR\DATA\T191028\1101T31.D Vial: 29
Acq On : 2 Nov 19 3:27 Operator:
Sample : 191101B CCV 10ug/L Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Nov 4 12:10 2019 Quant Results File: T1023W.RES

Quant Method : M:\THOR\DATA\T191023\T1023W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:55:52 2019
Response via : Initial Calibration
DataAcq Meth : T8260

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
52)	2-Pentanone	7.22	43	52349	88.74	ppb		99
53)	1,2-Dichloropropane	7.23	63	8805	9.18	ppb		93
54)	Bromodichloromethane	7.53	83	12847	8.74	ppb	#	99
55)	Methyl Cyclohexane	7.22	83	11582	9.90	ppb		89
56)	Dibromomethane	7.34	174	8019	9.43	ppb		94
57)	MIBK (methyl isobutyl ket	9.05	43	1974	6.67	ppb		92
58)	1-Bromo-2-chloroethane	7.85	63	10860	8.78	ppb		98
60)	Cis-1,3-Dichloropropene	8.01	75	13288	8.65	ppb		97
61)	Toluene	8.36	91	38415	8.98	ppb		100
62)	Trans-1,3-Dichloropropene	8.59	75	7631	7.95	ppb		83
63)	1,1,2-TCA	8.76	97	7987	8.32	ppb		90
64)	2-Hexanone	8.20	43	3107	7.09	ppb		96
67)	1,2-EDB	9.26	107	5317	9.18	ppb		85
68)	Tetrachloroethene	8.92	166	12730	11.11	ppb		96
69)	1-Chlorohexane	9.77	91	9168	8.67	ppb		95
70)	1,1,1,2-Tetrachloroethane	9.86	131	10757	9.19	ppb		100
71)	m&p-Xylene	10.01	91	63444	18.11	ppb		99
72)	o-Xylene	10.40	91	34185	9.13	ppb		99
73)	Styrene	10.41	104	23937	9.01	ppb		94
75)	1,3-Dichloropropane	8.93	76	13206	8.75	ppb		90
76)	Dibromochloromethane	9.15	129	11065	9.43	ppb		97
77)	Chlorobenzene	9.77	112	16624	9.32	ppb		93
78)	Ethylbenzene	9.89	91	40033	9.16	ppb		100
79)	Bromoform	10.57	173	6979	7.43	ppb		95
81)	Isopropylbenzene	10.78	105	40520	9.02	ppb		99
82)	1,1,2,2-Tetrachloroethane	11.05	83	9393	7.96	ppb		90
83)	1,2,3-Trichloropropane	11.09	110	3179	7.70	ppb	#	79
84)	t-1,4-Dichloro-2-Butene	11.11	53	1501	6.01	ppb	#	73
85)	Bromobenzene	11.05	77	10338	8.84	ppb		87
86)	n-Propylbenzene	11.19	91	43023	8.62	ppb		97
87)	4-Ethyltoluene	11.30	105	38287	8.94	ppb		98
88)	2-Chlorotoluene	11.26	91	17247	8.34	ppb		94
89)	1,3,5-Trimethylbenzene	11.37	105	35049	9.21	ppb		95
90)	4-Chlorotoluene	11.37	91	21408	9.09	ppb		94
91)	Tert-Butylbenzene	11.69	119	32833	9.56	ppb		99
92)	1,2,4-Trimethylbenzene	11.74	105	32934	8.44	ppb		95
93)	Sec-Butylbenzene	11.91	105	37907	8.51	ppb		98
94)	p-Isopropyltoluene	12.06	119	33810	8.65	ppb		99
95)	Benzyl Chloride	12.22	91	5678	6.22	ppb		95
96)	1,3-DCB	12.00	146	14375	8.45	ppb		95
97)	1,4-DCB	12.09	146	22359	8.68	ppb		97
98)	n-Butylbenzene	12.46	91	23173	7.80	ppb		99
99)	1,2-DCB	12.45	146	12729	8.22	ppb		97
100)	Hexachloroethane	12.72	117	4727	9.94	ppb		97
101)	1,2-Dibromo-3-chloropropan	13.22	157	1241	7.26	ppb	#	82
102)	1,2,4-Trichlorobenzene	14.06	182	6428	6.92	ppb	#	83
103)	Hexachlorobutadiene	14.25	225	4522	7.95	ppb		88
104)	Naphthalene	14.30	128	14177	6.04	ppb		98
105)	1,2,3-Trichlorobenzene	14.54	182	9546	7.27	ppb		82

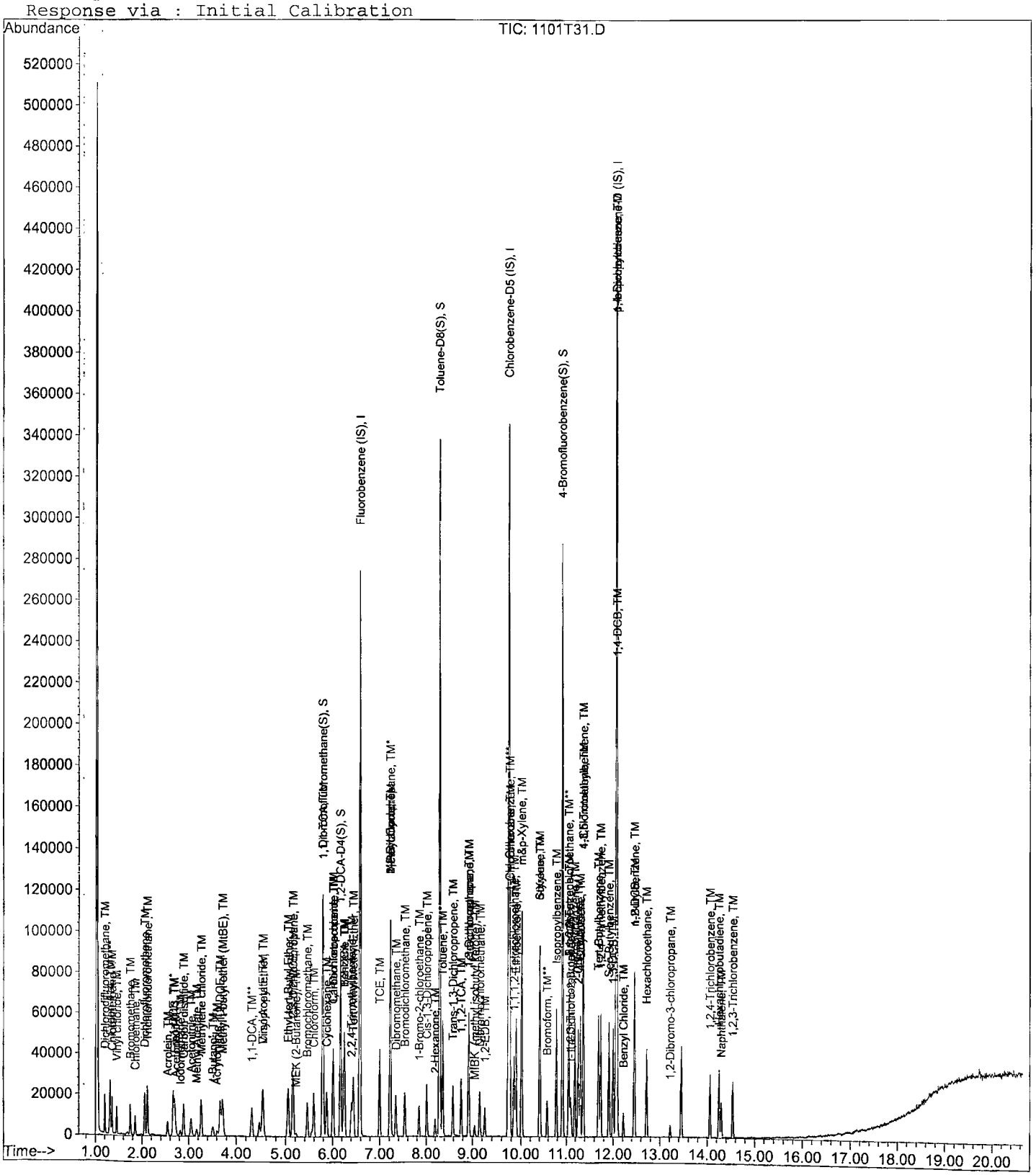
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\THOR\DATA\T191028\1101T31.D Vial: 29
Acq On : 2 Nov 19 3:27 Operator:
Sample : 191101B CCV 10ug/L Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Nov 4 12:10 2019 Quant Results File: T1023W.RES

Method : M:\THOR\DATA\T191023\T1023W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:55:52 2019
Response via : Initial Calibration



1101T31.D T1023W.M Mon Dec 02 15:27:54 2019 Page 3

VOLATILE ORGANIC ANALYSIS
VOLATILE ORGANIC COMPOUNDS

Form 7

Ending Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix:

SDG No:
Date Analyzed: 2 Nov 19 14:17
Instrument: Thor
Initial Cal. Date: 10/23/2019
Data File: 1101T54.D

		Compound	MEAN	CCRF	%D	%Drift	
1	I	Fluorobenzene (IS)	ISTD			I	
2	TM	Dichlorodifluoromethane	0.2318	0.1950	16	TM	
3	TML	Freon 114	0.1167	0.1281	9.8	TML	26
4	TM**L	Chloromethane	0.2206	0.2106	4.5	TM**L	15
5	TM*	Vinyl chloride	0.1695	0.1599	5.7	TM*	
6	TM	2-Chloro-1,1,1-trifluoroethane	0.0000	0.0040	0.00	TM	
7	TML	Bromomethane	0.1168	0.1005	14	TML	0.88
8	TML	Chloroethane	0.2026	0.1268	37	TML	4.3
9	TM	Dichlorofluoromethane	0.3078	0.3049	0.97	TM	
10	TM	Trichlorofluoromethane	0.3159	0.3159	0.01	TM	
11	TM	Acrolein	0.0096	0.0072	25	TM	
12	TML	Acetone	0.0616	0.0721	17	TML	17
13	TML	Freon-113	0.1219	0.1442	18	TML	11
14	TM*	1,1-DCE	0.2239	0.2299	2.7	TM*	
15	TML	Acetonitrile	0.0207	0.0190	8.5	TML	6.7
16	TM	t-Butanol	0.0166	0.0149	10	TM	
17	TML	Methyl Acetate	0.1249	0.1174	6.0	TML	4.6
18	TML	Iodomethane	0.0951	0.0276	71	TML	51 nt
19	TM	Acrylonitrile	0.0573	0.0572	0.06	TM	
20	TML	Methylene chloride	0.2241	0.2005	11	TML	2.0
21	TML	Carbon disulfide	0.4208	0.4226	0.43	TML	10
22	TML	Methyl t-butyl ether (MtBE)	0.5335	0.4715	12	TML	6.6
23	TM	Trans-1,2-DCE	0.2190	0.2236	2.1	TM	
24	TM	Diisopropyl Ether	0.1903	0.1651	13	TM	
25	TM**L	1,1-DCA	0.1356	0.1207	11	TM**L	3.7
26	TML	Vinyl Acetate	0.1447	0.1426	1.4	TML	5.1
27	TM	Ethyl tert Butyl Ether	0.5122	0.4641	9.4	TM	
28	TML	MEK (2-Butanone)	0.0768	0.0651	15	TML	0.00
29	TM	Cis-1,2-DCE	0.2652	0.2711	2.2	TM	
30	TML	2,2-Dichloropropane	0.1205	0.0849	30	TML	20
31	TM	3-Methylpentane	0.0000	0.0946	0.00	TM	
32	TM*	Chloroform	0.1738	0.1767	1.6	TM*	
33	TM	Bromochloromethane	0.0746	0.0758	1.5	TM	
34	S	Dibromofluoromethane(S)	0.4819	0.4732	1.8	S	
35	TML	1,1,1-TCA	0.1555	0.1553	0.11	TML	7.0
36	TM	Cyclohexane	0.2001	0.1798	10	TM	
37	TM	1,1-Dichloropropene	0.2185	0.2069	5.3	TM	
38	TML	2,2,4-Trimethylpentane	0.1692	0.1286	24	TML	16
39	S	1,2-DCA-D4(S)	0.5396	0.5366	0.56	S	
40	TML	Carbon Tetrachloride	0.2432	0.2728	12	TML	5.4
		Average			10.5		

VOLATILE ORGANIC ANALYSIS
VOLATILE ORGANIC COMPOUNDS

Form 7

Ending Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix: 0

SDG No:
Date Analyzed: 2 Nov 19 14:17
Instrument: Thor
Cal. Date: 10/23/2019
Data File: 1101T54.D

		Compound	MEAN	CCRF	%D	%Drift	
41	TM	Tert Amyl Methyl Ether	0.5205	0.4610	11	TM	
42	TM	Methylcyclopentane	0.0000	0.0211	0.00	TM	
43	TML	1,2-DCA	0.1715	0.1511	12	TML	0.58
44	TM	Benzene	0.7114	0.6806	4.3	TM	
45	TM	TCE	0.2207	0.2651	20	TM	
46	TM	2-Pentanone	0.1112	0.1009	9.2	TM	
47	TM*	1,2-Dichloropropane	0.1808	0.1688	6.6	TM*	
48	TM	Bromodichloromethane	0.2768	0.2539	8.3	TM	
49	TM	Methyl Cyclohexane	0.2204	0.1982	10	TM	
50	TML	Dibromomethane	0.1389	0.1464	5.4	TML	8.7
51	TML	MIBK (methyl isobutyl ketone)	0.0628	0.0464	26	TML	18
52	TM	1-Bromo-2-chloroethane	0.2330	0.2203	5.5	TM	
53	TM	2-Chloroethyl vinyl ether	0.0000	0.0002	0.00	TM	
54	TM	Cis-1,3-Dichloropropene	0.2895	0.2418	16	TM	
55	TM*	Toluene	0.8064	0.7517	6.8	TM*	
56	TM	Trans-1,3-Dichloropropene	0.1810	0.1608	11	TM	
57	TM	1,1,2-TCA	0.1808	0.1780	1.6	TM	
58	TML	2-Hexanone	0.0907	0.0709	22	TML	15
59	I	Chlorobenzene-D5 (IS)	ISTD			I	
60	S	Toluene-D8(S)	1.867	1.867	0.01	S	
61	TM	1,2-EDB	0.1197	0.1160	3.1	TM	
62	TM	Tetrachloroethene	0.2368	0.2503	5.7	TM	
63	TML	1-Chlorohexane	0.2307	0.1915	17	TML	12
64	TM	1,1,1,2-Tetrachloroethane	0.2419	0.2530	4.6	TM	
65	TM	m&p-Xylene	0.7241	0.6929	4.3	TM	
66	TM	o-Xylene	0.7739	0.7265	6.1	TM	
67	TM	Styrene	0.5490	0.4930	10	TM	
68	S	4-Bromofluorobenzene(S)	0.7391	0.7497	1.4	S	
69	TM	1,3-Dichloropropane	0.3118	0.3024	3.0	TM	
70	TML	Dibromochloromethane	0.2170	0.2447	13	TML	0.93
71	TM**	Chlorobenzene	0.3686	0.3582	2.8	TM**	
72	TM*	Ethylbenzene	0.9036	0.8558	5.3	TM*	
73	TM**L	Bromoform	0.1737	0.1982	14	TM**L	1.4
74	I	1,4-Dichlorobenzene-D (IS)	ISTD			I	
75	TM	Isopropylbenzene	1.536	1.355	12	TM	
76	TM**	1,1,2,2-Tetrachloroethane	0.4037	0.3755	7.0	TM**	
77	TML	1,2,3-Trichloropropane	0.1253	0.1410	13	TML	3.1
78	TML	t-1,4-Dichloro-2-Butene	0.0727	0.0638	12	TML	23
79	TM	Bromobenzene	0.4002	0.3751	6.3	TM	
80	TM	n-Propylbenzene	1.707	1.530	10	TM	
		Average			8.6		

VOLATILE ORGANIC ANALYSIS
VOLATILE ORGANIC COMPOUNDS

Form 7

Ending Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix: 0

SDG No:
Date Analyzed: 2 Nov 19 14:17
Instrument: Thor
Cal. Date: 10/23/2019
Data File: 1101T54.D

		Compound	MEAN	CCRF	%D		%Drift
81	TM	4-Ethyltoluene	1.465	1.347	8.1	TM	
82	TM	2-Chlorotoluene	0.7078	0.6451	8.9	TM	
83	TM	1,3,5-Trimethylbenzene	1.302	1.192	8.5	TM	
84	TM	4-Chlorotoluene	0.8054	0.7982	0.90	TM	
85	TM	Tert-Butylbenzene	1.175	1.086	7.6	TM	
86	TM	1,2,4-Trimethylbenzene	1.336	1.129	15	TM	
87	TM	Sec-Butylbenzene	1.523	1.386	9.0	TM	
88	TM	p-Isopropyltoluene	1.338	1.178	12	TM	
89	TM	Benzyl Chloride	0.3124	0.1639	48	TM	
90	TM	1,3-DCB	0.5820	0.5001	14	TM	
91	TM	1,4-DCB	0.8814	0.7929	10	TM	
92	TM	n-Butylbenzene	1.016	0.8089	20	TM	
93	TM	1,2-DCB	0.5295	0.4926	7.0	TM	
94	TM	Hexachloroethane	0.1627	0.1709	5.0	TM	
95	TML	1,2-Dibromo-3-chloropropane	0.0623	0.0546	12	TML	5.5
96	TM	1,2,4-Trichlorobenzene	0.3177	0.2512	21	TM	
97	TM	Hexachlorobutadiene	0.1945	0.1722	11	TM	
98	TM	Naphthalene	0.8033	0.6160	23	TM	
99	TML	1,2,3-Trichlorobenzene	0.4030	0.3535	12	TML	21
100							
101							
102							
103							
104							
105							
106							
107							
108							
109							
110							
111							
112							
113							
114							
115							
116							
117							
118							
119							
120							
		Average			13.3		

Quantitation Report (Not Reviewed)

Data File : M:\THOR\DATA\T191028\1101T54.D Vial: 52
Acq On : 2 Nov 19 14:17 Operator:
Sample : Ending CCV 10ug/L 11/1/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Nov 4 12:11 2019 Quant Results File: T1023W.RES

Quant Method : M:\THOR\DATA\T191023\T1023W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:55:52 2019
Response via : Initial Calibration
DataAcq Meth : T8260

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene (IS)	6.59	96	127256	25.00	ppb		0.00
65) Chlorobenzene-D5 (IS)	9.74	117	115520	25.00	ppb		0.00
80) 1,4-Dichlorobenzene-D (IS)	12.06	152	69184	25.00	ppb		0.00
System Monitoring Compounds							
40) Dibromofluoromethane(S)	5.78	111	60217	24.55	ppb		0.00
Spiked Amount 25.000			Recovery = 98.196%				
45) 1,2-DCA-D4(S)	6.17	65	68282	24.86	ppb		0.00
Spiked Amount 25.000			Recovery = 99.444%				
66) Toluene-D8(S)	8.30	98	215639	25.00	ppb		0.00
Spiked Amount 25.000			Recovery = 99.984%				
74) 4-Bromofluorobenzene(S)	10.91	174	86601	25.36	ppb		0.00
Spiked Amount 25.000			Recovery = 101.428%				
Target Compounds							Qvalue
3) Dichlorodifluoromethane	1.20	85	9928	8.42	ppb		97
4) Freon 114	1.32	85	6522	12.59	ppb		96
5) Chloromethane	1.36	50	10722	11.53	ppb		100
6) Vinyl chloride	1.46	62	8141	9.43	ppb		100
8) Bromomethane	1.75	96	5114	9.91	ppb		99
9) Chloroethane	1.86	64	6453	10.43	ppb		91
10) Dichlorofluoromethane	2.06	67	15518	9.90	ppb		100
11) Trichlorofluoromethane	2.12	101	16082	10.00	ppb		92
13) Acrolein	2.55	55	4561	93.64	ppb		99
14) Acetone	2.73	43	3672	11.72	ppb		95
15) Freon-113	2.70	101	7341	11.09	ppb		84
16) 1,1-DCE	2.66	61	11702	10.27	ppb		94
18) Acetonitrile	3.05	41	12075	116.60	ppb		97
19) t-Butanol	3.52	59	9459	111.99	ppb		94
20) Methyl Acetate	3.18	43	5974	10.46	ppb		99
21) Iodomethane	2.82	142	1404	4.94	ppb		97
22) Acrylonitrile	3.61	53	2913	9.99	ppb		93
23) Methylene chloride	3.26	49	10208	9.80	ppb		97
24) Carbon disulfide	2.89	76	21510	11.00	ppb	#	94
25) Methyl t-butyl ether (MtBE	3.72	73	24001	9.34	ppb	#	94
26) Trans-1,2-DCE	3.67	61	11380	10.21	ppb		98
28) Diisopropyl Ether	4.54	45	8406	8.68	ppb		93
30) 1,1-DCA	4.32	63	6143	9.63	ppb		97
31) Vinyl Acetate	4.54	87	7261	9.49	ppb		98
32) Ethyl tert Butyl Ether	5.05	59	23623	9.06	ppb		90
33) MEK (2-Butanone)	5.22	43	3315	10.00	ppb		92
34) Cis-1,2-DCE	5.15	61	13802	10.22	ppb		98
35) 2,2-Dichloropropane	5.15	77	4320	7.96	ppb		98
38) Chloroform	5.59	83	8993	10.16	ppb		100
39) Bromochloromethane	5.46	130	3856	10.15	ppb		91
41) 1,1,1-TCA	5.80	97	7905	10.70	ppb		95
42) Cyclohexane	5.88	84	9153	8.99	ppb		86
43) 1,1-Dichloropropene	6.01	75	10534	9.47	ppb		96
44) 2,2,4-Trimethylpentane	6.41	57	6548	8.42	ppb		97
46) Carbon Tetrachloride	6.01	119	13886	10.54	ppb		89
47) Tert Amyl Methyl Ether	6.45	73	23466	8.86	ppb	#	92
49) 1,2-DCA	6.26	62	7692	10.06	ppb		94
50) Benzene	6.25	78	34645	9.57	ppb		99
51) TCE	7.00	130	13493	12.01	ppb		93

(#) = qualifier out of range (m) = manual integration

Data File : M:\THOR\DATA\T191028\1101T54.D Vial: 52
Acq On : 2 Nov 19 14:17 Operator:
Sample : Ending CCV 10ug/L 11/1/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Nov 4 12:11 2019 Quant Results File: T1023W.RES

Quant Method : M:\THOR\DATA\T191023\T1023W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:55:52 2019
Response via : Initial Calibration
DataAcq Meth : T8260

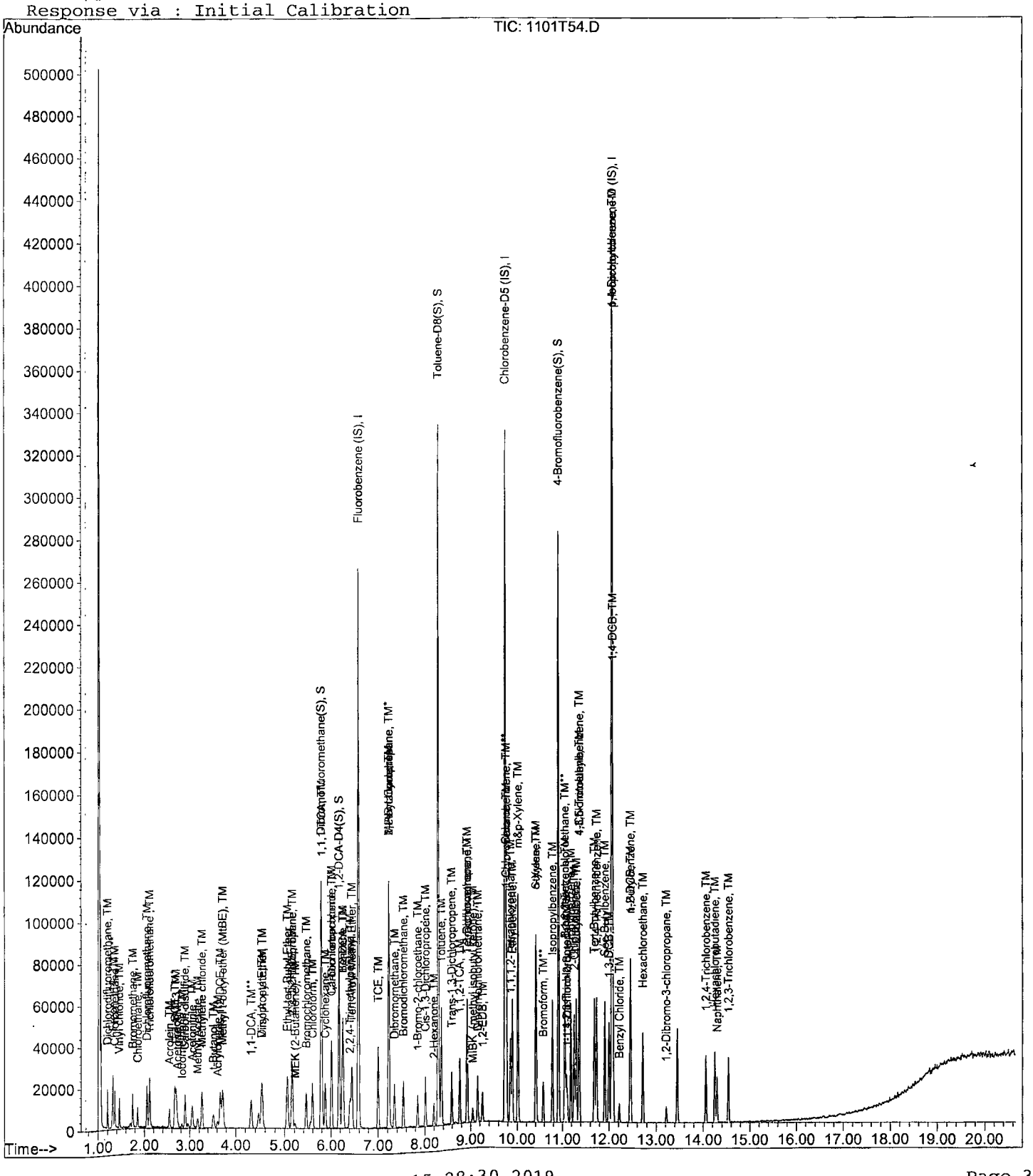
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
52)	2-Pentanone	7.22	43	64211	113.48	ppb		98
53)	1,2-Dichloropropane	7.23	63	8594	9.34	ppb		99
54)	Bromodichloromethane	7.54	83	12925	9.17	ppb	#	95
55)	Methyl Cyclohexane	7.22	83	10090	8.99	ppb		100
56)	Dibromomethane	7.34	174	7453	9.13	ppb		99
57)	MIBK (methyl isobutyl ket	9.04	43	2364	8.20	ppb	#	87
58)	1-Bromo-2-chloroethane	7.84	63	11213	9.45	ppb		91
60)	Cis-1,3-Dichloropropene	8.01	75	12308	8.35	ppb		93
61)	Toluene	8.36	91	38264	9.32	ppb		95
62)	Trans-1,3-Dichloropropene	8.59	75	8185	8.89	ppb		97
63)	1,1,2-TCA	8.77	97	9059	9.84	ppb		96
64)	2-Hexanone	8.20	43	3610	8.45	ppb		100
67)	1,2-EDB	9.26	107	5361	9.69	ppb		86
68)	Tetrachloroethene	8.92	166	11567	10.57	ppb		96
69)	1-Chlorohexane	9.77	91	8849	8.76	ppb		93
70)	1,1,1,2-Tetrachloroethane	9.86	131	11691	10.46	ppb		92
71)	m&p-Xylene	10.02	91	64031	19.14	ppb		97
72)	o-Xylene	10.40	91	33571	9.39	ppb		98
73)	Styrene	10.41	104	22780	8.98	ppb		100
75)	1,3-Dichloropropane	8.93	76	13975	9.70	ppb		99
76)	Dibromochloromethane	9.15	129	11305	10.09	ppb		94
77)	Chlorobenzene	9.77	112	16552	9.72	ppb		95
78)	Ethylbenzene	9.89	91	39547	9.47	ppb		98
79)	Bromoform	10.57	173	9157	10.14	ppb	#	68
81)	Isopropylbenzene	10.78	105	37508	8.82	ppb		99
82)	1,1,2,2-Tetrachloroethane	11.05	83	10391	9.30	ppb		96
83)	1,2,3-Trichloropropane	11.09	110	3903	10.31	ppb		94
84)	t-1,4-Dichloro-2-Butene	11.11	53	1766	7.67	ppb	#	88
85)	Bromobenzene	11.05	77	10380	9.37	ppb		89
86)	n-Propylbenzene	11.19	91	42338	8.96	ppb		97
87)	4-Ethyltoluene	11.30	105	37274	9.19	ppb		98
88)	2-Chlorotoluene	11.26	91	17851	9.11	ppb		95
89)	1,3,5-Trimethylbenzene	11.37	105	32979	9.15	ppb		99
90)	4-Chlorotoluene	11.37	91	22088	9.91	ppb		97
91)	Tert-Butylbenzene	11.69	119	30050	9.24	ppb		96
92)	1,2,4-Trimethylbenzene	11.74	105	31251	8.46	ppb		97
93)	Sec-Butylbenzene	11.91	105	38363	9.10	ppb		99
94)	p-Isopropyltoluene	12.06	119	32586	8.80	ppb		98
95)	Benzyl Chloride	12.22	91	4537	5.25	ppb		99
96)	1,3-DCB	12.00	146	13839	8.59	ppb		100
97)	1,4-DCB	12.09	146	21942	9.00	ppb		98
98)	n-Butylbenzene	12.46	91	22385	7.96	ppb		88
99)	1,2-DCB	12.45	146	13631	9.30	ppb		97
100)	Hexachloroethane	12.72	117	4730	10.50	ppb		94
101)	1,2-Dibromo-3-chloropropan	13.22	157	1512	9.45	ppb		87
102)	1,2,4-Trichlorobenzene	14.06	182	6953	7.91	ppb		98
103)	Hexachlorobutadiene	14.25	225	4765	8.85	ppb		89
104)	Naphthalene	14.30	128	17046	7.67	ppb		98
105)	1,2,3-Trichlorobenzene	14.54	182	9782	7.88	ppb		85

(#) = qualifier out of range (m) = manual integration

Data File : M:\THOR\DATA\T191028\1101T54.D Vial: 52
Acq On : 2 Nov 19 14:17 Operator:
Sample : Ending CCV 10ug/L 11/1/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Nov 4 12:11 2019 Quant Results File: T1023W.RES

Method : M:\THOR\DATA\T191023\T1023W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:55:52 2019
Response via : Initial Calibration



ORGANICS
Raw Data

Quantitation Report (QT Reviewed)

Data File : M:\THOR\DATA\T191028\1101T48.D Vial: 46
Acq On : 2 Nov 19 11:27 Operator:
Sample : BA02159W01 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Nov 4 13:58 2019 Quant Results File: T1023W.RES

Quant Method : M:\THOR\DATA\T191023\T1023W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:55:52 2019
Response via : Initial Calibration
DataAcq Meth : T8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	6.59	96	128400	25.00	ppb	0.00
65) Chlorobenzene-D5 (IS)	9.74	117	115784	25.00	ppb	0.00
80) 1,4-Dichlorobenzene-D (IS)	12.06	152	62296	25.00	ppb	0.00
System Monitoring Compounds						
40) Dibromofluoromethane(S)	5.78	111	60959	24.63	ppb	0.00
Spiked Amount 25.000			Recovery = 98.520%			
45) 1,2-DCA-D4(S)	6.17	65	68500	24.72	ppb	0.00
Spiked Amount 25.000			Recovery = 98.872%			
66) Toluene-D8(S)	8.30	98	211875	24.50	ppb	0.00
Spiked Amount 25.000			Recovery = 98.016%			
74) 4-Bromofluorobenzene(S)	10.91	174	83260	24.32	ppb	0.00
Spiked Amount 25.000			Recovery = 97.296%			

Target Compounds Qvalue

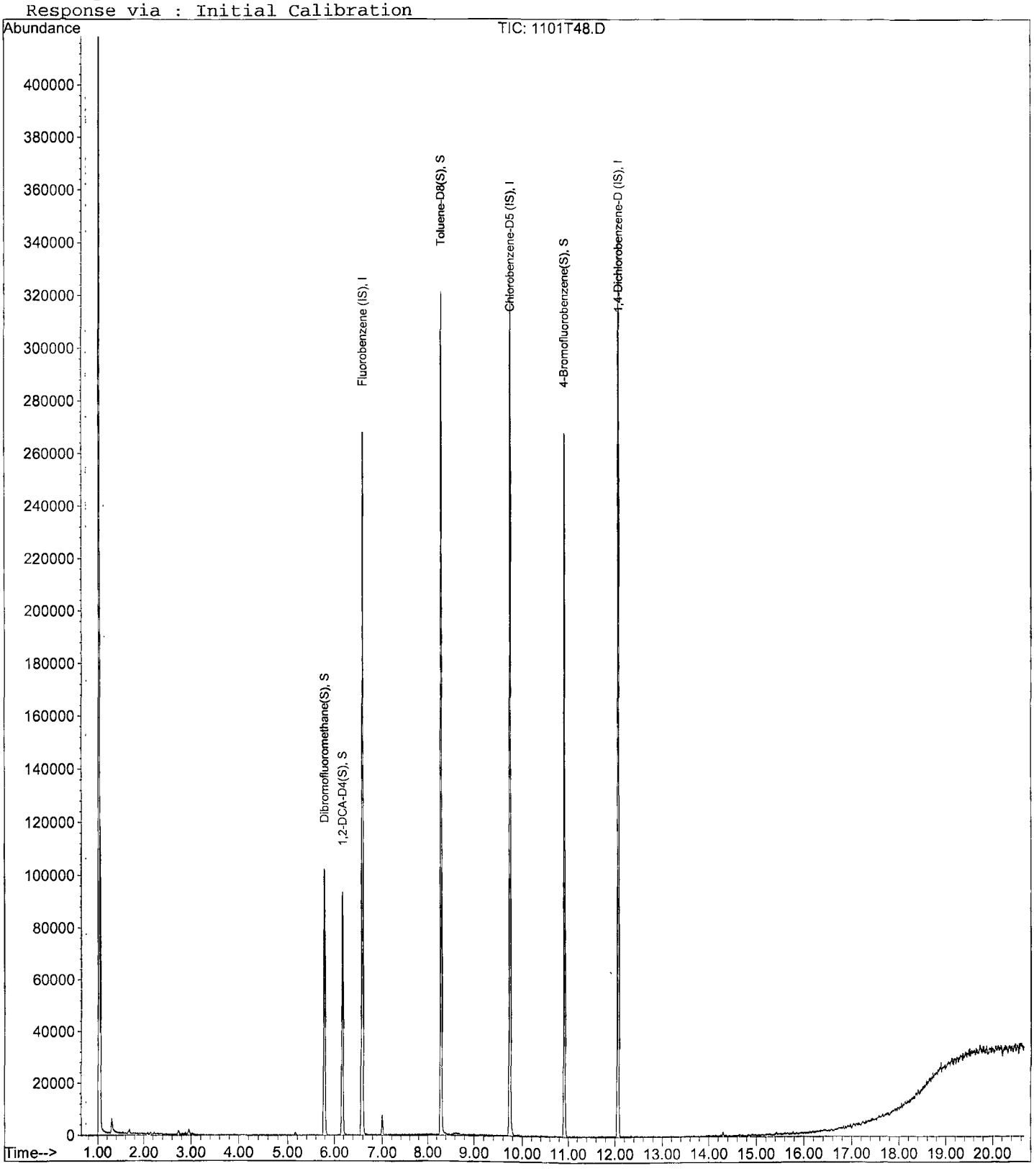
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\THOR\DATA\T191028\1101T48.D Vial: 46
Acq On : 2 Nov 19 11:27 Operator:
Sample : BA02159W01 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Nov 4 13:58 2019 Quant Results File: T1023W.RES

Method : M:\THOR\DATA\T191023\T1023W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:55:52 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\THOR\DATA\T191028\1101T49.D Vial: 47
Acq On : 2 Nov 19 11:56 Operator:
Sample : BA02160W01 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Nov 4 13:58 2019 Quant Results File: T1023W.RES

Quant Method : M:\THOR\DATA\T191023\T1023W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:55:52 2019
Response via : Initial Calibration
DataAcq Meth : T8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	6.59	96	126816	25.00	ppb	0.00
65) Chlorobenzene-D5 (IS)	9.74	117	113904	25.00	ppb	0.00
80) 1,4-Dichlorobenzene-D (IS)	12.06	152	63304	25.00	ppb	0.00
System Monitoring Compounds						
40) Dibromofluoromethane(S)	5.78	111	62185	25.44	ppb	0.00
Spiked Amount 25.000			Recovery = 101.756%			
45) 1,2-DCA-D4(S)	6.17	65	68243	24.93	ppb	0.00
Spiked Amount 25.000			Recovery = 99.732%			
66) Toluene-D8(S)	8.30	98	211106	24.82	ppb	0.00
Spiked Amount 25.000			Recovery = 99.272%			
74) 4-Bromofluorobenzene(S)	10.92	174	84850	25.20	ppb	0.00
Spiked Amount 25.000			Recovery = 100.788%			

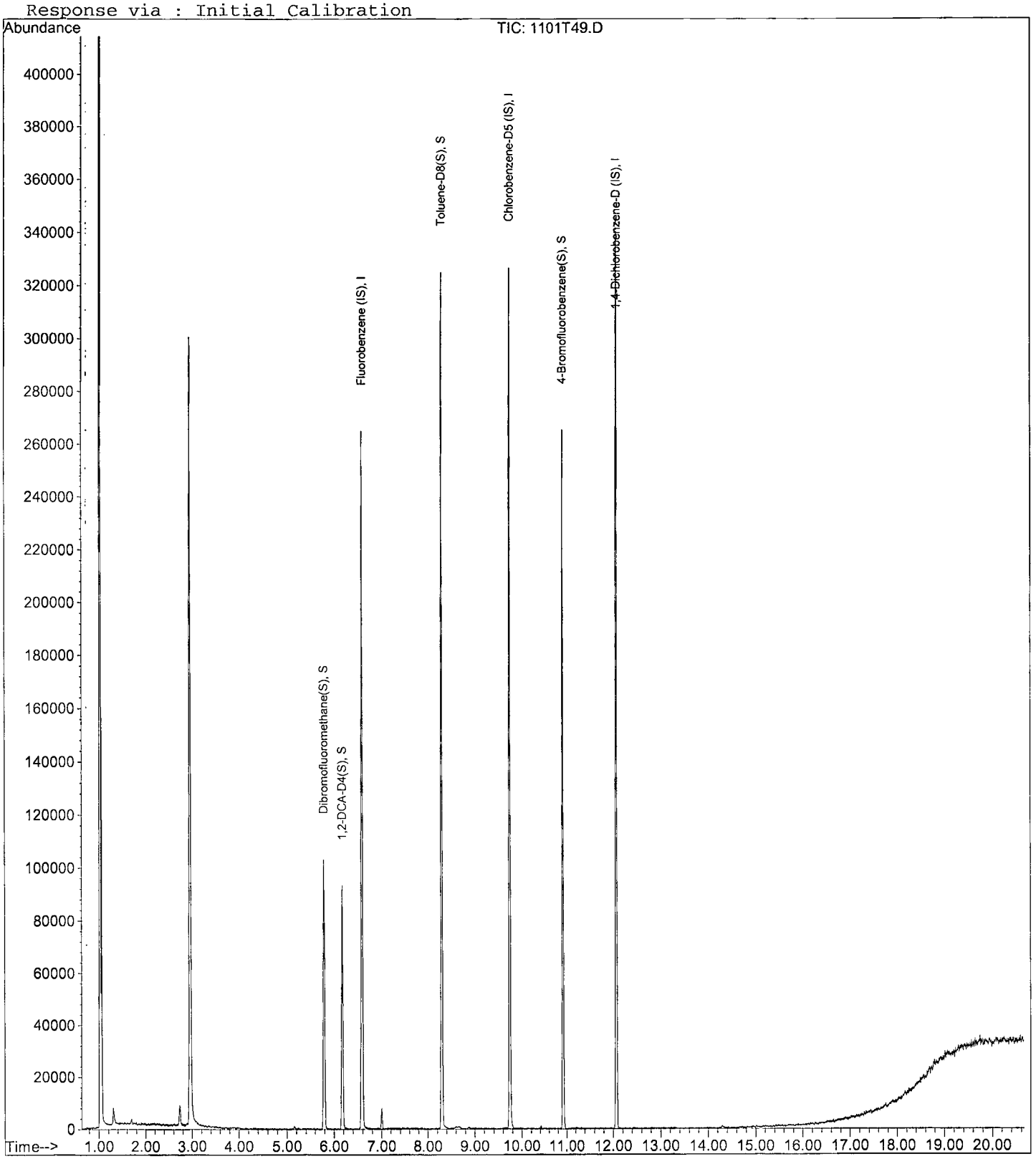
Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration

Data File : M:\THOR\DATA\T191028\1101T49.D Vial: 47
Acq On : 2 Nov 19 11:56 Operator:
Sample : BA02160W01 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Nov 4 13:58 2019 Quant Results File: T1023W.RES

Method : M:\THOR\DATA\T191023\T1023W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:55:52 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\THOR\DATA\T191028\1101T40.D Vial: 38
Acq On : 2 Nov 19 7:41 Operator:
Sample : 191101B BLK Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Nov 4 13:44 2019 Quant Results File: T1023W.RES

Quant Method : M:\THOR\DATA\T191023\T1023W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:55:52 2019
Response via : Initial Calibration
DataAcq Meth : T8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	6.59	96	134144	25.00	ppb	0.00
65) Chlorobenzene-D5 (IS)	9.74	117	118384	25.00	ppb	0.00
80) 1,4-Dichlorobenzene-D (IS)	12.06	152	66672	25.00	ppb	0.00
System Monitoring Compounds						
40) Dibromofluoromethane(S)	5.78	111	60076	23.23	ppb	0.00
Spiked Amount 25.000			Recovery = 92.936%			
45) 1,2-DCA-D4(S)	6.17	65	67793	23.42	ppb	0.00
Spiked Amount 25.000			Recovery = 93.664%			
66) Toluene-D8(S)	8.30	98	214506	24.26	ppb	0.00
Spiked Amount 25.000			Recovery = 97.052%			
74) 4-Bromofluorobenzene(S)	10.92	174	82974	23.71	ppb	0.00
Spiked Amount 25.000			Recovery = 94.832%			

Target Compounds Qvalue

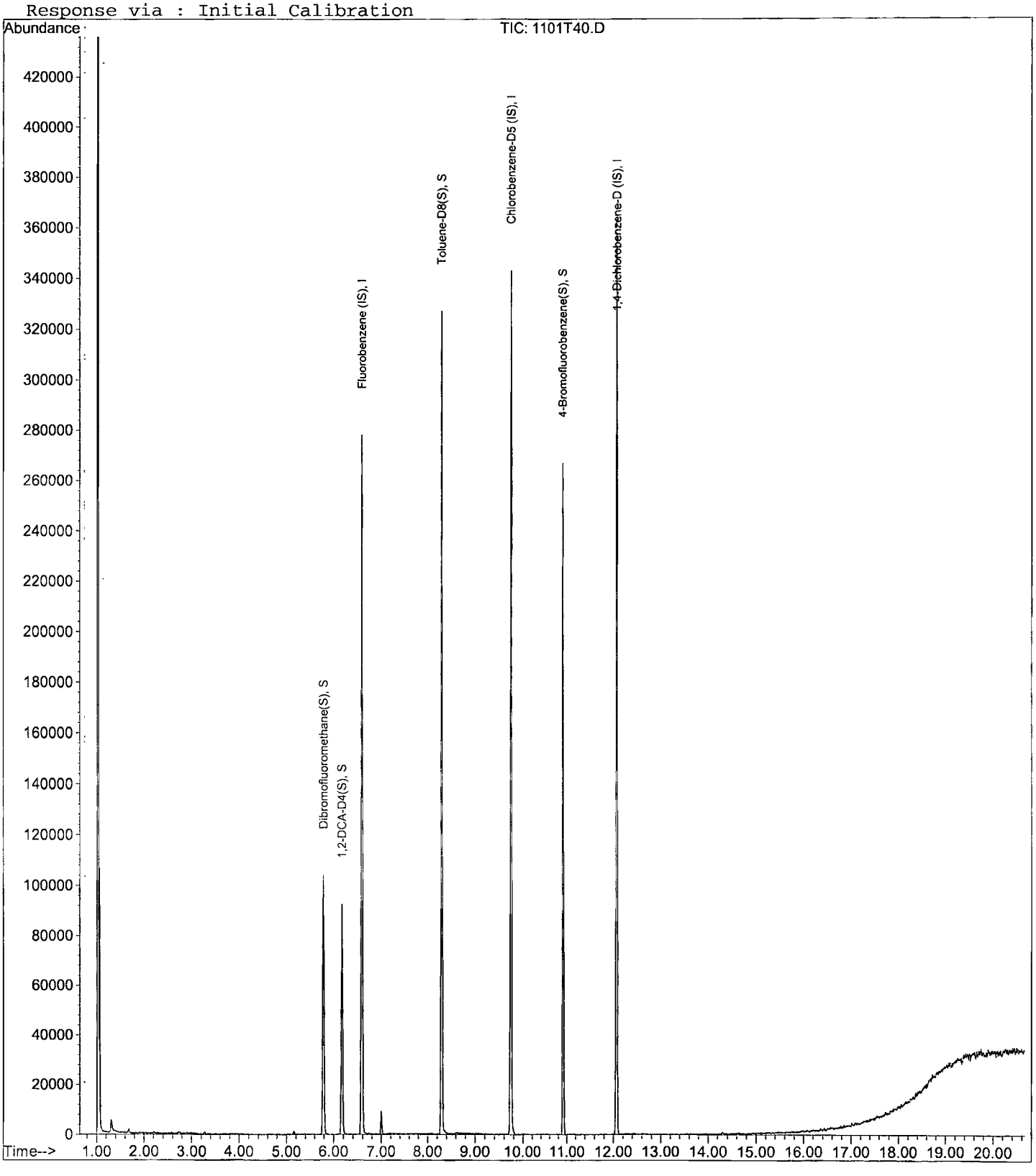
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\THOR\DATA\T191028\1101T40.D Vial: 38
Acq On : 2 Nov 19 7:41 Operator:
Sample : 191101B BLK Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Nov 4 13:44 2019 Quant Results File: T1023W.RES

Method : M:\THOR\DATA\T191023\T1023W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:55:52 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\THOR\DATA\T191028\1101T32.D Vial: 30
Acq On : 2 Nov 19 3:55 Operator:
Sample : 191101B LCS 10ug/L Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Nov 4 12:10 2019 Quant Results File: T1023W.RES

Quant Method : M:\THOR\DATA\T191023\T1023W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:55:52 2019
Response via : Initial Calibration
DataAcq Meth : T8260

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene (IS)	6.59	96	130328	25.00	ppb		0.00
65) Chlorobenzene-D5 (IS)	9.74	117	114384	25.00	ppb		0.00
80) 1,4-Dichlorobenzene-D (IS)	12.06	152	68736	25.00	ppb		0.00
System Monitoring Compounds							
40) Dibromofluoromethane(S)	5.78	111	61123	24.33	ppb		0.00
Spiked Amount 25.000			Recovery = 97.324%				
45) 1,2-DCA-D4(S)	6.17	65	68505	24.35	ppb		0.00
Spiked Amount 25.000			Recovery = 97.416%				
66) Toluene-D8(S)	8.29	98	218540	25.58	ppb		0.00
Spiked Amount 25.000			Recovery = 102.336%				
74) 4-Bromofluorobenzene(S)	10.92	174	87489	25.87	ppb		0.00
Spiked Amount 25.000			Recovery = 103.488%				
Target Compounds							Qvalue
3) Dichlorodifluoromethane	1.20	85	10250	8.48	ppb		99
4) Freon 114	1.32	85	6788	12.81	ppb		95
5) Chloromethane	1.36	50	10275	10.72	ppb		95
6) Vinyl chloride	1.46	62	8037	9.09	ppb		94
8) Bromomethane	1.75	96	5081	9.61	ppb		96
9) Chloroethane	1.86	64	6778	10.73	ppb		96
10) Dichlorofluoromethane	2.06	67	15776	9.83	ppb		93
11) Trichlorofluoromethane	2.11	101	15869	9.64	ppb		97
13) Acrolein	2.54	55	4471	89.63	ppb		82
14) Acetone	2.73	43	3233	10.07	ppb	#	87
15) Freon-113	2.69	101	7325	10.78	ppb		91
16) 1,1-DCE	2.66	61	10947	9.38	ppb		95
18) Acetonitrile	3.05	41	10304	96.61	ppb	#	95
19) t-Butanol	3.52	59	7660	88.55	ppb		97
20) Methyl Acetate	3.17	43	4845	7.97	ppb		98
21) Iodomethane	2.82	142	3162	6.81	ppb		99
22) Acrylonitrile	3.60	53	2496	8.36	ppb	#	76
23) Methylene chloride	3.26	49	10628	9.99	ppb		94
24) Carbon disulfide	2.89	76	21392	10.68	ppb		97
25) Methyl t-butyl ether (MtBE	3.72	73	23509	8.89	ppb	#	94
26) Trans-1,2-DCE	3.67	61	11061	9.69	ppb		90
28) Diisopropyl Ether	4.53	45	8643	8.71	ppb		94
30) 1,1-DCA	4.32	63	6216	9.50	ppb		98
31) Vinyl Acetate	4.53	87	7700	9.85	ppb		100
32) Ethyl tert Butyl Ether	5.05	59	22591	8.46	ppb		91
33) MEK (2-Butanone)	5.21	43	2702	7.96	ppb		95
34) Cis-1,2-DCE	5.15	61	13775	9.96	ppb		97
35) 2,2-Dichloropropane	5.15	77	5059	9.15	ppb		93
38) Chloroform	5.59	83	8682	9.58	ppb		96
39) Bromochloromethane	5.45	130	3742	9.62	ppb		96
41) 1,1,1-TCA	5.80	97	7917	10.44	ppb		96
42) Cyclohexane	5.88	84	9417	9.03	ppb		79
43) 1,1-Dichloropropene	6.01	75	10527	9.24	ppb		93
44) 2,2,4-Trimethylpentane	6.41	57	6106	7.63	ppb		94
46) Carbon Tetrachloride	6.01	119	13497	9.96	ppb		93
47) Tert Amyl Methyl Ether	6.45	73	23222	8.56	ppb		94
49) 1,2-DCA	6.26	62	7141	9.00	ppb		98
50) Benzene	6.25	78	34163	9.21	ppb		99
51) TCE	7.00	130	14306	12.43	ppb		94

(#) = qualifier out of range (m) = manual integration

Data File : M:\THOR\DATA\T191028\1101T32.D Vial: 30
Acq On : 2 Nov 19 3:55 Operator:
Sample : 191101B LCS 10ug/L Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Nov 4 12:10 2019 Quant Results File: T1023W.RES

Quant Method : M:\THOR\DATA\T191023\T1023W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:55:52 2019
Response via : Initial Calibration
DataAcq Meth : T8260

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
52)	2-Pentanone	7.22	43	55066	95.02	ppb		100
53)	1,2-Dichloropropane	7.23	63	8873	9.41	ppb	#	98
54)	Bromodichloromethane	7.53	83	13127	9.10	ppb	#	95
55)	Methyl Cyclohexane	7.22	83	10403	9.05	ppb		98
56)	Dibromomethane	7.34	174	7837	9.38	ppb		93
57)	MIBK (methyl isobutyl ket	9.04	43	1939	6.67	ppb	#	83
58)	1-Bromo-2-chloroethane	7.85	63	11010	9.06	ppb		99
60)	Cis-1,3-Dichloropropene	8.01	75	13154	8.72	ppb		96
61)	Toluene	8.36	91	37705	8.97	ppb		94
62)	Trans-1,3-Dichloropropene	8.59	75	8105	8.59	ppb		95
63)	1,1,2-TCA	8.77	97	9380	9.95	ppb		97
64)	2-Hexanone	8.20	43	3250	7.51	ppb		94
67)	1,2-EDB	9.26	107	4900	8.95	ppb		95
68)	Tetrachloroethene	8.92	166	12357	11.40	ppb		96
69)	1-Chlorohexane	9.77	91	9388	9.41	ppb		95
70)	1,1,1,2-Tetrachloroethane	9.85	131	10821	9.78	ppb		89
71)	m&p-Xylene	10.02	91	65010	19.62	ppb		100
72)	o-Xylene	10.41	91	33702	9.52	ppb		100
73)	Styrene	10.41	104	23492	9.35	ppb		99
75)	1,3-Dichloropropane	8.93	76	13171	9.23	ppb		98
76)	Dibromochloromethane	9.15	129	11103	10.01	ppb		96
77)	Chlorobenzene	9.77	112	17368	10.30	ppb		98
78)	Ethylbenzene	9.89	91	38771	9.38	ppb		100
79)	Bromoform	10.58	173	9025	10.09	ppb		92
81)	Isopropylbenzene	10.78	105	39118	9.26	ppb		98
82)	1,1,2,2-Tetrachloroethane	11.05	83	9374	8.44	ppb		97
83)	1,2,3-Trichloropropane	11.09	110	3647	9.63	ppb		89
84)	t-1,4-Dichloro-2-Butene	11.11	53	1769	7.74	ppb		91
85)	Bromobenzene	11.06	77	10124	9.20	ppb		87
86)	n-Propylbenzene	11.19	91	42593	9.07	ppb		99
87)	4-Ethyltoluene	11.31	105	36719	9.12	ppb		97
88)	2-Chlorotoluene	11.26	91	19328	9.93	ppb		96
89)	1,3,5-Trimethylbenzene	11.37	105	33395	9.33	ppb		95
90)	4-Chlorotoluene	11.37	91	21376	9.65	ppb		93
91)	Tert-Butylbenzene	11.69	119	29840	9.23	ppb		99
92)	1,2,4-Trimethylbenzene	11.74	105	32964	8.98	ppb		94
93)	Sec-Butylbenzene	11.91	105	37722	9.01	ppb		98
94)	p-Isopropyltoluene	12.06	119	33034	8.98	ppb		97
95)	Benzyl Chloride	12.22	91	6084	7.08	ppb		95
96)	1,3-DCB	12.00	146	14481	9.05	ppb		98
97)	1,4-DCB	12.09	146	23408	9.66	ppb		97
98)	n-Butylbenzene	12.47	91	24872	8.90	ppb		97
99)	1,2-DCB	12.45	146	13677	9.39	ppb		94
100)	Hexachloroethane	12.72	117	4339	9.70	ppb		90
101)	1,2-Dibromo-3-chloropropan	13.22	157	1434	9.01	ppb	#	76
102)	1,2,4-Trichlorobenzene	14.06	182	7704	8.82	ppb		99
103)	Hexachlorobutadiene	14.25	225	5422	10.14	ppb		97
104)	Naphthalene	14.30	128	17587	7.96	ppb		96
105)	1,2,3-Trichlorobenzene	14.54	182	11045	8.99	ppb	#	82

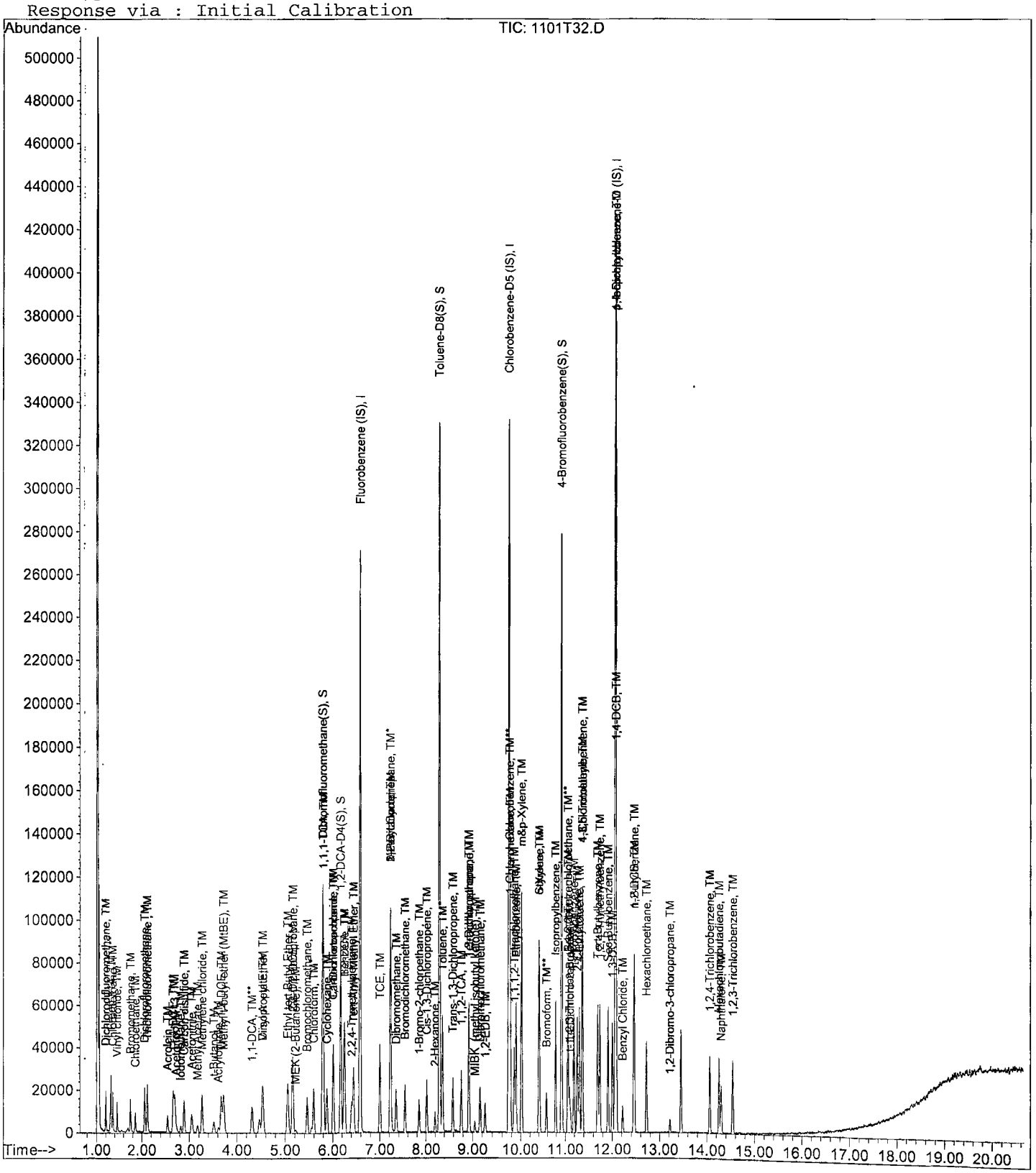
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\THOR\DATA\T191028\1101T32.D Vial: 30
Acq On : 2 Nov 19 3:55 Operator:
Sample : 191101B LCS 10ug/L Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Nov 4 12:10 2019 Quant Results File: T1023W.RES

Method : M:\THOR\DATA\T191023\T1023W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:55:52 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\THOR\DATA\T191028\1101T33.D Vial: 31
Acq On : 2 Nov 19 4:23 Operator:
Sample : 191101B LCSD 10ug/L Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Nov 4 12:10 2019 Quant Results File: T1023W.RES

Quant Method : M:\THOR\DATA\T191023\T1023W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:55:52 2019
Response via : Initial Calibration
DataAcq Meth : T8260

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene (IS)	6.59	96	138752	25.00	ppb		0.00
65) Chlorobenzene-D5 (IS)	9.74	117	128328	25.00	ppb		0.00
80) 1,4-Dichlorobenzene-D (IS)	12.06	152	74504	25.00	ppb		0.00
System Monitoring Compounds							
40) Dibromofluoromethane(S)	5.78	111	61542	23.01	ppb		0.00
Spiked Amount 25.000			Recovery = 92.044%				
45) 1,2-DCA-D4(S)	6.17	65	67608	22.58	ppb		0.00
Spiked Amount 25.000			Recovery = 90.304%				
66) Toluene-D8(S)	8.29	98	216668	22.61	ppb		0.00
Spiked Amount 25.000			Recovery = 90.436%				
74) 4-Bromofluorobenzene(S)	10.92	174	89376	23.56	ppb		0.00
Spiked Amount 25.000			Recovery = 94.232%				
Target Compounds							Qvalue
3) Dichlorodifluoromethane	1.20	85	9792	7.61	ppb		95
4) Freon 114	1.32	85	6026	10.46	ppb		91
5) Chloromethane	1.36	50	10755	10.52	ppb		94
6) Vinyl chloride	1.46	62	7538	8.01	ppb		92
8) Bromomethane	1.75	96	4882	8.64	ppb		92
9) Chloroethane	1.86	64	6157	8.94	ppb		94
10) Dichlorofluoromethane	2.06	67	15253	8.93	ppb		91
11) Trichlorofluoromethane	2.12	101	16016	9.13	ppb		97
13) Acrolein	2.54	55	4291	80.80	ppb		95
14) Acetone	2.73	43	3035	8.88	ppb		96
15) Freon-113	2.70	101	7347	10.11	ppb	#	90
16) 1,1-DCE	2.67	61	11156	8.98	ppb		98
18) Acetonitrile	3.05	41	10905	96.02	ppb	#	95
19) t-Butanol	3.51	59	7483	81.25	ppb		93
20) Methyl Acetate	3.17	43	4910	7.52	ppb		94
21) Iodomethane	2.82	142	3786	7.24	ppb		97
22) Acrylonitrile	3.61	53	2517	7.92	ppb	#	71
23) Methylene chloride	3.27	49	10869	9.54	ppb		96
24) Carbon disulfide	2.89	76	20950	9.81	ppb		96
25) Methyl t-butyl ether (MtBE	3.72	73	23741	8.38	ppb		98
26) Trans-1,2-DCE	3.67	61	11218	9.23	ppb		98
28) Diisopropyl Ether	4.54	45	8328	7.88	ppb		96
30) 1,1-DCA	4.31	63	5946	8.40	ppb		97
31) Vinyl Acetate	4.54	87	7549	9.02	ppb		96
32) Ethyl tert Butyl Ether	5.05	59	23461	8.25	ppb		93
33) MEK (2-Butanone)	5.21	43	2799	7.74	ppb	#	72
34) Cis-1,2-DCE	5.16	61	13792	9.37	ppb		91
35) 2,2-Dichloropropane	5.15	77	5159	8.75	ppb		96
38) Chloroform	5.59	83	8378	8.68	ppb		95
39) Bromochloromethane	5.46	130	3541	8.55	ppb		91
41) 1,1,1-TCA	5.80	97	7275	8.87	ppb		92
42) Cyclohexane	5.87	84	9766	8.79	ppb		84
43) 1,1-Dichloropropene	6.01	75	11305	9.32	ppb		94
44) 2,2,4-Trimethylpentane	6.40	57	6565	7.71	ppb		93
46) Carbon Tetrachloride	6.01	119	13848	9.57	ppb		77
47) Tert Amyl Methyl Ether	6.45	73	22857	7.91	ppb		99
49) 1,2-DCA	6.26	62	7278	8.56	ppb		99
50) Benzene	6.24	78	34416	8.72	ppb		97
51) TCE	7.00	130	13639	11.14	ppb		93

(#) = qualifier out of range (m) = manual integration

Data File : M:\THOR\DATA\T191028\1101T33.D Vial: 31
Acq On : 2 Nov 19 4:23 Operator:
Sample : 191101B LCSD 10ug/L Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Nov 4 12:10 2019 Quant Results File: T1023W.RES

Quant Method : M:\THOR\DATA\T191023\T1023W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:55:52 2019
Response via : Initial Calibration
DataAcq Meth : T8260

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
52)	2-Pentanone	7.22	43	55538	90.02	ppb		98
53)	1,2-Dichloropropane	7.22	63	8359	8.33	ppb		97
54)	Bromodichloromethane	7.53	83	13583	8.84	ppb		91
55)	Methyl Cyclohexane	7.22	83	10683	8.73	ppb		96
56)	Dibromomethane	7.34	174	8132	9.13	ppb		95
57)	MIBK (methyl isobutyl ket	9.04	43	2041	6.60	ppb		90
58)	1-Bromo-2-chloroethane	7.84	63	10878	8.41	ppb		97
60)	Cis-1,3-Dichloropropene	8.01	75	13090	8.15	ppb		98
61)	Toluene	8.36	91	39065	8.73	ppb		96
62)	Trans-1,3-Dichloropropene	8.59	75	8182	8.15	ppb		86
63)	1,1,2-TCA	8.77	97	8341	8.31	ppb		98
64)	2-Hexanone	8.20	43	3214	7.02	ppb		91
67)	1,2-EDB	9.26	107	5161	8.40	ppb		91
68)	Tetrachloroethene	8.92	166	12518	10.30	ppb		96
69)	1-Chlorohexane	9.77	91	9153	8.13	ppb		94
70)	1,1,1,2-Tetrachloroethane	9.85	131	11171	9.00	ppb		94
71)	m&p-Xylene	10.01	91	65573	17.64	ppb		98
72)	o-Xylene	10.40	91	33322	8.39	ppb		97
73)	Styrene	10.41	104	24035	8.53	ppb		95
75)	1,3-Dichloropropane	8.93	76	13557	8.47	ppb		98
76)	Dibromochloromethane	9.15	129	10788	8.66	ppb		96
77)	Chlorobenzene	9.77	112	16896	8.93	ppb		97
78)	Ethylbenzene	9.89	91	40997	8.84	ppb		99
79)	Bromoform	10.57	173	8768	8.76	ppb		95
81)	Isopropylbenzene	10.78	105	39164	8.56	ppb		95
82)	1,1,2,2-Tetrachloroethane	11.05	83	9588	7.97	ppb		98
83)	1,2,3-Trichloropropane	11.09	110	3604	8.68	ppb		93
84)	t-1,4-Dichloro-2-Butene	11.12	53	1615	6.39	ppb		90
85)	Bromobenzene	11.06	77	10979	9.21	ppb		91
86)	n-Propylbenzene	11.19	91	42738	8.40	ppb		97
87)	4-Ethyltoluene	11.30	105	38027	8.71	ppb		99
88)	2-Chlorotoluene	11.26	91	17992	8.53	ppb		94
89)	1,3,5-Trimethylbenzene	11.37	105	34027	8.77	ppb		98
90)	4-Chlorotoluene	11.37	91	22744	9.48	ppb		97
91)	Tert-Butylbenzene	11.69	119	31018	8.86	ppb		96
92)	1,2,4-Trimethylbenzene	11.74	105	34087	8.56	ppb		98
93)	Sec-Butylbenzene	11.91	105	38367	8.45	ppb		97
94)	p-Isopropyltoluene	12.06	119	33768	8.47	ppb		98
95)	Benzyl Chloride	12.22	91	6073	6.52	ppb		96
96)	1,3-DCB	12.00	146	14851	8.56	ppb		92
97)	1,4-DCB	12.09	146	24168	9.20	ppb		98
98)	n-Butylbenzene	12.46	91	25399	8.38	ppb		95
99)	1,2-DCB	12.45	146	14890	9.44	ppb		96
100)	Hexachloroethane	12.72	117	4721	9.74	ppb		98
101)	1,2-Dibromo-3-chloropropan	13.22	157	1292	7.42	ppb		84
102)	1,2,4-Trichlorobenzene	14.06	182	8712	9.20	ppb		97
103)	Hexachlorobutadiene	14.25	225	4806	8.29	ppb		91
104)	Naphthalene	14.30	128	19959	8.34	ppb		99
105)	1,2,3-Trichlorobenzene	14.54	182	12486	9.38	ppb	#	85

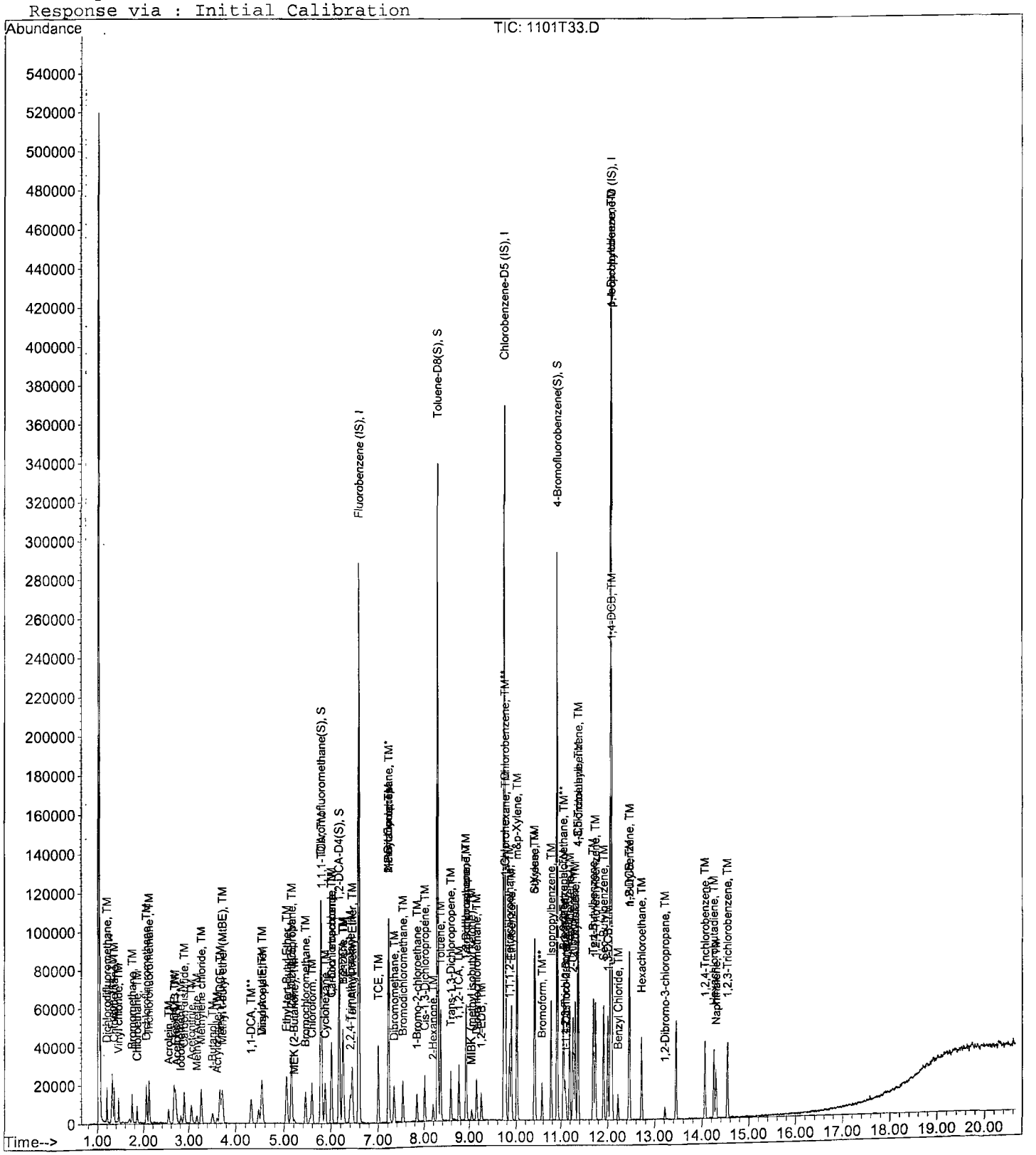
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\THOR\DATA\T191028\1101T33.D Vial: 31
Acq On : 2 Nov 19 4:23 Operator:
Sample : 191101B LCSD 10ug/L Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

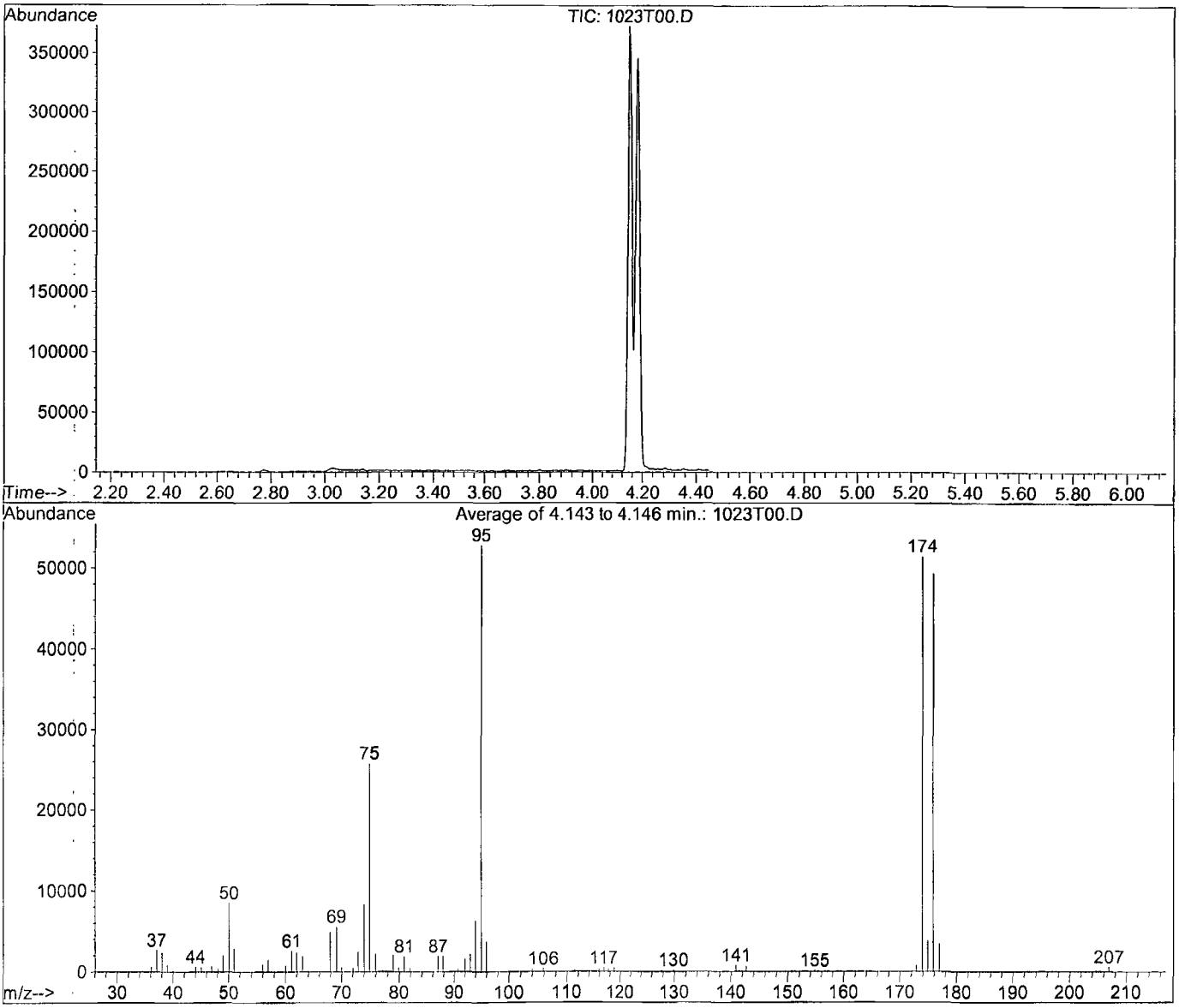
Quant Time: Nov 4 12:10 2019 Quant Results File: T1023W.RES

Method : M:\THOR\DATA\T191023\T1023W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:55:52 2019
Response via : Initial Calibration



Data File : M:\THOR\DATA\T191023\1023T00.D Vial: 1
Acq On : 23 Oct 19 16:48 Operator:
Sample : 25ug/L BFBSTD 10/10/19 Inst : Thor
Misc : 2ul BFB Multiplr: 1.00

Method : M:\THOR\DATA\T191023\T1023W.M (RTE Integrator)
Title : METHOD 8260B



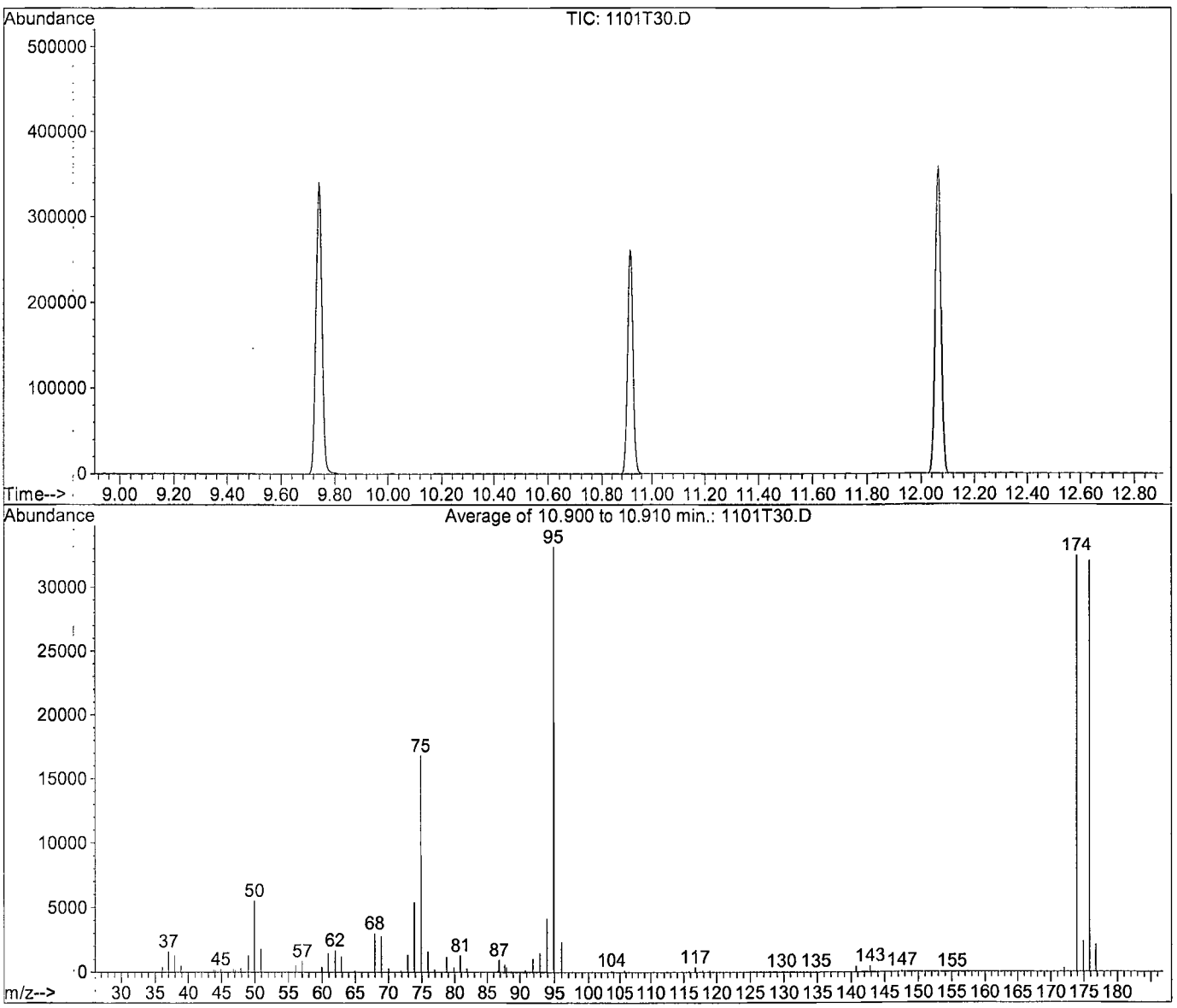
Spectrum Information: Average of 4.143 to 4.146 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	16.1	8507	PASS
75	95	30	60	48.8	25764	PASS
95	95	100	100	100.0	52848	PASS
96	95	5	9	7.0	3705	PASS
173	174	0.00	2	1.5	760	PASS
174	95	50	200	97.4	51468	PASS
175	174	5	9	7.4	3817	PASS
176	174	95	101	95.9	49368	PASS
177	176	5	9	7.0	3443	PASS

1023T00.D T1023W.M Mon Dec 02 15:30:59 2019

Data File : M:\THOR\DATA\T191028\1101T30.D Vial: 28
Acq On : 2 Nov 19 2:59 Operator:
Sample : 25ug/L BFBSTD 9/24/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Method : M:\THOR\DATA\T191023\T1023W.M (RTE Integrator)
Title : METHOD 8260B



Spectrum Information: Average of 10.900 to 10.910 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	16.6	5511	PASS
75	95	30	60	50.7	16806	PASS
95	95	100	100	100.0	33150	PASS
96	95	5	9	7.0	2319	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	200	98.0	32476	PASS
175	174	5	9	7.2	2354	PASS
176	174	95	101	98.8	32080	PASS
177	176	5	9	6.5	2088	PASS

1101T30.D T1023W.M Mon Dec 02 15:28:57 2019

Injection Log

Directory: M:\THOR\DATA\T191023\

Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1023T00.D	1	25ug/L BFBSTD 10/10/19	2ul BFB	23 Oct 19 16:48
6	1023T06.D	1	0.3ug/L VOC STD 10/23/19	IS&S 9/23/19	23 Oct 19 19:32
7	1023T07.D	1	0.5ug/L VOC STD 10/23/19	IS&S 9/23/19	23 Oct 19 20:01
8	1023T08.D	1	1.0ug/L VOC STD 10/23/19	IS&S 9/23/19	23 Oct 19 20:29
9	1023T09.D	1	2.0ug/L VOC STD 10/23/19	IS&S 9/23/19	23 Oct 19 20:58
10	1023T10.D	1	5.0ug/L VOC STD 10/23/19	IS&S 9/23/19	23 Oct 19 21:26
11	1023T11.D	1	10ug/L VOC STD 10/23/19	IS&S 9/23/19	23 Oct 19 21:55
12	1023T12.D	1	20ug/L VOC STD 10/23/19	IS&S 9/23/19	23 Oct 19 22:23
13	1023T13.D	1	40ug/L VOC STD 10/23/19	IS&S 9/23/19	23 Oct 19 22:52
14	1023T14.D	1	100ug/L VOC STD 10/23/19	IS&S 9/23/19	23 Oct 19 23:20
16	1023T16.D	1	(SS)10ug/L VOC STD 10/23/19	IS&S 9/23/19	24 Oct 19 00:17
28	1101T30.D	1	25ug/L BFBSTD 9/24/19	IS&S 9/23/19	2 Nov 19 2:59
29	1101T31.D	1	191101B CCV 10ug/L	IS&S 9/23/19	2 Nov 19 3:27
30	1101T32.D	1	191101B LCS 10ug/L	IS&S 9/23/19	2 Nov 19 3:55
31	1101T33.D	1	191101B LCSD 10ug/L	IS&S 9/23/19	2 Nov 19 4:23
38	1101T40.D	1	191101B BLK	IS&S 9/23/19	2 Nov 19 7:41
46	1101T48.D	1	BA02159W01	IS&S 9/23/19	2 Nov 19 11:27
47	1101T49.D	1	BA02160W01	IS&S 9/23/19	2 Nov 19 11:56
52	1101T54.D	1	Ending CCV 10ug/L 11/1/19	IS&S 9/23/19	2 Nov 19 14:17

ORGANICS
Calibration Data

VOLATILE ORGANIC ANALYSIS
VOLATILE ORGANIC COMPOUNDS

Form 6
Initial Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Initial Cal. Date: 10/23/2019
Matrix: Instrument: Thor Initials:

			1023T06 D	1023T07.D	1023T08.D	1023T09 D	1023T10.D	1023T11.D	1023T12 D	1023T13.D	1023T14.D							
		Compound	1	2	3	4	5	6	7	8	9		Avg	%RSD	Type	r^2	Q	MRF
1	I	Fluorobenzene (IS)																
2	S	Dibromofluoromethane(S)	0.5385	0.5240	0.4368	0.4526	0.4712	0.4842	0.4850	0.4883	0.4565		0.48	6.8	S			
3	S	1,2-DCA-D4(S)	0.5868	0.5920	0.4819	0.5140	0.5350	0.5510	0.5468	0.5434	0.5053		0.54	6.7	S			
4	I	Chlorobenzene-D5 (IS)																
5	S	Toluene-D8(S)	2.143	2.042	1.649	1.690	1.820	1.965	1.778	1.900	1.815		1.9	8.7	S			
6	S	4-Bromofluorobenzene(S)	0.8756	0.7804	0.6244	0.6442	0.7197	0.7700	0.7173	0.7521	0.7682		0.74	10	S			
7	I	1,4-Dichlorobenzene-D (IS)																
8																		
9																		
10																		
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35																		

Quantitation Report (Not Reviewed)

Data File : M:\THOR\DATA\T191023\1023T06.D Vial: 6
Acq On : 23 Oct 19 19:32 Operator:
Sample : 0.3ug/L VOC STD 10/23/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 24 8:47 2019 Quant Results File: TSUR1023.RES

Quant Method : M:\THOR\DATA\T191023\TSUR1023.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:27:29 2019
Response via : Initial Calibration
DataAcq Meth : T8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	6.59	96	178368	25.00	ppb	0.00
4) Chlorobenzene-D5 (IS)	9.74	117	160768	25.00	ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	12.07	152	91040	25.00	ppb	0.00
System Monitoring Compounds						
2) Dibromofluoromethane(S)	5.79	111	19209	5.59	ppb	0.00
Spiked Amount 25.000			Recovery = 22.348%			
3) 1,2-DCA-D4(S)	6.18	65	20935	5.44	ppb	0.00
Spiked Amount 25.000			Recovery = 21.752%			
5) Toluene-D8(S)	8.30	98	68918	5.74	ppb	0.00
Spiked Amount 25.000			Recovery = 22.960%			
6) 4-Bromofluorobenzene(S)	10.92	174	28153	5.92	ppb	0.00
Spiked Amount 25.000			Recovery = 23.692%			

Target Compounds Qvalue

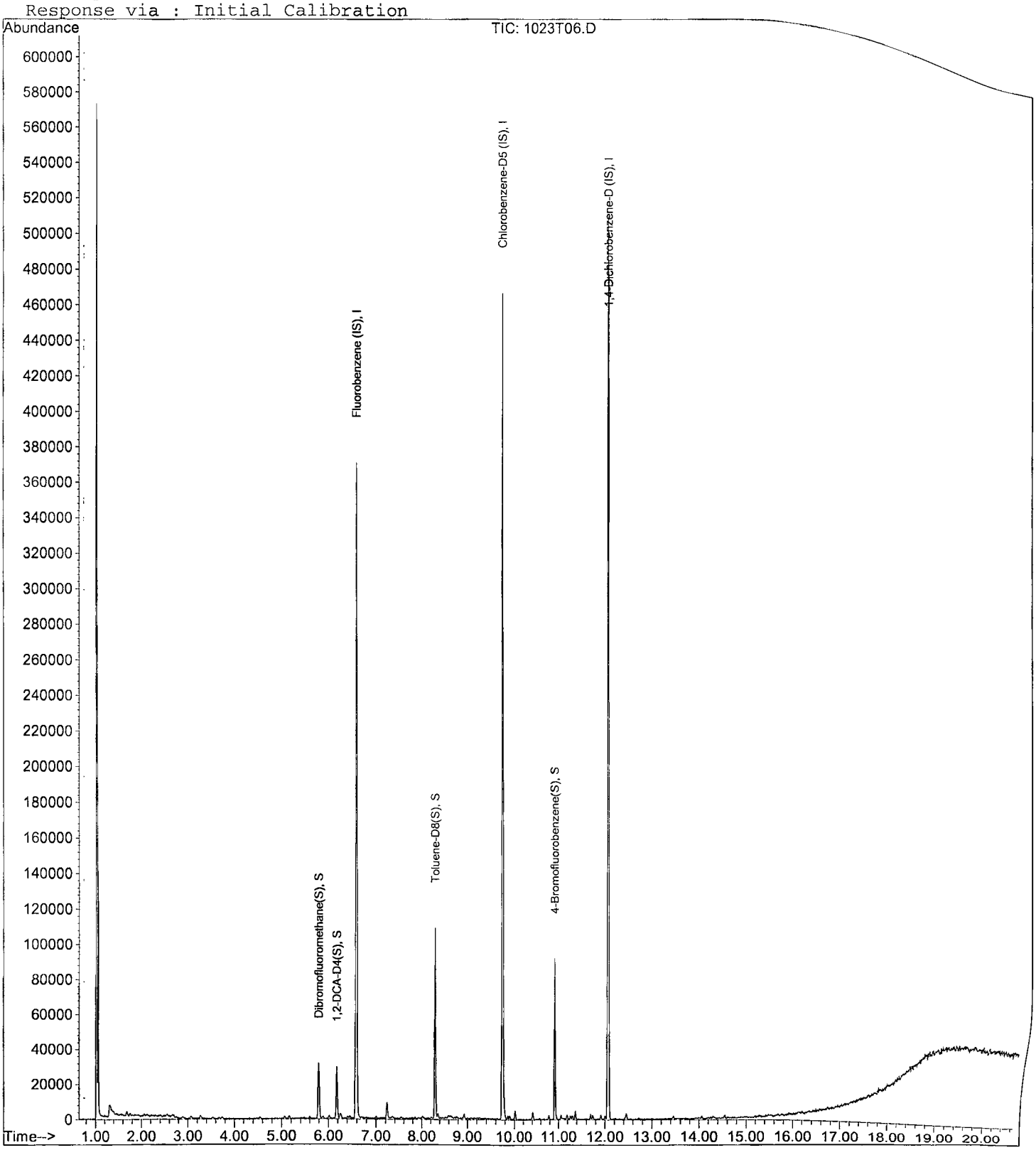
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\THOR\DATA\T191023\1023T06.D Vial: 6
Acq On : 23 Oct 19 19:32 Operator:
Sample : 0.3ug/L VOC STD 10/23/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 24 8:47 2019 Quant Results File: TSUR1023.RES

Method : M:\THOR\DATA\T191023\TSUR1023.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:27:29 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\THOR\DATA\T191023\1023T07.D Vial: 7
Acq On : 23 Oct 19 20:01 Operator:
Sample : 0.5ug/L VOC STD 10/23/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 24 8:47 2019 Quant Results File: TSUR1023.RES

Quant Method : M:\THOR\DATA\T191023\TSUR1023.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:27:29 2019
Response via : Initial Calibration
DataAcq Meth : T8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	6.59	96	177792	25.00	ppb	0.00
4) Chlorobenzene-D5 (IS)	9.74	117	164416	25.00	ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	12.07	152	92872	25.00	ppb	0.00
System Monitoring Compounds						
2) Dibromofluoromethane(S)	5.79	111	18632	5.44	ppb	0.00
Spiked Amount 25.000			Recovery =	21.748%		
3) 1,2-DCA-D4(S)	6.18	65	21049	5.49	ppb	0.00
Spiked Amount 25.000			Recovery =	21.940%		
5) Toluene-D8(S)	8.30	98	67127	5.47	ppb	0.00
Spiked Amount 25.000			Recovery =	21.868%		
6) 4-Bromofluorobenzene(S)	10.92	174	25663	5.28	ppb	0.00
Spiked Amount 25.000			Recovery =	21.120%		

Target Compounds Qvalue

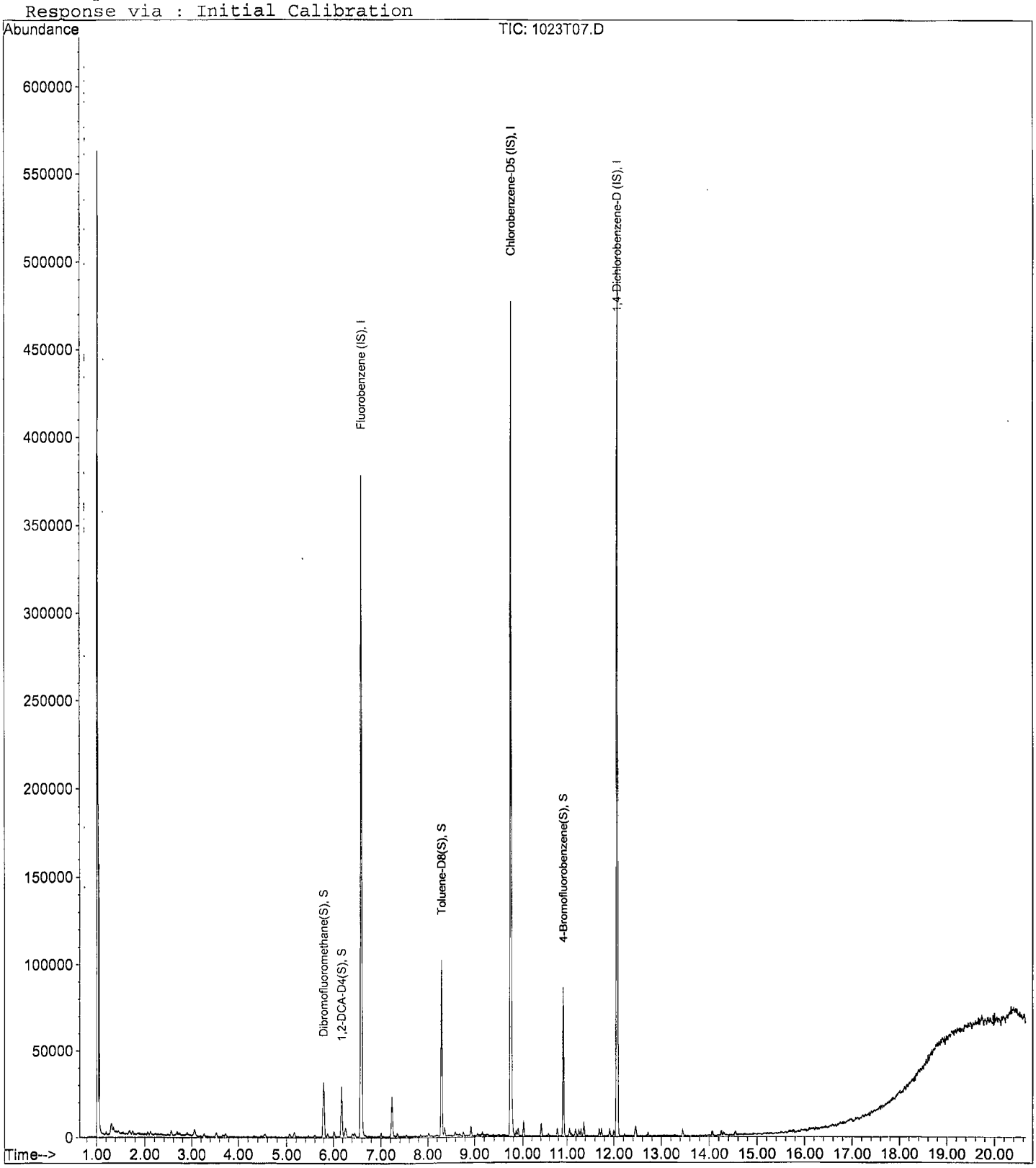
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\THOR\DATA\T191023\1023T07.D Vial: 7
Acq On : 23 Oct 19 20:01 Operator:
Sample : 0.5ug/L VOC STD 10/23/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 24 8:47 2019 Quant Results File: TSUR1023.RES

Method : M:\THOR\DATA\T191023\TSUR1023.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:27:29 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\THOR\DATA\T191023\1023T08.D Vial: 8
Acq On : 23 Oct 19 20:29 Operator:
Sample : 1.0ug/L VOC STD 10/23/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 24 8:47 2019 Quant Results File: TSUR1023.RES

Quant Method : M:\THOR\DATA\T191023\TSUR1023.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:27:29 2019
Response via : Initial Calibration
DataAcq Meth : T8260

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene (IS)	6.59	96	186048	25.00 ppb	0.00
4) Chlorobenzene-D5 (IS)	9.74	117	170048	25.00 ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	12.07	152	96952	25.00 ppb	0.00
System Monitoring Compounds					
2) Dibromofluoromethane(S)	5.79	111	32509	9.07 ppb	0.00
Spiked Amount 25.000			Recovery =	36.260%	
3) 1,2-DCA-D4(S)	6.18	65	35862	8.93 ppb	0.00
Spiked Amount 25.000			Recovery =	35.724%	
5) Toluene-D8(S)	8.30	98	112166	8.83 ppb	0.00
Spiked Amount 25.000			Recovery =	35.332%	
6) 4-Bromofluorobenzene(S)	10.92	174	42473	8.45 ppb	0.00
Spiked Amount 25.000			Recovery =	33.796%	

Target Compounds Qvalue

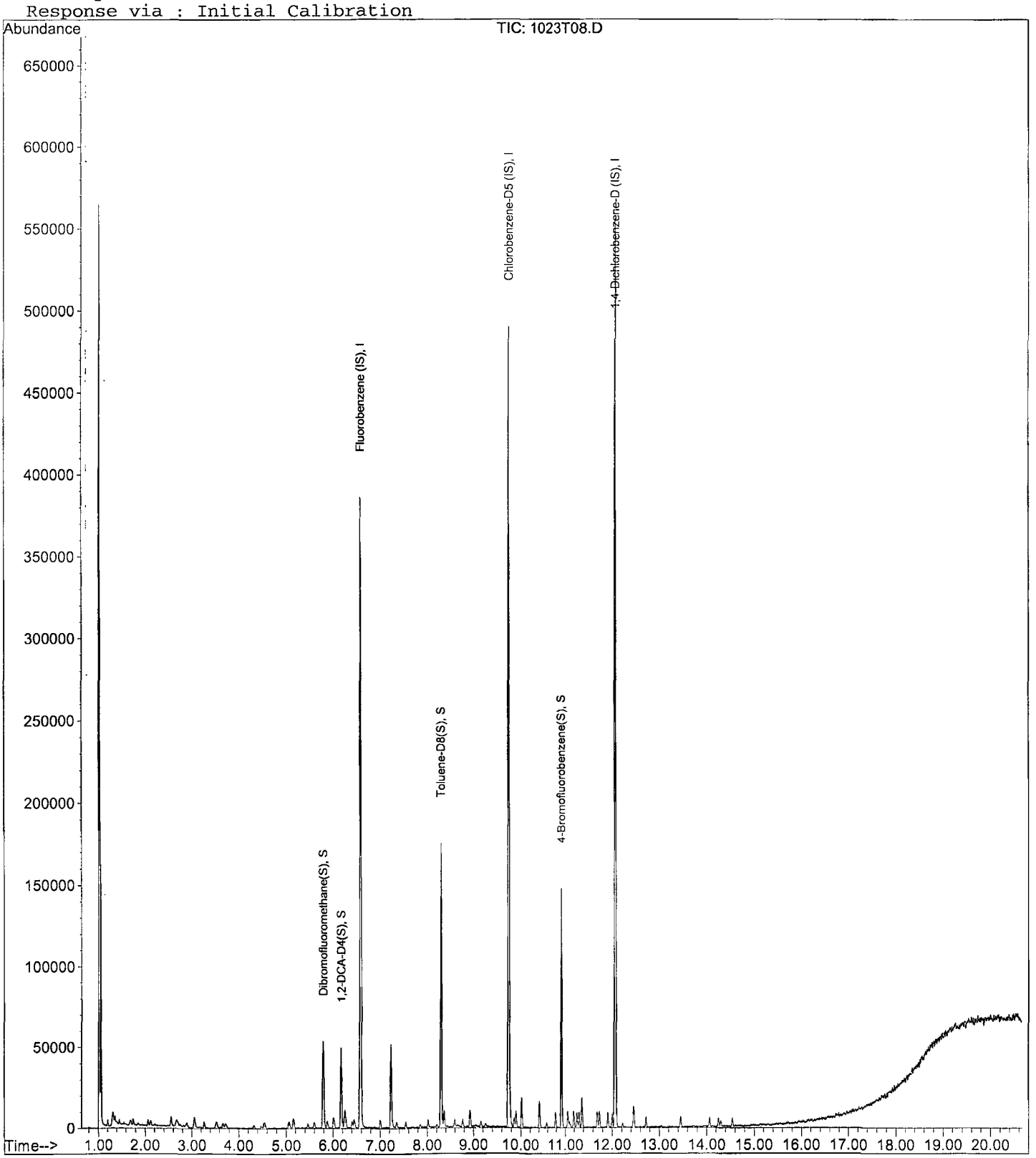
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\THOR\DATA\T191023\1023T08.D Vial: 8
Acq On : 23 Oct 19 20:29 Operator:
Sample : 1.0ug/L VOC STD 10/23/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 24 8:47 2019 Quant Results File: TSUR1023.RES

Method : M:\THOR\DATA\T191023\TSUR1023.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:27:29 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\THOR\DATA\T191023\1023T09.D Vial: 9
Acq On : 23 Oct 19 20:58 Operator:
Sample : 2.0ug/L VOC STD 10/23/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 24 8:47 2019 Quant Results File: TSUR1023.RES

Quant Method : M:\THOR\DATA\T191023\TSUR1023.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:27:29 2019
Response via : Initial Calibration
DataAcq Meth : T8260

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene (IS)	6.59	96	182336	25.00 ppb	0.00
4) Chlorobenzene-D5 (IS)	9.74	117	173696	25.00 ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	12.07	152	94992	25.00 ppb	0.00
System Monitoring Compounds					
2) Dibromofluoromethane(S)	5.79	111	33009	9.39 ppb	0.00
Spiked Amount 25.000			Recovery =	37.568%	
3) 1,2-DCA-D4(S)	6.18	65	37488	9.53 ppb	0.00
Spiked Amount 25.000			Recovery =	38.104%	
5) Toluene-D8(S)	8.30	98	117350	9.05 ppb	0.00
Spiked Amount 25.000			Recovery =	36.188%	
6) 4-Bromofluorobenzene(S)	10.92	174	44756	8.72 ppb	0.00
Spiked Amount 25.000			Recovery =	34.864%	
Target Compounds					Qvalue

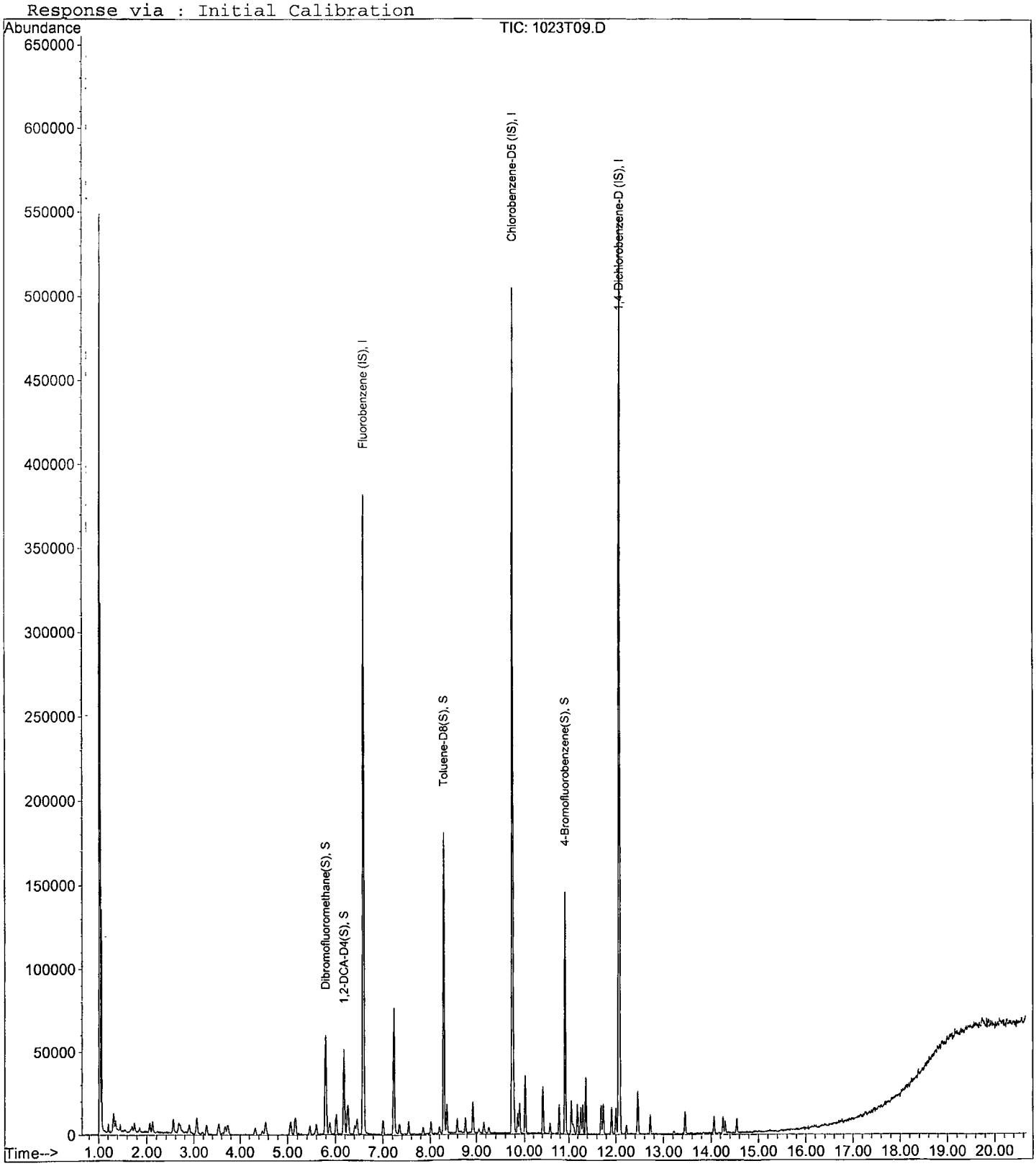
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\THOR\DATA\T191023\1023T09.D Vial: 9
Acq On : 23 Oct 19 20:58 Operator:
Sample : 2.0ug/L VOC STD 10/23/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 24 8:47 2019 Quant Results File: TSUR1023.RES

Method : M:\THOR\DATA\T191023\TSUR1023.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:27:29 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\THOR\DATA\T191023\1023T10.D Vial: 10
Acq On : 23 Oct 19 21:26 Operator:
Sample : 5.0ug/L VOC STD 10/23/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 24 8:47 2019 Quant Results File: TSUR1023.RES

Quant Method : M:\THOR\DATA\T191023\TSUR1023.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:27:29 2019
Response via : Initial Calibration
DataAcq Meth : T8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	6.59	96	183104	25.00	ppb	0.00
4) Chlorobenzene-D5 (IS)	9.74	117	171200	25.00	ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	12.06	152	96128	25.00	ppb	0.00
System Monitoring Compounds						
2) Dibromofluoromethane(S)	5.79	111	86276	24.44	ppb	0.00
Spiked Amount 25.000			Recovery = 97.780%			
3) 1,2-DCA-D4(S)	6.18	65	97911	24.78	ppb	0.00
Spiked Amount 25.000			Recovery = 99.104%			
5) Toluene-D8(S)	8.30	98	311553	24.37	ppb	0.00
Spiked Amount 25.000			Recovery = 97.476%			
6) 4-Bromofluorobenzene(S)	10.92	174	123213	24.34	ppb	0.00
Spiked Amount 25.000			Recovery = 97.376%			

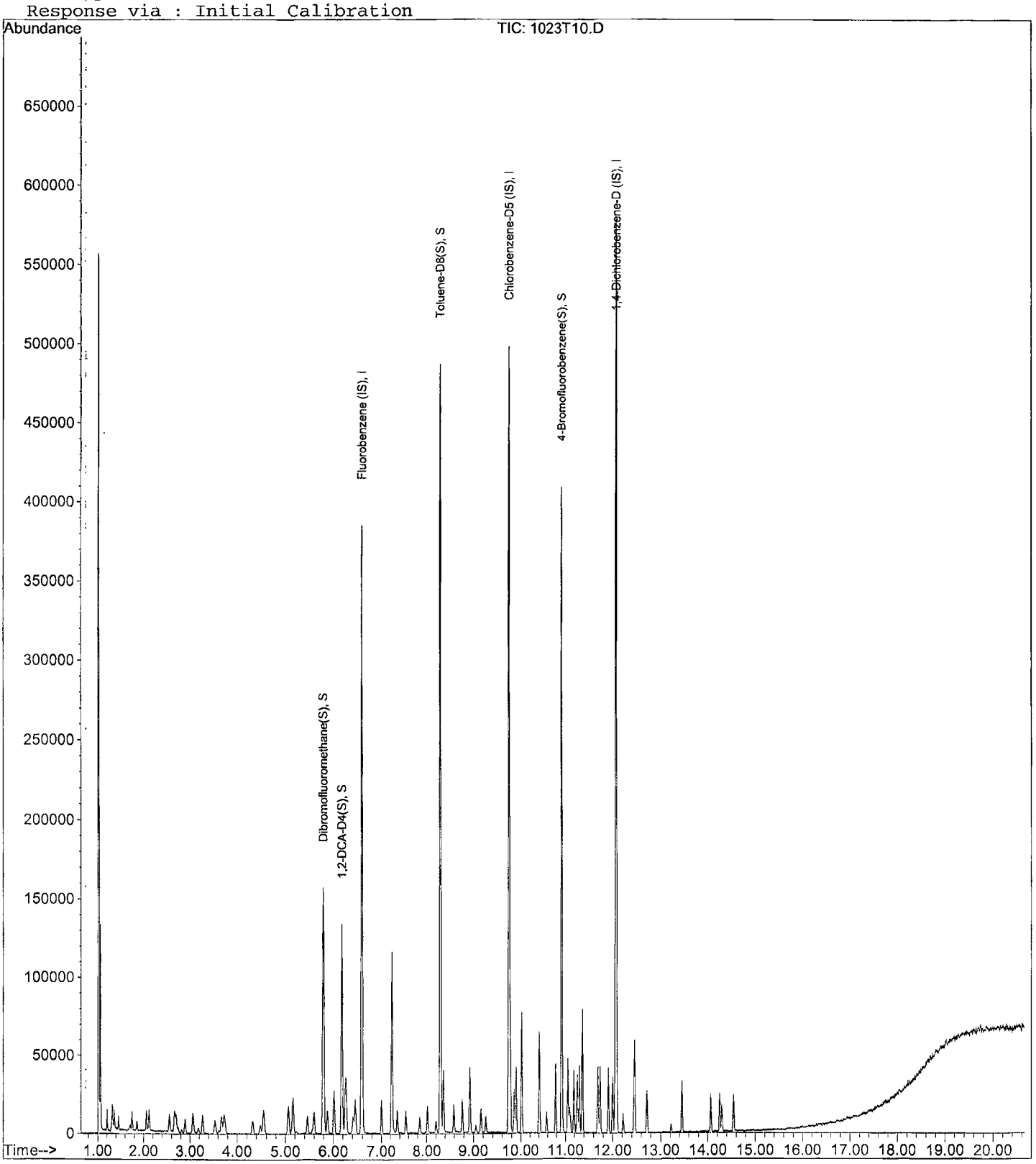
Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration
1023T10.D TSUR1023.M Mon Dec 02 15:07:06 2019 Page 1

Data File : M:\THOR\DATA\T191023\1023T10.D Vial: 10
Acq On : 23 Oct 19 21:26 Operator:
Sample : 5.0ug/L VOC STD 10/23/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 24 8:47 2019 Quant Results File: TSUR1023.RES

Method : M:\THOR\DATA\T191023\TSUR1023.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:27:29 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\THOR\DATA\T191023\1023T11.D Vial: 11
Acq On : 23 Oct 19 21:55 Operator:
Sample : 10ug/L VOC STD 10/23/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 24 8:47 2019 Quant Results File: TSUR1023.RES

Quant Method : M:\THOR\DATA\T191023\TSUR1023.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:27:29 2019
Response via : Initial Calibration
DataAcq Meth : T8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	6.59	96	178432	25.00	ppb	0.00
4) Chlorobenzene-D5 (IS)	9.74	117	159872	25.00	ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	12.06	152	97112	25.00	ppb	0.00
System Monitoring Compounds						
2) Dibromofluoromethane(S)	5.79	111	86393	25.12	ppb	0.00
Spiked Amount 25.000			Recovery = 100.476%			
3) 1,2-DCA-D4(S)	6.18	65	98312	25.53	ppb	0.00
Spiked Amount 25.000			Recovery = 102.112%			
5) Toluene-D8(S)	8.30	98	314020	26.30	ppb	0.00
Spiked Amount 25.000			Recovery = 105.208%			
6) 4-Bromofluorobenzene(S)	10.92	174	123099	26.04	ppb	0.00
Spiked Amount 25.000			Recovery = 104.180%			

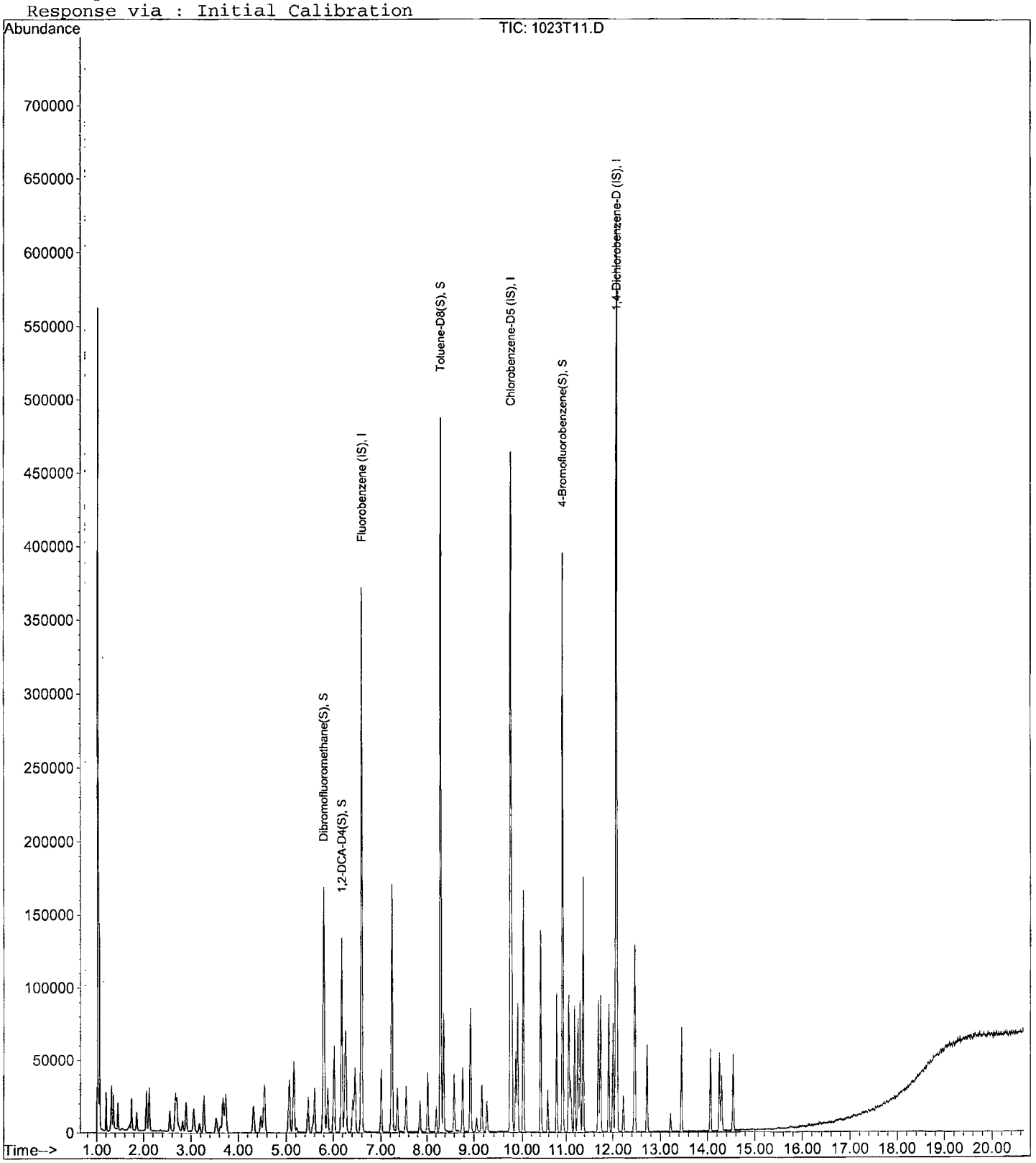
Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration
1023T11.D TSUR1023.M Mon Dec 02 15:07:07 2019 Page 1

Data File : M:\THOR\DATA\T191023\1023T11.D Vial: 11
Acq On : 23 Oct 19 21:55 Operator:
Sample : 10ug/L VOC STD 10/23/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 24 8:47 2019 Quant Results File: TSUR1023.RES

Method : M:\THOR\DATA\T191023\TSUR1023.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:27:29 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\THOR\DATA\T191023\1023T12.D Vial: 12
Acq On : 23 Oct 19 22:23 Operator:
Sample : 20ug/L VOC STD 10/23/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 24 8:47 2019 Quant Results File: TSUR1023.RES

Quant Method : M:\THOR\DATA\T191023\TSUR1023.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:27:29 2019
Response via : Initial Calibration
DataAcq Meth : T8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	6.59	96	180864	25.00	ppb	0.00
4) Chlorobenzene-D5 (IS)	9.74	117	175808	25.00	ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	12.07	152	103912	25.00	ppb	0.00
System Monitoring Compounds						
2) Dibromofluoromethane(S)	5.79	111	175433	50.32	ppb	0.00
Spiked Amount 25.000			Recovery = 201.288%			
3) 1,2-DCA-D4(S)	6.18	65	197560	50.61	ppb	0.00
Spiked Amount 25.000			Recovery = 202.440%			
5) Toluene-D8(S)	8.30	98	624922	47.60	ppb	0.00
Spiked Amount 25.000			Recovery = 190.396%			
6) 4-Bromofluorobenzene(S)	10.92	174	252217	48.53	ppb	0.00
Spiked Amount 25.000			Recovery = 194.104%			

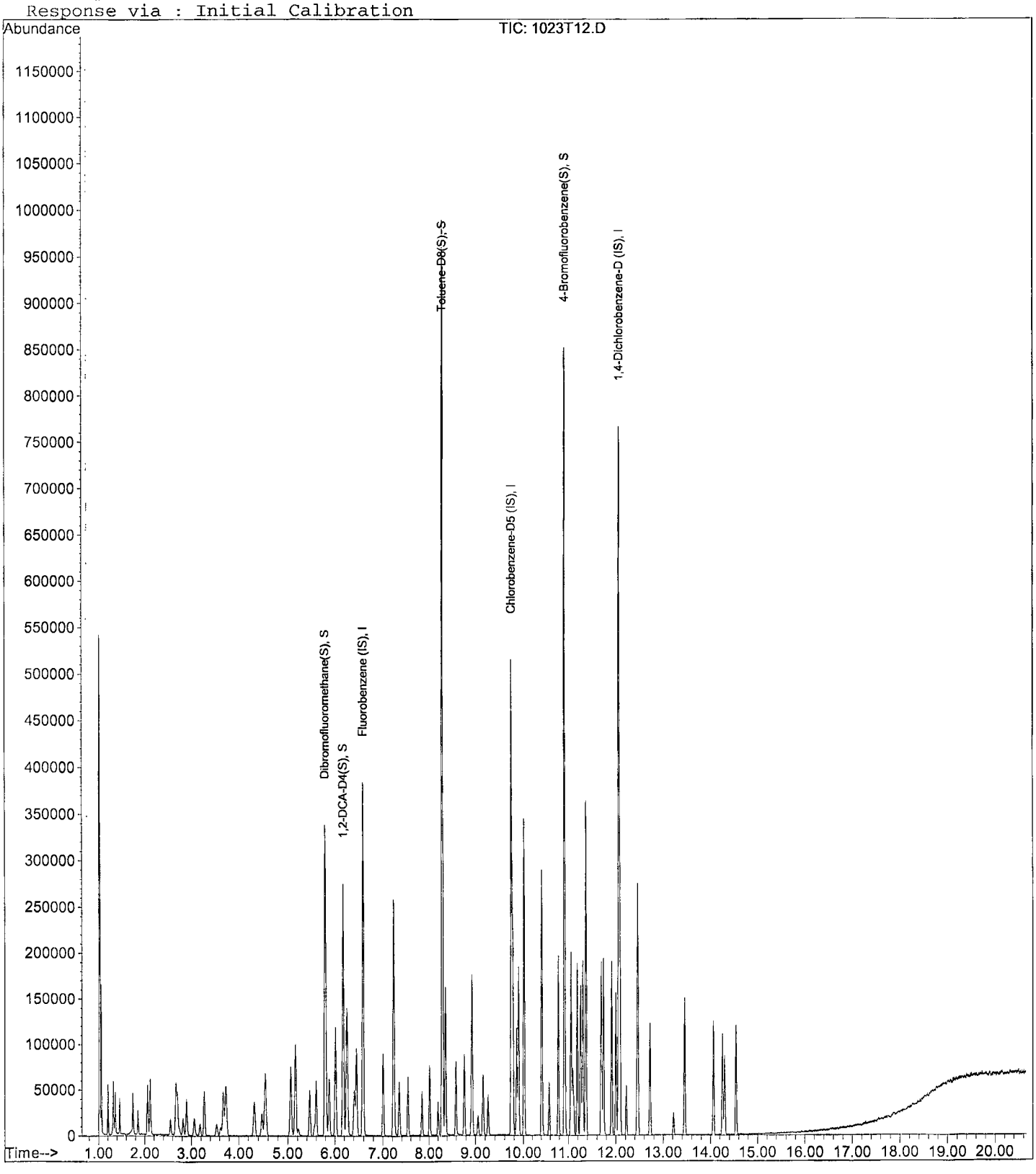
Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration

Data File : M:\THOR\DATA\T191023\1023T12.D Vial: 12
Acq On : 23 Oct 19 22:23 Operator:
Sample : 20ug/L VOC STD 10/23/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 24 8:47 2019 Quant Results File: TSUR1023.RES

Method : M:\THOR\DATA\T191023\TSUR1023.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:27:29 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\THOR\DATA\T191023\1023T13.D Vial: 13
Acq On : 23 Oct 19 22:52 Operator:
Sample : 40ug/L VOC STD 10/23/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 24 8:47 2019 Quant Results File: TSUR1023.RES

Quant Method : M:\THOR\DATA\T191023\TSUR1023.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:27:29 2019
Response via : Initial Calibration
DataAcq Meth : T8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	6.59	96	178368	25.00	ppb	0.00
4) Chlorobenzene-D5 (IS)	9.74	117	169472	25.00	ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	12.06	152	101648	25.00	ppb	0.00
System Monitoring Compounds						
2) Dibromofluoromethane(S)	5.79	111	174185	50.66	ppb	0.00
Spiked Amount 25.000			Recovery = 202.652%			
3) 1,2-DCA-D4(S)	6.18	65	193525	50.27	ppb	0.00
Spiked Amount 25.000			Recovery = 201.080%			
5) Toluene-D8(S)	8.30	98	644008	50.89	ppb	0.00
Spiked Amount 25.000			Recovery = 203.544%			
6) 4-Bromofluorobenzene(S)	10.92	174	254916	50.88	ppb	0.00
Spiked Amount 25.000			Recovery = 203.516%			

Target Compounds Qvalue

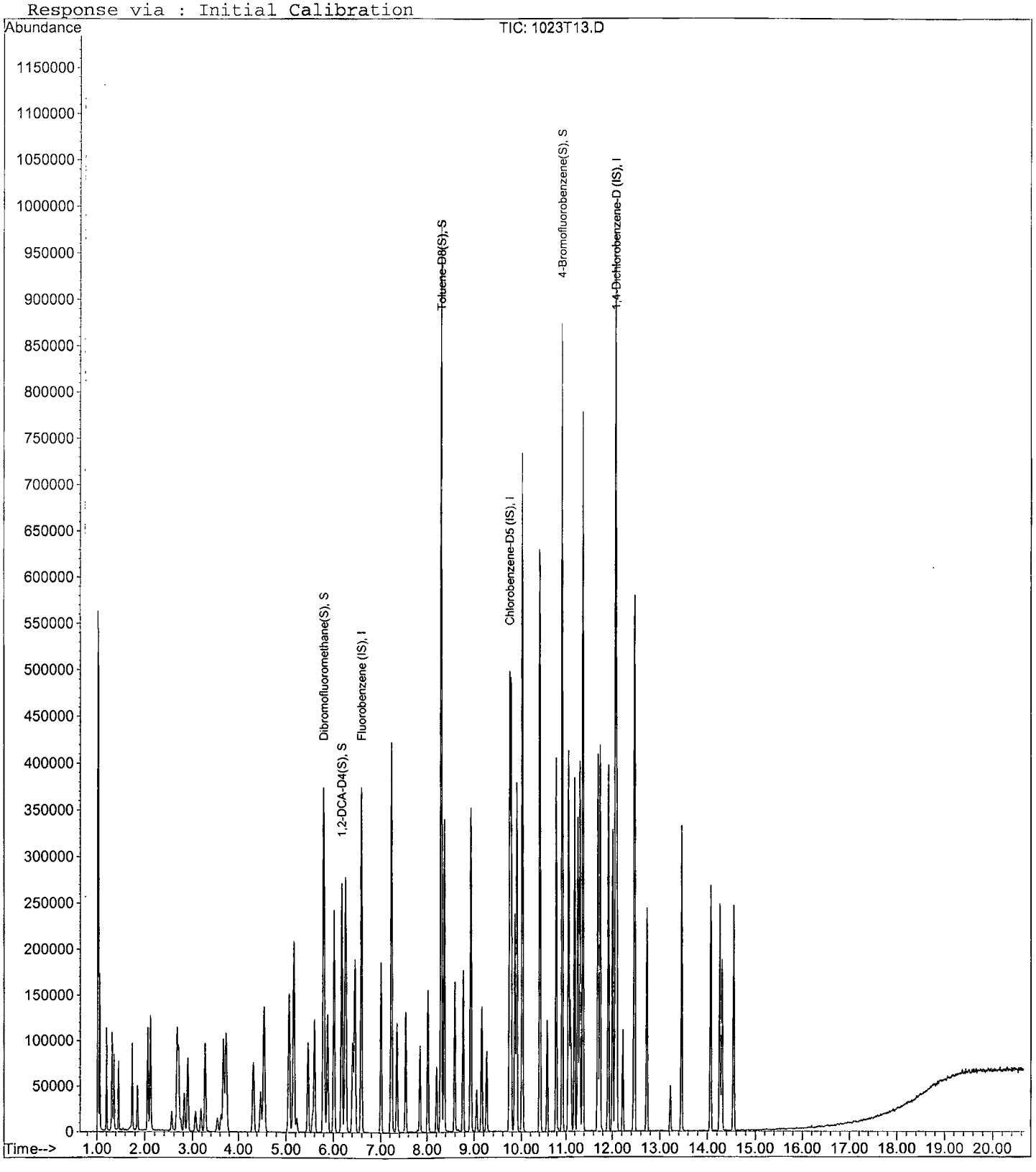
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\THOR\DATA\T191023\1023T13.D Vial: 13
Acq On : 23 Oct 19 22:52 Operator:
Sample : 40ug/L VOC STD 10/23/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 24 8:47 2019 Quant Results File: TSUR1023.RES

Method : M:\THOR\DATA\T191023\TSUR1023.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:27:29 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\THOR\DATA\T191023\1023T14.D Vial: 14
Acq On : 23 Oct 19 23:20 Operator:
Sample : 100ug/L VOC STD 10/23/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 24 8:47 2019 Quant Results File: TSUR1023.RES

Quant Method : M:\THOR\DATA\T191023\TSUR1023.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:27:29 2019
Response via : Initial Calibration
DataAcq Meth : T8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	6.59	96	177408	25.00	ppb	0.00
4) Chlorobenzene-D5 (IS)	9.74	117	165184	25.00	ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	12.06	152	110936	25.00	ppb	0.00
System Monitoring Compounds						
2) Dibromofluoromethane(S)	5.79	111	323935	94.73	ppb	0.00
Spiked Amount 25.000			Recovery = 378.912%			
3) 1,2-DCA-D4(S)	6.18	65	358548	93.64	ppb	0.00
Spiked Amount 25.000			Recovery = 374.564%			
5) Toluene-D8(S)	8.30	98	1198840	97.19	ppb	0.00
Spiked Amount 25.000			Recovery = 388.740%			
6) 4-Bromofluorobenzene(S)	10.92	174	507561	103.93	ppb	0.00
Spiked Amount 25.000			Recovery = 415.736%			

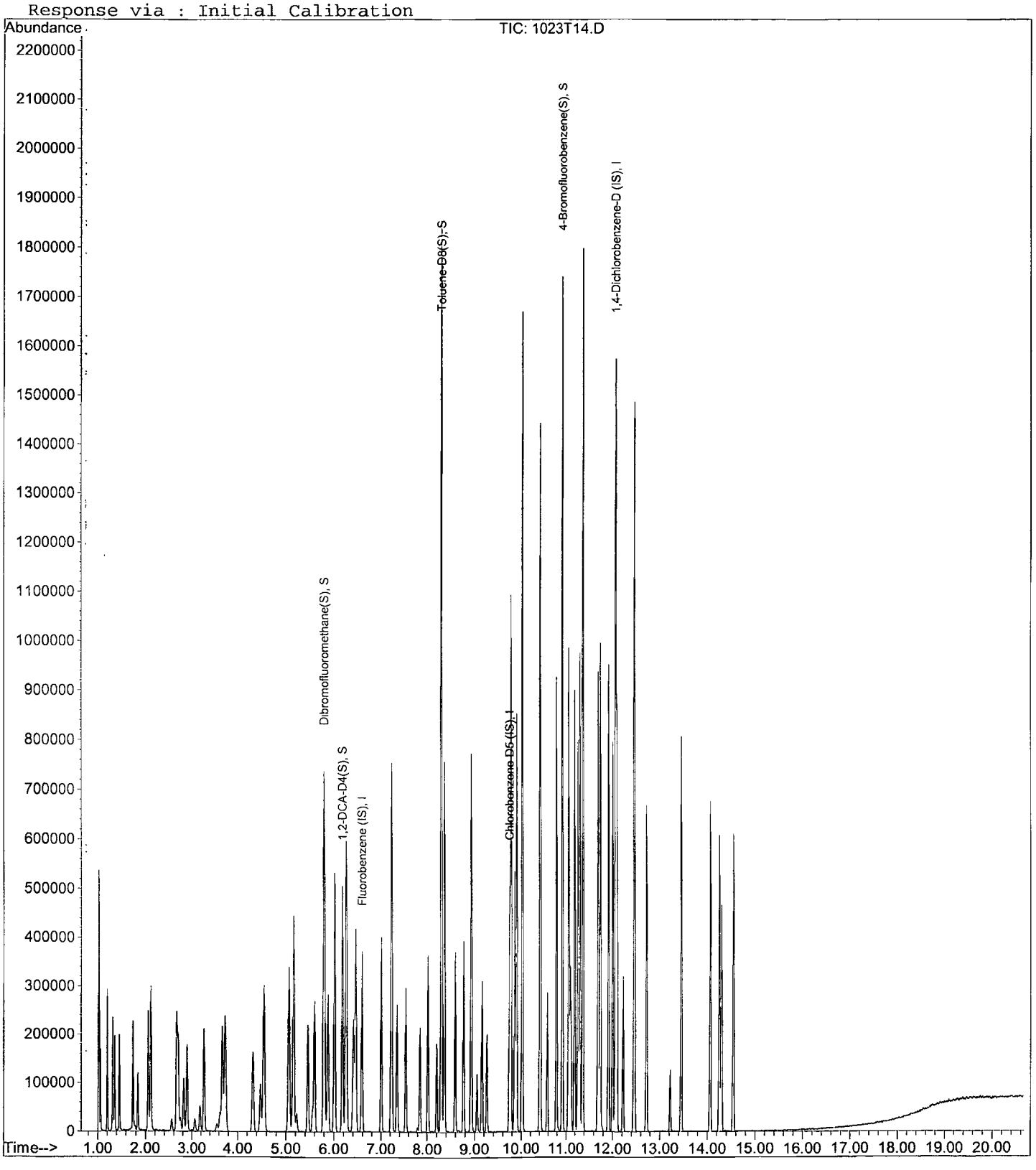
Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration

Data File : M:\THOR\DATA\T191023\1023T14.D Vial: 14
Acq On : 23 Oct 19 23:20 Operator:
Sample : 100ug/L VOC STD 10/23/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 24 8:47 2019 Quant Results File: TSUR1023.RES

Method : M:\THOR\DATA\T191023\TSUR1023.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:27:29 2019
Response via : Initial Calibration



VOLATILE ORGANIC ANALYSIS
VOLATILE ORGANIC COMPOUNDS

Form 6
Initial Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Initial Cal. Date: 10/23/2019
Matrix: Instrument: Thor Initials:

			1026T02.D	1026T03.D	1026T04.D	1026T05.D	1026T06.D	1026T07.D	1026T08.D									
		Compound	1	2	3	4	5	6	7				Avg	%RSD	Type	r^2	Q	MRF
1	I	Fluorobenzene (IS)																
2	TMHBL	Gasoline C6-C10	12.7	5.185	2.689	1.053	0.7251	0.6177					3.8	122	TMHBL	0.991		
3	I	Chlorobenzene-D5 (IS)																
4	I	1,4-Dichlorobenzene-D (IS)																
5																		
6																		
7																		
8																		
9																		
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Quantitation Report (QT Reviewed)

Data File : M:\THOR\DATA\T191023\1026T02.D Vial: 2
Acq On : 26 Oct 19 12:41 Operator:
Sample : 20ug/L GAS 10/26/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 28 10:27 2019 Quant Results File: TGAS1026.RES

Quant Method : M:\THOR\DATA\T191023\TGAS1026.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 28 11:13:21 2019
Response via : Initial Calibration
DataAcq Meth : T8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	6.59	TIC	325203	25.00	ppb	0.00
3) Chlorobenzene-D5 (IS)	9.74	TIC	402502	25.00	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	12.07	TIC	430991	25.00	ppb	0.00
System Monitoring Compounds						
Target Compounds						Qvalue
2) Gasoline C6-C10	8.30	TIC	3299042m	24.15	ppb	100

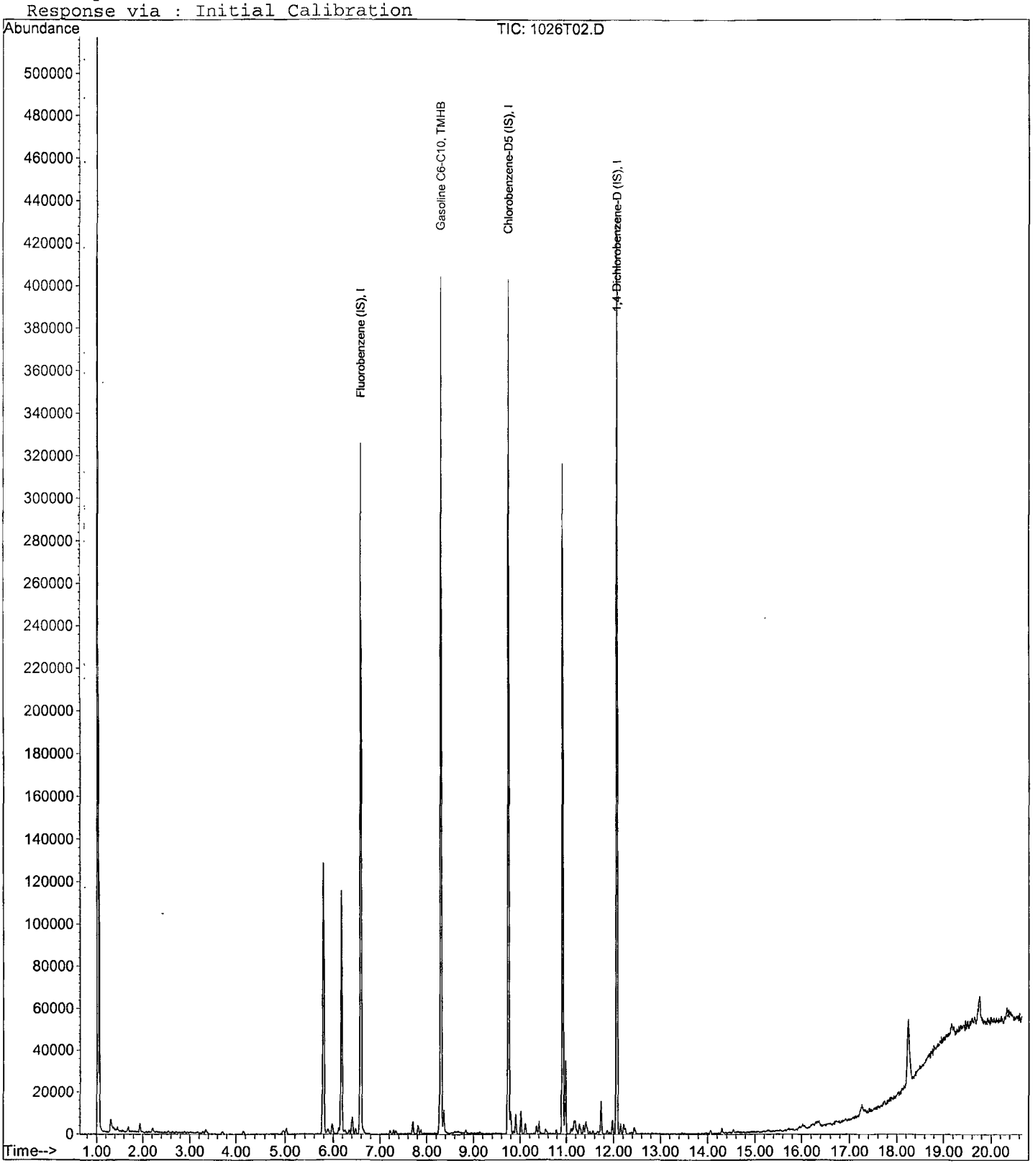
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\THOR\DATA\T191023\1026T02.D Vial: 2
Acq On : 26 Oct 19 12:41 Operator:
Sample : 20ug/L GAS 10/26/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 28 10:27 2019 Quant Results File: TGAS1026.RES

Method : M:\THOR\DATA\T191023\TGAS1026.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 28 12:08:31 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\THOR\DATA\T191023\1026T03.D Vial: 3
Acq On : 26 Oct 19 13:09 Operator:
Sample : 50ug/L GAS 10/26/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 28 11:17 2019 Quant Results File: TGAS1026.RES

Quant Method : M:\THOR\DATA\T191023\TGAS1026.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 28 11:13:21 2019
Response via : Initial Calibration
DataAcq Meth : T8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	6.59	TIC	321177	25.00	ppb	0.00
3) Chlorobenzene-D5 (IS)	9.74	TIC	392178	25.00	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	12.07	TIC	407724	25.00	ppb	0.00
System Monitoring Compounds						
Target Compounds						Qvalue
2) Gasoline C6-C10	8.30	TIC	3330329m	43.72	ppb	100

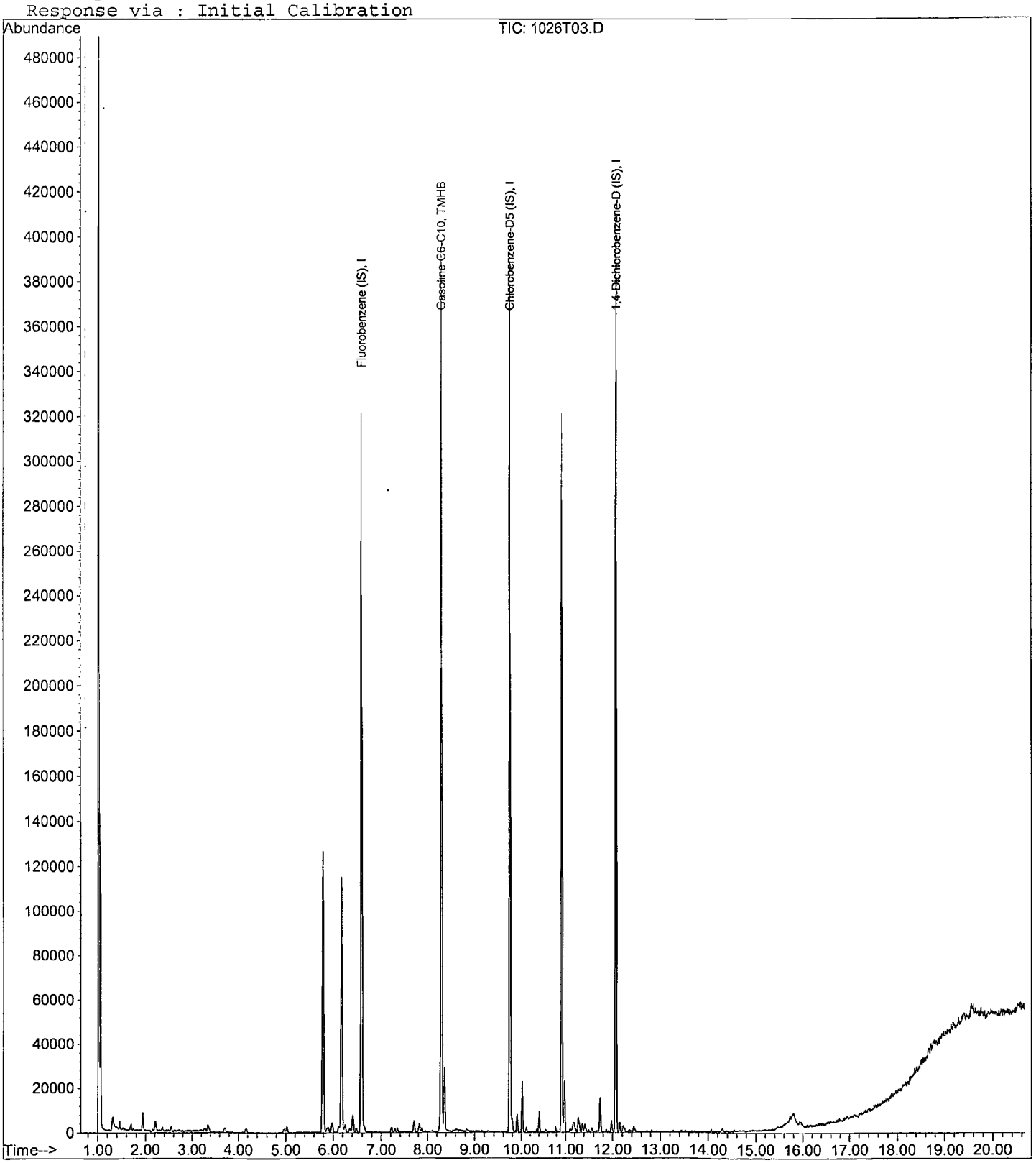
(#) = qualifier out of range (m) = manual integration
1026T03.D TGAS1026.M Mon Dec 02 15:09:31 2019 Page 1

Quantitation Report

Data File : M:\THOR\DATA\T191023\1026T03.D Vial: 3
Acq On : 26 Oct 19 13:09 Operator:
Sample : 50ug/L GAS 10/26/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 28 11:17 2019 Quant Results File: TGAS1026.RES

Method : M:\THOR\DATA\T191023\TGAS1026.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 28 12:08:31 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\THOR\DATA\T191023\1026T04.D Vial: 4
Acq On : 26 Oct 19 13:37 Operator:
Sample : 100ug/L GAS 10/26/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 28 11:21 2019 Quant Results File: TGAS1026.RES

Quant Method : M:\THOR\DATA\T191023\TGAS1026.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 28 11:13:21 2019
Response via : Initial Calibration
DataAcq Meth : T8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	6.59	TIC	324811	25.00	ppb	0.00
3) Chlorobenzene-D5 (IS)	9.74	TIC	392744	25.00	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	12.06	TIC	413459	25.00	ppb	0.00
System Monitoring Compounds						
Target Compounds						Qvalue
2) Gasoline C6-C10	8.30	TIC	3493186m	77.30	ppb	100

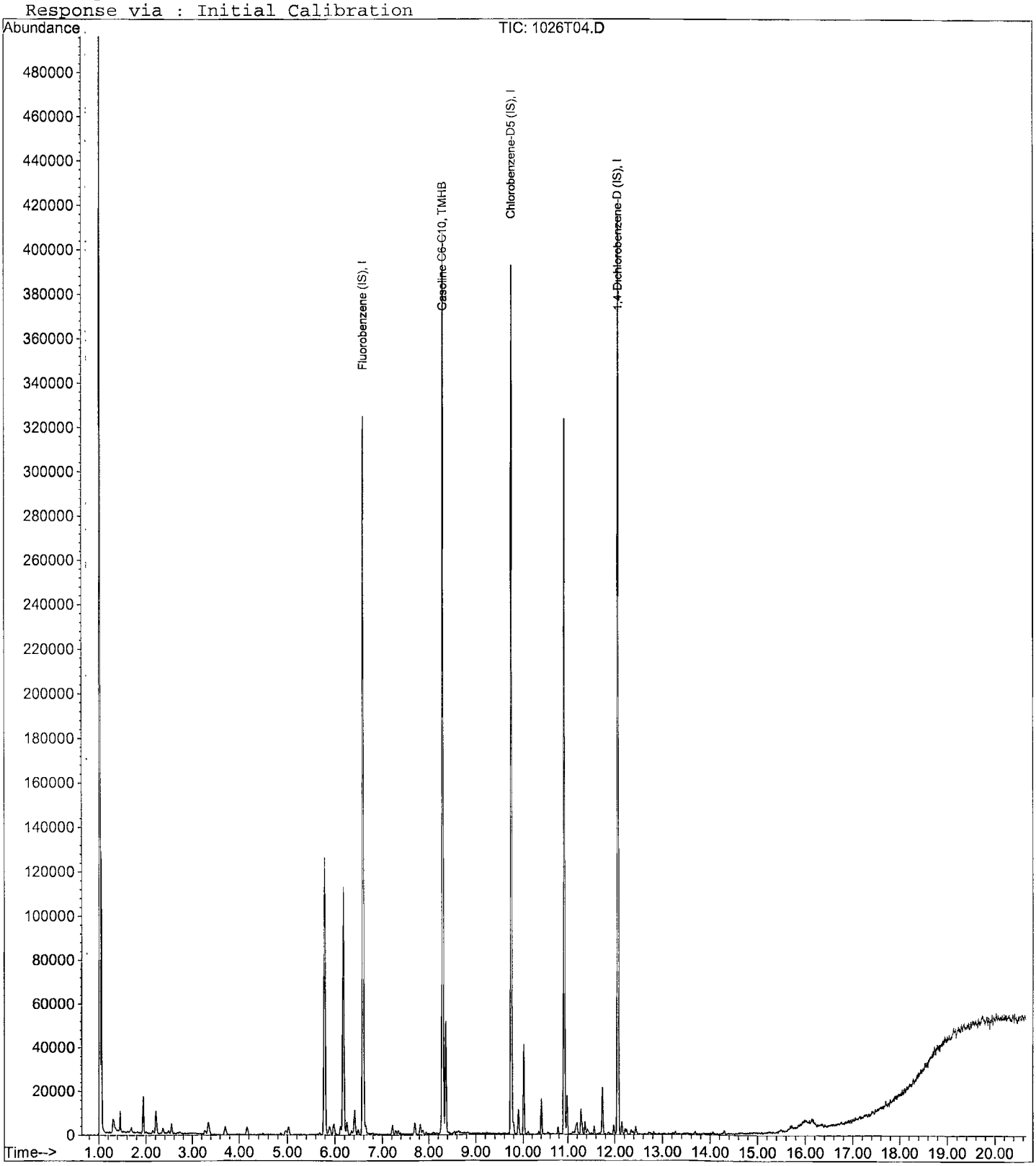
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\THOR\DATA\T191023\1026T04.D Vial: 4
Acq On : 26 Oct 19 13:37 Operator:
Sample : 100ug/L GAS 10/26/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 28 11:21 2019 Quant Results File: TGAS1026.RES

Method : M:\THOR\DATA\T191023\TGAS1026.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 28 12:08:31 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\THOR\DATA\T191023\1026T05.D Vial: 5
Acq On : 26 Oct 19 14:06 Operator:
Sample : 300ug/L GAS 10/26/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 28 11:14 2019 Quant Results File: TGAS1026.RES

Quant Method : M:\THOR\DATA\T191023\TGAS1026.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 28 11:13:21 2019
Response via : Initial Calibration
DataAcq Meth : T8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	6.59	TIC	338187	25.00	ppb	0.00
3) Chlorobenzene-D5 (IS)	9.74	TIC	410094	25.00	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	12.06	TIC	434804	25.00	ppb	0.00
System Monitoring Compounds						
Target Compounds						Qvalue
2) Gasoline C6-C10	9.74	TIC	4271474m	240.75	ppb	100

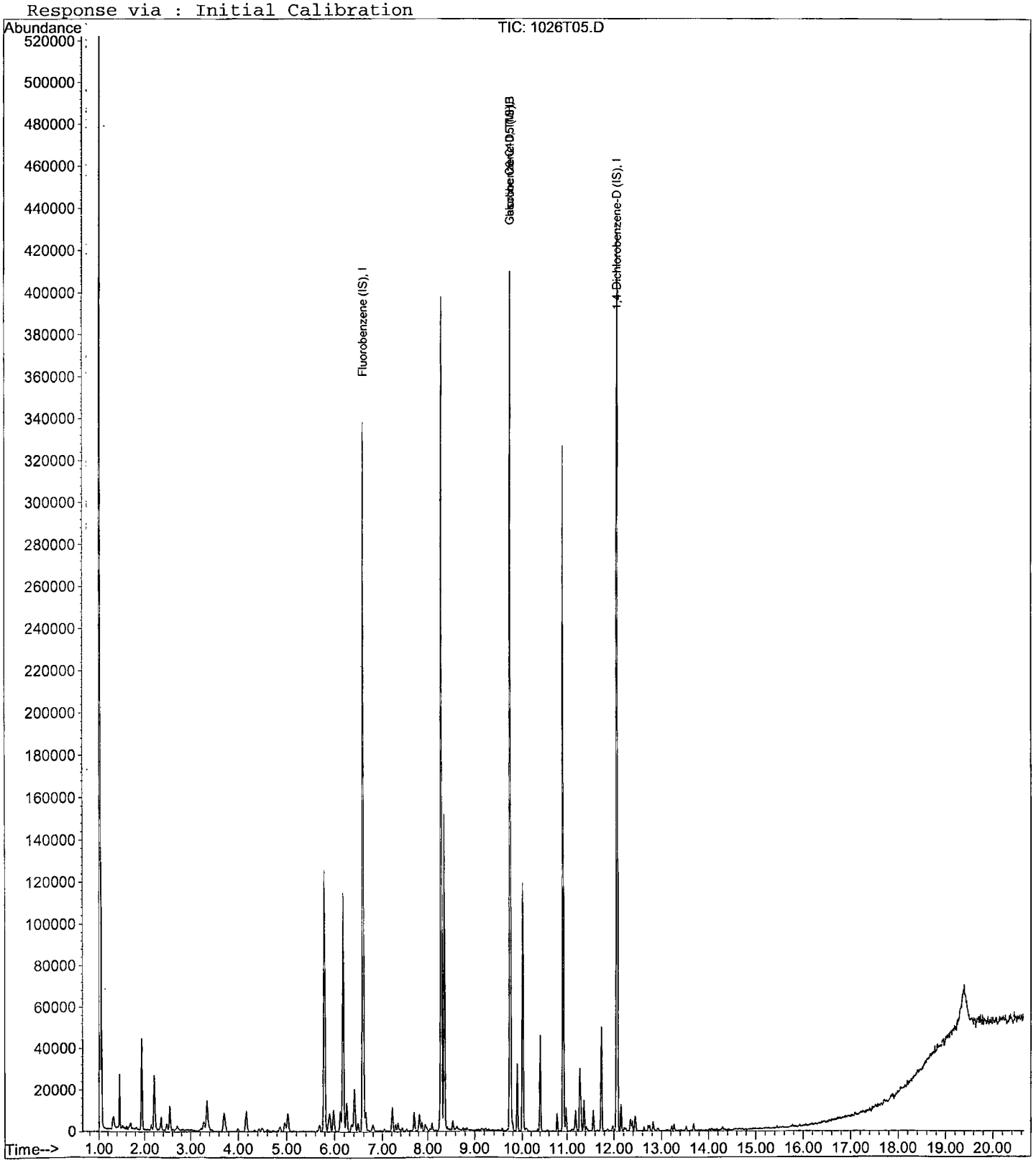
(#) = qualifier out of range (m) = manual integration
1026T05.D TGAS1026.M Mon Dec 02 15:09:34 2019 Page 1

Quantitation Report

Data File : M:\THOR\DATA\T191023\1026T05.D Vial: 5
Acq On : 26 Oct 19 14:06 Operator:
Sample : 300ug/L GAS 10/26/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 28 11:14 2019 Quant Results File: TGAS1026.RES

Method : M:\THOR\DATA\T191023\TGAS1026.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 28 12:08:31 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\THOR\DATA\T191023\1026T06.D Vial: 6
Acq On : 26 Oct 19 14:34 Operator:
Sample : 600ug/L GAS 10/26/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 28 10:30 2019 Quant Results File: TGAS1026.RES

Quant Method : M:\THOR\DATA\T191023\TGAS1026.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 28 11:13:21 2019
Response via : Initial Calibration
DataAcq Meth : T8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	6.59	TIC	311099	25.00	ppb	0.00
3) Chlorobenzene-D5 (IS)	9.74	TIC	392304	25.00	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	12.06	TIC	407391	25.00	ppb	0.00
System Monitoring Compounds						
Target Compounds						Qvalue
2) Gasoline C6-C10	8.30	TIC	5413641m	656.44	ppb	100

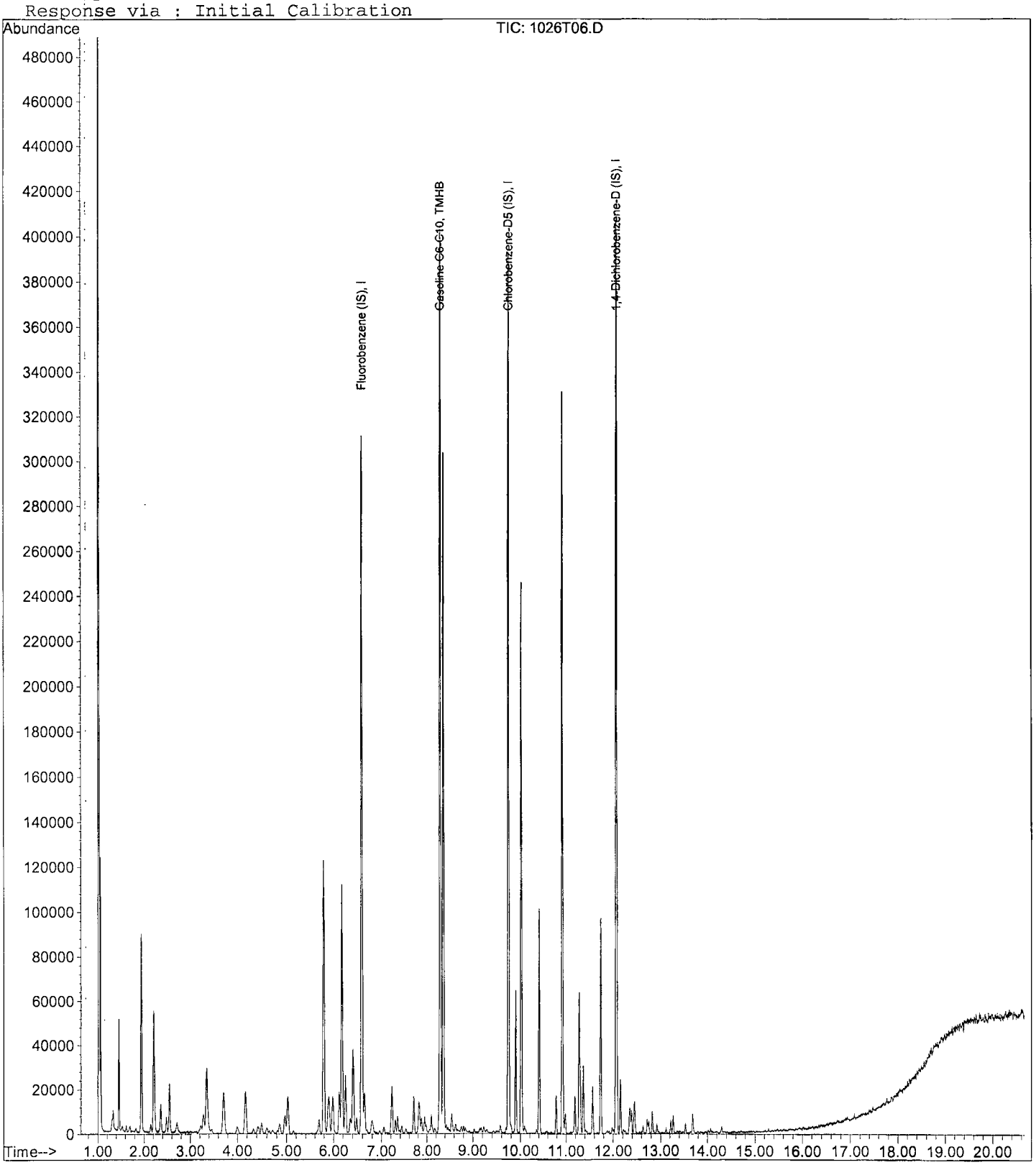
(#) = qualifier out of range (m) = manual integration
1026T06.D TGAS1026.M Mon Dec 02 15:09:36 2019 Page 1

Quantitation Report

Data File : M:\THOR\DATA\T191023\1026T06.D Vial: 6
Acq On : 26 Oct 19 14:34 Operator:
Sample : 600ug/L GAS 10/26/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 28 10:30 2019 Quant Results File: TGAS1026.RES

Method : M:\THOR\DATA\T191023\TGAS1026.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 28 12:08:31 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\THOR\DATA\T191023\1026T07.D Vial: 7
Acq On : 26 Oct 19 15:03 Operator:
Sample : 800ug/L GAS 10/26/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 28 10:31 2019 Quant Results File: TGAS1026.RES

Quant Method : M:\THOR\DATA\T191023\TGAS1026.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 28 11:13:21 2019
Response via : Initial Calibration
DataAcq Meth : T8260

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene (IS)	6.59	TIC	329742	25.00 ppb	0.00
3) Chlorobenzene-D5 (IS)	9.74	TIC	399858	25.00 ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	12.06	TIC	434700	25.00 ppb	0.00
System Monitoring Compounds					
Target Compounds					Qvalue
2) Gasoline C6-C10	8.36	TIC	6517501m	862.39 ppb	100

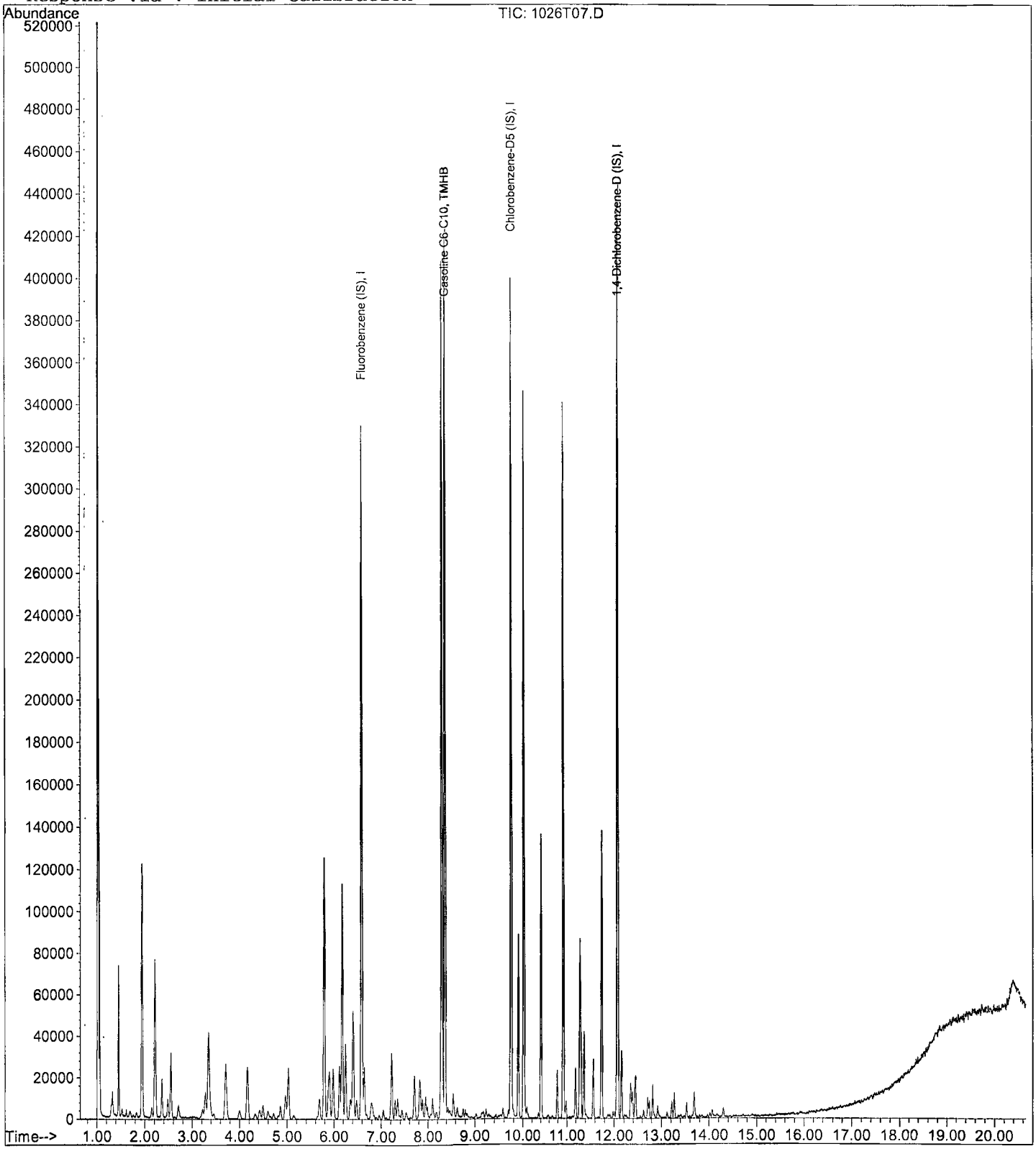
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\THOR\DATA\T191023\1026T07.D Vial: 7
Acq On : 26 Oct 19 15:03 Operator:
Sample : 800ug/L GAS 10/26/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 28 10:31 2019 Quant Results File: TGAS1026.RES

Method : M:\THOR\DATA\T191023\TGAS1026.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 28 12:08:31 2019
Response via : Initial Calibration



VOLATILE ORGANIC ANALYSIS
VOLATILE ORGANIC COMPOUNDS

Form 7

Second Source Calibration

Lab Name: APPL, Inc.
Case No:
Matrix:

SDG No:
Date Analyzed: 10/28/2019
Instrument: Thor
Initial Cal. Date: 10/26/2019
Data File: 1028T01.D

		Compound	MEAN	CCRF	%D		%Drift
1	TMHB	Gasoline C6-C10	3.825	1.077	72	TMHBL	11
2							
3							
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28							
29							
30							
31							
32							
33							
34							
35							
36							
37							
38							
39							
40							
		Average			72.0		

Quantitation Report (QT Reviewed)

Data File : M:\THOR\DATA\T191028\1028T01.D Vial: 1
Acq On : 28 Oct 19 15:43 Operator:
Sample : (SS) 300ug/L GAS 10/28/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 28 15:45 2019 Quant Results File: TGAS1026.RES

Quant Method : M:\THOR\DATA\T191023\TGAS1026.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 28 12:08:31 2019
Response via : Initial Calibration
DataAcq Meth : T8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	6.58	TIC	356344	25.00	ppb	0.00
3) Chlorobenzene-D5 (IS)	9.74	TIC	432263	25.00	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	12.06	TIC	455917	25.00	ppb	0.00
System Monitoring Compounds						
Target Compounds						Qvalue
2) Gasoline C6-C10	9.74	TIC	4607248m	265.64	ppb	100

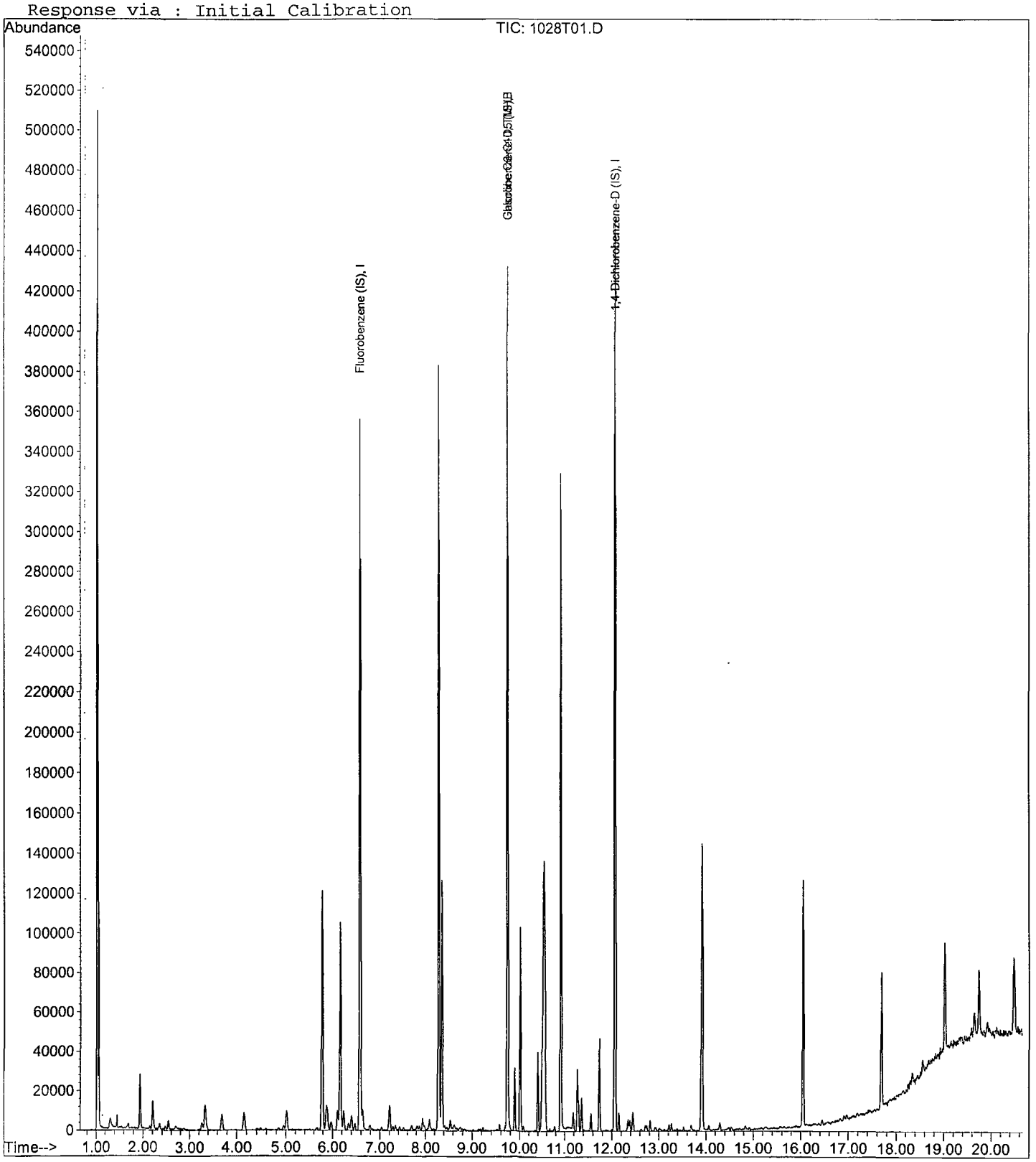
(#) = qualifier out of range (m) = manual integration
1028T01.D TGAS1026.M Mon Dec 02 15:11:01 2019 Page 1

Quantitation Report

Data File : M:\THOR\DATA\T191028\1028T01.D Vial: 1
Acq On : 28 Oct 19 15:43 Operator:
Sample : (SS) 300ug/L GAS 10/28/19 Inst : Thor
Misc . : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 28 15:45 2019 Quant Results File: TGAS1026.RES

Method : M:\THOR\DATA\T191023\TGAS1026.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 28 12:08:31 2019
Response via : Initial Calibration



VOLATILE ORGANIC ANALYSIS
VOLATILE ORGANIC COMPOUNDS

Form 7

Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix:

SDG No:
Date Analyzed: 2 Nov 19 4:52
Instrument: Thor
Initial Cal. Date: 10/26/2019
Data File: 1101T34.D

		Compound	MEAN	CCRF	%D		%Drift
1	I	Fluorobenzene (IS)	ISTD			I	
2	TMHB	Gasoline C6-C10	3.825	1.055	72	TMHBL	19
3	I	Chlorobenzene-D5 (IS)	ISTD			I	
4	I	1,4-Dichlorobenzene-D (IS)	ISTD			I	
5							
6							
7							
8							
9							
10							
11							
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32							
33							
34							
35							
36							
37							
38							
39							
40							
		Average			72.0		

Quantitation Report (QT Reviewed)

Data File : M:\THOR\DATA\T191028\1101T34.D Vial: 32
Acq On : 2 Nov 19 4:52 Operator:
Sample : 191101B CCV/LCS 300ug/L Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Nov 4 13:29 2019 Quant Results File: TGAS1026.RES

Quant Method : M:\THOR\DATA\T191028\TGAS1026.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 28 12:08:31 2019
Response via : Initial Calibration
DataAcq Meth : T8260

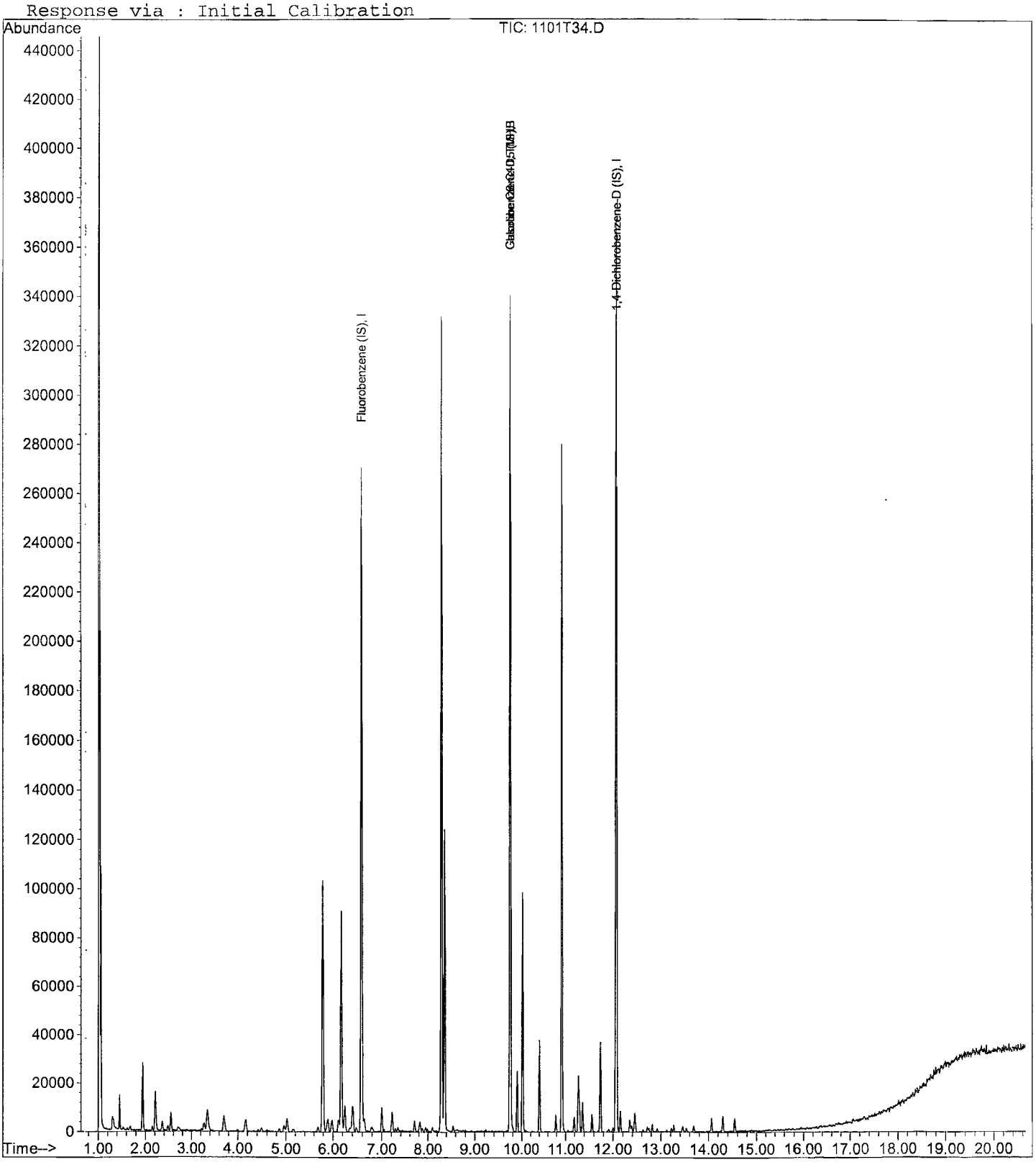
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	6.59	TIC	270443	25.00	ppb	0.00
3) Chlorobenzene-D5 (IS)	9.74	TIC	340141	25.00	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	12.06	TIC	371374	25.00	ppb	0.00
System Monitoring Compounds						
Target Compounds						Qvalue
2) Gasoline C6-C10	9.74	TIC	3423167m	244.15	ppb	100

(#) = qualifier out of range (m) = manual integration
1101T34.D TGAS1026.M Mon Dec 02 15:11:49 2019 Page 1

Data File : M:\THOR\DATA\T191028\1101T34.D Vial: 32
Acq On : 2 Nov 19 4:52 Operator:
Sample : 191101B CCV/LCS 300ug/L Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant. Time: Nov 4 13:29 2019 Quant Results File: TGAS1026.RES

Method : M:\THOR\DATA\T191023\TGAS1026.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 28 12:08:31 2019
Response via : Initial Calibration



VOLATILE ORGANIC ANALYSIS
VOLATILE ORGANIC COMPOUNDS

Form 7

Ending Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix:

SDG No:
Date Analyzed: 2 Nov 19 14:46
Instrument: Thor
Initial Cal. Date: 10/26/2019
Data File: 1101T55.D

		Compound	MEAN	CCRF	%D		%Drift
1	I	Fluorobenzene (IS)	ISTD			I	
2	TMHB	Gasoline C6-C10	3.825	0.9992	74	TMHBL	36
3	I	Chlorobenzene-D5 (IS)	ISTD			I	
4	I	1,4-Dichlorobenzene-D (IS)	ISTD			I	
5							
6							
7							
8							
9							
10							
11							
12							
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33							
34							
35							
36							
37							
38							
39							
40							
		Average			74.0		

Quantitation Report (QT Reviewed)

Data File : M:\THOR\DATA\T191028\1101T55.D Vial: 53
Acq On : 2 Nov 19 14:46 Operator:
Sample : Ending CCV 300ug/L 11/1/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Nov 4 13:34 2019 Quant Results File: TGAS1026.RES

Quant Method : M:\THOR\DATA\T191028\TGAS1026.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 28 12:08:31 2019
Response via : Initial Calibration
DataAcq Meth : T8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	6.59	TIC	284074	25.00	ppb	0.00
3) Chlorobenzene-D5 (IS)	9.74	TIC	363454	25.00	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	12.06	TIC	399464	25.00	ppb	0.00
System Monitoring Compounds						
Target Compounds						Qvalue
2) Gasoline C6-C10	9.74	TIC	3406041m	191.33	ppb	100

(#) = qualifier out of range (m) = manual integration
1101T55.D TGAS1026.M Mon Dec 02 15:12:39 2019 Page 1

Quantitation Report (Not Reviewed)

Data File : M:\THOR\DATA\T191028\1101T34.D Vial: 32
Acq On : 2 Nov 19 4:52 Operator:
Sample : 191101B CCV/LCS 300ug/L Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Nov 4 14:58 2019 Quant Results File: TSUR1023.RES

Quant Method : M:\THOR\DATA\T191028\TSUR1023.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:27:29 2019
Response via : Initial Calibration
DataAcq Meth : T8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	6.59	96	130424	25.00	ppb	0.00
4) Chlorobenzene-D5 (IS)	9.74	117	116896	25.00	ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	12.06	152	66880	25.00	ppb	0.00
System Monitoring Compounds						
2) Dibromofluoromethane(S)	5.78	111	60686	24.14	ppb	0.00
Spiked Amount 25.000			Recovery = 96.556%			
3) 1,2-DCA-D4(S)	6.17	65	67114	23.84	ppb	0.00
Spiked Amount 25.000			Recovery = 95.368%			
5) Toluene-D8(S)	8.29	98	212419	24.33	ppb	0.00
Spiked Amount 25.000			Recovery = 97.332%			
6) 4-Bromofluorobenzene(S)	10.91	174	86519	25.04	ppb	0.00
Spiked Amount 25.000			Recovery = 100.140%			

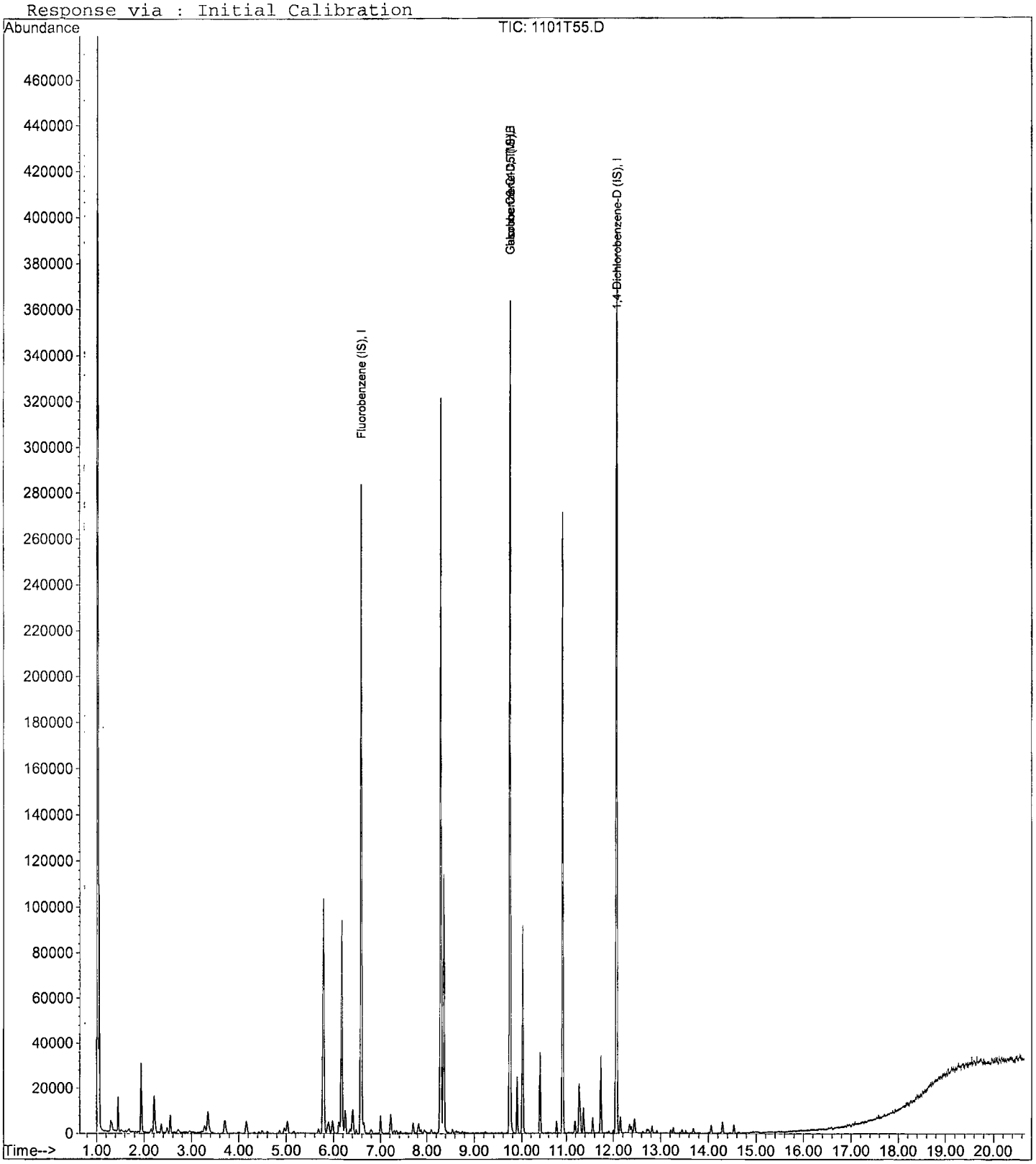
Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration

Data File : M:\THOR\DATA\T191028\1101T55.D Vial: 53
Acq On : 2 Nov 19 14:46 Operator:
Sample : Ending CCV 300ug/L 11/1/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Nov 4 13:34 2019 Quant Results File: TGAS1026.RES

Method : M:\THOR\DATA\T191023\TGAS1026.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 28 12:08:31 2019
Response via : Initial Calibration



ORGANICS
Raw Data

Quantitation Report (QT Reviewed)

Data File : M:\THOR\DATA\T191028\1101T48.D Vial: 46
Acq On : 2 Nov 19 11:27 Operator:
Sample : BA02159W01 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Nov 4 13:58 2019 Quant Results File: TGAS1026.RES

Quant Method : M:\THOR\DATA\T191028\TGAS1026.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 28 12:08:31 2019
Response via : Initial Calibration
DataAcq Meth : T8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	6.59	TIC	268110	25.00	ppb	0.00
3) Chlorobenzene-D5 (IS)	9.74	TIC	334527	25.00	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	12.06	TIC	348722	25.00	ppb	0.00

System Monitoring Compounds

Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration
1101T48.D TGAS1026.M Mon Dec 02 15:13:25 2019 Page 1

Quantitation Report (Not Reviewed)

Data File : M:\THOR\DATA\T191028\1101T48.D Vial: 46
Acq On : 2 Nov 19 11:27 Operator:
Sample : BA02159W01 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Nov 4 15:05 2019 Quant Results File: TSUR1023.RES

Quant Method : M:\THOR\DATA\T191028\TSUR1023.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:27:29 2019
Response via : Initial Calibration
DataAcq Meth : T8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	6.59	96	128400	25.00	ppb	0.00
4) Chlorobenzene-D5 (IS)	9.74	117	115784	25.00	ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	12.06	152	62296	25.00	ppb	0.00
System Monitoring Compounds						
2) Dibromofluoromethane(S)	5.78	111	60959	24.63	ppb	0.00
Spiked Amount 25.000			Recovery = 98.520%			
3) 1,2-DCA-D4(S)	6.17	65	68500	24.72	ppb	0.00
Spiked Amount 25.000			Recovery = 98.872%			
5) Toluene-D8(S)	8.30	98	211875	24.50	ppb	0.00
Spiked Amount 25.000			Recovery = 98.016%			
6) 4-Bromofluorobenzene(S)	10.91	174	83260	24.32	ppb	0.00
Spiked Amount 25.000			Recovery = 97.296%			

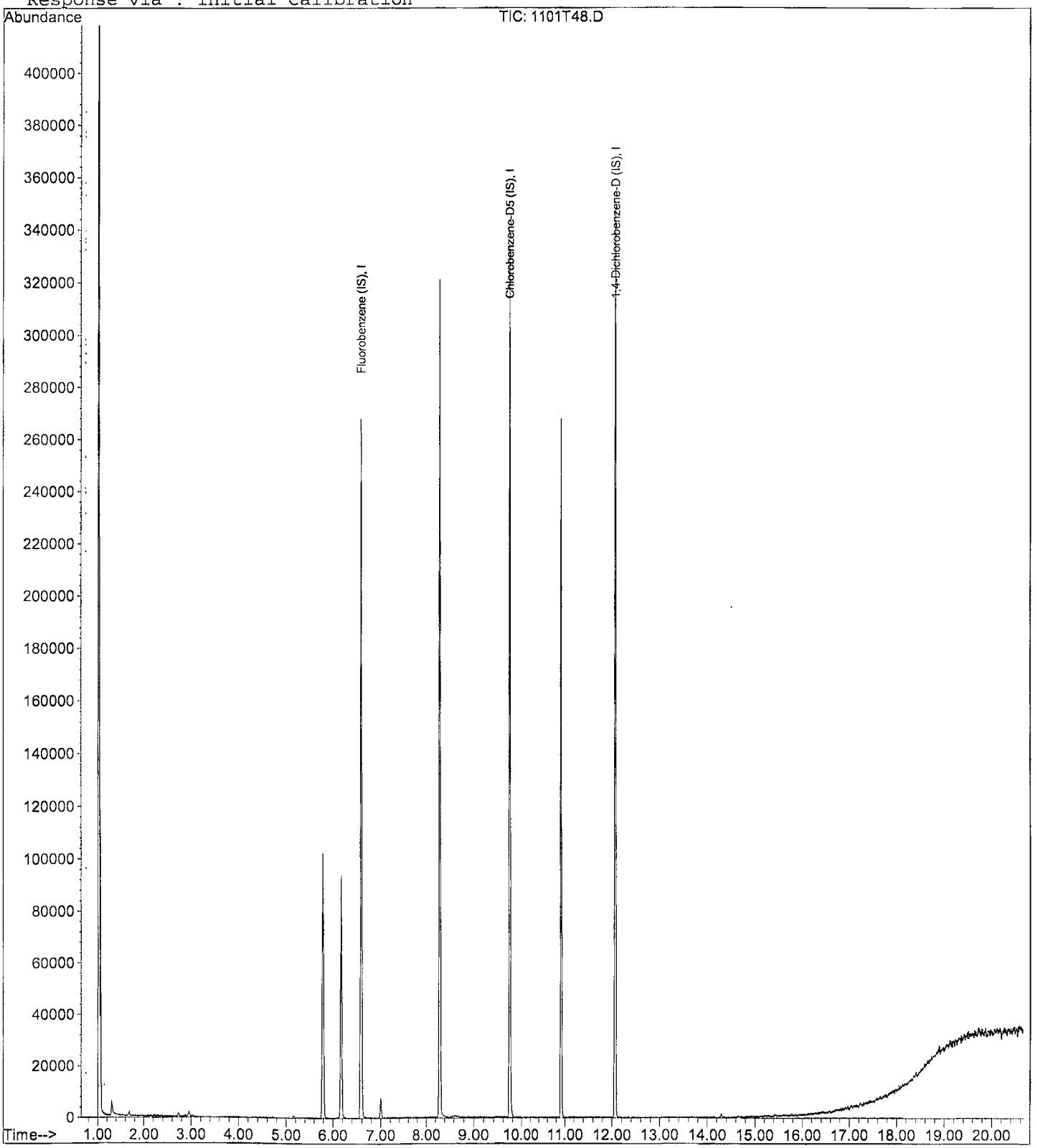
Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration

Data File : M:\THOR\DATA\T191028\1101T48.D Vial: 46
Acq On : 2 Nov 19 11:27 Operator:
Sample : BA02159W01 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Nov 4 13:58 2019 Quant Results File: TGAS1026.RES

Method : M:\THOR\DATA\T191023\TGAS1026.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 28 12:08:31 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\THOR\DATA\T191028\1101T49.D Vial: 47
Acq On : 2 Nov 19 11:56 Operator:
Sample : BA02160W01 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Nov 4 13:58 2019 Quant Results File: TGAS1026.RES

Quant Method : M:\THOR\DATA\T191028\TGAS1026.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 28 12:08:31 2019
Response via : Initial Calibration
DataAcq Meth : T8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	6.59	TIC	265100	25.00	ppb	0.00
3) Chlorobenzene-D5 (IS)	9.74	TIC	326566	25.00	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	12.06	TIC	345517	25.00	ppb	0.00

System Monitoring Compounds

Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\THOR\DATA\T191028\1101T49.D Vial: 47
Acq On : 2 Nov 19 11:56 Operator:
Sample : BA02160W01 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Nov 4 15:05 2019 Quant Results File: TSUR1023.RES

Quant Method : M:\THOR\DATA\T191028\TSUR1023.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:27:29 2019
Response via : Initial Calibration
DataAcq Meth : T8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	6.59	96	126816	25.00	ppb	0.00
4) Chlorobenzene-D5 (IS)	9.74	117	113904	25.00	ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	12.06	152	63304	25.00	ppb	0.00
System Monitoring Compounds						
2) Dibromofluoromethane(S)	5.78	111	62185	25.44	ppb	0.00
Spiked Amount 25.000			Recovery = 101.756%			
3) 1,2-DCA-D4(S)	6.17	65	68243	24.93	ppb	0.00
Spiked Amount 25.000			Recovery = 99.732%			
5) Toluene-D8(S)	8.30	98	211106	24.82	ppb	0.00
Spiked Amount 25.000			Recovery = 99.272%			
6) 4-Bromofluorobenzene(S)	10.92	174	84850	25.20	ppb	0.00
Spiked Amount 25.000			Recovery = 100.788%			

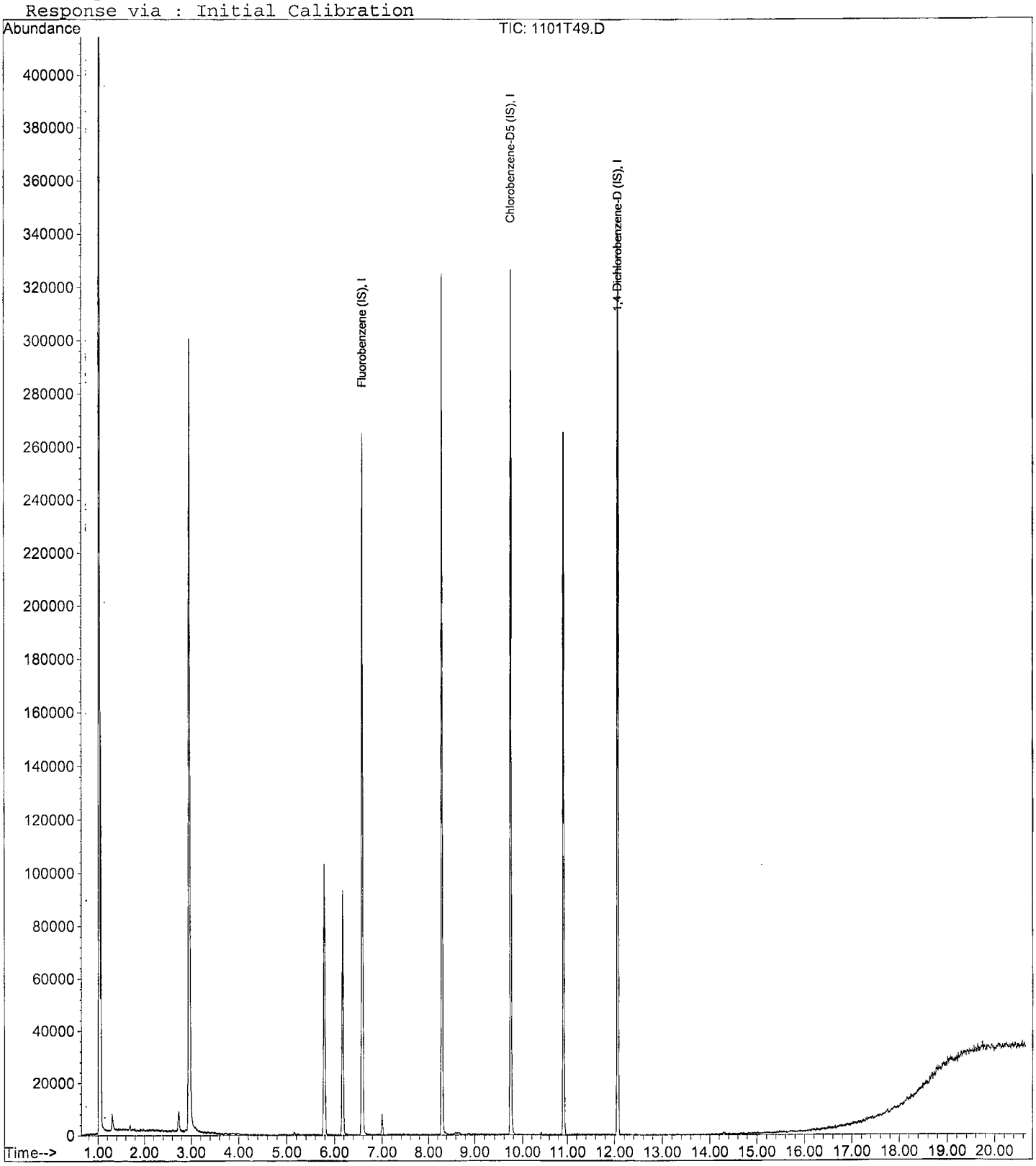
Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration

Data File : M:\THOR\DATA\T191028\1101T49.D Vial: 47
Acq On : 2 Nov 19 11:56 Operator:
Sample : BA02160W01 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Nov 4 13:58 2019 Quant Results File: TGAS1026.RES

Method : M:\THOR\DATA\T191023\TGAS1026.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 28 12:08:31 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\THOR\DATA\T191028\1101T40.D Vial: 38
Acq On : 2 Nov 19 7:41 Operator:
Sample : 191101B BLK Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Nov 4 14:59 2019 Quant Results File: TGAS1026.RES

Quant Method : M:\THOR\DATA\T191028\TGAS1026.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 28 12:08:31 2019
Response via : Initial Calibration
DataAcq Meth : T8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	6.59	TIC	278295	25.00	ppb	0.00
3) Chlorobenzene-D5 (IS)	9.74	TIC	343324	25.00	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	12.06	TIC	363500	25.00	ppb	0.00

System Monitoring Compounds

Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\THOR\DATA\T191028\1101T40.D Vial: 38
Acq On : 2 Nov 19 7:41 Operator:
Sample : 191101B BLK Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Nov 4 14:58 2019 Quant Results File: TSUR1023.RES

Quant Method : M:\THOR\DATA\T191028\TSUR1023.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:27:29 2019
Response via : Initial Calibration
DataAcq Meth : T8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	6.59	96	134144	25.00	ppb	0.00
4) Chlorobenzene-D5 (IS)	9.74	117	118384	25.00	ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	12.06	152	66672	25.00	ppb	0.00
System Monitoring Compounds						
2) Dibromofluoromethane(S)	5.78	111	60076	23.23	ppb	0.00
Spiked Amount 25.000			Recovery =	92.936%		
3) 1,2-DCA-D4(S)	6.17	65	67793	23.42	ppb	0.00
Spiked Amount 25.000			Recovery =	93.664%		
5) Toluene-D8(S)	8.30	98	214506	24.26	ppb	0.00
Spiked Amount 25.000			Recovery =	97.052%		
6) 4-Bromofluorobenzene(S)	10.92	174	82974	23.71	ppb	0.00
Spiked Amount 25.000			Recovery =	94.832%		

Target Compounds Qvalue

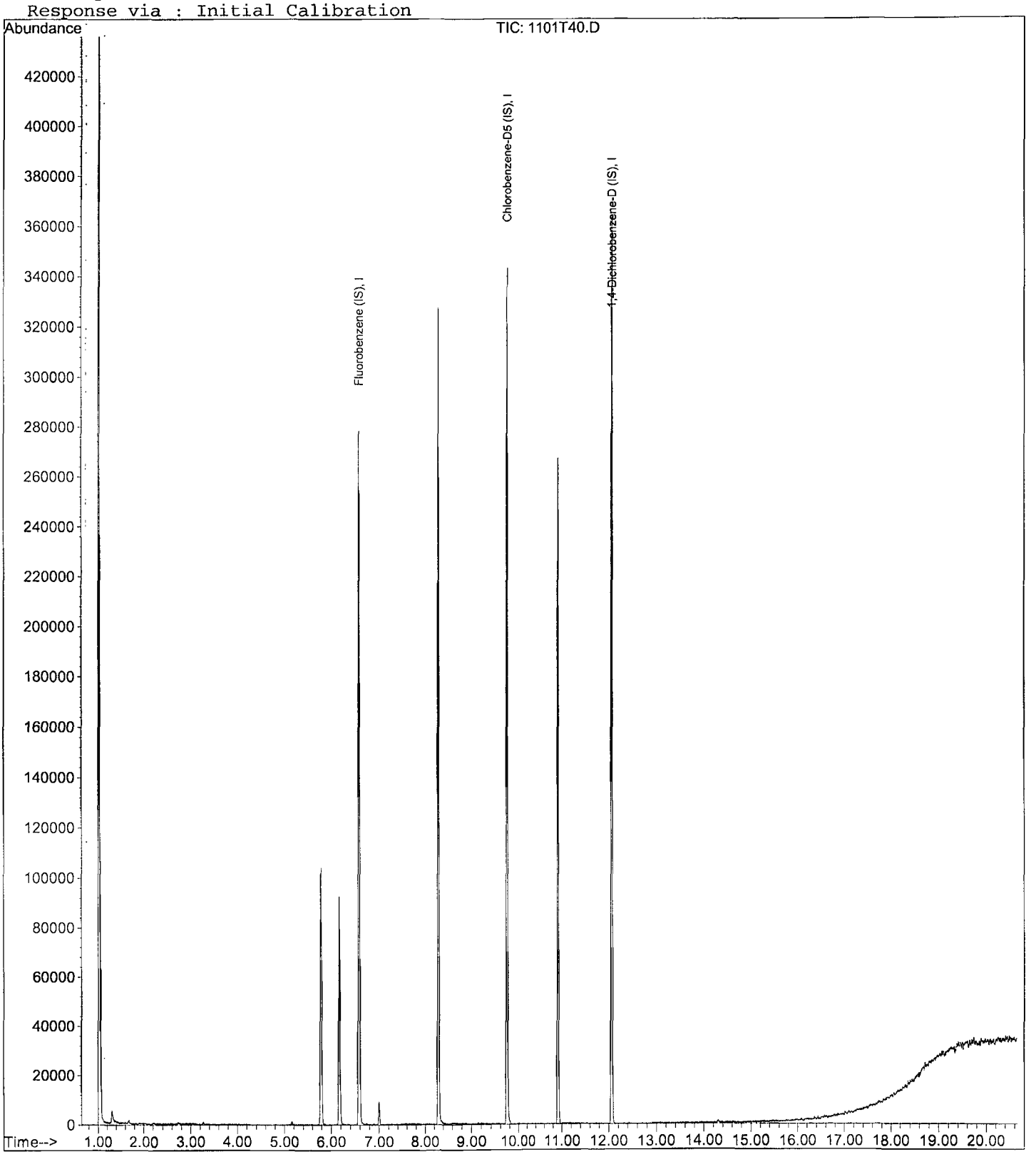
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\THOR\DATA\T191028\1101T40.D Vial: 38
Acq On : 2 Nov 19 7:41 Operator:
Sample : 191101B BLK Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Nov 4 14:59 2019 Quant Results File: TGAS1026.RES

Method : M:\THOR\DATA\T191023\TGAS1026.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 28 12:08:31 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\THOR\DATA\T191028\1101T35.D Vial: 33
Acq On : 2 Nov 19 5:20 Operator:
Sample : 191101B LCSD 300ug/L Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Nov 4 13:29 2019 Quant Results File: TGAS1026.RES

Quant Method : M:\THOR\DATA\T191028\TGAS1026.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 28 12:08:31 2019
Response via : Initial Calibration
DataAcq Meth : T8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	6.59	TIC	272579	25.00	ppb	0.00
3) Chlorobenzene-D5 (IS)	9.74	TIC	344136	25.00	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	12.06	TIC	368116	25.00	ppb	0.00

System Monitoring Compounds

Target Compounds						Qvalue
2) Gasoline C6-C10	9.74	TIC	3416061m	234.24	ppb	100

(#) = qualifier out of range (m) = manual integration
1101T35.D TGAS1026.M Mon Dec 02 15:13:22 2019 Page 1

Quantitation Report (Not Reviewed)

Data File : M:\THOR\DATA\T191028\1101T35.D Vial: 33
Acq On : 2 Nov 19 5:20 Operator:
Sample : 191101B LCSD 300ug/L Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Nov 4 14:58 2019 Quant Results File: TSUR1023.RES

Quant Method : M:\THOR\DATA\T191028\TSUR1023.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:27:29 2019
Response via : Initial Calibration
DataAcq Meth : T8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	6.59	96	132032	25.00	ppb	0.00
4) Chlorobenzene-D5 (IS)	9.74	117	121784	25.00	ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	12.06	152	66944	25.00	ppb	0.00
System Monitoring Compounds						
2) Dibromofluoromethane(S)	5.78	111	59633	23.43	ppb	0.00
Spiked Amount 25.000			Recovery =	93.728%		
3) 1,2-DCA-D4(S)	6.17	65	66256	23.25	ppb	0.00
Spiked Amount 25.000			Recovery =	93.004%		
5) Toluene-D8(S)	8.29	98	209745	23.06	ppb	0.00
Spiked Amount 25.000			Recovery =	92.252%		
6) 4-Bromofluorobenzene(S)	10.91	174	84083	23.35	ppb	0.00
Spiked Amount 25.000			Recovery =	93.416%		

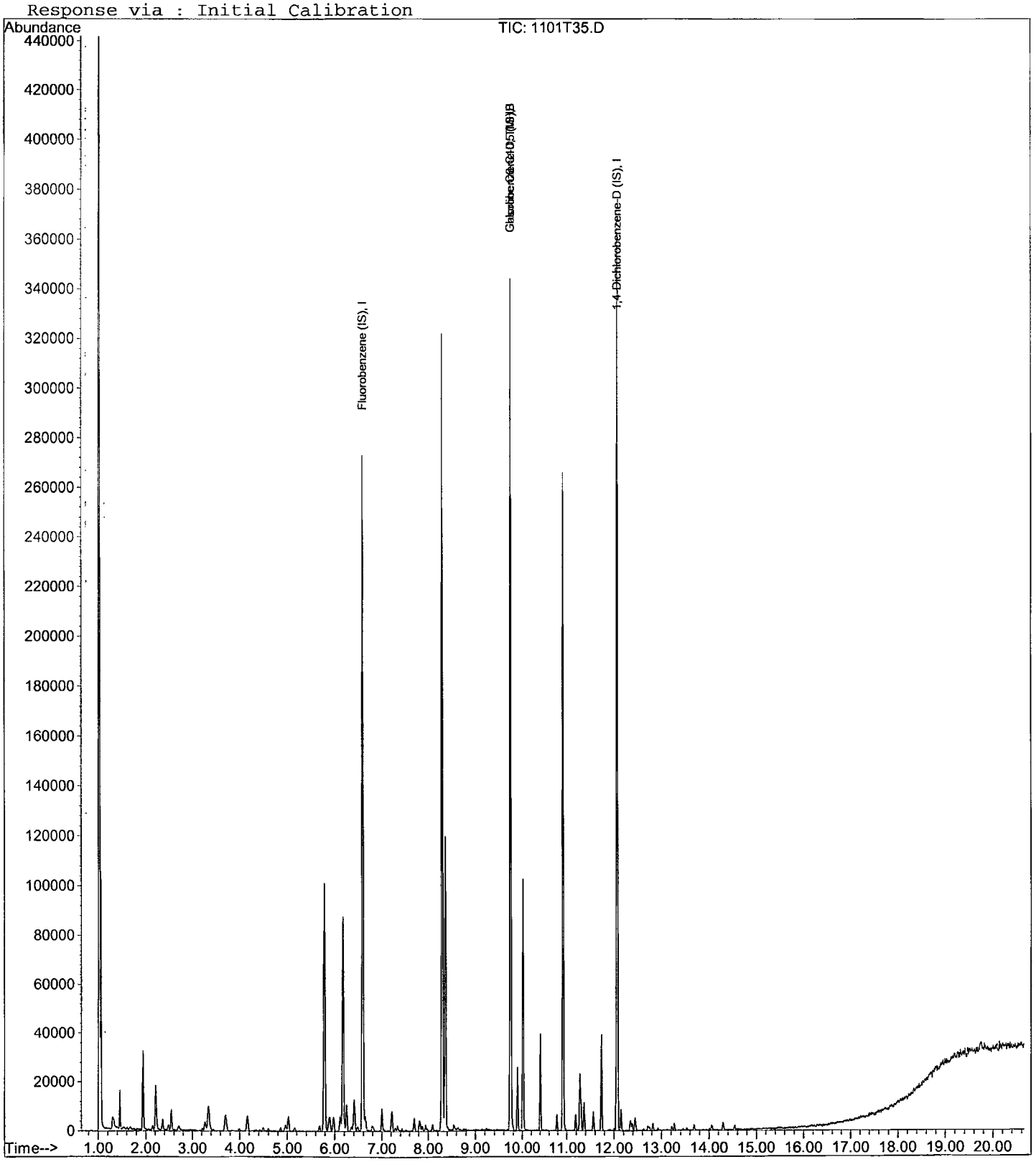
Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration

Data File : M:\THOR\DATA\T191028\1101T35.D Vial: 33
Acq On : 2 Nov 19 5:20 Operator:
Sample : 191101B LCSD 300ug/L Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Nov 4 13:29 2019 Quant Results File: TGAS1026.RES

Method : M:\THOR\DATA\T191023\TGAS1026.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 28 12:08:31 2019
Response via : Initial Calibration



Injection Log

Directory: M:\THOR\DATA\T191023\

Vial	FileName	Multiplier	SampleName	Misc Info	Injected
6	1023T06.D	1	0.3ug/L VOC STD 10/23/19	IS&S 9/23/19	23 Oct 19 19:32
7	1023T07.D	1	0.5ug/L VOC STD 10/23/19	IS&S 9/23/19	23 Oct 19 20:01
8	1023T08.D	1	1.0ug/L VOC STD 10/23/19	IS&S 9/23/19	23 Oct 19 20:29
9	1023T09.D	1	2.0ug/L VOC STD 10/23/19	IS&S 9/23/19	23 Oct 19 20:58
10	1023T10.D	1	5.0ug/L VOC STD 10/23/19	IS&S 9/23/19	23 Oct 19 21:26
11	1023T11.D	1	10ug/L VOC STD 10/23/19	IS&S 9/23/19	23 Oct 19 21:55
12	1023T12.D	1	20ug/L VOC STD 10/23/19	IS&S 9/23/19	23 Oct 19 22:23
13	1023T13.D	1	40ug/L VOC STD 10/23/19	IS&S 9/23/19	23 Oct 19 22:52
14	1023T14.D	1	100ug/L VOC STD 10/23/19	IS&S 9/23/19	23 Oct 19 23:20
2	1026T02.D	1	20ug/L GAS 10/26/19	IS&S 9/23/19	26 Oct 19 12:41
3	1026T03.D	1	50ug/L GAS 10/26/19	IS&S 9/23/19	26 Oct 19 13:09
4	1026T04.D	1	100ug/L GAS 10/26/19	IS&S 9/23/19	26 Oct 19 13:37
5	1026T05.D	1	300ug/L GAS 10/26/19	IS&S 9/23/19	26 Oct 19 14:06
6	1026T06.D	1	600ug/L GAS 10/26/19	IS&S 9/23/19	26 Oct 19 14:34
7	1026T07.D	1	800ug/L GAS 10/26/19	IS&S 9/23/19	26 Oct 19 15:03
1	1028T01.D	1	(SS) 300ug/L GAS 10/28/19	IS&S 9/23/19	28 Oct 19 15:43
32	1101T34.D	1	191101B CCV/LCS 300ug/L	IS&S 9/23/19	2 Nov 19 4:52
33	1101T35.D	1	191101B LCSD 300ug/L	IS&S 9/23/19	2 Nov 19 5:20
38	1101T40.D	1	191101B BLK	IS&S 9/23/19	2 Nov 19 7:41
46	1101T48.D	1	BA02159W01	IS&S 9/23/19	2 Nov 19 11:27
47	1101T49.D	1	BA02160W01	IS&S 9/23/19	2 Nov 19 11:56
53	1101T55.D	1	Ending CCV 300ug/L 11/1/19	IS&S 9/23/19	2 Nov 19 14:46

ORGANICS
Calibration Data

RSK 175
RSK 175

Form 6
Initial Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Initial Cal. Date: 10/02/19
Matrix: Instrument: 7890 Initials:

			1002R02.D	1002R03.D	1002R04.D	1002R05.D	1002R06 D	1002R07.D	1002R08.D									
		Compound	1	2	3	4	5	6	7				Avg	%RSD	Type	r^2	Q
1	ATM	Methane	63820	40452	36215	45202	48427	44031	45774				46274	19	ATM		
2	ATM	Ethane	42546	31037	26553	34655	37738	32771	32974				34039	15	ATM		
3	ATM	Ethene	32900	24299	20841	27689	29847	25551	26297				26775	15	ATM		
4																	
5																	
6																	
7																	
8																	
9																	
10																	
11																	
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33																	
34																	
35																	

1.377886

Quantitation Report (Not Reviewed)

Data File : G:\ROCKY\DATA\191002RS\1002R02.D Vial: 2
Acq On : 2 Oct 19 17:45 Operator: GA
Sample : RSK STD 1 10/2/19 Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 2 18:11 2019 Quant Results File: RSK1002.RES

Method : G:\ROCKY\DATA\190929RS\RSK1002.M (Chemstation Integrator)
Title : RSK 175
Last Update : Wed Oct 02 18:14:49 2019
Response via : Multiple Level Calibration

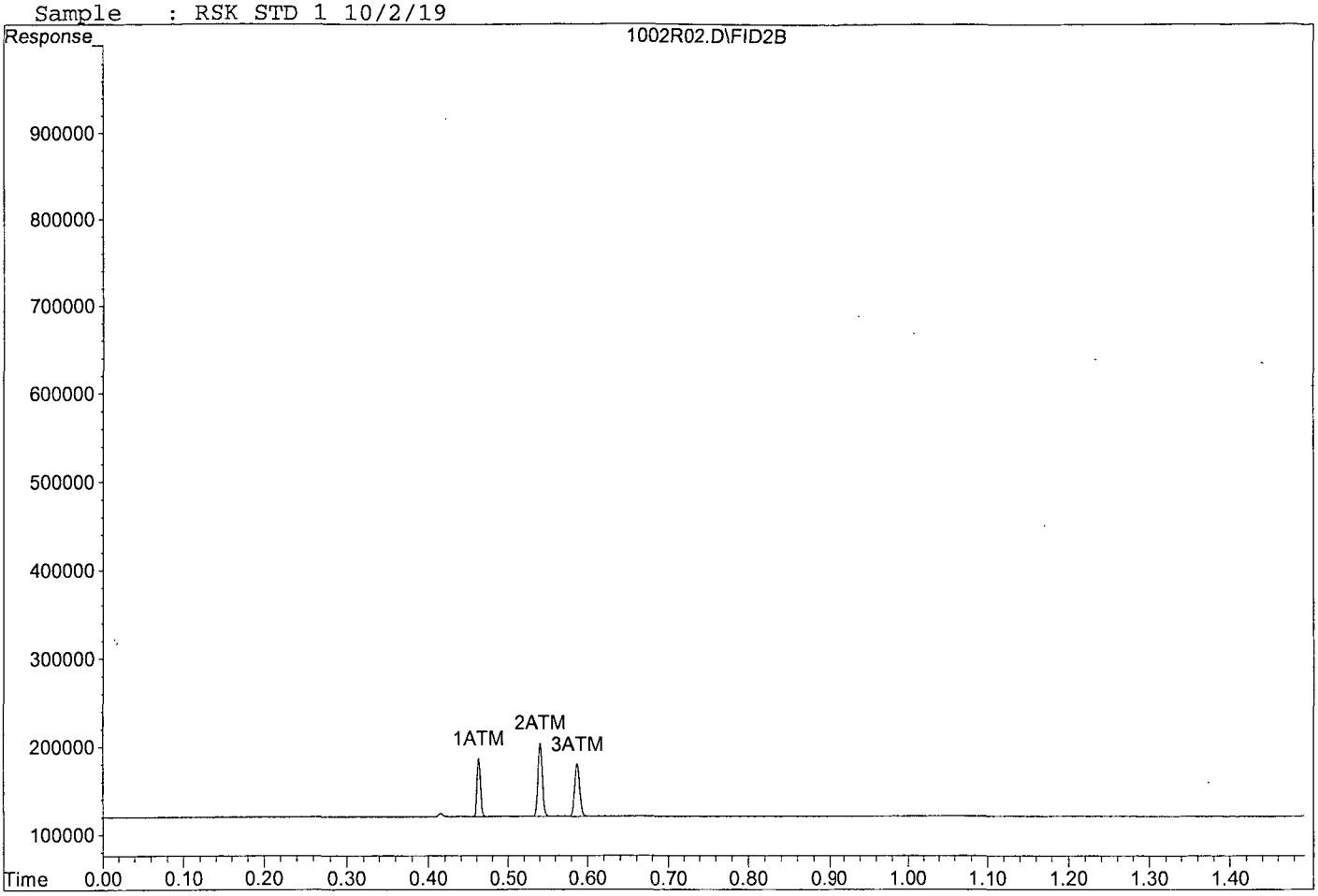
Volume Inj. : 0.500 mL
Signal Phase : CARBOPACK
Signal Info :

Compound	R.T.	Response	Conc Units
Target Compounds			
1) ATM Methane	0.46	66373	8.306 ppb
2) ATM Ethane	0.54	83177	6.216 ppb
3) ATM Ethene	0.59	60042	5.640 ppb

Target Compounds

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: G:\ROCKY\DATA\191002RS\1002R02.D
Sample : RSK STD 1 10/2/19



Quantitation Report (Not Reviewed)

Data File : G:\ROCKY\DATA\191002RS\1002R03.D Vial: 3
Acq On : 2 Oct 19 17:50 Operator: GA
Sample : RSK STD 2 10/2/19 Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 2 18:11 2019 Quant Results File: RSK1002.RES

Method : G:\ROCKY\DATA\190929RS\RSK1002.M (Chemstation Integrator)
Title : RSK 175
Last Update : Wed Oct 02 18:14:49 2019
Response via : Multiple Level Calibration

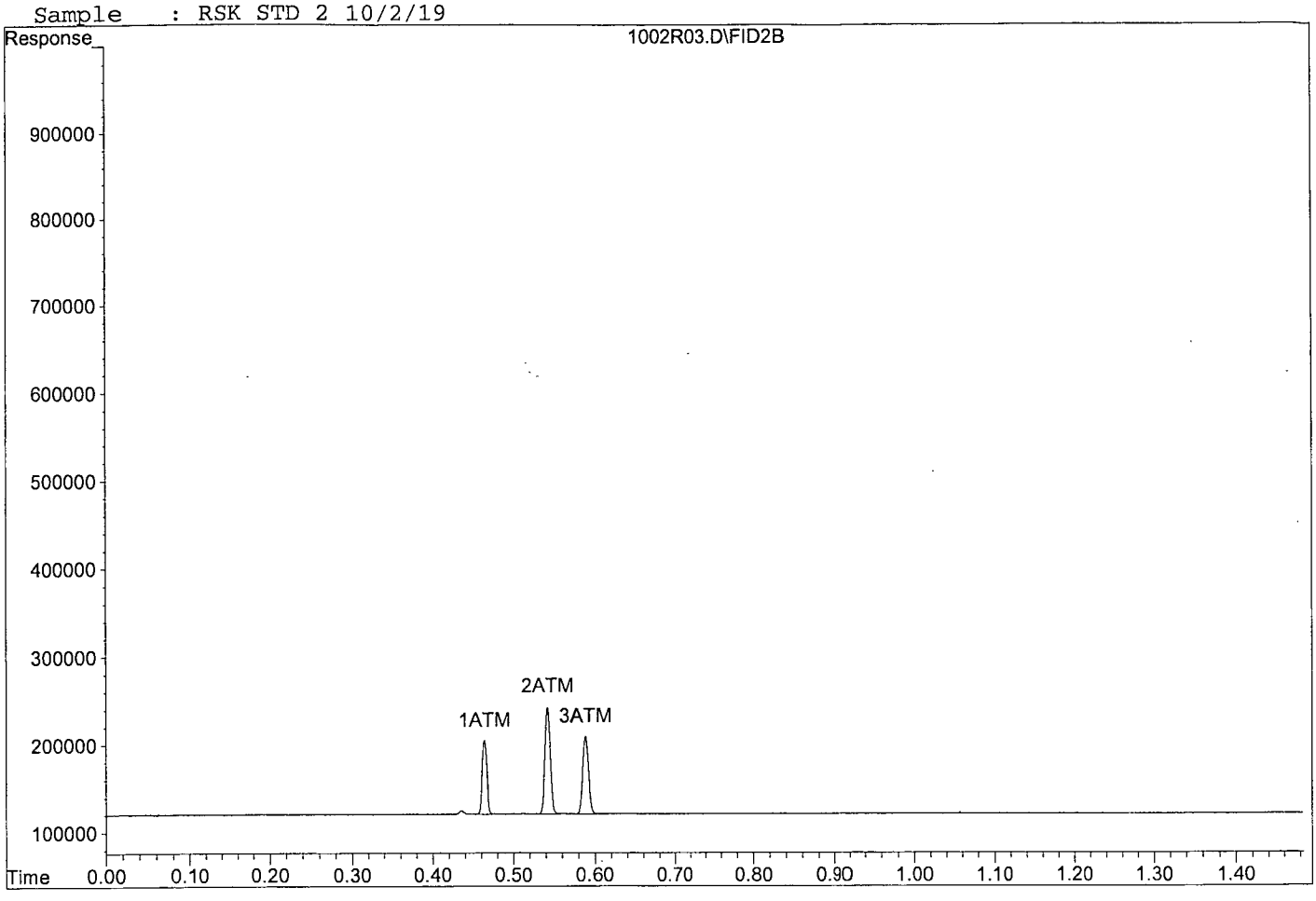
Volume Inj. : 0.500 mL
Signal Phase : CARBOPACK
Signal Info :

Compound	R.T.	Response	Conc Units
Target Compounds			
1) ATM Methane	0.46	84140	9.332 ppb
2) ATM Ethane	0.54	121200	9.058 ppb
3) ATM Ethene	0.59	88693	8.332 ppb

Target Compounds

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: G:\ROCKY\DATA\191002RS\1002R03.D
Sample : RSK STD 2 10/2/19



Quantitation Report (Not Reviewed)

Data File : G:\ROCKY\DATA\191002RS\1002R04.D Vial: 4
Acq On : 2 Oct 19 17:52 Operator: GA
Sample : RSK STD 3 10/2/19 Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 2 18:11 2019 Quant Results File: RSK1002.RES

Method : G:\ROCKY\DATA\190929RS\RSK1002.M (Chemstation Integrator)
Title : RSK 175
Last Update : Wed Oct 02 18:14:49 2019
Response via : Multiple Level Calibration

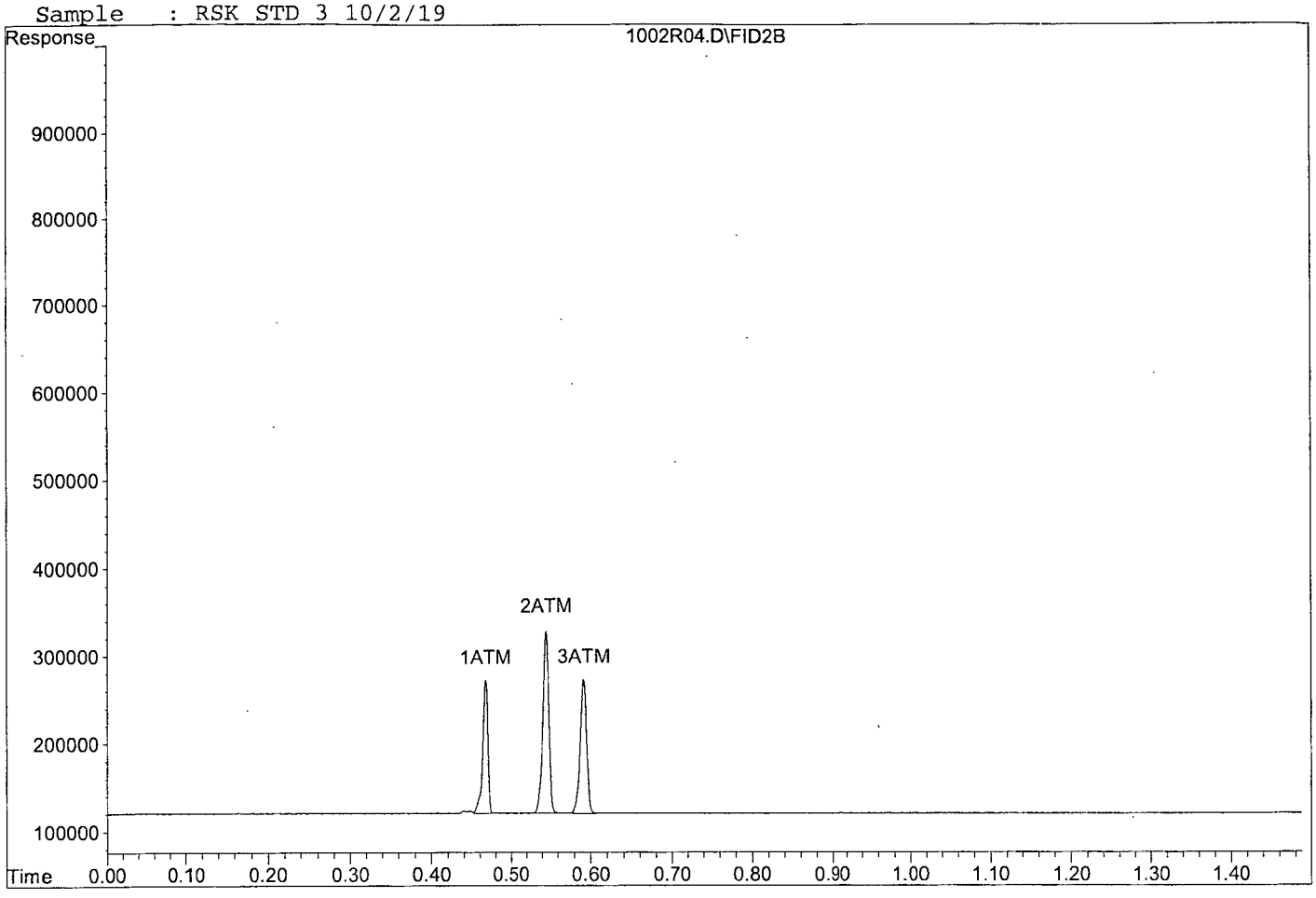
Volume Inj. : 0.500 mL
Signal Phase : CARBOPACK
Signal Info :

Compound	R.T.	Response	Conc Units
Target Compounds			
1) ATM Methane	0.47	151018	13.195 ppb
2) ATM Ethane	0.55	207113	15.479 ppb
3) ATM Ethene	0.59	152138	14.292 ppb

Target Compounds

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: G:\ROCKY\DATA\191002RS\1002R04.D
Sample : RSK STD 3 10/2/19



Quantitation Report (Not Reviewed)

Data File : G:\ROCKY\DATA\191002RS\1002R05.D Vial: 5
Acq On : 2 Oct 19 17:57 Operator: GA
Sample : RSK STD 4 10/2/19 Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 2 18:11 2019 Quant Results File: RSK1002.RES

Method : G:\ROCKY\DATA\190929RS\RSK1002.M (Chemstation Integrator)
Title : RSK 175
Last Update : Wed Oct 02 18:14:49 2019
Response via : Multiple Level Calibration

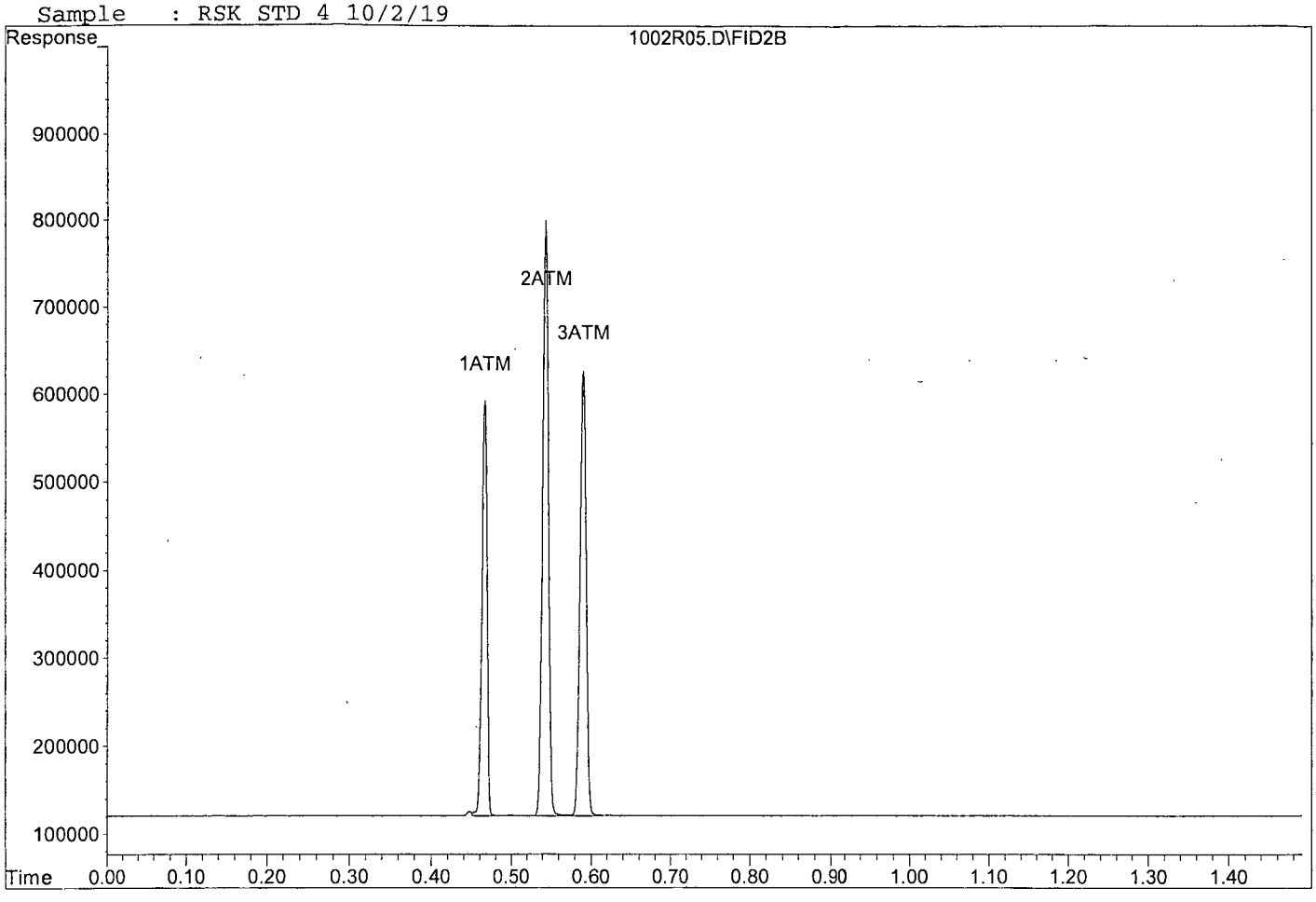
Volume Inj. : 0.500 mL
Signal Phase : CARBOPACK
Signal Info :

Compound	R.T.	Response	Conc Units
Target Compounds			
1) ATM Methane	0.47	471234	31.689 ppb
2) ATM Ethane	0.54	677330	50.623 ppb
3) ATM Ethene	0.59	504779	47.419 ppb

Target Compounds

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: G:\ROCKY\DATA\191002RS\1002R05.D
Sample : RSK STD 4 10/2/19



Quantitation Report (Not Reviewed)

Data File : G:\ROCKY\DATA\191002RS\1002R06.D Vial: 6
Acq On : 2 Oct 19 17:59 Operator: GA
Sample : RSK STD 5 10/2/19 Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 2 18:11 2019 Quant Results File: RSK1002.RES

Method : G:\ROCKY\DATA\190929RS\RSK1002.M (Chemstation Integrator)
Title : RSK 175
Last Update : Wed Oct 02 18:14:49 2019
Response via : Multiple Level Calibration

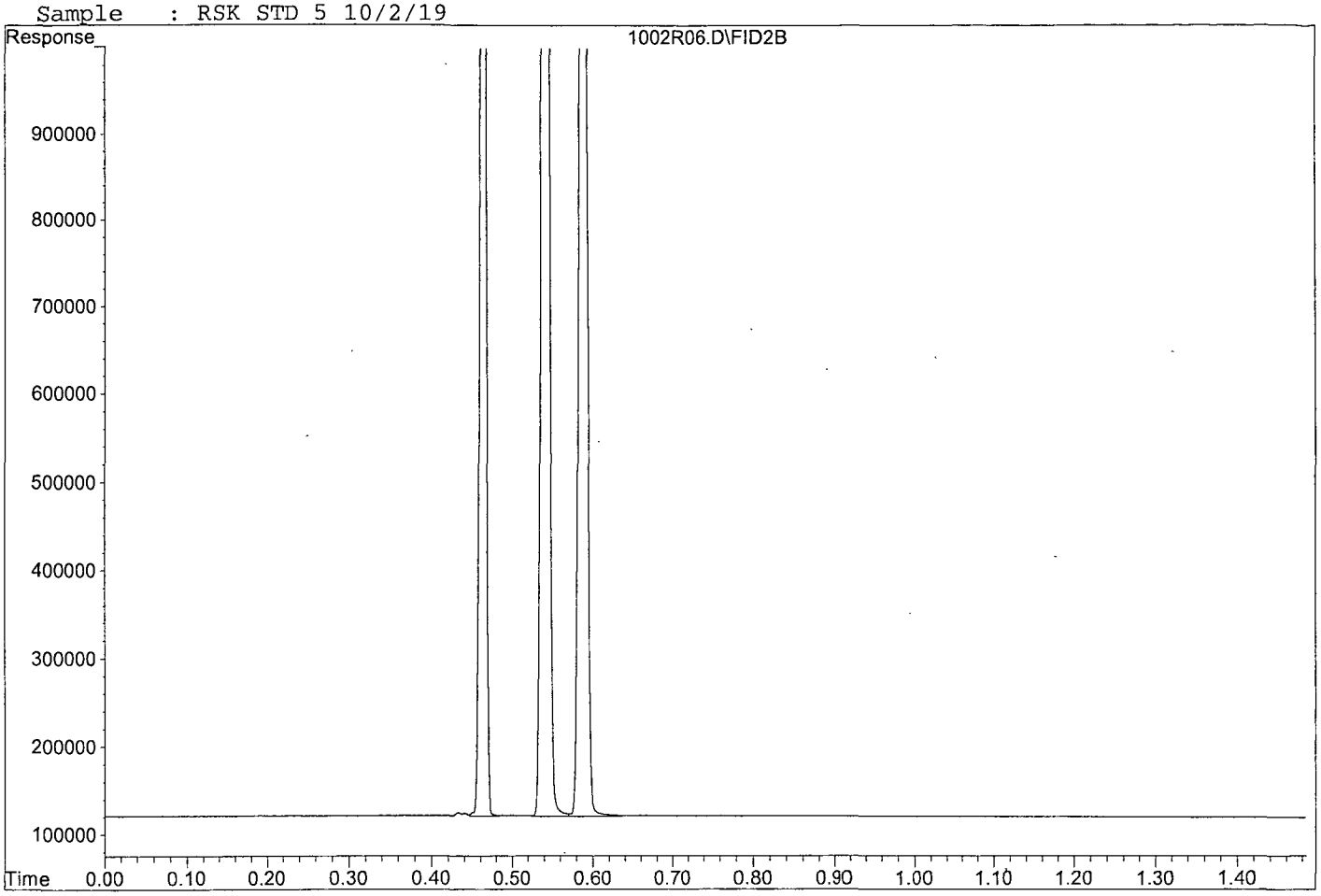
Volume Inj. : 0.500 mL
Signal Phase : CARBOPACK
Signal Info :

Compound	R.T.	Response	Conc Units
Target Compounds			
1) ATM Methane	0.46	2019402	121.105 ppb
2) ATM Ethane	0.54	2950189	220.492 ppb
3) ATM Ethene	0.59	2176445	204.454 ppb

Target Compounds

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: G:\ROCKY\DATA\191002RS\1002R06.D
Sample : RSK STD 5 10/2/19



Quantitation Report (Not Reviewed)

Data File : G:\ROCKY\DATA\191002RS\1002R07.D Vial: 7
Acq On : 2 Oct 19 18:05 Operator: GA
Sample : RSK STD 6 10/2/19 Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 2 18:11 2019 Quant Results File: RSK1002.RES

Method : G:\ROCKY\DATA\190929RS\RSK1002.M (Chemstation Integrator)
Title : RSK 175
Last Update : Wed Oct 02 18:14:49 2019
Response via : Multiple Level Calibration

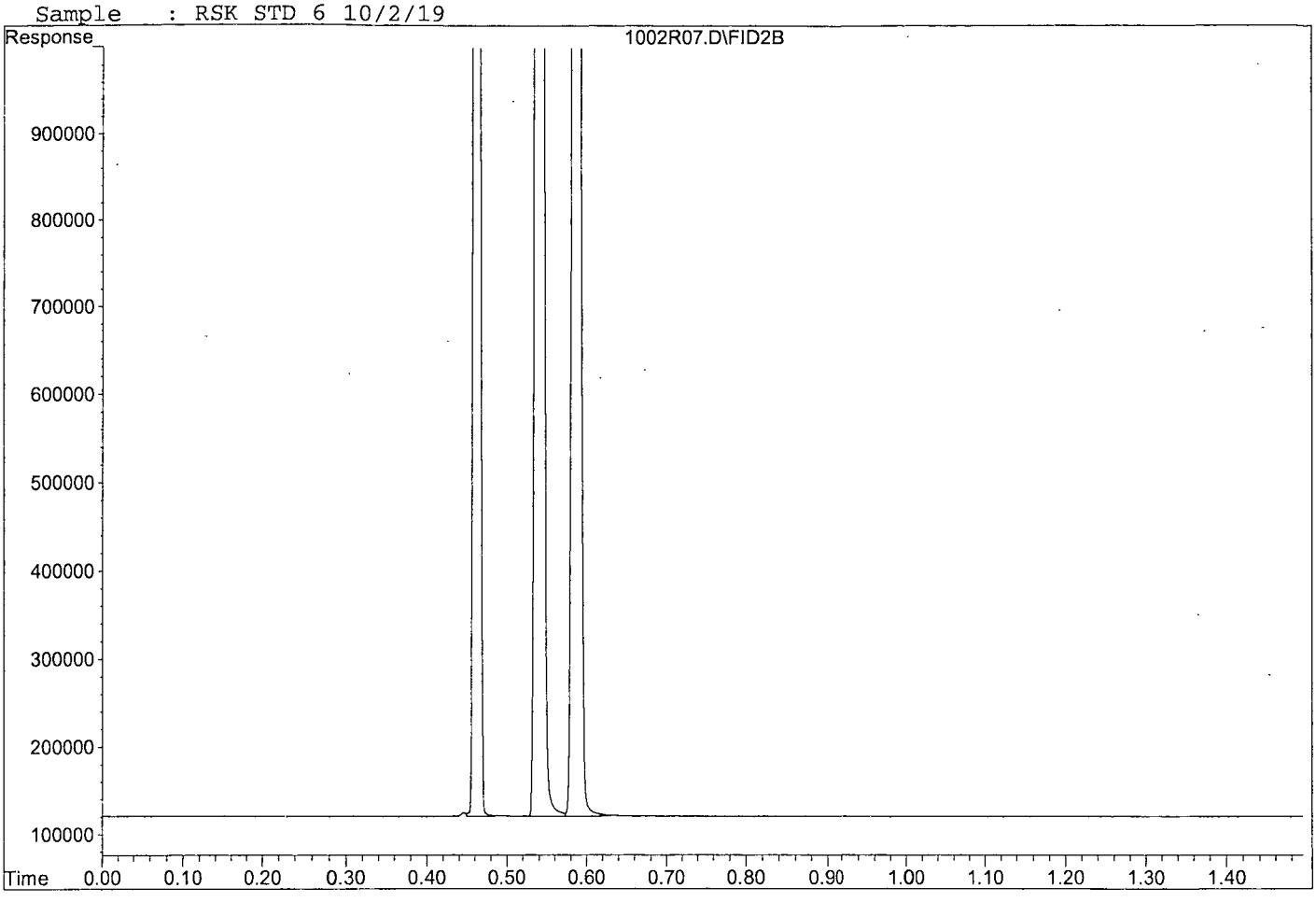
Volume Inj. : 0.500 mL
Signal Phase : CARBOPACK
Signal Info :

Compound	R.T.	Response	Conc Units
Target Compounds			
1) ATM Methane	0.46	4590194	269.583 ppb
2) ATM Ethane	0.54	6405030	478.702 ppb
3) ATM Ethene	0.59	4657966	437.567 ppb

Target Compounds

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: G:\ROCKY\DATA\191002RS\1002R07.D
Sample : RSK STD 6 10/2/19



Quantitation Report (Not Reviewed)

Data File : G:\ROCKY\DATA\191002RS\1002R08.D Vial: 8
Acq On : 2 Oct 19 18:07 Operator: GA
Sample : RSK STD 7 10/2/19 Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 2 18:11 2019 Quant Results File: RSK1002.RES

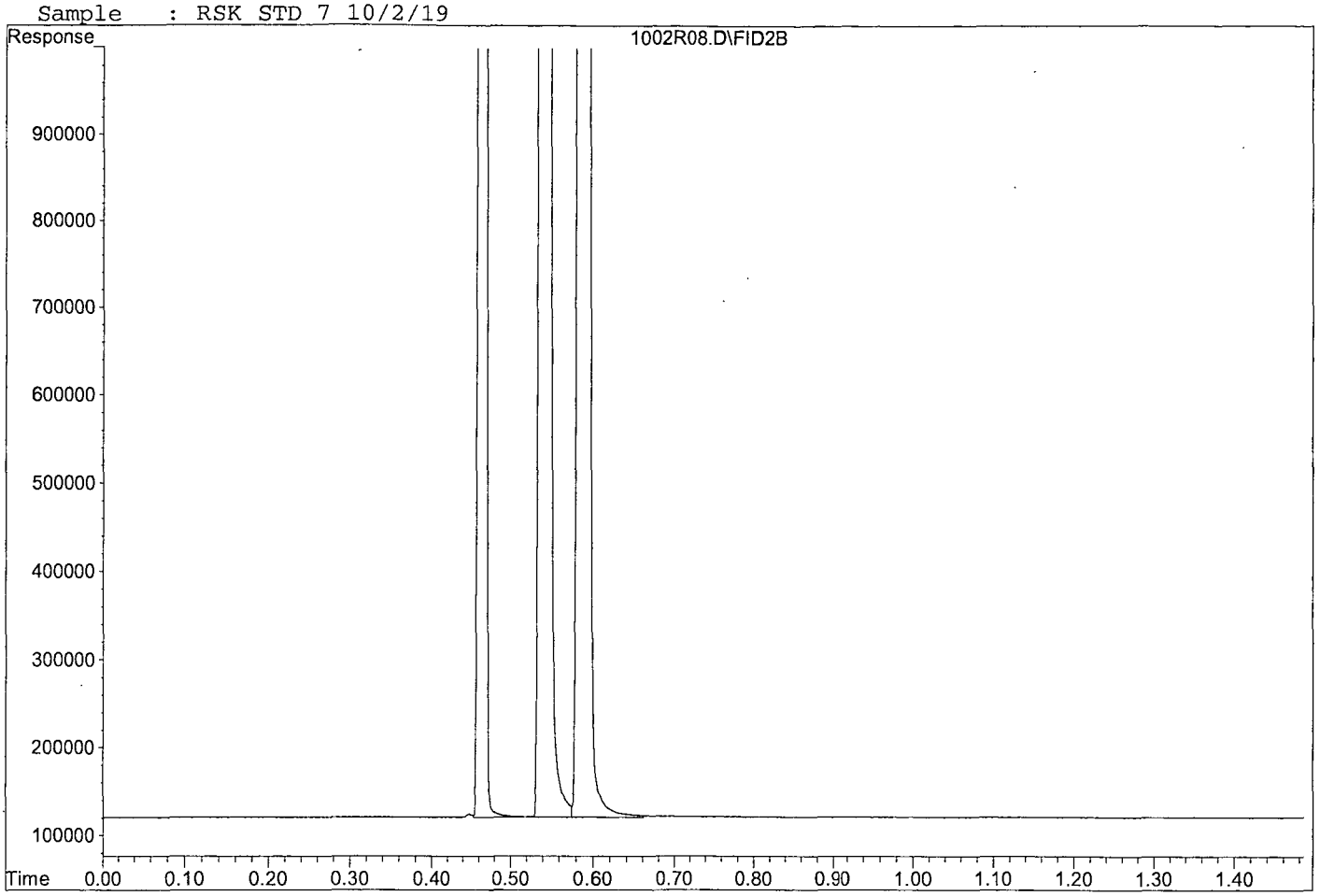
Method : G:\ROCKY\DATA\190929RS\RSK1002.M (Chemstation Integrator)
Title : RSK 175
Last Update : Wed Oct 02 18:14:49 2019
Response via : Multiple Level Calibration

Volume Inj. : 0.500 mL
Signal Phase : CARBOPACK
Signal Info :

Compound	R.T.	Response	Conc	Units
Target Compounds				
1) ATM Methane	0.46	19087907	1106.909	ppb
2) ATM Ethane	0.54	25777712	1926.584	ppb
3) ATM Ethene	0.59	19176068	1801.389	ppb

Target Compounds

Data File: G:\ROCKY\DATA\191002RS\1002R08.D
Sample : RSK STD 7 10/2/19



Form 7

Second Source Calibration

Lab Name: APPL, Inc.
Case No:
Matrix:

SDG No:
Date Analyzed: 2 Oct 19 18:24
Instrument: 7890
Initial Cal. Date: 10/02/19
Data File: 1002R10.D

		Compound	MEAN	CCRF	%D		%Drift
1	ATM	Methane	46275	50203	8.5	ATM	
2	ATM	Ethane	34039	37011	8.7	ATM	
3	ATM	Ethene	26775	28699	7.2	ATM	
4							
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40							
		Average			8.1		

Quantitation Report (Not Reviewed)

Data File : G:\ROCKY\DATA\191002RS\1002R10.D Vial: 10
Acq On : 2 Oct 19 18:24 Operator: GA
Sample : SS RSK STD 5 10/2/19 Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 2 18:27 2019 Quant Results File: RSK1002.RES

Method : G:\ROCKY\DATA\190929RS\RSK1002.M (Chemstation Integrator)
Title : RSK 175
Last Update : Wed Oct 02 18:14:49 2019
Response via : Multiple Level Calibration

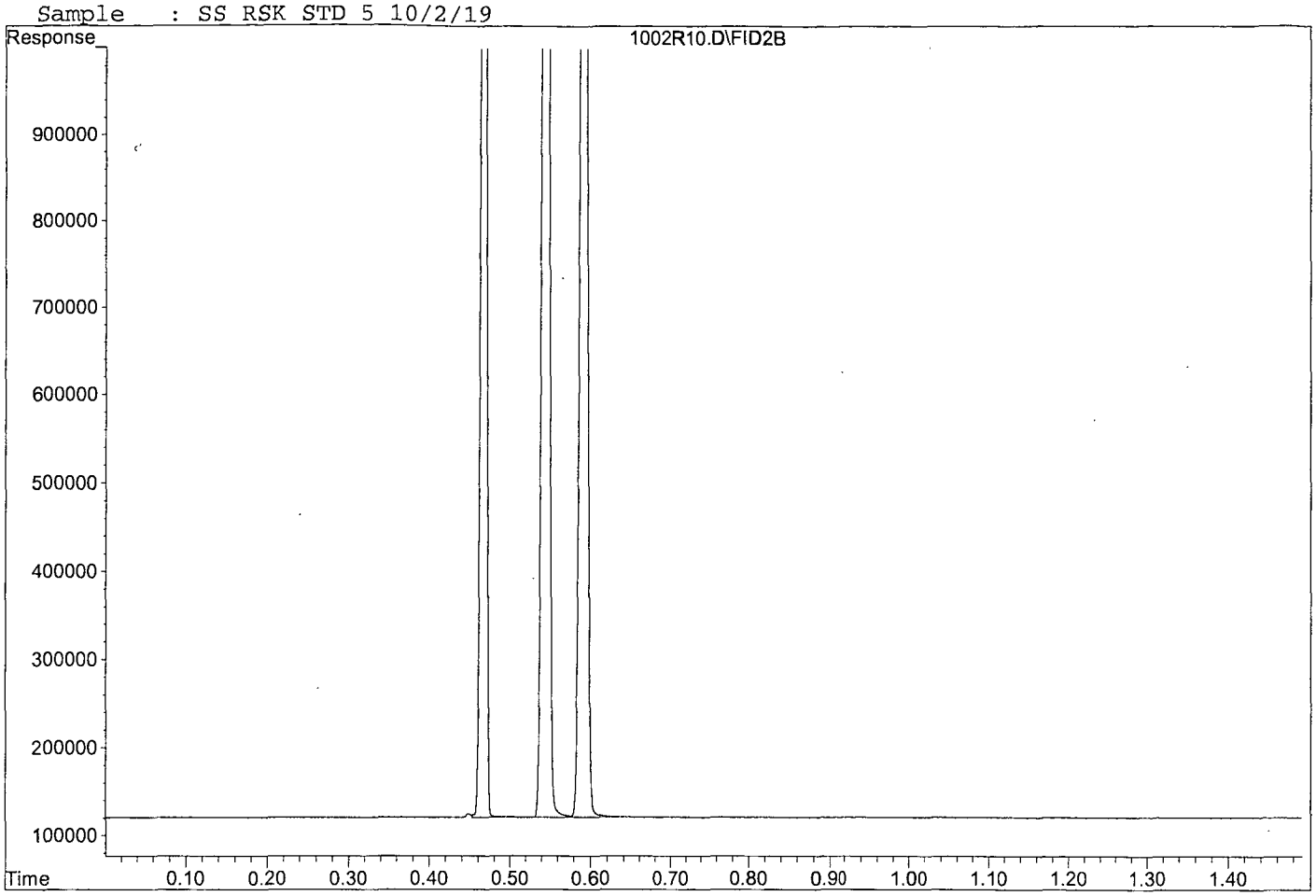
Volume Inj. : 0.500 mL
Signal Phase : CARBOPACK
Signal Info :

Compound	R.T.	Response	Conc Units
Target Compounds			
1) ATM Methane	0.47	2093456	90.480 ppb
2) ATM Ethane	0.54	2893356	170.002 ppb
3) ATM Ethene	0.59	2092707	156.318 ppb

Target Compounds

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: G:\ROCKY\DATA\191002RS\1002R10.D
Sample : SS RSK STD 5 10/2/19



RSK 175

Form 7

Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix:

SDG No:
Date Analyzed: 10/31/19
Instrument: 7890
Initial Cal. Date: 10/02/19
Data File: 1031R03.D

		Compound	MEAN	CCRF	%D		%Drift	
1	ATM	Methane	46275	47978	3.7	ATM		
2	ATM	Ethane	34039	43042	26	ATM		*
3	ATM	Ethene	26775	32709	22	ATM		
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40								
		Average			17.2			

Quantitation Report (Not Reviewed)

Data File : G:\ROCKY\DATA\191002RS\1031R03.D Vial: 3
Acq On : 31 Oct 19 17:03 Operator: GA
Sample : 191031A LCS/CCV RSK STD 5 Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 31 17:06 2019 Quant Results File: RSK1002.RES

Method : G:\ROCKY\DATA\190929RS\RSK1002.M (Chemstation Integrator)
Title : RSK 175
Last Update : Wed Oct 30 17:49:29 2019
Response via : Multiple Level Calibration

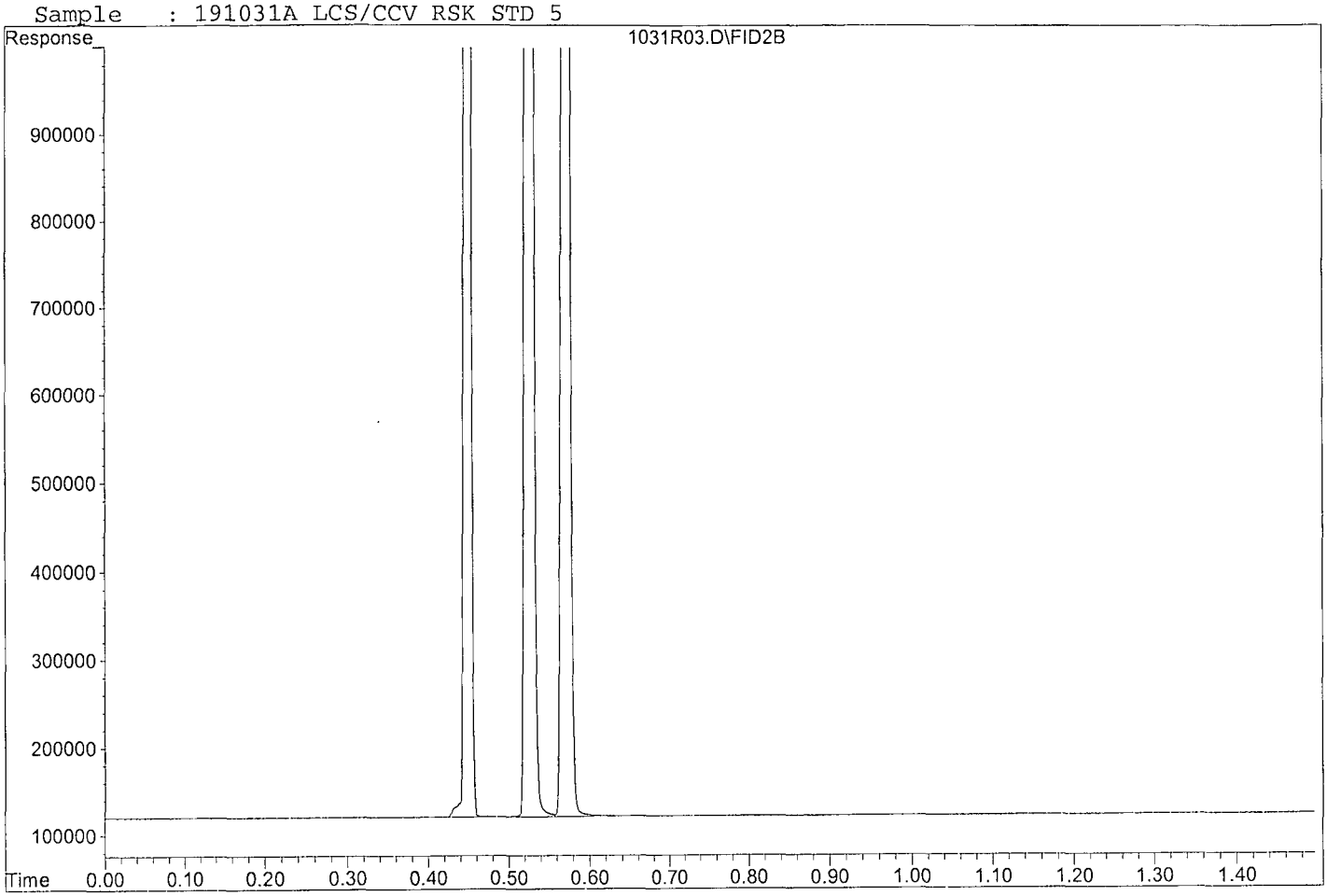
Volume Inj. : 0.500 mL
Signal Phase : CARBOPACK
Signal Info :

Compound	R.T.	Response	Conc Units
Target Compounds			
1) ATM Methane	0.45	2000669	86.470 ppb
2) ATM Ethane	0.53	3364804	197.702 ppb
3) ATM Ethene	0.57	2385102	178.159 ppb

Target Compounds

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: G:\ROCKY\DATA\191002RS\1031R03.D
Sample : 191031A LCS/CCV RSK STD 5



RSK 175
RSK 175

Form 7

Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix:

SDG No:
Date Analyzed: 10/31/19
Instrument: 7890
Initial Cal. Date: 10/02/19
Data File: 1031R15.D

		Compound	MEAN	CCRF	%D		%Drift	
1	ATM	Methane	46275	52604	14	ATM		
2	ATM	Ethane	34039	43002	26	ATM		*
3	ATM	Ethene	26775	32348	21	ATM		
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40								
		Average			20.3			

Quantitation Report (Not Reviewed)

Data File : G:\ROCKY\DATA\191002RS\1031R15.D Vial: 15
Acq On : 31 Oct 19 17:42 Operator: GA
Sample : ENDING CCV RSK STD 5 10/31/19 Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 31 17:44 2019 Quant Results File: RSK1002.RES

Method : G:\ROCKY\DATA\190929RS\RSK1002.M (Chemstation Integrator)
Title : RSK 175
Last Update : Wed Oct 30 17:49:29 2019
Response via : Multiple Level Calibration

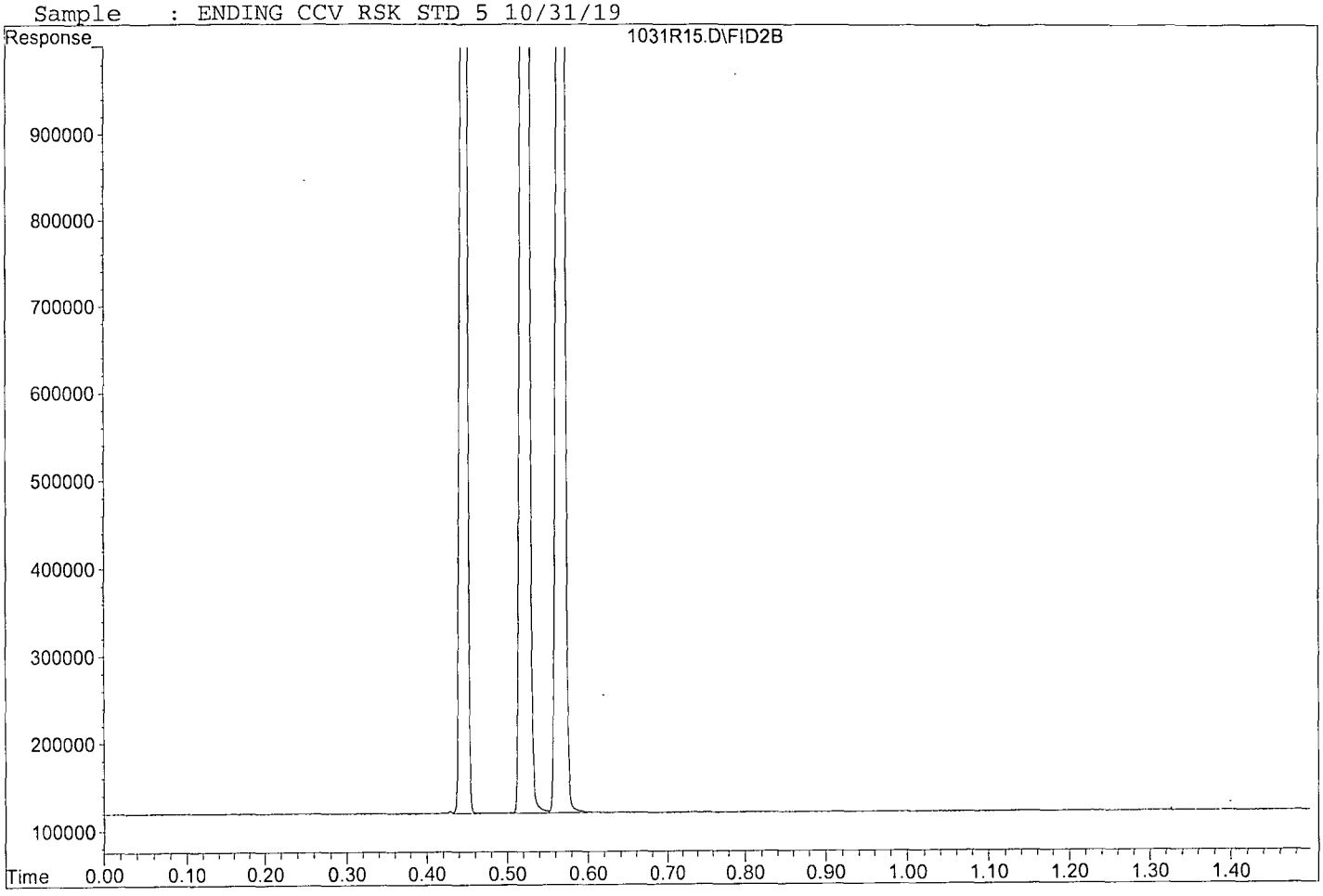
Volume Inj. : 0.500 mL
Signal Phase : CARBOPACK
Signal Info :

Compound	R.T.	Response	Conc Units
Target Compounds			
1) ATM Methane	0.45	2193578	94.807 ppb
2) ATM Ethane	0.52	3361712	197.521 ppb
3) ATM Ethene	0.57	2358813	176.195 ppb

Target Compounds

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: G:\ROCKY\DATA\191002RS\1031R15.D
Sample : ENDING CCV RSK STD 5 10/31/19



ORGANICS
Raw Data

Quantitation Report (QT Reviewed)

Data File : G:\ROCKY\DATA\191002RS\1031R11.D Vial: 11
Acq On : 31 Oct 19 17:29 Operator: GA
Sample : BA02159W04 Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 31 17:32 2019 Quant Results File: RSK1002.RES

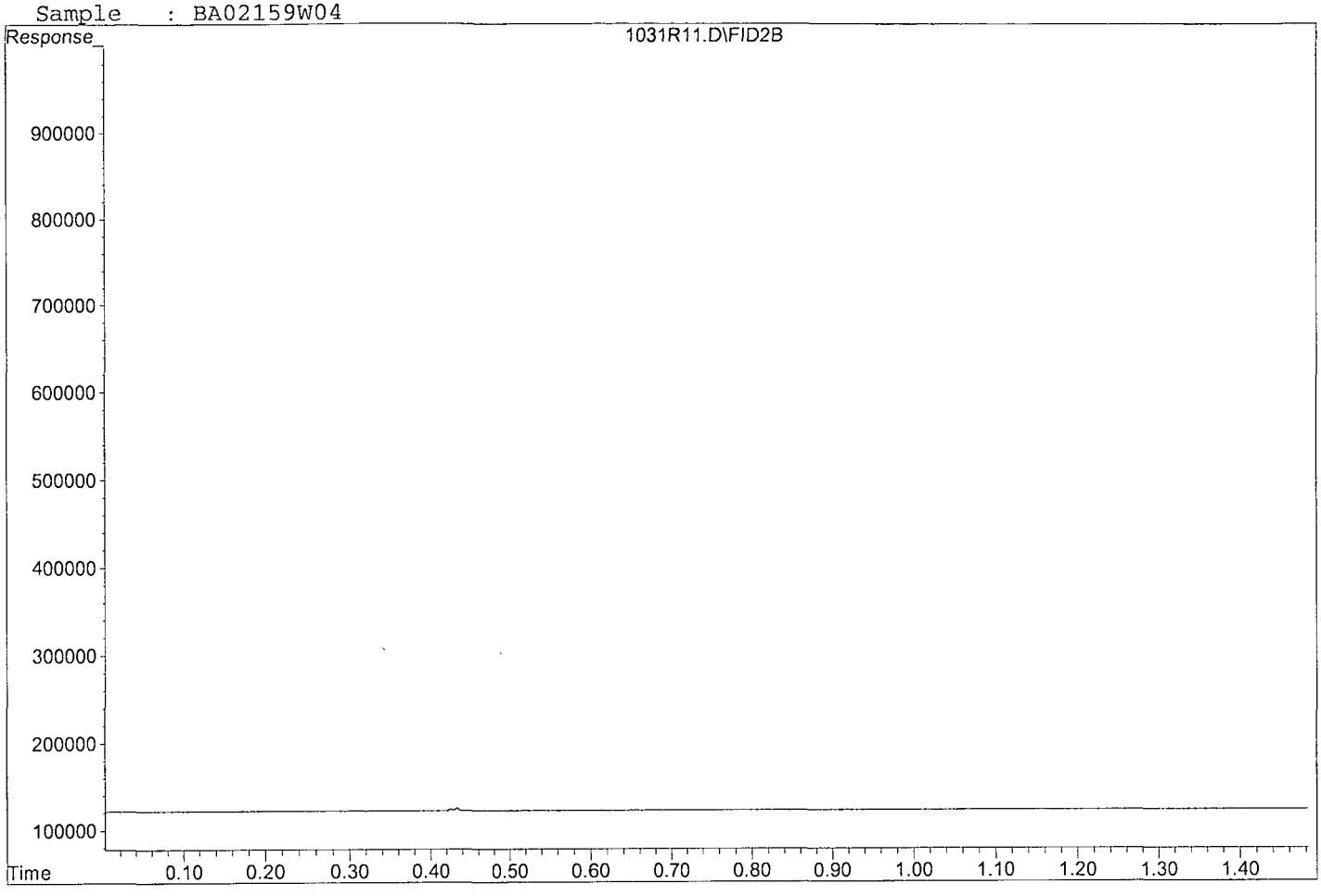
Method : G:\ROCKY\DATA\190929RS\RSK1002.M (Chemstation Integrator)
Title : RSK 175
Last Update : Wed Oct 30 17:49:29 2019
Response via : Multiple Level Calibration

Volume Inj. : 0.500 mL
Signal Phase : CARBOPACK
Signal Info :

Compound	R.T.	Response	Conc	Units	
Target Compounds					
Target Compounds					
1) ATM Methane	0.00	0	N.D.	ppb	d
2) ATM Ethane	0.00	0	N.D.	ppb	d
3) ATM Ethene	0.00	0	N.D.	ppb	d

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: G:\ROCKY\DATA\191002RS\1031R11.D
Sample : BA02159W04



Quantitation Report (QT Reviewed)

Data File : G:\ROCKY\DATA\191002RS\1031R12.D Vial: 12
Acq On : 31 Oct 19 17:31 Operator: GA
Sample : BA02160W04 Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 31 17:34 2019 Quant Results File: RSK1002.RES

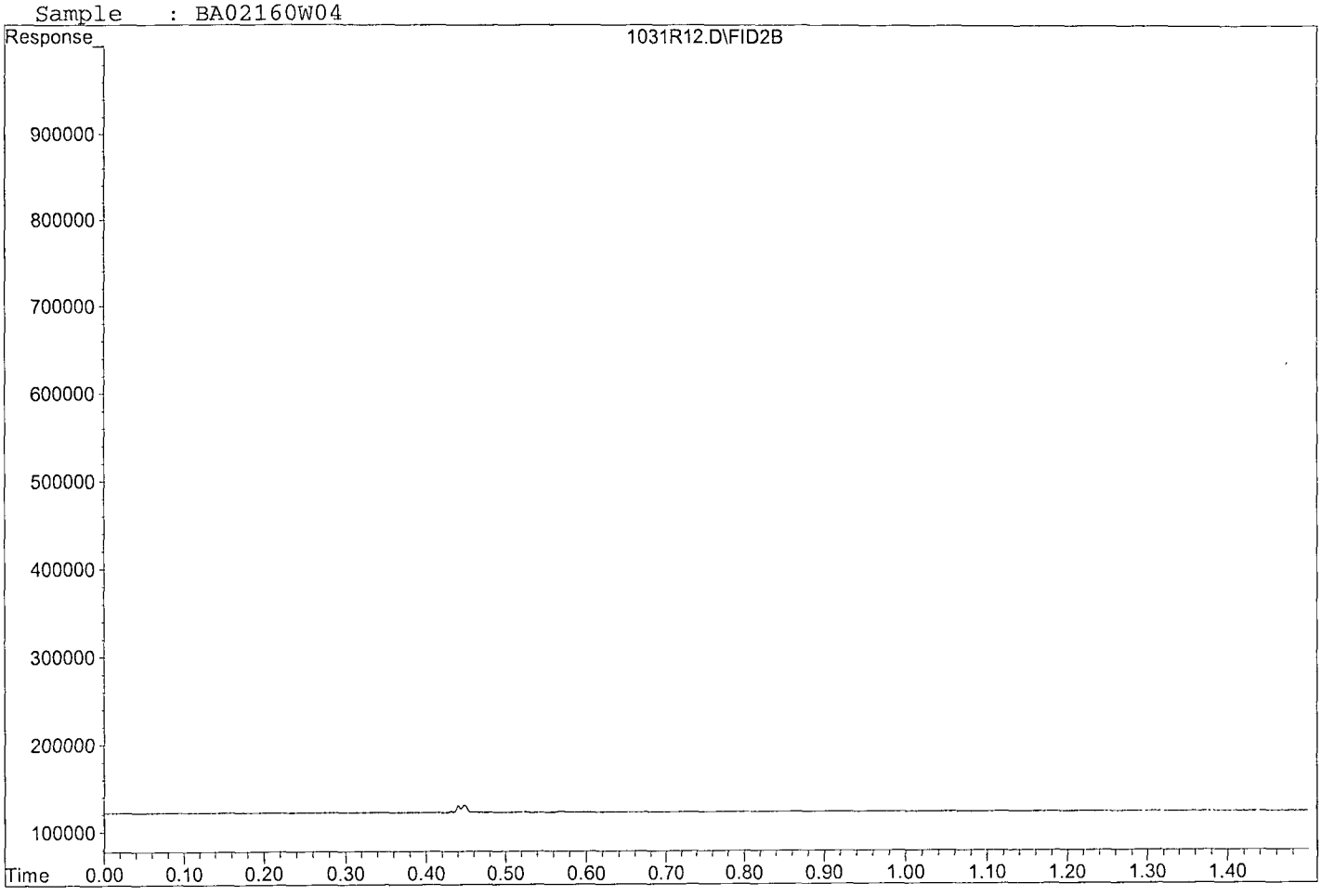
Method : G:\ROCKY\DATA\190929RS\RSK1002.M (Chemstation Integrator)
Title : RSK 175
Last Update : Wed Oct 30 17:49:29 2019
Response via : Multiple Level Calibration

Volume Inj. : 0.500 mL
Signal Phase : CARBOPACK
Signal Info :

Compound	R.T.	Response	Conc	Units	
Target Compounds					
Target Compounds					
1) ATM Methane	0.00	0	N.D.	ppb	d
2) ATM Ethane	0.00	0	N.D.	ppb	d
3) ATM Ethene	0.00	0	N.D.	ppb	d

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: G:\ROCKY\DATA\191002RS\1031R12.D
Sample : BA02160W04



Quantitation Report (QT Reviewed)

Data File : G:\ROCKY\DATA\191002RS\1031R05.D Vial: 5
Acq On : 31 Oct 19 17:12 Operator: GA
Sample : 191031A BLK Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 31 17:14 2019 Quant Results File: RSK1002.RES

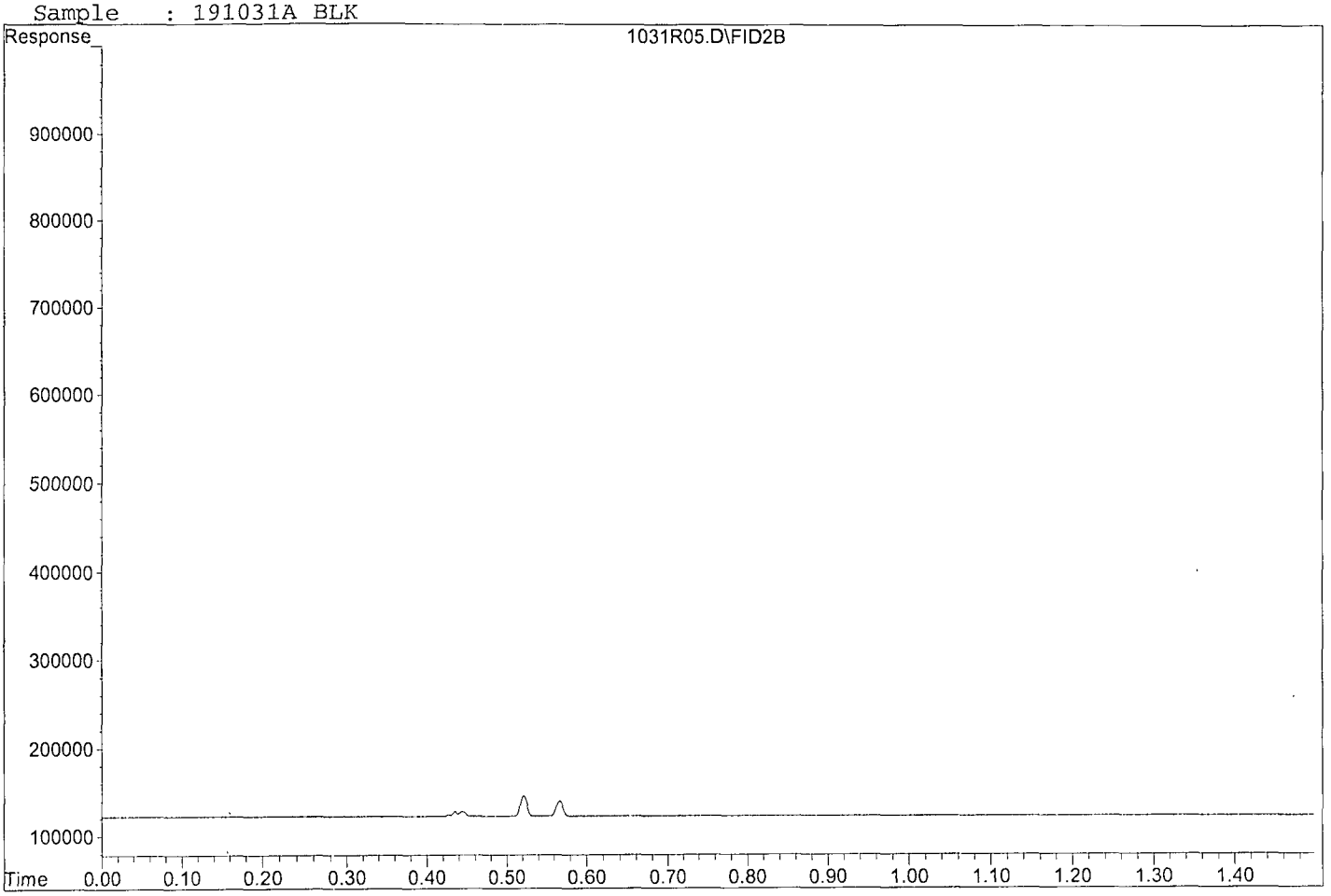
Method : G:\ROCKY\DATA\190929RS\RSK1002.M (Chemstation Integrator)
Title : RSK 175
Last Update : Wed Oct 30 17:49:29 2019
Response via : Multiple Level Calibration

Volume Inj. : 0.500 mL
Signal Phase : CARBOPACK
Signal Info :

Compound	R.T.	Response	Conc	Units	
Target Compounds					
Target Compounds					
1) ATM Methane	0.00	0	N.D.	ppb	d
2) ATM Ethane	0.00	0	N.D.	ppb	d
3) ATM Ethene	0.00	0	N.D.	ppb	d

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: G:\ROCKY\DATA\191002RS\1031R05.D
Sample : 191031A BLK



Quantitation Report (Not Reviewed)

Data File : G:\ROCKY\DATA\191002RS\1031R03.D Vial: 3
Acq On : 31 Oct 19 17:03 Operator: GA
Sample : 191031A LCS/CCV RSK STD 5 Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 31 17:06 2019 Quant Results File: RSK1002.RES

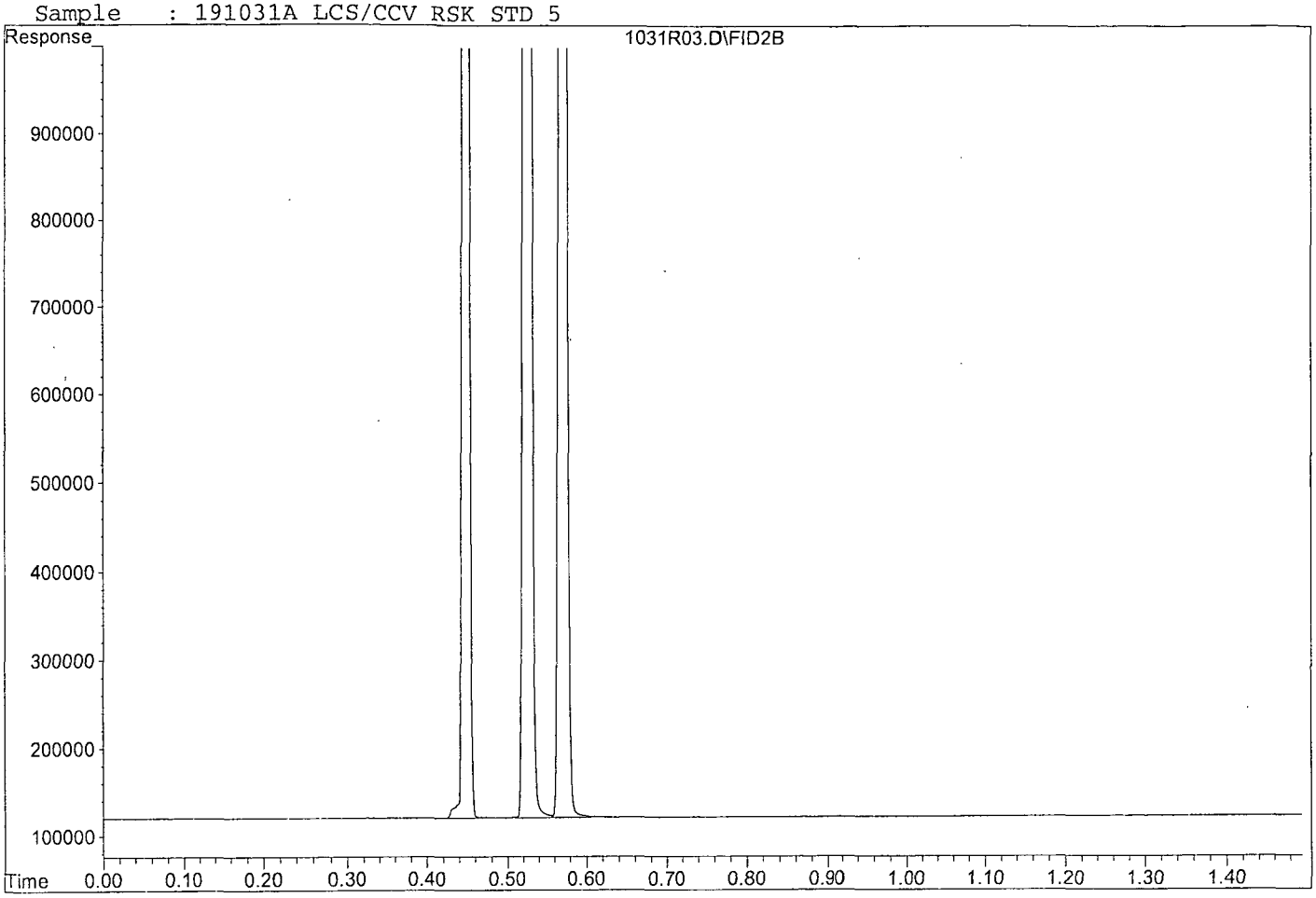
Method : G:\ROCKY\DATA\190929RS\RSK1002.M (Chemstation Integrator)
Title : RSK 175
Last Update : Wed Oct 30 17:49:29 2019
Response via : Multiple Level Calibration

Volume Inj. : 0.500 mL
Signal Phase : CARBOPACK
Signal Info :

Compound	R.T.	Response	Conc Units
Target Compounds			
1) ATM Methane	0.45	2000669	86.470 ppb
2) ATM Ethane	0.53	3364804	197.702 ppb
3) ATM Ethene	0.57	2385102	178.159 ppb

Target Compounds

Data File: G:\ROCKY\DATA\191002RS\1031R03.D
Sample : 191031A LCS/CCV RSK STD 5



Quantitation Report (Not Reviewed)

Data File : G:\ROCKY\DATA\191002RS\1031R04.D Vial: 4
Acq On : 31 Oct 19 17:08 Operator: GA
Sample : 191031A LCSD Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 31 17:10 2019 Quant Results File: RSK1002.RES

Method : G:\ROCKY\DATA\190929RS\RSK1002.M (Chemstation Integrator)
Title : RSK 175
Last Update : Wed Oct 30 17:49:29 2019
Response via : Multiple Level Calibration

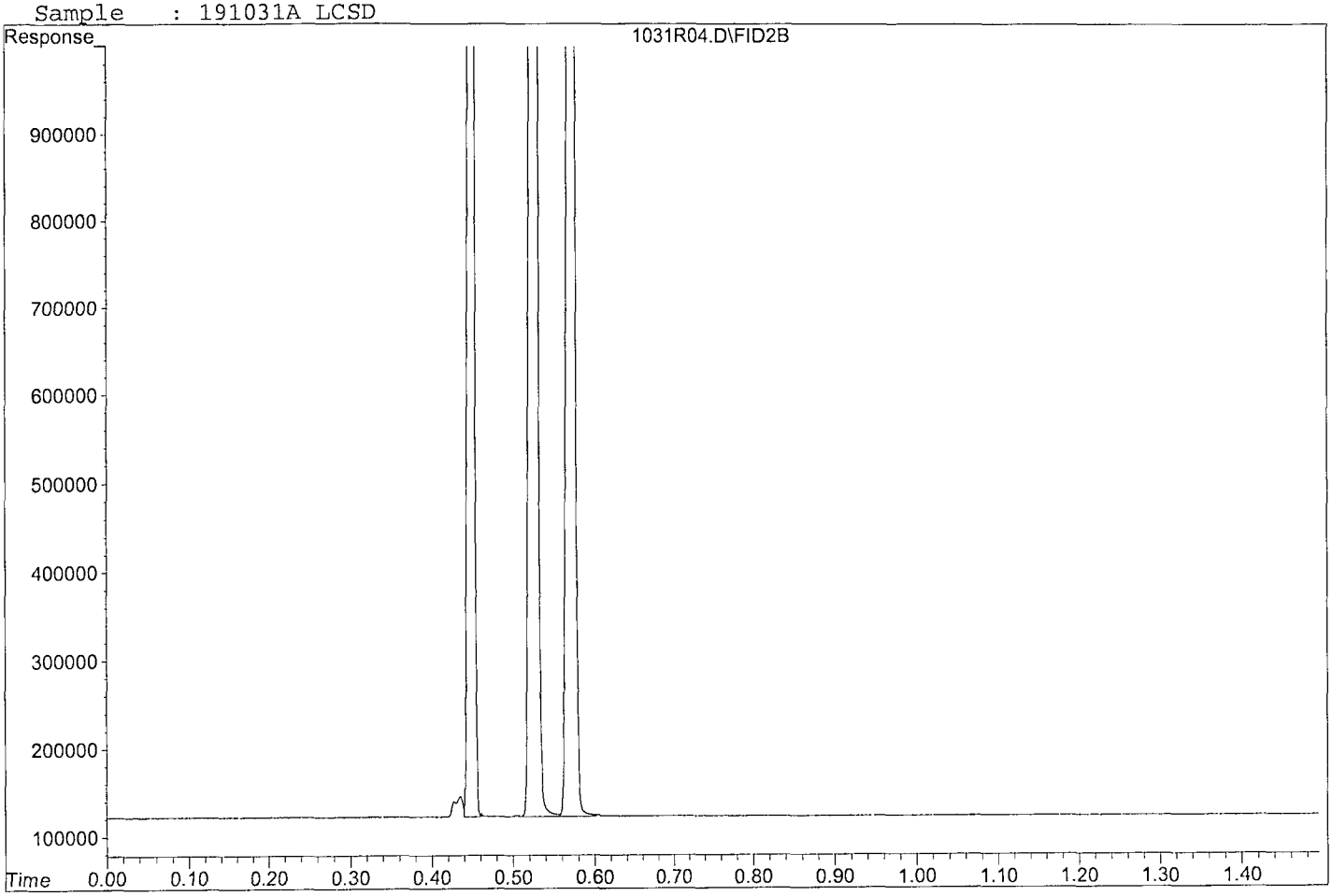
Volume Inj. : 0.500 mL
Signal Phase : CARBOPACK
Signal Info :

Compound	R.T.	Response	Conc	Units
Target Compounds				
1) ATM Methane	0.45	2041583	88.238	ppb
2) ATM Ethane	0.53	3245936	190.718	ppb
3) ATM Ethene	0.57	2292409	171.235	ppb

Target Compounds

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: G:\ROCKY\DATA\191002RS\1031R04.D
Sample : 191031A LCSD



Primary Stock Source

10,000ppmV **Manufacture Expiration:** 09/21/21

RSK Gas Mix (Scott Specialty Gas) CAT#X04NI97CP140001 LOT#160-401558175-1

1% Gas Concentration Moles = 10,000ppmV Methane, Ethane, Ethene

RSK Calibration Curve (prepared in 1.0 L Tedlar Bags at room temp) **01/02/19** **10/02/19**

Analyte	Conc Std 1 (1/2 = LOD) (ug/L)	Conc Std 2 (LOQ Chk) (ug/L)	Conc Std 3 (ug/L)	Conc Std 4 (ug/L)	Conc Std 5 (ug/L)	Conc Std 6 (ug/L)	Conc Std 7 (ug/L)
Methane (MW 16.04)	2.08	4.16	8.34	20.85	83.40	208.5	834.0
Ethane (MW 30.07)	3.91	7.81	15.6	39.09	156.35	390.9	1563.5
Ethene (MW 28.05)	3.65	7.30	14.6	36.46	145.84	364.6	1458.4
Stock Source	160-401558175-1	160-401558175-1	160-401558175-1	160-401558175-1	160-401558175-1	160-401558175-1	160-401558175-1
Stock Conc (ppmv)	10,000 ppmV	10,000 ppmV	10,000 ppmV	10,000 ppmV	10,000 ppmV	10,000 ppmV	10,000 ppmV
Stock Aliquot (mL)	0.010	0.020	0.040	0.100	0.400	1.00	4.00
Final Volume P&T Water	32 mL	32 mL	32 mL	32 mL	32 mL	32 mL	32 mL

Second Source Stock Standard 10,000ppmV **Manufacturer Exp date 9-21-2021**

RSK Gas Mix (Scott Specialty Gas) Cat.# 23452, Lot # 160-401303032-1-39774

1% Gas Concentration Moles = 10,000ppmV Methane, Ethane, Ethene

Second Source **Expires 10/03/19** **10/02/19**

2.0mL of SS from tank into 980 mL Nitrogen

final conc: 13.3ug/L Methane, 25.0 ug/L Ethane, and 23.3 ug/L Ethene

CCV/LCS/LCSD **GA 10/31/19**

Spike 0.400mL of 10,000ppmV into 32mL DI water, with 8mL Nitrogen headspace

final conc: 83.40ug/L Methane, 156.35ug/L Ethane, and 145.84ug/L Ethene

Injection Log

Directory: G:\ROCKY\DATA\191002RS\

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	2	1002R02.D	1	RSK STD 1 10/2/19		2 Oct 19 17:45
2	3	1002R03.D	1	RSK STD 2 10/2/19		2 Oct 19 17:50
3	4	1002R04.D	1	RSK STD 3 10/2/19		2 Oct 19 17:52
4	5	1002R05.D	1	RSK STD 4 10/2/19		2 Oct 19 17:57
5	6	1002R06.D	1	RSK STD 5 10/2/19		2 Oct 19 17:59
6	7	1002R07.D	1	RSK STD 6 10/2/19		2 Oct 19 18:05
7	8	1002R08.D	1	RSK STD 7 10/2/19		2 Oct 19 18:07
8	10	1002R10.D	1	SS RSK STD 5 10/2/19		2 Oct 19 18:24
9	3	1031R03.D	1	191031A LCS/CCV RSK STD 5		31 Oct 19 17:03
10	4	1031R04.D	1	191031A LCSD		31 Oct 19 17:08
11	5	1031R05.D	1	191031A BLK		31 Oct 19 17:12
14	11	1031R11.D	1	BA02159W04		31 Oct 19 17:29
15	12	1031R12.D	1	BA02160W04		31 Oct 19 17:31
16	15	1031R15.D	1	ENDING CCV RSK STD 5 10/31/19		31 Oct 19 17:42

INORGANIC ANALYSIS
Calibration Data

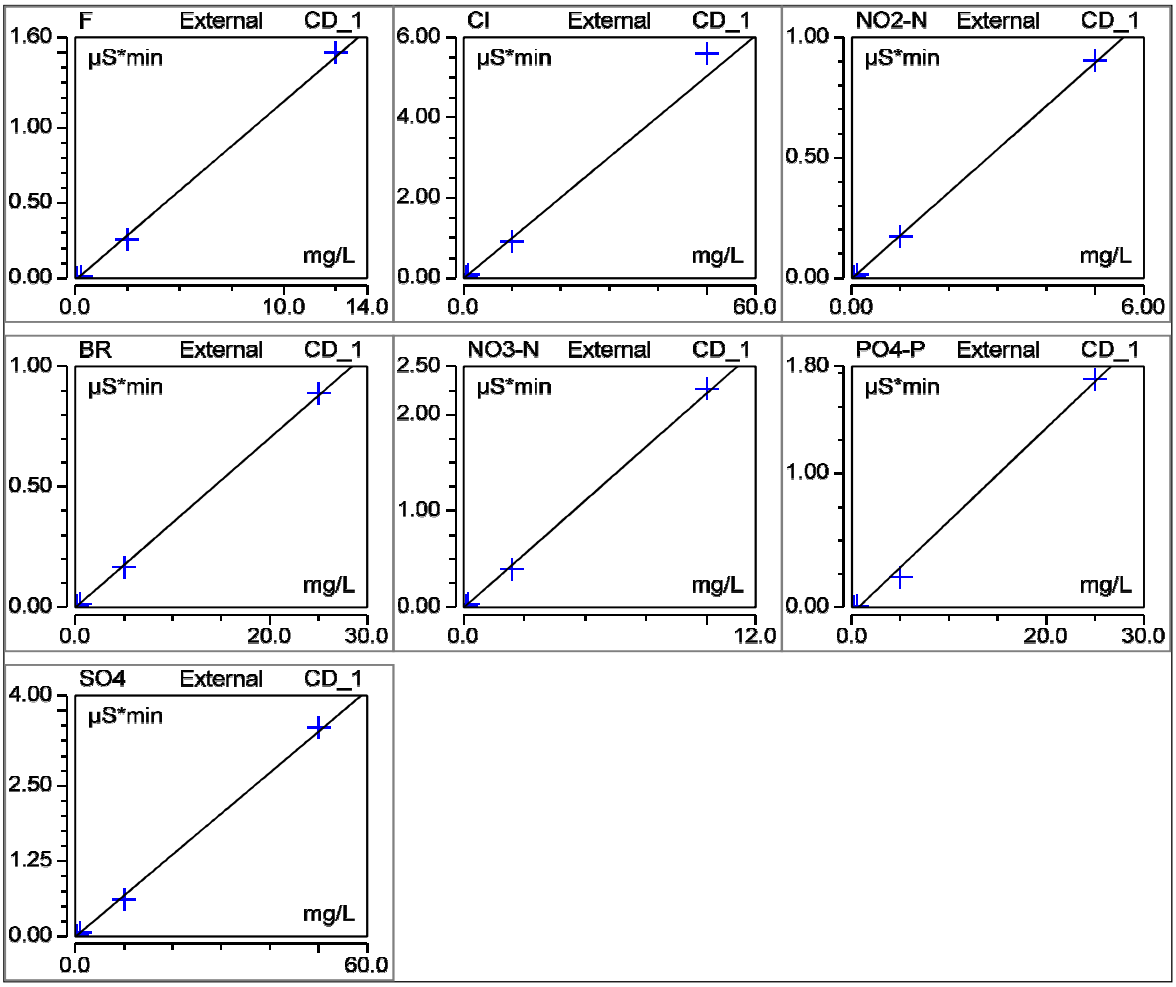
Calibration Batch Report

Sequence:	**191030iCal**	*Injection Volume:*	**25.00**
Instrument Method:	**Anions IM**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**30-Oct-2019 / 18:44**	*Run Time:*	**5.1**

Calibration Summary

Peak Name	Eval.Type	Cal.Type	Points	Offset (C0)	Slope (C1)	Curve (C2)	Coeff.Det. %
F	Area	Lin, WithOffset, 1/A	4.000	-0.014	0.119	0.000	99.7003
Cl	Area	Lin, WithOffset, 1/A²	4.000	-0.007	0.101	0.000	99.0220
NO2-N	Area	Lin, WithOffset, 1/A	4.000	-0.001	0.179	0.000	99.9623
BR	Area	Lin, WithOffset, 1/A	4.000	-0.001	0.035	0.000	99.9272
NO3-N	Area	Lin, WithOffset, 1/A	4.000	-0.005	0.223	0.000	99.7595
PO4-P	Area	Lin, WithOffset	4.000	-0.047	0.069	0.000	99.5917
SO4	Area	Lin, WithOffset, 1/A	4.000	-0.007	0.068	0.000	99.7957

Injection Name	Amount mg/L CD_1 F	Amount mg/L CD_1 Cl	Amount mg/L CD_1 NO2-N	Amount mg/L CD_1 BR	Amount mg/L CD_1 NO3-N	Amount mg/L CD_1 PO4-P	Amount mg/L CD_1 SO4
ICAL1 191030	0.125	0.4074	0.0426	0.2137	0.0909	0.7550	0.4460
ICAL2 191030	0.206	0.9606	0.0968	0.4887	0.1893	0.8434	0.9617
ICAL5 191030	2.259	9.1156	0.9605	4.7141	1.7941	3.8911	9.0418
ICAL8 191030	12.760	55.4700	5.0402	25.2835	10.2057	25.2105	50.9505

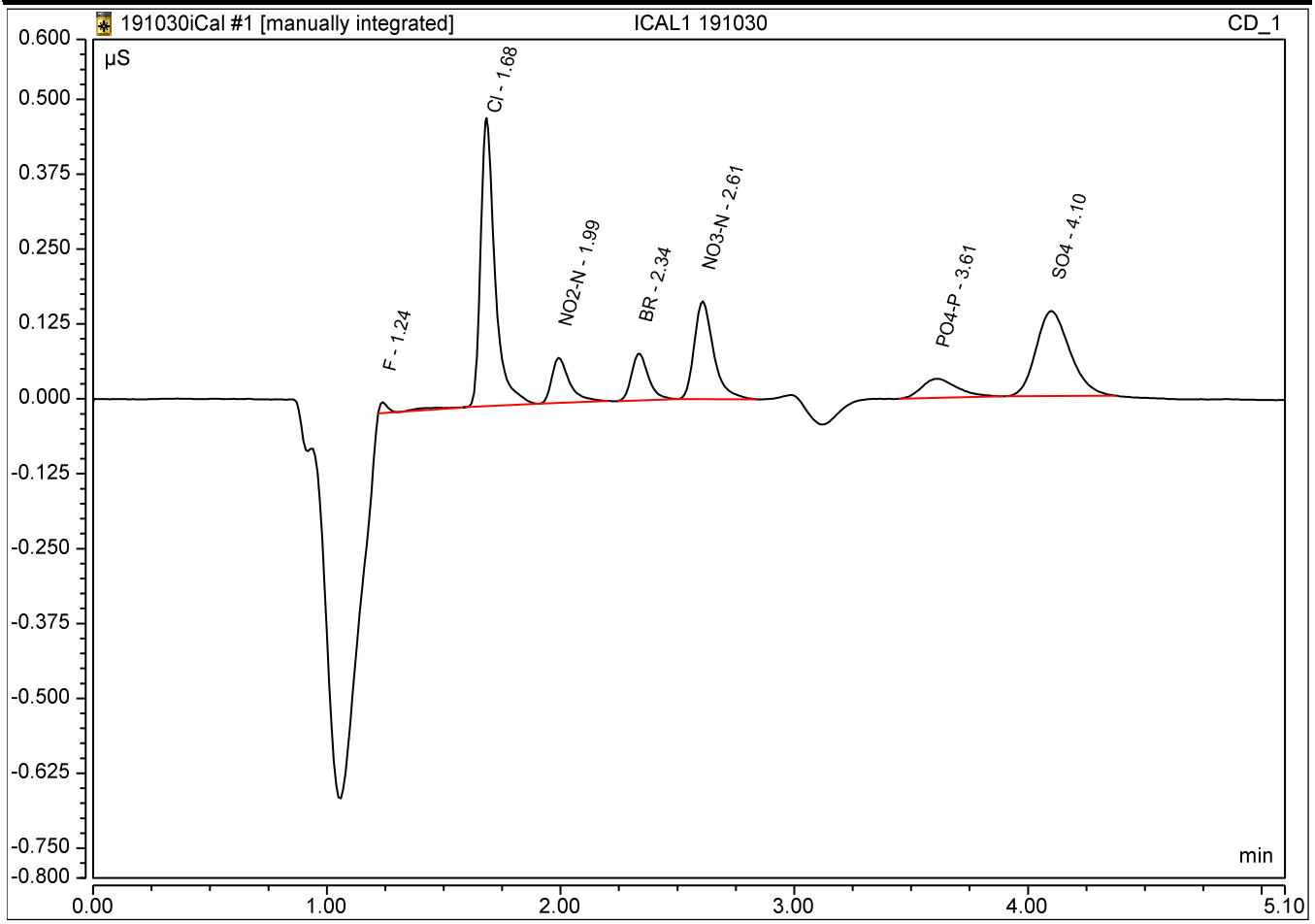


Logged on User: BW
Instrument: Charlie System_1
Sequence: 191030iCal

Peak Integration Report

Sample Name:	**ICAL1 191030**	*Inj. Vol.:*	**25uL**
Injection Type:	**Calibration Standard**	*Dilution Factor:*	**1.00**
Program:	**Anion APM 191030**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**30-Oct-2019 / 18:22**	*Run Time:*	**5.10**

No.	Time (min) min	Peak Name	Peak Type	Area (µS*min) µS*min	Height (µS) µS	Amount mg/L	Spike Level mg/L	Recovery
1	1.24	**F**	M *	0.001	0.018	0.13	0.1	125.3%
2	1.68	**Cl**	bMB*	0.034	0.481	0.41	0.4	101.8%
3	1.99	**NO2-N**	BMB	0.007	0.076	0.04	0.04	106.4%
4	2.34	**BR**	BMB	0.007	0.078	0.21	0.2	106.8%
5	2.61	**NO3-N**	BMB	0.016	0.163	0.09	0.08	113.6%
6	3.61	**PO4-P**	BMB*	0.006	0.032	0.76	0.2	377.5%
7	4.10	**SO4**	BMB	0.024	0.142	0.45	0.4	111.5%

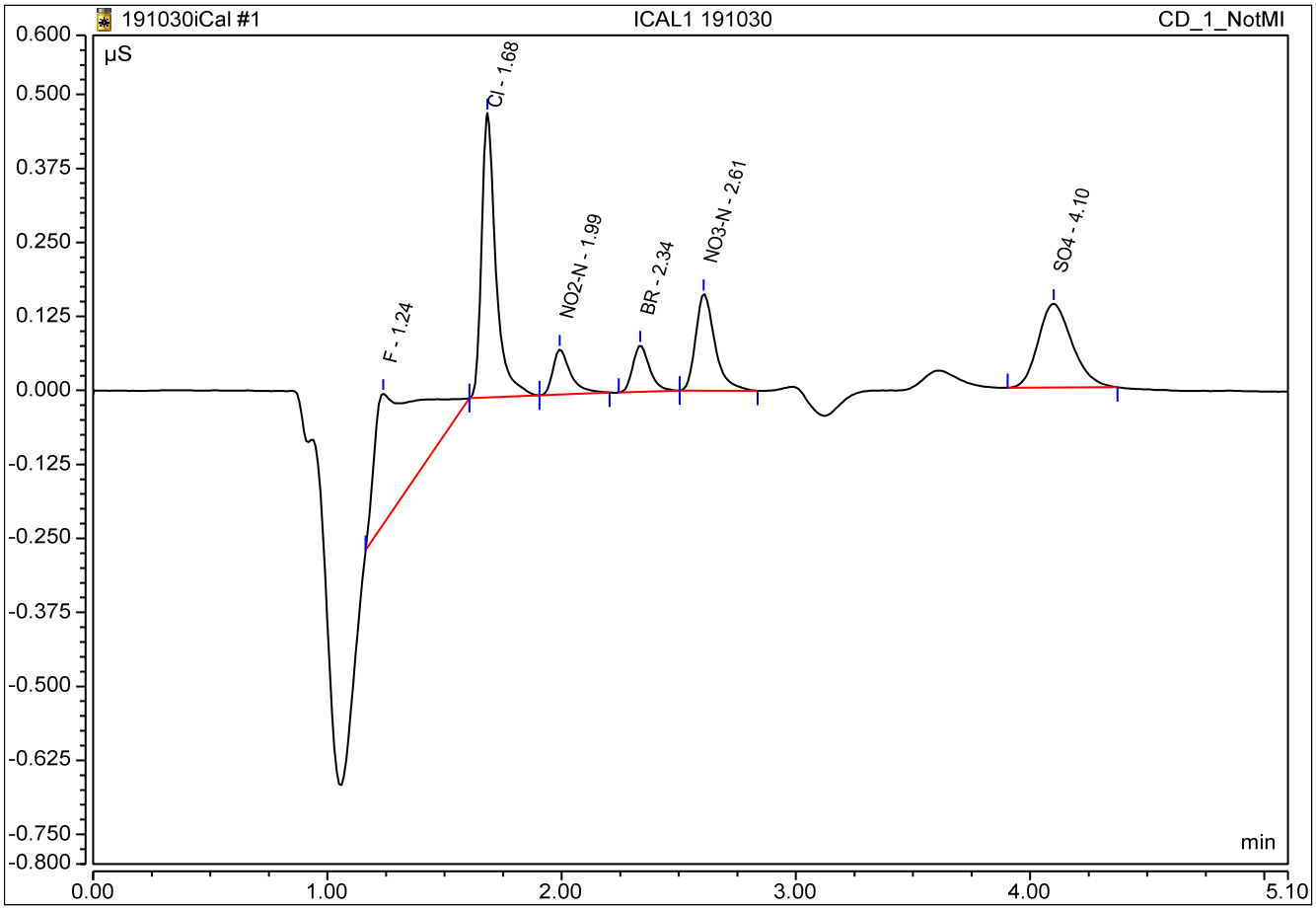


MI1 BW 191031

Not Manipulated Peak Integration Report

Sample Name:	**ICAL1 191030**	*Inj. Vol.:*	**25uL**
Injection Type:	**Calibration Standard**	*Dilution Factor:*	**1.0000**
Program:	**Anion APM 191030**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**30-Oct-2019 / 18:22**	*Run Time:*	**5.10**

No.	Time min	Peak Name	Peak Type	Area µS*min	Height µS	Ammount mg/L
1	1.24	**F**	M *	0.048	0.221	0.0926
2	1.68	**Cl**	bMB*	0.034	0.480	0.4073
3	1.99	**NO2-N**	BMB	0.007	0.076	0.0426
4	2.34	**BR**	BMB	0.007	0.078	0.2137
5	2.61	**NO3-N**	BMB	0.016	0.163	0.0909
6	n.a.	**PO4-P**	BMB*	n.a.	n.a.	n.a.
7	4.10	**SO4**	BMB	0.024	0.142	0.4460

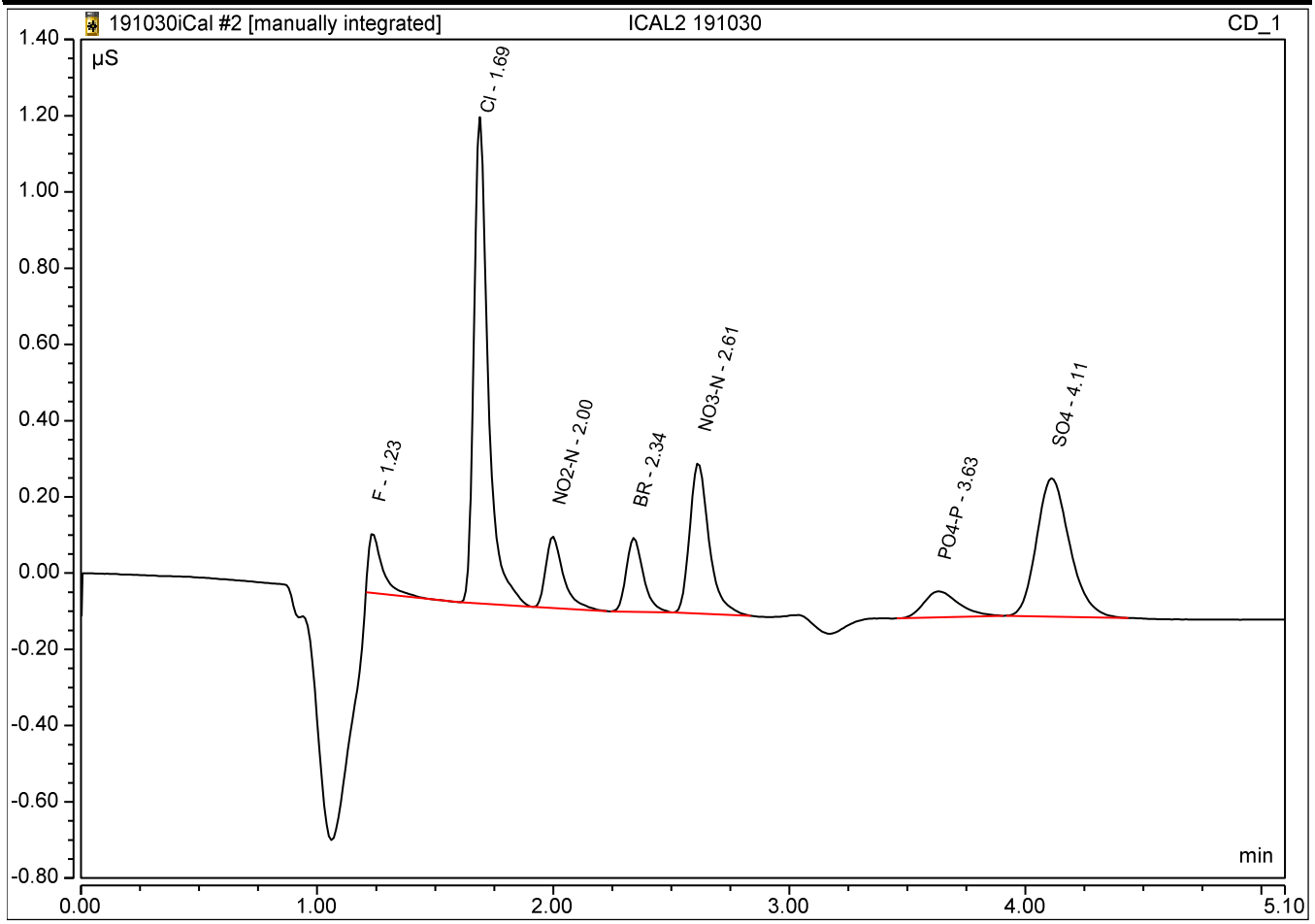


Logged on User: BW
Instrument: Charlie System_1
Sequence: 191030iCal

Peak Integration Report

Sample Name:	**ICAL2 191030**	*Inj. Vol.:*	**25uL**
Injection Type:	**Calibration Standard**	*Dilution Factor:*	**1.00**
Program:	**Anion APM 191030**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**30-Oct-2019 / 18:29**	*Run Time:*	**5.10**

No.	Time (min) min	Peak Name	Peak Type	Area (µS*min) µS*min	Height (µS) µS	Amount mg/L	Spike Level mg/L	Recovery
1	1.23	**F**	Mb*	0.011	0.157	0.21	0.25	82.3%
2	1.69	**Cl**	bMB*	0.090	1.276	0.96	1	96.1%
3	2.00	**NO2-N**	BMB	0.016	0.188	0.10	0.1	96.8%
4	2.34	**BR**	BMB	0.016	0.194	0.49	0.5	97.7%
5	2.61	**NO3-N**	BMB	0.038	0.395	0.19	0.2	94.6%
6	3.63	**PO4-P**	BMB*	0.012	0.068	0.84	0.5	168.7%
7	4.11	**SO4**	BMB	0.059	0.363	0.96	1	96.2%

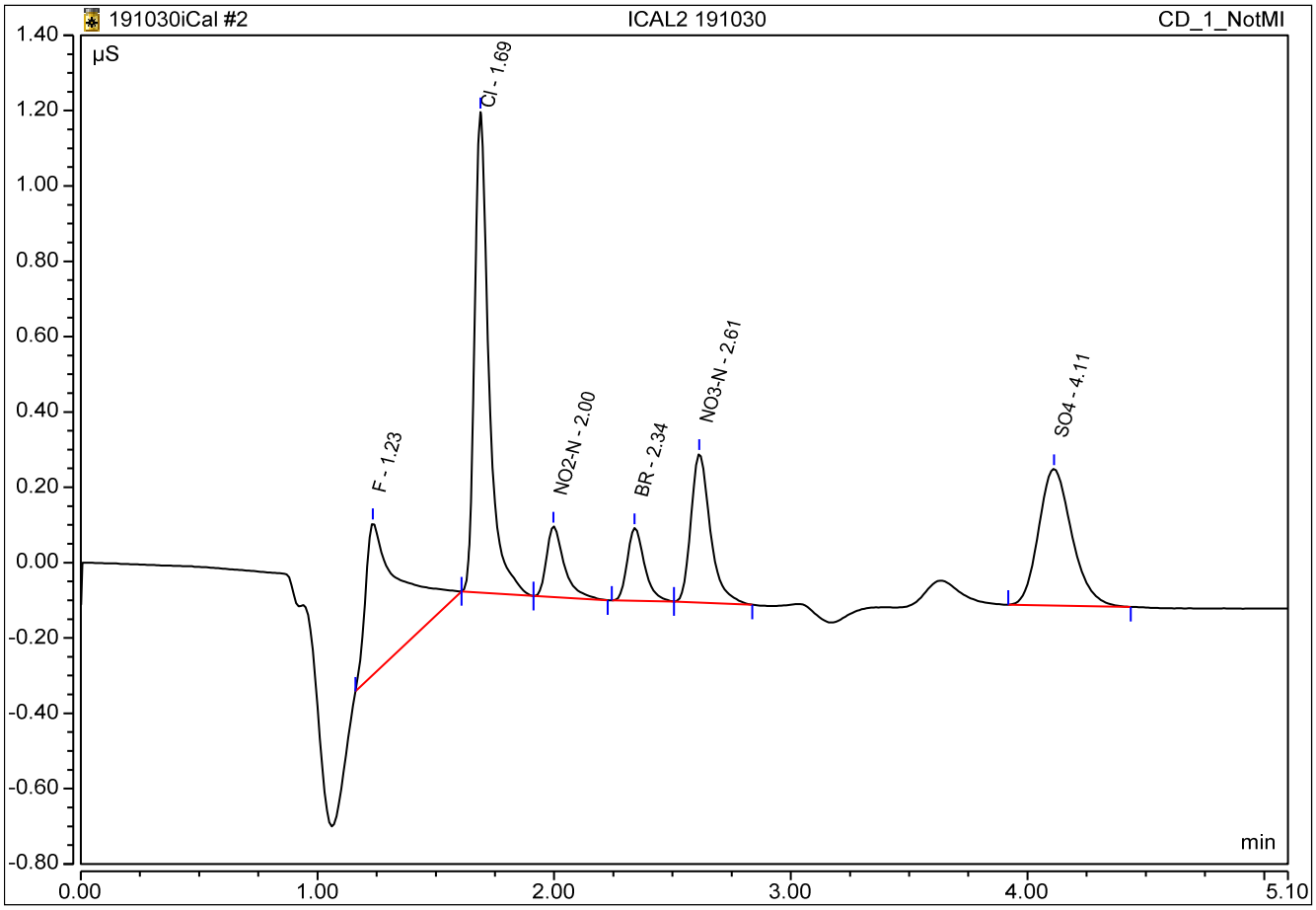


MI1 BW 190931

Not Manipulated Peak Integration Report

Sample Name:	**ICAL2 191030**	*Inj. Vol.:*	**25uL**
Injection Type:	**Calibration Standard**	*Dilution Factor:*	**1.0000**
Program:	**Anion APM 191030**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**30-Oct-2019 / 18:29**	*Run Time:*	**5.10**

No.	Time min	Peak Name	Peak Type	Area µS*min	Height µS	Ammount mg/L
1	1.23	**F**	Mb*	0.069	0.404	0.2711
2	1.69	**Cl**	bMB*	0.090	1.276	0.9610
3	2.00	**NO2-N**	BMB	0.016	0.188	0.0968
4	2.34	**BR**	BMB	0.016	0.194	0.4887
5	2.61	**NO3-N**	BMB	0.038	0.395	0.1893
6	n.a.	**PO4-P**	BMB*	n.a.	n.a.	n.a.
7	4.11	**SO4**	BMB	0.059	0.363	0.9617

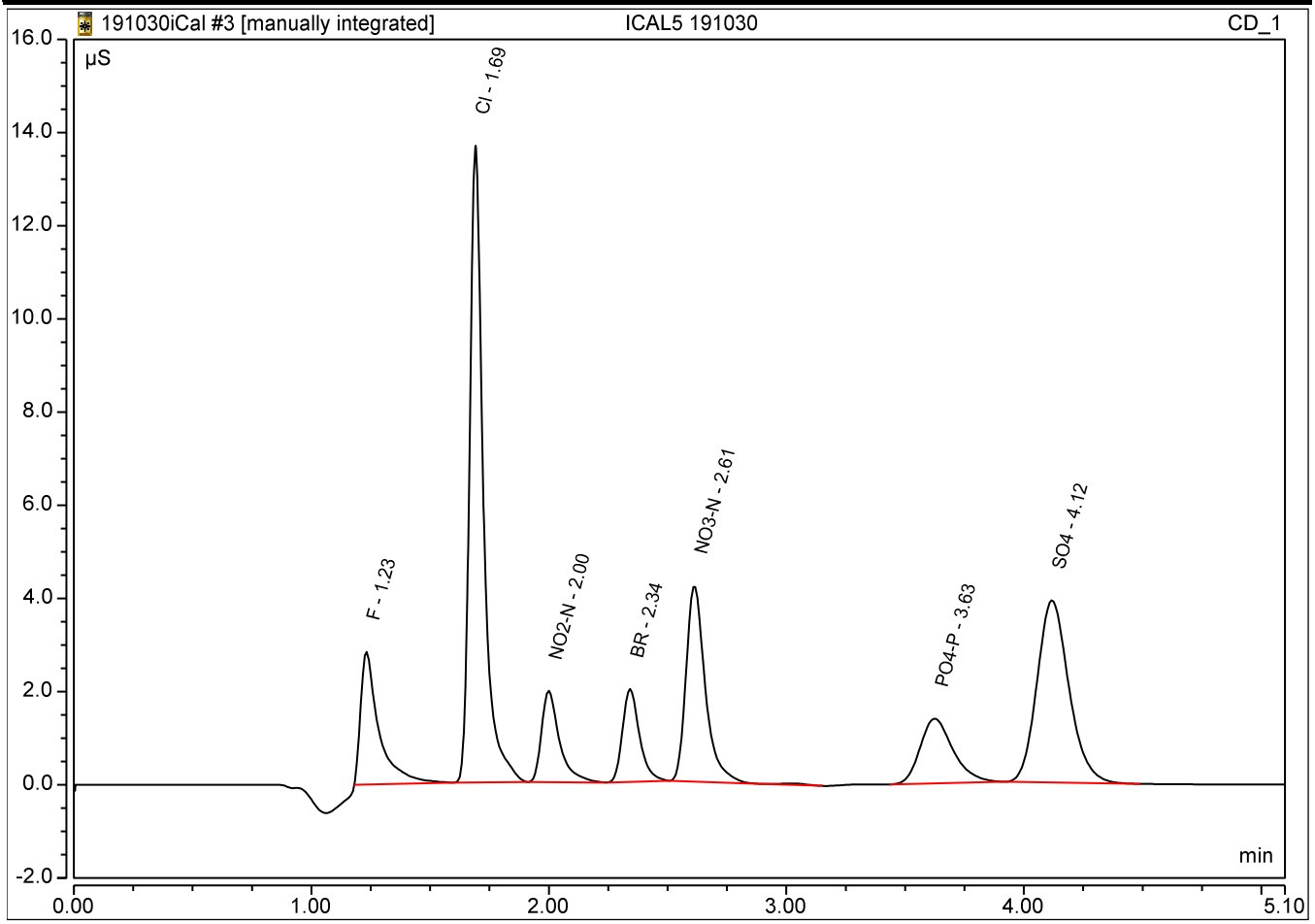


Logged on User: BW
Instrument: Charlie System_1
Sequence: 191030iCal

Peak Integration Report

Sample Name:	**ICAL5 191030**	*Inj. Vol.:*	**25uL**
Injection Type:	**Calibration Standard**	*Dilution Factor:*	**1.00**
Program:	**Anion APM 191030**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**30-Oct-2019 / 18:37**	*Run Time:*	**5.10**

No.	Time (min) min	Peak Name	Peak Type	Area (µS*min) µS*min	Height (µS) µS	Amount mg/L	Spike Level mg/L	Recovery
1	1.23	**F**	MB*	0.255	2.859	2.26	2.5	90.4%
2	1.69	**Cl**	BMB	0.913	13.668	9.12	10	91.2%
3	2.00	**NO2-N**	BMB	0.171	1.960	0.96	1	96.1%
4	2.34	**BR**	BMB	0.165	1.998	4.71	5	94.3%
5	2.61	**NO3-N**	BMB	0.395	4.211	1.79	2	89.7%
7	3.63	**PO4-P**	BMB	0.223	1.389	3.89	5	77.8%
8	4.12	**SO4**	BMB	0.610	3.910	9.04	10	90.4%

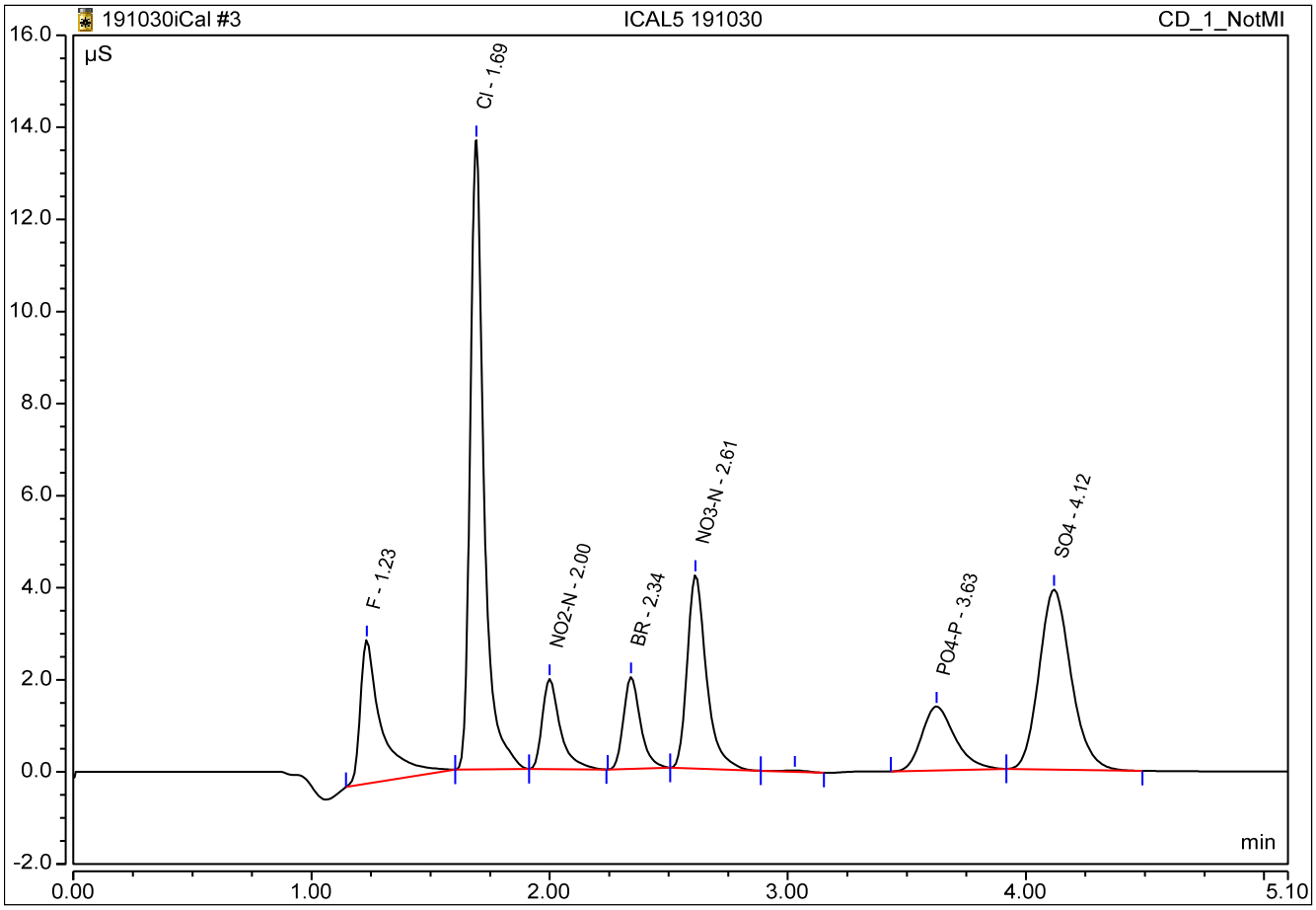


MI1 BW 190931

Not Manipulated Peak Integration Report

Sample Name:	**ICAL5 191030**	*Inj. Vol.:*	**25uL**
Injection Type:	**Calibration Standard**	*Dilution Factor:*	**1.0000**
Program:	**Anion APM 191030**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**30-Oct-2019 / 18:37**	*Run Time:*	**5.10**

No.	Time min	Peak Name	Peak Type	Area µS*min	Height µS	Ammount mg/L
1	1.23	**F**	MB*	0.321	3.121	2.4710
2	1.69	**Cl**	BMB	0.913	13.668	9.1151
3	2.00	**NO2-N**	BMB	0.171	1.960	0.9605
4	2.34	**BR**	BMB	0.165	1.998	4.7141
5	2.61	**NO3-N**	BMB	0.395	4.211	1.7941
7	3.63	**PO4-P**	BMB	0.223	1.389	5.0000
8	4.12	**SO4**	BMB	0.610	3.910	9.0418

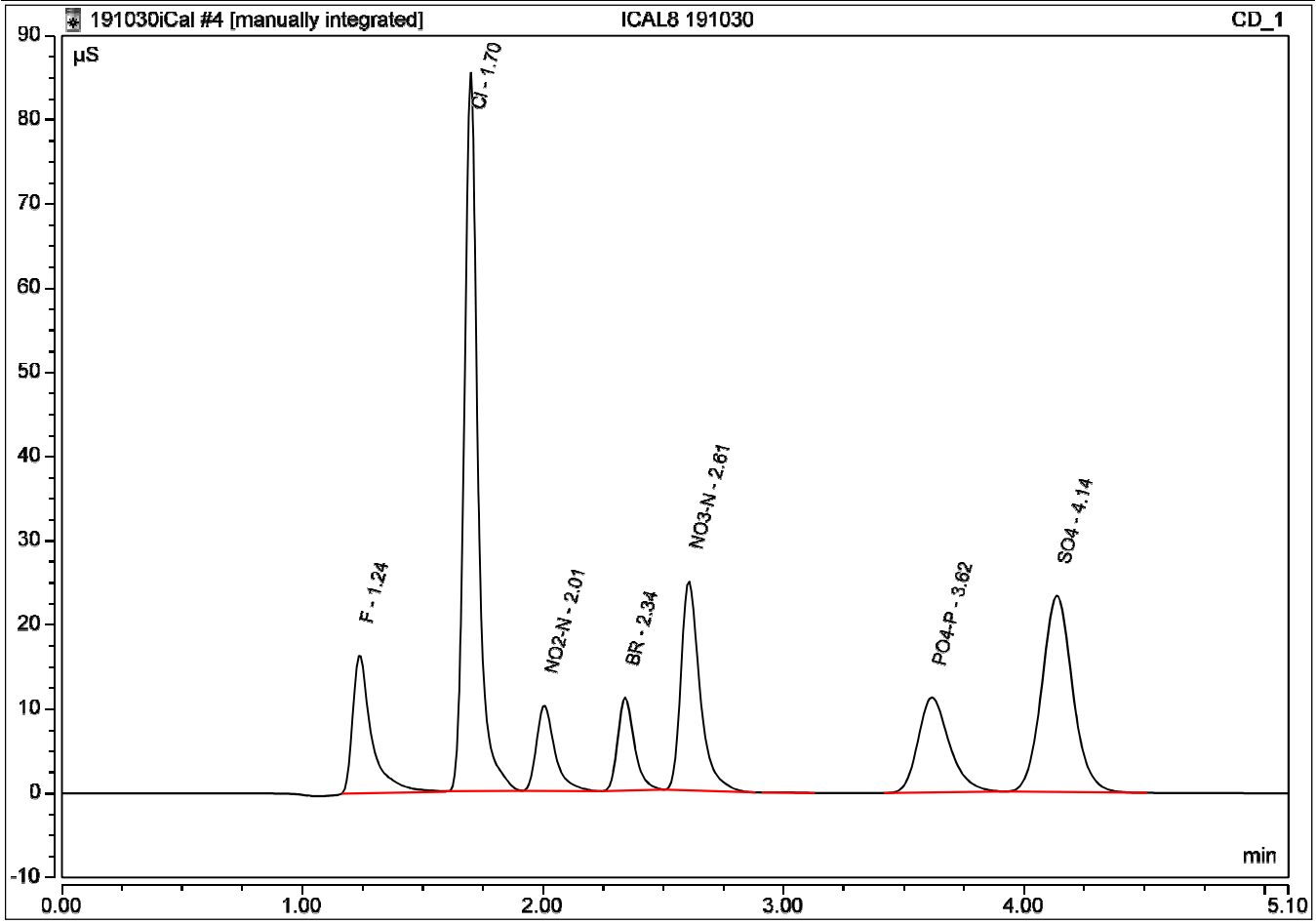


Logged on User: BW
Instrument: Charlie System_1
Sequence: 191030iCal

Peak Integration Report

Sample Name:	**ICAL8 191030**	*Inj. Vol.:*	**25uL**
Injection Type:	**Calibration Standard**	*Dilution Factor:*	**1.00**
Program:	**Anion APM 191030**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**30-Oct-2019 / 18:44**	*Run Time:*	**5.10**

No.	Time (min) min	Peak Name	Peak Type	Area (µS*min) µS*min	Height (µS) µS	Amount mg/L	Spike Level mg/L	Recovery
1	1.24	**F**	BM *	1.503	16.491	12.76	12.5	102.1%
2	1.70	**Cl**	BMB	5.591	85.358	55.47	50	110.9%
3	2.01	**NO2-N**	BMB	0.903	10.178	5.04	5	100.8%
4	2.34	**BR**	BMB	0.890	11.073	25.28	25	101.1%
5	2.61	**NO3-N**	BMB	2.269	24.891	10.21	10	102.1%
7	3.62	**PO4-P**	BMB	1.704	11.286	25.21	25	100.8%
8	4.14	**SO4**	BMB	3.469	23.343	50.95	50	101.9%

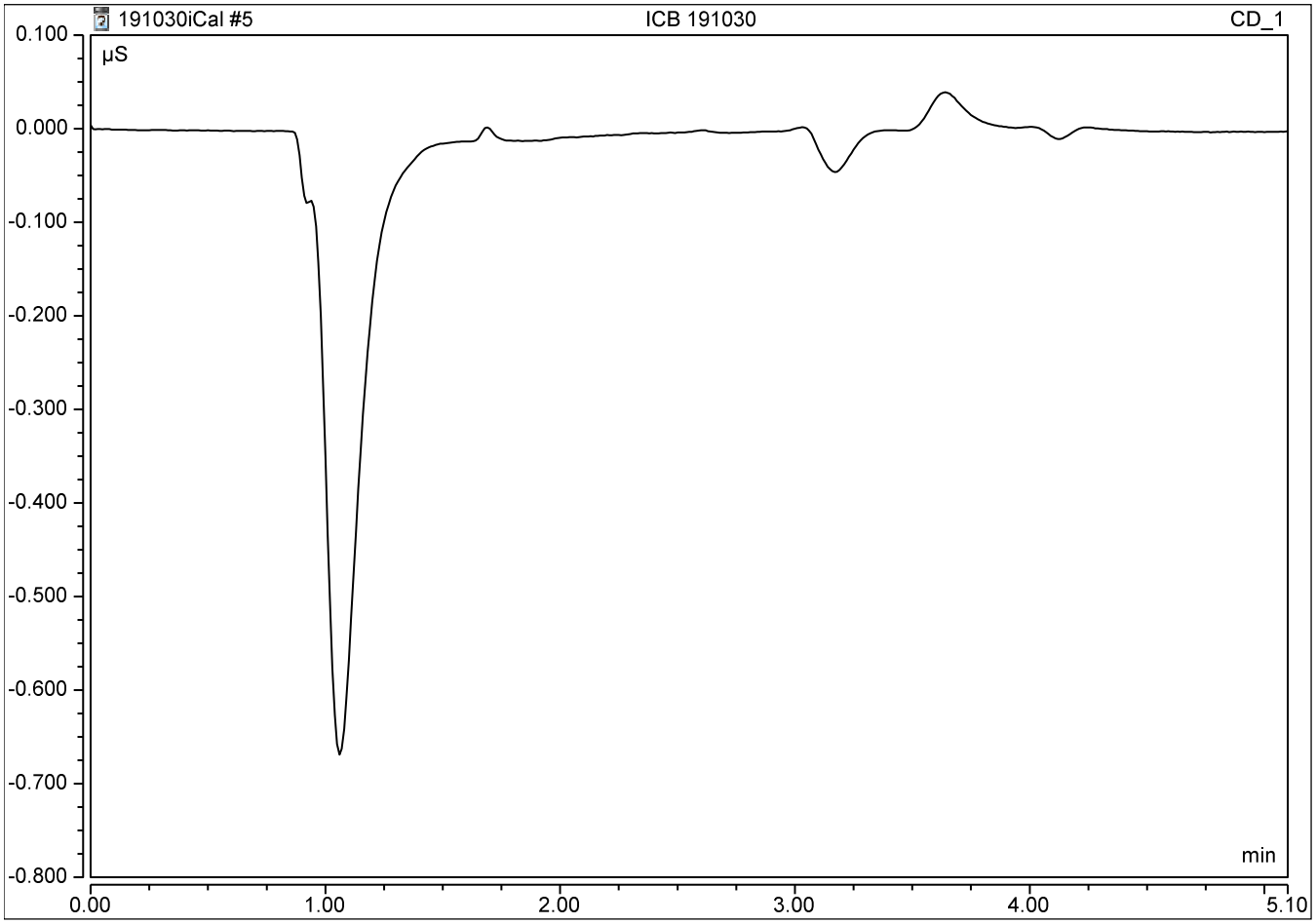


Logged on User: BW
Instrument: Charlie System_1
Sequence: 191030iCal

Peak Integration Report

Sample Name:	**ICB 191030**	*Inj. Vol.:*	**25uL**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.00**
Program:	**Anion APM 191030**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**30-Oct-2019 / 18:52**	*Run Time:*	**5.10**

No.	Time (min) min	Peak Name	Peak Type	Area (µS*min) µS*min	Height (µS) µS	Amount mg/L	Spike Level mg/L	Recovery

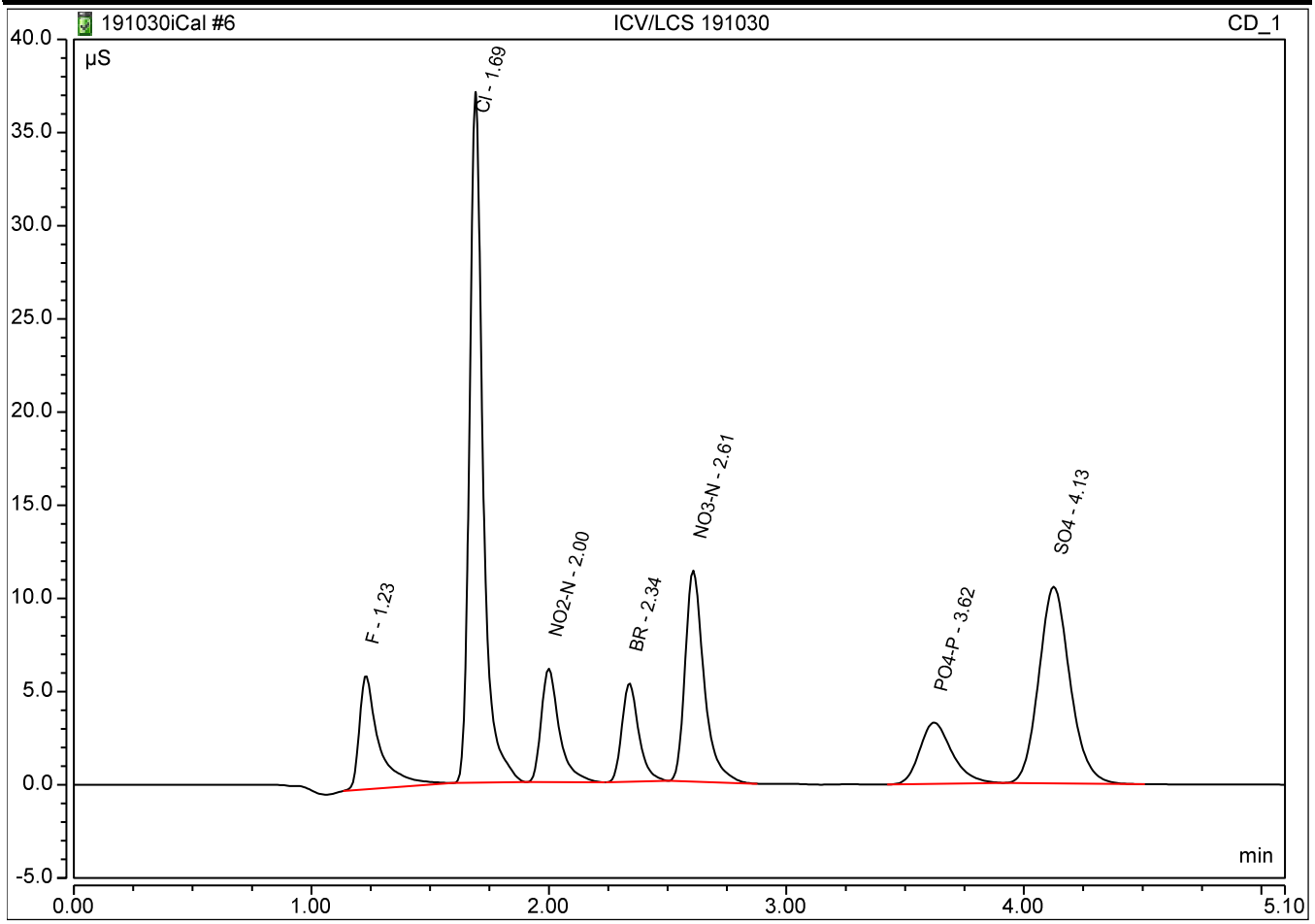


Logged on User: BW
Instrument: Charlie System_1
Sequence: 191030iCal

Peak Integration Report

Sample Name:	**ICV/LCS 191030**	*Inj. Vol.:*	**25uL**
Injection Type:	**Check Standard**	*Dilution Factor:*	**1.00**
Program:	**Anion APM 191030**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**30-Oct-2019 / 18:59**	*Run Time:*	**5.10**

No.	Time (min) min	Peak Name	Peak Type	Area (µS*min) µS*min	Height (µS) µS	Amount mg/L	Spike Level mg/L	Recovery
1	1.23	**F**	BMB	0.589	6.116	5.07	5	101.5%
2	1.69	**Cl**	BMB	2.435	37.074	24.19	25	96.8%
3	2.00	**NO2-N**	BMB	0.539	6.101	3.01	3.04	99.1%
4	2.34	**BR**	BMB	0.435	5.293	12.37	12.5	99.0%
5	2.61	**NO3-N**	BMB	1.049	11.325	4.73	5	94.5%
6	3.62	**PO4-P**	BMB	0.517	3.291	8.12	10	81.2%
7	4.13	**SO4**	BMB	1.608	10.548	23.67	25	94.7%



Algorithm Check
y = Peak Area
x = mg/L S04

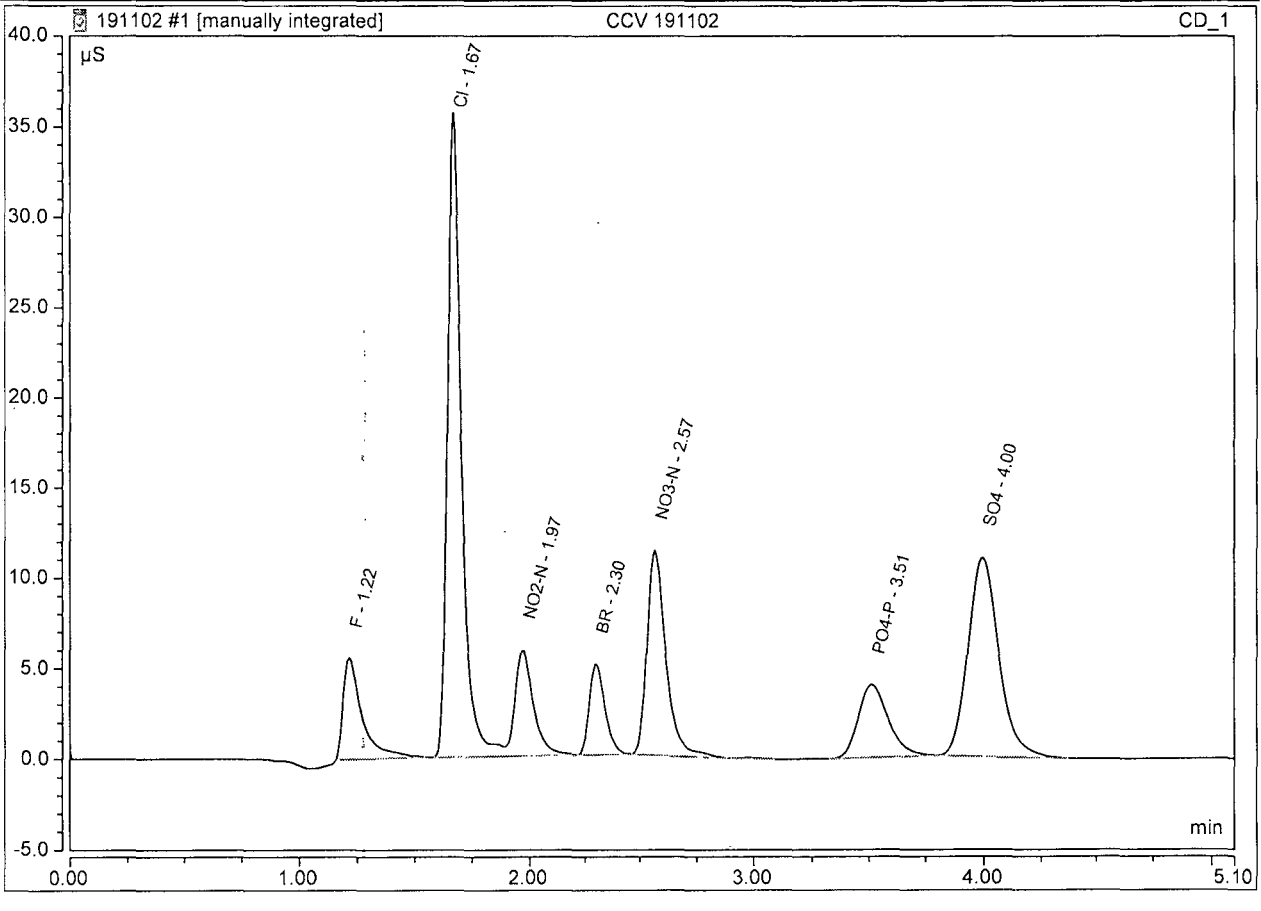
y = 0.0682 x + -0.0066
y = 1.6082 therefor x =

Logged on User: BW
Instrument: Charlie System_1
Sequence: 191102

Peak Integration Report

Sample Name:	**CCV 191102**	*Inj. Vol.:*	**25uL**
Injection Type:	**Check Standard**	*Dilution Factor:*	**1.00**
Program:	**Anion APM 191030**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**02-Nov-2019 / 10:33**	*Run Time:*	**5.10**

No.	Time (min) min	Peak Name	Peak Type	Area (µS*min) µS*min	Height (µS) µS	Amount mg/L	Spike Level mg/L	Recovery
1	1.22	**F**	MB*	0.537	5.603	4.63	5	92.6%
2	1.67	**Cl**	BM *	2.529	35.670	25.13	25	100.5%
3	1.97	**NO2-N**	MB*	0.549	5.865	3.06	3.04	100.8%
4	2.30	**BR**	BMB	0.422	5.038	12.00	12.5	96.0%
5	2.57	**NO3-N**	BMB	1.097	11.325	4.95	5	98.9%
7	3.51	**PO4-P**	BMB	0.619	4.029	9.59	10	95.9%
8	4.00	**SO4**	BMB	1.680	10.999	24.72	25	98.9%

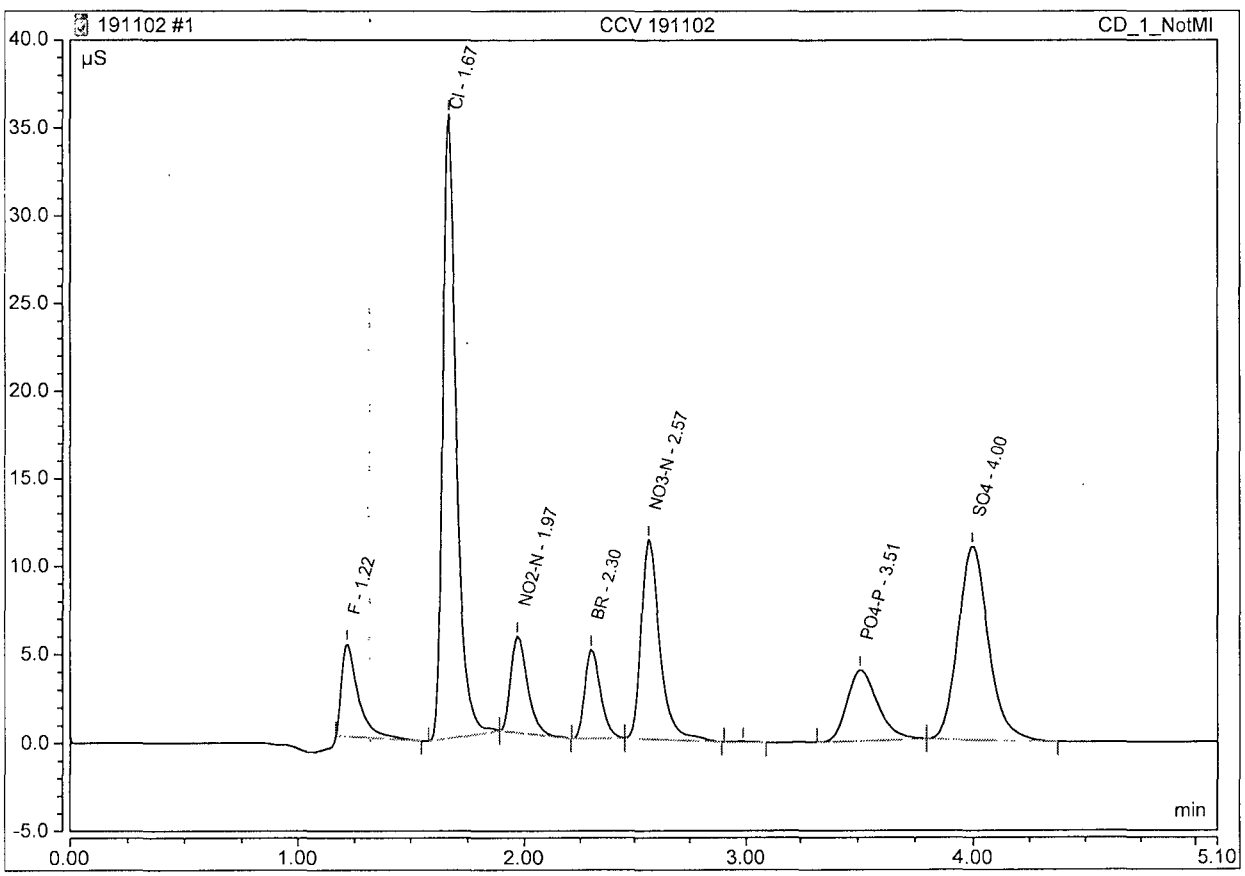


MI1 BW 191104

Not Manipulated Peak Integration Report

Sample Name:	**CCV 191102**	*Inj. Vol.:*	**25uL**
Injection Type:	**Check Standard**	*Dilution Factor:*	**1.0000**
Program:	**Anion APM 191030**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**02-Nov-2019 / 10:33**	*Run Time:*	**5.10**

No.	Time min	Peak Name	Peak Type	Area µS*min	Height µS	Ammount mg/L
1	1.22	F	MB*	0.451	5.219	3.6061
2	1.67	Cl	BM *	2.448	35.523	24.3175
3	1.97	NO2-N	MB*	0.466	5.473	2.6027
4	2.30	BR	BMB	0.422	5.038	12.0028
5	2.57	NO3-N	BMB	1.097	11.325	4.9452
7	3.51	PO4-P	BMB	0.619	4.029	10.3445
8	4.00	SO4	BMB	1.680	10.999	24.7210

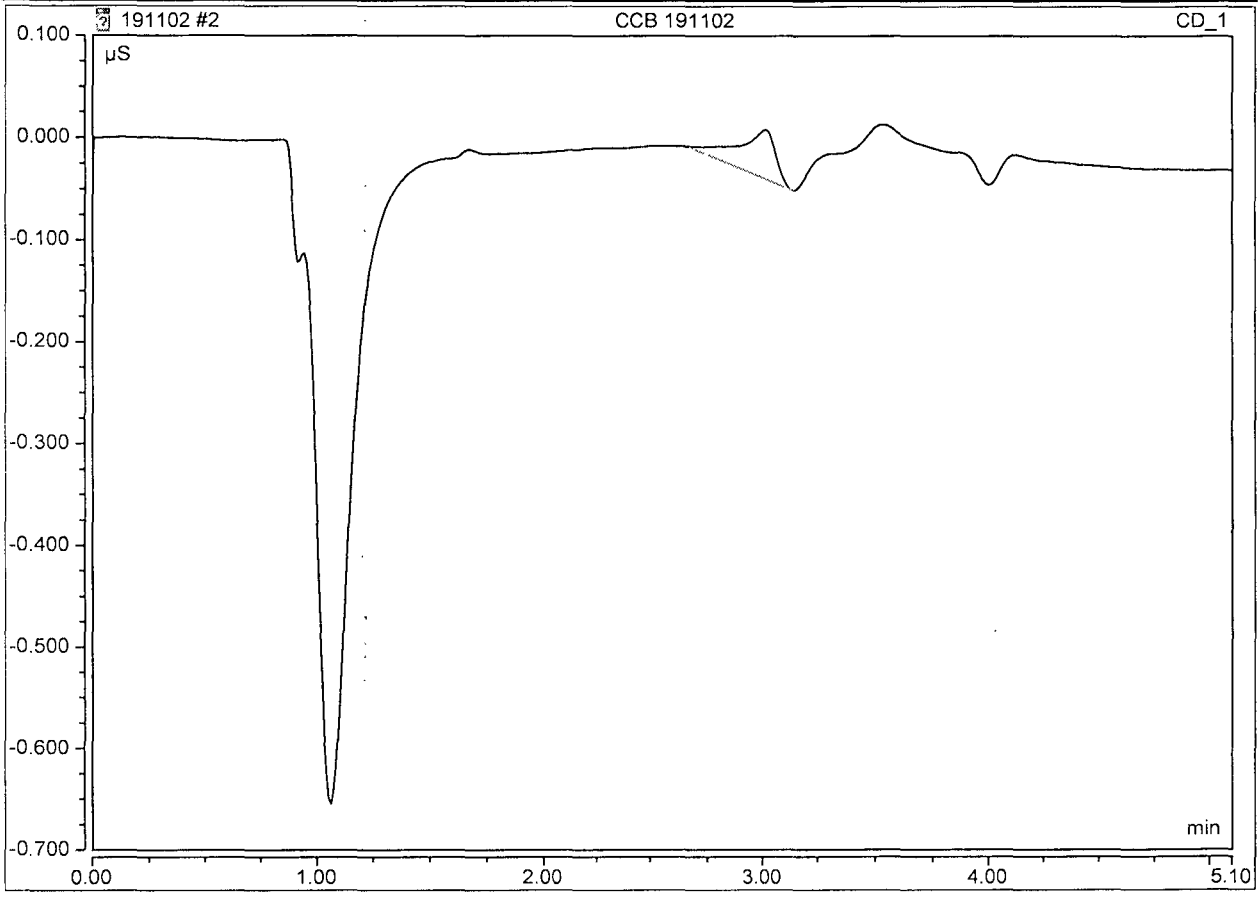


Logged on User: BW
Instrument: Charlie System_1
Sequence: 191102

Peak Integration Report

Sample Name:	**CCB 191102**	*Inj. Vol.:*	**25uL**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.00**
Program:	**Anion APM 191030**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**02-Nov-2019 / 10:40**	*Run Time:*	**5.10**

No.	Time (min) min	Peak Name	Peak Type	Area (µS*min) µS*min	Height (µS) µS	Amount mg/L	Spike Level mg/L	Recovery

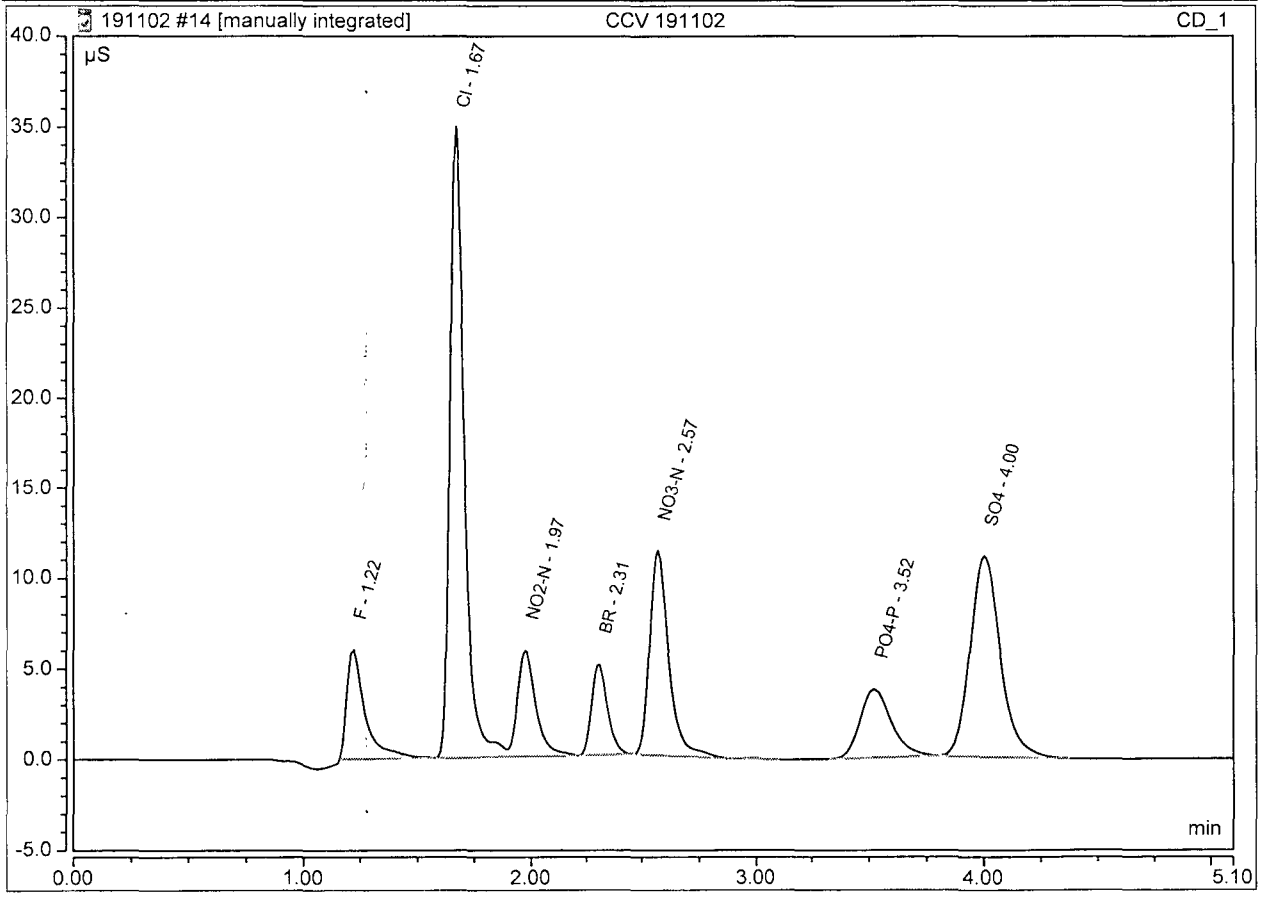


Logged on User: BW
Instrument: Charlie System_1
Sequence: 191102

Peak Integration Report

Sample Name:	**CCV 191102**	*Inj. Vol.:*	**25uL**
Injection Type:	**Check Standard**	*Dilution Factor:*	**1.00**
Program:	**Anion APM 191030**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**02-Nov-2019 / 12:10**	*Run Time:*	**5.10**

No.	Time (min) min	Peak Name	Peak Type	Area (µS*min) µS*min	Height (µS) µS	Amount mg/L	Spike Level mg/L	Recovery
1	1.22	**F**	BMB	0.568	6.030	4.89	5	97.8%
2	1.67	**Cl**	BM *	2.534	34.893	25.18	25	100.7%
3	1.97	**NO2-N**	MB*	0.547	5.848	3.06	3.04	100.5%
4	2.31	**BR**	BMB	0.422	5.020	12.00	12.5	96.0%
5	2.57	**NO3-N**	BMB	1.092	11.276	4.92	5	98.4%
7	3.52	**PO4-P**	BMB	0.582	3.766	9.05	10	90.5%
8	4.00	**SO4**	BMB	1.683	11.045	24.76	25	99.0%

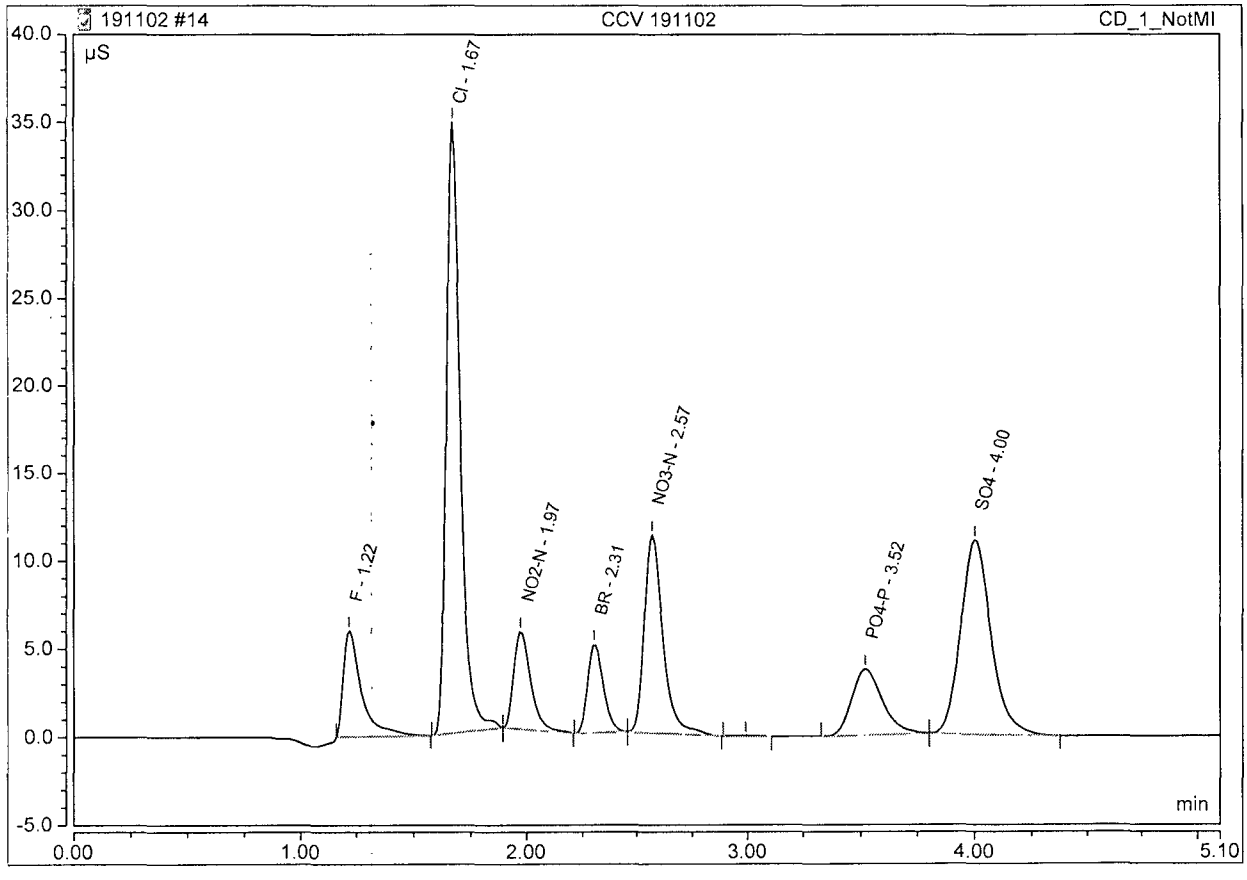


MI1 BW 191104

Not Manipulated Peak Integration Report

Sample Name:	**CCV 191102**	*Inj. Vol.:*	**25uL**
Injection Type:	**Check Standard**	*Dilution Factor:*	**1.0000**
Program:	**Anion APM 191030**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**02-Nov-2019 / 12:10**	*Run Time:*	**5.10**

No.	Time min	Peak Name	Peak Type	Area µS*min	Height µS	Ammount mg/L
1	1.22	**F**	BMB	0.568	6.030	4.6216
2	1.67	**Cl**	BM *	2.473	34.780	24.5682
3	1.97	**NO2-N**	MB*	0.486	5.559	2.7173
4	2.31	**BR**	BMB	0.422	5.020	11.9991
5	2.57	**NO3-N**	BMB	1.092	11.276	4.9218
7	3.52	**PO4-P**	BMB	0.582	3.766	9.8438
8	4.00	**SO4**	BMB	1.683	11.045	24.7607

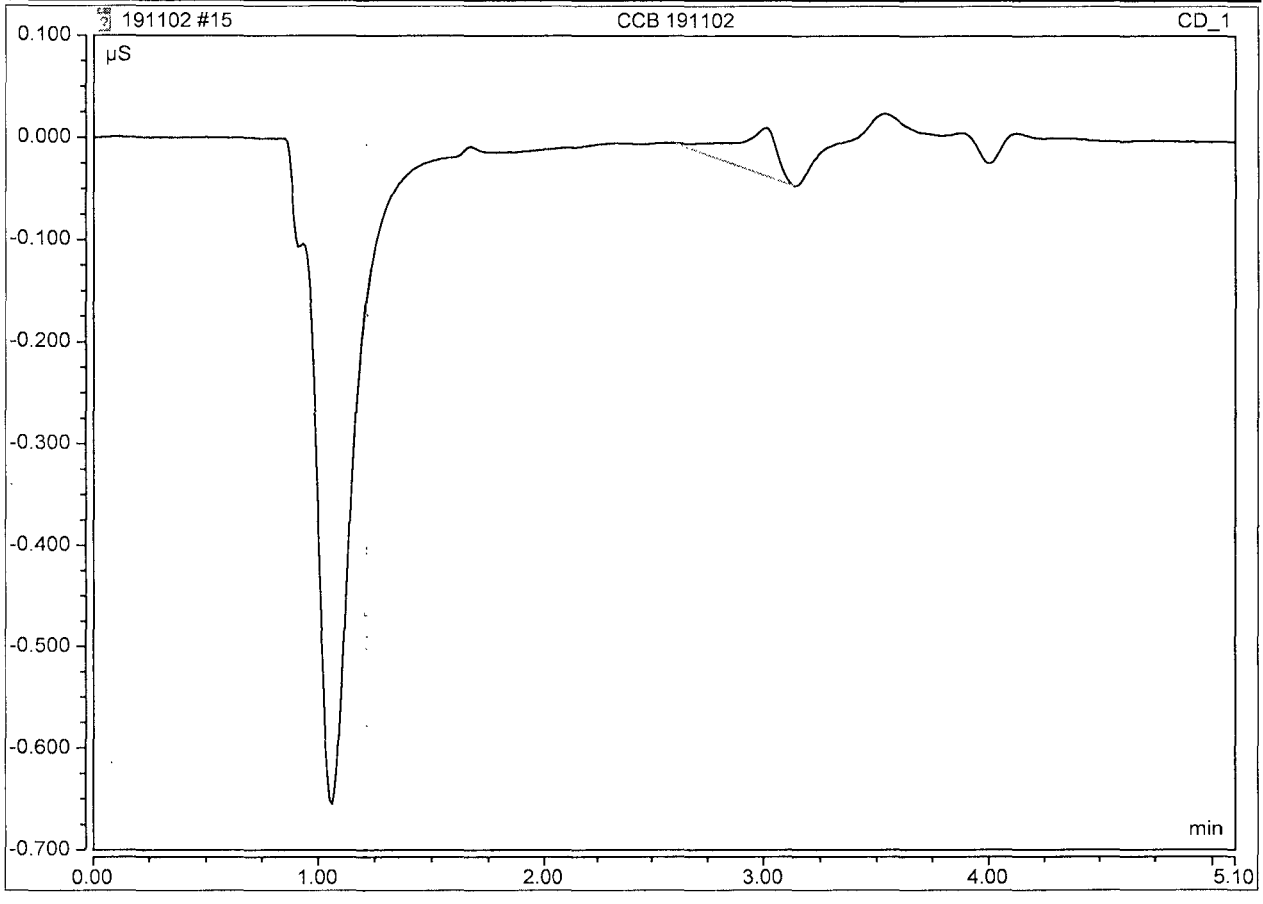


Logged on User: BW
Instrument: Charlie System_1
Sequence: 191102

Peak Integration Report

Sample Name:	**CCB 191102**	*Inj. Vol.:*	**25uL**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.00**
Program:	**Anion APM 191030**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**02-Nov-2019 / 12:17**	*Run Time:*	**5.10**

No.	Time (min) min	Peak Name	Peak Type	Area (µS*min) µS*min	Height (µS) µS	Amount mg/L	Spike Level mg/L	Recovery

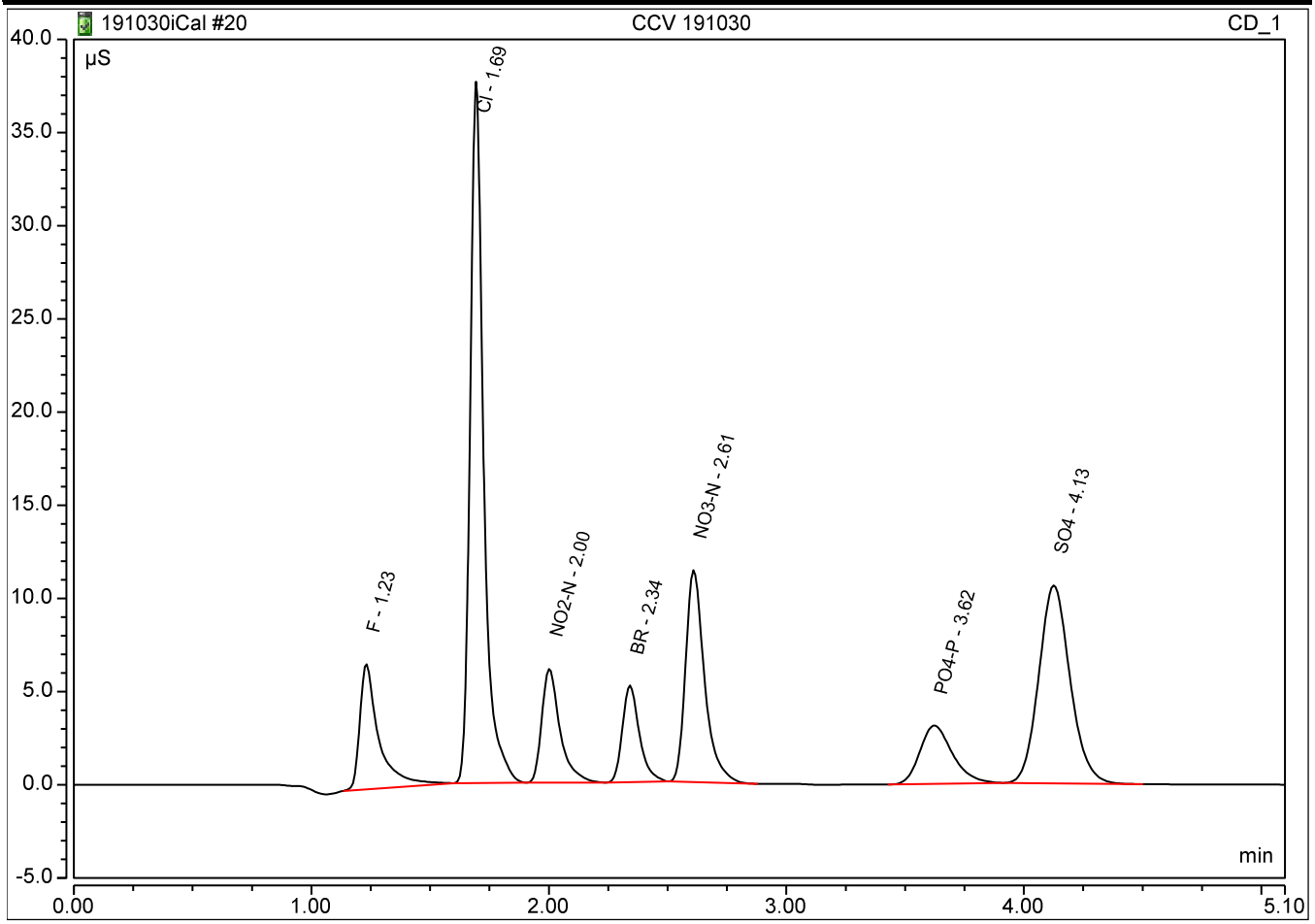


Logged on User: BW
Instrument: Charlie System_1
Sequence: 191030iCal

Peak Integration Report

Sample Name:	**CCV 191030**	*Inj. Vol.:*	**25uL**
Injection Type:	**Check Standard**	*Dilution Factor:*	**1.00**
Program:	**Anion APM 191030**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**30-Oct-2019 / 20:44**	*Run Time:*	**5.10**

No.	Time (min) min	Peak Name	Peak Type	Area (µS*min) µS*min	Height (µS) µS	Amount mg/L	Spike Level mg/L	Recovery
1	1.23	**F**	BMB	0.625	6.726	5.37	5	107.4%
2	1.69	**Cl**	BMB	2.473	37.640	24.57	25	98.3%
3	2.00	**NO2-N**	BMB	0.543	6.116	3.03	3.04	99.8%
4	2.34	**BR**	BMB	0.431	5.187	12.25	12.5	98.0%
5	2.61	**NO3-N**	BMB	1.054	11.378	4.75	5	95.1%
6	3.62	**PO4-P**	BMB	0.497	3.129	7.83	10	78.3%
7	4.13	**SO4**	BMB	1.622	10.621	23.88	25	95.5%

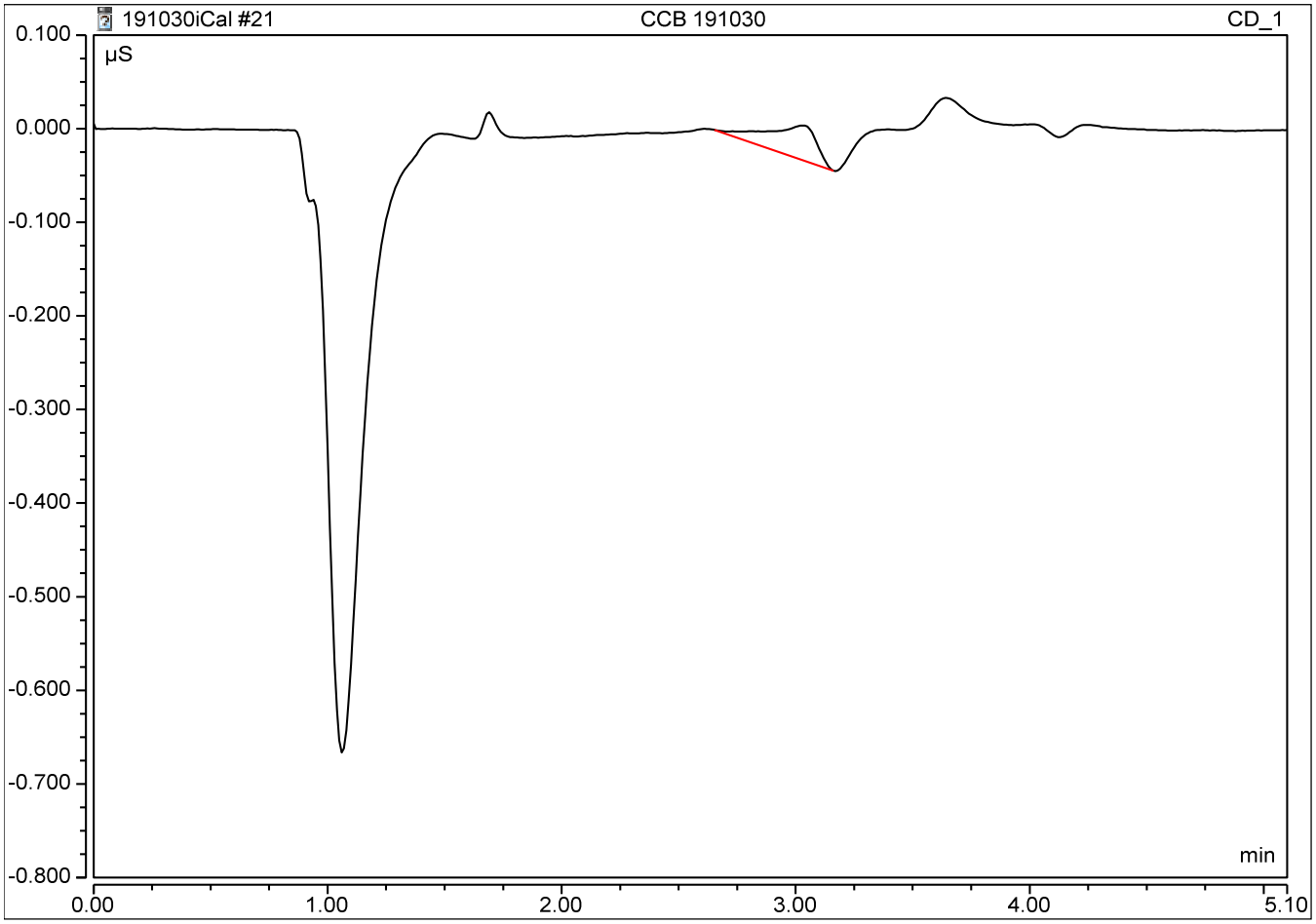


Logged on User: BW
Instrument: Charlie System_1
Sequence: 191030iCal

Peak Integration Report

Sample Name:	**CCB 191030**	*Inj. Vol.:*	**25uL**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.00**
Program:	**Anion APM 191030**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**30-Oct-2019 / 20:52**	*Run Time:*	**5.10**

No.	Time (min) min	Peak Name	Peak Type	Area (µS*min) µS*min	Height (µS) µS	Amount mg/L	Spike Level mg/L	Recovery



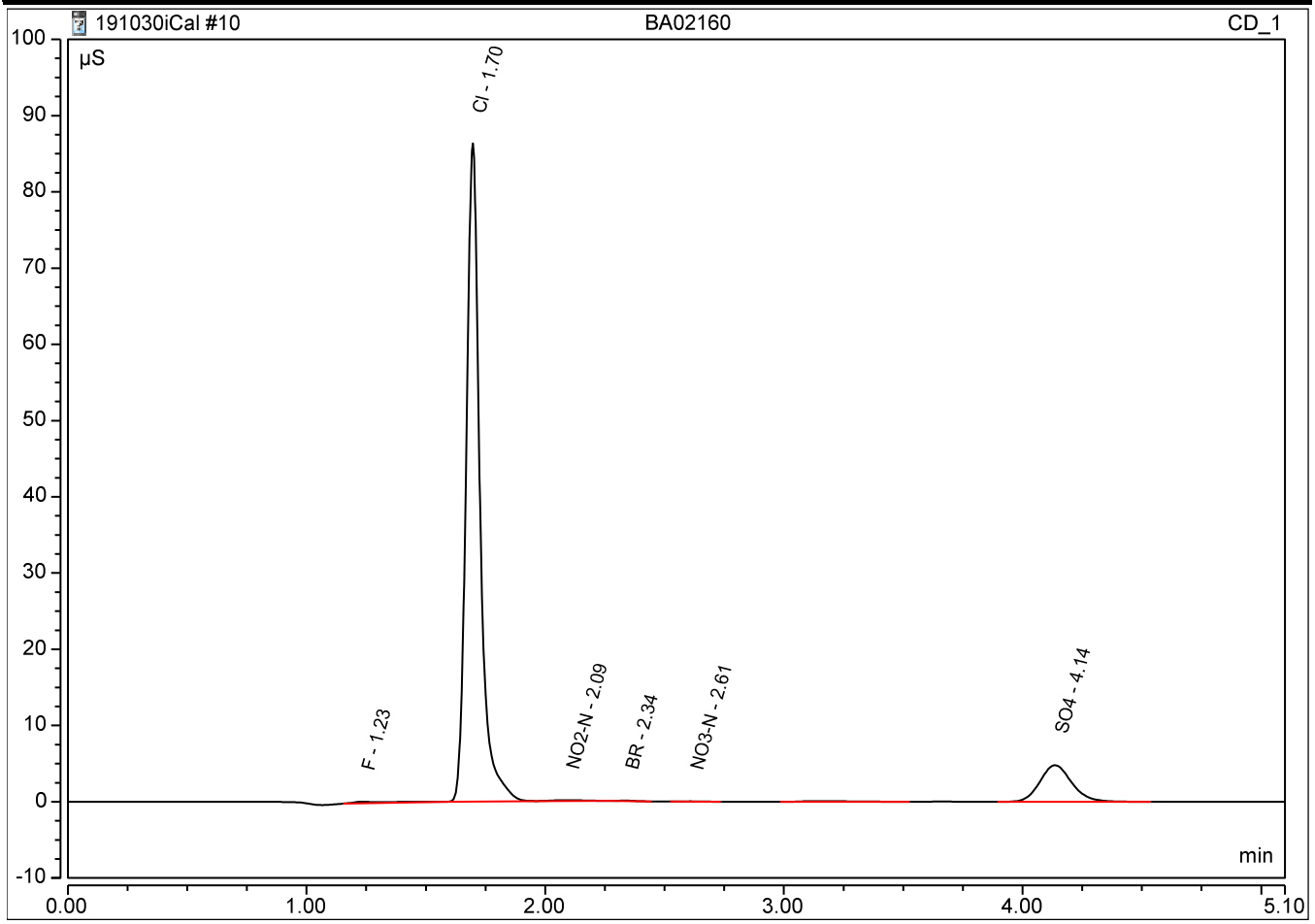
INORGANIC ANALYSIS
Raw Data

Logged on User: BW
Instrument: Charlie System_1
Sequence: 191030iCal

Peak Integration Report

Sample Name:	**BA02160**	*Inj. Vol.:*	**25uL**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.00**
Program:	**Anion APM 191030**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**30-Oct-2019 / 19:29**	*Run Time:*	**5.10**

No.	Time (min) min	Peak Name	Peak Type	Area (µS*min) µS*min	Height (µS) µS	Amount mg/L	Spike Level mg/L	Recovery
1	1.23	**F**	BMB	0.039	0.209	0.44		
2	1.70	**Cl**	BMB	5.744	86.318	56.98		
3	2.09	**NO2-N**	BMB	0.018	0.117	0.11		
4	2.34	**BR**	BMB	0.005	0.065	0.17		
5	2.61	**NO3-N**	BMB	0.003	0.039	0.04		
7	4.14	**SO4**	BMB	0.739	4.799	10.93		

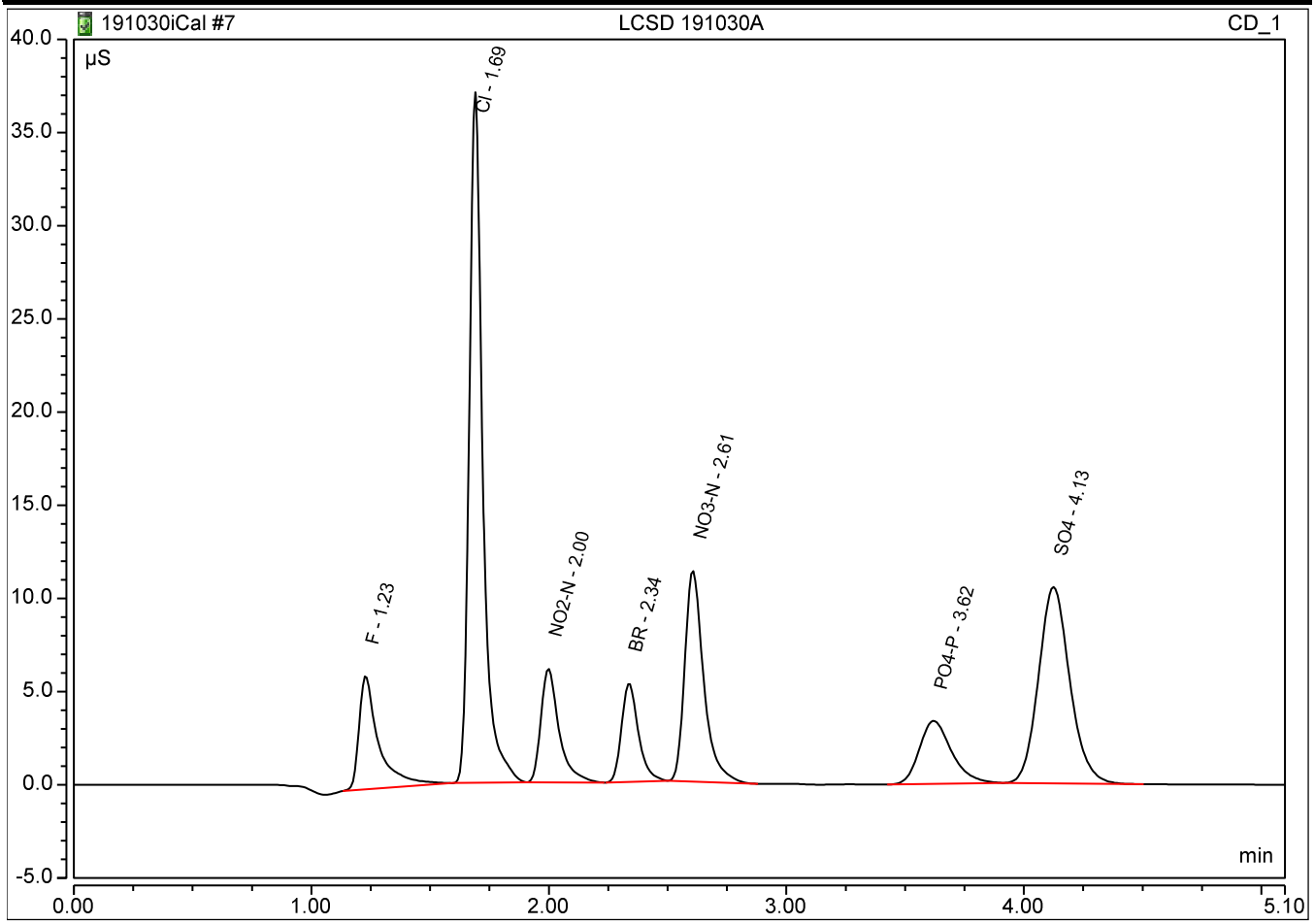


Logged on User: BW
Instrument: Charlie System_1
Sequence: 191030iCal

Peak Integration Report

Sample Name:	**LCSD 191030A**	*Inj. Vol.:*	**25uL**
Injection Type:	**Check Standard**	*Dilution Factor:*	**1.00**
Program:	**Anion APM 191030**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**30-Oct-2019 / 19:07**	*Run Time:*	**5.10**

No.	Time (min) min	Peak Name	Peak Type	Area (µS*min) µS*min	Height (µS) µS	Amount mg/L	Spike Level mg/L	Recovery
1	1.23	**F**	BMB	0.587	6.096	5.05	5	101.1%
2	1.69	**Cl**	BMB	2.434	37.053	24.19	25	96.8%
3	2.00	**NO2-N**	BMB	0.539	6.101	3.01	3.04	99.0%
4	2.34	**BR**	BMB	0.435	5.290	12.37	12.5	99.0%
5	2.61	**NO3-N**	BMB	1.049	11.323	4.73	5	94.5%
6	3.62	**PO4-P**	BMB	0.531	3.381	8.31	10	83.1%
7	4.13	**SO4**	BMB	1.608	10.538	23.67	25	94.7%

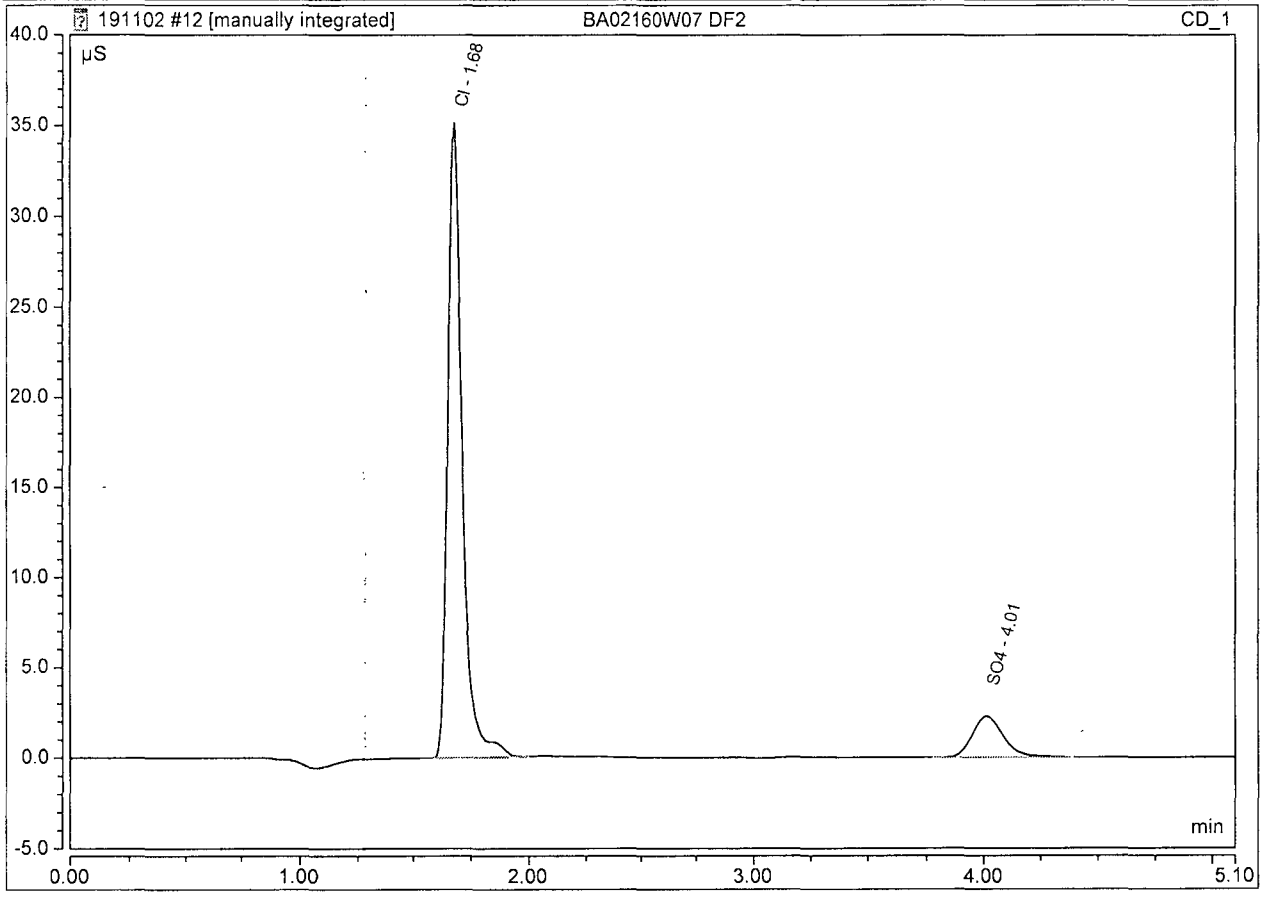


Logged on User: BW
Instrument: Charlie System_1
Sequence: 191102

Peak Integration Report

Sample Name:	**BA02160W07 DF2**	*Inj. Vol.:*	**25uL**
Injection Type:	**Unknown**	*Dilution Factor:*	**2.00**
Program:	**Anion APM 191030**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**02-Nov-2019 / 11:55**	*Run Time:*	**5.10**

No.	Time (min) min	Peak Name	Peak Type	Area (µS*min) µS*min	Height (µS) µS	Amount mg/L	Spike Level mg/L	Recovery
1	1.68	**Cl**	BMB*	2.559	35.136	50.85		
2	4.01	**SO4**	BMB	0.364	2.295	10.88		

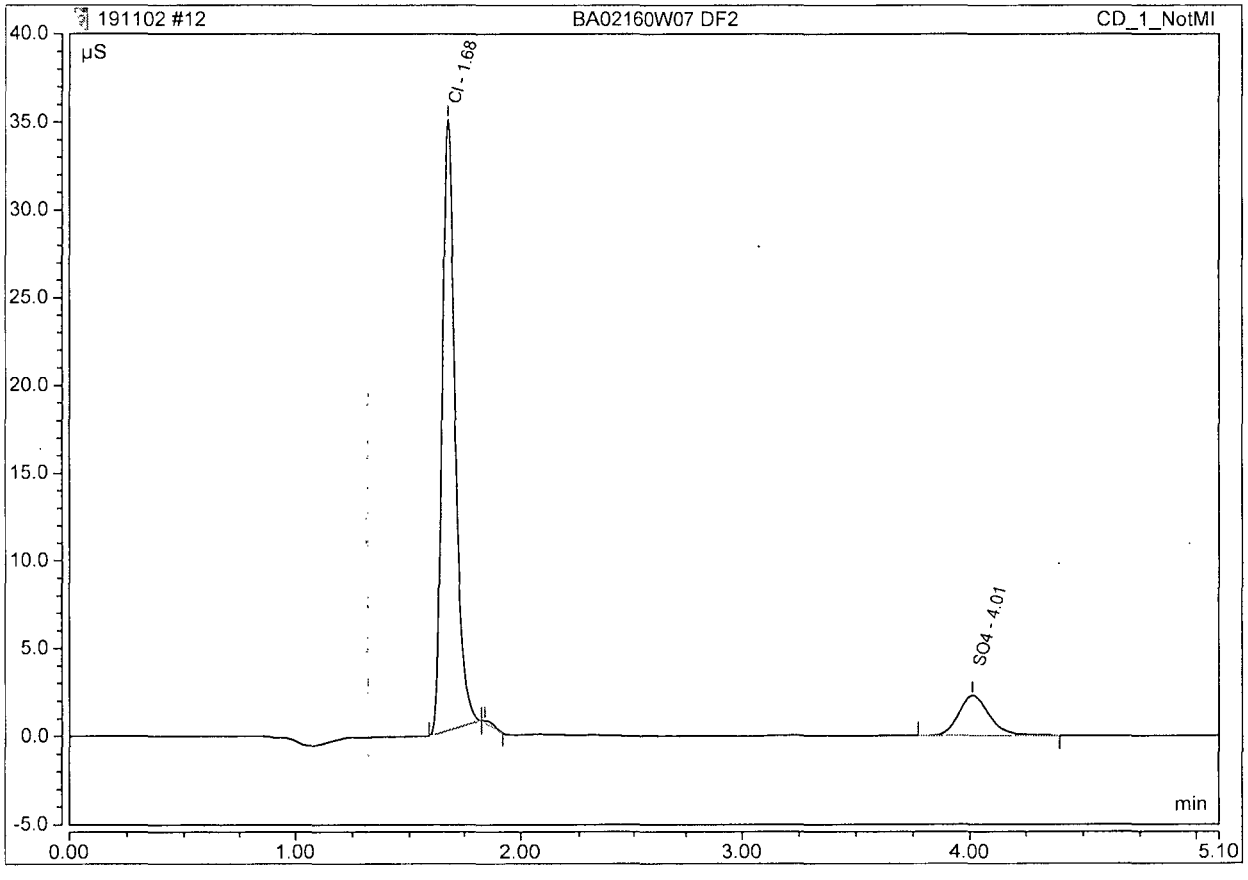


MI4 BW 191104

Not Manipulated Peak Integration Report

Sample Name:	**BA02160W07 DF2**	*Inj. Vol.:*	**25uL**
Injection Type:	**Unknown**	*Dilution Factor:*	**2.0000**
Program:	**Anion APM 191030**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**02-Nov-2019 / 11:55**	*Run Time:*	**5.10**

No.	Time min	Peak Name	Peak Type	Area µS*min	Height µS	Ammount mg/L
1	1.68	Cl	BMB*	2.397	34.819	23.8180
2	4.01	SO4	BMB	0.364	2.295	5.4386

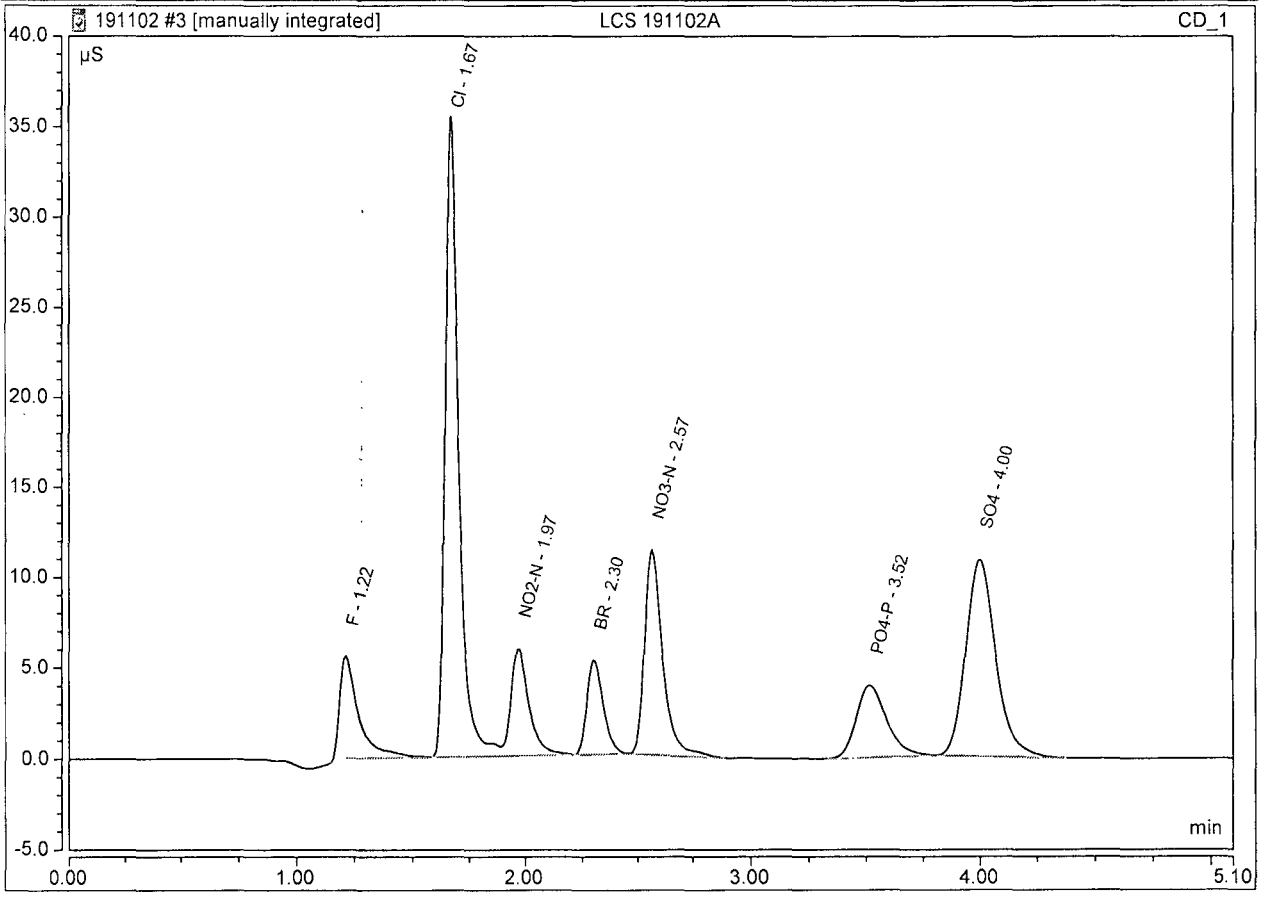


Logged on User: BW
Instrument: Charlie System_1
Sequence: 191102

Peak Integration Report

Sample Name:	**LCS 191102A**	*Inj. Vol.:*	**25uL**
Injection Type:	**Check Standard**	*Dilution Factor:*	**1.00**
Program:	**Anion APM 191030**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**02-Nov-2019 / 10:48**	*Run Time:*	**5.10**

No.	Time (min) min	Peak Name	Peak Type	Area (µS*min) µS*min	Height (µS) µS	Amount mg/L	Spike Level mg/L	Recovery
1	1.22	F	BMB	0.523	5.604	4.52	5	90.3%
2	1.67	Cl	BM *	2.489	35.442	24.73	25	98.9%
3	1.97	NO2-N	MB*	0.547	5.905	3.06	3.04	100.6%
4	2.30	BR	BMB	0.434	5.214	12.34	12.5	98.7%
5	2.57	NO3-N	BMB	1.093	11.314	4.93	5	98.5%
6	3.52	PO4-P	BMB	0.610	3.964	9.45	10	94.5%
7	4.00	SO4	BMB	1.657	10.856	24.38	25	97.5%



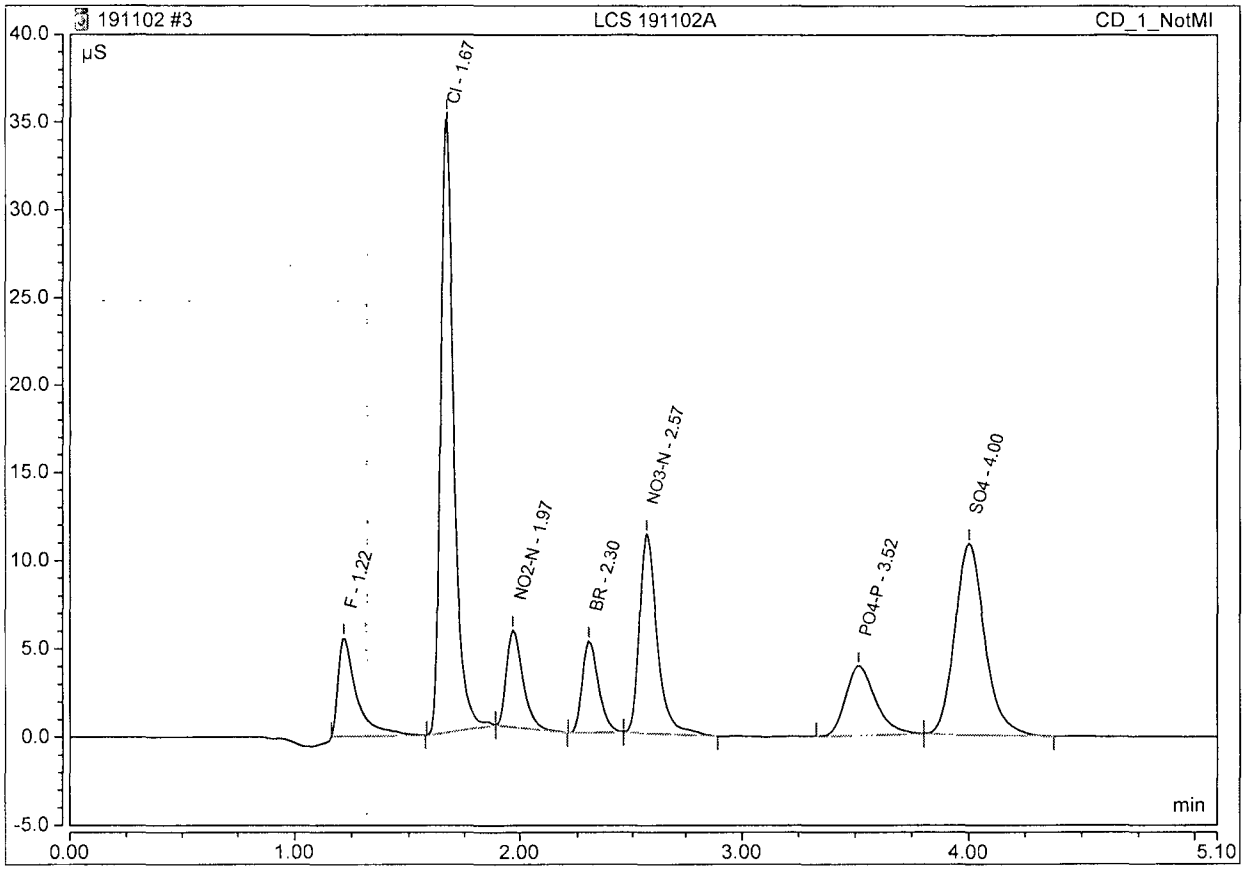
MI1 BW 191104
Algorithm Check
y = Peak Area
x = mg/L S04

y = 0.0682 x + -0.0066
y = 1.6566 therefor x =

Not Manipulated Peak Integration Report

Sample Name:	**LCS 191102A**	*Inj. Vol.:*	**25uL**
Injection Type:	**Check Standard**	*Dilution Factor:*	**1.0000**
Program:	**Anion APM 191030**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**02-Nov-2019 / 10:48**	*Run Time:*	**5.10**

No.	Time min	Peak Name	Peak Type	Area µS*min	Height µS	Ammount mg/L
1	1.22	**F**	BMB	0.523	5.604	4.2328
2	1.67	**Cl**	BM *	2.410	35.300	23.9402
3	1.97	**NO2-N**	MB*	0.467	5.521	2.6100
4	2.30	**BR**	BMB	0.434	5.214	12.3375
5	2.57	**NO3-N**	BMB	1.093	11.314	4.9265
6	3.52	**PO4-P**	BMB	0.610	3.964	10.2174
7	4.00	**SO4**	BMB	1.657	10.856	24.3807

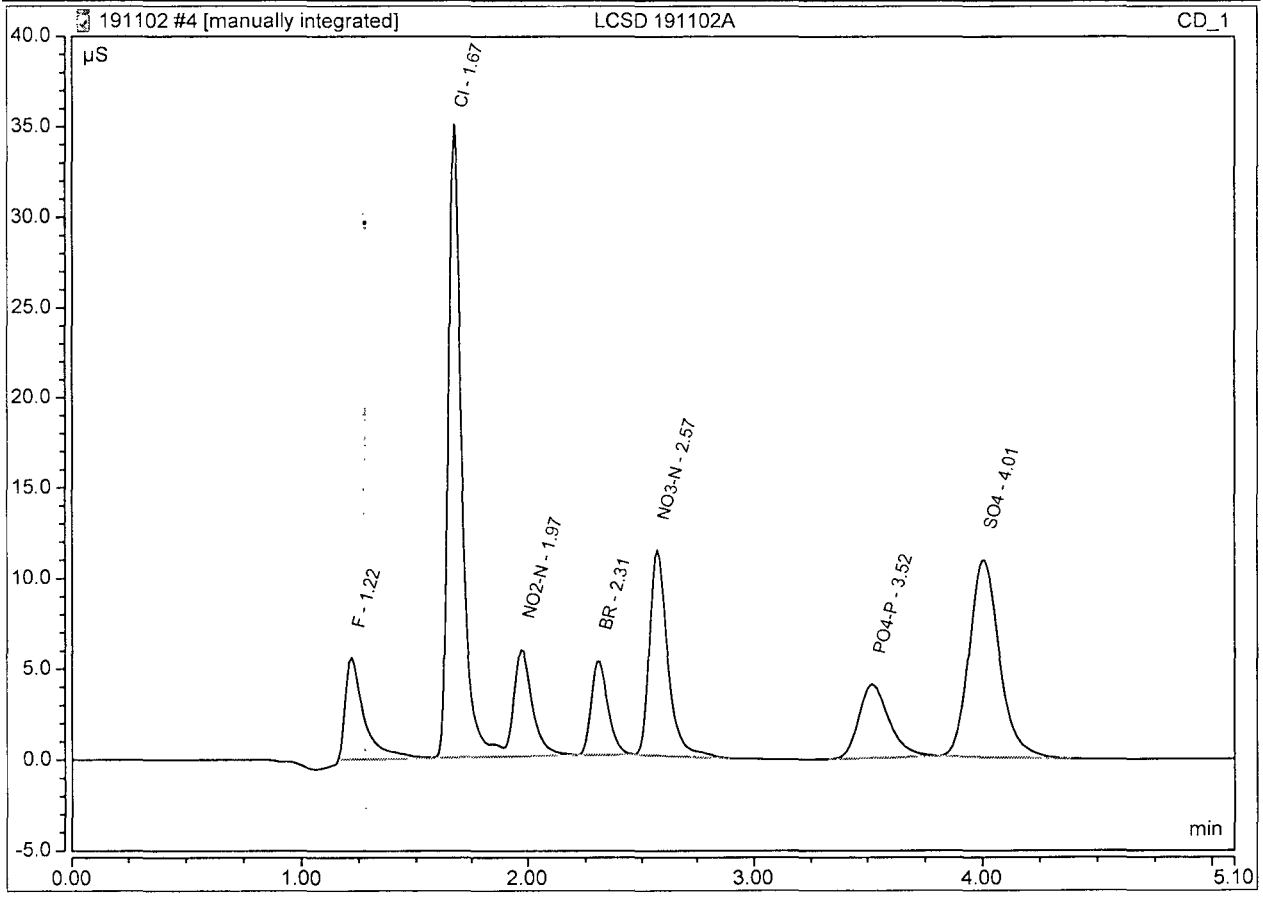


Logged on User: BW
Instrument: Charlie System_1
Sequence: 191102

Peak Integration Report

Sample Name:	**LCSD 191102A**	*Inj. Vol.:*	**25uL**
Injection Type:	**Check Standard**	*Dilution Factor:*	**1.00**
Program:	**Anion APM 191030**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**02-Nov-2019 / 10:55**	*Run Time:*	**5.10**

No.	Time (min) min	Peak Name	Peak Type	Area (µS*min) µS*min	Height (µS) µS	Amount mg/L	Spike Level mg/L	Recovery
1	1.22	F	BMB	0.534	5.601	4.60	5	92.1%
2	1.67	Cl	BM *	2.492	34.992	24.76	25	99.1%
3	1.97	NO2-N	MB*	0.550	5.892	3.07	3.04	101.1%
4	2.31	BR	BMB	0.435	5.203	12.39	12.5	99.1%
5	2.57	NO3-N	BMB	1.095	11.316	4.94	5	98.7%
6	3.52	PO4-P	BMB	0.619	4.032	9.58	10	95.8%
7	4.01	SO4	BMB	1.660	10.883	24.43	25	97.7%



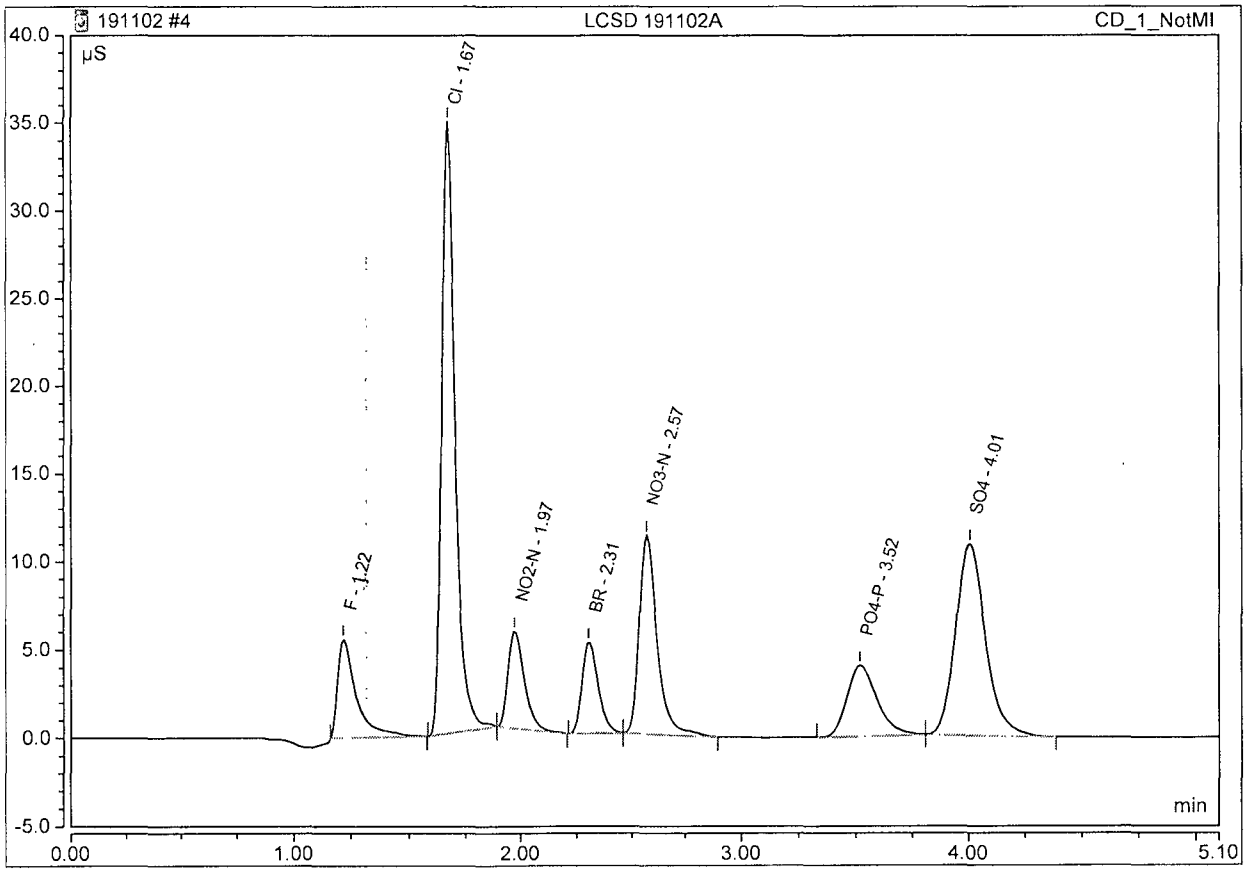
MI1 BW 191104

Chromeleon (c) Dionex 1996-2009
Version 7.2.4.8340

Not Manipulated Peak Integration Report

Sample Name:	**LCSD 191102A**	*Inj. Vol.:*	**25uL**
Injection Type:	**Check Standard**	*Dilution Factor:*	**1.0000**
Program:	**Anion APM 191030**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**02-Nov-2019 / 10:55**	*Run Time:*	**5.10**

No.	Time min	Peak Name	Peak Type	Area µS*min	Height µS	Ammount mg/L
1	1.22	F	BMB	0.534	5.601	4.3249
2	1.67	Cl	BM *	2.415	34.849	23.9910
3	1.97	NO2-N	MB*	0.471	5.522	2.6342
4	2.31	BR	BMB	0.435	5.203	12.3858
5	2.57	NO3-N	BMB	1.095	11.316	4.9367
6	3.52	PO4-P	BMB	0.619	4.032	10.3414
7	4.01	SO4	BMB	1.660	10.883	24.4324



Anion Chromatography Working Standard

Prep Date: 10/30/19

Exp Date: 10/30/19

Prep'd By (Initials): BW

Initial Standard Information						Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier Part No.	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date	Aliquot from Stock	Final Volume	Solvent	Final Standard Conc (µg/mL)
Ion Chromatography Standard Fluoride 1000 µg/mL in H2O	o2si	O2SI-062002-01-01	1000	687393-38-40744	10/30/20	312.5 µL	25 mL	Millipore Water	12.5
Ion Chromatography Standard Nitrite 1000 µg/mL in H2O	Inorganic Ventures	ICN021	1000	N2-NOX672889-40759	05/01/20	411 µL	25 mL	Millipore Water	5 as NO2-N
Ion Chromatography Standard Chloride 5000 µg/mL in H2O	o2si	062001-08-03	5000	10084781-1-39578	02/21/20	250 µL	25 mL	Millipore Water	50
Ortho-Phosphate as P Standard	Ultra Scientific	ICC-005A	1000	G34-CP-3323-39057	08/31/23	625 µL	25 mL	Millipore Water	25
Ion Chromatography Standard Nitrate as N 1000 µg/mL in H2O	o2si	062003-01-03	1000	880117-4-39577	02/21/20	250 µL	25 mL	Millipore Water	10
Bromide Standard	Ultra Scientific	ICC-001	1000	CR-5372-39521	12/31/21	625 µL	25 mL	Millipore Water	25
Sulfate Standard	Agilent	ICC-006	1000	CS-0688-41050	03/31/22	1250 µL	25 mL	Millipore Water	50

Anion Chromatography Calibration Curve

Prep Date: 10/30/19

Exp Date: 10/30/19

Prep'd By (Initials): BW

Initial Standard Information						Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. Range (ug/mL)	Reference To APPL Prep Date	Exp. Date	Aliquot from Stock	Final Volume	Solvent	Final Standard Conc. Range (µg/mL)
Anion Chromatography Working Standard	Varies	ICal1	5.0-50.0	Prepared 10/30/19	10/30/19	200 µL	25000 µL	Millipore Water	0.04-0.40
Anion Chromatography Working Standard	Varies	ICal2	5.0-50.0	Prepared 10/30/19	10/30/19	20 µL	1000 µL	Millipore Water	0.1-1.0
Anion Chromatography Working Standard	Varies	ICal5	5.0-50.0	Prepared 10/30/19	10/30/19	200 µL	1000 µL	Millipore Water	1.0-10.0
Anion Chromatography Working Standard	Varies	ICal8	5.0-50.0	Prepared 10/30/19	10/30/19	1000 µL	1000 µL	Millipore Water	5.0-50.0

Anion Chromatography LCS/ICV

Prep Date: See injection Log

Exp Date: 24 hours after prep

Prep'd By (Initials): BW

Initial Standard Information						Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier Part No.	Conc. Range (ug/mL)	Lot Number - QA Number	Exp. Date	Aliquot from Stock	Final Volume	Solvent	Final Standard Conc (µg/mL)
Flouride	Inorganic Ventures	ICF1	993-999	K-F652018-39801	10/23/19	125 µL	25 mL	Millipore Water	5
Nitrite	Inorganic Ventures	ICNO21	993-1001	M2-NOX660562-40468	08/25/21	250 µL	25 mL	Millipore Water	10
Chloride	Inorganic Ventures	ICCL1	995-1001	N2-CL664868-39905	11/26/19	625 µL	25 mL	Millipore Water	25
O-Phosphate as P	Inorganic Ventures	ICPPO41	1001-1009	M2-POX655826-39803	10/23/19	250 µL	25 mL	Millipore Water	10
Nitrate as N	Inorganic Ventures	ICNNO31	997-1005	P2-NOX675324-49391	02/14/23	125 µL	25 mL	Millipore Water	5
Ion Chromatography Standard Bromide, 1000 µg/mL in H2O	CPI International	4400-IC8M	995-1005	161681-8-39539	02/06/20	312.5 µL	25 mL	Millipore Water	12.5
Sulfate	Inorganic Ventures	ICSO41	998-1006	N2-SOX664928-39507	11/27/19	625 µL	25 mL	Millipore Water	25

Anion Chromatography CCV

Prep Date: See injection Log

Exp Date: 24 hours after prep

Prep'd By (Initials): BW

Initial Standard Information						Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier Part No.	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date	Aliquot from Stock	Final Volume	Solvent	Final Standard Conc (µg/mL)
Ion Chromatography Standard Fluoride 1000 µg/mL in H2O	o2si	O2SI-062002-01-01	1000	687393-38-40744	10/30/20	125 µL	25 mL	Millipore Water	5
Ion Chromatography Standard Nitrite 1000 µg/mL in H2O	Inorganic Ventures	ICN021	1000	N2-NOX672889-40759	05/01/20	250 µL	25 mL	Millipore Water	10
Ion Chromatography Standard Chloride 5000 µg/mL in H2O	o2si	062001-08-03	5000	10084781-1-39578	02/21/20	125 µL	25 mL	Millipore Water	25
Ortho-Phosphate as P Standard	Ultra Scientific	ICC-005A	1000	G34-CP-3323-39057	08/31/23	250 µL	25 mL	Millipore Water	10
Ion Chromatography Standard Nitrate as N 1000 µg/mL in H2O	o2si	062003-01-03	1000	880117-4-39577	02/21/20	125 µL	25 mL	Millipore Water	5
Bromide Standard	Ultra Scientific	ICC-001	1000	CR-5372-39521	12/31/21	312.5 µL	25 mL	Millipore Water	12.5
Sulfate Standard	Agilent	ICC-006	1000	CS-0688-41050	03/31/22	625 µL	25 mL	Millipore Water	25

Method 300 and 9056 Injection Log

No.	Position	Injection Description	Inject Time		Type	Comment
1	GE1	ICAL1 191030	30/Oct/2019	18:22	Calibration Standard	
2	GE2	ICAL2 191030	30/Oct/2019	18:29	Calibration Standard	
3	GE3	ICAL5 191030	30/Oct/2019	18:37	Calibration Standard	
4	GE4	ICAL8 191030	30/Oct/2019	18:44	Calibration Standard	
5	R1	ICB 191030	30/Oct/2019	18:52	Unknown	
6	R3	ICV/LCS 191030	30/Oct/2019	18:59	Check Standard	
7	R3	LCSD 191030A	30/Oct/2019	19:07	Check Standard	
8	BA1	BA01825W07	30/Oct/2019	19:14	Unknown	filtered
9	BA2	BA02090	30/Oct/2019	19:22	Unknown	
10	BA3	BA02160	30/Oct/2019	19:29	Unknown	
11	BA4	BA02049W12	30/Oct/2019	19:37	Unknown	filtered
12	BA5	BA02050W07	30/Oct/2019	19:44	Unknown	filtered
13	BA6	BA02053W08	30/Oct/2019	19:52	Unknown	filtered
14	BA7	BA02054W08	30/Oct/2019	19:59	Unknown	filtered
15	BA8	BA01390W01 DF20	30/Oct/2019	20:07	Unknown	NDF20 Cl
16	BB1	BA01390W01 DF5	30/Oct/2019	20:14	Unknown	NDF5 SO4
17	BB2	BA01391W01 DF5	30/Oct/2019	20:22	Unknown	NDF5 Cl SO4
18	BB3	BA01391W01 DF2	30/Oct/2019	20:29	Unknown	NDF2 NO3-N
19	BB4	BA01392W01 DF20	30/Oct/2019	20:37	Unknown	NDF20 Cl
20	R2	CCV 191030	30/Oct/2019	20:44	Check Standard	
21	R1	CCB 191030	30/Oct/2019	20:52	Unknown	
22	BB5	BA01393W01 DF10	30/Oct/2019	20:59	Unknown	NDF10 Cl SO4 NO3-N
23	BB6	BA01459W01 DF10	30/Oct/2019	21:07	Unknown	NDF10 Cl
24	BB7	BA01459W01 DF5	30/Oct/2019	21:14	Unknown	NDF5 SO4
25	BB8	BA01460W01 DF10	30/Oct/2019	21:22	Unknown	NDF10 Cl
26	BC1	BA01460W01 DF5	30/Oct/2019	21:29	Unknown	NDF5 SO4
27	BC2	BA01461W01 DF50	30/Oct/2019	21:37	Unknown	NDF50 Cl
28	BC3	BA01461W01 DF5	30/Oct/2019	21:44	Unknown	NDF5 SO4
29	BC4	BA01875 DF2	30/Oct/2019	21:52	Unknown	SO4 NO3 NO2 Cl filtered; NDF2 SC
30	BC5	BA01876 DF2	30/Oct/2019	21:59	Unknown	SO4 NO3 NO2 Cl filtered; NDF2 SC
31	R2	CCV 191030	30/Oct/2019	22:06	Check Standard	
32	R1	CCB 191030	30/Oct/2019	22:14	Unknown	
33	BC2	Stop	n.a.		Unknown	

Method 300 and 9056 Injection Log

No.	Position	Injection Description	Inject Time		Type	Comment
1	GE1	ICAL1 191030	30/Oct/2019	18:22	Calibration Standard	
2	GE2	ICAL2 191030	30/Oct/2019	18:29	Calibration Standard	
3	GE3	ICAL5 191030	30/Oct/2019	18:37	Calibration Standard	
4	GE4	ICAL8 191030	30/Oct/2019	18:44	Calibration Standard	
5	R1	ICB 191030	30/Oct/2019	18:52	Unknown	
6	R3	ICV/LCS 191030	30/Oct/2019	18:59	Check Standard	
7	R3	LCSD 191030A	30/Oct/2019	19:07	Check Standard	
8	BA1	BA01825W07	30/Oct/2019	19:14	Unknown	filtered
9	BA2	BA02090	30/Oct/2019	19:22	Unknown	
10	BA3	BA02160	30/Oct/2019	19:29	Unknown	
11	BA4	BA02049W12	30/Oct/2019	19:37	Unknown	filtered
12	BA5	BA02050W07	30/Oct/2019	19:44	Unknown	filtered
13	BA6	BA02053W08	30/Oct/2019	19:52	Unknown	filtered
14	BA7	BA02054W08	30/Oct/2019	19:59	Unknown	filtered
15	BA8	BA01390W01 DF20	30/Oct/2019	20:07	Unknown	NDF20 Cl
16	BB1	BA01390W01 DF5	30/Oct/2019	20:14	Unknown	NDF5 SO4
17	BB2	BA01391W01 DF5	30/Oct/2019	20:22	Unknown	NDF5 Cl SO4
18	BB3	BA01391W01 DF2	30/Oct/2019	20:29	Unknown	NDF2 NO3-N
19	BB4	BA01392W01 DF20	30/Oct/2019	20:37	Unknown	NDF20 Cl
20	R2	CCV 191030	30/Oct/2019	20:44	Check Standard	
21	R1	CCB 191030	30/Oct/2019	20:52	Unknown	
22	BB5	BA01393W01 DF10	30/Oct/2019	20:59	Unknown	NDF10 Cl SO4 NO3-N
23	BB6	BA01459W01 DF10	30/Oct/2019	21:07	Unknown	NDF10 Cl
24	BB7	BA01459W01 DF5	30/Oct/2019	21:14	Unknown	NDF5 SO4
25	BB8	BA01460W01 DF10	30/Oct/2019	21:22	Unknown	NDF10 Cl
26	BC1	BA01460W01 DF5	30/Oct/2019	21:29	Unknown	NDF5 SO4
27	BC2	BA01461W01 DF50	30/Oct/2019	21:37	Unknown	NDF50 Cl
28	BC3	BA01461W01 DF5	30/Oct/2019	21:44	Unknown	NDF5 SO4
29	BC4	BA01875 DF2	30/Oct/2019	21:52	Unknown	SO4 NO3 NO2 Cl filtered; NDF2 SC
30	BC5	BA01876 DF2	30/Oct/2019	21:59	Unknown	SO4 NO3 NO2 Cl filtered; NDF2 SC
31	R2	CCV 191030	30/Oct/2019	22:06	Check Standard	
32	R1	CCB 191030	30/Oct/2019	22:14	Unknown	
33	BC2	Stop	n.a.		Unknown	

Logged on User: BW
Instrument: Charlie System_1
Sequence: 191102

Method 300 and 9056 Injection Log

No.	Position	Injection Description	Inject Time		Type	Comment
1	R2	CCV 191102	02/Nov/2019	10:33	Check Standard	
2	R1	CCB 191102	02/Nov/2019	10:40	Unknown	
3	R3	LCS 191102A	02/Nov/2019	10:48	Check Standard	
4	R3	LCSD 191102A	02/Nov/2019	10:55	Check Standard	
5	BD1	BA01826W07 DF2	02/Nov/2019	11:03	Unknown	DF2 Cl
6	BD2	BA01872W20 DF2	02/Nov/2019	11:10	Unknown	DF2 Cl
7	BD3	BA01872W20 MS DF2	02/Nov/2019	11:18	Unknown	DF2 Cl
8	BD4	BA01872W20 MSD DF2	02/Nov/2019	11:25	Unknown	DF2 Cl
9	BD5	BA01876W07 DF10	02/Nov/2019	11:33	Unknown	DF10 Cl
10	BD6	BA01876W07 DF10	02/Nov/2019	11:40	Unknown	DF10 Cl
11	BD7	BA01877W07 DF2	02/Nov/2019	11:48	Unknown	DF2 Cl
12	BD8	BA02160W07 DF2	02/Nov/2019	11:55	Unknown	DF2 Cl
13	BE1	BA02301W10	02/Nov/2019	12:02	Unknown	
14	R2	CCV 191102	02/Nov/2019	12:10	Check Standard	
15	R1	CCB 191102	02/Nov/2019	12:17	Unknown	
16	R2	Stop	02/Nov/2019	12:23	Unknown	

INORGANIC ANALYSIS
Calibration Data

A.P.P.L. INC.
2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: A.P.P.L. INC. Contract: AECOM
ARF No: 90599 SDG: 90599
Initial Calibration Source: Inorganic Ventures
Continuing Calibration Source: o2si
Analysis Date: 11/01/19

Analyte	Calibration Verification									M
	True ICV	Found 16:24	%R(1)	True CCV1	Found 16:41	%R(1)	True	Found	%R(1)	
TOXN	3	2.924	97.5	3	2.9897	99.7				

(1) Control Limits: 90-110

ILM02.0

A.P.P.L. INC.
3
BLANKS

Lab Name: A.P.P.L. INC. Contract: AECOM

ARF No.: 90599 SDG: 90599

Preparation Blank Matrix (soil/water): water

Preparation Blank Concentration Units (ug/L or mg/kg): mg/L

Analyte	Calibration Blanks										M
	ICB 11/01/19 16:26	C	CCB 11/01/19 16:42	C		C		C		C	
TOXN	.100	U	.100	U							

INORGANIC ANALYSIS
Raw Data

Metrohm 814/809 Titrando Data

Sample ID	Analysis Date/Time	Method	Titration Volume (to 8.3)	Titration Volume (total)	OH	CO3	HCO3	Total Alk	Unit	Sample Vol	N	Batch	Initials
BA02160W07	2019-11-01 11:29:18 UTC-8	Alkalinity	0.060	2.530	0.00	4.99	100.26	105.25	mg/L	25 mL	0.0208	191101A	CD
191101A LCSD	2019-11-01 10:53:57 UTC-8	Alkalinity	0.196	5.978	0.00	16.31	232.38	248.68	mg/L	25 mL	0.0208	191101A	CD
191101A LCS	2019-11-01 10:43:38 UTC-8	Alkalinity	0.112	5.930	0.00	9.32	237.37	246.69	mg/L	25 mL	0.0208	191101A	CD
191101A BLK	2019-11-01 10:34:27 UTC-8	Alkalinity	0.000	0.016	0.00	0.00	0.67	0.67	mg/L	25 mL	0.0208	191101A	CD

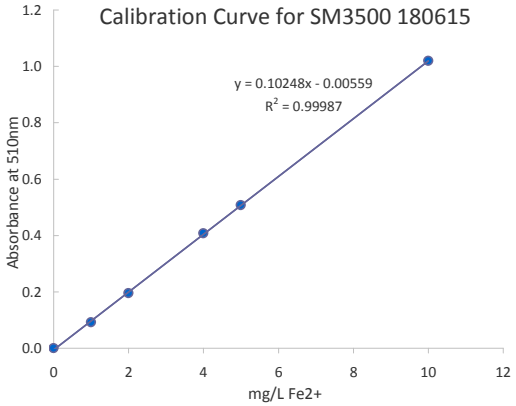
Ferrous Iron — Rev 2, 04-05-19

Method SM3500Fe | Units mg/L | Instrument: Genisis Spectrometer
Analyte Fe2+ | QCG: 191030 | Wavelength: 510 nm
Analyist fjr | Final Volume: 50mL | Units: mg/L

Date	Time	Appl ID	[Fe2+]	Absorbance	% Recovery
06/28/19	12:48	ICB	0.00	0.000	
06/28/19	12:49	Ical 1	1.00	0.092	95.2%
06/28/19	12:50	Ical 2	2.00	0.195	97.9%
06/28/19	12:51	Ical 3	4.00	0.408	100.9%
06/28/19	12:51	Ical 4	5.00	0.507	100.0%
06/28/19	12:52	Ical 5	10.00	1.019	100.0%
06/28/19	13:08	ICV	3.00	0.326	107.9%
06/28/19	12:53	ICB	0.00	0.002	

Slope	0.102479592
Intercept	-0.005591837
Coefficient of Determination	0.999872044

Algortithm Check:	**Appl ID**	**Absorbance**	**Result**
	ICV/LCS 191030A	0.304	3.02
Result = (Absorbance-Raw Blk-Intercept)/ Slope			
Test:	FJR	10/30/19	3.02



Date	Time	Appl ID	DF	Raw Result	SubSample Amount	Raw BLK	Calc Conc	Result	QC True	% Recovery
10/30/19	23:27	CCV 4.0 191030	1	0.405	25mL		4.01	4.01	4.00	100.2%
10/30/19	23:26	CCB 191030	1	0.000	25mL		0.05	0.05		
10/30/19	23:27	ICV/LCS 191030A	1	0.304	25mL		3.02	3.02	3.00	100.7%
10/30/19	23:28	ICV/LCSD 191030A	1	0.303	25mL		3.01	3.01	3.00	100.4%
10/30/19	23:28	BA02160W09	1	0.009	25mL		0.14	0.14		
10/30/19	23:29	BA02160W09 MS	1	0.310	25mL		3.08	3.08		
10/30/19	23:29	BA02160W09 MSD	1	0.313	25mL		3.11	3.11		
10/30/19	23:30	CCV 4.0 191030	1	0.410	25mL		4.06	4.06	4.00	101.4%
10/30/19	23:30	CCB 191030	1	0.002	25mL		0.07	0.07		

TOTAL ORGANIC CARBON

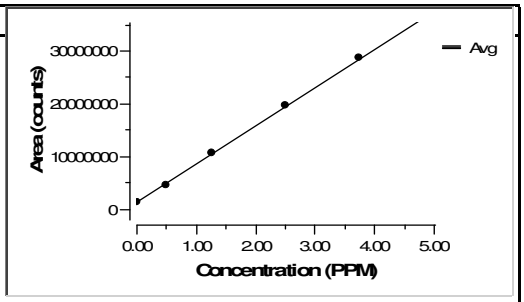
Method: WetChem | Units mg/L | Instrument: Tic Toc

Analyte: TOC | QCG: 191109B

Analyist: AR | Final Volume: 40mL

Date	Time	Appl ID	[TOC]	Raw	% Recovery
10/31/19	19:20	QC blank	0.00	1130.000	
10/31/19	19:56	Ical 1	0.50	7935.000	
10/31/19	20:28	Ical 2	2.00	24866.000	
10/31/19	21:02	Ical 3	5.00	59510.000	
10/31/19	21:35	Ical 4	10.00	118117.000	
10/31/19	22:08	Ical 5	20.00	235471.000	
11/01/19	10:03	ICB	0.08	883.000	
11/01/19	10:39	ICV	10.40	121613.000	104.0%

r^2= 0.9987



Date	Time	Appl ID	DF	Raw Result	SubSample Amount	Filter Blank Subtract	Calc Conc	Result	Range (mg/L)	QC True	% Recovery
2019-11-10	05:57 PM	CCV (using only 2 reps)	1	30693	40mL	0.000	5.092	5.09	5.02	5.00	101.8%
2019-11-10	06:33 PM	CCB	1	3132	40mL	0.000	0.132	0.13	0.03		
2019-11-10	07:09 PM	191107B LCS	1	61937	40mL	0.000	5.161	5.16	0.00	5.00	103.2%
2019-11-10	07:45 PM	191107B LCSD	1	61458	40mL	0.000	5.12	5.12	0.11	5.00	102.4%
2019-11-10	08:22 PM	BA01829W13	1	3442	40mL	0.000	0.29	0.29	0.00		
2019-11-10	08:55 PM	BA01831W18	1	3097	40mL	0.000	0.261	0.26	0.00		
2019-11-10	09:28 PM	BA01833W18	1	3748	40mL	0.000	0.316	0.32	0.01		
2019-11-10	10:01 PM	BA01943W05	1	11113	40mL	0.000	0.946	0.95	0.03		
2019-11-10	10:34 PM	BA01944W05	1	9966	40mL	0.000	0.848	0.85	0.02		
2019-11-10	11:07 PM	BA01945W05	1	80872	40mL	0.000	6.912	6.91	0.28		
2019-11-10	11:41 PM	BA01946W05	1	133487	40mL	0.000	11.412	11.41	0.22		
2019-11-11	12:15 AM	BA02090W11	1	5880	40mL	0.000	0.499	0.50	0.20		
2019-11-11	12:49 AM	BA02160W05	1	59396	40mL	0.000	5.075	5.08	0.62		
2019-11-11	01:23 AM	BA02160W05 DUP	1	62368	40mL	0.000	5.33	5.33	0.06		
2019-11-11	01:57 AM	BA02160W06 MS	1	107404	40mL	0.000	9.181	9.18	0.10		
2019-11-11	02:32 AM	BA02160W06 MSD	1	96261	40mL	0.000	8.229	8.23	3.77		
2019-11-11	03:06 AM	BA02214W15	1	3797	40mL	0.000	0.321	0.32	0.01		
2019-11-11	03:39 AM	CCV	1	60889	40mL	0.000	5.071	5.07	0.05	5.00	101.4%
2019-11-11	04:15 AM	CCB	1	2581	40mL	0.000	0.084	0.08	0.01		
2019-11-11	04:51 AM	BA02216W08	1	9510	40mL	0.000	0.809	0.81	0.01		
2019-11-11	05:24 AM	BA02216W08 DUP	1	9608	40mL	0.000	0.818	0.82	0.01		
2019-11-11	05:58 AM	BA02301W19	1	158152	40mL	0.000	13.521	13.52	0.09		
2019-11-11	06:32 AM	BA02053W10	1	72253	40mL	0.000	6.175	6.18	0.02		
2019-11-11	07:06 AM	BA02054W10	1	42094	40mL	0.000	3.596	3.60	0.01		
2019-11-11	07:40 AM	BA02401W01	1	16638	40mL	0.000	1.419	1.42	0.01		
2019-11-11	08:13 AM	BA02402W01	1	14218	40mL	0.000	1.212	1.21	0.01		
2019-11-11	08:46 AM	BA02403W01	1	10362	40mL	0.000	0.882	0.88	0.00		
2019-11-11	09:19 AM	BA02404W01	1	21221	40mL	0.000	1.811	1.81	0.05		
2019-11-11	09:52 AM	BA02405W01	1	5819	40mL	0.000	0.493	0.49	0.01		
2019-11-11	10:25 AM	BA02406W01	1	14849	40mL	0.000	1.266	1.27	0.02		
2019-11-11	10:59 AM	CCV	1	62637	40mL	0.000	5.221	5.22	0.02	5.00	104.4%
2019-11-11	11:35 AM	CCB	1	2582	40mL	0.000	0.085	0.09	0.00		

AQ2 Report

Serial Number:	190170
Software Version:	2.1.0
Report Requested By:	Eve V
Date & Time:	2019-11-04 08:41:25
Tray Number:	3
Tray Name:	191101A TOXN

TOXN

Calibration Chart

Type	Absorbance	Calc mg/L	Target mg/L	% Error
S1	0.0081	-0.0079	0.0000	
S90	0.0148	0.1085	0.1000	8.45
S91	0.0803	1.2459	1.2000	3.83
S92	0.1797	2.9715	3.0000	-0.95
S93	0.2785	4.6857	4.8000	-2.38
S94	0.3597	6.0964	6.0000	1.61
S0	0.0095	0.0160	0.0000	

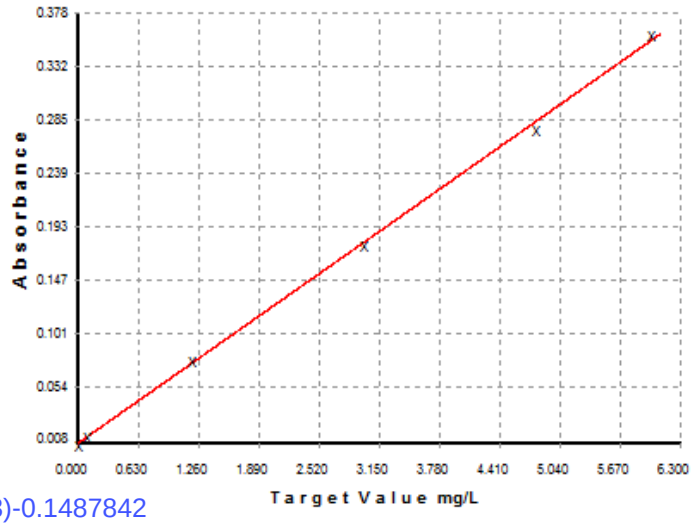
Polynomial Order:	1
Correlation Coefficient:	0.9996
Carryover(%):	0.4
Calibration equation:	y = bx + a
y =:	Concentration mg/L
x =:	Measured absorbance
a =:	-1.487842E-001
b =:	1.736073E+001
Date & Time:	2019-11-01 16:18:10

Algorithm check

y = 17.36073(0.176993)-0.1487842

y = 2.92

Calibration Graph



Reagents

Name	Batch	Prepared By	Expiry Date
NO3 W Buffer	EV 11/04/19	Joel	
Sulfa-NEDD		Joel	

Cup	Type	ID	Result	Units	QC Pro	Raw Data	Auto Dil.	Man Dil.	User	Time/Date
	S1	Standard 1	0.0081			0.008113			Ev	2019-11-01 16:05:02
	S90	Standard 90	0.0148			0.014817			Ev	2019-11-01 16:07:14
	S91	Standard 91	0.0803			0.080336			Ev	2019-11-01 16:09:25
	S92	Standard 92	0.1797			0.179732			Ev	2019-11-01 16:11:36
	S93	Standard 93	0.2785			0.278473			Ev	2019-11-01 16:13:48
	S94	Standard 94	0.3597			0.359728			Ev	2019-11-01 16:15:59
	S0	Standard 0	0.0095			0.009490			Ev	2019-11-01 16:18:10
	CCV	CCV	3.1575	mg/L		0.190446			Ev	2019-11-01 16:20:22
	CCB	CCB	0.0077	mg/L		0.009012			Ev	2019-11-01 16:22:33
3	U1	✓ICV TOXN	2.9240	mg/L		0.176993			Ev	2019-11-01 16:24:45
4	U2	ICB TOXN	0.0060	mg/L		0.008917			Ev	2019-11-01 16:26:57
5	U3	191101A BLK	-0.0030	mg/L		0.008399			Ev	2019-11-01 16:29:11
6	U4	191101A LCS	3.1020	mg/L		0.187249			Ev	2019-11-01 16:31:22
7	U5	191101A LCSD	2.9866	mg/L		0.180601			Ev	2019-11-01 16:33:34
8	U6	1ppm NO3	1.0309	mg/L		0.067952			Ev	2019-11-01 16:35:46
9	U7	BA02090W11	0.4101	mg/L		0.032195			Ev	2019-11-01 16:37:59
10	U8	BA02090W11 MS	3.7099	mg/L		0.222263			Ev	2019-11-01 16:39:05
11	U9	BA02090W11 MSD	3.8559	mg/L		0.230675			Ev	2019-11-01 16:40:01
12	U10	BA02160W08	0.0290	mg/L		0.010241			Ev	2019-11-01 16:40:57
	CCV	CCV	2.9897	mg/L		0.180783			Ev	2019-11-01 16:41:53
	CCB	CCB	-0.0063	mg/L		0.008209			Ev	2019-11-01 16:42:50
13	U11	BA02214W15	0.3897	mg/L		0.031017			Ev	2019-11-01 16:43:47
14	U12	BA02216W08	1.2323	mg/L		0.079550			Ev	2019-11-01 16:44:43
	CCV	CCV	3.0243	mg/L		0.182772			Ev	2019-11-01 16:45:39
	CCB	CCB	-0.0027	mg/L		0.008413			Ev	2019-11-01 16:46:35

Tiamo Alkalinity Standard Prep

Prep Date:

Exp Date:

Prep'd By (Initials): AR

Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Unit	Conc	Lot Number - QA Number	Prep/Opened	Exp. Date	Aliquot from Stock	Final Volume	Solvent	Final Standard Conc
Sulfuric Acid (H2SO4)	J.T.Baker	NA	NA	167828	NA	NA	PURCHASED	NA	NA	NA
0.10N Sulfuric Acid (H2SO4)	J.T.Baker	Normality	0.1N	167828	05/24/19	05/24/20	3ml	1L	DI	0.10N
0.02N Sulfuric Acid (H2SO4)	J.T.Baker	Normality	0.02N	167828	05/24/19	05/24/20	200mL	1L	DI	0.02N
Inorganic Spike(NaHCO3)	BDH	NA	NA	1575C510	10/18/18	08/14/20	PURCHASED	NA	NA	NA
Inorganic Spike Solution	BDH	Milligrams/Liters	250mg/L	1575C510	09/17/19	03/17/20	3.5g	500mL	DI	250mg/L
Standarizing Solution(NaCO3)	J.T.Baker	Normality	1N	178494	07/25/17	07/25/19	PURCHASED	NA	NA	NA

Standard Prep

	Ferrous Iron Standards		Prep'd By (Initials)		FJR		
Prep Date	06/28/18						
Exp Date	06/28/19						
Stock Label	Supplier	Batch Number	Exp Date	Aliquot from Stock	Final Volume	Solvent	Ferrous Iron Concentration
Ferrous Ammonium Sulfate	J.T.Baker	0000184592	08/21/20	0.351	250mL	5ml H2SO4 (0000167828) Diluted with water	200ug/L
Ferrous Sulfate	Mallinckrodt	Lot 5056 KDRX	NA	0.250	250mL	5ml H2SO4 (0000167828) Diluted with water	200ug/L
Ferrous Iron CCV/LCS/MS/ICV			Prep'd By (Initials)		FJR		
Prep Date	See Injection Log						
Exp Date	24 Hours						
Initial Standard Information	Supplier	Batch Number	Exp Date	Final Standard Information			
Ferrous Iron CCV	J.T.Baker	0000184592	06/14/19	500uL	25mL	Deionized water	4mg/L
Ferrous Iron ICV/LCS	Mallinckrodt	Lot 5056 KDRX	06/14/19	375uL	25mL	Deionized water	3mg/L
	Ferrous Iron Calibration Curve		Prep'd By (Initials)		FJR		
Prep Date	06/28/18						
Exp Date	06/28/19						
Final Standard Information							
Point Label	Supplier	Batch Number	Exp Date	Aliquot from Stock (mL)	Final Volume	Solvent	Ferrous Iron Concentration
CCB	J.T.Baker	0000184592	06/14/19	0	25mL	Deionized water	0mg/L
Ical 1	J.T.Baker	0000184592	06/14/19	0.125	25mL	Deionized water	1mg/L
Ical 2	J.T.Baker	0000184592	06/14/19	0.25	25mL	Deionized water	2mg/L
Ical 3	J.T.Baker	0000184592	06/14/19	0.5	25mL	Deionized water	4mg/L
Ical 4	J.T.Baker	0000184592	06/14/19	0.625	25mL	Deionized water	5mg/L
Ical 5	J.T.Baker	0000184592	06/14/19	1.25	25mL	Deionized water	10mg/L
ICV	Mallinckrodt	Lot 5056 KDRX	06/14/19	0.375	25mL	Deionized water	3mg/L

Reagent Prep

Reagent	Chemical Lot #	Chemical	Chemical Expiration Date	Amount	Date Prep
Colorizer	0747C107	1,10-phenanthroline	na	1.00g 1L DI	10/24/19
		10% HCL conc	na	enough to dissolve	01/15/19
Buffer	Z28B018	Ammonia Acetate	na	248.2G	09/26/19
	2018071399	Glacial Acetic Acid	06/27/20	700mL	

Name of Final Standard TOC Calibration Curve — **Prep'd By (Initials)** AR

Prep Date 06/11/19

Exp Date 07/09/19

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from contianer Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
Total Organic Carbon (TOC) Standard	Agilent	IQC-1 06-5	1000 mg/L	CS-5157-40233	11/30/20	20 uL	40 mL	DI Water	0.5 ppm
Total Organic Carbon (TOC) Standard	Agilent	IQC-1 06-5	1000 mg/L	CS-5157-40233	11/30/20	50 uL	40 mL	DI Water	1.25 ppm
Total Organic Carbon (TOC) Standard	Agilent	IQC-1 06-5	1000 mg/L	CS-5157-40233	11/30/20	100 uL	40 mL	DI Water	2.5 ppm
Total Organic Carbon (TOC) Standard	Agilent	IQC-1 06-5	1000 mg/L	CS-5157-40233	11/30/20	150 uL	40 mL	DI Water	3.75 ppm
Total Organic Carbon (TOC) Standard	Agilent	IQC-1 06-5	1000 mg/L	CS-5157-40233	11/30/20	200 uL	40 mL	DI Water	5 ppm

Name of Final Standard ICV (TOC) — **Prep'd By (Initials)** AR

Prep Date 06/11/19

Exp Date 07/09/19

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from contianer Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
1000 PPM ICV TOC Intermediate	APPL Inc.	Prep: 2/11/19	1000 mg/L	Prep: 2/11/19	07/09/19	100 uL	40mL	DI Water	2.5 ppm

Name of Final Standard CCV (TOC) — **Prep'd By (Initials)** AR

Prep Date See Data

Exp Date 1 year

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from contianer Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
Total Organic Carbon (TOC) Standard	Agilent	IQC-1 06-5	1000 mg/L	CS-5157-40233	11/30/20	100 uL	40 mL	DI Water	2.5 ppm

Name of Final Standard TOC_LCS/LCSD — **Prep'd By (Initials)** AR

Prep Date See Data

Exp Date 1 year

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from contianer Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
Total Organic Carbon (TOC) Standard	ULTRA Scientific	IQC-106-5	1000 mg/L	CR-0328-37639	02/28/19	100 uL	40 mL	DI Water	2.5 ppm

Name of Final Standard TOC_MS/MSD — **Prep'd By (Initials)** AR

Prep Date See Data

Exp Date 1 year

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from contianer Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
Total Organic Carbon (TOC) Standard	ULTRA Scientific	IQC-106-5	1000 mg/L	CR-0328-37639	02/28/19	100 uL	40 mL	sample	2.5 ppm

Nitrite

High Point @ 1.5 mg/L
0.2463 mL NO2 Inorganic Ventures lot N2-NOX672889-40759 exp: 05/01/20
50 mL DI Water

CCV @ 0.75 mg/L
0.1232 mL NO2 Inorganic Ventures lot N2-NOX672889-40759 exp: 05/01/20
50 mL DI Water

ICV/LCS @ 0.73 mg/L
0.120 mL NO2 Inorganic Ventures lot M2-NOX660562-40468 exp: 08/25/21
50 mL DI Water

1 mg/L NO2
400 uL of High point and 200 uL of DI made directly into a sample cup

Prep 10/25/19
Exp 11/01/19
EV

Nitrate/TOXN

High Point @ 6 mg/L
0.300 mL NO3 O2Si lot 880117-4-39577 exp: 2/21/20
50 mL DI Water

CCV @ 3.0 mg/L
0.150 mL NO3 O2Si lot 880117-4-39577 exp: 2/21/20
50 mL DI Water

ICV/LCS @ 3.0 mg/L
0.150 mL NO3 Inorganic Ventures lot P2-NOX675324-49391 exp: 02/14/23
50 mL DI Water

1 mg/L NO3
100 uL of High point and 500 uLof DI made directly into a sample cup

MS @ 0.73 mg/L NO2 and 2.5 mg/L NO3
0.120 mL NO2 Inorganic Ventures lot M2-NOX660562-40468 exp: 08/25/21and
0.125 mL NO3 Inorganic Ventures lot P2-NOX675324-49391 exp: 02/14/23
Final volume 50 mL of sample

Prep 10/25/19
Exp 11/01/19
EV

EPA 353.2 Injection Log

Directory: I:\EVE\Export\2019\

RunID	Injected		Sample Name	Misc Info	FileName	Multiplier
1	01 Nov 2019	16:05	Standard 1 TOXN/NO3		191101A TO	1.
2	01 Nov 2019	16:07	Standard 90 TOXN/NO3		191101A TO	1.
3	01 Nov 2019	16:09	Standard 91 TOXN/NO3		191101A TO	1.
4	01 Nov 2019	16:11	Standard 92 TOXN/NO3		191101A TO	1.
5	01 Nov 2019	16:13	Standard 93 TOXN/NO3		191101A TO	1.
6	01 Nov 2019	16:15	Standard 94 TOXN/NO3		191101A TO	1.
7	01 Nov 2019	16:18	Standard 0 TOXN/NO3		191101A TO	1.
10	01 Nov 2019	16:24	ICV TOXN		191101A TO	1.
11	01 Nov 2019	16:26	ICB TOXN		191101A TO	1.
12	01 Nov 2019	16:29	191101A BLK TOXN/NO3		191101A TO	1.
13	01 Nov 2019	16:31	191101A LCS TOXN/NO3		191101A TO	1.
14	01 Nov 2019	16:33	191101A LCSD TOXN/NO3		191101A TO	1.
19	01 Nov 2019	16:40	BA02160W08 TOXN/NO3		191101A TO	1.
20	01 Nov 2019	16:41	CCV TOXN/NO3		191101A TO	1.
21	01 Nov 2019	16:42	CCB TOXN/NO3		191101A TO	1.

908 North Temperance Ave. ∇ Clovis, CA 93611 ∇ Phone 559-275-2175 ∇ Fax 559-275-4422

Certification Number: CA1312
NELAP Certification number: CA00046
DoD-ELAP Certificate number: 4064.01

Data Validatable Report

December 5, 2019

AECOM
1001 Bishop Street, Suite 1600
Honolulu, Hawaii 96813

Attn: Margie Pascua

Title: Report of Data: Case 90587

Project: 60571032 CV18F0126 Red Hill Fuel Storage. HI

Contract #: Prime contract # for DoD: NAVY CLEAN N62742-17-F-1800, CV18F0126
Subcontract: 18S-22209-HI27

Dear Ms. Pascua:

Four water samples were received October 31, 2019. Written results for the requested analyses are being provided on this December 5, 2019.

Results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

If you have any questions or require further information, please contact your APPL Project Manager, Libby Cheeseborough, libby@applinc.com, at your convenience. Thank you for choosing APPL, Inc.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. These test results meet all requirements of NELAC and DoD QSM. Release of the hard copy has been authorized by the Laboratory Manager or her designee, as verified by the following signature.

Paula McCartney, Laboratory Director
APPL, Inc.

PM/lac
Enclosure
cc: File

Data Validation Package
for
60481245 CIV 0053 Red Hill Fuel Storage
APPL SDG 90611
TABLE OF CONTENTS

LABORATORY NAME: *APPL, Inc.*

CASE NARRATIVE

Case Narrative

ARF: 90611

Project: 60571032 CV18F0126 Red Hill Fuel Storage. HI

Sample Receipt Information:

Four water samples were received October 31, 2019, at 4.4°C, and 4.4°C. The sample group was assigned Analytical Request Form (ARF) number 90611.

Sample Preparation and Analysis Information:

For the EPA 8011 analysis, the samples were extracted according to APPL SOP method MWE012.

For the EPA 8015B analysis, the samples were extracted according to EPA method 3520C. The sample extracts were silica gel cleaned according to APPL's SOP CLN004 and placed on hold.

For the EPA 8270D SIM analysis, the samples were extracted according to EPA method 3520C.

For the EPA 8270D Phenol analysis, the samples were extracted according to EPA method 3520C.

For the APPL SOP ANA2MEE analysis, the samples were extracted according to EPA method 3535.

For the EPA 8260B analysis, the samples were purged according to EPA method 5030B.

For the RSK-175 analysis, the samples were allowed to equilibrate for 10 minutes at 40°C and a portion of the headspace was analyzed.

For the EPA 6010C analysis, the sample was digested according to EPA method 3010A.

For the EPA 9060A, 300.0, 353.2, SM 2320B, SM 4500-SiD and SM 3500FeB analyses, the sample was prepared according to the methods.

Only the portion of the injection log relative to these samples is included. A full sequence log is available upon request. Measurement uncertainty can be reported upon request.

Analytical Exceptions, Deviations and Abnormalities.

EPA 8015B:. Manual integrations were performed in accordance with APPL's SOP. Chromatograms of before and after manual integration are enclosed.

One RPD exceeded the 20% limit.

APPL SOP ANA2MEE: In the 191106A LCS, 2MEE recovered above the 130% higher control limit. Corrective action: No target compound was detected in the samples.

Inorganics: The EPA 9060A method requires the instrument to acquire data in quadruplicate. The opening CCV and CCB were inadvertently analyzed in duplicate, rather than quadruplicate. The subsequent samples and CCV, CCB's were all analyzed in quadruplicate,

in accordance with the method. Corrective Action: None. The recovery of the opening CCV was acceptable in duplicate "mode". There was limited sample remaining for re-analysis. The client was notified. In the SM 846 TOC method blank, one analyte was detected at concentrations less than one-half the LOQ: Total Organic Carbon. Corrective action: None, this analyte was not detected in the associated sample.

SDG	Received	Client ID	APPL ID	Collected DateTime	Matrix	Method	Method Description	Prep DateTime	Analysis DateTime
90611	10/31/2019	ERH939	BA02213	10/30/2019 7:20:00 AM	WATER	8011	EPA 8011	11/6/2019 2:25:00 PM	11/8/2019 7:32:00 PM
90611	10/31/2019	ERH939	BA02213	10/30/2019 7:20:00 AM	WATER	EPA 8260B	EPA 8260B BTEX & 1,2-DCA WATER	11/2/2019 12:24:00 PM	11/2/2019 12:24:00 PM
90611	10/31/2019	ERH939	BA02213	10/30/2019 7:20:00 AM	WATER	8011	EPA 8011 (confirmation)		
90611	10/31/2019	ERH939	BA02213	10/30/2019 7:20:00 AM	WATER	8011	EPA 8011 (confirmation)		
90611	10/31/2019	ERH939	BA02213	10/30/2019 7:20:00 AM	WATER	8011	EPA 8011		
90611	10/31/2019	ERH939	BA02213	10/30/2019 7:20:00 AM	WATER	RSK 175	METHANE BY RSK 175		
90611	10/31/2019	ERH939	BA02213	10/30/2019 7:20:00 AM	WATER	8011	EPA 8011		
90611	10/31/2019	ERH939	BA02213	10/30/2019 7:20:00 AM	WATER	RSK 175	METHANE BY RSK 175		
90611	10/31/2019	ERH939	BA02213	10/30/2019 7:20:00 AM	WATER	EPA 8260-GAS	EPA 8260 with GAS		
90611	10/31/2019	ERH939	BA02213	10/30/2019 7:20:00 AM	WATER	EPA 8260B	EPA 8260B GRO WATER	11/2/2019 12:24:00 PM	11/2/2019 12:24:00 PM
90611	10/31/2019	ERH939	BA02213	10/30/2019 7:20:00 AM	WATER	RSK 175	METHANE BY RSK 175	11/5/2019 5:12:00 PM	11/5/2019 5:12:00 PM
90611	10/31/2019	ERH940	BA02214	10/30/2019 8:20:00 AM	WATER	SM 2320B	Wetlab 2320B - Water	11/1/2019 11:37:00 AM	11/1/2019 11:37:00 AM
90611	10/31/2019	ERH940	BA02214	10/30/2019 8:20:00 AM	WATER	EPA 300.0	Wetlab 300.0 - Water	10/31/2019 7:34:27 PM	10/31/2019 7:34:27 PM
90611	10/31/2019	ERH940	BA02214	10/30/2019 8:20:00 AM	WATER	SM3500FeB	Ferrous Iron	10/31/2019 11:03:00 PM	10/31/2019 11:03:00 PM
90611	10/31/2019	ERH940	BA02214	10/30/2019 8:20:00 AM	WATER	EPA 353.2	EPA 353.2 - WATER	11/1/2019 4:43:00 PM	11/1/2019 4:43:00 PM
90611	10/31/2019	ERH940	BA02214	10/30/2019 8:20:00 AM	WATER	6010C/3010A	EPA 6010C TOTAL	11/4/2019 8:30:00 AM	11/5/2019 12:29:45 PM
90611	10/31/2019	ERH940	BA02214	10/30/2019 8:20:00 AM	WATER	8011	EPA 8011	11/6/2019 2:25:00 PM	11/8/2019 7:53:00 PM
90611	10/31/2019	ERH940	BA02214	10/30/2019 8:20:00 AM	WATER	EPA 8260B	EPA 8260B BTEX & 1,2-DCA WATER	11/2/2019 12:52:00 PM	11/2/2019 12:52:00 PM
90611	10/31/2019	ERH940	BA02214	10/30/2019 8:20:00 AM	WATER	EPA 8270D	EPA 8270D WATER	11/4/2019 1:35:00 PM	11/26/2019 12:05:00 AM
90611	10/31/2019	ERH940	BA02214	10/30/2019 8:20:00 AM	WATER	EPA 8270D	EPA 8270D MODIFIED WATER	11/6/2019 6:25:00 AM	11/8/2019 7:31:00 PM
90611	10/31/2019	ERH940	BA02214	10/30/2019 8:20:00 AM	WATER	EPA 300.0	Wetlab 300.0 - Water		
90611	10/31/2019	ERH940	BA02214	10/30/2019 8:20:00 AM	WATER	EPA 8260B	EPA 8260B BTEX & 1,2-DCA WATER		
90611	10/31/2019	ERH940	BA02214	10/30/2019 8:20:00 AM	WATER	EPA 8270D	EPA 8270D MODIFIED WATER		
90611	10/31/2019	ERH940	BA02214	10/30/2019 8:20:00 AM	WATER	EPA 8260B	EPA 8260B GRO WATER		
90611	10/31/2019	ERH940	BA02214	10/30/2019 8:20:00 AM	WATER	EPA 300.0	Wetlab 300.0 - Water		
90611	10/31/2019	ERH940	BA02214	10/30/2019 8:20:00 AM	WATER	EPA 8260B	EPA 8260B BTEX & 1,2-DCA WATER		
90611	10/31/2019	ERH940	BA02214	10/30/2019 8:20:00 AM	WATER	EPA 8270D	EPA 8270D MODIFIED WATER		
90611	10/31/2019	ERH940	BA02214	10/30/2019 8:20:00 AM	WATER	EPA 8260B	EPA 8260B GRO WATER		
90611	10/31/2019	ERH940	BA02214	10/30/2019 8:20:00 AM	WATER	EPA 8015B-eLL	EPA 8015B TPH LIQ-LIQ	11/4/2019 1:40:00 PM	11/14/2019 11:57:00 PM
90611	10/31/2019	ERH940	BA02214	10/30/2019 8:20:00 AM	WATER	SW846 9060A	9060A DOC	11/5/2019 3:44:00 PM	11/7/2019 9:24:00 PM
90611	10/31/2019	ERH940	BA02214	10/30/2019 8:20:00 AM	WATER	EPA 8260-GAS	EPA 8260 with GAS		
90611	10/31/2019	ERH940	BA02214	10/30/2019 8:20:00 AM	WATER	EPA 8260B	EPA 8260B GRO WATER	11/2/2019 12:52:00 PM	11/2/2019 12:52:00 PM
90611	10/31/2019	ERH940	BA02214	10/30/2019 8:20:00 AM	WATER	RSK 175	METHANE BY RSK 175	11/5/2019 5:16:00 PM	11/5/2019 5:16:00 PM
90611	10/31/2019	ERH940	BA02214	10/30/2019 8:20:00 AM	WATER	8270D-SIM	EPA 8270D SIM LIQ-LIQ	11/4/2019 1:35:00 PM	11/12/2019 12:17:00 PM
90611	10/31/2019	ERH940	BA02214	10/30/2019 8:20:00 AM	WATER	SM 4500-Si D	Silica W	11/6/2019 9:24:00 PM	11/6/2019 9:24:00 PM
90611	10/31/2019	ERH940	BA02214	10/30/2019 8:20:00 AM	WATER	SM 4500-Si D	SILICA W - DISSOLVED	11/6/2019 9:28:00 PM	11/6/2019 9:28:00 PM
90611	10/31/2019	ERH940	BA02214	10/30/2019 8:20:00 AM	WATER	SW846 9060A	9060A TOC	11/10/2019 5:57:00 PM	11/11/2019 3:06:00 AM
90611	10/31/2019	ERH924	BA02215	10/30/2019 8:00:00 AM	WATER	EPA 8260B	EPA 8260B BTEX WATER	11/2/2019 1:21:00 PM	11/2/2019 1:21:00 PM
90611	10/31/2019	ERH924	BA02215	10/30/2019 8:00:00 AM	WATER	EPA 8260B	EPA 8260B BTEX WATER		
90611	10/31/2019	ERH924	BA02215	10/30/2019 8:00:00 AM	WATER	EPA 8260B	EPA 8260B BTEX WATER		

90611	10/31/2019	ERH924	BA02215	10/30/2019 8:00:00 AM	WATER	EPA 8260-GAS	EPA 8260 with GAS		
90611	10/31/2019	ERH924	BA02215	10/30/2019 8:00:00 AM	WATER	EPA 8260B	EPA 8260B GRO WATER	11/2/2019 1:21:00 PM	11/2/2019 1:21:00 PM
90611	10/31/2019	ERH924	BA02215	10/30/2019 8:00:00 AM	WATER	RSK 175	METHANE BY RSK 175	11/5/2019 5:26:00 PM	11/5/2019 5:26:00 PM
90611	10/31/2019	ERH925	BA02216	10/30/2019 9:50:00 AM	WATER	SM 2320B	Wetlab 2320B - Water	11/1/2019 11:41:00 AM	11/1/2019 11:41:00 AM
90611	10/31/2019	ERH925	BA02216	10/30/2019 9:50:00 AM	WATER	EPA 300.0	Wetlab 300.0 - Water	10/31/2019 7:41:56 PM	10/31/2019 7:41:56 PM
90611	10/31/2019	ERH925	BA02216	10/30/2019 9:50:00 AM	WATER	EPA 300.0	Wetlab 300.0 - Water	11/6/2019 12:45:48 AM	11/6/2019 12:45:48 AM
90611	10/31/2019	ERH925	BA02216	10/30/2019 9:50:00 AM	WATER	SM3500FeB	Ferrous Iron	10/31/2019 11:03:00 PM	10/31/2019 11:03:00 PM
90611	10/31/2019	ERH925	BA02216	10/30/2019 9:50:00 AM	WATER	EPA 353.2	EPA 353.2 - WATER	11/1/2019 4:44:00 PM	11/1/2019 4:44:00 PM
90611	10/31/2019	ERH925	BA02216	10/30/2019 9:50:00 AM	WATER	EPA 8260B	EPA 8260B BTEX WATER	11/2/2019 1:49:00 PM	11/2/2019 1:49:00 PM
90611	10/31/2019	ERH925	BA02216	10/30/2019 9:50:00 AM	WATER	EPA 8270D	EPA 8270D WATER	11/4/2019 1:35:00 PM	11/26/2019 12:33:00 AM
90611	10/31/2019	ERH925	BA02216	10/30/2019 9:50:00 AM	WATER	EPA 8270D	EPA 8270D MODIFIED WATER	11/6/2019 6:25:00 AM	11/8/2019 7:49:00 PM
90611	10/31/2019	ERH925	BA02216	10/30/2019 9:50:00 AM	WATER	EPA 300.0	Wetlab 300.0 - Water		
90611	10/31/2019	ERH925	BA02216	10/30/2019 9:50:00 AM	WATER	SM3500FeB	Ferrous Iron		
90611	10/31/2019	ERH925	BA02216	10/30/2019 9:50:00 AM	WATER	EPA 300.0	Wetlab 300.0 - Water		
90611	10/31/2019	ERH925	BA02216	10/30/2019 9:50:00 AM	WATER	SM3500FeB	Ferrous Iron		
90611	10/31/2019	ERH925	BA02216	10/30/2019 9:50:00 AM	WATER	EPA 8015B-eLL	EPA 8015B TPH LIQ-LIQ	11/4/2019 1:40:00 PM	11/15/2019 12:16:00 AM
90611	10/31/2019	ERH925	BA02216	10/30/2019 9:50:00 AM	WATER	EPA 8260-GAS	EPA 8260 with GAS		
90611	10/31/2019	ERH925	BA02216	10/30/2019 9:50:00 AM	WATER	EPA 8260B	EPA 8260B GRO WATER	11/2/2019 1:49:00 PM	11/2/2019 1:49:00 PM
90611	10/31/2019	ERH925	BA02216	10/30/2019 9:50:00 AM	WATER	RSK 175	METHANE BY RSK 175	11/5/2019 5:23:00 PM	11/5/2019 5:23:00 PM
90611	10/31/2019	ERH925	BA02216	10/30/2019 9:50:00 AM	WATER	8270D-SIM	EPA 8270D SIM LIQ-LIQ	11/4/2019 1:35:00 PM	11/12/2019 12:39:00 PM
90611	10/31/2019	ERH925	BA02216	10/30/2019 9:50:00 AM	WATER	SW846 9060A	9060A TOC	11/10/2019 5:57:00 PM	11/11/2019 4:51:00 AM

APPL Inc.
Abbreviations and Flags

FLAG	DESCRIPTION
#	Recovery or RPD outside control limits
*	Recovery or RPD outside control limits
B	Analyte detected in associated method blank
C1	Reason for correction: wrote incorrect response
C2	Reason for correction: calculated incorrectly
C3	Reason for correction: needs to be rechecked
C4	Reason for correction: data not usable
DO	Diluted out
E	Exceeds linear range
F	Estimated value
G1	Includes a wide range of hydrocarbons which does not match our gasoline standard
G10	Includes a match to hydrocarbon profiles within the range of mineral spirits
G11	Includes a match to hydrocarbon profiles within the range of JP-4
G12	Pattern does not match the gasoline standard; the carbon range for this sample is consistent with JP8
G13	Closely resembles the hydrocarbon profile of aviation gasoline
G14	Analyte concentration may be biased due to carry over
G2	Closely resembles the boiling point hydrocarbon profile consistent with weathered gasoline
G3	Includes higher boiling hydrocarbons
G4	Includes dominant peak(s) not indicative of petroleum hydrocarbons
G5	Is mainly dominant peak(s) not indicative of petroleum hydrocarbons
G6	Contains recognizable contaminant peak(s) which has been removed from quantitation
G7	Is mainly a match to hydrocarbons within the range of gasoline
G8	Closely resembles the boiling point hydrocarbon profile consistent with weathered gasoline
G9	Includes hydrocarbons within the range of kerosene
J	Estimated value
M	Matrix effect
MI1	Manual integration: integration does not follow baseline
MI2	Manual integration: non-target peak interference
MI3	Manual integration: to split a peak that was integrated as one peak by the computer.
MI4	Manual integration: to integrate a split peak
MI5	Manual integration: the whole peak or part of the peak was not integrated
MI6	Manual integration: computer integrated wrong peak
MI7	Manual integration: other – (See case narrative)
MDL	Method detection limit
ND	Not detected
NT	Non-target
Q	Acceptance criteria not met
T1 I	Includes wide range of hydrocarbons not indicative of diesel
T1 M	Is mainly wide range of hydrocarbons not necessarily indicative of diesel
T2 I	Includes lower boiling hydrocarbons, e.g. mineral spirits, kerosene, stoddard solvent, white gas
T2 M	Is mainly lower boiling hydrocarbons, e.g. mineral spirits, kerosene, stoddard solvent, white gas
T3 I	Includes higher boiling hydrocarbons, e.g. asphaltene, waste oil, motor oil, or weathered diesel fuel
T3 M	Is mainly higher boiling hydrocarbons, e.g. asphaltene, waste oil, motor oil, or weathered diesel fuel
T4 I	Includes dominant peak(s) not indicative of hydrocarbons
T4 M	Is mainly dominant peak(s) not indicative of hydrocarbons
T5	Contains recognizable contaminant peak(s) which has been removed from quantitation
T6	Is mainly a match to hydrocarbons within range of diesel fuel
T7	Closely resembles the boiling point hydrocarbon profile consistent with diesel fuel
T8	Includes a match to hydrocarbon profiles within range of diesel and kerosene fuel
T9 I	Includes non-diesel hydrocarbons within boiling point range of diesel fuel
T9 M	Is mainly non-diesel hydrocarbons within boiling point range of diesel fuel
U	Not detected
Y	Percent difference between primary and confirmation column > 40%

SAMPLE RECORDS MANAGEMENT

CHAIN OF CUSTODY,

ARF, CRF, AND

CLIENT COMMUNICATION

APPL - Analysis Request Form 90611

Client: AECOM
Address: 1001 Bishop Street, Suite 1600
Honolulu, HI 96813
Attn: Margie Pascua
Phone: 808-356-5373 Fax: 808-523-8950
Job: 60571032 CV18F0126 Red Hill Fuel Storage
PO #: 18S-22209-HI27 PO# 102604
Chain of Custody (Y/N): Y # 117,105
RAD Screen (Y/N): Y pH (Y/N): Y
Turn Around Type: 1 WEEK

Received by: ADE
Date Received: 10/31/19 Time: 10:00
Delivered by: FEDEX
Shuttle Custody Seals (Y/N): Y Time Zone: -10
Chest Temp(s): 4.4,4.4°C
Color: VFRG/A-Grn/SF-BlkRd
Samples Chilled until Placed in Refrig/Freezer: Y
Project Manager: Libby Cheesebor
QC Report Type: DVP4DOD/EQUIS/HI
Due Date:

Comments:
PM: login and F1s to Margie.Pascua@aecom.com
AN: 7 day TAT for Form 1s; 21 day TAT for PKG STYLE 1; DOD v5.1; DOD Forms: LOD database
Wetlab: Nitrate by EPA 300 and 353.2
8270 SIM: 1-methylnaphthalene, 2-methylnaphthalene & naphthalene only.
TPH D & O both with and w/o SGC, reverse surrogate for the SGC; analyze SGC if detections
RSK: Methane only; 8011: EDB only; $87DC53W5: report phenol ONLY
FR: 2 labeled CDs to Margie AFTER validation; email ftp info to Margie, Stella, trommelfanger@lab-data
EDD: AECOM EQuIS EDD 2.5.3 Red Hill 87DMEE->3535A to Margie.Pascua@aecom.com & jecklund@lab-data.com

Sample Distribution:
GC: 2-$8011, 2-$87DC53W5, 2-$87DMEEW5, 2-$DOC53W5LIQ, 2-$SIM53LIQ51
Extractions: 2-_MWE012, 2-_LIQ003, 2-_LIQ005, 2-MWE2MEE
VOA: 2-$86BTOTXDCAW, 4-$GASBL, 4-$GRO86BW, 4-$RSKMETH, 2-$86BTOTXDOD5W
Metals: 1-$61CDOD5W(Ca,Mg,Mn,K,Na)
Wetlab: 2-$232W(HCO3,CO3,ALK), 1-$300W(BR,CL,F,SO4), 2-$35FE, 2-$35OF(NO3), 1-$DOCW53, 1-$SIO2, 1-$SIO2D, 2-$TOCW53, 1-$300W(CL,SO4)
Other: 1-_M3010

Charges:

Invoice To:
ACCOUNTS PAYABLE
1001 Bishop Street, Ste 1600
USAPImaging@aecom.com
mary.basano@aecom.com

	Client ID	APPL ID	Sampled	Analyses Requested
1.	ERH939	BA02213W LCSD	10/30/19 07:20	$8011, $86BTOTXDCAW, $GASBL, $GRO86BW, $RSKMETH
2.	ERH940	BA02214W LCSD	10/30/19 08:20	$232W(HCO3,CO3,ALK), $300W(BR,CL,F,SO4), $35FE, $35OF(NO3), $61CDOD5W(Ca,Mg,Mn,K,Na), $8011, $86BTOTXDCAW, $87DC53W5, $87DMEEW5, $DOC53W5LIQ, $DOCW53, $GASBL, $GRO86BW, $RSKMETH, $SIM53LIQ51, $SIO2, $SIO2D, $TOCW53 -- see comments

Note: All times, excluding sample collection times, are Pacific Time Zone unless noted otherwise. Collection times are in: -10 UTC
Page 1 Client Code: AECOM-REDHILL *Printed 11/01/19 7:51:32 AM* Computer: APPL-LC **# 90611**

3.	ERH924	LCSD	BA02215W	10/30/19 08:00	$86BTOTXDOD5W, $GASBL, $GRO86BW, $RSKMETH
4.	ERH925	LCSD	BA02216W	10/30/19 09:50	$232W(HCO3,CO3,ALK), $300W(CL,SO4), $35FE, $35OF(NO3), $86BTOTXDOD5W, $87DC53W5, $87DMEEW5, $DOC53W5LIQ, $GASBL, $GRO86BW, $RSKMETH, $SIM53LIQ51, $TOCW53 -- see comments

APPL Sample Receipt Form

ARF# **90611**

Sample	Container Type	Count	p
BA02213	13 VOAs - HCL	4	NA
	15 VOAs - NP	3	NA
BA02214	3 PL 250mL	3	NA
	6 PL 500mL - HNO3	1	1.7
	10 PL 250mL - H2SO4	1	1.7
	13 VOAs - HCL	4	NA
	15 VOAs - NP	3	NA
	17 Amber Liter	4	NA
	32 Clear VOA - H2SO4	4	NA
	38 250mL brn poly, HCl prsvd	1	1.7
	40 500mL Amber, unprsrvd	3	NA
BA02215	13 VOAs - HCL	4	NA
BA02216	3 PL 250mL	1	NA
	10 PL 250mL - H2SO4	1	1.7
	13 VOAs - HCL	4	NA
	17 Amber Liter	4	NA
	32 Clear VOA - H2SO4	2	NA
	38 250mL brn poly, HCl prsvd	1	1.7
	40 500mL Amber, unprsrvd	3	NA

Sample	Container Type	Count	p

APPL LABS

APPL, Inc.
908 N Temperance Ave
Clovis, CA 93611
www.applinc.com

Phone: (559) 275-2175
Fax: (559) 275-4422
coc@applinc.com

CHAIN OF CUSTODY RECORD

C.O.C. 105

Report to: PLEASE PRINT

Company Name: AECOM Phone: 808-356-5373

Address: 1001 Bishop St, Suite 1600
Honolulu, HI 96813 Fax: 808-523-8950

Attn: Margie Pascua

Email: margie.pascua@aecom.com

Invoice to: PLEASE PRINT

Company Name: AECOM Phone: 808-529-7249

Address: 1001 Bishop St, Suite 1600
Honolulu, HI 96813 Fax: 808-523-8950

Attn: Mary Basano

Email: mary.basano@aecom.com; usapimaging@aecom.com

Project Name/Number: CV18F0126 / 60571032

Purchase Order Number: 102604

Sampler (Print): GM, CS, RS

Sampler (Signature): MP for GM, CS, RS

Date Shipped: MM/DD/YY

Carrier: FedEx

Waybill No.:

Comments:

Sample Identification	Location	Date Collected	Time Collected	Time Zone	No. of Containers	Matrix: Aq	Matrix: Sed.	Matrix: Soil	8260C BTEX,TPH-g	8260C DCA 8011 EDB	8015C TPH-d/o	3630/8015C TPH-d/o w/ SGT	8270DSIM PAHs short list	8270D Phenol, TICs (w/ SIM list)	8270D 2-(2-methoxy ethoxy)-ethanol	RSK175M Methane	SM3500-Fe Ferrous Iron	353.2 Nitrate-Nitrite N	SM2320B Alkalinity 300.0 Nitrate,Sulfate,Chloride	300.0 Bromide/Fluoride 3010 Total Ca,Mg,Mn,K,Na SM4500 Total & Dissolved Silica	9060A TOC
ERH924	Trip Blank	10/30/19	0800	HST	4	X			X							X					
ERH925	RHMW08	10/30/19	0950	HST	16	X			X		X	X*	X	X	X	X	X	X	X		X

EB 10/30/19

*Analyze TPH w/SGT only if TPH-d/o detected.

TPH-d/o & PAHs need liquid-liquid extraction.

Shuttle Temperature:

Turnaround Requested: Check one
☐ Standard 2-3 wk ☒ One week ☐ 3 days ☐ 24/48 Hrs. ☐ Other:

Sample Disposal:
☐ Return to client ☒ Disposal by Lab (30-day retention)

Relinquished by sampler: AECOM Estelle BONNY	Date 10/30/19	Time 1205	Received by:	Relinquished by:	Date	Time	Received by:
Relinquished by:	Date	Time	Received by:	Relinquished by:	Date 10-31-19	Time 1000	Received at lab by:

See page 2 for Container Preservative and Sampling Information

90611

APPL LABS

APPL, Inc.
908 N Temperance Ave
Clovis, CA 93611
www.applinc.com

Phone: (559) 275-2175
Fax: (559) 275-4422
coc@applinc.com

CHAIN OF CUSTODY RECORD

C.O.C. 117

Report to: PLEASE PRINT

Company Name: AECOM Phone: 808-356-5373

Address: 1001 Bishop St, Suite 1600
Honolulu, HI 96813 Fax: 808-523-8950

Attn: Margie Pascua

Email: margie.pascua@aecom.com

Invoice to: PLEASE PRINT

Company Name: AECOM Phone: 808-529-7249

Address: 1001 Bishop St, Suite 1600
Honolulu, HI 96813 Fax: 808-523-8950

Attn: Mary Basano

Email: mary.basano@aecom.com; usapimaging@aecom.com

Project Name/Number: CV18F0126 / 60571032

Purchase Order Number: 102604

Sampler (Print): MH, MC, SM

Sampler (Signature): MF for MH, MC, SM

Date Shipped:

Carrier: FedEx

Waybill No.:

Comments:

Sample Identification	Location	Date Collected	Time Collected	Time Zone	No. of Containers	Matrix: Aq	Matrix: Sed.	Matrix: Soil	8260C BTEX,TPH-g	8260C DCA 8011 EDB	8015C TPH-d/o	3630/8015C TPH-d/o w/ SGT	8270DSIM PAHs short list	8270D Phenol, HES w/ SIMS	8270D 2-(2-methoxy ethoxy)-ethanol	RSK175M Methane	SM3500-Fe Ferrous Iron	353.2 Nitrate-Nitrite N	SM2320B Alkalinity 300.0 Nitrate,Sulfate,Chloride	300.0 Bromide/Fluoride 6010 Total Ca,Mg,Mn,K,Na SM4500 Total & Dissolved Silica	9060A TOC	[illegible] DOC
ERH939	Trip Blank	10/30/19	0720	HST	7	X			X	X						X						
ERH940	RHMW11-07	10/30/19	0820	HST	24	X			X	X	X	X*	X	X	X	X	X	X	X	X	X	X

EB 10/30/19

*Analyze TPH w/SGT only if TPH-d/o detected.

TPH-d/o & PAHs need liquid-liquid extraction.

Shuttle Temperature: RSE for 4.0/4.4 4.0/4.4

Turnaround Requested: Check one
☐ Standard 2-3 wk ☒ One week ☐ 3 days ☐ 24/48 Hrs. ☐ Other:

Sample Disposal:
☐ Return to client ☒ Disposal by Lab (30-day retention)

Relinquished by sampler: AECOM Estelle BONNY	Date 10/30/19	Time 1220	Received by:	Relinquished by:	Date	Time	Received by:
Relinquished by:	Date	Time	Received by:	Relinquished by:	Date 10-31-19	Time 1000	Received at lab by:

See page 2 for Container Preservative and Sampling Information

COOLER RECEIPT FORM **ARF: 90611**

1) Project: 60571032 CV18F0126 Red Hill Fuel Storage Date Received: 10/31/19

2) Coolers: Number of Coolers: 2

3) YES Were custody seals present and intact?
How many? 4 Name/Date on seal? SEE BELOW

4) YES Was there a shipping slip? Carrier name: FEDEX

5) Type of packing in cooler: X bubble wrap __ popcorn __ foam X plastic bags __ other
X wet ice __ dry ice __ no ice __ gel ice

6) YES Were cooler temperatures acceptable?

7) Serial number of certified NIST thermometer use R5 @ +0.4°C

8) Cooler temp(s): In °C. Thermometer Temp / Corrected Temp

1: 4.0°C/ 4.4°C	2: 4.0°C/ 4.4°C	3:	4:	5:	6:
7:	8:	9:	10:	11:	12:

Chain of custody:

9) YES Was a chain of custody received?

10) YES Were the custody papers complete/signed in the appropriate places?

Sample Labels:

11) YES Were all sample labels complete (sample ID, date/time of sampling, etc.)?

12) YES Did all container labels agree with custody papers?

Sample Containers:

13) YES Were all containers sealed in separate bags?

14) YES Did all containers arrive in good condition:(unbroken, no leakage, no cracked/broken lids)?

15) YES Were correct containers and preservatives used for the tests indicated?

16) YES Was a sufficient amount of sample sent for tests indicated?

17) No Were bubbles present in volatile samples?
If yes, the following were received with air bubbles:
Larger than a pea:
Smaller than a pea:

Preservation Hold time:

18) Yes Was a sufficient amount of holding time remaining to analyze the samples?

19) Yes Was the pH taken of all non-VOA preserved samples and written on the sample container?

20) Yes Was the pH of acid preserved non-VOA samples < 2?

21) NA Was the pH of sodium hydroxide preserved samples for Cyanide > 12 and Sulfide >9?

22) NO Were unpreserved VOA Vials received?

23) NA Are unpreserved VOA vials noted in the ADD TEST FIELD on the ARF?
pH strip lot number: 90B2031
Lab notified if pH was not adequate:

Notes/Deficiencies:

CUSTODY SEAL
RECOM (808) 521-3051
Initials EG Date 10/30/19

Personnel receiving samples: ZG Second reviewer: AA
Personnel labeling samples: ZG
Project manager notified: ZG Date/Time of notification 10/31/19
Name of client notified: Date/Time of notification

Revision: 22, November 5, 2013

SAMPLE RESULTS

EPA 8011

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

Sample ID: ERH939

Sample Collection Date: 10/30/19

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

ARF: 90611

APPL ID: BA02213

QCG: #8011-191106A-247039

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
8011	EDB	0.019 U	0.02	0.019	0.010	ug/L	11/06/19	11/08/19
8011	SURROGATE: 1,3-DIBROMOPROPANE	107	70-132			%	11/06/19	11/08/19

Quant Method: 8011106A.M
Run #: 1025132
Instrument: Herbie
Sequence: 191025
Dilution Factor: 1
Initials: GAG

Printed: 11/19/19 4:42:22 PM
APPL-F1-SC-NoMC-REG MDLs-DOD

EPA 8011

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

Attn: Margie Pascua
Project: 60571032 CV18F0126 Red Hill Fuel Storage
Sample ID: ERH940
Sample Collection Date: 10/30/19

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

ARF: 90611
APPL ID: BA02214
QCG: #8011-191106A-247039

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
8011	EDB	0.019 U	0.02	0.019	0.010	ug/L	11/06/19	11/08/19
8011	SURROGATE: 1,3-DIBROMOPROPANE	110	70-132			%	11/06/19	11/08/19

Quant Method: 8011106A.M
Run #: 1025133
Instrument: Herbie
Sequence: 191025
Dilution Factor: 1
Initials: GAG

Printed: 11/19/19 4:42:22 PM
APPL-F1-SC-NoMC-REG MDLs-DOD

EPA 8015B TPH LIQ-LIQ

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 90611

Sample ID: ERH940

APPL ID: BA02214

Sample Collection Date: 10/30/19

QCG: #DOC53-191104A-247204

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8015B-eL	DIESEL (C10-C24)	25.00 U	40.0	25.00	13.07	ug/L	11/04/19	11/14/19
EPA 8015B-eL	OIL (C24-C40)	40.00 U	40.0	40.00	5.54	ug/L	11/04/19	11/14/19
EPA 8015B-eL	SURROGATE: OCTACOSANE (S)	105	60-142			%	11/04/19	11/14/19
EPA 8015B-eL	SURROGATE: ORTHO-TERPHENYL (S)	102	56-125			%	11/04/19	11/14/19

Quant Method:	DOC1114.M
Run #:	1114016
Instrument:	Apollo
Sequence:	191114
Dilution Factor:	1
Initials:	LPO

Printed: 11/16/19 5:41:30 AM

APPL-F1-SC-NoMC-REG MDLs-DOD

EPA 8015B TPH LIQ-LIQ

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 90611

Sample ID: ERH925

APPL ID: BA02216

Sample Collection Date: 10/30/19

QCG: #DOC53-191104A-247204

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8015B-eL	DIESEL (C10-C24)	25.00 U	40.0	25.00	13.07	ug/L	11/04/19	11/15/19
EPA 8015B-eL	OIL (C24-C40)	40.00 U	40.0	40.00	5.54	ug/L	11/04/19	11/15/19
EPA 8015B-eL	SURROGATE: OCTACOSANE (S)	98.5	60-142			%	11/04/19	11/15/19
EPA 8015B-eL	SURROGATE: ORTHO-TERPHENYL (S)	116	56-125			%	11/04/19	11/15/19

Quant Method:	DOC1114.M
Run #:	1114017
Instrument:	Apollo
Sequence:	191114
Dilution Factor:	1
Initials:	LPO

Printed: 11/16/19 5:41:30 AM

APPL-F1-SC-NoMC-REG MDLs-DOD

EPA 8270D SIM LIQ-LIQ

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 90611

Sample ID: ERH940

APPL ID: BA02214

Sample Collection Date: 10/30/19

QCG: #SIM53-191104A-247109

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
8270D-SIM	1-METHYLNAPHTHALENE	0.10 U	0.2	0.10	0.04	ug/L	11/04/19	11/12/19
8270D-SIM	2-METHYLNAPHTHALENE	0.10 U	0.2	0.10	0.04	ug/L	11/04/19	11/12/19
8270D-SIM	NAPHTHALENE	0.10 U	0.2	0.10	0.04	ug/L	11/04/19	11/12/19
8270D-SIM	SURROGATE: 2-METHYLNAPHTHALEN	90.2	39-114			%	11/04/19	11/12/19
8270D-SIM	SURROGATE: FLUORANTHENE-D10 (S	103	58-120			%	11/04/19	11/12/19

Quant Method: L1028.M
Run #: 1028L265
Instrument: Linus
Sequence: L191028
Dilution Factor: 1
Initials: MA

Printed: 12/03/19 6:04:33 PM
APPL-F1-SC-NoMC-REG MDLs-DOD

EPA 8270D SIM LIQ-LIQ

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua
Project: 60571032 CV18F0126 Red Hill Fuel Storage
Sample ID: ERH925
Sample Collection Date: 10/30/19

ARF: 90611
APPL ID: BA02216
QCG: #SIM53-191104A-247109

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
8270D-SIM	1-METHYLNAPHTHALENE	0.10 U	0.2	0.10	0.04	ug/L	11/04/19	11/12/19
8270D-SIM	2-METHYLNAPHTHALENE	0.10 U	0.2	0.10	0.04	ug/L	11/04/19	11/12/19
8270D-SIM	NAPHTHALENE	0.10 U	0.2	0.10	0.04	ug/L	11/04/19	11/12/19
8270D-SIM	SURROGATE: 2-METHYLNAPHTHALEN	87.3	39-114			%	11/04/19	11/12/19
8270D-SIM	SURROGATE: FLUORANTHENE-D10 (S	101	58-120			%	11/04/19	11/12/19

Quant Method: L1028.M
Run #: 1028L266
Instrument: Linus
Sequence: L191028
Dilution Factor: 1
Initials: MA

Printed: 12/03/19 6:04:33 PM
APPL-F1-SC-NoMC-REG MDLs-DOD

EPA 8270D WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 90611

Sample ID: ERH940

APPL ID: BA02214

Sample Collection Date: 10/30/19

QCG: #87DC5-191104A-247478

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8270D	PHENOL	4.00 U	5.0	4.00	1.00	ug/L	11/04/19	11/26/19
EPA 8270D	SURROGATE: 2,4,6-TRIBROMOPHENO	90.4	43-140			%	11/04/19	11/26/19
EPA 8270D	SURROGATE: 2-FLUORBIPHENYL (S)	90.1	44-119			%	11/04/19	11/26/19
EPA 8270D	SURROGATE: 2-FLUOROPHENOL (S)	97.8	19-119			%	11/04/19	11/26/19
EPA 8270D	SURROGATE: NITROBENZENE-D5 (S)	107	44-120			%	11/04/19	11/26/19
EPA 8270D	SURROGATE: PHENOL-D6 (S)	106	10-115			%	11/04/19	11/26/19
EPA 8270D	SURROGATE: TERPHENYL-D14 (S)	99.1	50-134			%	11/04/19	11/26/19

Quant Method: Not detected.M
Run #: 1121Y161
Instrument: Yoda
Sequence: Y191121
Dilution Factor: 1
Initials: JPR

Printed: 12/03/19 12:18:34 PM
APPL-F1-SC-NoMC-REG MDLs-DOD

EPA 8270D WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 90611

Sample ID: ERH925

APPL ID: BA02216

Sample Collection Date: 10/30/19

QCG: #87DC5-191104A-247478

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8270D	PHENOL	4.00 U	5.0	4.00	1.00	ug/L	11/04/19	11/26/19
EPA 8270D	SURROGATE: 2,4,6-TRIBROMOPHENO	88.1	43-140			%	11/04/19	11/26/19
EPA 8270D	SURROGATE: 2-FLUORBIPHENYL (S)	87.7	44-119			%	11/04/19	11/26/19
EPA 8270D	SURROGATE: 2-FLUOROPHENOL (S)	88.8	19-119			%	11/04/19	11/26/19
EPA 8270D	SURROGATE: NITROBENZENE-D5 (S)	101	44-120			%	11/04/19	11/26/19
EPA 8270D	SURROGATE: PHENOL-D6 (S)	95.4	10-115			%	11/04/19	11/26/19
EPA 8270D	SURROGATE: TERPHENYL-D14 (S)	88.2	50-134			%	11/04/19	11/26/19

Quant Method: Not detected.M
Run #: 1121Y162
Instrument: Yoda
Sequence: Y191121
Dilution Factor: 1
Initials: JPR

Printed: 12/03/19 12:18:34 PM

APPL-F1-SC-NoMC-REG MDLs-DOD

EPA 8270D MODIFIED WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 90611

Sample ID: ERH940

APPL ID: BA02214

Sample Collection Date: 10/30/19

QCG: #87DME-191106A-247176

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8270D	2-(2-METHOXYETHOXY)-ETHANOL	80.0 U	100	80.0	40.0	ug/L	11/06/19	11/08/19

Quant Method: YMEE1030.M
Run #: 1030L056
Instrument: Linus
Sequence: L191030M
Dilution Factor: 1
Initials: MA

Printed: 11/15/19 12:56:17 PM
APPL-F1-SC-NoMC-REG MDLs-DOD

EPA 8270D MODIFIED WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua
Project: 60571032 CV18F0126 Red Hill Fuel Storage
Sample ID: ERH925
Sample Collection Date: 10/30/19

ARF: 90611
APPL ID: BA02216
QCG: #87DME-191106A-247176

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8270D	2-(2-METHOXYETHOXY)-ETHANOL	80.0 U	100	80.0	40.0	ug/L	11/06/19	11/08/19

Quant Method:	YMEE1030.M
Run #:	1030L057
Instrument:	Linus
Sequence:	L191030M
Dilution Factor:	1
Initials:	MA

Printed: 11/15/19 12:56:18 PM
APPL-F1-SC-NoMC-REG MDLs-DOD

EPA 8260B BTEX & 1,2-DCA WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

Sample ID: ERH939

Sample Collection Date: 10/30/19

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

ARF: 90611

APPL ID: BA02213

QCG: #86BTO-191101BT-246726

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8260B	1,2-DICHLOROETHANE	0.30 U	1.0	0.30	0.14	ug/L	11/02/19	11/02/19
EPA 8260B	BENZENE	0.30 U	1.0	0.30	0.15	ug/L	11/02/19	11/02/19
EPA 8260B	ETHYLBENZENE	0.50 U	1.0	0.50	0.23	ug/L	11/02/19	11/02/19
EPA 8260B	TOLUENE	0.30 U	1.0	0.30	0.15	ug/L	11/02/19	11/02/19
EPA 8260B	XYLENES (TOTAL)	0.30 U	2.0	0.30	0.15	ug/L	11/02/19	11/02/19
EPA 8260B	SURROGATE: 1,2-DICHLOROETHANE-	99.1	81-118			%	11/02/19	11/02/19
EPA 8260B	SURROGATE: 4-BROMOFLUOROBENZ	96.3	85-114			%	11/02/19	11/02/19
EPA 8260B	SURROGATE: DIBROMOFLUOROMETH	97.9	80-119			%	11/02/19	11/02/19
EPA 8260B	SURROGATE: TOLUENE-D8 (S)	96.8	89-112			%	11/02/19	11/02/19

Quant Method: T1023W.M
Run #: 1101T50
Instrument: Thor
Sequence: T191028
Dilution Factor: 1
Initials: DPO

Printed: 12/04/19 11:33:58 AM
APPL-F1-SC-NoMC-REG MDLs-DOD

EPA 8260B BTEX & 1,2-DCA WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

Attn: Margie Pascua

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 90611

Sample ID: ERH940

APPL ID: BA02214

Sample Collection Date: 10/30/19

QCG: #86BTO-191101BT-246726

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8260B	1,2-DICHLOROETHANE	0.30 U	1.0	0.30	0.14	ug/L	11/02/19	11/02/19
EPA 8260B	BENZENE	0.30 U	1.0	0.30	0.15	ug/L	11/02/19	11/02/19
EPA 8260B	ETHYLBENZENE	0.50 U	1.0	0.50	0.23	ug/L	11/02/19	11/02/19
EPA 8260B	TOLUENE	0.30 U	1.0	0.30	0.15	ug/L	11/02/19	11/02/19
EPA 8260B	XYLENES (TOTAL)	0.30 U	2.0	0.30	0.15	ug/L	11/02/19	11/02/19
EPA 8260B	SURROGATE: 1,2-DICHLOROETHANE-	93.1	81-118			%	11/02/19	11/02/19
EPA 8260B	SURROGATE: 4-BROMOFLUOROBENZ	89.0	85-114			%	11/02/19	11/02/19
EPA 8260B	SURROGATE: DIBROMOFLUOROMETH	89.3	80-119			%	11/02/19	11/02/19
EPA 8260B	SURROGATE: TOLUENE-D8 (S)	89.8	89-112			%	11/02/19	11/02/19

Quant Method: T1023W.M
Run #: 1101T51
Instrument: Thor
Sequence: T191028
Dilution Factor: 1
Initials: DPO

Printed: 12/04/19 11:33:58 AM
APPL-F1-SC-NoMC-REG MDLs-DOD

EPA 8260B BTEX WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 90611

Sample ID: ERH924

APPL ID: BA02215

Sample Collection Date: 10/30/19

QCG: #86BTO-191101BT1-246727

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8260B	BENZENE	0.30 U	1.0	0.30	0.15	ug/L	11/02/19	11/02/19
EPA 8260B	ETHYLBENZENE	0.50 U	1.0	0.50	0.23	ug/L	11/02/19	11/02/19
EPA 8260B	TOLUENE	0.30 U	1.0	0.30	0.15	ug/L	11/02/19	11/02/19
EPA 8260B	XYLENES (TOTAL)	0.30 U	2.0	0.30	0.15	ug/L	11/02/19	11/02/19
EPA 8260B	SURROGATE: 1,2-DICHLOROETHANE-	104	81-118			%	11/02/19	11/02/19
EPA 8260B	SURROGATE: 4-BROMOFLUOROBENZ	97.5	85-114			%	11/02/19	11/02/19
EPA 8260B	SURROGATE: DIBROMOFLUOROMETH	105	80-119			%	11/02/19	11/02/19
EPA 8260B	SURROGATE: TOLUENE-D8 (S)	101	89-112			%	11/02/19	11/02/19

Quant Method: T1023W.M
Run #: 1101T52
Instrument: Thor
Sequence: T191028
Dilution Factor: 1
Initials: DPO

Printed: 12/04/19 11:37:01 AM
APPL-F1-SC-NoMC-REG MDLs-DOD

EPA 8260B BTEX WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua
Project: 60571032 CV18F0126 Red Hill Fuel Storage
Sample ID: ERH925
Sample Collection Date: 10/30/19

ARF: 90611
APPL ID: BA02216
QCG: #86BTO-191101BT1-246727

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8260B	BENZENE	0.30 U	1.0	0.30	0.15	ug/L	11/02/19	11/02/19
EPA 8260B	ETHYLBENZENE	0.50 U	1.0	0.50	0.23	ug/L	11/02/19	11/02/19
EPA 8260B	TOLUENE	0.30 U	1.0	0.30	0.15	ug/L	11/02/19	11/02/19
EPA 8260B	XYLENES (TOTAL)	0.30 U	2.0	0.30	0.15	ug/L	11/02/19	11/02/19
EPA 8260B	SURROGATE: 1,2-DICHLOROETHANE-	101	81-118			%	11/02/19	11/02/19
EPA 8260B	SURROGATE: 4-BROMOFLUOROBENZ	94.0	85-114			%	11/02/19	11/02/19
EPA 8260B	SURROGATE: DIBROMOFLUOROMETH	101	80-119			%	11/02/19	11/02/19
EPA 8260B	SURROGATE: TOLUENE-D8 (S)	95.3	89-112			%	11/02/19	11/02/19

Quant Method: T1023W.M
Run #: 1101T53
Instrument: Thor
Sequence: T191028
Dilution Factor: 1
Initials: DPO

Printed: 12/04/19 11:37:01 AM
APPL-F1-SC-NoMC-REG MDLs-DOD

EPA 8260B GRO WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

Sample ID: ERH939

Sample Collection Date: 10/30/19

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

ARF: 90611

APPL ID: BA02213

QCG: #GRO86-191101BT-246725

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8260B	GASOLINE RANGE ORGANICS	18.0 U	20	18.0	8.6	ug/L	11/02/19	11/02/19
EPA 8260B	SURROGATE: 4-BROMOFLUOROBENZ	96.3	85-114			%	11/02/19	11/02/19

Quant Method: TGAS1026.M
Run #: 1101T50
Instrument: Thor
Sequence: T191028
Dilution Factor: 1
Initials: DPO

Printed: 12/04/19 11:45:42 AM
APPL-F1-SC-NoMC-REG MDLs-DOD

EPA 8260B GRO WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

Attn: Margie Pascua
Project: 60571032 CV18F0126 Red Hill Fuel Storage
Sample ID: ERH940
Sample Collection Date: 10/30/19

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

ARF: 90611
APPL ID: BA02214
QCG: #GRO86-191101BT-246725

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8260B	GASOLINE RANGE ORGANICS	18.0 U	20	18.0	8.6	ug/L	11/02/19	11/02/19
EPA 8260B	SURROGATE: 4-BROMOFLUOROBENZ	89.0	85-114			%	11/02/19	11/02/19

Quant Method: TGAS1026.M
Run #: 1101T51
Instrument: Thor
Sequence: T191028
Dilution Factor: 1
Initials: DPO

Printed: 12/04/19 11:45:42 AM
APPL-F1-SC-NoMC-REG MDLs-DOD

EPA 8260B GRO WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

Sample ID: ERH924

Sample Collection Date: 10/30/19

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

ARF: 90611

APPL ID: BA02215

QCG: #GRO86-191101BT-246725

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8260B	GASOLINE RANGE ORGANICS	18.0 U	20	18.0	8.6	ug/L	11/02/19	11/02/19
EPA 8260B	SURROGATE: 4-BROMOFLUOROBENZ	97.5	85-114			%	11/02/19	11/02/19

Quant Method: TGAS1026.M
Run #: 1101T52
Instrument: Thor
Sequence: T191028
Dilution Factor: 1
Initials: DPO

Printed: 12/04/19 11:45:42 AM
APPL-F1-SC-NoMC-REG MDLs-DOD

EPA 8260B GRO WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

Sample ID: ERH925

Sample Collection Date: 10/30/19

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

ARF: 90611

APPL ID: BA02216

QCG: #GRO86-191101BT-246725

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8260B	GASOLINE RANGE ORGANICS	18.0 U	20	18.0	8.6	ug/L	11/02/19	11/02/19
EPA 8260B	SURROGATE: 4-BROMOFLUOROBENZ	94.0	85-114			%	11/02/19	11/02/19

Quant Method: TGAS1026.M
Run #: 1101T53
Instrument: Thor
Sequence: T191028
Dilution Factor: 1
Initials: DPO

Printed: 12/04/19 11:45:42 AM
APPL-F1-SC-NoMC-REG MDLs-DOD

METHANE

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

Sample ID: ERH939

Sample Collection Date: 10/30/19

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

ARF: 90611

APPL ID: BA02213

QCG: #RSKME-191105A-246825

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
RSK 175	METHANE	1.00 U	5.0	1.00	0.25	ug/L	11/05/19	11/05/19

Quant Method:	RSK1002.M
Run #:	1105R20
Instrument:	Rocky
Sequence:	191002
Dilution Factor:	1
Initials:	GAG

Printed: 12/04/19 1:16:38 PM
APPL-F1-SC-NoMC-REG MDLs-DOD

METHANE

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

Attn: Margie Pascua
Project: 60571032 CV18F0126 Red Hill Fuel Storage
Sample ID: ERH940
Sample Collection Date: 10/30/19

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

ARF: 90611
APPL ID: BA02214
QCG: #RSKME-191105A-246825

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
RSK 175	METHANE	1.00 U	5.0	1.00	0.25	ug/L	11/05/19	11/05/19

Quant Method: RSK1002.M
Run #: 1105R21
Instrument: Rocky
Sequence: 191002
Dilution Factor: 1
Initials: GAG

Printed: 12/04/19 1:16:39 PM
APPL-F1-SC-NoMC-REG MDLs-DOD

METHANE

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

Sample ID: ERH924

Sample Collection Date: 10/30/19

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

ARF: 90611

APPL ID: BA02215

QCG: #RSKME-191105A-246825

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
RSK 175	METHANE	1.00 U	5.0	1.00	0.25	ug/L	11/05/19	11/05/19

Quant Method:	RSK1002.M
Run #:	1105R24
Instrument:	Rocky
Sequence:	191002
Dilution Factor:	1
Initials:	GAG

Printed: 12/04/19 1:16:39 PM

APPL-F1-SC-NoMC-REG MDLs-DOD

METHANE

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

Attn: Margie Pascua
Project: 60571032 CV18F0126 Red Hill Fuel Storage
Sample ID: ERH925
Sample Collection Date: 10/30/19

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

ARF: 90611
APPL ID: BA02216
QCG: #RSKME-191105A-246825

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
RSK 175	METHANE	1.00 U	5.0	1.00	0.25	ug/L	11/05/19	11/05/19

Quant Method:	RSK1002.M
Run #:	1105R23
Instrument:	Rocky
Sequence:	191002
Dilution Factor:	1
Initials:	GAG

Printed: 12/04/19 1:16:39 PM
APPL-F1-SC-NoMC-REG MDLs-DOD

Metals Analysis

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua
Project: 60571032 CV18F0126 Red Hill Fuel Storage
Sample ID: ERH940
Sample Collection Date: 10/30/19

ARF: 90611
APPL ID: BA02214

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
6010C/3010A	CALCIUM (CA)	5620	1000	75.0	27.5	ug/L	1	11/04/19	11/05/19
6010C/3010A	MAGNESIUM (MG)	5670	500	30.0	12.9	ug/L	1	11/04/19	11/05/19
6010C/3010A	MANGANESE (MN)	8.8 J	10.0	4.00	1.23	ug/L	1	11/04/19	11/05/19
6010C/3010A	POTASSIUM (K)	655 J	3000	500.0	220.0	ug/L	1	11/04/19	11/05/19
6010C/3010A	SODIUM (NA)	31400	5000	500.0	111.1	ug/L	1	11/04/19	11/05/19

J = Estimated value.

Printed: 12/02/19 10:25:56 AM
APPL-F1-SC-NoMC-REG MDLs

Wet Lab Analysis

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

Sample ID: ERH940

Sample Collection Date: 10/30/19

APPL ID: BA02214

ARF: 90611

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
EPA 353.2	NITRATE-NITRITE-N	0.39	0.10	0.090	0.028	mg/L	1	11/01/19	11/01/19
SM 2320B	BICARBONATE AS CACO3	42.4	2.0	1.70	0.85	mg/L	1	11/01/19	11/01/19
SM 2320B	CARBONATE AS CACO3	1.70 U	2.0	1.70	0.85	mg/L	1	11/01/19	11/01/19
SM 2320B	TOTAL ALKALINITY AS CACO	42.4	2.0	1.70	0.85	mg/L	1	11/01/19	11/01/19
SM 4500-Si D	SILICA W	44.9	5.0	4.00	2.65	mg/L	5	11/06/19	11/06/19
SM 4500-Si D	DISSOLVED SILICA	39.7	5.0	4.00	2.65	mg/L	5	11/06/19	11/06/19
SM3500FeB	FERROUS IRON	0.32 U	1.0	0.32	0.16	mg/L	1	10/31/19	10/31/19
SW846 9060A	DISSOLVED ORGANIC CARB	0.39 J	0.93	0.350	0.130	mg/L	1	11/05/19	11/07/19
SW846 9060A	TOTAL ORGANIC CARBON	0.32 J	0.93	0.350	0.130	mg/L	1	11/10/19	11/11/19

J = Estimated value.

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APPL-F1-SC-NoMC-REG MDLs

Wet Lab Analysis

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

Sample ID: ERH925

Sample Collection Date: 10/30/19

APPL ID: BA02216

ARF: 90611

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
EPA 353.2	NITRATE-NITRITE-N	1.2	0.10	0.090	0.028	mg/L	1	11/01/19	11/01/19
SM 2320B	BICARBONATE AS CACO3	93.4	2.0	1.70	0.85	mg/L	1	11/01/19	11/01/19
SM 2320B	CARBONATE AS CACO3	1.70 U	2.0	1.70	0.85	mg/L	1	11/01/19	11/01/19
SM 2320B	TOTAL ALKALINITY AS CACO	93.4	2.0	1.70	0.85	mg/L	1	11/01/19	11/01/19
SM3500FeB	FERROUS IRON	0.32 U	1.0	0.32	0.16	mg/L	1	10/31/19	10/31/19
SW846 9060A	TOTAL ORGANIC CARBON	0.81 J	0.93	0.350	0.130	mg/L	1	11/10/19	11/11/19

J = Estimated value.

Printed: 12/04/19 3:49:28 PM

APPL-F1-SC-NoMC-REG MDLs

Wet Lab Analysis

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

Sample ID: ERH940

APPL ID: BA02214

Sample Collection Date: 10/30/19

ARF: 90611

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
EPA 300.0	BROMIDE	0.15 J	0.5	0.16	0.05	mg/L	1	10/31/19	10/31/19
EPA 300.0	CHLORIDE	42.4	1.0	0.20	0.08	mg/L	1	10/31/19	10/31/19
EPA 300.0	FLUORIDE	0.09 U	0.1	0.09	0.08	mg/L	1	10/31/19	10/31/19
EPA 300.0	NITRATE	1.7	0.5	0.18	0.04	mg/L	1	10/31/19	10/31/19
EPA 300.0	SULFATE	10.0	1.0	0.20	0.09	mg/L	1	10/31/19	10/31/19

J = Estimated value.

Printed: 12/04/19 2:38:48 PM

APPL-F1-SC-NoMC-REG MDLs

Wet Lab Analysis

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

Sample ID: ERH925

Sample Collection Date: 10/30/19

APPL ID: BA02216

ARF: 90611

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
EPA 300.0	CHLORIDE	146	5.0	1.00	0.40	mg/L	5	11/06/19	11/06/19
EPA 300.0	NITRATE	5.2	0.5	0.18	0.04	mg/L	1	10/31/19	10/31/19
EPA 300.0	SULFATE	40.3	1.0	0.20	0.09	mg/L	1	10/31/19	10/31/19

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APPL-F1-SC-NoMC-REG MDLs

QC FORMS

8011

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 90611

Case No: 90611 Date Analyzed: 11/08/19

Matrix: WATER Instrument: Herbie

APPL ID.	Client Sample No.	SURROGATE: 1,3-DIBROMOPROPANE (S)					
		Limits	Result	Qualifier	Limits	Result	Qualifier
191106A-BLK	Blank	70-132	108				
191106A-LCS	Lab Control Spike	70-132	104				
191106A-LCSD	Lab Control SpikeD	70-132	102				
BA02213	ERH939	70-132	107				
BA02214	ERH940	70-132	110				

Comments: Batch: #8011-191106A

8011

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 90611

Case No: 90611 Date Analyzed: 11/08/19

Matrix: WATER Instrument: Herbie

Blank ID: 191106A-BLK Time Analyzed: 1831

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191106A-BLK	Blank	1025129	11/08/19 1831
191106A-LCS	Lab Control Spike	1025130	11/08/19 1851
191106A-LCSD	Lab Control SpikeD	1025131	11/08/19 1912
BA02213	ERH939	1025132	11/08/19 1932
BA02214	ERH940	1025133	11/08/19 1953

Comments: Batch: #8011-191106A

Method Blank
EPA 8011

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Blank Name/QCG: **191106W-02213 - 247039**
Batch ID: #8011-191106A

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	EDB	0.019 U	0.02	0.019	0.010	ug/L	11/06/19	11/08/19
BLANK	SURROGATE: 1,3-DIBROMOPRO	108	70-132			%	11/06/19	11/08/19

Quant Method:8011106A.M
Run #:1025129
Instrument:Herbie
Sequence:191025
Initials:GAG

GC SC-Blank-REG MDLs-DOD
Printed: 11/19/19 4:42:22 PM

8011

Form 4

LCS Summary

Lab Name: APPL, Inc. SDG No: 90611

Case No: 90611 Date Analyzed: 11/08/19

Matrix: WATER Instrument: Herbie

LCS ID: 191106A-LCS Time Analyzed: 1851

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191106A-BLK	Blank	1025129	11/08/19 1831
191106A-LCS	Lab Control Spike	1025130	11/08/19 1851
191106A-LCSD	Lab Control SpikeD	1025131	11/08/19 1912
BA02213	ERH939	1025132	11/08/19 1932
BA02214	ERH940	1025133	11/08/19 1953

Comments: Batch: #8011-191106A

Printed: 11/19/19 4:42:25 PM
Form 4, LCS Summary

Laboratory Control Spike Recoveries

EPA 8011

APPL ID: **191106W-02213 LCS - 247039**
Batch ID: #8011-191106A

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Lvl ug/L	SPK Result ug/L	DUP Result ug/L	SPK % Recovery	DUP % Recovery	Recovery Limits	RPD %	RPD Limits
EDB	0.250	0.248	0.248	99.2	99.2	60-140	0.0	25
SURROGATE: 1,3-DIBROMOPROPANE (	0.250	0.259	0.255	104	102	70-132		

Comments: _____

Primary	SPK	DUP
Quant Method :	8011106A.M	8011106A.M
Extraction Date :	11/06/19	11/06/19
Analysis Date :	11/08/19	11/08/19
Instrument :	Herbie	Herbie
Run :	1025130	1025131
Initials :	GAG	

Printed: 11/19/19 4:42:23 PM
APPL Standard LCSD

EPA 8015B-eLL

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 90611

Case No: 90611 Date Analyzed: 11/14/19

Matrix: WATER Instrument: Apollo

APPL ID.	Client Sample No.	SURROGATE: OCTACOSANE (S)			SURROGATE: ORTHO-TERPHENYL (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
191104A-BLK	Blank	60-142	105		56-125	113	
191104A-LCS	Lab Control Spike	60-142	72.0		56-125	105	
191104A-LCSD	Lab Control SpikeD	60-142	63.3		56-125	106	
BA02214	ERH940	60-142	105		56-125	102	
BA02216	ERH925	60-142	98.5		56-125	116	

Comments: Batch: #DOC53-191104A

EPA 8015B-eL

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 90611

Case No: 90611 Date Analyzed: 11/14/19

Matrix: WATER Instrument: Apollo

Blank ID: 191104A-BLK Time Analyzed: 2159

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191104A-BLK	Blank	1114010	11/14/19 2159
191104A-LCS	Lab Control Spike	1114011	11/14/19 2218
191104A-LCSD	Lab Control SpikeD	1114012	11/14/19 2238
BA02214	ERH940	1114016	11/14/19 2357
BA02216	ERH925	1114017	11/15/19 0016

Comments: Batch: #DOC53-191104A

Printed: 11/16/19 5:41:32 AM
Form 4, Blank Summary

Method Blank
EPA 8015B TPH LIQ-LIQ

Blank Name/QCG: **191104W-02090 - 247204**
Batch ID: #DOC53-191104A

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	DIESEL (C10-C24)	25.00 U	40.0	25.00	13.07	ug/L	11/04/19	11/14/19
BLANK	OIL (C24-C40)	40.00 U	40.0	40.00	5.54	ug/L	11/04/19	11/14/19
BLANK	SURROGATE: OCTACOSANE (S)	105	60-142			%	11/04/19	11/14/19
BLANK	SURROGATE: ORTHO-TERPHEN	113	56-125			%	11/04/19	11/14/19

Quant Method: DOC1114.M
Run #: 1114010
Instrument: Apollo
Sequence: 191114
Initials: LPO

GC SC-Blank-REG MDLs-DOD
Printed: 11/16/19 5:41:30 AM

EPA 8015B-eL

Form 4

LCS Summary

Lab Name: APPL, Inc. SDG No: 90611

Case No: 90611 Date Analyzed: 11/14/19

Matrix: WATER Instrument: Apollo

LCS ID: 191104A-LCS Time Analyzed: 2218

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191104A-BLK	Blank	1114010	11/14/19 2159
191104A-LCS	Lab Control Spike	1114011	11/14/19 2218
191104A-LCSD	Lab Control SpikeD	1114012	11/14/19 2238
BA02214	ERH940	1114016	11/14/19 2357
BA02216	ERH925	1114017	11/15/19 0016

Comments: Batch: #DOC53-191104A

Printed: 11/16/19 5:41:33 AM
Form 4, LCS Summary

Laboratory Control Spike Recoveries
EPA 8015B TPH LIQ-LIQ

APPL ID: **191104W-02090 LCS - 247204**
Batch ID: #DOC53-191104A

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Lvl ug/L	SPK Result ug/L	DUP Result ug/L	SPK % Recovery	DUP % Recovery	Recovery Limits	RPD %	RPD Limits
DIESEL (C10-C24)	1250	1310	1330	105	106	36-132	1.5	30
OIL (C24-C40)	2500	2400	2390	96.0	95.6	41-113	0.42	30
SURROGATE: OCTACOSANE (S)	75.0	54.0	47.5	72.0	63.3	60-142		
SURROGATE: ORTHO-TERPHENYL (S)	75.0	78.4	79.4	105	106	56-125		

Comments: _____

Primary	SPK	DUP
Quant Method :	DOC1114.M	DOC1114.M
Extraction Date :	11/04/19	11/04/19
Analysis Date :	11/14/19	11/14/19
Instrument :	Apollo	Apollo
Run :	1114011	1114012
Initials :	LPO	

Printed: 11/16/19 5:41:31 AM
APPL Standard LCSD

8270D-SIM

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 90611

Case No: 90611 Date Analyzed: 11/12/19

Matrix: WATER Instrument: Linus

APPL ID.	Client Sample No.	SURROGATE: 2-METHYLNAPHTHALENE-D10 (S)			SURROGATE: FLUORANTHENE-D10 (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
191104A-BLK	Blank	39-114	88.3		58-120	105	
191104A-LCS	Lab Control Spike	39-114	96.5		58-120	105	
191104A-LCSD	Lab Control SpikeD	39-114	88.2		58-120	103	
BA02214	ERH940	39-114	90.2		58-120	103	
BA02216	ERH925	39-114	87.3		58-120	101	

Comments: Batch: #SIM53-191104A

8270D-SIM

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 90611

Case No: 90611 Date Analyzed: 11/12/19

Matrix: WATER Instrument: Linus

Blank ID: 191104A-BLK Time Analyzed: 1004

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191104A-BLK	Blank	1028L259	11/12/19 1004
191104A-LCS	Lab Control Spike	1028L260	11/12/19 1026
191104A-LCSD	Lab Control SpikeD	1028L261	11/12/19 1048
BA02214	ERH940	1028L265	11/12/19 1217
BA02216	ERH925	1028L266	11/12/19 1239

Comments: Batch: #SIM53-191104A

Printed: 12/03/19 6:04:58 PM
Form 4, Blank Summary

Method Blank

EPA 8270D SIM LIQ-LIQ

Blank Name/QCG: **191104W-02090 - 247109**

Batch ID: #SIM53-191104A

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	1-METHYLNAPHTHALENE	0.10 U	0.2	0.10	0.04	ug/L	11/04/19	11/12/19
BLANK	2-METHYLNAPHTHALENE	0.10 U	0.2	0.10	0.04	ug/L	11/04/19	11/12/19
BLANK	NAPHTHALENE	0.10 U	0.2	0.10	0.04	ug/L	11/04/19	11/12/19
BLANK	SURROGATE: 2-METHYLNAPHT	88.3	39-114			%	11/04/19	11/12/19
BLANK	SURROGATE: FLUORANTHENE-	105	58-120			%	11/04/19	11/12/19

Quant Method:L1028.M
Run #:1028L259
Instrument:Linus
Sequence:L191028
Initials:MA

GC SC-Blank-REG MDLs-DOD
Printed: 12/03/19 6:04:31 PM

8270D-SIM

Form 4

LCS Summary

Lab Name: APPL, Inc. SDG No: 90611

Case No: 90611 Date Analyzed: 11/12/19

Matrix: WATER Instrument: Linus

LCS ID: 191104A-LCS Time Analyzed: 1026

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191104A-BLK	Blank	1028L259	11/12/19 1004
191104A-LCS	Lab Control Spike	1028L260	11/12/19 1026
191104A-LCSD	Lab Control SpikeD	1028L261	11/12/19 1048
BA02214	ERH940	1028L265	11/12/19 1217
BA02216	ERH925	1028L266	11/12/19 1239

Comments: Batch: #SIM53-191104A

Printed: 12/03/19 6:04:59 PM
Form 4, LCS Summary

Laboratory Control Spike Recoveries

EPA 8270D SIM LIQ-LIQ

APPL ID: **191104W-02090 LCS - 247109**
Batch ID: #SIM53-191104A

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Lvl ug/L	SPK Result ug/L	DUP Result ug/L	SPK % Recovery	DUP % Recovery	Recovery Limits	RPD %	RPD Limits
1-METHYLNAPHTHALENE	6.25	6.55	5.92	105	94.7	41-115	10.1	20
2-METHYLNAPHTHALENE	6.25	6.65	5.98	106	95.7	39-114	10.6	20
NAPHTHALENE	6.25	6.67	6.03	107	96.5	43-114	10.1	20
SURROGATE: 2-METHYLNAPHTHALEN	6.25	6.03	5.51	96.5	88.2	39-114		
SURROGATE: FLUORANTHENE-D10 (S)	6.25	6.54	6.46	105	103	58-120		

Comments: _____

Primary	SPK	DUP
Quant Method :	L1028.M	L1028.M
Extraction Date :	11/04/19	11/04/19
Analysis Date :	11/12/19	11/12/19
Instrument :	Linus	Linus
Run :	1028L260	1028L261
Initials :	MA	

Form 5
Tune Summary

Lab Name: APPL Inc.
Case No:
Matrix: Water
ID: 1028L002.D

SDG No:
Date Analyzed: 10/28/19
Instrument: Linus
Time Analyzed: 10:20

	Client Sample No.	APPL ID.	File ID.	Date Analyzed
1		5 SIM 10/28/19(2)	1028L004.D	10/28/19 12:26
2		0.1 SIM 10/28/19	1028L005.D	10/28/19 12:51
3		0.2 SIM 10/28/19	1028L006.D	10/28/19 13:13
4		0.5 SIM 10/28/19	1028L007.D	10/28/19 13:35
5		1 SIM 10/28/19	1028L008.D	10/28/19 13:57
6		20 SIM 10/28/19	1028L009.D	10/28/19 14:19
7		50 SIM 10/28/19	1028L010.D	10/28/19 14:42
8		100 SIM 10/28/19	1028L011.D	10/28/19 15:04
9		SS SIM 10/28/19	1028L012.D	10/28/19 15:55
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				

m/e		
51	9.95 - 80.1% of mass 198	44.0
68	0 - 2.05% of mass 69	0.0
70	0 - 2% of mass 69	0.3
127	10 - 80% of mass 198	66.3
197	0 - 2% of mass 198	0.0
198	100 - 100% of mass 198	100.0
199	5 - 9% of mass 198	6.8
275	10 - 60% of mass 198	23.0
365	1 - 100% of mass 198	3.1
441	0.01 - 24% of mass 442	15.5
442	50 - 500% of mass 198	95.8
443	15 - 24% of mass 442	19.6

Form 5
Tune Summary

Lab Name: APPL Inc.
Case No: 90611
Matrix: Water
ID: 1028L257.D

SDG No: 90611
Date Analyzed: 11/12/19
Instrument: Linus
Time Analyzed: 9:18

	Client Sample No.	APPL ID.	File ID.	Date Analyzed
1		5 SIM 10/28/19 (1)	1028L258.D	11/12/19 9:35
2	Blank	191104A BLK 1/800	1028L259.D	11/12/19 10:04
3	Lab Control Spike	191104A LCS-2 1/800	1028L260.D	11/12/19 10:26
4	Lab Control SpikeD	191104A LCSD-2 1/800	1028L261.D	11/12/19 10:48
5	ERH940	BA02214W21 1/800	1028L265.D	11/12/19 12:17
6	ERH925	BA02216W13 1/800	1028L266.D	11/12/19 12:39
7		5 SIM 10/28/19 (1)	1028L268.D	11/12/19 13:40
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				

m/e		
51	9.95 - 80.1% of mass 198	51.2
68	0 - 2.05% of mass 69	0.0
70	0 - 2% of mass 69	0.7
127	10 - 80% of mass 198	65.7
197	0 - 2% of mass 198	0.0
198	100 - 100% of mass 198	100.0
199	5 - 9% of mass 198	7.1
275	10 - 60% of mass 198	21.2
365	1 - 100% of mass 198	3.2
441	0.01 - 24% of mass 442	17.4
442	50 - 500% of mass 198	71.1
443	15 - 24% of mass 442	21.1

8A
INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: APPL Inc. Contract: _____

Lab Code: _____ SDG No.: _____

Lab File ID (Standard): 1028L258.D Date Analyzed: 11/12/19

Instrument ID: Linus Time Analyzed: 9:35

GC Column: _____ ID: Heated Purge: (Y/N) _____

	Napthalene-D8(IS)		Acenaphthene-D10(IS)		Phenanthrene-D10(IS)	
	AREA #	RT #	AREA #	RT #	AREA #	RT #
12 HOUR STD	42226	4.27	17230	6.27	30075	7.98
UPPER LIMIT	84452	4.44	34460	6.44	60150	8.15
LOWER LIMIT	21113	4.10	8615	6.10	15038	7.81
SAMPLE NO.						
01 191104A BLK 1/800	41490	4.26	17274	6.27	30878	7.98
02 191104A LCS-2 1/800	38137	4.27	15916	6.27	30577	7.98
03 191104A LCSD-2 1/800	42346	4.27	17317	6.27	31965	7.98
04 BA02214W21 1/800	44294	4.27	18395	6.27	32162	7.98
05 BA02216W13 1/800	44822	4.27	18276	6.27	32655	7.98
06 5 SIM 10/28/19 (1)	53473	4.27	20055	6.27	37410	7.98
07						
08						
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21						
22						

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = -50% of internal standard area.
RT UPPER LIMIT = +0.17 minutes of internal standard RT
RT LOWER LIMIT = -0.17 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: APPL Inc. Contract: _____

Lab Code: _____ SDG No.: _____

Lab File ID (Standard): 1028L258.D Date Analyzed: 11/12/19

Instrument ID: Linus Time Analyzed: 9:35

GC Column: _____ ID: Heated Purge: (Y/N) _____

		Chrysene-D12(IS)		Perylene-D12(IS)			
		AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	35927	11.10	34153	13.52		
	UPPER LIMIT	71854	11.27	68306	13.69		
	LOWER LIMIT	17964	10.93	17077	13.35		
	SAMPLE NO.						
01	191104A BLK 1/800	37096	11.10	38223	13.52		
02	191104A LCS-2 1/800	37171	11.10	38425	13.52		
03	191104A LCSD-2 1/800	38068	11.10	38812	13.52		
04	BA02214W21 1/800	39258	11.10	41762	13.53		
05	BA02216W13 1/800	39795	11.10	42277	13.53		
06	5 SIM 10/28/19 (1)	46428	11.11	47184	13.53		
07							
08							
09							
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13							
14							
15							
16							
17							
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19							
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21							
22							

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = -50% of internal standard area.
RT UPPER LIMIT = +0.17 minutes of internal standard RT
RT LOWER LIMIT = -0.17 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

EPA 8270D

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 90611

Case No: 90611 Date Analyzed: 11/26/19

Matrix: WATER Instrument: Yoda

APPL ID.	Client Sample No.	SURROGATE: 2,4,6-TRIBROMOPHENOL (S)			SURROGATE: 2-FLUORBIPHENYL (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
BA02214	ERH940	43-140	90.4		44-119	90.1	
BA02216	ERH925	43-140	88.1		44-119	87.7	

Comments: Batch: #87DC5-191104A

EPA 8270D

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 90611

Case No: 90611 Date Analyzed: 11/26/19

Matrix: WATER Instrument: Yoda

APPL ID.	Client Sample No.	SURROGATE: 2-FLUOROPHENOL (S)			SURROGATE: NITROBENZENE-D5 (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
BA02214	ERH940	19-119	97.8		44-120	107	
BA02216	ERH925	19-119	88.8		44-120	101	

Comments: Batch: #87DC5-191104A

EPA 8270D

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 90611

Case No: 90611 Date Analyzed: 11/26/19

Matrix: WATER Instrument: Yoda

APPL ID.	Client Sample No.	SURROGATE: PHENOL-D6 (S)			SURROGATE: TERPHENYL-D14 (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
BA02214	ERH940	10-115	106		50-134	99.1	
BA02216	ERH925	10-115	95.4		50-134	88.2	

Comments: Batch: #87DC5-191104A

EPA 8270D

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 90611

Case No: 90611 Date Analyzed: 11/07/19

Matrix: WATER Instrument: Yoda

Blank ID: 191104A-BLK Time Analyzed: 1648

APPL ID.	Client Sample No.	File ID.	Date Analyzed
BA02214	ERH940	1121Y161	11/26/19 0005
BA02216	ERH925	1121Y162	11/26/19 0033

Comments: Batch: #87DC5-191104A

Printed: 12/03/19 12:18:43 PM
Form 4, Blank Summary

Method Blank
EPA 8270D WATER

Blank Name/QCG: **191104W-02301 - 248520**
Batch ID: #87DC5-191104A1

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	PHENOL	4.00 U	5.0	4.00	1.00	ug/L	11/04/19	11/26/19
BLANK	SURROGATE: 2,4,6-TRIBROMOP	90.0	43-140			%	11/04/19	11/26/19
BLANK	SURROGATE: 2-FLUORBIPHENY	89.5	44-119			%	11/04/19	11/26/19
BLANK	SURROGATE: 2-FLUOROPHENO	84.6	19-119			%	11/04/19	11/26/19
BLANK	SURROGATE: NITROBENZENE-	95.0	44-120			%	11/04/19	11/26/19
BLANK	SURROGATE: PHENOL-D6 (S)	90.5	10-115			%	11/04/19	11/26/19
BLANK	SURROGATE: TERPHENYL-D14 (	96.3	50-134			%	11/04/19	11/26/19

Quant Method:Not detected.
Run #:1121Y155
Instrument:Yoda
Sequence:Y191121
Initials:JPR

GC SC-Blank-REG MDLs-DOD
Printed: 12/23/19 1:19:48 PM

EPA 8270D

Form 4

LCS Summary

Lab Name: APPL, Inc. SDG No: 90611

Case No: 90611 Date Analyzed: 11/07/19

Matrix: WATER Instrument: Yoda

LCS ID: 191104A-LCS Time Analyzed: 1716

APPL ID.	Client Sample No.	File ID.	Date Analyzed
BA02214	ERH940	1121Y161	11/26/19 0005
BA02216	ERH925	1121Y162	11/26/19 0033

Comments: Batch: #87DC5-191104A

Printed: 12/03/19 12:18:59 PM
Form 4, LCS Summary

Laboratory Control Spike Recoveries
EPA 8270D WATER

APPL ID: **191104W-02301 LCS - 248520**
Batch ID: #87DC5-191104A1

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Lvl ug/L	SPK Result ug/L	DUP Result ug/L	SPK % Recovery	DUP % Recovery	Recovery Limits	RPD %	RPD Limits
PHENOL	62.5	69.6	78.5	111	126 #	10-115	12.0	20
SURROGATE: 2,4,6-TRIBROMOPHENOL	250	231	230	92.4	92.0	43-140		
SURROGATE: 2-FLUORBIPHENYL (S)	125	110	111	88.0	88.8	44-119		
SURROGATE: 2-FLUOROPHENOL (S)	250	240	257	96.0	103	19-119		
SURROGATE: NITROBENZENE-D5 (S)	125	127	135	102	108	44-120		
SURROGATE: PHENOL-D6 (S)	250	261	283	104	113	10-115		
SURROGATE: TERPHENYL-D14 (S)	125	86.6	100	69.3	80.0	50-134		

= Recovery is outside QC limits.

Comments:

Primary	SPK	DUP
Quant Method :	Not detected.M	Not detected.M
Extraction Date :	11/04/19	11/04/19
Analysis Date :	11/26/19	11/26/19
Instrument :	Yoda	Yoda
Run :	1121Y156	1121Y157
Initials :	JPR	

Printed: 12/23/19 1:19:53 PM
APPL Standard LCSD

Form 5
Tune Summary

Lab Name: APPL Inc.
Case No:
Matrix: Soil
ID: 1121Y002.D

SDG No:
Date Analyzed: 11/21/19
Instrument: Yoda
Time Analyzed: 13:52

	Client Sample No.	APPL ID.	File ID.	Date Analyzed
1		4ug/ml 8270 11/21/19	1121Y003.D	11/21/19 14:07
2		5ug/ml 8270 11/21/19	1121Y004.D	11/21/19 14:35
3		10ug/ml 8270 11/21/1	1121Y005.D	11/21/19 15:37
4		20ug/ml 8270 11/21/1	1121Y006.D	11/21/19 16:05
5		40ug/ml 8270 11/21/1	1121Y007.D	11/21/19 16:33
6		50ug/ml 8270 11/21/1	1121Y008.D	11/21/19 17:01
7		60ug/ml 8270 11/21/1	1121Y009.D	11/21/19 17:30
8		80ug/ml 8270 11/21/1	1121Y010.D	11/21/19 17:58
9		100ug/ml 8270 11/21/	1121Y011.D	11/21/19 18:26
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				

m/e		
51	9.95 - 80.04% of mass 198	27.9
68	0 - 2% of mass 69	0.0
70	0 - 2% of mass 69	0.7
127	10 - 80% of mass 198	43.6
197	0 - 2% of mass 198	0.0
198	100 - 100% of mass 198	100.0
199	5 - 9% of mass 198	6.9
275	10 - 60% of mass 198	32.2
365	1 - 100% of mass 198	3.9
441	0.01 - 24% of mass 442	16.6
442	50 - 500% of mass 198	139.4
443	15 - 24% of mass 442	19.7

Form 5
Tune Summary

Lab Name: APPL Inc.
Case No:
Matrix: Soil
ID: 1121Y030.D

SDG No:
Date Analyzed: 11/22/19
Instrument: Yoda
Time Analyzed: 13:23

	Client Sample No.	APPL ID.	File ID.	Date Analyzed
1		SS 8270 11/22/19	1121Y031.D	11/22/19 13:38
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				

m/e		
51	9.95 - 80.04% of mass 198	26.5
68	0 - 2% of mass 69	0.0
70	0 - 2% of mass 69	0.4
127	10 - 80% of mass 198	41.9
197	0 - 2% of mass 198	0.0
198	100 - 100% of mass 198	100.0
199	5 - 9% of mass 198	6.7
275	10 - 60% of mass 198	33.3
365	1 - 100% of mass 198	4.2
441	0.01 - 24% of mass 442	16.3
442	50 - 500% of mass 198	154.9
443	15 - 24% of mass 442	19.0

Form 5
Tune Summary

Lab Name: APPL Inc.
Case No: 90611
Matrix: Water
ID: 1121Y148.D

SDG No: 90611
Date Analyzed: 11/26/19
Instrument: Yoda
Time Analyzed: 18:16

	Client Sample No.	APPL ID.	File ID.	Date Analyzed
1		50ug/ml 8270 11/21/1	1121Y154.D	11/26/19 20:50
2	Blank	191104A BLK 2/800	1121Y155.D	11/26/19 21:18
3	Lab Control Spike	191104A LCS-1 2/800	1121Y156.D	11/26/19 21:46
4	Lab Control SpikeD	191104A LCSD-1 2/800	1121Y157.D	11/26/19 22:14
5	ERH940	BA02214W21 2/800	1121Y161.D	11/26/19 0:05
6	ERH925	BA02216W13 2/800	1121Y162.D	11/26/19 0:33
7		50ug/ml 8270 11/21/1	1121Y172.D	11/27/19 5:11
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				

m/e		
51	9.95 - 80.04% of mass 198	30.7
68	0 - 2% of mass 69	0.0
70	0 - 2% of mass 69	0.2
127	10 - 80% of mass 198	45.8
197	0 - 2% of mass 198	0.0
198	100 - 100% of mass 198	100.0
199	5 - 9% of mass 198	7.0
275	10 - 60% of mass 198	30.9
365	1 - 100% of mass 198	3.6
441	0.01 - 24% of mass 442	16.2
442	50 - 500% of mass 198	125.7
443	15 - 24% of mass 442	19.6

INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: APPL Inc. Contract: _____

Lab Code: _____ SDG No.: _____

Lab File ID (Standard): 1121Y154.D Date Analyzed: 11/26/19

Instrument ID: Yoda Time Analyzed: 20:50

GC Column: _____ ID: Heated Purge: (Y/N) _____

		1,4-dichlorobenzene-D4(IS)		Napthalene-D8(IS)		Acenaphthene-D10(IS)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	179473	5.47	719514	6.91	453439	8.93
	UPPER LIMIT	358946	5.64	1439028	7.08	906878	9.10
	LOWER LIMIT	89737	5.30	359757	6.74	226720	8.76
	SAMPLE NO.						
01	191104A BLK 2/800	174092	5.47	683374	6.91	442513	8.93
02	191104A LCS-1 2/800	150012	5.47	600754	6.91	417278	8.93
03	191104A LCSD-1 2/800	138243	5.47	560201	6.91	405413	8.93
04	BA02214W21 2/800	148432	5.47	599932	6.91	430429	8.93
05	BA02216W13 2/800	161584	5.47	653387	6.91	449264	8.93
06	50ug/ml 8270 11/21/19 (	184992	5.47	734252	6.91	456477	8.93
07							
08							
09							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = -50% of internal standard area.
RT UPPER LIMIT = +0.17 minutes of internal standard RT
RT LOWER LIMIT = -0.17 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

8A
INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: APPL Inc. Contract:

Lab Code: SDG No.:

Lab File ID (Standard): 1121Y154.D Date Analyzed: 11/26/19

Instrument ID: Yoda Time Analyzed: 20:50

GC Column: ID: Heated Purge: (Y/N)

		Phenanthrene-D10(IS)		Chrysene-D12(IS)		Perylene-D12(IS)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	869953	10.67	1038490	13.76	946185	15.62
	UPPER LIMIT	1739906	10.84	2076980	13.93	1892370	15.79
	LOWER LIMIT	434977	10.50	519245	13.59	473093	15.45
	SAMPLE NO.						
01	191104A BLK 2/800	890536	10.66	909385	13.75	920577	15.62
02	191104A LCS-1 2/800	853592	10.67	1179960	13.76	888601	15.62
03	191104A LCSD-1 2/800	822436	10.66	1006520	13.75	875772	15.63
04	BA02214W21 2/800	884188	10.66	863999	13.75	905811	15.61
05	BA02216W13 2/800	904520	10.66	967889	13.75	949819	15.61
06	50ug/ml 8270 11/21/19 (	870891	10.67	1025140	13.76	935612	15.62
07							
08							
09							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = -50% of internal standard area.
RT UPPER LIMIT = +0.17 minutes of internal standard RT
RT LOWER LIMIT = -0.17 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

EPA 8270D

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 90611

Case No: 90611 Date Analyzed: 11/08/19

Matrix: WATER Instrument: Linus

Blank ID: 191106A-BLK Time Analyzed: 1836

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191106A-BLK	Blank	1030L053	11/08/19 1836
191106A-LCS	Lab Control Spike	1030L054	11/08/19 1854
191106A-LCSD	Lab Control SpikeD	1030L055	11/08/19 1912
BA02214	ERH940	1030L056	11/08/19 1931
BA02216	ERH925	1030L057	11/08/19 1949

Comments: Batch: #87DME-191106A

Method Blank
EPA 8270D MODIFIED WATER

Blank Name/QCG: **191106W-02214 - 247176**
Batch ID: #87DME-191106A

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	2-(2-METHOXYETHOXY)-ETHAN	80.0 U	100	80.0	40.0	ug/L	11/06/19	11/08/19

Quant Method:YMEE1030.M
Run #:1030L053
Instrument:Linus
Sequence:L191030M
Initials:MA

GC SC-Blank-REG MDLs-DOD
Printed: 11/15/19 12:56:16 PM

EPA 8270D

Form 4

LCS Summary

Lab Name: APPL, Inc. SDG No: 90611

Case No: 90611 Date Analyzed: 11/08/19

Matrix: WATER Instrument: Linus

LCS ID: 191106A-LCS Time Analyzed: 1854

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191106A-BLK	Blank	1030L053	11/08/19 1836
191106A-LCS	Lab Control Spike	1030L054	11/08/19 1854
191106A-LCSD	Lab Control SpikeD	1030L055	11/08/19 1912
BA02214	ERH940	1030L056	11/08/19 1931
BA02216	ERH925	1030L057	11/08/19 1949

Comments: Batch: #87DME-191106A

Laboratory Control Spike Recoveries

EPA 8270D MODIFIED WATER

APPL ID: **191106W-02214 LCS - 247176**
Batch ID: #87DME-191106A

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Lvl ug/L	SPK Result ug/L	DUP Result ug/L	SPK % Recovery	DUP % Recovery	Recovery Limits	RPD %	RPD Limits
2-(2-METHOXYETHOXY)-ETHANOL	80.0	116	89.6	145 #	112	30-130	25.7 #	20

= Recovery is outside QC limits.

Comments: _____

Primary	SPK	DUP
Quant Method :	YMEE1030.M	YMEE1030.M
Extraction Date :	11/06/19	11/06/19
Analysis Date :	11/08/19	11/08/19
Instrument :	Linus	Linus
Run :	1030L054	1030L055
Initials :	MA	

Printed: 11/15/19 12:56:26 PM
APPL Standard LCSD

Form 5
Tune Summary

Lab Name: APPL Inc.
Case No:
Matrix: Water
ID: 1030L002.D

SDG No:
Date Analyzed: 10/31/19
Instrument: Linus
Time Analyzed: 9:39

	Client Sample No.	APPL ID.	File ID.	Date Analyzed
1		50 2MEE 4/30/19	1030L004.D	10/31/19 11:50
2		100 2MEE 4/30/19	1030L005.D	10/31/19 12:10
3		200 2MEE 4/30/19	1030L006.D	10/31/19 12:29
4		500 2MEE 4/30/19	1030L008.D	10/31/19 13:07
5		600 2MEE 4/30/19	1030L009.D	10/31/19 13:25
6		800 2MEE 4/30/19	1030L010.D	10/31/19 13:43
7		1000 2MEE 4/30/19	1030L011.D	10/31/19 14:02
8				
9				
10				
11				
12				
14				
15				
16				
17				
18				
19				
20				
21				
22				

m/e		
51	9.95 - 80.04% of mass 198	47.5
68	0 - 2.04% of mass 69	0.0
70	0 - 2.04% of mass 69	0.6
127	10 - 80% of mass 198	64.9
197	0 - 2% of mass 198	0.0
198	100 - 100% of mass 198.1	100.0
199	5 - 9% of mass 198	6.2
275	10 - 60% of mass 198	21.7
365	1 - 100% of mass 198	3.2
441	0.01 - 24% of mass 442	14.5
442	50 - 500% of mass 198.1	95.4
443	15 - 24% of mass 442	18.6

Form 5

Form 5
Tune Summary

Lab Name: APPL Inc.
Case No:
Matrix: Water
ID: 1030L014.D

SDG No:
Date Analyzed: 11/01/19
Instrument: Linus
Time Analyzed: 15:17

	Client Sample No.	APPL ID.	File ID.	Date Analyzed
1		SS 2MEE 11/1/19	1030L016.D	11/01/19 17:11
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				

m/e		
51	9.95 - 80.04% of mass 198	50.2
68	0 - 2.04% of mass 69	0.0
70	0 - 2.04% of mass 69	0.7
127	10 - 80% of mass 198	65.2
197	0 - 2% of mass 198	0.0
198	100 - 100% of mass 198	100.0
199	5 - 9% of mass 198	7.0
275	10 - 60% of mass 198	22.3
365	1 - 100% of mass 198	3.1
441	0.01 - 24% of mass 442	18.5
442	50 - 500% of mass 198	81.1
443	15 - 24% of mass 442	19.7

Form 5
Tune Summary

Lab Name: APPL Inc.
Case No: 90611
Matrix: Water
ID: 1030L041.D

SDG No: 90611
Date Analyzed: 11/08/19
Instrument: Linus
Time Analyzed: 12:30

	Client Sample No.	APPL ID.	File ID.	Date Analyzed
1		500 2MEE 4/30/19	1030L042.D	11/08/19 13:13
2	Blank	191106A BLK 2/500	1030L053.D	11/08/19 18:36
3	Lab Control Spike	191106A LCS-1 2/500	1030L054.D	11/08/19 18:54
4	Lab Control SpikeD	191106A LCSD-1 2/500	1030L055.D	11/08/19 19:12
5	ERH940	BA02214W18 2/500	1030L056.D	11/08/19 19:31
6	ERH925	BA02216W10 2/500	1030L057.D	11/08/19 19:49
7		500 2MEE 4/30/19	1030L061.D	11/08/19 21:02
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				

m/e		
51	9.95 - 80.04% of mass 198	46.6
68	0 - 2.04% of mass 69	0.0
70	0 - 2.04% of mass 69	0.6
127	10 - 80% of mass 198	60.1
197	0 - 2% of mass 198	0.0
198	100 - 100% of mass 198	100.0
199	5 - 9% of mass 198	6.6
275	10 - 60% of mass 198	22.2
365	1 - 100% of mass 198	3.6
441	0.01 - 24% of mass 442	17.0
442	50 - 500% of mass 198	82.6
443	15 - 24% of mass 442	20.2

8A
INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: APPL Inc. Contract: _____

Lab Code: _____ SDG No.: _____

Lab File ID (Standard): 1030L042.D Date Analyzed: 8 Nov 19 13:13

Instrument ID: Linus Time Analyzed: 8 Nov 19 13:13

GC Column: _____ ID: Heated Purge: (Y/N) _____

	1,4-dichlorobenzene-D4(IS)		Napthalene-D8(IS)		Acenaphthene-D10(IS)	
	AREA #	RT #	AREA #	RT #	AREA #	RT #
12 HOUR STD	742292	3.67	3312060	4.62	1556560	6.01
UPPER LIMIT	1484584	3.84	6624120	4.79	3113120	6.18
LOWER LIMIT	371146	3.50	1656030	4.45	778280	5.84
SAMPLE NO.						
01 191106A BLK 2/500	601686	3.66	2463490	4.61	1386060	6.01
02 191106A LCS-1 2/500	855406	3.66	3572010	4.62	1620020	6.01
03 191106A LCSD-1 2/500	928360	3.66	3861500	4.62	1857290	6.01
04 BA02214W18 2/500	786832	3.66	3129250	4.61	1476920	6.01
05 BA02216W10 2/500	761675	3.66	2978150	4.61	1440800	6.01
06 500 2MEE 4/30/19	772424	3.67	3311190	4.61	1654190	6.01
07						
08						
09						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = -50% of internal standard area.
RT UPPER LIMIT = +0.17 minutes of internal standard RT
RT LOWER LIMIT = -0.17 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

8A
INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: APPL Inc. Contract: _____

Lab Code: _____ SDG No.: _____

Lab File ID (Standard): 1030L042.D Date Analyzed: 8 Nov 19 13:13

Instrument ID: Linus Time Analyzed: 8 Nov 19 13:13

GC Column: _____ ID: Heated Purge: (Y/N) _____

		Phenanthrene-D10(IS)		Chrysene-D12(IS)		Perylene-D12(IS)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	2759130	7.22	2199350	9.42	2536270	10.65
	UPPER LIMIT	5518260	7.39	4398700	9.59	5072540	10.82
	LOWER LIMIT	1379565	7.05	1099675	9.25	1268135	10.48
	SAMPLE NO.						
01	191106A BLK 2/500	2629750	7.22	1937020	9.39	2166470	10.59
02	191106A LCS-1 2/500	3079090	7.22	2586820	9.40	2670110	10.60
03	191106A LCSD-1 2/500	3438680	7.22	2997260	9.40	3045950	10.60
04	BA02214W18 2/500	2834800	7.22	2071470	9.39	2302020	10.58
05	BA02216W10 2/500	2817190	7.22	2240110	9.39	2303790	10.57
06	500 2MEE 4/30/19	3011210	7.22	2583760	9.39	2584580	10.57
07							
08							
09							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = -50% of internal standard area.
RT UPPER LIMIT = +0.17 minutes of internal standard RT
RT LOWER LIMIT = -0.17 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

EPA 8260B

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 90611

Case No: 90611 Date Analyzed: 11/02/19

Matrix: WATER Instrument: Thor

APPL ID.	Client Sample No.	SURROGATE: 1,2-DICHLOROETHANE-D4 (S)			SURROGATE: 4-BROMOFLUOROBENZENE (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
191101BT-LCS	Lab Control Spike	81-118	97.6		85-114	104	
191101BT-LCSD	Lab Control SpikeD	81-118	90.4		85-114	94.4	
191101BT-BLK	Blank	81-118	93.7		85-114	94.8	
BA02213	ERH939	81-118	99.1		85-114	96.3	
BA02214	ERH940	81-118	93.1		85-114	89.0	

Comments: Batch: #86BTO-191101BT

EPA 8260B

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 90611

Case No: 90611 Date Analyzed: 11/02/19

Matrix: WATER Instrument: Thor

APPL ID.	Client Sample No.	SURROGATE: DIBROMOFLUOROMETHANE (S)			SURROGATE: TOLUENE-D8 (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
191101BT-LCS	Lab Control Spike	80-119	97.2		89-112	102	
191101BT-LCSD	Lab Control SpikeD	80-119	92.0		89-112	90.4	
191101BT-BLK	Blank	80-119	92.9		89-112	97.1	
BA02213	ERH939	80-119	97.9		89-112	96.8	
BA02214	ERH940	80-119	89.3		89-112	89.8	

Comments: Batch: #86BTO-191101BT

EPA 8260B

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 90611

Case No: 90611 Date Analyzed: 11/02/19

Matrix: WATER Instrument: Thor

APPL ID.	Client Sample No.	SURROGATE: 1,2-DICHLOROETHANE-D4 (S)			SURROGATE: 4-BROMOFLUOROBENZENE (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
191101BT1-LCS	Lab Control Spike	81-118	97.6		85-114	104	
191101BT1-LCSD	Lab Control SpikeD	81-118	90.4		85-114	94.4	
191101BT1-BLK	Blank	81-118	93.7		85-114	94.8	
BA02215	ERH924	81-118	104		85-114	97.5	
BA02216	ERH925	81-118	101		85-114	94.0	

Comments: Batch: #86BTO-191101BT

EPA 8260B

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 90611

Case No: 90611 Date Analyzed: 11/02/19

Matrix: WATER Instrument: Thor

APPL ID.	Client Sample No.	SURROGATE: DIBROMOFLUOROMETHANE (S)			SURROGATE: TOLUENE-D8 (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
191101BT1-LCS	Lab Control Spike	80-119	97.2		89-112	102	
191101BT1-LCSD	Lab Control SpikeD	80-119	92.0		89-112	90.4	
191101BT1-BLK	Blank	80-119	92.9		89-112	97.1	
BA02215	ERH924	80-119	105		89-112	101	
BA02216	ERH925	80-119	101		89-112	95.3	

Comments: Batch: #86BTO-191101BT

EPA 8260B

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 90611

Case No: 90611 Date Analyzed: 11/02/19

Matrix: WATER Instrument: Thor

Blank ID: 191101BT-BLK Time Analyzed: 0741

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191101BT-LCS	Lab Control Spike	1101T32	11/02/19 0355
191101BT-LCSD	Lab Control SpikeD	1101T33	11/02/19 0423
191101BT-BLK	Blank	1101T40	11/02/19 0741
BA02213	ERH939	1101T50	11/02/19 1224
BA02214	ERH940	1101T51	11/02/19 1252

Comments: Batch: #86BTO-191101BT

Printed: 12/04/19 11:34:01 AM
Form 4, Blank Summary

EPA 8260B

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 90611

Case No: 90611 Date Analyzed: 11/02/19

Matrix: WATER Instrument: Thor

Blank ID: 191101BT1-BLK Time Analyzed: 0741

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191101BT1-LCS	Lab Control Spike	1101T32	11/02/19 0355
191101BT1-LCSD	Lab Control SpikeD	1101T33	11/02/19 0423
191101BT1-BLK	Blank	1101T40	11/02/19 0741
BA02215	ERH924	1101T52	11/02/19 1321
BA02216	ERH925	1101T53	11/02/19 1349

Comments: Batch: #86BTO-191101BT

Printed: 12/04/19 11:37:04 AM
Form 4, Blank Summary

Method Blank

EPA 8260B BTEX & 1,2-DCA WATER

Blank Name/QCG: **191101W-02214 - 246726**
Batch ID: #86BTO-191101BT

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	1,2-DICHLOROETHANE	0.30 U	1.0	0.30	0.14	ug/L	11/02/19	11/02/19
BLANK	BENZENE	0.30 U	1.0	0.30	0.15	ug/L	11/02/19	11/02/19
BLANK	ETHYLBENZENE	0.50 U	1.0	0.50	0.23	ug/L	11/02/19	11/02/19
BLANK	TOLUENE	0.30 U	1.0	0.30	0.15	ug/L	11/02/19	11/02/19
BLANK	XYLENES (TOTAL)	0.30 U	2.0	0.30	0.15	ug/L	11/02/19	11/02/19
BLANK	SURROGATE: 1,2-DICHLOROET	93.7	81-118			%	11/02/19	11/02/19
BLANK	SURROGATE: 4-BROMOFLUORO	94.8	85-114			%	11/02/19	11/02/19
BLANK	SURROGATE: DIBROMOFLUOR	92.9	80-119			%	11/02/19	11/02/19
BLANK	SURROGATE: TOLUENE-D8 (S)	97.1	89-112			%	11/02/19	11/02/19

Quant Method:T1023W.M
Run #:1101T40
Instrument:Thor
Sequence:T191028
Initials:DPO

GC SC-Blank-REG MDLs-DOD
Printed: 12/04/19 11:34:07 AM

EPA 8260B

Form 4

LCS Summary

Lab Name: APPL, Inc. SDG No: 90611

Case No: 90611 Date Analyzed: 11/02/19

Matrix: WATER Instrument: Thor

LCS ID: 191101BT-LCS Time Analyzed: 0355

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191101BT-LCS	Lab Control Spike	1101T32	11/02/19 0355
191101BT-LCSD	Lab Control SpikeD	1101T33	11/02/19 0423
191101BT-BLK	Blank	1101T40	11/02/19 0741
BA02213	ERH939	1101T50	11/02/19 1224
BA02214	ERH940	1101T51	11/02/19 1252

Comments: Batch: #86BTO-191101BT

EPA 8260B

Form 4

LCS Summary

Lab Name: APPL, Inc. SDG No: 90611

Case No: 90611 Date Analyzed: 11/02/19

Matrix: WATER Instrument: Thor

LCS ID: 191101BT1-LCS Time Analyzed: 0355

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191101BT1-LCS	Lab Control Spike	1101T32	11/02/19 0355
191101BT1-LCSD	Lab Control SpikeD	1101T33	11/02/19 0423
191101BT1-BLK	Blank	1101T40	11/02/19 0741
BA02215	ERH924	1101T52	11/02/19 1321
BA02216	ERH925	1101T53	11/02/19 1349

Comments: Batch: #86BTO-191101BT

Printed: 12/04/19 11:37:03 AM
Form 4, LCS Summary

Laboratory Control Spike Recoveries
EPA 8260B BTEX & 1,2-DCA WATER

APPL ID: **191102W-02214 LCS - 246726**
Batch ID: #86BTO-191101BT

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Lvl ug/L	SPK Result ug/L	DUP Result ug/L	SPK % Recovery	DUP % Recovery	Recovery Limits	RPD %	RPD Limits
1,2-DICHLOROETHANE	10.00	9.00	8.56	90.0	85.6	73-128	5.0	20
BENZENE	10.00	9.21	8.72	92.1	87.2	79-120	5.5	20
ETHYLBENZENE	10.00	9.38	8.84	93.8	88.4	79-121	5.9	20
TOLUENE	10.00	8.97	8.73	89.7	87.3	80-121	2.7	20
XYLENES (TOTAL)	30.0	29.1	26.0	97.0	86.7	79-121	11.3	20
SURROGATE: 1,2-DICHLOROETHANE-D	25.0	24.4	22.6	97.6	90.4	81-118		
SURROGATE: 4-BROMOFLUOROBENZE	25.0	25.9	23.6	104	94.4	85-114		
SURROGATE: DIBROMOFLUOROMETH	25.0	24.3	23.0	97.2	92.0	80-119		
SURROGATE: TOLUENE-D8 (S)	25.0	25.6	22.6	102	90.4	89-112		

Comments: _____

Primary	SPK	DUP
Quant Method :	T1023W.M	T1023W.M
Extraction Date :	11/02/19	11/02/19
Analysis Date :	11/02/19	11/02/19
Instrument :	Thor	Thor
Run :	1101T32	1101T33
Initials :	DPO	

Printed: 12/04/19 11:34:02 AM
APPL Standard LCSD

Form 5
Tune Summary

Lab Name: APPL Inc.
Case No:
Matrix: Water
ID: 1023T00.D

SDG No:
Date Analyzed: 10/23/2019
Instrument: Thor
Time Analyzed: 16:48

	Client Sample No.	APPL ID.	File ID.	Date Analyzed
1		0.3ug/L VOC STD 10/2	1023T06.D	10/23/2019 19:32
2		0.5ug/L VOC STD 10/2	1023T07.D	10/23/2019 20:01
3		1.0ug/L VOC STD 10/2	1023T08.D	10/23/2019 20:29
4		2.0ug/L VOC STD 10/2	1023T09.D	10/23/2019 20:58
5		5.0ug/L VOC STD 10/2	1023T10.D	10/23/2019 21:26
6		10ug/L VOC STD 10/23	1023T11.D	10/23/2019 21:55
7		20ug/L VOC STD 10/23	1023T12.D	10/23/2019 22:23
8		40ug/L VOC STD 10/23	1023T13.D	10/23/2019 22:52
9		100ug/L VOC STD 10/2	1023T14.D	10/23/2019 23:20
10		(SS)10ug/L VOC STD 1	1023T16.D	10/24/2019 0:17
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				

m/e		
50	15 - 40% of mass 95	16.1
75	30 - 60% of mass 95	48.8
95	100 - 100% of mass 95	100.0
96	5 - 9% of mass 95	7.0
173	0 - 2.05% of mass 174	1.5
174	50 - 200% of mass 95	97.4
175	5 - 9% of mass 174	7.4
176	95 - 101% of mass 174	95.9
177	5 - 9% of mass 176	7.0

Form 5
Tune Summary

Lab Name: APPL Inc.
Case No: 90611
Matrix: Water
ID: 1101T30.D

SDG No: 90611
Date Analyzed: 11/2/2019
Instrument: Thor
Time Analyzed: 2:59

	Client Sample No.	APPL ID.	File ID.	Date Analyzed
1		191101B CCV 10ug/L	1101T31.D	11/2/2019 3:27
2	Lab Control Spike	191101B LCS 10ug/L	1101T32.D	11/2/2019 3:55
3	Lab Control SpikeD	191101B LCSD 10ug/L	1101T33.D	11/2/2019 4:23
4	Blank	191101B BLK	1101T40.D	11/2/2019 7:41
5	ERH939	BA02213W01	1101T50.D	11/2/2019 12:24
6	ERH940	BA02214W01	1101T51.D	11/2/2019 12:52
7	ERH924	BA02215W01	1101T52.D	11/2/2019 13:21
8	ERH925	BA02216W01	1101T53.D	11/2/2019 13:49
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				

m/e		
50	15 - 40% of mass 95	16.6
75	30 - 60% of mass 95	50.7
95	100 - 100% of mass 95	100.0
96	5 - 9% of mass 95	7.0
173	0 - 2.05% of mass 174	0.0
174	50 - 200% of mass 95	98.0
175	5 - 9% of mass 174	7.2
176	95 - 101% of mass 174	98.8
177	5 - 9% of mass 176	6.5

8A
INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: APPL Inc. Contract: _____

Lab Code: _____ SDG No.: _____

Lab File ID (Standard): 1101T31.D Date Analyzed: 2 Nov 19 3:27

Instrument ID: Thor Time Analyzed: 2 Nov 19 3:27

GC Column: _____ ID: Heated Purge: (Y/N) _____

		Fluorobenzene (IS)		Chlorobenzene-D5 (IS)		1,4-Dichlorobenzene-D (IS)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	132672	6.59	120960	9.74	73080	12.06
	UPPER LIMIT	265344	6.76	241920	9.91	146160	12.23
	LOWER LIMIT	66336	6.42	60480	9.57	36540	11.89
	SAMPLE NO.						
01	191101B CCV 10ug/L	132672	6.59	120960	9.74	73080	12.06
02	191101B LCS 10ug/L	130328	6.59	114384	9.74	68736	12.06
03	191101B LCSD 10ug/L	138752	6.59	128328	9.74	74504	12.06
04	191101B BLK	134144	6.59	118384	9.74	66672	12.06
05	BA02213W01	126256	6.59	114600	9.74	61336	12.06
06	BA02214W01	137984	6.59	123512	9.74	68592	12.06
07	BA02215W01	121728	6.59	111648	9.74	61584	12.06
08	BA02216W01	122360	6.59	116616	9.74	64728	12.06
09	Ending CCV 10ug/L 11/1	127256	6.59	115520	9.74	69184	12.06
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = -50% of internal standard area.
RT UPPER LIMIT = +0.17 minutes of internal standard RT
RT LOWER LIMIT = -0.17 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

EPA 8260B

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 90611

Case No: 90611 Date Analyzed: 11/02/19

Matrix: WATER Instrument: Thor

APPL ID.	Client Sample No.	SURROGATE: 4-BROMOFLUOROBENZENE (S)					
		Limits	Result	Qualifier	Limits	Result	Qualifier
191101BT-LCS	Lab Control Spike	85-114	100				
191101BT-LCSD	Lab Control SpikeD	85-114	93.6				
191101BT-BLK	Blank	85-114	94.8				
BA02213	ERH939	85-114	96.3				
BA02214	ERH940	85-114	89.0				
BA02215	ERH924	85-114	97.5				
BA02216	ERH925	85-114	94.0				

Comments: Batch: #GRO86-191101BT

EPA 8260B

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 90611

Case No: 90611 Date Analyzed: 11/02/19

Matrix: WATER Instrument: Thor

Blank ID: 191101BT-BLK Time Analyzed: 0741

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191101BT-LCS	Lab Control Spike	1101T34	11/02/19 0452
191101BT-LCSD	Lab Control SpikeD	1101T35	11/02/19 0520
191101BT-BLK	Blank	1101T40	11/02/19 0741
BA02213	ERH939	1101T50	11/02/19 1224
BA02214	ERH940	1101T51	11/02/19 1252
BA02215	ERH924	1101T52	11/02/19 1321
BA02216	ERH925	1101T53	11/02/19 1349

Comments: Batch: #GRO86-191101BT

Method Blank

EPA 8260B GRO WATER

Blank Name/QCG: **191101W-02214 - 246725**

Batch ID: #GRO86-191101BT

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	GASOLINE RANGE ORGANICS	18.0 U	20	18.0	8.6	ug/L	11/02/19	11/02/19
BLANK	SURROGATE: 4-BROMOFLUORO	94.8	85-114			%	11/02/19	11/02/19

Quant Method:TGAS1026.M
Run #:1101T40
Instrument:Thor
Sequence:T191028
Initials:DPO

GC SC-Blank-REG MDLs-DOD
Printed: 12/04/19 11:45:52 AM

EPA 8260B

Form 4

LCS Summary

Lab Name: APPL, Inc. SDG No: 90611

Case No: 90611 Date Analyzed: 11/02/19

Matrix: WATER Instrument: Thor

LCS ID: 191101BT-LCS Time Analyzed: 0452

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191101BT-LCS	Lab Control Spike	1101T34	11/02/19 0452
191101BT-LCSD	Lab Control SpikeD	1101T35	11/02/19 0520
191101BT-BLK	Blank	1101T40	11/02/19 0741
BA02213	ERH939	1101T50	11/02/19 1224
BA02214	ERH940	1101T51	11/02/19 1252
BA02215	ERH924	1101T52	11/02/19 1321
BA02216	ERH925	1101T53	11/02/19 1349

Comments: Batch: #GRO86-191101BT

Laboratory Control Spike Recoveries
EPA 8260B GRO WATER

APPL ID: **191102W-02214 LCS - 246725**
Batch ID: #GRO86-191101BT

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Lvl ug/L	SPK Result ug/L	DUP Result ug/L	SPK % Recovery	DUP % Recovery	Recovery Limits	RPD %	RPD Limits
GASOLINE RANGE ORGANICS	300	244	234	81.3	78.0	78-122	4.2	20
SURROGATE: 4-BROMOFLUOROBENZE	25.0	25.0	23.4	100	93.6	85-114		

Comments: _____

Primary	SPK	DUP
Quant Method :	TGAS1026.M	TGAS1026.M
Extraction Date :	11/02/19	11/02/19
Analysis Date :	11/02/19	11/02/19
Instrument :	Thor	Thor
Run :	1101T34	1101T35
Initials :	DPO	

Printed: 12/04/19 11:45:46 AM
APPL Standard LCSD

RSK 175

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 90611

Case No: 90611 Date Analyzed: 11/05/19

Matrix: WATER Instrument: Rocky

Blank ID: 191105A-BLK Time Analyzed: 1623

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191105A-LCS	Lab Control Spike	1105R04	11/05/19 1615
191105A-LCSD	Lab Control SpikeD	1105R05	11/05/19 1619
191105A-BLK	Blank	1105R06	11/05/19 1623
BA02213	ERH939	1105R20	11/05/19 1712
BA02214	ERH940	1105R21	11/05/19 1716
BA02216	ERH925	1105R23	11/05/19 1723
BA02215	ERH924	1105R24	11/05/19 1726

Comments: Batch: #RSKME-191105A

Method Blank
METHANE

Blank Name/QCG: **191105W-02213 - 246825**
Batch ID: #RSKME-191105A

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	METHANE	1.00 U	5.0	1.00	0.25	ug/L	11/05/19	11/05/19

Quant Method: RSK1002.M
Run #: 1105R06
Instrument: Rocky
Sequence: 191002
Initials: GAG

GC SC-Blank-REG MDLs-DOD
Printed: 12/04/19 1:16:38 PM

RSK 175

Form 4

LCS Summary

Lab Name: APPL, Inc. SDG No: 90611

Case No: 90611 Date Analyzed: 11/05/19

Matrix: WATER Instrument: Rocky

LCS ID: 191105A-LCS Time Analyzed: 1615

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191105A-LCS	Lab Control Spike	1105R04	11/05/19 1615
191105A-LCSD	Lab Control SpikeD	1105R05	11/05/19 1619
191105A-BLK	Blank	1105R06	11/05/19 1623
BA02213	ERH939	1105R20	11/05/19 1712
BA02214	ERH940	1105R21	11/05/19 1716
BA02216	ERH925	1105R23	11/05/19 1723
BA02215	ERH924	1105R24	11/05/19 1726

Comments: Batch: #RSKME-191105A

Laboratory Control Spike Recoveries

METHANE

APPL ID: **191105W-02213 LCS - 246825**
Batch ID: #RSKME-191105A

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Lvl ug/L	SPK Result ug/L	DUP Result ug/L	SPK % Recovery	DUP % Recovery	Recovery Limits	RPD %	RPD Limits
METHANE	83.4	79.7	85.4	95.6	102	72-125	6.9	30

Comments:

Primary	SPK	DUP
Quant Method :	RSK1002.M	RSK1002.M
Extraction Date :	11/05/19	11/05/19
Analysis Date :	11/05/19	11/05/19
Instrument :	Rocky	Rocky
Run :	1105R04	1105R05
Initials :	GAG	

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APPL Standard LCSD

6010C/3010A

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 90611

Case No: 90611 Date Analyzed: 11/05/19

Matrix: WATER Instrument: Phoebe

Blank ID: 191104A1-BLK Time Analyzed: 1124

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191104A1-LCSD	Lab Control SpikeD	191105A	11/05/19 1134
191104A1-LCS	Lab Control Spike	191105A	11/05/19 1129
191104A1-BLK	Blank	191105A	11/05/19 1124
BA02214	ERH940	191105A	11/05/19 1229

Comments: Batch: #61CDO-191104A1

Printed: 12/02/19 10:26:02 AM
Form 4, Blank Summary

METALS BLANK

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Method	Analyte	Result	LOQ	LOD	DL	Units	Prep Date	Analysis Date	QC Group
6010C	CALCIUM (CA)	75.0 U	1000	75.0	27.5	ug/L	11/04/19	11/05/19	#61CDO-191104A1-BA02090
6010C	MAGNESIUM (MG)	30.0 U	500	30.0	12.9	ug/L	11/04/19	11/05/19	#61CDO-191104A1-BA02090
6010C	MANGANESE (MN)	4.00 U	10.0	4.00	1.23	ug/L	11/04/19	11/05/19	#61CDO-191104A1-BA02090
6010C	POTASSIUM (K)	500.0 U	3000	500.0	220.0	ug/L	11/04/19	11/05/19	#61CDO-191104A1-BA02090
6010C	SODIUM (NA)	500.0 U	5000	500.0	111.1	ug/L	11/04/19	11/05/19	#61CDO-191104A1-BA02090

Metals SC-Blank-REG MDLs
Printed: 12/02/19 10:26:05 AM

6010C/3010A

Form 4

LCS Summary

Lab Name: APPL, Inc. SDG No: 90611

Case No: 90611 Date Analyzed: 11/05/19

Matrix: WATER Instrument: Phoebe

LCS ID: 191104A1-LCS Time Analyzed: 1129

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191104A1-LCSD	Lab Control SpikeD	191105A	11/05/19 1134
191104A1-LCS	Lab Control Spike	191105A	11/05/19 1129
191104A1-BLK	Blank	191105A	11/05/19 1124
BA02214	ERH940	191105A	11/05/19 1229

Comments: Batch: #61CDO-191104A1

Printed: 12/02/19 10:26:09 AM
Form 4, LCS Summary

Laboratory Control Spike Recoveries

METALS

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Method	Compound Name	Spike Lvl ug/L	SPK Res ug/L	DUP Res ug/L	SPK % Recov	DUP % Recov	RPD	RPD Max	QC Limits	Extract Date-Spk	Analysis Date-Spk	Extract Date-Dup	Analysis Date-Dup	QC Group
EPA 6010C	CALCIUM (CA)	25000	24900	24700	99.6	98.8	0.8	20	87-113	11/04/19	11/05/19	11/04/19	11/05/19	#61CDO-191104A1-BA020
EPA 6010C	MAGNESIUM (MG)	25000	24800	24800	99.2	99.2	0.0	20	85-113	11/04/19	11/05/19	11/04/19	11/05/19	#61CDO-191104A1-BA020
EPA 6010C	MANGANESE (MN)	250	249	248	99.6	99.2	0.4	20	90-114	11/04/19	11/05/19	11/04/19	11/05/19	#61CDO-191104A1-BA020
EPA 6010C	POTASSIUM (K)	5000	4830	4830	96.6	96.6	0.0	20	86-114	11/04/19	11/05/19	11/04/19	11/05/19	#61CDO-191104A1-BA020
EPA 6010C	SODIUM (NA)	25000	24800	24800	99.2	99.2	0.0	20	87-115	11/04/19	11/05/19	11/04/19	11/05/19	#61CDO-191104A1-BA020

Comments: _____

EPA 353.2

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 90611

Case No: 90611 Date Analyzed: 11/01/19

Matrix: WATER Instrument: EVE

Blank ID: 191101A-BLK Time Analyzed: 1629

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191101A-BLK	Blank	12	11/01/19 1629
191101A-LCS	Lab Control Spike	13	11/01/19 1631
191101A-LCSD	Lab Control SpikeD	14	11/01/19 1633
BA02214	ERH940	22	11/01/19 1643
BA02216	ERH925	23	11/01/19 1644

Comments: Batch: #35OF-191101A

Printed: 12/04/19 4:25:33 PM
Form 4, Blank Summary

SM 2320B

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 90611

Case No: 90611 Date Analyzed: 11/01/19

Matrix: WATER Instrument: Tiamo

Blank ID: 191101A-BLK Time Analyzed: 1034

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191101A-BLK	Blank	1	11/01/19 1034
191101A-LCS	Lab Control Spike	2	11/01/19 1043
191101A-LCSD	Lab Control SpikeD	3	11/01/19 1053
BA02214	ERH940	8	11/01/19 1137
BA02216	ERH925	9	11/01/19 1141
191101A-DUP	Duplicate	9	11/01/19 1147

Comments: Batch: #232W-191101A

Printed: 12/04/19 4:25:33 PM
Form 4, Blank Summary

SM 4500-Si D

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 90611

Case No: 90611 Date Analyzed: 11/06/19

Matrix: WATER Instrument: Manual Spec

Blank ID: 191106A-BLK Time Analyzed: 2122

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191106A-BLK	Blank	57	11/06/19 2122
191106A-LCS	Lab Control Spike	58	11/06/19 2122
191106A-LCSD	Lab Control SpikeD	60	11/06/19 2123
BA02214	ERH940	61	11/06/19 2124

Comments: Batch: #SIO2-191106A

Printed: 12/04/19 4:25:33 PM
Form 4, Blank Summary

SM 4500-Si D

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 90611

Case No: 90611 Date Analyzed: 11/06/19

Matrix: WATER Instrument: Manual Spec

Blank ID: 191106A-BLK Time Analyzed: 2122

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191106A-BLK	Blank	57	11/06/19 2122
191106A-LCS	Lab Control Spike	58	11/06/19 2122
191106A-LCSD	Lab Control SpikeD	60	11/06/19 2123
BA02214	ERH940	67	11/06/19 2128

Comments: Batch: #SIO2D-191106A

Printed: 12/04/19 4:25:33 PM
Form 4, Blank Summary

SM3500FeB

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 90611

Case No: 90611 Date Analyzed: 10/31/19

Matrix: WATER Instrument: Manual Spec

Blank ID: A191031-BLK Time Analyzed: 2301

APPL ID.	Client Sample No.	File ID.	Date Analyzed
A191031-BLK	Blank	31	10/31/19 2301
A191031-LCSD	Lab Control SpikeD	33	10/31/19 2302
A191031-LCS	Lab Control Spike	34	10/31/19 2302
BA02216	ERH925	36	10/31/19 2303
BA02214	ERH940	37	10/31/19 2303

Comments: Batch: #35FE-A191031

Printed: 12/04/19 4:25:33 PM
Form 4, Blank Summary

SW846 9060A

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 90611

Case No: 90611 Date Analyzed: 11/06/19

Matrix: WATER Instrument: TICTOC

Blank ID: 191105B-BLK Time Analyzed: 0848

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191105B-BLK	Blank	12	11/06/19 0848
191105B-LCS	Lab Control Spike	13	11/06/19 0924
191105B-LCSD	Lab Control SpikeD	14	11/06/19 1000
BA02214	ERH940	43	11/07/19 2124

Comments: Batch: #DOCW5-191105B

Printed: 12/04/19 4:25:33 PM
Form 4, Blank Summary

SW846 9060A

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 90611

Case No: 90611 Date Analyzed: 11/10/19

Matrix: WATER Instrument: TICTOC

Blank ID: 191107B-BLK Time Analyzed: 1833

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191107B-BLK	Blank	10	11/10/19 1833
191107B-LCS	Lab Control Spike	11	11/10/19 1909
191107B-LCSD	Lab Control SpikeD	12	11/10/19 1945
BA02214	ERH940	25	11/11/19 0306
BA02216	ERH925	28	11/11/19 0451

Comments: Batch: #TOCW5-191107B

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Form 4, Blank Summary

WETLAB BLANK

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Method	Analyte	Result	LOQ	LOD	DL	Units	Prep Date	Analysis Date	QC Group
EPA 353.2	NITRATE-NITRITE-	0.090 U	0.10	0.090	0.028	mg/L	11/01/19	11/01/19	#35OF-191101A-BA02090
SW846 90	DISSOLVED ORGA	0.350 U	0.93	0.350	0.130	mg/L	11/05/19	11/06/19	#DOCW5-191105B-BA02090
SM 4500-S	SILICA W	0.80 U	1.0	0.80	0.53	mg/L	11/06/19	11/06/19	#SIO2-191106A-BA02525
SM 4500-S	DISSOLVED SILICA	0.80 U	1.0	0.80	0.53	mg/L	11/06/19	11/06/19	#SIO2D-191106A-BA02525
SW846 90	TOTAL ORGANIC C	0.13 J	0.93	0.350	0.130	mg/L	11/10/19	11/10/19	#TOCW5-191107B-BA01829
SM 2320B	BICARBONATE AS	1.70 U	2.0	1.70	0.85	mg/L	11/01/19	11/01/19	#232W-191101A-BA02216
SM 2320B	CARBONATE AS C	1.70 U	2.0	1.70	0.85	mg/L	11/01/19	11/01/19	#232W-191101A-BA02216
SM 2320B	TOTAL ALKALINITY	1.70 U	2.0	1.70	0.85	mg/L	11/01/19	11/01/19	#232W-191101A-BA02216
SM3500Fe	FERROUS IRON	0.32 U	1.0	0.32	0.16	mg/L	10/31/19	10/31/19	#35FE-A191031-BA02216

Wetlab SC-Blank-REG MDLs
Printed: 12/04/19 4:25:09 PM

EPA 353.2

Form 4

LCS Summary

Lab Name: APPL, Inc. SDG No: 90611

Case No: 90611 Date Analyzed: 11/01/19

Matrix: WATER Instrument: EVE

LCS ID: 191101A-LCS Time Analyzed: 1631

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191101A-BLK	Blank	12	11/01/19 1629
191101A-LCS	Lab Control Spike	13	11/01/19 1631
191101A-LCSD	Lab Control SpikeD	14	11/01/19 1633
BA02214	ERH940	22	11/01/19 1643
BA02216	ERH925	23	11/01/19 1644

Comments: Batch: #35OF-191101A

Printed: 12/04/19 4:25:33 PM
Form 4, LCS Summary

SM 2320B

Form 4

LCS Summary

Lab Name: APPL, Inc. SDG No: 90611

Case No: 90611 Date Analyzed: 11/01/19

Matrix: WATER Instrument: Tiamo

LCS ID: 191101A-LCS Time Analyzed: 1043

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191101A-BLK	Blank	1	11/01/19 1034
191101A-LCS	Lab Control Spike	2	11/01/19 1043
191101A-LCSD	Lab Control SpikeD	3	11/01/19 1053
BA02214	ERH940	8	11/01/19 1137
BA02216	ERH925	9	11/01/19 1141
191101A-DUP	Duplicate	9	11/01/19 1147

Comments: Batch: #232W-191101A

Printed: 12/04/19 4:25:33 PM
Form 4, LCS Summary

SM 4500-Si D

Form 4

LCS Summary

Lab Name: APPL, Inc. SDG No: 90611

Case No: 90611 Date Analyzed: 11/06/19

Matrix: WATER Instrument: Manual Spec

LCS ID: 191106A-LCS Time Analyzed: 2122

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191106A-BLK	Blank	57	11/06/19 2122
191106A-LCS	Lab Control Spike	58	11/06/19 2122
191106A-LCSD	Lab Control SpikeD	60	11/06/19 2123
BA02214	ERH940	61	11/06/19 2124

Comments: Batch: #SIO2-191106A

Printed: 12/04/19 4:25:33 PM
Form 4, LCS Summary

SM 4500-Si D

Form 4

LCS Summary

Lab Name: APPL, Inc. SDG No: 90611

Case No: 90611 Date Analyzed: 11/06/19

Matrix: WATER Instrument: Manual Spec

LCS ID: 191106A-LCS Time Analyzed: 2122

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191106A-BLK	Blank	57	11/06/19 2122
191106A-LCS	Lab Control Spike	58	11/06/19 2122
191106A-LCSD	Lab Control SpikeD	60	11/06/19 2123
BA02214	ERH940	67	11/06/19 2128

Comments: Batch: #SIO2D-191106A

Printed: 12/04/19 4:25:33 PM
Form 4, LCS Summary

SM3500FeB

Form 4

LCS Summary

Lab Name: APPL, Inc. SDG No: 90611

Case No: 90611 Date Analyzed: 10/31/19

Matrix: WATER Instrument: Manual Spec

LCS ID: A191031-LCS Time Analyzed: 2302

APPL ID.	Client Sample No.	File ID.	Date Analyzed
A191031-BLK	Blank	31	10/31/19 2301
A191031-LCSD	Lab Control SpikeD	33	10/31/19 2302
A191031-LCS	Lab Control Spike	34	10/31/19 2302
BA02216	ERH925	36	10/31/19 2303
BA02214	ERH940	37	10/31/19 2303

Comments: Batch: #35FE-A191031

Printed: 12/04/19 4:25:33 PM
Form 4, LCS Summary

SW846 9060A

Form 4

LCS Summary

Lab Name: APPL, Inc. SDG No: 90611

Case No: 90611 Date Analyzed: 11/06/19

Matrix: WATER Instrument: TICTOC

LCS ID: 191105B-LCS Time Analyzed: 0924

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191105B-BLK	Blank	12	11/06/19 0848
191105B-LCS	Lab Control Spike	13	11/06/19 0924
191105B-LCSD	Lab Control SpikeD	14	11/06/19 1000
BA02214	ERH940	43	11/07/19 2124

Comments: Batch: #DOCW5-191105B

Printed: 12/04/19 4:25:33 PM
Form 4, LCS Summary

SW846 9060A

Form 4

LCS Summary

Lab Name: APPL, Inc. SDG No: 90611

Case No: 90611 Date Analyzed: 11/10/19

Matrix: WATER Instrument: TICTOC

LCS ID: 191107B-LCS Time Analyzed: 1909

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191107B-BLK	Blank	10	11/10/19 1833
191107B-LCS	Lab Control Spike	11	11/10/19 1909
191107B-LCSD	Lab Control SpikeD	12	11/10/19 1945
BA02214	ERH940	25	11/11/19 0306
BA02216	ERH925	28	11/11/19 0451

Comments: Batch: #TOCW5-191107B

Printed: 12/04/19 4:25:33 PM
Form 4, LCS Summary

Laboratory Control Spike Recoveries

WETLAB

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Method	Compound Name	Spike Lvl mg/L	SPK Res mg/L	DUP Res mg/L	SPK % Recov	DUP % Recov	RPD	RPD Max	QC Limits	Extract Date-Spk	Analysis Date-Spk	Extract Date-Dup	Analysis Date-Dup	QC Group
EPA 353.2	NITRATE-NITRITE-N	3.00	3.10	2.99	103	99.7	3.6	20	90-110	11/01/19	11/01/19	11/01/19	11/01/19	#35OF-191101A-BA02090
SM 4500-Si	SILICA W	4.00	3.81	3.85	95.3	96.3	1.0	20	80-120	11/06/19	11/06/19	11/06/19	11/06/19	#SIO2-191106A-BA02525
SM 4500-Si	DISSOLVED SILICA	4.00	3.81	3.85	95.3	96.3	1.0	20	80-120	11/06/19	11/06/19	11/06/19	11/06/19	#SIO2D-191106A-BA02525
SW846 90	DISSOLVED ORGANIC CA	5.00	5.31	5.25	106	105	1.1	20	90-110	11/05/19	11/06/19	11/05/19	11/06/19	#DOCW5-191105B-BA020
SW846 90	TOTAL ORGANIC CARBO	5.00	5.16	5.12	103	102	0.78	20	80-120	11/10/19	11/10/19	11/10/19	11/10/19	#TOCW5-191107B-BA018

Comments:

Printed: 12/04/19 4:25:18 PM
APPL Standard LCSD

Laboratory Control Spike Recoveries

WETLAB

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Method	Compound Name	Spike Lvl mg/L	SPK Res mg/L	DUP Res mg/L	SPK % Recov	DUP % Recov	RPD	RPD Max	QC Limits	Extract Date-Spk	Analysis Date-Spk	Extract Date-Dup	Analysis Date-Dup	QC Group
SM 2320B	BICARBONATE AS CACO3	250	237	232	94.8	92.8	2.1	20	90-110	11/01/19	11/01/19	11/01/19	11/01/19	#232W-191101A-BA02216
SM 2320B	TOTAL ALKALINITY AS CA	250	247	249	98.8	99.6	0.81	20	90-110	11/01/19	11/01/19	11/01/19	11/01/19	#232W-191101A-BA02216
SM3500Fe	FERROUS IRON	3.00	2.95	3.04	98.3	101	3.0	20	80-120	10/31/19	10/31/19	10/31/19	10/31/19	#35FE-A191031-BA02216

Comments:

Printed: 12/04/19 4:25:18 PM
APPL Standard LCSD

WETLAB

Sample/Sample Duplicate Results

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

Sample ID: BA02216
Client ID: ERH925

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

ARF: 90611

Method	Analyte	Sample ID	Sample Result	Sample Dup Result	RPD	RPD Max	MDL	PQL	Units	Sample Extract Date	Sample Analysis Date	Sample Dup Extract Date	Sample Dup Analysis Date
SM 2320B	BICARBONATE A	BA02216	93.4	89.2	4.6	20	0.85	2.0	mg/L	11/01/19	11/01/19	11/01/19	11/01/19
SM 2320B	TOTAL ALKALINIT	BA02216	93.4	101	7.8	20	0.85	2.0	mg/L	11/01/19	11/01/19	11/01/19	11/01/19

Printed: 12/04/19 4:25:32 PM
Dup-SCII (NoMC)

EPA 300.0

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 90611

Case No: 90611 Date Analyzed: 10/31/19

Matrix: WATER Instrument: Charlie

Blank ID: 191031RH1-BLK Time Analyzed: 1842

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191031RH1-BLK	Blank	33	10/31/19 1842
191031RH1-LCS	Lab Control Spike	4	10/31/19 1505
BA02214	ERH940	40	10/31/19 1934
BA02216	ERH925	41	10/31/19 1941
191031RH1-LCSD	Lab Control SpikeD	5	10/31/19 1512

Comments: Batch: #300W-191031RH1

Printed: 12/04/19 2:39:12 PM
Form 4, Blank Summary

EPA 300.0

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 90611

Case No: 90611 Date Analyzed: 11/06/19

Matrix: WATER Instrument: Charlie

Blank ID: 191105DRa-BLK Time Analyzed: 0030

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191105DRa-LCS	Lab Control Spike	3	11/05/19 2023
191105DRa-BLK	Blank	36	11/06/19 0030
BA02216	ERH925	38	11/06/19 0045
191105DRa-LCSD	Lab Control SpikeD	4	11/05/19 2031

Comments: Batch: #300WD-191105D

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Form 4, Blank Summary

WETLAB BLANK

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Method	Analyte	Result	LOQ	LOD	DL	Units	Prep Date	Analysis Date	QC Group
EPA 300.0	BROMIDE	0.16 U	0.5	0.16	0.05	mg/L	10/31/19	10/31/19	300W-191031RH1-BA02214
EPA 300.0	CHLORIDE	0.20 U	1.0	0.20	0.08	mg/L	10/31/19	10/31/19	300W-191031RH1-BA02214
EPA 300.0	FLUORIDE	0.09 U	0.1	0.09	0.08	mg/L	10/31/19	10/31/19	300W-191031RH1-BA02214
EPA 300.0	NITRATE	0.18 U	0.5	0.18	0.04	mg/L	10/31/19	10/31/19	300W-191031RH1-BA02214
EPA 300.0	SULFATE	0.20 U	1.0	0.20	0.09	mg/L	10/31/19	10/31/19	300W-191031RH1-BA02214
EPA 300.0	CHLORIDE	0.095 J	1.0	0.20	0.08	mg/L	11/06/19	11/06/19	00WD-191105DRa-BA02216

J = Estimated value.

Wetlab SC-Blank-REG MDLs
Printed: 12/04/19 2:38:47 PM

EPA 300.0

Form 4

LCS Summary

Lab Name: APPL, Inc. SDG No: 90611

Case No: 90611 Date Analyzed: 10/31/19

Matrix: WATER Instrument: Charlie

LCS ID: 191031RH1-LCS Time Analyzed: 1505

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191031RH1-BLK	Blank	33	10/31/19 1842
191031RH1-LCS	Lab Control Spike	4	10/31/19 1505
BA02214	ERH940	40	10/31/19 1934
BA02216	ERH925	41	10/31/19 1941
191031RH1-LCSD	Lab Control SpikeD	5	10/31/19 1512

Comments: Batch: #300W-191031RH1

Printed: 12/04/19 2:39:12 PM
Form 4, LCS Summary

EPA 300.0

Form 4

LCS Summary

Lab Name: APPL, Inc. SDG No: 90611

Case No: 90611 Date Analyzed: 11/05/19

Matrix: WATER Instrument: Charlie

LCS ID: 191105DRa-LCS Time Analyzed: 2023

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191105DRa-LCS	Lab Control Spike	3	11/05/19 2023
191105DRa-BLK	Blank	36	11/06/19 0030
BA02216	ERH925	38	11/06/19 0045
191105DRa-LCSD	Lab Control SpikeD	4	11/05/19 2031

Comments: Batch: #300WD-191105D

Printed: 12/04/19 2:39:12 PM
Form 4, LCS Summary

Laboratory Control Spike Recoveries

WETLAB

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Method	Compound Name	Spike Lvl mg/L	SPK Res mg/L	DUP Res mg/L	SPK % Recov	DUP % Recov	RPD	RPD Max	QC Limits	Extract Date-Spk	Analysis Date-Spk	Extract Date-Dup	Analysis Date-Dup	QC Group
EPA 300.0	BROMIDE	12.5	11.7	11.7	93.6	93.6	0.0	20	90-110	10/31/19	10/31/19	10/31/19	10/31/19	#300W-191031RH1-BA022
EPA 300.0	CHLORIDE	25.0	22.6	22.6	90.4	90.4	0.0	20	90-110	10/31/19	10/31/19	10/31/19	10/31/19	#300W-191031RH1-BA022
EPA 300.0	FLUORIDE	5.00	5.14	5.10	103	102	0.78	20	90-110	10/31/19	10/31/19	10/31/19	10/31/19	#300W-191031RH1-BA022
EPA 300.0	NITRATE	22.1	20.7	20.7	93.7	93.7	0.0	20	90-110	10/31/19	10/31/19	10/31/19	10/31/19	#300W-191031RH1-BA022
EPA 300.0	SULFATE	25.0	23.3	23.3	93.2	93.2	0.0	20	90-110	10/31/19	10/31/19	10/31/19	10/31/19	#300W-191031RH1-BA022

Comments:

Printed: 12/04/19 2:38:57 PM
APPL Standard LCSD

Laboratory Control Spike Recoveries

WETLAB

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Method	Compound Name	Spike Lvl mg/L	SPK Res mg/L	DUP Res mg/L	SPK % Recov	DUP % Recov	RPD	RPD Max	QC Limits	Extract Date-Spk	Analysis Date-Spk	Extract Date-Dup	Analysis Date-Dup	QC Group
EPA 300.0	CHLORIDE	25.0	24.7	24.7	98.8	98.8	0.0	20	90-110	11/05/19	11/05/19	11/05/19	11/05/19	#300WD-191105DRa-BA0

Comments:

Printed: 12/04/19 2:38:57 PM
APPL Standard LCSD

WETLAB

Sample/Sample Duplicate Results

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

Sample ID: BA02216
Client ID: ERH925

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

ARF: 90611

Method	Analyte	Sample ID	Sample Result	Sample Dup Result	RPD		RPD Max	MDL	PQL	Units	Sample Extract Date	Sample Analysis Date	Sample Dup Extract Date	Sample Dup Analysis Date
SM 2320B	BICARBONATE A	BA02216	93.4	89.2	4.6		20	0.85	2.0	mg/L	11/01/19	11/01/19	11/01/19	11/01/19
SM 2320B	CARBONATE AS	BA02216	Not detected	11.3	200	#	20	0.85	2.0	mg/L	11/01/19	11/01/19	11/01/19	11/01/19
SM 2320B	TOTAL ALKALINIT	BA02216	93.4	101	7.8		20	0.85	2.0	mg/L	11/01/19	11/01/19	11/01/19	11/01/19
SW846 9060A	TOTAL ORGANIC	BA02216	0.81	0.82	1.2		20	0.130	0.93	mg/L	11/10/19	11/11/19	11/10/19	11/11/19

= Recovery (or RPD) is outside QC limits.

Printed: 12/17/19 2:53:16 PM
Dup-SCII (NoMC)

Matrix Spike Recoveries

WETLAB

APPL ID: **191101W-02216 MS - 246751**

Sample ID: BA02216

Client ID: ERH925

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Method	Compound Name	Spike Lvl mg/L	Matrix Res mg/L	SPK Res mg/L	DUP Res mg/L	SPK % Recovery	DUP % Recovery	RPD	RPD Max	Recovery Limits	Extract Date-Spk	Analysis Date-Spk	Extract Date-Dup	Analysis Date-Dup	QC Group	QC Sample
SM 2320B	BICARBONATE AS CA	250	93.4	300	316	82.6 #	89.0 #	5.2	20	90-110	11/01/19	11/01/19	11/01/19	11/01/19	246751	BA02216
SM 2320B	CARBONATE AS CAC	0	ND	33.0	30.5	NA	NA		20	90-110	11/01/19	11/01/19	11/01/19	11/01/19	246751	BA02216
SM 2320B	TOTAL ALKALINITY A	250	93.4	333	346	95.8	101	3.8	20	90-110	11/01/19	11/01/19	11/01/19	11/01/19	246751	BA02216
SM3500Fe	FERROUS IRON	3.0	0.10	2.99	3.02	96.3	97.3	1.00	20	80-120	10/31/19	10/31/19	10/31/19	10/31/19	246658	BA02216

= Recovery is outside QC limits.

Comments: _____

ORGANICS
Calibration Data

DBCP/EDB/1,2,3-TCP Analysis by
504 8011

Form 6
Initial Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Initial Cal. Date: 11/08/19
Matrix: Water Instrument: Herbie Initials:

			1025122.D	1025123.D	1025124.D	1025125.D	1025126.D	1025127.D									
		Compound	1	2	3	4	5	6					Avg	%RSD	Type	r^2	Q
1	TM	EDB	884525	804465	739004	692297	694324	679871					749081	11	TM		
2	TML	1,2,3-TCP	430975	262120	240364	218305	208006	202514					260381	33	TM	0.999	
3	S	1,3-DIBROMOPROPANE(S)		1033715	901976	824027	801433	770343					866299	12	S		
4	TM	DBCP	3286575	2895745	2909434	2762260	2691157	2691364					2872756	7.8	TM		
5		Signal #2											0	0			
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1.82706

DBCP/EDB/1,2,3-TCP Analysis by
504 8011

Form 6
Initial Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Initial Cal. Date: 11/08/19
Matrix: Water Instrument: Herbie Initials:

		Compound	1	2	3	4	5	6					Avg	%RSD	Type	r^2	Q
			1025122.D	1025123.D	1025124.D	1025125.D	1025126.D	1025127.D									
36	TM	EDB #2	3885200	3439110	3226410	3017715	2931621	2953985					3242340	11	TM		
37	TM	1,2,3-TCP #2	680875	640785	619024	559442	550172	525478					595963	10	TM		
38	S	1,3-DIBROMOPROPANE(S) #2	2491825	2354260	2198168	2062581	1972708	1929604					2168191	10	S		
39	TM	DBCP #2	10635375	9133015	9102064	9256497	9091623	9154474					9395508	6.5	TM		
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1.092579

Quantitation Report (Not Reviewed)

Signal #1 : G:\HERBIE\DATA\191025\1025122.D\ECD1A.CH Vial: 20
Signal #2 : G:\HERBIE\DATA\191025\1025122.D\ECD2B.CH
Acq On : 11-08-19 16:07:44 Operator: MA,SS
Sample : 8011 1 11/06/19 Inst : Herbie
Misc : water Multiplr: 1.00
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Nov 12 14:22 2019 Quant Results File: 8011106A.RES

Quant Method : G:\HERBIE\DATA\190814\8011106A.M (RTE Integrator)
Title : 504.1 OR 8011
Last Update : Tue Nov 12 13:30:16 2019
Response via : Initial Calibration
DataAcq Meth : DOHS504.M

Volume Inj. : 2µL
Signal #1 Phase : DB-35MS Signal #2 Phase: DB-XLB
Signal #1 Info : 0.25 Signal #2 Info : 0.50

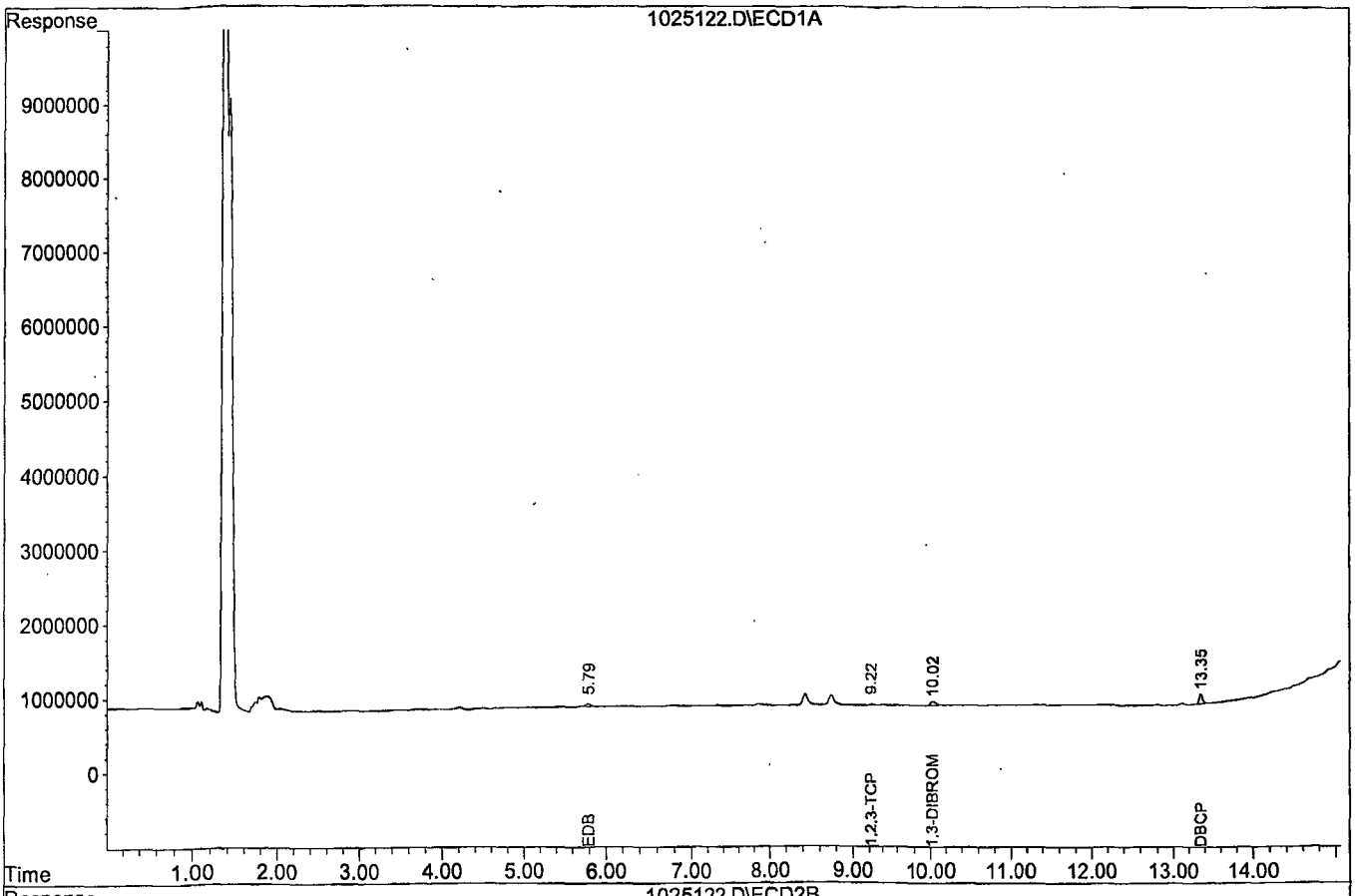
	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
	System Monitoring Compounds						
3)	S 1,3-DIBROMOPROPA	10.02	11.03	54908	99673	0.032	0.023 #
	Spiked Amount 0.350			Recovery =		9.14%	6.57%
	Target Compounds						
1)	TM EDB	5.79	7.21	35381	155408	0.024	0.024
2)	TM 1,2,3-TCP	9.22	10.44	17239	27235	0.005	0.023 #
4)	TM DBCP	13.35	14.08	131463	425415	0.023	0.023
	Target Compounds						

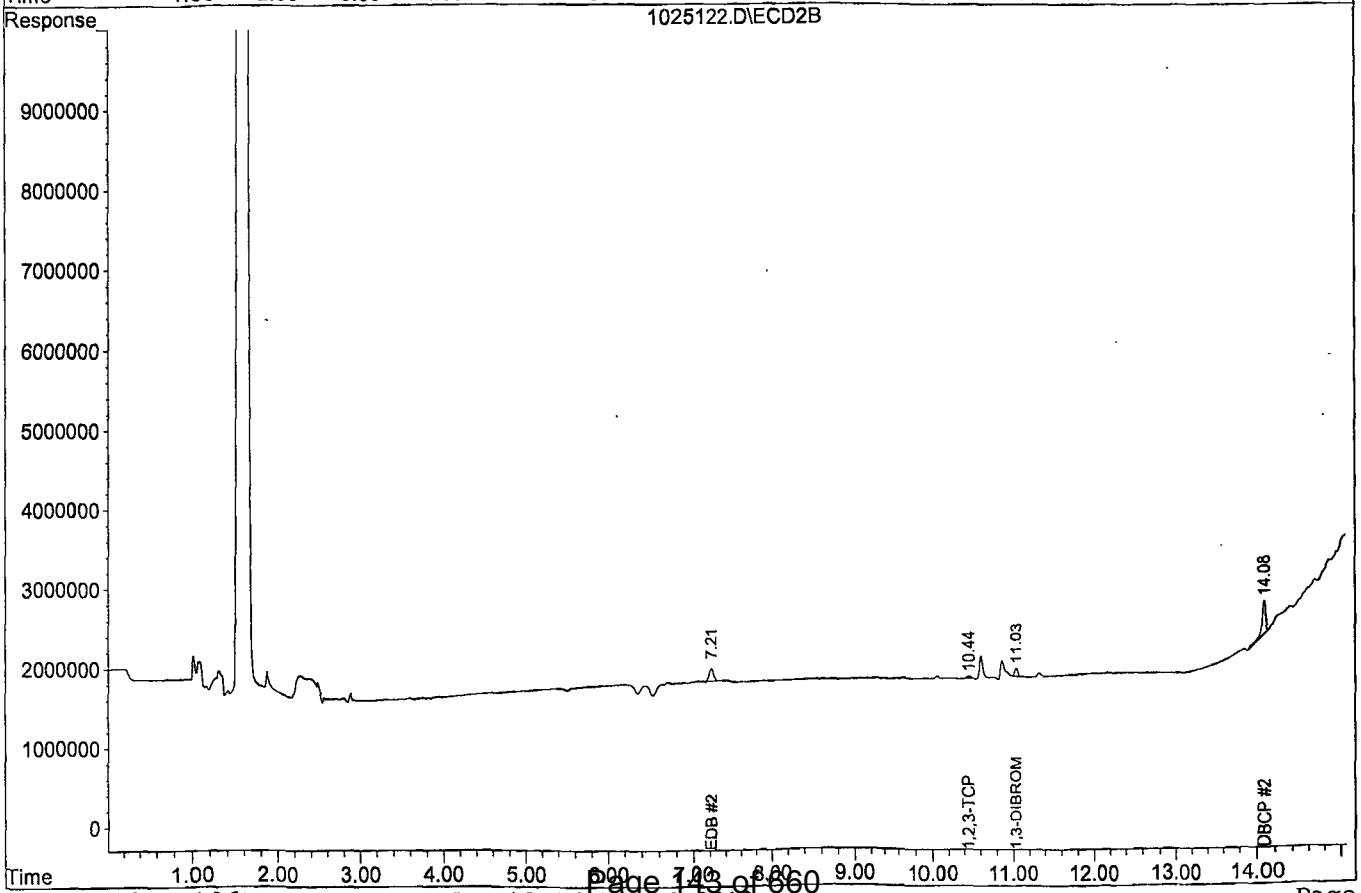
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (Not Reviewed)

Data File : G:\HERBIE\DATA\191025\1025122.D
Acq On : 11-08-19 16:07:44
Sample : 8011 1 11/06/19
Misc : water
Quant Method : G:\HERBIE\DATA\190814\8011106A.M

Vial: 20
Operator: MA,SS
Inst : Herbie
Multiplr: 1.00





Quantitation Report (Not Reviewed)

Signal #1 : G:\HERBIE\DATA\191025\1025123.D\ECD1A.CH Vial: 21
Signal #2 : G:\HERBIE\DATA\191025\1025123.D\ECD2B.CH
Acq On : 11-08-19 16:28:04 Operator: MA,SS
Sample : 8011 2 11/06/19 Inst : Herbie
Misc : water Multiplr: 1.00
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Nov 12 14:22 2019 Quant Results File: 8011106A.RES

Quant Method : G:\HERBIE\DATA\190814\8011106A.M (RTE Integrator)
Title : 504.1 OR 8011
Last Update : Tue Nov 12 13:30:16 2019
Response via : Initial Calibration
DataAcq Meth : DOHS504.M

Volume Inj. : 2µL
Signal #1 Phase : DB-35MS Signal #2 Phase: DB-XLB
Signal #1 Info : 0.25 Signal #2 Info : 0.50

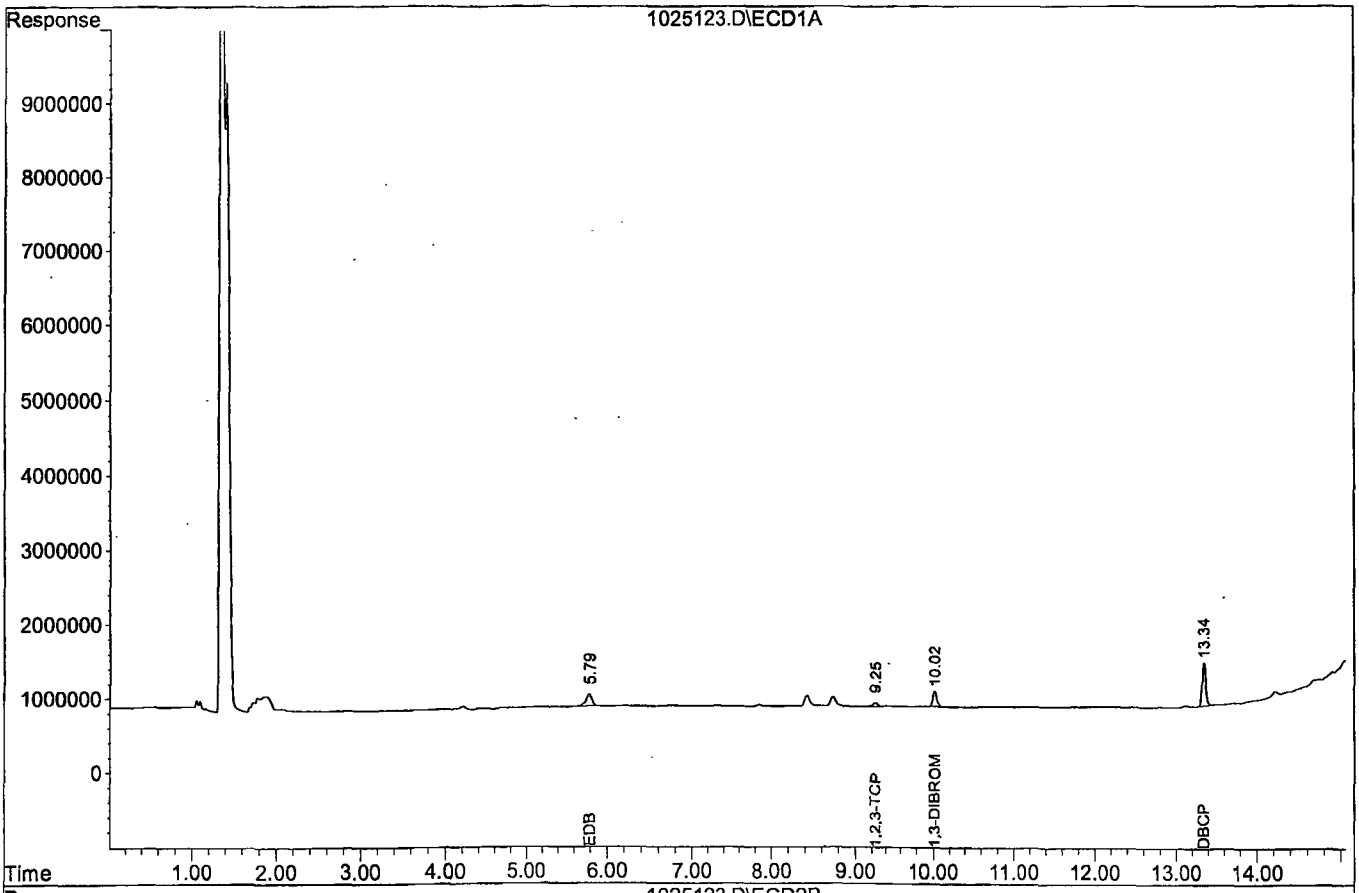
	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
	System Monitoring Compounds						
3) S	1,3-DIBROMOPROPA	10.02	11.03	206743	470852	0.119	0.109
Spiked Amount	0.350			Recovery	=	34.00%	31.14%
	Target Compounds						
1) TM	EDB	5.79	7.21	160893	687822	0.107	0.106
2) TM	1,2,3-TCP	9.25	10.44	52424	128157	0.094	0.108
4) TM	DBCP	13.34	14.08	579149	1826603	0.101	0.097

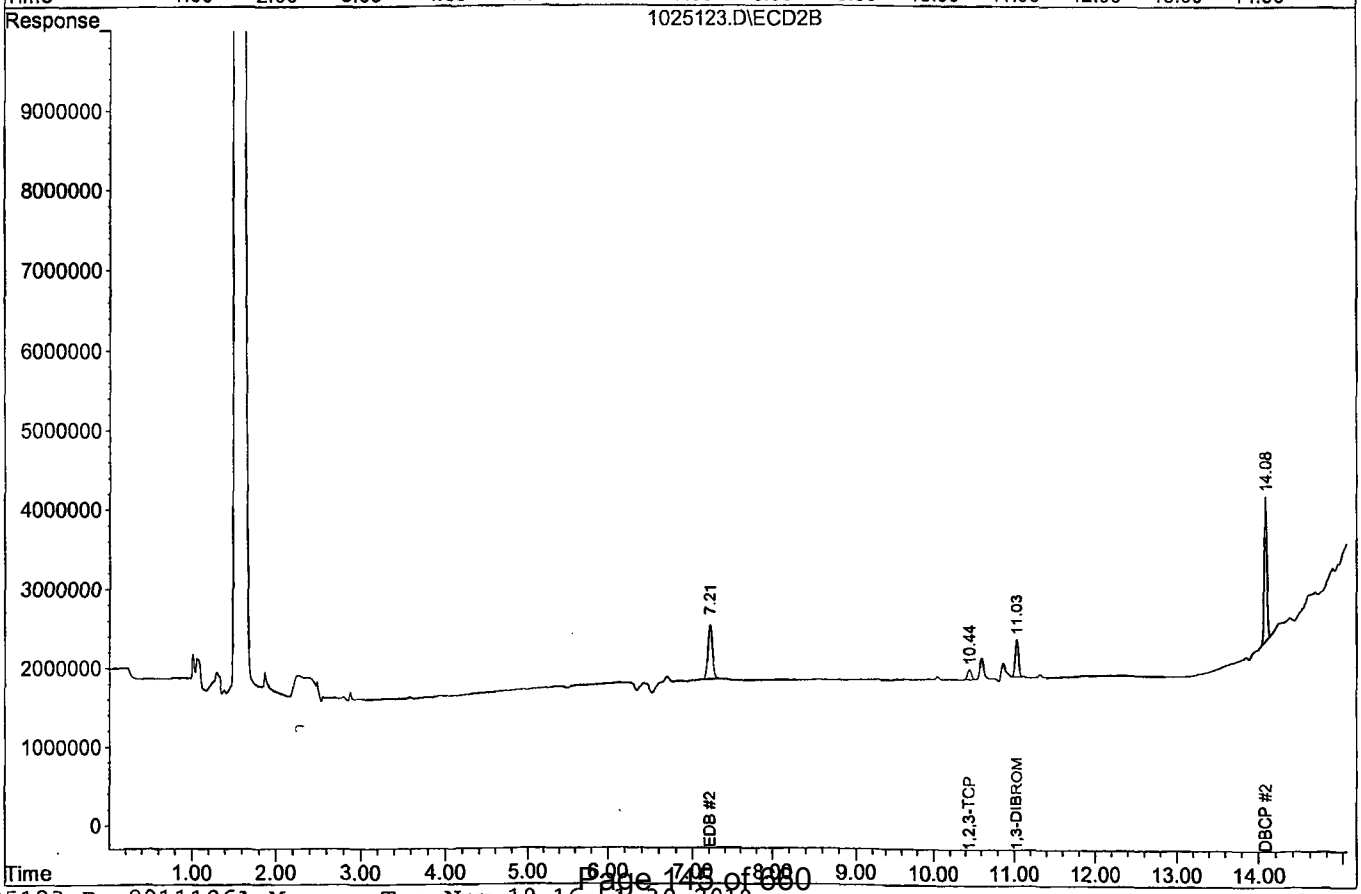
Target Compounds

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
1025123.D 8011106A.M Tue Nov 19 16:51:28 2019 Page 1

Quantitation Report (Not Reviewed)

Data File : G:\HERBIE\DATA\191025\1025123.D Vial: 21
Acq On : 11-08-19 16:28:04 Operator: MA,SS
Sample : 8011 2 11/06/19 Inst : Herbie
Misc : water Multiplr: 1.00
Quant Method : G:\HERBIE\DATA\190814\8011106A.M





Quantitation Report (Not Reviewed)

Signal #1 : G:\HERBIE\DATA\191025\1025124.D\ECD1A.CH Vial: 22
Signal #2 : G:\HERBIE\DATA\191025\1025124.D\ECD2B.CH
Acq On : 11-08-19 16:48:46 Operator: MA,SS
Sample : 8011 3 11/06/19 Inst : Herbie
Misc : water Multiplr: 1.00
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Nov 12 14:22 2019 Quant Results File: 8011106A.RES

Quant Method : G:\HERBIE\DATA\190814\8011106A.M (RTE Integrator)
Title : 504.1 OR 8011
Last Update : Tue Nov 12 13:30:16 2019
Response via : Initial Calibration
DataAcq Meth : DOHS504.M

Volume Inj. : 2µL
Signal #1 Phase : DB-35MS Signal #2 Phase: DB-XLB
Signal #1 Info : 0.25 Signal #2 Info : 0.50

Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
System Monitoring Compounds						
3) S 1,3-DIBROMOPROPA	10.02	11.03	450988	1099084	0.260	0.253
Spiked Amount 0.350			Recovery =		74.29%	72.29%
Target Compounds						
1) TM EDB	5.79	7.21	369502	1613205	0.247	0.249
2) TM 1,2,3-TCP	9.25	10.44	120182	309512	0.266	0.260
4) TM DBCP	13.34	14.09	1454717	4551032	0.253	0.242

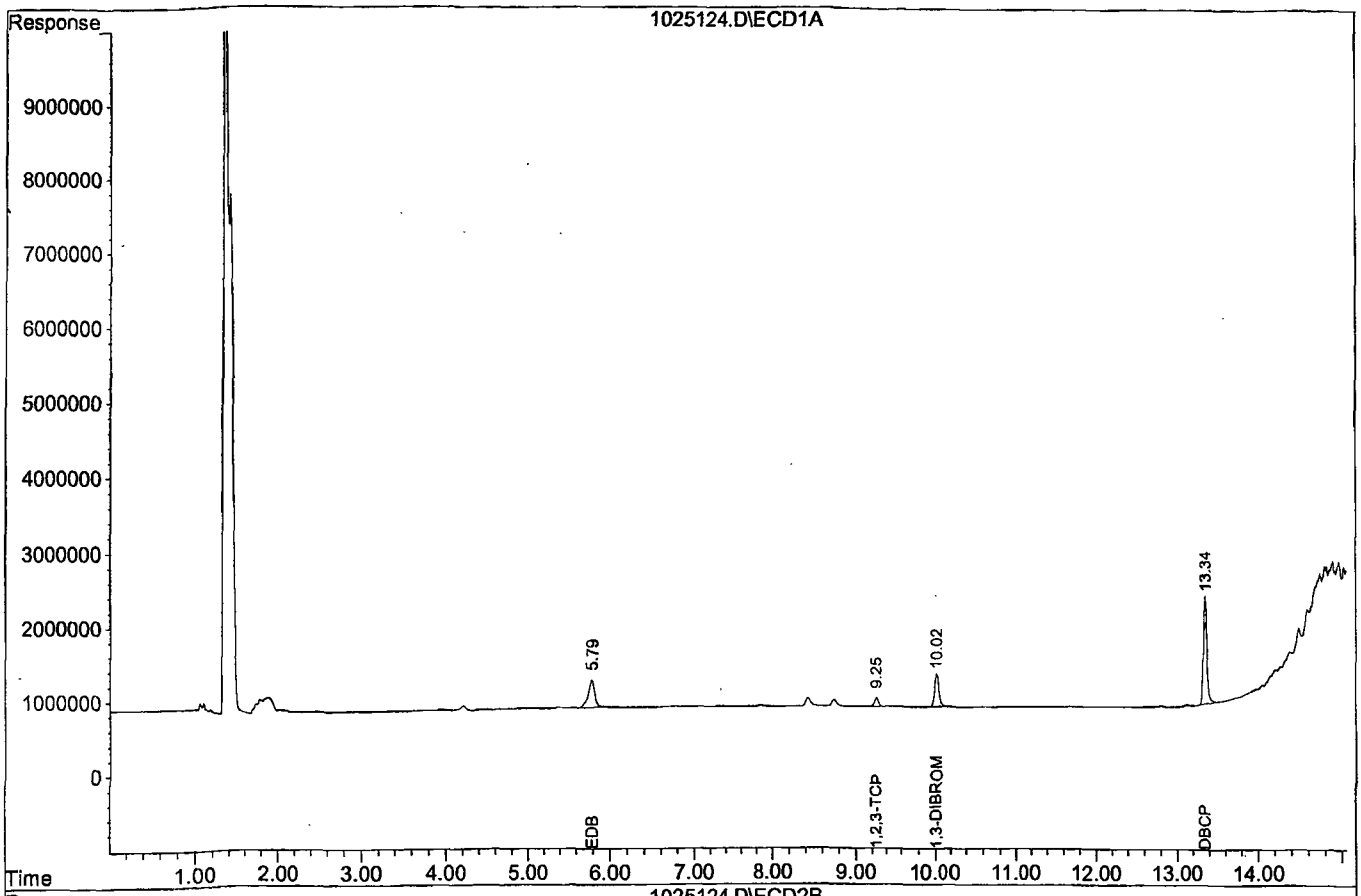
Target Compounds

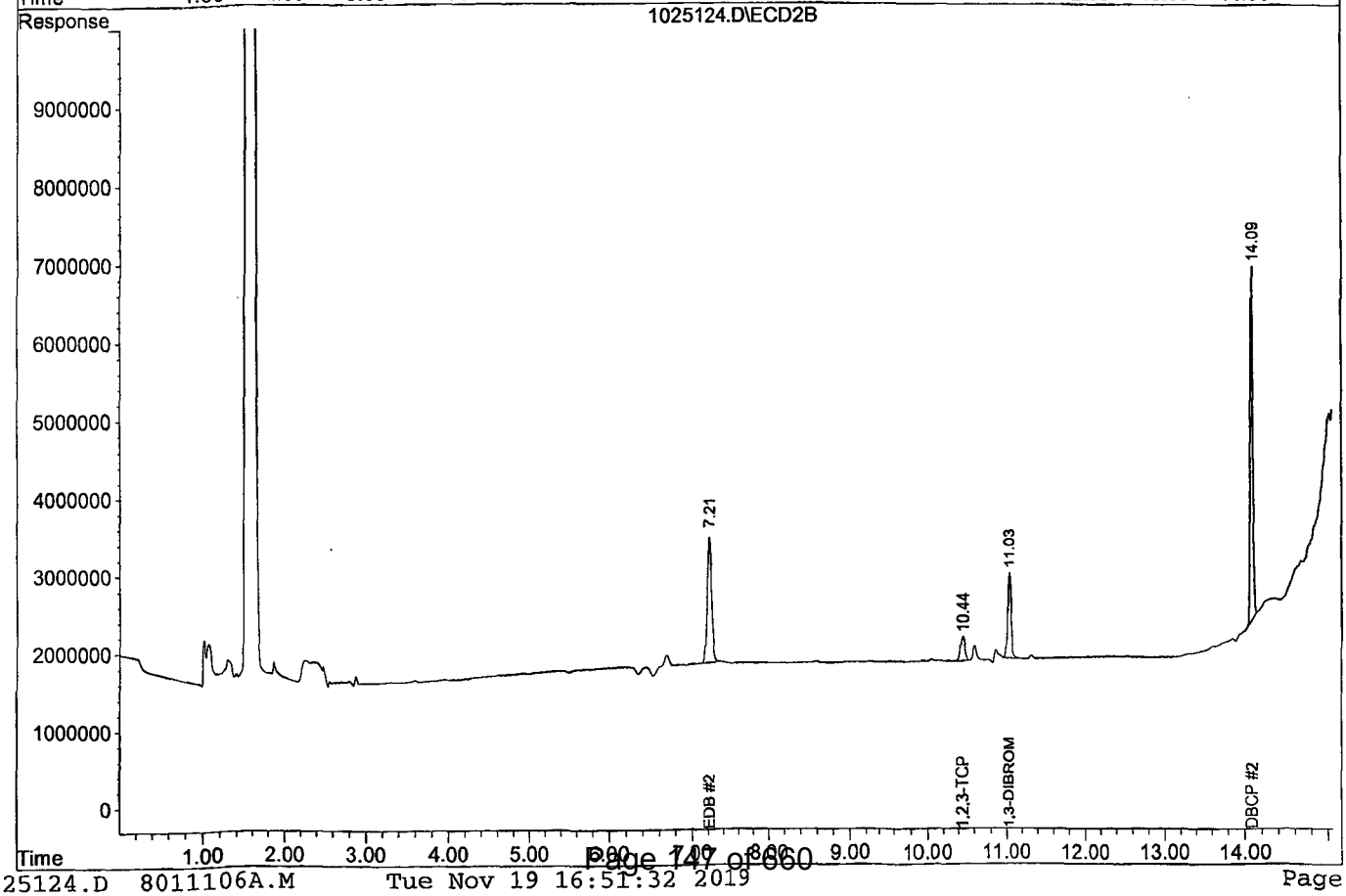
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
1025124.D 8011106A.M Tue Nov 19 16:51:31 2019 Page 1

Quantitation Report (Not Reviewed)

Data File : G:\HERBIE\DATA\191025\1025124.D
Acq On : 11-08-19 16:48:46
Sample : 8011 3 11/06/19
Misc : water
Quant Method : G:\HERBIE\DATA\190814\8011106A.M

Vial: 22
Operator: MA,SS
Inst : Herbie
Multiplr: 1.00





Quantitation Report (Not Reviewed)

Signal #1 : G:\HERBIE\DATA\191025\1025125.D\ECD1A.CH Vial: 23
Signal #2 : G:\HERBIE\DATA\191025\1025125.D\ECD2B.CH
Acq On : 11-08-19 17:09:07 Operator: MA,SS
Sample : 8011 4 11/06/19 Inst : Herbie
Misc : water Multiplr: 1.00
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Nov 12 14:22 2019 Quant Results File: 8011106A.RES

Quant Method : G:\HERBIE\DATA\190814\8011106A.M (RTE Integrator)
Title : 504.1 OR 8011
Last Update : Tue Nov 12 13:30:16 2019
Response via : Initial Calibration
DataAcq Meth : DOHS504.M

Volume Inj. : 2µL
Signal #1 Phase : DB-35MS Signal #2 Phase: DB-XLB
Signal #1 Info : 0.25 Signal #2 Info : 0.50

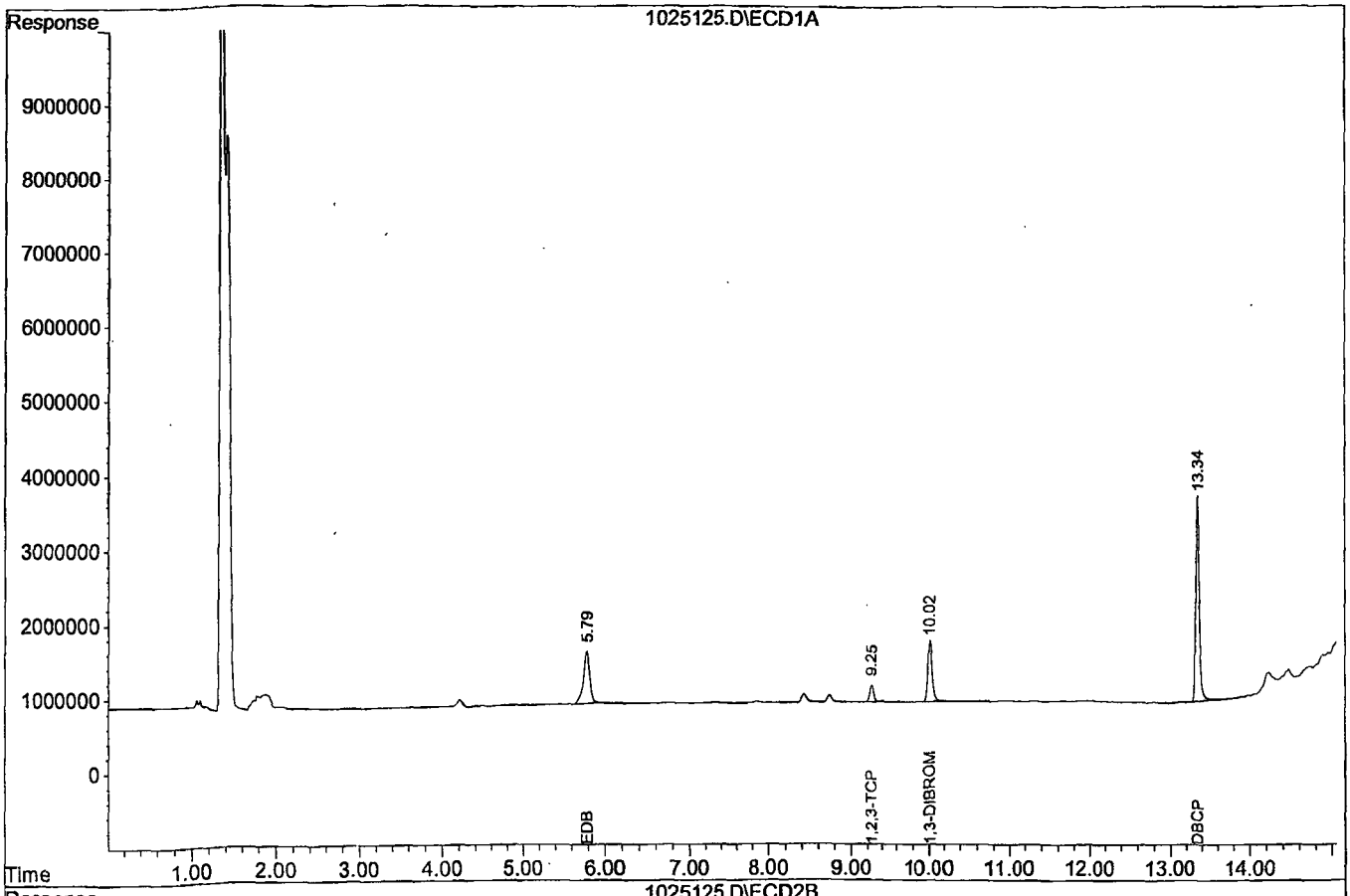
Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
System Monitoring Compounds						
3) S 1,3-DIBROMOPROPA	10.02	11.03	824027	2062581	0.476	0.476
Spiked Amount 0.350			Recovery =		136.00%	136.00%
Target Compounds						
1) TM EDB	5.79	7.21	692297	3017715	0.462	0.465
2) TM 1,2,3-TCP	9.25	10.44	218305	559442	0.515	0.469
4) TM DBCP	13.34	14.08	2762260	9256497	0.481	0.493

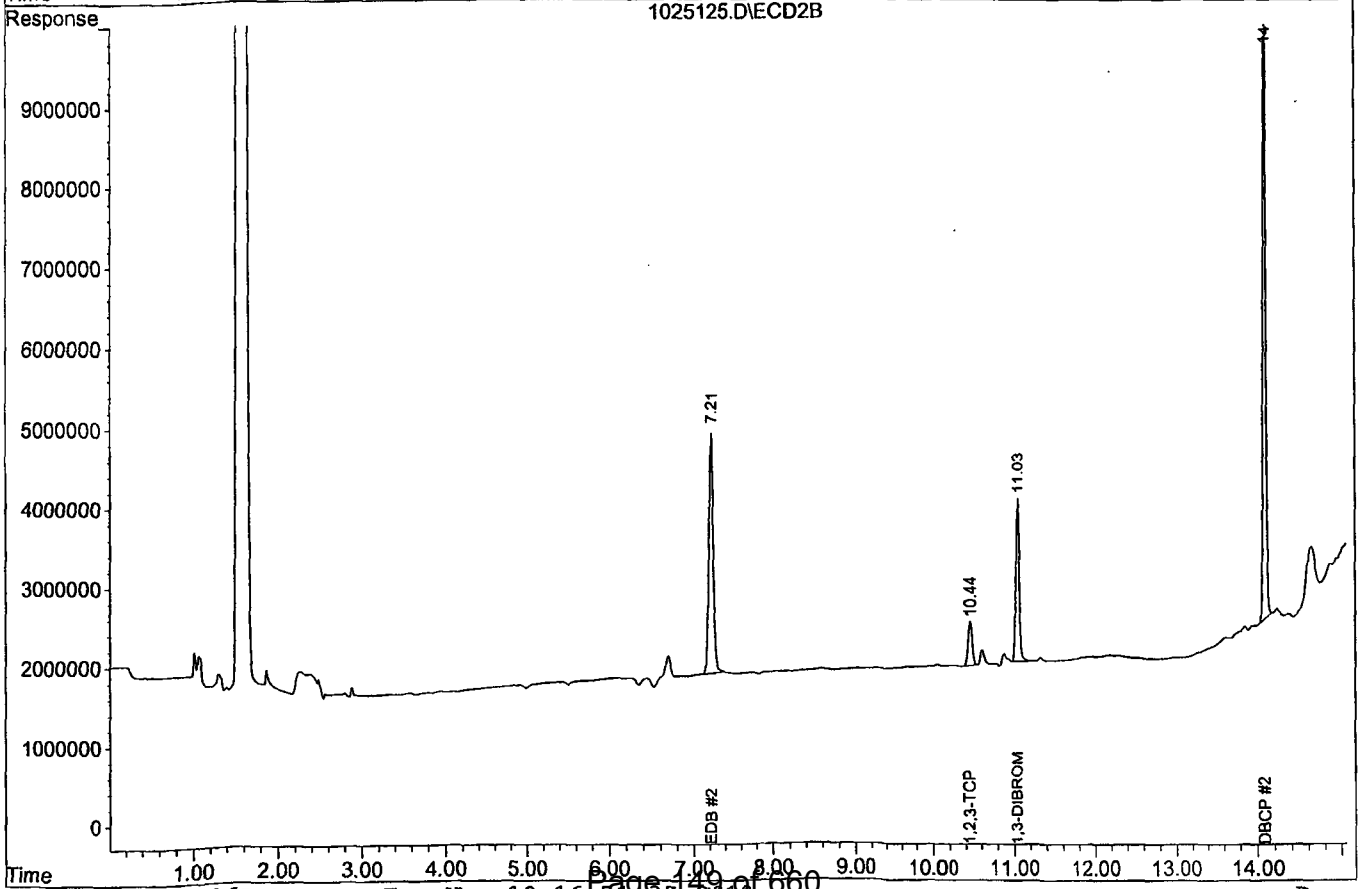
Target Compounds

Quantitation Report (Not Reviewed)

Data File : G:\HERBIE\DATA\191025\1025125.D
Acq On : 11-08-19 17:09:07
Sample : 8011 4 11/06/19
Misc : water
Quant Method : G:\HERBIE\DATA\190814\8011106A.M

Vial: 23
Operator: MA,SS
Inst : Herbie
Multiplr: 1.00





Quantitation Report (Not Reviewed)

Signal #1 : G:\HERBIE\DATA\191025\1025126.D\ECD1A.CH Vial: 24
Signal #2 : G:\HERBIE\DATA\191025\1025126.D\ECD2B.CH
Acq On : 11-08-19 17:29:40 Operator: MA,SS
Sample : 8011 5 11/06/19 Inst : Herbie
Misc : water Multiplr: 1.00
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Nov 12 14:22 2019 Quant Results File: 8011106A.RES

Quant Method : G:\HERBIE\DATA\190814\8011106A.M (RTE Integrator)
Title : 504.1 OR 8011
Last Update : Tue Nov 12 13:30:16 2019
Response via : Initial Calibration
DataAcq Meth : DOHS504.M

Volume Inj. : 2µL
Signal #1 Phase : DB-35MS Signal #2 Phase: DB-XLB
Signal #1 Info : 0.25 Signal #2 Info : 0.50

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
	System Monitoring Compounds						
3)	S 1,3-DIBROMOPROPA	10.01	11.03	1202149	2959062	0.694	0.682
	Spiked Amount 0.350			Recovery =		198.29%	194.86%
	Target Compounds						
1)	TM EDB	5.79	7.21	1041486	4397431	0.695	0.678
2)	TM 1,2,3-TCP	9.25	10.44	312009	825258	0.752	0.692
4)	TM DBCP	13.34	14.09	4036736	13637434	0.703	0.726

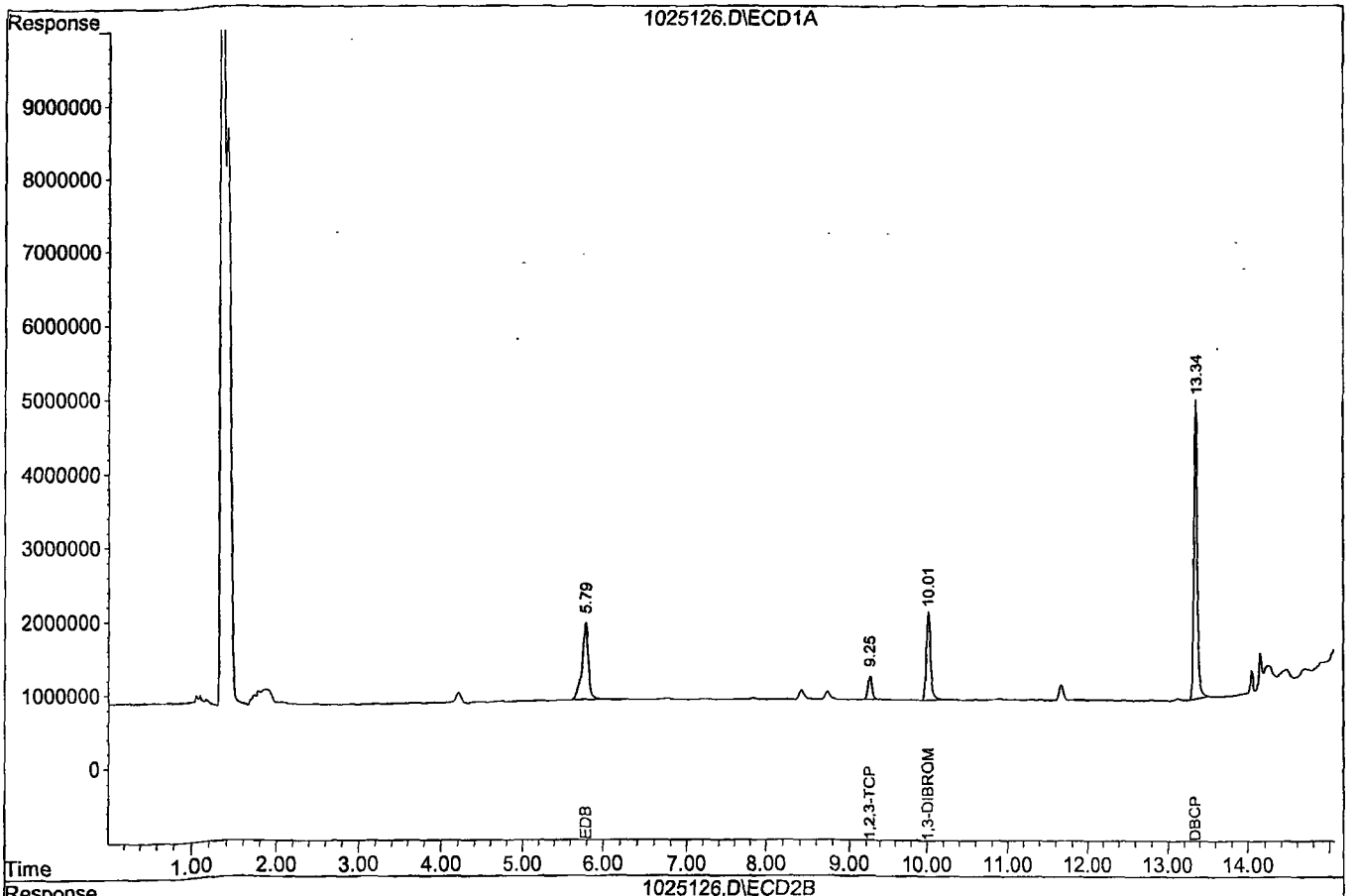
Target Compounds

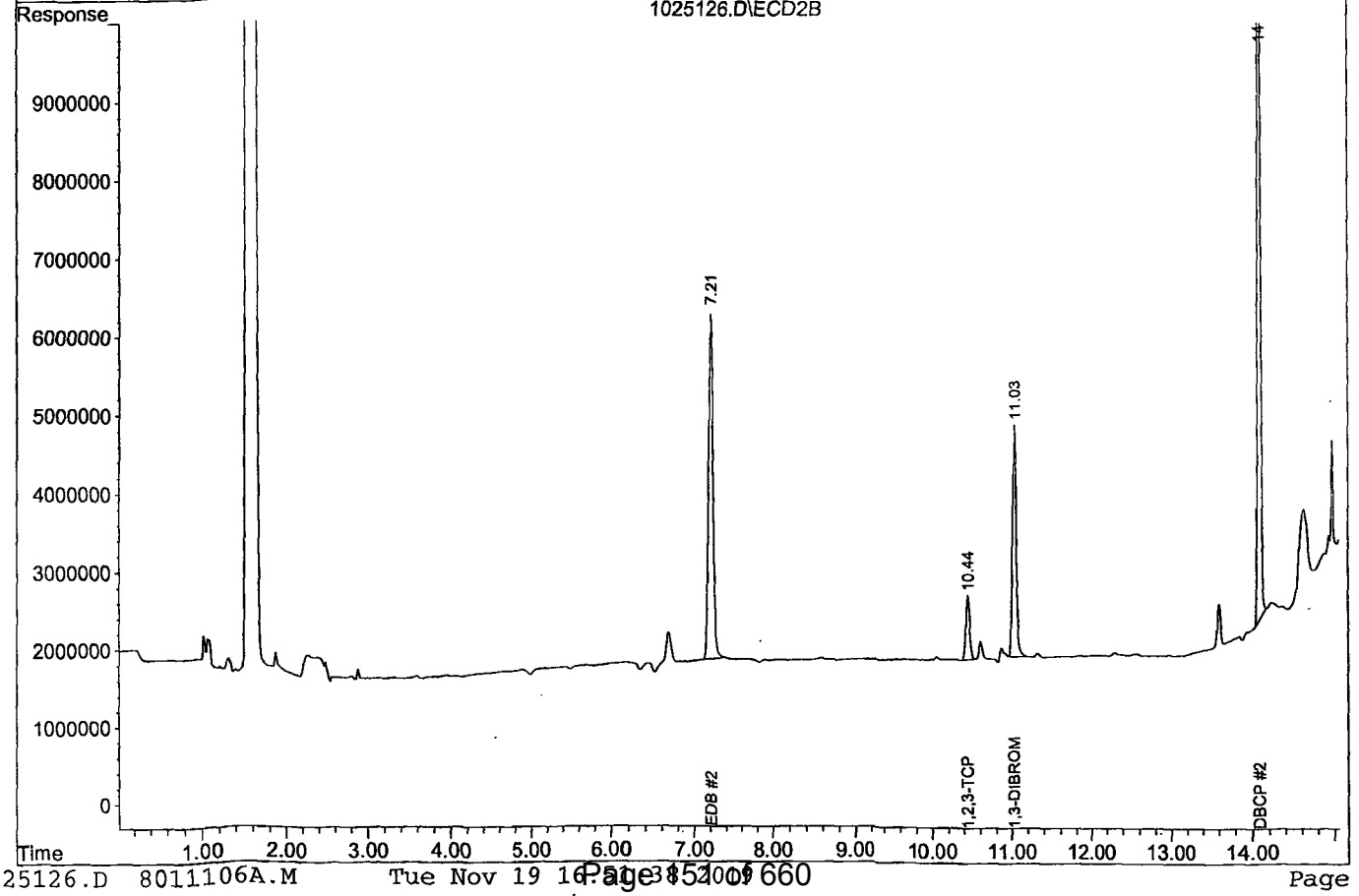
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.
1025126.D 8011106A.M Tue Nov 19 16:51:36 2019 Page 1

Quantitation Report (Not Reviewed)

Data File : G:\HERBIE\DATA\191025\1025126.D
Acq On : 11-08-19 17:29:40
Sample : 8011 5 11/06/19
Misc : water
Quant Method : G:\HERBIE\DATA\190814\8011106A.M

Vial: 24
Operator: MA,SS
Inst : Herbie
Multiplr: 1.00





Quantitation Report (Not Reviewed)

Signal #1 : G:\HERBIE\DATA\191025\1025127.D\ECD1A.CH Vial: 25
Signal #2 : G:\HERBIE\DATA\191025\1025127.D\ECD2B.CH
Acq On : 11-08-19 17:50:18 Operator: MA,SS
Sample : 8011 6 11/06/19 Inst : Herbie
Misc : water Multiplr: 1.00
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Nov 12 14:22 2019 Quant Results File: 8011106A.RES

Quant Method : G:\HERBIE\DATA\190814\8011106A.M (RTE Integrator)
Title : 504.1 OR 8011
Last Update : Tue Nov 12 13:30:16 2019
Response via : Initial Calibration
DataAcq Meth : DOHS504.M

Volume Inj. : 2µL
Signal #1 Phase : DB-35MS Signal #2 Phase: DB-XLB
Signal #1 Info : 0.25 Signal #2 Info : 0.50

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
	System Monitoring Compounds						
3) S	1,3-DIBROMOPROPA	10.02	11.03	1540685	3859208	0.889	0.890
Spiked Amount	0.350			Recovery	=	254.00%	254.29%
	Target Compounds						
1) TM	EDB	5.79	7.21	1359742	5907969	0.908	0.911
2) TM	1,2,3-TCP	9.25	10.44	405028	1050955	0.988	0.882
4) TM	DBCP	13.34	14.08	5382727	18308947	0.937	0.974

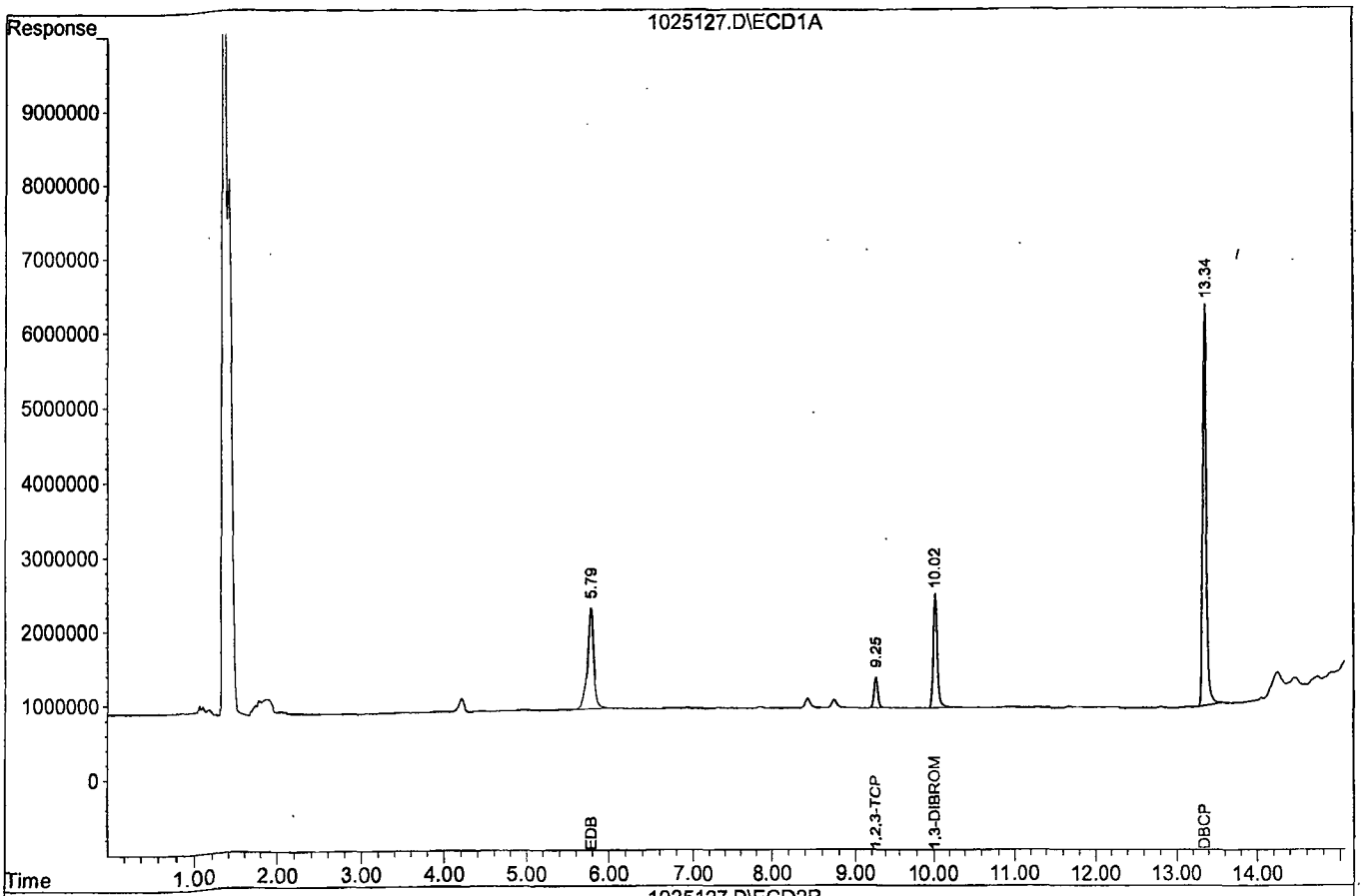
Target Compounds

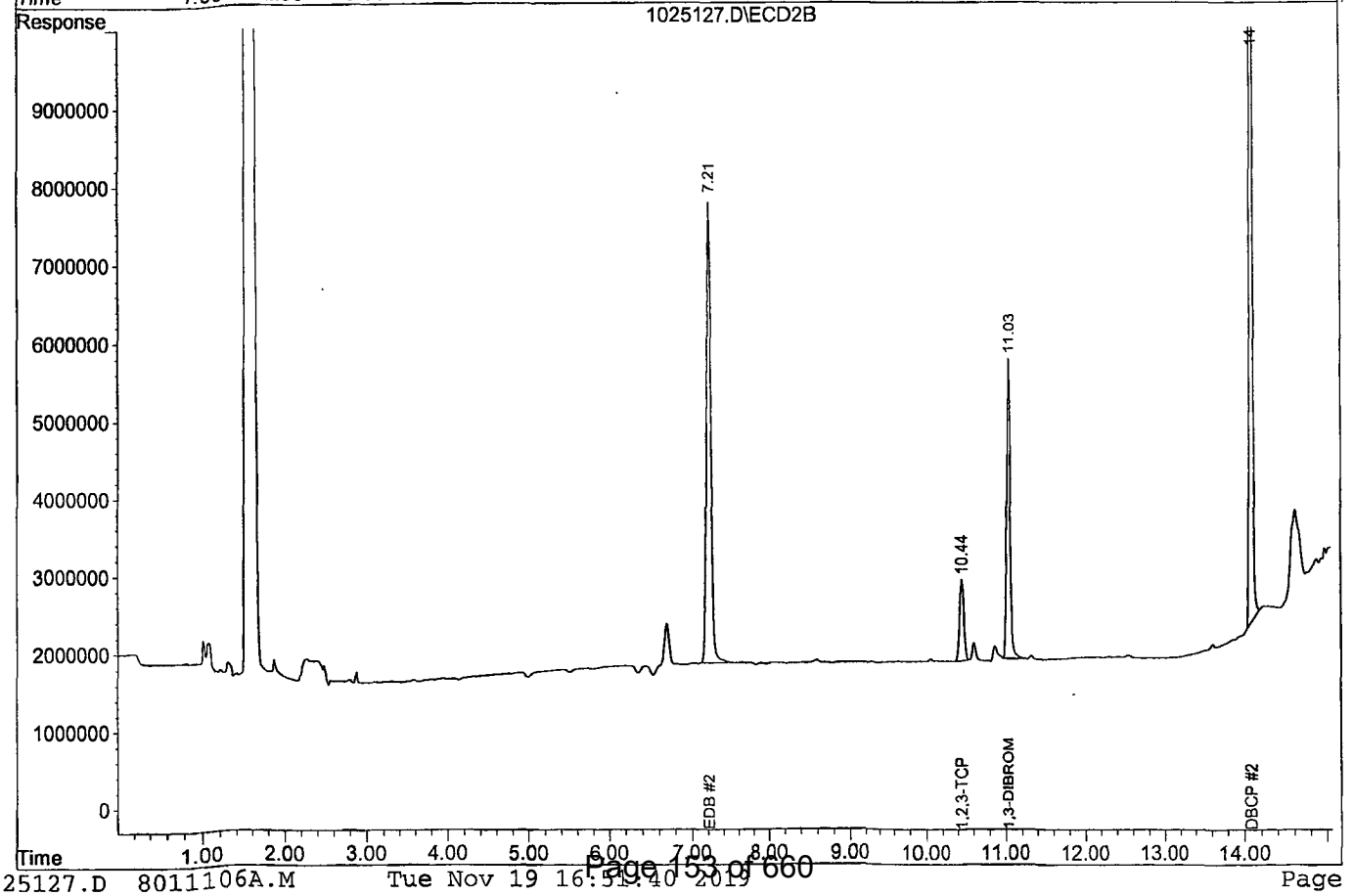
(f)=RT Delta > 1/2 Window (#)=Amounts differ by >25% (m)=manual int.
1025127.D 8011106A.M Tue Nov 19 16:51:39 2019 Page 1

Quantitation Report (Not Reviewed)

Data File : G:\HERBIE\DATA\191025\1025127.D
Acq On : 11-08-19 17:50:18
Sample : 8011 6 11/06/19
Misc : water
Quant Method : G:\HERBIE\DATA\190814\8011106A.M

Vial: 25
Operator: MA,SS
Inst : Herbie
Multiplr: 1.00





DBCP/EDB/1,2,3-TCP Analysis by
504 8011

Form 7

Second Source Calibration

Lab Name: APPL, Inc.
Case No:
Matrix: Water

SDG No:
Date Analyzed: 11/08/19
Instrument: Herbie
Initial Cal. Date: 11/08/19
Data File: 1025128.D

		Compound	MEAN	CCRF	%D		%Drift
1	TM	EDB	749081	757325	1.1	TM	
2	TML	1,2,3-TCP	260381	248020	4.7	TML	13
3	TM	DBCP	2872760	2982060	3.8	TM	
4							
5							
6							
7							
8							
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34							
35							
36							
37							
38							
39							
40							
		Average			3.2		

DBCP/EDB/1,2,3-TCP Analysis by
504 8011

Form 7

Second Source Calibration

Lab Name: APPL, Inc.
Case No:
Matrix: Water

SDG No:
Date Analyzed: 11/08/19
Instrument: Herbie
Cal. Date: 11/08/19
Data File: 1025128.D

		Compound	MEAN	CCRF	%D	%Drift	
41	TM	EDB	3242340	3336070	2.9	TM	
42	TM	1,2,3-TCP	595963	605250	1.6	TM	
43	TM	DBCP	9395510	9282470	1.2	TM	
44							
45							
46							
47							
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79							
80							
		Average			1.9		

Quantitation Report (Not Reviewed)

Signal #1 : G:\HERBIE\DATA\191025\1025128.D\ECD1A.CH Vial: 26
Signal #2 : G:\HERBIE\DATA\191025\1025128.D\ECD2B.CH
Acq On : 11-08-19 18:10:46 Operator: MA,SS
Sample : 8011 SS 11/06/19 Inst : Herbie
Misc : water Multiplr: 1.00
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Nov 12 14:22 2019 Quant Results File: 8011106A.RES

Quant Method : G:\HERBIE\DATA\190814\8011106A.M (RTE Integrator)
Title : 504.1 OR 8011
Last Update : Tue Nov 12 13:30:16 2019
Response via : Initial Calibration
DataAcq Meth : DOHS504.M

Volume Inj. : 2µL
Signal #1 Phase : DB-35MS Signal #2 Phase: DB-XLB
Signal #1 Info : 0.25 Signal #2 Info : 0.50

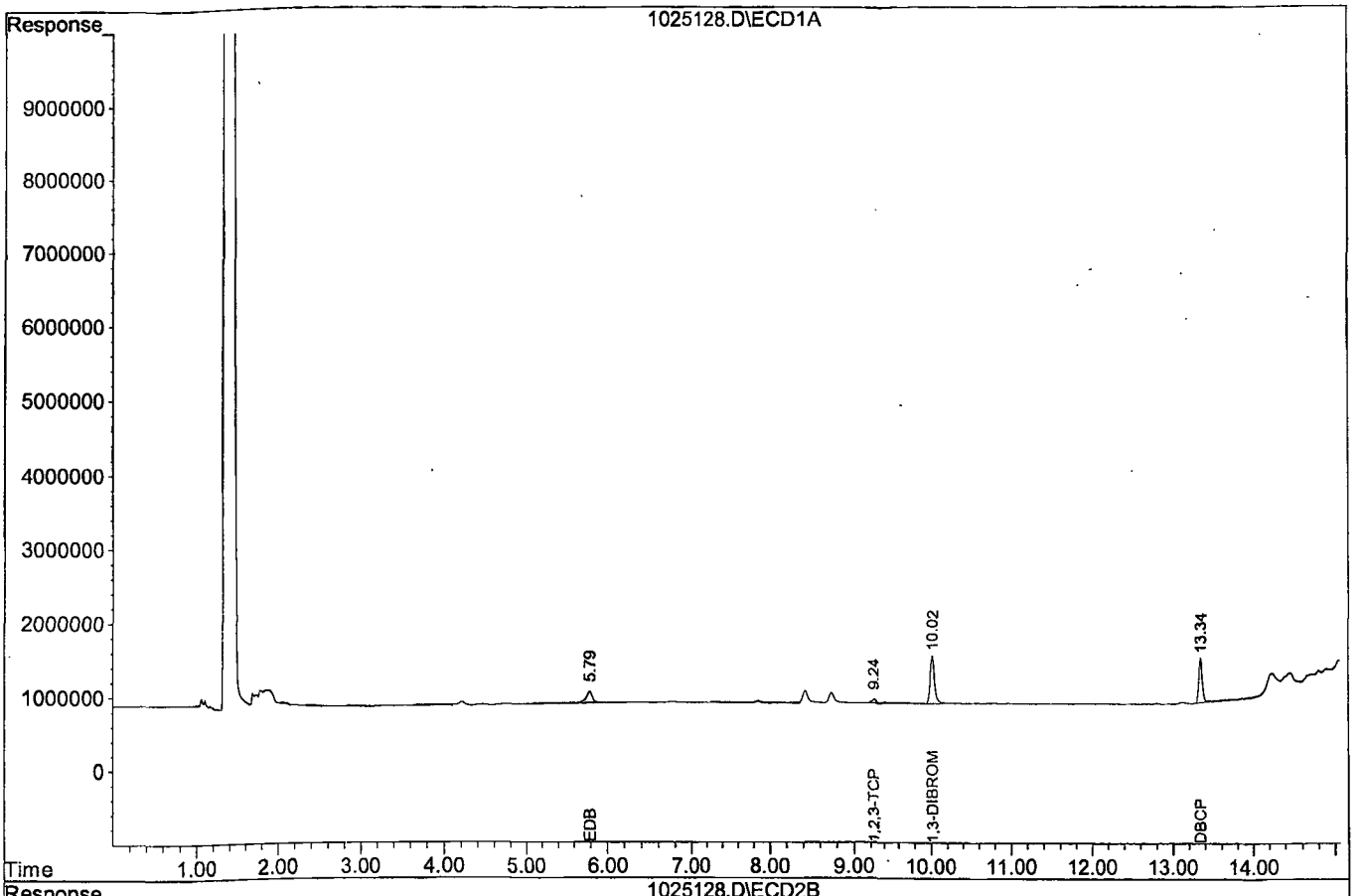
	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
	System Monitoring Compounds						
3) S	1,3-DIBROMOPROPA	10.02	11.03	645848	1574249	0.373	0.363
Spiked Amount	0.350			Recovery	=	106.57%	103.71%
	Target Compounds						
1) TM	EDB	5.79	7.21	151465	667214	0.101	0.103
2) TM	1,2,3-TCP	9.24	10.44	49604	121050	0.087	0.102
4) TM	DBCP	13.34	14.08	596411	1856493	0.104	0.099
	Target Compounds						

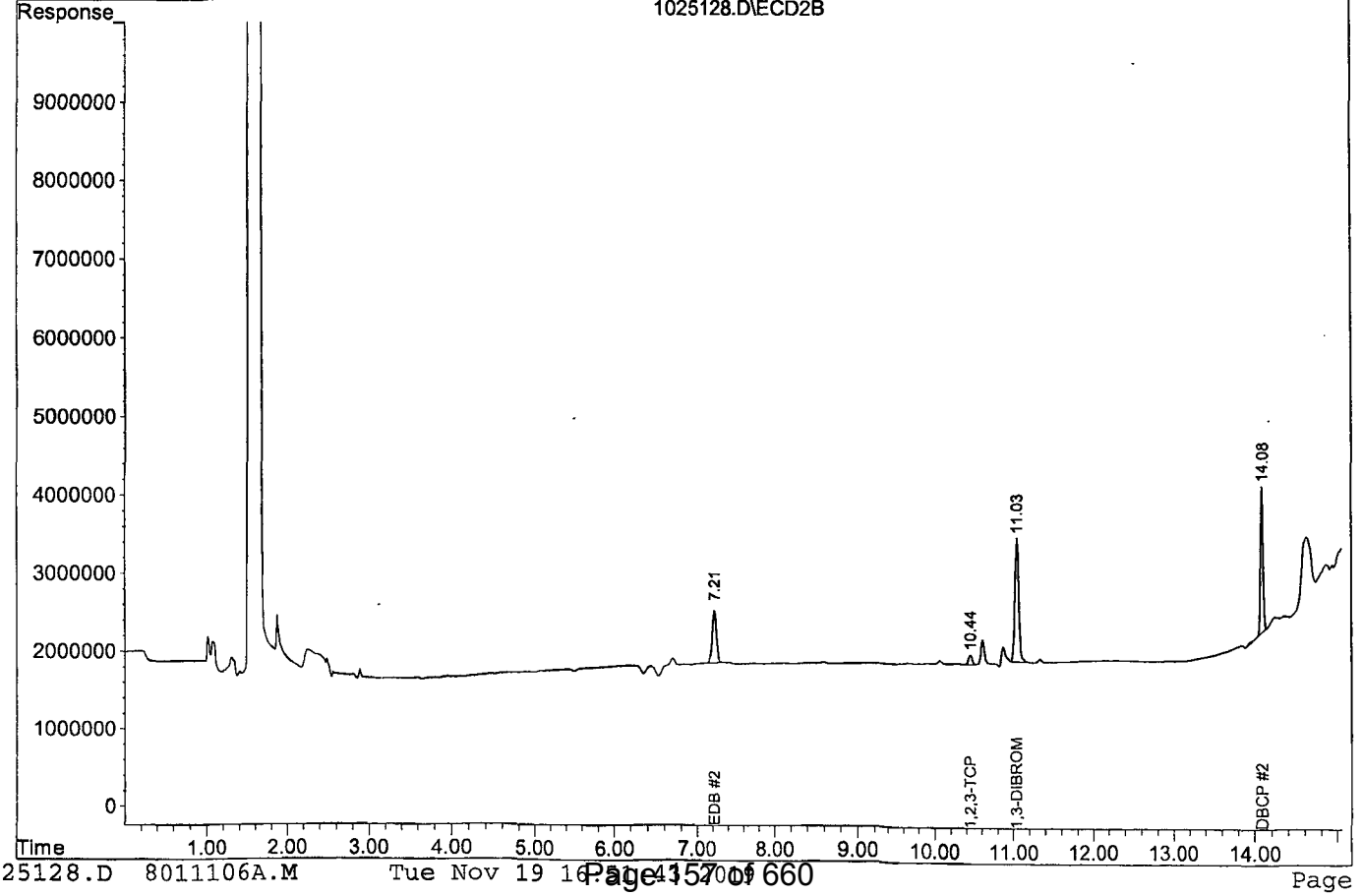
(f)=RT Delta > 1/2 Window (#)=Amounts differ >15% (m)=manual int.

Quantitation Report (Not Reviewed)

Data File : G:\HERBIE\DATA\191025\1025128.D
Acq On : 11-08-19 18:10:46
Sample : 8011 SS 11/06/19
Misc : water
Quant Method : G:\HERBIE\DATA\190814\8011106A.M

Vial: 26
Operator: MA,SS
Inst : Herbie
Multiplr: 1.00





DBCP/EDB/1,2,3-TCP Analysis by
504 8011

Form 7

Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix: Water

SDG No:
Date Analyzed: 11/08/19
Instrument: Herbie
Initial Cal. Date: 11/08/19
Data File: 1025137.D

		Compound	MEAN	CCRF	%D		%Drift
1	TM	EDB	749081	713396	4.8	TM	
2	TML	1,2,3-TCP	260381	246344	5.4	TML	9.4
3	S	1,3-DIBROMOPROPANE(S)	866299	1020390	18	S	
4	TM	DBCP	2872760	3075550	7.1	TM	
5							
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35							
36							
37							
38							
39							
40							
		Average			8.8		

DBCP/EDB/1,2,3-TCP Analysis by
504 8011

Form 7

Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix: Water

SDG No:
Date Analyzed: 11/08/19
Instrument: Herbie
Cal. Date: 11/08/19
Data File: 1025137.D

		Compound	MEAN	CCRF	%D	%Drift	
41	TM	EDB	3242340	3220210	0.68	TM	
42	TM	1,2,3-TCP	595963	632878	6.2	TM	
43	S	1,3-DIBROMOPROPANE(S)	2168190	2253730	3.9	S	
44	TM	DBCP	9395510	9829100	4.6	TM	
45							
46							
47							
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76							
77							
78							
79							
80							
		Average			3.8		

Quantitation Report (Not Reviewed)

Signal #1 : G:\HERBIE\DATA\191025\1025137.D\ECD1A.CH Vial: 22
Signal #2 : G:\HERBIE\DATA\191025\1025137.D\ECD2B.CH
Acq On : 11-08-19 21:14:21 Operator: MA,SS
Sample : 8011 3 11/06/19 Inst : Herbie
Misc : water Multiplr: 1.00
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Nov 12 14:22 2019 Quant Results File: 8011106A.RES

Quant Method : G:\HERBIE\DATA\190814\8011106A.M (RTE Integrator)
Title : 504.1 OR 8011
Last Update : Tue Nov 12 13:30:16 2019
Response via : Initial Calibration
DataAcq Meth : DOHS504.M

Volume Inj. : 2µL
Signal #1 Phase : DB-35MS Signal #2 Phase: DB-XLB
Signal #1 Info : 0.25 Signal #2 Info : 0.50

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
	System Monitoring Compounds						
3) S	1,3-DIBROMOPROPA	10.01	11.03	510194	1126863	0.294	0.260
Spiked Amount	0.350			Recovery	=	84.00%	74.29%
	Target Compounds						
1) TM	EDB	5.79	7.21	356698	1610106	0.238	0.248
2) TM	1,2,3-TCP	9.25	10.44	123172	316439	0.274	0.265
4) TM	DBCP	13.34	14.08	1537777	4914548	0.268	0.262

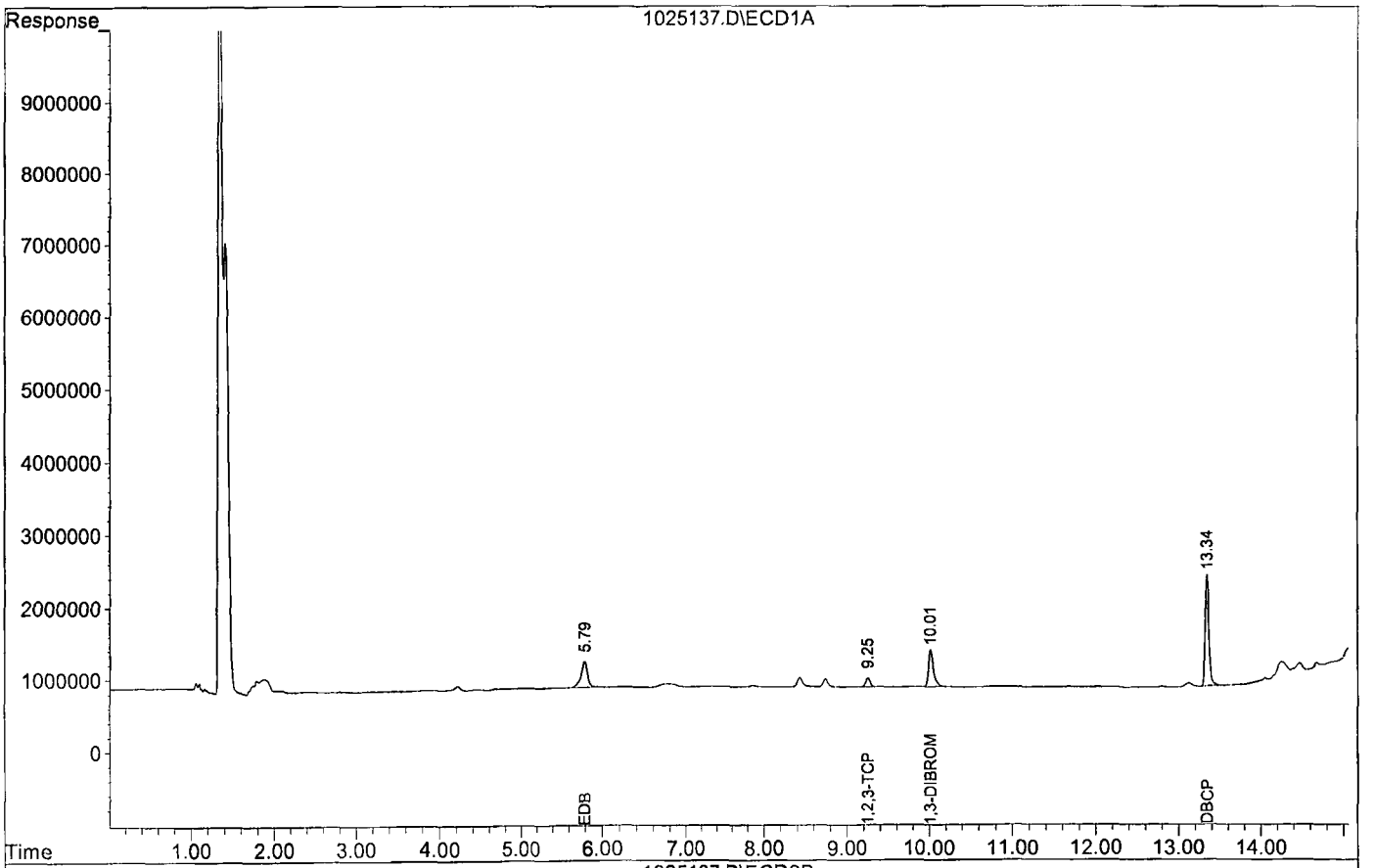
Target Compounds

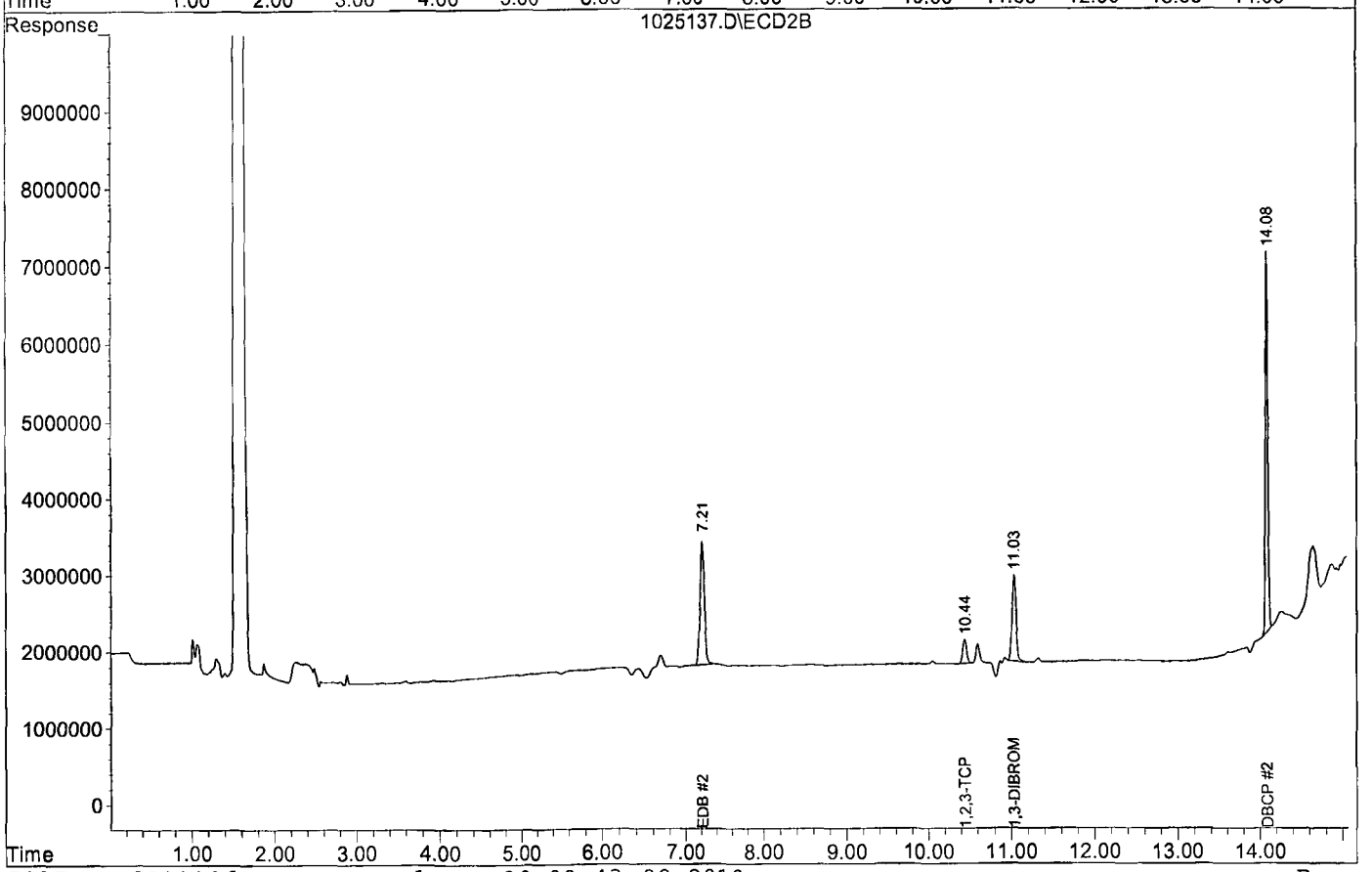
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (Not Reviewed)

Data File : G:\HERBIE\DATA\191025\1025137.D
Acq On : 11-08-19 21:14:21
Sample : 8011 3 11/06/19
Misc : water
Quant Method : G:\HERBIE\DATA\190814\8011106A.M

Vial: 22
Operator: MA,SS
Inst : Herbie
Multiplr: 1.00





ORGANICS
Raw Data

Quantitation Report (QT Reviewed)

Signal #1 : G:\HERBIE\DATA\191025\1025132.D\ECD1A.CH Vial: 30
Signal #2 : G:\HERBIE\DATA\191025\1025132.D\ECD2B.CH
Acq On : 11-08-19 19:32:35 Operator: MA,SS
Sample : BA02213W07 2/35.03G Inst : Herbie
Misc : water Multiplr: 1.00
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Nov 12 15:36 2019 Quant Results File: 8011106A.RES

Quant Method : G:\HERBIE\DATA\190814\8011106A.M (RTE Integrator)
Title : 504.1 OR 8011
Last Update : Tue Nov 12 13:30:16 2019
Response via : Initial Calibration
DataAcq Meth : DOHS504.M

Volume Inj. : 2µL
Signal #1 Phase : DB-35MS Signal #2 Phase: DB-XLB
Signal #1 Info : 0.25 Signal #2 Info : 0.50

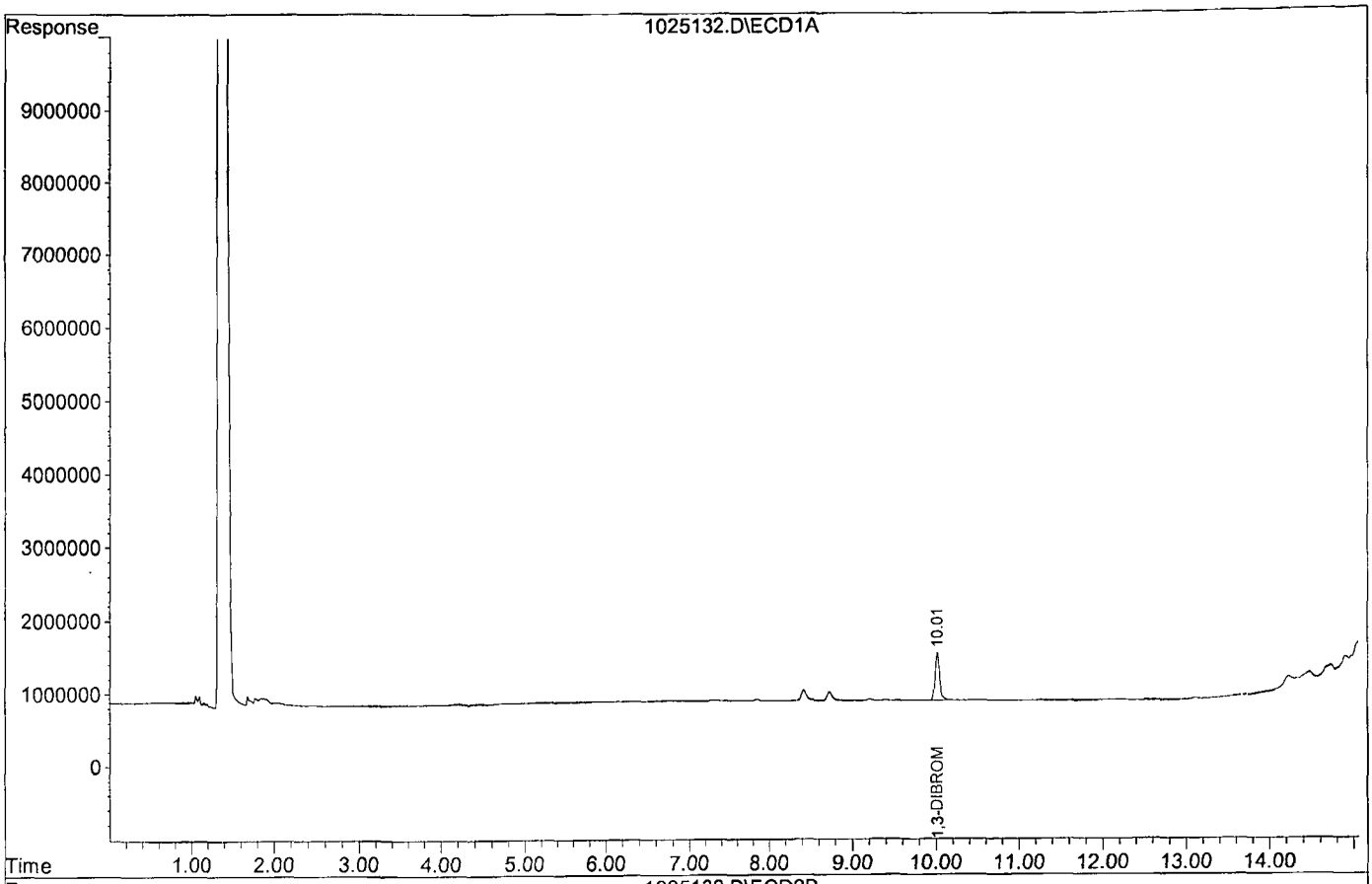
	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
	System Monitoring Compounds						
3) S	1,3-DIBROMOPROPA	10.01	11.03	656797	1622748	0.379	0.374
Spiked Amount	0.350			Recovery	=	108.29%	106.86%
	Target Compounds						
	Target Compounds						
1) TM	EDB	0.00	0.00	0	0	N.D. d	N.D. d
2) TM	1,2,3-TCP	0.00	0.00	0	0	N.D. d	N.D. d
4) TM	DBCP	0.00	0.00	0	0	N.D. d	N.D. d

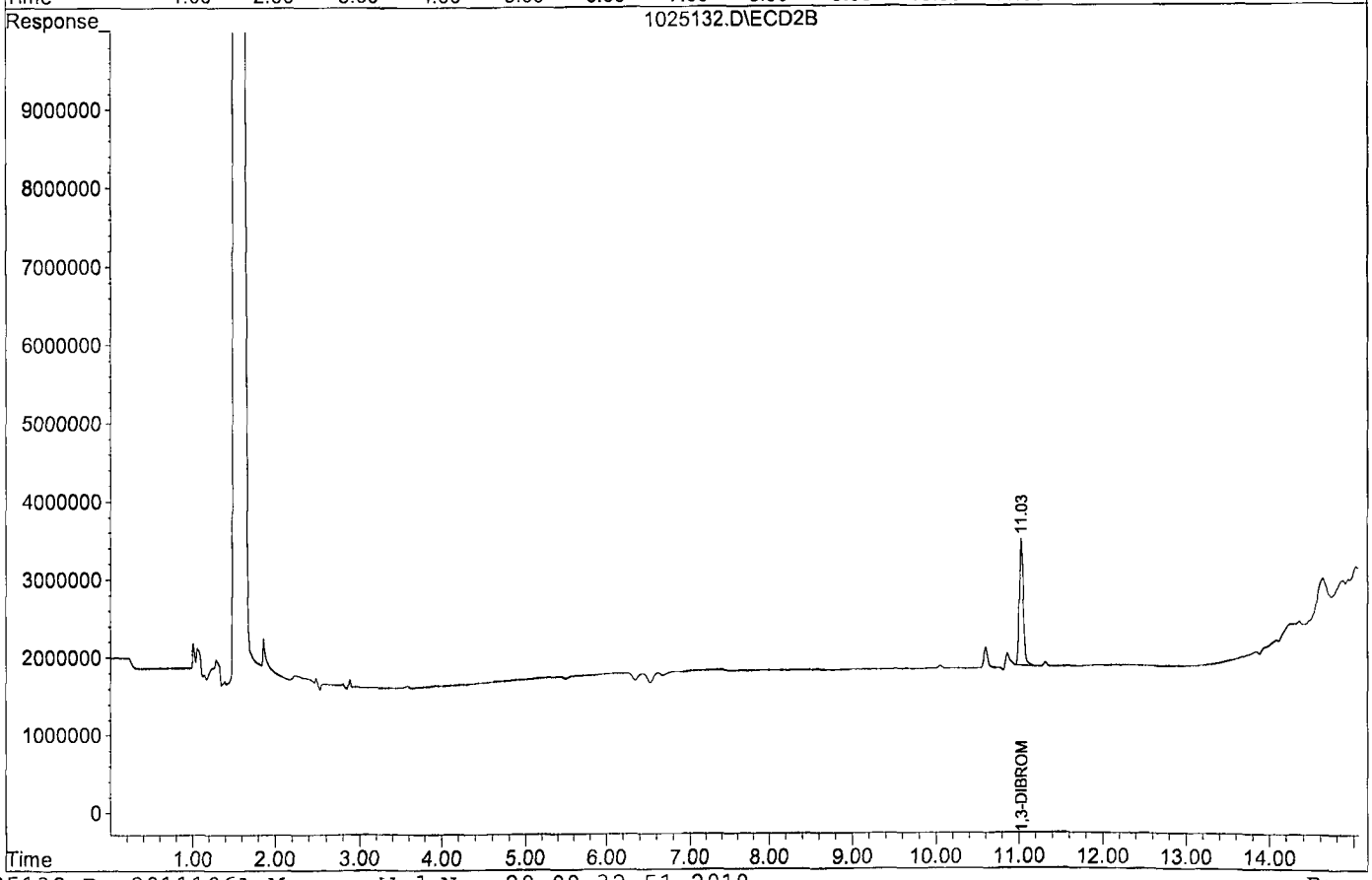
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : G:\HERBIE\DATA\191025\1025132.D
Acq On : 11-08-19 19:32:35
Sample : BA02213W07 2/35.03G
Misc : water
Quant Method : G:\HERBIE\DATA\190814\8011106A.M

Vial: 30
Operator: MA,SS
Inst : Herbie
Multiplr: 1.00





Quantitation Report (QT Reviewed)

Signal #1 : G:\HERBIE\DATA\191025\1025133.D\ECD1A.CH Vial: 31
Signal #2 : G:\HERBIE\DATA\191025\1025133.D\ECD2B.CH
Acq On : 11-08-19 19:53:06 Operator: MA,SS
Sample : BA02214W06 2/35.47G Inst : Herbie
Misc : water Multiplr: 1.00
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Nov 12 15:37 2019 Quant Results File: 8011106A.RES

Quant Method : G:\HERBIE\DATA\190814\8011106A.M (RTE Integrator)
Title : 504.1 OR 8011
Last Update : Tue Nov 12 13:30:16 2019
Response via : Initial Calibration
DataAcq Meth : DOHS504.M

Volume Inj. : 2µL
Signal #1 Phase : DB-35MS Signal #2 Phase: DB-XLB
Signal #1 Info : 0.25 Signal #2 Info : 0.50

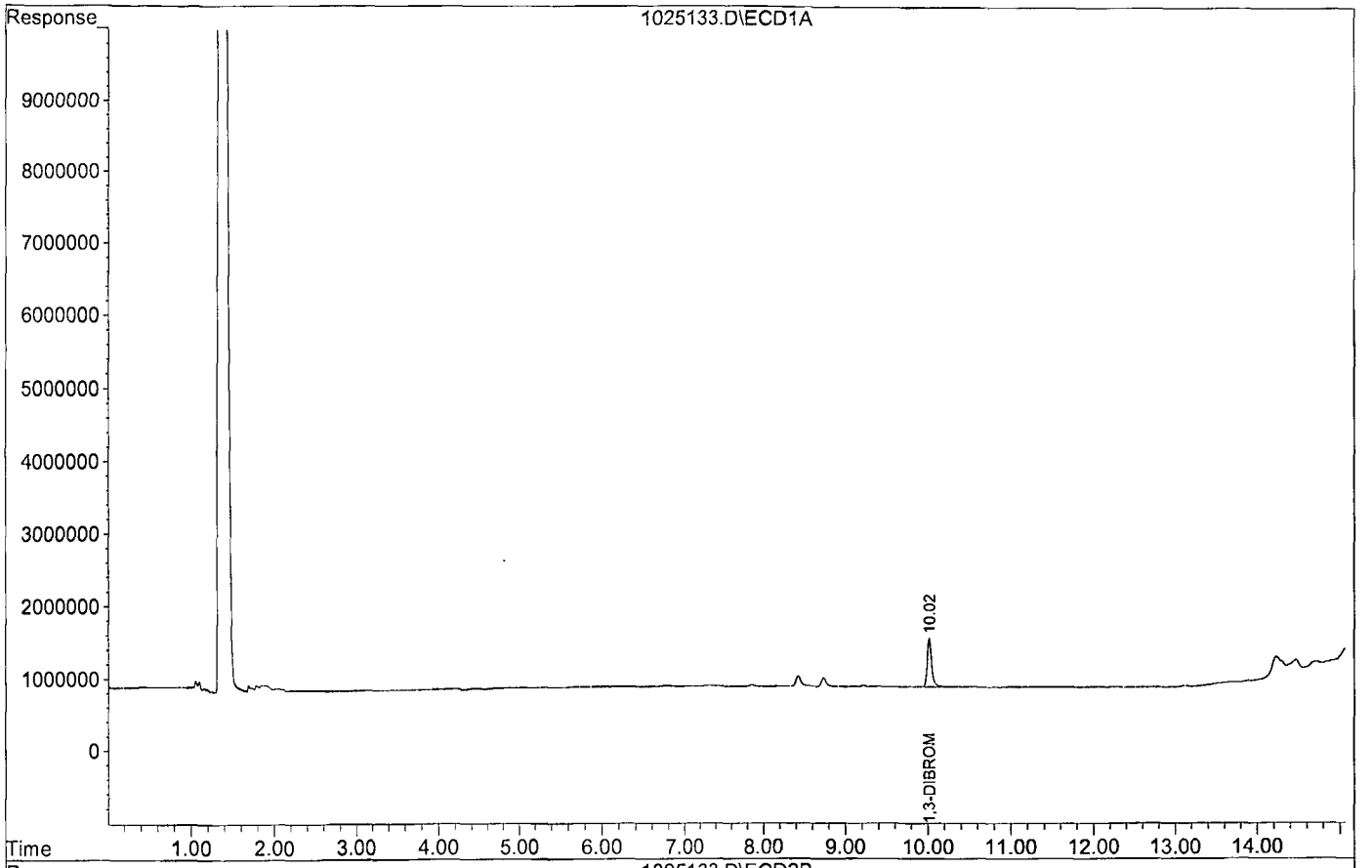
	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
	System Monitoring Compounds						
3)	S 1,3-DIBROMOPROPA	10.02	11.03	678195	1672556	0.391	0.386
	Spiked Amount 0.350			Recovery	=	111.71%	110.29%
	Target Compounds						
	Target Compounds						
1)	TM EDB	0.00	0.00	0	0	N.D. d	N.D. d
2)	TM 1,2,3-TCP	0.00	0.00	0	0	N.D. d	N.D. d
4)	TM DBCP	0.00	0.00	0	0	N.D. d	N.D. d

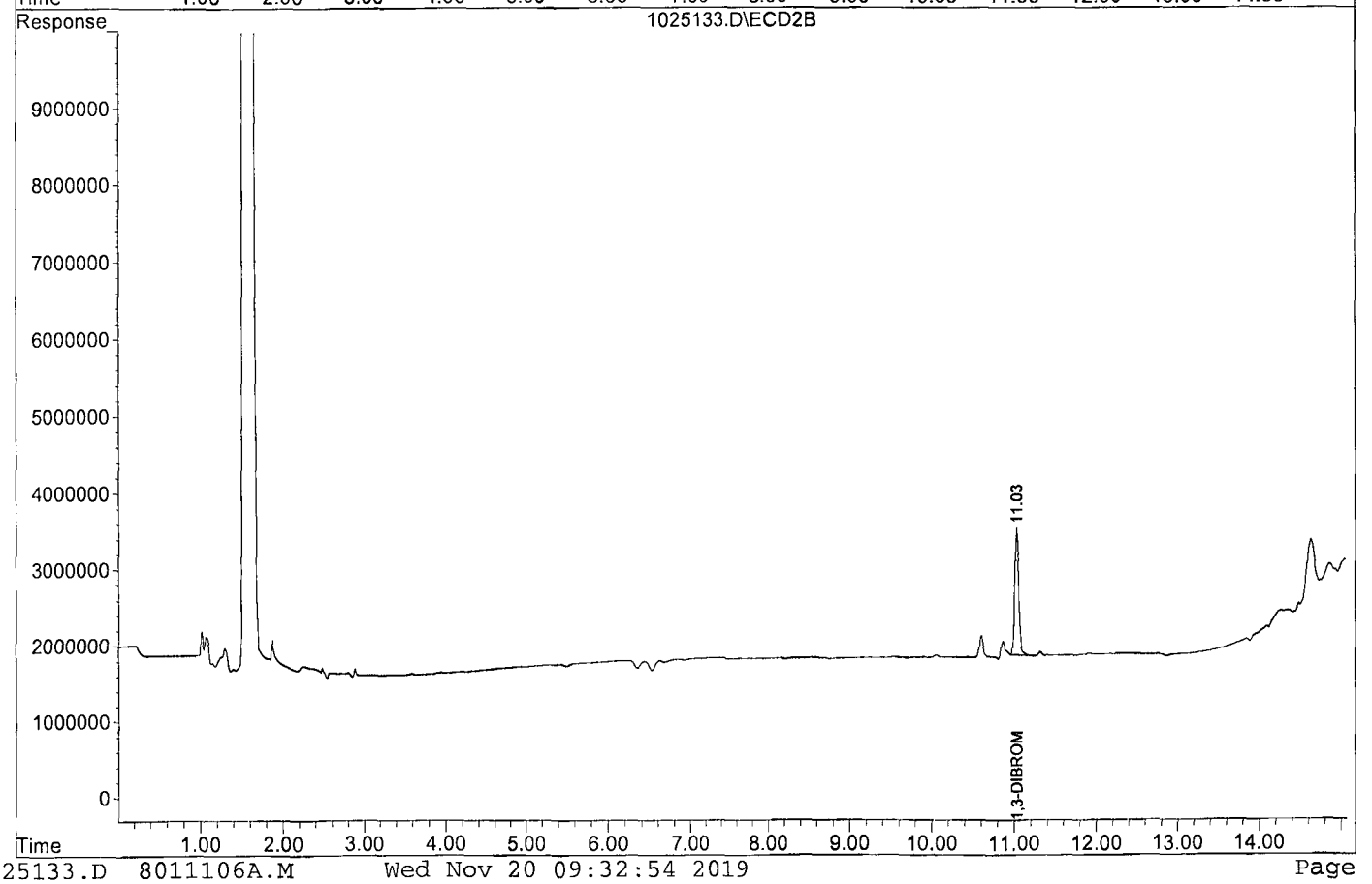
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : G:\HERBIE\DATA\191025\1025133.D
Acq On : 11-08-19 19:53:06
Sample : BA02214W06 2/35.47G
Misc : water
Quant Method : G:\HERBIE\DATA\190814\8011106A.M

Vial: 31
Operator: MA,SS
Inst : Herbie
Multiplr: 1.00





Quantitation Report (QT Reviewed)

Signal #1 : G:\HERBIE\DATA\191025\1025129.D\ECD1A.CH Vial: 27
Signal #2 : G:\HERBIE\DATA\191025\1025129.D\ECD2B.CH
Acq On : 11-08-19 18:31:13 Operator: MA,SS
Sample : 191106A BLK 2/35.15G Inst : Herbie
Misc : water Multiplr: 1.00
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Nov 12 15:35 2019 Quant Results File: 8011106A.RES

Quant Method : G:\HERBIE\DATA\190814\8011106A.M (RTE Integrator)
Title : 504.1 OR 8011
Last Update : Tue Nov 12 13:30:16 2019
Response via : Initial Calibration
DataAcq Meth : DOHS504.M

Volume Inj. : 2µL
Signal #1 Phase : DB-35MS Signal #2 Phase: DB-XLB
Signal #1 Info : 0.25 Signal #2 Info : 0.50

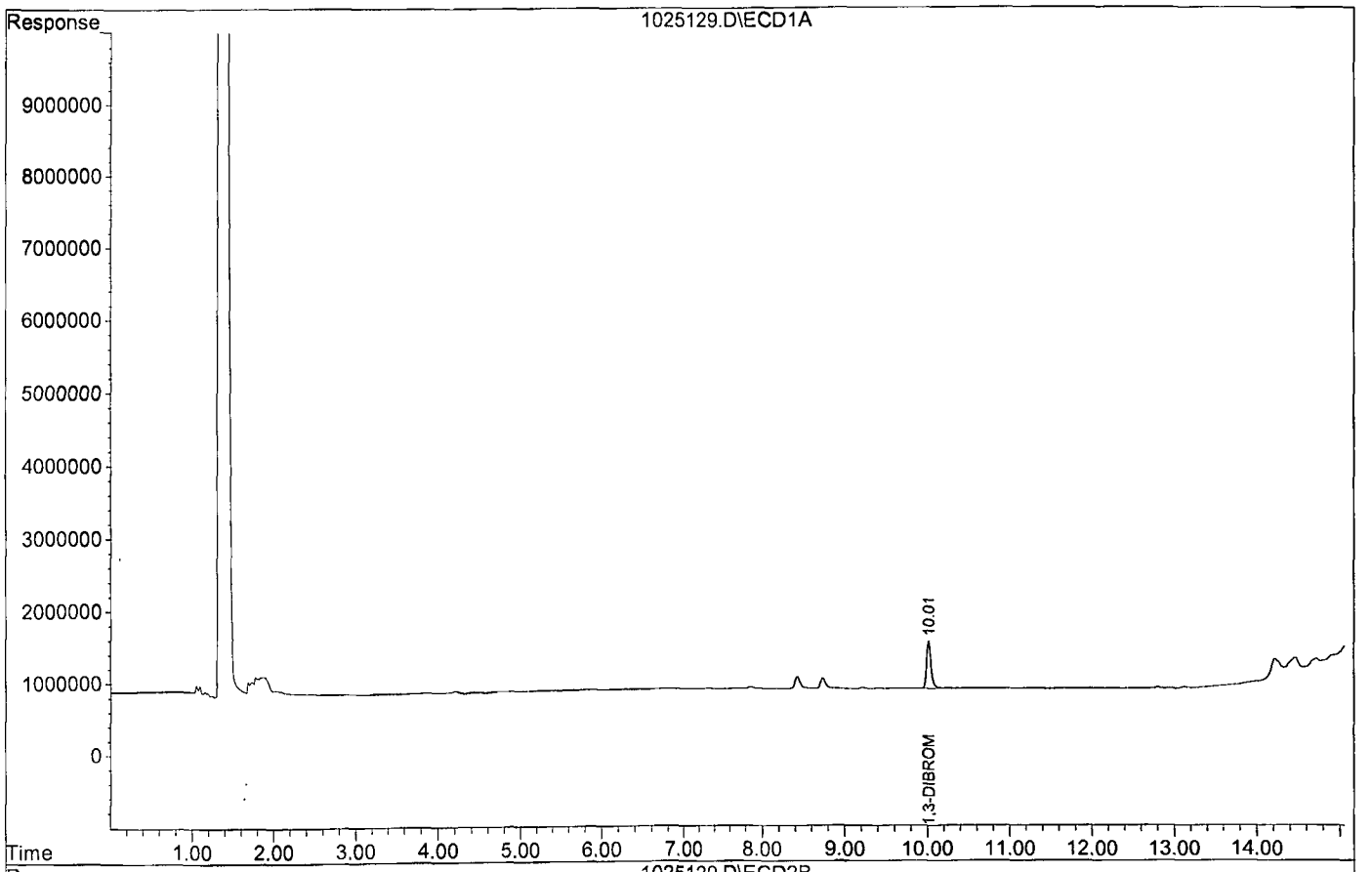
	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
	System Monitoring Compounds						
3) S	1,3-DIBROMOPROPA	10.01	11.03	663144	1640384	0.383	0.378
Spiked Amount	0.350			Recovery	=	109.43%	108.00%
	Target Compounds						
	Target Compounds						
1) TM	EDB	0.00	0.00	0	0	N.D. d	N.D. d
2) TM	1,2,3-TCP	0.00	0.00	0	0	N.D. d	N.D. d
4) TM	DBCP	0.00	0.00	0	0	N.D. d	N.D. d

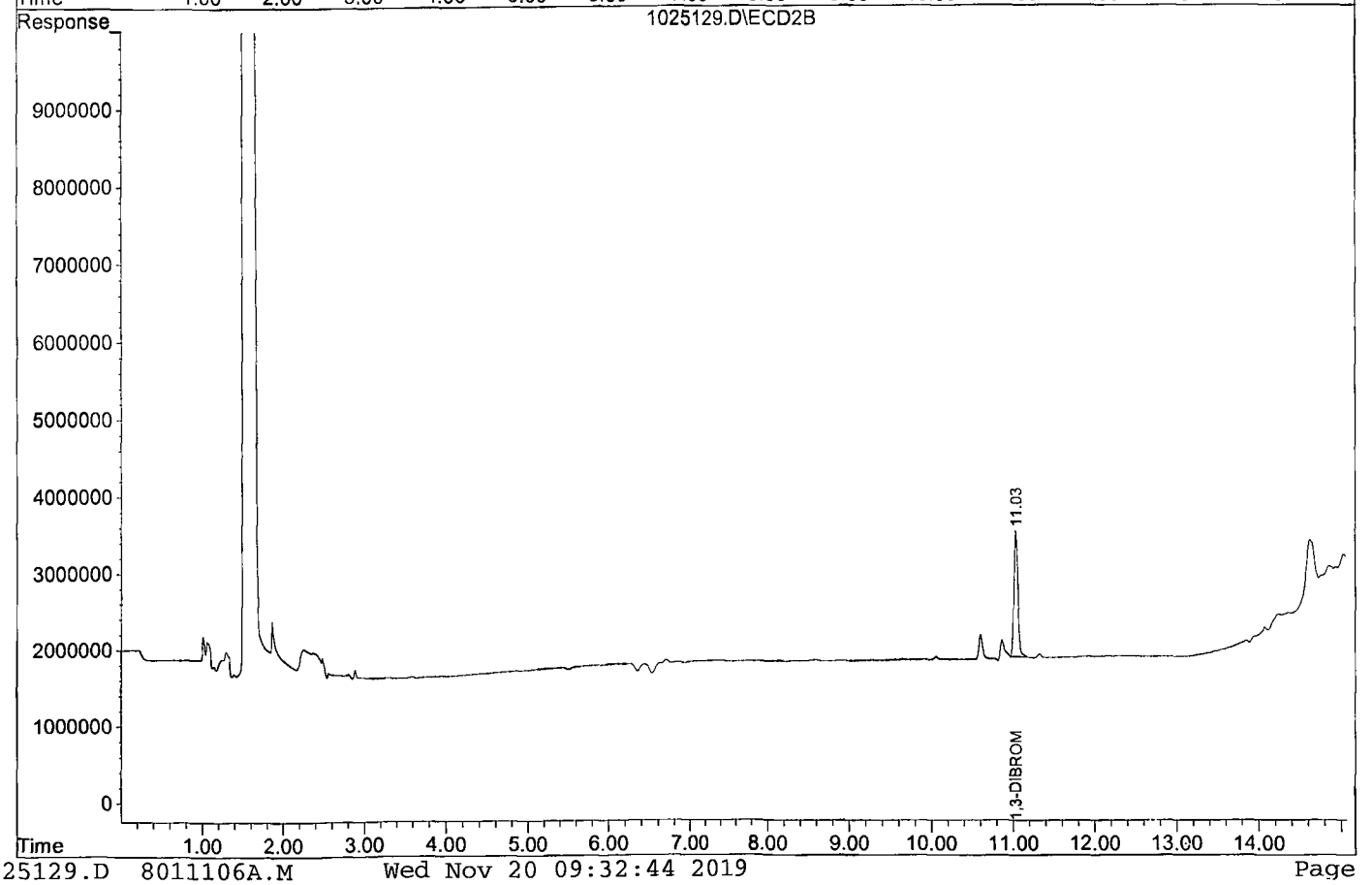
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : G:\HERBIE\DATA\191025\1025129.D
Acq On : 11-08-19 18:31:13
Sample : 191106A BLK 2/35.15G
Misc : water
Quant Method : G:\HERBIE\DATA\190814\8011106A.M

Vial: 27
Operator: MA,SS
Inst : Herbie
Multiplr: 1.00





Quantitation Report (Not Reviewed)

Signal #1 : G:\HERBIE\DATA\191025\1025130.D\ECD1A.CH Vial: 28
Signal #2 : G:\HERBIE\DATA\191025\1025130.D\ECD2B.CH
Acq On : 11-08-19 18:51:45 Operator: MA,SS
Sample : 191106A LCS-1 2/35.27G Inst : Herbie
Misc : water Multiplr: 1.00
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Nov 12 14:22 2019 Quant Results File: 8011106A.RES

Quant Method : G:\HERBIE\DATA\190814\8011106A.M (RTE Integrator)
Title : 504.1 OR 8011
Last Update : Tue Nov 12 13:30:16 2019
Response via : Initial Calibration
DataAcq Meth : DOHS504.M

Volume Inj. : 2µL
Signal #1 Phase : DB-35MS Signal #2 Phase: DB-XLB
Signal #1 Info : 0.25 Signal #2 Info : 0.50

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
	System Monitoring Compounds						
3)	S 1,3-DIBROMOPROPA	10.01	11.03	460761	1121093	0.266	0.259
	Spiked Amount 0.350			Recovery	=	76.00%	74.00%
	Target Compounds						
1)	TM EDB	5.79	7.21	374458	1609219	0.250	0.248
2)	TM 1,2,3-TCP	9.25	10.44	119997	312751	0.265	0.262
4)	TM DBCP	13.34	14.08	1504812	4716770	0.262	0.251

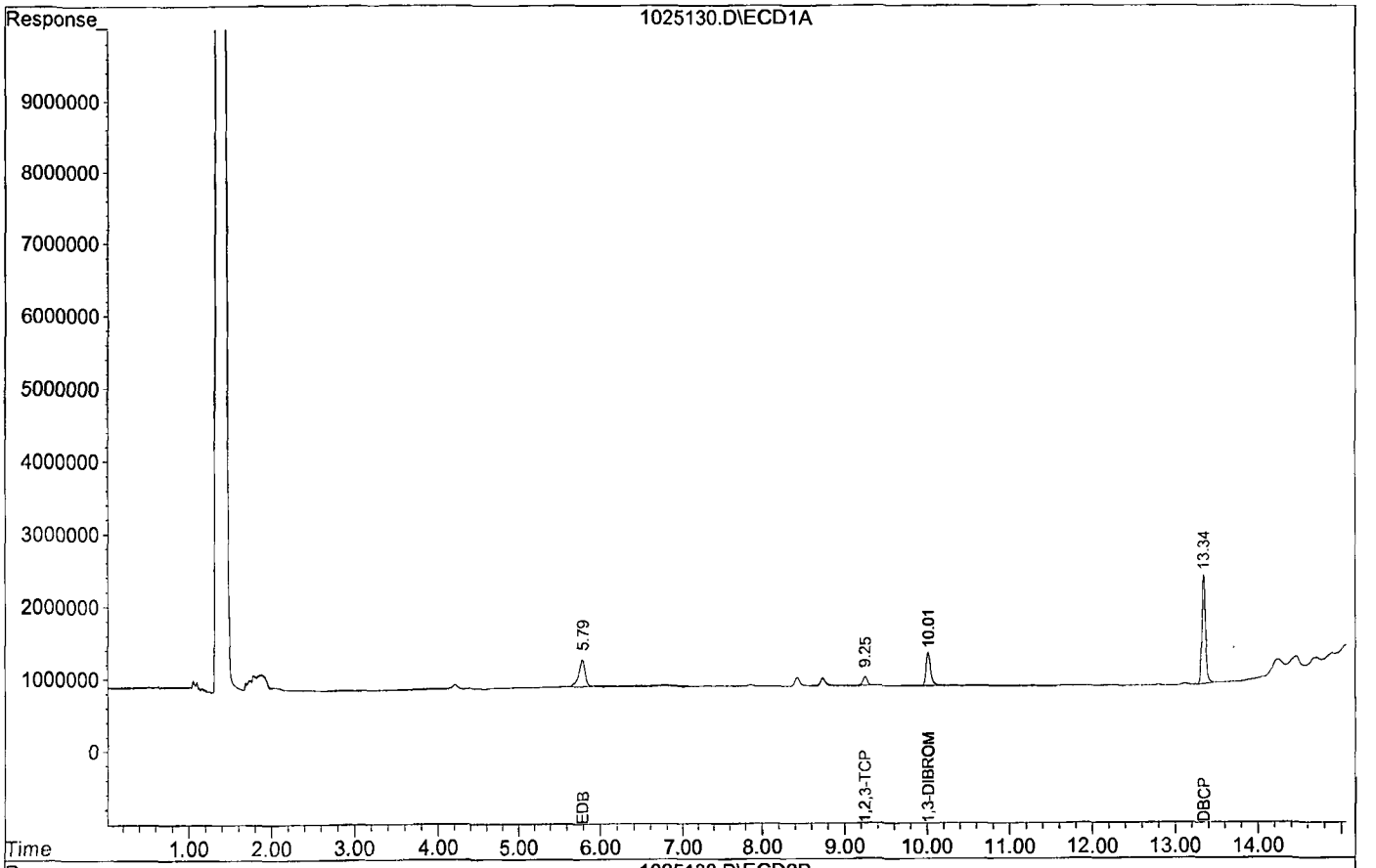
Target Compounds

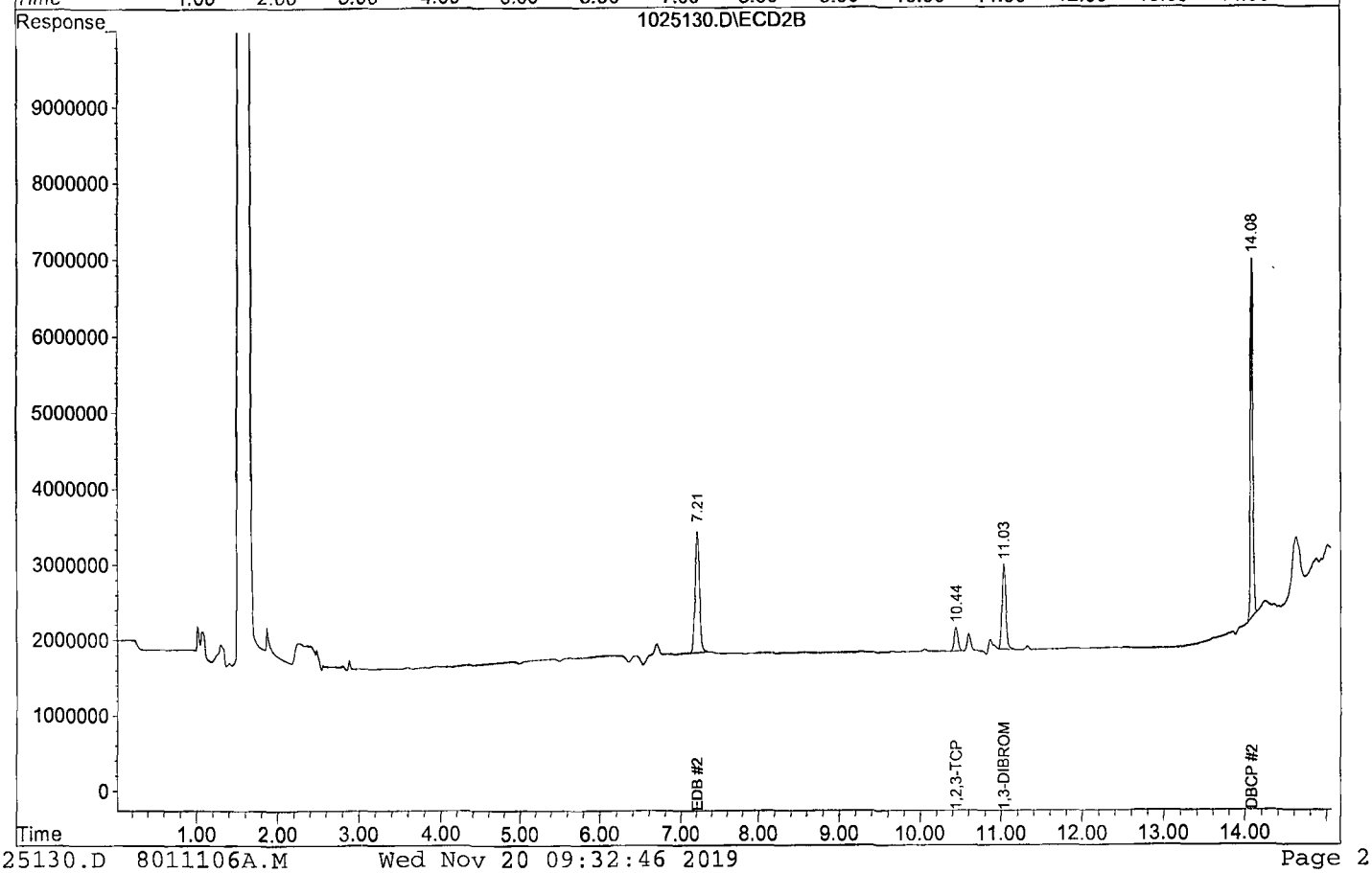
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (Not Reviewed)

Data File : G:\HERBIE\DATA\191025\1025130.D
Acq On : 11-08-19 18:51:45
Sample : 191106A LCS-1 2/35.27G
Misc : water
Quant Method : G:\HERBIE\DATA\190814\8011106A.M

Vial: 28
Operator: MA,SS
Inst : Herbie
Multiplr: 1.00





Quantitation Report (Not Reviewed)

Signal #1 : G:\HERBIE\DATA\191025\1025131.D\ECD1A.CH Vial: 29
Signal #2 : G:\HERBIE\DATA\191025\1025131.D\ECD2B.CH
Acq On : 11-08-19 19:12:10 Operator: MA,SS
Sample : 191106A LCSD-1 2/35.29G Inst : Herbie
Misc : water Multiplr: 1.00
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Nov 12 14:22 2019 Quant Results File: 8011106A.RES

Quant Method : G:\HERBIE\DATA\190814\8011106A.M (RTE Integrator)
Title : 504.1 OR 8011
Last Update : Tue Nov 12 13:30:16 2019
Response via : Initial Calibration
DataAcq Meth : DOHS504.M

Volume Inj. : 2µL
Signal #1 Phase : DB-35MS Signal #2 Phase: DB-XLB
Signal #1 Info : 0.25 Signal #2 Info : 0.50

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
	System Monitoring Compounds						
3) S	1,3-DIBROMOPROPA	10.01	11.03	466815	1106132	0.269	0.255
Spiked Amount	0.350			Recovery	=	76.86%	72.86%
	Target Compounds						
1) TM	EDB	5.79	7.21	370387	1607897	0.247	0.248
2) TM	1,2,3-TCP	9.25	10.44	121611	310695	0.270	0.261
4) TM	DBCP	13.34	14.08	1475759	4751403	0.257	0.253

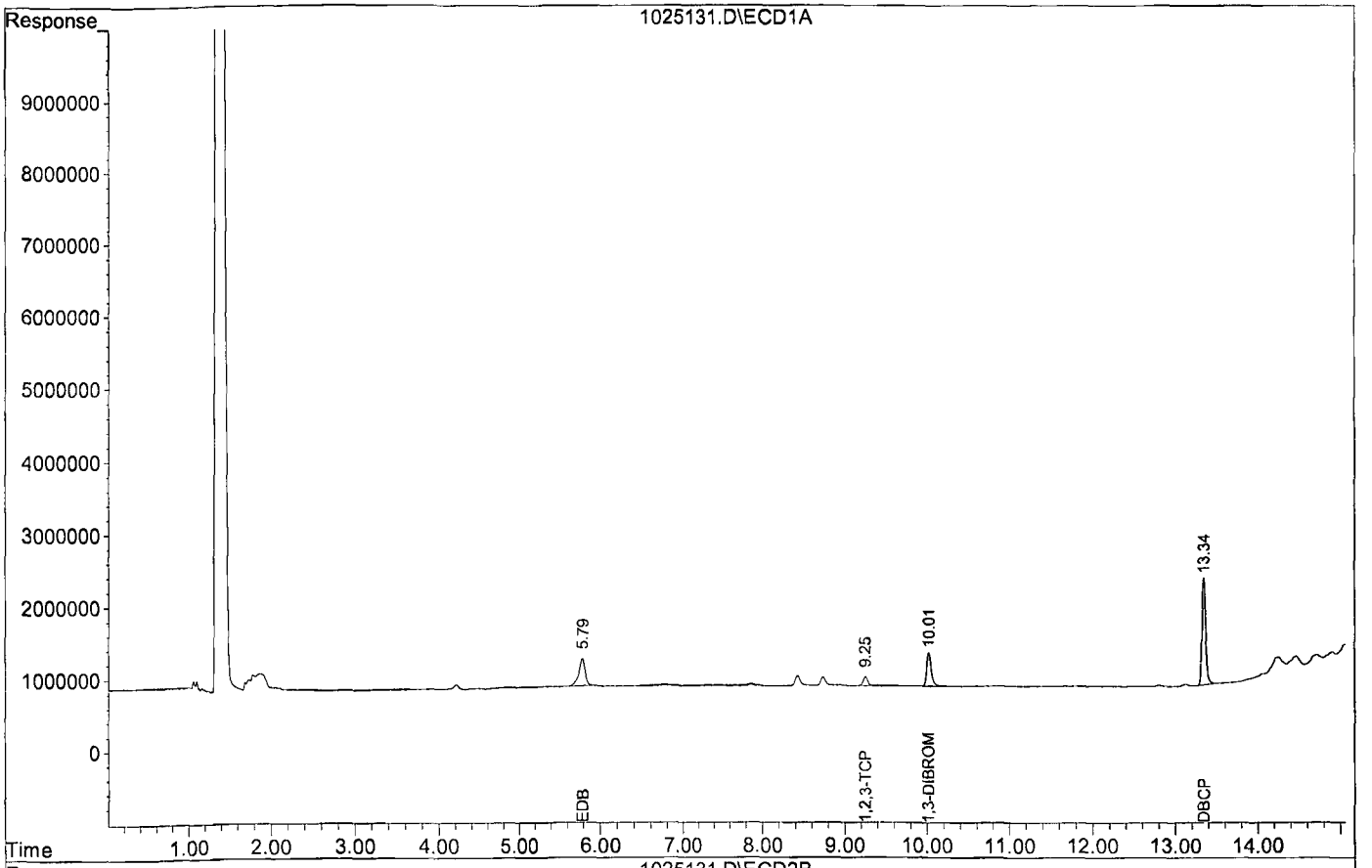
Target Compounds

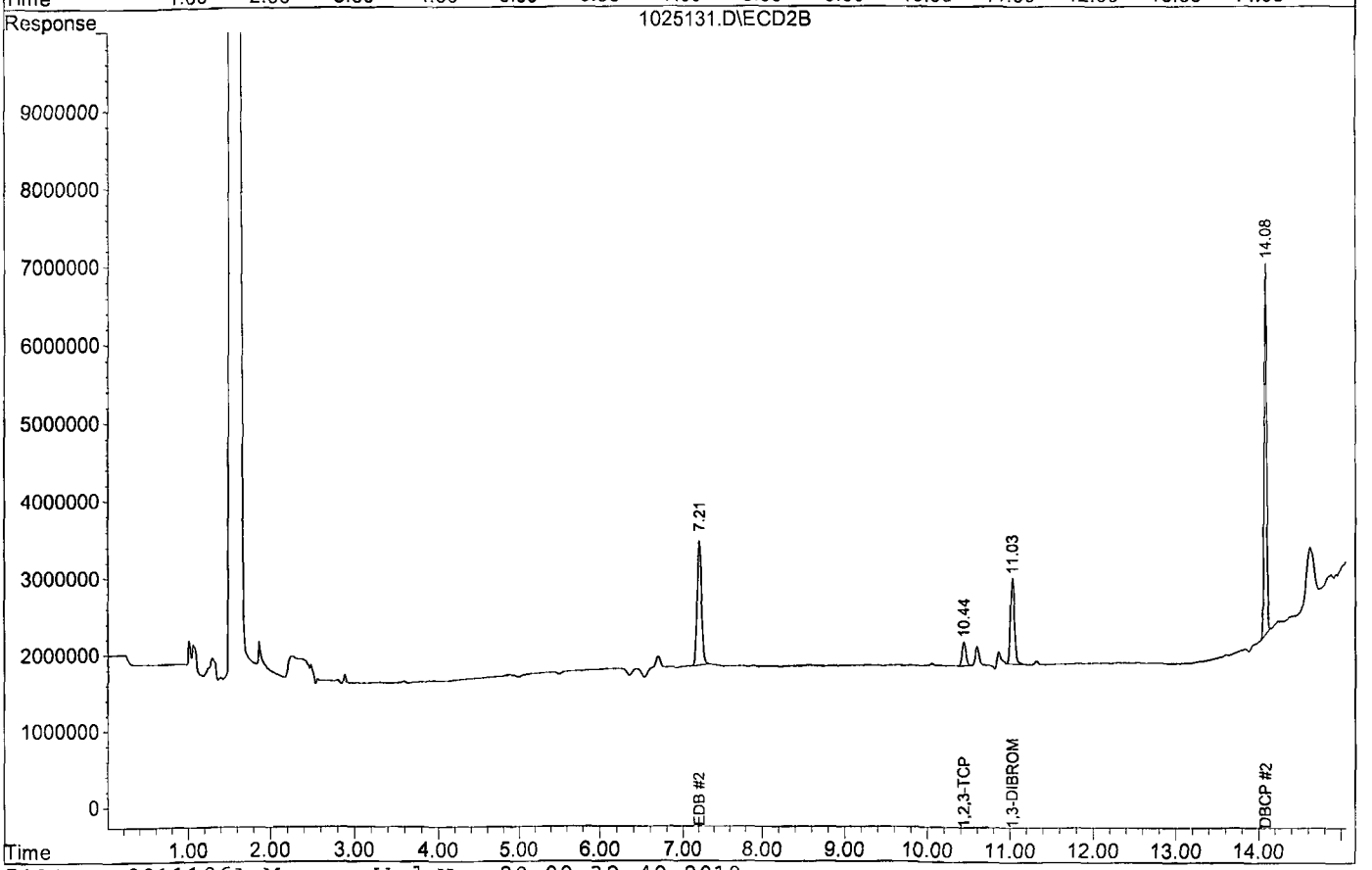
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (Not Reviewed)

Data File : G:\HERBIE\DATA\191025\1025131.D
Acq On : 11-08-19 19:12:10
Sample : 191106A LCSD-1 2/35.29G
Misc : water
Quant Method : G:\HERBIE\DATA\190814\8011106A.M

Vial: 29
Operator: MA,SS
Inst : Herbie
Multiplr: 1.00





Name of Final Standard 504/8011 Spike — **Prep'd By (Initials)** GA

Prep Date 10/31/19

Exp Date 01/06/20

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from container Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc.(range)
504/8011 Stock	APPL	504/8011 Stock	0.35 ug/mL	09/09/19	01/06/20	1000 uL	10 mL	Methanol #208858	0.035 ug/mL

Name of Final Standard 504/8011 SS SPK — **Prep'd By (Initials)** GA

Prep Date 08/07/19

Exp Date 12/07/19

Initial Standard Information						Final Standard Information			
(from container Label)	Supplier	APPL Mix Name)	Conc.(range)	to APPL prep date)	Exp Date	Stock	Volume	(or APPL Prep Date)	Conc (range)
504/8011 SS Stock	APPL	504/8011 SS Stock	0.35 ug/mL	01/22/19	01/06/20	1 mL	10 mL	Methanol #042317C	0.035 ug/mL

Name of Final Standard 504/8011 Surrogate — **Prep'd By (Initials)** GA

Prep Date 09/04/19

Exp Date 01/06/19

Initial Standard Information						Final Standard Information			
(from container Label)	Supplier	APPL Mix Name)	Conc.(range)	to APPL prep date)	Exp Date	Stock	Volume	(or APPL Prep Date)	Conc (range)
1,3 DBP	APPL	1,3 DBP Stock	100 ug/mL	05/07/19	01/06/20	35 uL	10 mL	Methanol #208858	0.35ug/ml

Organic Extraction Worksheet

Method	EPA Method 8011 DBCP/EDB	Extraction Set	191106A	Extraction Method	MWE012	Units	mL

Spiked ID 1	504.1 M. SPIKE 10/31/19 EXP 01/06/20		Surrogate ID 1	504.1 Surrogate 09/04/19 EXP 01/06/20	
Spiked ID 2	504.1 SS 08/07/19 EXP 12/17/19		Surrogate ID 2		
Spiked ID 3			Surrogate ID 3		
Spiked ID 4			Surrogate ID 4		
Spiked ID 5			Surrogate ID 5		
Spiked ID 6			Sufficient Vol for Matrix QC:		
Spiked ID 7			Ext. Start Time:	11/06/19 14:25	
Spiked ID 8			Ext. End Time:	11/08/19 17:05	
			GC Requires Extract By:		

pH1			Water Bath Temp 1 °C	
pH2			Water Bath Temp 2 °C	
pH3			Water Bath Temp 3 °C	

Spiked By: DL **Date** 11/06/19 2:25:00 PM **Witnessed By:** CFM **Date** 11/06/19 2:25:00 PM

	Sample	Sample Container	Spike Amount	Spike ID	Surrogate Amount	Surrogate ID	Extract Amount	Final Volume	pH	Extract Date/Time	Comments
1	191106A Blk				0.035	1 equip	35.15g	2	7	11/06/19 14:25	
2	191106A LCS-1		0.250	1	NA	NA equip	35.27g	2	7	11/06/19 14:25	
3	191106A LCSD-1		0.250	1	NA	NA equip	35.29g	2	7	11/06/19 14:25	
4	BA02213	BA02213W07			0.035	1 equip	35.03g	2	7	11/06/19 14:25	90611
5	BA02214	BA02214W06			0.035	1 equip	35.47g	2	7	11/06/19 14:25	90611
6	BA02300	BA02300W07			0.035	1 equip	35.03g	2	7	11/06/19 14:25	90625
7	BA02301	BA02301W07			0.035	1 equip	35.34g	2	7	11/06/19 14:25	90625
8	M STD 1		0.020	1	NA	NA equip	35.02g	2	7	11/06/19 14:25	
9	M STD 2		0.100	1	NA	NA equip	35.20g	2	7	11/06/19 14:25	
10	M STD 3		0.250	1	NA	NA equip	35.16g	2	7	11/06/19 14:25	
11	M STD 4		0.500	1	NA	NA equip	35.04g	2	7	11/06/19 14:25	
12	M STD 5		0.750	1	NA	NA equip	35.03g	2	7	11/06/19 14:25	
13	M STD 6		1	1	NA	NA equip	35.13g	2	7	11/06/19 14:25	
14	SS		0.100	2	0.035	1 equip	35.51g	2	7	11/06/19 14:25	

GA 11/20/19

Solvent and Lot#	
ph strip	HC863463
Sod. Thiosulfate	1016C241
NaCL	19A035211
GC2 Hexane (2mLs)	DT947

Extraction COC Transfer	
Extraction lab employee Initials	DL
GC analyst's initials	GA
Date	11/08/19
Time	15:00
Refrigerator	Hobart

	Technician's Initials
Scanned By	DL
Sample Preparation	DL
Extraction	DL
Concentration	DL

Modified	11/20/19 10:07:50 AM

Reviewed By: ga **Date** 11/20/19

11/20/19 10:16:31 AM Ext_ID 64995

Injection Log

Directory: G:\HERBIE\DATA\191025\

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	20	1025122.D	1	8011 1 11/06/19	water	11-08-19 16:07:44
2	21	1025123.D	1	8011 2 11/06/19	water	11-08-19 16:28:04
3	22	1025124.D	1	8011 3 11/06/19	water	11-08-19 16:48:46
4	23	1025125.D	1	8011 4 11/06/19	water	11-08-19 17:09:07
5	24	1025126.D	1	8011 5 11/06/19	water	11-08-19 17:29:40
6	25	1025127.D	1	8011 6 11/06/19	water	11-08-19 17:50:18
7	26	1025128.D	1	8011 SS 11/06/19	water	11-08-19 18:10:46
8	27	1025129.D	1	191106A BLK 2/35.15G	water	11-08-19 18:31:13
9	28	1025130.D	1	191106A LCS-1 2/35.27G	water	11-08-19 18:51:45
10	29	1025131.D	1	191106A LCSD-1 2/35.29G	water	11-08-19 19:12:10
11	30	1025132.D	1	BA02213W07 2/35.03G	water	11-08-19 19:32:35
12	31	1025133.D	1	BA02214W06 2/35.47G	water	11-08-19 19:53:06
15	22	1025137.D	1	8011 3 11/06/19	water	11-08-19 21:14:21

ORGANICS
Calibration Data

TPH Extractables
DOC1114

Form 6
Initial Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Initial Cal. Date: 11/14/19
Matrix: Water Instrument: Apollo
Initials:

			1114003.D	1114004.D	1114005.D	1114006.D	1114007.D	1114008.D									
		Compound	1	2	3	4	5	6					Avg	%RSD	Type	r^2	Q
1	HATM	Diesel (C10-C24)	2027964	1336430	1489661	1454530	1384113	1359697					1508733	17	HATM		
2	HBTM	Motor Oil (C24-C40)	776455	819947	771703	744158	810038	798760					786843	3.6	HBTM		
3	SAL	Ortho-Terphenyl(S)	2345827	1504455	1492939	1513819	1376726	1360942					1599118	23	SA	0.997	
4	SA	Octacosane(S)	1517911	1093917	1010508	997320	1111697	1064489					1132640	17	SA		
5																	
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35																	

1.749733

Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\191114\1114003.D Vial: 3
Acq On : 11-14-19 19:39:49 Operator: BT
Sample : Diesel Motor Oil - 1 11/14/19 Inst : Apollo
Misc : water Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 15 9:20 2019 Quant Results File: DOC1114.RES

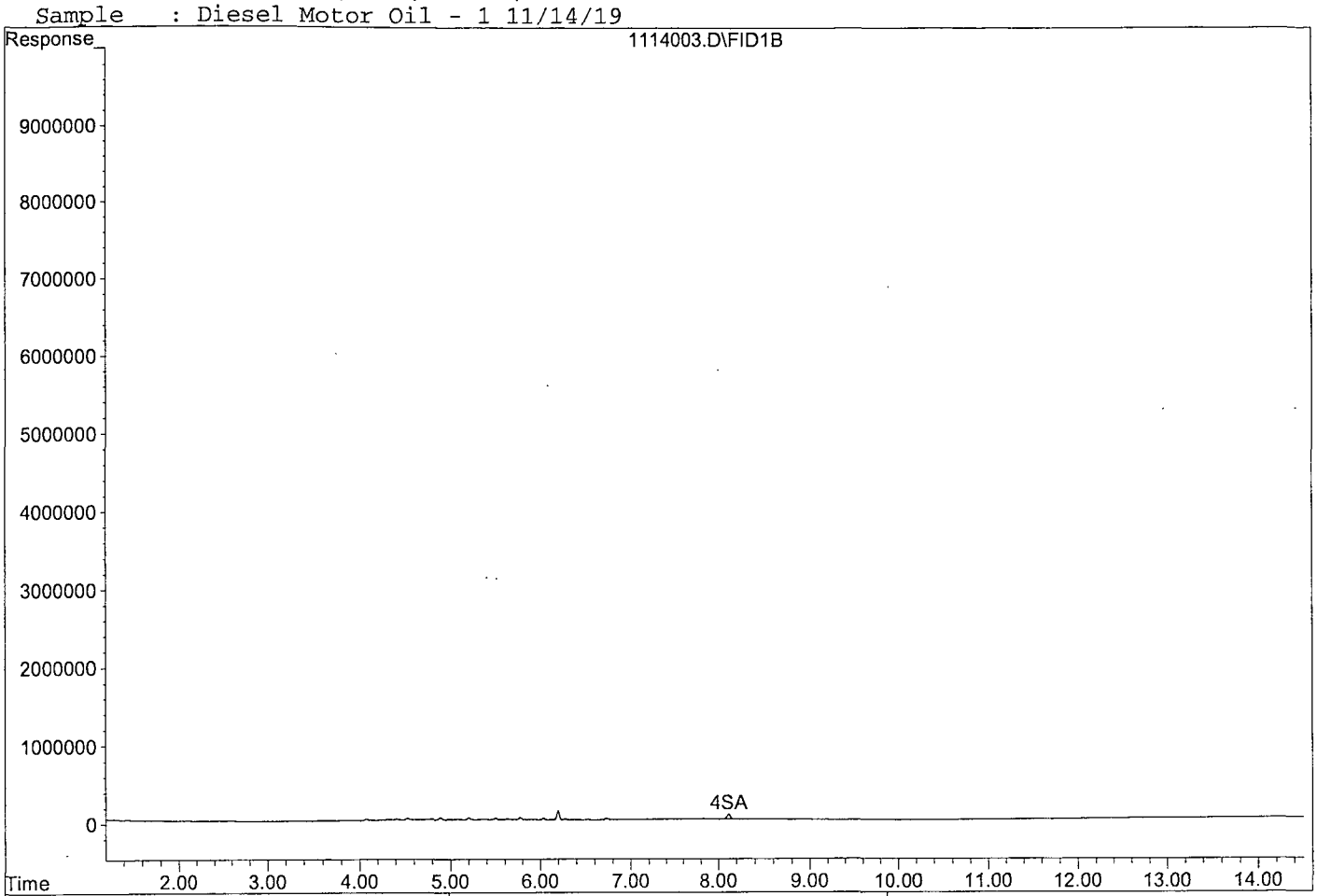
Method : G:\APOLLO\DATA\191114\DOC1114.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Nov 15 09:19:04 2019
Response via : Multiple Level Calibration

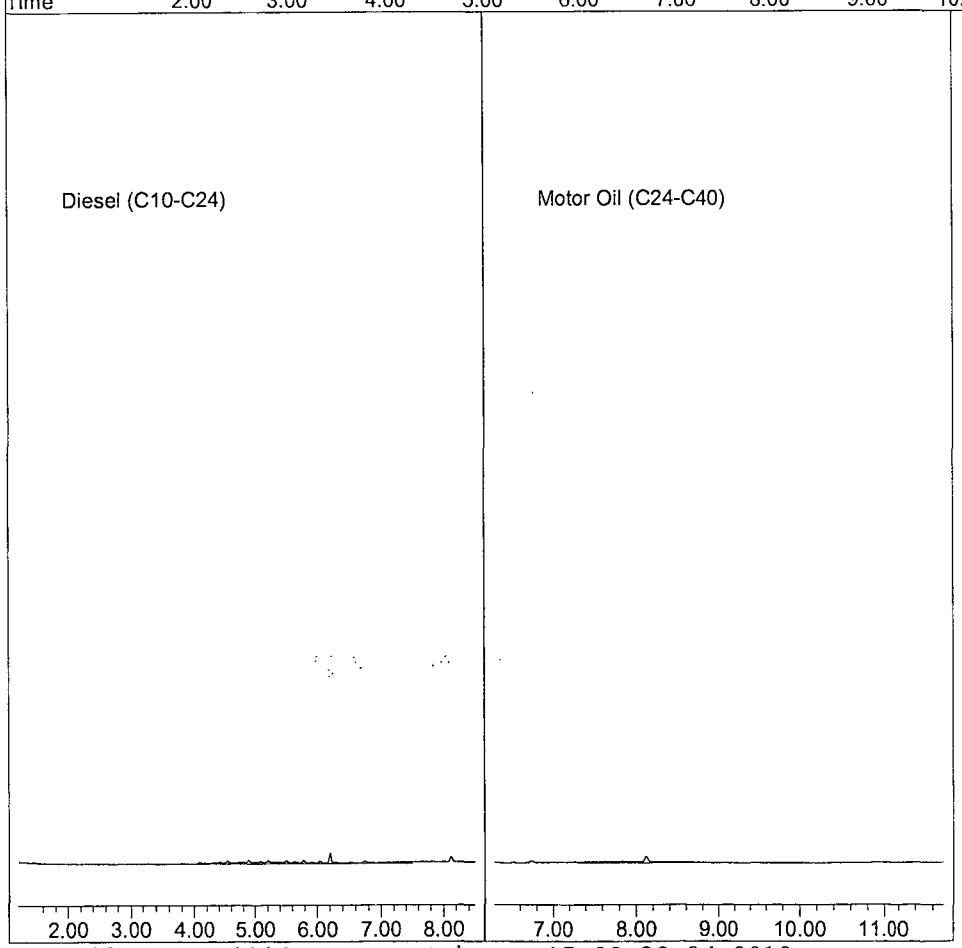
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) SA Ortho-Terphenyl(S)	6.20	2345827	N.D. ppb
Surrogate Spike 30.000	Recovery =		0.00%
4) SA Octacosane(S)	8.11	1517911	0.670 ppb
Surrogate Spike 30.000	Recovery =		2.23%
Target Compounds			
1) HATM Diesel (C10-C24)	4.42	40559274	13.446 ppb
2) HBTM Motor Oil (C24-C40)	9.01	15529092	9.868 ppb
Target Compounds			

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: G:\APOLLO\DATA\191114\1114003.D
Sample : Diesel Motor Oil - 1 11/14/19

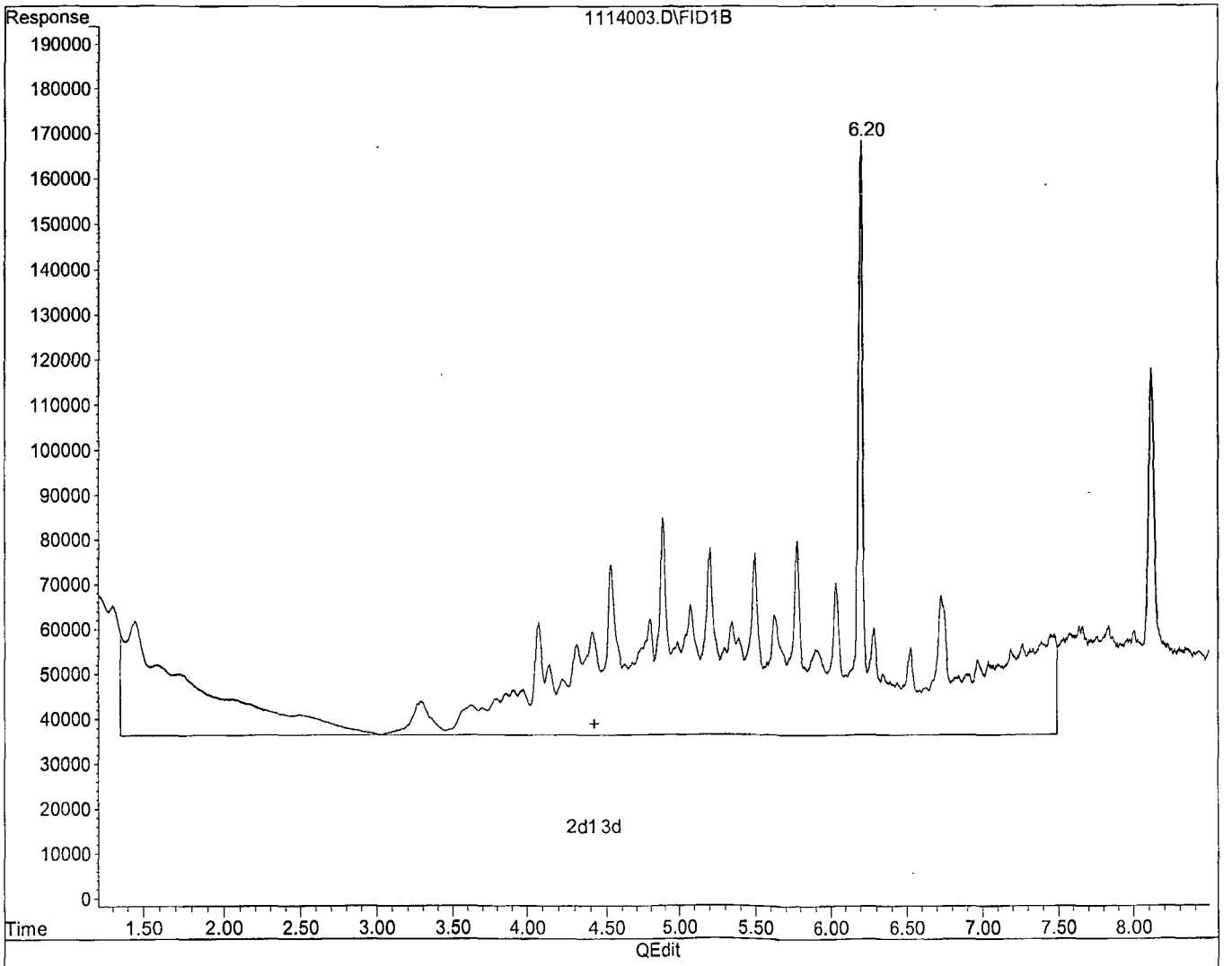




Quantitation Report

Data File : G:\APOLLO\DATA\191114\1114003.D Vial: 3
Acq On : 11-14-19 19:39:49 Operator: BT
Sample : Diesel Motor Oil - 1 11/14/19 Inst : Apollo
Misc : water Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 15 9:19 2019 Quant Results File: DOC1114.RES

Method : G:\APOLLO\DATA\191114\DOC1114.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Nov 15 09:19:04 2019
Response via : Multiple Level Calibration



(1) Diesel (C10-C24) (HATM)

4.42min 16.132ppb m

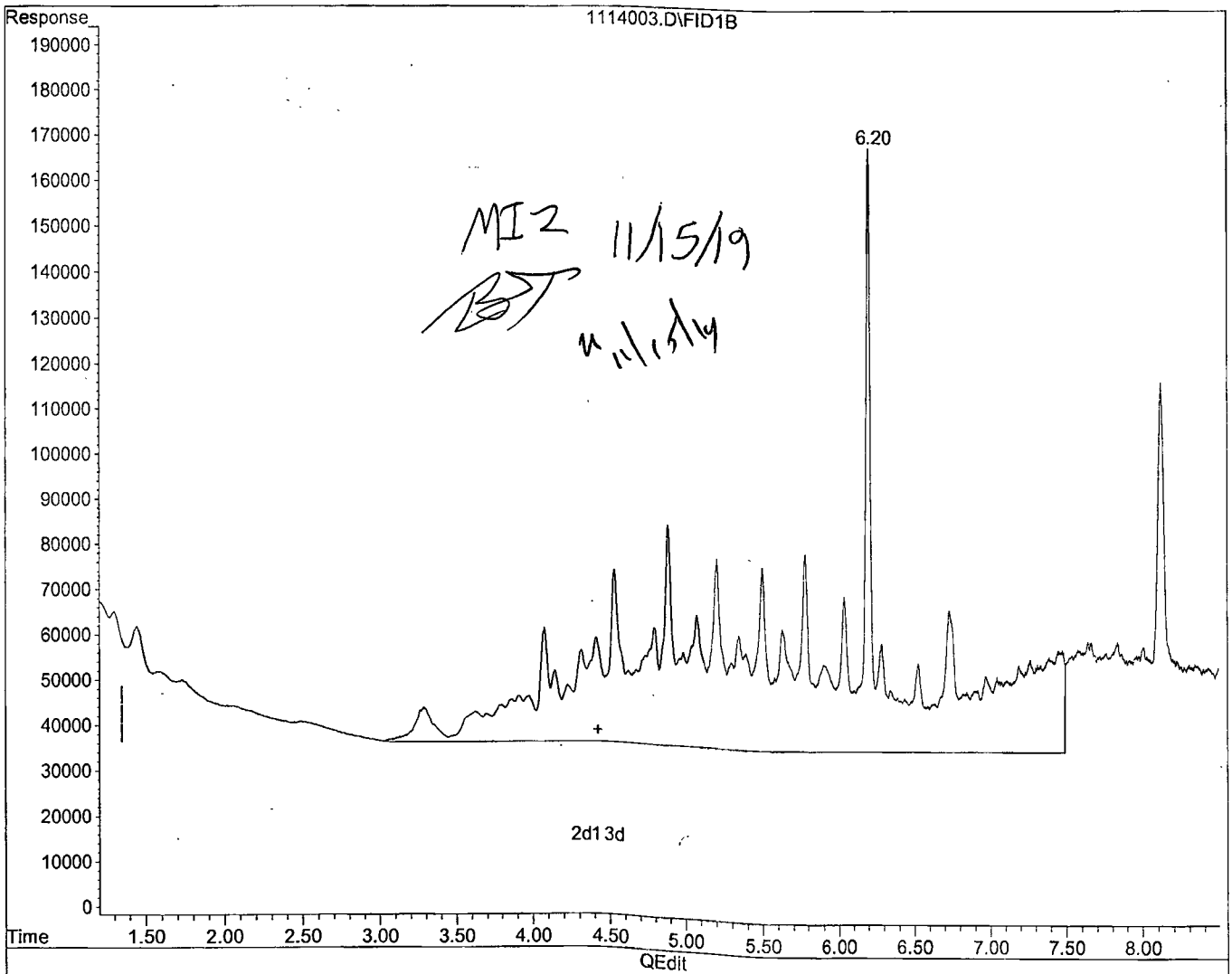
response 48662424

(+) = Expected Retention Time

Quantitation Report

Data File : G:\APOLLO\DATA\191114\1114003.D Vial: 3
Acq On : 11-14-19 19:39:49 Operator: BT
Sample : Diesel Motor Oil - 1 11/14/19 Inst : Apollo
Misc : water Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 15 9:19 2019 Quant Results File: DOC1114.RES

Method : G:\APOLLO\DATA\191114\DOC1114.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Nov 15 09:19:04 2019
Response via : Multiple Level Calibration



(1) Diesel (C10-C24) (HATM)

4.42min 13.446ppb m

response 40559274

(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\191114\1114004.D Vial: 4
Acq On : 11-14-19 19:59:46 Operator: BT
Sample : Diesel Motor Oil - 2 11/14/19 Inst : Apollo
Misc : water Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 15 9:21 2019 Quant Results File: DOC1114.RES

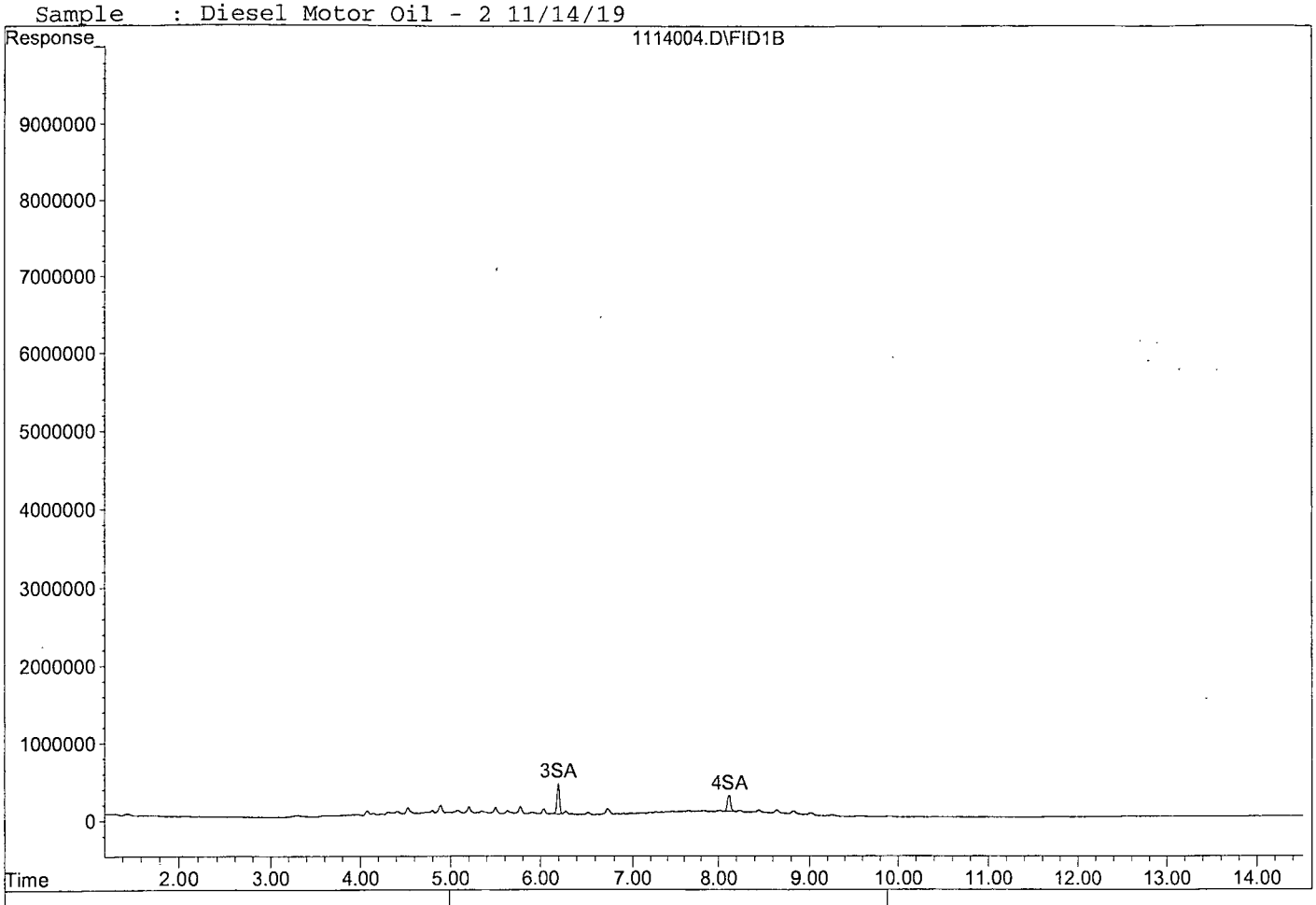
Method : G:\APOLLO\DATA\191114\DOC1114.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Nov 15 09:19:04 2019
Response via : Multiple Level Calibration

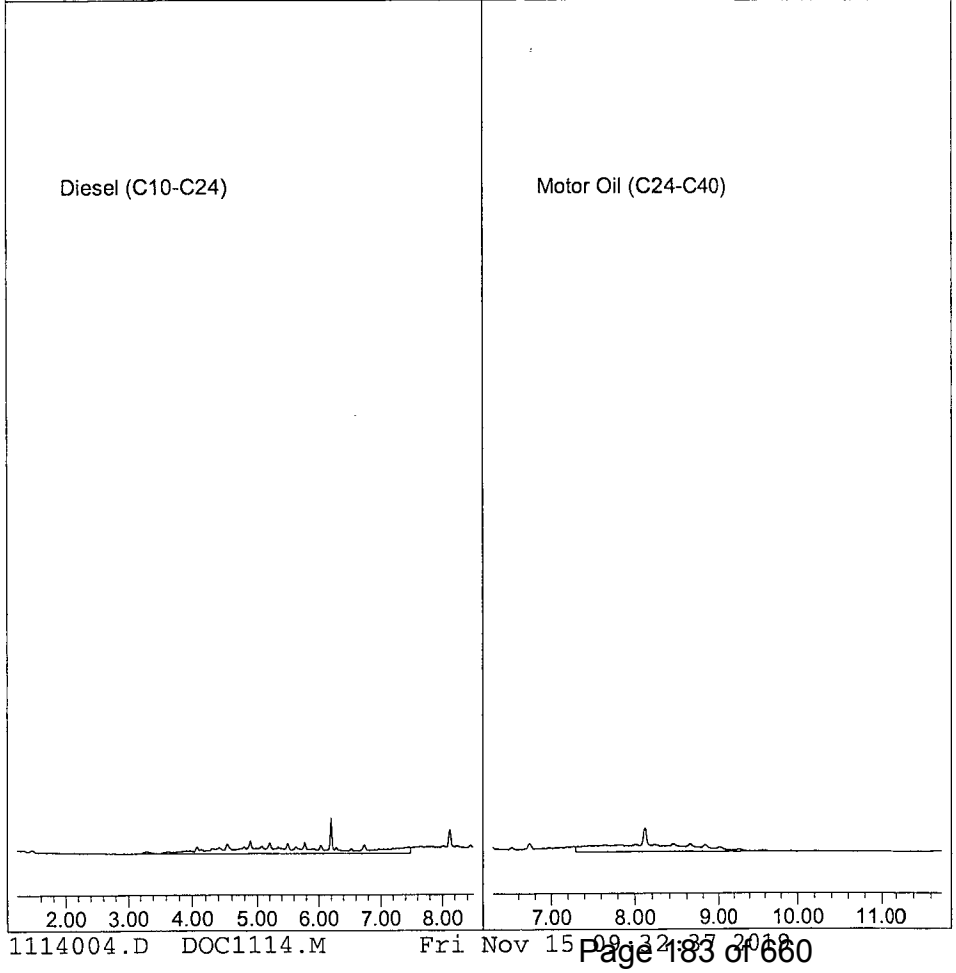
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) SA Ortho-Terphenyl(S)	6.20	7522274	1.503 ppb
Surrogate Spike 30.000	Recovery =		5.01%
4) SA Octacosane(S)	8.12	5469585	2.415 ppb
Surrogate Spike 30.000	Recovery =		8.05%
Target Compounds			
1) HATM Diesel (C10-C24)	4.42	133643009	44.304 ppb
2) HBTM Motor Oil (C24-C40)	9.01	81994744	52.104 ppb
Target Compounds			

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: G:\APOLLO\DATA\191114\1114004.D
Sample : Diesel Motor Oil - 2 11/14/19

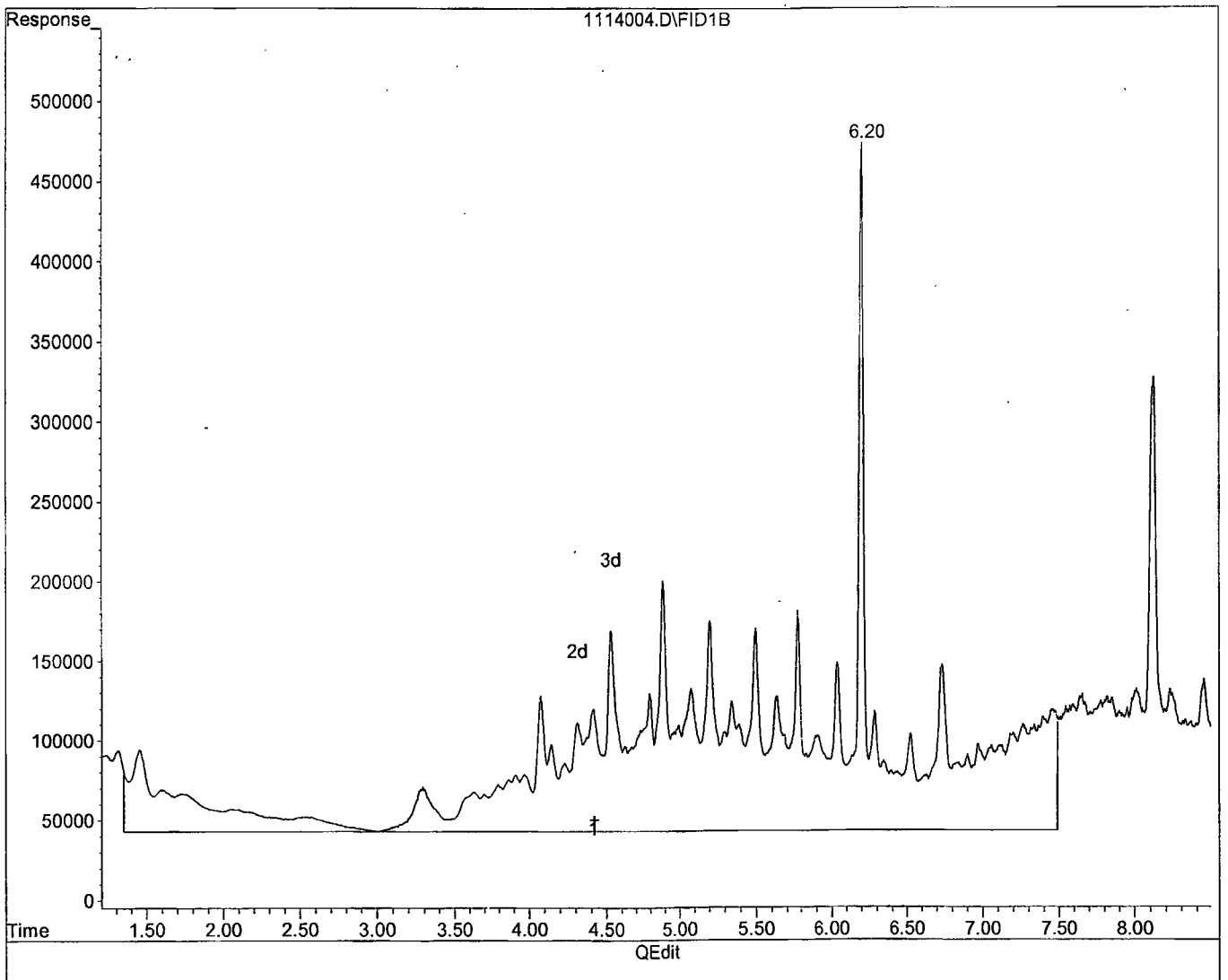




Quantitation Report

Data File : G:\APOLLO\DATA\191114\1114004.D Vial: 4
Acq On : 11-14-19 19:59:46 Operator: BT
Sample : Diesel Motor Oil - 2 11/14/19 Inst : Apollo
Misc : water Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 15 9:19 2019 Quant Results File: DOC1114.RES

Method : G:\APOLLO\DATA\191114\DOC1114.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Nov 15 09:19:04 2019
Response via : Multiple Level Calibration



(1) Diesel (C10-C24) (HATM)

4.42min 48.922ppb m

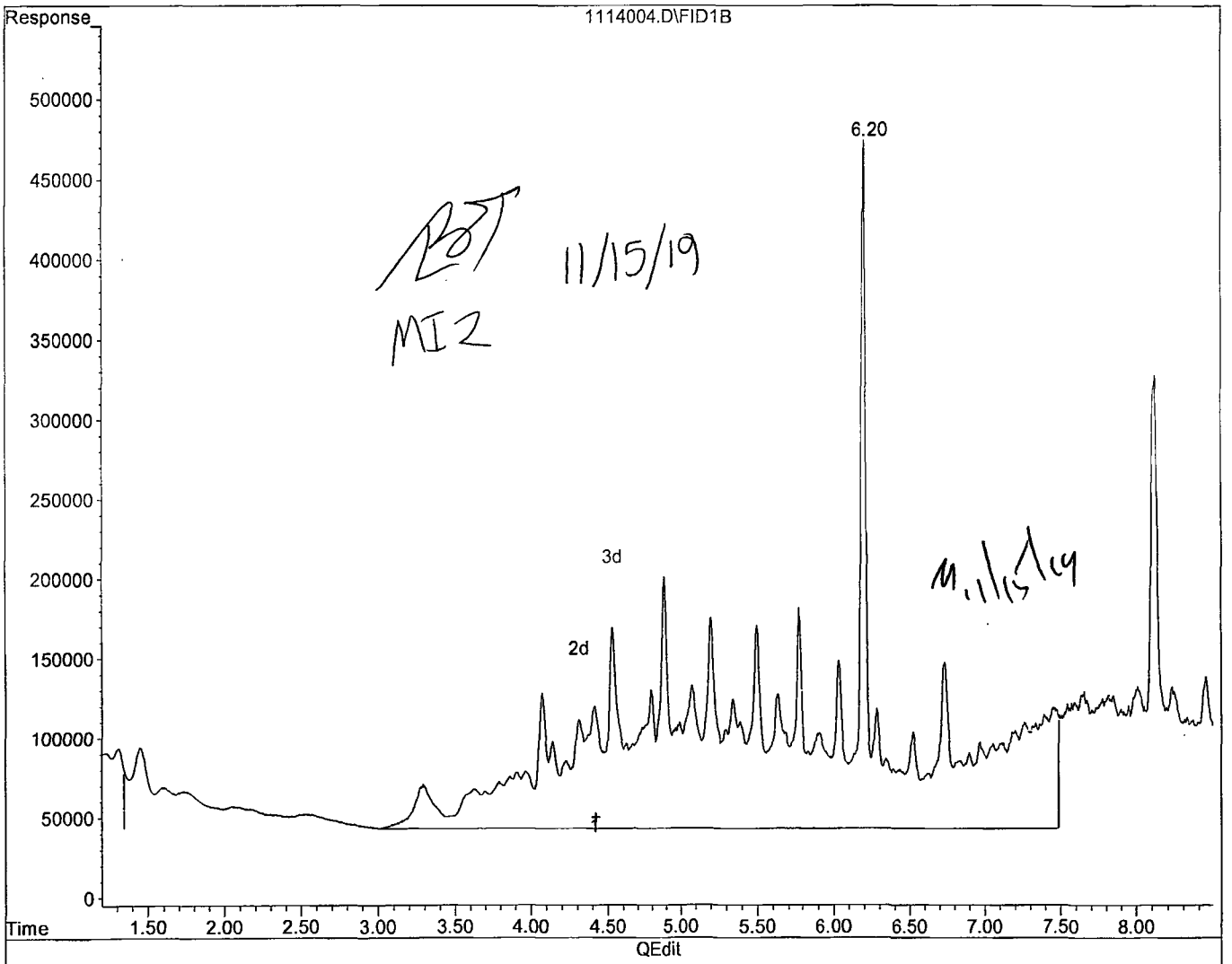
response 147576006

(+) = Expected Retention Time

Quantitation Report

Data File : G:\APOLLO\DATA\191114\1114004.D Vial: 4
Acq On : 11-14-19 19:59:46 Operator: BT
Sample : Diesel Motor Oil - 2 11/14/19 Inst : Apollo
Misc : water Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 15 9:19 2019 Quant Results File: DOC1114.RES

Method : G:\APOLLO\DATA\191114\DOC1114.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Nov 15 09:19:04 2019
Response via : Multiple Level Calibration



(1) Diesel (C10-C24) (HATM)

4.42min 44.304ppb m

response 133643009

(+) = Expected Retention Time

1114004.D DOC1114.M Fri Nov 15 09:21:28 2019

Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\191114\1114005.D Vial: 5
Acq On : 11-14-19 20:19:39 Operator: BT
Sample : Diesel Motor Oil - 3 11/14/19 Inst : Apollo
Misc : water Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 15 9:19 2019 Quant Results File: DOC1114.RES

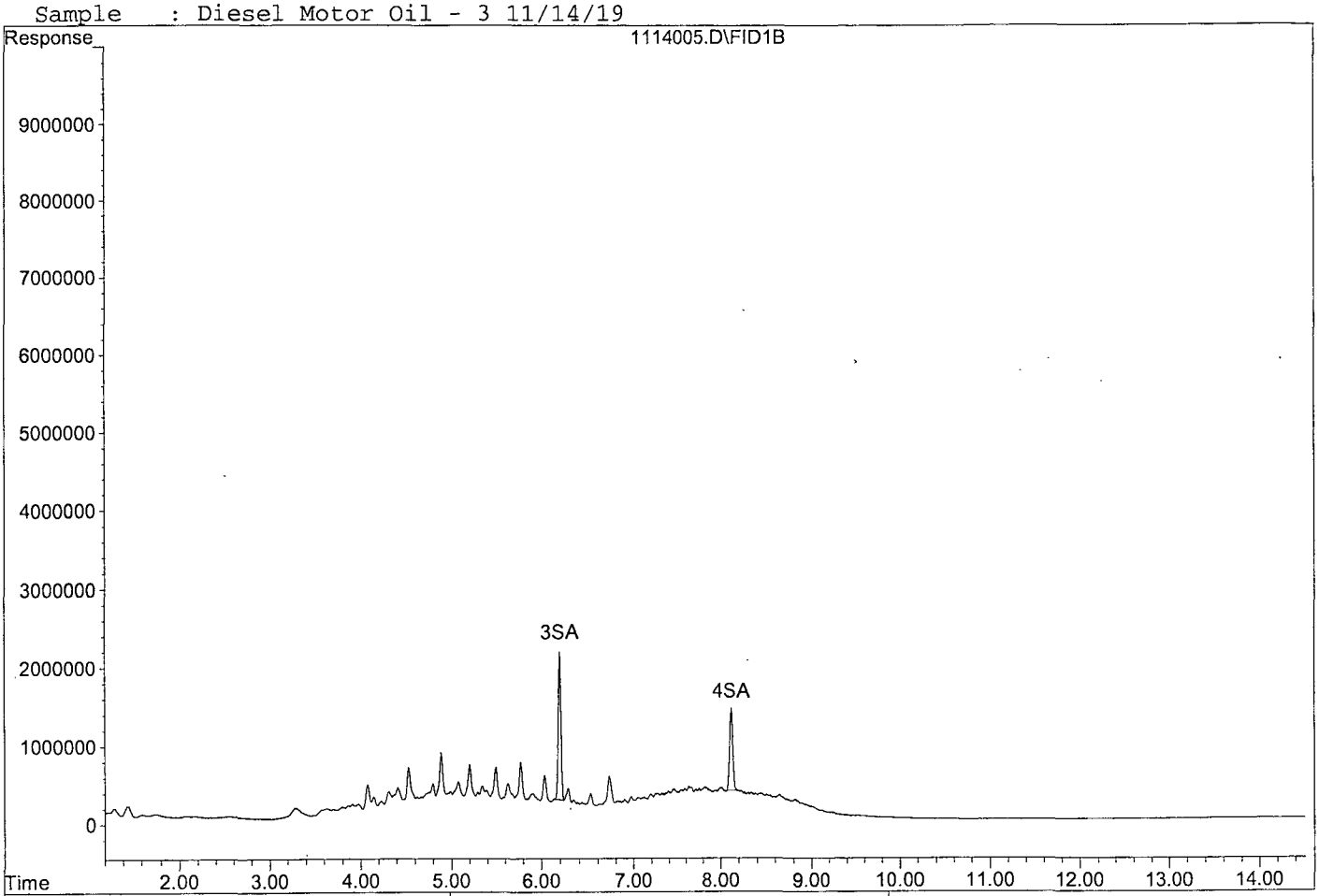
Method : G:\APOLLO\DATA\191114\DOC1114.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Nov 15 09:19:04 2019
Response via : Multiple Level Calibration

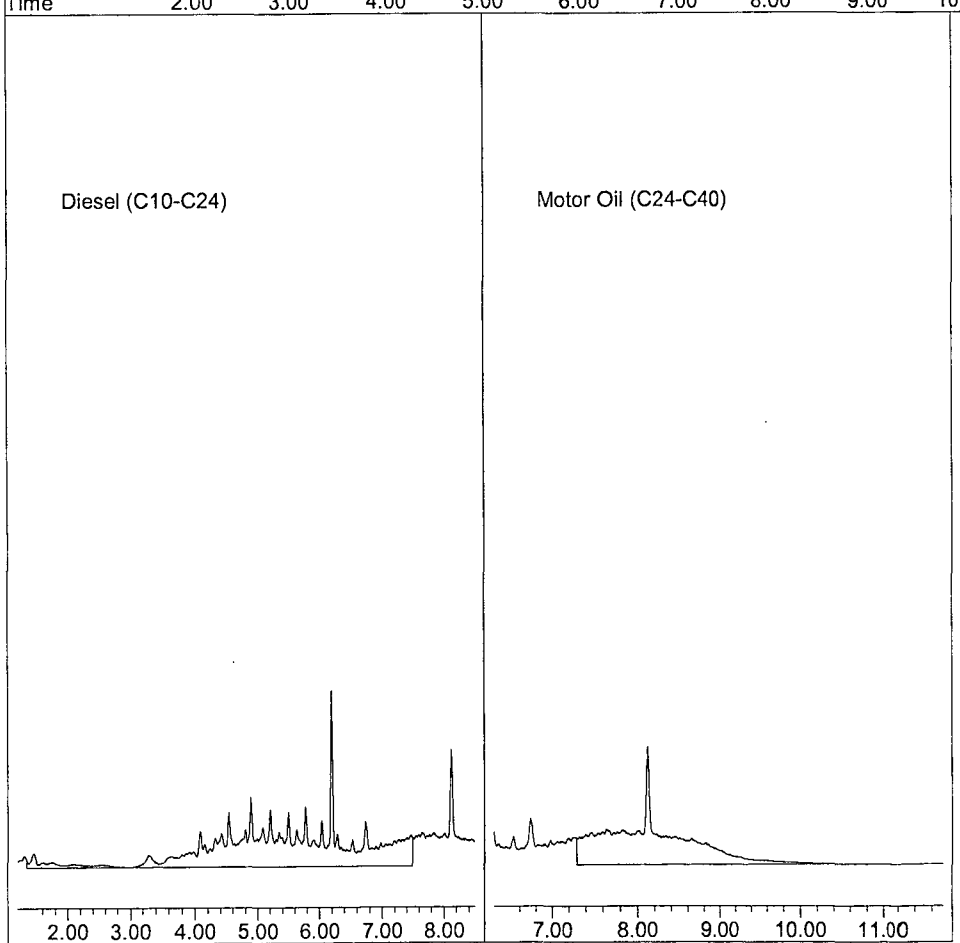
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) SA Ortho-Terphenyl(S)	6.20	37323483	12.416 ppb
Surrogate Spike 30.000	Recovery =		41.39%
4) SA Octacosane(S)	8.12	25262712	11.152 ppb
Surrogate Spike 30.000	Recovery =		37.17%
Target Compounds			
1) HATM Diesel (C10-C24)	4.42	744830742	246.917 ppb
2) HBTM Motor Oil (C24-C40)	9.01	385851504	245.190 ppb

Target Compounds

Data File: G:\APOLLO\DATA\191114\1114005.D
Sample : Diesel Motor Oil - 3 11/14/19





Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\191114\1114006.D Vial: 6
Acq On : 11-14-19 20:39:34 Operator: BT
Sample : Diesel Motor Oil - 4 11/14/19 Inst : Apollo
Misc : water Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 15 9:19 2019 Quant Results File: DOC1114.RES

Method : G:\APOLLO\DATA\191114\DOC1114.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Nov 15 09:19:04 2019
Response via : Multiple Level Calibration

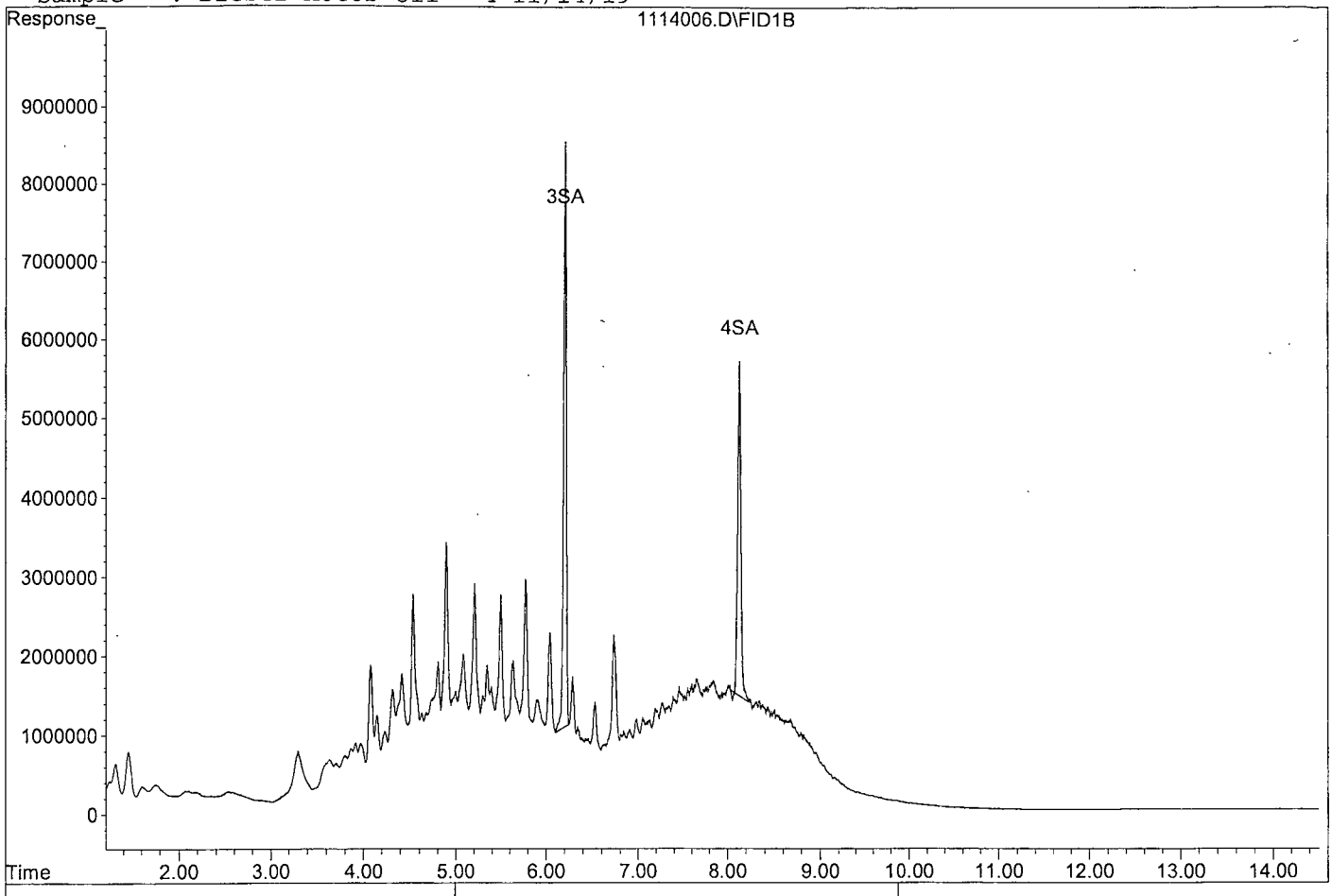
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

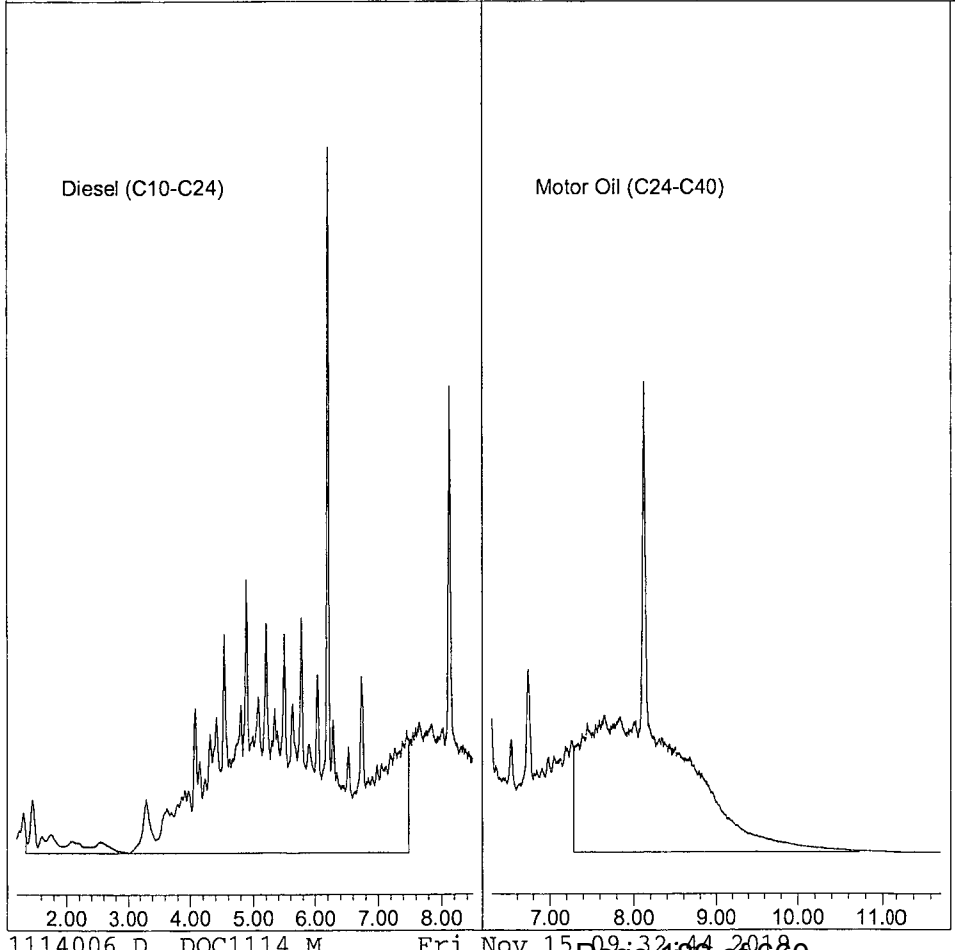
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) SA Ortho-Terphenyl(S)	6.21	151381863	54.183 ppb
Surrogate Spike 30.000		Recovery =	180.61%
4) SA Octacosane(S)	8.12	99731952	44.026 ppb
Surrogate Spike 30.000		Recovery =	146.75%
Target Compounds			
1) HATM Diesel (C10-C24)	4.42	2909060509	964.374 ppb
2) HBTM Motor Oil (C24-C40)	9.01	1488315692	945.751 ppb

Target Compounds

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: G:\APOLLO\DATA\191114\1114006.D
Sample : Diesel Motor Oil - 4 11/14/19





Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\191114\1114007.D Vial: 7
Acq On : 11-14-19 20:59:26 Operator: BT
Sample : Diesel Motor Oil - 5 11/14/19 Inst : Apollo
Misc : water Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 15 9:19 2019 Quant Results File: DOC1114.RES

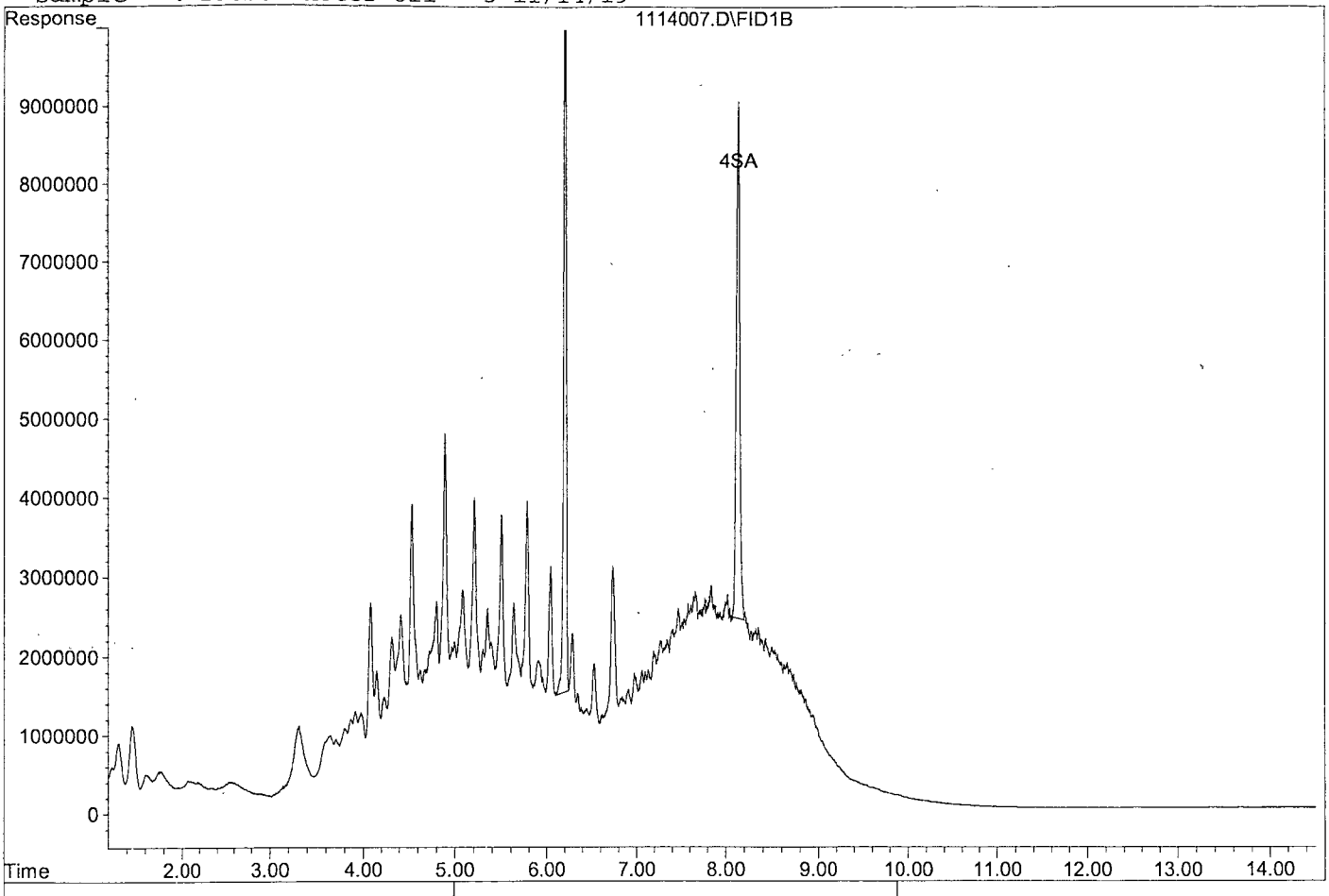
Method : G:\APOLLO\DATA\191114\DOC1114.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Nov 15 09:19:04 2019
Response via : Multiple Level Calibration

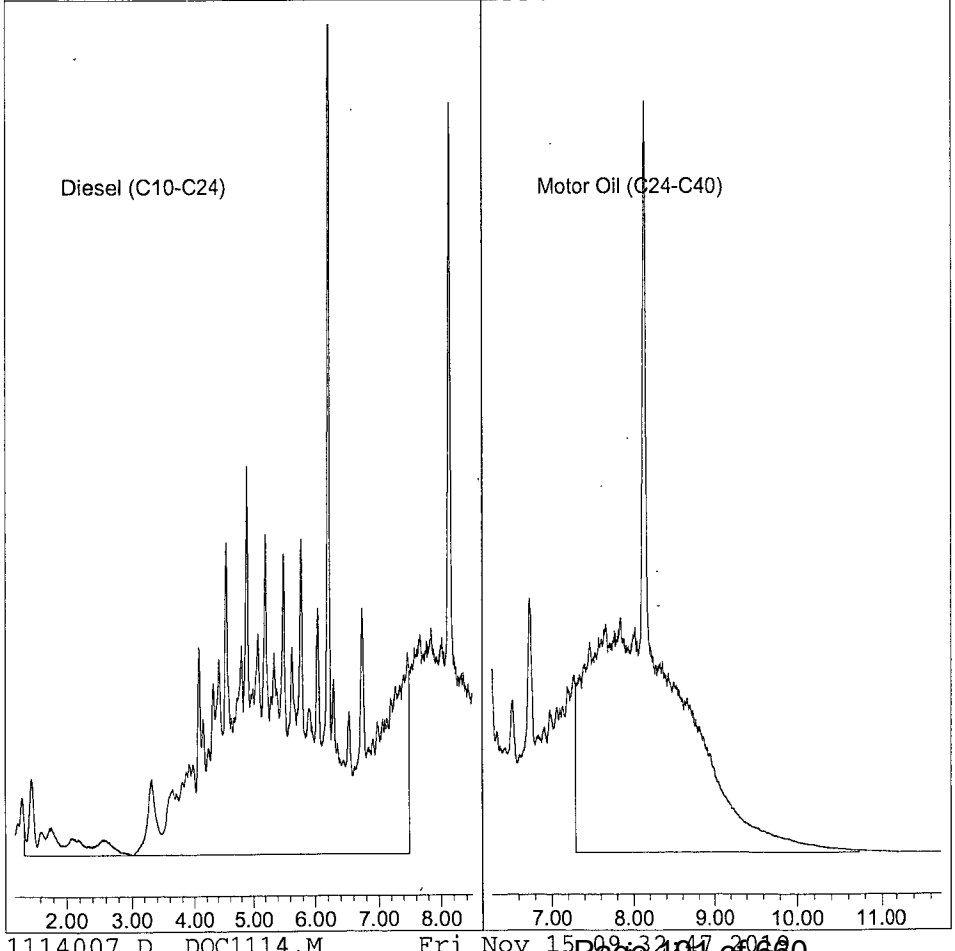
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) SA Ortho-Terphenyl(S)	6.21	206508954	74.370 ppb
Surrogate Spike 30.000		Recovery =	247.90%
4) SA Octacosane(S)	8.13	166754564	73.613 ppb
Surrogate Spike 30.000		Recovery =	245.38%
Target Compounds			
1) HATM Diesel (C10-C24)	4.42	4152339086	1376.529 ppb
2) HBTM Motor Oil (C24-C40)	9.01	2430112740	1544.216 ppb
Target Compounds			

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: G:\APOLLO\DATA\191114\1114007.D
Sample : Diesel Motor Oil - 5 11/14/19





Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\191114\1114008.D Vial: 8
Acq On : 11-14-19 21:19:19 Operator: BT
Sample : Diesel Motor Oil - 6 11/14/19 Inst : Apollo
Misc : water Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 15 9:19 2019 Quant Results File: DOC1114.RES

Method : G:\APOLLO\DATA\191114\DOC1114.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Nov 15 09:19:04 2019
Response via : Multiple Level Calibration

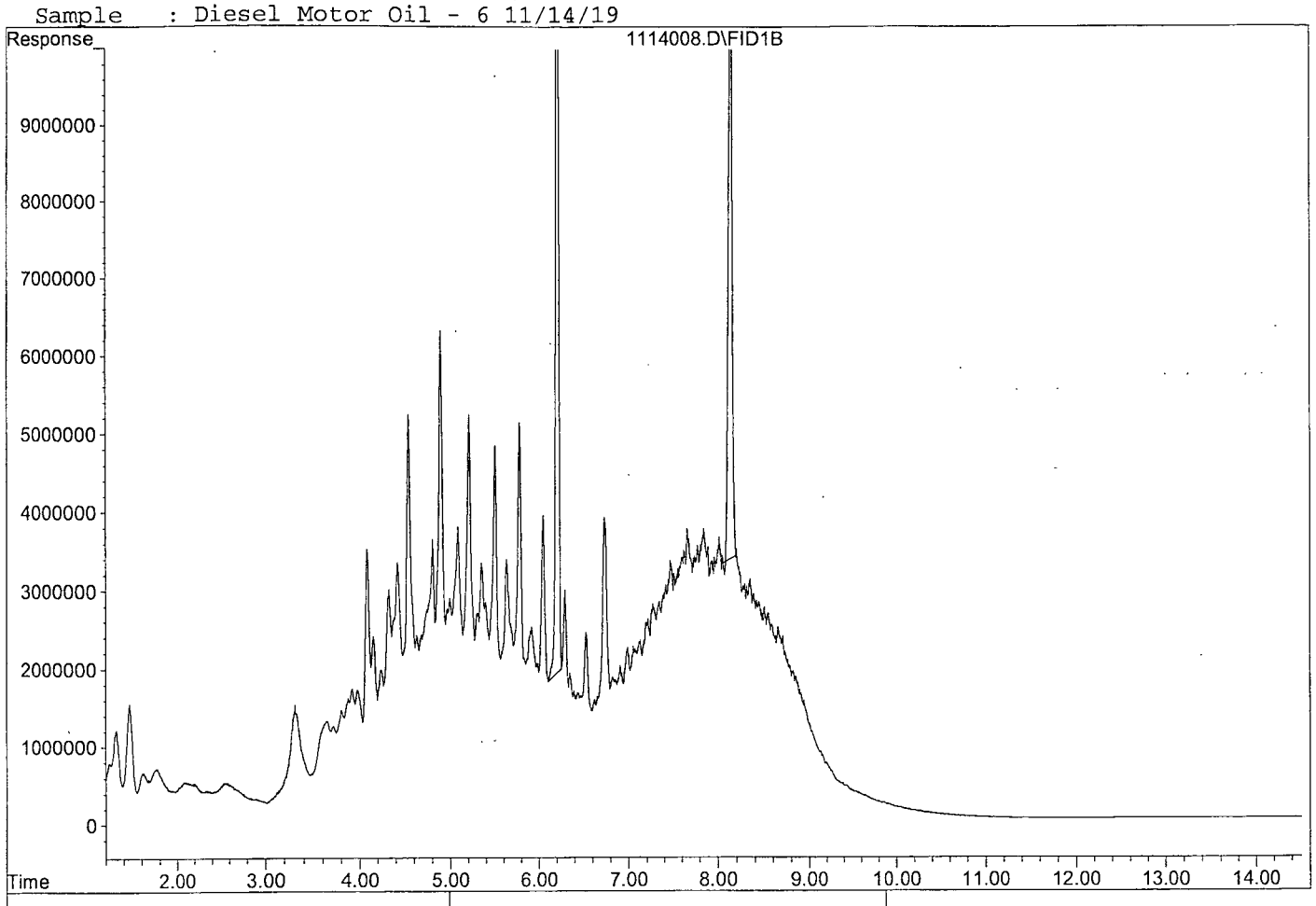
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

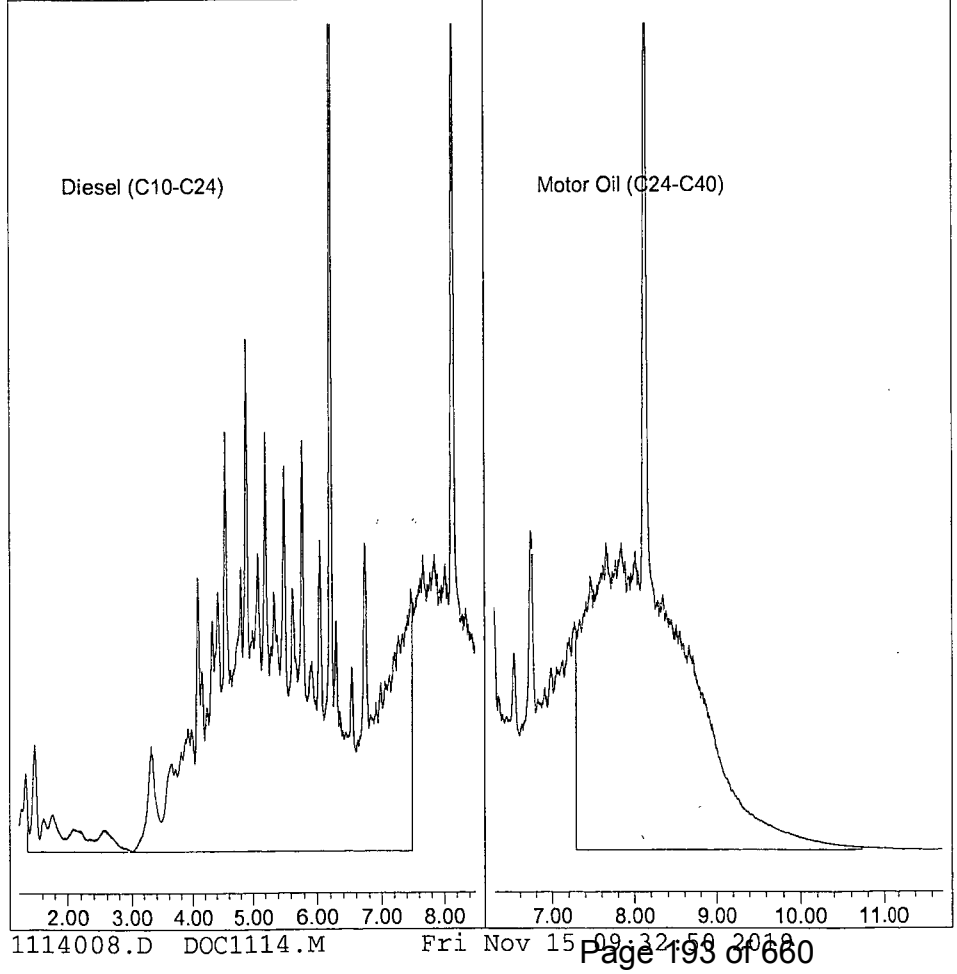
Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
3) SA Ortho-Terphenyl(S)	6.21	272188350	98.421	ppb
Surrogate Spike 30.000	Recovery =		328.07%	
4) SA Octacosane(S)	8.14	212897820	93.983	ppb
Surrogate Spike 30.000	Recovery =		313.28%	
Target Compounds				
1) HATM Diesel (C10-C24)	4.42	5438788689	1802.996	ppb
2) HBTM Motor Oil (C24-C40)	9.01	3195039251	2030.289	ppb

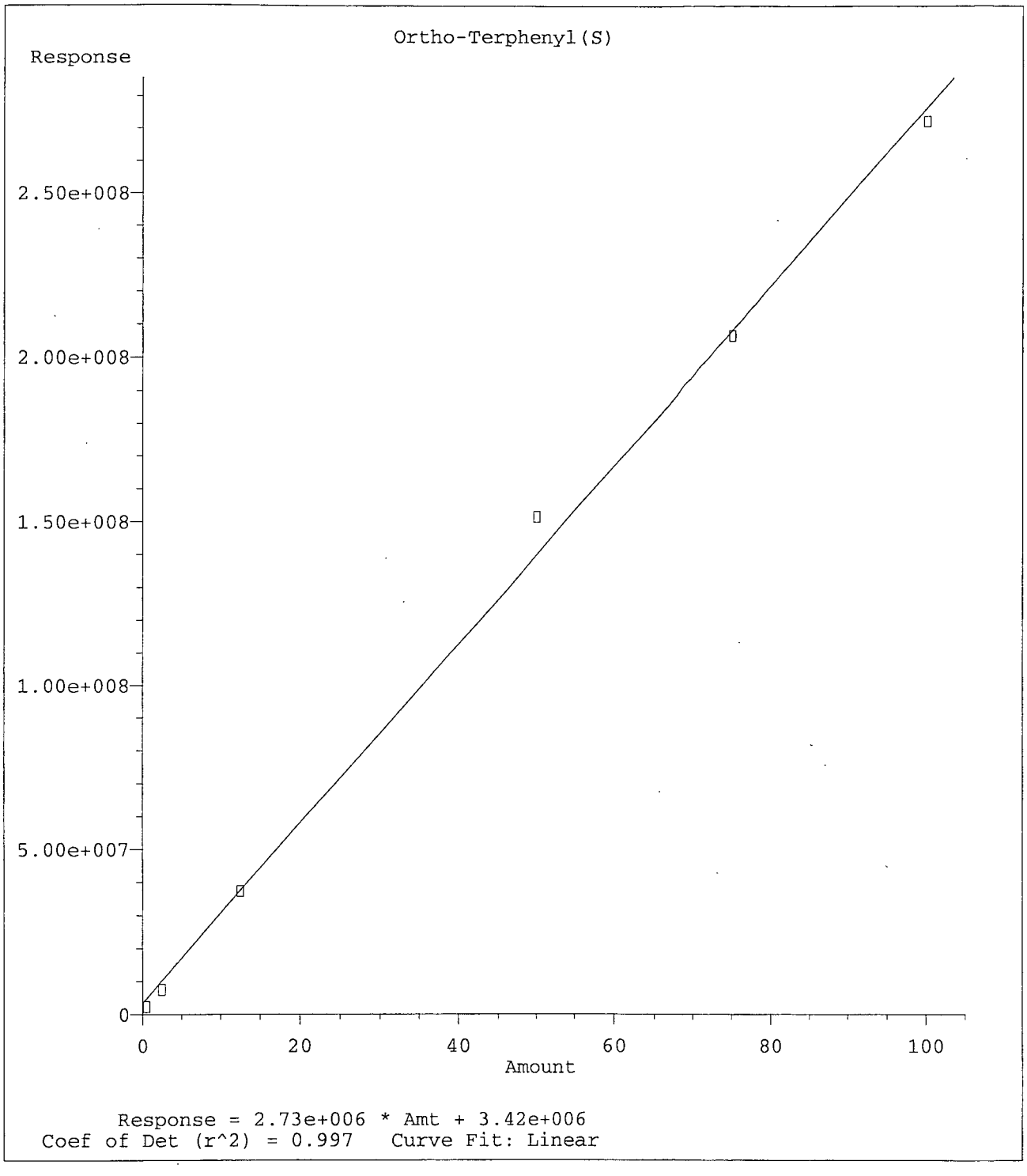
Target Compounds

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: G:\APOLLO\DATA\191114\1114008.D
Sample : Diesel Motor Oil - 6 11/14/19







Method Name: G:\APOLLO\DATA\191114\DOC1114.M
Calibration Table Last Updated: Fri Nov 15 09:19:04 2019

TPH Extractables
DOC1114

Form 7

Second Source Calibration

Lab Name: APPL, Inc.
Case No:
Matrix: Water

SDG No:
Date Analyzed: 11/14/19
Instrument: Apollo
Initial Cal. Date: 11/14/19
Data File: 1114009.D

		Compound	MEAN	CCRF	%D		%Drift
1	HATM	Diesel (C10-C24)	1508730	1766620	17	HATM	
2	HBTM	Motor Oil (C24-C40)	786843	841695	7.0	HBTM	
3							
4							
5							
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36							
37							
38							
39							
40							
		Average			12.0		

Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\191114\1114009.D Vial: 9
Acq On : 11-14-19 21:39:10 Operator: BT
Sample : Diesel Motor Oil Second Source 1/15/19 Inst : Apollo
Misc : water Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 15 9:29 2019 Quant Results File: DOC1114.RES

Method : G:\APOLLO\DATA\191114\DOC1114.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Nov 15 09:19:04 2019
Response via : Multiple Level Calibration

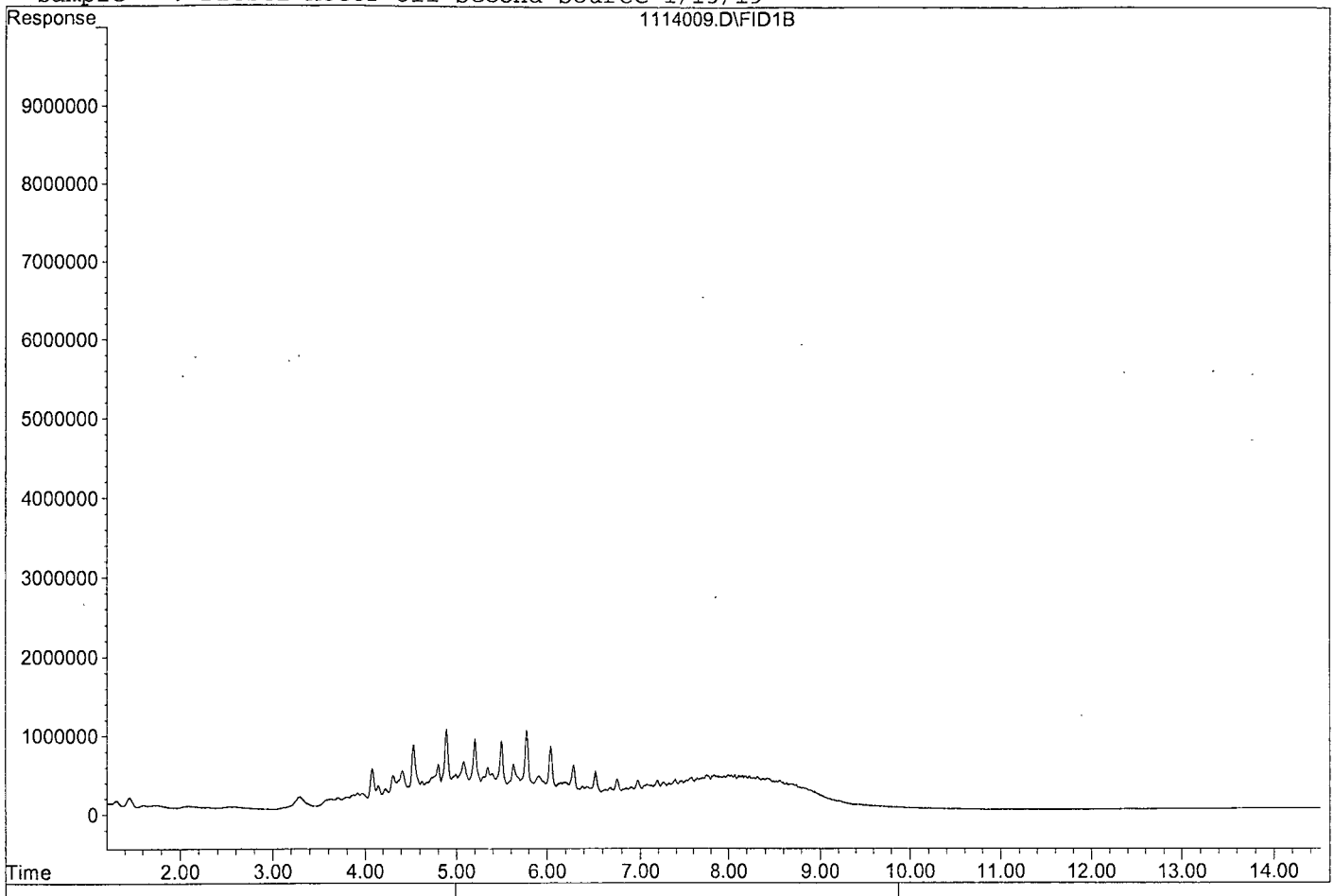
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

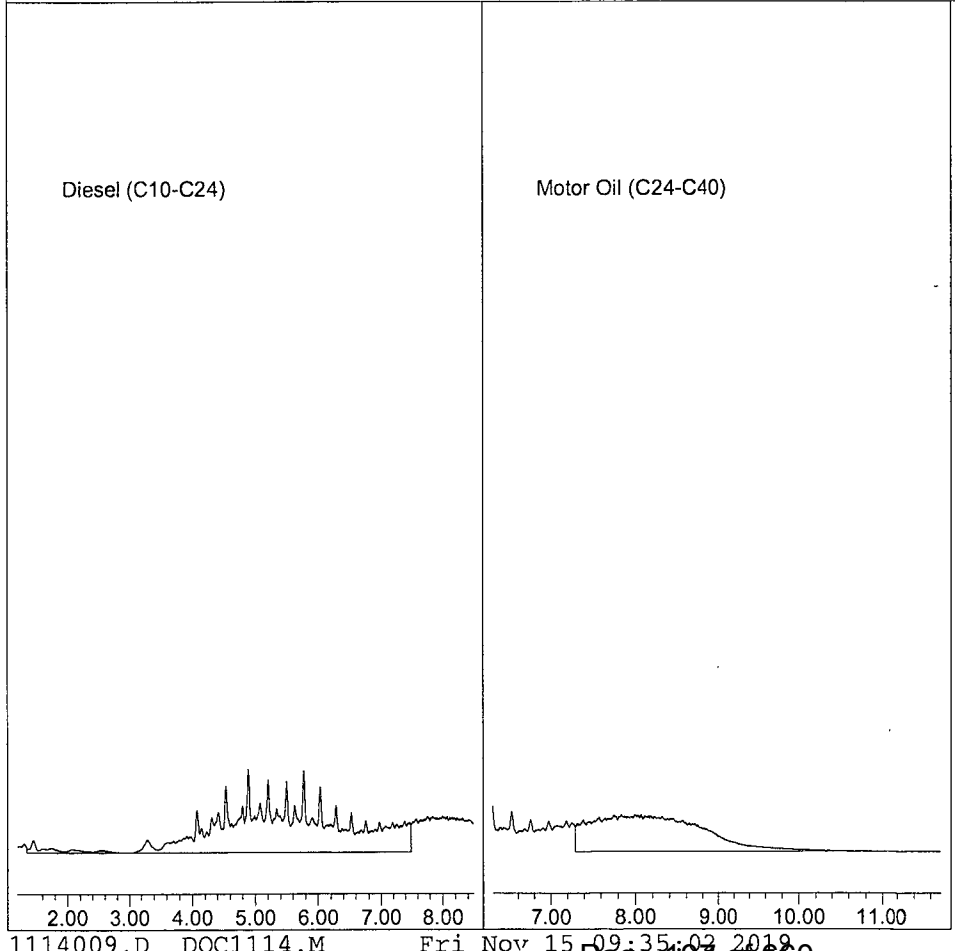
Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds					
3) SA Ortho-Terphenyl(S)	0.00	0	N.D.	ppb	d
Surrogate Spike 30.000	Recovery	=	0.00%		
4) SA Octacosane(S)	0.00	0	N.D.	ppb	d
Surrogate Spike 30.000	Recovery	=	0.00%		
Target Compounds					
1) HATM Diesel (C10-C24)	4.42	883311718	292.733	ppb	
2) HBTM Motor Oil (C24-C40)	9.01	420847463	267.428	ppb	

Target Compounds

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: G:\APOLLO\DATA\191114\1114009.D
Sample : Diesel Motor Oil Second Source 1/15/19





TPH Extractables
DOC1114

Form 7

Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix: Water

SDG No:
Date Analyzed: 11/15/19
Instrument: Apollo
Initial Cal. Date: 11/14/19
Data File: 1114019.D

		Compound	MEAN	CCRF	%D	%Drift	
1	HATM	Diesel (C10-C24)	1508730	1589330	5.3	HATM	
2	HBTM	Motor Oil (C24-C40)	786843	782904	0.50	HBTM	
3	SAL	Ortho-Terphenyl(S)	1599120	1656820	3.6	SAL	11
4	SA	Octacosane(S)	1132640	1105010	2.4	SA	
5							
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40							
		Average			3.0		

Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\191114\1114019.D Vial: 19
Acq On : 11-15-19 0:55:27 Operator: BT
Sample : Diesel Motor Oil CCV 11/14/19 Inst : Apollo
Misc : water Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 15 14:46 2019 Quant Results File: DOC1114.RES

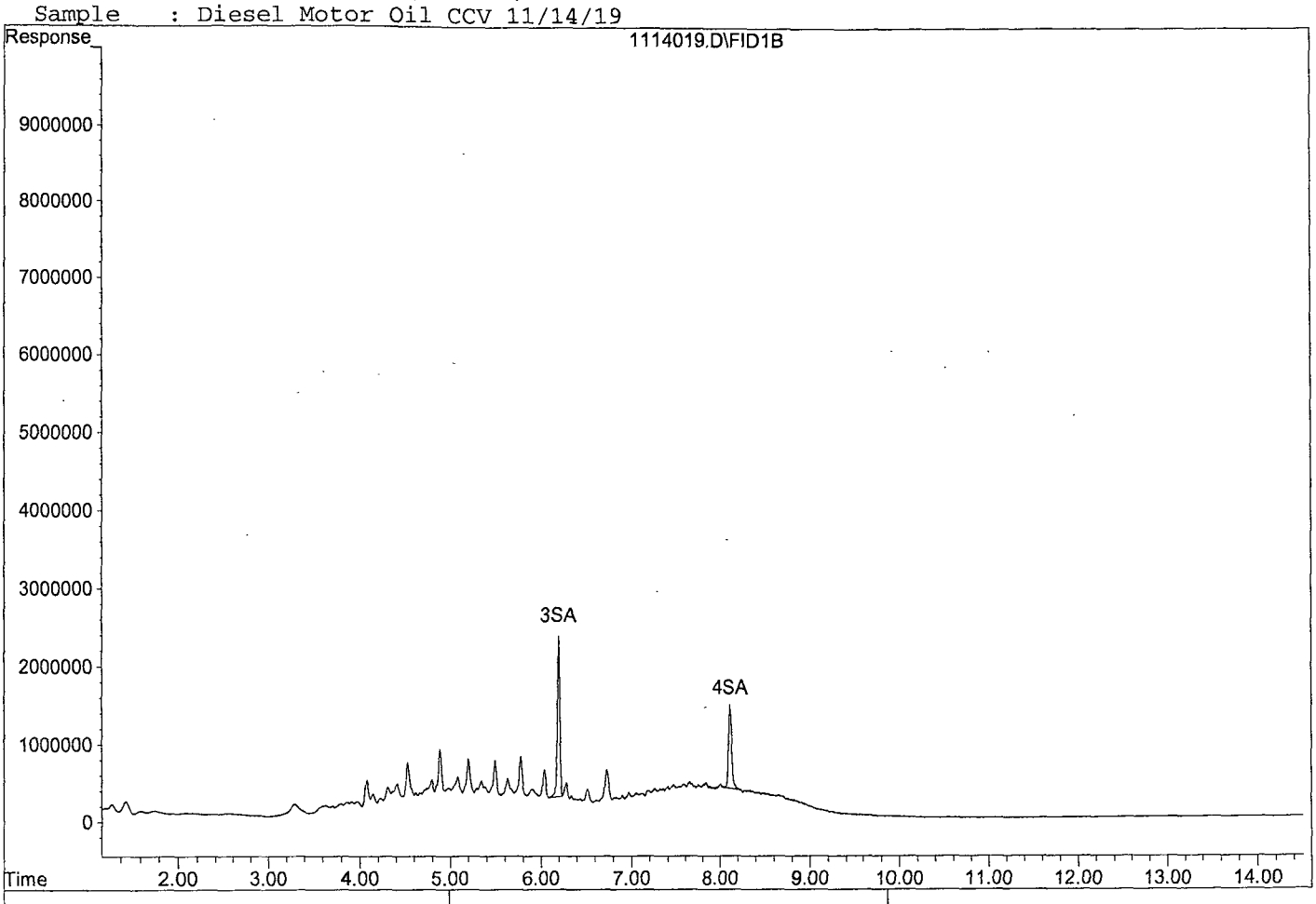
Method : G:\APOLLO\DATA\191114\DOC1114.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Nov 15 09:19:04 2019
Response via : Multiple Level Calibration

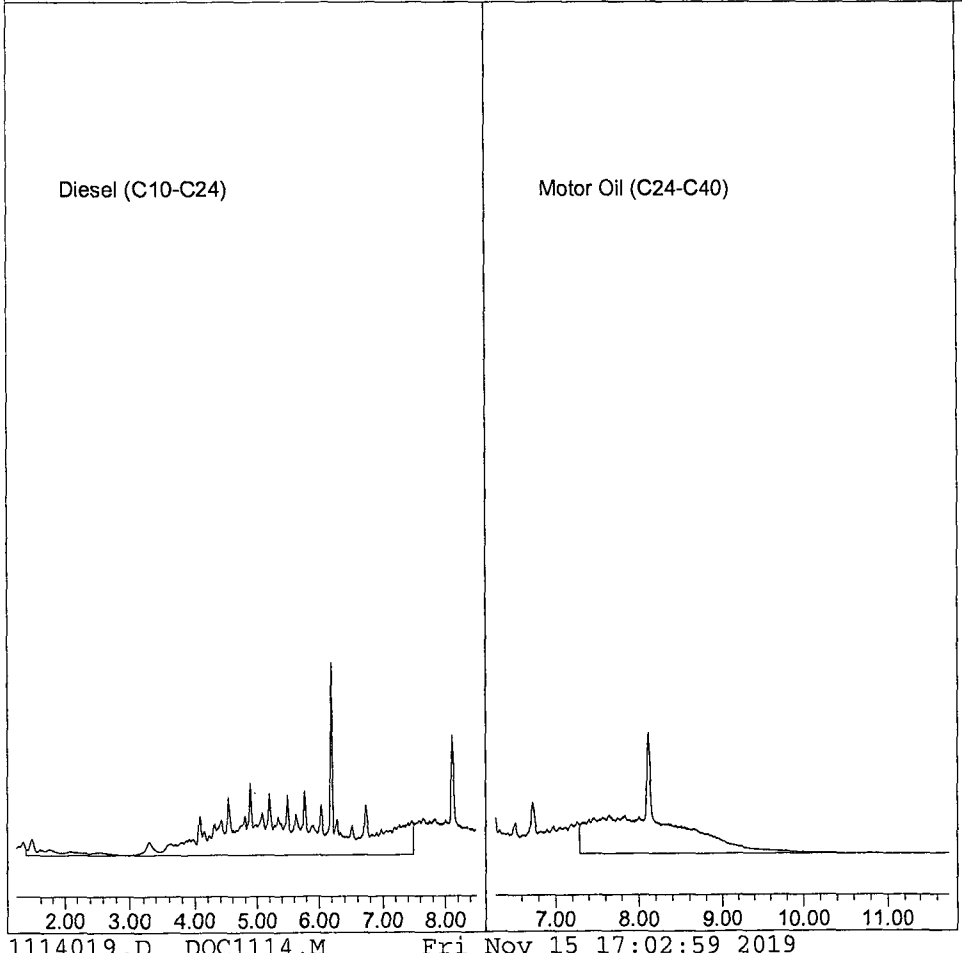
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) SA Ortho-Terphenyl(S)	6.20	41420415	13.916 ppb
Surrogate Spike 30.000	Recovery =		46.39%
4) SA Octacosane(S)	8.12	27625341	12.195 ppb
Surrogate Spike 30.000	Recovery =		40.65%
Target Compounds			
1) HATM Diesel (C10-C24)	4.42	794663386	263.355 ppb
2) HBTM Motor Oil (C24-C40)	9.01	391452103	248.748 ppb
Target Compounds			

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: G:\APOLLO\DATA\191114\1114019.D
Sample : Diesel Motor Oil CCV 11/14/19





1114019.D DOC1114.M Fri Nov 15 17:02:59 2019

ORGANICS
Raw Data

Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\191114\1114016.D Vial: 16
Acq On : 11-14-19 23:57:17 Operator: BT
Sample : BA02214W23 2/800 Inst : Apollo
Misc : water Multiplr: 2.50
IntFile : events.e
Quant Time: Nov 15 15:14 2019 Quant Results File: DOC1114.RES

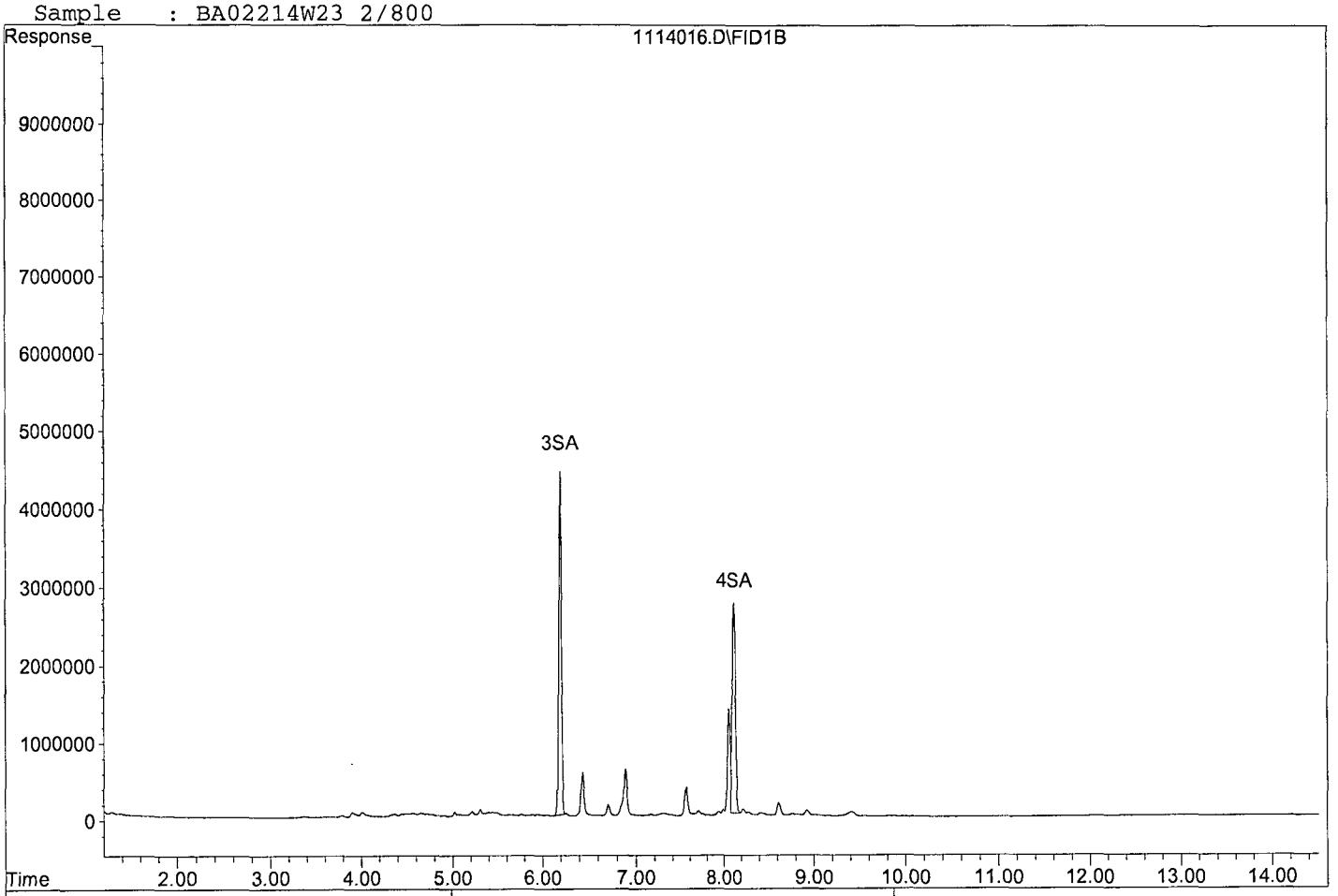
Method : G:\APOLLO\DATA\191114\DOC1114.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Nov 15 09:19:04 2019
Response via : Multiple Level Calibration

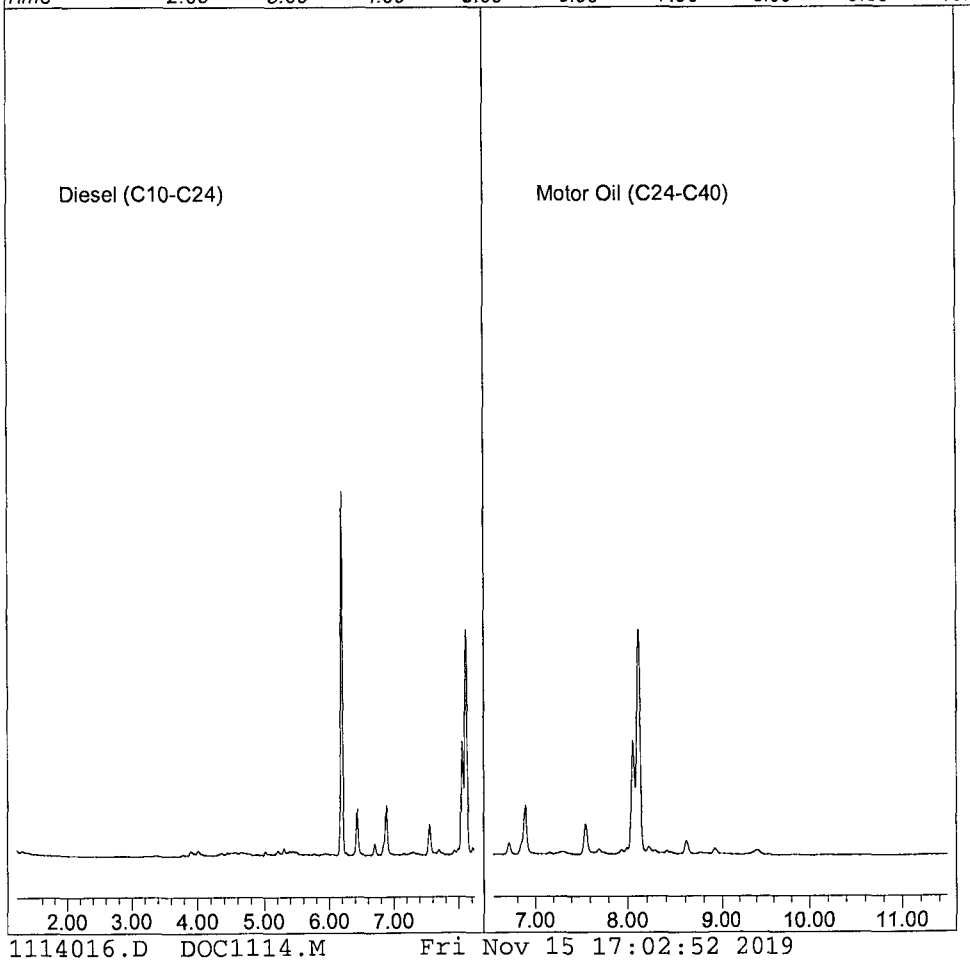
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds					
3) SA Ortho-Terphenyl(S)	6.20	87297952	76.790	ppb	
Surrogate Spike 75.000	Recovery =		102.39%		
4) SA Octacosane(S)	8.12	71422814	78.823	ppb	m
Surrogate Spike 75.000	Recovery =		105.10%		
Target Compounds					
Target Compounds					
1) HATM Diesel (C10-C24)	0.00	0	N.D.	ppb	
2) HBTM Motor Oil (C24-C40)	0.00	0	N.D.	ppb	

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: G:\APOLLO\DATA\191114\1114016.D
Sample : BA02214W23 2/800



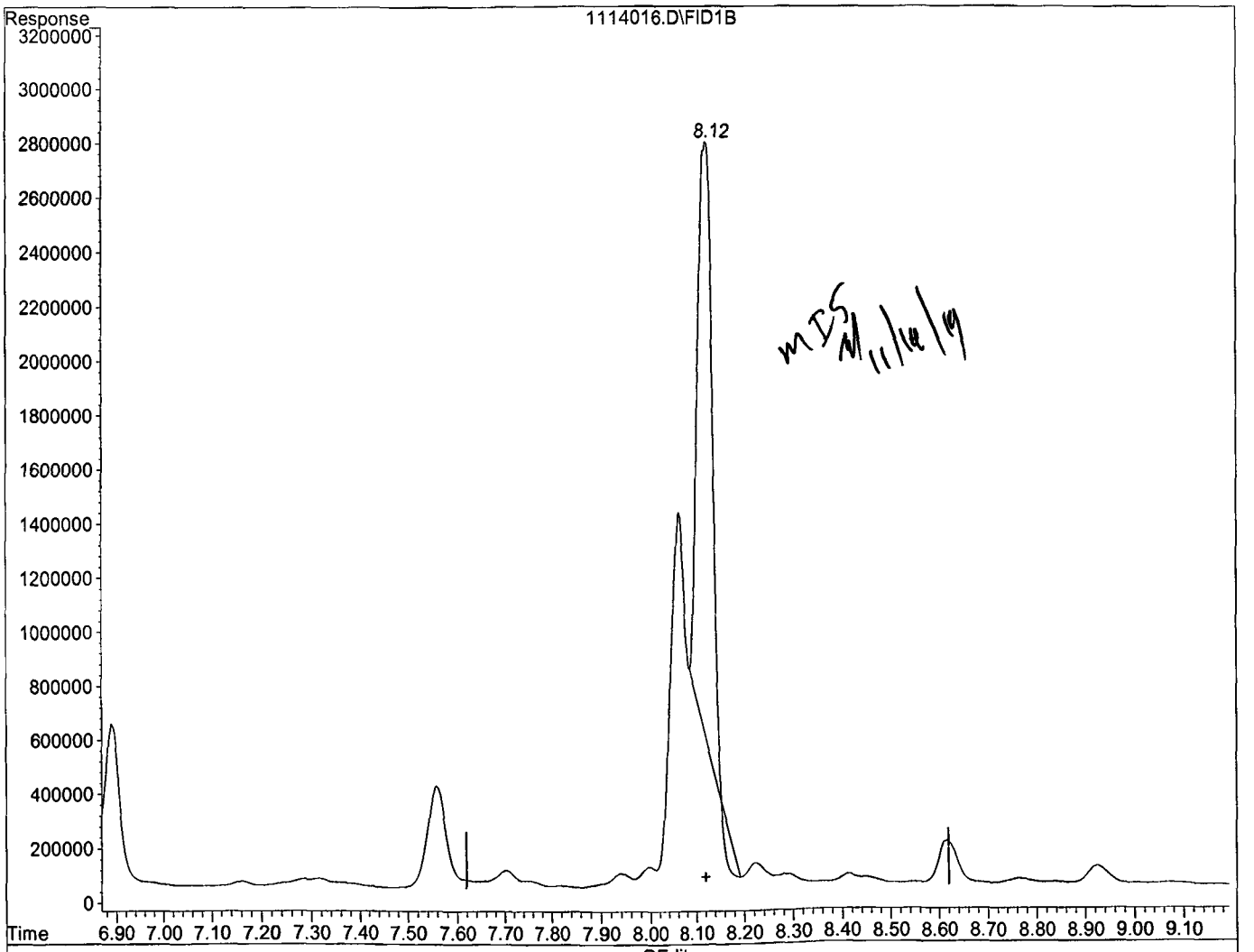


1114016.D DOC1114.M Fri Nov 15 17:02:52 2019 Page 2

Quantitation Report

Data File : G:\APOLLO\DATA\191114\1114016.D Vial: 16
Acq On : 11-14-19 23:57:17 Operator: BT
Sample : BA02214W23 2/800 Inst : Apollo
Misc : water Multiplr: 2.50
IntFile : events.e
Quant Time: Nov 15 14:45 2019 Quant Results File: DOC1114.RES

Method : G:\APOLLO\DATA\191114\DOC1114.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Nov 15 09:19:04 2019
Response via : Multiple Level Calibration



(4) Octacosane(S) (SA)

8.12min 50.670ppb

response 45912678

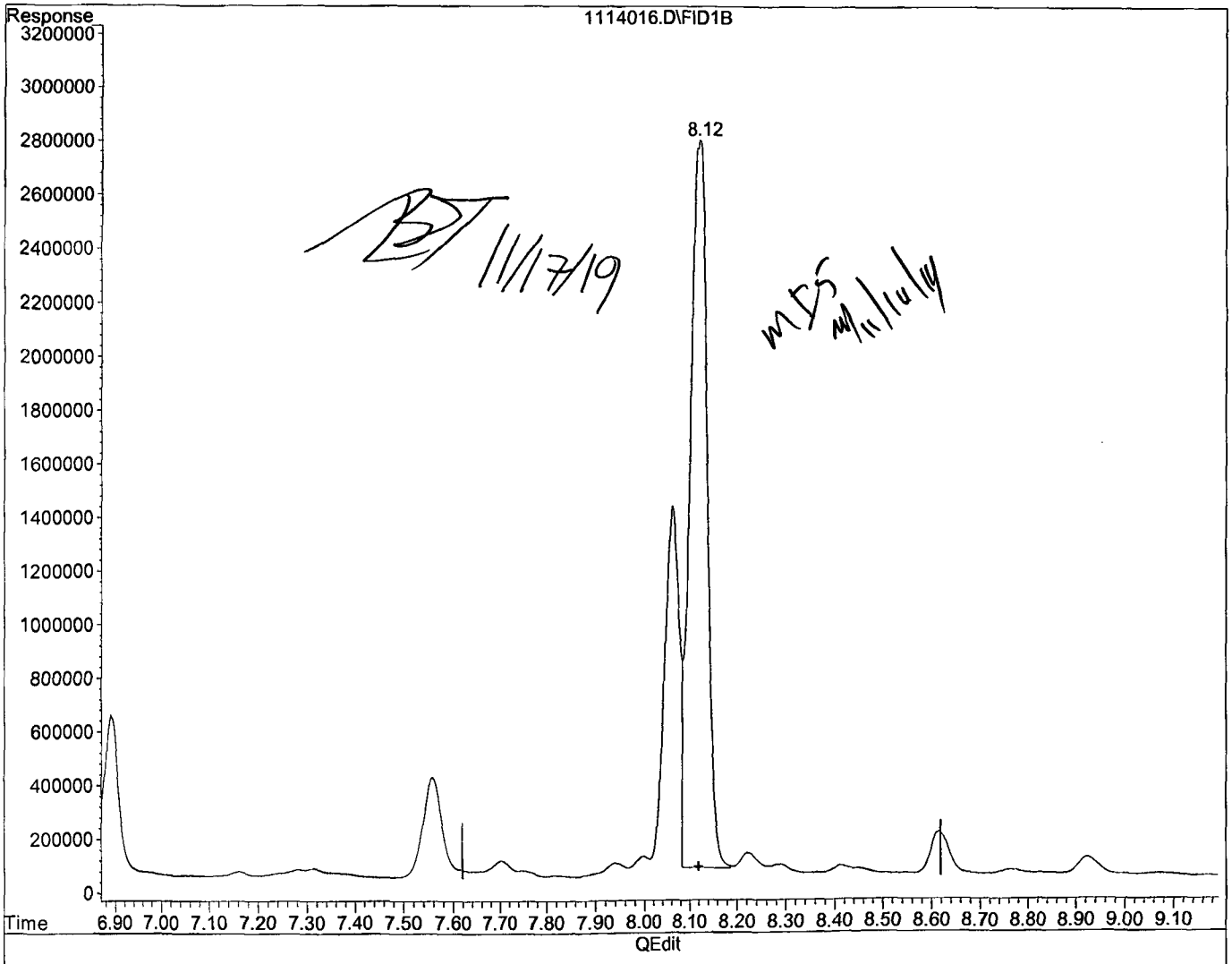
(+) = Expected Retention Time

1114016.D DOC1114.M Fri Nov 15 15:14:15 2019

Quantitation Report

Data File : G:\APOLLO\DATA\191114\1114016.D Vial: 16
Acq On : 11-14-19 23:57:17 Operator: BT
Sample : BA02214W23 2/800 Inst : Apollo
Misc : water Multiplr: 2.50
IntFile : events.e
Quant Time: Nov 15 14:45 2019 Quant Results File: DOC1114.RES

Method : G:\APOLLO\DATA\191114\DOC1114.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Nov 15 09:19:04 2019
Response via : Multiple Level Calibration



(4) Octacosane(S) (SA)

8.12min 78.823ppb m

response 71422814

(+) = Expected Retention Time
1114016.D DOC1114.M Fri Nov 15 15:14:31 2019

Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\191114\1114017.D Vial: 17
Acq On : 11-15-19 0:16:16 Operator: BT
Sample : BA02216W16 2/800 Inst : Apollo
Misc : water Multiplr: 2.50
IntFile : events.e
Quant Time: Nov 15 15:15 2019 Quant Results File: DOC1114.RES

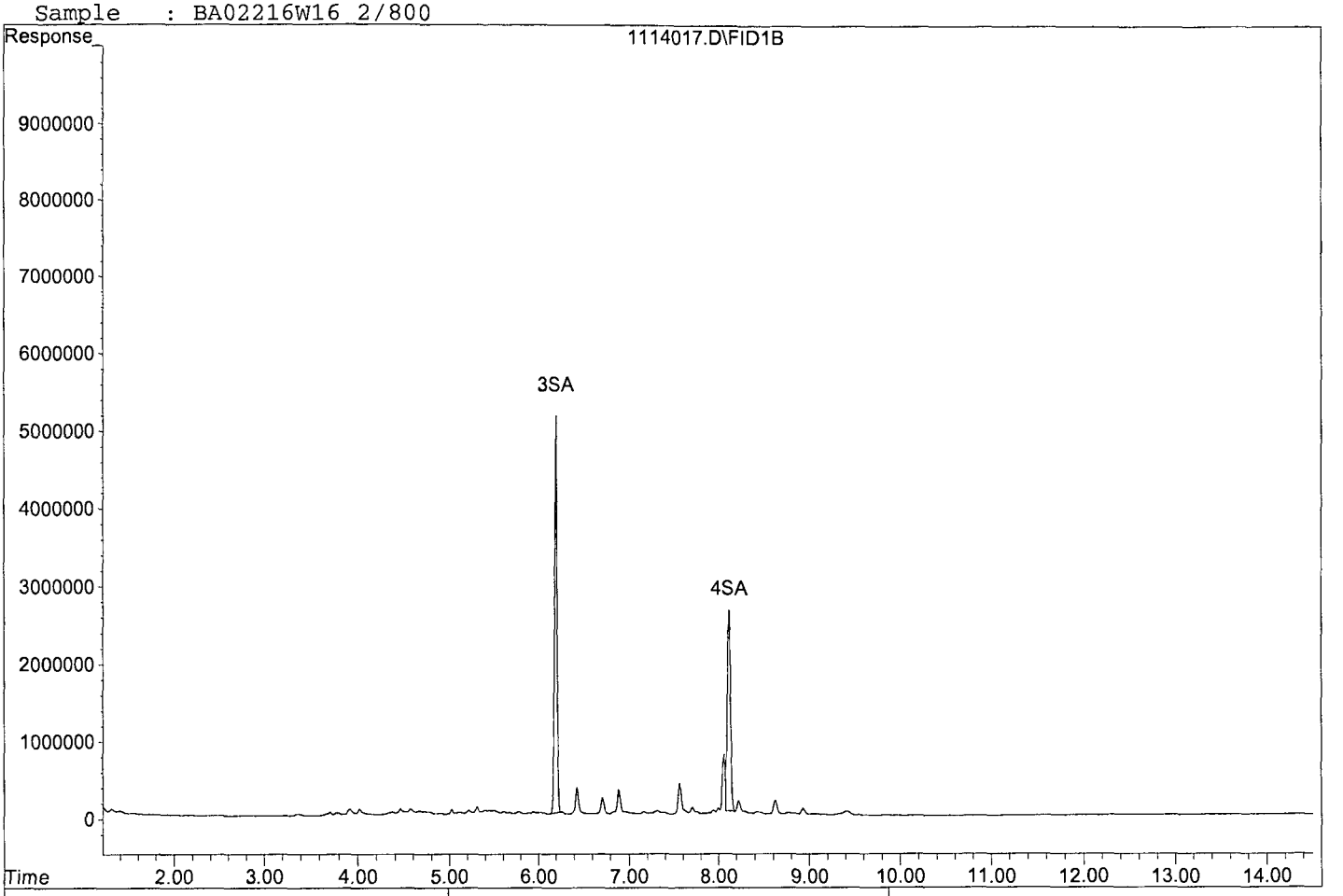
Method : G:\APOLLO\DATA\191114\DOC1114.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Nov 15 09:19:04 2019
Response via : Multiple Level Calibration

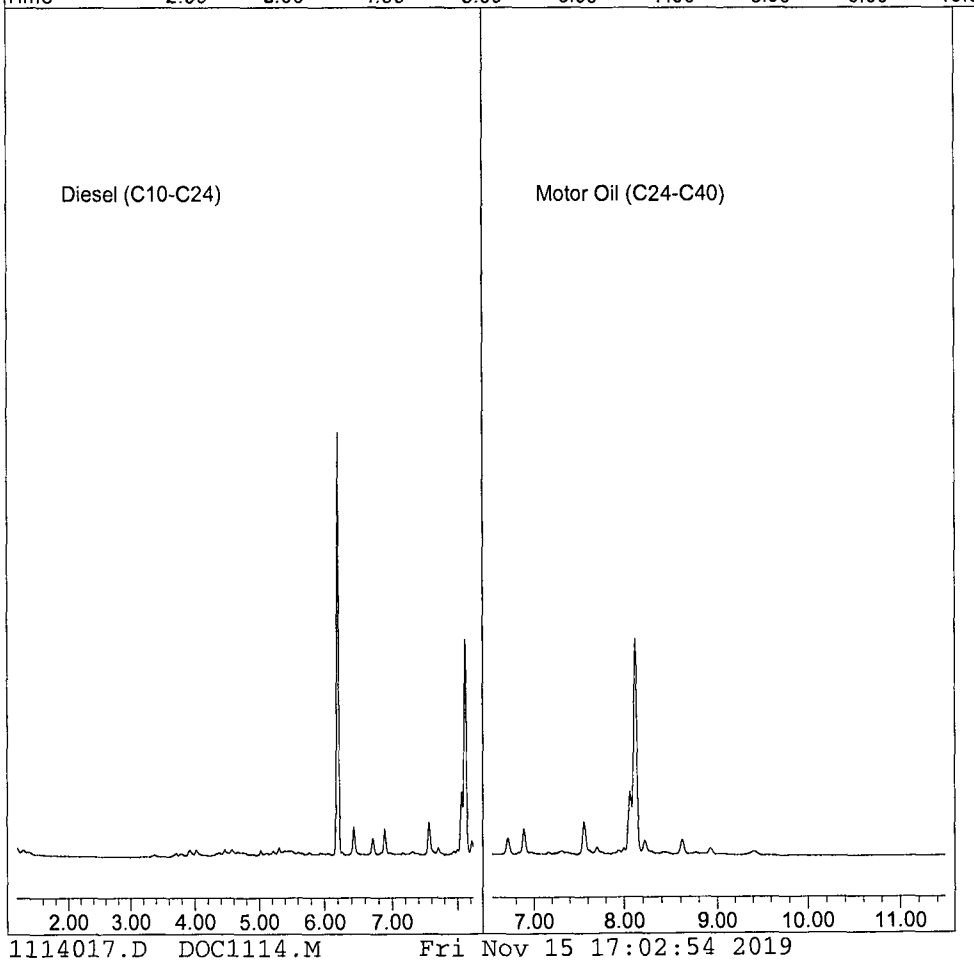
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds					
3) SA Ortho-Terphenyl(S)	6.20	98324366	86.884	ppb	
Surrogate Spike 75.000	Recovery =		115.85%		
4) SA Octacosane(S)	8.12	66930819	73.866	ppb	m
Surrogate Spike 75.000	Recovery =		98.49%		
Target Compounds					
Target Compounds					
1) HATM Diesel (C10-C24)	0.00	0	N.D.	ppb	
2) HBTM Motor Oil (C24-C40)	0.00	0	N.D.	ppb	

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: G:\APOLLO\DATA\191114\1114017.D
Sample : BA02216W16 2/800



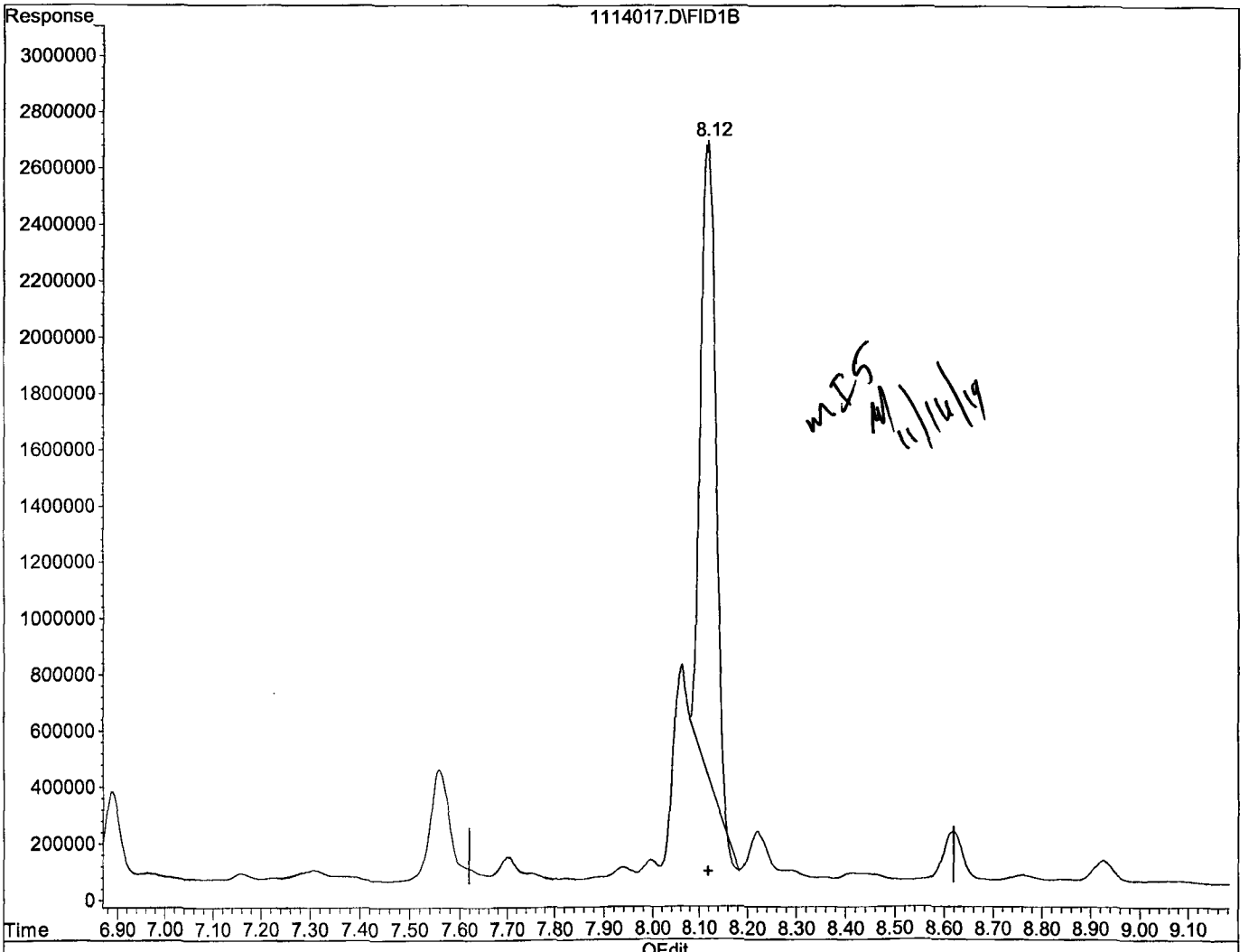


1114017.D DOC1114.M Fri Nov 15 17:02:54 2019 Page 2

Quantitation Report

Data File : G:\APOLLO\DATA\191114\1114017.D Vial: 17
Acq On : 11-15-19 0:16:16 Operator: BT
Sample : BA02216W16 2/800 Inst : Apollo
Misc : water Multiplr: 2.50
IntFile : events.e
Quant Time: Nov 15 14:46 2019 Quant Results File: DOC1114.RES

Method : G:\APOLLO\DATA\191114\DOC1114.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Nov 15 09:19:04 2019
Response via : Multiple Level Calibration



(4) Octacosane(S) (SA)

8.12min 55.306ppb

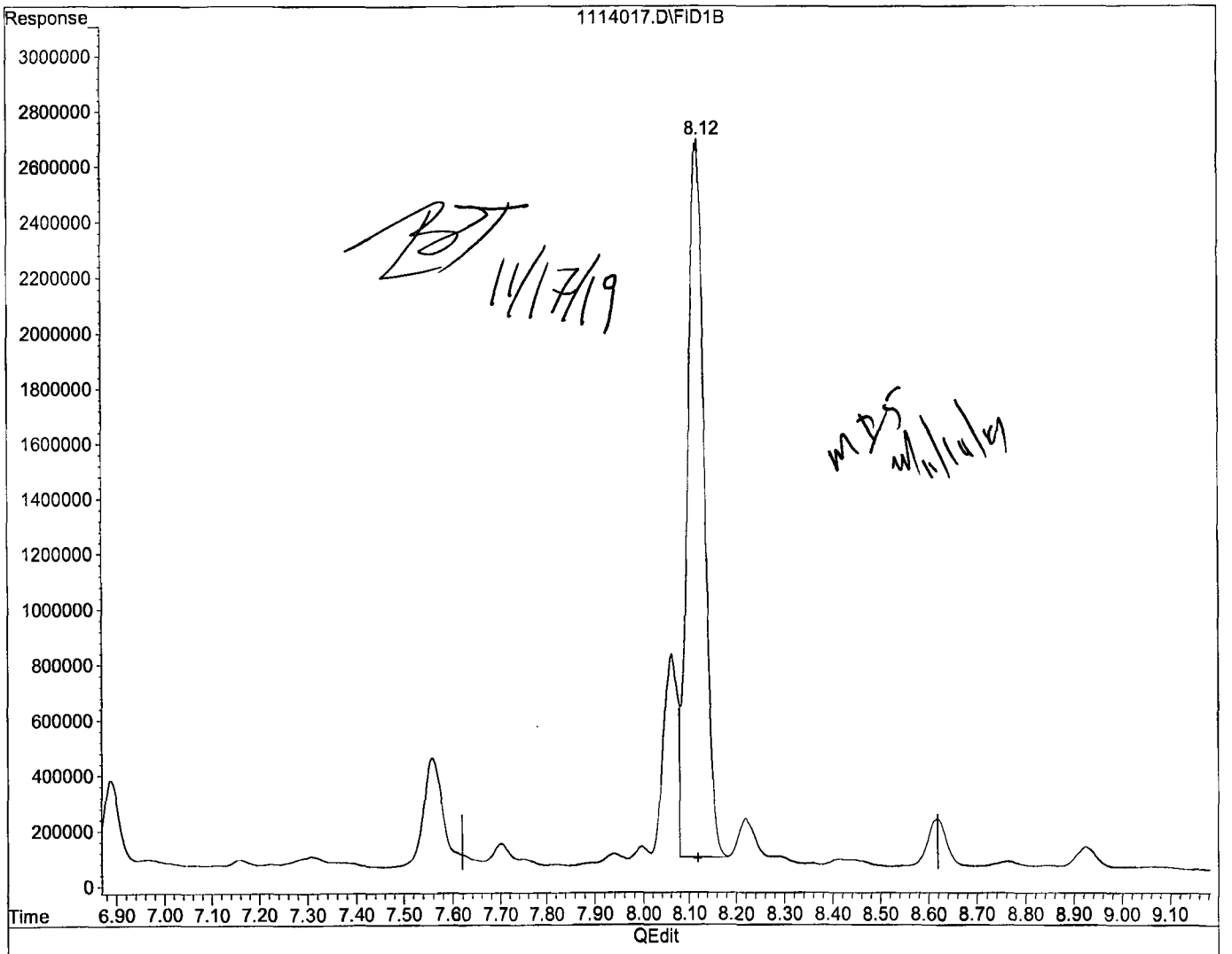
response 50113855

(+) = Expected Retention Time
1114017.D DOC1114.M Fri Nov 15 15:15:46 2019

Quantitation Report

Data File : G:\APOLLO\DATA\191114\1114017.D Vial: 17
Acq On : 11-15-19 0:16:16 Operator: BT
Sample : BA02216W16 2/800 Inst : Apollo
Misc : water Multiplr: 2.50
IntFile : events.e
Quant Time: Nov 15 14:46 2019 Quant Results File: DOC1114.RES

Method : G:\APOLLO\DATA\191114\DOC1114.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Nov 15 09:19:04 2019
Response via : Multiple Level Calibration



(4) Octacosane(S) (SA)

8.12min 73.866ppb m

response 66930819

(+) = Expected Retention Time
1114017.D DOC1114.M Fri Nov 15 15:15:55 2019

Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\191114\1114010.D Vial: 10
Acq On : 11-14-19 21:59:00 Operator: BT
Sample : 191104A BLK 2/800 Inst : Apollo
Misc : water Multiplr: 2.50
IntFile : events.e
Quant Time: Nov 15 14:47 2019 Quant Results File: DOC1114.RES

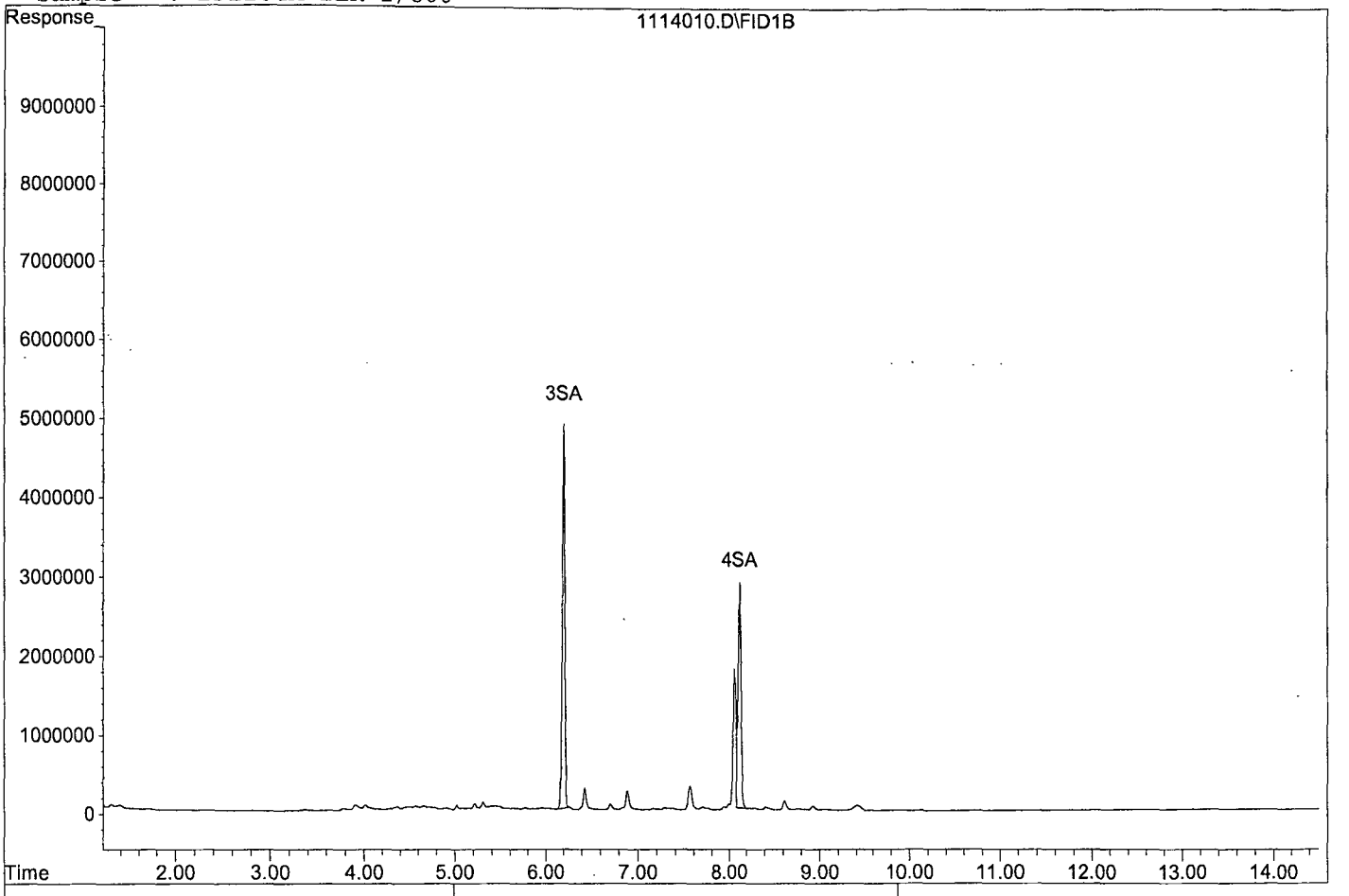
Method : G:\APOLLO\DATA\191114\DOC1114.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Nov 15 09:19:04 2019
Response via : Multiple Level Calibration

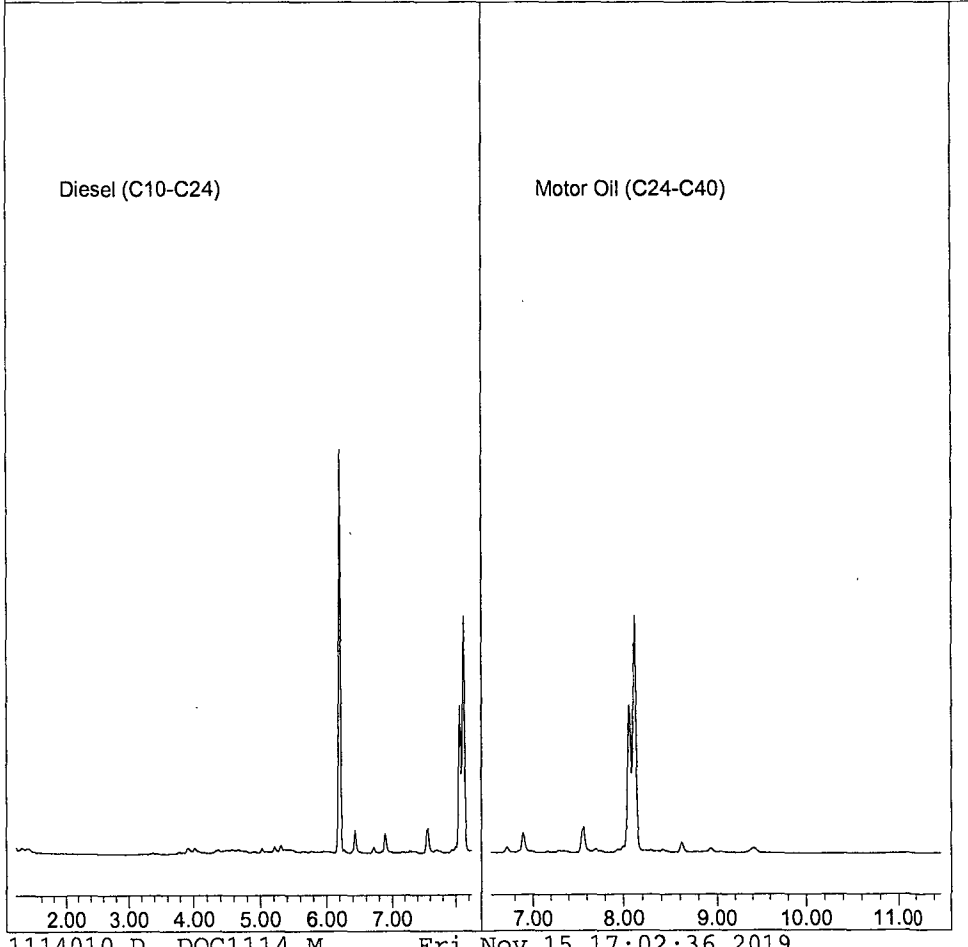
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds					
3) SA Ortho-Terphenyl(S)	6.20	95718085	84.498	ppb	
Surrogate Spike 75.000	Recovery =		112.66%		
4) SA Octacosane(S)	8.12	71527670	78.939	ppb	m
Surrogate Spike 75.000	Recovery =		105.25%		
Target Compounds					
Target Compounds					
1) HATM Diesel (C10-C24)	0.00	0	N.D.	ppb	
2) HBTM Motor Oil (C24-C40)	0.00	0	N.D.	ppb	

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: G:\APOLLO\DATA\191114\1114010.D
Sample : 191104A BLK 2/800

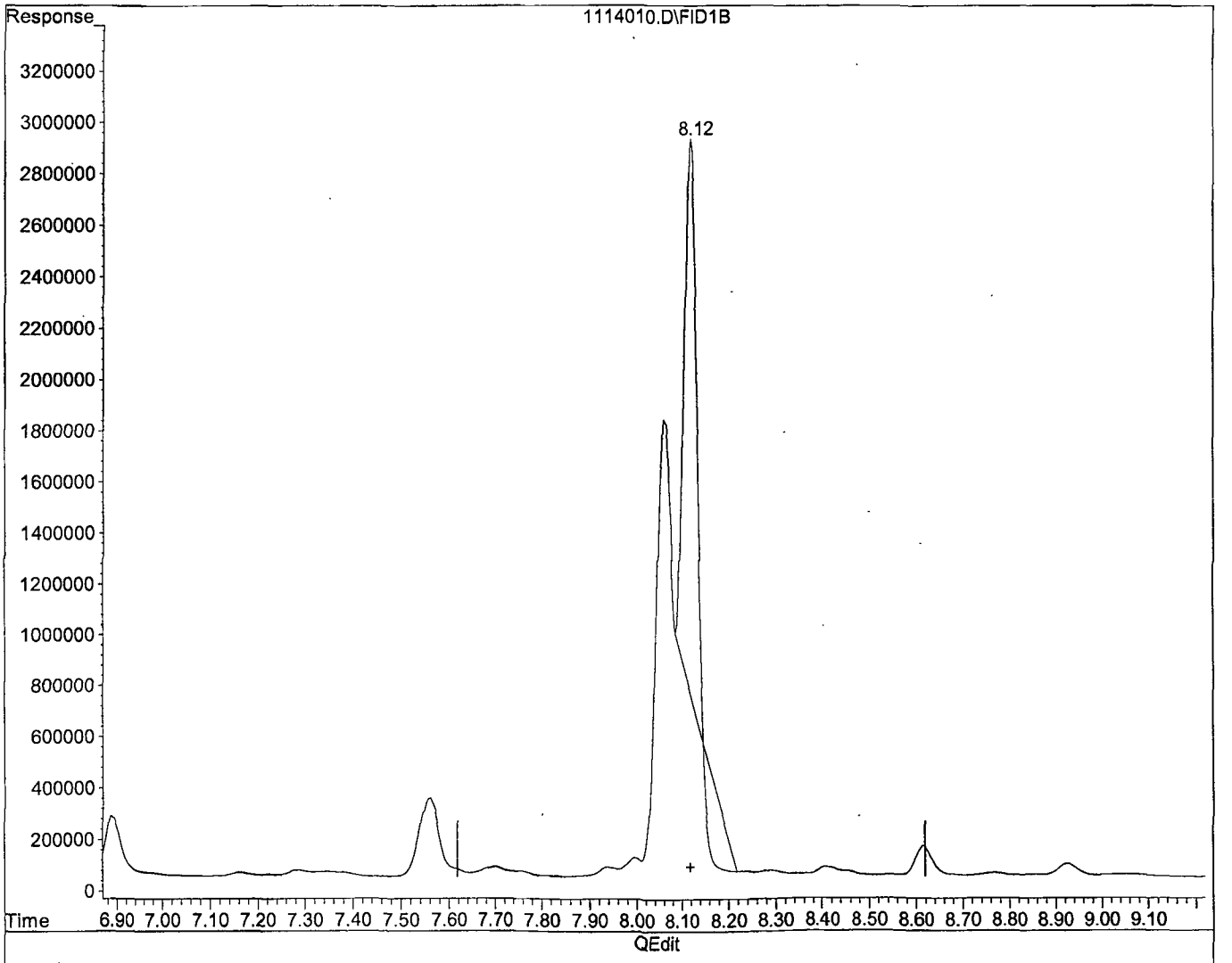




Quantitation Report

Data File : G:\APOLLO\DATA\191114\1114010.D Vial: 10
Acq On : 11-14-19 21:59:00 Operator: BT
Sample : 191104A BLK 2/800 Inst : Apollo
Misc : water Multiplr: 2.50
IntFile : events.e
Quant Time: Nov 15 14:45 2019 Quant Results File: DOC1114.RES

Method : G:\APOLLO\DATA\191114\DOC1114.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Nov 15 09:19:04 2019
Response via : Multiple Level Calibration



(4) Octacosane(S) (SA)

8.12min 35.782ppb

response 32422455

(+) = Expected Retention Time

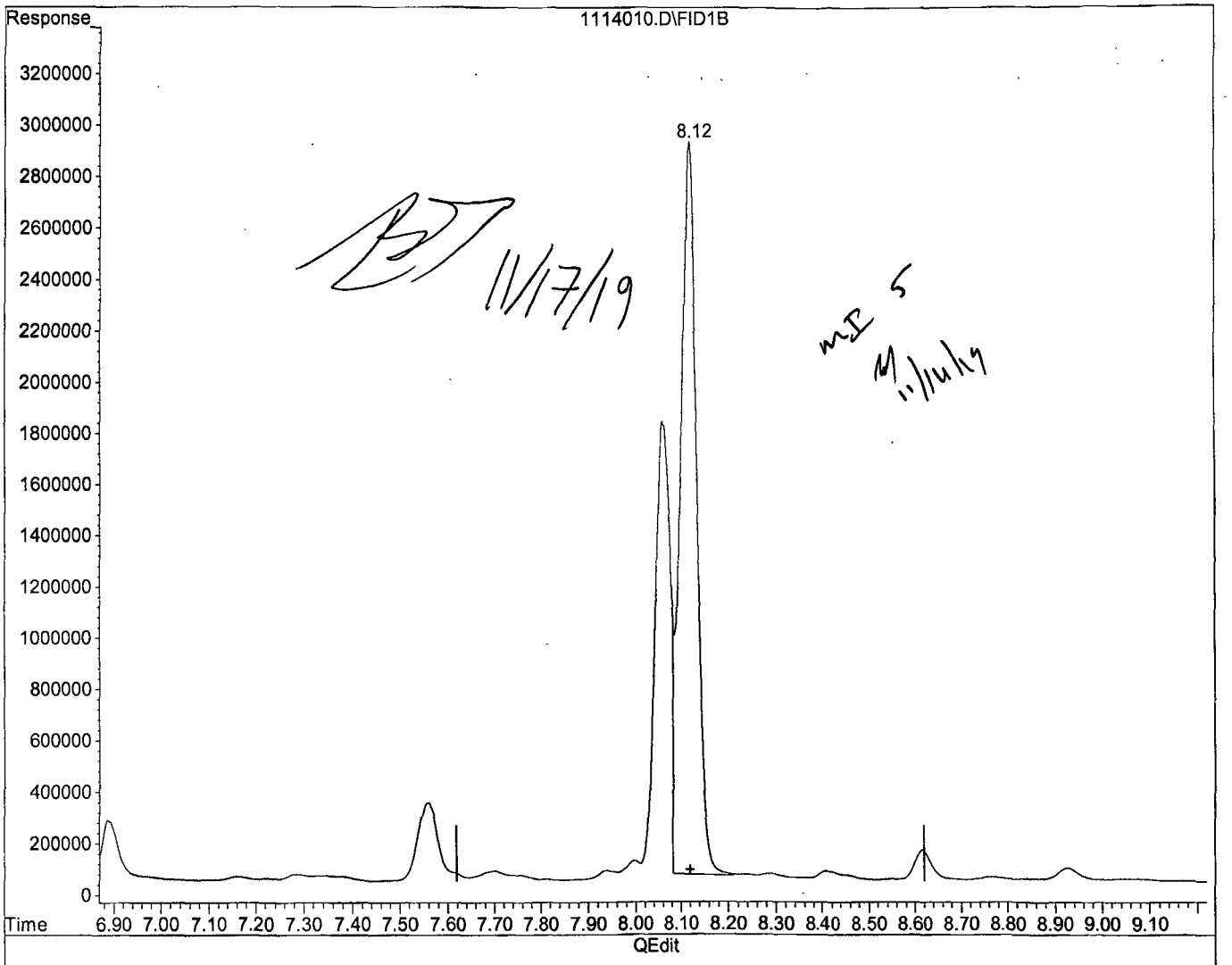
1114010.D DOC1114.M Fri Nov 15 14:47:39 2019

Quantitation Report

Data File : G:\APOLLO\DATA\191114\1114010.D
Acq On : 11-14-19 21:59:00
Sample : 191104A BLK 2/800
Misc : water
IntFile : events.e
Quant Time: Nov 15 14:45 2019 Quant Results File: DOC1114.RES

Vial: 10
Operator: BT
Inst : Apollo
Multiplr: 2.50

Method : G:\APOLLO\DATA\191114\DOC1114.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Nov 15 09:19:04 2019
Response via : Multiple Level Calibration



(4) Octacosane(S) (SA)

8.12min 78.939ppb m

response 71527670

(+) = Expected Retention Time

1114010.D DOC1114.M Fri Nov 15 14:47:57 2019

Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\191114\1114011.D Vial: 11
Acq On : 11-14-19 22:18:47 Operator: BT
Sample : 191104A LCS-1 2/800 Inst : Apollo
Misc : water Multiplr: 2.50
IntFile : events.e
Quant Time: Nov 15 14:45 2019 Quant Results File: DOC1114.RES

Method : G:\APOLLO\DATA\191114\DOC1114.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Nov 15 09:19:04 2019
Response via : Multiple Level Calibration

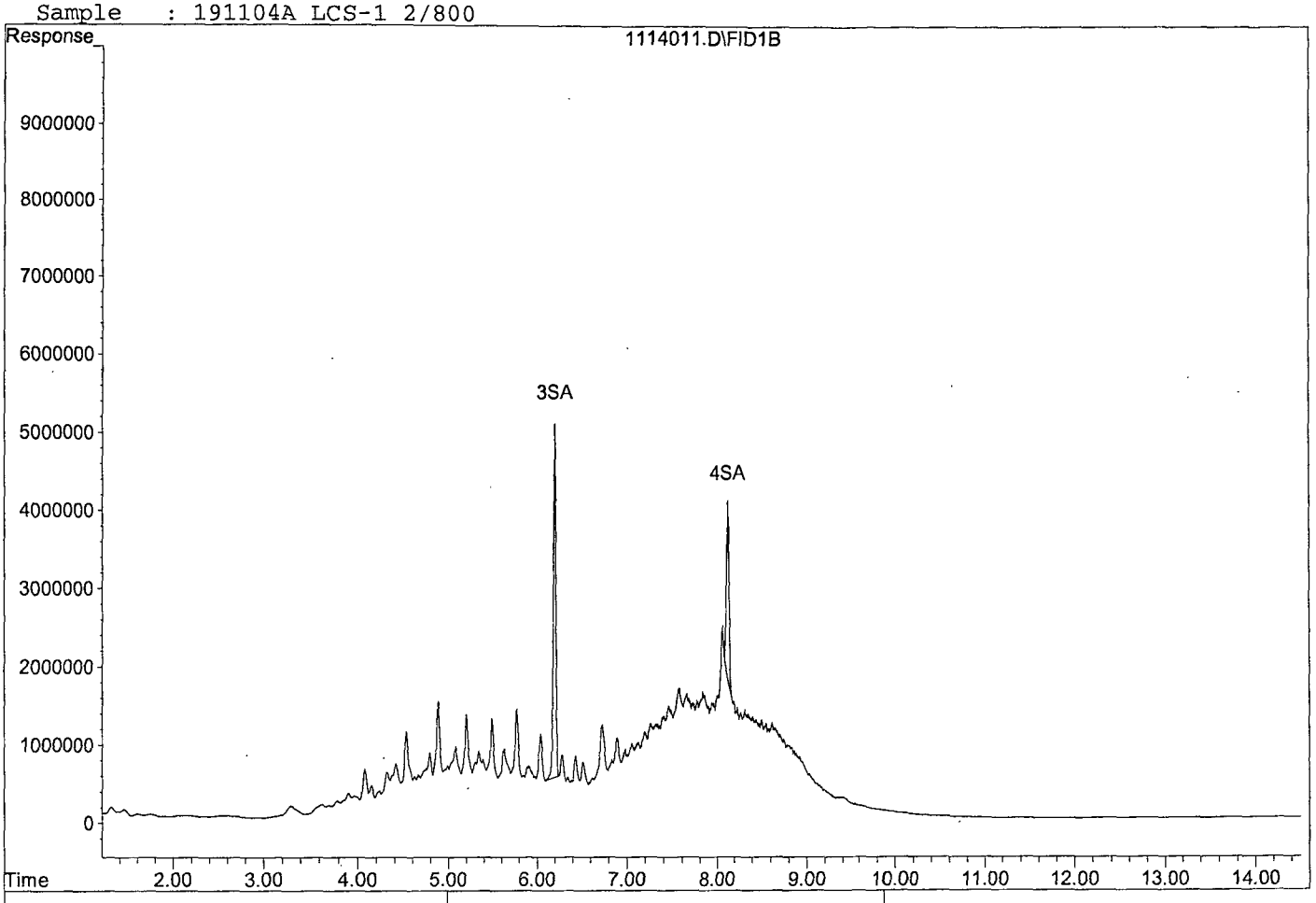
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

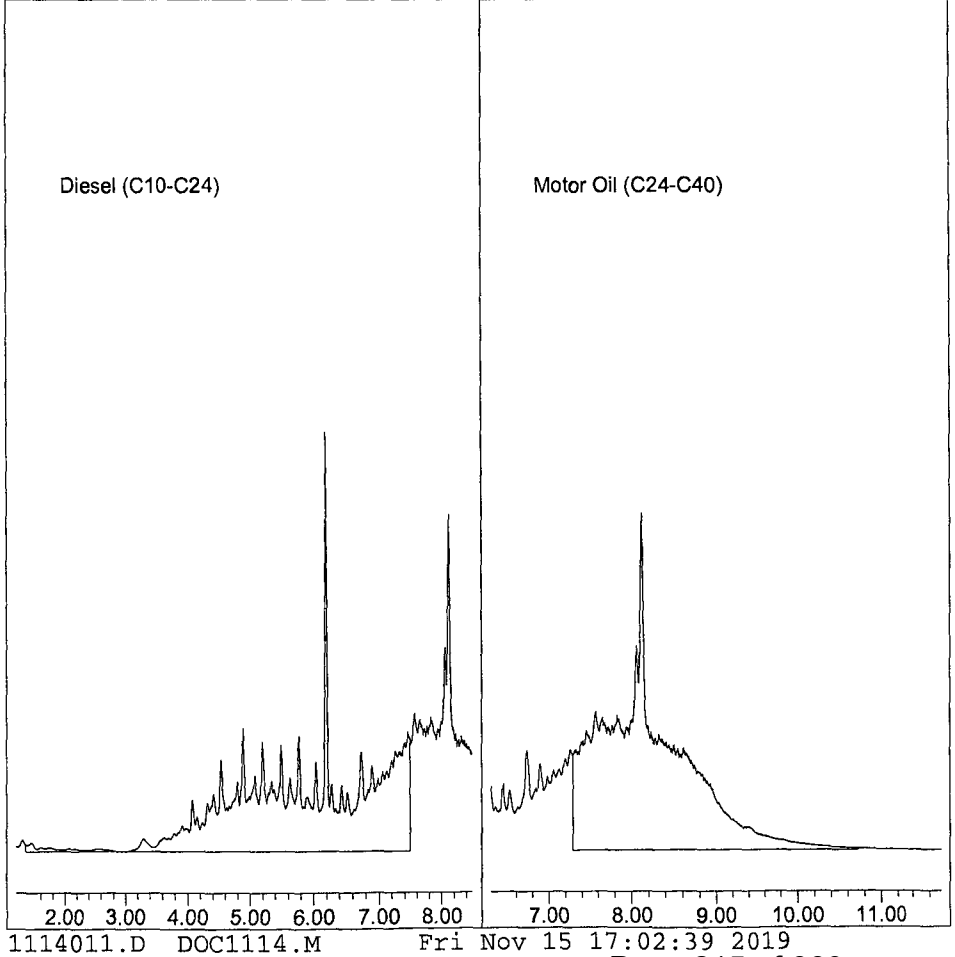
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) SA Ortho-Terphenyl(S)	6.20	89048685	78.393 ppb
Surrogate Spike 75.000		Recovery =	104.52%
4) SA Octacosane(S)	8.13	48942841	54.014 ppb
Surrogate Spike 75.000		Recovery =	72.02%
Target Compounds			
1) HATM Diesel (C10-C24)	4.42	1582024905	1310.723 ppb
2) HBTM Motor Oil (C24-C40)	9.01	1508069917	2395.759 ppb

Target Compounds

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: G:\APOLLO\DATA\191114\1114011.D
Sample : 191104A LCS-1 2/800





Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\191114\1114012.D Vial: 12
Acq On : 11-14-19 22:38:34 Operator: BT
Sample : 191104A LCSD-1 2/800 Inst : Apollo
Misc : water Multiplr: 2.50
IntFile : events.e
Quant Time: Nov 15 14:45 2019 Quant Results File: DOC1114.RES

Method : G:\APOLLO\DATA\191114\DOC1114.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Nov 15 09:19:04 2019
Response via : Multiple Level Calibration

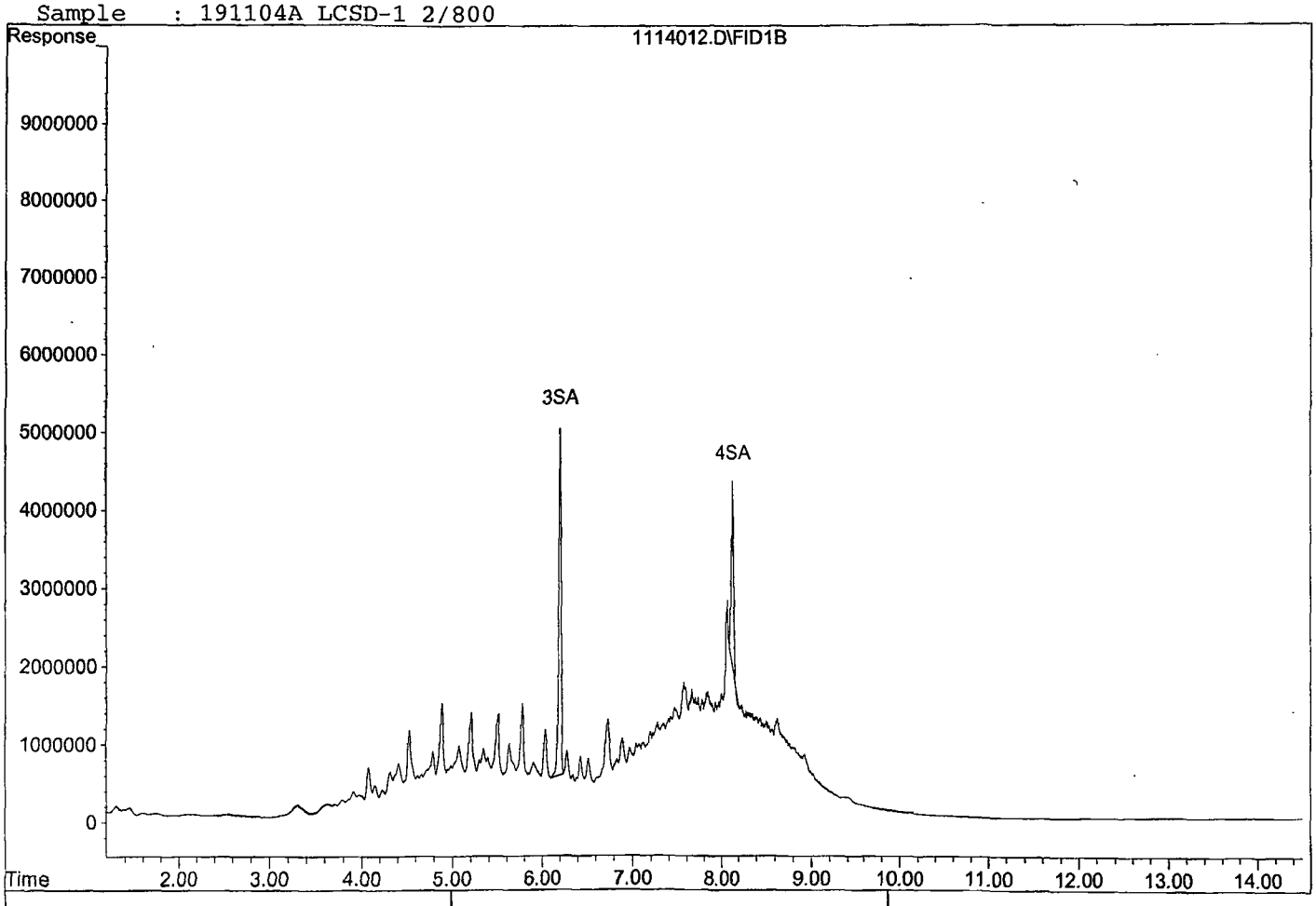
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

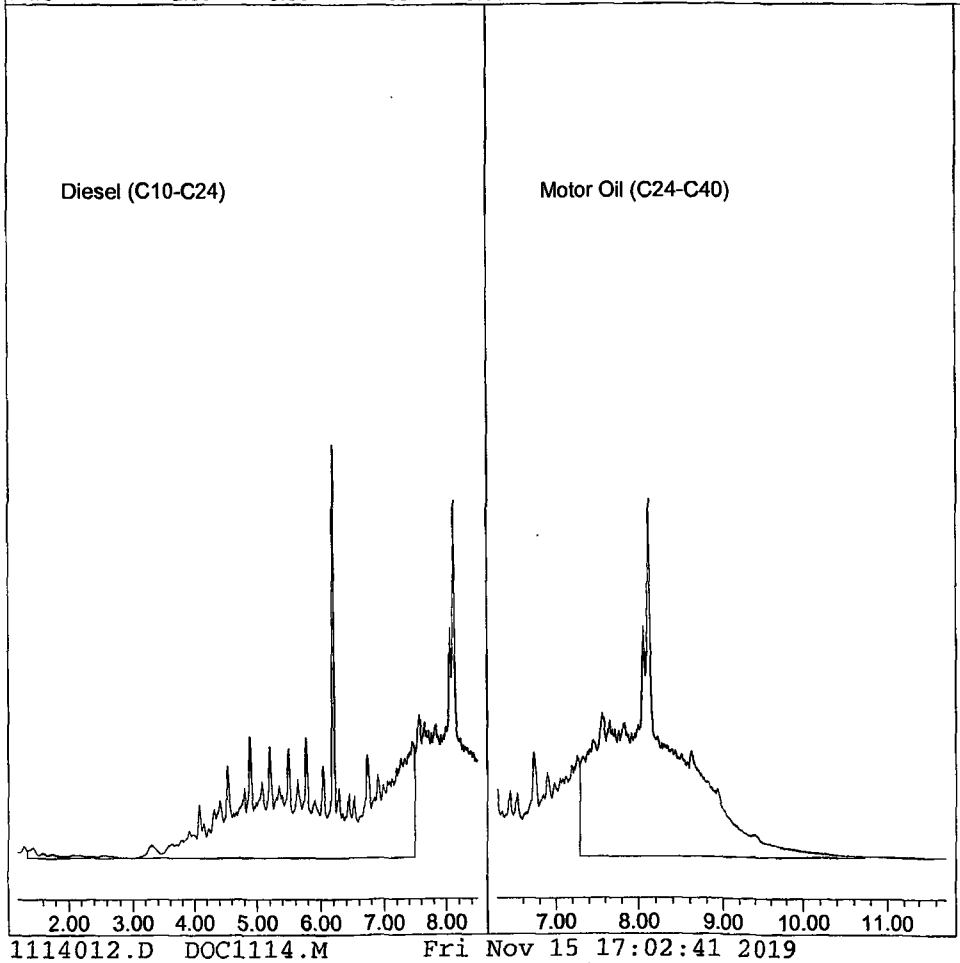
Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
3) SA Ortho-Terphenyl(S)	6.20	90161570	79.412	ppb
Surrogate Spike 75.000	Recovery =		105.88%	
4) SA Octacosane(S)	8.13	43035554	47.495	ppb
Surrogate Spike 75.000	Recovery =		63.33%	
Target Compounds				
1) HATM Diesel (C10-C24)	4.42	1607261609	1331.632	ppb
2) HBTM Motor Oil (C24-C40)	9.01	1502955315	2387.634	ppb
Target Compounds				

(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File: G:\APOLLO\DATA\191114\1114012.D
Sample : 191104A LCSD-1 2/800





1114012.D DOC1114.M Fri Nov 15 17:02:41 2019

Diesel / Motor Oil Calibration Curve

Prepared: 11/14/19

Expires: 05/13/20

Prepared By (Initials): BT

Methylene Chloride Lot No. 58059

Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference to APPL Prep Date	Exp. Date	Exp. Date (Manufacturer)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
Diesel / Motor Oil Calibration STD	APPL	Diesel / Motor Oil - 1	2,000	Prepared 11/14/19	09/11/20	N/A	5uL	1mL	MC	10
Diesel / Motor Oil Calibration STD	APPL	Diesel / Motor Oil -2	2,000	Prepared 11/14/19	09/11/20	N/A	25uL	1mL	MC	50
Diesel / Motor Oil Calibration STD	APPL	Diesel / Motor Oil - 3	2,000	Prepared 11/14/19	09/11/20	N/A	125uL	1mL	MC	250
Diesel / Motor Oil Calibration STD	APPL	Diesel / Motor Oil - 4	2,000	Prepared 11/14/19	09/11/20	N/A	500uL	1mL	MC	1000
Diesel / Motor Oil Calibration STD	APPL	Diesel / Motor Oil - 5	2,000	Prepared 11/14/19	09/11/20	N/A	750uL	1mL	MC	1500
Diesel / Motor Oil Calibration STD	APPL	Diesel / Motor Oil - 6	2,000	Prepared 11/14/19	09/11/20	N/A	100uL	100uL	N/A	2,000

Diesel / Motor Oil Second Source (SS)

Prepared: 01/15/19

Expires: 01/15/20

Prepared By (Initials): DP

Methylene Chloride Lot No. 56278

Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier Part No.	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr.)	Exp. Date (Manufacturer)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
Diesel Fuel #2	O2SI	G34-011598-03	50,000	**G34-319187-38958**	**08/02/19**	**09/29/21**	50uL	10mL	MC	250
Motor Oil Second Source	O2SI	116390-02-SS	50,000	**301142-37652**	**07/13/19**	**03/05/22**	50uL			

Diesel / Motor Oil Calibration Standard

Prepared: 11/14/19

Prepared By (Initials): BT

Expires: 09/11/20

Methylene Chloride Lot No. 58059

Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier Part No.	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr.)	Exp. Date (Manufacturer)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
Diesel Fuel #2	Restek	31258	50,000	**A0149066-41325**	**09/24/20**	**06/03/26**	400uL	10mL	MC	2000
Motor Oil	Restek	31464	50,000	**A0147736-41330**	**09/11/20**	**05/31/26**	400uL			2000
THC Surrogate	Phenova	ALO-130161	600	**CL13256-49449**	**11/13/20**	**11/28/24**	1666uL			100

THC Surrogate

Prepared: 10/29/19 **Prepared By (Initials):** BT

Expires: 10/29/20

Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier Part No.	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr.)	Exp. Date (Manufacturer)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
O-terphenyl / Octacosane Mix	Phenova	ALO-130161	600	**CL13256-49450**	**10/29/20**	**02/31/2024**	N/A	N/A	N/A	600

Diesel Spike

Prepared: 10/28/19 **Prepared By (Initials): BT**

Expires: 10/28/20

Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier Part No.	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr.)	Exp. Date (Manufacturer)	From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
Diesel Fuel #2	Restek	31258	50,000	**A0149066-41319**	**10/28/20**	**06/03/26**	N/A	N/A	N/A	50,000

Motor Oil Spike

Prepared: 10/30/19 **Prepared By (Initials): BT**

Expires: 10/30/20

Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier Part No.	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr.)	Exp. Date (Manufacturer)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
Motor Oil Composite	Restek	31464	50,000	**A0147736-41328**	**10/30/20**	**05/31/26**	N/A	N/A	N/A	50,000

Organic Extraction Worksheet

Method	Continuous Liq/Liq TPH-Diesel/MO 3520C	Extraction Set	191104A	Extraction Method	LIQ005	Units	mL

Spiked ID 1	Diesel Spike 10/28/19 10/28/20		Surrogate ID 1	THC Surrogate 10/29/19 10/29/20	
Spiked ID 2	Motor Oil Spike 10/30/19 10/30/20		Surrogate ID 2		
Spiked ID 3			Surrogate ID 3		
Spiked ID 4			Surrogate ID 4		
Spiked ID 5			Surrogate ID 5		
Spiked ID 6			Sufficient Vol for Matrix QC:		
Spiked ID 7			Ext. Start Time:	11/04/19 13:40	
Spiked ID 8			Ext. End Time:	11/05/19 10:40	
			GC Requires Extract By:		

pH1			Water Bath Temp 1 °C	75/74.2 °C
pH2			Water Bath Temp 2 °C	75/74.9
pH3			Water Bath Temp 3 °C	80/79.9 °C

Spiked By: DL **Date** 11/04/19 **Witnessed By:** YL **Date** 11/04/19

	Sample	Sample Container	Spike Amount	Spike ID	Surrogate Amount	Surrogate ID	Extract Amount	Final Volume	pH	Extract Date/Time	Comments
1	191104A Blk				1	0.100 equip	800	2	2Y	11/04/19 13:40	
2	191104A LCS-1		0.020,0.040	1,2	1	0.100 equip	800	2	2Y	11/04/19 13:40	
3	191104A LCSD-1		0.020,0.040	1,2	1	0.100 equip	800	2	2Y	11/04/19 13:40	
4	BA02090	BA02090W17			1	0.100 equip	800	2	2Y	11/04/19 13:40	90587
5	BA02091	BA02091W11			1	0.100 equip	800	2	2Y	11/04/19 13:40	90587
6	BA02160	BA02160W15			1	0.100 equip	800	2	2Y	11/04/19 13:40	90599
7	BA02214	BA02214W23			1	0.100 equip	800	2	2Y	11/04/19 13:40	90611
8	BA02216	BA02216W16			1	0.100 equip	800	2	2Y	11/04/19 13:40	90611
9	BA02301	BA02301W14			1	0.100 equip	800	2	2Y	11/04/19 13:40	90625

Solvent and Lot#	
1+1 HCL	.6-15-19
PH Strips	HC863463
Dicholormethane (DCM)	59130
Filter Paper	.400171
B. Sodium Sulfate	2019020631
Silica Gel (*)	.

Extraction COC Transfer	
Extraction lab employee Initials	
GC analyst's initials	
Date	
Time	
Refrigerator	

	Technician's Initials
Scanned By	DS
Sample Preparation	DL YL RB
Extraction	DL
Concentration	DL

Modified	11/16/19 5:34:48 AM

Reviewed By: **Date**

Injection Log

Directory: G:\APOLLO\DATA\191114\

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	3	1114003.D	1	Diesel Motor Oil - 1 11/14/19	water	11-14-19 19:39:49
2	4	1114004.D	1	Diesel Motor Oil - 2 11/14/19	water	11-14-19 19:59:46
3	5	1114005.D	1	Diesel Motor Oil - 3 11/14/19	water	11-14-19 20:19:39
4	6	1114006.D	1	Diesel Motor Oil - 4 11/14/19	water	11-14-19 20:39:34
5	7	1114007.D	1	Diesel Motor Oil - 5 11/14/19	water	11-14-19 20:59:26
6	8	1114008.D	1	Diesel Motor Oil - 6 11/14/19	water	11-14-19 21:19:19
7	9	1114009.D	1	Diesel Motor Oil Second Source 1/15/19	water	11-14-19 21:39:10
8	10	1114010.D	2.5	191104A BLK 2/800	water	11-14-19 21:59:00
9	11	1114011.D	2.5	191104A LCS-1 2/800	water	11-14-19 22:18:47
10	12	1114012.D	2.5	191104A LCSD-1 2/800	water	11-14-19 22:38:34
11	16	1114016.D	2.5	BA02214W23 2/800	water	11-14-19 23:57:17
12	17	1114017.D	2.5	BA02216W16 2/800	water	11-15-19 0:16:16
13	19	1114019.D	1	Diesel Motor Oil CCV 11/14/19	water	11-15-19 0:55:27

ORGANICS
Calibration Data

PAH by GCMS SIM
EPA 8270 SIM

Form 6
Initial Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Initial Cal. Date: 10/28/19
Matrix: Instrument: Linus
Initials: MA LP

			1028L005.D	1028L006.D	1028L007.D	1028L008.D	1028L004.D	1028L009.D	1028L010.D	1028L011.D								
		Compound	0.1	0.2	0.5	1	5	20	50	100			Avg	%RSD	Type	r^2	Q	MRF
1	I	Napthalene-D8(IS)																
2	S	Surrogate Recovery (NBZ)	0.6154	0.4960	0.4602	0.4714	0.4325	0.4265	0.4474	0.4616			0.48	13	S			
3	TM	Naphthalene	1.353	1.324	1.228	1.322	1.154	1.233	1.170	1.137			1.2	6.8	TM			0.700
4	S	2-Methylnaphthalene-D10 (2M	1.381	1.311	1.233	1.321	1.228	1.192	1.177	1.148			1.2	6.5	S			
5	TM	2-Methylnaphthalene	0.7871	0.7676	0.7353	0.7876	0.7127	0.7463	0.6996	0.6884			0.74	5.2	TM			0.400
6	TM	1-Methylnaphthalene	0.8729	0.8587	0.7207	0.7851	0.7016	0.7332	0.6925	0.6878			0.76	9.8	TM			
7	I	Acenaphthene-D10(IS)																
8	S	Surrogate Recovery (FBP)	2.084	2.067	1.863	2.099	1.844	1.830	1.715	1.653			1.9	9.1	S			
9	TM	Acenaphthylene	5.495	5.363	5.078	5.658	5.251	5.751	5.010	4.930			5.3	5.7	TM			0.900
10	*TM	Acenaphthene	1.708	1.625	1.517	1.618	1.412	1.529	1.338	1.439			1.5	8.1	*TM			0.900
11	TM	Fluorene	1.748	1.717	1.628	1.812	1.633	1.776	1.673	1.592			1.7	4.6	TM			0.900
12	I	Phenanthrene-D10(IS)																
13	TM	Phenanthrene	1.669	1.541	1.498	1.635	1.381	1.470	1.355	1.265			1.5	9.4	TM			0.700
14	TM	Anthracene	1.260	1.193	1.201	1.358	1.291	1.363	1.276	1.260			1.3	4.9	TM			0.700
15	S	Fluoranthene-D10 (FRT)	1.894	1.787	1.721	1.903	1.860	1.907	1.799	1.683			1.8	4.7	S			
16	*TM	Fluoranthene	2.125	1.989	1.963	2.216	2.039	2.159	1.845	1.771			2.0	7.6	*TM			0.600
17	I	Chrysene-D12(IS)																
18	TM	Pyrene	1.917	1.787	1.752	1.917	1.747	1.808	1.714	1.669			1.8	5.0	TM			0.600
19	S	Surrogate Recovery (TPH)	1.035	0.9626	0.9160	0.9919	0.9371	0.9175	0.9804	0.9502			0.96	4.2	S			
20	TM	Benz (a) anthracene	1.534	1.359	1.345	1.415	1.416	1.448	1.430	1.415			1.4	4.0	TM			0.800
21	TM	Chrysene	1.877	1.680	1.536	1.668	1.444	1.534	1.433	1.409			1.6	10	TM			0.700
22	TM	Indeno (1,2,3-cd) pyrene	1.476	1.215	1.084	1.244	1.392	1.511	1.583	1.595			1.4	14	TM			0.500
23	I	Perylene-D12(IS)																
24	TM	Benzo (b) fluoranthene	1.329	1.058	1.106	1.231	1.301	1.421	1.375	1.322			1.3	10	TM			0.700
25	TM	Benzo (k) fluoranthene	1.285	1.483	1.360	1.569	1.476	1.628	1.346	1.365			1.4	8.3	TM			0.700
26	*TM	Benzo (a) pyrene	1.142	0.9908	0.9637	1.073	1.246	1.377	1.283	1.260			1.2	13	*TM			0.700
27	TM	Dibenz (a,h) anthracene	1.207	1.035	0.9842	1.085	1.167	1.279	1.208	1.243			1.2	9.1	TM			0.400
28	TM	Benzo (g,h,i) perylene	1.405	1.180	1.137	1.241	1.225	1.358	1.281	1.283			1.3	7.0	TM			0.500
29																		
30																		
31																		
32																		
33																		
34																		
35																		

Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L191028\1028L004.D Vial: 4
Acq On : 28 Oct 19 12:26 Operator: MA
Sample : 5 SIM 10/28/19(2) Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 30 10:37 2019 Quant Results File: L1028.RES

Quant Method : M:\LINUS\DATA\L191028\L1028.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 30 10:36:52 2019
Response via : Initial Calibration
DataAcq Meth : SIM_2

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Napthalene-D8(IS)	4.27	136	42509	2.50000 ppb		0.00
7) Acenaphthene-D10(IS)	6.27	164	17630	2.50000 ppb		0.00
12) Phenanthrene-D10(IS)	7.99	188	30825	2.50000 ppb		0.00
17) Chrysene-D12(IS)	11.11	240	35746	2.50000 ppb		0.00
23) Perylene-D12(IS)	13.53	264	35057	2.50000 ppb		0.00
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	3.49	82	18387	2.26999 ppb		0.00
Spiked Amount 5.000			Recovery	= 45.400%		
4) 2-Methylnaphthalene-D10 (2	5.05	152	52219	2.45912 ppb		0.00
Spiked Amount 5.000			Recovery	= 49.180%		
8) Surrogate Recovery (FBP)	5.52	172	32516	2.43389 ppb		0.00
Spiked Amount 5.000			Recovery	= 48.680%		
15) Fluoranthene-D10 (FRT)	9.37	212	57325	2.55457 ppb		0.00
Spiked Amount 5.000			Recovery	= 51.100%		
19) Surrogate Recovery (TPH)	9.86	244	33496	2.43703 ppb		0.00
Spiked Amount 5.000			Recovery	= 48.740%		
Target Compounds						Qvalue
3) Naphthalene	4.30	128	98104	4.65241 ppb		100
5) 2-Methylnaphthalene	5.08	142	60590	4.81172 ppb		100
6) 1-Methylnaphthalene	5.19	142	59650	4.63689 ppb		100
9) Acenaphthylene	6.11	152	185151	4.93782 ppb		100
10) Acenaphthene	6.30	154	49783	4.63497 ppb		100
11) Fluorene	6.90	166	57596	4.81102 ppb		100
13) Phenanthrene	8.01	178	85147	4.67624 ppb		100
14) Anthracene	8.08	178	79570	5.06096 ppb		100
16) Fluoranthene	9.39	202	125700	5.02216 ppb		100
18) Pyrene	9.64	202	124886	4.88571 ppb		100
20) Benz (a) anthracene	11.09	228	101233	4.98555 ppb		100
21) Chrysene	11.14	228	103205	4.58223 ppb		100
22) Indeno (1,2,3-cd) pyrene	15.00	276	99497	5.01530 ppb	#	100
24) Benzo (b) fluoranthene	12.90	252	91200	5.12901 ppb		100
25) Benzo (k) fluoranthene	12.95	252	103463	5.12718 ppb		100
26) Benzo (a) pyrene	13.43	252	87360	5.33556 ppb		100
27) Dibenz (a,h) anthracene	15.05	278	81789	5.06796 ppb		100
28) Benzo (g,h,i) perylene	15.38	276	85903	4.84757 ppb		100

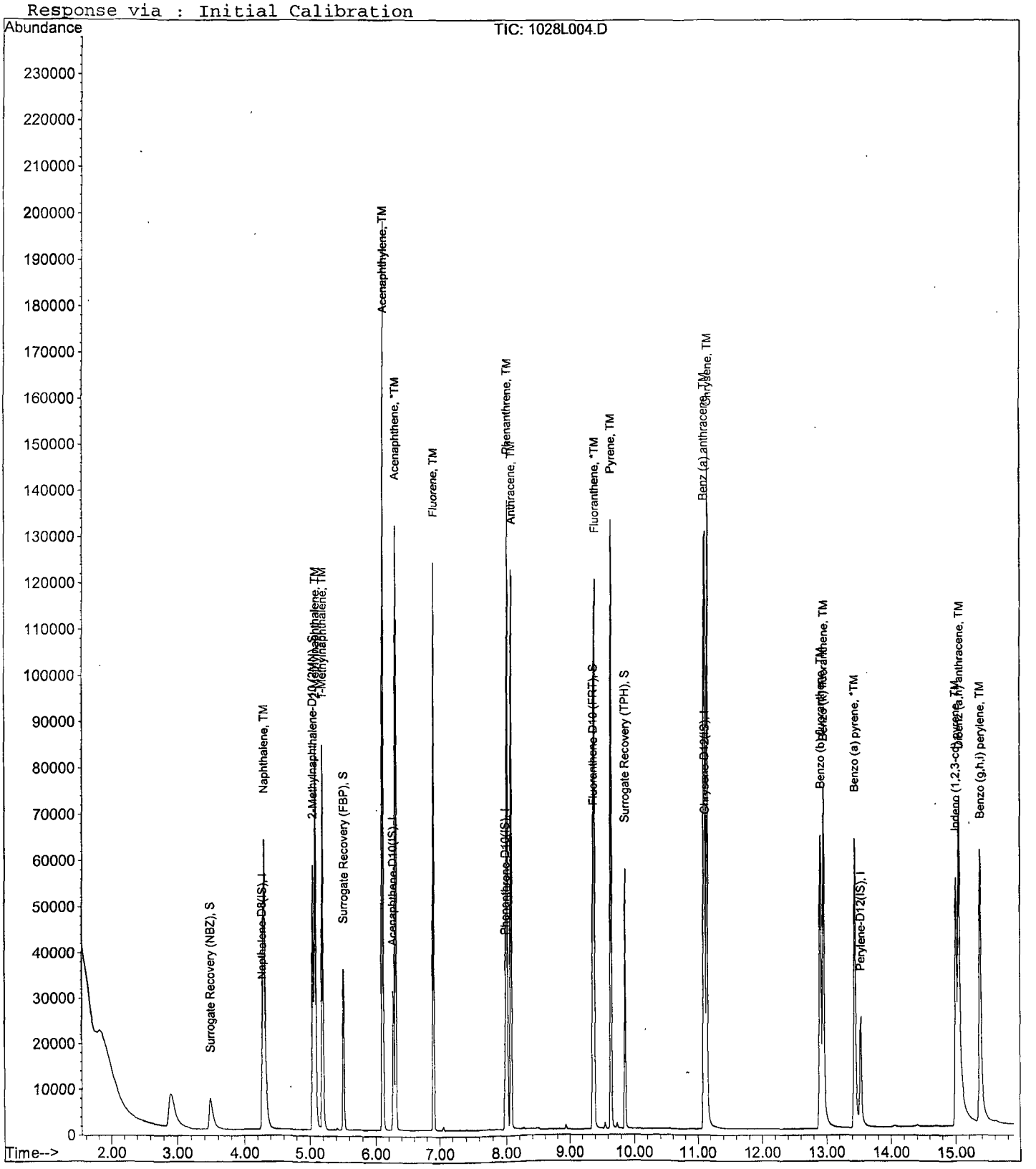
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L191028\1028L004.D Vial: 4
Acq On : 28 Oct 19 12:26 Operator: MA
Sample : 5 SIM 10/28/19(2) Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 30 10:37 2019 Quant Results File: L1028.RES

Method : M:\LINUS\DATA\L191028\L1028.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 30 10:39:31 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L191028\1028L005.D Vial: 5
Acq On : 28 Oct 19 12:51 Operator: MA
Sample : 0.1 SIM 10/28/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 30 10:34 2019 Quant Results File: L1028.RES

Quant Method : M:\LINUS\DATA\L191028\L1028.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 30 10:34:31 2019
Response via : Initial Calibration
DataAcq Meth : SIM_2

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Napthalene-D8(IS)	4.27	136	39324	2.50000 ppb		0.00
7) Acenaphthene-D10(IS)	6.27	164	16174	2.50000 ppb		0.00
12) Phenanthrene-D10(IS)	7.99	188	28360	2.50000 ppb		0.00
17) Chrysene-D12(IS)	11.10	240	31560	2.50000 ppb		-0.01
23) Perylene-D12(IS)	13.52	264	31724	2.50000 ppb		-0.01
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	3.49	82	484	0.06459 ppb		0.00
Spiked Amount 5.000			Recovery = 1.300%			
4) 2-Methylnaphthalene-D10 (2	5.05	152	1086	0.05528 ppb		0.00
Spiked Amount 5.000			Recovery = 1.100%			
8) Surrogate Recovery (FBP)	5.52	172	674	0.05499 ppb		0.00
Spiked Amount 5.000			Recovery = 1.100%			
15) Fluoranthene-D10 (FRT)	9.36	212	1074	0.05202 ppb		-0.01
Spiked Amount 5.000			Recovery = 1.040%			
19) Surrogate Recovery (TPH)	9.86	244	653	0.05381 ppb		0.00
Spiked Amount 5.000			Recovery = 1.080%			
Target Compounds						Qvalue
3) Naphthalene	4.30	128	2128	0.10909 ppb		99
5) 2-Methylnaphthalene	5.08	142	1238	0.10628 ppb		99
6) 1-Methylnaphthalene	5.19	142	1373	0.11537 ppb		95
9) Acenaphthylene	6.11	152	3555	0.10334 ppb		99
10) Acenaphthene	6.30	154	1105	0.11214 ppb		95
11) Fluorene	6.90	166	1131	0.10298 ppb		98
13) Phenanthrene	8.02	178	1893	0.11300 ppb		98
14) Anthracene	8.08	178	1429	0.09879 ppb		99
16) Fluoranthene	9.38	202	2411	0.10470 ppb	#	85
18) Pyrene	9.64	202	2420	0.10723 ppb		94
20) Benz (a) anthracene	11.09	228	1936	0.10799 ppb		99
21) Chrysene	11.14	228	2369	0.11913 ppb		96
22) Indeno (1,2,3-cd) pyrene	15.00	276	1863	0.10636 ppb	#	93
24) Benzo (b) fluoranthene	12.89	252	1687	0.10484 ppb		98
25) Benzo (k) fluoranthene	12.95	252	1630	0.08926 ppb		96
26) Benzo (a) pyrene	13.43	252	1449	0.09780 ppb		96
27) Dibenz (a,h) anthracene	15.04	278	1531	0.10483 ppb	#	91
28) Benzo (g,h,i) perylene	15.37	276	1783	0.11119 ppb		99

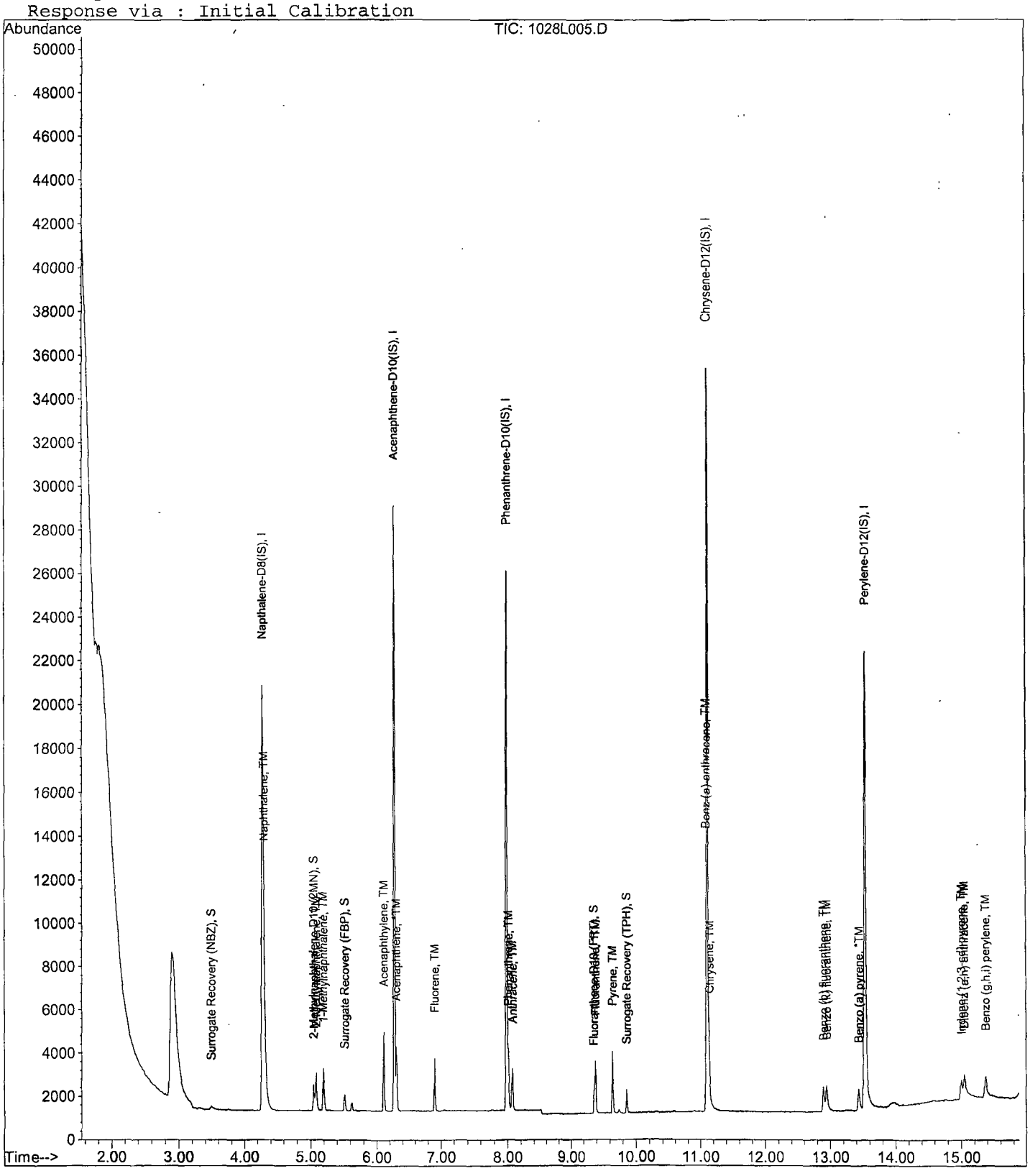
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L191028\1028L005.D Vial: 5
Acq On : 28 Oct 19 12:51 Operator: MA
Sample : 0.1 SIM 10/28/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 30 10:34 2019 Quant Results File: L1028.RES

Method : M:\LINUS\DATA\L191028\L1028.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 30 10:39:31 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L191028\1028L006.D Vial: 6
Acq On : 28 Oct 19 13:13 Operator: MA
Sample : 0.2 SIM 10/28/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 30 10:34 2019 Quant Results File: L1028.RES

Quant Method : M:\LINUS\DATA\L191028\L1028.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 30 10:34:31 2019
Response via : Initial Calibration
DataAcq Meth : SIM_2

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Napthalene-D8(IS)	4.27	136	38562	2.50000 ppb		0.00
7) Acenaphthene-D10(IS)	6.27	164	15986	2.50000 ppb		0.00
12) Phenanthrene-D10(IS)	7.99	188	28375	2.50000 ppb		0.00
17) Chrysene-D12(IS)	11.10	240	31295	2.50000 ppb		-0.01
23) Perylene-D12(IS)	13.52	264	30972	2.50000 ppb		-0.01
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	3.49	82	765	0.10411 ppb		0.00
Spiked Amount 5.000			Recovery =	2.080%		
4) 2-Methylnaphthalene-D10 (2	5.05	152	2022	0.10497 ppb		0.00
Spiked Amount 5.000			Recovery =	2.100%		
8) Surrogate Recovery (FBP)	5.52	172	1322	0.10913 ppb		0.00
Spiked Amount 5.000			Recovery =	2.180%		
15) Fluoranthene-D10 (FRT)	9.36	212	2028	0.09818 ppb		-0.01
Spiked Amount 5.000			Recovery =	1.960%		
19) Surrogate Recovery (TPH)	9.86	244	1205	0.10014 ppb		0.00
Spiked Amount 5.000			Recovery =	2.000%		
Target Compounds						Qvalue
3) Naphthalene	4.30	128	4084	0.21350 ppb		99
5) 2-Methylnaphthalene	5.08	142	2368	0.20730 ppb		97
6) 1-Methylnaphthalene	5.19	142	2649	0.22700 ppb		98
9) Acenaphthylene	6.11	152	6859	0.20174 ppb		99
10) Acenaphthene	6.30	154	2078	0.21337 ppb		99
11) Fluorene	6.90	166	2196	0.20230 ppb		97
13) Phenanthrene	8.01	178	3498	0.20870 ppb		99
14) Anthracene	8.08	178	2709	0.18718 ppb		100
16) Fluoranthene	9.38	202	4516	0.19601 ppb	#	82
18) Pyrene	9.64	202	4473	0.19988 ppb		94
20) Benz (a) anthracene	11.09	228	3402	0.19137 ppb		98
21) Chrysene	11.14	228	4205	0.21325 ppb		96
22) Indeno (1,2,3-cd) pyrene	15.00	276	3043	0.17520 ppb	#	80
24) Benzo (b) fluoranthene	12.89	252	2622	0.16691 ppb	#	95
25) Benzo (k) fluoranthene	12.95	252	3675	0.20614 ppb		97
26) Benzo (a) pyrene	13.43	252	2455	0.16972 ppb	#	93
27) Dibenz (a,h) anthracene	15.04	278	2564	0.17983 ppb		95
28) Benzo (g,h,i) perylene	15.37	276	2923	0.18670 ppb		93

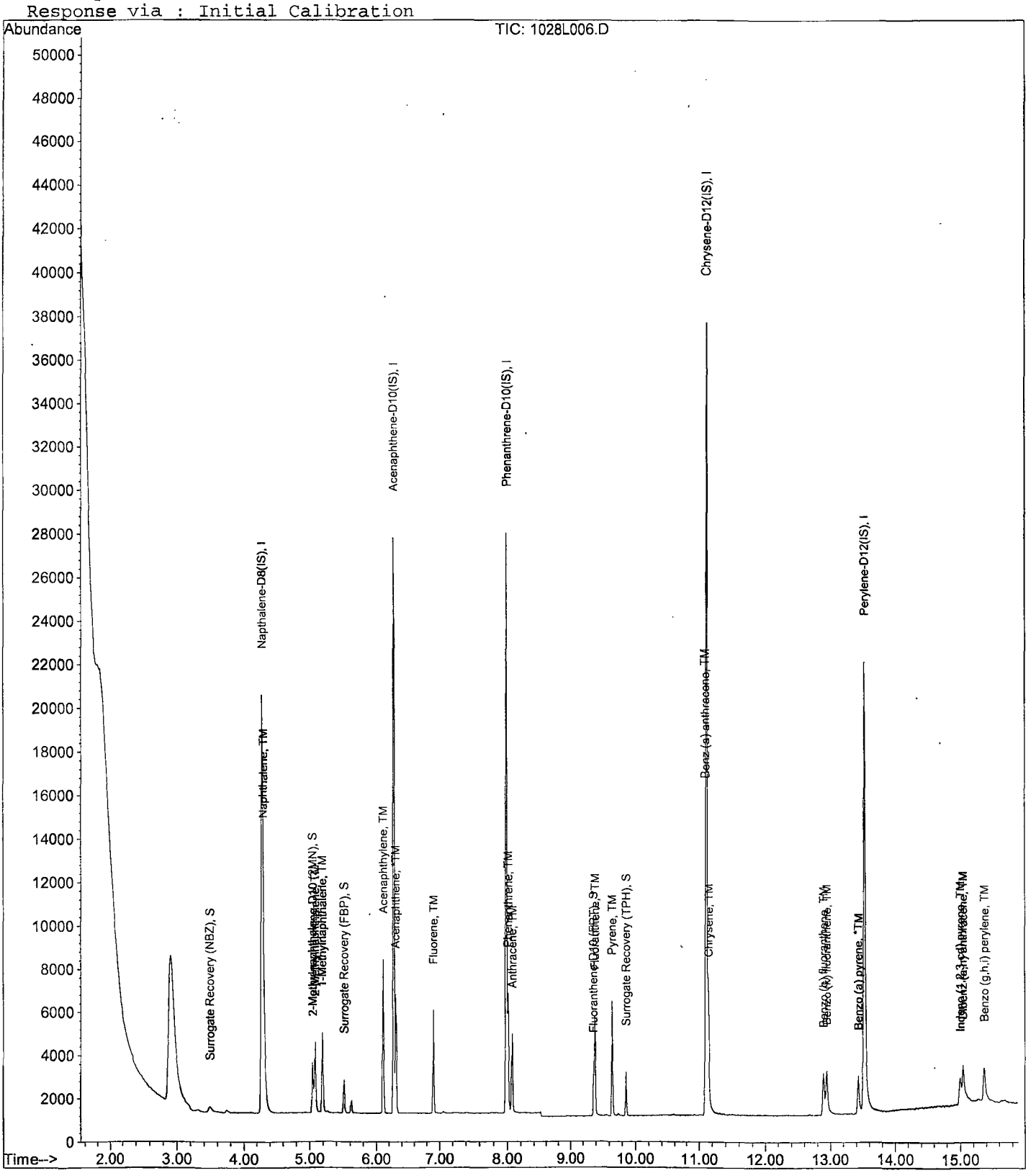
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L191028\1028L006.D Vial: 6
Acq On : 28 Oct 19 13:13 Operator: MA
Sample : 0.2 SIM 10/28/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 30 10:34 2019 Quant Results File: L1028.RES

Method : M:\LINUS\DATA\L191028\L1028.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 30 10:39:31 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L191028\1028L007.D Vial: 7
Acq On : 28 Oct 19 13:35 Operator: MA
Sample : 0.5 SIM 10/28/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 30 10:35 2019 Quant Results File: L1028.RES

Quant Method : M:\LINUS\DATA\L191028\L1028.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 30 10:34:31 2019
Response via : Initial Calibration
DataAcq Meth : SIM_2

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Napthalene-D8(IS)	4.27	136	37004	2.50000	ppb		0.00
7) Acenaphthene-D10(IS)	6.28	164	15527	2.50000	ppb		0.01
12) Phenanthrene-D10(IS)	7.99	188	27459	2.50000	ppb		0.00
17) Chrysene-D12(IS)	11.11	240	30862	2.50000	ppb		0.00
23) Perylene-D12(IS)	13.53	264	29964	2.50000	ppb		0.00
System Monitoring Compounds							
2) Surrogate Recovery (NBZ)	3.49	82	1703	0.24152	ppb		0.00
Spiked Amount 5.000			Recovery =	4.840%			
4) 2-Methylnaphthalene-D10 (2	5.05	152	4562	0.24680	ppb		0.00
Spiked Amount 5.000			Recovery =	4.940%			
8) Surrogate Recovery (FBP)	5.52	172	2893	0.24588	ppb		0.00
Spiked Amount 5.000			Recovery =	4.920%			
15) Fluoranthene-D10 (FRT)	9.37	212	4727	0.23647	ppb		0.00
Spiked Amount 5.000			Recovery =	4.720%			
19) Surrogate Recovery (TPH)	9.86	244	2827	0.23823	ppb		0.00
Spiked Amount 5.000			Recovery =	4.760%			
Target Compounds							Qvalue
3) Naphthalene	4.30	128	9091	0.49526	ppb		99
5) 2-Methylnaphthalene	5.08	142	5442	0.49647	ppb		100
6) 1-Methylnaphthalene	5.19	142	5334	0.47632	ppb		96
9) Acenaphthylene	6.11	152	15769	0.47751	ppb		100
10) Acenaphthene	6.30	154	4710	0.49791	ppb		98
11) Fluorene	6.90	166	5056	0.47953	ppb		98
13) Phenanthrene	8.02	178	8228	0.50727	ppb		98
14) Anthracene	8.08	178	6595	0.47089	ppb		99
16) Fluoranthene	9.39	202	10783	0.48363	ppb		98
18) Pyrene	9.64	202	10814	0.49001	ppb		96
20) Benz (a) anthracene	11.09	228	8304	0.47368	ppb		99
21) Chrysene	11.14	228	9479	0.48746	ppb		99
22) Indeno (1,2,3-cd) pyrene	15.00	276	6693	0.39076	ppb	#	90
24) Benzo (b) fluoranthene	12.89	252	6629	0.43618	ppb	#	95
25) Benzo (k) fluoranthene	12.95	252	8149	0.47247	ppb		97
26) Benzo (a) pyrene	13.44	252	5775	0.41266	ppb		95
27) Dibenz (a,h) anthracene	15.04	278	5898	0.42758	ppb	#	89
28) Benzo (g,h,i) perylene	15.37	276	6815	0.44994	ppb		95

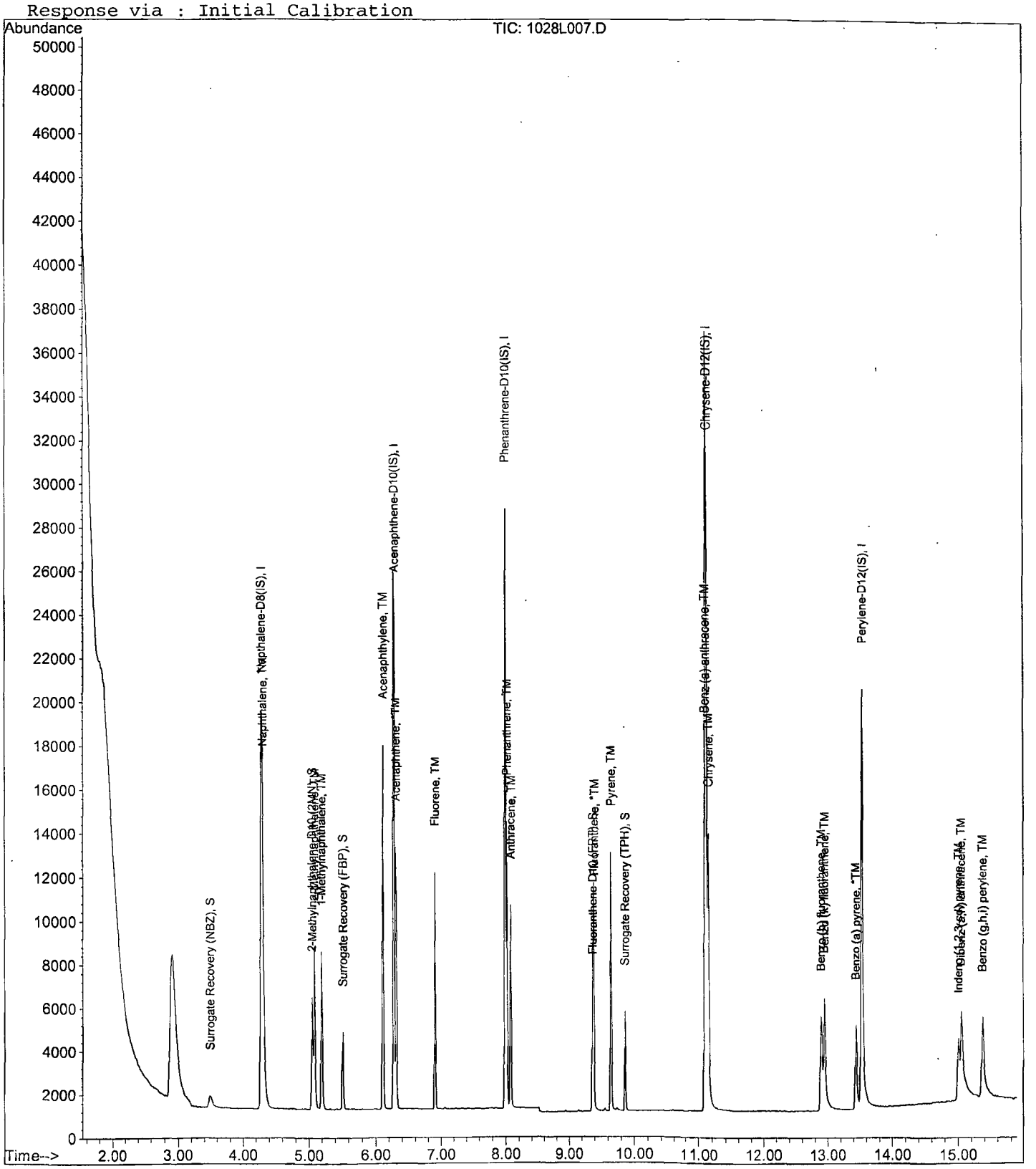
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L191028\1028L007.D Vial: 7
Acq On : 28 Oct 19 13:35 Operator: MA
Sample : 0.5 SIM 10/28/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 30 10:35 2019 Quant Results File: L1028.RES

Method : M:\LINUS\DATA\L191028\L1028.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 30 10:39:31 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L191028\1028L008.D Vial: 8
Acq On : 28 Oct 19 13:57 Operator: MA
Sample : 1 SIM 10/28/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 30 10:35 2019 Quant Results File: L1028.RES

Quant Method : M:\LINUS\DATA\L191028\L1028.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 30 10:34:31 2019
Response via : Initial Calibration
DataAcq Meth : SIM_2

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Napthalene-D8(IS)	4.29	136	32025	2.50000 ppb		0.01
7) Acenaphthene-D10(IS)	6.28	164	13099	2.50000 ppb		0.01
12) Phenanthrene-D10(IS)	7.99	188	23028	2.50000 ppb		0.00
17) Chrysene-D12(IS)	11.11	240	26425	2.50000 ppb		0.00
23) Perylene-D12(IS)	13.53	264	25032	2.50000 ppb		0.00
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	3.49	82	3019	0.49473 ppb		0.00
Spiked Amount 5.000			Recovery	= 9.900%		
4) 2-Methylnaphthalene-D10 (2	5.05	152	8459	0.52876 ppb		0.00
Spiked Amount 5.000			Recovery	= 10.580%		
8) Surrogate Recovery (FBP)	5.52	172	5500	0.55409 ppb		0.00
Spiked Amount 5.000			Recovery	= 11.080%		
15) Fluoranthene-D10 (FRT)	9.37	212	8766	0.52290 ppb		0.00
Spiked Amount 5.000			Recovery	= 10.460%		
19) Surrogate Recovery (TPH)	9.86	244	5242	0.51591 ppb		0.00
Spiked Amount 5.000			Recovery	= 10.320%		
Target Compounds						Qvalue
3) Naphthalene	4.30	128	16930	1.06571 ppb		100
5) 2-Methylnaphthalene	5.08	142	10089	1.06351 ppb		99
6) 1-Methylnaphthalene	5.19	142	10057	1.03771 ppb		97
9) Acenaphthylene	6.11	152	29648	1.06419 ppb		99
10) Acenaphthene	6.31	154	8477	1.06224 ppb		88
11) Fluorene	6.90	166	9496	1.06758 ppb		97
13) Phenanthrene	8.01	178	15064	1.10743 ppb		100
14) Anthracene	8.08	178	12506	1.06475 ppb		100
16) Fluoranthene	9.39	202	20409	1.09150 ppb		100
18) Pyrene	9.64	202	20263	1.07233 ppb		98
20) Benz (a) anthracene	11.10	228	14953	0.99617 ppb		97
21) Chrysene	11.14	228	17636	1.05923 ppb		99
22) Indeno (1,2,3-cd) pyrene	15.00	276	13150	0.89665 ppb	#	94
24) Benzo (b) fluoranthene	12.90	252	12330	0.97114 ppb		99
25) Benzo (k) fluoranthene	12.95	252	15715	1.09065 ppb		99
26) Benzo (a) pyrene	13.43	252	10748	0.91934 ppb		99
27) Dibenz (a,h) anthracene	15.05	278	10865	0.94286 ppb		98
28) Benzo (g,h,i) perylene	15.37	276	12422	0.98172 ppb	#	89

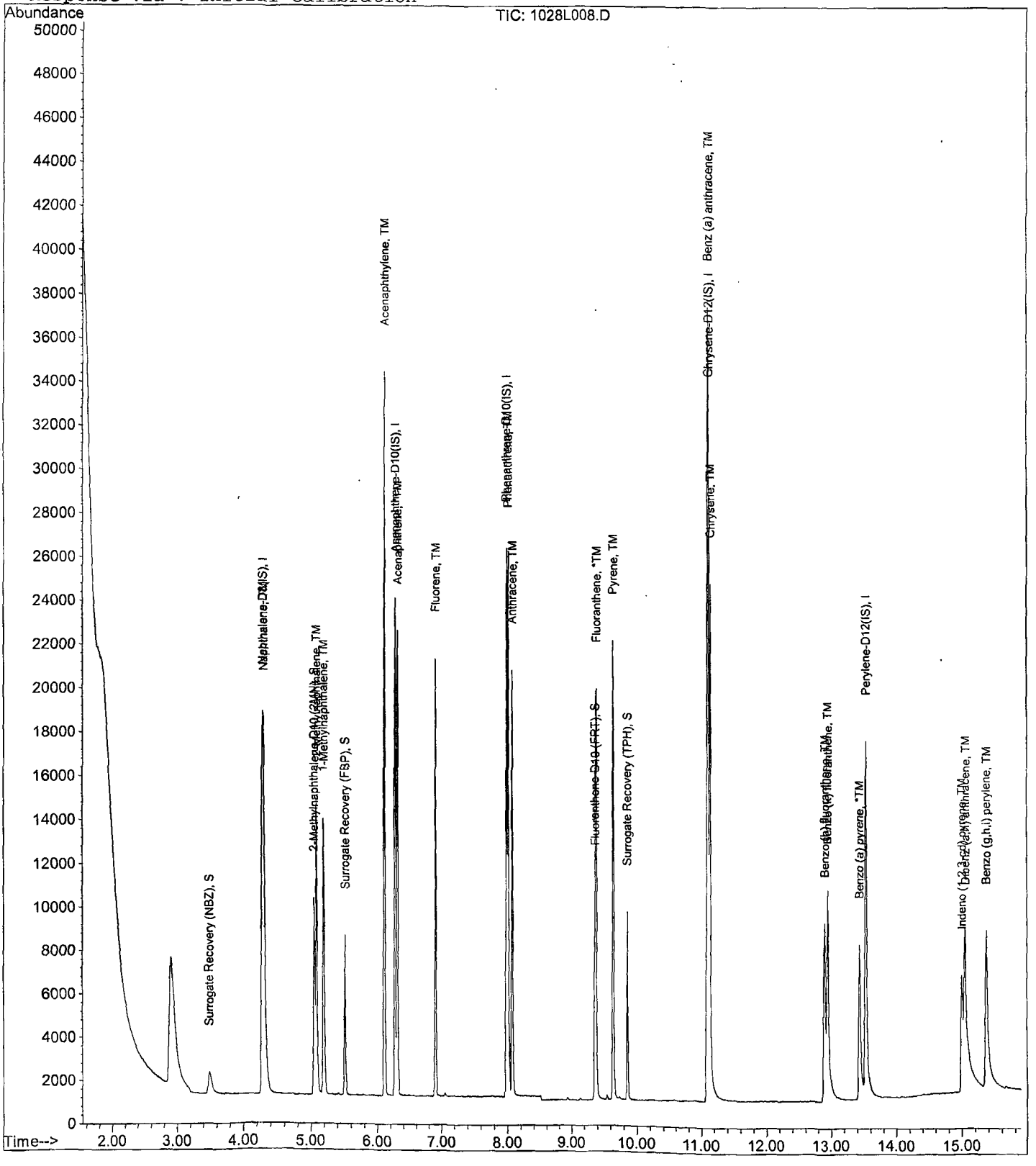
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L191028\1028L008.D Vial: 8
Acq On : 28 Oct 19 13:57 Operator: MA
Sample : 1 SIM 10/28/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 30 10:35 2019 Quant Results File: L1028.RES

Method : M:\LINUS\DATA\L191028\L1028.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 30 10:39:31 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L191028\1028L009.D Vial: 9
Acq On : 28 Oct 19 14:19 Operator: MA
Sample : 20 SIM 10/28/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 30 10:35 2019 Quant Results File: L1028.RES

Quant Method : M:\LINUS\DATA\L191028\L1028.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 30 10:34:31 2019
Response via : Initial Calibration
DataAcq Meth : SIM_2

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Napthalene-D8(IS)	4.29	136	32869	2.50000 ppb		0.01
7) Acenaphthene-D10(IS)	6.28	164	13416	2.50000 ppb		0.01
12) Phenanthrene-D10(IS)	7.99	188	23677	2.50000 ppb		0.00
17) Chrysene-D12(IS)	11.11	240	28661	2.50000 ppb		0.00
23) Perylene-D12(IS)	13.53	264	27623	2.50000 ppb		0.00
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	3.49	82	56078	8.95364 ppb		0.00
Spiked Amount 5.000			Recovery	= 179.080%		
4) 2-Methylnaphthalene-D10 (2	5.05	152	156708	9.54415 ppb		0.00
Spiked Amount 5.000			Recovery	= 190.880%		
8) Surrogate Recovery (FBP)	5.52	172	98204	9.65967 ppb		0.00
Spiked Amount 5.000			Recovery	= 193.200%		
15) Fluoranthene-D10 (FRT)	9.37	212	180565	10.47571 ppb		0.00
Spiked Amount 5.000			Recovery	= 209.520%		
19) Surrogate Recovery (TPH)	9.86	244	105182	9.54434 ppb		0.00
Spiked Amount 5.000			Recovery	= 190.880%		
Target Compounds						Qvalue
3) Naphthalene	4.31	128	324267	19.88786 ppb		99
5) 2-Methylnaphthalene	5.08	142	196246	20.15556 ppb		98
6) 1-Methylnaphthalene	5.19	142	192793	19.38213 ppb		96
9) Acenaphthylene	6.11	152	617256	21.63237 ppb		99
10) Acenaphthene	6.31	154	164055	20.07171 ppb		88
11) Fluorene	6.90	166	190667	20.92904 ppb		96
13) Phenanthrene	8.01	178	278373	19.90356 ppb		99
14) Anthracene	8.08	178	258173	21.37818 ppb		98
16) Fluoranthene	9.39	202	408909	21.26956 ppb	#	88
18) Pyrene	9.65	202	414663	20.23232 ppb	#	88
20) Benz (a) anthracene	11.10	228	331965	20.39010 ppb		99
21) Chrysene	11.15	228	351823	19.48211 ppb		99
22) Indeno (1,2,3-cd) pyrene	15.02	276	346411	21.77783 ppb	#	80
24) Benzo (b) fluoranthene	12.91	252	314014	22.41257 ppb		98
25) Benzo (k) fluoranthene	12.97	252	359815	22.62958 ppb	#	94
26) Benzo (a) pyrene	13.45	252	304231	23.58169 ppb		98
27) Dibenz (a,h) anthracene	15.07	278	282549	22.21959 ppb		96
28) Benzo (g,h,i) perylene	15.39	276	300183	21.49840 ppb	#	87

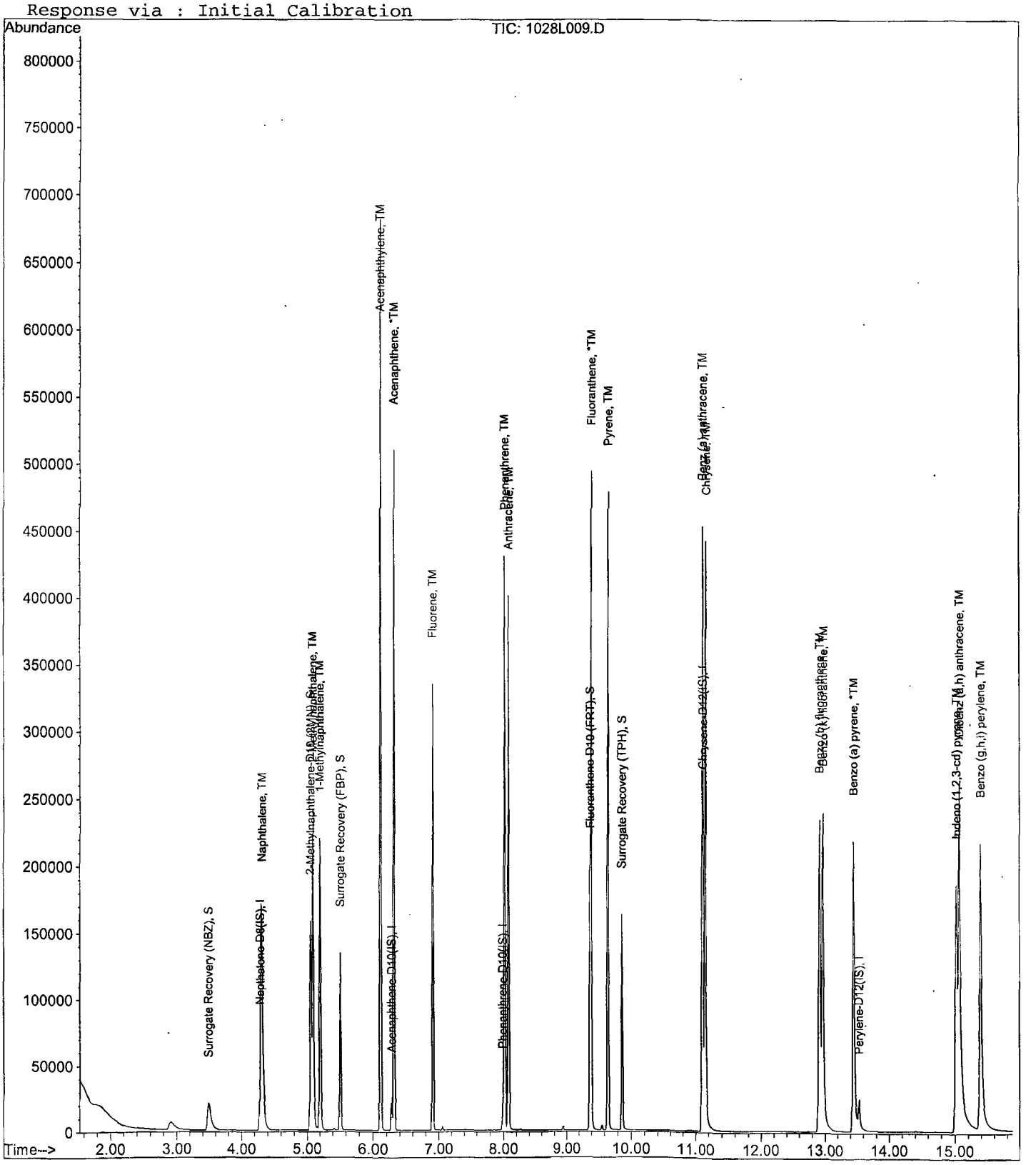
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L191028\1028L009.D Vial: 9
Acq On : 28 Oct 19 14:19 Operator: MA
Sample : 20 SIM 10/28/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 30 10:35 2019 Quant Results File: L1028.RES

Method : M:\LINUS\DATA\L191028\L1028.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 30 10:39:31 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L191028\1028L010.D Vial: 10
Acq On : 28 Oct 19 14:42 Operator: MA
Sample : 50 SIM 10/28/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 30 10:39 2019 Quant Results File: L1028.RES

Quant Method : M:\LINUS\DATA\L191028\L1028.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 30 10:39:03 2019
Response via : Initial Calibration
DataAcq Meth : SIM_2

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Napthalene-D8(IS)	4.29	136	36782	2.50000	ppb		0.01
7) Acenaphthene-D10(IS)	6.28	164	15743	2.50000	ppb		0.01
12) Phenanthrene-D10(IS)	7.99	188	27764	2.50000	ppb		0.00
17) Chrysene-D12(IS)	11.12	240	31502	2.50000	ppb		0.01
23) Perylene-D12(IS)	13.54	264	33834	2.50000	ppb		0.01
System Monitoring Compounds							
2) Surrogate Recovery (NBZ)	3.49	82	164569	23.48044	ppb		0.00
Spiked Amount 5.000			Recovery = 469.600%				
4) 2-Methylnaphthalene-D10 (2	5.05	152	432823	23.55633	ppb		0.00
Spiked Amount 5.000			Recovery = 471.120%				
8) Surrogate Recovery (FBP)	5.52	172	269987	22.63141	ppb		0.00
Spiked Amount 5.000			Recovery = 452.620%				
15) Fluoranthene-D10 (FRT)	9.38	212	499535	24.71499	ppb		0.01
Spiked Amount 5.000			Recovery = 494.300%				
19) Surrogate Recovery (TPH)	9.87	244	308848	25.49780	ppb		0.01
Spiked Amount 5.000			Recovery = 509.960%				
Target Compounds							Qvalue
3) Naphthalene	4.31	128	860769	47.17621	ppb		99
5) 2-Methylnaphthalene	5.10	142	514626	47.23207	ppb		96
6) 1-Methylnaphthalene	5.20	142	509460	45.76902	ppb		97
9) Acenaphthylene	6.11	152	1577589	47.11599	ppb		99
10) Acenaphthene	6.31	154	421153	43.91071	ppb		92
11) Fluorene	6.92	166	526911	49.28860	ppb		97
13) Phenanthrene	8.03	178	752594	45.88906	ppb		99
14) Anthracene	8.09	178	708446	50.02779	ppb		99
16) Fluoranthene	9.40	202	1024241	45.43376	ppb	#	91
18) Pyrene	9.66	202	1079871	47.93751	ppb	#	84
20) Benz (a) anthracene	11.11	228	900763	50.33740	ppb		98
21) Chrysene	11.16	228	902898	45.48872	ppb		98
22) Indeno (1,2,3-cd) pyrene	15.04	276	997292	57.04250	ppb	#	80
24) Benzo (b) fluoranthene	12.92	252	930609	54.22848	ppb		100
25) Benzo (k) fluoranthene	12.99	252	911111	46.78279	ppb		100
26) Benzo (a) pyrene	13.47	252	868154	54.93963	ppb		97
27) Dibenz (a,h) anthracene	15.09	278	817460	52.48391	ppb		97
28) Benzo (g,h,i) perylene	15.42	276	866669	50.67466	ppb		93

(#) = qualifier out of range (m) = manual integration

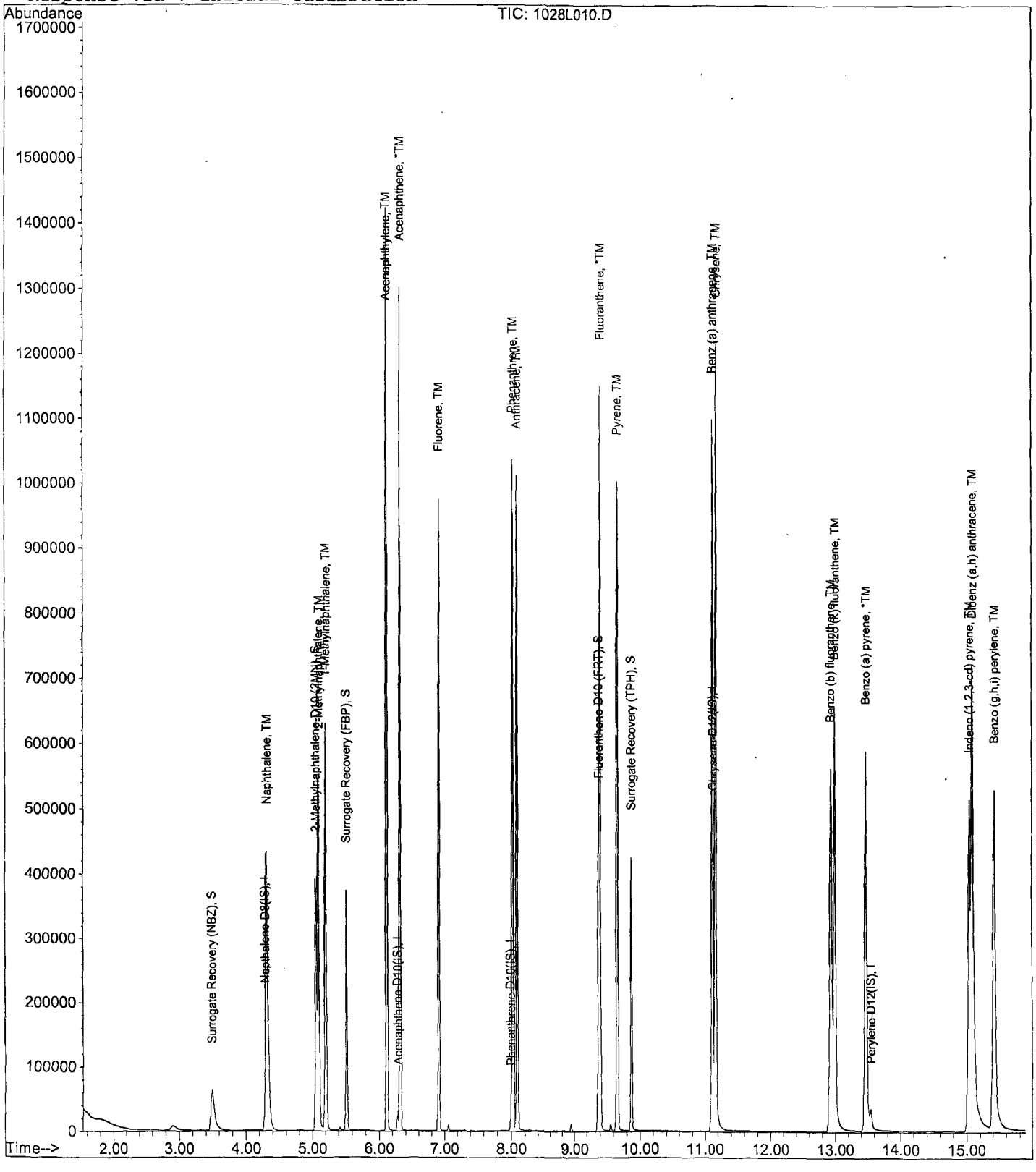
Quantitation Report

Data File : M:\LINUS\DATA\L191028\1028L010.D
Acq On : 28 Oct 19 14:42
Sample : 50 SIM 10/28/19
Misc :

Vial: 10
Operator: MA
Inst : Linus
Multiplr: 1.00

Quant Time: Oct 30 10:39 2019 Quant Results File: L1028.RES

Method : M:\LINUS\DATA\L191028\L1028.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 30 10:39:31 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L191028\1028L011.D Vial: 11
Acq On : 28 Oct 19 15:04 Operator: MA
Sample : 100 SIM 10/28/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 30 10:39 2019 Quant Results File: L1028.RES

Quant Method : M:\LINUS\DATA\L191028\L1028.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 30 10:39:03 2019
Response via : Initial Calibration
DataAcq Meth : SIM_2

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Napthalene-D8(IS)	4.29	136	35886	2.50000 ppb		0.01
7) Acenaphthene-D10(IS)	6.28	164	15357	2.50000 ppb		0.01
12) Phenanthrene-D10(IS)	7.99	188	27888	2.50000 ppb		0.00
17) Chrysene-D12(IS)	11.13	240	31266	2.50000 ppb		0.02
23) Perylene-D12(IS)	13.54	264	33574	2.50000 ppb		0.01
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	3.49	82	331274	48.44577 ppb		0.00
Spiked Amount 5.000			Recovery = 968.920%			
4) 2-Methylnaphthalene-D10 (2	5.06	152	824254	45.97997 ppb		0.01
Spiked Amount 5.000			Recovery = 919.600%			
8) Surrogate Recovery (FBP)	5.52	172	507607	43.61919 ppb		0.00
Spiked Amount 5.000			Recovery = 872.380%			
15) Fluoranthene-D10 (FRT)	9.38	212	938946	46.24873 ppb		0.01
Spiked Amount 5.000			Recovery = 924.980%			
19) Surrogate Recovery (TPH)	9.87	244	594165	49.42319 ppb		0.01
Spiked Amount 5.000			Recovery = 988.460%			
Target Compounds						Qvalue
3) Naphthalene	4.31	128	1632322	91.69646 ppb		99
5) 2-Methylnaphthalene	5.09	142	988093	92.95084 ppb		96
6) 1-Methylnaphthalene	5.20	142	987228	90.90531 ppb		97
9) Acenaphthylene	6.12	152	3028365	92.71793 ppb		98
10) Acenaphthene	6.33	154	884058	94.49143 ppb		81
11) Fluorene	6.92	166	977828	93.76761 ppb		99
13) Phenanthrene	8.03	178	1410719	85.63545 ppb		98
14) Anthracene	8.10	178	1405385	98.80172 ppb		98
16) Fluoranthene	9.41	202	1975643	87.24682 ppb	#	93
18) Pyrene	9.67	202	2087655	93.37447 ppb	#	79
20) Benz (a) anthracene	11.12	228	1769567	99.63525 ppb		98
21) Chrysene	11.17	228	1761570	89.41920 ppb	#	95
22) Indeno (1,2,3-cd) pyrene	15.08	276	1994441	114.93788 ppb	#	97
24) Benzo (b) fluoranthene	12.95	252	1775337	104.25365 ppb		98
25) Benzo (k) fluoranthene	13.01	252	1833100	94.85304 ppb		98
26) Benzo (a) pyrene	13.49	252	1692412	107.93077 ppb		96
27) Dibenz (a,h) anthracene	15.12	278	1669599	108.02446 ppb		94
28) Benzo (g,h,i) perylene	15.46	276	1722719	101.50847 ppb		96

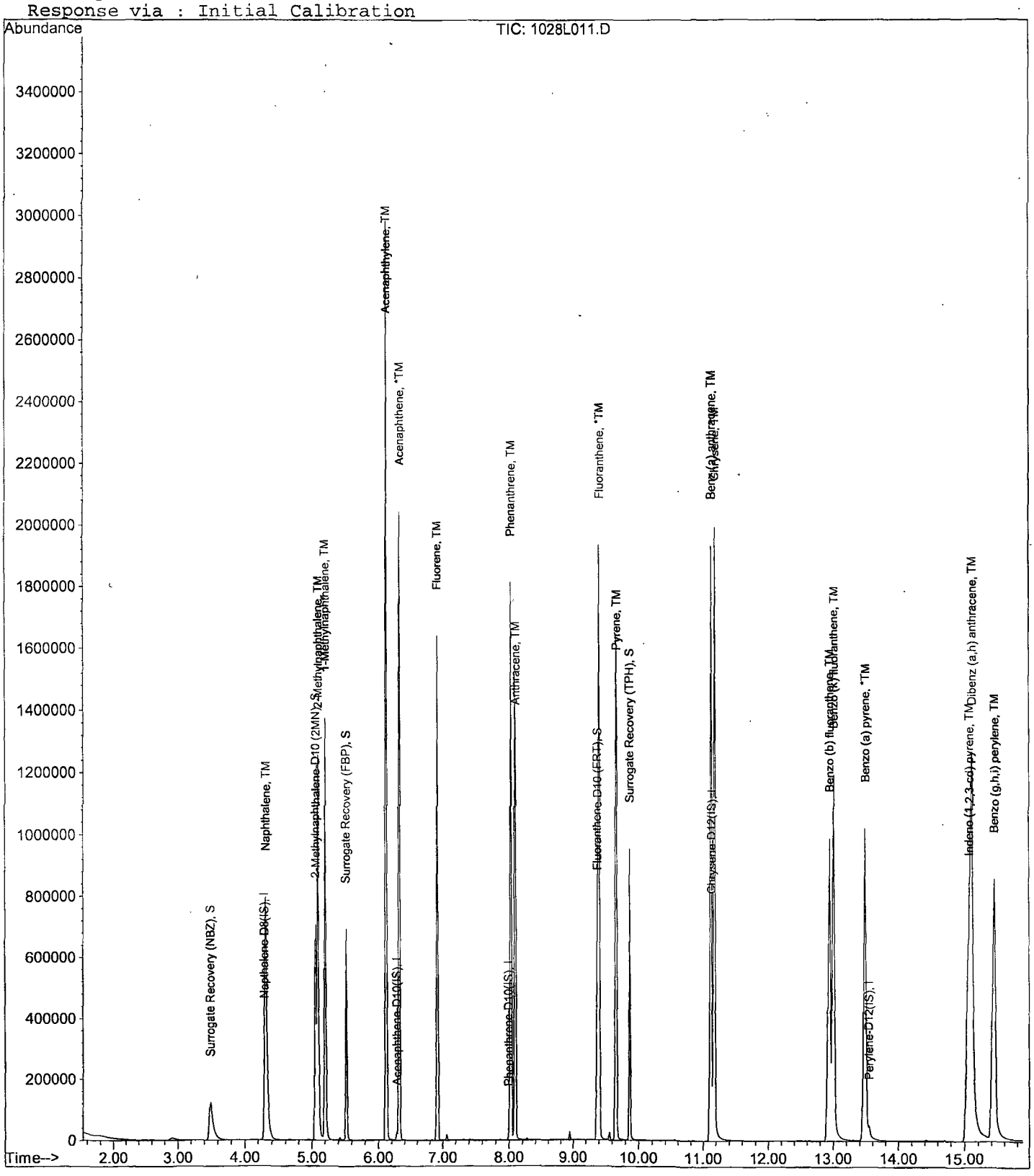
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L191028\1028L011.D Vial: 11
Acq On : 28 Oct 19 15:04 Operator: MA
Sample : 100 SIM 10/28/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 30 10:39 2019 Quant Results File: L1028.RES

Method : M:\LINUS\DATA\L191028\L1028.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 30 10:39:31 2019
Response via : Initial Calibration



PAH by GCMS SIM
EPA 8270 SIM

Form 7

Second Source Calibration

Lab Name: APPL, Inc.
Case No:
Matrix:

SDG No:
Date Analyzed: 10/28/19
Instrument: Linus
Initial Cal. Date: 10/28/19
Data File: 1028L012.D

		Compound	MEAN	CCRF	%D		%Drift
1	TM	Naphthalene	1.240	1.222	1.4	TM	
2	TM	2-Methylnaphthalene	0.7406	0.7386	0.26	TM	
3	TM	1-Methylnaphthalene	0.7566	0.7450	1.5	TM	
4	TM	Acenaphthylene	5.317	5.695	7.1	TM	
5	*TM	Acenaphthene	1.523	1.515	0.52	*TM	
6	TM	Fluorene	1.698	1.746	2.9	TM	
7	TM	Phenanthrene	1.477	1.538	4.1	TM	
8	TM	Anthracene	1.275	1.367	7.2	TM	
9	*TM	Fluoranthene	2.013	2.171	7.8	*TM	
10	TM	Pyrene	1.789	1.816	1.5	TM	
11	TM	Benz (a) anthracene	1.420	1.330	6.4	TM	
12	TM	Chrysene	1.573	1.539	2.2	TM	
13	TM	Indeno (1,2,3-cd) pyrene	1.387	1.255	9.5	TM	
14	TM	Benzo (b) fluoranthene	1.268	1.334	5.2	TM	
15	TM	Benzo (k) fluoranthene	1.439	1.585	10	TM	
16	*TM	Benzo (a) pyrene	1.167	1.265	8.4	*TM	
17	TM	Dibenz (a,h) anthracene	1.151	1.126	2.2	TM	
18	TM	Benzo (g,h,i) perylene	1.264	1.235	2.3	TM	
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
30							
31							
32							
33							
34							
35							
36							
37							
38							
39							
40							
		Average			4.5		

Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L191028\1028L012.D Vial: 12
Acq On : 28 Oct 19 15:55 Operator: MA
Sample : SS SIM 10/28/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 30 10:44 2019 Quant Results File: L1028.RES

Quant Method : M:\LINUS\DATA\L191028\L1028.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 30 10:39:31 2019
Response via : Initial Calibration
DataAcq Meth : SIM_2

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Napthalene-D8(IS)	4.29	136	37041	2.50000	ppb		0.01
7) Acenaphthene-D10(IS)	6.28	164	15072	2.50000	ppb		0.01
12) Phenanthrene-D10(IS)	7.99	188	26057	2.50000	ppb		0.00
17) Chrysene-D12(IS)	11.11	240	32042	2.50000	ppb		0.00
23) Perylene-D12(IS)	13.53	264	29024	2.50000	ppb		0.00
System Monitoring Compounds							
2) Surrogate Recovery (NBZ)	0.00	82	0d	0.00000	ppb		
Spiked Amount 5.000			Recovery =	0.000%			
4) 2-Methylnaphthalene-D10 (2	0.00	152	0d	0.00000	ppb		
Spiked Amount 5.000			Recovery =	0.000%			
8) Surrogate Recovery (FBP)	0.00	172	0d	0.00000	ppb		
Spiked Amount 5.000			Recovery =	0.000%			
15) Fluoranthene-D10 (FRT)	0.00	212	0d	0.00000	ppb		
Spiked Amount 5.000			Recovery =	0.000%			
19) Surrogate Recovery (TPH)	0.00	244	0d	0.00000	ppb		
Spiked Amount 5.000			Recovery =	0.000%			
Target Compounds							Qvalue
3) Naphthalene	4.30	128	90550	4.92808	ppb		100
5) 2-Methylnaphthalene	5.08	142	54717	4.98678	ppb		97
6) 1-Methylnaphthalene	5.19	142	55190	4.92351	ppb		97
9) Acenaphthylene	6.11	152	171659	5.35498	ppb		99
10) Acenaphthene	6.31	154	45673	4.97401	ppb		89
11) Fluorene	6.90	166	52636	5.14291	ppb		95
13) Phenanthrene	8.01	178	80127	5.20577	ppb		98
14) Anthracene	8.08	178	71254	5.36132	ppb		99
16) Fluoranthene	9.39	202	113116	5.39024	ppb	#	93
18) Pyrene	9.65	202	116362	5.07511	ppb	#	86
20) Benz (a) anthracene	11.10	228	85204	4.68122	ppb		98
21) Chrysene	11.14	228	98596	4.89203	ppb	#	96
22) Indeno (1,2,3-cd) pyrene	15.01	276	80441	4.52347	ppb		88
24) Benzo (b) fluoranthene	12.90	252	77412	5.25853	ppb		99
25) Benzo (k) fluoranthene	12.96	252	92007	5.50721	ppb		99
26) Benzo (a) pyrene	13.45	252	73458	5.42211	ppb		97
27) Dibenz (a,h) anthracene	15.05	278	65335	4.88992	ppb	#	94
28) Benzo (g,h,i) perylene	15.38	276	71685	4.88610	ppb	#	92

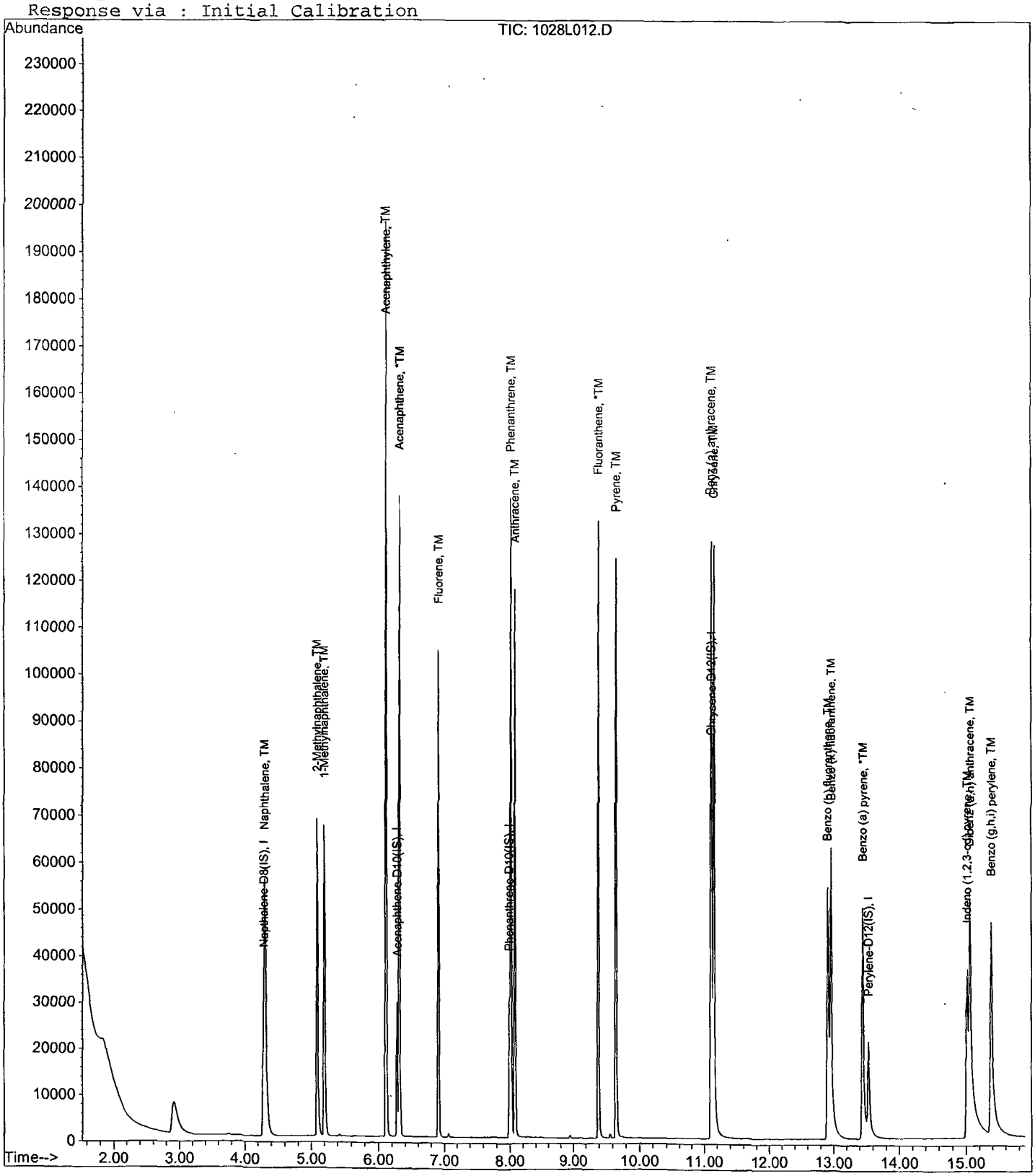
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L191028\1028L012.D Vial: 12
Acq On : 28 Oct 19 15:55 Operator: MA
Sample : SS SIM 10/28/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 30 10:44 2019 Quant Results File: L1028.RES

Method : M:\LINUS\DATA\L191028\L1028.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 30 10:39:31 2019
Response via : Initial Calibration



1028L012.D L1028.M Wed Oct 30 10:46:02 2019

PAH by GCMS SIM
EPA 8270 SIM

Form 7

Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix:

SDG No:
Date Analyzed: 11/12/19
Instrument: Linus
Initial Cal. Date: 10/28/19
Data File: 1028L258.D

		Compound	MEAN	CCRF	%D	%Drift	
1	I	Napthalene-D8(IS)	ISTD			I	
2	S	Surrogate Recovery (NBZ)	0.4764	0.4387	7.9	S	
3	TM	Naphthalene	1.240	1.213	2.2	TM	
4	S	2-Methylnaphthalene-D10 (2MN)	1.249	1.175	5.9	S	
5	TM	2-Methylnaphthalene	0.7406	0.7296	1.5	TM	
6	TM	1-Methylnaphthalene	0.7566	0.7306	3.4	TM	
7	I	Acenaphthene-D10(IS)	ISTD			I	
8	S	Surrogate Recovery (FBP)	1.894	1.817	4.1	S	
9	TM	Acenaphthylene	5.317	5.487	3.2	TM	
10	*TM	Acenaphthene	1.523	1.488	2.3	*TM	
11	TM	Fluorene	1.698	1.700	0.12	TM	
12	I	Phenanthrene-D10(IS)	ISTD			I	
13	TM	Phenanthrene	1.477	1.472	0.34	TM	
14	TM	Anthracene	1.275	1.335	4.7	TM	
15	S	Fluoranthene-D10 (FRT)	1.819	1.825	0.33	S	
16	*TM	Fluoranthene	2.013	2.140	6.3	*TM	
17	I	Chrysene-D12(IS)	ISTD			I	
18	TM	Pyrene	1.789	1.797	0.43	TM	
19	S	Surrogate Recovery (TPH)	0.9613	0.9421	2.0	S	
20	TM	Benz (a) anthracene	1.420	1.350	4.9	TM	
21	TM	Chrysene	1.573	1.501	4.5	TM	
22	TM	Indeno (1,2,3-cd) pyrene	1.387	1.330	4.1	TM	
23	I	Perylene-D12(IS)	ISTD			I	
24	TM	Benzo (b) fluoranthene	1.268	1.234	2.7	TM	
25	TM	Benzo (k) fluoranthene	1.439	1.592	11	TM	
26	*TM	Benzo (a) pyrene	1.167	1.232	5.6	*TM	
27	TM	Dibenz (a,h) anthracene	1.151	1.150	0.11	TM	
28	TM	Benzo (g,h,i) perylene	1.264	1.243	1.7	TM	
29							
30							
31							
32							
33							
34							
35							
36							
37							
38							
39							
40							
		Average			3.4		

Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L191028\1028L258.D Vial: 58
Acq On : 12 Nov 19 9:35 Operator: MA
Sample : 5 SIM 10/28/19 (1) Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Nov 12 9:58 2019 Quant Results File: L1028.RES

Quant Method : M:\LINUS\DATA\L191028\L1028.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 30 10:39:31 2019
Response via : Initial Calibration
DataAcq Meth : SIM_2

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Napthalene-D8(IS)	4.27	136	42226	2.50000 ppb		0.00
7) Acenaphthene-D10(IS)	6.27	164	17230	2.50000 ppb		0.00
12) Phenanthrene-D10(IS)	7.98	188	30075	2.50000 ppb		-0.01
17) Chrysene-D12(IS)	11.10	240	35927	2.50000 ppb		-0.01
23) Perylene-D12(IS)	13.52	264	34153	2.50000 ppb		-0.01
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	3.48	82	18525	2.30235 ppb		-0.01
Spiked Amount 5.000			Recovery	= 46.040%		
4) 2-Methylnaphthalene-D10 (2	5.03	152	49602	2.35154 ppb		-0.01
Spiked Amount 5.000			Recovery	= 47.040%		
8) Surrogate Recovery (FBP)	5.51	172	31305	2.39764 ppb		-0.01
Spiked Amount 5.000			Recovery	= 47.960%		
15) Fluoranthene-D10 (FRT)	9.36	212	54895	2.50828 ppb		-0.01
Spiked Amount 5.000			Recovery	= 50.160%		
19) Surrogate Recovery (TPH)	9.85	244	33847	2.45016 ppb		-0.01
Spiked Amount 5.000			Recovery	= 49.000%		
Target Compounds						Qvalue
3) Naphthalene	4.29	128	102434	4.89031 ppb		100
5) 2-Methylnaphthalene	5.07	142	61617	4.92608 ppb		99
6) 1-Methylnaphthalene	5.18	142	61697	4.82815 ppb		96
9) Acenaphthylene	6.10	152	189092	5.16000 ppb		99
10) Acenaphthene	6.30	154	51262	4.88347 ppb		86
11) Fluorene	6.89	166	58569	5.00587 ppb		97
13) Phenanthrene	8.00	178	88522	4.98283 ppb		99
14) Anthracene	8.06	178	80306	5.23515 ppb		99
16) Fluoranthene	9.38	202	128699	5.31347 ppb		97
18) Pyrene	9.64	202	129090	5.02141 ppb	#	82
20) Benz (a) anthracene	11.09	228	97038	4.75488 ppb		97
21) Chrysene	11.13	228	107882	4.77395 ppb		99
22) Indeno (1,2,3-cd) pyrene	15.00	276	95573	4.79323 ppb		88
24) Benzo (b) fluoranthene	12.89	252	84258	4.86403 ppb		96
25) Benzo (k) fluoranthene	12.93	252	108752	5.53193 ppb	#	95
26) Benzo (a) pyrene	13.43	252	84141	5.27795 ppb		95
27) Dibenz (a,h) anthracene	15.04	278	78522	4.99431 ppb		96
28) Benzo (g,h,i) perylene	15.37	276	84882	4.91674 ppb	#	89

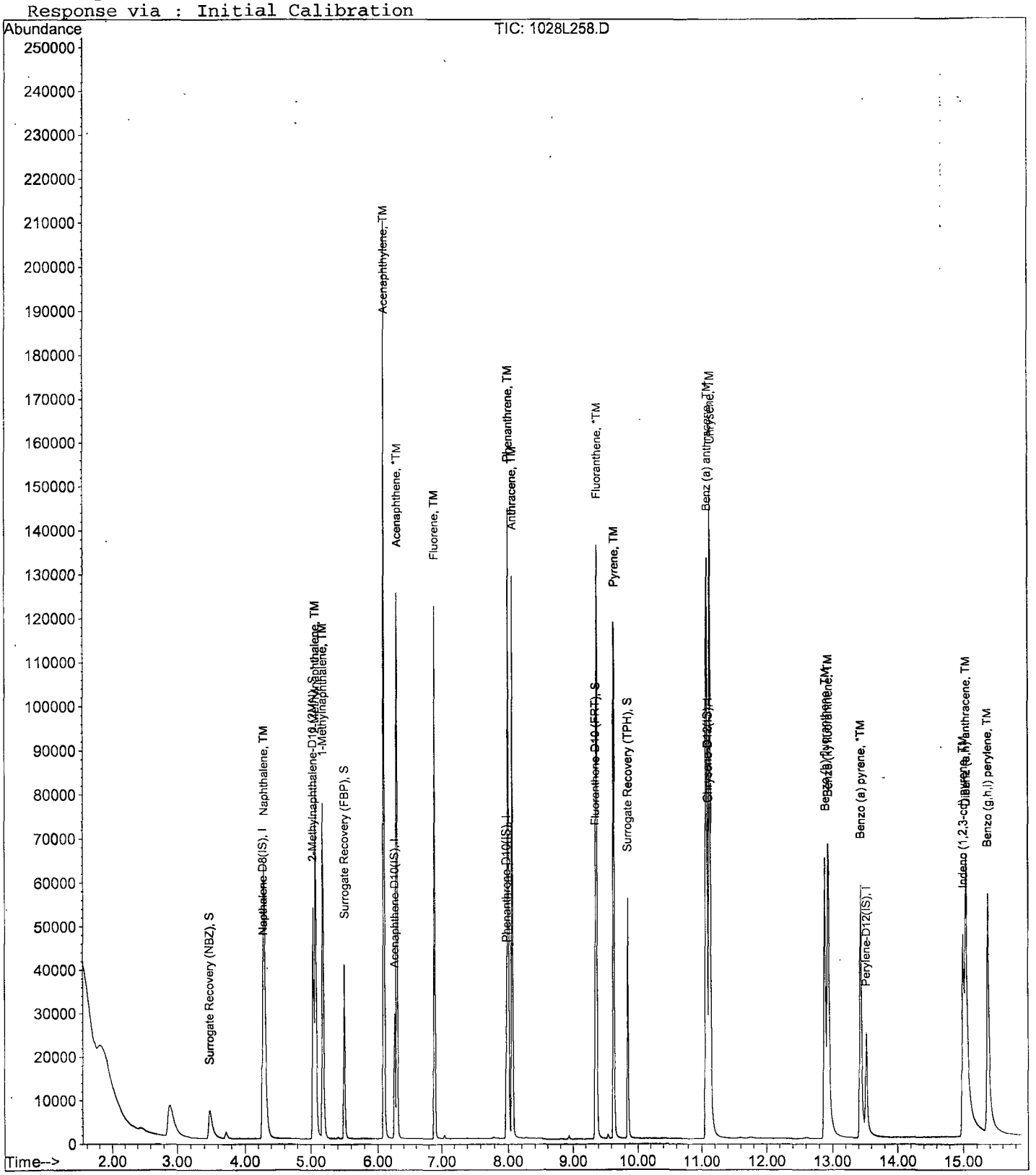
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L191028\1028L258.D Vial: 58
Acq On : 12 Nov 19 9:35 Operator: MA
Sample : 5 SIM 10/28/19 (1) Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Nov 12 9:58 2019 Quant Results File: L1028.RES

Method : M:\LINUS\DATA\L191028\L1028.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 30 10:39:31 2019
Response via : Initial Calibration



PAH by GCMS SIM
EPA 8270 SIM

Form 7

Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix:

SDG No:
Date Analyzed: 11/12/19
Instrument: Linus
Initial Cal. Date: 10/28/19
Data File: 1028L268.D

		Compound	MEAN	CCRF	%D	%Drift	
1	I	Napthalene-D8(IS)	ISTD			I	
2	S	Surrogate Recovery (NBZ)	0.4764	0.4531	4.9	S	
3	TM	Naphthalene	1.240	1.195	3.6	TM	
4	S	2-Methylnaphthalene-D10 (2MN)	1.249	1.164	6.8	S	
5	TM	2-Methylnaphthalene	0.7406	0.7246	2.2	TM	
6	TM	1-Methylnaphthalene	0.7566	0.7153	5.5	TM	
7	I	Acenaphthene-D10(IS)	ISTD			I	
8	S	Surrogate Recovery (FBP)	1.894	1.981	4.6	S	
9	TM	Acenaphthylene	5.317	5.967	12	TM	
10	*TM	Acenaphthene	1.523	1.583	3.9	*TM	
11	TM	Fluorene	1.698	1.820	7.2	TM	
12	I	Phenanthrene-D10(IS)	ISTD			I	
13	TM	Phenanthrene	1.477	1.439	2.6	TM	
14	TM	Anthracene	1.275	1.336	4.7	TM	
15	S	Fluoranthene-D10 (FRT)	1.819	1.932	6.2	S	
16	*TM	Fluoranthene	2.013	2.118	5.2	*TM	
17	I	Chrysene-D12(IS)	ISTD			I	
18	TM	Pyrene	1.789	1.705	4.7	TM	
19	S	Surrogate Recovery (TPH)	0.9613	0.9680	0.70	S	
20	TM	Benz (a) anthracene	1.420	1.405	1.0	TM	
21	TM	Chrysene	1.573	1.412	10	TM	
22	TM	Indeno (1,2,3-cd) pyrene	1.387	1.371	1.2	TM	
23	I	Perylene-D12(IS)	ISTD			I	
24	TM	Benzo (b) fluoranthene	1.268	1.207	4.8	TM	
25	TM	Benzo (k) fluoranthene	1.439	1.471	2.2	TM	
26	*TM	Benzo (a) pyrene	1.167	1.195	2.4	*TM	
27	TM	Dibenz (a,h) anthracene	1.151	1.119	2.7	TM	
28	TM	Benzo (g,h,i) perylene	1.264	1.155	8.6	TM	
29							
30							
31							
32							
33							
34							
35							
36							
37							
38							
39							
40							
		Average			4.7		

Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L191028\1028L268.D Vial: 68
Acq On : 12 Nov 19 13:40 Operator: MA
Sample : 5 SIM 10/28/19 (1) Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Nov 12 14:13 2019 Quant Results File: L1028.RES

Quant Method : M:\LINUS\DATA\L191028\L1028.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 30 10:39:31 2019
Response via : Initial Calibration
DataAcq Meth : SIM_2

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Napthalene-D8(IS)	4.27	136	53473	2.50000 ppb		0.00
7) Acenaphthene-D10(IS)	6.27	164	20055	2.50000 ppb		0.00
12) Phenanthrene-D10(IS)	7.98	188	37410	2.50000 ppb		-0.01
17) Chrysene-D12(IS)	11.11	240	46428	2.50000 ppb		0.00
23) Perylene-D12(IS)	13.53	264	47184	2.50000 ppb		0.00
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	3.49	82	24228	2.37781 ppb		0.00
Spiked Amount 5.000			Recovery	= 47.560%		
4) 2-Methylnaphthalene-D10 (2	5.05	152	62241	2.33010 ppb		0.00
Spiked Amount 5.000			Recovery	= 46.600%		
8) Surrogate Recovery (FBP)	5.51	172	39722	2.61375 ppb		-0.01
Spiked Amount 5.000			Recovery	= 52.280%		
15) Fluoranthene-D10 (FRT)	9.36	212	72284	2.65523 ppb		-0.01
Spiked Amount 5.000			Recovery	= 53.100%		
19) Surrogate Recovery (TPH)	9.86	244	44941	2.51744 ppb		0.00
Spiked Amount 5.000			Recovery	= 50.340%		
Target Compounds						Qvalue
3) Naphthalene	4.30	128	127804	4.81817 ppb		99
5) 2-Methylnaphthalene	5.08	142	77492	4.89219 ppb		100
6) 1-Methylnaphthalene	5.19	142	76496	4.72717 ppb		100
9) Acenaphthylene	6.11	152	239348	5.61137 ppb		99
10) Acenaphthene	6.30	154	63497	5.19695 ppb		96
11) Fluorene	6.90	166	72996	5.36010 ppb		99
13) Phenanthrene	8.01	178	107669	4.87229 ppb		100
14) Anthracene	8.08	178	99935	5.23741 ppb		100
16) Fluoranthene	9.38	202	158489	5.26042 ppb	#	77
18) Pyrene	9.64	202	158350	4.76641 ppb		99
20) Benz (a) anthracene	11.09	228	130498	4.94814 ppb		99
21) Chrysene	11.14	228	131121	4.48996 ppb		100
22) Indeno (1,2,3-cd) pyrene	15.01	276	127343	4.94208 ppb	#	98
24) Benzo (b) fluoranthene	12.90	252	113868	4.75796 ppb		98
25) Benzo (k) fluoranthene	12.96	252	138820	5.11123 ppb		99
26) Benzo (a) pyrene	13.45	252	112769	5.12013 ppb		96
27) Dibenz (a,h) anthracene	15.05	278	105625	4.86278 ppb	#	93
28) Benzo (g,h,i) perylene	15.39	276	108994	4.56982 ppb		98

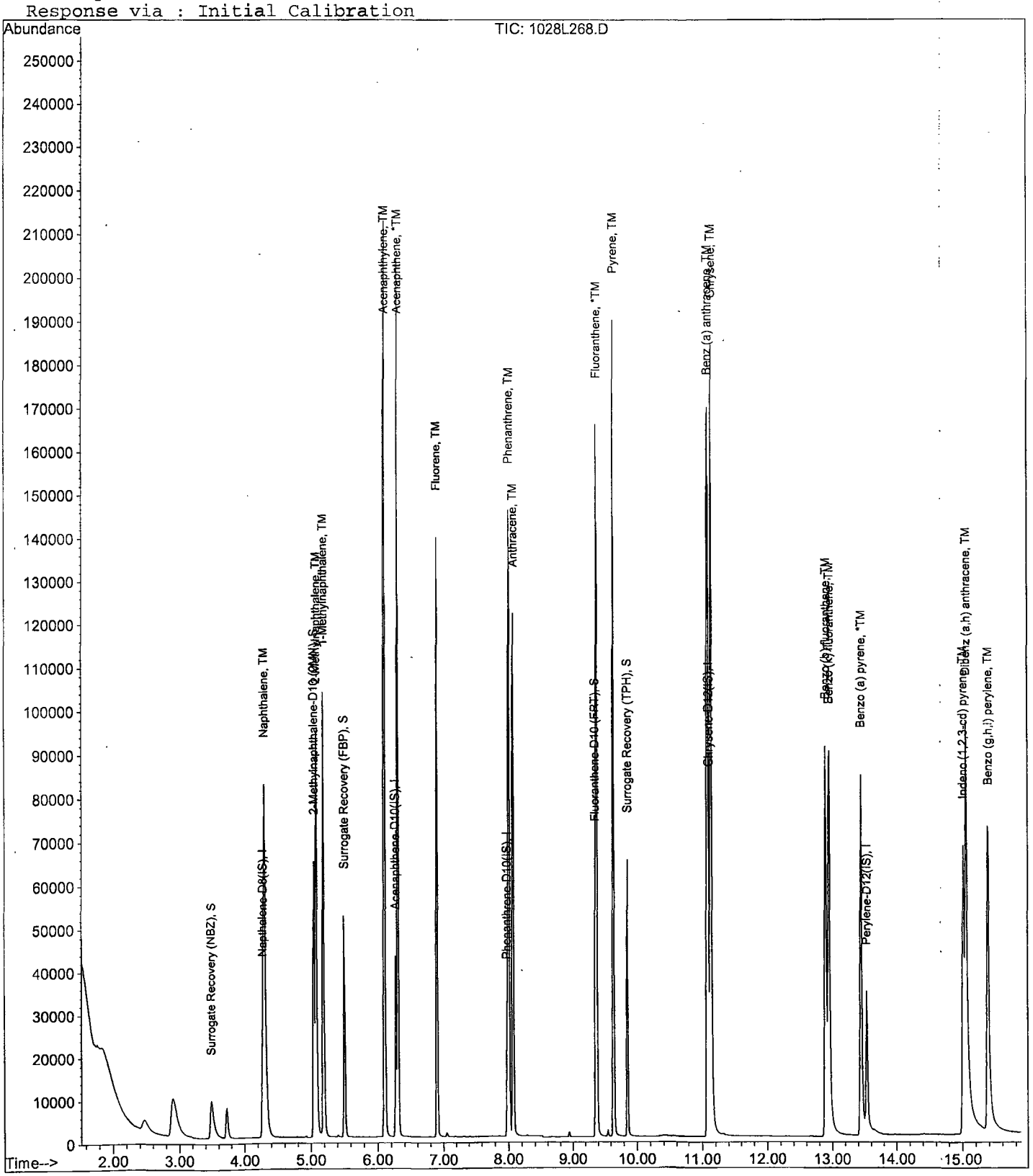
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L191028\1028L268.D Vial: 68
Acq On : 12 Nov 19 13:40 Operator: MA
Sample : 5 SIM 10/28/19 (1) Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Nov 12 14:13 2019 Quant Results File: L1028.RES

Method : M:\LINUS\DATA\L191028\L1028.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 30 10:39:31 2019
Response via : Initial Calibration



ORGANICS
Raw Data

Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L191028\1028L265.D Vial: 65
Acq On : 12 Nov 19 12:17 Operator: MA
Sample : BA02214W21 1/800 Inst : Linus
Misc : Multiplr: 1.25

Quant Time: Nov 12 12:38 2019 Quant Results File: L1028.RES

Quant Method : M:\LINUS\DATA\L191028\L1028.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 30 10:39:31 2019
Response via : Initial Calibration
DataAcq Meth : SIM_2

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Napthalene-D8(IS)	4.27	136	44294	2.50000 ppb	0.00
7) Acenaphthene-D10(IS)	6.27	164	18395	2.50000 ppb	0.00
12) Phenanthrene-D10(IS)	7.98	188	32162	2.50000 ppb	-0.01
17) Chrysene-D12(IS)	11.10	240	39258	2.50000 ppb	-0.01
23) Perylene-D12(IS)	13.53	264	41762	2.50000 ppb	0.00
System Monitoring Compounds					
2) Surrogate Recovery (NBZ)	3.49	82	636508	94.26763 ppb	0.00
Spiked Amount 6.250			Recovery	= 1508.288%	
4) 2-Methylnaphthalene-D10 (2	5.05	152	99793	5.63765 ppb	0.00
Spiked Amount 6.250			Recovery	= 90.208%	
8) Surrogate Recovery (FBP)	5.52	172	862904	77.38006 ppb	0.00
Spiked Amount 6.250			Recovery	= 1238.080%	
15) Fluoranthene-D10 (FRT)	9.36	212	120956	6.46015 ppb	-0.01
Spiked Amount 6.250			Recovery	= 103.360%	
19) Surrogate Recovery (TPH)	9.87	244	1064188	88.12441 ppb	0.01
Spiked Amount 6.250			Recovery	= 1409.984%	

Target Compounds Qvalue

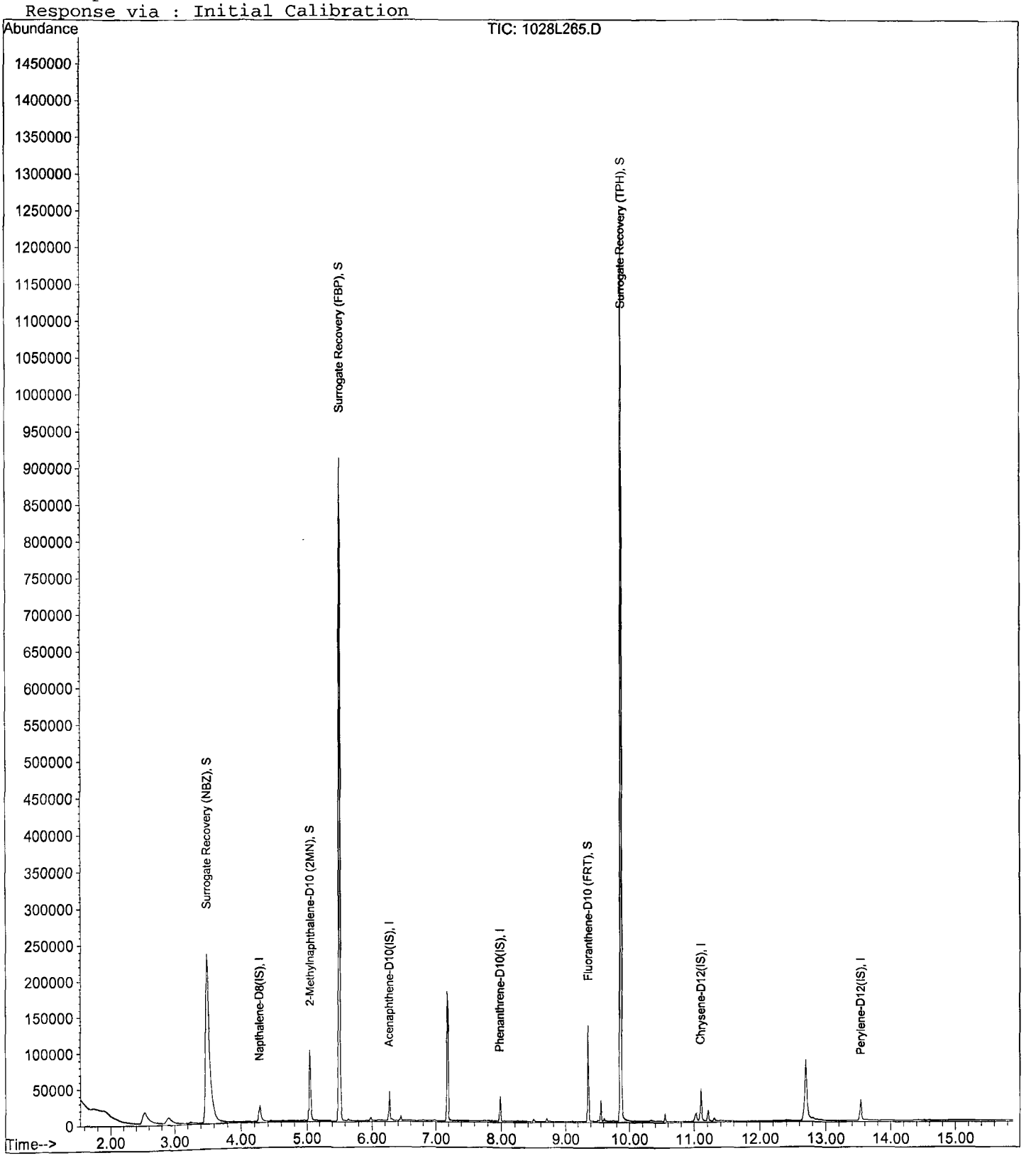
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L191028\1028L265.D Vial: 65
Acq On : 12 Nov 19 12:17 Operator: MA
Sample : BA02214W21 1/800 Inst : Linus
Misc : Multiplr: 1.25

Quant Time: Nov 12 12:38 2019 Quant Results File: L1028.RES

Method : M:\LINUS\DATA\L191028\L1028.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 30 10:39:31 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L191028\1028L266.D Vial: 66
Acq On : 12 Nov 19 12:39 Operator: MA
Sample : BA02216W13 1/800 Inst : Linus
Misc : Multiplr: 1.25

Quant Time: Nov 12 13:36 2019 Quant Results File: L1028.RES

Quant Method : M:\LINUS\DATA\L191028\L1028.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 30 10:39:31 2019
Response via : Initial Calibration
DataAcq Meth : SIM_2

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Napthalene-D8(IS)	4.27	136	44822	2.50000 ppb	0.00
7) Acenaphthene-D10(IS)	6.27	164	18276	2.50000 ppb	0.00
12) Phenanthrene-D10(IS)	7.98	188	32655	2.50000 ppb	-0.01
17) Chrysene-D12(IS)	11.10	240	39795	2.50000 ppb	-0.01
23) Perylene-D12(IS)	13.53	264	42277	2.50000 ppb	0.00
System Monitoring Compounds					
2) Surrogate Recovery (NBZ)	3.49	82	628613	92.00167 ppb	0.00
Spiked Amount 6.250			Recovery	= 1472.032%	
4) 2-Methylnaphthalene-D10 (2	5.05	152	97771	5.45835 ppb	0.00
Spiked Amount 6.250			Recovery	= 87.328%	
8) Surrogate Recovery (FBP)	5.52	172	853612	77.04522 ppb	0.00
Spiked Amount 6.250			Recovery	= 1232.720%	
15) Fluoranthene-D10 (FRT)	9.36	212	120491	6.33816 ppb	-0.01
Spiked Amount 6.250			Recovery	= 101.408%	
19) Surrogate Recovery (TPH)	9.87	244	1024097	83.66014 ppb	0.01
Spiked Amount 6.250			Recovery	= 1338.560%	

Target Compounds Qvalue

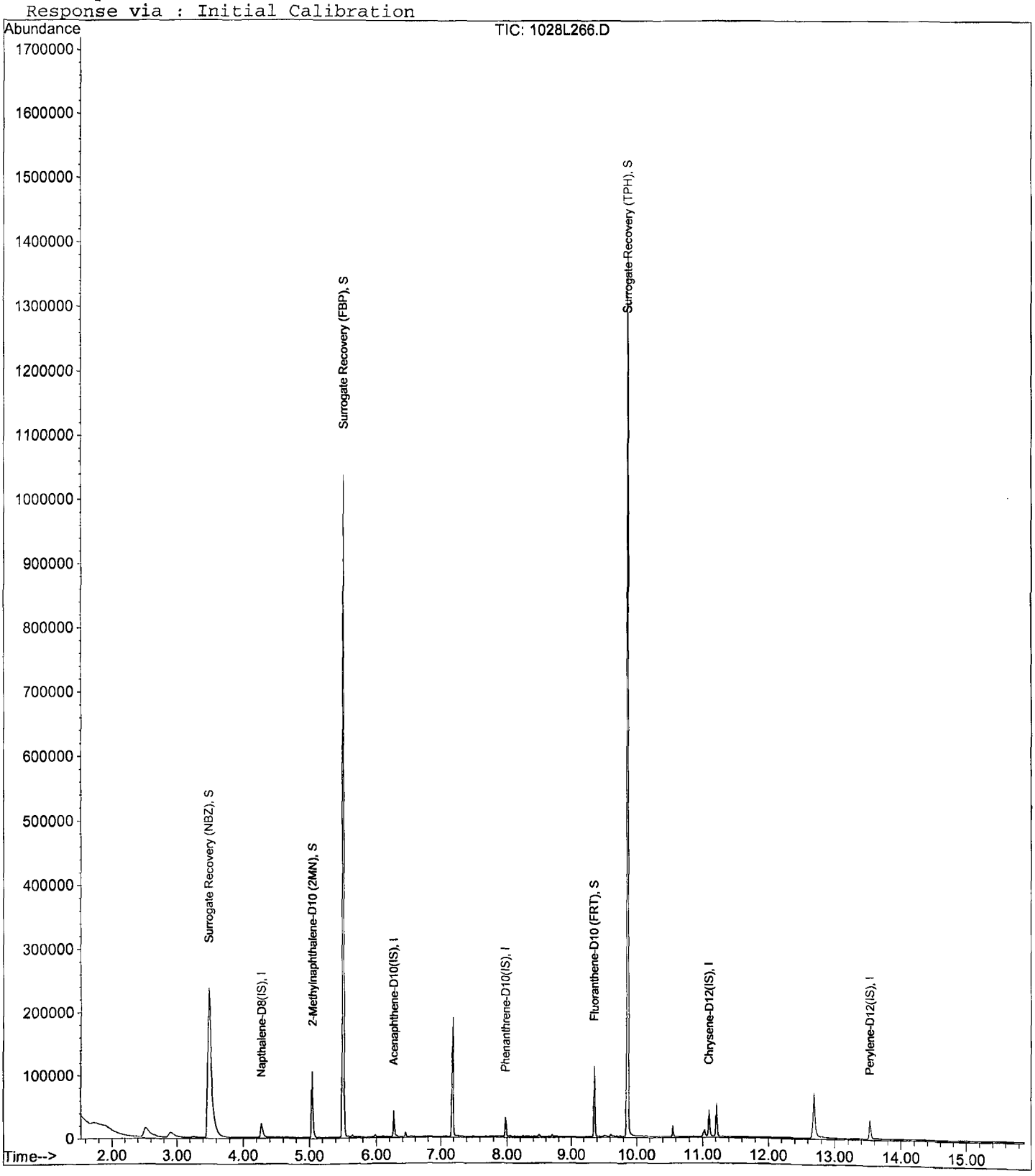
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L191028\1028L266.D Vial: 66
Acq On : 12 Nov 19 12:39 Operator: MA
Sample : BA02216W13 1/800 Inst : Linus
Misc : Multiplr: 1.25

Quant Time: Nov 12 13:36 2019 Quant Results File: L1028.RES

Method : M:\LINUS\DATA\L191028\L1028.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 30 10:39:31 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L191028\1028L259.D Vial: 59
Acq On : 12 Nov 19 10:04 Operator: MA
Sample : 191104A BLK 1/800 Inst : Linus
Misc : Multiplr: 1.25

Quant Time: Nov 12 10:44 2019 Quant Results File: L1028.RES

Quant Method : M:\LINUS\DATA\L191028\L1028.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 30 10:39:31 2019
Response via : Initial Calibration
DataAcq Meth : SIM_2

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Napthalene-D8(IS)	4.26	136	41490	2.50000 ppb	-0.01
7) Acenaphthene-D10(IS)	6.27	164	17274	2.50000 ppb	0.00
12) Phenanthrene-D10(IS)	7.98	188	30878	2.50000 ppb	-0.01
17) Chrysene-D12(IS)	11.10	240	37096	2.50000 ppb	-0.01
23) Perylene-D12(IS)	13.52	264	38223	2.50000 ppb	-0.01
System Monitoring Compounds					
2) Surrogate Recovery (NBZ)	3.48	82	621569	98.27646 ppb	-0.01
Spiked Amount 6.250			Recovery	= 1572.416%	
4) 2-Methylnaphthalene-D10 (2	5.03	152	91477	5.51710 ppb	-0.01
Spiked Amount 6.250			Recovery	= 88.272%	
8) Surrogate Recovery (FBP)	5.51	172	815996	77.92225 ppb	-0.01
Spiked Amount 6.250			Recovery	= 1246.752%	
15) Fluoranthene-D10 (FRT)	9.36	212	118382	6.58559 ppb	-0.01
Spiked Amount 6.250			Recovery	= 105.376%	
19) Surrogate Recovery (TPH)	9.86	244	1001899	87.80169 ppb	0.00
Spiked Amount 6.250			Recovery	= 1404.832%	

Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration

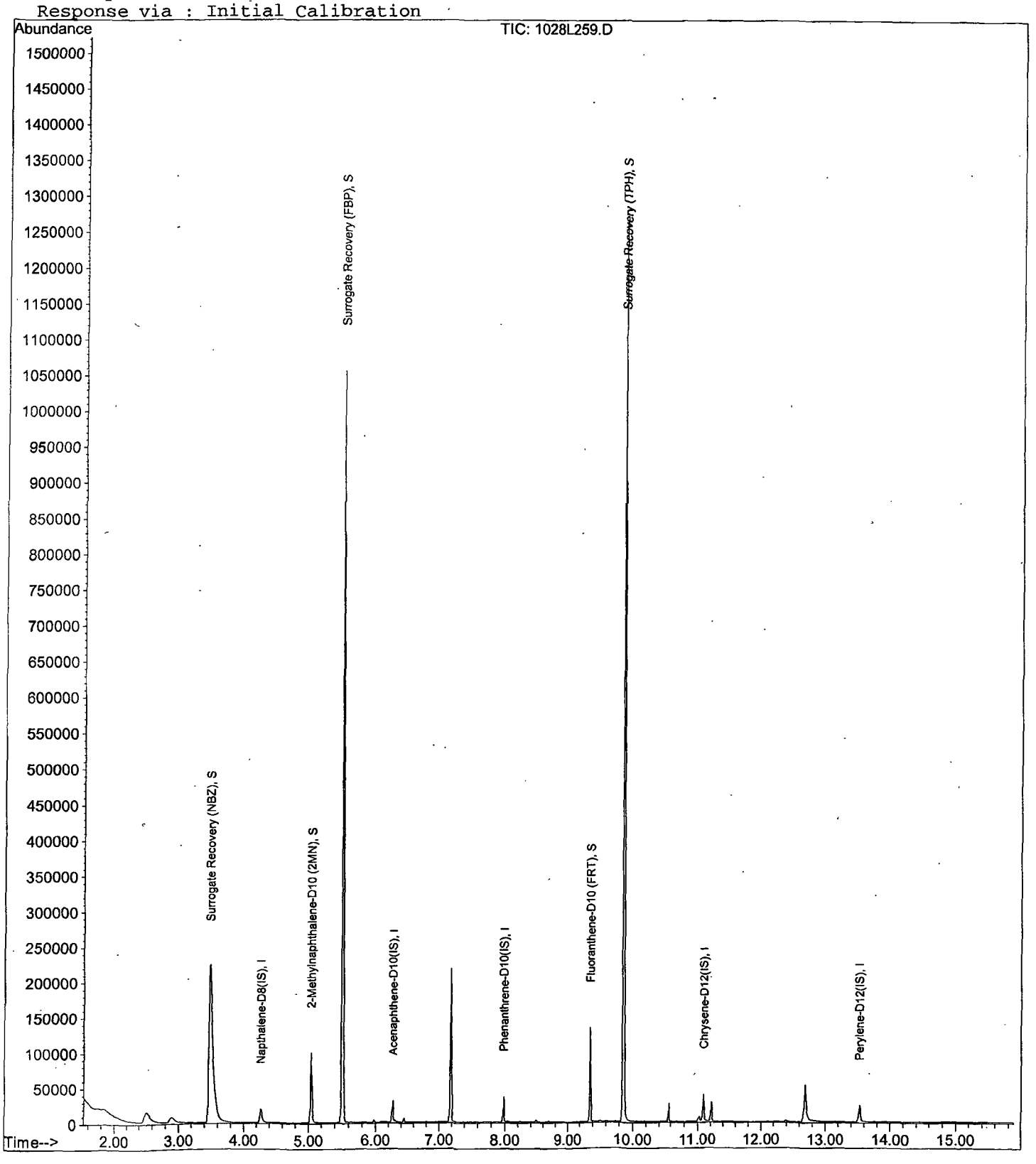
Quantitation Report

Data File : M:\LINUS\DATA\L191028\1028L259.D
Acq On : 12 Nov 19 10:04
Sample : 191104A BLK 1/800
Misc :

Vial: 59
Operator: MA
Inst : Linus
Multiplr: 1.25

Quant Time: Nov 12 10:44 2019 Quant Results File: L1028.RES

Method : M:\LINUS\DATA\L191028\L1028.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 30 10:39:31 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L191028\1028L260.D Vial: 60
Acq On : 12 Nov 19 10:26 Operator: MA
Sample : 191104A LCS-2 1/800 Inst : Linus
Misc : Multiplr: 1.25

Quant Time: Nov 12 10:44 2019 Quant Results File: L1028.RES

Quant Method : M:\LINUS\DATA\L191028\L1028.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 30 10:39:31 2019
Response via : Initial Calibration
DataAcq Meth : SIM_2

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Napthalene-D8(IS)	4.27	136	38137	2.50000 ppb		0.00
7) Acenaphthene-D10(IS)	6.27	164	15916	2.50000 ppb		0.00
12) Phenanthrene-D10(IS)	7.98	188	30577	2.50000 ppb		-0.01
17) Chrysene-D12(IS)	11.10	240	37171	2.50000 ppb		-0.01
23) Perylene-D12(IS)	13.52	264	38425	2.50000 ppb		-0.01
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	3.43	82	110	0.01892 ppb		-0.06
Spiked Amount 6.250			Recovery	= 0.304%		
4) 2-Methylnaphthalene-D10 (2	5.03	152	91841	6.02605 ppb		-0.01
Spiked Amount 6.250			Recovery	= 96.416%		
8) Surrogate Recovery (FBP)	5.51	172	41	0.00425 ppb		-0.01
Spiked Amount 6.250			Recovery	= 0.064%		
15) Fluoranthene-D10 (FRT)	9.36	212	116417	6.54003 ppb		-0.01
Spiked Amount 6.250			Recovery	= 104.640%		
19) Surrogate Recovery (TPH)	9.85	244	656	0.05737 ppb		-0.01
Spiked Amount 6.250			Recovery	= 0.912%		
Target Compounds						Qvalue
3) Naphthalene	4.30	128	100989	6.67282 ppb		99
5) 2-Methylnaphthalene	5.07	142	60088	6.64862 ppb		98
6) 1-Methylnaphthalene	5.18	142	60498	6.55241 ppb		94
9) Acenaphthylene	6.10	152	198210	7.31920 ppb		99
10) Acenaphthene	6.30	154	52099	6.71620 ppb		89
11) Fluorene	6.89	166	62062	7.17792 ppb		95
13) Phenanthrene	8.00	178	94114	6.51328 ppb		99
14) Anthracene	8.06	178	81213	6.50919 ppb		99
16) Fluoranthene	9.38	202	138415	7.02598 ppb	#	91
18) Pyrene	9.64	202	143455	6.74179 ppb	#	86
20) Benz (a) anthracene	11.09	228	114358	6.77003 ppb		97
21) Chrysene	11.13	228	116810	6.24505 ppb	#	97
22) Indeno (1,2,3-cd) pyrene	15.00	276	111769	6.77238 ppb	#	94
24) Benzo (b) fluoranthene	12.89	252	101882	6.53442 ppb		98
25) Benzo (k) fluoranthene	12.95	252	125220	7.07682 ppb		100
26) Benzo (a) pyrene	13.43	252	92944	6.47745 ppb		97
27) Dibenz (a,h) anthracene	15.04	278	92971	6.56987 ppb		95
28) Benzo (g,h,i) perylene	15.37	276	96991	6.24192 ppb	#	88

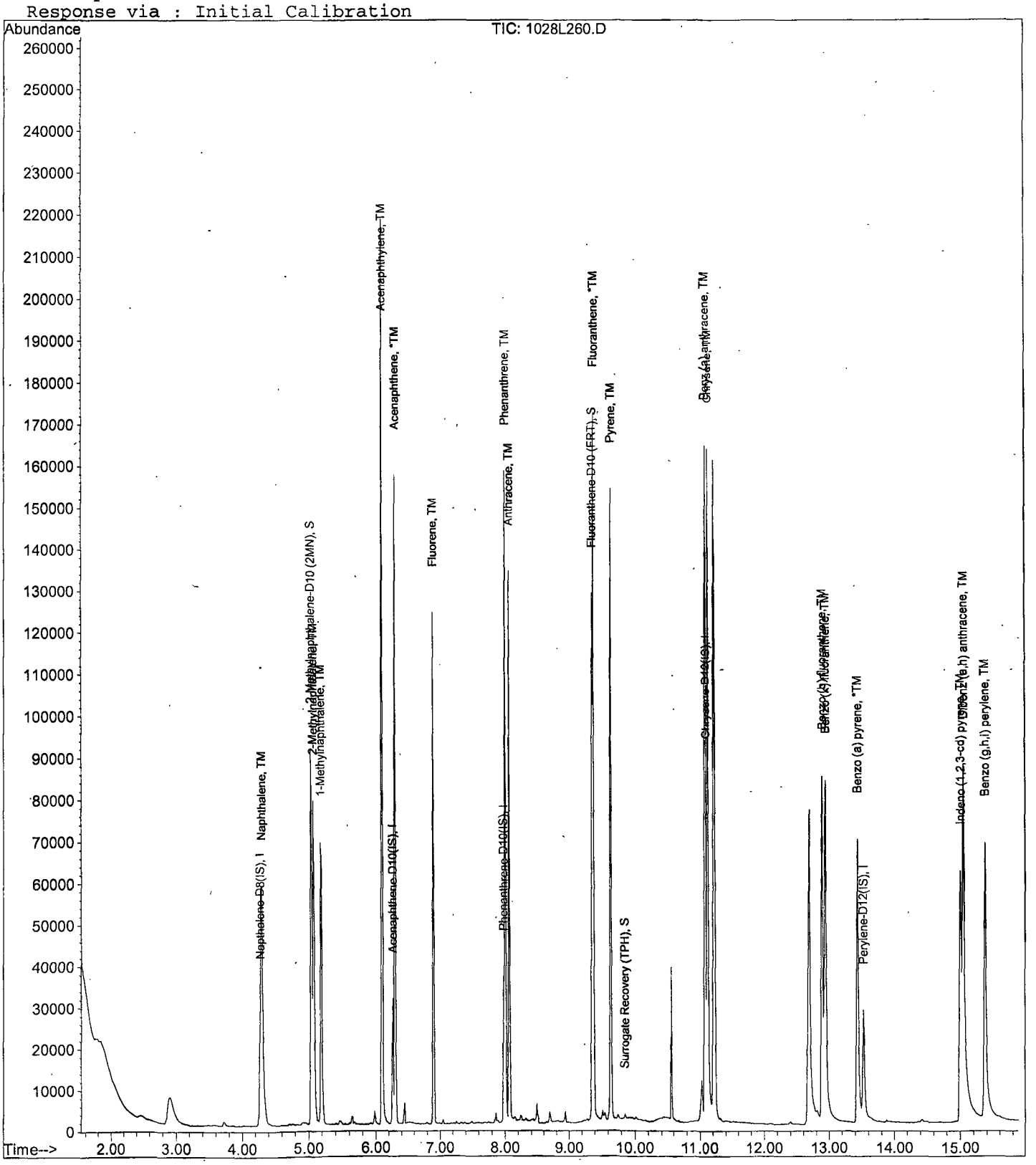
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L191028\1028L260.D Vial: 60
Acq On : 12 Nov 19 10:26 Operator: MA
Sample : 191104A LCS-2 1/800 Inst : Linus
Misc : Multiplr: 1.25

Quant Time: Nov 12 10:44 2019 Quant Results File: L1028.RES

Method : M:\LINUS\DATA\L191028\L1028.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 30 10:39:31 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L191028\1028L261.D Vial: 61
Acq On : 12 Nov 19 10:48 Operator: MA
Sample : 191104A LCSD-2 1/800 Inst : Linus
Misc : Multiplr: 1.25

Quant Time: Nov 12 11:06 2019 Quant Results File: L1028.RES

Quant Method : M:\LINUS\DATA\L191028\L1028.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 30 10:39:31 2019
Response via : Initial Calibration
DataAcq Meth : SIM_2

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Napthalene-D8(IS)	4.27	136	42346	2.50000 ppb		0.00
7) Acenaphthene-D10(IS)	6.27	164	17317	2.50000 ppb		0.00
12) Phenanthrene-D10(IS)	7.98	188	31965	2.50000 ppb		-0.01
17) Chrysene-D12(IS)	11.10	240	38068	2.50000 ppb		-0.01
23) Perylene-D12(IS)	13.52	264	38812	2.50000 ppb		-0.01
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	3.49	82	49	0.00759 ppb		0.00
Spiked Amount 6.250			Recovery	= 0.128%		
4) 2-Methylnaphthalene-D10 (2	5.03	152	93203	5.50757 ppb		-0.01
Spiked Amount 6.250			Recovery	= 88.128%		
8) Surrogate Recovery (FBP)	5.50	172	49	0.00467 ppb		-0.01
Spiked Amount 6.250			Recovery	= 0.080%		
15) Fluoranthene-D10 (FRT)	9.36	212	120142	6.45622 ppb		-0.01
Spiked Amount 6.250			Recovery	= 103.296%		
19) Surrogate Recovery (TPH)	9.85	244	483	0.04125 ppb		-0.01
Spiked Amount 6.250			Recovery	= 0.656%		
Target Compounds						Qvalue
3) Naphthalene	4.30	128	101393	6.03361 ppb		100
5) 2-Methylnaphthalene	5.07	142	60057	5.98469 ppb		95
6) 1-Methylnaphthalene	5.19	142	60646	5.91557 ppb		98
9) Acenaphthylene	6.10	152	201592	6.84183 ppb		98
10) Acenaphthene	6.30	154	52512	6.22177 ppb		91
11) Fluorene	6.89	166	62293	6.62176 ppb		94
13) Phenanthrene	8.00	178	93353	6.18008 ppb		99
14) Anthracene	8.06	178	84268	6.46077 ppb		99
16) Fluoranthene	9.38	202	139408	6.76911 ppb	#	91
18) Pyrene	9.64	202	143036	6.56370 ppb	#	86
20) Benz (a) anthracene	11.09	228	115634	6.68427 ppb		98
21) Chrysene	11.13	228	118796	6.20157 ppb		97
22) Indeno (1,2,3-cd) pyrene	15.00	276	112692	6.66741 ppb	#	96
24) Benzo (b) fluoranthene	12.89	252	113890	7.23175 ppb		98
25) Benzo (k) fluoranthene	12.95	252	113527	6.35201 ppb		99
26) Benzo (a) pyrene	13.43	252	97543	6.73018 ppb		98
27) Dibenz (a,h) anthracene	15.05	278	94122	6.58488 ppb		99
28) Benzo (g,h,i) perylene	15.37	276	96903	6.17408 ppb	#	85

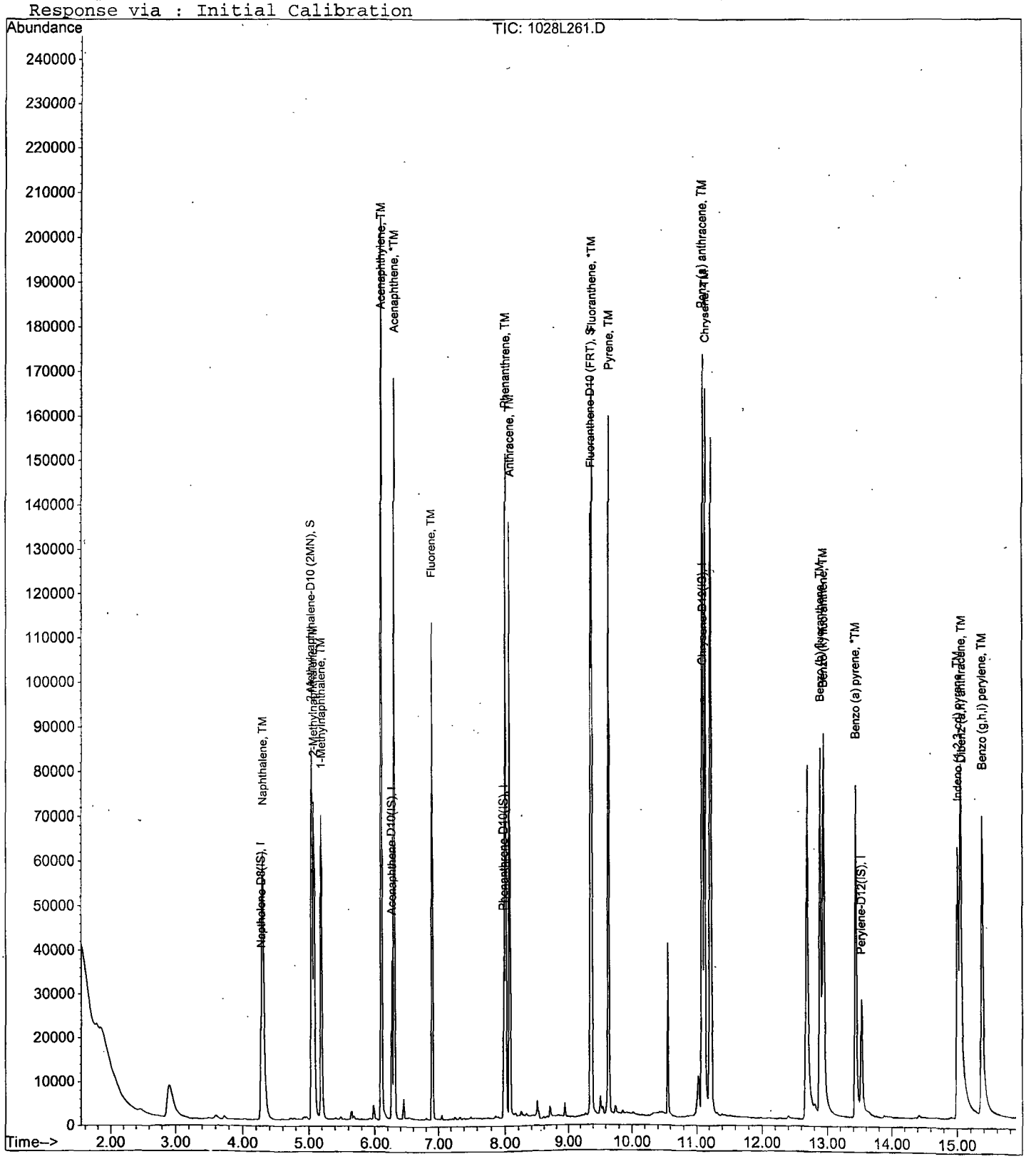
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L191028\1028L261.D Vial: 61
Acq On : 12 Nov 19 10:48 Operator: MA
Sample : 191104A LCSD-2 1/800 Inst : Linus
Misc : Multiplr: 1.25

Quant Time: Nov 12 11:06 2019 Quant Results File: L1028.RES

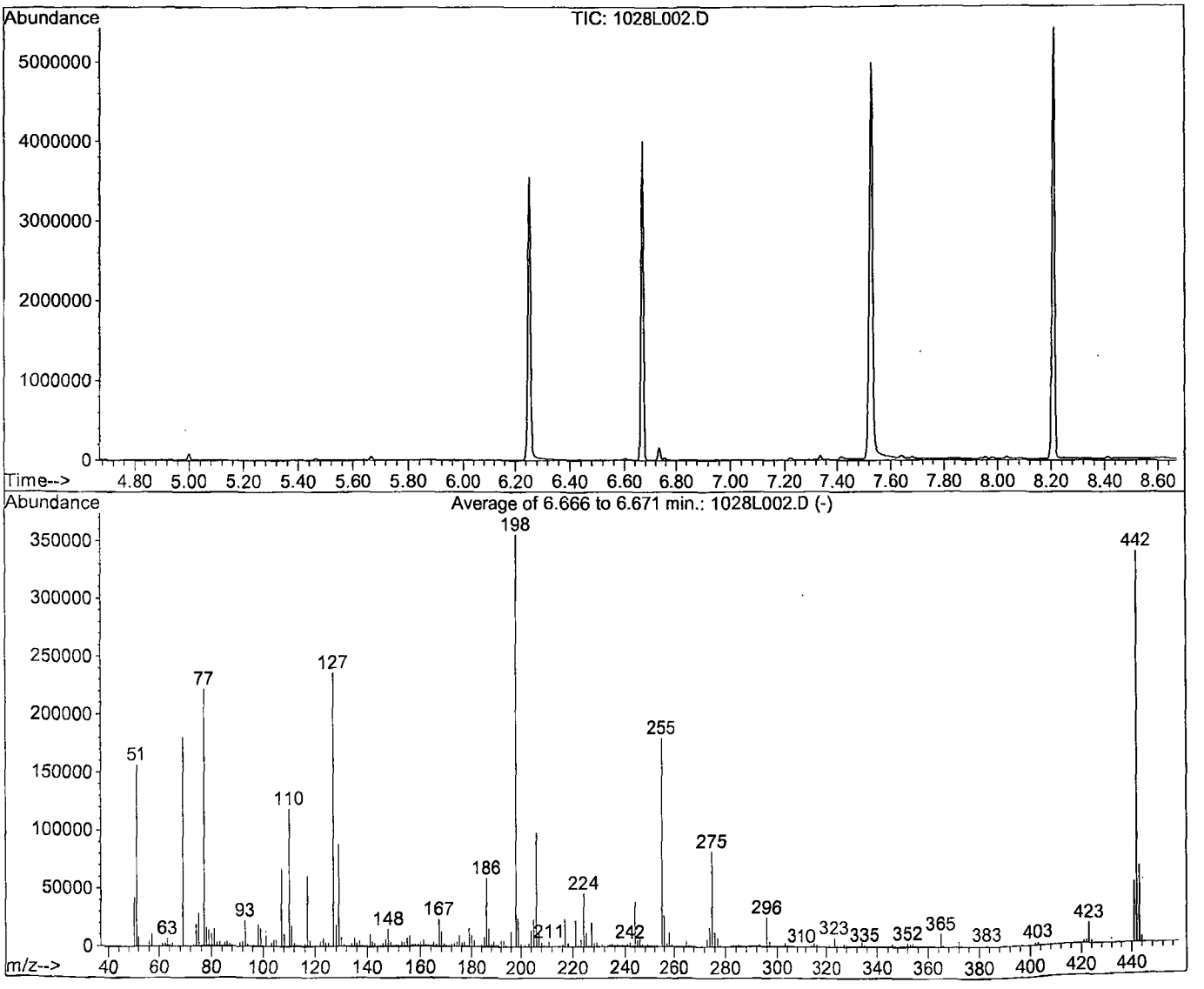
Method : M:\LINUS\DATA\L191028\L1028.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 30 10:39:31 2019
Response via : Initial Calibration



DFTPP

Data File : M:\LINUS\DATA\L191028\1028L002.D Vial: 2
Acq On : 28 Oct 19 10:20 Operator: MA
Sample : SV Tune 07/11/19 Inst : Linus
Misc : Multiplr: 1.00

Method : M:\LINUS\DATA\L191028\L1028.M (RTE Integrator)
Title : EPA 8270



AutoFind: Scans 1639, 1640, 1641; Background Corrected with Scan 1630

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	44.0	156621	PASS
68	69	0.00	2	0.0	0	PASS
70	69	0.00	2	0.3	628	PASS
127	198	10	80	66.3	235925	PASS
197	198	0.00	2	0.0	0	PASS
198	198	100	100	100.0	355968	PASS
199	198	5	9	6.8	24237	PASS
275	198	10	60	23.0	81733	PASS
365	198	1	100	3.1	10977	PASS
441	442	0.01	24	15.5	52947	PASS
442	198	50	500	95.8	340885	PASS
443	442	15	24	19.6	66771	PASS

Data File Name:	**1028L002.D**
Data File Path:	**M:\LINUS\DATA\L191028**
Operator:	**MA**
Date Acquired:	**28 Oct 2019 10:20**
Method File:	**DFTPP2.M**
Sample Name:	**SV Tune 07/11/19**
Vial Number:	**2**
Instrument Name:	**Linus**

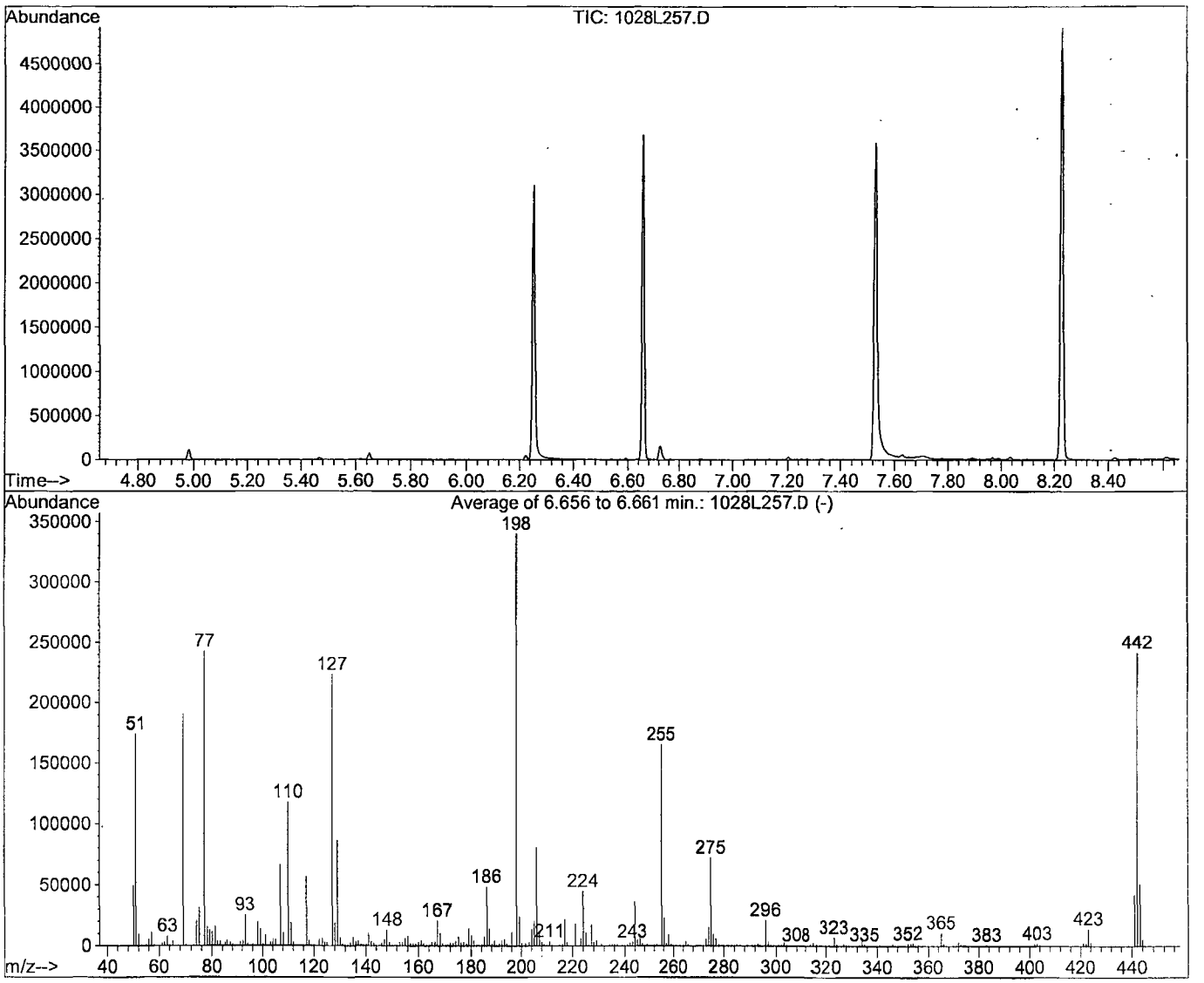
#	Name	Ret Time	Target Response
1)	DDT	8.21	37737600
2)	DDD	7.96	199800
3)	DDE	7.25	192158

Breakdown **1.03**

DFTPP

Data File : M:\LINUS\DATA\L191028\1028L257.D Vial: 57
Acq On : 12 Nov 19 9:18 Operator: MA
Sample : SV Tune 10/01/19 Inst : Linus
Misc : Multiplr: 1.00

Method : M:\LINUS\DATA\L191028\L1028.M (RTE Integrator)
Title : EPA 8270



AutoFind: Scans 1635, 1636, 1637; Background Corrected with Scan 1627

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	51.2	174024	PASS
68	69	0.00	2	0.0	0	PASS
70	69	0.00	2	0.7	1243	PASS
127	198	10	80	65.7	223509	PASS
197	198	0.00	2	0.0	0	PASS
198	198	100	100	100.0	340181	PASS
199	198	5	9	7.1	23997	PASS
275	198	10	60	21.2	72056	PASS
365	198	1	100	3.2	10859	PASS
441	442	0.01	24	17.4	41941	PASS
442	198	50	500	71.1	241728	PASS
443	442	15	24	21.1	50888	PASS

1028L257.D L1028.M Tue Nov 12 09:31:29 2019

Data File Name:	**1028L257.D**
Data File Path:	**M:\LINUS\DATA\L191028**
Operator:	**MA**
Date Acquired:	**12 Nov 2019 09:18**
Method File:	**DFTPP2.M**
Sample Name:	**SV Tune 10/01/19**
Vial Number:	**57**
Instrument Name:	**Linus**

#	Name	Ret Time	Target Response
1)	DDT	8.21	34843200
2)	DDD	7.98	128973
3)	DDE	8.15	0

Breakdown **0.37**

Name of Final Standard	Semivolatile (SV) Tuning Solution	Prep'd By (Initials)	JP
Prep Date	10/01/19		
Exp Date	11/30/20		

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from contianer Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
Semivolatile GC/MS Tuning Standard	Ultra Scientific	GCM-150-1	1,000 ug/mL	CR3789-38879	11/30/20	1,250 uL	25 mL	MC #58240	50 ug/mL

Name of Final Standard	8270 SIM PAH Internal Standard
Prep Date	10/28/19
Exp Date	10/28/20

Prep'd By (Initials): MA

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from contianer Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
SV Internal Standard	Restek	31206	2000 ug/mL	**A0151843-49414**	**07/35/25**	625uL	10mL	**MC 59130**	125 ug/mL

Name of Final Standard	SIM Curve
Prep Date	07/28/19
Exp Date	01/24/20

Prep'd By (Initials): MA

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from container Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
1.0 ug/mL SIM	APPL	1.0 ug/mL SIM	1.0 ug/mL	**08/10/19**	**01/24/20**	10 uL	100uL	**MC 59130 90uL**	0.1 ug/mL
SIM Internal Standard	APPL	SIM Internal Standard	125 ug/mL	**10/28/19**	**10/28/20**	2 uL	*	*	2.5ug/mL
1.0 ug/mL SIM	APPL	1.0 ug/mL SIM	1.0 ug/mL	**08/10/19**	**01/24/20**	20 uL	100uL	**MC 59130 80uL**	0.2 ug/mL
SIM Internal Standard	APPL	SIM Internal Standard	125 ug/mL	**10/28/19**	**10/28/20**	2 uL	*	*	2.5ug/mL
5.0 ug/mL SIM	APPL	5.0 ug/mL SIM	5.0 ug/mL	**08/10/19**	**01/24/20**	10 uL	100uL	**MC 59130 90uL**	0.5 ug/mL
SIM Internal Standard	APPL	SIM Internal Standard	125 ug/mL	**10/28/19**	**10/28/20**	2 uL	*	*	2.5ug/mL
5.0 ug/mL SIM	APPL	5.0 ug/mL SIM	5.0 ug/mL	**08/10/19**	**01/24/20**	20 uL	100uL	**MC 59130 80 uL**	1.0 ug/mL
SIM Internal Standard	APPL	SIM Internal Standard	125 ug/mL	**10/28/19**	**10/28/20**	2 uL	*	*	2.5ug/mL

SIM STOCK	APPL	PAH SIM STOCK	200 ug/mL	**08/10/19**	**08/10/20**	5 uL	200uL	**MC 59130 190 uL**	5.0 ug/mL
SIM 2S SURROGATE	APPL	SIM 2S SURR	100 ug/mL	**05/17/19**	**01/24/20**	5 uL	*	*	2.5ug/mL
SIM Internal Standard	APPL	SIM Internal Standard	125 ug/mL	**10/28/19**	**10/28/20**	4 uL	*	*	2.5ug/mL
SIM STOCK	APPL	PAH SIM STOCK	200 ug/mL	**08/10/19**	**08/10/20**	10 uL	100 uL	**MC 59130 80 uL**	20 ug/mL
SIM 2S SURROGATE	APPL	SIM 2S SURROGATE	100 ug/mL	**05/17/19**	**01/24/20**	10 uL	*	*	10 ug/mL
SIM Internal Standard	APPL	SIM Internal Standard	125 ug/mL	**10/28/19**	**10/28/20**	2 uL	*	*	2.5ug/mL
SIM STOCK	APPL	PAH SIM STOCK	200	**08/10/19**	**08/10/20**	25 uL	100uL	**MC 59130 50 uL**	50 ug/mL
SIM 2S SURROGATE	APPL	SIM 2S SURROGATE	100 ug/mL	**05/17/19**	**01/24/20**	25 uL	*	*	25 ug/mL
SIM Internal Standard	APPL	SIM Internal Standard	125 ug/mL	**10/28/19**	**10/28/20**	2 uL	*	*	2.5ug/mL
SIM STOCK	APPL	PAH SIM STOCK	200 ug/mL	**08/10/19**	**08/10/20**	50 uL	100uL	**na**	100 ug/mL
SIM 2S SURROGATE	APPL	SIM 2S SURROGATE	100 ug/mL	**05/17/19**	**01/24/20**	50 uL	*	*	50 ug/mL
SIM Internal Standard	APPL	SIM Internal Standard	125 ug/mL	**10/28/19**	**10/28/20**	2 uL	*	*	2.5ug/mL

Name of Final Standard **8270 PAH SIM Second Source** **Prep'd By (Initials)** **MA**

Prep Date **10/28/19**

Exp Date **12/28/19**

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from container Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
PAH SIM SS Stock	Phenova	AL0-130490	200 ug/mL	**12/28/18**	**12/28/19**	5 uL	200uL	**MC 59130 195uL**	5 ug/mL
SIM Internal Standard	APPL	SIM Internal Standard	125 ug/mL	**10/28/19**	**10/28/20**	4 uL	*	*	2.5ug/mL

Name of Final Standard	**PAH SIM Stock (Ampule)**
Prep Date	**08/10/19**
Exp Date	**08/10/20**

Prep'd By (I **MA**

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from contianer Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
Custom PAH SIM Mix	Phenova	ALO-130490	200 ug/mL	**CL13121-41102**	**08/10/20**	1000 uL	1mL	**NA**	200ug/mL

Name of Final Standard	**PAH SIM 2nd Source Stock (Ampule)**	**Prep'd By (Initials)**	**GA**
Prep Date	**12/28/18**		
Exp Date	**12/28/19**		

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from container Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
Custom PAH SIM Mix	Phenova	AL0-130490	200 ug/mL	**CL13121 - 40082**	**12/28/19**	1 mL	na	**na**	200 ug/mL

Name of Final Standard	SIM 2S Surrogate	Prep'd By (Initials)	GA
Prep Date	05/17/19		
Exp Date	01/24/20		

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from contianer Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
SIM Surrogate Mix	Restek	33913	2000 ug/mL	A0137718 - 39318	01/24/20	250 uL	5 mL	Acetone #030817A	100 ug/mL
8270 B/N surrog mix	Restek	31086	5000 ug/mL	A0141697 - 40112	04/10/20	100 uL	*	*	*

Name of Final Standard	**SIM Spike**
Prep Date	**11/13/19**
Exp Date	**11/13/20**

Prep'd By (Initials) **SJ**

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from contianer Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
Custom PAH Sim Mix	Phenova	AL0-130490	200 ug/mL	**CL13121- 41100,41223**	**12/31/22**	2 mL	10 mL	**Acetone 0231086**	40 ug/mL

Name of Final Standard	**SIM Surrogate**
Prep Date	**09/03/19**
Exp Date	**03/03/20**

Prep'd By (Initials) **MA**

Initial Standard Information						Final Standard Information			
Standard (from	Supplier	P/N# (or	Conc.(range)	# (or	Exp Date	from	Volume	Solvent +	Standard
Sim Surrogate Deuterated	Restek	33913	2000 ug/mL	**A0145699-40651,41234, 41236**	**1/31/25, 4/20/25**	2500 uL	50 mL	**Acetone #217497**	100 ug/mL

LIQ003

Organic Extraction Worksheet

Method	Continuous Liquid/Liquid SVOC 3520C	Extraction Set	191104A	Extraction Method	LIQ003	Units	mL

Spiked ID 1	8270T Spike 10/3/19 ex 10/3/20		Surrogate ID 1	8270 Surrogate 10/3/19 ex 10/3/20	
Spiked ID 2	Sim Spike 9/30/19 ex 9/30/20		Surrogate ID 2	SIM Surrogate 10/25/19 ex 10/25/20	
Spiked ID 3			Surrogate ID 3		
Spiked ID 4			Surrogate ID 4		
Spiked ID 5			Surrogate ID 5		
Spiked ID 6			Sufficient Vol for Matrix QC:	no	
Spiked ID 7			Ext. Start Time:	11/04/19 13:35	
Spiked ID 8			Ext. End Time:	11/06/19 6:30	
			GC Requires Extract By:		

pH1	2	11/05/19 10:40	Water Bath Temp 1 °C	EWB5 75/74.2 °
pH2	14	11/06/19 13:00	Water Bath Temp 2 °C	
pH3			Water Bath Temp 3 °C	

Spiked By: DL **Date** 11/04/19 **Witnessed By:** YL **Date** 11/04/19

	Sample	Sample Container	Spike Amount	Spike ID	Surrogate Amount	Surrogate ID	Extract Amount	Final Volume	pH	Extract Date/Time	Comments
1	191104A Blk				1,0.050	1,2	800	1	2/1	11/04/19 13:35	
						equip	EWB5				
2	191104A LCS-1		1	1	1	1	800	1	2/1	11/04/19 13:35	
						equip	EWB5				
3	191104A LCS-2		0.125	2	0.050	2	800	1	2/1	11/04/19 13:35	
						equip	EWB5				
4	191104A LCSD-1		1	1	1	1	800	1	2/1	11/04/19 13:35	
						equip	EWB5				
5	191104A LCSD-2		0.125	2	0.050	2	800	1	2/1	11/04/19 13:35	
						equip	EWB5				
6	BA02090	BA02090W19			1,0.050	1,2	800	1	2/1	11/04/19 13:35	90587
						equip	EWB5				
7	BA02091	BA02091W14			1,0.050	1,2	800	1	2/1	11/04/19 13:35	90587
						equip	EWB5				
8	BA02160	BA02160W16			1,0.050	1,2	800	1	2/1	11/04/19 13:35	90599
						equip	EWB5				
9	BA02214	BA02214W21			1,0.050	1,2	800	1	2/1	11/04/19 13:35	90611
						equip	EWB5				
10	BA02216	BA02216W13			1,0.050	1,2	800	1	2/1	11/04/19 13:35	90611
						equip	EWB5				
11	BA02301	BA02301W13			1,0.050	1,2	800	1	2/1	11/04/19 13:35	90625
						equip	EWB5				

Solvent and Lot#	
PH Strips	HC863463
Dichloromethane (DCM)	59130
1+1 H2SO4	11/1/19
10N NaOH	10/25/19
Filter Paper	400171
B. Na2SO4	2019020631

Extraction COC Transfer	
Extraction lab employee Initials	SS
GC analyst's initials	MA
Date	11/7/19
Time	1:30 pm
Refrigerator	GC_C

	Technician's Initials
Scanned By	DL
Sample Preparation	DL,YL,RB
Extraction	RB,DL
Concentration	DL

Modified	11/14/19 9:54:11 AM

Reviewed By: [illegible] Date 11/14/19

Injection Log

Directory: M:\LINUS\DATA\L191028\

Vial	FileName	Multiplier	SampleName	Misc Info	Injected
2	1028L002.D	1	SV Tune 10/01/19		28 Oct 19 10:20
4	1028L004.D	1	5 SIM 10/28/19(2)		28 Oct 19 12:26
5	1028L005.D	1	0.1 SIM 10/28/19		28 Oct 19 12:51
6	1028L006.D	1	0.2 SIM 10/28/19		28 Oct 19 13:13
7	1028L007.D	1	0.5 SIM 10/28/19		28 Oct 19 13:35
8	1028L008.D	1	1 SIM 10/28/19		28 Oct 19 13:57
9	1028L009.D	1	20 SIM 10/28/19		28 Oct 19 14:19
10	1028L010.D	1	50 SIM 10/28/19		28 Oct 19 14:42
11	1028L011.D	1	100 SIM 10/28/19		28 Oct 19 15:04
12	1028L012.D	1	SS SIM 10/28/19		28 Oct 19 15:55
57	1028L257.D	1	SV Tune 10/01/19		12 Nov 19 9:18
58	1028L258.D	1	5 SIM 10/28/19 (1)		12 Nov 19 9:35
59	1028L259.D	1.25	191104A BLK 1/800		12 Nov 19 10:04
60	1028L260.D	1.25	191104A LCS-2 1/800		12 Nov 19 10:26
61	1028L261.D	1.25	191104A LCSD-2 1/800		12 Nov 19 10:48
65	1028L265.D	1.25	BA02214W21 1/800		12 Nov 19 12:17
66	1028L266.D	1.25	BA02216W13 1/800		12 Nov 19 12:39
68	1028L268.D	1	5 SIM 10/28/19 (1)		12 Nov 19 13:40

ORGANICS
Calibration Data

Semi-Volatile Analysis by GC-MS
EPA 8270

Form 6
Initial Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Initial Cal. Date: 11/21/19
Matrix: Instrument: Yoda
Initials: MA

		Compound	4	5	10	20	40	50	60	80	91		Avg	%RSD	Type	r^2	Q	MRF
			1121Y003.D	1121Y004.D	1121Y005.D	1121Y006.D	1121Y007.D	1121Y008.D	1121Y009.D	1121Y010.D	1121Y011.D							
1	I	1,4-dichlorobenzene-D4(IS)	ISTD															
2		1,4-Dioxane	0.4131	0.4262	0.6088	0.5154	0.4095	0.4466	0.4353	0.4216	0.5029		0.46	14				
3	TM	n-Nitrosodimethylamine	0.7472	0.7900	0.7145	0.6353	0.6209	0.6613	0.7224	0.7296	0.7209		0.70	7.8	TM			
4	TM	Pyridine	1.503	1.671	1.847	1.602	1.612	1.772	1.882	1.932	1.865		1.7	8.6	TM			
5	S	2-Fluorophenol (S)	1.487	1.348	1.400	1.254	1.237	1.355	1.453	1.534	1.468		1.4	7.4	S			
6	S	Phenol-D6 (S)	1.756	1.549	1.642	1.478	1.476	1.633	1.747	1.861	1.785		1.7	8.4	S			
7	*TM	Phenol	1.749	1.801	1.921	1.714	1.815	1.992	2.160	2.248	2.228		2.0	11	*TM			0.800
8	TM	Aniline			1.047	1.052	1.148	1.169	1.201	1.269	1.211		1.2	7.1	TM			
9	TM	Bis (2-chloroethyl) ether	0.7596	0.7864	0.8586	0.7722	0.7720	0.8416	0.9033	0.9359	0.9016		0.84	8.0	TM			0.700
10	TM	2-Chlorophenol	1.357	1.382	1.497	1.364	1.378	1.499	1.627	1.645	1.601		1.5	8.0	TM			0.800
11	TM	1,3-DCB	1.536	1.641	1.694	1.502	1.551	1.693	1.828	1.878	1.803		1.7	8.1	TM			
12	*TM	1,4-DCB	1.556	1.618	1.733	1.554	1.576	1.738	1.843	1.912	1.838		1.7	8.0	*TM			
13	TM	Benzyl alcohol	0.7592	0.7688	0.8337	0.7639	0.7868	0.8726	0.9274	0.9523	0.9245		0.84	9.2	TM			
14	TM	1,2-DCB	1.441	1.559	1.644	1.456	1.460	1.604	1.710	1.771	1.713		1.6	7.8	TM			
15	TM	2-Methylphenol	1.088	1.109	1.215	1.070	1.076	1.253	1.346	1.314	1.342		1.2	9.8	TM			0.700
16	TM	Bis (2-chloroisopropyl) ether	0.8788	0.9016	0.9685	0.8381	0.8636	0.9380	0.9966	1.034	0.9974		0.94	7.3	TM			
17	TM	Acetophenone	1.946	1.990	2.180	1.908	1.996	2.186	2.386	2.456	2.392		2.2	9.8	TM			0.010
18	TM	3&4-Methylphenol	1.435	1.509	1.633	1.441	1.512	1.696	1.829	1.913	1.862		1.6	11	TM			0.600
19	**TM	n-Nitrosodi-n-propylamine	1.093	1.149	1.236	1.108	1.128	1.259	1.349	1.390	1.363		1.2	9.5	**TM			0.500
20	TM	Hexachloroethane	0.5962	0.6514	0.7001	0.6119	0.6291	0.6831	0.7309	0.7571	0.7360		0.68	8.6	TM			0.300
21	I	Napthalene-D8(IS)	ISTD															
22	S	Nitrobenzene-D5(S)	0.4909	0.4400	0.4480	0.4249	0.4251	0.4425	0.4519	0.4695	0.4641		0.45	4.7	S			
23	TM	Nitrobenzene	0.4203	0.4487	0.4724	0.4405	0.4454	0.4667	0.4790	0.4868	0.4882		0.46	5.1	TM			0.200
24	TM	Isophorone	0.6864	0.7296	0.7374	0.7047	0.7298	0.7674	0.7743	0.7950	0.7997		0.75	5.3	TM			0.400
25	*TM	2-Nitrophenol	0.1792	0.1931	0.2068	0.2007	0.2081	0.2209	0.2244	0.2308	0.2328		0.21	8.6	*TM			0.100
26	TM	2,4-Dimethylphenol	0.2989	0.3139	0.3292	0.3055	0.3201	0.3373	0.3422	0.3500	0.3576		0.33	6.2	TM			0.200
27	TML	Benzoic acid	0.0982	0.1215	0.1867	0.2338	0.2843	0.3119	0.3253	0.3097	0.3131		0.24	36	TML	0.998		
28	TM	Bis (2-chloroethoxy) methane	0.3582	0.3873	0.3992	0.3839	0.3958	0.4153	0.4208	0.4286	0.4365		0.40	6.2	TM			0.300
29	*TM	2,4-Dichlorophenol	0.2978	0.3162	0.3333	0.3182	0.3286	0.3510	0.3576	0.3652	0.3745		0.34	7.6	*TM			0.200
30	TM	1,2,4-Trichlorobenzene	0.3477	0.3741	0.3873	0.3624	0.3854	0.3994	0.4100	0.4254	0.4290		0.39	7.0	TM			
31	TM	3,4-Dimethylphenol	0.4850	0.4923	0.5178	0.4946	0.5265	0.5486	0.5603	0.5755	0.5762		0.53	6.8	TM			
32	TM	Naphthalene	0.9679	1.050	1.070	1.002	1.044	1.102	1.121	1.156	1.183		1.1	6.5	TM			0.700
33	TM	4-Chloroaniline			0.3471	0.3393	0.3746	0.4069	0.3980	0.3986	0.3929		0.38	7.1	TM			0.010
34	TM	2,6-Dichlorophenol	0.2883	0.3109	0.3193	0.3043	0.3167	0.3407	0.3496	0.3553	0.3608		0.33	7.7	TM			
35	TM	Hexachloropropene	0.2899	0.3123	0.3296	0.3193	0.3388	0.3526	0.3667	0.3769	0.3786		0.34	9.0	TM			

Semi-Volatile Analysis by GC-MS
EPA 8270

Form 6
Initial Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Initial Cal. Date: 11/21/19
Matrix: Instrument: Yoda Initials:

		Compound	4	5	10	20	40	50	60	80	91		Avg	%RSD	Type		Q	
36	*TM	Hexachlorobutadiene	0.2483	0.2674	0.2753	0.2570	0.2714	0.2788	0.2882	0.2985	0.3013		0.28	6.4	*TM			0.010
37	TM	Caprolactum	0.1060	0.1109	0.1188	0.1116	0.1158	0.1233	0.1260	0.1284	0.1285		0.12	6.9	TM			0.010
38	*TM	4-Chloro-3-methylphenol	0.3450	0.3598	0.3803	0.3528	0.3721	0.3927	0.4005	0.4114	0.4181		0.38	6.8	*TM			0.200
39	TM	2-Methylnaphthalene	0.6586	0.6946	0.7298	0.6852	0.7108	0.7591	0.7694	0.7921	0.8092		0.73	7.0	TM			0.400
40	TM	1-Methylnaphthalene	0.6864	0.7167	0.7473	0.6960	0.7403	0.7824	0.7954	0.8312	0.8369		0.76	7.3	TM			
41	I	Acenaphthene-D10(IS)	ISTD															
42	**TM	Hexachlorocyclopentadiene			0.4047	0.4452	0.5371	0.5778	0.5356	0.5014	0.5552		0.51	12	**TM			0.050
43	TM	1,2,4,5-Tetrachlorobenzene	0.6252	0.6692	0.6757	0.6442	0.6972	0.7328	0.7295	0.7660	0.7864		0.70	7.8	TM			0.010
44	*TM	2,4,6-Trichlorophenol	0.3803	0.4337	0.4321	0.4274	0.4438	0.4740	0.4637	0.4817	0.4911		0.45	7.7	*TM			0.200
45	TM	2,4,5-Trichlorophenol	0.4406	0.4440	0.4619	0.4489	0.4678	0.5007	0.4912	0.5126	0.5208		0.48	6.4	TM			0.200
46	S	2-Fluorobiphenyl(S)	1.652	1.486	1.453	1.406	1.410	1.509	1.468	1.538	1.539		1.5	5.1	S			
47	TM	1,1'-Biphenyl	1.417	1.439	1.478	1.431	1.492	1.585	1.553	1.631	1.656		1.5	5.9	TM			0.010
48	TM	2-Chloronaphthalene	1.135	1.191	1.236	1.169	1.228	1.300	1.273	1.322	1.343		1.2	5.7	TM			0.800
49	TM	2-Nitroaniline	0.3493	0.3785	0.3935	0.3749	0.3886	0.4159	0.4088	0.4204	0.4192		0.39	6.1	TM			0.010
50	TM	Dimethyl phthalate	1.421	1.459	1.487	1.426	1.501	1.600	1.555	1.609	1.614		1.5	5.1	TM			0.010
51	TM	2,6-DNT	0.2894	0.2971	0.3276	0.3293	0.3389	0.3693	0.3603	0.3705	0.3755		0.34	9.4	TM			0.200
52	TM	Acenaphthylene	1.775	1.825	1.867	1.810	1.887	2.003	1.960	2.039	2.040		1.9	5.3	TM			0.900
53	TM	3-Nitroaniline	0.3368	0.3525	0.3811	0.3775	0.3933	0.4173	0.4102	0.4186	0.4220		0.39	7.8	TM			0.010
54	*TM	Acenaphthene	1.162	1.167	1.230	1.200	1.284	1.375	1.344	1.412	1.459		1.3	8.5	*TM			0.900
55	**TM	2,4-Dinitrophenol				0.1695	0.2095	0.2326	0.2385	0.2537	0.2583		0.23	15	**TM			0.010
56	**TM	4-Nitrophenol	0.0201	0.0218	0.0251	0.0236	0.0259	0.0275	0.0256	0.0271	0.0273		0.02	10	**TM			0.010
57	TM	Dibenzofuran	1.703	1.732	1.754	1.677	1.756	1.875	1.851	1.925	1.953		1.8	5.6	TM			0.800
58	TM	2,4-DNT	0.4206	0.4414	0.4553	0.4644	0.4861	0.5108	0.5051	0.5266	0.5373		0.48	8.3	TM			0.200
59	TM	2,3,4,6-Tetrachlorophenol	0.3407	0.3718	0.3800	0.3806	0.4047	0.4310	0.4264	0.4400	0.4478		0.40	9.0	TM			0.010
60	TM	Diethyl phthalate	1.477	1.526	1.527	1.479	1.516	1.617	1.570	1.621	1.623		1.6	3.8	TM			0.010
61	TM	4-Chlorophenyl phenyl ether	0.7839	0.8192	0.8394	0.8083	0.8621	0.9335	0.9288	0.9951	1.013		0.89	9.4	TM			0.400
62	TM	Fluorene	1.340	1.374	1.424	1.371	1.476	1.601	1.583	1.705	1.729		1.5	9.8	TM			0.900
63	TM	4-Nitroaniline	0.2712	0.2968	0.3093	0.2988	0.3132	0.3343	0.3188	0.3244	0.3253		0.31	6.2	TM			0.010
64	S	2,4,6-Tribromophenol(S)	0.3026	0.2844	0.2722	0.2744	0.2883	0.3136	0.3195	0.3429	0.3559		0.31	9.7	S			
65	I	Phenanthrene-D10(IS)	ISTD															
66	TM	4,6-Dinitro-2-methylphenol			0.1316	0.1466	0.1593	0.1737	0.1764	0.1861	0.1865		0.17	13	TM			0.010
67	TM	Diphenyl amine		0.5641	0.5584	0.5578	0.6050	0.6307	0.6433	0.6780	0.6789		0.61	8.3	TM			
68	*TM	n-Nitrosodiphenylamine		0.5641	0.5584	0.5578	0.6050	0.6307	0.6433	0.6780	0.6789		0.61	8.3	*TM			0.010
69	TM	1,2-Diphenylhydrazine	0.6919	0.7397	0.7428	0.7141	0.7574	0.7929	0.7830	0.8128	0.8106		0.76	5.6	TM			
70	TM	4-Bromophenyl phenyl ether	0.2326	0.2459	0.2506	0.2455	0.2597	0.2772	0.2835	0.2942	0.2998		0.27	9.0	TM			0.100

Semi-Volatile Analysis by GC-MS
EPA 8270

Form 6
Initial Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Initial Cal. Date: 11/21/19
Matrix: Instrument: Yoda Initials:

		Compound	4	5	10	20	40	50	60	80	91		Avg	%RSD	Type		Q	
71	TM	Hexachlorobenzene	0.2473	0.2716	0.2574	0.2566	0.2765	0.2965	0.2962	0.3085	0.3143		0.28	8.7	TM			0.100
72	TM	Atrazine		0.2382	0.2260	0.2098	0.2296	0.2382	0.2397	0.2449	0.2454		0.23	5.1	TM			0.010
73	*TM	Pentachlorophenol			0.1444	0.1557	0.1763	0.1911	0.1903	0.2076	0.2104		0.18	14	*TM			0.050
74	TM	Phenanthrene	1.008	1.049	1.046	1.011	1.056	1.105	1.113	1.171	1.184		1.1	5.9	TM			0.700
75	TM	Anthracene	1.045	1.093	1.101	1.059	1.117	1.168	1.172	1.234	1.241		1.1	6.3	TM			0.700
76	TM	Carbazol	0.9216	0.9673	1.003	0.9601	1.009	1.064	1.071	1.110	1.101		1.0	6.5	TM			0.010
77	TM	Di-n-butylphthalate	1.193	1.246	1.258	1.241	1.312	1.394	1.408	1.456	1.478		1.3	7.9	TM			0.010
78		2-Nitrodiphenylamine	0.2511	0.2717	0.2895	0.3048	0.3243	0.3416	0.3486	0.3566	0.3603		0.32	12				
79	*TM	Fluoranthene	1.196	1.214	1.252	1.210	1.307	1.376	1.389	1.459	1.454		1.3	8.0	*TM			0.600
80	I	Chrysene-D12(IS)	ISTD															
81	TM	Benzidine				0.2277	0.2870	0.3338	0.3091	0.3109	0.3119		0.30	12	TM			
82	TM	Pyrene	1.206	1.248	1.263	1.203	1.189	1.276	1.188	1.182	1.180		1.2	3.1	TM			0.600
83	S	Terphenyl-D14(S)	1.165	1.060	0.9868	0.9558	0.9291	0.9737	0.9485	0.9434	1.038		1.0	7.6	S			
84	TM	Butyl benzylphthalate	0.5532	0.5683	0.5820	0.5395	0.5376	0.5742	0.5448	0.5336	0.5306		0.55	3.4	TM			0.010
85	TM	3,3'-Dichlorobenzidine	0.3670	0.3556	0.3061	0.3163	0.3591	0.4126	0.3916	0.3865	0.3878		0.36	9.7	TM			0.010
86	TM	Benz (a) anthracene	1.298	1.428	1.370	1.289	1.276	1.359	1.302	1.327	1.342		1.3	3.6	TM			0.800
87	TM	Bis (2-ethylhexyl) phthalate	0.8211	0.8729	0.8848	0.8315	0.8196	0.8736	0.8456	0.8374	0.8443		0.85	2.8	TM			0.010
88	TM	Chrysene	1.232	1.177	1.234	1.165	1.158	1.248	1.193	1.137	1.138		1.2	3.6	TM			0.700
89	*TM	Di-n-octylphthalate	1.291	1.381	1.388	1.305	1.300	1.379	1.301	1.309	1.309		1.3	3.1	*TM			0.010
90	I	Perylene-D12(IS)	ISTD															
91	TM	Benzo (b) fluoranthene	1.124	1.138	1.268	1.226	1.210	1.412	1.326	1.337	1.342		1.3	7.8	TM			0.700
92	TM	Benzo (k) fluoranthene	1.085	1.156	1.043	1.031	1.178	1.140	1.189	1.320	1.346		1.2	9.5	TM			0.700
93	*TM	Benzo (a) pyrene	1.031	1.054	1.091	1.052	1.118	1.191	1.159	1.226	1.243		1.1	7.0	*TM			0.700
94	TM	Indeno (1,2,3-cd) pyrene	1.226	1.291	1.300	1.259	1.321	1.402	1.382	1.439	1.448		1.3	6.0	TM			0.500
95	TM	Dibenz (a,h) anthracene	1.076	1.111	1.142	1.090	1.166	1.251	1.222	1.280	1.306		1.2	7.2	TM			0.400
96	TM	Benzo (g,h,i) perylene	1.006	1.037	1.048	1.011	1.049	1.115	1.089	1.123	1.129		1.1	4.5	TM			0.500
97																		
98																		
99																		
100																		
101																		
102																		
103																		
104																		
105																		

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y191121\1121Y003.D Vial: 3
Acq On : 21 Nov 19 14:07 Operator: MA,SS
Sample : 4ug/ml 8270 11/21/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 22 15:55 2019 Quant Results File: Y1121ND.RES

Quant Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 15:42:05 2019
Response via : Initial Calibration
DataAcq Meth : SVOC1011

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.47	152	171877	40.00000 ppb	0.00
21) Napthalene-D8(IS)	6.91	136	699682	40.00000 ppb	0.00
41) Acenaphthene-D10(IS)	8.93	164	435091	40.00000 ppb	0.00
65) Phenanthrene-D10(IS)	10.66	188	880555	40.00000 ppb	0.00
80) Chrysene-D12(IS)	13.75	240	903111	40.00000 ppb	0.00
90) Perylene-D12(IS)	15.62	264	1002643	40.00000 ppb	0.00
System Monitoring Compounds					
5) 2-Fluorophenol (S)	3.90	112	51113	8.54001 ppb	0.00
Spiked Amount 200.000			Recovery =	4.270%	
6) Phenol-D6 (S)	5.06	99	60351	8.46840 ppb	-0.02
Spiked Amount 200.000			Recovery =	4.234%	
22) Nitrobenzene-D5(S)	6.09	82	34346	4.35589 ppb	0.00
Spiked Amount 100.000			Recovery =	4.356%	
46) 2-Fluorobiphenyl(S)	8.14	172	71869	4.41801 ppb	0.00
Spiked Amount 100.000			Recovery =	4.418%	
64) 2,4,6-Tribromophenol(S)	9.85	330	26335	7.91248 ppb	0.00
Spiked Amount 200.000			Recovery =	3.956%	
83) Terphenyl-D14(S)	12.52	244	105225	4.66036 ppb	0.00
Spiked Amount 100.000			Recovery =	4.660%	
Target Compounds					Qvalue
2) 1,4-Dioxane	1.74	58	710	0.35582 #	1
3) n-Nitrosodimethylamine	1.96	42	12843	4.24143 ppb	88
4) Pyridine	1.99	79	25828	3.44888 ppb	97
7) Phenol	5.08	94	30055	3.57098 ppb	83
8) Aniline	5.10	93	15130	3.19391 ppb #	74
9) Bis (2-chloroethyl) ether	5.17	63	13055	3.63084 ppb	94
10) 2-Chlorophenol	5.24	128	23332	3.66070 ppb	97
11) 1,3-DCB	5.41	146	26394	3.65488 ppb	96
12) 1,4-DCB	5.49	146	26744	3.64508 ppb	99
13) Benzyl alcohol	5.63	108	13049	3.60134 ppb	94
14) 1,2-DCB	5.67	146	24759	3.61216 ppb	99
15) 2-Methylphenol	5.76	107	18692	3.62060 ppb	99
16) Bis (2-chloroisopropyl) et	5.78	45	15104	3.75895 ppb	95
17) Acetophenone	5.93	105	33450	3.60387 ppb	95
18) 3&4-Methylphenol	5.93	107	49324	6.96583 ppb	95
19) n-Nitrosodi-n-propylamine	5.92	70	18786	3.55298 ppb	92
20) Hexachloroethane	6.05	117	10248	3.52118 ppb	89
23) Nitrobenzene	6.11	77	29406	3.64767 ppb	98
24) Isophorone	6.38	82	48023	3.67460 ppb	96
25) 2-Nitrophenol	6.47	139	12539	3.40134 ppb	93
26) 2,4-Dimethylphenol	6.52	122	20911	3.64149 ppb	98
27) Benzoic acid	6.59	105	6870	6.98276 ppb	94
28) Bis (2-chloroethoxy) metha	6.62	93	25066	3.55718 ppb	98
29) 2,4-Dichlorophenol	6.75	162	20834	3.52351 ppb	92
30) 1,2,4-Trichlorobenzene	6.84	180	24329	3.55547 ppb	98
31) 3,4-Dimethylphenol	6.86	107	33935	3.65526 ppb	98
32) Naphthalene	6.94	128	67722	3.59329 ppb	99
33) 4-Chloroaniline	6.99	127	21792	3.39619 ppb	92
34) 2,6-Dichlorophenol	7.00	162	20174	3.52345 ppb	97
35) Hexachloropropene	7.04	213	20281	3.40479 ppb	98
36) Hexachlorobutadiene	7.08	225	17375	3.59566 ppb	96
37) Caprolactum	7.36	55	7420	3.57025 ppb	94

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y191121\1121Y003.D Vial: 3
Acq On : 21 Nov 19 14:07 Operator: MA,SS
Sample : 4ug/ml 8270 11/21/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 22 15:55 2019 Quant Results File: Y1121ND.RES

Quant Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 15:42:05 2019
Response via : Initial Calibration
DataAcq Meth : SVOC1011

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
38)	4-Chloro-3-methylphenol	7.55	107	24140	3.61824	ppb		96
39)	2-Methylnaphthalene	7.73	142	46079	3.58746	ppb		99
40)	1-Methylnaphthalene	7.84	142	48029	3.61675	ppb		98
42)	Hexachlorocyclopentadiene	7.90	237	13066	2.36391	ppb		98
43)	1,2,4,5-Tetrachlorobenzene	7.91	216	27200	3.55745	ppb		99
44)	2,4,6-Trichlorophenol	8.05	196	16547	3.39912	ppb		95
45)	2,4,5-Trichlorophenol	8.10	196	19169	3.69855	ppb		94
47)	1,1'-Biphenyl	8.26	154	61663	3.72896	ppb		98
48)	2-Chloronaphthalene	8.28	162	49376	3.64897	ppb		99
49)	2-Nitroaniline	8.39	65	15196	3.54290	ppb		96
50)	Dimethyl phthalate	8.61	163	61840	3.74213	ppb		99
51)	2,6-DNT	8.67	165	12592	3.40721	ppb		98
52)	Acenaphthylene	8.77	152	77248	3.71436	ppb		99
53)	3-Nitroaniline	8.39	138	14652	3.45457	ppb		92
54)	Acenaphthene	8.97	154	50577	3.59732	ppb		98
55)	2,4-Dinitrophenol	9.00	184	2218	0.89820	ppb		90
56)	4-Nitrophenol	8.67	65	876	3.23673	ppb	#	74
57)	Dibenzofuran	9.17	168	74089	3.77841	ppb		99
58)	2,4-DNT	9.15	165	18301	3.48292	ppb		89
59)	2,3,4,6-Tetrachlorophenol	9.31	232	14824	3.38549	ppb		97
60)	Diethyl phthalate	9.43	149	64247	3.80951	ppb		98
61)	4-Chlorophenyl phenyl ethe	9.56	204	34106	3.53499	ppb		95
62)	Fluorene	9.56	166	58288	3.54590	ppb		99
63)	4-Nitroaniline	8.87	138	11801	3.49716	ppb		98
66)	4,6-Dinitro-2-methylphenol	9.62	198	7216	1.97776	ppb	#	77
67)	Diphenyl amine	9.69	169	94212	6.96393	ppb		99
68)	n-Nitrosodiphenylamine	9.69	169	94212	6.96393	ppb		99
69)	1,2-Diphenylhydrazine	9.75	77	60929	3.63908	ppb		97
70)	4-Bromophenyl phenyl ether	10.13	248	20479	3.50463	ppb		93
71)	Hexachlorobenzene	10.21	284	21775	3.52596	ppb		93
72)	Atrazine	10.32	200	9503	1.84482	ppb		97
73)	Pentachlorophenol	10.45	266	10529	2.62448	ppb		88
74)	Phenanthrene	10.69	178	88775	3.72528	ppb		99
75)	Anthracene	10.74	178	92014	3.67778	ppb		98
76)	Carbazol	10.93	167	81154	3.60423	ppb		100
77)	Di-n-butylphthalate	11.34	149	105020	3.58164	ppb		99
78)	2-Nitrodiphenylamine	11.51	167	11054	1.58658	ppb		92
79)	Fluoranthene	12.08	202	105288	3.63060	ppb	#	97
81)	Benzidine	12.23	184	26925	4.01919	ppb		99
82)	Pyrene	12.34	202	108905	3.96999	ppb		99
84)	Butyl benzylphthalate	13.08	149	49960	4.01214	ppb		91
85)	3,3'-Dichlorobenzidine	13.69	252	33143	4.02465	ppb		99
86)	Benz (a) anthracene	13.73	228	117193	3.89605	ppb		99
87)	Bis (2-ethylhexyl) phthala	13.75	149	74158	3.87394	ppb	#	95
88)	Chrysene	13.77	228	111291	4.15296	ppb		99
89)	Di-n-octylphthalate	14.51	149	116580	3.88466	ppb		94
91)	Benzo (b) fluoranthene	15.05	252	112725	3.55542	ppb		99
92)	Benzo (k) fluoranthene	15.09	252	108771	3.72354	ppb	#	98
93)	Benzo (a) pyrene	15.52	252	103381	3.65175	ppb		97
94)	Indeno (1,2,3-cd) pyrene	17.50	276	122956	3.65819	ppb		96
95)	Dibenz (a,h) anthracene	17.54	278	107866	3.63839	ppb		100
96)	Benzo (g,h,i) perylene	18.07	276	100853	3.76901	ppb		99

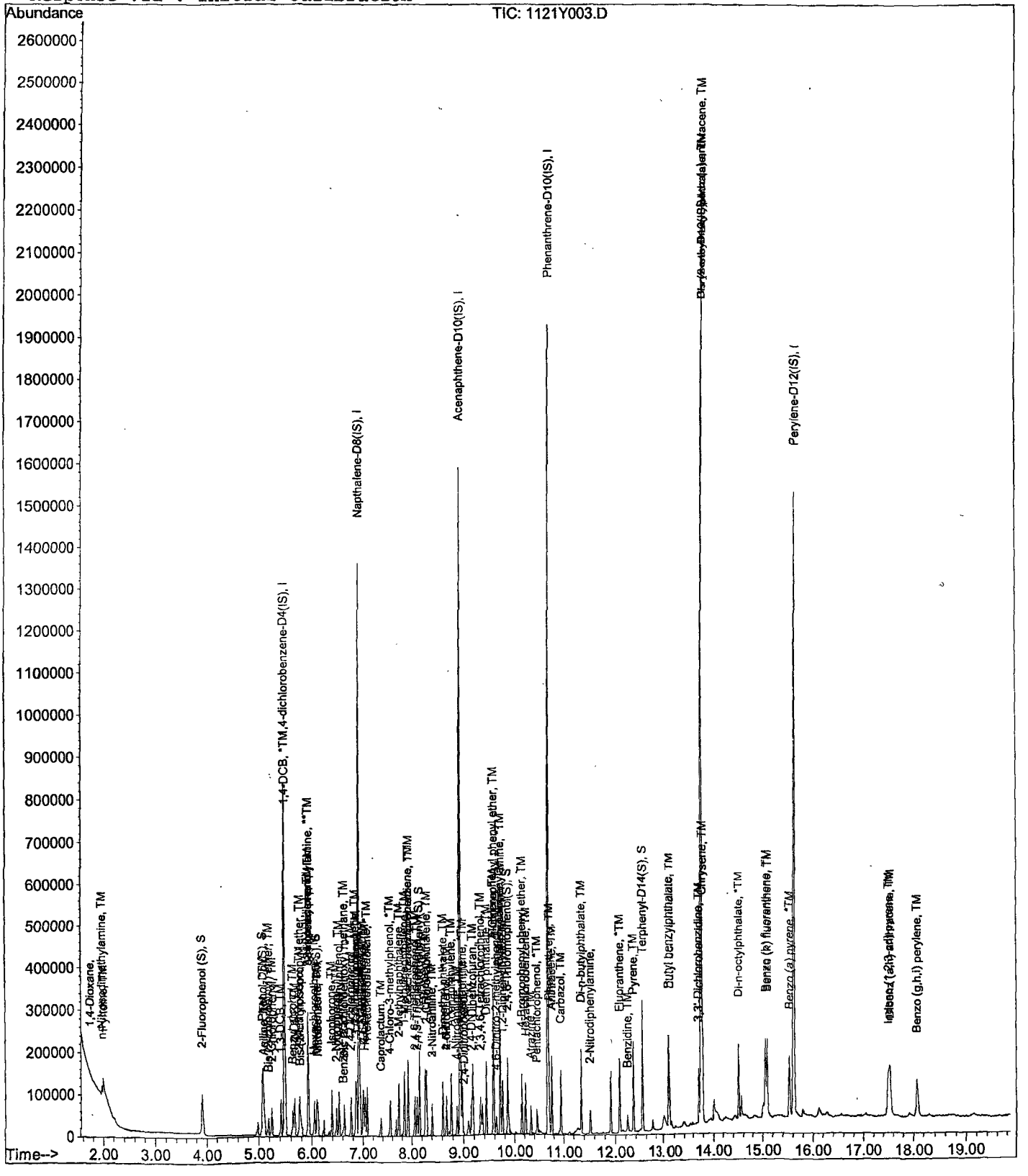
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y191121\1121Y003.D Vial: 3
Acq On : 21 Nov 19 14:07 Operator: MA,SS
Sample : 4ug/ml 8270 11/21/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 22 15:55 2019 Quant Results File: Y1121ND.RES

Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 18:04:15 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y191121\1121Y004.D Vial: 4
Acq On : 21 Nov 19 14:35 Operator: MA,SS
Sample : 5ug/ml 8270 11/21/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 22 17:59 2019 Quant Results File: Y1121ND.RES

Quant Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 16:12:45 2019
Response via : Initial Calibration
DataAcq Meth : SVOC1011

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.48	152	178119	40.00000	ppb		0.00
21) Napthalene-D8(IS)	6.91	136	701942	40.00000	ppb		0.00
41) Acenaphthene-D10(IS)	8.93	164	437841	40.00000	ppb		0.00
65) Phenanthrene-D10(IS)	10.66	188	878554	40.00000	ppb		0.00
80) Chrysene-D12(IS)	13.75	240	894953	40.00000	ppb		0.00
90) Perylene-D12(IS)	15.61	264	1003571	40.00000	ppb		0.00
System Monitoring Compounds							
5) 2-Fluorophenol (S)	3.91	112	60020	9.67677	ppb		0.00
Spiked Amount 200.000			Recovery	= 4.839%			
6) Phenol-D6 (S)	5.07	99	68975	9.33934	ppb		0.00
Spiked Amount 200.000			Recovery	= 4.670%			
22) Nitrobenzene-D5(S)	6.09	82	38608	4.88065	ppb		0.00
Spiked Amount 100.000			Recovery	= 4.881%			
46) 2-Fluorobiphenyl(S)	8.14	172	81328	4.96808	ppb		0.00
Spiked Amount 100.000			Recovery	= 4.968%			
64) 2,4,6-Tribromophenol(S)	9.85	330	31127	9.29352	ppb		0.00
Spiked Amount 200.000			Recovery	= 4.647%			
83) Terphenyl-D14(S)	12.51	244	118567	5.29914	ppb		0.00
Spiked Amount 100.000			Recovery	= 5.299%			
Target Compounds							Qvalue
2) 1,4-Dioxane	1.75	58	949	0.45892		#	1
3) n-Nitrosodimethylamine	1.96	42	17590	5.60557	ppb		78
4) Pyridine	1.99	79	37212	4.79487	ppb		97
7) Phenol	5.08	94	40110	4.59865	ppb		87
8) Aniline	5.10	93	21048	4.28749	ppb	#	77
9) Bis (2-chloroethyl) ether	5.17	63	17508	4.69867	ppb		96
10) 2-Chlorophenol	5.24	128	30773	4.65897	ppb		94
11) 1,3-DCB	5.40	146	36544	4.88305	ppb		97
12) 1,4-DCB	5.50	146	36021	4.73744	ppb		96
13) Benzyl alcohol	5.63	108	17118	4.55877	ppb		99
14) 1,2-DCB	5.66	146	34722	4.88817	ppb		99
15) 2-Methylphenol	5.76	107	24694	4.61556	ppb		98
16) Bis (2-chloroisopropyl) et	5.78	45	20074	4.82076	ppb		92
17) Acetophenone	5.92	105	44298	4.60536	ppb		100
18) 3&4-Methylphenol	5.93	107	67207	9.15876	ppb		97
19) n-Nitrosodi-n-propylamine	5.92	70	25583	4.66893	ppb		97
20) Hexachloroethane	6.05	117	14504	4.80888	ppb		98
23) Nitrobenzene	6.11	77	39369	4.86780	ppb		97
24) Isophorone	6.38	82	64013	4.88234	ppb		95
25) 2-Nitrophenol	6.47	139	16944	4.58144	ppb		87
26) 2,4-Dimethylphenol	6.52	122	27539	4.78027	ppb		99
27) Benzoic acid	6.60	105	10661	5.63187	ppb		89
28) Bis (2-chloroethoxy) metha	6.62	93	33987	4.80766	ppb		95
29) 2,4-Dichlorophenol	6.75	162	27742	4.67670	ppb		96
30) 1,2,4-Trichlorobenzene	6.84	180	32824	4.78149	ppb		97
31) 3,4-Dimethylphenol	6.86	107	43196	4.63781	ppb		98
32) Naphthalene	6.94	128	92144	4.87336	ppb		98
33) 4-Chloroaniline	6.99	127	29189	4.53434	ppb		94
34) 2,6-Dichlorophenol	7.00	162	27277	4.74867	ppb		96
35) Hexachloropropene	7.04	213	27403	4.58562	ppb		96
36) Hexachlorobutadiene	7.08	225	23460	4.83929	ppb		98
37) Caprolactum	7.35	55	9733	4.66811	ppb		97

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y191121\1121Y004.D Vial: 4
Acq On : 21 Nov 19 14:35 Operator: MA,SS
Sample : 5ug/ml 8270 11/21/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 22 17:59 2019 Quant Results File: Y1121ND.RES

Quant Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 16:12:45 2019
Response via : Initial Calibration
DataAcq Meth : SVOC1011

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
38)	4-Chloro-3-methylphenol	7.55	107	31574	4.71725 ppb		98
39)	2-Methylnaphthalene	7.73	142	60949	4.72988 ppb		100
40)	1-Methylnaphthalene	7.84	142	62883	4.72006 ppb		100
42)	Hexachlorocyclopentadiene	7.91	237	19448	3.49645 ppb		97
43)	1,2,4,5-Tetrachlorobenzene	7.92	216	36627	4.76031 ppb		96
44)	2,4,6-Trichlorophenol	8.05	196	23738	4.84568 ppb		98
45)	2,4,5-Trichlorophenol	8.10	196	24300	4.65910 ppb		95
47)	1,1'-Biphenyl	8.26	154	78756	4.73271 ppb		97
48)	2-Chloronaphthalene	8.28	162	65185	4.78703 ppb		97
49)	2-Nitroaniline	8.39	65	20713	4.79884 ppb		95
50)	Dimethyl phthalate	8.61	163	79858	4.80211 ppb		99
51)	2,6-DNT	8.68	165	16261	4.37236 ppb	#	77
52)	Acenaphthylene	8.76	152	99907	4.77371 ppb		99
53)	3-Nitroaniline	8.39	138	19292	4.52000 ppb		93
54)	Acenaphthene	8.97	154	63851	4.51292 ppb		98
55)	2,4-Dinitrophenol	9.00	184	3397	1.36701 ppb	#	84
56)	4-Nitrophenol	8.67	65	1191	4.37298 ppb	#	74
57)	Dibenzofuran	9.16	168	94779	4.80321 ppb		98
58)	2,4-DNT	9.15	165	24158	4.56870 ppb		98
59)	2,3,4,6-Tetrachlorophenol	9.31	232	20347	4.61764 ppb		93
60)	Diethyl phthalate	9.42	149	83497	4.91984 ppb		99
61)	4-Chlorophenyl phenyl ethe	9.56	204	44837	4.61804 ppb		93
62)	Fluorene	9.56	166	75174	4.54443 ppb		96
63)	4-Nitroaniline	8.87	138	16245	4.78388 ppb		94
66)	4,6-Dinitro-2-methylphenol	9.62	198	10573	2.90445 ppb	#	74
67)	Diphenyl amine	9.70	169	123899	9.17918 ppb		100
68)	n-Nitrosodiphenylamine	9.70	169	123899	9.17918 ppb		100
69)	1,2-Diphenylhydrazine	9.75	77	81228	4.86252 ppb		97
70)	4-Bromophenyl phenyl ether	10.14	248	27005	4.63197 ppb		89
71)	Hexachlorobenzene	10.21	284	29823	4.84015 ppb		95
72)	Atrazine	10.31	200	13082	2.54540 ppb		93
73)	Pentachlorophenol	10.44	266	13695	3.42141 ppb		96
74)	Phenanthrene	10.69	178	115216	4.84584 ppb		99
75)	Anthracene	10.75	178	120056	4.80954 ppb		98
76)	Carbazol	10.93	167	106227	4.72853 ppb		99
77)	Di-n-butylphthalate	11.34	149	136821	4.67682 ppb		99
78)	2-Nitrodiphenylamine	11.51	167	14920	2.14635 ppb		97
79)	Fluoranthene	12.08	202	133347	4.60862 ppb	#	97
81)	Benzidine	12.23	184	22751	3.42708 ppb		99
82)	Pyrene	12.34	202	139635	5.13662 ppb		99
84)	Butyl benzylphthalate	13.08	149	63571	5.15174 ppb		88
85)	3,3'-Dichlorobenzidine	13.69	252	39776	4.87415 ppb		97
86)	Benz (a) anthracene	13.73	228	159783	5.36036 ppb		100
87)	Bis (2-ethylhexyl) phthala	13.75	149	97649	5.14758 ppb	#	96
88)	Chrysene	13.78	228	131677	4.95848 ppb		100
89)	Di-n-octylphthalate	14.51	149	154516	5.19570 ppb		96
91)	Benzo (b) fluoranthene	15.05	252	142727	4.49753 ppb		99
92)	Benzo (k) fluoranthene	15.09	252	145010	4.95951 ppb		98
93)	Benzo (a) pyrene	15.52	252	132183	4.66482 ppb		96
94)	Indeno (1,2,3-cd) pyrene	17.50	276	161903	4.81249 ppb		99
95)	Dibenz (a,h) anthracene	17.54	278	139369	4.69666 ppb		98
96)	Benzo (g,h,i) perylene	18.06	276	130106	4.85773 ppb		100

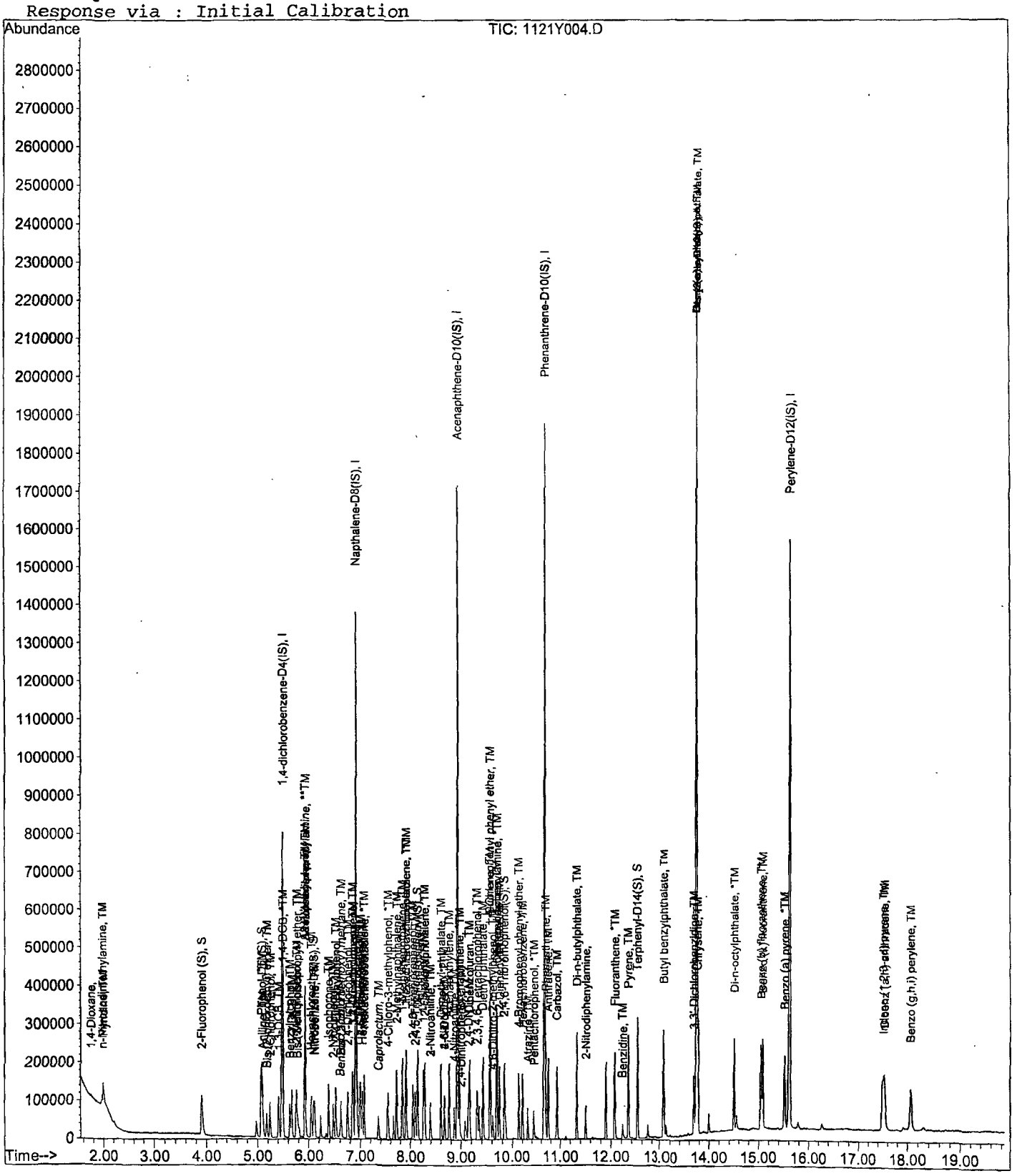
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y191121\1121Y004.D Vial: 4
Acq On : 21 Nov 19 14:35 Operator: MA,SS
Sample : 5ug/ml 8270 11/21/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 22 17:59 2019 Quant Results File: Y1121ND.RES

Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 18:04:15 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y191121\1121Y005.D Vial: 5
Acq On : 21 Nov 19 15:37 Operator: MA,SS
Sample : 10ug/ml 8270 11/21/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 22 15:55 2019 Quant Results File: Y1121ND.RES

Quant Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 15:42:05 2019
Response via : Initial Calibration
DataAcq Meth : SVOC1011

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.47	152	168977	40.00000 ppb		0.00
21) Napthalene-D8(IS)	6.91	136	683114	40.00000 ppb		0.00
41) Acenaphthene-D10(IS)	8.93	164	434378	40.00000 ppb		0.00
65) Phenanthrene-D10(IS)	10.66	188	872989	40.00000 ppb		0.00
80) Chrysene-D12(IS)	13.75	240	893214	40.00000 ppb		0.00
90) Perylene-D12(IS)	15.62	264	988297	40.00000 ppb		0.00
System Monitoring Compounds						
5) 2-Fluorophenol (S)	3.90	112	118316	20.10761 ppb		0.00
Spiked Amount 200.000			Recovery = 10.054%			
6) Phenol-D6 (S)	5.06	99	138757	19.80441 ppb		-0.02
Spiked Amount 200.000			Recovery = 9.902%			
22) Nitrobenzene-D5(S)	6.09	82	76517	9.93955 ppb		0.00
Spiked Amount 100.000			Recovery = 9.940%			
46) 2-Fluorobiphenyl(S)	8.14	172	157762	9.71403 ppb		0.00
Spiked Amount 100.000			Recovery = 9.714%			
64) 2,4,6-Tribromophenol(S)	9.85	330	59109	17.78875 ppb		0.00
Spiked Amount 200.000			Recovery = 8.895%			
83) Terphenyl-D14(S)	12.52	244	220345	9.86711 ppb		0.00
Spiked Amount 100.000			Recovery = 9.867%			
Target Compounds						Qvalue
2) 1,4-Dioxane	1.74	58	2572	1.31107		53
3) n-Nitrosodimethylamine	1.96	42	30183	10.13908 ppb		98
4) Pyridine	1.98	79	78020	10.59700 ppb		97
7) Phenol	5.08	94	81147	9.80693 ppb		92
8) Aniline	5.10	93	44216	9.49410 ppb	#	72
9) Bis (2-chloroethyl) ether	5.17	63	36273	10.26135 ppb		98
10) 2-Chlorophenol	5.24	128	63228	10.09048 ppb		95
11) 1,3-DCB	5.41	146	71562	10.07954 ppb		99
12) 1,4-DCB	5.49	146	73207	10.14901 ppb		96
13) Benzyl alcohol	5.63	108	35220	9.88705 ppb		98
14) 1,2-DCB	5.67	146	69444	10.30527 ppb		96
15) 2-Methylphenol	5.76	107	51325	10.11217 ppb		95
16) Bis (2-chloroisopropyl) et	5.78	45	40914	10.35705 ppb		95
17) Acetophenone	5.93	105	92082	10.09107 ppb		99
18) 3&4-Methylphenol	5.93	107	137956	19.81735 ppb		96
19) n-Nitrosodi-n-propylamine	5.93	70	52205	10.04294 ppb		99
20) Hexachloroethane	6.05	117	29576	10.33662 ppb		87
23) Nitrobenzene	6.11	77	80674	10.24991 ppb		99
24) Isophorone	6.38	82	125937	9.87010 ppb		98
25) 2-Nitrophenol	6.47	139	35318	9.81274 ppb		95
26) 2,4-Dimethylphenol	6.52	122	56214	10.02667 ppb		98
27) Benzoic acid	6.62	105	31882	11.03508 ppb		96
28) Bis (2-chloroethoxy) metha	6.62	93	68176	9.90969 ppb		98
29) 2,4-Dichlorophenol	6.75	162	56920	9.85995 ppb		96
30) 1,2,4-Trichlorobenzene	6.84	180	66134	9.89930 ppb		98
31) 3,4-Dimethylphenol	6.86	107	88422	9.75524 ppb		94
32) Naphthalene	6.94	128	182795	9.93422 ppb		99
33) 4-Chloroaniline	6.99	127	59273	9.46150 ppb	#	93
34) 2,6-Dichlorophenol	7.00	162	54536	9.75589 ppb		97
35) Hexachloropropene	7.04	213	56293	9.67972 ppb		99
36) Hexachlorobutadiene	7.08	225	47021	9.96674 ppb		98
37) Caprolactum	7.36	55	20280	9.99472 ppb		97

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y191121\1121Y005.D Vial: 5
Acq On : 21 Nov 19 15:37 Operator: MA,SS
Sample : 10ug/ml 8270 11/21/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 22 15:55 2019 Quant Results File: Y1121ND.RES

Quant Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 15:42:05 2019
Response via : Initial Calibration
DataAcq Meth : SVOC1011

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
38)	4-Chloro-3-methylphenol	7.55	107	64955	9.97194	ppb		93
39)	2-Methylnaphthalene	7.73	142	124627	9.93812	ppb		98
40)	1-Methylnaphthalene	7.84	142	127619	9.84323	ppb		99
42)	Hexachlorocyclopentadiene	7.91	237	43952	7.96489	ppb		99
43)	1,2,4,5-Tetrachlorobenzene	7.92	216	73379	9.61289	ppb		97
44)	2,4,6-Trichlorophenol	8.05	196	46928	9.65586	ppb		94
45)	2,4,5-Trichlorophenol	8.10	196	50161	9.69416	ppb		97
47)	1,1'-Biphenyl	8.26	154	160463	9.71963	ppb		98
48)	2-Chloronaphthalene	8.28	162	134240	9.93686	ppb		98
49)	2-Nitroaniline	8.39	65	42728	9.97826	ppb		95
50)	Dimethyl phthalate	8.61	163	161526	9.79049	ppb		100
51)	2,6-DNT	8.68	165	35573	9.64134	ppb		76
52)	Acenaphthylene	8.77	152	202717	9.76335	ppb		99
53)	3-Nitroaniline	8.39	138	41383	9.77309	ppb		97
54)	Acenaphthene	8.97	154	133593	9.51748	ppb		99
55)	2,4-Dinitrophenol	9.00	184	13612	5.52138	ppb		97
56)	4-Nitrophenol	8.67	65	2725	10.08512	ppb	#	74
57)	Dibenzofuran	9.16	168	190431	9.72759	ppb		97
58)	2,4-DNT	9.15	165	49448	9.42604	ppb		99
59)	2,3,4,6-Tetrachlorophenol	9.31	232	41263	9.43906	ppb		93
60)	Diethyl phthalate	9.42	149	165836	9.84934	ppb		96
61)	4-Chlorophenyl phenyl ethe	9.56	204	91155	9.46347	ppb		92
62)	Fluorene	9.56	166	154613	9.42120	ppb		99
63)	4-Nitroaniline	8.87	138	33585	9.96907	ppb		96
66)	4,6-Dinitro-2-methylphenol	9.62	198	28721	7.94008	ppb	#	73
67)	Diphenyl amine	9.70	169	243760	18.17433	ppb		100
68)	n-Nitrosodiphenylamine	9.70	169	243760	18.17433	ppb		100
69)	1,2-Diphenylhydrazine	9.75	77	162117	9.76662	ppb		95
70)	4-Bromophenyl phenyl ether	10.14	248	54692	9.44072	ppb		93
71)	Hexachlorobenzene	10.21	284	56169	9.17412	ppb	#	88
72)	Atrazine	10.32	200	24663	4.82934	ppb		95
73)	Pentachlorophenol	10.45	266	31516	7.92382	ppb		96
74)	Phenanthrene	10.69	178	228351	9.66539	ppb		99
75)	Anthracene	10.75	178	240259	9.68633	ppb		99
76)	Carbazol	10.94	167	218795	9.80140	ppb		98
77)	Di-n-butylphthalate	11.34	149	274648	9.44787	ppb		98
78)	2-Nitrodiphenylamine	11.51	167	31586	4.57283	ppb		99
79)	Fluoranthene	12.08	202	273290	9.50542	ppb		98
81)	Benzidine	12.23	184	38752	5.84874	ppb		96
82)	Pyrene	12.34	202	281971	10.39279	ppb		99
84)	Butyl benzylphthalate	13.08	149	129957	10.55210	ppb		81
85)	3,3'-Dichlorobenzidine	13.70	252	68357	8.39277	ppb		99
86)	Benz (a) anthracene	13.73	228	305978	10.28485	ppb		100
87)	Bis (2-ethylhexyl) phthala	13.75	149	197577	10.43558	ppb		98
88)	Chrysene	13.78	228	275483	10.39389	ppb		99
89)	Di-n-octylphthalate	14.51	149	309876	10.44006	ppb		97
91)	Benzo (b) fluoranthene	15.06	252	313332	10.02614	ppb		99
92)	Benzo (k) fluoranthene	15.10	252	257771	8.95233	ppb		100
93)	Benzo (a) pyrene	15.52	252	269584	9.66082	ppb		99
94)	Indeno (1,2,3-cd) pyrene	17.51	276	321122	9.69272	ppb		98
95)	Dibenz (a,h) anthracene	17.55	278	282097	9.65343	ppb		99
96)	Benzo (g,h,i) perylene	18.08	276	259057	9.82182	ppb		98

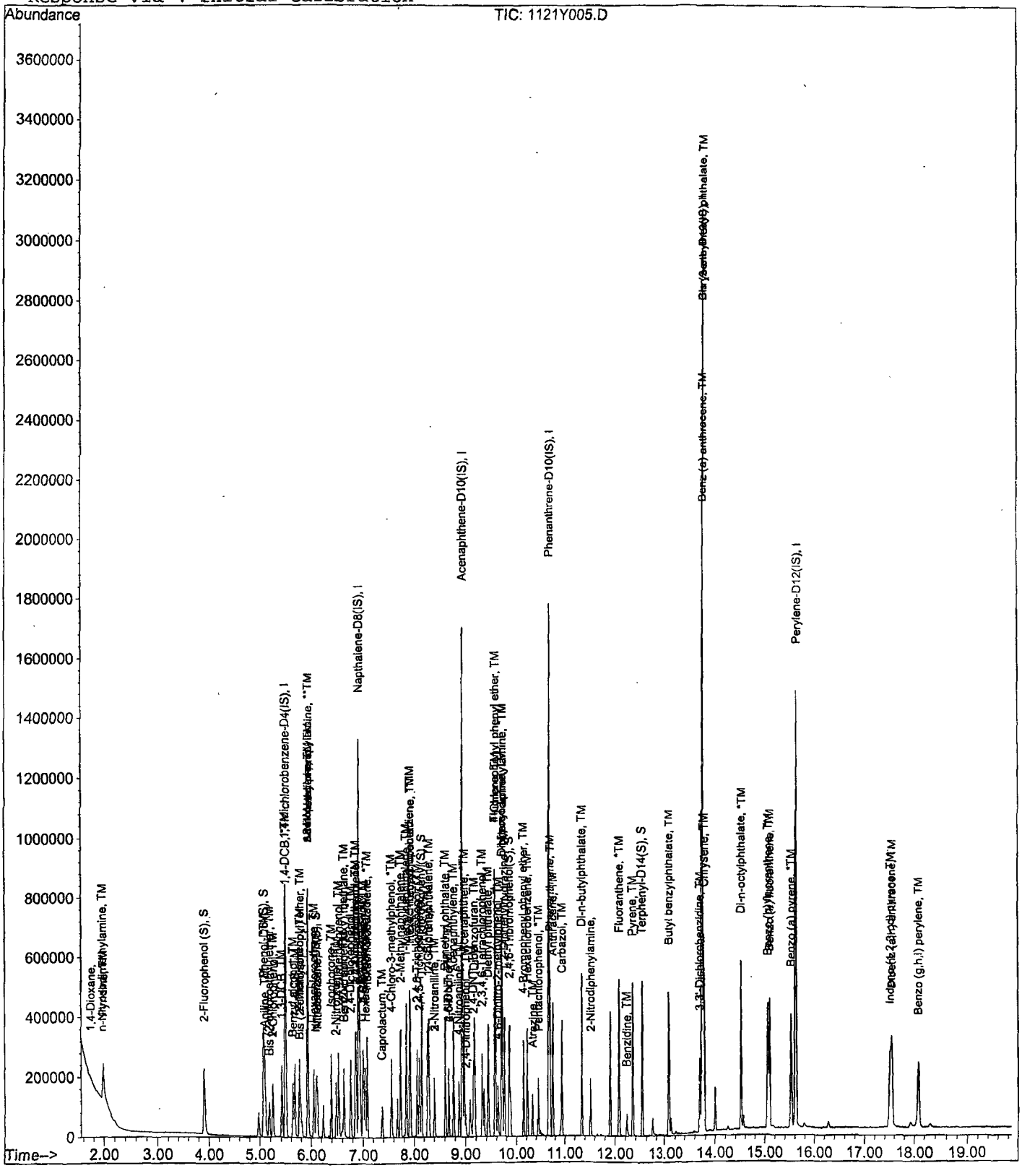
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y191121\1121Y005.D Vial: 5
Acq On : 21 Nov 19 15:37 Operator: MA,SS
Sample : 10ug/ml 8270 11/21/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 22 15:55 2019 Quant Results File: Y1121ND.RES

Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 18:04:15 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y191121\1121Y006.D Vial: 6
Acq On : 21 Nov 19 16:05 Operator: MA,SS
Sample : 20ug/ml 8270 11/21/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 22 15:55 2019 Quant Results File: Y1121ND.RES

Quant Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 15:42:05 2019
Response via : Initial Calibration
DataAcq Meth : SVOC1011

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.48	152	199064	40.00000 ppb		0.00
21) Napthalene-D8(IS)	6.91	136	758291	40.00000 ppb		0.00
41) Acenaphthene-D10(IS)	8.93	164	470271	40.00000 ppb		0.00
65) Phenanthrene-D10(IS)	10.66	188	939739	40.00000 ppb		0.00
80) Chrysene-D12(IS)	13.75	240	1001332	40.00000 ppb		0.00
90) Perylene-D12(IS)	15.61	264	1078368	40.00000 ppb		0.00
System Monitoring Compounds						
5) 2-Fluorophenol (S)	3.91	112	249667	36.01745 ppb		0.00
Spiked Amount 200.000			Recovery =	18.009%		
6) Phenol-D6 (S)	5.07	99	294157	35.63864 ppb		0.00
Spiked Amount 200.000			Recovery =	17.820%		
22) Nitrobenzene-D5(S)	6.09	82	161107	18.85299 ppb		0.00
Spiked Amount 100.000			Recovery =	18.853%		
46) 2-Fluorobiphenyl(S)	8.14	172	330526	18.79846 ppb		0.00
Spiked Amount 100.000			Recovery =	18.798%		
64) 2,4,6-Tribromophenol(S)	9.85	330	129026	35.86647 ppb		0.00
Spiked Amount 200.000			Recovery =	17.933%		
83) Terphenyl-D14(S)	12.51	244	478561	19.11619 ppb		0.00
Spiked Amount 100.000			Recovery =	19.116%		
Target Compounds						Qvalue
2) 1,4-Dioxane	1.74	58	5130	2.21977		94
3) n-Nitrosodimethylamine	1.96	42	63235	18.03137 ppb		94
4) Pyridine	1.98	79	159447	18.38350 ppb		96
7) Phenol	5.08	94	170623	17.50383 ppb		91
8) Aniline	5.10	93	104728	19.08852 ppb	#	76
9) Bis (2-chloroethyl) ether	5.17	63	76855	18.45559 ppb		95
10) 2-Chlorophenol	5.24	128	135758	18.39089 ppb		96
11) 1,3-DCB	5.41	146	149508	17.87547 ppb		100
12) 1,4-DCB	5.50	146	154683	18.20323 ppb		99
13) Benzyl alcohol	5.63	108	76033	18.11817 ppb		97
14) 1,2-DCB	5.67	146	144896	18.25222 ppb		98
15) 2-Methylphenol	5.76	107	106477	17.80762 ppb		97
16) Bis (2-chloroisopropyl) et	5.78	45	83414	17.92413 ppb		92
17) Acetophenone	5.92	105	189886	17.66405 ppb		99
18) 3&4-Methylphenol	5.93	107	286947	34.98981 ppb		99
19) n-Nitrosodi-n-propylamine	5.92	70	110325	18.01596 ppb		98
20) Hexachloroethane	6.05	117	60903	18.06811 ppb		95
23) Nitrobenzene	6.12	77	166997	19.11404 ppb		94
24) Isophorone	6.39	82	267166	18.86283 ppb		100
25) 2-Nitrophenol	6.47	139	76084	19.04342 ppb		90
26) 2,4-Dimethylphenol	6.52	122	115838	18.61318 ppb		99
27) Benzoic acid	6.60	105	88654	18.85200 ppb		98
28) Bis (2-chloroethoxy) metha	6.62	93	145536	19.05708 ppb		99
29) 2,4-Dichlorophenol	6.75	162	120650	18.82758 ppb		96
30) 1,2,4-Trichlorobenzene	6.84	180	137408	18.52887 ppb		97
31) 3,4-Dimethylphenol	6.86	107	187529	18.63818 ppb		98
32) Naphthalene	6.94	128	379858	18.59722 ppb		100
33) 4-Chloroaniline	6.99	127	128659	18.50122 ppb		96
34) 2,6-Dichlorophenol	7.00	162	115378	18.59362 ppb		98
35) Hexachloropropene	7.04	213	121057	18.75235 ppb		99
36) Hexachlorobutadiene	7.08	225	97450	18.60804 ppb		100
37) Caprolactum	7.38	55	42312	18.78553 ppb		97

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y191121\1121Y006.D Vial: 6
Acq On : 21 Nov 19 16:05 Operator: MA,SS
Sample : 20ug/ml 8270 11/21/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 22 15:55 2019 Quant Results File: Y1121ND.RES

Quant Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 15:42:05 2019
Response via : Initial Calibration
DataAcq Meth : SVOC1011

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
38)	4-Chloro-3-methylphenol	7.55	107	133766	18.49994	ppb		96
39)	2-Methylnaphthalene	7.73	142	259800	18.66330	ppb		100
40)	1-Methylnaphthalene	7.84	142	263891	18.33598	ppb		98
42)	Hexachlorocyclopentadiene	7.91	237	104680	17.52202	ppb		100
43)	1,2,4,5-Tetrachlorobenzene	7.92	216	151479	18.32966	ppb		99
44)	2,4,6-Trichlorophenol	8.05	196	100488	19.09822	ppb		99
45)	2,4,5-Trichlorophenol	8.10	196	105541	18.84018	ppb		93
47)	1,1'-Biphenyl	8.26	154	336399	18.82129	ppb		97
48)	2-Chloronaphthalene	8.28	162	274932	18.79801	ppb		98
49)	2-Nitroaniline	8.39	65	88142	19.01274	ppb		97
50)	Dimethyl phthalate	8.61	163	335325	18.77360	ppb		99
51)	2,6-DNT	8.68	165	77433	19.38486	ppb		79
52)	Acenaphthylene	8.76	152	425705	18.93812	ppb		99
53)	3-Nitroaniline	8.39	138	88770	19.36402	ppb		99
54)	Acenaphthene	8.97	154	282238	18.57264	ppb		99
55)	2,4-Dinitrophenol	9.00	184	39846	14.92897	ppb		95
56)	4-Nitrophenol	8.68	65	5546	18.95893	ppb		95
57)	Dibenzofuran	9.16	168	394383	18.60825	ppb		96
58)	2,4-DNT	9.15	165	109203	19.22802	ppb		98
59)	2,3,4,6-Tetrachlorophenol	9.31	232	89499	18.91062	ppb		95
60)	Diethyl phthalate	9.43	149	347798	19.07985	ppb		99
61)	4-Chlorophenyl phenyl ethe	9.56	204	190055	18.22506	ppb		91
62)	Fluorene	9.56	166	322405	18.14603	ppb		98
63)	4-Nitroaniline	8.88	138	70247	19.26001	ppb		80
66)	4,6-Dinitro-2-methylphenol	9.63	198	68893	17.69303	ppb		97
67)	Diphenyl amine	9.70	169	524220	36.30873	ppb		99
68)	n-Nitrosodiphenylamine	9.70	169	524220	36.30873	ppb		99
69)	1,2-Diphenylhydrazine	9.75	77	335520	18.77740	ppb		93
70)	4-Bromophenyl phenyl ether	10.14	248	115339	18.49521	ppb		93
71)	Hexachlorobenzene	10.21	284	120551	18.29110	ppb		91
72)	Atrazine	10.32	200	49292	8.96643	ppb		97
73)	Pentachlorophenol	10.44	266	73146	17.08423	ppb		99
74)	Phenanthrene	10.69	178	475206	18.68529	ppb		100
75)	Anthracene	10.75	178	497372	18.62784	ppb		99
76)	Carbazol	10.94	167	451106	18.77287	ppb		97
77)	Di-n-butylphthalate	11.34	149	583123	18.63456	ppb		99
78)	2-Nitrodiphenylamine	11.51	167	71614	9.63141	ppb		99
79)	Fluoranthene	12.08	202	568406	18.36571	ppb		98
81)	Benzidine	12.23	184	114011	15.34943	ppb		98
82)	Pyrene	12.34	202	602482	19.80839	ppb		99
84)	Butyl benzylphthalate	13.08	149	270124	19.56501	ppb		85
85)	3,3'-Dichlorobenzidine	13.69	252	158377	17.34569	ppb	#	99
86)	Benz (a) anthracene	13.74	228	645189	19.34516	ppb		98
87)	Bis (2-ethylhexyl) phthala	13.75	149	416311	19.61443	ppb	#	97
88)	Chrysene	13.78	228	583044	19.62285	ppb		100
89)	Di-n-octylphthalate	14.51	149	653172	19.62998	ppb		96
91)	Benzo (b) fluoranthene	15.06	252	660853	19.38003	ppb		100
92)	Benzo (k) fluoranthene	15.09	252	555866	17.69263	ppb		99
93)	Benzo (a) pyrene	15.52	252	567068	18.62410	ppb		99
94)	Indeno (1,2,3-cd) pyrene	17.51	276	678920	18.78083	ppb		99
95)	Dibenz (a,h) anthracene	17.55	278	587950	18.43929	ppb		99
96)	Benzo (g,h,i) perylene	18.08	276	545235	18.94528	ppb		98

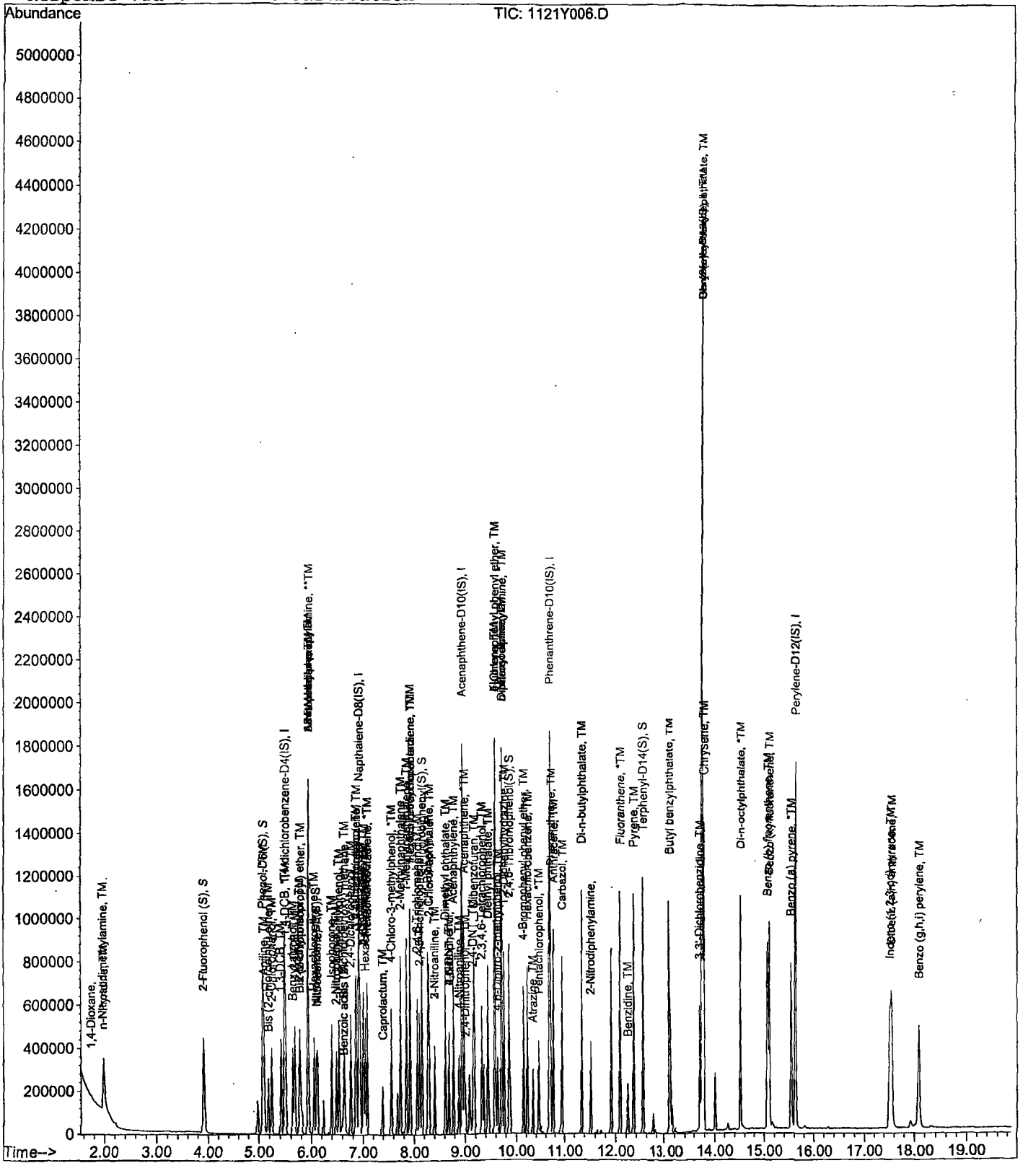
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y191121\1121Y006.D Vial: 6
Acq On : 21 Nov 19 16:05 Operator: MA,SS
Sample : 20ug/ml 8270 11/21/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 22 15:55 2019 Quant Results File: Y1121ND.RES

Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 18:04:15 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y191121\1121Y007.D Vial: 7
Acq On : 21 Nov 19 16:33 Operator: MA,SS
Sample : 40ug/ml 8270 11/21/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 22 15:55 2019 Quant Results File: Y1121ND.RES

Quant Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 15:42:05 2019
Response via : Initial Calibration
DataAcq Meth : SVOC1011

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.48	152	193290	40.00000 ppb	0.00
21) Napthalene-D8(IS)	6.91	136	718227	40.00000 ppb	0.00
41) Acenaphthene-D10(IS)	8.93	164	443843	40.00000 ppb	0.00
65) Phenanthrene-D10(IS)	10.67	188	873650	40.00000 ppb	0.00
80) Chrysene-D12(IS)	13.75	240	1011815	40.00000 ppb	0.00
90) Perylene-D12(IS)	15.61	264	1014443	40.00000 ppb	0.00
System Monitoring Compounds					
5) 2-Fluorophenol (S)	3.91	112	478213	71.04877 ppb	0.00
Spiked Amount 200.000			Recovery =	35.525%	
6) Phenol-D6 (S)	5.07	99	570499	71.18363 ppb	0.00
Spiked Amount 200.000			Recovery =	35.592%	
22) Nitrobenzene-D5(S)	6.10	82	305289	37.71822 ppb	0.00
Spiked Amount 100.000			Recovery =	37.718%	
46) 2-Fluorobiphenyl(S)	8.14	172	625810	37.71186 ppb	0.00
Spiked Amount 100.000			Recovery =	37.712%	
64) 2,4,6-Tribromophenol(S)	9.85	330	255942	75.38271 ppb	0.00
Spiked Amount 200.000			Recovery =	37.692%	
83) Terphenyl-D14(S)	12.52	244	940108	37.16368 ppb	0.00
Spiked Amount 100.000			Recovery =	37.164%	
Target Compounds					Qvalue
2) 1,4-Dioxane	1.74	58	7916	3.52761	59
3) n-Nitrosodimethylamine	1.96	42	120018	35.24528 ppb	96
4) Pyridine	1.98	79	311631	37.00290 ppb	98
7) Phenol	5.09	94	350876	37.07084 ppb	97
8) Aniline	5.10	93	221824	41.63910 ppb	86
9) Bis (2-chloroethyl) ether	5.18	63	149223	36.90413 ppb	95
10) 2-Chlorophenol	5.24	128	266304	37.15338 ppb	95
11) 1,3-DCB	5.41	146	299866	36.92356 ppb	98
12) 1,4-DCB	5.50	146	304720	36.93093 ppb	100
13) Benzyl alcohol	5.64	108	152088	37.32419 ppb	99
14) 1,2-DCB	5.66	146	282123	36.60001 ppb	98
15) 2-Methylphenol	5.77	107	208047	35.83397 ppb	99
16) Bis (2-chloroisopropyl) et	5.79	45	166924	36.94036 ppb	99
17) Acetophenone	5.93	105	385878	36.96841 ppb	91
18) 3&4-Methylphenol	5.93	107	584480	73.39947 ppb	95
19) n-Nitrosodi-n-propylamine	5.93	70	218037	36.66883 ppb	100
20) Hexachloroethane	6.05	117	121590	37.14970 ppb	95
23) Nitrobenzene	6.12	77	319916	38.65930 ppb	98
24) Isophorone	6.39	82	524152	39.07122 ppb	96
25) 2-Nitrophenol	6.48	139	149445	39.49181 ppb	97
26) 2,4-Dimethylphenol	6.53	122	229872	38.99686 ppb	98
27) Benzoic acid	6.64	105	204208	38.00783 ppb	98
28) Bis (2-chloroethoxy) metha	6.63	93	284276	39.30071 ppb	99
29) 2,4-Dichlorophenol	6.75	162	236041	38.88919 ppb	95
30) 1,2,4-Trichlorobenzene	6.84	180	276835	39.41234 ppb	97
31) 3,4-Dimethylphenol	6.86	107	378173	39.68257 ppb	99
32) Naphthalene	6.94	128	750123	38.77336 ppb	100
33) 4-Chloroaniline	6.99	127	269013	40.84206 ppb	97
34) 2,6-Dichlorophenol	7.01	162	227469	38.70236 ppb	99
35) Hexachloropropene	7.04	213	243359	39.80039 ppb	98
36) Hexachlorobutadiene	7.08	225	194922	39.29649 ppb	100
37) Caprolactum	7.40	55	83188	38.99372 ppb	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y191121\1121Y007.D Vial: 7
Acq On : 21 Nov 19 16:33 Operator: MA,SS
Sample : 40ug/ml 8270 11/21/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 22 15:55 2019 Quant Results File: Y1121ND.RES

Quant Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 15:42:05 2019
Response via : Initial Calibration
DataAcq Meth : SVOC1011

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
38)	4-Chloro-3-methylphenol	7.55	107	267287	39.02802 ppb		90
39)	2-Methylnaphthalene	7.73	142	510524	38.72037 ppb		99
40)	1-Methylnaphthalene	7.84	142	531683	39.00376 ppb		100
42)	Hexachlorocyclopentadiene	7.91	237	238400	42.28104 ppb		99
43)	1,2,4,5-Tetrachlorobenzene	7.92	216	309462	39.67603 ppb		98
44)	2,4,6-Trichlorophenol	8.05	196	196965	39.66310 ppb		98
45)	2,4,5-Trichlorophenol	8.10	196	207639	39.27277 ppb	#	91
47)	1,1'-Biphenyl	8.26	154	662128	39.25142 ppb		99
48)	2-Chloronaphthalene	8.29	162	544895	39.47465 ppb		99
49)	2-Nitroaniline	8.40	65	172460	39.41567 ppb		93
50)	Dimethyl phthalate	8.62	163	666101	39.51306 ppb		99
51)	2,6-DNT	8.68	165	150437	39.90341 ppb		96
52)	Acenaphthylene	8.76	152	837454	39.47372 ppb		100
53)	3-Nitroaniline	8.40	138	174570	40.34761 ppb		95
54)	Acenaphthene	8.97	154	569769	39.72608 ppb		98
55)	2,4-Dinitrophenol	9.01	184	93000	36.91875 ppb		94
56)	4-Nitrophenol	8.68	65	11500	41.65342 ppb		100
57)	Dibenzofuran	9.17	168	779361	38.96231 ppb		98
58)	2,4-DNT	9.15	165	215764	40.25297 ppb		89
59)	2,3,4,6-Tetrachlorophenol	9.31	232	179644	40.21787 ppb	#	93
60)	Diethyl phthalate	9.43	149	672653	39.09829 ppb		97
61)	4-Chlorophenyl phenyl ethe	9.56	204	382649	38.87845 ppb		87
62)	Fluorene	9.57	166	655165	39.07053 ppb		99
63)	4-Nitroaniline	8.88	138	138994	40.37790 ppb		93
66)	4,6-Dinitro-2-methylphenol	9.63	198	139175	38.44661 ppb	#	79
67)	Diphenyl amine	9.71	169	1057137	78.75870 ppb		99
68)	n-Nitrosodiphenylamine	9.71	169	1057137	78.75870 ppb		99
69)	1,2-Diphenylhydrazine	9.75	77	661686	39.83262 ppb	#	88
70)	4-Bromophenyl phenyl ether	10.14	248	226910	39.13870 ppb		97
71)	Hexachlorobenzene	10.21	284	241564	39.42494 ppb	#	83
72)	Atrazine	10.32	200	100285	19.62226 ppb		99
73)	Pentachlorophenol	10.44	266	153986	38.68619 ppb		100
74)	Phenanthrene	10.70	178	922442	39.01456 ppb		100
75)	Anthracene	10.75	178	975577	39.30179 ppb		100
76)	Carbazol	10.94	167	881170	39.44405 ppb		99
77)	Di-n-butylphthalate	11.34	149	1146641	39.41451 ppb		98
78)	2-Nitrodiphenylamine	11.51	167	141659	20.49302 ppb		98
79)	Fluoranthene	12.08	202	1141702	39.67999 ppb		99
81)	Benzidine	12.23	184	290367	38.68742 ppb		98
82)	Pyrene	12.35	202	1203115	39.14616 ppb		100
84)	Butyl benzylphthalate	13.09	149	543907	38.98688 ppb		97
85)	3,3'-Dichlorobenzidine	13.70	252	363359	39.38333 ppb		100
86)	Benz (a) anthracene	13.74	228	1291293	38.31661 ppb		99
87)	Bis (2-ethylhexyl) phthala	13.75	149	829295	38.66730 ppb		97
88)	Chrysene	13.78	228	1171969	39.03498 ppb		99
89)	Di-n-octylphthalate	14.51	149	1315078	39.11298 ppb		98
91)	Benzo (b) fluoranthene	15.06	252	1227741	38.27328 ppb		99
92)	Benzo (k) fluoranthene	15.09	252	1195396	40.44580 ppb		99
93)	Benzo (a) pyrene	15.53	252	1134185	39.59711 ppb		99
94)	Indeno (1,2,3-cd) pyrene	17.52	276	1340147	39.40832 ppb		100
95)	Dibenz (a,h) anthracene	17.55	278	1182851	39.43422 ppb		98
96)	Benzo (g,h,i) perylene	18.09	276	1063705	39.28962 ppb		99

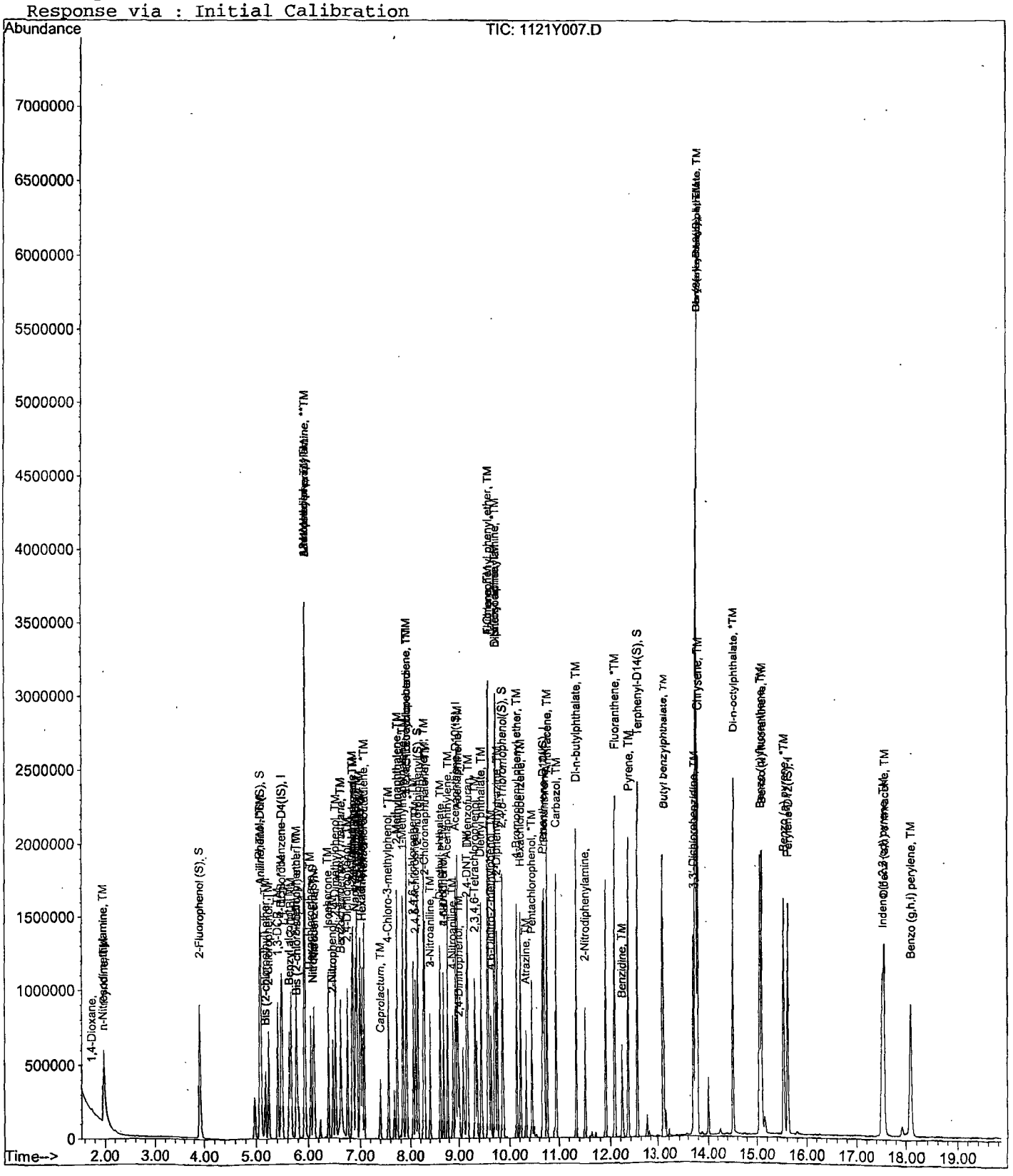
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y191121\1121Y007.D Vial: 7
Acq On : 21 Nov 19 16:33 Operator: MA,SS
Sample : 40ug/ml 8270 11/21/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 22 15:55 2019 Quant Results File: Y1121ND.RES

Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 18:04:15 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y191121\1121Y008.D Vial: 8
Acq On : 21 Nov 19 17:01 Operator: MA,SS
Sample : 50ug/ml 8270 11/21/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 22 15:55 2019 Quant Results File: Y1121ND.RES

Quant Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 15:42:05 2019
Response via : Initial Calibration
DataAcq Meth : SVOC1011

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.48	152	171005	40.00000 ppb	0.00
21) Napthalene-D8(IS)	6.92	136	663771	40.00000 ppb	0.00
41) Acenaphthene-D10(IS)	8.93	164	407738	40.00000 ppb	0.00
65) Phenanthrene-D10(IS)	10.67	188	815726	40.00000 ppb	0.00
80) Chrysene-D12(IS)	13.75	240	934599	40.00000 ppb	0.00
90) Perylene-D12(IS)	15.61	264	938399	40.00000 ppb	0.00
System Monitoring Compounds					
5) 2-Fluorophenol (S)	3.91	112	579236	97.27277 ppb	0.00
Spiked Amount 200.000			Recovery =	48.637%	
6) Phenol-D6 (S)	5.08	99	698019	98.44487 ppb	0.00
Spiked Amount 200.000			Recovery =	49.223%	
22) Nitrobenzene-D5(S)	6.10	82	367148	49.08227 ppb	0.00
Spiked Amount 100.000			Recovery =	49.082%	
46) 2-Fluorobiphenyl(S)	8.15	172	768989	50.44333 ppb	0.00
Spiked Amount 100.000			Recovery =	50.443%	
64) 2,4,6-Tribromophenol(S)	9.86	330	319887	102.55928 ppb	0.00
Spiked Amount 200.000			Recovery =	51.280%	
83) Terphenyl-D14(S)	12.52	244	1137526	48.68309 ppb	0.00
Spiked Amount 100.000			Recovery =	48.683%	
Target Compounds					Qvalue
2) 1,4-Dioxane	1.74	58	9546	4.80835	100
3) n-Nitrosodimethylamine	1.96	42	141360	46.92256 ppb	100
4) Pyridine	1.98	79	378779	50.83719 ppb	100
7) Phenol	5.09	94	425758	50.84429 ppb	100
8) Aniline	5.10	93	249856	53.01309 ppb	100
9) Bis (2-chloroethyl) ether	5.18	63	179891	50.28624 ppb	100
10) 2-Chlorophenol	5.25	128	320461	50.53548 ppb	100
11) 1,3-DCB	5.41	146	361793	50.35436 ppb	100
12) 1,4-DCB	5.50	146	371417	50.88053 ppb	100
13) Benzyl alcohol	5.64	108	186524	51.74052 ppb	100
14) 1,2-DCB	5.66	146	342793	50.26610 ppb	100
15) 2-Methylphenol	5.77	107	267866	52.14968 ppb	100
16) Bis (2-chloroisopropyl) et	5.78	45	200510	50.15555 ppb	100
17) Acetophenone	5.93	105	467300	50.60310 ppb	100
18) 3&4-Methylphenol	5.94	107	725121	102.92818 ppb	100
19) n-Nitrosodi-n-propylamine	5.93	70	269072	51.14886 ppb	100
20) Hexachloroethane	6.04	117	146012	50.42507 ppb	100
23) Nitrobenzene	6.12	77	387198	50.62844 ppb	100
24) Isophorone	6.40	82	636697	51.35420 ppb	100
25) 2-Nitrophenol	6.48	139	183318	52.41725 ppb	100
26) 2,4-Dimethylphenol	6.53	122	279872	51.37437 ppb	100
27) Benzoic acid	6.65	105	258747	50.49164 ppb	100
28) Bis (2-chloroethoxy) metha	6.63	93	344576	51.54525 ppb	100
29) 2,4-Dichlorophenol	6.76	162	291193	51.91177 ppb	100
30) 1,2,4-Trichlorobenzene	6.85	180	331385	51.04903 ppb	100
31) 3,4-Dimethylphenol	6.86	107	455150	51.67819 ppb	100
32) Naphthalene	6.94	128	913992	51.11952 ppb	100
33) 4-Chloroaniline	6.99	127	337587	55.45792 ppb	100
34) 2,6-Dichlorophenol	7.01	162	282687	52.04326 ppb	100
35) Hexachloropropene	7.04	213	292552	51.77099 ppb	100
36) Hexachlorobutadiene	7.07	225	231300	50.45591 ppb	100
37) Caprolactum	7.41	55	102304	51.88838 ppb	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y191121\1121Y008.D Vial: 8
Acq On : 21 Nov 19 17:01 Operator: MA,SS
Sample : 50ug/ml 8270 11/21/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 22 15:55 2019 Quant Results File: Y1121ND.RES

Quant Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 15:42:05 2019
Response via : Initial Calibration
DataAcq Meth : SVOC1011

Compound	R.T.	QIon	Response	Conc Unit		Qvalue
38) 4-Chloro-3-methylphenol	7.56	107	325787	51.47257	ppb	100
39) 2-Methylnaphthalene	7.72	142	629795	51.68518	ppb	100
40) 1-Methylnaphthalene	7.84	142	649196	51.53153	ppb	100
42) Hexachlorocyclopentadiene	7.91	237	294464	56.84860	ppb	100
43) 1,2,4,5-Tetrachlorobenzene	7.92	216	373513	52.12844	ppb	100
44) 2,4,6-Trichlorophenol	8.05	196	241595	52.95826	ppb	100
45) 2,4,5-Trichlorophenol	8.11	196	255196	52.54176	ppb	100
47) 1,1'-Biphenyl	8.26	154	808031	52.14223	ppb	100
48) 2-Chloronaphthalene	8.29	162	662366	52.23381	ppb	100
49) 2-Nitroaniline	8.40	65	211988	52.73999	ppb	100
50) Dimethyl phthalate	8.62	163	815644	52.66831	ppb	100
51) 2,6-DNT	8.68	165	188199	54.34015	ppb	100
52) Acenaphthylene	8.76	152	1021037	52.38859	ppb	100
53) 3-Nitroaniline	8.40	138	212688	53.51054	ppb	100
54) Acenaphthene	8.97	154	700903	53.19649	ppb	100
55) 2,4-Dinitrophenol	9.01	184	118563	51.23438	ppb	100
56) 4-Nitrophenol	8.68	65	14018	55.26970	ppb	100
57) Dibenzofuran	9.17	168	955387	51.99165	ppb	100
58) 2,4-DNT	9.15	165	260352	52.87228	ppb	100
59) 2,3,4,6-Tetrachlorophenol	9.32	232	219669	53.53321	ppb	100
60) Diethyl phthalate	9.44	149	823957	52.13381	ppb	100
61) 4-Chlorophenyl phenyl ethe	9.57	204	475789	52.62244	ppb	100
62) Fluorene	9.57	166	815787	52.95702	ppb	100
63) 4-Nitroaniline	8.88	138	170405	53.88627	ppb	100
66) 4,6-Dinitro-2-methylphenol	9.64	198	177142	52.40968	ppb	100
67) Diphenyl amine	9.71	169	1286170	102.62633	ppb	100
68) n-Nitrosodiphenylamine	9.71	169	1286170	102.62633	ppb	100
69) 1,2-Diphenylhydrazine	9.76	77	808449	52.12339	ppb	100
70) 4-Bromophenyl phenyl ether	10.14	248	282643	52.21366	ppb	100
71) Hexachlorobenzene	10.22	284	302354	52.85033	ppb	100
72) Atrazine	10.32	200	121452	25.45135	ppb	100
73) Pentachlorophenol	10.44	266	194818	52.41999	ppb	100
74) Phenanthrene	10.69	178	1126250	51.01708	ppb	100
75) Anthracene	10.75	178	1190869	51.38164	ppb	100
76) Carbazol	10.94	167	1084434	51.98980	ppb	100
77) Di-n-butylphthalate	11.34	149	1421631	52.33699	ppb	100
78) 2-Nitrodiphenylamine	11.51	167	174136	26.98010	ppb	100
79) Fluoranthene	12.08	202	1403330	52.23623	ppb	100
81) Benzidine	12.23	184	389926	56.24456	ppb	100
82) Pyrene	12.35	202	1490379	52.49942	ppb	100
84) Butyl benzylphthalate	13.09	149	670791	52.05433	ppb	100
85) 3,3'-Dichlorobenzidine	13.70	252	482025	56.56162	ppb	100
86) Benz (a) anthracene	13.74	228	1587379	50.99396	ppb	100
87) Bis (2-ethylhexyl) phthala	13.75	149	1020587	51.51820	ppb	100
88) Chrysene	13.79	228	1457437	52.55371	ppb	100
89) Di-n-octylphthalate	14.51	149	1611365	51.88467	ppb	100
91) Benzo (b) fluoranthene	15.07	252	1656567	55.82619	ppb	100
92) Benzo (k) fluoranthene	15.10	252	1337361	48.91594	ppb	100
93) Benzo (a) pyrene	15.53	252	1397191	52.73214	ppb	100
94) Indeno (1,2,3-cd) pyrene	17.53	276	1644836	52.28754	ppb	100
95) Dibenz (a,h) anthracene	17.56	278	1467340	52.88276	ppb	100
96) Benzo (g,h,i) perylene	18.10	276	1307740	52.21774	ppb	100

(#) = qualifier out of range (m) = manual integration

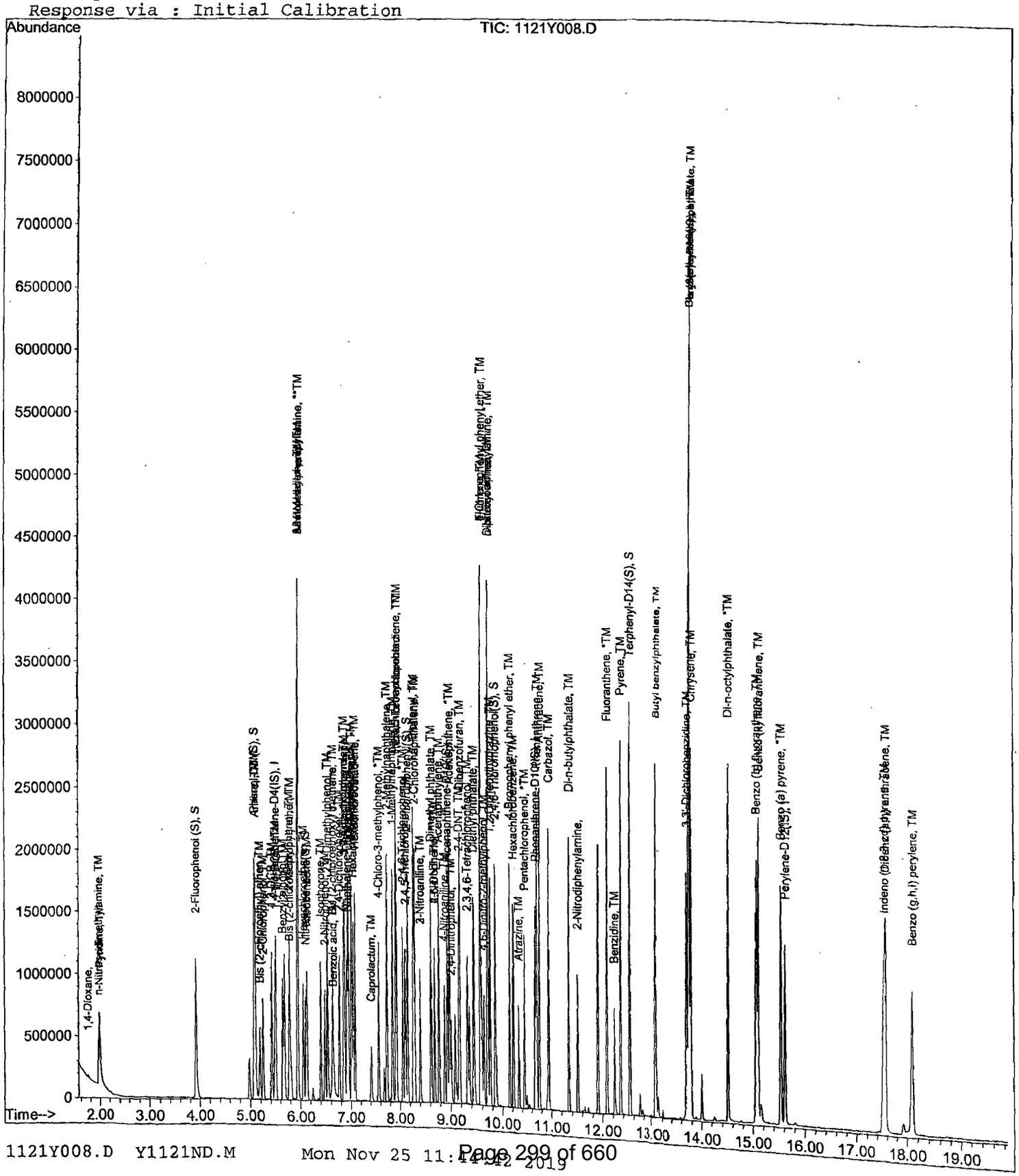
Quantitation Report

Data File : M:\YODA\DATA\Y191121\1121Y008.D
Acq On : 21 Nov 19 17:01
Sample : 50ug/ml 8270 11/21/19
Misc :

Vial: 8
Operator: MA,SS
Inst : Yoda
Multiplr: 1.00

Quant Time: Nov 22 15:55 2019 Quant Results File: Y1121ND.RES

Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 18:04:15 2019
Response via : Initial Calibration



1121Y008.D Y1121ND.M Mon Nov 25 11:14:42 2019

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y191121\1121Y009.D Vial: 9
Acq On : 21 Nov 19 17:30 Operator: MA,SS
Sample : 60ug/ml 8270 11/21/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 22 15:55 2019 Quant Results File: Y1121ND.RES

Quant Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 15:42:05 2019
Response via : Initial Calibration
DataAcq Meth : SVOC1011

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.48	152	167367	40.00000 ppb		0.00
21) Napthalene-D8(IS)	6.92	136	682970	40.00000 ppb		0.00
41) Acenaphthene-D10(IS)	8.93	164	436434	40.00000 ppb		0.00
65) Phenanthrene-D10(IS)	10.67	188	853269	40.00000 ppb		0.00
80) Chrysene-D12(IS)	13.76	240	1039035	40.00000 ppb		0.00
90) Perylene-D12(IS)	15.61	264	1002354	40.00000 ppb		0.00
System Monitoring Compounds						
5) 2-Fluorophenol (S)	3.91	112	729383	125.14986 ppb		0.00
Spiked Amount 200.000			Recovery =	62.575%		
6) Phenol-D6 (S)	5.08	99	877326	126.42292 ppb		0.00
Spiked Amount 200.000			Recovery =	63.212%		
22) Nitrobenzene-D5(S)	6.10	82	462991	60.15513 ppb		0.00
Spiked Amount 100.000			Recovery =	60.155%		
46) 2-Fluorobiphenyl(S)	8.15	172	960712	58.87615 ppb		0.00
Spiked Amount 100.000			Recovery =	58.876%		
64) 2,4,6-Tribromophenol(S)	9.86	330	418277	125.28670 ppb		0.00
Spiked Amount 200.000			Recovery =	62.644%		
83) Terphenyl-D14(S)	12.52	244	1478351	56.91011 ppb		0.00
Spiked Amount 100.000			Recovery =	56.910%		
Target Compounds						Qvalue
2) 1,4-Dioxane	1.74	58	10929	5.62464		78
3) n-Nitrosodimethylamine	1.96	42	181363	61.50958 ppb		98
4) Pyridine	1.98	79	472362	64.77533 ppb		99
7) Phenol	5.10	94	542251	66.16354 ppb		91
8) Aniline	5.11	93	301632	65.38976 ppb	#	76
9) Bis (2-chloroethyl) ether	5.18	63	226768	64.76800 ppb		100
10) 2-Chlorophenol	5.25	128	408420	65.80625 ppb		99
11) 1,3-DCB	5.41	146	458825	65.24737 ppb		99
12) 1,4-DCB	5.50	146	462750	64.77020 ppb		99
13) Benzyl alcohol	5.64	108	232819	65.98625 ppb		97
14) 1,2-DCB	5.66	146	429263	64.31403 ppb		100
15) 2-Methylphenol	5.77	107	337894	67.21303 ppb		99
16) Bis (2-chloroisopropyl) et	5.78	45	250202	63.94590 ppb		97
17) Acetophenone	5.93	105	599064	66.28169 ppb		92
18) 3&4-Methylphenol	5.94	107	918482	133.20896 ppb		99
19) n-Nitrosodi-n-propylamine	5.93	70	338621	65.76885 ppb		96
20) Hexachloroethane	6.04	117	183498	64.74829 ppb		99
23) Nitrobenzene	6.12	77	490695	62.35765 ppb		99
24) Isophorone	6.40	82	793249	62.18267 ppb		99
25) 2-Nitrophenol	6.48	139	229856	63.87658 ppb		99
26) 2,4-Dimethylphenol	6.53	122	350532	62.53618 ppb		99
27) Benzoic acid	6.67	105	333277	62.42385 ppb		97
28) Bis (2-chloroethoxy) metha	6.63	93	431089	62.67397 ppb		100
29) 2,4-Dichlorophenol	6.76	162	366318	63.46873 ppb		98
30) 1,2,4-Trichlorobenzene	6.85	180	420058	62.88985 ppb		98
31) 3,4-Dimethylphenol	6.87	107	573978	63.33804 ppb		96
32) Naphthalene	6.94	128	1148408	62.42481 ppb		100
33) 4-Chloroaniline	7.00	127	407727	65.09745 ppb		95
34) 2,6-Dichlorophenol	7.01	162	358099	64.07349 ppb		99
35) Hexachloropropene	7.04	213	375716	64.61892 ppb		99
36) Hexachlorobutadiene	7.07	225	295237	62.59272 ppb		99
37) Caprolactum	7.42	55	129071	63.62427 ppb		99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y191121\1121Y009.D Vial: 9
Acq On : 21 Nov 19 17:30 Operator: MA,SS
Sample : 60ug/ml 8270 11/21/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 22 15:55 2019 Quant Results File: Y1121ND.RES

Quant Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 15:42:05 2019
Response via : Initial Calibration
DataAcq Meth : SVOC1011

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
38)	4-Chloro-3-methylphenol	7.56	107	410265	62.99749 ppb		97
39)	2-Methylnaphthalene	7.72	142	788195	62.86619 ppb		99
40)	1-Methylnaphthalene	7.84	142	814831	62.86101 ppb		100
42)	Hexachlorocyclopentadiene	7.91	237	350656	63.24577 ppb		98
43)	1,2,4,5-Tetrachlorobenzene	7.92	216	477589	62.27101 ppb		99
44)	2,4,6-Trichlorophenol	8.06	196	303584	62.17091 ppb		96
45)	2,4,5-Trichlorophenol	8.10	196	321535	61.84743 ppb		99
47)	1,1'-Biphenyl	8.26	154	1016984	61.31099 ppb		100
48)	2-Chloronaphthalene	8.29	162	833303	61.39306 ppb		99
49)	2-Nitroaniline	8.40	65	267591	62.19606 ppb		98
50)	Dimethyl phthalate	8.62	163	1017940	61.40921 ppb		100
51)	2,6-DNT	8.69	165	235838	63.61799 ppb		77
52)	Acenaphthylene	8.77	152	1283418	61.52137 ppb		99
53)	3-Nitroaniline	8.40	138	268555	63.12367 ppb		99
54)	Acenaphthene	8.98	154	879704	62.37697 ppb		99
55)	2,4-Dinitrophenol	9.01	184	156158	63.04333 ppb		98
56)	4-Nitrophenol	8.68	65	16756	61.72115 ppb		100
57)	Dibenzofuran	9.17	168	1211806	61.60982 ppb		100
58)	2,4-DNT	9.15	165	330641	62.73161 ppb		94
59)	2,3,4,6-Tetrachlorophenol	9.32	232	279128	63.55073 ppb		99
60)	Diethyl phthalate	9.44	149	1027987	60.76663 ppb		99
61)	4-Chlorophenyl phenyl ethe	9.57	204	608036	62.82731 ppb		99
62)	Fluorene	9.57	166	1036089	62.83570 ppb		99
63)	4-Nitroaniline	8.88	138	208716	61.66151 ppb		83
66)	4,6-Dinitro-2-methylphenol	9.64	198	225751	63.85252 ppb	#	86
67)	Diphenyl amine	9.71	169	1646816	125.62146 ppb		100
68)	n-Nitrosodiphenylamine	9.71	169	1646816	125.62146 ppb		100
69)	1,2-Diphenylhydrazine	9.76	77	1002105	61.76630 ppb		98
70)	4-Bromophenyl phenyl ether	10.14	248	362845	64.08043 ppb		96
71)	Hexachlorobenzene	10.22	284	379070	63.34462 ppb		98
72)	Atrazine	10.33	200	153425	30.73694 ppb		98
73)	Pentachlorophenol	10.44	266	243544	62.64748 ppb		99
74)	Phenanthrene	10.69	178	1424318	61.68024 ppb		100
75)	Anthracene	10.75	178	1499952	61.86994 ppb		99
76)	Carbazol	10.94	167	1370757	62.82519 ppb		100
77)	Di-n-butylphthalate	11.34	149	1802593	63.44215 ppb		100
78)	2-Nitrodiphenylamine	11.51	167	223110	33.04703 ppb		96
79)	Fluoranthene	12.08	202	1777159	63.24069 ppb		99
81)	Benzidine	12.23	184	481715	62.50052 ppb		100
82)	Pyrene	12.35	202	1851615	58.66831 ppb		100
84)	Butyl benzylphthalate	13.09	149	849128	59.27041 ppb		100
85)	3,3'-Dichlorobenzidine	13.70	252	610343	64.42010 ppb		97
86)	Benz (a) anthracene	13.74	228	2029724	58.65030 ppb		99
87)	Bis (2-ethylhexyl) phthala	13.75	149	1317864	59.83790 ppb		99
88)	Chrysene	13.78	228	1859803	60.32199 ppb		100
89)	Di-n-octylphthalate	14.51	149	2028250	58.74377 ppb		99
91)	Benzo (b) fluoranthene	15.07	252	1993390	62.89088 ppb		100
92)	Benzo (k) fluoranthene	15.10	252	1788270	61.23522 ppb		99
93)	Benzo (a) pyrene	15.54	252	1743187	61.59281 ppb		99
94)	Indeno (1,2,3-cd) pyrene	17.53	276	2077884	61.83912 ppb		99
95)	Dibenz (a,h) anthracene	17.56	278	1837837	62.00929 ppb		99
96)	Benzo (g,h,i) perylene	18.11	276	1637386	61.20884 ppb		100

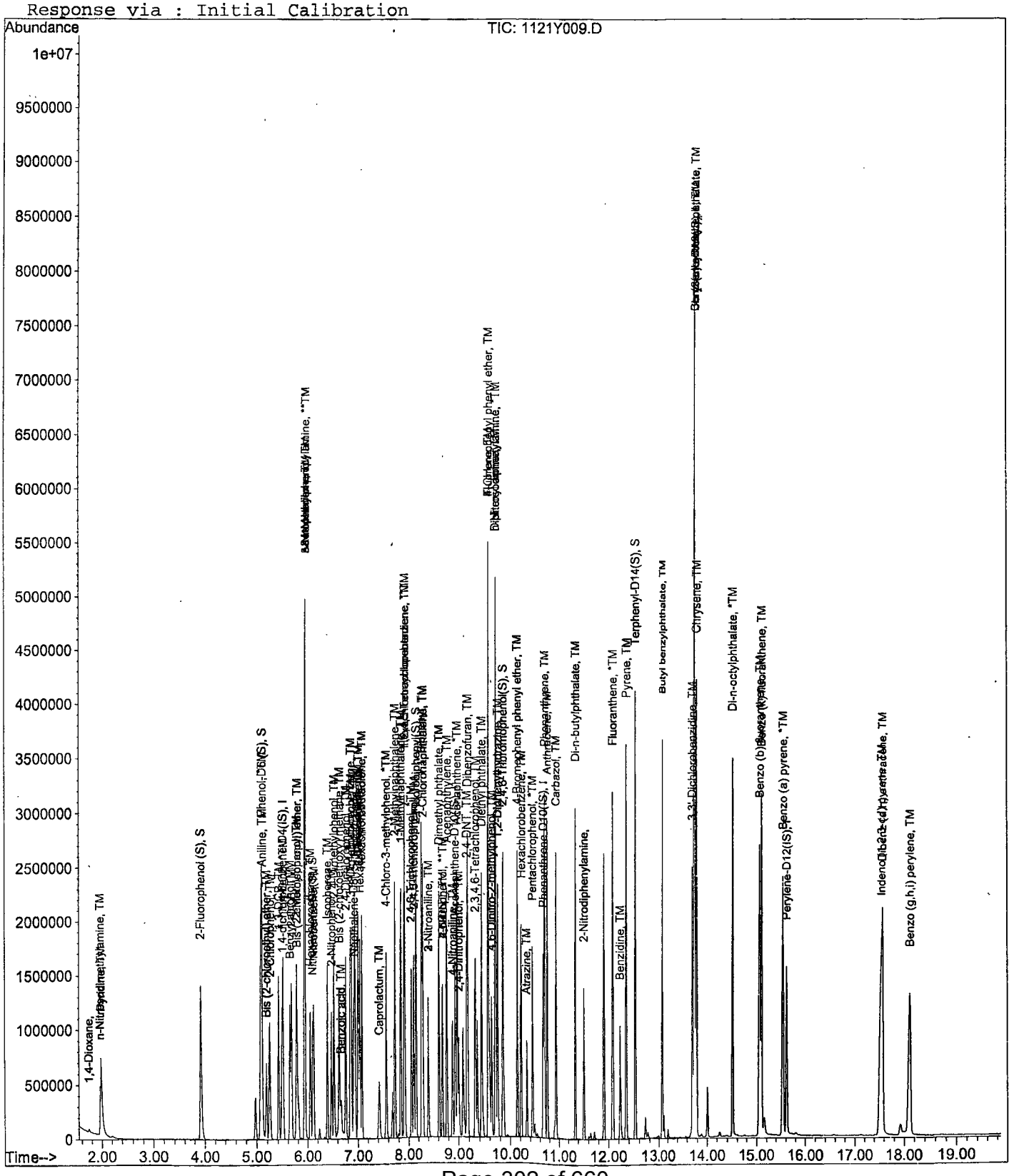
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y191121\1121Y009.D Vial: 9
Acq On : 21 Nov 19 17:30 Operator: MA,SS
Sample : 60ug/ml 8270 11/21/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 22 15:55 2019 Quant Results File: Y1121ND.RES

Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 18:04:15 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y191121\1121Y010.D Vial: 10
Acq On : 21 Nov 19 17:58 Operator: MA,SS
Sample : 80ug/ml 8270 11/21/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 22 15:55 2019 Quant Results File: Y1121ND.RES

Quant Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 15:42:05 2019
Response via : Initial Calibration
DataAcq Meth : SVOC1011

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.48	152	161505	40.00000 ppb		0.00
21) Napthalene-D8(IS)	6.92	136	659343	40.00000 ppb		0.00
41) Acenaphthene-D10(IS)	8.93	164	420757	40.00000 ppb		0.00
65) Phenanthrene-D10(IS)	10.67	188	817022	40.00000 ppb		0.00
80) Chrysene-D12(IS)	13.76	240	1057013	40.00000 ppb		0.00
90) Perylene-D12(IS)	15.62	264	952132	40.00000 ppb		0.00
System Monitoring Compounds						
5) 2-Fluorophenol (S)	3.92	112	990840	176.18224 ppb		0.00
Spiked Amount 200.000			Recovery =	88.091%		
6) Phenol-D6 (S)	5.09	99	1202244	179.53177 ppb		0.00
Spiked Amount 200.000			Recovery =	89.766%		
22) Nitrobenzene-D5(S)	6.11	82	619066	83.31579 ppb		0.00
Spiked Amount 100.000			Recovery =	83.316%		
46) 2-Fluorobiphenyl(S)	8.15	172	1294339	82.27758 ppb		0.00
Spiked Amount 100.000			Recovery =	82.278%		
64) 2,4,6-Tribromophenol(S)	9.86	330	577082	179.29400 ppb		0.00
Spiked Amount 200.000			Recovery =	89.647%		
83) Terphenyl-D14(S)	12.52	244	1994267	75.46491 ppb		0.00
Spiked Amount 100.000			Recovery =	75.465%		
Target Compounds						Qvalue
2) 1,4-Dioxane	1.74	58	13617	7.26239		84
3) n-Nitrosodimethylamine	1.96	42	235667	82.82792 ppb		94
4) Pyridine	1.98	79	624008	88.67653 ppb		98
7) Phenol	5.10	94	726252	91.83105 ppb		93
8) Aniline	5.11	93	409792	92.06184 ppb		96
9) Bis (2-chloroethyl) ether	5.18	63	302296	89.47362 ppb		97
10) 2-Chlorophenol	5.25	128	531400	88.72900 ppb		97
11) 1,3-DCB	5.41	146	606639	89.39847 ppb		98
12) 1,4-DCB	5.50	146	617470	89.56298 ppb		99
13) Benzyl alcohol	5.64	108	307594	90.34346 ppb		97
14) 1,2-DCB	5.67	146	572108	88.82682 ppb		97
15) 2-Methylphenol	5.77	107	424481	87.50142 ppb		98
16) Bis (2-chloroisopropyl) et	5.78	45	333832	88.41659 ppb	#	86
17) Acetophenone	5.94	105	793424	90.97238 ppb		96
18) 3&4-Methylphenol	5.95	107	1235710	185.72194 ppb		100
19) n-Nitrosodi-n-propylamine	5.94	70	449037	90.38001 ppb		99
20) Hexachloroethane	6.05	117	244557	89.42540 ppb		81
23) Nitrobenzene	6.13	77	641878	84.49302 ppb		96
24) Isophorone	6.41	82	1048398	85.12875 ppb		99
25) 2-Nitrophenol	6.48	139	304374	87.61603 ppb		94
26) 2,4-Dimethylphenol	6.54	122	461574	85.29730 ppb		97
27) Benzoic acid	6.68	105	408452	78.92895 ppb		96
28) Bis (2-chloroethoxy) metha	6.63	93	565143	85.10769 ppb		100
29) 2,4-Dichlorophenol	6.76	162	481524	86.41909 ppb		96
30) 1,2,4-Trichlorobenzene	6.85	180	560904	86.98614 ppb		98
31) 3,4-Dimethylphenol	6.87	107	758867	86.74117 ppb		99
32) Naphthalene	6.94	128	1524779	85.85353 ppb		99
33) 4-Chloroaniline	7.00	127	525627	86.92855 ppb		97
34) 2,6-Dichlorophenol	7.01	162	468519	86.83458 ppb		98
35) Hexachloropropene	7.04	213	497069	88.55374 ppb		99
36) Hexachlorobutadiene	7.08	225	393639	86.44530 ppb		99
37) Caprolactum	7.44	55	169346	86.46877 ppb		97

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y191121\1121Y010.D Vial: 10
Acq On : 21 Nov 19 17:58 Operator: MA,SS
Sample : 80ug/ml 8270 11/21/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 22 15:55 2019 Quant Results File: Y1121ND.RES

Quant Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 15:42:05 2019
Response via : Initial Calibration
DataAcq Meth : SVOC1011

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
38)	4-Chloro-3-methylphenol	7.56	107	542466	86.28226 ppb		91
39)	2-Methylnaphthalene	7.73	142	1044506	86.29480 ppb		99
40)	1-Methylnaphthalene	7.84	142	1096138	87.59298 ppb		99
42)	Hexachlorocyclopentadiene	7.91	237	421952	78.94061 ppb		98
43)	1,2,4,5-Tetrachlorobenzene	7.93	216	644608	87.17953 ppb		97
44)	2,4,6-Trichlorophenol	8.06	196	405336	86.10151 ppb		97
45)	2,4,5-Trichlorophenol	8.10	196	431346	86.06100 ppb		95
47)	1,1'-Biphenyl	8.27	154	1372352	85.81772 ppb		98
48)	2-Chloronaphthalene	8.29	162	1112347	85.00487 ppb		98
49)	2-Nitroaniline	8.41	65	353796	85.29656 ppb		92
50)	Dimethyl phthalate	8.61	163	1354088	84.73161 ppb		99
51)	2,6-DNT	8.69	165	311799	87.24250 ppb		89
52)	Acenaphthylene	8.77	152	1715728	85.30874 ppb		100
53)	3-Nitroaniline	8.41	138	352251	85.88127 ppb		94
54)	Acenaphthene	8.98	154	1188456	87.40938 ppb		98
55)	2,4-Dinitrophenol	9.01	184	213465	89.38997 ppb		90
56)	4-Nitrophenol	8.69	65	22795	87.09445 ppb		98
57)	Dibenzofuran	9.17	168	1619716	85.41674 ppb		99
58)	2,4-DNT	9.16	165	443127	87.20575 ppb		96
59)	2,3,4,6-Tetrachlorophenol	9.32	232	370261	87.44043 ppb		96
60)	Diethyl phthalate	9.44	149	1363775	83.61948 ppb		97
61)	4-Chlorophenyl phenyl ethe	9.57	204	837406	89.75166 ppb		98
62)	Fluorene	9.57	166	1434471	90.23778 ppb		100
63)	4-Nitroaniline	8.88	138	272975	83.65050 ppb		92
66)	4,6-Dinitro-2-methylphenol	9.65	198	304020	89.80545 ppb		95
67)	Diphenyl amine	9.72	169	2215854	176.52740 ppb		99
68)	n-Nitrosodiphenylamine	9.72	169	2215854	176.52740 ppb		99
69)	1,2-Diphenylhydrazine	9.76	77	1328140	85.49377 ppb		95
70)	4-Bromophenyl phenyl ether	10.14	248	480779	88.67516 ppb		94
71)	Hexachlorobenzene	10.22	284	504135	87.98109 ppb		92
72)	Atrazine	10.33	200	200128	41.87209 ppb		100
73)	Pentachlorophenol	10.44	266	339237	91.13425 ppb		98
74)	Phenanthrene	10.69	178	1913358	86.53416 ppb		100
75)	Anthracene	10.76	178	2016161	86.85199 ppb		99
76)	Carbazol	10.94	167	1813480	86.80372 ppb		98
77)	Di-n-butylphthalate	11.34	149	2379965	87.47883 ppb		99
78)	2-Nitrodiphenylamine	11.51	167	291341	45.06789 ppb		96
79)	Fluoranthene	12.09	202	2383800	88.59156 ppb		98
81)	Benzidine	12.23	184	657175	83.81550 ppb		100
82)	Pyrene	12.35	202	2499582	77.85207 ppb		99
84)	Butyl benzylphthalate	13.09	149	1127954	77.39377 ppb		93
85)	3,3'-Dichlorobenzidine	13.71	252	817041	84.76979 ppb		99
86)	Benz (a) anthracene	13.74	228	2804468	79.65877 ppb		100
87)	Bis (2-ethylhexyl) phthala	13.76	149	1770210	79.00970 ppb	#	90
88)	Chrysene	13.78	228	2404541	76.66388 ppb		99
89)	Di-n-octylphthalate	14.52	149	2767567	78.79312 ppb		94
91)	Benzo (b) fluoranthene	15.07	252	2546511	84.57946 ppb		99
92)	Benzo (k) fluoranthene	15.11	252	2513489	90.60854 ppb		100
93)	Benzo (a) pyrene	15.54	252	2333955	86.81655 ppb		99
94)	Indeno (1,2,3-cd) pyrene	17.53	276	2739905	85.84233 ppb		100
95)	Dibenz (a,h) anthracene	17.58	278	2438265	86.60732 ppb		100
96)	Benzo (g,h,i) perylene	18.12	276	2139103	84.18191 ppb		100

(#) = qualifier out of range (m) = manual integration

Quantitation Report

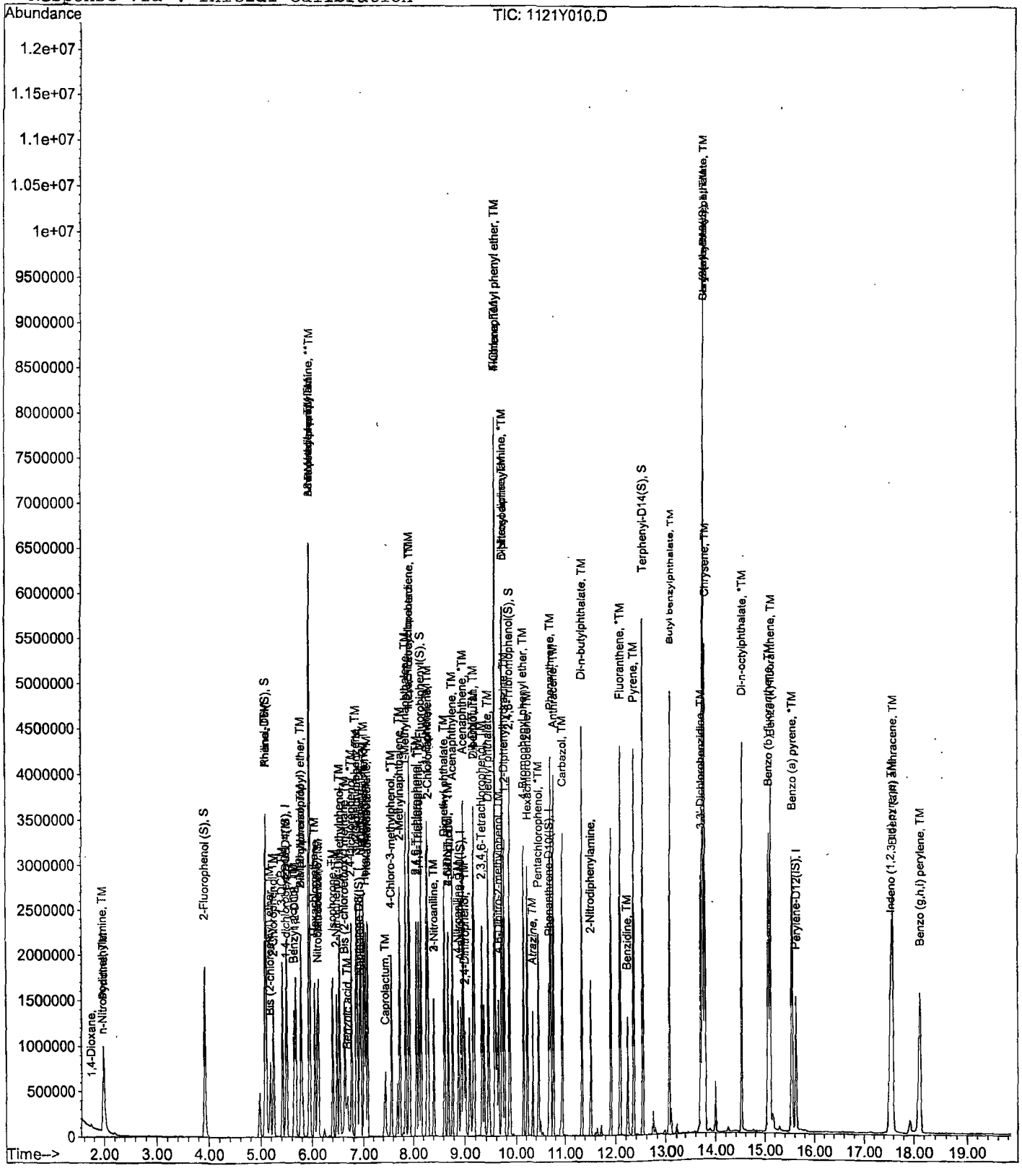
Data File : M:\YODA\DATA\Y191121\1121Y010.D
Acq On : 21 Nov 19 17:58
Sample : 80ug/ml 8270 11/21/19
Misc :

Vial: 10
Operator: MA,SS
Inst : Yoda
Multiplr: 1.00

Quant Time: Nov 22 15:55 2019

Quant Results File: Y1121ND.RES

Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 18:04:15 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y191121\1121Y011.D Vial: 11
Acq On : 21 Nov 19 18:26 Operator: MA,SS
Sample : 100ug/ml 8270 11/21/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 22 15:55 2019 Quant Results File: Y1121ND.RES

Quant Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 15:42:05 2019
Response via : Initial Calibration
DataAcq Meth : SVOC1011

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.48	152	165464	40.00000	ppb		0.00
21) Napthalene-D8(IS)	6.92	136	652211	40.00000	ppb		0.00
41) Acenaphthene-D10(IS)	8.93	164	415860	40.00000	ppb		0.00
65) Phenanthrene-D10(IS)	10.67	188	819523	40.00000	ppb		0.00
80) Chrysene-D12(IS)	13.76	240	1060730	40.00000	ppb		0.00
90) Perylene-D12(IS)	15.62	264	938773	40.00000	ppb		0.00
System Monitoring Compounds							
5) 2-Fluorophenol (S)	3.92	112	1214721	210.82280	ppb		0.01
Spiked Amount 200.000			Recovery	= 105.412%			
6) Phenol-D6 (S)	5.09	99	1477093	215.29750	ppb		0.00
Spiked Amount 200.000			Recovery	= 107.649%			
22) Nitrobenzene-D5(S)	6.11	82	756797	102.96581	ppb		0.01
Spiked Amount 100.000			Recovery	= 102.966%			
46) 2-Fluorobiphenyl(S)	8.15	172	1600159	102.91550	ppb		0.00
Spiked Amount 100.000			Recovery	= 102.916%			
64) 2,4,6-Tribromophenol(S)	9.86	330	739921	232.59361	ppb		0.00
Spiked Amount 200.000			Recovery	= 116.297%			
83) Terphenyl-D14(S)	12.52	244	2504948	94.45739	ppb		0.00
Spiked Amount 100.000			Recovery	= 94.457%			
Target Compounds							Qvalue
2) 1,4-Dioxane	1.74	58	18929	9.85390			95
3) n-Nitrosodimethylamine	1.96	42	271356	93.08932	ppb		93
4) Pyridine	1.98	79	702025	97.37636	ppb		100
7) Phenol	5.10	94	838607	103.50067	ppb		90
8) Aniline	5.11	93	455808	99.94949	ppb		91
9) Bis (2-chloroethyl) ether	5.18	63	339378	98.04574	ppb		96
10) 2-Chlorophenol	5.25	128	602478	98.19009	ppb		96
11) 1,3-DCB	5.41	146	678718	97.62737	ppb		98
12) 1,4-DCB	5.50	146	691769	97.93912	ppb		99
13) Benzyl alcohol	5.65	108	347998	99.76497	ppb		99
14) 1,2-DCB	5.67	146	644684	97.70020	ppb		97
15) 2-Methylphenol	5.78	107	505332	101.67545	ppb		97
16) Bis (2-chloroisopropyl) et	5.79	45	375455	97.06131	ppb	#	85
17) Acetophenone	5.94	105	900554	100.78512	ppb		98
18) 3&4-Methylphenol	5.95	107	1402122	205.69082	ppb		100
19) n-Nitrosodi-n-propylamine	5.94	70	512893	100.76263	ppb		99
20) Hexachloroethane	6.05	117	277059	98.88616	ppb		77
23) Nitrobenzene	6.13	77	724399	96.39831	ppb		97
24) Isophorone	6.41	82	1186602	97.40437	ppb		99
25) 2-Nitrophenol	6.48	139	345383	100.50791	ppb		95
26) 2,4-Dimethylphenol	6.54	122	530631	99.13108	ppb		98
27) Benzoic acid	6.70	105	464552	90.96933	ppb		98
28) Bis (2-chloroethoxy) metha	6.63	93	647653	98.59982	ppb		99
29) 2,4-Dichlorophenol	6.76	162	555679	100.81822	ppb		95
30) 1,2,4-Trichlorobenzene	6.85	180	636557	99.79806	ppb		98
31) 3,4-Dimethylphenol	6.87	107	854975	98.79530	ppb		97
32) Naphthalene	6.95	128	1756038	99.95590	ppb		100
33) 4-Chloroaniline	7.00	127	582992	97.46992	ppb		96
34) 2,6-Dichlorophenol	7.01	162	535409	100.31698	ppb		99
35) Hexachloropropene	7.04	213	561742	101.16969	ppb		99
36) Hexachlorobutadiene	7.08	225	447133	99.26663	ppb		99
37) Caprolactum	7.45	55	190606	98.38846	ppb		98

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y191121\1121Y011.D Vial: 11
Acq On : 21 Nov 19 18:26 Operator: MA,SS
Sample : 100ug/ml 8270 11/21/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 22 15:55 2019 Quant Results File: Y1121ND.RES

Quant Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 15:42:05 2019
Response via : Initial Calibration
DataAcq Meth : SVOC1011

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
38)	4-Chloro-3-methylphenol	7.56	107	620360	99.75072	ppb		90
39)	2-Methylnaphthalene	7.73	142	1200691	100.28321	ppb		99
40)	1-Methylnaphthalene	7.85	142	1241758	100.31464	ppb		100
42)	Hexachlorocyclopentadiene	7.91	237	525248	99.42281	ppb		100
43)	1,2,4,5-Tetrachlorobenzene	7.93	216	743990	101.80524	ppb		97
44)	2,4,6-Trichlorophenol	8.06	196	464648	99.86283	ppb		98
45)	2,4,5-Trichlorophenol	8.11	196	492676	99.45490	ppb		95
47)	1,1'-Biphenyl	8.27	154	1566999	99.14353	ppb		98
48)	2-Chloronaphthalene	8.29	162	1270438	98.22934	ppb		99
49)	2-Nitroaniline	8.41	65	396579	96.73698	ppb		89
50)	Dimethyl phthalate	8.62	163	1527158	96.68670	ppb		100
51)	2,6-DNT	8.69	165	355236	100.56678	ppb		90
52)	Acenaphthylene	8.77	152	1930263	97.10593	ppb		99
53)	3-Nitroaniline	8.41	138	399288	98.49557	ppb		94
54)	Acenaphthene	8.98	154	1379881	102.68352	ppb		99
55)	2,4-Dinitrophenol	9.02	184	244377	103.53964	ppb		93
56)	4-Nitrophenol	8.69	65	25792	99.70573	ppb		97
57)	Dibenzofuran	9.17	168	1847326	98.56707	ppb		100
58)	2,4-DNT	9.16	165	508284	101.20631	ppb		96
59)	2,3,4,6-Tetrachlorophenol	9.32	232	423645	101.22566	ppb		98
60)	Diethyl phthalate	9.44	149	1535193	95.23836	ppb		97
61)	4-Chlorophenyl phenyl ethe	9.57	204	958012	103.88708	ppb		98
62)	Fluorene	9.57	166	1635750	104.11127	ppb		99
63)	4-Nitroaniline	8.89	138	307746	95.41624	ppb		95
66)	4,6-Dinitro-2-methylphenol	9.65	198	347696	102.39361	ppb	#	87
67)	Diphenyl amine	9.72	169	2531599	201.06594	ppb		100
68)	n-Nitrosodiphenylamine	9.72	169	2531599	201.06594	ppb		100
69)	1,2-Diphenylhydrazine	9.76	77	1511310	96.98772	ppb		94
70)	4-Bromophenyl phenyl ether	10.14	248	558947	102.77789	ppb		94
71)	Hexachlorobenzene	10.22	284	585989	101.95407	ppb		94
72)	Atrazine	10.33	200	226263	47.19575	ppb		100
73)	Pentachlorophenol	10.44	266	392286	105.06398	ppb		99
74)	Phenanthrene	10.70	178	2206608	99.49222	ppb		100
75)	Anthracene	10.76	178	2313072	99.33821	ppb		99
76)	Carbazol	10.95	167	2052704	97.95452	ppb		98
77)	Di-n-butylphthalate	11.34	149	2755900	100.98770	ppb		99
78)	2-Nitrodiphenylamine	11.51	167	332160	51.22542	ppb		97
79)	Fluoranthene	12.09	202	2710719	100.43374	ppb		98
81)	Benzidine	12.23	184	752592	95.64854	ppb		100
82)	Pyrene	12.35	202	2846621	88.35027	ppb		100
84)	Butyl benzylphthalate	13.09	149	1280524	87.55436	ppb		93
85)	3,3'-Dichlorobenzidine	13.71	252	935925	96.76400	ppb		99
86)	Benz (a) anthracene	13.74	228	3237968	91.64972	ppb		100
87)	Bis (2-ethylhexyl) phthala	13.75	149	2037331	90.61345	ppb		99
88)	Chrysene	13.79	228	2746558	87.26154	ppb		99
89)	Di-n-octylphthalate	14.52	149	3158477	89.60729	ppb		94
91)	Benzo (b) fluoranthene	15.07	252	2866820	96.57314	ppb		99
92)	Benzo (k) fluoranthene	15.11	252	2873942	105.07677	ppb		100
93)	Benzo (a) pyrene	15.55	252	2654481	100.14430	ppb		98
94)	Indeno (1,2,3-cd) pyrene	17.54	276	3092876	98.27998	ppb		99
95)	Dibenz (a,h) anthracene	17.58	278	2789126	100.47972	ppb		99
96)	Benzo (g,h,i) perylene	18.13	276	2411552	96.25433	ppb		99

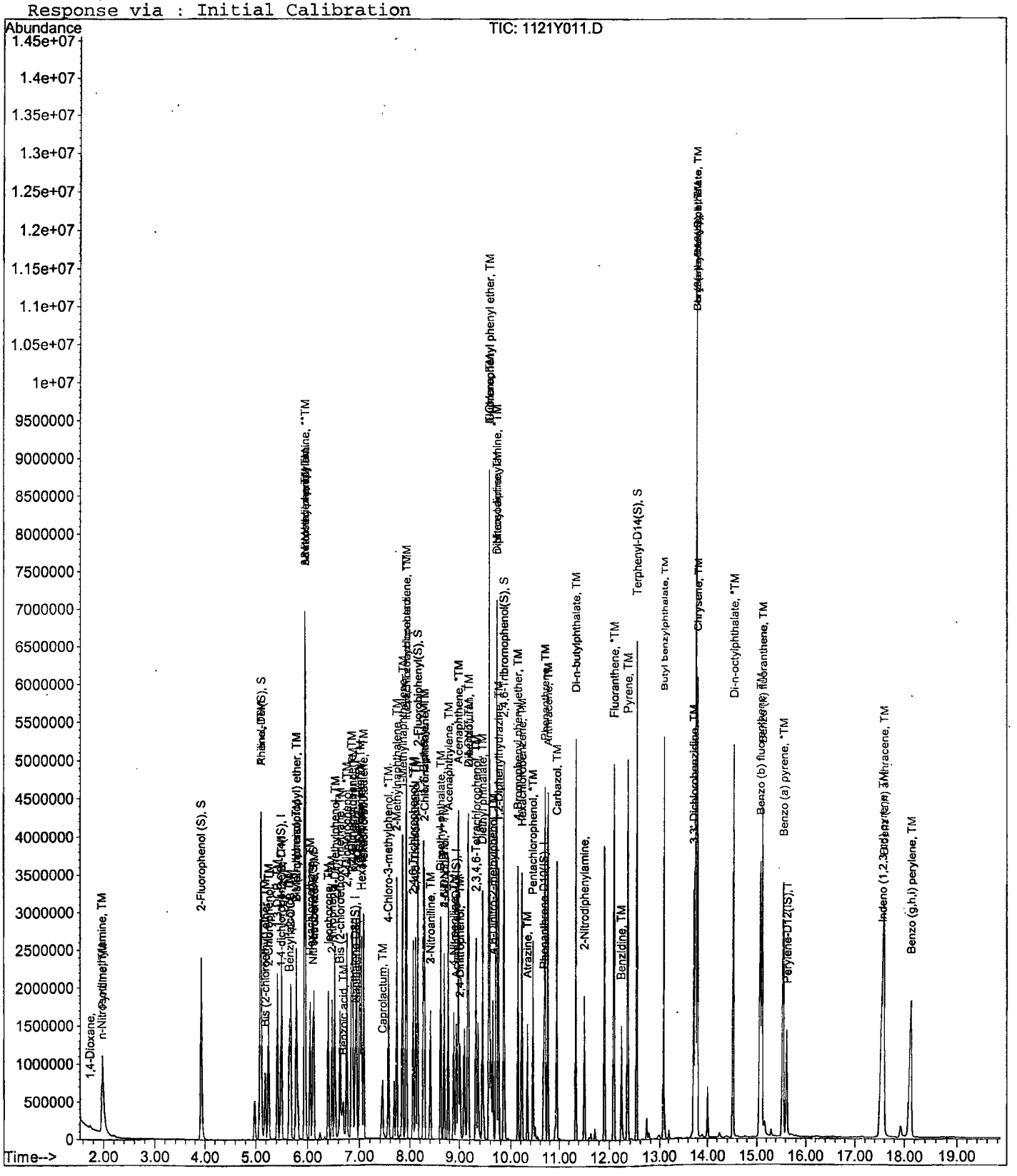
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y191121\1121Y011.D Vial: 11
Acq On : 21 Nov 19 18:26 Operator: MA,SS
Sample : 100ug/ml 8270 11/21/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 22 15:55 2019 Quant Results File: Y1121ND.RES

Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 18:04:15 2019
Response via : Initial Calibration



Semi-Volatile Analysis by GC-MS
EPA 8270

Form 7

Second Source Calibration

Lab Name: APPL, Inc.
Case No:
Matrix:

SDG No:
Date Analyzed: 11/22/19
Instrument: Yoda
Initial Cal. Date: 11/21/19
Data File: 1121Y031.D

		Compound	MEAN	CCRF	%D		%Drift
1		1,4-Dioxane	0.4644	0.4187	9.8		
2	TM	n-Nitrosodimethylamine	0.7047	0.7350	4.3	TM	
3	TM	Pyridine	1.743	1.856	6.5	TM	
4	*TM	Phenol	1.959	2.048	4.5	*TM	
5	TM	Aniline	1.157	1.383	20	TM	
6	TM	Bis (2-chloroethyl) ether	0.8368	0.8714	4.1	TM	
7	TM	2-Chlorophenol	1.483	1.540	3.8	TM	
8	TM	1,3-DCB	1.681	1.730	2.9	TM	
9	*TM	1,4-DCB	1.708	1.750	2.5	*TM	
10	TM	Benzyl alcohol	0.8432	0.9373	11	TM	
11	TM	1,2-DCB	1.595	1.611	1.0	TM	
12	TM	2-Methylphenol	1.201	1.217	1.3	TM	
13	TM	Bis (2-chloroisopropyl) ether	0.9351	0.9909	6.0	TM	
14	TM	Acetophenone	2.160	2.216	2.6	TM	
15	TM	3&4-Methylphenol	1.648	1.689	2.5	TM	
16	**TM	n-Nitrosodi-n-propylamine	1.231	1.296	5.3	**TM	
17	TM	Hexachloroethane	0.6773	0.7009	3.5	TM	
18	TM	Nitrobenzene	0.4609	0.4732	2.7	TM	
19	TM	Isophorone	0.7471	0.7881	5.5	TM	
20	*TM	2-Nitrophenol	0.2108	0.2226	5.6	*TM	
21	TM	2,4-Dimethylphenol	0.3283	0.3485	6.2	TM	
22	TML	Benzoic acid	0.2427	0.3209	32	TML	5.0
23	TM	Bis (2-chloroethoxy) methane	0.4028	0.4376	8.6	TM	
24	*TM	2,4-Dichlorophenol	0.3380	0.3552	5.1	*TM	
25	TM	1,2,4-Trichlorobenzene	0.3912	0.4061	3.8	TM	
26	TM	3,4-Dimethylphenol	0.5307	0.5603	5.6	TM	
27	TM	Naphthalene	1.077	1.149	6.7	TM	
28	TM	4-Chloroaniline	0.3796	0.4520	19	TM	
29	TM	2,6-Dichlorophenol	0.3273	0.3457	5.6	TM	
30	TM	Hexachloropropene	0.3405	0.3575	5.0	TM	
31	*TM	Hexachlorobutadiene	0.2763	0.2845	3.0	*TM	
32	TM	Caprolactum	0.1188	0.1277	7.5	TM	
33	*TM	4-Chloro-3-methylphenol	0.3814	0.4051	6.2	*TM	
34	TM	2-Methylnaphthalene	0.7343	0.7998	8.9	TM	
35	TM	1-Methylnaphthalene	0.7592	0.7910	4.2	TM	
36	**TM	Hexachlorocyclopentadiene	0.5081	0.5178	1.9	**TM	
37	TM	1,2,4,5-Tetrachlorobenzene	0.7029	0.7210	2.6	TM	
38	*TM	2,4,6-Trichlorophenol	0.4475	0.4698	5.0	*TM	
39	TM	2,4,5-Trichlorophenol	0.4765	0.4958	4.1	TM	
40	TM	1,1'-Biphenyl	1.520	1.591	4.7	TM	
		Average			6.3		

Semi-Volatile Analysis by GC-MS
EPA 8270

Form 7

Second Source Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Date Analyzed: 11/22/19
Matrix: 0 Instrument: Yoda
Cal. Date: 11/21/19
Data File: 1121Y031.D

		Compound	MEAN	CCRF	%D		%Drift
41	TM	2-Chloronaphthalene	1.244	1.270	2.1	TM	
42	TM	2-Nitroaniline	0.3943	0.4363	11	TM	
43	TM	Dimethyl phthalate	1.519	1.581	4.0	TM	
44	TM	2,6-DNT	0.3398	0.3503	3.1	TM	
45	TM	Acenaphthylene	1.912	2.013	5.3	TM	
46	TM	3-Nitroaniline	0.3899	0.4282	9.8	TM	
47	*TM	Acenaphthene	1.293	1.374	6.3	*TM	
48	**TM	2,4-Dinitrophenol	0.2270	0.2078	8.5	**TM	
49	**TM	4-Nitrophenol	0.0249	0.0255	2.5	**TM	
50	TM	Dibenzofuran	1.803	1.948	8.0	TM	
51	TM	2,4-DNT	0.4831	0.5081	5.2	TM	
52	TM	2,3,4,6-Tetrachlorophenol	0.4026	0.4217	4.8	TM	
53	TM	Diethyl phthalate	1.550	1.616	4.2	TM	
54	TM	4-Chlorophenyl phenyl ether	0.8870	0.9201	3.7	TM	
55	TM	Fluorene	1.511	1.605	6.2	TM	
56	TM	4-Nitroaniline	0.3102	0.3481	12	TM	
57	TM	4,6-Dinitro-2-methylphenol	0.1657	0.1692	2.1	TM	
58	TM	Diphenyl amine	0.6145	0.6582	7.1	TM	
59	*TM	n-Nitrosodiphenylamine	0.6145	0.6582	7.1	*TM	
60	TM	1,2-Diphenylhydrazine	0.7606	0.7882	3.6	TM	
61	TM	4-Bromophenyl phenyl ether	0.2654	0.2802	5.6	TM	
62	TM	Hexachlorobenzene	0.2805	0.2914	3.9	TM	
63	TM	Atrazine	0.2340	0.2529	8.1	TM	
64	*TM	Pentachlorophenol	0.1822	0.1839	0.90	*TM	
65	TM	Phenanthrene	1.083	1.158	6.9	TM	
66	TM	Anthracene	1.137	1.193	5.0	TM	
67	TM	Carbazol	1.023	1.086	6.1	TM	
68	TM	Di-n-butylphthalate	1.332	1.413	6.1	TM	
69		2-Nitrodiphenylamine	0.3165	0.3476	9.8		
70	*TM	Fluoranthene	1.317	1.408	6.9	*TM	
71	TM	Benzidine	0.2967	0.3285	11	TM	
72	TM	Pyrene	1.215	1.271	4.6	TM	
73	TM	Butyl benzylphthalate	0.5515	0.5707	3.5	TM	
74	TM	3,3'-Dichlorobenzidine	0.3647	0.4360	20	TM	
75	TM	Benz (a) anthracene	1.332	1.397	4.9	TM	
76	TM	Bis (2-ethylhexyl) phthalate	0.8479	0.9274	9.4	TM	
77	TM	Chrysene	1.187	1.239	4.4	TM	
78	*TM	Di-n-octylphthalate	1.329	1.443	8.6	*TM	
79	TM	Benzo (b) fluoranthene	1.265	1.319	4.3	TM	
80	TM	Benzo (k) fluoranthene	1.165	1.283	10	TM	
		Average			6.4		

Semi-Volatile Analysis by GC-MS
EPA 8270

Form 7

Second Source Calibration

Lab Name: APPL, Inc.
Case No:
Matrix: 0

SDG No:
Date Analyzed: 11/22/19
Instrument: Yoda
Cal. Date: 11/21/19
Data File: 1121Y031.D

		Compound	MEAN	CCRF	%D	%Drift	
81	*TM	Benzo (a) pyrene	1.129	1.217	7.8	*TM	
82	TM	Indeno (1,2,3-cd) pyrene	1.341	1.394	3.9	TM	
83	TM	Dibenz (a,h) anthracene	1.183	1.278	8.1	TM	
84	TM	Benzo (g,h,i) perylene	1.068	1.226	15	TM	
85							
86							
87							
88							
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112							
113							
114							
115							
116							
117							
118							
119							
120							
		Average			8.7		

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y191121\1121Y031.D Vial: 31
Acq On : 22 Nov 19 13:38 Operator: MA,SS
Sample : SS 8270 11/22/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 25 11:24 2019 Quant Results File: Y1121ND.RES

Quant Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 18:04:15 2019
Response via : Initial Calibration
DataAcq Meth : SVOC1011

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.47	152	171421	40.00000	ppb	0.00
21) Napthalene-D8(IS)	6.91	136	662584	40.00000	ppb	0.00
41) Acenaphthene-D10(IS)	8.93	164	418442	40.00000	ppb	0.00
65) Phenanthrene-D10(IS)	10.66	188	824762	40.00000	ppb	0.00
80) Chrysene-D12(IS)	13.75	240	956637	40.00000	ppb	0.00
90) Perylene-D12(IS)	15.62	264	963616	40.00000	ppb	0.00
System Monitoring Compounds						
5) 2-Fluorophenol (S)	0.00	112	0	0.00000	ppb	
Spiked Amount 200.000			Recovery =	0.000%		
6) Phenol-D6 (S)	0.00	99	0	0.00000	ppb	
Spiked Amount 200.000			Recovery =	0.000%		
22) Nitrobenzene-D5(S)	6.05	82	44357	5.94050	ppb	-0.05
Spiked Amount 100.000			Recovery =	5.940%		
46) 2-Fluorobiphenyl(S)	8.10	172	717	0.04583	ppb	-0.05
Spiked Amount 100.000			Recovery =	0.046%		
64) 2,4,6-Tribromophenol(S)	0.00	330	0	0.00000	ppb	
Spiked Amount 200.000			Recovery =	0.000%		
83) Terphenyl-D14(S)	12.52	244	529	0.02212	ppb	0.00
Spiked Amount 100.000			Recovery =	0.022%		
Target Compounds						Qvalue
2) 1,4-Dioxane	1.73	58	8972	4.50826		97
3) n-Nitrosodimethylamine	1.94	42	157497	52.15215	ppb	85
4) Pyridine	1.97	79	397706	53.24792	ppb	97
7) Phenol	5.08	94	438769	52.27091	ppb	95
8) Aniline	5.09	93	296448	59.80681	ppb	97
9) Bis (2-chloroethyl) ether	5.17	63	186730	52.07133	ppb	97
10) 2-Chlorophenol	5.24	128	329970	51.90873	ppb	96
11) 1,3-DCB	5.41	146	370675	51.46536	ppb	99
12) 1,4-DCB	5.49	146	374910	51.23440	ppb	98
13) Benzyl alcohol	5.63	108	200832	55.57427	ppb	95
14) 1,2-DCB	5.67	146	345304	50.51143	ppb	97
15) 2-Methylphenol	5.76	107	260765	50.64401	ppb	98
16) Bis (2-chloroisopropyl) et	5.78	45	212330	52.98331	ppb	89
17) Acetophenone	5.93	105	474785	51.28887	ppb	89
18) 3&4-Methylphenol	5.94	107	723826	102.49502	ppb	98
19) n-Nitrosodi-n-propylamine	5.93	70	277635	52.64855	ppb	98
20) Hexachloroethane	6.05	117	150185	51.74034	ppb	85
23) Nitrobenzene	6.12	77	391946	51.34108	ppb	94
24) Isophorone	6.39	82	652688	52.73830	ppb	97
25) 2-Nitrophenol	6.47	139	184402	52.82167	ppb	89
26) 2,4-Dimethylphenol	6.53	122	288651	53.08080	ppb	96
27) Benzoic acid	6.65	105	265773	52.52237	ppb	98
28) Bis (2-chloroethoxy) metha	6.62	93	362438	54.31436	ppb	99
29) 2,4-Dichlorophenol	6.75	162	294151	52.53304	ppb	95
30) 1,2,4-Trichlorobenzene	6.85	180	336307	51.90006	ppb	97
31) 3,4-Dimethylphenol	6.86	107	464030	52.78082	ppb	99
32) Naphthalene	6.94	128	951836	53.33151	ppb	100
33) 4-Chloroaniline	6.99	127	374395	59.53877	ppb	96
34) 2,6-Dichlorophenol	7.00	162	286319	52.80635	ppb	98
35) Hexachloropropene	7.04	213	296131	52.49822	ppb	99
36) Hexachlorobutadiene	7.08	225	235619	51.49013	ppb	99
37) Caprolactum	7.41	55	105792	53.75361	ppb	98

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y191121\1121Y031.D Vial: 31
Acq On : 22 Nov 19 13:38 Operator: MA,SS
Sample : SS 8270 11/22/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 25 11:24 2019 Quant Results File: Y1121ND.RES

Quant Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 18:04:15 2019
Response via : Initial Calibration
DataAcq Meth : SVOC1011

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
38)	4-Chloro-3-methylphenol	7.55	107	335513	53.10419 ppb		90
39)	2-Methylnaphthalene	7.73	142	662441	54.46172 ppb		99
40)	1-Methylnaphthalene	7.84	142	655119	52.09484 ppb		99
42)	Hexachlorocyclopentadiene	7.91	237	270848	50.95175 ppb		98
43)	1,2,4,5-Tetrachlorobenzene	7.92	216	377114	51.28467 ppb		99
44)	2,4,6-Trichlorophenol	8.05	196	245742	52.48934 ppb		97
45)	2,4,5-Trichlorophenol	8.10	196	259336	52.02828 ppb		93
47)	1,1'-Biphenyl	8.27	154	832163	52.32581 ppb		98
48)	2-Chloronaphthalene	8.28	162	664290	51.04548 ppb		97
49)	2-Nitroaniline	8.40	65	228214	55.32443 ppb		91
50)	Dimethyl phthalate	8.61	163	826771	52.02114 ppb		99
51)	2,6-DNT	8.68	165	183246	51.55656 ppb		92
52)	Acenaphthylene	8.77	152	1052996	52.64630 ppb		100
53)	3-Nitroaniline	8.40	138	223977	54.90928 ppb		95
54)	Acenaphthene	8.97	154	718729	53.15403 ppb		98
55)	2,4-Dinitrophenol	9.01	184	108675	45.76019 ppb		96
56)	4-Nitrophenol	8.68	65	13343	51.26258 ppb		96
57)	Dibenzofuran	9.17	168	1018717	54.01990 ppb		97
58)	2,4-DNT	9.16	165	265741	52.58617 ppb		95
59)	2,3,4,6-Tetrachlorophenol	9.31	232	220565	52.37656 ppb		94
60)	Diethyl phthalate	9.43	149	845111	52.10442 ppb		98
61)	4-Chlorophenyl phenyl ethe	9.56	204	481244	51.86421 ppb		92
62)	Fluorene	9.57	166	839435	53.09820 ppb		98
63)	4-Nitroaniline	8.88	138	182054	56.09730 ppb		94
66)	4,6-Dinitro-2-methylphenol	9.63	198	174409	51.03576 ppb	#	72
67)	Diphenyl amine	9.70	169	1357188	107.10657 ppb		100
68)	n-Nitrosodiphenylamine	9.70	169	1357188	107.10657 ppb		100
69)	1,2-Diphenylhydrazine	9.75	77	812596	51.81678 ppb		91
70)	4-Bromophenyl phenyl ether	10.14	248	288847	52.77515 ppb		93
71)	Hexachlorobenzene	10.21	284	300398	51.93315 ppb	#	86
72)	Atrazine	10.33	200	130350	27.01674 ppb		98
73)	Pentachlorophenol	10.45	266	189568	50.44853 ppb		99
74)	Phenanthrene	10.69	178	1193495	53.47084 ppb		100
75)	Anthracene	10.75	178	1230249	52.49920 ppb		100
76)	Carbazol	10.94	167	1119240	53.07059 ppb		99
77)	Di-n-butylphthalate	11.34	149	1456976	53.05055 ppb		98
78)	2-Nitrodiphenylamine	11.51	167	179156	27.45378 ppb		94
79)	Fluoranthene	12.08	202	1451245	53.42793 ppb		99
81)	Benzidine	12.23	184	392760	55.34822 ppb		97
82)	Pyrene	12.35	202	1519982	52.30875 ppb		99
84)	Butyl benzylphthalate	13.08	149	682425	51.73717 ppb		84
85)	3,3'-Dichlorobenzidine	13.70	252	521346	59.76631 ppb		98
86)	Benz (a) anthracene	13.74	228	1670654	52.43277 ppb		99
87)	Bis (2-ethylhexyl) phthala	13.75	149	1108962	54.68968 ppb	#	95
88)	Chrysene	13.78	228	1481718	52.19841 ppb		100
89)	Di-n-octylphthalate	14.51	149	1725602	54.28301 ppb		96
91)	Benzo (b) fluoranthene	15.06	252	1589370	52.15999 ppb		99
92)	Benzo (k) fluoranthene	15.10	252	1545615	55.05372 ppb		99
93)	Benzo (a) pyrene	15.53	252	1465947	53.87924 ppb		99
94)	Indeno (1,2,3-cd) pyrene	17.52	276	1678695	51.96740 ppb		99
95)	Dibenz (a,h) anthracene	17.56	278	1539902	54.04555 ppb		98
96)	Benzo (g,h,i) perylene	18.10	276	1476910	57.42940 ppb		100

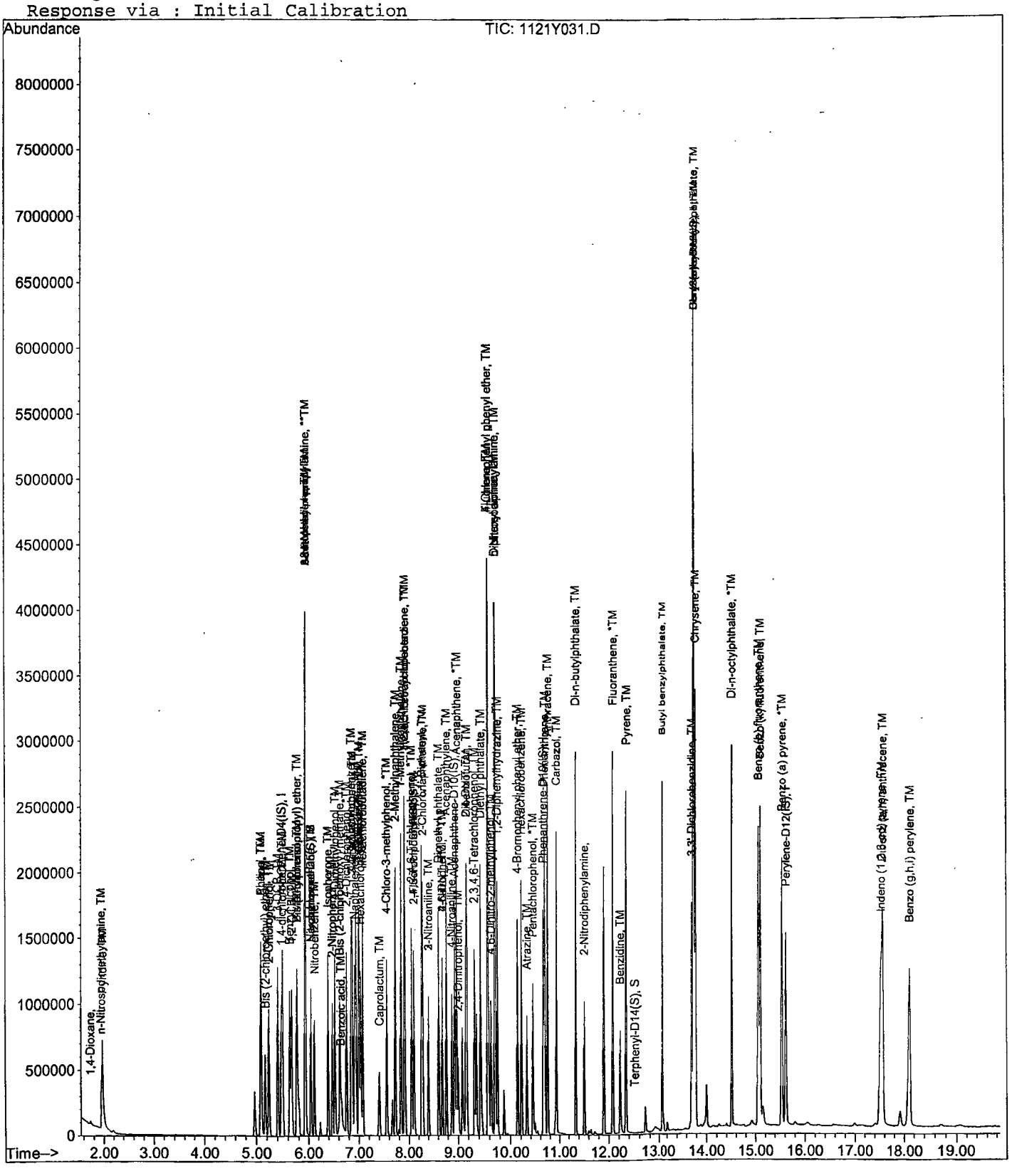
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y191121\1121Y031.D Vial: 31
Acq On : 22 Nov 19 13:38 Operator: MA,SS
Sample : SS 8270 11/22/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 25 11:24 2019 Quant Results File: Y1121ND.RES

Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 18:04:15 2019
Response via : Initial Calibration



Semi-Volatile Analysis by GC-MS
EPA 8270

Form 7

Ending Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix:

SDG No:
Date Analyzed: 11/26/19
Instrument: Yoda
Initial Cal. Date: 11/21/19
Data File: 1121Y154.D

		Compound	MEAN	CCRF	%D	%Drift	
1	I	1,4-dichlorobenzene-D4(IS)	ISTD			I	
2		1,4-Dioxane	0.4644	0.4740	2.1		
3	TM	n-Nitrosodimethylamine	0.7047	0.8639	23	TM	
4	TM	Pyridine	1.743	2.050	18	TM	
5	S	2-Fluorophenol (S)	1.393	1.435	3.0	S	
6	S	Phenol-D6 (S)	1.659	1.762	6.2	S	
7	*TM	Phenol	1.959	2.184	11	*TM	
8	TM	Aniline	1.157	1.329	15	TM	
9	TM	Bis (2-chloroethyl) ether	0.8368	0.9543	14	TM	
10	TM	2-Chlorophenol	1.483	1.581	6.6	TM	
11	TM	1,3-DCB	1.681	1.715	2.0	TM	
12	*TM	1,4-DCB	1.708	1.760	3.1	*TM	
13	TM	Benzyl alcohol	0.8432	0.9323	11	TM	
14	TM	1,2-DCB	1.595	1.638	2.7	TM	
15	TM	2-Methylphenol	1.201	1.355	13	TM	
16	TM	Bis (2-chloroisopropyl) ether	0.9351	1.121	20	TM	
17	TM	Acetophenone	2.160	2.372	9.8	TM	
18	TM	3&4-Methylphenol	1.648	1.838	12	TM	
19	**TM	n-Nitrosodi-n-propylamine	1.231	1.442	17	**TM	
20	TM	Hexachloroethane	0.6773	0.7210	6.4	TM	
21	I	Napthalene-D8(IS)	ISTD			I	
22	S	Nitrobenzene-D5(S)	0.4508	0.4694	4.1	S	
23	TM	Nitrobenzene	0.4609	0.4980	8.1	TM	
24	TM	Isophorone	0.7471	0.8098	8.4	TM	
25	*TM	2-Nitrophenol	0.2108	0.2193	4.1	*TM	
26	TM	2,4-Dimethylphenol	0.3283	0.3480	6.0	TM	
27	TML	Benzoic acid	0.2427	0.3340	38	TML	9.0
28	TM	Bis (2-chloroethoxy) methane	0.4028	0.4317	7.2	TM	
29	*TM	2,4-Dichlorophenol	0.3380	0.3497	3.5	*TM	
30	TM	1,2,4-Trichlorobenzene	0.3912	0.3971	1.5	TM	
31	TM	3,4-Dimethylphenol	0.5307	0.5743	8.2	TM	
32	TM	Naphthalene	1.077	1.129	4.8	TM	
33	TM	4-Chloroaniline	0.3796	0.4418	16	TM	
34	TM	2,6-Dichlorophenol	0.3273	0.3346	2.2	TM	
35	TM	Hexachloropropene	0.3405	0.2967	13	TM	
36	*TM	Hexachlorobutadiene	0.2763	0.2758	0.17	*TM	
37	TM	Caprolactum	0.1188	0.1334	12	TM	
38	*TM	4-Chloro-3-methylphenol	0.3814	0.4063	6.5	*TM	
39	TM	2-Methylnaphthalene	0.7343	0.7765	5.8	TM	
40	TM	1-Methylnaphthalene	0.7592	0.7902	4.1	TM	
		Average			9.2		

Semi-Volatile Analysis by GC-MS
EPA 8270

Form 7

Ending Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix: 0

SDG No:
Date Analyzed: 11/26/19
Instrument: Yoda
Cal. Date: 11/21/19
Data File: 1121Y154.D

		Compound	MEAN	CCRF	%D		%Drift
41	I	Acenaphthene-D10(IS)	ISTD			I	
42	**TM	Hexachlorocyclopentadiene	0.5081	0.3896	23	**TM	
43	TM	1,2,4,5-Tetrachlorobenzene	0.7029	0.6995	0.49	TM	
44	*TM	2,4,6-Trichlorophenol	0.4475	0.4551	1.7	*TM	
45	TM	2,4,5-Trichlorophenol	0.4765	0.4851	1.8	TM	
46	S	2-Fluorobiphenyl(S)	1.496	1.445	3.4	S	
47	TM	1,1'-Biphenyl	1.520	1.603	5.4	TM	
48	TM	2-Chloronaphthalene	1.244	1.292	3.9	TM	
49	TM	2-Nitroaniline	0.3943	0.4473	13	TM	
50	TM	Dimethyl phthalate	1.519	1.591	4.7	TM	
51	TM	2,6-DNT	0.3398	0.3560	4.8	TM	
52	TM	Acenaphthylene	1.912	1.972	3.2	TM	
53	TM	3-Nitroaniline	0.3899	0.4205	7.8	TM	
54	*TM	Acenaphthene	1.293	1.313	1.6	*TM	
55	**TM	2,4-Dinitrophenol	0.2270	0.1474	35	**TM	
56	**TM	4-Nitrophenol	0.0249	0.0292	17	**TM	
57	TM	Dibenzofuran	1.803	1.851	2.7	TM	
58	TM	2,4-DNT	0.4831	0.5120	6.0	TM	
59	TM	2,3,4,6-Tetrachlorophenol	0.4026	0.4054	0.70	TM	
60	TM	Diethyl phthalate	1.550	1.605	3.5	TM	
61	TM	4-Chlorophenyl phenyl ether	0.8870	0.9205	3.8	TM	
62	TM	Fluorene	1.511	1.612	6.7	TM	
63	TM	4-Nitroaniline	0.3102	0.3431	11	TM	
64	S	2,4,6-Tribromophenol(S)	0.3060	0.2897	5.3	S	
65	I	Phenanthrene-D10(IS)	ISTD			I	
66	TM	4,6-Dinitro-2-methylphenol	0.1657	0.1247	25	TM	
67	TM	Diphenyl amine	0.6145	0.6755	9.9	TM	
68	*TM	n-Nitrosodiphenylamine	0.6145	0.6755	9.9	*TM	
69	TM	1,2-Diphenylhydrazine	0.7606	0.8649	14	TM	
70	TM	4-Bromophenyl phenyl ether	0.2654	0.2751	3.6	TM	
71	TM	Hexachlorobenzene	0.2805	0.2811	0.22	TM	
72	TM	Atrazine	0.2340	0.2208	5.6	TM	
73	*TM	Pentachlorophenol	0.1822	0.1782	2.2	*TM	
74	TM	Phenanthrene	1.083	1.145	5.7	TM	
75	TM	Anthracene	1.137	1.205	6.0	TM	
76	TM	Carbazol	1.023	1.096	7.2	TM	
77	TM	Di-n-butylphthalate	1.332	1.457	9.4	TM	
78		2-Nitrodiphenylamine	0.3165	0.3573	13		
79	*TM	Fluoranthene	1.317	1.407	6.8	*TM	
80	I	Chrysene-D12(IS)	ISTD			I	
		Average			7.7		

Semi-Volatile Analysis by GC-MS
EPA 8270

Form 7

Ending Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix: 0

SDG No:
Date Analyzed: 11/26/19
Instrument: Yoda
Cal. Date: 11/21/19
Data File: 1121Y154.D

		Compound	MEAN	CCRF	%D		%Drift
81	TM	Benzidine	0.2967	0.3296	11	TM	
82	TM	Pyrene	1.215	1.222	0.57	TM	
83	S	Terphenyl-D14(S)	1.000	0.9423	5.8	S	
84	TM	Butyl benzylphthalate	0.5515	0.5704	3.4	TM	
85	TM	3,3'-Dichlorobenzidine	0.3647	0.4696	29	TM	
86	TM	Benz (a) anthracene	1.332	1.326	0.46	TM	
87	TM	Bis (2-ethylhexyl) phthalate	0.8479	0.9572	13	TM	
88	TM	Chrysene	1.187	1.161	2.1	TM	
89	*TM	Di-n-octylphthalate	1.329	1.409	6.0	*TM	
90	I	Perylene-D12(IS)	ISTD			I	
91	TM	Benzo (b) fluoranthene	1.265	1.329	5.0	TM	
92	TM	Benzo (k) fluoranthene	1.165	1.261	8.2	TM	
93	*TM	Benzo (a) pyrene	1.129	1.179	4.4	*TM	
94	TM	Indeno (1,2,3-cd) pyrene	1.341	1.356	1.1	TM	
95	TM	Dibenz (a,h) anthracene	1.183	1.195	1.0	TM	
96	TM	Benzo (g,h,i) perylene	1.068	1.073	0.49	TM	
97							
98							
99							
100							
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110							
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112							
113							
114							
115							
116							
117							
118							
119							
120							
		Average			6.1		

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y191121\1121Y154.D Vial: 54
Acq On : 26 Nov 19 20:50 Operator: MA,SS
Sample : 50ug/ml 8270 11/21/19 (1) Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 27 7:38 2019 Quant Results File: Y1121ND.RES

Quant Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 18:04:15 2019
Response via : Initial Calibration
DataAcq Meth : SVOC1011

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.47	152	179473	40.00000	ppb		0.00
21) Napthalene-D8(IS)	6.91	136	719514	40.00000	ppb		0.00
41) Acenaphthene-D10(IS)	8.93	164	453439	40.00000	ppb		0.00
65) Phenanthrene-D10(IS)	10.67	188	869953	40.00000	ppb		0.00
80) Chrysene-D12(IS)	13.76	240	1038491	40.00000	ppb		0.00
90) Perylene-D12(IS)	15.62	264	946185	40.00000	ppb		0.00
System Monitoring Compounds							
5) 2-Fluorophenol (S)	3.90	112	643790	103.01244	ppb		0.00
Spiked Amount 200.000			Recovery	= 51.506%			
6) Phenol-D6 (S)	5.07	99	790641	106.24656	ppb		0.00
Spiked Amount 200.000			Recovery	= 53.124%			
22) Nitrobenzene-D5(S)	6.10	82	422202	52.06943	ppb		0.00
Spiked Amount 100.000			Recovery	= 52.069%			
46) 2-Fluorobiphenyl(S)	8.14	172	819046	48.31191	ppb		0.00
Spiked Amount 100.000			Recovery	= 48.312%			
64) 2,4,6-Tribromophenol(S)	9.86	330	328385	94.67254	ppb		0.00
Spiked Amount 200.000			Recovery	= 47.337%			
83) Terphenyl-D14(S)	12.52	244	1223267	47.11515	ppb		0.00
Spiked Amount 100.000			Recovery	= 47.115%			
Target Compounds							Qvalue
2) 1,4-Dioxane	1.72	58	10634	5.10366			75
3) n-Nitrosodimethylamine	1.94	42	193799	61.29377	ppb		100
4) Pyridine	1.96	79	459851	58.80612	ppb		99
7) Phenol	5.09	94	489897	55.74345	ppb		90
8) Aniline	5.10	93	298240	57.46890	ppb		90
9) Bis (2-chloroethyl) ether	5.17	63	214083	57.02058	ppb		91
10) 2-Chlorophenol	5.24	128	354618	53.28336	ppb		96
11) 1,3-DCB	5.40	146	384680	51.01363	ppb		97
12) 1,4-DCB	5.49	146	394790	51.53065	ppb		98
13) Benzyl alcohol	5.64	108	209164	55.28314	ppb		98
14) 1,2-DCB	5.66	146	367467	51.34183	ppb		99
15) 2-Methylphenol	5.77	107	304001	56.39216	ppb		96
16) Bis (2-chloroisopropyl) et	5.78	45	251533	59.94978	ppb	#	73
17) Acetophenone	5.93	105	532131	54.90471	ppb		89
18) 3&4-Methylphenol	5.94	107	824480	111.50995	ppb		99
19) n-Nitrosodi-n-propylamine	5.93	70	323406	58.57674	ppb		96
20) Hexachloroethane	6.04	117	161743	53.22224	ppb		96
23) Nitrobenzene	6.12	77	447941	54.03327	ppb		98
24) Isophorone	6.39	82	728304	54.19197	ppb		94
25) 2-Nitrophenol	6.48	139	197237	52.02793	ppb		98
26) 2,4-Dimethylphenol	6.53	122	313026	53.00862	ppb		99
27) Benzoic acid	6.67	105	300385	54.51101	ppb		97
28) Bis (2-chloroethoxy) metha	6.63	93	388252	53.57921	ppb		99
29) 2,4-Dichlorophenol	6.76	162	314516	51.72573	ppb		99
30) 1,2,4-Trichlorobenzene	6.84	180	357184	50.76047	ppb		97
31) 3,4-Dimethylphenol	6.86	107	516511	54.10175	ppb		99
32) Naphthalene	6.94	128	1015093	52.37563	ppb		100
33) 4-Chloroaniline	6.99	127	397384	58.19449	ppb		98
34) 2,6-Dichlorophenol	7.01	162	300931	51.10985	ppb		99
35) Hexachloropropene	7.04	213	266832	43.56125	ppb		99
36) Hexachlorobutadiene	7.08	225	248033	49.91429	ppb		100
37) Caprolactum	7.42	55	119960	56.12973	ppb		94

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y191121\1121Y154.D Vial: 54
Acq On : 26 Nov 19 20:50 Operator: MA,SS
Sample : 50ug/ml 8270 11/21/19 (1) Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 27 7:38 2019 Quant Results File: Y1121ND.RES

Quant Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 18:04:15 2019
Response via : Initial Calibration
DataAcq Meth : SVOC1011

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
38)	4-Chloro-3-methylphenol	7.56	107	365424	53.26209 ppb		95
39)	2-Methylnaphthalene	7.72	142	698402	52.87511 ppb		100
40)	1-Methylnaphthalene	7.84	142	710656	52.03980 ppb		100
42)	Hexachlorocyclopentadiene	7.91	237	220800	38.33090 ppb		99
43)	1,2,4,5-Tetrachlorobenzene	7.92	216	396483	49.75720 ppb		100
44)	2,4,6-Trichlorophenol	8.05	196	257942	50.84288 ppb		100
45)	2,4,5-Trichlorophenol	8.11	196	274951	50.90359 ppb		95
47)	1,1'-Biphenyl	8.26	154	908359	52.70860 ppb		99
48)	2-Chloronaphthalene	8.29	162	732391	51.93487 ppb		99
49)	2-Nitroaniline	8.40	65	253528	56.71749 ppb		95
50)	Dimethyl phthalate	8.62	163	901594	52.35065 ppb		100
51)	2,6-DNT	8.69	165	201795	52.39336 ppb		82
52)	Acenaphthylene	8.76	152	1117973	51.58089 ppb		99
53)	3-Nitroaniline	8.40	138	238316	53.91528 ppb		99
54)	Acenaphthene	8.97	154	744268	50.79451 ppb		99
55)	2,4-Dinitrophenol	9.01	184	83537	32.46037 ppb		88
56)	4-Nitrophenol	8.68	65	16549	58.67257 ppb		97
57)	Dibenzofuran	9.17	168	1049257	51.34504 ppb		100
58)	2,4-DNT	9.15	165	290218	52.99730 ppb		86
59)	2,3,4,6-Tetrachlorophenol	9.32	232	229755	50.34795 ppb		97
60)	Diethyl phthalate	9.43	149	909668	51.75593 ppb		96
61)	4-Chlorophenyl phenyl ethe	9.56	204	521741	51.88883 ppb	#	84
62)	Fluorene	9.57	166	913843	53.34340 ppb		99
63)	4-Nitroaniline	8.88	138	194469	55.29788 ppb		87
66)	4,6-Dinitro-2-methylphenol	9.64	198	135601	37.61849 ppb	#	85
67)	Diphenyl amine	9.71	169	1469100	109.91585 ppb		100
68)	n-Nitrosodiphenylamine	9.71	169	1469100	109.91585 ppb		100
69)	1,2-Diphenylhydrazine	9.76	77	940567	56.86150 ppb		98
70)	4-Bromophenyl phenyl ether	10.14	248	299176	51.82284 ppb		96
71)	Hexachlorobenzene	10.22	284	305728	50.10899 ppb		96
72)	Atrazine	10.32	200	120041	23.58763 ppb		98
73)	Pentachlorophenol	10.44	266	193784	48.89160 ppb		99
74)	Phenanthrene	10.69	178	1244623	52.86486 ppb		100
75)	Anthracene	10.75	178	1310274	53.00961 ppb		100
76)	Carbazol	10.94	167	1191847	53.57770 ppb		98
77)	Di-n-butylphthalate	11.34	149	1584063	54.68180 ppb		98
78)	2-Nitrodiphenylamine	11.51	167	194295	28.22703 ppb		99
79)	Fluoranthene	12.08	202	1530294	53.41157 ppb		99
81)	Benzidine	12.23	184	427883	55.54512 ppb		99
82)	Pyrene	12.35	202	1586188	50.28460 ppb		99
84)	Butyl benzylphthalate	13.09	149	740503	51.71529 ppb		99
85)	3,3'-Dichlorobenzidine	13.70	252	609564	64.37158 ppb	#	98
86)	Benz (a) anthracene	13.74	228	1721546	49.77134 ppb		100
87)	Bis (2-ethylhexyl) phthala	13.75	149	1242523	56.44658 ppb		99
88)	Chrysene	13.79	228	1507683	48.92673 ppb		100
89)	Di-n-octylphthalate	14.51	149	1828785	52.99445 ppb		96
91)	Benzo (b) fluoranthene	15.07	252	1571322	52.51769 ppb		98
92)	Benzo (k) fluoranthene	15.10	252	1491286	54.09713 ppb		99
93)	Benzo (a) pyrene	15.54	252	1394881	52.21175 ppb		99
94)	Indeno (1,2,3-cd) pyrene	17.54	276	1603749	50.56191 ppb		98
95)	Dibenz (a,h) anthracene	17.57	278	1413122	50.50966 ppb		99
96)	Benzo (g,h,i) perylene	18.12	276	1268799	50.24594 ppb		98

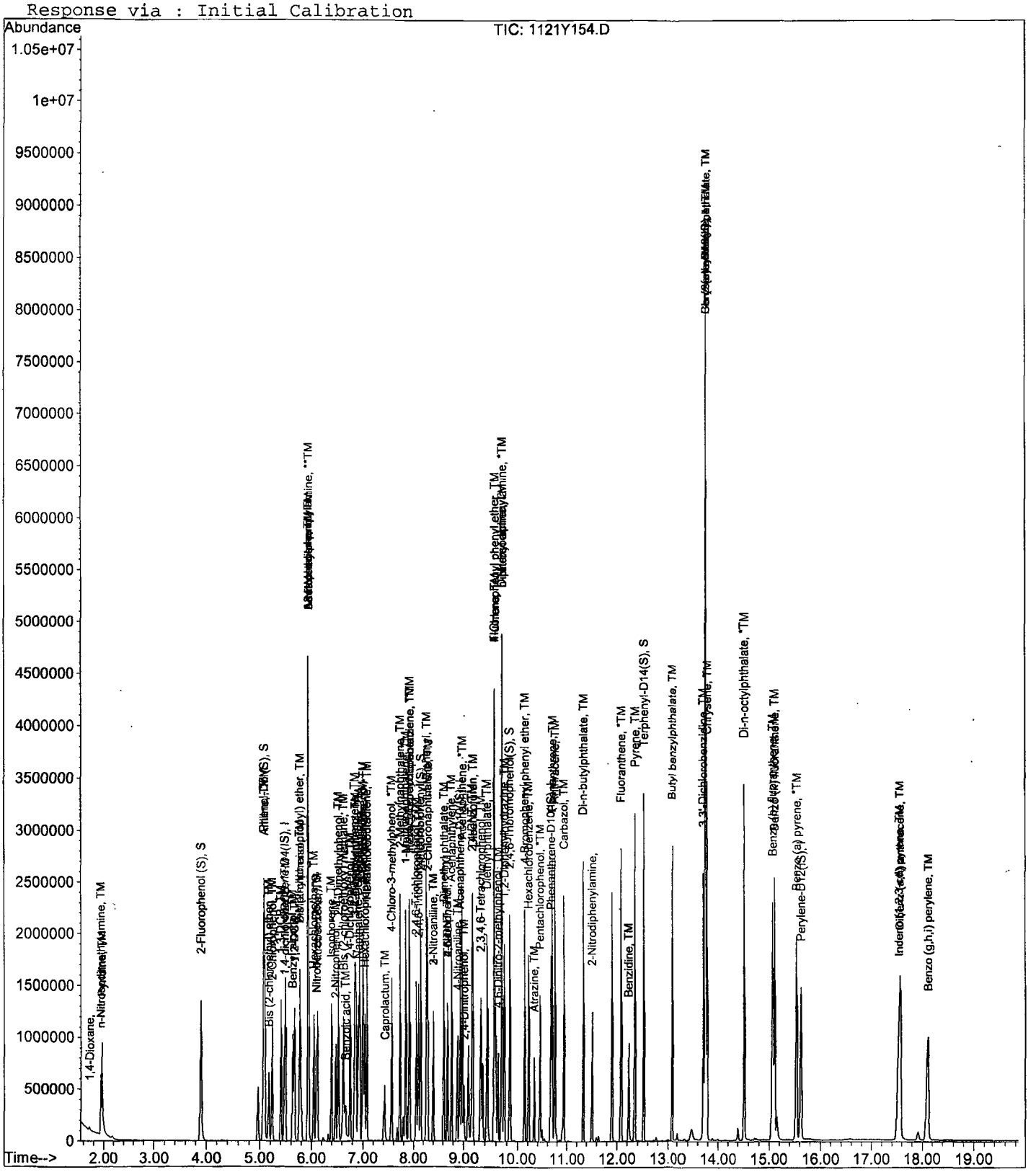
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y191121\1121Y154.D Vial: 54
Acq On : 26 Nov 19 20:50 Operator: MA,SS
Sample : 50ug/ml 8270 11/21/19 (1) Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 27 7:38 2019 Quant Results File: Y1121ND.RES

Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 18:04:15 2019
Response via : Initial Calibration



Semi-Volatile Analysis by GC-MS
EPA 8270

Form 7

Ending Continuing Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Date Analyzed: 11/27/19
Matrix: Instrument: Yoda
Initial Cal. Date: 11/21/19
Data File: 1121Y172.D

		Compound	MEAN	CCRF	%D	%Drift	
1	I	1,4-dichlorobenzene-D4(IS)	ISTD			I	
2		1,4-Dioxane	0.4644	0.4417	4.9		
3	TM	n-Nitrosodimethylamine	0.7047	0.8379	19	TM	
4	TM	Pyridine	1.743	1.952	12	TM	
5	S	2-Fluorophenol (S)	1.393	1.379	1.0	S	
6	S	Phenol-D6 (S)	1.659	1.703	2.7	S	
7	*TM	Phenol	1.959	2.067	5.5	*TM	
8	TM	Aniline	1.157	1.091	5.6	TM	
9	TM	Bis (2-chloroethyl) ether	0.8368	0.9041	8.0	TM	
10	TM	2-Chlorophenol	1.483	1.502	1.2	TM	
11	TM	1,3-DCB	1.681	1.676	0.29	TM	
12	*TM	1,4-DCB	1.708	1.702	0.30	*TM	
13	TM	Benzyl alcohol	0.8432	0.8845	4.9	TM	
14	TM	1,2-DCB	1.595	1.559	2.3	TM	
15	TM	2-Methylphenol	1.201	1.294	7.7	TM	
16	TM	Bis (2-chloroisopropyl) ether	0.9351	1.075	15	TM	
17	TM	Acetophenone	2.160	2.289	6.0	TM	
18	TM	3&4-Methylphenol	1.648	1.757	6.6	TM	
19	**TM	n-Nitrosodi-n-propylamine	1.231	1.402	14	**TM	
20	TM	Hexachloroethane	0.6773	0.7003	3.4	TM	
21	I	Napthalene-D8(IS)	ISTD			I	
22	S	Nitrobenzene-D5(S)	0.4508	0.4617	2.4	S	
23	TM	Nitrobenzene	0.4609	0.4820	4.6	TM	
24	TM	Isophorone	0.7471	0.7816	4.6	TM	
25	*TM	2-Nitrophenol	0.2108	0.2130	1.1	*TM	
26	TM	2,4-Dimethylphenol	0.3283	0.3335	1.6	TM	
27	TML	Benzoic acid	0.2427	0.3303	36	TML	7.9
28	TM	Bis (2-chloroethoxy) methane	0.4028	0.4235	5.1	TM	
29	*TM	2,4-Dichlorophenol	0.3380	0.3384	0.10	*TM	
30	TM	1,2,4-Trichlorobenzene	0.3912	0.3808	2.7	TM	
31	TM	3,4-Dimethylphenol	0.5307	0.5599	5.5	TM	
32	TM	Naphthalene	1.077	1.087	0.90	TM	
33	TM	4-Chloroaniline	0.3796	0.3954	4.1	TM	
34	TM	2,6-Dichlorophenol	0.3273	0.3292	0.58	TM	
35	TM	Hexachloropropene	0.3405	0.2996	12	TM	
36	*TM	Hexachlorobutadiene	0.2763	0.2674	3.2	*TM	
37	TM	Caprolactum	0.1188	0.1328	12	TM	
38	*TM	4-Chloro-3-methylphenol	0.3814	0.3947	3.5	*TM	
39	TM	2-Methylnaphthalene	0.7343	0.7458	1.6	TM	
40	TM	1-Methylnaphthalene	0.7592	0.7694	1.3	TM	
		Average			5.9		

Semi-Volatile Analysis by GC-MS
EPA 8270

Form 7

Ending Continuing Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Date Analyzed: 11/27/19
Matrix: 0 Instrument: Yoda
Cal. Date: 11/21/19
Data File: 1121Y172.D

		Compound	MEAN	CCRF	%D		%Drift
41	I	Acenaphthene-D10(IS)	ISTD			I	
42	**TM	Hexachlorocyclopentadiene	0.5081	0.3947	22	**TM	
43	TM	1,2,4,5-Tetrachlorobenzene	0.7029	0.6869	2.3	TM	
44	*TM	2,4,6-Trichlorophenol	0.4475	0.4440	0.80	*TM	
45	TM	2,4,5-Trichlorophenol	0.4765	0.4706	1.2	TM	
46	S	2-Fluorobiphenyl(S)	1.496	1.423	4.9	S	
47	TM	1,1'-Biphenyl	1.520	1.561	2.7	TM	
48	TM	2-Chloronaphthalene	1.244	1.262	1.4	TM	
49	TM	2-Nitroaniline	0.3943	0.4340	10	TM	
50	TM	Dimethyl phthalate	1.519	1.541	1.4	TM	
51	TM	2,6-DNT	0.3398	0.3449	1.5	TM	
52	TM	Acenaphthylene	1.912	1.932	1.0	TM	
53	TM	3-Nitroaniline	0.3899	0.4015	3.0	TM	
54	*TM	Acenaphthene	1.293	1.230	4.8	*TM	
55	**TM	2,4-Dinitrophenol	0.2270	0.1679	26	**TM	
56	**TM	4-Nitrophenol	0.0249	0.0294	18	**TM	
57	TM	Dibenzofuran	1.803	1.828	1.4	TM	
58	TM	2,4-DNT	0.4831	0.4959	2.7	TM	
59	TM	2,3,4,6-Tetrachlorophenol	0.4026	0.3916	2.7	TM	
60	TM	Diethyl phthalate	1.550	1.560	0.62	TM	
61	TM	4-Chlorophenyl phenyl ether	0.8870	0.9068	2.2	TM	
62	TM	Fluorene	1.511	1.591	5.3	TM	
63	TM	4-Nitroaniline	0.3102	0.3289	6.0	TM	
64	S	2,4,6-Tribromophenol(S)	0.3060	0.2874	6.1	S	
65	I	Phenanthrene-D10(IS)	ISTD			I	
66	TM	4,6-Dinitro-2-methylphenol	0.1657	0.1350	19	TM	
67	TM	Diphenyl amine	0.6145	0.6626	7.8	TM	
68	*TM	n-Nitrosodiphenylamine	0.6145	0.6626	7.8	*TM	
69	TM	1,2-Diphenylhydrazine	0.7606	0.8556	12	TM	
70	TM	4-Bromophenyl phenyl ether	0.2654	0.2698	1.6	TM	
71	TM	Hexachlorobenzene	0.2805	0.2786	0.69	TM	
72	TM	Atrazine	0.2340	0.2257	3.5	TM	
73	*TM	Pentachlorophenol	0.1822	0.1785	2.1	*TM	
74	TM	Phenanthrene	1.083	1.106	2.1	TM	
75	TM	Anthracene	1.137	1.165	2.5	TM	
76	TM	Carbazol	1.023	1.060	3.7	TM	
77	TM	Di-n-butylphthalate	1.332	1.424	6.9	TM	
78		2-Nitrodiphenylamine	0.3165	0.3451	9.0		
79	*TM	Fluoranthene	1.317	1.373	4.2	*TM	
80	I	Chrysene-D12(IS)	ISTD			I	
		Average			5.7		

Semi-Volatile Analysis by GC-MS
EPA 8270

Form 7

Ending Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix: 0

SDG No:
Date Analyzed: 11/27/19
Instrument: Yoda
Cal. Date: 11/21/19
Data File: 1121Y172.D

		Compound	MEAN	CCRF	%D		%Drift
81	TM	Benzidine	0.2967	0.0557	81	TM	*
82	TM	Pyrene	1.215	1.214	0.09	TM	
83	S	Terphenyl-D14(S)	1.000	0.9343	6.6	S	
84	TM	Butyl benzylphthalate	0.5515	0.5760	4.4	TM	
85	TM	3,3'-Dichlorobenzidine	0.3647	0.4464	22	TM	
86	TM	Benz (a) anthracene	1.332	1.318	1.1	TM	
87	TM	Bis (2-ethylhexyl) phthalate	0.8479	0.9482	12	TM	
88	TM	Chrysene	1.187	1.170	1.5	TM	
89	*TM	Di-n-octylphthalate	1.329	1.404	5.6	*TM	
90	I	Perylene-D12(IS)	ISTD			I	
91	TM	Benzo (b) fluoranthene	1.265	1.316	4.0	TM	
92	TM	Benzo (k) fluoranthene	1.165	1.232	5.7	TM	
93	*TM	Benzo (a) pyrene	1.129	1.183	4.8	*TM	
94	TM	Indeno (1,2,3-cd) pyrene	1.341	1.357	1.2	TM	
95	TM	Dibenz (a,h) anthracene	1.183	1.204	1.8	TM	
96	TM	Benzo (g,h,i) perylene	1.068	1.065	0.25	TM	
97							
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108							
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110							
111							
112							
113							
114							
115							
116							
117							
118							
119							
120							
		Average			10.1		

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y191121\1121Y172.D Vial: 72
Acq On : 27 Nov 19 5:11 Operator: MA,SS
Sample : 50ug/ml 8270 11/21/19 (2) Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 27 7:32 2019 Quant Results File: Y1121ND.RES

Quant Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 18:04:15 2019
Response via : Initial Calibration
DataAcq Meth : SVOC1011

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.47	152	184992	40.00000 ppb		0.00
21) Napthalene-D8(IS)	6.91	136	734252	40.00000 ppb		0.00
41) Acenaphthene-D10(IS)	8.93	164	456477	40.00000 ppb		0.00
65) Phenanthrene-D10(IS)	10.67	188	870891	40.00000 ppb		0.00
80) Chrysene-D12(IS)	13.76	240	1025135	40.00000 ppb		0.00
90) Perylene-D12(IS)	15.62	264	935612	40.00000 ppb		0.00
System Monitoring Compounds						
5) 2-Fluorophenol (S)	3.90	112	637612	98.98015 ppb		0.00
Spiked Amount 200.000			Recovery =	49.490%		
6) Phenol-D6 (S)	5.07	99	787677	102.69041 ppb		0.00
Spiked Amount 200.000			Recovery =	51.345%		
22) Nitrobenzene-D5(S)	6.10	82	423758	51.21233 ppb		0.00
Spiked Amount 100.000			Recovery =	51.212%		
46) 2-Fluorobiphenyl(S)	8.14	172	811938	47.57390 ppb		0.00
Spiked Amount 100.000			Recovery =	47.574%		
64) 2,4,6-Tribromophenol(S)	9.86	330	327984	93.92762 ppb		0.00
Spiked Amount 200.000			Recovery =	46.964%		
83) Terphenyl-D14(S)	12.52	244	1197240	46.71348 ppb		0.00
Spiked Amount 100.000			Recovery =	46.713%		
Target Compounds						Qvalue
2) 1,4-Dioxane	1.72	58	10213	4.75537		80
3) n-Nitrosodimethylamine	1.94	42	193764	59.45441 ppb		95
4) Pyridine	1.96	79	451366	55.99901 ppb		99
7) Phenol	5.09	94	478022	52.76952 ppb		91
8) Aniline	5.10	93	252352	47.17587 ppb		91
9) Bis (2-chloroethyl) ether	5.17	63	209067	54.02330 ppb		91
10) 2-Chlorophenol	5.24	128	347270	50.62258 ppb		95
11) 1,3-DCB	5.40	146	387517	49.85670 ppb		98
12) 1,4-DCB	5.49	146	393673	49.85185 ppb		98
13) Benzyl alcohol	5.63	108	204538	52.44764 ppb		85
14) 1,2-DCB	5.66	146	360520	48.86844 ppb		98
15) 2-Methylphenol	5.77	107	299339	53.87077 ppb		95
16) Bis (2-chloroisopropyl) et	5.78	45	248574	57.47706 ppb	#	73
17) Acetophenone	5.92	105	529331	52.98642 ppb		87
18) 3&4-Methylphenol	5.94	107	812630	106.62831 ppb		98
19) n-Nitrosodi-n-propylamine	5.93	70	324178	56.96483 ppb		97
20) Hexachloroethane	6.04	117	161933	51.69508 ppb		91
23) Nitrobenzene	6.12	77	442354	52.28830 ppb		99
24) Isophorone	6.39	82	717342	52.30493 ppb		94
25) 2-Nitrophenol	6.48	139	195512	50.53772 ppb		99
26) 2,4-Dimethylphenol	6.53	122	306094	50.79430 ppb		99
27) Benzoic acid	6.67	105	303196	53.95801 ppb		98
28) Bis (2-chloroethoxy) metha	6.63	93	388659	52.55880 ppb		100
29) 2,4-Dichlorophenol	6.76	162	310575	50.05235 ppb		99
30) 1,2,4-Trichlorobenzene	6.84	180	349522	48.67459 ppb		98
31) 3,4-Dimethylphenol	6.86	107	513912	52.74905 ppb		99
32) Naphthalene	6.94	128	997778	50.44887 ppb		99
33) 4-Chloroaniline	6.99	127	362861	52.07220 ppb		98
34) 2,6-Dichlorophenol	7.01	162	302183	50.29233 ppb		98
35) Hexachloropropene	7.04	213	275007	43.99469 ppb		99
36) Hexachlorobutadiene	7.07	225	245404	48.39396 ppb		100
37) Caprolactum	7.42	55	121852	55.87059 ppb		93

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y191121\1121Y172.D Vial: 72
Acq On : 27 Nov 19 5:11 Operator: MA,SS
Sample : 50ug/ml 8270 11/21/19 (2) Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 27 7:32 2019 Quant Results File: Y1121ND.RES

Quant Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 18:04:15 2019
Response via : Initial Calibration
DataAcq Meth : SVOC1011

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
38)	4-Chloro-3-methylphenol	7.56	107	362279	51.74381	ppb		95
39)	2-Methylnaphthalene	7.72	142	684488	50.78153	ppb		99
40)	1-Methylnaphthalene	7.84	142	706153	50.67213	ppb		99
42)	Hexachlorocyclopentadiene	7.91	237	225216	38.83731	ppb		99
43)	1,2,4,5-Tetrachlorobenzene	7.92	216	391941	48.85984	ppb		100
44)	2,4,6-Trichlorophenol	8.05	196	253330	49.60149	ppb		97
45)	2,4,5-Trichlorophenol	8.10	196	268521	49.38230	ppb		96
47)	1,1'-Biphenyl	8.26	154	890689	51.33931	ppb		99
48)	2-Chloronaphthalene	8.29	162	720008	50.71697	ppb		100
49)	2-Nitroaniline	8.40	65	247641	55.03178	ppb		95
50)	Dimethyl phthalate	8.62	163	879421	50.72334	ppb		99
51)	2,6-DNT	8.69	165	196771	50.74893	ppb		83
52)	Acenaphthylene	8.76	152	1102374	50.52269	ppb		100
53)	3-Nitroaniline	8.40	138	229101	51.48559	ppb		98
54)	Acenaphthene	8.97	154	702020	47.59232	ppb		98
55)	2,4-Dinitrophenol	9.01	184	95794	36.97540	ppb		88
56)	4-Nitrophenol	8.68	65	16756	59.01110	ppb		97
57)	Dibenzofuran	9.17	168	1043326	50.71502	ppb		99
58)	2,4-DNT	9.15	165	282953	51.32674	ppb		84
59)	2,3,4,6-Tetrachlorophenol	9.32	232	223457	48.64192	ppb		98
60)	Diethyl phthalate	9.43	149	890191	50.31070	ppb		96
61)	4-Chlorophenyl phenyl ethe	9.56	204	517414	51.11602	ppb	#	85
62)	Fluorene	9.57	166	907725	52.63363	ppb		100
63)	4-Nitroaniline	8.88	138	187675	53.01082	ppb		86
66)	4,6-Dinitro-2-methylphenol	9.64	198	147009	40.73938	ppb	#	80
67)	Diphenyl amine	9.71	169	1442713	107.82535	ppb		100
68)	n-Nitrosodiphenylamine	9.71	169	1442713	107.82535	ppb		100
69)	1,2-Diphenylhydrazine	9.75	77	931386	56.24582	ppb	#	84
70)	4-Bromophenyl phenyl ether	10.14	248	293678	50.81569	ppb		98
71)	Hexachlorobenzene	10.22	284	303272	49.65292	ppb		97
72)	Atrazine	10.32	200	122867	24.11693	ppb		95
73)	Pentachlorophenol	10.44	266	194283	48.96471	ppb		99
74)	Phenanthrene	10.69	178	1203605	51.06758	ppb		99
75)	Anthracene	10.75	178	1268023	51.24502	ppb		100
76)	Carbazol	10.94	167	1154451	51.84072	ppb		100
77)	Di-n-butylphthalate	11.33	149	1550566	53.46784	ppb	#	98
78)	2-Nitrodiphenylamine	11.51	167	187833	27.25885	ppb		99
79)	Fluoranthene	12.08	202	1494235	52.09684	ppb		99
81)	Benzidine	12.23	184	71385	9.38749	ppb		99
82)	Pyrene	12.35	202	1555591	49.95713	ppb		100
84)	Butyl benzylphthalate	13.09	149	738067	52.21673	ppb		99
85)	3,3'-Dichlorobenzidine	13.70	252	571991	61.19074	ppb	#	97
86)	Benz (a) anthracene	13.74	228	1688421	49.44964	ppb		100
87)	Bis (2-ethylhexyl) phthala	13.75	149	1215094	55.91969	ppb		99
88)	Chrysene	13.79	228	1498662	49.26762	ppb		100
89)	Di-n-octylphthalate	14.51	149	1798749	52.80317	ppb		98
91)	Benzo (b) fluoranthene	15.07	252	1538723	52.00932	ppb		99
92)	Benzo (k) fluoranthene	15.10	252	1440477	52.84451	ppb	#	99
93)	Benzo (a) pyrene	15.54	252	1383860	52.38459	ppb		99
94)	Indeno (1,2,3-cd) pyrene	17.53	276	1586518	50.58391	ppb		98
95)	Dibenz (a,h) anthracene	17.57	278	1407996	50.89516	ppb		99
96)	Benzo (g,h,i) perylene	18.11	276	1245326	49.87369	ppb		98

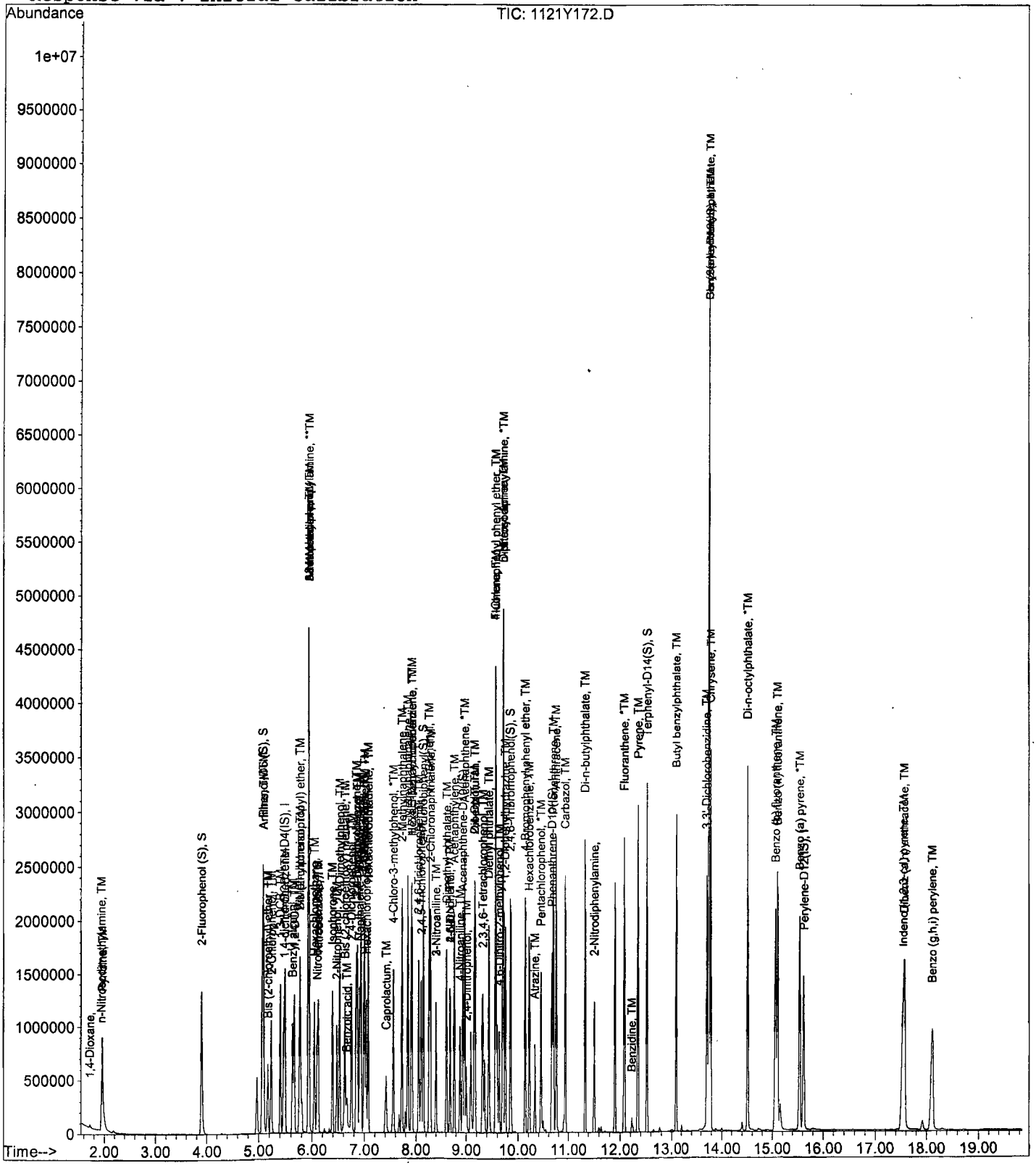
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y191121\1121Y172.D Vial: 72
Acq On : 27 Nov 19 5:11 Operator: MA,SS
Sample : 50ug/ml 8270 11/21/19 (2) Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 27 7:32 2019 Quant Results File: Y1121ND.RES

Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 18:04:15 2019
Response via : Initial Calibration



ORGANICS
Raw Data

Quantitation Report (QT Reviewed)

Data File : M:\YODA\DATA\Y191121\1121Y161.D Vial: 61
Acq On : 26 Nov 19 00:05 Operator: MA,SS
Sample : BA02214W21 2/800 Inst : Yoda
Misc : Multiplr: 1.25

Quant Time: Dec 3 12:01 2019 Quant Results File: Y1121ND.RES

Quant Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 18:04:15 2019
Response via : Initial Calibration
DataAcq Meth : SVOC1011

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.47	152	148432	40.00000 ppb	0.00
21) Napthalene-D8(IS)	6.91	136	599932	40.00000 ppb	0.00
41) Acenaphthene-D10(IS)	8.93	164	430429	40.00000 ppb	0.00
65) Phenanthrene-D10(IS)	10.66	188	884188	40.00000 ppb	0.00
80) Chrysene-D12(IS)	13.75	240	863999	40.00000 ppb	0.00
90) Perylene-D12(IS)	15.61	264	905811	40.00000 ppb	0.00
System Monitoring Compounds					
5) 2-Fluorophenol (S)	3.91	112	1010980	244.49478 ppb	0.00
Spiked Amount 250.000			Recovery	= 97.798%	
6) Phenol-D6 (S)	5.08	99	1309371	265.93766 ppb	0.00
Spiked Amount 250.000			Recovery	= 106.375%	
22) Nitrobenzene-D5(S)	6.09	82	723677	133.79951 ppb	0.00
Spiked Amount 125.000			Recovery	= 107.040%	
46) 2-Fluorobiphenyl(S)	8.14	172	1450442	112.66101 ppb	0.00
Spiked Amount 125.000			Recovery	= 90.129%	
64) 2,4,6-Tribromophenol(S)	9.85	330	595112	225.92629 ppb	0.00
Spiked Amount 250.000			Recovery	= 90.370%	
83) Terphenyl-D14(S)	12.52	244	2140998	123.89538 ppb	0.00
Spiked Amount 125.000			Recovery	= 99.116%	

Target Compounds Qvalue

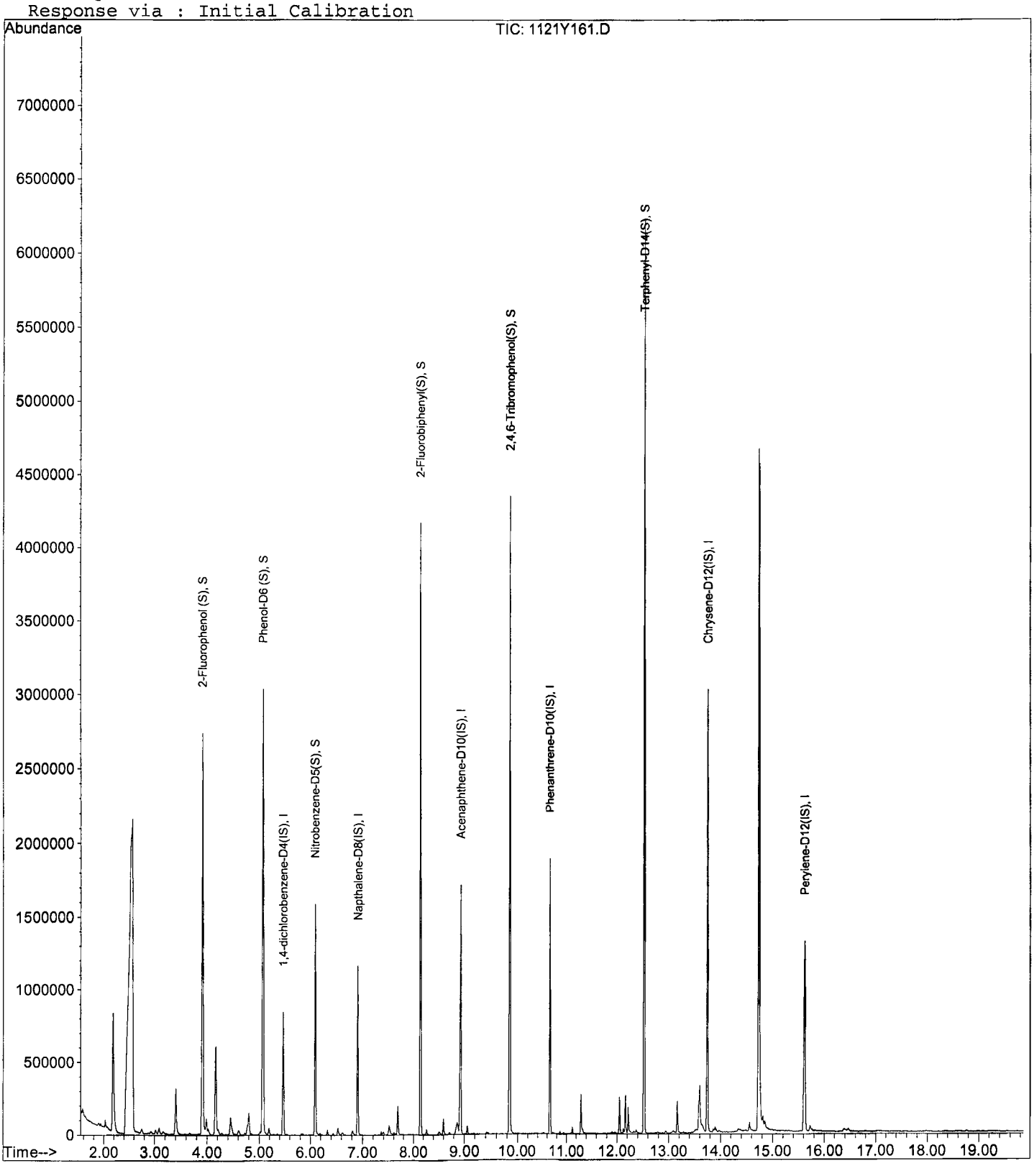
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y191121\1121Y161.D Vial: 61
Acq On : 26 Nov 19 00:05 Operator: MA,SS
Sample : BA02214W21 2/800 Inst : Yoda
Misc : Multiplr: 1.25

Quant Time: Dec 3 12:01 2019 Quant Results File: Y1121ND.RES

Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 18:04:15 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\YODA\DATA\Y191121\1121Y162.D Vial: 62
Acq On : 26 Nov 19 00:33 Operator: MA,SS
Sample : BA02216W13 2/800 Inst : Yoda
Misc : Multiplr: 1.25

Quant Time: Dec 3 12:02 2019 Quant Results File: Y1121ND.RES

Quant Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 18:04:15 2019
Response via : Initial Calibration
DataAcq Meth : SVOC1011

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.47	152	161584	40.00000 ppb	0.00
21) Napthalene-D8(IS)	6.91	136	653387	40.00000 ppb	0.00
41) Acenaphthene-D10(IS)	8.93	164	449264	40.00000 ppb	0.00
65) Phenanthrene-D10(IS)	10.66	188	904520	40.00000 ppb	0.00
80) Chrysene-D12(IS)	13.75	240	967889	40.00000 ppb	0.00
90) Perylene-D12(IS)	15.61	264	949819	40.00000 ppb	0.00
System Monitoring Compounds					
5) 2-Fluorophenol (S)	3.91	112	999222	221.98223 ppb	0.00
Spiked Amount 250.000			Recovery =	88.793%	
6) Phenol-D6 (S)	5.08	99	1278912	238.60909 ppb	0.00
Spiked Amount 250.000			Recovery =	95.444%	
22) Nitrobenzene-D5(S)	6.09	82	742204	125.99827 ppb	0.00
Spiked Amount 125.000			Recovery =	100.798%	
46) 2-Fluorobiphenyl(S)	8.14	172	1473413	109.64724 ppb	0.00
Spiked Amount 125.000			Recovery =	87.718%	
64) 2,4,6-Tribromophenol(S)	9.85	330	605242	220.13902 ppb	0.00
Spiked Amount 250.000			Recovery =	88.056%	
83) Terphenyl-D14(S)	12.52	244	2133990	110.23485 ppb	0.00
Spiked Amount 125.000			Recovery =	88.188%	

Target Compounds Qvalue

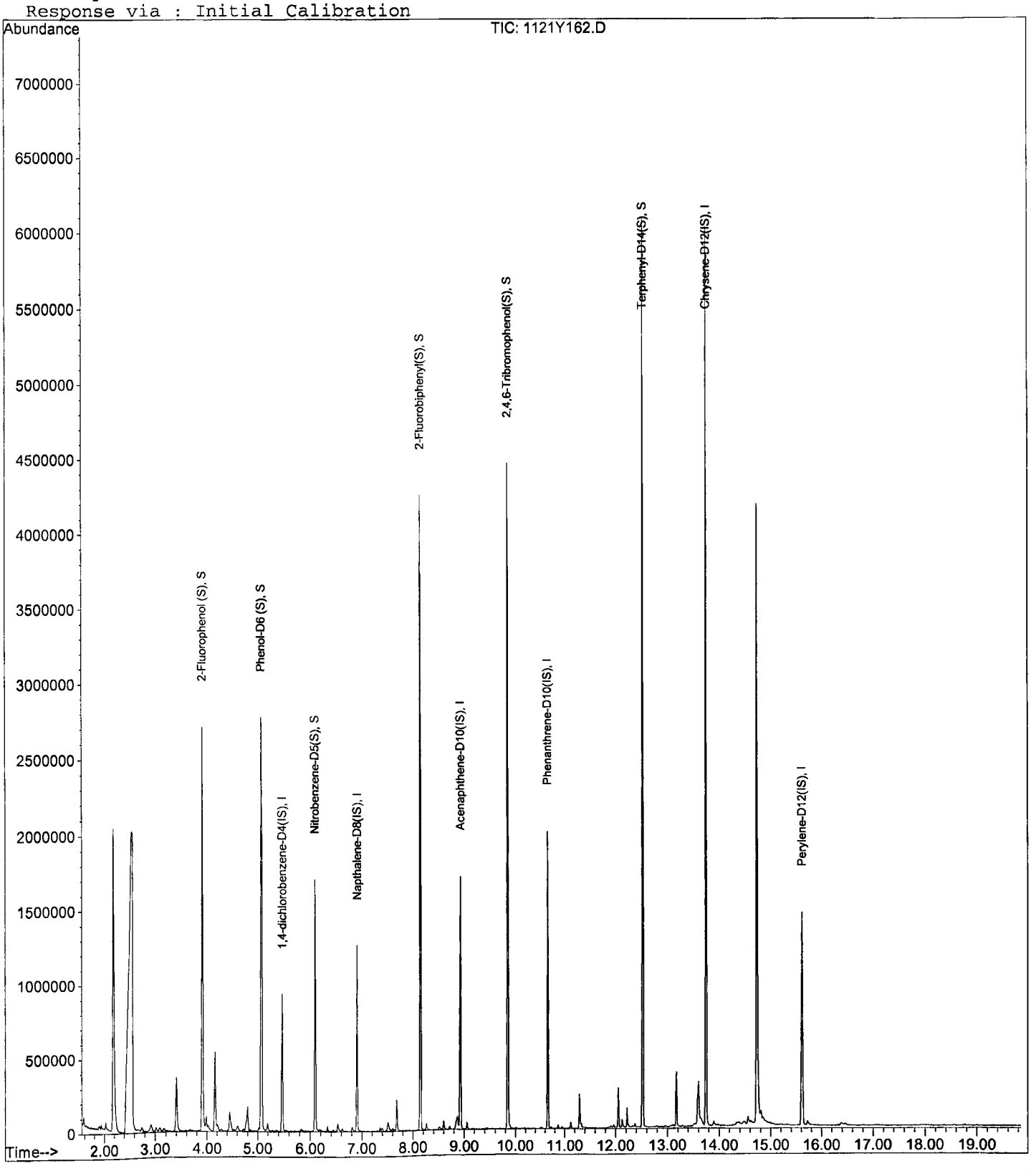
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y191121\1121Y162.D Vial: 62
Acq On : 26 Nov 19 00:33 Operator: MA,SS
Sample : BA02216W13 2/800 Inst : Yoda
Misc : Multiplr: 1.25

Quant Time: Dec 3 12:02 2019 Quant Results File: Y1121ND.RES

Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 18:04:15 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\YODA\DATA\Y191121\1121Y155.D Vial: 55
Acq On : 26 Nov 19 21:18 Operator: MA,SS
Sample : 191104A BLK 2/800 Inst : Yoda
Misc : Multiplr: 1.25

Quant Time: Dec 3 11:53 2019 Quant Results File: Y1121ND.RES

Quant Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 18:04:15 2019
Response via : Initial Calibration
DataAcq Meth : SVOC1011

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.47	152	174092	40.00000 ppb	0.00
21) Napthalene-D8(IS)	6.91	136	683374	40.00000 ppb	0.00
41) Acenaphthene-D10(IS)	8.93	164	442513	40.00000 ppb	0.00
65) Phenanthrene-D10(IS)	10.66	188	890536	40.00000 ppb	0.00
80) Chrysene-D12(IS)	13.75	240	909385	40.00000 ppb	0.00
90) Perylene-D12(IS)	15.62	264	920577	40.00000 ppb	0.00
System Monitoring Compounds					
5) 2-Fluorophenol (S)	3.91	112	1025276	211.40563 ppb	0.00
Spiked Amount 250.000			Recovery =	84.562%	
6) Phenol-D6 (S)	5.07	99	1306134	226.17968 ppb	-0.01
Spiked Amount 250.000			Recovery =	90.472%	
22) Nitrobenzene-D5(S)	6.09	82	731731	118.76946 ppb	-0.01
Spiked Amount 125.000			Recovery =	95.015%	
46) 2-Fluorobiphenyl(S)	8.14	172	1480607	111.86355 ppb	0.00
Spiked Amount 125.000			Recovery =	89.491%	
64) 2,4,6-Tribromophenol(S)	9.85	330	609236	224.97233 ppb	0.00
Spiked Amount 250.000			Recovery =	89.989%	
83) Terphenyl-D14(S)	12.52	244	2189854	120.39805 ppb	0.00
Spiked Amount 125.000			Recovery =	96.318%	

Target Compounds Qvalue

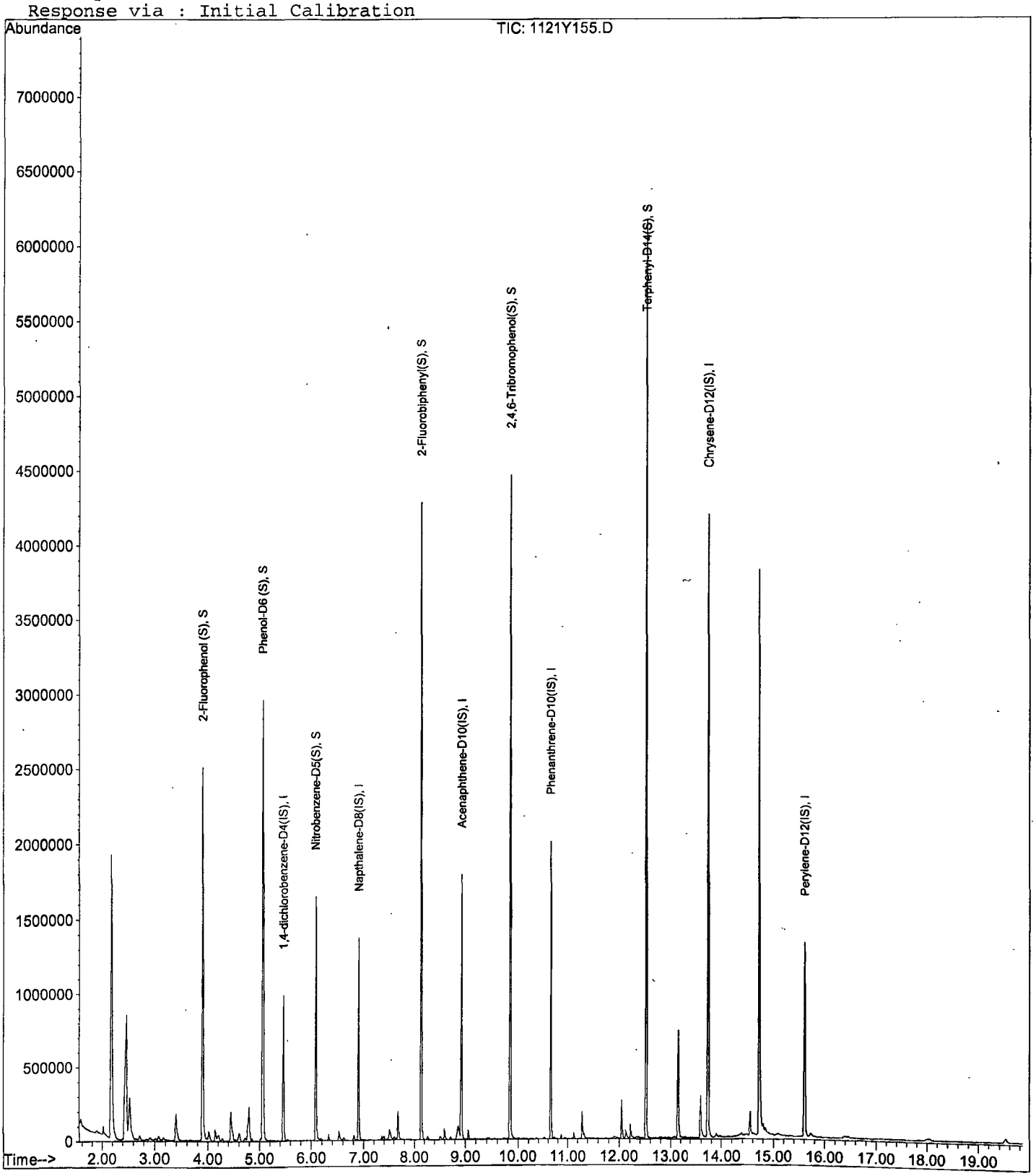
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y191121\1121Y155.D Vial: 55
Acq On : 26 Nov 19 21:18 Operator: MA,SS
Sample : 191104A BLK 2/800 Inst : Yoda
Misc : Multiplr: 1.25

Quant Time: Dec 3 11:53 2019 Quant Results File: Y1121ND.RES

Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 18:04:15 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y191121\1121Y156.D Vial: 56
Acq On : 26 Nov 19 21:46 Operator: MA,SS
Sample : 191104A LCS-1 2/800 Inst : Yoda
Misc : Multiplr: 1.25

Quant Time: Nov 27 8:02 2019 Quant Results File: Y1121ND.RES

Quant Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 18:04:15 2019
Response via : Initial Calibration
DataAcq Meth : SVOC1011

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.47	152	150012	40.00000 ppb		0.00
21) Napthalene-D8(IS)	6.91	136	600754	40.00000 ppb		0.00
41) Acenaphthene-D10(IS)	8.93	164	417278	40.00000 ppb		0.00
65) Phenanthrene-D10(IS)	10.67	188	853592	40.00000 ppb		0.00
80) Chrysene-D12(IS)	13.76	240	1179958	40.00000 ppb		0.00
90) Perylene-D12(IS)	15.62	264	888601	40.00000 ppb		0.00
System Monitoring Compounds						
5) 2-Fluorophenol (S)	3.91	112	1002367	239.85862 ppb		0.00
Spiked Amount 250.000			Recovery	= 95.944%		
6) Phenol-D6 (S)	5.08	99	1297655	260.78218 ppb		0.00
Spiked Amount 250.000			Recovery	= 104.313%		
22) Nitrobenzene-D5(S)	6.10	82	686931	126.83182 ppb		0.00
Spiked Amount 125.000			Recovery	= 101.466%		
46) 2-Fluorobiphenyl(S)	8.15	172	1377704	110.38378 ppb		0.00
Spiked Amount 125.000			Recovery	= 88.307%		
64) 2,4,6-Tribromophenol(S)	9.86	330	590841	231.37409 ppb		0.00
Spiked Amount 250.000			Recovery	= 92.550%		
83) Terphenyl-D14(S)	12.52	244	2043176	86.57476 ppb		0.00
Spiked Amount 125.000			Recovery	= 69.260%		
Target Compounds						Qvalue
2) 1,4-Dioxane	1.72	58	8724	6.26157		97
3) n-Nitrosodimethylamine	1.94	42	170662	80.72067 ppb		98
4) Pyridine	1.97	79	257399	49.22609 ppb		99
7) Phenol	5.10	94	409296	69.64817 ppb		89
8) Aniline	5.10	93	64712	18.64812 ppb	#	1
9) Bis (2-chloroethyl) ether	5.17	63	188247	74.98262 ppb		93
10) 2-Chlorophenol	5.24	128	309646	69.57921 ppb		94
11) 1,3-DCB	5.40	146	297762	59.05260 ppb		98
12) 1,4-DCB	5.49	146	305086	59.55317 ppb		97
13) Benzyl alcohol	5.64	108	177530	70.17148 ppb		96
14) 1,2-DCB	5.66	146	290793	60.76032 ppb		97
15) 2-Methylphenol	5.77	107	268820	74.57417 ppb		97
16) Bis (2-chloroisopropyl) et	5.78	45	225958	80.53850 ppb	#	68
17) Acetophenone	5.92	105	481917	74.36121 ppb		82
18) 3&4-Methylphenol	5.94	107	717426	145.10880 ppb		100
19) n-Nitrosodi-n-propylamine	5.93	70	283826	76.87983 ppb		96
20) Hexachloroethane	6.04	117	111182	54.71234 ppb		92
23) Nitrobenzene	6.12	77	415854	75.09896 ppb		97
24) Isophorone	6.39	82	643393	71.67227 ppb		95
25) 2-Nitrophenol	6.48	139	177235	69.99230 ppb		97
26) 2,4-Dimethylphenol	6.53	122	279024	70.73922 ppb		99
27) Benzoic acid	6.68	105	280628	75.67835 ppb		99
28) Bis (2-chloroethoxy) metha	6.63	93	334094	69.02460 ppb		98
29) 2,4-Dichlorophenol	6.76	162	279403	68.79353 ppb		98
30) 1,2,4-Trichlorobenzene	6.84	180	280779	59.73803 ppb		96
31) 3,4-Dimethylphenol	6.86	107	457727	71.77792 ppb		99
32) Naphthalene	6.94	128	858639	66.32643 ppb		100
33) 4-Chloroaniline	7.00	127	27505	6.03026 ppb	#	78
34) 2,6-Dichlorophenol	7.00	162	268048	68.15580 ppb		96
35) Hexachloropropene	7.04	213	88439	21.61518 ppb		99
36) Hexachlorobutadiene	7.07	225	167393	50.43190 ppb		99
37) Caprolactum	7.41	55	109970	77.03415 ppb		89

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y191121\1121Y156.D Vial: 56
Acq On : 26 Nov 19 21:46 Operator: MA,SS
Sample : 191104A LCS-1 2/800 Inst : Yoda
Misc : Multiplr: 1.25

Quant Time: Nov 27 8:02 2019 Quant Results File: Y1121ND.RES

Quant Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 18:04:15 2019
Response via : Initial Calibration
DataAcq Meth : SVOC1011

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
38)	4-Chloro-3-methylphenol	7.56	107	331132	72.25616	ppb		91
39)	2-Methylnaphthalene	7.72	142	584393	66.23743	ppb		99
40)	1-Methylnaphthalene	7.84	142	616888	67.62934	ppb		100
42)	Hexachlorocyclopentadiene	7.91	237	53200	12.54483	ppb		98
43)	1,2,4,5-Tetrachlorobenzene	7.92	216	328401	55.98081	ppb		100
44)	2,4,6-Trichlorophenol	8.06	196	234961	62.90820	ppb		97
45)	2,4,5-Trichlorophenol	8.10	196	243042	61.11922	ppb	#	87
47)	1,1'-Biphenyl	8.26	154	779609	61.44749	ppb		99
48)	2-Chloronaphthalene	8.29	162	630149	60.69636	ppb		99
49)	2-Nitroaniline	8.40	65	142393	43.26962	ppb		95
50)	Dimethyl phthalate	8.62	163	843658	66.53970	ppb		100
51)	2,6-DNT	8.69	165	183119	64.58068	ppb		80
52)	Acenaphthylene	8.76	152	952252	59.67780	ppb		100
53)	3-Nitroaniline	8.40	138	128039	39.34634	ppb		99
54)	Acenaphthene	8.97	154	623609	57.81003	ppb		99
55)	2,4-Dinitrophenol	9.01	184	93422	49.30911	ppb		94
56)	4-Nitrophenol	8.68	65	14681	70.70049	ppb		99
57)	Dibenzofuran	9.17	168	924809	61.47125	ppb		99
58)	2,4-DNT	9.15	165	257623	63.90244	ppb		84
59)	2,3,4,6-Tetrachlorophenol	9.32	232	209573	62.38146	ppb		98
60)	Diethyl phthalate	9.43	149	843289	65.17140	ppb		95
61)	4-Chlorophenyl phenyl ethe	9.56	204	462757	62.51371	ppb	#	84
62)	Fluorene	9.57	166	810454	64.26002	ppb		99
63)	4-Nitroaniline	8.88	138	28838	11.13850	ppb		99
66)	4,6-Dinitro-2-methylphenol	9.64	198	135350	47.83571	ppb		95
67)	Diphenyl amine	9.71	169	796279	75.89789	ppb		99
68)	n-Nitrosodiphenylamine	9.71	169	796279	75.89789	ppb		99
69)	1,2-Diphenylhydrazine	9.75	77	649736	50.04042	ppb	#	85
70)	4-Bromophenyl phenyl ether	10.14	248	270202	59.62638	ppb		99
71)	Hexachlorobenzene	10.21	284	266763	55.70081	ppb	#	75
72)	Atrazine	10.32	200	34598	8.66086	ppb		97
73)	Pentachlorophenol	10.44	266	183001	58.82004	ppb		99
74)	Phenanthrene	10.69	178	1114472	60.30508	ppb		100
75)	Anthracene	10.75	178	1127153	58.09394	ppb		100
76)	Carbazol	10.94	167	961828	55.08285	ppb		99
77)	Di-n-butylphthalate	11.34	149	1461171	64.25795	ppb		99
78)	2-Nitrodiphenylamine	11.51	167	7435	1.37607	ppb		97
79)	Fluoranthene	12.08	202	1366910	60.77933	ppb		99
82)	Pyrene	12.35	202	1389313	48.45367	ppb		100
84)	Butyl benzylphthalate	13.09	149	664662	51.06687	ppb		97
85)	3,3'-Dichlorobenzidine	13.70	252	30928	3.59313	ppb		98
86)	Benz (a) anthracene	13.74	228	1530981	48.69414	ppb		100
87)	Bis (2-ethylhexyl) phthala	13.76	149	3442060	172.02748	ppb	#	92
88)	Chrysene	13.79	228	1329301	47.45759	ppb		100
89)	Di-n-octylphthalate	14.51	149	1687020	53.78166	ppb		96
91)	Benzo (b) fluoranthene	15.07	252	1377259	61.26823	ppb		99
92)	Benzo (k) fluoranthene	15.10	252	1255218	60.60545	ppb	#	98
93)	Benzo (a) pyrene	15.54	252	1162989	57.94100	ppb		99
94)	Indeno (1,2,3-cd) pyrene	17.53	276	1403478	58.89413	ppb		98
95)	Dibenz (a,h) anthracene	17.57	278	1245481	59.25312	ppb		99
96)	Benzo (g,h,i) perylene	18.11	276	1109564	58.48437	ppb		100

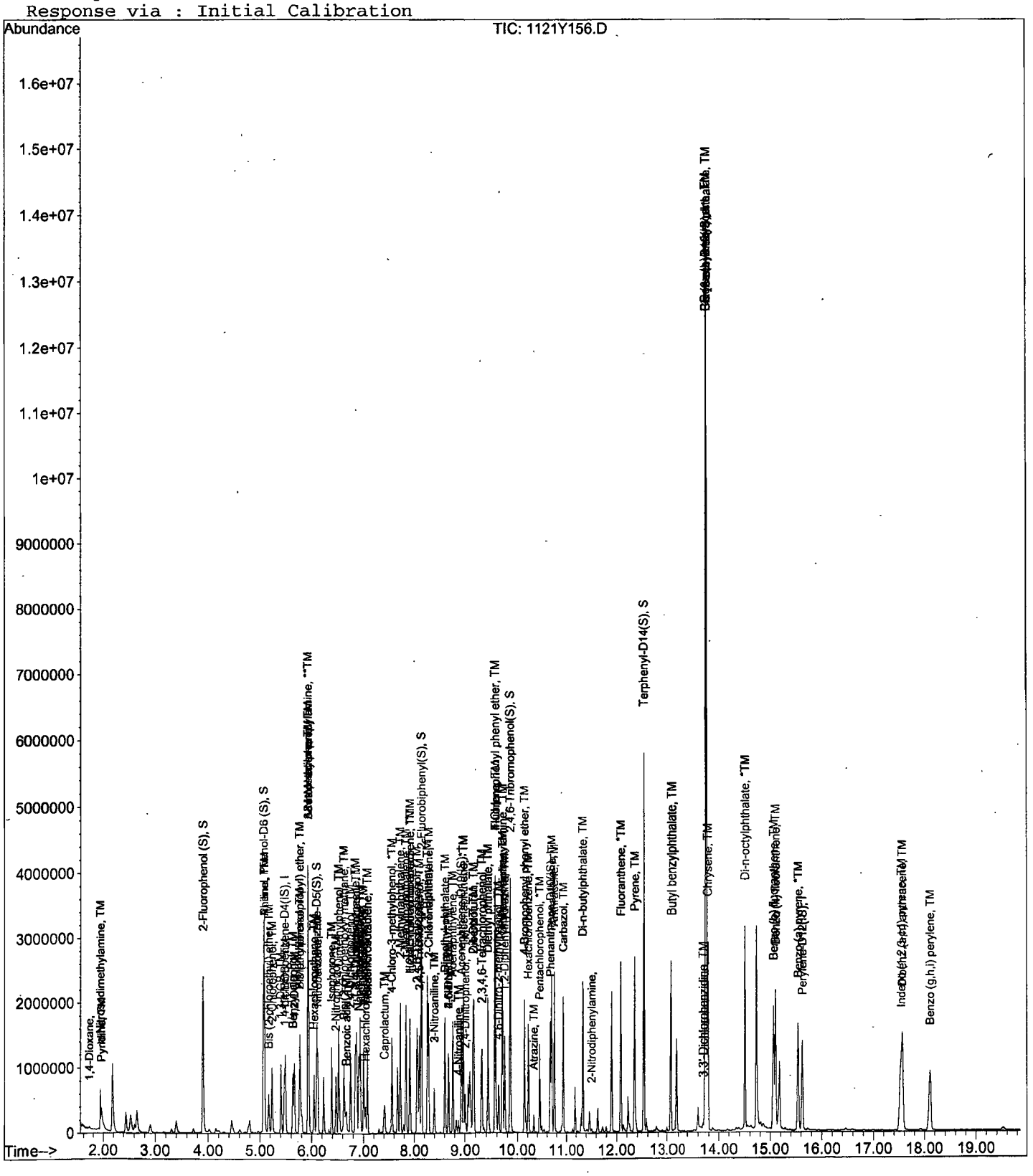
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y191121\1121Y156.D Vial: 56
Acq On : 26 Nov 19 21:46 Operator: MA,SS
Sample : 191104A LCS-1 2/800 Inst : Yoda
Misc : Multiplr: 1.25

Quant Time: Nov 27 8:02 2019 Quant Results File: Y1121ND.RES

Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 18:04:15 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y191121\1121Y157.D Vial: 57
Acq On : 26 Nov 19 22:14 Operator: MA,SS
Sample : 191104A LCSD-1 2/800 Inst : Yoda
Misc : Multiplr: 1.25

Quant Time: Nov 27 8:02 2019 Quant Results File: Y1121ND.RES

Quant Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 18:04:15 2019
Response via : Initial Calibration
DataAcq Meth : SVOC1011

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.47	152	138243	40.00000 ppb		0.00
21) Napthalene-D8(IS)	6.91	136	560201	40.00000 ppb		0.00
41) Acenaphthene-D10(IS)	8.93	164	405413	40.00000 ppb		0.00
65) Phenanthrene-D10(IS)	10.66	188	822436	40.00000 ppb		0.00
80) Chrysene-D12(IS)	13.75	240	1006521	40.00000 ppb		0.00
90) Perylene-D12(IS)	15.63	264	875772	40.00000 ppb		0.01
System Monitoring Compounds						
5) 2-Fluorophenol (S)	3.90	112	989505	256.93864 ppb		0.00
Spiked Amount 250.000			Recovery	= 102.776%		
6) Phenol-D6 (S)	5.08	99	1297791	283.01293 ppb		0.00
Spiked Amount 250.000			Recovery	= 113.205%		
22) Nitrobenzene-D5(S)	6.10	82	680099	134.66044 ppb		0.00
Spiked Amount 125.000			Recovery	= 107.728%		
46) 2-Fluorobiphenyl(S)	8.14	172	1344694	110.89210 ppb		0.00
Spiked Amount 125.000			Recovery	= 88.714%		
64) 2,4,6-Tribromophenol(S)	9.86	330	569779	229.65630 ppb		0.00
Spiked Amount 250.000			Recovery	= 91.862%		
83) Terphenyl-D14(S)	12.53	244	2014105	100.04868 ppb		0.00
Spiked Amount 125.000			Recovery	= 80.039%		
Target Compounds						Qvalue
2) 1,4-Dioxane	1.71	58	8448	6.57968		100
3) n-Nitrosodimethylamine	1.94	42	165355	84.86881 ppb		93
4) Pyridine	1.96	79	346814	71.97273 ppb		97
7) Phenol	5.09	94	425312	78.53490 ppb		90
8) Aniline	5.09	93	203328	63.58141 ppb	#	47
9) Bis (2-chloroethyl) ether	5.17	63	186617	80.66156 ppb		96
10) 2-Chlorophenol	5.24	128	306127	74.64462 ppb		96
11) 1,3-DCB	5.41	146	288569	62.10153 ppb		99
12) 1,4-DCB	5.49	146	299212	63.37887 ppb		97
13) Benzyl alcohol	5.63	108	181662	77.91764 ppb		87
14) 1,2-DCB	5.66	146	286588	64.97959 ppb		98
15) 2-Methylphenol	5.77	107	261593	78.74733 ppb		96
16) Bis (2-chloroisopropyl) et	5.78	45	224359	86.77650 ppb	#	82
17) Acetophenone	5.93	105	479129	80.22496 ppb		86
18) 3&4-Methylphenol	5.94	107	706210	155.00059 ppb		97
19) n-Nitrosodi-n-propylamine	5.94	70	283204	83.24199 ppb		97
20) Hexachloroethane	6.05	117	110262	58.87888 ppb		84
23) Nitrobenzene	6.12	77	409995	79.40071 ppb		100
24) Isophorone	6.39	82	645078	77.06192 ppb		96
25) 2-Nitrophenol	6.47	139	175265	74.22475 ppb		85
26) 2,4-Dimethylphenol	6.53	122	250472	68.09742 ppb		98
27) Benzoic acid	6.67	105	246747	71.62861 ppb		98
28) Bis (2-chloroethoxy) metha	6.62	93	338600	75.01964 ppb		98
29) 2,4-Dichlorophenol	6.75	162	275636	72.77886 ppb		95
30) 1,2,4-Trichlorobenzene	6.84	180	275337	62.82082 ppb		98
31) 3,4-Dimethylphenol	6.86	107	454029	76.35205 ppb		98
32) Naphthalene	6.94	128	860465	71.27907 ppb		99
33) 4-Chloroaniline	6.99	127	174399	41.00349 ppb		99
34) 2,6-Dichlorophenol	7.00	162	266739	72.73268 ppb		96
35) Hexachloropropene	7.03	213	93007	24.37718 ppb		99
36) Hexachlorobutadiene	7.08	225	168655	54.49040 ppb		100
37) Caprolactum	7.41	55	113079	84.94617 ppb		96

(#) = qualifier out of range (m) = manual integration

Data File : M:\YODA\DATA\Y191121\1121Y157.D Vial: 57
Acq On : 26 Nov 19 22:14 Operator: MA,SS
Sample : 191104A LCSD-1 2/800 Inst : Yoda
Misc : Multiplr: 1.25

Quant Time: Nov 27 8:02 2019 Quant Results File: Y1121ND.RES

Quant Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 18:04:15 2019
Response via : Initial Calibration
DataAcq Meth : SVOC1011

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
38)	4-Chloro-3-methylphenol	7.56	107	326475	76.39703 ppb		96
39)	2-Methylnaphthalene	7.73	142	585352	71.14892 ppb		100
40)	1-Methylnaphthalene	7.84	142	600381	70.58437 ppb		99
42)	Hexachlorocyclopentadiene	7.91	237	46872	11.37613 ppb		98
43)	1,2,4,5-Tetrachlorobenzene	7.92	216	325126	57.04456 ppb		98
44)	2,4,6-Trichlorophenol	8.05	196	230717	63.57976 ppb		98
45)	2,4,5-Trichlorophenol	8.11	196	239542	62.00204 ppb		95
47)	1,1'-Biphenyl	8.27	154	774901	62.86391 ppb		99
48)	2-Chloronaphthalene	8.29	162	617692	61.23775 ppb		99
49)	2-Nitroaniline	8.40	65	218647	68.38578 ppb		98
50)	Dimethyl phthalate	8.61	163	841414	68.30492 ppb		99
51)	2,6-DNT	8.68	165	179924	65.31097 ppb		98
52)	Acenaphthylene	8.77	152	968358	62.46327 ppb		99
53)	3-Nitroaniline	8.40	138	198901	62.91104 ppb		99
54)	Acenaphthene	8.97	154	666328	63.57797 ppb		99
55)	2,4-Dinitrophenol	9.01	184	91626	49.77652 ppb		99
56)	4-Nitrophenol	8.68	65	14571	72.22440 ppb		100
57)	Dibenzofuran	9.17	168	922162	63.08920 ppb		98
58)	2,4-DNT	9.16	165	255374	65.19845 ppb		95
59)	2,3,4,6-Tetrachlorophenol	9.31	232	203597	62.37627 ppb	#	91
60)	Diethyl phthalate	9.43	149	818199	65.08297 ppb		96
61)	4-Chlorophenyl phenyl ethe	9.56	204	456413	63.46117 ppb		89
62)	Fluorene	9.57	166	795776	64.94282 ppb		100
63)	4-Nitroaniline	8.88	138	136446	54.24381 ppb		96
66)	4,6-Dinitro-2-methylphenol	9.64	198	136332	50.00806 ppb		94
67)	Diphenyl amine	9.71	169	1225625	121.24679 ppb		99
68)	n-Nitrosodiphenylamine	9.71	169	1225625	121.24679 ppb		99
69)	1,2-Diphenylhydrazine	9.75	77	829947	66.34109 ppb		88
70)	4-Bromophenyl phenyl ether	10.14	248	261807	59.96245 ppb		95
71)	Hexachlorobenzene	10.21	284	267387	57.94613 ppb	#	82
72)	Atrazine	10.33	200	96546	25.08376 ppb		97
73)	Pentachlorophenol	10.45	266	176286	58.80820 ppb		98
74)	Phenanthrene	10.70	178	1088739	61.14441 ppb		99
75)	Anthracene	10.75	178	1136847	60.81325 ppb		99
76)	Carbazol	10.94	167	1052079	62.53391 ppb		99
77)	Di-n-butylphthalate	11.34	149	1447537	66.06991 ppb		98
78)	2-Nitrodiphenylamine	11.51	167	5706	1.09607 ppb		94
79)	Fluoranthene	12.08	202	1327524	61.26417 ppb		100
81)	Benzidine	12.23	184	28664	4.79896 ppb	#	94
82)	Pyrene	12.35	202	1393214	56.96238 ppb		100
84)	Butyl benzylphthalate	13.08	149	663043	59.72055 ppb		79
85)	3,3'-Dichlorobenzidine	13.70	252	357212	48.65089 ppb		97
86)	Benz (a) anthracene	13.74	228	1494248	55.71515 ppb		100
87)	Bis (2-ethylhexyl) phthala	13.75	149	1708731	100.11446 ppb		98
88)	Chrysene	13.79	228	1310591	54.85210 ppb		99
89)	Di-n-octylphthalate	14.51	149	1643179	61.41048 ppb		99
91)	Benzo (b) fluoranthene	15.07	252	1451844	65.53230 ppb		100
92)	Benzo (k) fluoranthene	15.11	252	1161209	56.88774 ppb		99
93)	Benzo (a) pyrene	15.54	252	1178813	59.58968 ppb		98
94)	Indeno (1,2,3-cd) pyrene	17.54	276	1403370	59.75226 ppb		99
95)	Dibenz (a,h) anthracene	17.56	278	1249306	60.30574 ppb		98
96)	Benzo (g,h,i) perylene	18.11	276	1104140	59.05101 ppb		99

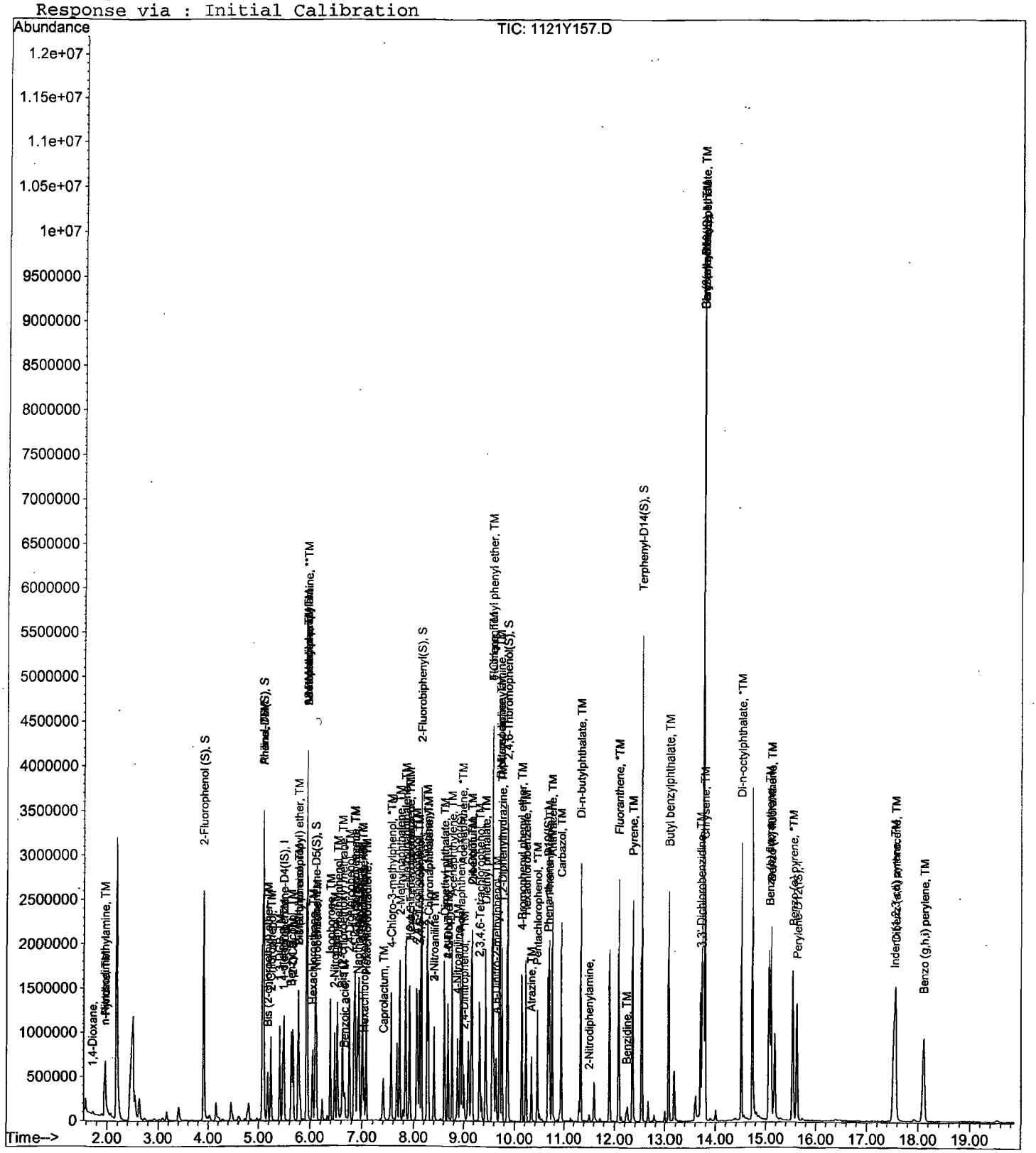
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y191121\1121Y157.D Vial: 57
Acq On : 26 Nov 19 22:14 Operator: MA,SS
Sample : 191104A LCSD-1 2/800 Inst : Yoda
Misc : Multiplr: 1.25

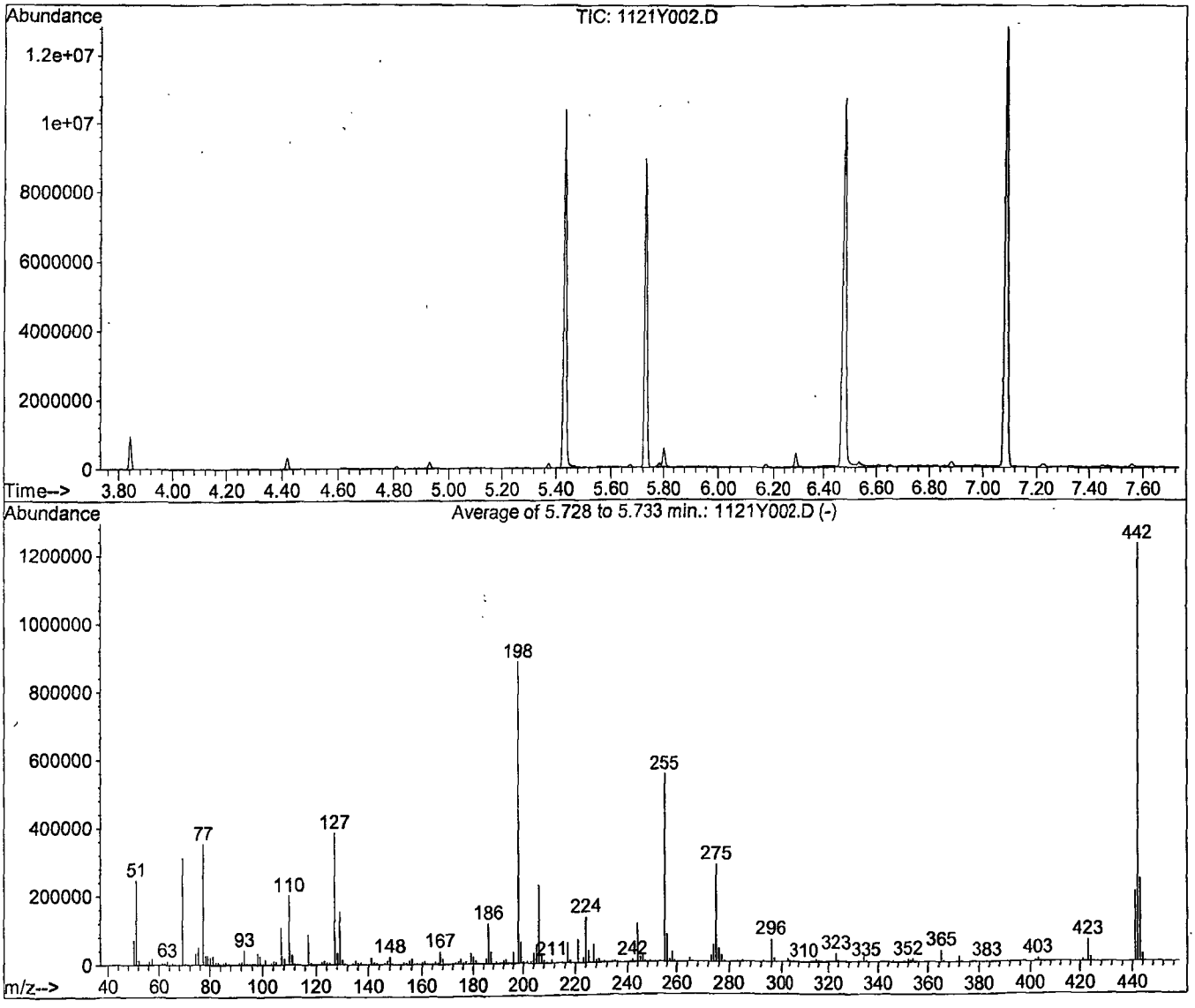
Quant Time: Nov 27 8:02 2019 Quant Results File: Y1121ND.RES

Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 18:04:15 2019
Response via : Initial Calibration



Data File : M:\YODA\DATA\Y191121\1121Y002.D Vial: 2
Acq On : 21 Nov 19 13:52 Operator: MA,SS
Sample : SV TUNE 10/01/19 Inst : Yoda
Misc : Multiplr: 1.00

Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C



Spectrum Information: Average of 5.728 to 5.733 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	27.9	246367	PASS
68	69	0.00	2	0.0	0	PASS
70	69	0.00	2	0.7	2239	PASS
127	198	10	80	43.6	385771	PASS
197	198	0.00	2	0.0	0	PASS
198	198	100	100	100.0	884437	PASS
199	198	5	9	6.9	61053	PASS
275	198	10	60	32.2	284928	PASS
365	198	1	100	3.9	34467	PASS
441	442	0.01	24	16.6	205141	PASS
442	198	50	500	139.4	1232555	PASS
443	442	15	24	19.7	243243	PASS

Data File Name:	**1121Y002.D**
Data File Path:	**M:\YODA\DATA\Y191121**
Operator:	**MA,SS**
Date Acquired:	**21 Nov 2019 13:52**
Method File:	**DFTPP2.M**
Sample Name:	**SV TUNE 10/01/19**
Vial Number:	**2**
Instrument Name:	**Yoda**

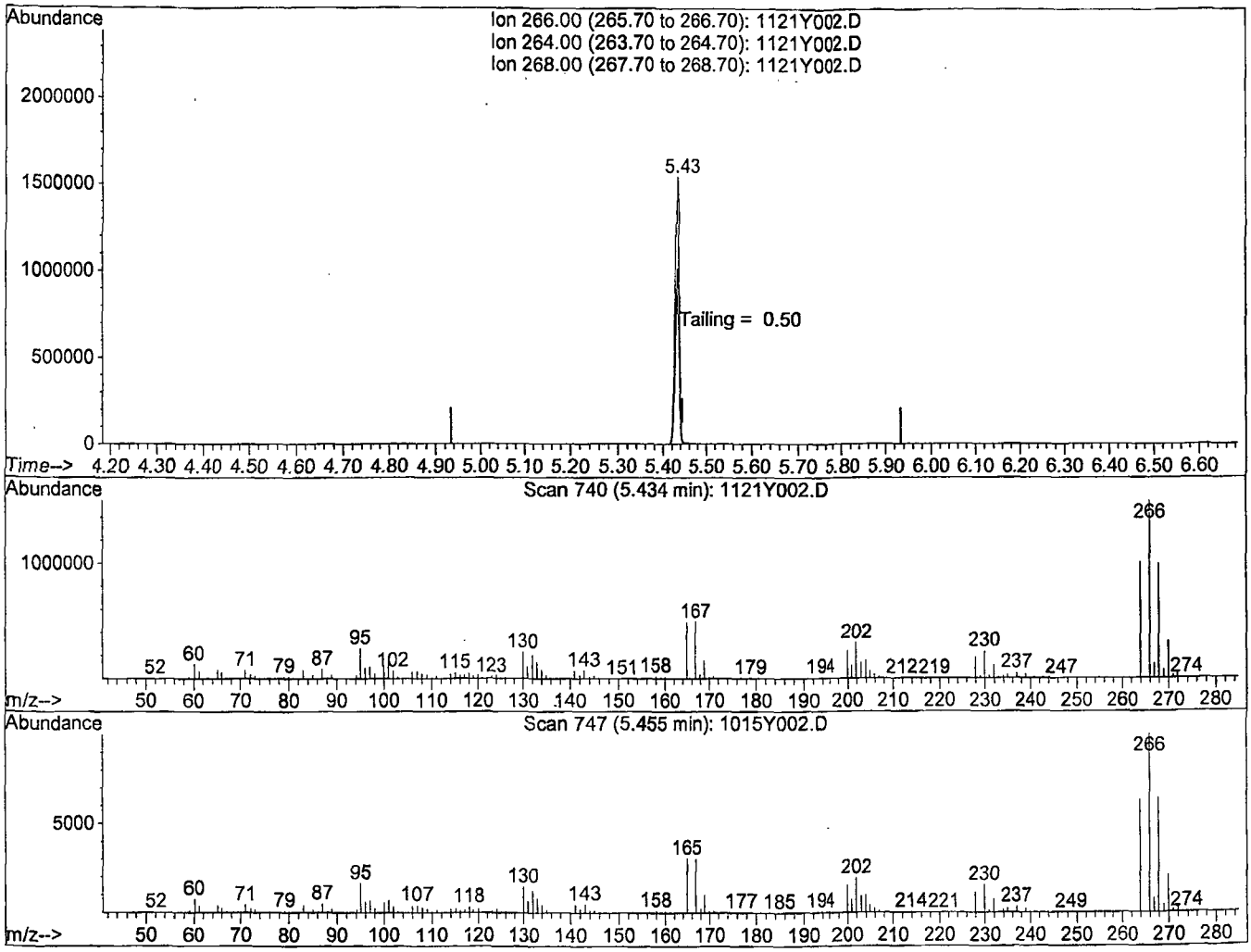
#	Name	Ret Time	Target Response
1)	DDT	7.09	103687000
2)	DDD	6.88	1239160
3)	DDE	6.61	214961

Breakdown **1.38**

Quantitation Report

Data File : M:\YODA\DATA\Y191121\1121Y002.D Vial: 2
Acq On : 21 Nov 19 13:52 Operator: MA,SS
Sample : SV TUNE 10/01/19 Inst : Yoda
Misc : Multiplr: 1.00
Quant Time: Nov 25 11:35 2019 Quant Results File: temp.res

Method : M:\YODA\DATA\Y191121\DFTPP2.M (Chemstation Integrator)
Title :
Last Update : Mon Nov 25 11:35:23 2019
Response via : Single Level Calibration



TIC: 1121Y002.D

(5) Pentachlorophenol

5.43min 0.0000

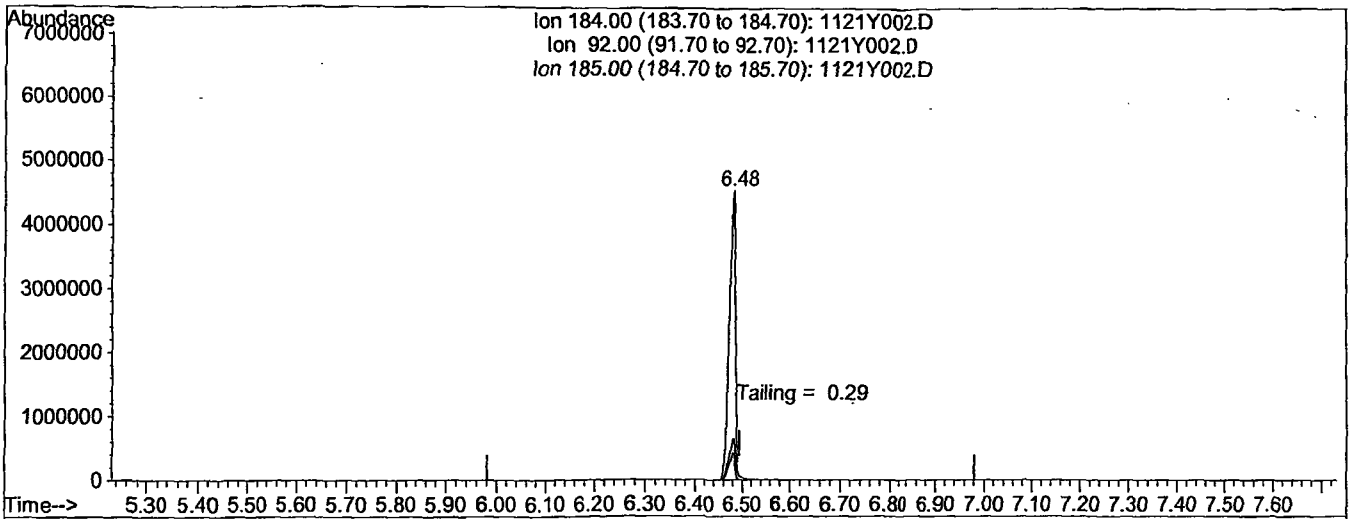
response 10183664

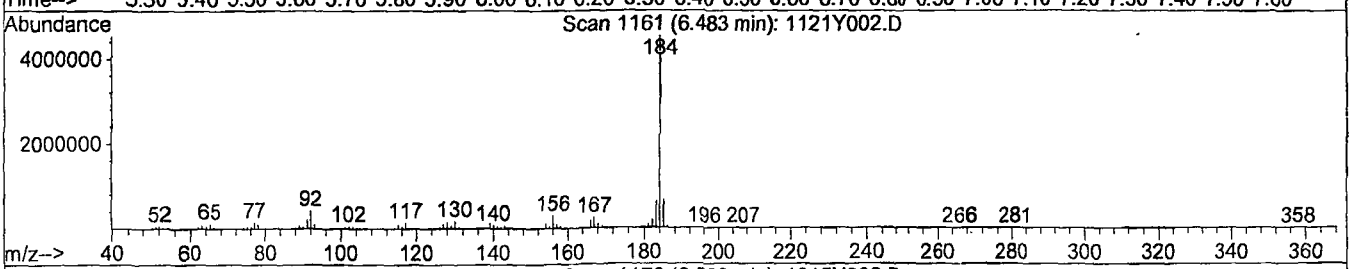
Ion	Exp%	Act%
266.00	100	100
264.00	65.50	63.47
268.00	64.40	63.76
0.00	0.00	0.00

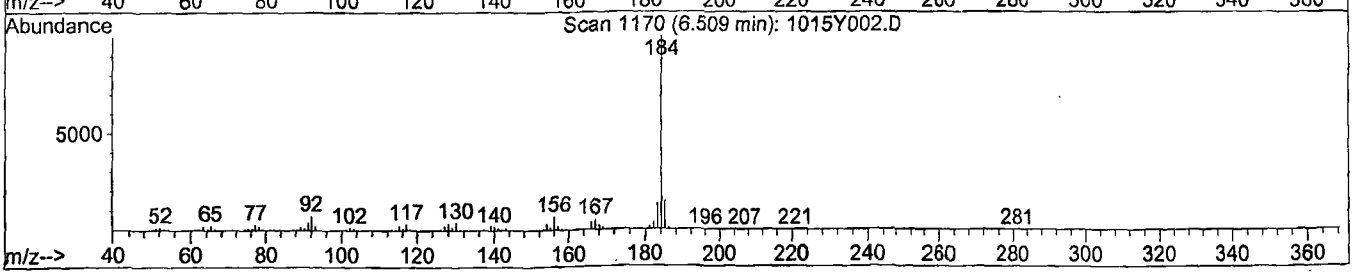
Quantitation Report

Data File : M:\YODA\DATA\Y191121\1121Y002.D Vial: 2
Acq On : 21 Nov 19 13:52 Operator: MA,SS
Sample : SV TUNE 10/01/19 Inst : Yoda
Misc : Multiplr: 1.00
Quant Time: Nov 25 11:35 2019 Quant Results File: temp.res

Method : M:\YODA\DATA\Y191121\DFTPP2.M (Chemstation Integrator)
Title :
Last Update : Mon Nov 25 11:35:23 2019
Response via : Single Level Calibration







TIC: 1121Y002.D

(6) Benzidine

6.48min 0.0000

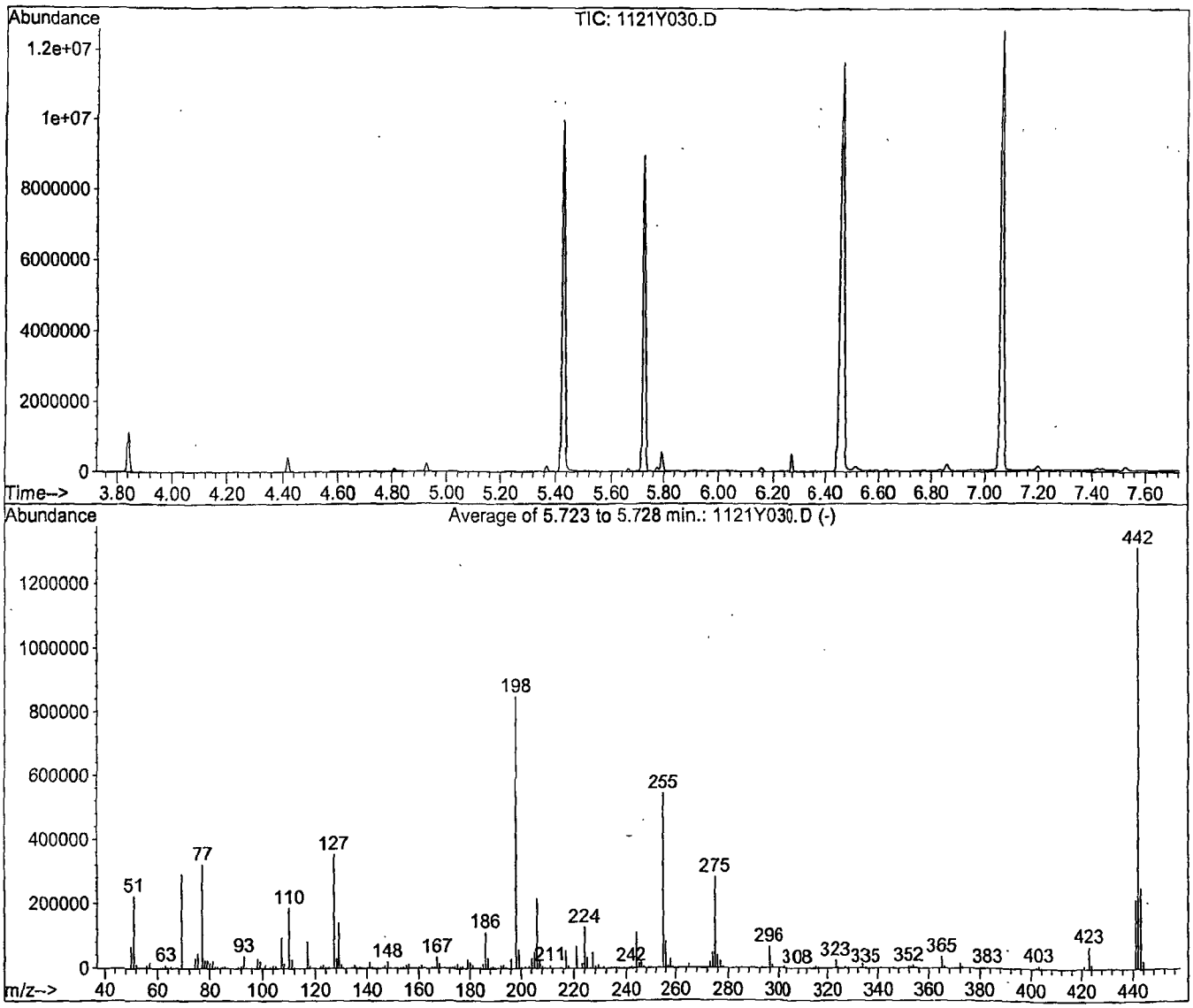
response 41952279

Ion	Exp%	Act%
184.00	100	100
92.00	9.20	8.85
185.00	14.30	14.28
0.00	0.00	0.00

Data File : M:\YODA\DATA\Y191121\1121Y030.D
Acq On : 22 Nov 19 13:23
Sample : SV TUNE 10/01/19
Misc :

Vial: 30
Operator: MA,SS
Inst : Yoda
Multiplr: 1.00

Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C



Spectrum Information: Average of 5.723 to 5.728 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	26.5	224439	PASS
68	69	0.00	2	0.0	0	PASS
70	69	0.00	2	0.4	1281	PASS
127	198	10	80	41.9	354859	PASS
197	198	0.00	2	0.0	0	PASS
198	198	100	100	100.0	847637	PASS
199	198	5	9	6.7	57211	PASS
275	198	10	60	33.3	282091	PASS
365	198	1	100	4.2	35747	PASS
441	442	0.01	24	16.3	213781	PASS
442	198	50	500	154.9	1313109	PASS
443	442	15	24	19.0	249600	PASS

Data File Name:	**1121Y030.D**
Data File Path:	**M:\YODA\DATA\Y191121**
Operator:	**MA,SS**
Date Acquired:	**22 Nov 2019 13:23**
Method File:	**DFTPP2.M**
Sample Name:	**SV TUNE 10/01/19**
Vial Number:	**30**
Instrument Name:	**Yoda**

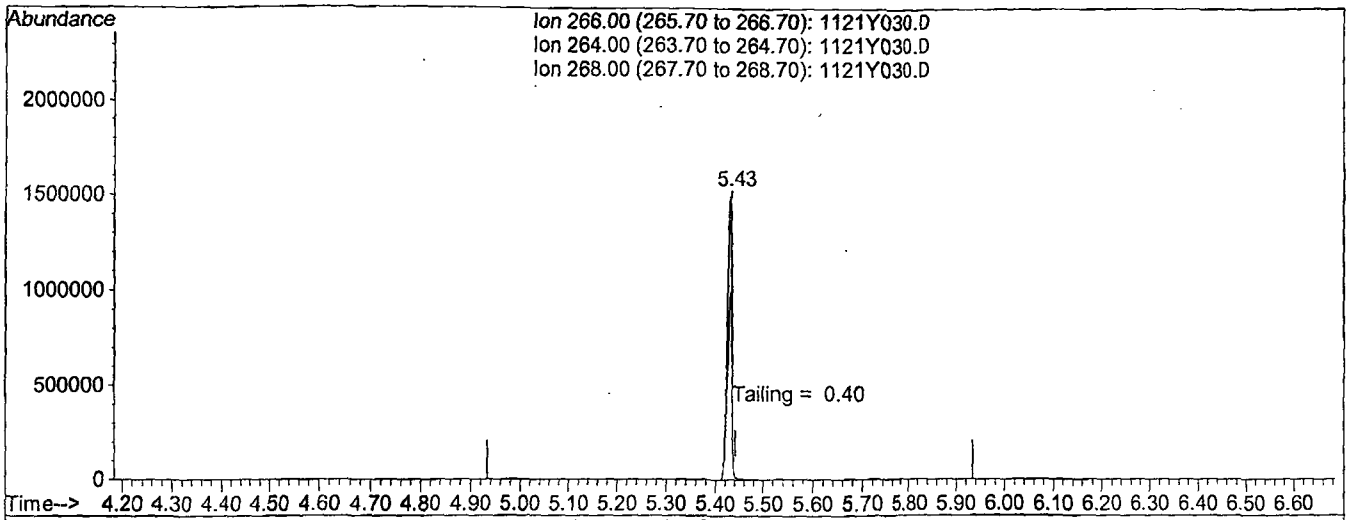
#	Name	Ret Time	Target Response
1)	DDT	7.09	106455000
2)	DDD	6.88	1407220
3)	DDE	6.61	235872

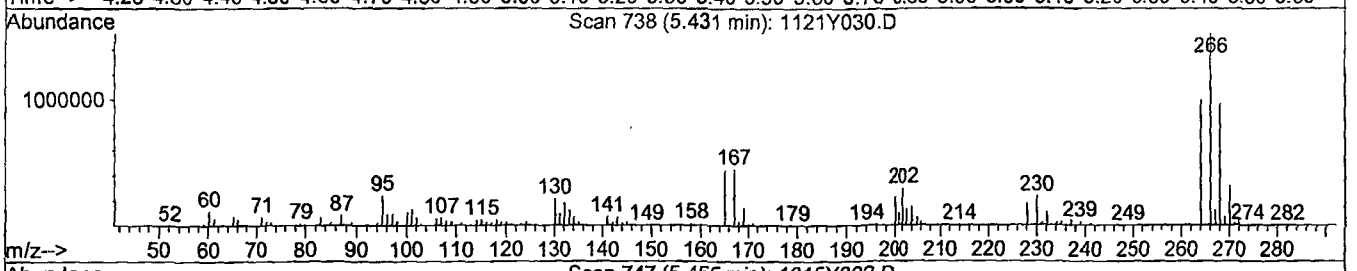
Breakdown **1.52**

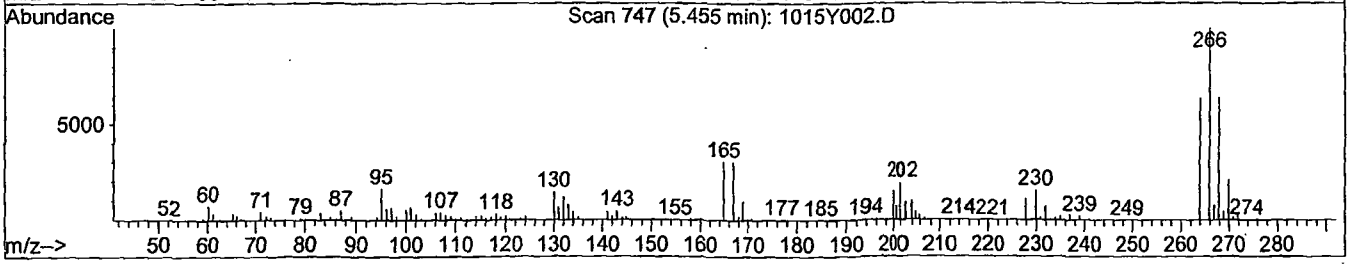
Quantitation Report

Data File : M:\YODA\DATA\Y191121\1121Y030.D Vial: 30
Acq On : 22 Nov 19 13:23 Operator: MA,SS
Sample : SV TUNE 10/01/19 Inst : Yoda
Misc : Multiplr: 1.00
Quant Time: Nov 25 11:36 2019 Quant Results File: temp.res

Method : M:\YODA\DATA\Y191121\DFTPP2.M (Chemstation Integrator)
Title :
Last Update : Mon Nov 25 11:35:23 2019
Response via : Single Level Calibration







TIC: 1121Y030.D

(5) Pentachlorophenol

5.43min 0.0000

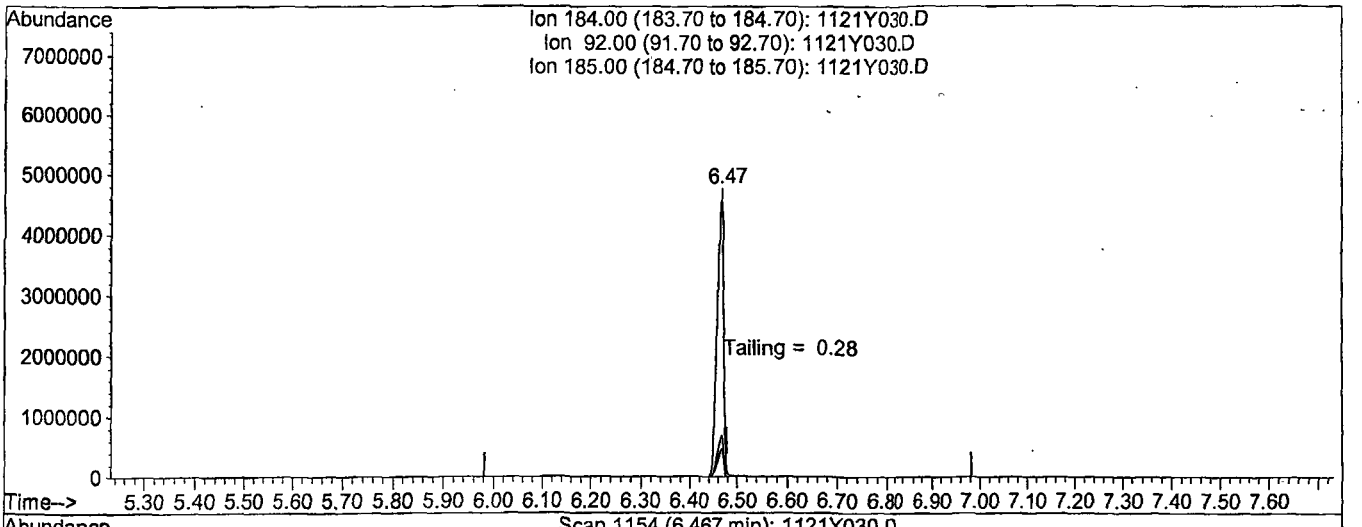
response 10296121

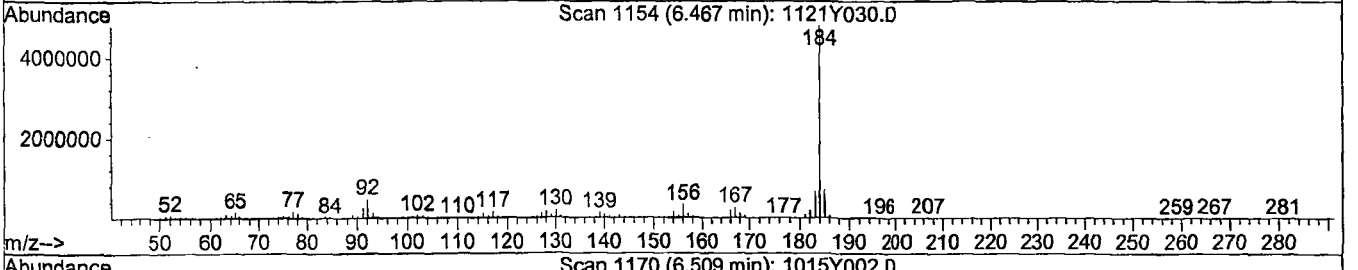
Ion	Exp%	Act%
266.00	100	100
264.00	65.50	63.86
268.00	64.40	63.64
0.00	0.00	0.00

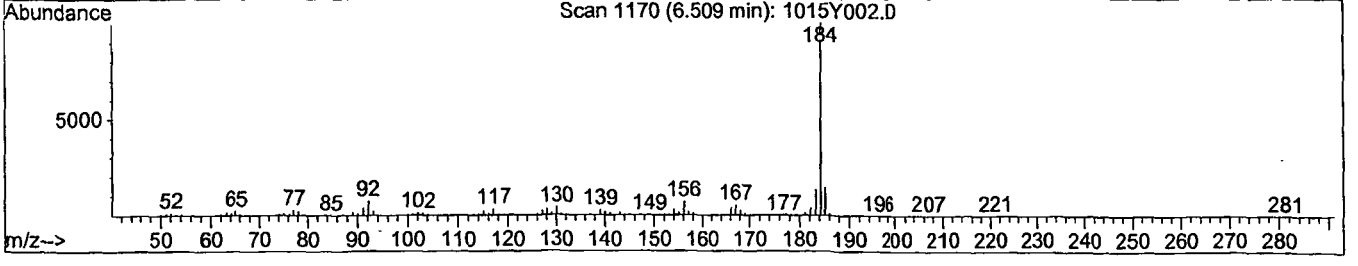
Quantitation Report

Data File : M:\YODA\DATA\Y191121\1121Y030.D Vial: 30
Acq On : 22 Nov 19 13:23 Operator: MA,SS
Sample : SV TUNE 10/01/19 Inst : Yoda
Misc : Multiplr: 1.00
Quant Time: Nov 25 11:36 2019 Quant Results File: temp.res

Method : M:\YODA\DATA\Y191121\DFTPP2.M (Chemstation Integrator)
Title :
Last Update : Mon Nov 25 11:35:23 2019
Response via : Single Level Calibration







TIC: 1121Y030.D

(6) Benzidine

6.47min 0.0000

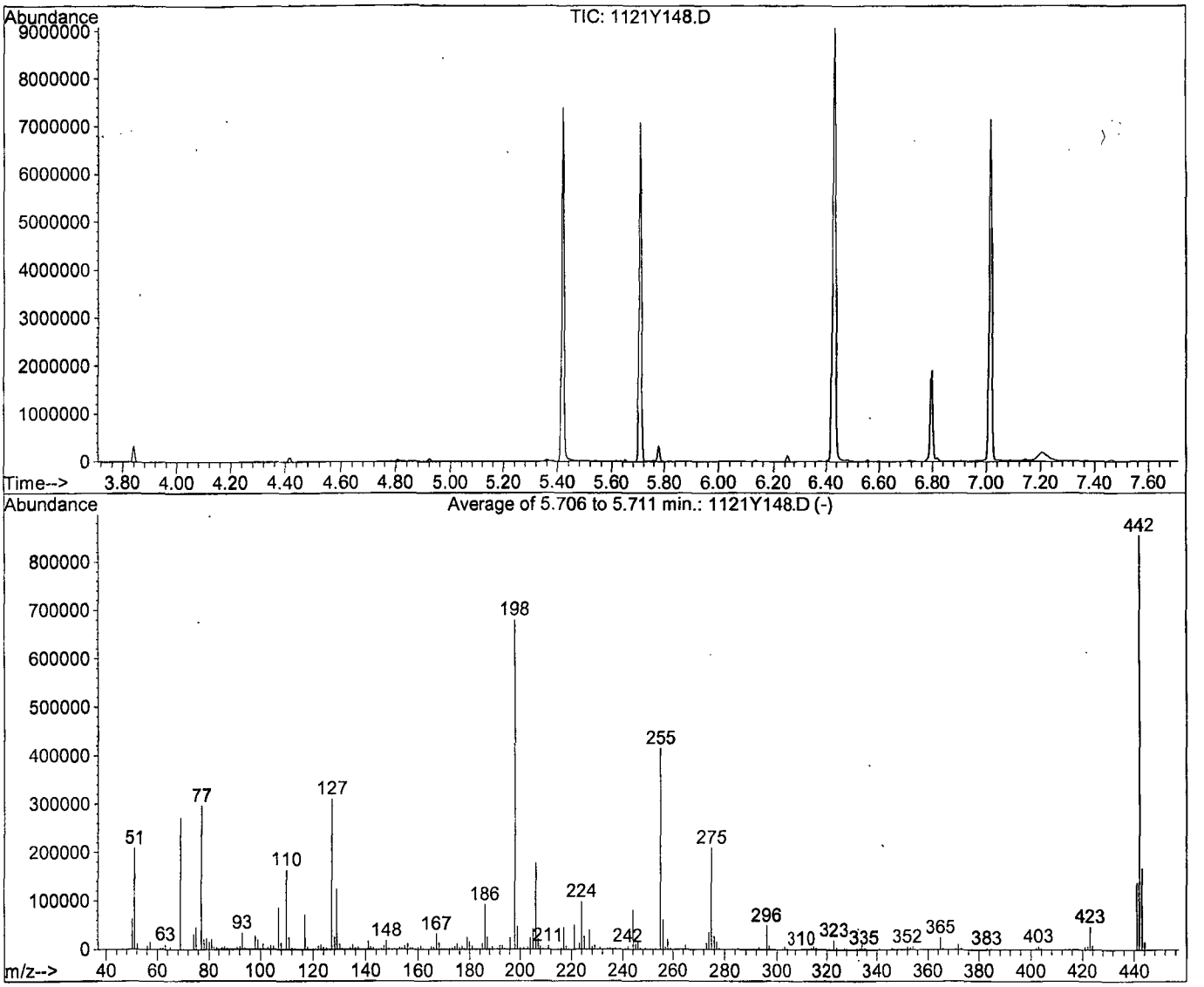
response 43745170

Ion	Exp%	Act%
184.00	100	100
92.00	9.20	9.26
185.00	14.30	14.55
0.00	0.00	0.00

Data File : M:\YODA\DATA\Y191121\1121Y148.D
Acq On : 26 Nov 19 18:16
Sample : SV TUNE 10/01/19
Misc :

Vial: 48
Operator: MA,SS
Inst : Yoda
Multiplr: 1.00

Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C



Spectrum Information: Average of 5.706 to 5.711 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	30.7	208917	PASS
68	69	0.00	2	0.0	0	PASS
70	69	0.00	2	0.2	654	PASS
127	198	10	80	45.8	311232	PASS
197	198	0.00	2	0.0	0	PASS
198	198	100	100	100.0	679979	PASS
199	198	5	9	7.0	47424	PASS
275	198	10	60	30.9	209792	PASS
365	198	1	100	3.6	24760	PASS
441	442	0.01	24	16.2	138283	PASS
442	198	50	500	125.7	854912	PASS
443	442	15	24	19.6	167749	PASS

Data File Name:	**1121Y148.D**
Data File Path:	**M:\YODA\DATA\Y191121**
Operator:	**MA,SS**
Date Acquired:	**26 Nov 2019 18:16**
Method File:	**DFTPP2.M**
Sample Name:	**SV TUNE 10/01/19**
Vial Number:	**48**
Instrument Name:	**Yoda**

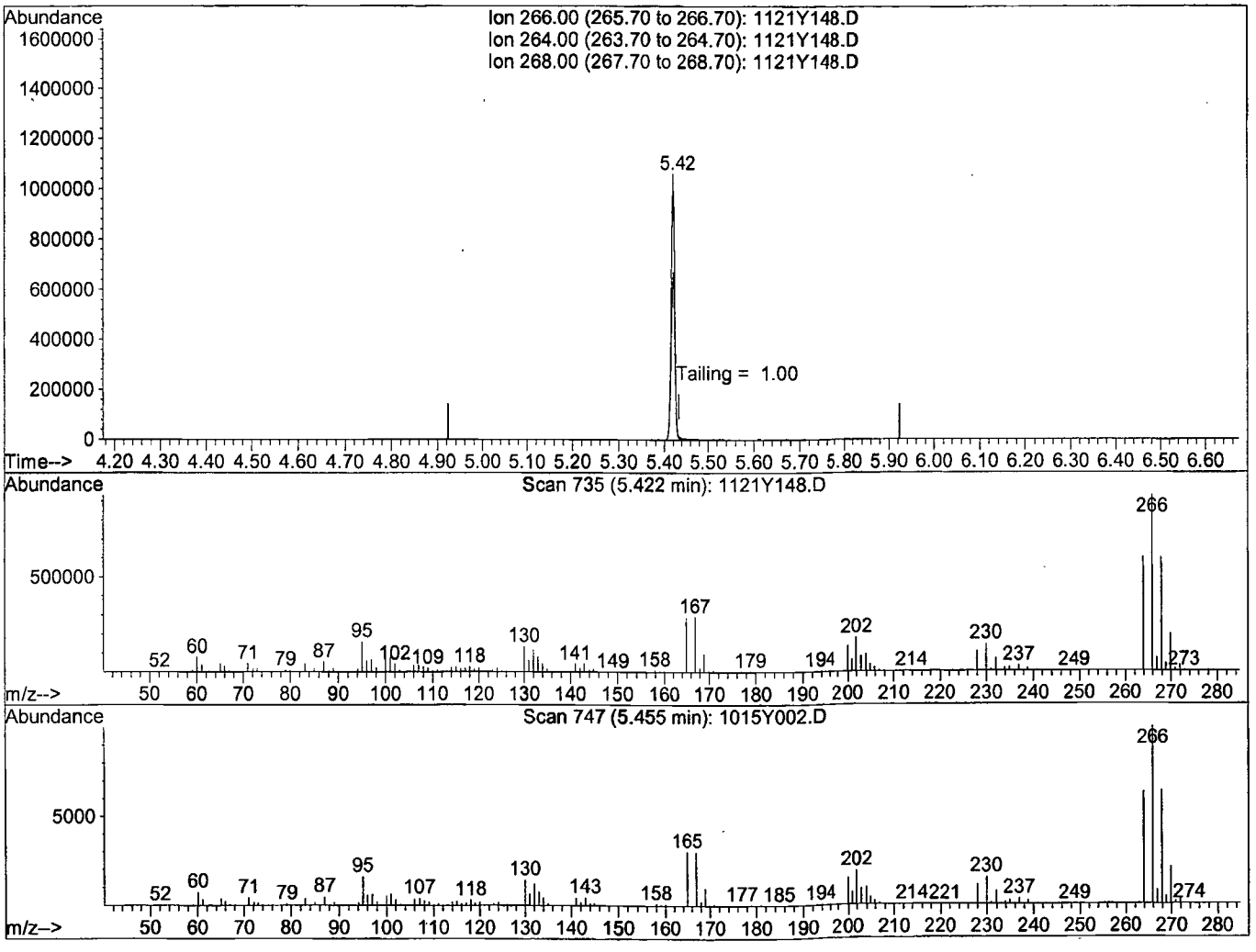
#	Name	Ret Time	Target Response
1)	DDT	7.03	50149300
2)	DDD	6.83	496078
3)	DDE	6.65	0

Breakdown **0.98**

Quantitation Report

Data File : M:\YODA\DATA\Y191121\1121Y148.D Vial: 48
Acq On : 26 Nov 19 18:16 Operator: MA,SS
Sample : SV TUNE 10/01/19 Inst : Yoda
Misc : Multiplr: 1.00
Quant Time: Nov 26 17:13 2019 Quant Results File: temp.res

Method : M:\YODA\DATA\Y191121\DFTPP2.M (Chemstation Integrator)
Title :
Last Update : Mon Nov 25 12:03:01 2019
Response via : Single Level Calibration



TIC: 1121Y148.D

(5) Pentachlorophenol

5.42min 0.0000

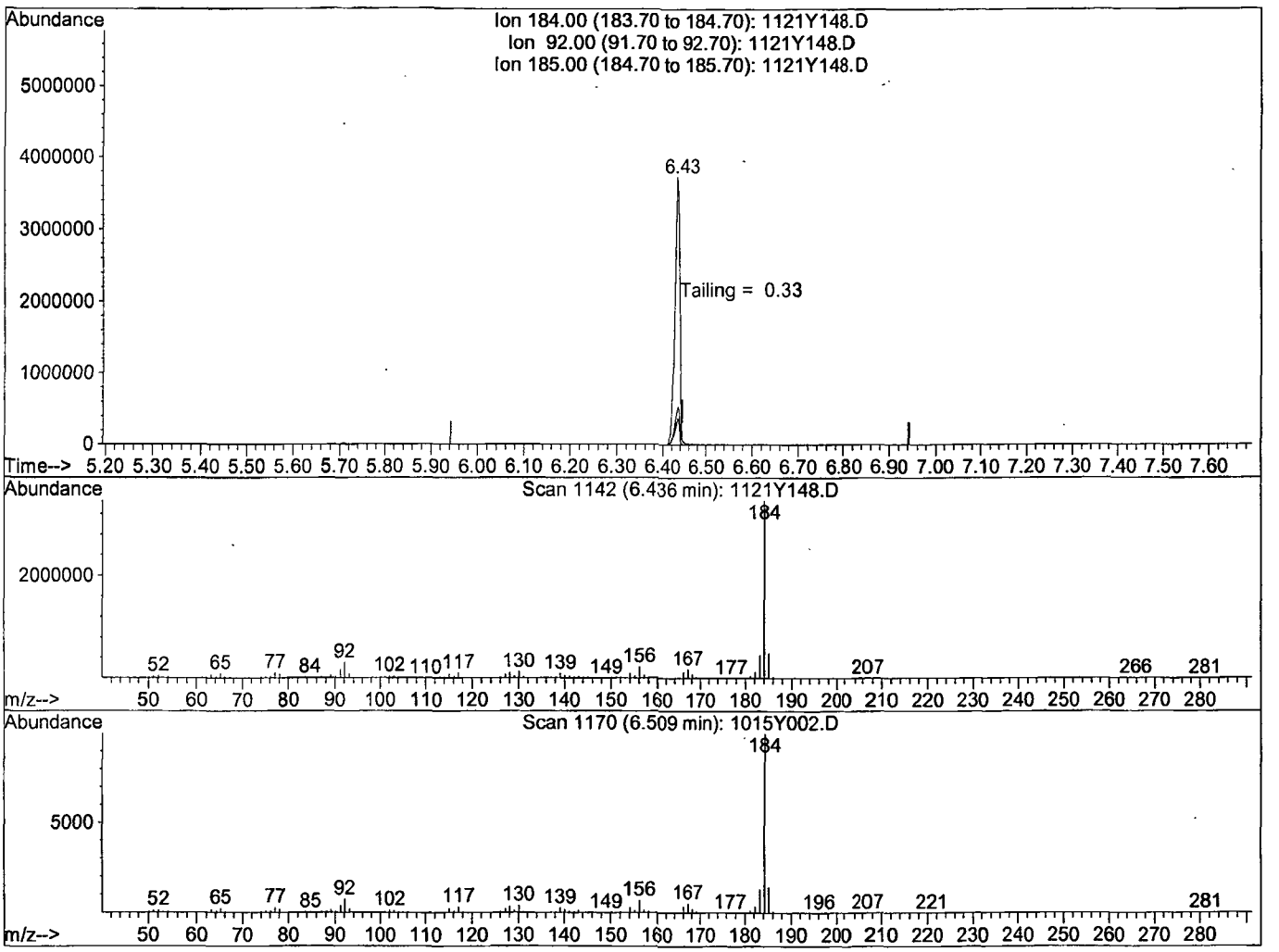
response 6348230

Ion	Exp%	Act%
266.00	100	100
264.00	64.40	64.10
268.00	63.20	63.12
0.00	0.00	0.00

Quantitation Report

Data File : M:\YODA\DATA\Y191121\1121Y148.D Vial: 48
Acq On : 26 Nov 19 18:16 Operator: MA,SS
Sample : SV TUNE 10/01/19 Inst : Yoda
Misc : Multiplr: 1.00
Quant Time: Nov 26 17:13 2019 Quant Results File: temp.res

Method : M:\YODA\DATA\Y191121\DFTPP2.M (Chemstation Integrator)
Title :
Last Update : Mon Nov 25 12:03:01 2019
Response via : Single Level Calibration



TIC: 1121Y148.D

(6) Benzidine

6.44min 0.0000

response 29597434

Ion	Exp%	Act%
184.00	100	100
92.00	9.40	9.28
185.00	14.10	14.36
0.00	0.00	0.00

Name of Final Standard	8270 Full Scan Stock Spike	Prep'd By (Initials)	JP
Prep Date	011/21/2019		
Exp Date	011/21/2020		

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from contianer Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
10001	Absolute	10001	2000	081419 - 49302	08/14/22	1.0 mL	11 mL	NA	181.82 ug/mL
10002	Absolute	10002	2000	090919-49211	09/09/22	1.0 mL	*	*	181.82 ug/mL
10004	Absolute	10004	2000	071618-99221	07/16/23	1.0 mL	*	*	181.82 ug/mL
10005	Absolute	10005	2000	032018-40234	03/20/23	1.0 mL	*	*	181.82 ug/mL
10006	Absolute	10006	2000	030119-49242	03/01/22	1.0 mL	*	*	181.82 ug/mL
10007	Absolute	10007	2000	080116-40254	08/01/21	1.0 mL	*	*	181.82 ug/mL
10018	Absolute	10018	2000	051719-49262	05/17/24	1.0 mL	*	*	181.82 ug/mL
70023	Absolute	70023	1000	012819-49268	01/28/24	1.0 mL	*	*	90.91ug/mL
82705	Absolute	82705	2000	090919-49293	09/09/22	1.0 mL	*	*	181.82 ug/mL
94552	Absolute	94552	various	053119-49284	05/31/21	1.0 mL	*	*	various
72304	Absolute	70023	1000	090519-49455 - 41159	09/05/24	1.0 mL	*	*	90.91ug/mL

Name of Final Standard	8270 Internal Standard Ampules (2)	Prep'd By (Initials)	JP
Prep Date	11/20/19		
Exp Date	11/20/20		

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from contianer Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
Semivolatile Internal Standard	Restek	31206	2000 ug/mL	**A0151843-49411 A0151843-49412**	**07/31/25**	2 mL	2 mL	NA	2000ug/mL

Name of Final Standard	**8270 SS STOCK**
Prep Date	**11/20/19**
Exp Date	**11/20/20**

Prep'd By (Initials) **JP**

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from contianer Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
10001	Absolute	10001	2000 ug/mL	051019-40534	05/10/21	1.0 mL	20 mL	**Methanol Lot 208858**	100 ug/mL
10002	Absolute	10002	2000 ug/mL	020217-39199	02/02/20	1.0 mL	*	*	100 ug/mL
10004	Absolute	10004	2000 ug/mL	051018-39196	05/10/21	1.0 mL	*	*	100 ug/mL
10005	Absolute	10005	2000 ug/mL	031618-39207	03/16/23	1.0 mL	*	*	100 ug/mL
10006	Absolute	10006	2000 ug/mL	011718-39208	01/17/21	1.0 mL	*	*	100 ug/mL
10007	Absolute	10007	2000 ug/mL	060118-39213	06/01/23	1.0 mL	*	*	100 ug/mL
10018	Absolute	10018	2000 ug/mL	062718-40535	06/27/23	1.0 mL	*	*	100 ug/mL
70023	Absolute	70023	1000 ug/mL	051618-39214	05/16/23	1.0 mL	*	*	50 ug/mL
82705	Absolute	82705	2000 ug/mL	090617-40540	09/06/20	1.0 mL	*	*	100 ug/mL
94552	Absolute	94552	various	013118-40542	01/31/20	1.0 mL	*	*	various
72304	Absolute	72304	1000 ug/mL	110719-49477	11/07/24	1.0 mL	*	*	50 ug/mL

Name of Final Standard	**8270 Full Scan Second Source**
Prep Date	**11/22/19**
Exp Date	**11/22/20**

Prep'd By (Initials) **JP**

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from container Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
8270 SS Stock	APPL	8270 SS Stock	100:50 ug/mL	**11/20/19**	**11/20/20**	100 uL	200uL	**MC DW717 150uL**	50:25 ug/mL
SV Internal Standard	APPL	SV Internal Standard	2000 ug/mL	**11/20/19**	**11/20/19**	4 uL	*	*	*

Name of Final Standard	8270 Full Scan Standard Curve	Prep'd By (Initials)	JP
Prep Date	011/21/2019		
Exp Date	011/21/2020		

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from container Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
8270 Stock	APPL	8270 Stock	182:91 ug/mL	011/21/2019	011/21/2020	4.4 uL	200uL	MC DW717 150uL	4 ug/mL
8270 Surrogate	APPL	8270 Surrogate	200:400 ug/mL	07/10/19	06/24/20	4 uL	*	*	*
SV Internal Standard	APPL	SV Internal Standard	2000 ug/mL	011/20/2019	07/31/25	4 uL	*	*	*
8270 Stock	APPL	8270 Stock	182:91 ug/mL	011/21/2019	011/21/2020	11 uL	400uL	MC DW717 150uL	5 ug/mL
8270 Surrogate	APPL	8270 Surrogate	200:400 ug/mL	07/10/19	06/24/20	10 uL	*	*	*
SV Internal Standard	APPL	SV Internal Standard	2000 ug/mL	011/20/2019	07/31/25	8 uL	*	*	*
8270 Stock	APPL	8270 Stock	182:91 ug/mL	011/21/2019	011/21/2020	11 uL	200uL	MC DW717 150uL	10 ug/mL
8270 Surrogate	APPL	8270 Surrogate	200:400 ug/mL	07/10/19	06/24/20	10 uL	*	*	*
SV Internal Standard	APPL	SV Internal Standard	2000 ug/mL	011/20/2019	07/31/25	4 uL	*	*	*
8270 Stock	APPL	8270 Stock	182:91 ug/mL	011/21/2019	011/21/2020	11 uL	100uL	MC DW717 150uL	20 ug/mL
8270 Surrogate	APPL	8270 Surrogate	200:400 ug/mL	07/10/19	06/24/20	10 uL	*	*	*
SV Internal Standard	APPL	SV Internal Standard	2000 ug/mL	011/20/2019	07/31/25	2 uL	*	*	*
8270 Stock	APPL	8270 Stock	182:91 ug/mL	011/21/2019	011/21/2020	22 uL	100uL	MC DW717 150uL	40 ug/mL
8270 Surrogate	APPL	8270 Surrogate	200:400 ug/mL	07/10/19	06/24/20	20 uL	*	*	*
SV Internal Standard	APPL	SV Internal Standard	2000 ug/mL	011/20/2019	07/31/25	2 uL	*	*	*
8270 Stock	APPL	8270 Stock	182:91 ug/mL	011/21/2019	011/21/2020	55 uL	200 uL	MC DW717 150uL	50 ug/mL
8270 Surrogate	APPL	8270 Surrogate	200:400 ug/mL	07/10/19	06/24/20	50 uL	*	*	*
SV Internal Standard	APPL	SV Internal Standard	2000 ug/mL	011/20/2019	07/31/25	4 uL	*	*	*
8270 Stock	APPL	8270 Stock	182:91 ug/mL	011/21/2019	011/21/2020	33 uL	100uL	MC DW717 150uL	60 ug/mL
8270 Surrogate	APPL	8270 Surrogate	200:400 ug/mL	07/10/19	06/24/20	30 uL	*	*	*
SV Internal Standard	APPL	SV Internal Standard	2000 ug/mL	011/20/2019	07/31/25	2 uL	*	*	*
8270 Stock	APPL	8270 Stock	182:91 ug/mL	011/21/2019	011/21/2020	44 uL	100uL	MC DW717 150uL	80 ug/mL
8270 Surrogate	APPL	8270 Surrogate	200:400 ug/mL	07/10/19	06/24/20	40 uL	*	*	*
SV Internal Standard	APPL	SV Internal Standard	2000 ug/mL	011/20/2019	07/31/25	2 uL	*	*	*
8270 Stock	APPL	8270 Stock	182:91 ug/mL	011/21/2019	011/21/2020	50 uL	100uL	na	91 ug/mL
8270 Surrogate	APPL	8270 Surrogate	200:400 ug/mL	07/10/19	06/24/20	50 uL	*	*	*
SV Internal Standard	APPL	SV Internal Standard	2000 ug/mL	011/20/2019	07/31/25	2 uL	*	*	*

Name of Final Standard	**Semivolatile (SV) Tuning Solution**	**Prep'd By (Initials)**	**JP**
Prep Date	**10/01/19**		
Exp Date	**11/30/20**		

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from contlaner Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
Semivolatile GC/MS Tuning Standard	Ultra Scientific	GCM-150-1	1,000 ug/mL	CR3789-38879	**11/30/20**	1,250 uL	25 mL	**MC #58240**	50 ug/mL

Organic Extraction Worksheet

Method	Continuous Liquid/Liquid SVOC 3520C	Extraction Set	191104A	Extraction Method	LIQ003	Units	mL

Spiked ID 1	8270T Spike 10/3/19 ex 10/3/20		Surrogate ID 1	8270 Surrogate 10/3/19 ex 10/3/20	
Spiked ID 2	Sim Spike 9/30/19 ex 9/30/20		Surrogate ID 2	SIM Surrogate 10/25/19 ex 10/25/20	
Spiked ID 3			Surrogate ID 3		
Spiked ID 4			Surrogate ID 4		
Spiked ID 5			Surrogate ID 5		
Spiked ID 6			Sufficient Vol for Matrix QC:	no	
Spiked ID 7			Ext. Start Time:	11/04/19 13:35	
Spiked ID 8			Ext. End Time:	11/06/19 6:30	

GC Requires Extract By:				
pH1	2	11/05/19 10:40	Water Bath Temp 1 °C	EWB5 75/74.2 °
pH2	14	11/06/19 13:00	Water Bath Temp 2 °C	
pH3			Water Bath Temp 3 °C	

Spiked By: DL **Date** 11/04/19 **Witnessed By:** YL **Date** 11/04/19

	Sample	Sample Container	Spike Amount	Spike ID	Surrogate Amount	Surrogate ID	Extract Amount	Final Volume	pH	Extract Date/Time	Comments
1	191104A Blk				1,0.050	1,2	800	1	2/1	11/04/19 13:35	
						equip	EWB5				
2	191104A LCS-1		1	1	1	1	800	1	2/1	11/04/19 13:35	
						equip	EWB5				
3	191104A LCS-2		0.125	2	0.050	2	800	1	2/1	11/04/19 13:35	
						equip	EWB5				
4	191104A LCSD-1		1	1	1	1	800	1	2/1	11/04/19 13:35	
						equip	EWB5				
5	191104A LCSD-2		0.125	2	0.050	2	800	1	2/1	11/04/19 13:35	
						equip	EWB5				
6	BA02090	BA02090W19			1,0.050	1,2	800	1	2/1	11/04/19 13:35	90587
						equip	EWB5				
7	BA02091	BA02091W14			1,0.050	1,2	800	1	2/1	11/04/19 13:35	90587
						equip	EWB5				
8	BA02160	BA02160W16			1,0.050	1,2	800	1	2/1	11/04/19 13:35	90599
						equip	EWB5				
9	BA02214	BA02214W21			1,0.050	1,2	800	1	2/1	11/04/19 13:35	90611
						equip	EWB5				
10	BA02216	BA02216W13			1,0.050	1,2	800	1	2/1	11/04/19 13:35	90611
						equip	EWB5				
11	BA02301	BA02301W13			1,0.050	1,2	800	1	2/1	11/04/19 13:35	90625
						equip	EWB5				

Solvent and Lot#	
PH Strips	HC863463
Dichloromethane (DCM)	59130
1+1 H2SO4	11/1/19
10N NaOH	10/25/19
Filter Paper	400171
B. Na2SO4	2019020631

Extraction COC Transfer	
Extraction lab employee Initials	SS
GC analyst's initials	MA
Date	11/7/19
Time	1330
Refrigerator	GC_C

	Technician's Initials
Scanned By	DL
Sample Preparation	DL,YL,RB
Extraction	RB,DL
Concentration	DL

Modified	11/14/19 9:54:11 AM

Reviewed By: **Date**

Injection Log

Directory: M:\YODA\DATA\Y191121\

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	2	1121Y002.D	1	SV TUNE 10/01/19		21 Nov 19 13:52
2	3	1121Y003.D	1	4ug/ml 8270 11/21/19		21 Nov 19 14:07
3	4	1121Y004.D	1	5ug/ml 8270 11/21/19		21 Nov 19 14:35
4	5	1121Y005.D	1	10ug/ml 8270 11/21/19		21 Nov 19 15:37
5	6	1121Y006.D	1	20ug/ml 8270 11/21/19		21 Nov 19 16:05
6	7	1121Y007.D	1	40ug/ml 8270 11/21/19		21 Nov 19 16:33
7	8	1121Y008.D	1	50ug/ml 8270 11/21/19		21 Nov 19 17:01
8	9	1121Y009.D	1	60ug/ml 8270 11/21/19		21 Nov 19 17:30
9	10	1121Y010.D	1	80ug/ml 8270 11/21/19		21 Nov 19 17:58
10	11	1121Y011.D	1	100ug/ml 8270 11/21/19		21 Nov 19 18:26
11	31	1121Y031.D	1	SS 8270 11/22/19		22 Nov 19 13:38
12	48	1121Y148.D	1	SV TUNE 10/01/19		26 Nov 19 18:16
13	54	1121Y154.D	1	50ug/ml 8270 11/21/19 (1)		26 Nov 19 20:50
14	55	1121Y155.D	1.25	191104A BLK 2/800		26 Nov 19 21:18
15	56	1121Y156.D	1.25	191104A LCS-1 2/800		26 Nov 19 21:46
16	57	1121Y157.D	1.25	191104A LCSD-1 2/800		26 Nov 19 22:14
17	61	1121Y161.D	1.25	BA02214W21 2/800		26 Nov 19 00:05
18	62	1121Y162.D	1.25	BA02216W13 2/800		26 Nov 19 00:33
19	72	1121Y172.D	1	50ug/ml 8270 11/21/19 (2)		27 Nov 19 5:11

ORGANICS
Calibration Data

2MEE
EPA 8270

Form 6
Initial Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Initial Cal. Date: 10/31/19
Matrix: Instrument: Linus
Initials: MA/

			1030L004.D	1030L005.D	1030L006.D	1030L007 D	1030L008.D	1030L009.D	1030L010.D	1030L011.D								
		Compound	1	2	3	4	5	6	7	8			Avg	%RSD	Type	r^2	Q	MRF
1	I	1,4-dichlorobenzene-D4(IS)																
2	TM	2-(2-Methoxyethoxy)ethanol	0.1255	0.1270	0.1199	*	0.1601	0.1377	0.1599	0.1385			0.14	12	TM			
3	I	Napthalene-D8(IS)																
4	I	Acenaphthene-D10(IS)																
5	I	Phenanthrene-D10(IS)																
6	I	Chrysene-D12(IS)																
7	I	Perylene-D12(IS)																
8																		
9																		
10																		
11																		
12																		
13		* It was concentrated. Deleted from the ICAL																
14																		
15																		
16																		
17																		
18																		
19																		
20																		
21																		
22																		
23																		
24																		
25																		
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27																		
28																		
29																		
30																		
31																		
32																		
33																		
34																		
35																		

Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L191030M\1030L004.D Vial: 4
Acq On : 31 Oct 19 11:50 Operator: MA
Sample : 50 2MEE 4/30/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 31 12:28 2019 Quant Results File: YMEE1030.RES

Quant Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Oct 31 11:46:50 2019
Response via : Initial Calibration
DataAcq Meth : GED

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	3.67	152	924546	40.00000 ppb	0.00
3) Napthalene-D8(IS)	4.62	136	3824592	40.00000 ppb	0.00
4) Acenaphthene-D10(IS)	6.02	164	1847509	40.00000 ppb	0.00
5) Phenanthrene-D10(IS)	7.22	188	3070665	40.00000 ppb	0.00
6) Chrysene-D12(IS)	9.42	240	2379935	40.00000 ppb	0.02
7) Perylene-D12(IS)	10.65	264	2480690	40.00000 ppb	0.06

System Monitoring Compounds

Target Compounds					Qvalue
2) 2-(2-Methoxyethoxy)ethanol	3.19	45	145043m	63.19099 ppb	98

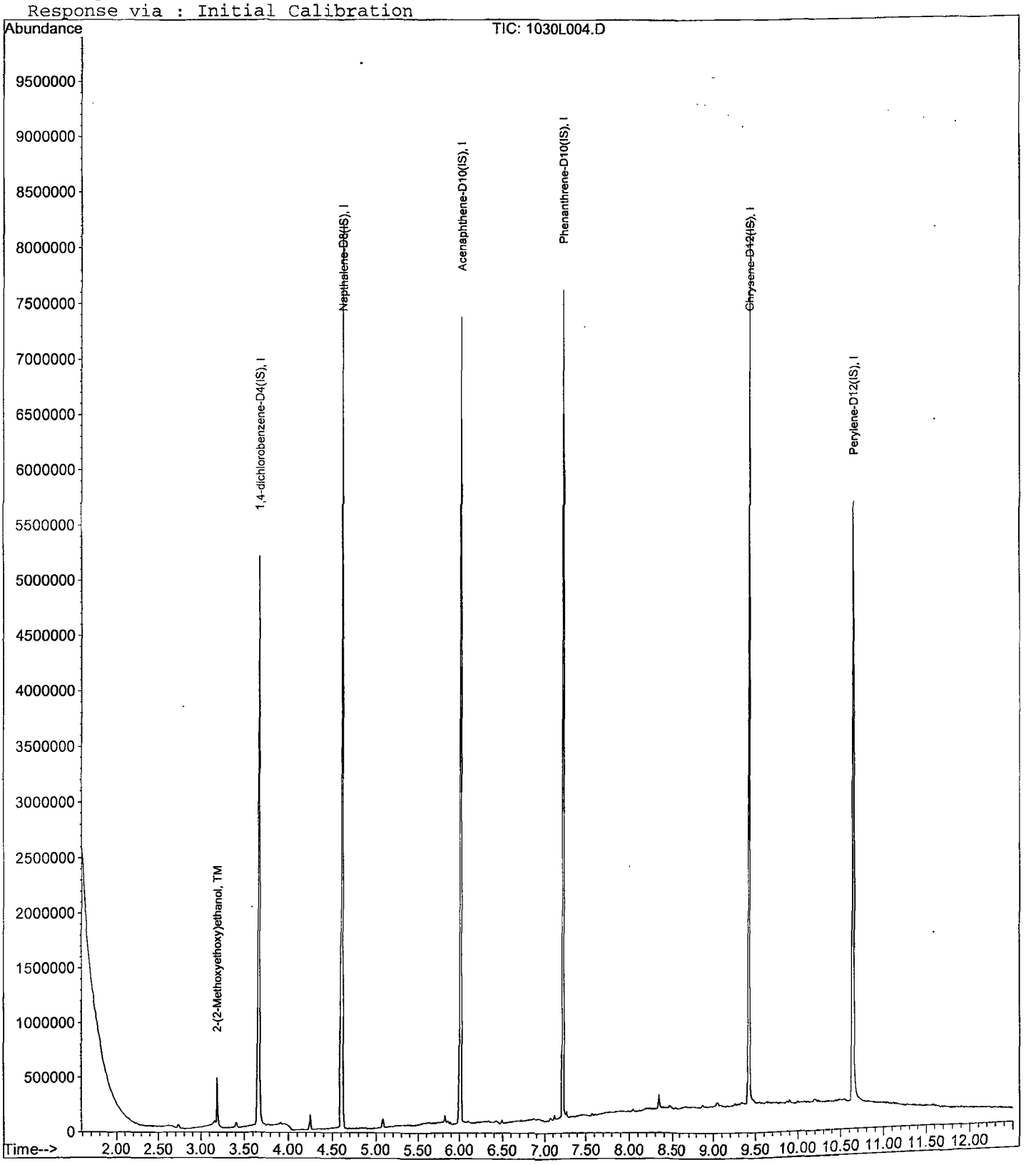
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L191030M\1030L004.D Vial: 4
Acq On : 31 Oct 19 11:50 Operator: MA
Sample : 50 2MEE 4/30/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 31 12:28 2019 Quant Results File: YMEE1030.RES

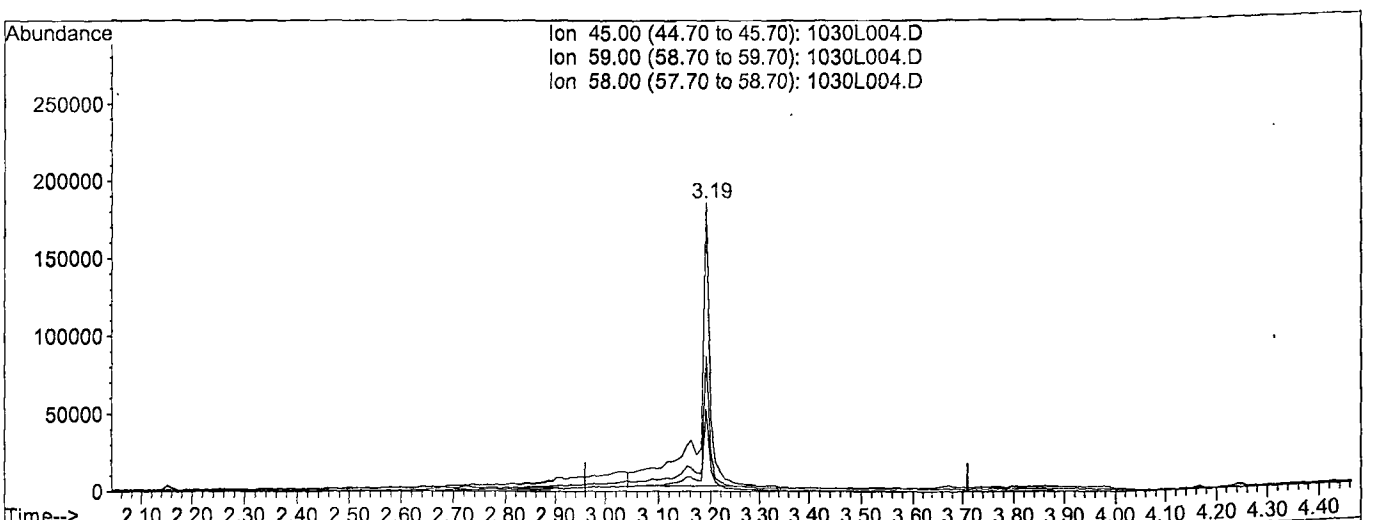
Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Oct 31 14:18:15 2019
Response via : Initial Calibration

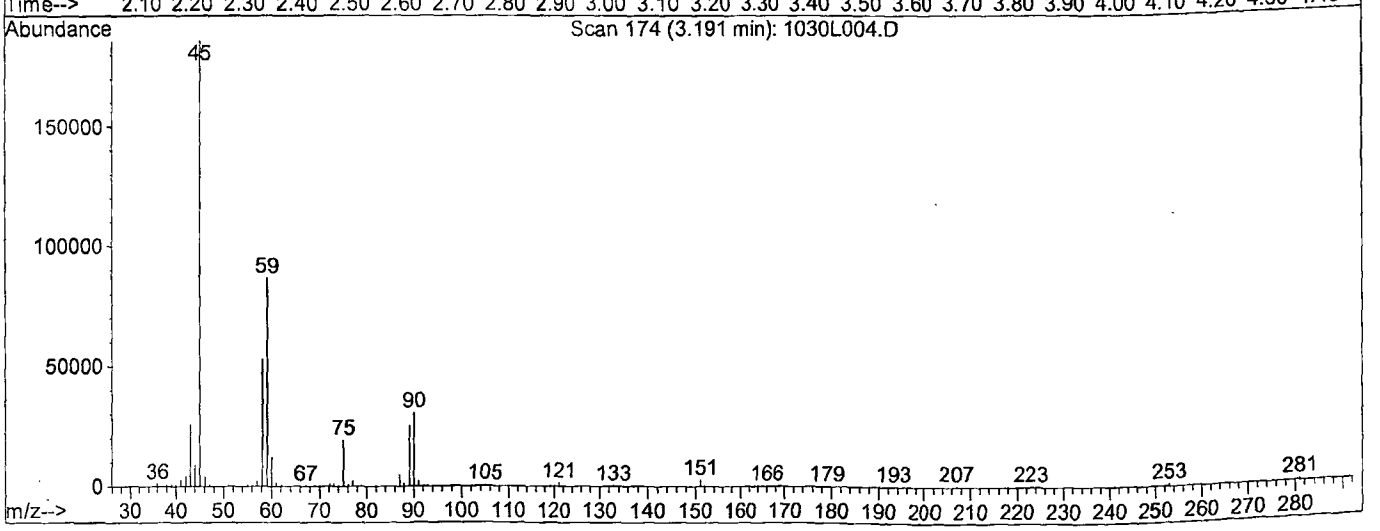


Quantitation Report

Data File : M:\LINUS\DATA\L191030M\1030L004.D Vial: 4
Acq On : 31 Oct 19 11:50 Operator: MA
Sample : 50 2MEE 4/30/19 Inst : Linus
Misc : Multiplr: 1.00
Quant Time: Oct 31 12:04 2019 Quant Results File: temp.res

Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Oct 31 11:46:50 2019
Response via : Multiple Level Calibration





TIC: 1030L004.D

(2) 2-(2-Methoxyethoxy)ethanol (TM)

3.19min 99.2279ppb

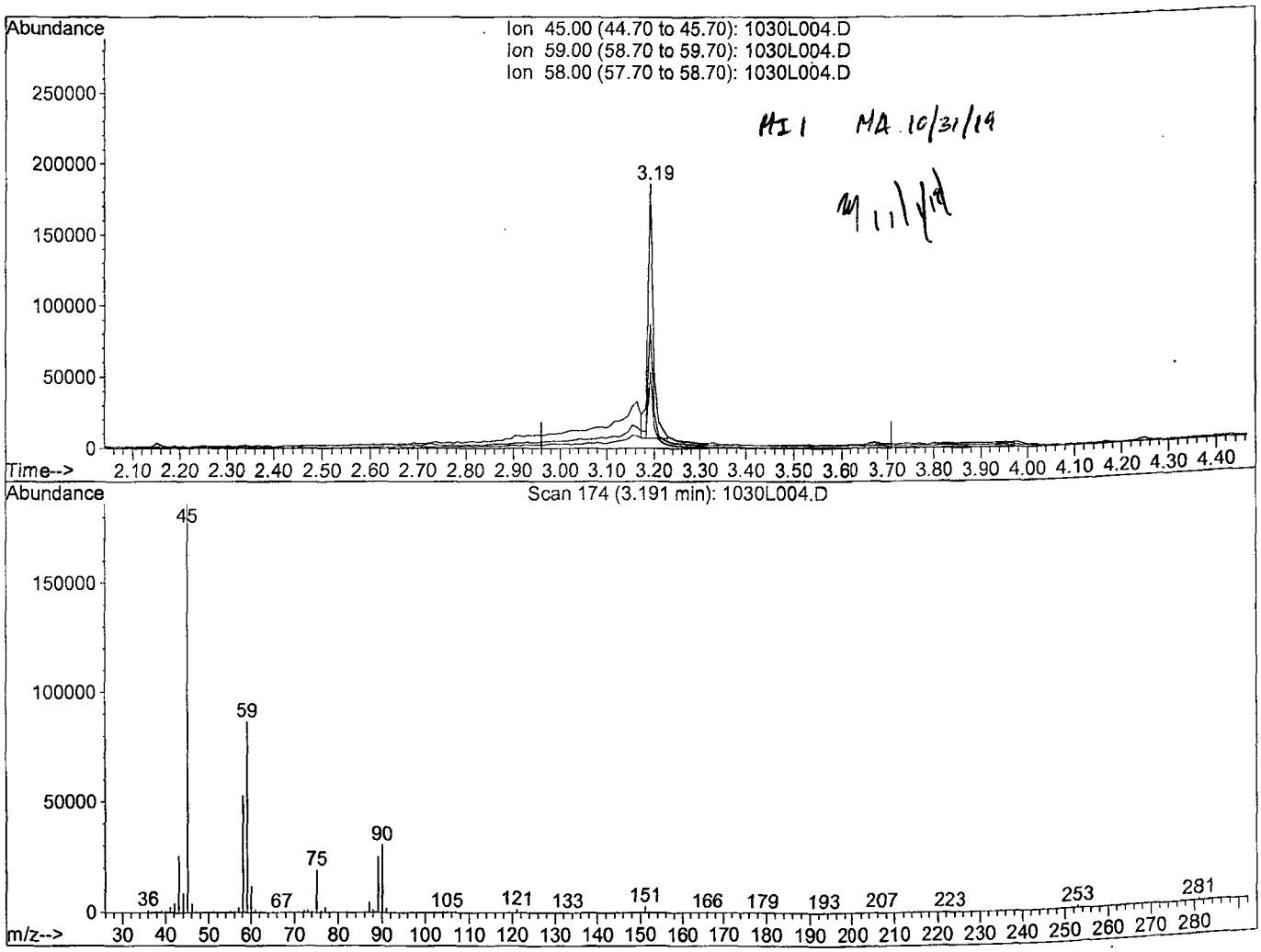
response 284001

Ion	Exp%	Act%
45.00	100	100
59.00	48.10	46.59
58.00	29.40	28.49
0.00	0.00	0.00

Quantitation Report

Data File : M:\LINUS\DATA\L191030M\1030L004.D Vial: 4
Acq On : 31 Oct 19 11:50 Operator: MA
Sample : 50 2MEE 4/30/19 Inst : Linus
Misc : Multiplr: 1.00
Quant Time: Oct 31 12:28 2019 Quant Results File: temp.res

Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Oct 31 11:46:50 2019
Response via : Multiple Level Calibration



TIC: 1030L004.D

(2) 2-(2-Methoxyethoxy)ethanol (TM)

3.19min 63.1910ppb m

response 145043

Ion	Exp%	Act%
45.00	100	100
59.00	48.10	46.59
58.00	29.40	28.49
0.00	0.00	0.00

Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L191030M\1030L005.D Vial: 5
Acq On : 31 Oct 19 12:10 Operator: MA
Sample : 100 2MEE 4/30/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 31 13:29 2019 Quant Results File: YMEE1030.RES

Quant Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Oct 31 13:28:52 2019
Response via : Initial Calibration
DataAcq Meth : GED

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	3.66	152	802143	40.00000	ppb	0.00
3) Napthalene-D8(IS)	4.62	136	3947022	40.00000	ppb	0.00
4) Acenaphthene-D10(IS)	6.02	164	1905798	40.00000	ppb	0.00
5) Phenanthrene-D10(IS)	7.23	188	3352515	40.00000	ppb	0.00
6) Chrysene-D12(IS)	9.39	240	2935825	40.00000	ppb	0.00
7) Perylene-D12(IS)	10.58	264	2243163	40.00000	ppb	-0.02

System Monitoring Compounds

Target Compounds						Qvalue
2) 2-(2-Methoxyethoxy)ethanol	3.19	45	254665	101.69486	ppb	93

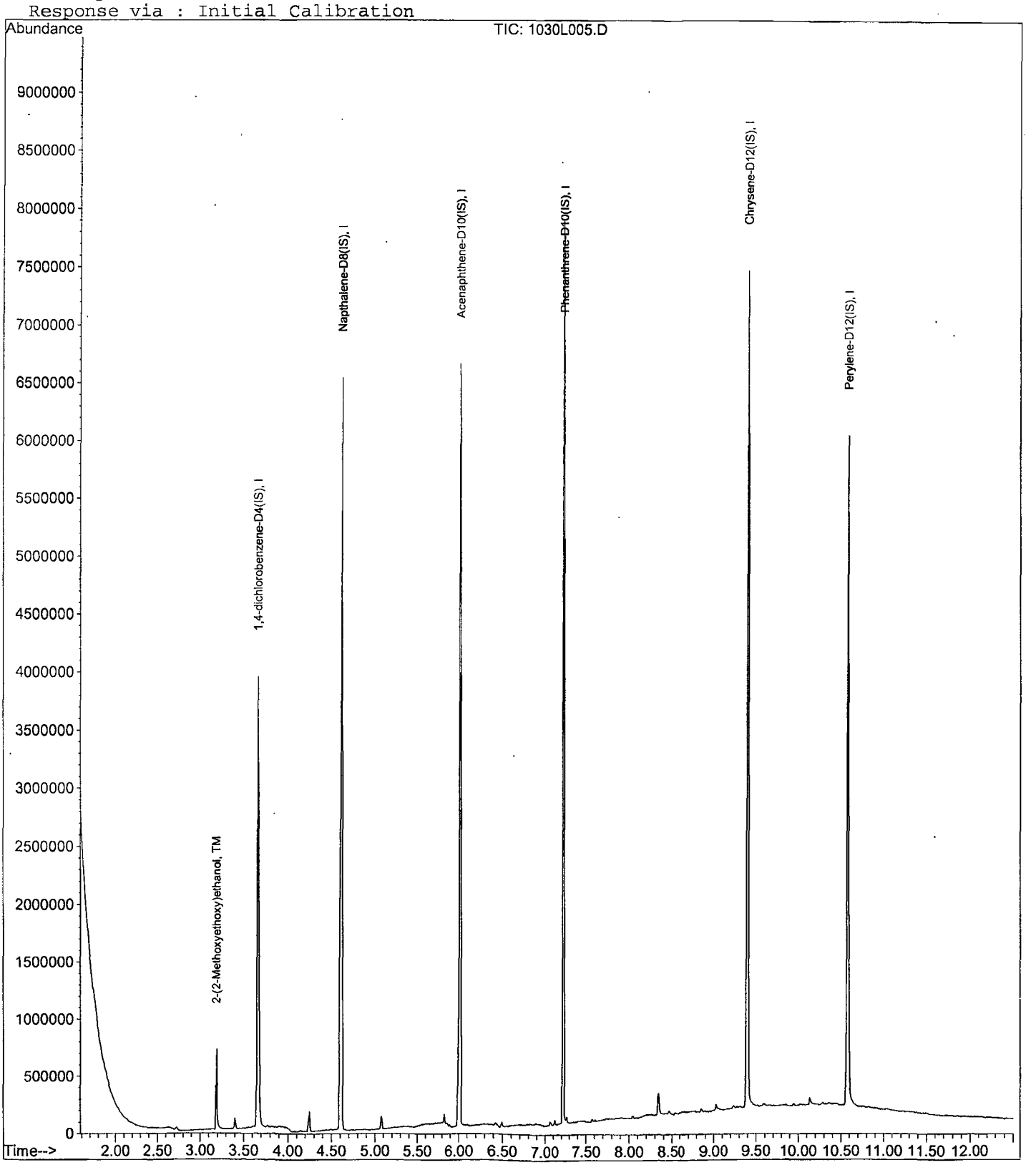
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L191030M\1030L005.D Vial: 5
Acq On : 31 Oct 19 12:10 Operator: MA
Sample : 100 2MEE 4/30/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 31 13:29 2019 Quant Results File: YMEE1030.RES

Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Oct 31 14:18:15 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L191030M\1030L006.D Vial: 6
Acq On : 31 Oct 19 12:29 Operator: MA
Sample : 200 2MEE 4/30/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 31 13:30 2019 Quant Results File: YMEE1030.RES

Quant Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Oct 31 13:28:52 2019
Response via : Initial Calibration
DataAcq Meth : GED

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	3.67	152	867176	40.00000	ppb	0.00
3) Napthalene-D8(IS)	4.62	136	3930052	40.00000	ppb	0.00
4) Acenaphthene-D10(IS)	6.02	164	2009214	40.00000	ppb	0.00
5) Phenanthrene-D10(IS)	7.22	188	3319659	40.00000	ppb	0.00
6) Chrysene-D12(IS)	9.40	240	3235629	40.00000	ppb	0.00
7) Perylene-D12(IS)	10.58	264	2613264	40.00000	ppb	-0.02

System Monitoring Compounds

Target Compounds						Qvalue
2) 2-(2-Methoxyethoxy)ethanol	3.20	45	519817	166.78709	ppb	99

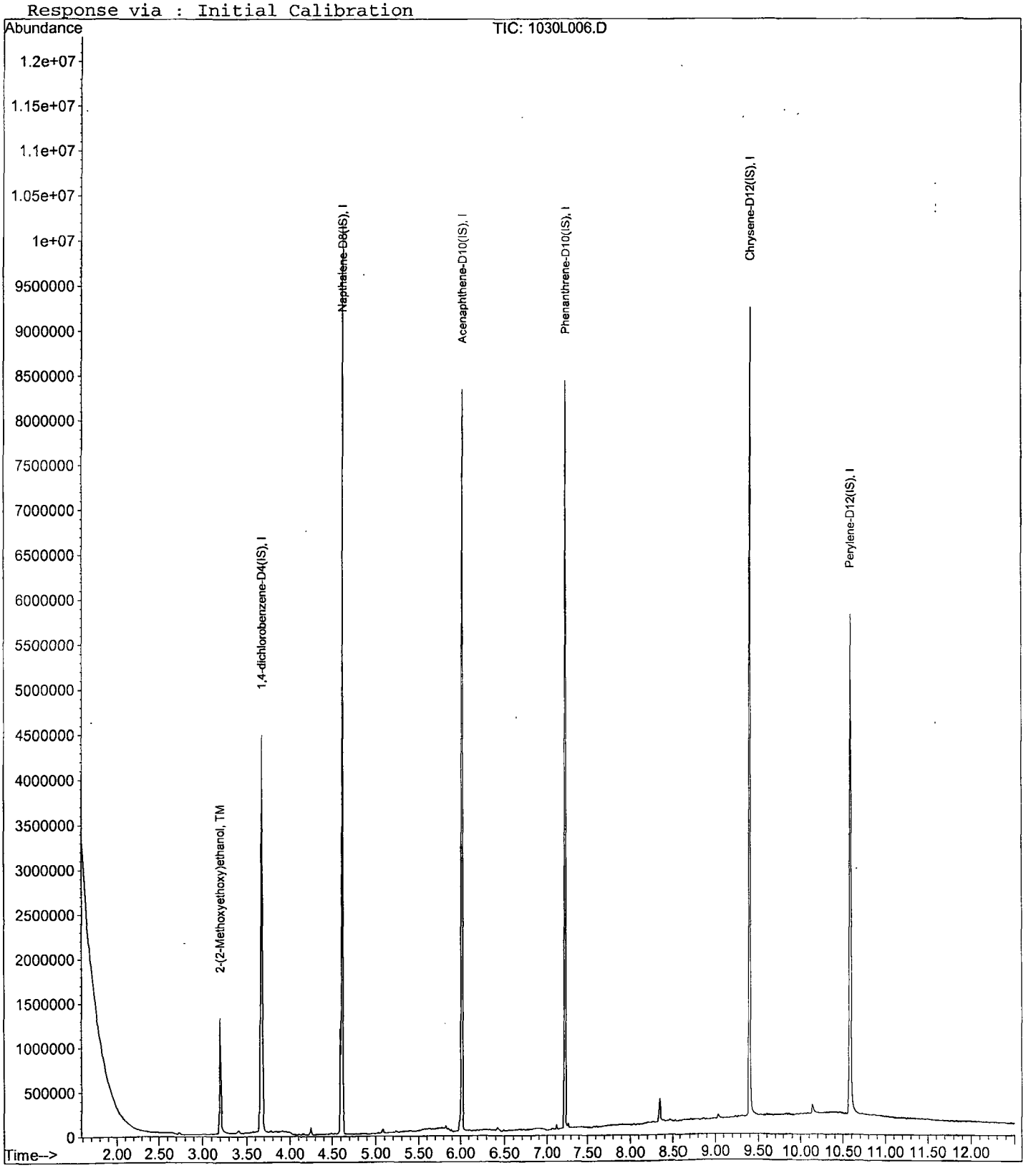
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L191030M\1030L006.D Vial: 6
Acq On : 31 Oct 19 12:29 Operator: MA
Sample : 200 2MEE 4/30/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 31 13:30 2019 Quant Results File: YMEE1030.RES

Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Oct 31 14:18:15 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L191030M\1030L007.D Vial: 7
Acq On : 31 Oct 19 12:49 Operator: MA
Sample : 400 2MEE 4/30/19 not used. It got concen Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 31 13:30 2019 Quant Results File: YMEE1030.RES

Quant Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Oct 31 13:28:52 2019
Response via : Initial Calibration
DataAcq Meth : GED

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	3.67	152	768222	40.00000	ppb	0.00
3) Napthalene-D8(IS)	4.62	136	3846001	40.00000	ppb	0.00
4) Acenaphthene-D10(IS)	6.02	164	2102228	40.00000	ppb	0.00
5) Phenanthrene-D10(IS)	7.23	188	3529522	40.00000	ppb	0.00
6) Chrysene-D12(IS)	9.40	240	2845578	40.00000	ppb	0.00
7) Perylene-D12(IS)	10.60	264	2568289	40.00000	ppb	0.00

System Monitoring Compounds

Target Compounds						Qvalue
2) 2-(2-Methoxyethoxy)ethanol	3.22	45	1438559	476.21754	ppb	94

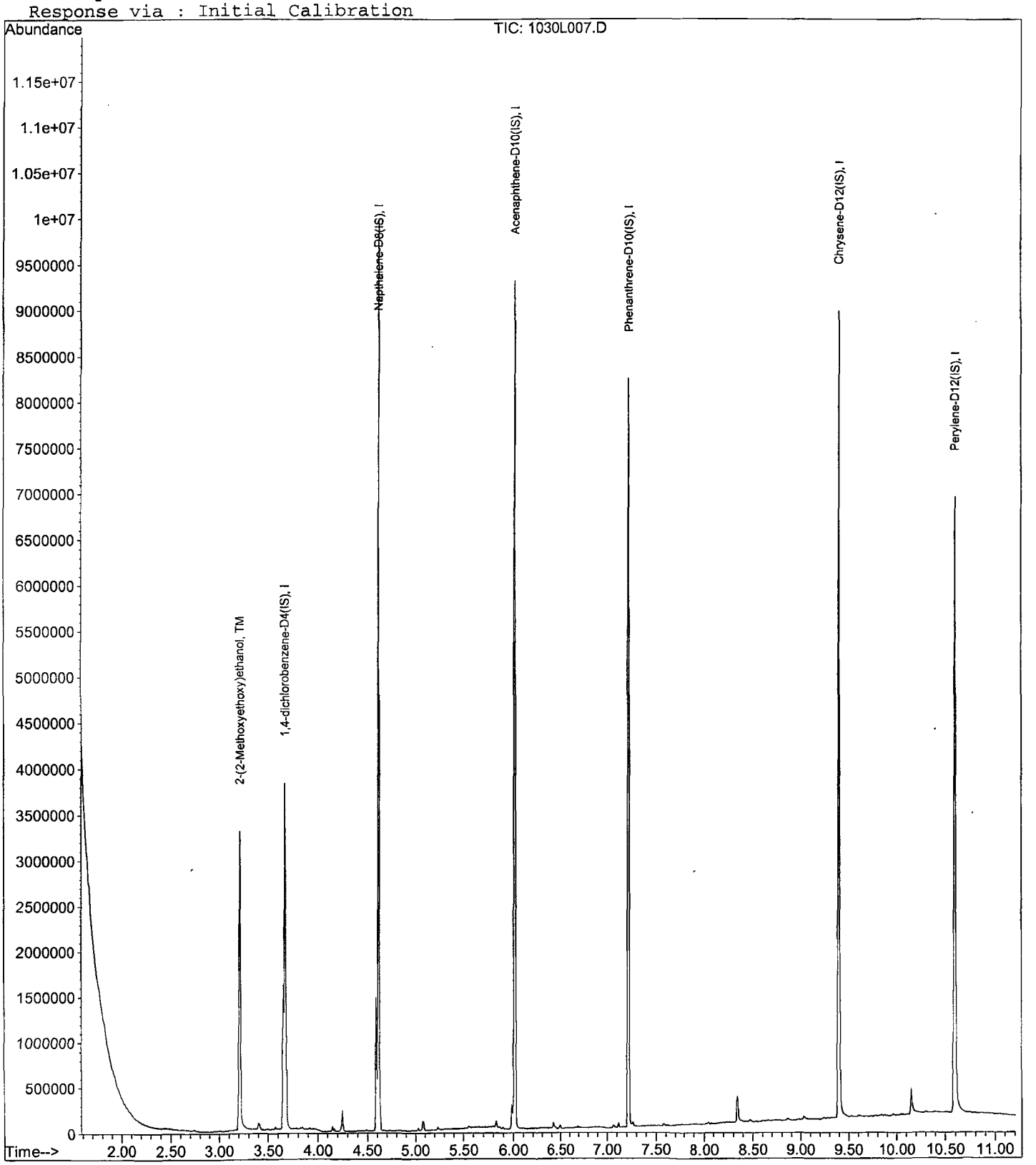
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L191030M\1030L007.D Vial: 7
Acq On : 31 Oct 19 12:49 Operator: MA
Sample : 400 2MEE 4/30/19 not used. It got concen Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 31 13:30 2019 Quant Results File: YMEE1030.RES

Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Oct 31 14:18:15 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L191030M\1030L008.D Vial: 8
Acq On : 31 Oct 19 13:07 Operator: MA
Sample : 500 2MEE 4/30/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 31 14:14 2019 Quant Results File: YMEE1030.RES

Quant Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Oct 31 14:14:39 2019
Response via : Initial Calibration
DataAcq Meth : GED

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	3.67	152	772292	40.00000	ppb	0.00
3) Napthalene-D8(IS)	4.62	136	3394425	40.00000	ppb	0.00
4) Acenaphthene-D10(IS)	6.02	164	1712966	40.00000	ppb	0.00
5) Phenanthrene-D10(IS)	7.22	188	2832000	40.00000	ppb	0.00
6) Chrysene-D12(IS)	9.40	240	2510708	40.00000	ppb	0.00
7) Perylene-D12(IS)	10.60	264	2441015	40.00000	ppb	0.00
System Monitoring Compounds						
Target Compounds						Qvalue
2) 2-(2-Methoxyethoxy)ethanol	3.21	45	1545173	578.42618	ppb	100

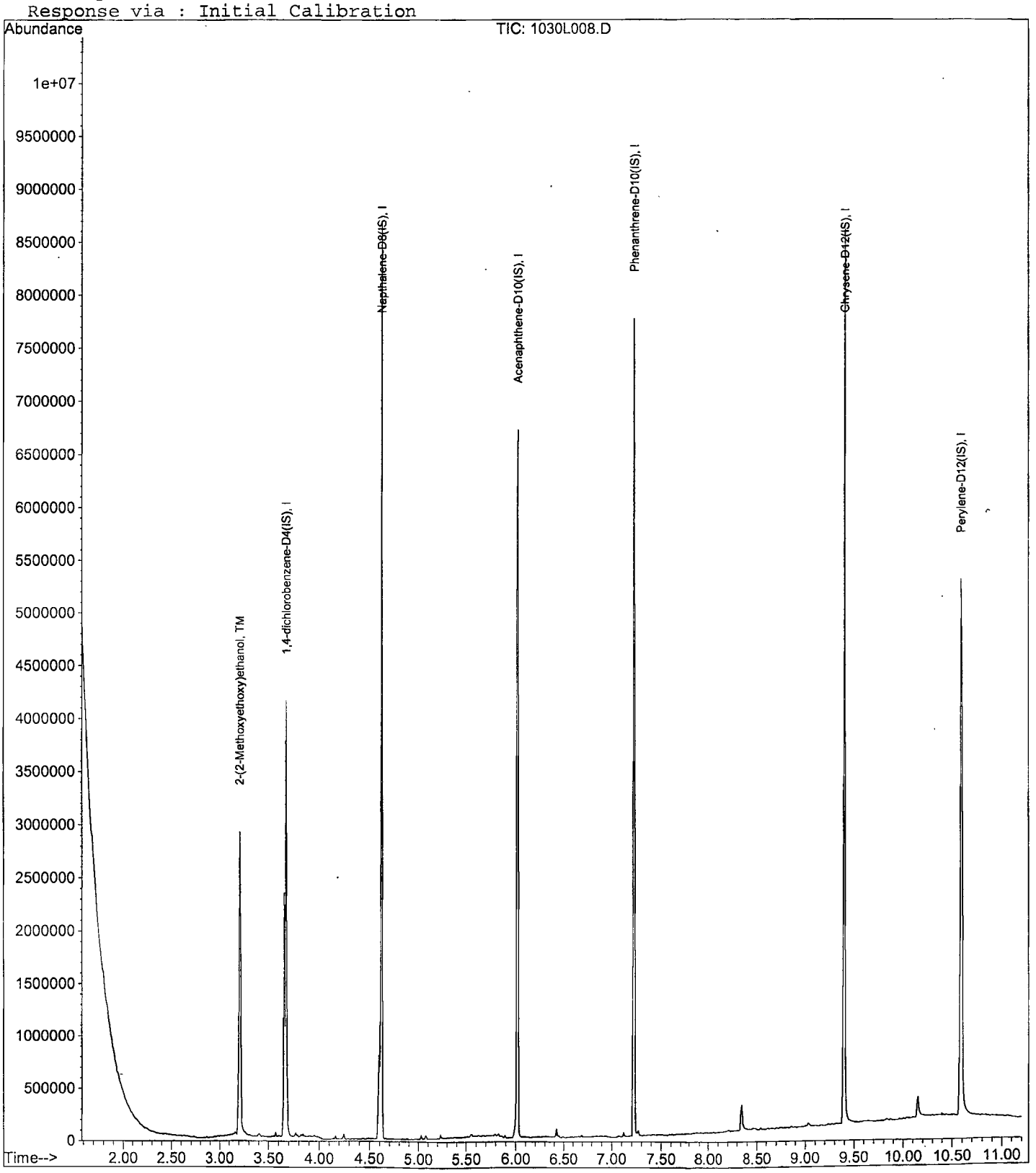
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L191030M\1030L008.D Vial: 8
Acq On : 31 Oct 19 13:07 Operator: MA
Sample : 500 2MEE 4/30/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 31 14:14 2019 Quant Results File: YMEE1030.RES

Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Oct 31 14:18:15 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L191030M\1030L009.D Vial: 9
Acq On : 31 Oct 19 13:25 Operator: MA
Sample : 600 2MEE 4/30/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 31 13:40 2019 Quant Results File: YMEE1030.RES

Quant Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Oct 31 13:28:52 2019
Response via : Initial Calibration
DataAcq Meth : GED

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	3.67	152	918679	40.00000 ppb	0.00
3) Napthalene-D8(IS)	4.62	136	3995417	40.00000 ppb	0.00
4) Acenaphthene-D10(IS)	6.02	164	2035544	40.00000 ppb	0.00
5) Phenanthrene-D10(IS)	7.23	188	3476903	40.00000 ppb	0.00
6) Chrysene-D12(IS)	9.40	240	2887642	40.00000 ppb	0.00
7) Perylene-D12(IS)	10.59	264	2390309	40.00000 ppb	0.00

System Monitoring Compounds

Target Compounds					Qvalue
2) 2-(2-Methoxyethoxy)ethanol	3.22	45	1897302	517.69156 ppb	98

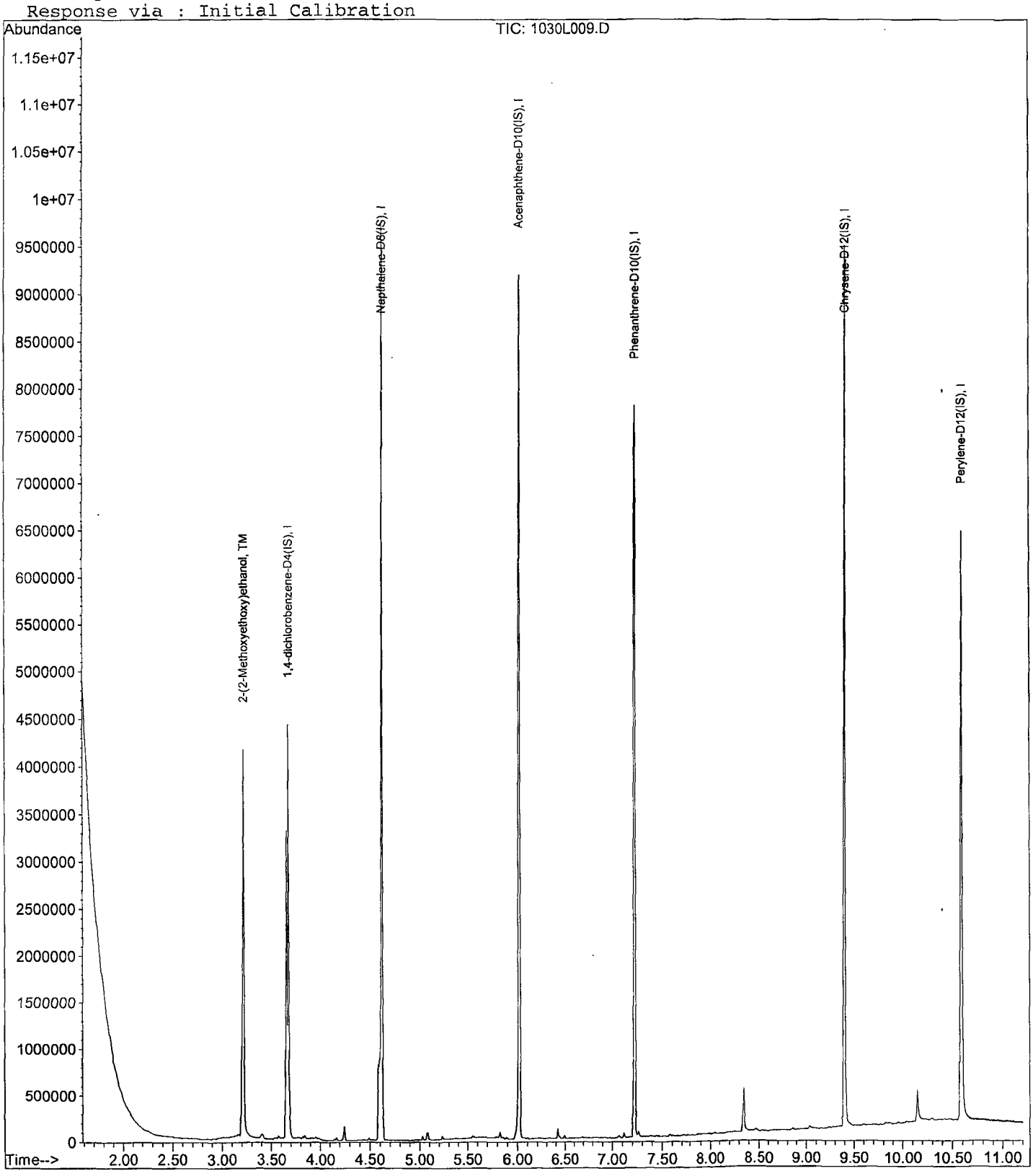
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L191030M\1030L009.D Vial: 9
Acq On : 31 Oct 19 13:25 Operator: MA
Sample : 600 2MEE 4/30/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 31 13:40 2019 Quant Results File: YMEE1030.RES

Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Oct 31 14:18:15 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L191030M\1030L010.D Vial: 10
Acq On : 31 Oct 19 13:43 Operator: MA
Sample : 800 2MEE 4/30/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 31 14:12 2019 Quant Results File: YMEE1030.RES

Quant Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Oct 31 13:28:52 2019
Response via : Initial Calibration
DataAcq Meth : GED

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	3.67	152	781913	40.00000 ppb	0.00
3) Napthalene-D8(IS)	4.62	136	3819124	40.00000 ppb	0.00
4) Acenaphthene-D10(IS)	6.02	164	2060420	40.00000 ppb	0.00
5) Phenanthrene-D10(IS)	7.23	188	3432435	40.00000 ppb	0.00
6) Chrysene-D12(IS)	9.41	240	3218071	40.00000 ppb	0.00
7) Perylene-D12(IS)	10.61	264	2421844	40.00000 ppb	0.00

System Monitoring Compounds

Target Compounds					Qvalue
2) 2-(2-Methoxyethoxy)ethanol	3.23	45	2499934	802.74185 ppb	98

(#) = qualifier out of range (m) = manual integration

Quantitation Report

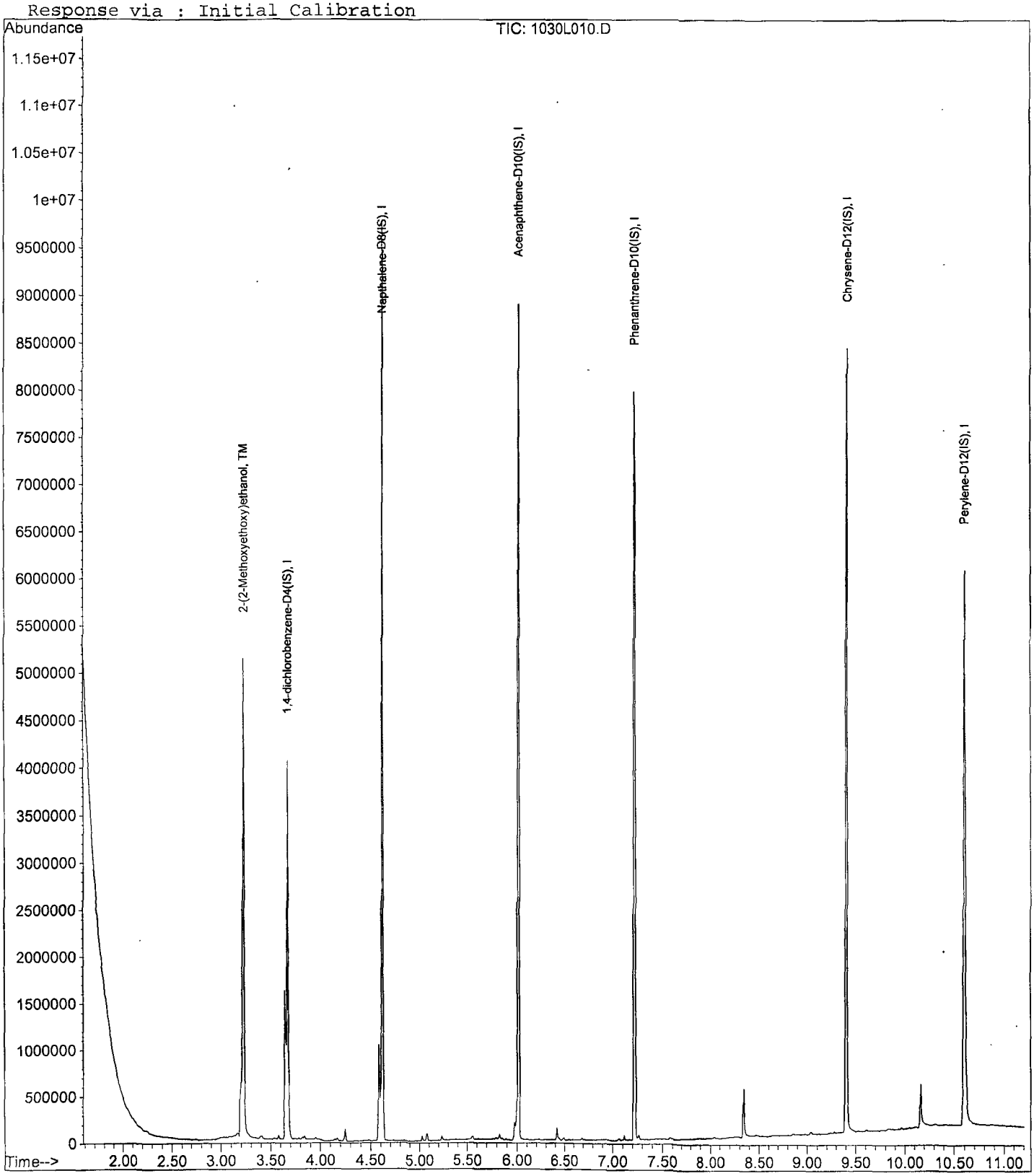
Data File : M:\LINUS\DATA\L191030M\1030L010.D
Acq On : 31 Oct 19 13:43
Sample : 800 2MEE 4/30/19
Misc :

Vial: 10
Operator: MA
Inst : Linus
Multiplr: 1.00

Quant Time: Oct 31 14:12 2019

Quant Results File: YMEE1030.RES

Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Oct 31 14:18:15 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L191030M\1030L011.D Vial: 11
Acq On : 31 Oct 19 14:02 Operator: MA
Sample : 1000 2MEE 4/30/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 31 14:13 2019 Quant Results File: YMEE1030.RES

Quant Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Oct 31 13:28:52 2019
Response via : Initial Calibration
DataAcq Meth : GED

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	3.67	152	893999	40.00000	ppb	0.00
3) Napthalene-D8(IS)	4.62	136	4002209	40.00000	ppb	0.00
4) Acenaphthene-D10(IS)	6.02	164	2003789	40.00000	ppb	0.00
5) Phenanthrene-D10(IS)	7.22	188	3346119	40.00000	ppb	0.00
6) Chrysene-D12(IS)	9.40	240	2853107	40.00000	ppb	0.00
7) Perylene-D12(IS)	10.60	264	2370540	40.00000	ppb	0.00
System Monitoring Compounds						
Target Compounds						Qvalue
2) 2-(2-Methoxyethoxy)ethanol	3.23	45	3096034	880.60620	ppb	98

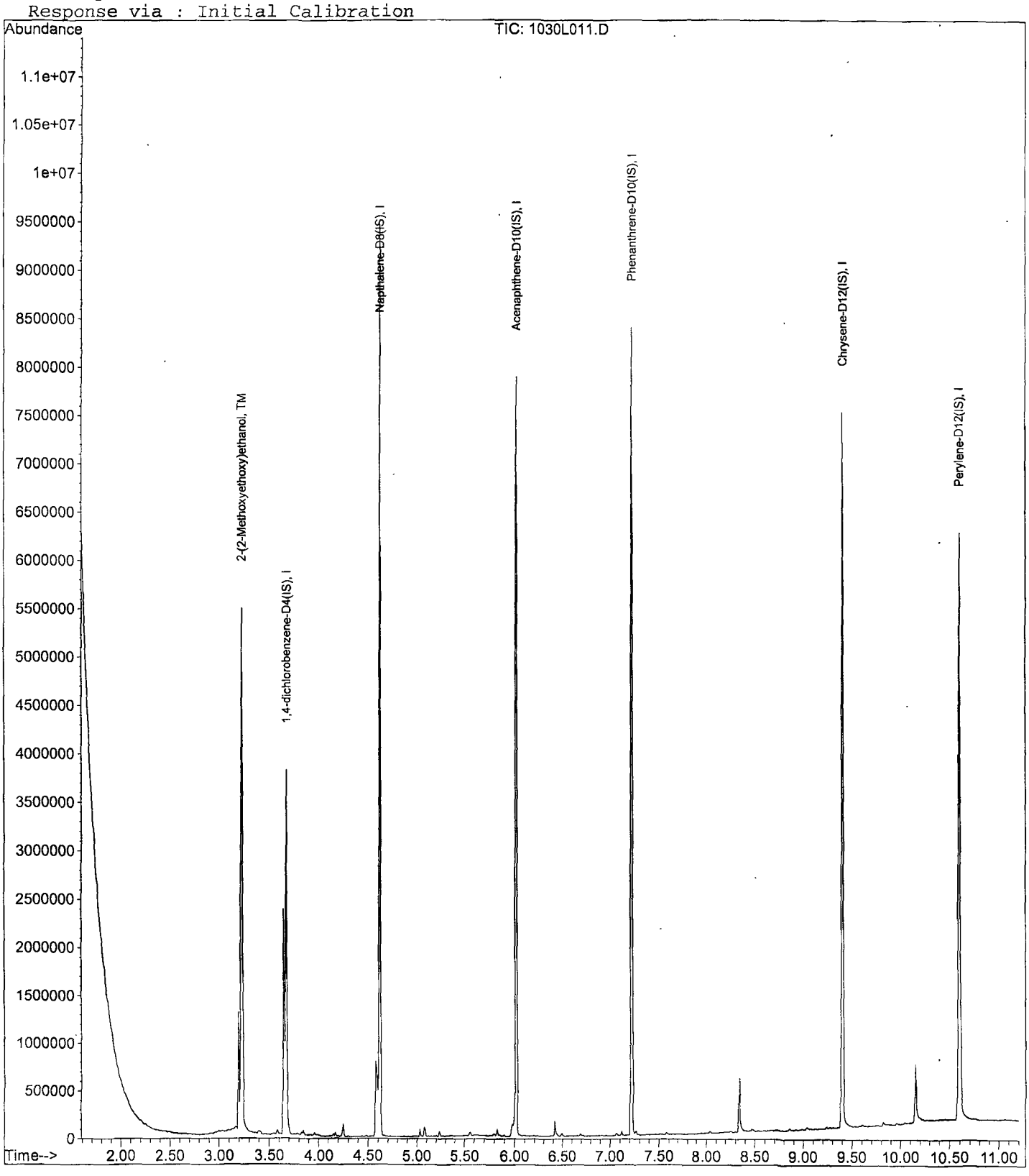
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L191030M\1030L011.D Vial: 11
Acq On : 31 Oct 19 14:02 Operator: MA
Sample : 1000 2MEE 4/30/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 31 14:13 2019 Quant Results File: YMEE1030.RES

Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Oct 31 14:18:15 2019
Response via : Initial Calibration



2MEE
EPA 8270

Form 7

Secon Source Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix:

SDG No:
Date Analyzed: 1 Nov 19 17:11
Instrument: Linus
Initial Cal. Date: 10/31/19
Data File: 1030L016.D

		Compound	MEAN	CCRF	%D		%Drift
1	I	1,4-dichlorobenzene-D4(IS)	ISTD			I	
2	TM	2-(2-Methoxyethoxy)ethanol	0.1384	0.1658	20	TM	
3	I	Napthalene-D8(IS)	ISTD			I	
4	I	Acenaphthene-D10(IS)	ISTD			I	
5	I	Phenanthrene-D10(IS)	ISTD			I	
6	I	Chrysene-D12(IS)	ISTD			I	
7	I	Perylene-D12(IS)	ISTD			I	
8							
9							
10							
11							
12							
13							
14							
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31							
32							
33							
34							
35							
36							
37							
38							
39							
40							
		Average			20.0		

Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L191030M\1030L016.D Vial: 16
Acq On : 1 Nov 19 17:11 Operator: MA
Sample : SS 2MEE 11/1/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Nov 1 17:27 2019 Quant Results File: YMEE1030.RES

Quant Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 01 17:06:59 2019
Response via : Initial Calibration
DataAcq Meth : GED

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	3.67	152	966230	40.00000	ppb	0.00
3) Napthalene-D8(IS)	4.62	136	4151555	40.00000	ppb	0.00
4) Acenaphthene-D10(IS)	6.02	164	2209408	40.00000	ppb	0.00
5) Phenanthrene-D10(IS)	7.23	188	4025811	40.00000	ppb	0.00
6) Chrysene-D12(IS)	9.40	240	2795621	40.00000	ppb	0.00
7) Perylene-D12(IS)	10.59	264	3078419	40.00000	ppb	0.00
System Monitoring Compounds						
Target Compounds						Qvalue
2) 2-(2-Methoxyethoxy)ethanol	3.20	45	2003024	599.31894	ppb	100

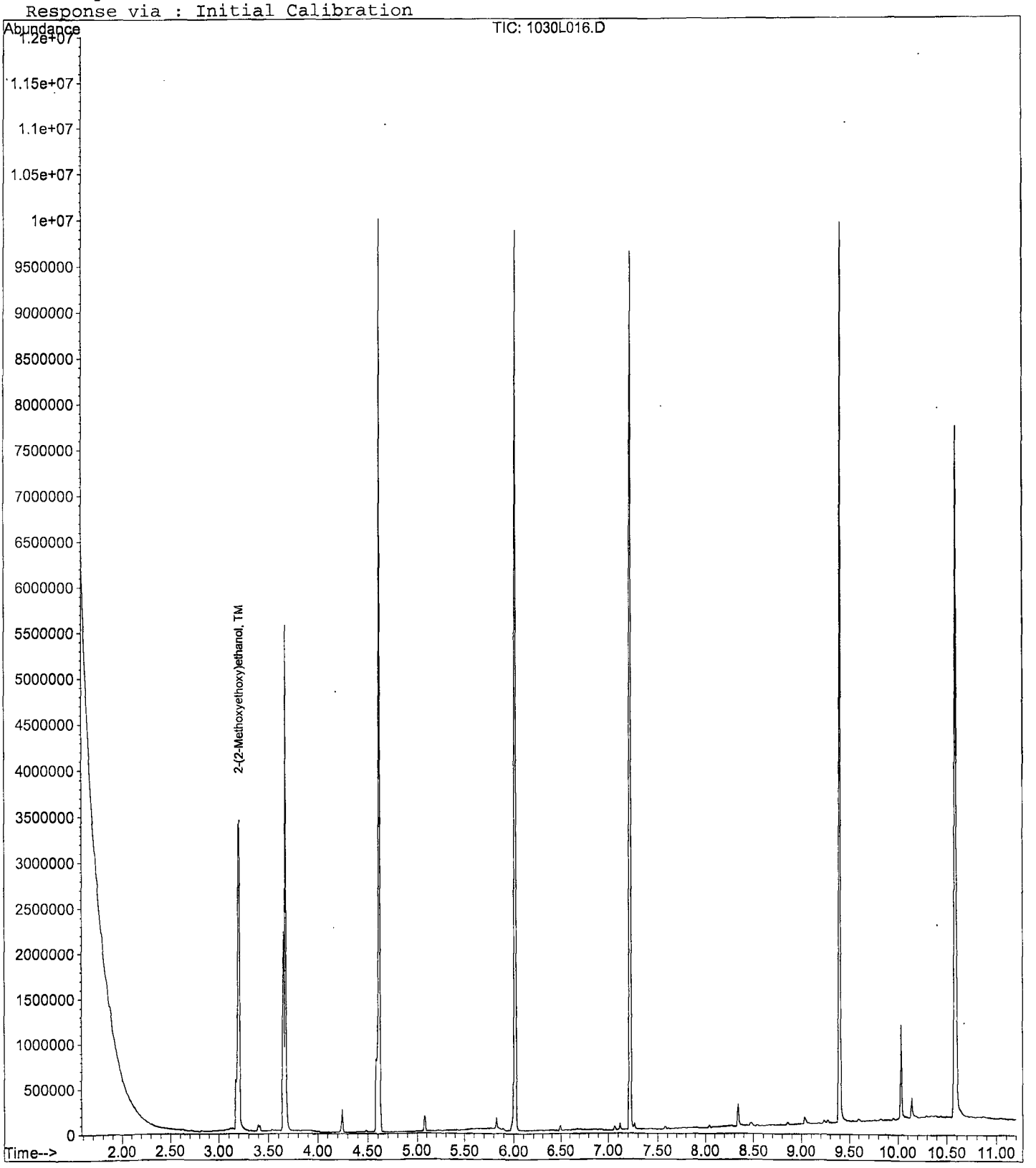
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L191030M\1030L016.D Vial: 16
Acq On : 1 Nov 19 17:11 Operator: MA
Sample : SS 2MEE 11/1/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Nov 1 17:27 2019 Quant Results File: YMEE1030.RES

Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 01 17:44:15 2019
Response via : Initial Calibration



2MEE
EPA 8270

Form 7

Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix:

SDG No:
Date Analyzed: 8 Nov 19 13:13
Instrument: Linus
Initial Cal. Date: 10/31/19
Data File: 1030L042.D

		Compound	MEAN	CCRF	%D		%Drift
1	I	1,4-dichlorobenzene-D4(IS)	ISTD			I	
2	TM	2-(2-Methoxyethoxy)ethanol	0.1384	0.1387	0.23	TM	
3	I	Napthalene-D8(IS)	ISTD			I	
4	I	Acenaphthene-D10(IS)	ISTD			I	
5	I	Phenanthrene-D10(IS)	ISTD			I	
6	I	Chrysene-D12(IS)	ISTD			I	
7	I	Perylene-D12(IS)	ISTD			I	
8							
9							
10							
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38							
39							
40							
		Average			0.2		

Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L191030M\1030L042.D Vial: 42
Acq On : 8 Nov 19 13:13 Operator: MA
Sample : 500 2MEE 4/30/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Nov 8 13:31 2019 Quant Results File: YMEE1030.RES

Quant Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 01 17:44:15 2019
Response via : Initial Calibration
DataAcq Meth : GED

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	3.67	152	742292m	40.00000 ppb	0.00
3) Napthalene-D8(IS)	4.62	136	3312063	40.00000 ppb	0.00
4) Acenaphthene-D10(IS)	6.01	164	1556563	40.00000 ppb	0.00
5) Phenanthrene-D10(IS)	7.22	188	2759126	40.00000 ppb	0.00
6) Chrysene-D12(IS)	9.42	240	2199352	40.00000 ppb	0.02
7) Perylene-D12(IS)	10.65	264	2536267	40.00000 ppb	0.05

System Monitoring Compounds

Target Compounds					Qvalue
2) 2-(2-Methoxyethoxy)ethanol	3.20	45	1286778	501.16556 ppb	98

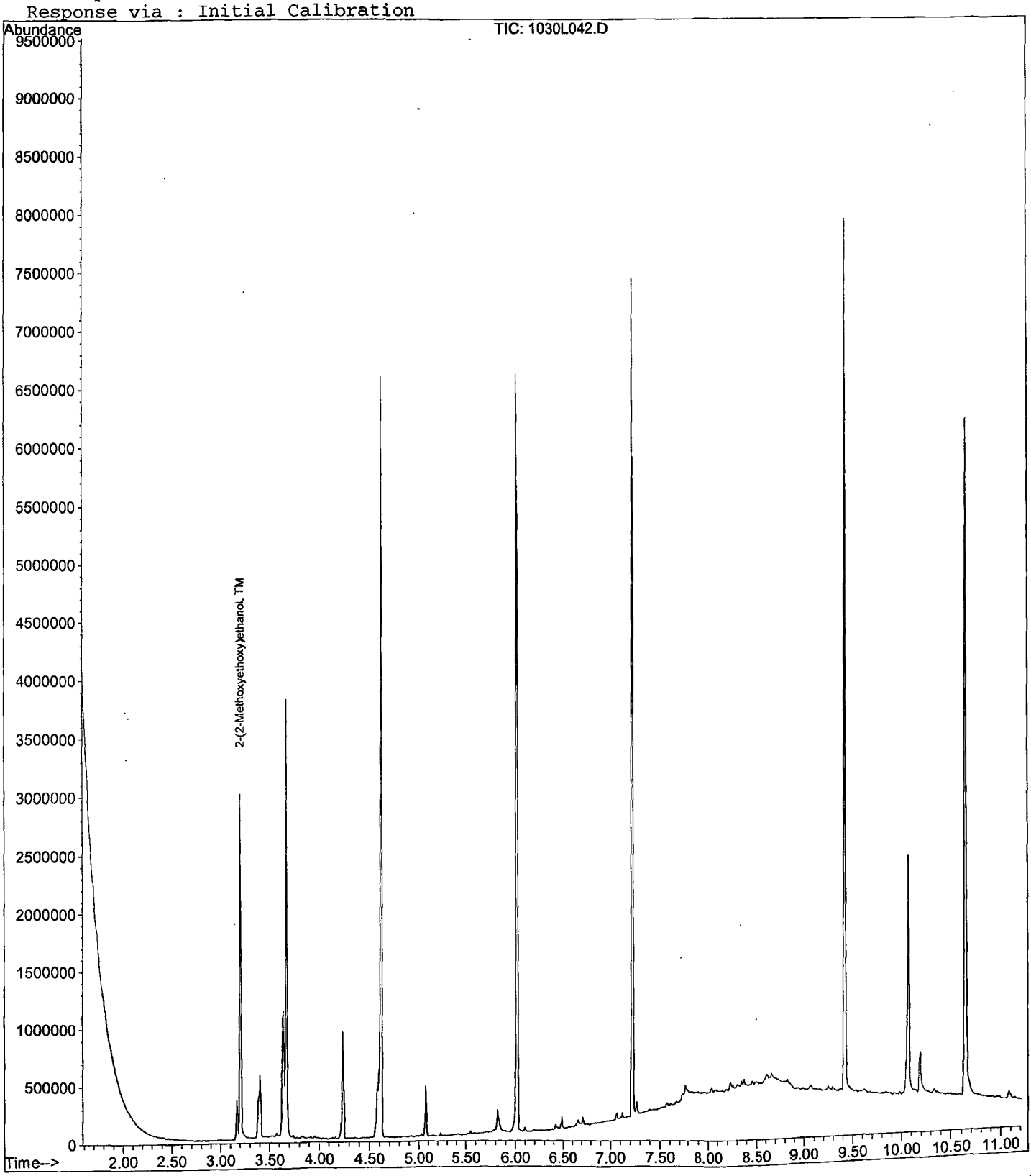
(#) = qualifier out of range (m) = manual integration
1030L042.D YMEE1030.M Wed Nov 20 14:36:59 2019 Page 1

Quantitation Report

Data File : M:\LINUS\DATA\L191030M\1030L042.D Vial: 42
Acq On : 8 Nov 19 13:13 Operator: MA
Sample : 500 2MEE 4/30/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Nov 8 13:31 2019 Quant Results File: YMEE1030.RES

Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 01 17:44:15 2019
Response via : Initial Calibration



2MEE
EPA 8270

Form 7

Ending Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix:

SDG No:
Date Analyzed: 8 Nov 19 21:02
Instrument: Linus
Initial Cal. Date: 10/31/19
Data File: 1030L061.D

		Compound	MEAN	CCRF	%D		%Drift
1	I	1,4-dichlorobenzene-D4(IS)	ISTD			I	
2	TM	2-(2-Methoxyethoxy)ethanol	0.1384	0.1103	20	TM	
3	I	Napthalene-D8(IS)	ISTD			I	
4	I	Acenaphthene-D10(IS)	ISTD			I	
5	I	Phenanthrene-D10(IS)	ISTD			I	
6	I	Chrysene-D12(IS)	ISTD			I	
7	I	Perylene-D12(IS)	ISTD			I	
8							
9							
10							
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36							
37							
38							
39							
40							
		Average			20.0		

Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L191030M\1030L061.D Vial: 61
Acq On : 8 Nov 19 21:02 Operator: MA
Sample : 500 2MEE 4/30/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Nov 11 9:47 2019 Quant Results File: YMEE1030.RES

Quant Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 01 17:44:15 2019
Response via : Initial Calibration
DataAcq Meth : GED

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	3.67	152	772424m	40.00000 ppb	0.00
3) Napthalene-D8(IS)	4.61	136	3311191	40.00000 ppb	0.00
4) Acenaphthene-D10(IS)	6.01	164	1654193	40.00000 ppb	0.00
5) Phenanthrene-D10(IS)	7.22	188	3011207	40.00000 ppb	0.00
6) Chrysene-D12(IS)	9.39	240	2583758	40.00000 ppb	0.00
7) Perylene-D12(IS)	10.57	264	2584578	40.00000 ppb	-0.03
System Monitoring Compounds					
Target Compounds					Qvalue
2) 2-(2-Methoxyethoxy)ethanol	3.19	45	1065305	398.72234 ppb	96

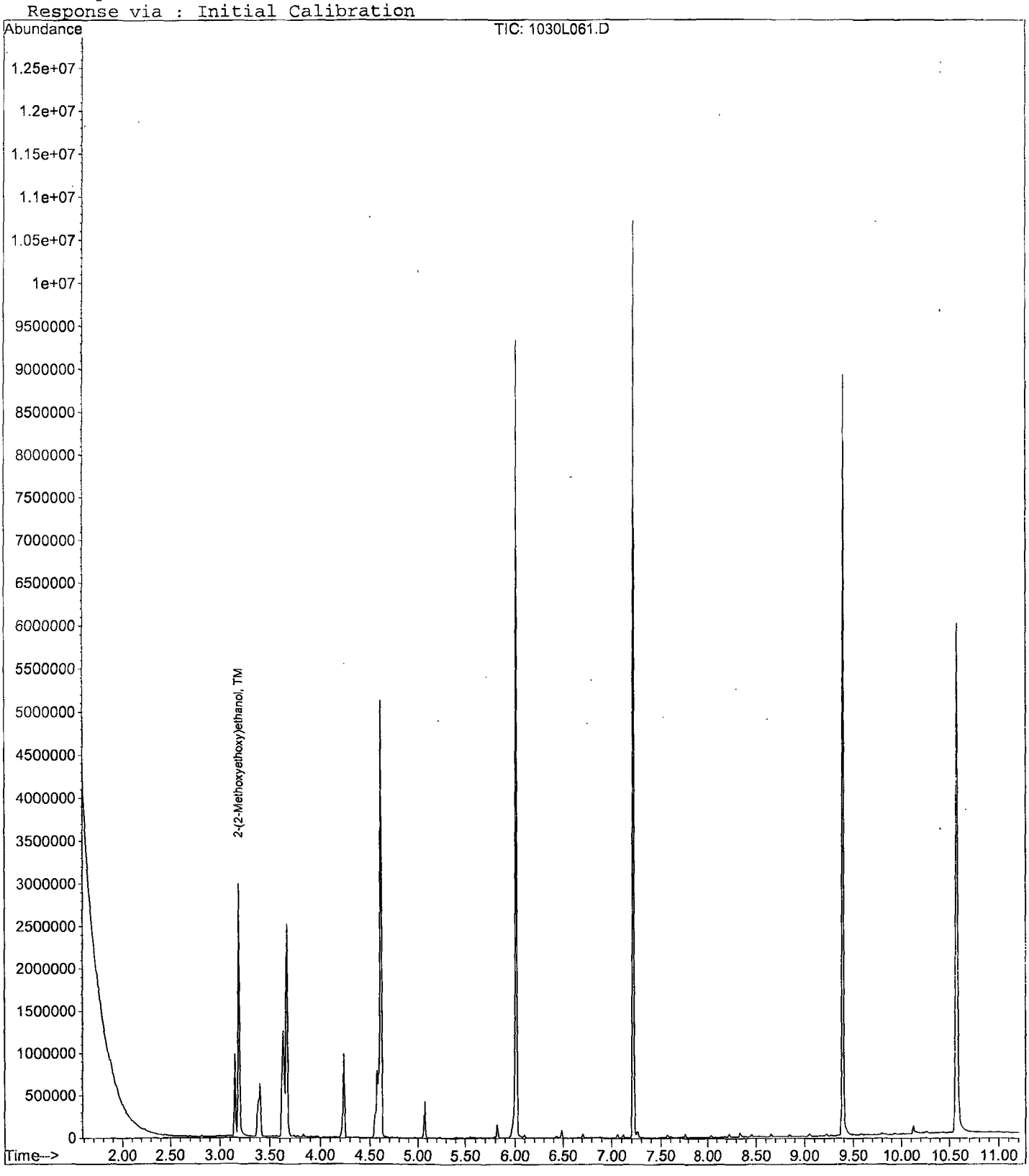
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L191030M\1030L061.D Vial: 61
Acq On : 8 Nov 19 21:02 Operator: MA
Sample : 500 2MEE 4/30/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Nov 11 9:47 2019 Quant Results File: YMEE1030.RES

Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 01 17:44:15 2019
Response via : Initial Calibration



ORGANICS
Raw Data

Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L191030M\1030L056.D Vial: 56
Acq On : 8 Nov 19 19:31 Operator: MA
Sample : BA02214W18 2/500 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Nov 11 9:44 2019 Quant Results File: YMEE1030.RES

Quant Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 01 17:44:15 2019
Response via : Initial Calibration
DataAcq Meth : GED

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	3.66	152	786832	40.00000 ppb	0.00
3) Napthalene-D8(IS)	4.61	136	3129254	40.00000 ppb	0.00
4) Acenaphthene-D10(IS)	6.01	164	1476924	40.00000 ppb	0.00
5) Phenanthrene-D10(IS)	7.22	188	2834798	40.00000 ppb	0.00
6) Chrysene-D12(IS)	9.39	240	2071466	40.00000 ppb	0.00
7) Perylene-D12(IS)	10.58	264	2302018	40.00000 ppb	-0.02

System Monitoring Compounds

Target Compounds Qvalue

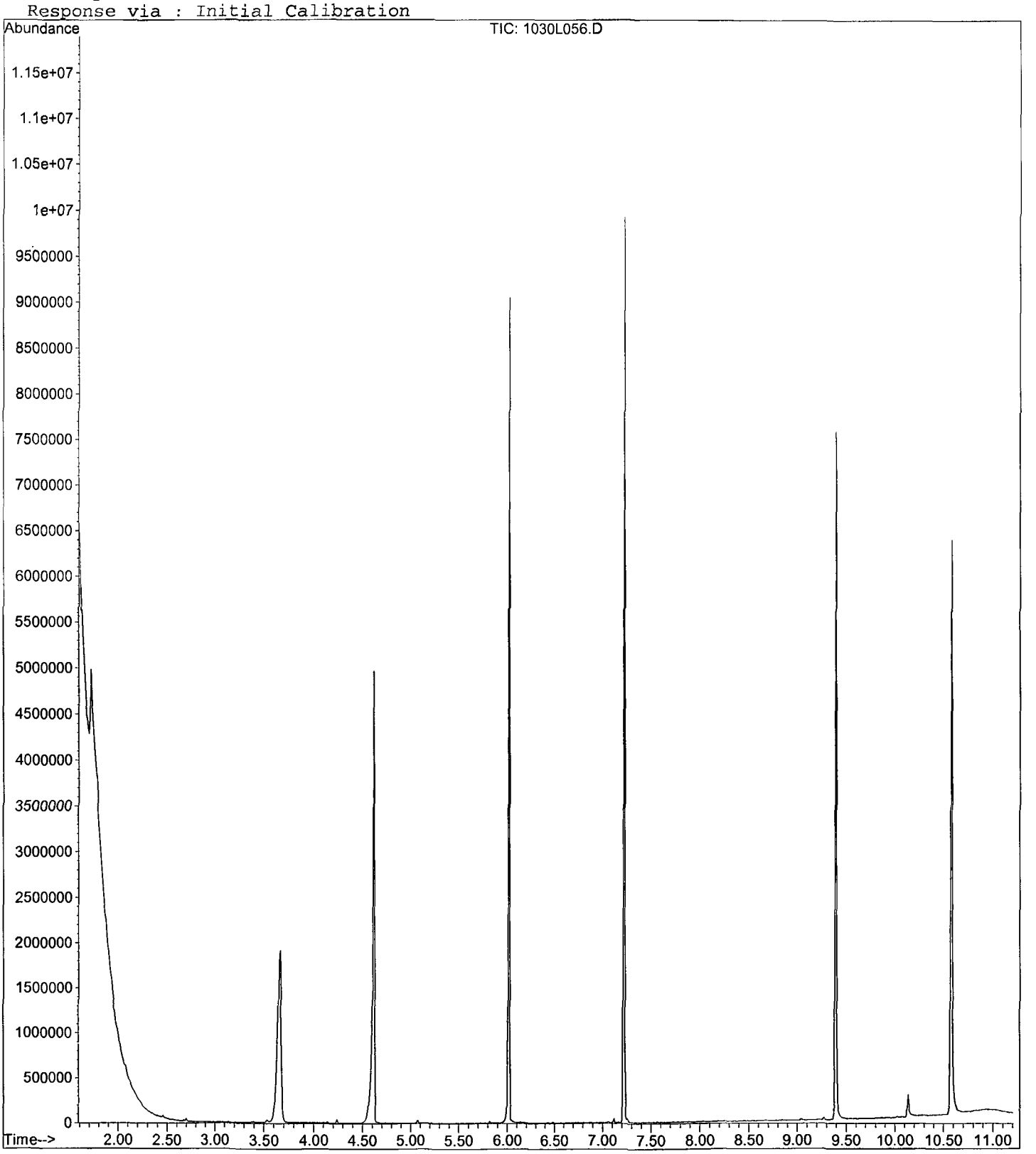
(#) = qualifier out of range (m) = manual integration
1030L056.D YMEE1030.M Wed Dec 04 11:40:41 2019 Page 1

Quantitation Report

Data File : M:\LINUS\DATA\L191030M\1030L056.D Vial: 56
Acq On : 8 Nov 19 19:31 Operator: MA
Sample : BA02214W18 2/500 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Nov 11 9:44 2019 Quant Results File: YMEE1030.RES

Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 01 17:44:15 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L191030M\1030L057.D Vial: 57
Acq On : 8 Nov 19 19:49 Operator: MA
Sample : BA02216W10 2/500 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Nov 11 9:44 2019 Quant Results File: YMEE1030.RES

Quant Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 01 17:44:15 2019
Response via : Initial Calibration
DataAcq Meth : GED

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	3.66	152	761675	40.00000 ppb	0.00
3) Napthalene-D8(IS)	4.61	136	2978145	40.00000 ppb	0.00
4) Acenaphthene-D10(IS)	6.01	164	1440800	40.00000 ppb	0.00
5) Phenanthrene-D10(IS)	7.22	188	2817186	40.00000 ppb	0.00
6) Chrysene-D12(IS)	9.39	240	2240109	40.00000 ppb	0.00
7) Perylene-D12(IS)	10.57	264	2303793	40.00000 ppb	-0.03

System Monitoring Compounds

Target Compounds Qvalue

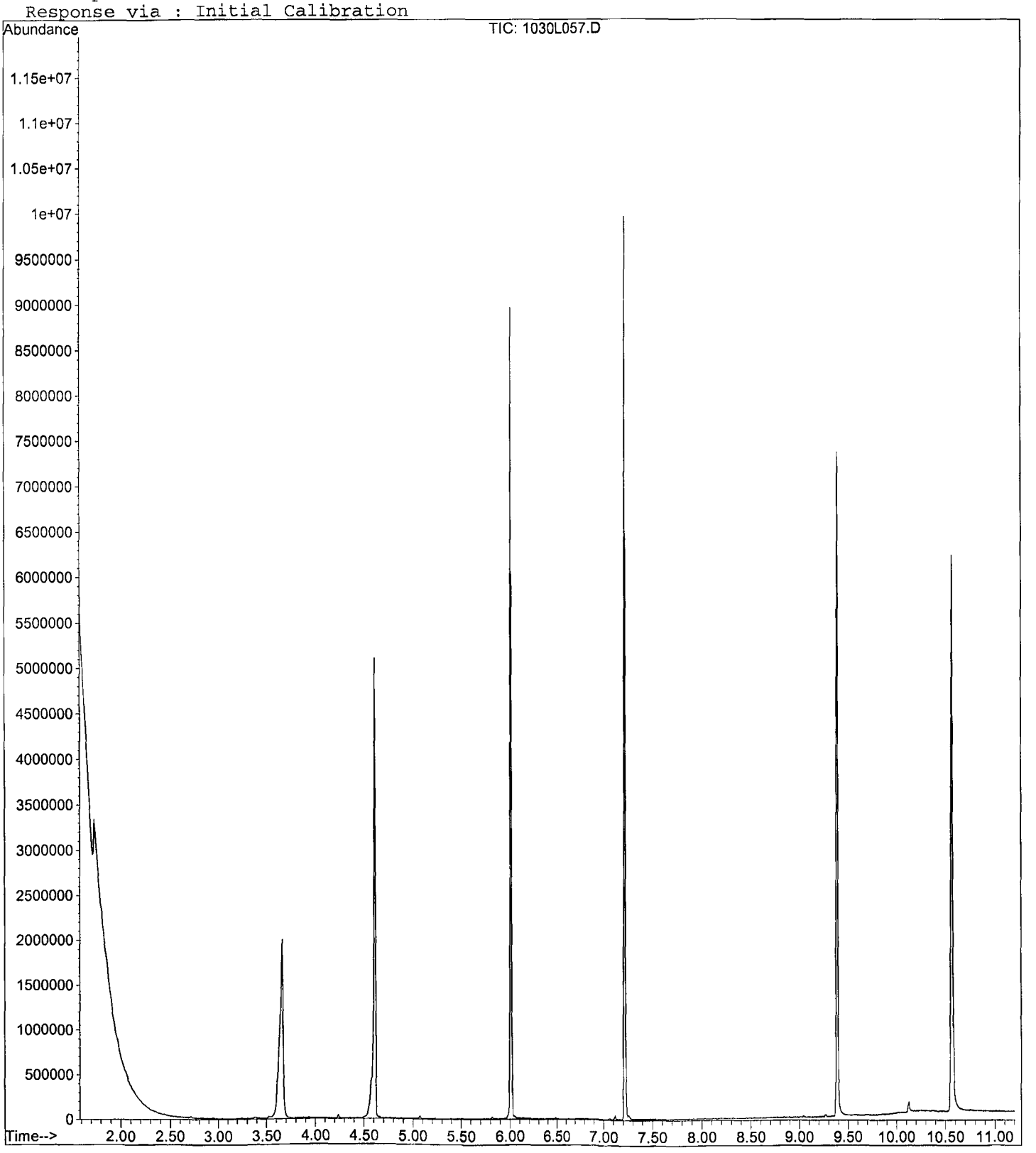
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L191030M\1030L057.D Vial: 57
Acq On : 8 Nov 19 19:49 Operator: MA
Sample : BA02216W10 2/500 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Nov 11 9:44 2019 Quant Results File: YMEE1030.RES

Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 01 17:44:15 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L191030M\1030L053.D Vial: 53
Acq On : 8 Nov 19 18:36 Operator: MA
Sample : 191106A BLK 2/500 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Nov 11 9:44 2019 Quant Results File: YMEE1030.RES

Quant Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 01 17:44:15 2019
Response via : Initial Calibration
DataAcq Meth : GED

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	3.66	152	601686	40.00000 ppb	0.00
3) Napthalene-D8(IS)	4.61	136	2463488	40.00000 ppb	0.00
4) Acenaphthene-D10(IS)	6.01	164	1386063	40.00000 ppb	0.00
5) Phenanthrene-D10(IS)	7.22	188	2629751	40.00000 ppb	0.00
6) Chrysene-D12(IS)	9.39	240	1937018	40.00000 ppb	0.00
7) Perylene-D12(IS)	10.59	264	2166467	40.00000 ppb	0.00

System Monitoring Compounds

Target Compounds Qvalue

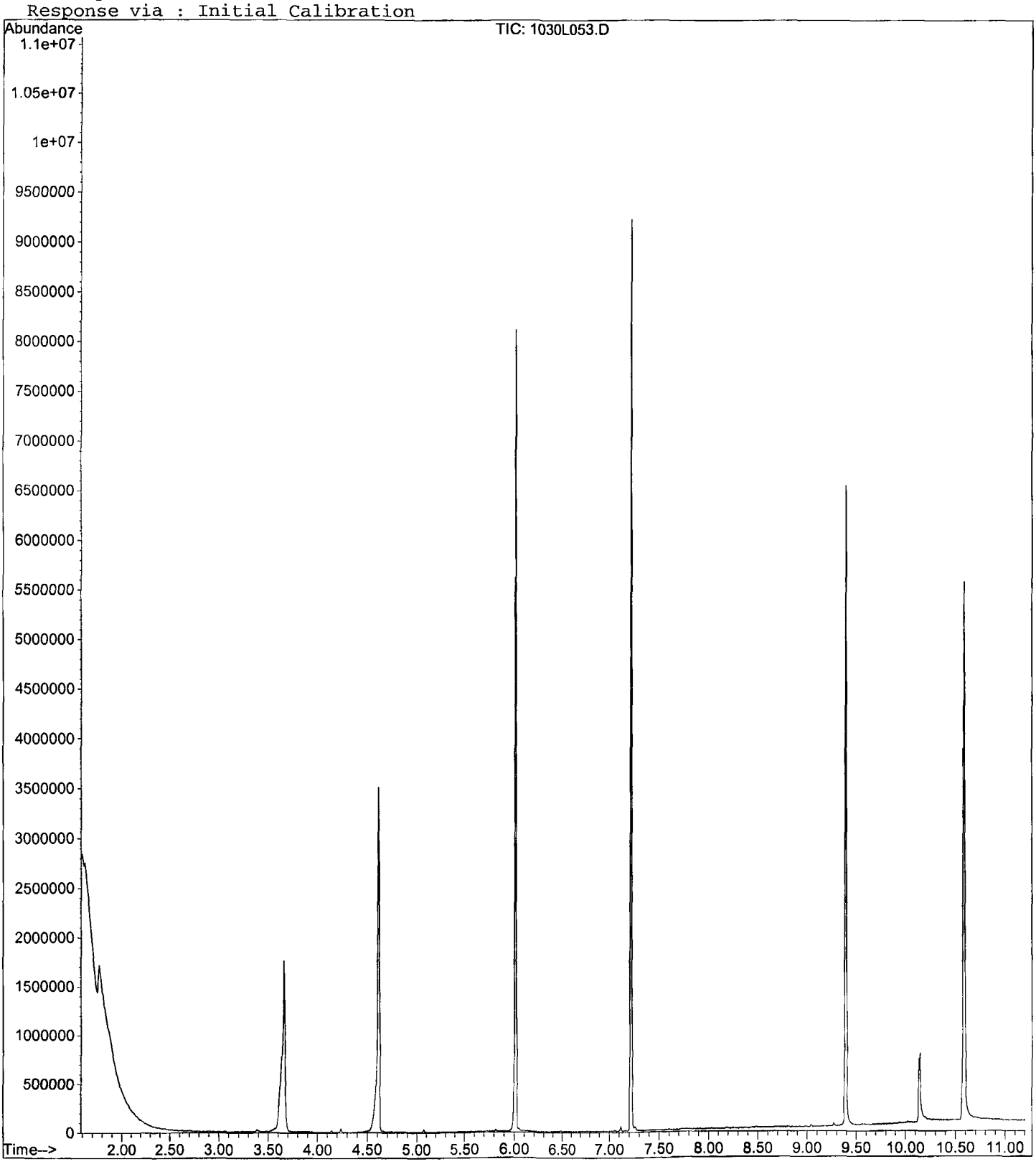
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L191030M\1030L053.D Vial: 53
Acq On : 8 Nov 19 18:36 Operator: MA
Sample : 191106A BLK 2/500 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Nov 11 9:44 2019 Quant Results File: YMEE1030.RES

Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 01 17:44:15 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L191030M\1030L054.D Vial: 54
Acq On : 8 Nov 19 18:54 Operator: MA
Sample : 191106A LCS-1 2/500 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Nov 11 9:44 2019 Quant Results File: YMEE1030.RES

Quant Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 01 17:44:15 2019
Response via : Initial Calibration
DataAcq Meth : GED

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	3.66	152	855406	40.00000 ppb	0.00
3) Napthalene-D8(IS)	4.62	136	3572005	40.00000 ppb	0.00
4) Acenaphthene-D10(IS)	6.01	164	1620023	40.00000 ppb	0.00
5) Phenanthrene-D10(IS)	7.22	188	3079090	40.00000 ppb	0.00
6) Chrysene-D12(IS)	9.40	240	2586817	40.00000 ppb	0.00
7) Perylene-D12(IS)	10.60	264	2670113	40.00000 ppb	0.00

System Monitoring Compounds

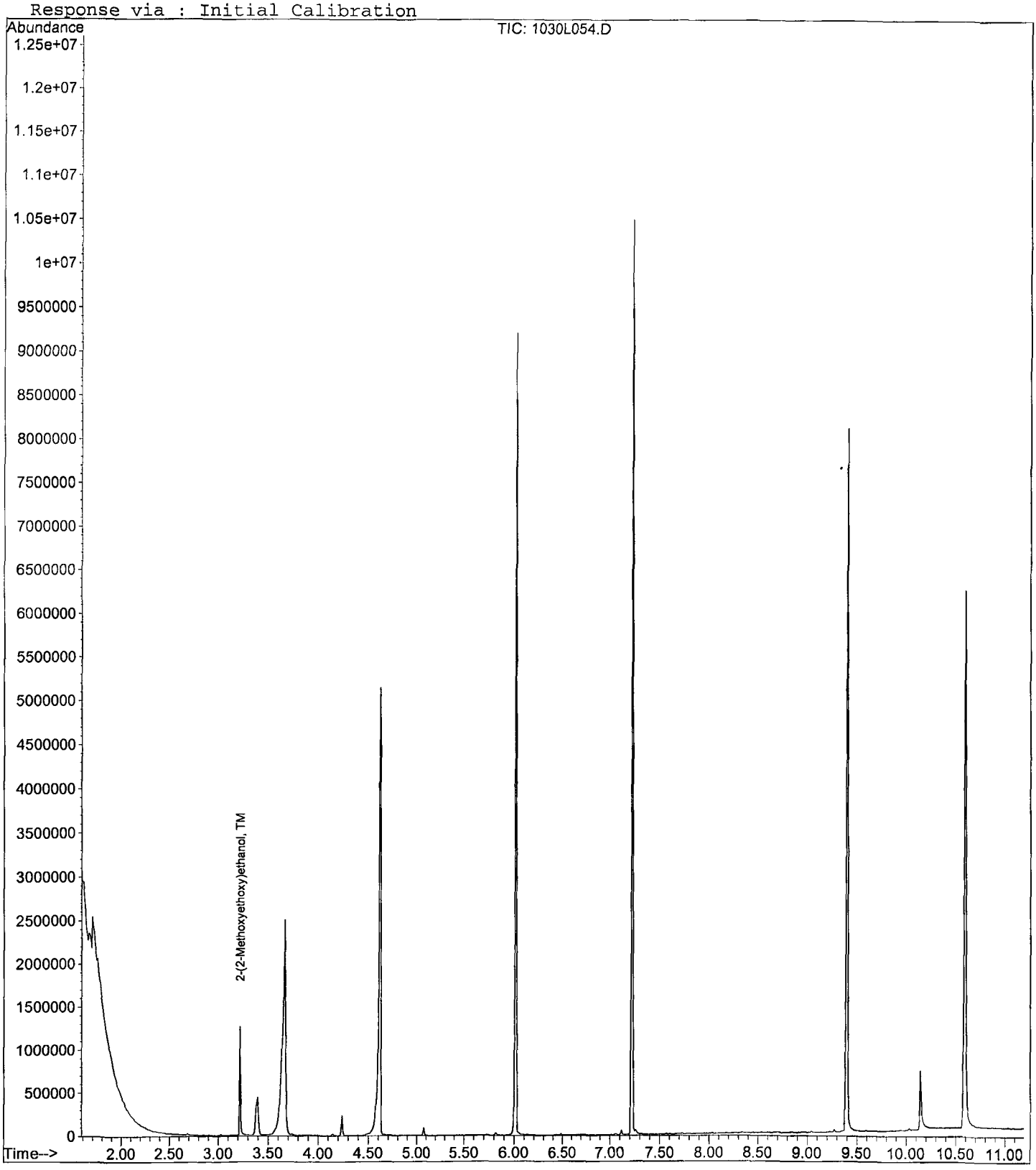
Target Compounds					Qvalue
2) 2-(2-Methoxyethoxy)ethanol	3.22	45	342988	115.92017 ppb	98

(#) = qualifier out of range (m) = manual integration
1030L054.D YMEE1030.M Wed Dec 04 11:40:32 2019 Page 1

Data File : M:\LINUS\DATA\L191030M\1030L054.D Vial: 54
Acq On : 8 Nov 19 18:54 Operator: MA
Sample : 191106A LCS-1 2/500 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Nov 11 9:44 2019 Quant Results File: YMEE1030.RES

Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 01 17:44:15 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L191030M\1030L055.D Vial: 55
Acq On : 8 Nov 19 19:12 Operator: MA
Sample : 191106A LCSD-1 2/500 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Nov 11 9:44 2019 Quant Results File: YMEE1030.RES

Quant Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 01 17:44:15 2019
Response via : Initial Calibration
DataAcq Meth : GED

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	3.66	152	928360	40.00000	ppb	0.00
3) Napthalene-D8(IS)	4.62	136	3861499	40.00000	ppb	0.00
4) Acenaphthene-D10(IS)	6.01	164	1857294	40.00000	ppb	0.00
5) Phenanthrene-D10(IS)	7.22	188	3438675	40.00000	ppb	0.00
6) Chrysene-D12(IS)	9.40	240	2997263	40.00000	ppb	0.00
7) Perylene-D12(IS)	10.60	264	3045947	40.00000	ppb	0.00
System Monitoring Compounds						
Target Compounds						Qvalue
2) 2-(2-Methoxyethoxy)ethanol	3.21	45	287751	89.60924	ppb	98

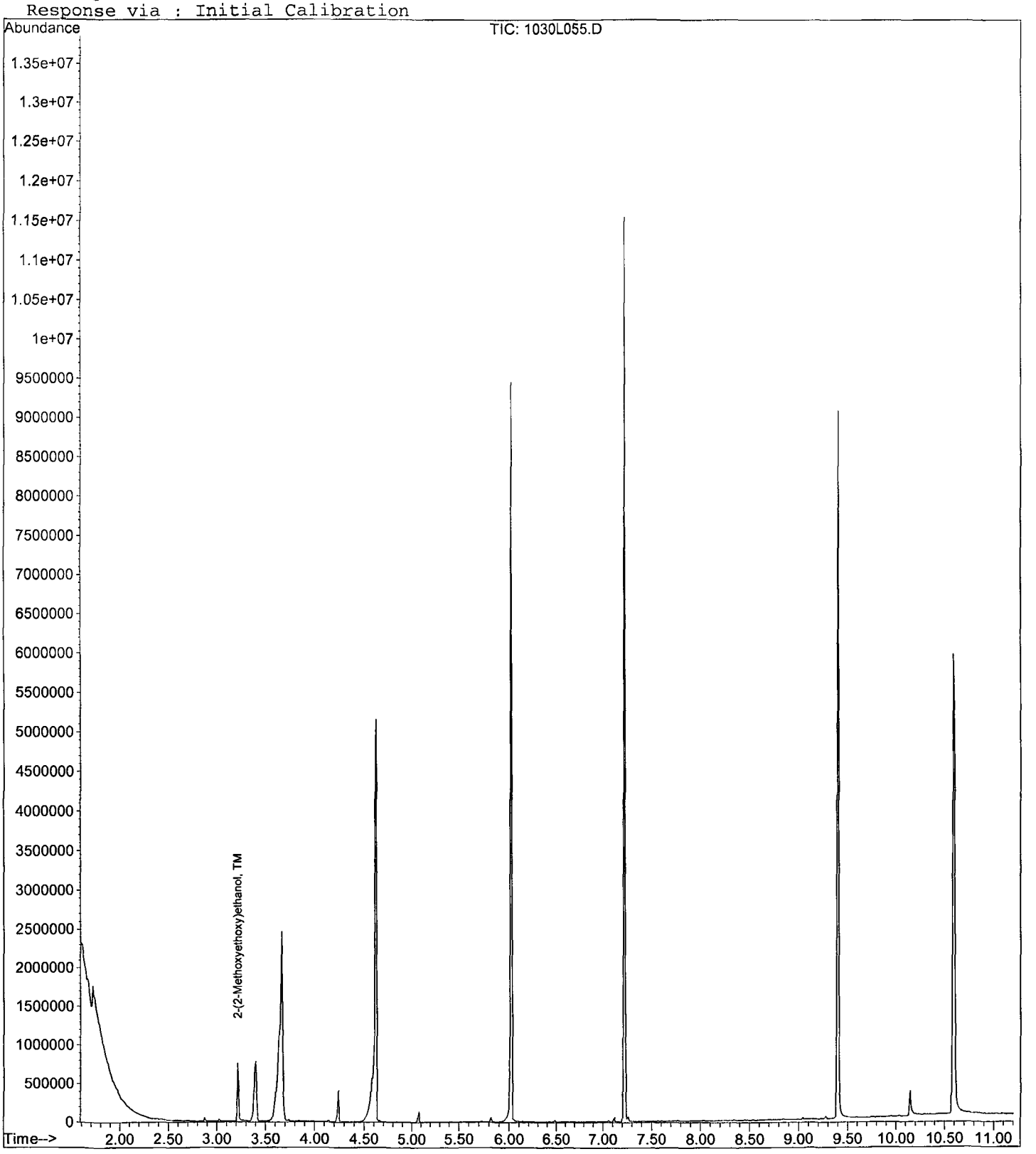
(#) = qualifier out of range (m) = manual integration
1030L055.D YMEE1030.M Wed Dec 04 11:40:37 2019 Page 1

Quantitation Report

Data File : M:\LINUS\DATA\L191030M\1030L055.D Vial: 55
Acq On : 8 Nov 19 19:12 Operator: MA
Sample : 191106A LCSD-1 2/500 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Nov 11 9:44 2019 Quant Results File: YMEE1030.RES

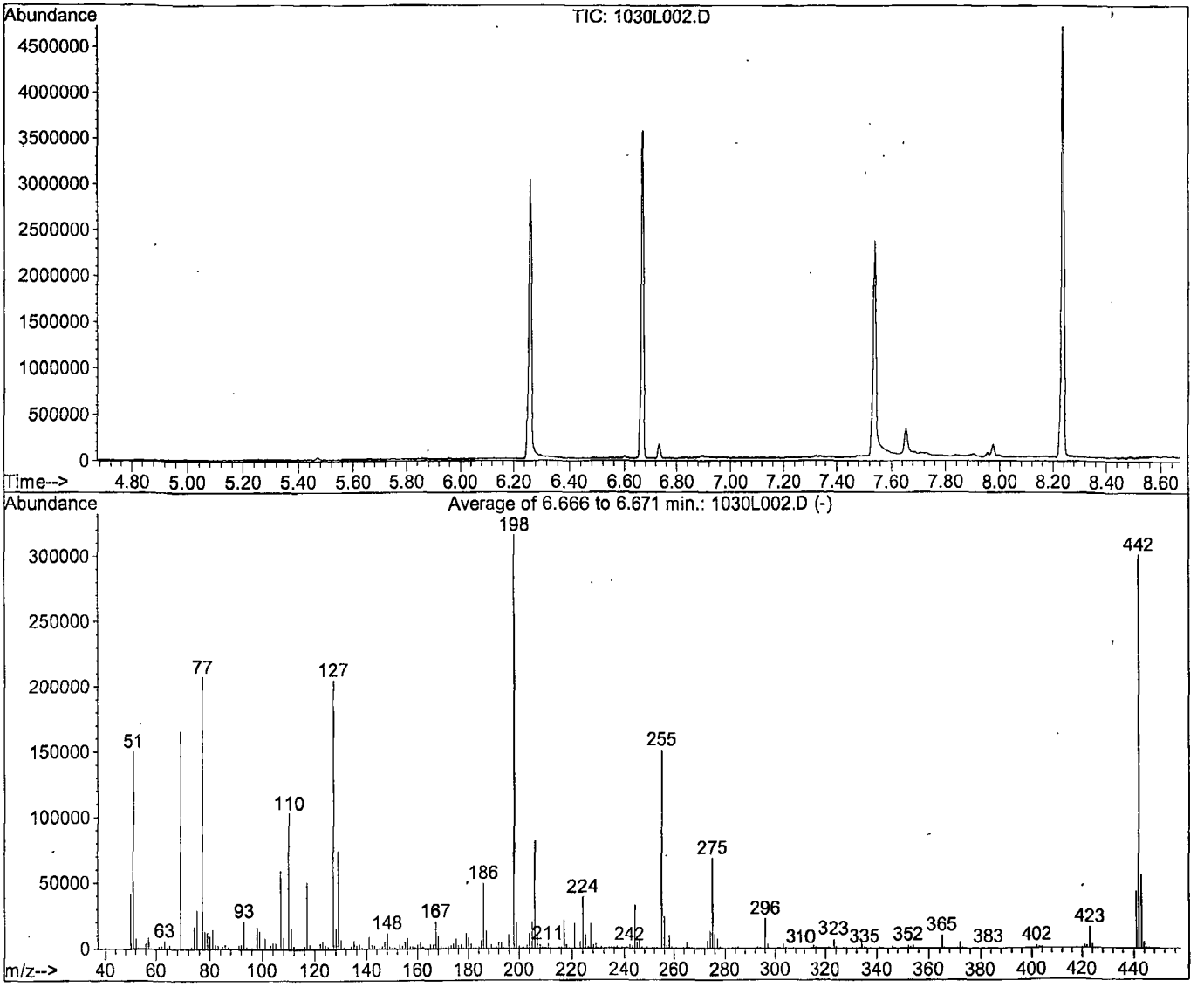
Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 01 17:44:15 2019
Response via : Initial Calibration



Data File : M:\LINUS\DATA\L191030M\1030L002.D
Acq On : 31 Oct 19 9:39
Sample : SV Tune 10/01/19
Misc :

Vial: 86
Operator: MA
Inst : Linus
Multiplr: 1.00

Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C



AutoFind: Scans 1639, 1640, 1641; Background Corrected with Scan 1629

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	47.5	150243	PASS
68	69	0.00	2	0.0	0	PASS
70	69	0.00	2	0.6	922	PASS
127	198	10	80	64.9	205418	PASS
197	198	0.00	2	0.0	0	PASS
198	198	100	100	100.0	316523	PASS
199	198	5	9	6.2	19776	PASS
275	198	10	60	21.7	68701	PASS
365	198	1	100	3.2	9986	PASS
441	442	0.01	24	14.5	43648	PASS
442	198	50	500	95.4	301909	PASS
443	442	15	24	18.6	56149	PASS

Data File Name:	**1030L002.D**
Data File Path:	**M:\LINUS\DATA\L191030M**
Operator:	**MA**
Date Acquired:	**31 Oct 2019 09:39**
Method File:	**DFTPP2.M**
Sample Name:	**SV Tune 07/11/19**
Vial Number:	**86**
Instrument Name:	**Linus**

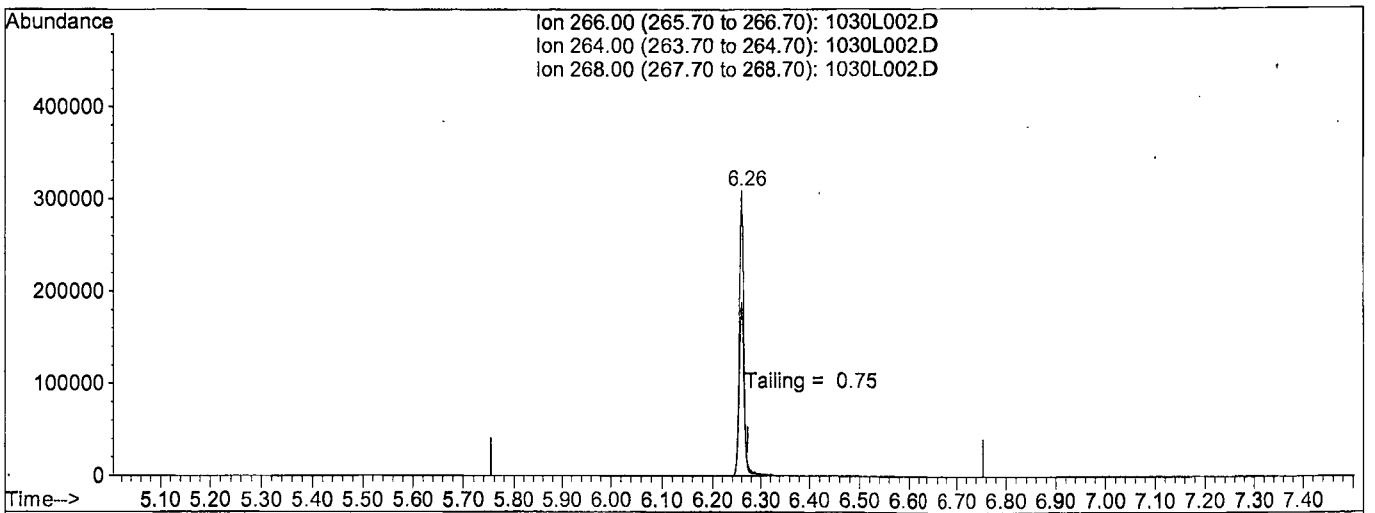
#	Name	Ret Time	Target Response
1)	DDT	8.21	32088400
2)	DDD	7.98	1040940
3)	DDE	8.00	701952

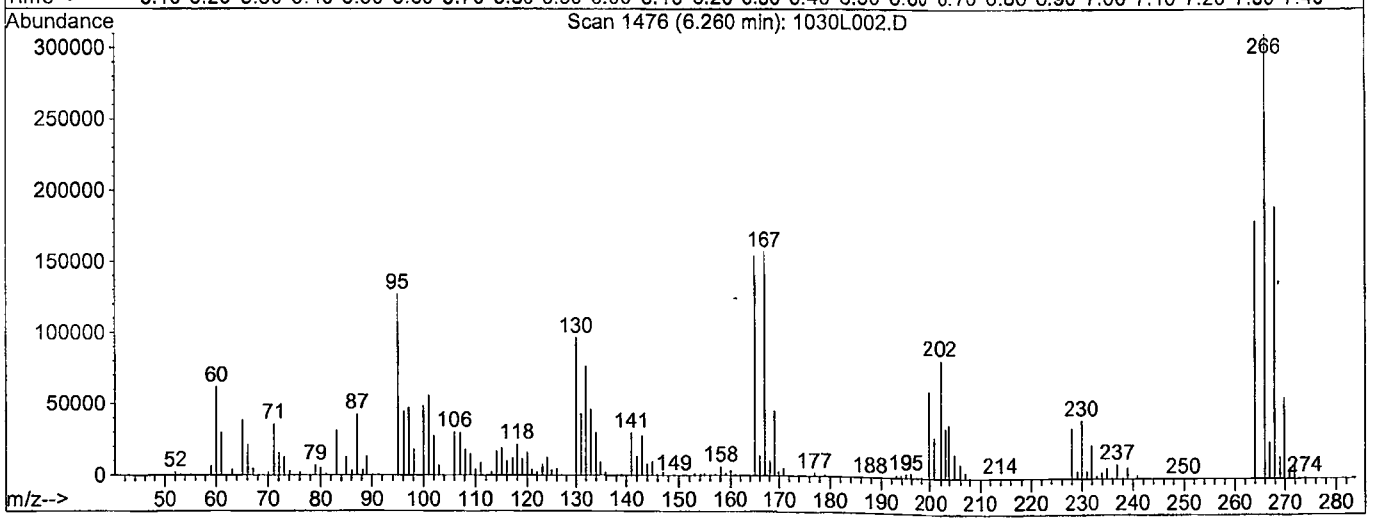
Breakdown **5.15**

Quantitation Report

Data File : M:\LINUS\DATA\L191030M\1030L002.D Vial: 86
Acq On : 31 Oct 19 9:39 Operator: MA
Sample : SV Tune 07/11/19 Inst : Linus
Misc : Multiplr: 1.00
Quant Time: Oct 31 17:15 2019 Quant Results File: temp.res

Method : M:\LINUS\DATA\L191030M\DFTPP2.M (Chemstation Integrator)
Title :
Last Update : Thu Oct 31 09:52:59 2019
Response via : Single Level Calibration





TIC: 1030L002.D

(5) Pentachlorophenol

6.26min 0.0000

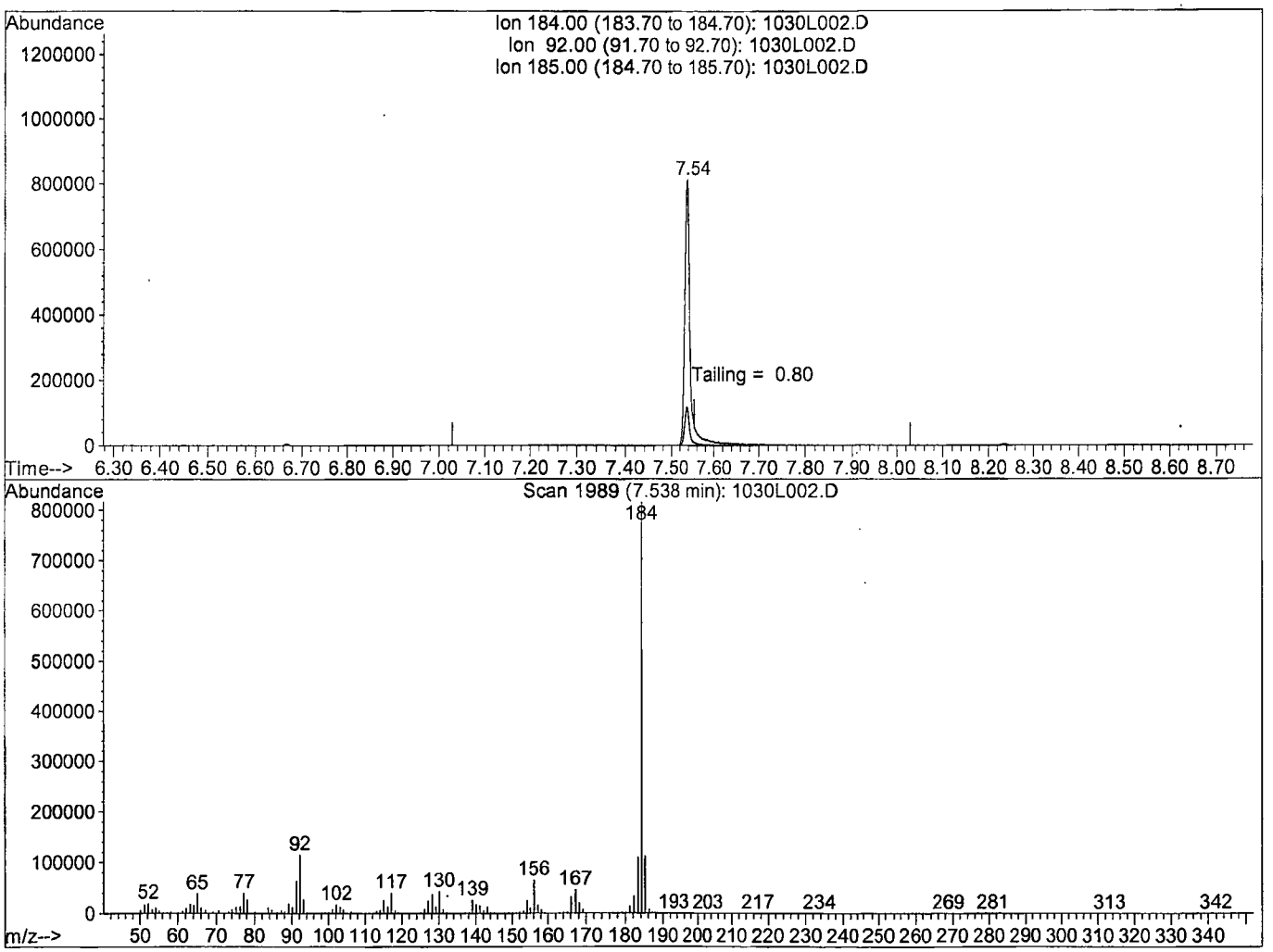
response 2123401

Ion	Exp%	Act%
266.00	100	100
264.00	58.90	57.25
268.00	62.10	64.34
0.00	0.00	0.00

Quantitation Report

Data File : M:\LINUS\DATA\L191030M\1030L002.D Vial: 86
Acq On : 31 Oct 19 9:39 Operator: MA
Sample : SV Tune 07/11/19 Inst : Linus
Misc : Multiplr: 1.00
Quant Time: Oct 31 17:15 2019 Quant Results File: temp.res

Method : M:\LINUS\DATA\L191030M\DFTPP2.M (Chemstation Integrator)
Title :
Last Update : Thu Oct 31 09:52:59 2019
Response via : Single Level Calibration



TIC: 1030L002.D

(6) Benzidine

7.54min 0.0000

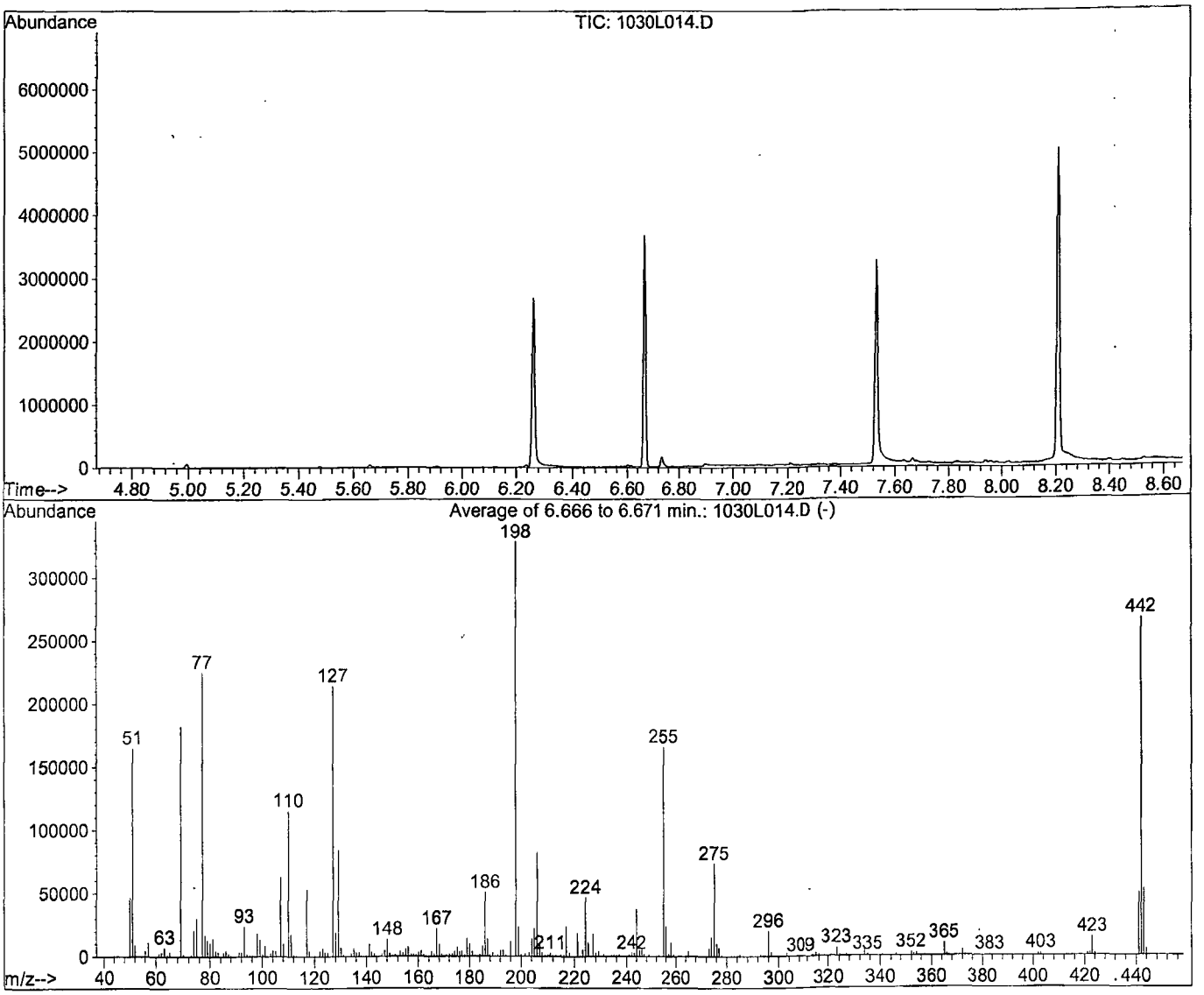
response 6810019

Ion	Exp%	Act%
184.00	100	100
92.00	12.10	14.47
185.00	13.30	14.66
0.00	0.00	0.00

DFTPP

Data File : M:\LINUS\DATA\L191030M\1030L014.D Vial: 14
Acq On : 1 Nov 19 15:17 Operator: MA
Sample : SV Tune 10/01/19 Inst : Linus
Misc : Multiplr: 1.00

Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C



AutoFind: Scans 1639, 1640, 1641; Background Corrected with Scan 1630

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	50.2	164951	PASS
68	69	0.00	2	0.0	0	PASS
70	69	0.00	2	0.7	1364	PASS
127	198	10	80	65.2	214229	PASS
197	198	0.00	2	0.0	0	PASS
198	198	100	100	100.0	328597	PASS
199	198	5	9	7.0	22899	PASS
275	198	10	60	22.3	73325	PASS
365	198	1	100	3.1	10112	PASS
441	442	0.01	24	18.5	49301	PASS
442	198	50	500	81.1	266539	PASS
443	442	15	24	19.7	52437	PASS

Data File Name:	**1030L014.D**
Data File Path:	**M:\LINUS\DATA\L191030M**
Operator:	**MA**
Date Acquired:	**1 Nov 19 15:17**
Method File:	**DFTPP2.M**
Sample Name:	**SV Tune 10/01/19**
Vial Number:	**14**
Instrument Name:	**Linus**

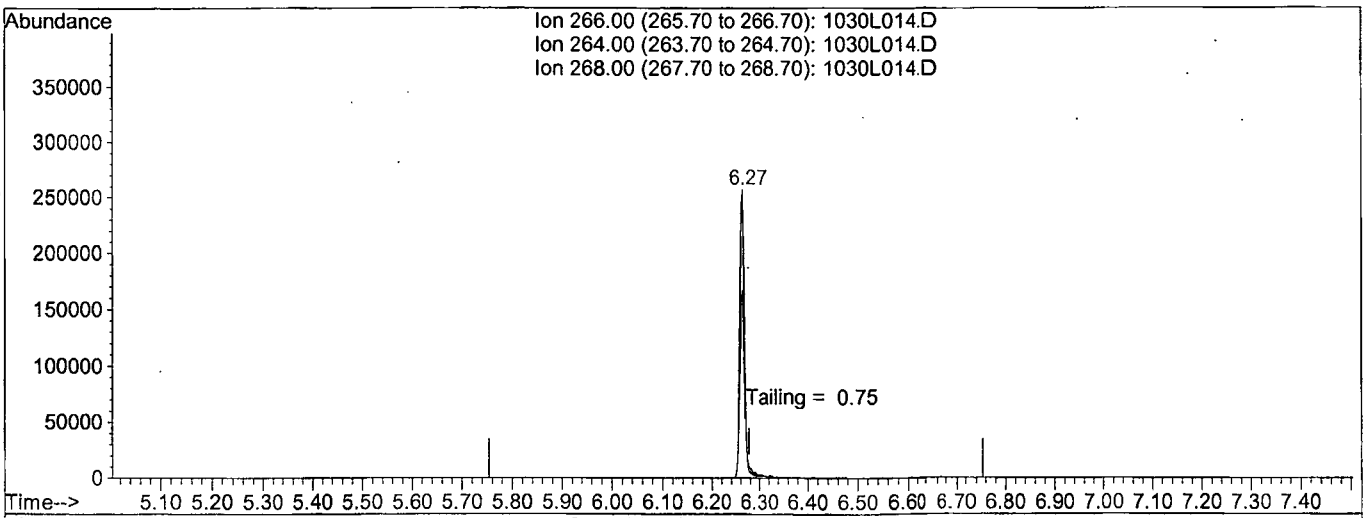
#	Name	Ret Time	Target Response
1)	DDT	8.21	38086400
2)	DDD	7.98	224750
3)	DDE	8.00	113996

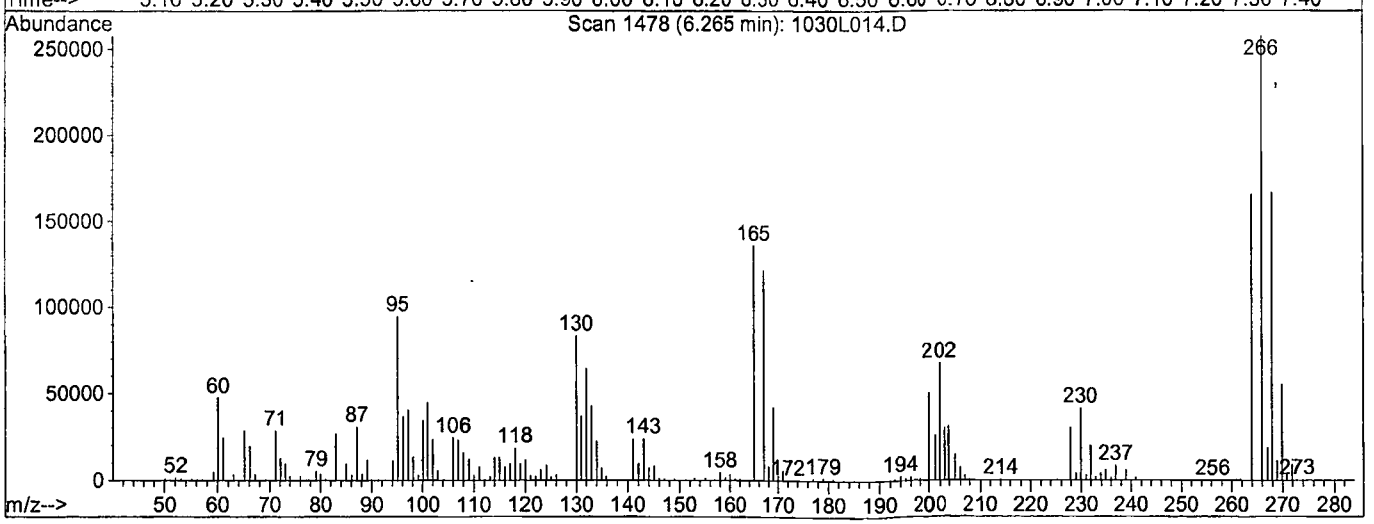
Breakdown **0.88**

Quantitation Report

Data File : M:\LINUS\DATA\L191030M\1030L014.D Vial: 14
Acq On : 1 Nov 19 15:17 Operator: MA
Sample : SV Tune 10/01/19 Inst : Linus
Misc : Multiplr: 1.00
Quant Time: Nov 1 15:30 2019 Quant Results File: temp.res

Method : M:\LINUS\DATA\L191030M\DFTPP2.M (Chemstation Integrator)
Title :
Last Update : Thu Oct 31 09:52:59 2019
Response via : Single Level Calibration





TIC: 1030L014.D

(5) Pentachlorophenol

6.26min 0.0000

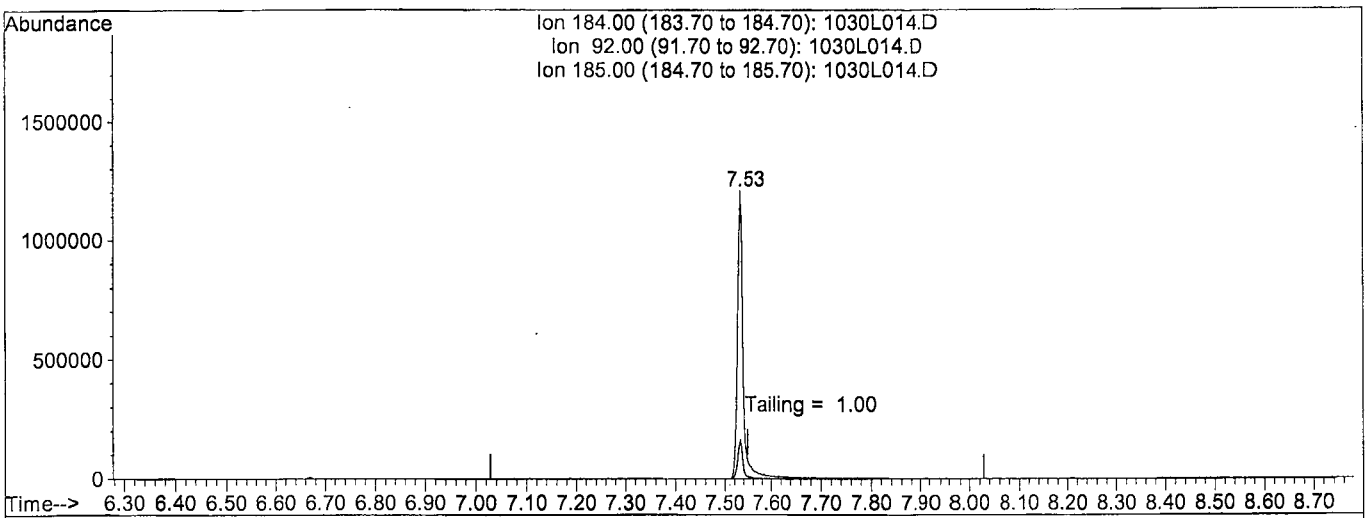
response 1793923

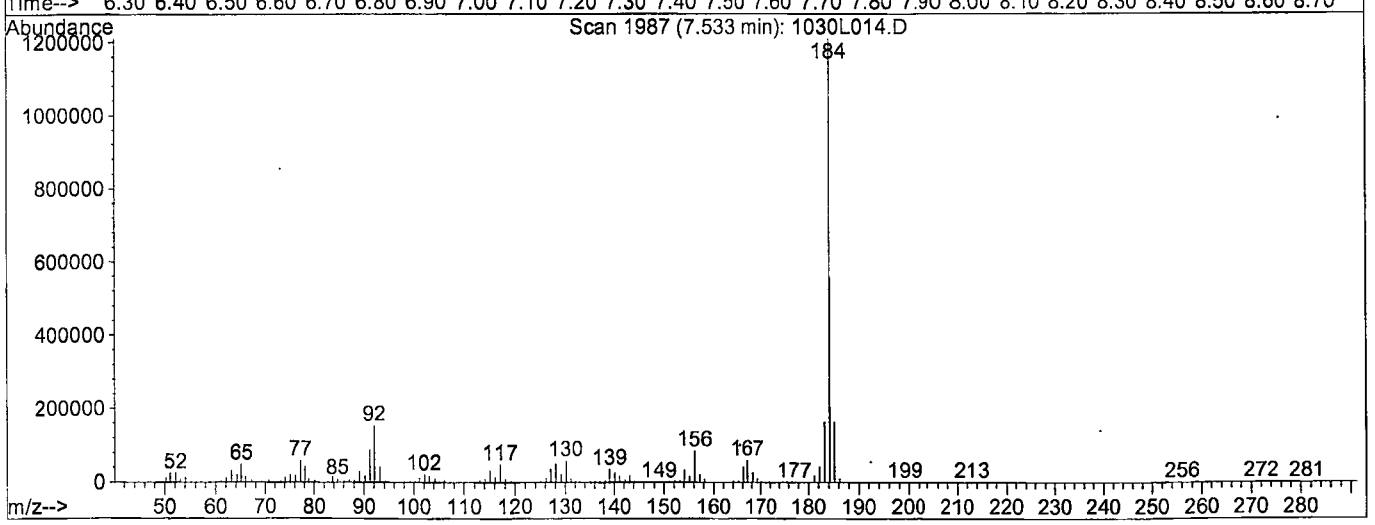
Ion	Exp%	Act%
266.00	100	100
264.00	58.90	65.01
268.00	62.10	61.84
0.00	0.00	0.00

Quantitation Report

Data File : M:\LINUS\DATA\L191030M\1030L014.D Vial: 14
Acq On : 1 Nov 19 15:17 Operator: MA
Sample : SV Tune 10/01/19 Inst : Linus
Misc : Multiplr: 1.00
Quant Time: Nov 1 15:30 2019 Quant Results File: temp.res

Method : M:\LINUS\DATA\L191030M\DFTPP2.M (Chemstation Integrator)
Title :
Last Update : Thu Oct 31 09:52:59 2019
Response via : Single Level Calibration





TIC: 1030L014.D

(6) Benzidine

7.53min 0.0000

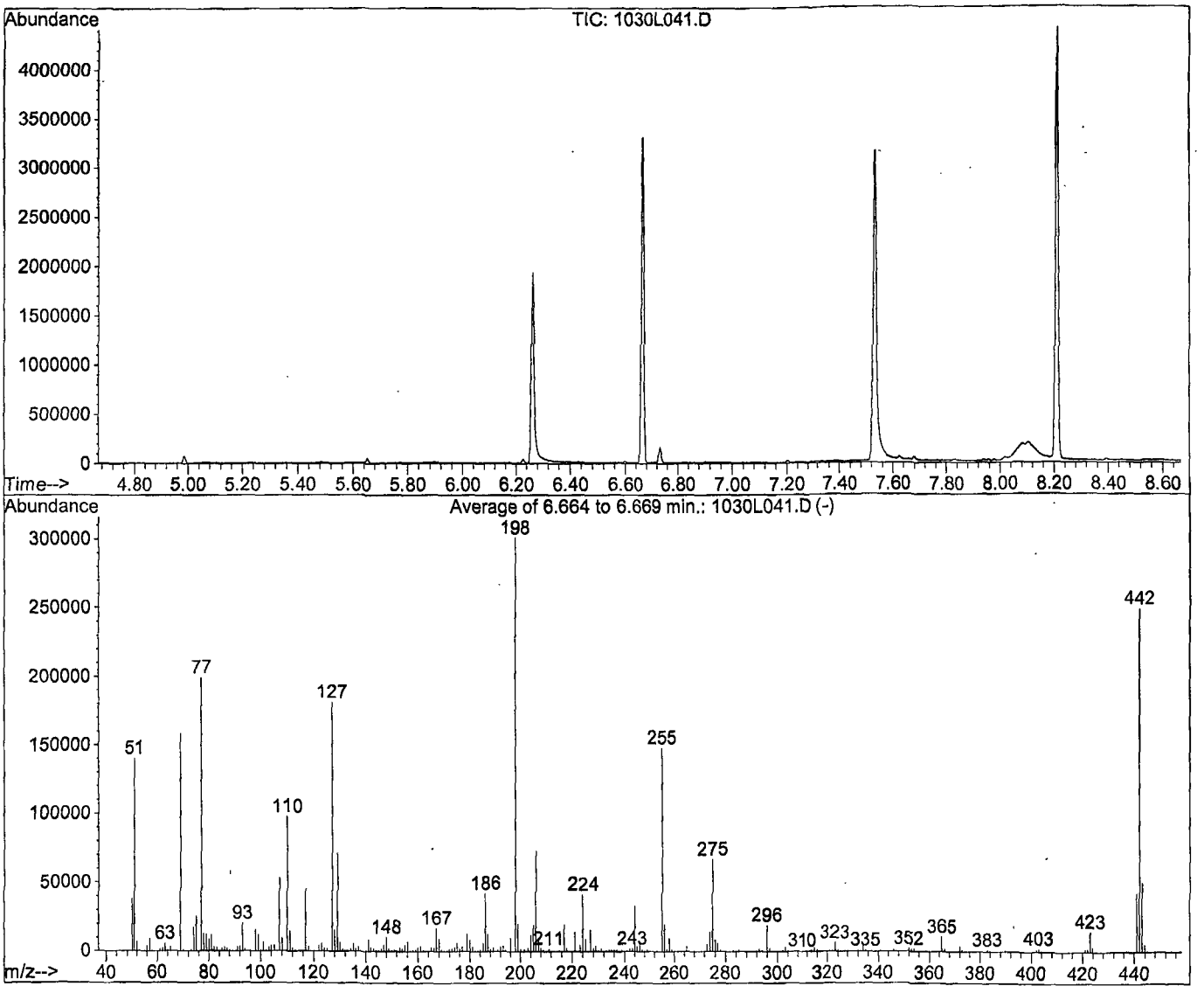
response 9749447

Ion	Exp%	Act%
184.00	100	100
92.00	12.10	13.21
185.00	13.30	13.73
0.00	0.00	0.00

DFTPP

Data File : M:\LINUS\DATA\L191030M\1030L041.D Vial: 41
Acq On : 8 Nov 19 12:30 Operator: MA
Sample : SV Tune 10/01/19 Inst : Linus
Misc : Multiplr: 1.00

Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C



AutoFind: Scans 1638, 1639, 1640; Background Corrected with Scan 1629

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	46.6	140225	PASS
68	69	0.00	2	0.0	0	PASS
70	69	0.00	2	0.6	933	PASS
127	198	10	80	60.1	180957	PASS
197	198	0.00	2	0.0	0	PASS
198	198	100	100	100.0	300928	PASS
199	198	5	9	6.6	19924	PASS
275	198	10	60	22.2	66765	PASS
365	198	1	100	3.6	10732	PASS
441	442	0.01	24	17.0	42301	PASS
442	198	50	500	82.6	248469	PASS
443	442	15	24	20.2	50115	PASS

1030L041.D YMEE1030.M Wed Nov 20 14:37:45 2019

Data File Name:	**1030L041.D**
Data File Path:	**M:\LINUS\DATA\L191030M**
Operator:	**MA**
Date Acquired:	**8 Nov 19 12:30**
Method File:	**DFTPP2.M**
Sample Name:	**SV Tune 10/01/19**
Vial Number:	**41**
Instrument Name:	**Linus**

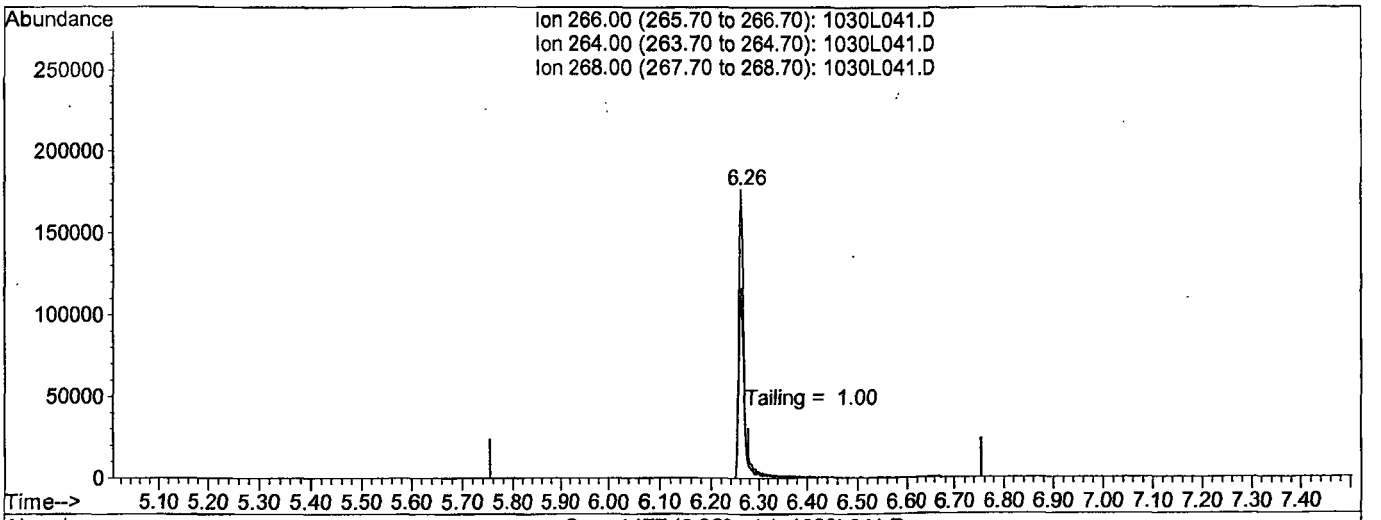
#	Name	Ret Time	Target Response
1)	DDT	8.21	31052200
2)	DDD	7.98	158999
3)	DDE	8.00	92340

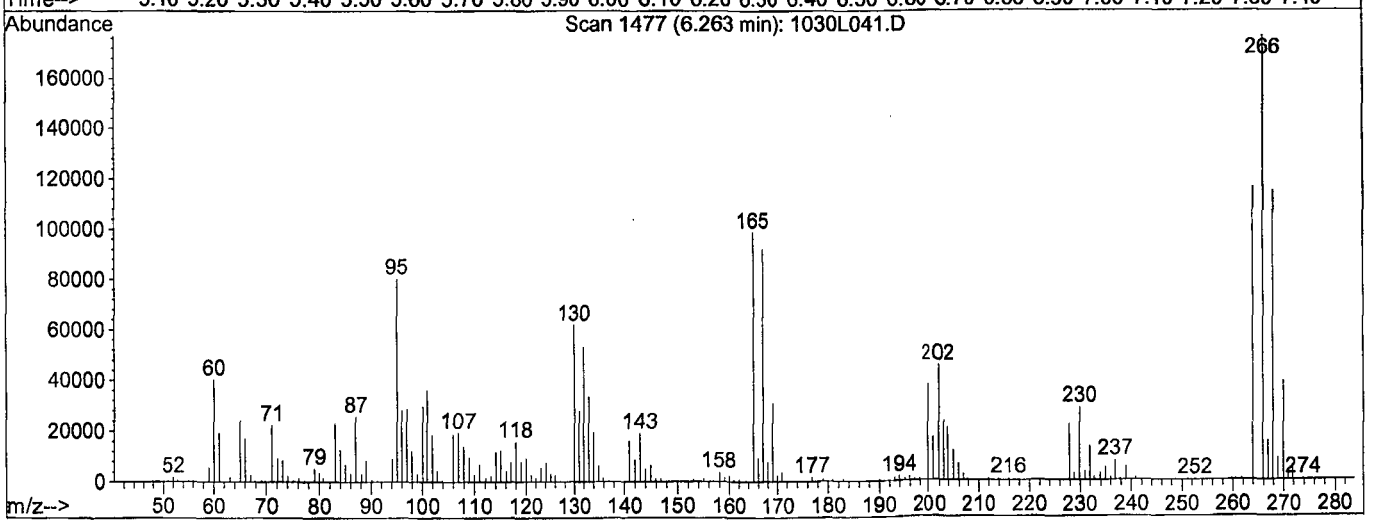
Breakdown **0.80**

Quantitation Report

Data File : M:\LINUS\DATA\L191030M\1030L041.D Vial: 41
Acq On : 8 Nov 19 12:30 Operator: MA
Sample : SV Tune 10/01/19 Inst : Linus
Misc : Multiplr: 1.00
Quant Time: Nov 8 13:02 2019 Quant Results File: temp.res

Method : M:\LINUS\DATA\L191030M\DFTPP2.M (Chemstation Integrator)
Title :
Last Update : Thu Nov 14 09:49:21 2019
Response via : Single Level Calibration





TIC: 1030L041.D

(5) Pentachlorophenol

6.26min 0.0000

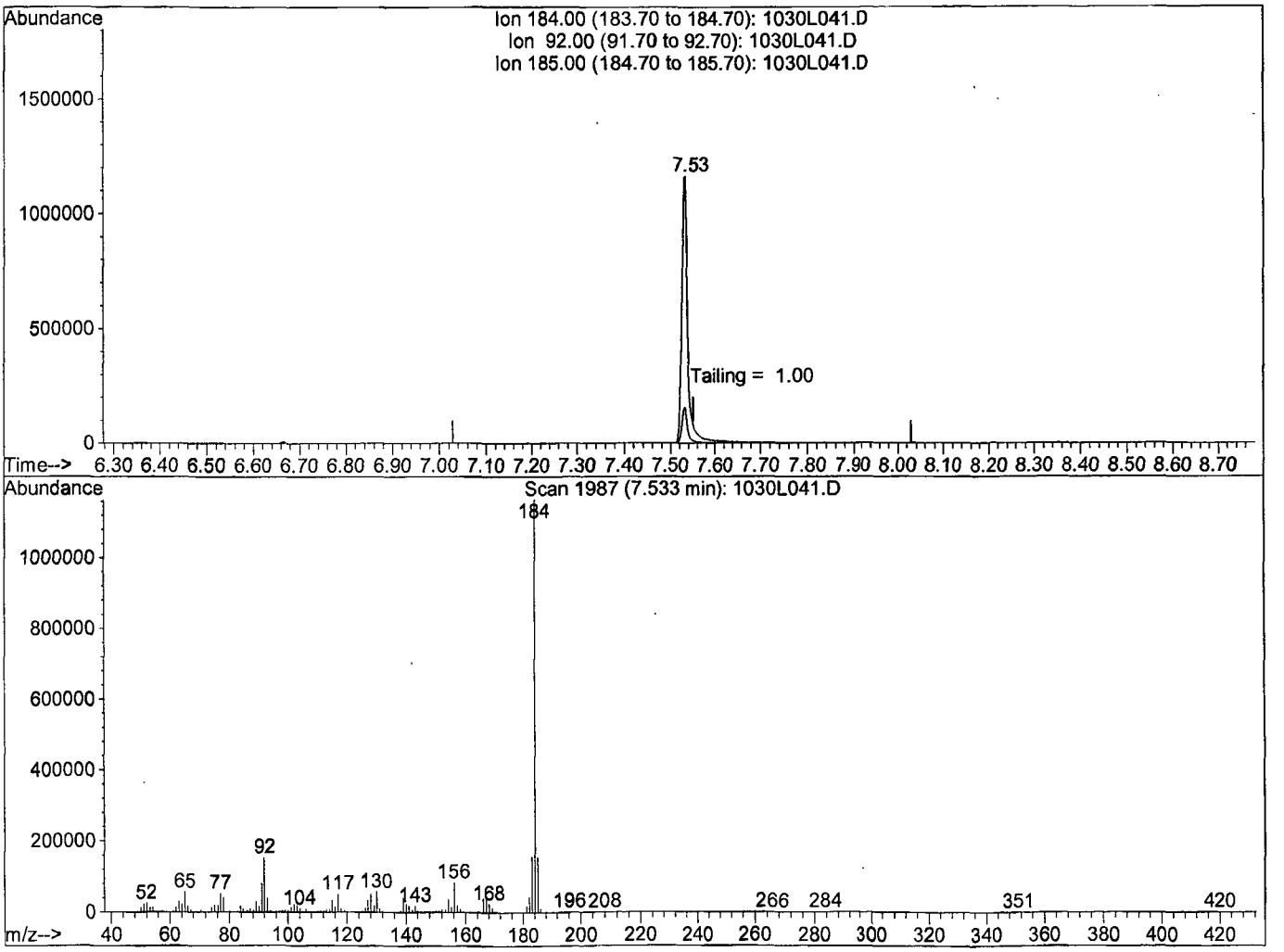
response 1378847

Ion	Exp%	Act%
266.00	100	100
264.00	58.90	61.67
268.00	62.10	65.55
0.00	0.00	0.00

Quantitation Report

Data File : M:\LINUS\DATA\L191030M\1030L041.D Vial: 41
Acq On : 8 Nov 19 12:30 Operator: MA
Sample : SV Tune 10/01/19 Inst : Linus
Misc : Multiplr: 1.00
Quant Time: Nov 8 13:02 2019 Quant Results File: temp.res

Method : M:\LINUS\DATA\L191030M\DFTPP2.M (Chemstation Integrator)
Title :
Last Update : Thu Nov 14 09:49:21 2019
Response via : Single Level Calibration



TIC: 1030L041.D

(6) Benzidine

7.53min 0.0000

response 10470755

Ion	Exp%	Act%
184.00	100	100
92.00	12.10	12.44
185.00	13.30	13.38
0.00	0.00	0.00

Name of Final Standard Diethylene Glycol **Prep'd By (Initials)** GA

Prep Date 01/31/19

Exp Date 01/31/20

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from contianer Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc.(range)
Diethylene glycol methyl ether	AccuStandard	S-72273	2000 ug/mL	218101558-39888 39889	01/31/20	2.0 mL	4 mL	Methanol #042317C	1000 ug/mL

Given to Extraction to do MEE M STD Stock (used for ICAL) Final concentration 2000ug/L

Organic Extraction Worksheet

Method	Solid Phase Extraction of 2MEE in Water	Extraction Set	190429A	Extraction Method	MWE2MEE	Units	mL

Spiked ID 1	Diethylene Glycol 1-31-19 EXP 1-31-20		Surrogate ID 1		
Spiked ID 2	2MEE SS 10320ug/mL 8-3-18 exp 8-3-19		Surrogate ID 2		
Spiked ID 3			Surrogate ID 3		
Spiked ID 4			Surrogate ID 4		
Spiked ID 5			Surrogate ID 5		
Spiked ID 6			Sufficient Vol for Matrix QC:	YES	
Spiked ID 7			Ext. Start Time:	04/29/19 10:50	
Spiked ID 8			Ext. End Time:	04/29/19 16:40	
			GC Requires Extract By:	04/30/19 0:00	
			pH1	Water Bath Temp Criteria	
			pH2		
			pH3		

M STD AND SS PREPARATION

HA 5/1/19

Spiked By: KY **Date** 04/29/19 **Witnessed By:** DL **Date** 04/29/19

	Sample	Sample Container	Spike Amount	Spike ID	Surrogate Amount	Surrogate ID	Extract Amount	Final Volume	pH	Extract Date/Time	Comments
1	190429A Blk				NA	NA equip	500	2	7	04/29/19 10:50	
2	190429A LCS-1		0.040	1	NA	NA equip	500	2	7	04/29/19 10:50	
3	190429A LCSD-1		0.040	1	NA	NA equip	500	2	7	04/29/19 10:50	
4	AZ89958 MS-1	AZ89958W23	0.040	1	NA	NA equip	510	2	7	04/29/19 10:50	88687
5	AZ89958 MSD-1	AZ89958W22	0.040	1	NA	NA equip	510	2	7	04/29/19 10:50	88687
6	AZ89958	AZ89958W24			NA	NA equip	500	2	7	04/29/19 10:50	88687
7	AZ89959	AZ89959W06			NA	NA equip	480	2	7	04/29/19 10:50	88687
8	AZ89961	AZ89961W22			NA	NA equip	510	2	7	04/29/19 10:50	88687
9	AZ90051 MS-1	AZ90051W21	0.040	1	NA	NA equip	500	2	7	04/29/19 10:50	88701
10	AZ90051 MSD-1	AZ90051W25	0.040	1	NA	NA equip	500	2	7	04/29/19 10:50	88701
11	AZ90051	AZ90051W22			NA	NA equip	500	2	7	04/29/19 10:50	88701
12	AZ90052	AZ90052W05			NA	NA equip	505	2	7	04/29/19 10:50	88701
13	AZ90054	AZ90054W16			NA	NA equip	510	2	7	04/29/19 10:50	88701
14	AZ90056	AZ90056W16			NA	NA equip	510	2	7	04/29/19 10:50	88701
15	AZ90058	AZ90058W17			NA	NA equip	500	2	7	04/29/19 10:50	88701
16	AZ90060	AZ90060W17			NA	NA equip	505	2	7	04/29/19 10:50	88701

Solvent and Lot#	
ENVI-Carb Plus 400MG/1ML	
Reverible Tube Lot:	11225702
PH Strip	HC 863463
Di Water	4-29-19
Dichloromethane	58240
Methanol	58179

Extraction COC Transfer	
Extraction lab employee Initials	KY
GC analyst's initials	
Date	
Time	
Refrigerator	

	Technician's Initials
Scanned By	DL
Sample Preparation	DL
Extraction	DL
Concentration	DL

Modified	04/29/19 2:46:49 PM

Reviewed By: **Date**

Organic Extraction Worksheet

Method	Solid Phase Extraction of 2MEE in Water	Extraction Set	190429A	Extraction Method	MWE2MEE	Units	mL

Spiked ID 1	Diethylene Glycol 1-31-19 EXP 1-31-20		Surrogate ID 1		
Spiked ID 2	2MEE SS 10320ug/mL 8-3-18 exp 8-3-19		Surrogate ID 2		
Spiked ID 3			Surrogate ID 3		
Spiked ID 4			Surrogate ID 4		
Spiked ID 5			Surrogate ID 5		
Spiked ID 6			Sufficient Vol for Matrix QC:	YES	
Spiked ID 7			Ext. Start Time:	04/29/19 10:50	
Spiked ID 8			Ext. End Time:	04/29/19 16:40	
			GC Requires Extract By:	04/30/19 0:00	

pH1			Water Bath Temp Criteria	
pH2				
pH3				

Spiked By: KY **Date** 04/29/19 **Witnessed By:** DL **Date** 04/29/19

	Sample	Sample Container	Spike Amount	Spike ID	Surrogate Amount	Surrogate ID	Extract Amount	Final Volume	pH	Extract Date/Time	Comments
17	AZ90100	AZ90100W17			NA	NA equip	510	2	7	04/29/19 10:50	88714
18	AZ90102	AZ90102W16			NA	NA equip	395	2	7	04/29/19 10:50	88714
19	AZ90103	AZ90103W04			NA	NA equip	250	2	7	04/29/19 10:50	88714
20	AZ90105	AZ90105W16			NA	NA equip	500	2	7	04/29/19 10:50	88714
21	AZ90107	AZ90107W16			NA	NA equip	510	2	7	04/29/19 10:50	88714
22	AZ90109	AZ90109W17			NA	NA equip	505	2	7	04/29/19 10:50	88714
23	AZ90213	AZ90213W15			NA	NA equip	505	2	7	04/29/19 10:50	88736
24	AZ90215	AZ90215W16			NA	NA equip	500	2	7	04/29/19 10:50	88736
25	M STD		1	1	NA	NA equip	500	2	7	04/29/19 10:50	
26	SS		0.097	2	NA	NA equip	500	2	7	04/29/19 10:50	

Solvent and Lot#	
ENVI-Carb Plus 400MG/1ML	
Reverible Tube Lot:	11225702
PH Strip	HC 863463
Di Water	4-29-19
Dichloromethane	58240
Methanol	58179

Extraction COC Transfer	
Extraction lab employee Initials	KY
GC analyst's initials	
Date	
Time	
Refrigerator	

	Technician's Initials
Scanned By	DL
Sample Preparation	DL
Extraction	DL
Concentration	DL

Modified	04/29/19 2:46:49 PM

Reviewed By: Page 412 of 600 **Date**

Name of Final Standard MEE Curve
Prep Date 04/30/19
Exp Date 10/30/19

Prep'd By (Initials) SS

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from container Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
MEE M STD Stock	APPL		2000 ug/mL	04/29/19	01/31/20	5 uL	200uL	Methanol 195uL Lot# 208858	50 ug/mL
SV Internal Standard	APPL	8270 I.S.	2000 ug/mL	03/12/19	03/12/20	4 uL			
MEE M STD Stock	APPL		2000 ug/mL	04/29/19	01/31/20	5 uL	100uL	Methanol 95uL Lot# 208858	100 ug/mL
SV Internal Standard	APPL	8270 I.S.	2000 ug/mL	03/12/19	03/12/20	2 uL			
MEE M STD Stock	APPL		2000 ug/mL	04/29/19	01/31/20	10 uL	100uL	Methanol 90uL Lot# 208858	200 ug/mL
SV Internal Standard	APPL	8270 I.S.	2000 ug/mL	03/12/19	03/12/20	2 uL			
MEE M STD Stock	APPL		2000 ug/mL	04/29/19	01/31/20	20 uL	100uL	Methanol 80 uL Lot# 208858	400 ug/mL
SV Internal Standard	APPL	8270 I.S.	2000 ug/mL	03/12/19	03/12/20	2 uL			
MEE M STD Stock	APPL		2000 ug/mL	04/29/19	01/31/20	50 uL	200 uL	Methanol 150 uL	500 ug/mL
SV Internal Standard	APPL	8270 I.S.	2000 ug/mL	03/12/19	03/12/20	4 uL			
MEE M STD Stock	APPL		2000 ug/mL	04/29/19	01/31/20	30 uL	100uL	Methanol 70 uL Lot# 208858	600 ug/mL
SV Internal Standard	APPL	8270 I.S.	2000 ug/mL	03/12/19	03/12/20	2 uL			
MEE M STD Stock	APPL		2000 ug/mL	04/29/19	01/31/20	40 uL	100uL	Methanol 60 uL Lot# 208858	800 ug/mL
SV Internal Standard	APPL	8270 I.S.	2000 ug/mL	03/12/19	03/12/20	2 uL			
MEE M STD Stock	APPL		2000 ug/mL	04/29/19	01/31/20	50 uL	100uL	Methanol 50uL Lot# 208858	1000 ug/mL
SV Internal Standard	APPL	8270 I.S.	2000 ug/mL	03/12/19	03/12/20	2 uL			

Name of Final Standard MEE Second Source
Prep Date 04/30/19
Exp Date 08/03/19

Prep'd By (Initials) SS

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from container Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
MEE SS	APPL		2000 ug/mL	04/29/19	08/03/19	50 uL	200uL	Methanol 150uL Lot# 208858	500 ug/mL
SV Internal Standard	APPL	8270 I.S.	2000 ug/mL	03/12/19	03/12/20	4 uL			

Name of Final Standard **2MEE Second Source Stock** Prep'd By (Initials) **JP**

Prep Date 10/28/19
Exp Date 10/28/20

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from contianer Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc. (range)
Methoxyethanol-Neat	Chem Service	N-12404-1G	Neat 99.5%	**7079100 - 39417**	**07/31/22**	0.1022g	10 mL	**MC #56258**	10220 ug/mL

Given to Extraction to do **MEE SS** (used for ICAL SS)
0.097ml were spiked in 500ml of water and extracted on 10/28/2019 . Final concentration is 2000ug/L

Name of Final Standard: MEE Second Source

Prep Date: 11/01/19

Exp Date: 11/01/20

Prep'd By (Initials): MA

Initial Standard Information						Final Standard Information			
Name of initial Standard (from container Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
MEE SS	APPL		2000 ug/mL	10/28/19	10/28/20	50 uL	200uL	Methanol 150uL Lot# 208858	500 ug/mL
SV Internal Standard	APPL	8270 I.S.	2000 ug/mL	10/28/19	10/28/20	4 uL			

Organic Extraction Worksheet

Method	Solid Phase Extraction of 2MEE in Water	Extraction Set	191028A	Extraction Method	MWE2MEE	Units	mL

Spiked ID 1	Diethylene Glycol 1-31-19 EXP 1-31-20		Surrogate ID 1		
Spiked ID 2	2MEE SS 10200ug/mL10/28/19 10/28/20		Surrogate ID 2		
Spiked ID 3			Surrogate ID 3		
Spiked ID 4			Surrogate ID 4		
Spiked ID 5			Surrogate ID 5		
Spiked ID 6			Sufficient Vol for Matrix QC:		
Spiked ID 7			Ext. Start Time:	10/28/19 16:10	
Spiked ID 8			Ext. End Time:	10/30/19 14:30	
			GC Requires Extract By:		

pH1			Water Bath Temp 1 °C	
pH2			Water Bath Temp 2 °C	
pH3			Water Bath Temp 3 °C	

Spiked By: **Date** **Witnessed By:** **Date**

	Sample	Sample Container	Spike Amount	Spike ID	Surrogate Amount	Surrogate ID	Extract Amount	Final Volume	pH	Extract Date/Time	Comments
1	191028A Blk				NA	NA equip	500	2	7Y	10/28/19 11:10	
2	191028A LCS-1		0.040	1	NA	NA equip	500	2	7Y	10/28/19 11:10	
3	191028A LCSD-1		0.040	1	NA	NA equip	500	2	7Y	10/28/19 11:10	
4	BA01579 MS-1	BA01579W21	0.040	1	NA	NA equip	500	2	7Y	10/28/19 11:10	
5	BA01579 MSD-1	BA01579W18	0.040	1	NA	NA equip	500	2	7Y	10/28/19 11:10	
6	BA01579	BA01579W16			NA	NA equip	500	2	7Y	10/28/19 11:10	90524
7	BA01580	BA01580W06			NA	NA equip	500	2	7Y	10/28/19 11:10	90524
8	BA01582	BA01582W12			NA	NA equip	500	2	7Y	10/28/19 11:10	90524
9	BA01651	BA01651W11			NA	NA equip	500	2	7Y	10/28/19 11:10	90532
10	BA01652	BA01652W07			NA	NA equip	500	2	7Y	10/28/19 11:10	90532
11	BA01654	BA01654W10			NA	NA equip	500	2	7Y	10/28/19 11:10	90532
12	BA01656	BA01656W10			NA	NA equip	500	2	7Y	10/28/19 11:10	90532
13	BA01658	BA01658W11			NA	NA equip	500	2	7Y	10/28/19 11:10	90532
14	BA01660	BA01660W10			NA	NA equip	500	2	7Y	10/28/19 11:10	90532
15	BA01662	BA01662W17			NA	NA equip	500	2	7Y	10/28/19 11:10	90532
16	BA01664	BA01664W18			NA	NA equip	500	2	7Y	10/28/19 11:10	90532

Solvent and Lot#	
ENVI-Carb Plus 400MG/1ML	1169450
PH Strip	HC863463
Di Water	10/30/19
Dichloromethane	59130
Methanol	59129

Extraction COC Transfer	
Extraction lab employee Initials	SS
GC analyst's initials	JP
Date	
Time	
Refrigerator	Hobard

	Technician's Initials
Scanned By	DL
Sample Preparation	DL
Extraction	DL
Concentration	DL

Modified	10/28/19 12:42:46 PM

Reviewed By: **Date**

Organic Extraction Worksheet

Method	Solid Phase Extraction of 2MEE in Water	Extraction Set	191028A	Extraction Method	MWE2MEE	Units	mL

Spiked ID 1	Diethylene Glycol 1-31-19 EXP 1-31-20		Surrogate ID 1		
Spiked ID 2	2MEE SS 10200ug/mL10/28/19 10/28/20		Surrogate ID 2		
Spiked ID 3			Surrogate ID 3		
Spiked ID 4			Surrogate ID 4		
Spiked ID 5			Surrogate ID 5		
Spiked ID 6			Sufficient Vol for Matrix QC:		
Spiked ID 7			Ext. Start Time:	10/28/19 16:10	
Spiked ID 8			Ext. End Time:	10/30/19 14:30	
			GC Requires Extract By:		

pH1			Water Bath Temp 1 °C	
pH2			Water Bath Temp 2 °C	
pH3			Water Bath Temp 3 °C	

Spiked By: **Date** **Witnessed By:** **Date**

	Sample	Sample Container	Spike Amount	Spike ID	Surrogate Amount	Surrogate ID	Extract Amount	Final Volume	pH	Extract Date/Time	Comments
17	BA01775	BA01775W07			NA	NA equip	500	2	7Y	10/28/19 11:10	90551
18	BA01777	BA01777W08			NA	NA equip	500	2	7Y	10/28/19 11:10	90551
19	BA01779	BA01779W08			NA	NA equip	500	2	7Y	10/28/19 11:10	90551
20	BA01781	BA01781W09			NA	NA equip	500	2	7Y	10/28/19 11:10	90551
21	BA01782	BA01782W07			NA	NA equip	500	2	7Y	10/28/19 11:10	90551
22	BA01784	BA01784W13			NA	NA equip	500	2	7Y	10/28/19 11:10	90551
23	SS		0.097	2	NA	NA equip	500	2	7Y	10/28/19 11:10	90551

Solvent and Lot#	
ENVI-Carb Plus 400MG/1ML	1169450
PH Strip	HC863463
Di Water	10/30/19
Dichloromethane	59130
Methanol	59129

Extraction COC Transfer	
Extraction lab employee Initials	SS
GC analyst's initials	JP
Date	
Time	
Refrigerator	Hobard

	Technician's Initials
Scanned By	DL
Sample Preparation	DL
Extraction	DL
Concentration	DL

Modified	10/28/19 12:42:46 PM

Reviewed By: **Date**

MWE2MEE

Organic Extraction Worksheet

Method	Solid Phase Extraction of 2MEE in Water	Extraction Set	191106A	Extraction Method	MWE2MEE	Units	mL

piked ID 1	Diethylene Glycol 1-31-19 EXP 1-31-20		Surrogate ID 1		
piked ID 2	2MEE SS 10320ug/mL 10/28/19 exp 10/28/20		Surrogate ID 2		
piked ID 3	Diethylene Glycol 11-5-19 exp 11-5-20		Surrogate ID 3		
piked ID 4			Surrogate ID 4		
piked ID 5			Surrogate ID 5		
piked ID 6			Sufficient Vol for Matrix QC:	no	
piked ID 7			Ext. Start Time:	11/06/19 6:25	
piked ID 8			Ext. End Time:	11/06/19 13:30	
			GC Requires Extract By:		

pH1			Water Bath Temp 1 °C	
pH2			Water Bath Temp 2 °C	
pH3			Water Bath Temp 3 °C	

Spiked By: DL **Date** 11/06/19 **Witnessed By:** CFM **Date** 11/06/19

	Sample	Sample Container	Spike Amount	Spike ID	Surrogate Amount	Surrogate ID	Extract Amount	Final Volume	pH	Extract Date/Time	Comments
1	191106A Blk				NA	NA equip	500	2	7Y	11/06/19 6:25	
2	191106A LCS-1		0.040	1	NA	NA equip	500	2	7Y	11/06/19 6:25	
3	191106A LCSD-1		0.040	1	NA	NA equip	500	2	7Y	11/06/19 6:25	
4	BA02214	BA02214W18			NA	NA equip	500	2	7Y	11/06/19 6:25	90611
5	BA02216	BA02216W10			NA	NA equip	500	2	7Y	11/06/19 6:25	90611
6	BA02301	BA02301W22			NA	NA equip	500	2	7Y	11/06/19 6:25	90625
7	M STD		1	3	na	na equip	500	2	7Y	11/06/19 6:25	
8	SS		0.097	2	NA	NA equip	500	2	7Y	11/06/19 6:25	

Solvent and Lot#	
ENVI-Carb Plus 400MG/1ML	11694501
Reverible Tube Lot:	11694501
pH Strip	HC863463
DI Water	11/6/19
Dichloromethane	59130
Methanol	59129

Extraction COC Transfer	
Extraction lab employee Initials	SS
GC analyst's initials	MA
Date	11/6/19
Time	1:30
Refrigerator	Hobart

	Technician's Initials
Scanned By	DL
Sample Preparation	DL
Extraction	DL
Concentration	DL

Modified	11/06/19 6:07:34 AM

Reviewed By: MA **Date** 11/19/19

11/19/19 4:29:36 PM

Injection Log

Directory: M:\LINUS\DATA\L191030M\

Vial	FileName	Multiplier	SampleName	Misc Info	Injected
86	1030L002.D	1	SV Tune 10/01/19		31 Oct 19 9:39
4	1030L004.D	1	50 2MEE 4/30/19		31 Oct 19 11:50
5	1030L005.D	1	100 2MEE 4/30/19		31 Oct 19 12:10
6	1030L006.D	1	200 2MEE 4/30/19		31 Oct 19 12:29
8	1030L008.D	1	500 2MEE 4/30/19		31 Oct 19 13:07
9	1030L009.D	1	600 2MEE 4/30/19		31 Oct 19 13:25
10	1030L010.D	1	800 2MEE 4/30/19		31 Oct 19 13:43
11	1030L011.D	1	1000 2MEE 4/30/19		31 Oct 19 14:02
14	1030L014.D	1	SV Tune 10/01/19		1 Nov 19 15:17
16	1030L016.D	1	SS 2MEE 11/1/19		1 Nov 19 17:11
41	1030L041.D	1	SV Tune 10/01/19		8 Nov 19 12:30
42	1030L042.D	1	500 2MEE 4/30/19		8 Nov 19 13:13
53	1030L053.D	1	191106A BLK 2/500		8 Nov 19 18:36
54	1030L054.D	1	191106A LCS-1 2/500		8 Nov 19 18:54
55	1030L055.D	1	191106A LCSD-1 2/500		8 Nov 19 19:12
56	1030L056.D	1	BA02214W18 2/500		8 Nov 19 19:31
57	1030L057.D	1	BA02216W10 2/500		8 Nov 19 19:49
61	1030L061.D	1	500 2MEE 4/30/19		8 Nov 19 21:02

ORGANICS
Calibration Data

VOLATILE ORGANIC ANALYSIS
VOLATILE ORGANIC COMPOUNDS

Form 6
Initial Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Initial Cal. Date: 10/23/19
Matrix: Instrument: Thor Initials: DP

			1023T06 D	1023T07 D	1023T08.D	1023T09.D	1023T10 D	1023T11.D	1023T12 D	1023T13.D	1023T14.D							
		Compound	1	2	3	4	5	6	7	8	9		Avg	%RSD	Type	r^2	Q	MRF
1	I	Fluorobenzene (IS)																
2	TM	Chlorotrifluoroethene													TM			
3	TM	Dichlorodifluoromethane		0.2635	0.2974	0.2177	0.1924	0.2092	0.2232	0.2234	0.2273		0.23	14	TM			
4	TML	Freon 114		0.1488	0.1532	0.1309	0.0936	0.1075	0.1061	0.1016	0.0918		0.12	21	TML	0.998		
5	TM**L	Chloromethane		0.3470	0.2838	0.2274	0.1882	0.1949	0.1769	0.1792	0.1673		0.22	29	TM**L	0.999		
6	TM*	Vinyl chloride		0.2045	0.2053	0.1544	0.1472	0.1629	0.1574	0.1616	0.1630		0.17	13	TM*			
7	TM	2-Chloro-1,1,1-trifluoroethane													TM			
8	TML	Bromomethane		0.1364	0.1701	0.1326	0.1025	0.0971	0.0973	0.0998	0.0989		0.12	23	TML	1.000		
9	TML	Chloroethane		0.5439	0.3418	0.1686	0.1126	0.1183	0.1159	0.1115	0.1078		0.20	79	TML	1.000		
10	TM	Dichlorofluoromethane		0.2987	0.3792	0.3293	0.2792	0.2956	0.3000	0.3099	0.2707		0.31	11	TM			
11	TM	Trichlorofluoromethane		0.3546	0.3702	0.3204	0.2669	0.2914	0.3067	0.3120	0.3052		0.32	10	TM			
12	TM	Diethyl ether													TM			
13	TM	Acrolein		0.0091	0.0102	0.0093	0.0090	0.0099	0.0090	0.0094	0.0107		0.01	6.5	TM			
14	TML	Acetone					0.0850	0.0694	0.0573	0.0525	0.0436		0.06	26	TML	0.993		
15	TML	Freon-113		0.0900	0.0943	0.1495	0.1217	0.1326	0.1349	0.1331	0.1190		0.12	17	TML	0.997		
16	TM*	1,1-DCE		0.2461	0.2741	0.2375	0.2011	0.1994	0.2212	0.2174	0.1945		0.22	12	TM*			
17	TM	2-Propanol													TM			
18	TML	Acetonitrile		0.0231	0.0203	0.0205	0.0204	0.0205	0.0204	0.0201			0.02	5.0	TML	0.999		
19	TM	t-Butanol	0.0186	0.0170	0.0165	0.0163	0.0166	0.0164	0.0165	0.0162	0.0151		0.02	5.5	TM			
20	TML	Methyl Acetate		0.1825	0.1427	0.1250	0.1098	0.1167	0.1135	0.1109	0.0979		0.12	21	TML	0.997		
21	TML	Iodomethane			0.0515	0.0317	0.0309	0.0938	0.1285	0.1563	0.1730		0.10	62	TML	0.997		
22	TM	Acrylonitrile			0.0579	0.0653	0.0505	0.0563	0.0575	0.0589	0.0544		0.06	7.9	TM			
23	TML	Methylene chloride		0.3088	0.2765	0.2310	0.1876	0.2049	0.2008	0.2073	0.1755		0.22	21	TML	0.995		
24	TML	Carbon disulfide		0.4997	0.5113	0.4516	0.3454	0.3784	0.3694	0.3894			0.42	16	TML	0.997		
25	TML	Methyl t-butyl ether (MtBE)		0.7185	0.5653	0.5427	0.4770	0.5079	0.4926	0.5094	0.4544		0.53	15	TML	0.998		
26	TM	Trans-1,2-DCE		0.2379	0.2419	0.2386	0.1914	0.2112	0.2110	0.2265	0.1937		0.22	9.2	TM			
27	TM	Hexane													TM			
28	TM	Diisopropyl Ether		0.2261	0.2133	0.2022	0.1735	0.1673	0.1872	0.1843	0.1687		0.19	11	TM			
29	TM**	2,2-Dichloro-1,1,1-trifluoroethane													TM**			
30	TM**L	1,1-DCA		0.1617	0.1772	0.1442	0.1175	0.1246	0.1250	0.1246	0.1101		0.14	17	TM**L	0.997		
31	TML	Vinyl Acetate		0.0970	0.1887	0.1478	0.1332	0.1470	0.1495	0.1560	0.1383		0.14	18	TML	0.997		
32	TM	Ethyl tert Butyl Ether		0.5563	0.5078	0.5374	0.4655	0.5217	0.5147	0.5270	0.4675		0.51	6.2	TM			
33	TML	MEK (2-Butanone)		0.0765	0.1107	0.0883	0.0675	0.0684	0.0667	0.0726	0.0638		0.08	20	TML	0.997		
34	TM	Cis-1,2-DCE		0.2725	0.2659	0.2822	0.2450	0.2650	0.2688	0.2788	0.2434		0.27	5.4	TM			
35	TML	2,2-Dichloropropane		0.1769	0.1489	0.1233	0.0973	0.0982	0.1074	0.1129	0.0987		0.12	24	TML	0.996		

VOLATILE ORGANIC ANALYSIS
VOLATILE ORGANIC COMPOUNDS

Form 6
Initial Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Initial Cal. Date: 10/23/19
Matrix: Instrument: Thor
Initials: DP

		Compound	1	2	3	4	5	6	7	8	9		Avg	%RSD	Type		Q	MRF
36	TM	2-Methylpentane													TM			
37	TM	3-Methylpentane													TM			
38	TM*	Chloroform		0.1766	0.2016	0.1713	0.1616	0.1730	0.1737	0.1778	0.1552		0.17	7.8	TM*			
39	TM	Bromochloromethane		0.0894	0.0865	0.0750	0.0644	0.0729	0.0733	0.0722	0.0632		0.07	12	TM			
40	S	Dibromofluoromethane(S)	0.5385	0.5240	0.4368	0.4526	0.4712	0.4842	0.4850	0.4883	0.4565		0.48	6.8	S			
41	TML	1,1,1-TCA		0.2129	0.1588	0.1638	0.1363	0.1488	0.1422	0.1490	0.1319		0.16	16	TML	0.998		
42	TM	Cyclohexane		0.2261	0.2534	0.2165	0.1723	0.1768	0.1838	0.1960	0.1759		0.20	15	TM			
43	TM	1,1-Dichloropropene		0.2534	0.2616	0.2105	0.1953	0.2043	0.2079	0.2218	0.1929		0.22	12	TM			
44	TML	2,2,4-Trimethylpentane		0.2331	0.2307	0.1631	0.1311	0.1417	0.1530	0.1543	0.1467		0.17	24	TML	0.999		
45	S	1,2-DCA-D4(S)	0.5868	0.5920	0.4819	0.5140	0.5350	0.5510	0.5468	0.5434	0.5053		0.54	6.7	S			
46	TML	Carbon Tetrachloride		0.1055	0.3400	0.2537	0.2272	0.2464	0.2563	0.2777	0.2389		0.24	27	TML	0.996		
47	TM	Tert Amyl Methyl Ether		0.5745	0.5621	0.5367	0.4861	0.4912	0.5084	0.5332	0.4716		0.52	7.1	TM			
48	TM	Methylcyclopentane													TM			
49	TML	1,2-DCA		0.1966	0.3107	0.1541	0.1327	0.1395	0.1555	0.1500	0.1332		0.17	35	TML	0.997		
50	TM	Benzene		0.8485	0.8036	0.7185	0.6643	0.6662	0.6757	0.6931	0.6211		0.71	11	TM			
51	TM	TCE		0.2722	0.2470	0.2286	0.1953	0.2056	0.2059	0.2205	0.1905		0.22	13	TM			
52	TM	2-Pentanone		0.1108	0.1149	0.1111	0.1099	0.1099	0.1143	0.1151	0.1033		0.11	3.5	TM			
53	TM*	1,2-Dichloropropane		0.1853	0.2044	0.2111	0.1592	0.1711	0.1716	0.1804	0.1632		0.18	10	TM*			
54	TM	Bromodichloromethane		0.3065	0.2886	0.2968	0.2566	0.2672	0.2716	0.2766	0.2507		0.28	7.0	TM			
55	TM	Methyl Cyclohexane		0.2264	0.2806	0.2220	0.1998	0.2057	0.2142	0.2154	0.1995		0.22	12	TM			
56	TML	Dibromomethane		0.0397	0.1774	0.1298	0.1310	0.1452	0.1650	0.1731	0.1500		0.14	32	TML	0.996		
57	TML	MIBK (methyl isobutyl ketone)		0.0844	0.0692	0.0637	0.0572	0.0554	0.0541	0.0581	0.0607		0.06	16	TML	0.999		
58	TM	1-Bromo-2-chloroethane		0.2573	0.2182	0.2514	0.2085	0.2346	0.2347	0.2443	0.2149		0.23	7.6	TM			
59	TM	2-Chloroethyl vinyl ether													TM			
60	TM	Cis-1,3-Dichloropropene		0.3335	0.3178	0.2936	0.2532	0.2842	0.2741	0.2944	0.2653		0.29	9.2	TM			
61	TM*	Toluene		0.9098	0.9112	0.8100	0.7171	0.7733	0.7816	0.8151	0.7330		0.81	9.0	TM*			
62	TM	Trans-1,3-Dichloropropene		0.2312	0.1717	0.1734	0.1593	0.1756	0.1793	0.1867	0.1706		0.18	12	TM			
63	TM	1,1,2-TCA		0.1921	0.1936	0.1959	0.1649	0.1831	0.1763	0.1788	0.1619		0.18	7.1	TM			
64	TML	2-Hexanone		0.1190	0.1019	0.0917	0.0683	0.0836	0.0845	0.0859	0.0908		0.09	16	TML	0.999		
65	I	Chlorobenzene-D5 (IS)																
66	S	Toluene-D8(S)	2.143	2.042	1.649	1.690	1.820	1.965	1.778	1.900	1.815		1.9	8.7	S			
67	TM	1,2-EDB		0.1280	0.1257	0.1213	0.1171	0.1178	0.1147	0.1206	0.1124		0.12	4.4	TM			
68	TM	Tetrachloroethene		0.2621	0.1636	0.2604	0.2344	0.2586	0.2354	0.2538	0.2261		0.24	14	TM			
69	TML	1-Chlorohexane		0.2348	0.3409	0.1975	0.2087	0.2225	0.2148	0.2169	0.2095		0.23	20	TML	1.000		
70	TM	1,1,1,2-Tetrachloroethane		0.2959	0.2482	0.2317	0.2188	0.2393	0.2266	0.2473	0.2274		0.24	10.0	TM			

VOLATILE ORGANIC ANALYSIS
VOLATILE ORGANIC COMPOUNDS

Form 6
Initial Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Initial Cal. Date: 10/23/19
Matrix: Instrument: Thor Initials: DP

		Compound	1	2	3	4	5	6	7	8	9		Avg	%RSD	Type		Q	MRF
71	TM	m&p-Xylene		0.7498	0.7821	0.7043	0.6485	0.7359	0.6995	0.7681	0.7042		0.72	6.0	TM			
72	TM	o-Xylene		0.8311	0.8492	0.7438	0.6798	0.8011	0.7259	0.8069	0.7531		0.77	7.5	TM			
73	TM	Styrene		0.6076	0.5684	0.4928	0.4722	0.5586	0.5232	0.5954	0.5736		0.55	8.8	TM			
74	S	4-Bromofluorobenzene(S)	0.8756	0.7804	0.6244	0.6442	0.7197	0.7700	0.7173	0.7521	0.7682		0.74	10	S			
75	TM	1,3-Dichloropropane		0.3214	0.3602	0.3177	0.2956	0.3152	0.2972	0.3054	0.2819		0.31	7.6	TM			
76	TML	Dibromochloromethane		0.0593	0.2424	0.2370	0.2108	0.2612	0.2356	0.2509	0.2387		0.22	30	TML	0.999		
77	TM**	Chlorobenzene		0.4023	0.3965	0.3492	0.3439	0.3893	0.3469	0.3743	0.3468		0.37	6.7	TM**			
78	TM*	Ethylbenzene		0.9902	0.9200	0.9273	0.8019	0.9160	0.8708	0.9368	0.8660		0.90	6.3	TM*			
79	TM**L	Bromoform		0.0742	0.1464	0.1916	0.1780	0.2077	0.1939	0.1995	0.1988		0.17	26	TM**L	1.000		
80	I	1,4-Dichlorobenzene-D (IS)																
81	TM	Isopropylbenzene		1.591	1.840	1.530	1.427	1.549	1.443	1.591	1.317		1.5	10	TM			
82	TM**	1,1,2,2-Tetrachloroethane		0.4738	0.3664	0.4444	0.3665	0.4152	0.4009	0.3990	0.3637		0.40	9.9	TM**			
83	TML	1,2,3-Trichloropropane		0.0485	0.1436	0.1330	0.1331	0.1434	0.1385	0.1396	0.1228		0.13	25	TML	0.997		
84	TML	t-1,4-Dichloro-2-Butene		0.0264	0.0609	0.0805	0.0930	0.0833	0.0809	0.0819	0.0749		0.07	29	TML	0.999		
85	TM	Bromobenzene		0.4205	0.4747	0.4052	0.3679	0.4011	0.3708	0.4040	0.3574		0.40	9.3	TM			
86	TM	n-Propylbenzene		1.966	1.913	1.738	1.541	1.638	1.619	1.750	1.493		1.7	9.8	TM			
87	TM	4-Ethyltoluene		1.598	1.501	1.504	1.355	1.436	1.406	1.581	1.337		1.5	6.7	TM			
88	TM	2-Chlorotoluene		0.7020	0.8063	0.7557	0.6917	0.6698	0.6817	0.7216	0.6330		0.71	7.6	TM			
89	TM	1,3,5-Trimethylbenzene		1.259	1.494	1.251	1.244	1.304	1.280	1.391	1.196		1.3	7.4	TM			
90	TM	4-Chlorotoluene		0.7780	0.8172	0.8811	0.7244	0.8125	0.7871	0.9000	0.7433		0.81	7.6	TM			
91	TM	Tert-Butylbenzene		1.225	1.170	1.311	1.208	1.130	1.115	1.210	1.033		1.2	7.1	TM			
92	TM	1,2,4-Trimethylbenzene		1.331	1.543	1.367	1.254	1.300	1.276	1.402	1.212		1.3	7.8	TM			
93	TM	Sec-Butylbenzene		1.667	1.641	1.503	1.393	1.510	1.463	1.615	1.396		1.5	7.0	TM			
94	TM	p-Isopropyltoluene		1.283	1.416	1.335	1.225	1.374	1.326	1.466	1.277		1.3	5.9	TM			
95	TM	Benzyl Chloride		0.3521	0.3298	0.2742	0.3076	0.2905	0.3003	0.3140	0.3307		0.31	8.0	TM			
96	TM	1,3-DCB		0.7074	0.6746	0.6224	0.5443	0.5435	0.5187	0.5507	0.4944		0.58	13	TM			
97	TM	1,4-DCB		1.117	0.9190	0.9501	0.7911	0.8213	0.8035	0.8716	0.7780		0.88	13	TM			
98	TM	n-Butylbenzene		1.085	1.065	1.005	0.8899	0.9728	0.9890	1.126	0.9982		1.0	7.3	TM			
99	TM	1,2-DCB		0.5874	0.5719	0.5274	0.4788	0.5258	0.4932	0.5480	0.5036		0.53	7.2	TM			
100	TM	Hexachloroethane		0.1594	0.1599	0.1796	0.1534	0.1690	0.1464	0.1699	0.1641		0.16	6.4	TM			
101	TML	1,2-Dibromo-3-chloropropane		0.1001	0.0554	0.0561	0.0637	0.0530	0.0547	0.0600	0.0551		0.06	25	TML	0.999		
102	TM	1,2,4-Trichlorobenzene		0.3419	0.3602	0.2846	0.2815	0.3090	0.3105	0.3407	0.3131		0.32	8.8	TM			
103	TM	Hexachlorobutadiene		0.2380	0.1957	0.1659	0.1794	0.1971	0.1781	0.2086	0.1932		0.19	11	TM			
104	TM	Naphthalene		0.9319	0.8032	0.7281	0.6839	0.7404	0.8006	0.9091	0.8287		0.80	11	TM			
105	TML	1,2,3-Trichlorobenzene		0.1330	0.5188	0.4190	0.4062	0.3909	0.4349	0.4897	0.4316		0.40	29	TML	0.997		

Quantitation Report (QT Reviewed)

Data File : M:\THOR\DATA\T191023\1023T06.D Vial: 6
Acq On : 23 Oct 19 19:32 Operator:
Sample : 0.3ug/L VOC STD 10/23/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 24 10:00 2019 Quant Results File: T1023W.RES

Quant Method : M:\THOR\DATA\T191023\T1023W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:55:52 2019
Response via : Initial Calibration
DataAcq Meth : T8260

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene (IS)	6.59	96	178368	25.00	ppb		0.00
65) Chlorobenzene-D5 (IS)	9.74	117	160768	25.00	ppb		0.00
80) 1,4-Dichlorobenzene-D (IS)	12.07	152	91040	25.00	ppb		0.00
System Monitoring Compounds							
40) Dibromofluoromethane(S)	5.79	111	19209	5.59	ppb		0.00
Spiked Amount 25.000			Recovery =	22.348%			
45) 1,2-DCA-D4(S)	6.18	65	20935	5.44	ppb		0.00
Spiked Amount 25.000			Recovery =	21.752%			
66) Toluene-D8(S)	8.30	98	68918	5.74	ppb		0.00
Spiked Amount 25.000			Recovery =	22.960%			
74) 4-Bromofluorobenzene(S)	10.92	174	28153	5.92	ppb		0.00
Spiked Amount 25.000			Recovery =	23.692%			
Target Compounds							Qvalue
19) t-Butanol	3.53	59	1328	11.22	ppb	#	83

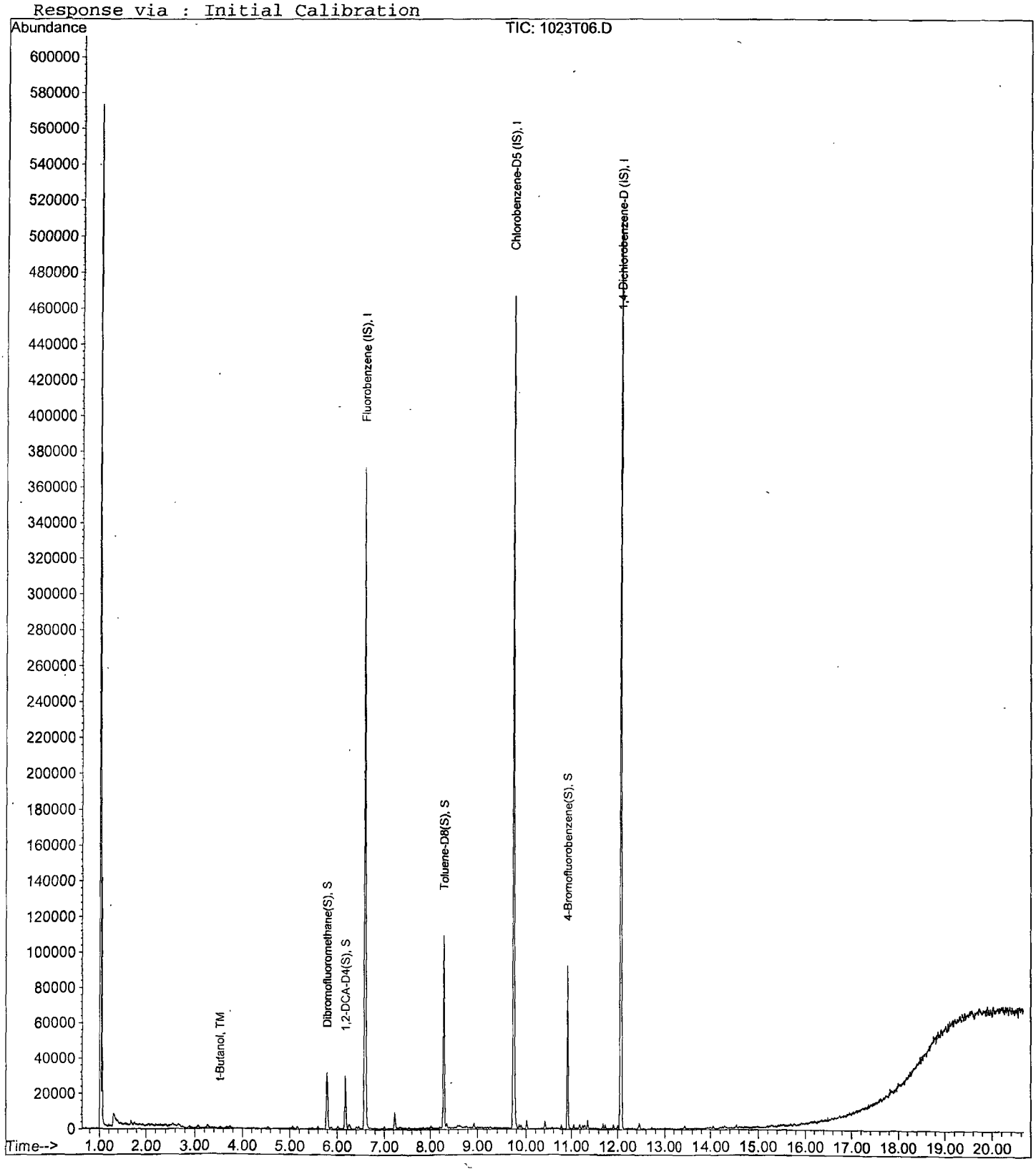
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\THOR\DATA\T191023\1023T06.D Vial: 6
Acq On : 23 Oct 19 19:32 Operator:
Sample : 0.3ug/L VOC STD 10/23/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 24 10:00 2019 Quant Results File: T1023W.RES

Method : M:\THOR\DATA\T191023\T1023W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:55:52 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\THOR\DATA\T191023\1023T07.D Vial: 7
Acq On : 23 Oct 19 20:01 Operator:
Sample : 0.5ug/L VOC STD 10/23/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 24 9:58 2019 Quant Results File: T1023W.RES

Quant Method : M:\THOR\DATA\T191023\T1023W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:55:52 2019
Response via : Initial Calibration
DataAcq Meth : T8260

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene (IS)	6.59	96	177792	25.00	ppb		0.00
65) Chlorobenzene-D5 (IS)	9.74	117	164416	25.00	ppb		0.00
80) 1,4-Dichlorobenzene-D (IS)	12.07	152	92872	25.00	ppb		0.00
System Monitoring Compounds							
40) Dibromofluoromethane(S)	5.79	111	18632	5.44	ppb		0.00
Spiked Amount 25.000			Recovery = 21.748%				
45) 1,2-DCA-D4(S)	6.18	65	21049	5.49	ppb		0.00
Spiked Amount 25.000			Recovery = 21.940%				
66) Toluene-D8(S)	8.30	98	67127	5.47	ppb		0.00
Spiked Amount 25.000			Recovery = 21.868%				
74) 4-Bromofluorobenzene(S)	10.92	174	25663	5.28	ppb		0.00
Spiked Amount 25.000			Recovery = 21.120%				
Target Compounds							Qvalue
3) Dichlorodifluoromethane	1.21	85	937	0.57	ppb		95
4) Freon 114	1.32	85	529	-0.55	ppb	#	68
6) Vinyl chloride	1.46	62	727	0.60	ppb	#	51
8) Bromomethane	1.76	96	485	0.41	ppb		92
9) Chloroethane	1.87	64	1934	1.06	ppb	#	42
10) Dichlorofluoromethane	2.06	67	1062	0.49	ppb		89
11) Trichlorofluoromethane	2.12	101	1261	0.56	ppb		86
13) Acrolein	2.56	55	1625	23.88	ppb		94
14) Acetone	2.74	43	1532	3.50	ppb	#	76
15) Freon-113	2.70	101	320	-0.57	ppb	#	77
16) 1,1-DCE	2.68	61	875	0.55	ppb		95
18) Acetonitrile	3.06	41	4102	25.90	ppb	#	90
19) t-Butanol	3.54	59	3028	25.66	ppb	#	72
20) Methyl Acetate	3.19	43	649	-0.56	ppb	#	51
23) Methylene chloride	3.27	49	1098	-0.66	ppb	#	86
24) Carbon disulfide	2.90	76	1777	0.45	ppb	#	92
25) Methyl t-butyl ether (MtBE	3.74	73	2555	-0.20	ppb	#	83
26) Trans-1,2-DCE	3.68	61	846	0.54	ppb		85
28) Diisopropyl Ether	4.55	45	804	0.59	ppb		91
30) 1,1-DCA	4.33	63	575	-0.56	ppb	#	66
31) Vinyl Acetate	4.55	87	345	-0.38	ppb	#	37
32) Ethyl tert Butyl Ether	5.06	59	1978	0.54	ppb	#	82
33) MEK (2-Butanone)	5.23	43	272	0.59	ppb	#	52
34) Cis-1,2-DCE	5.16	61	969	0.51	ppb	#	84
35) 2,2-Dichloropropane	5.16	77	629	0.49	ppb	#	56
38) Chloroform	5.60	83	628	0.51	ppb		87
39) Bromochloromethane	5.47	130	318	0.60	ppb	#	74
41) 1,1,1-TCA	5.80	97	757	-0.21	ppb		81
42) Cyclohexane	5.87	84	804	0.57	ppb	#	75
43) 1,1-Dichloropropene	6.01	75	901	0.58	ppb	#	78
44) 2,2,4-Trimethylpentane	6.41	57	829	0.47	ppb		88
46) Carbon Tetrachloride	6.01	119	375	-0.52	ppb	#	17
47) Tert Amyl Methyl Ether	6.45	73	2043	0.55	ppb	#	80
49) 1,2-DCA	6.27	62	699	-0.50	ppb	#	72
50) Benzene	6.25	78	3017	0.60	ppb		95
51) TCE	7.01	130	968	0.62	ppb	#	70
52) 2-Pentanone	7.23	43	19699	24.92	ppb		100
53) 1,2-Dichloropropane	7.23	63	659	0.51	ppb	#	71
54) Bromodichloromethane	7.53	83	1090	0.55	ppb	#	91

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\THOR\DATA\T191023\1023T07.D Vial: 7
Acq On : 23 Oct 19 20:01 Operator:
Sample : 0.5ug/L VOC STD 10/23/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 24 9:58 2019 Quant Results File: T1023W.RES

Quant Method : M:\THOR\DATA\T191023\T1023W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:55:52 2019
Response via : Initial Calibration
DataAcq Meth : T8260

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
55)	Methyl Cyclohexane	7.22	83	805	0.51	ppb		89
56)	Dibromomethane	7.35	174	141	-0.35	ppb		91
57)	MIBK (methyl isobutyl ket	9.05	43	300	1.22	ppb	#	77
58)	1-Bromo-2-chloroethane	7.85	63	915	0.55	ppb		90
60)	Cis-1,3-Dichloropropene	8.02	75	1186	0.58	ppb	#	82
61)	Toluene	8.36	91	3235	0.56	ppb		96
62)	Trans-1,3-Dichloropropene	8.59	75	822	0.64	ppb	#	72
63)	1,1,2-TCA	8.77	97	683	0.53	ppb		87
64)	2-Hexanone	8.20	43	423	1.29	ppb	#	62
67)	1,2-EDB	9.26	107	421	0.53	ppb		92
68)	Tetrachloroethene	8.93	166	862	0.55	ppb		89
69)	1-Chlorohexane	9.78	91	772	0.19	ppb	#	65
70)	1,1,1,2-Tetrachloroethane	9.86	131	973	0.61	ppb		95
71)	m&p-Xylene	10.02	91	4931	1.04	ppb		98
72)	o-Xylene	10.40	91	2733	0.54	ppb		96
73)	Styrene	10.41	104	1998	0.55	ppb		96
75)	1,3-Dichloropropane	8.94	76	1057	0.52	ppb		93
77)	Chlorobenzene	9.77	112	1323	0.55	ppb		83
78)	Ethylbenzene	9.90	91	3256	0.55	ppb		88
79)	Bromoform	10.58	173	244	0.38	ppb	#	64
81)	Isopropylbenzene	10.78	105	2955	0.52	ppb	#	92
82)	1,1,2,2-Tetrachloroethane	11.06	83	880	0.59	ppb	#	85
83)	1,2,3-Trichloropropane	11.10	110	90	-0.89	ppb	#	19
84)	t-1,4-Dichloro-2-Butene	11.13	53	49	-0.64	ppb	#	16
85)	Bromobenzene	11.06	77	781	0.53	ppb		91
86)	n-Propylbenzene	11.19	91	3651	0.58	ppb		89
87)	4-Ethyltoluene	11.31	105	2968	0.55	ppb	#	90
88)	2-Chlorotoluene	11.26	91	1304	0.50	ppb		95
89)	1,3,5-Trimethylbenzene	11.37	105	2339	0.48	ppb		95
90)	4-Chlorotoluene	11.37	91	1445	0.48	ppb		98
91)	Tert-Butylbenzene	11.69	119	2276	0.52	ppb		96
92)	1,2,4-Trimethylbenzene	11.74	105	2473	0.50	ppb		97
93)	Sec-Butylbenzene	11.91	105	3096	0.55	ppb		95
94)	p-Isopropyltoluene	12.06	119	2383	0.48	ppb	#	81
95)	Benzyl Chloride	12.22	91	654	0.56	ppb	#	74
96)	1,3-DCB	12.00	146	1008	0.47	ppb		89
97)	1,4-DCB	12.09	146	2074	0.63	ppb		94
98)	n-Butylbenzene	12.47	91	2016	0.53	ppb		95
99)	1,2-DCB	12.46	146	1091	0.55	ppb		84
100)	Hexachloroethane	12.71	117	296	0.49	ppb	#	38
101)	1,2-Dibromo-3-chloropropan	13.22	157	186	0.50	ppb	#	50
102)	1,2,4-Trichlorobenzene	14.07	182	635	0.54	ppb	#	81
103)	Hexachlorobutadiene	14.25	225	442	0.61	ppb	#	43
104)	Naphthalene	14.30	128	1731	0.58	ppb	#	85

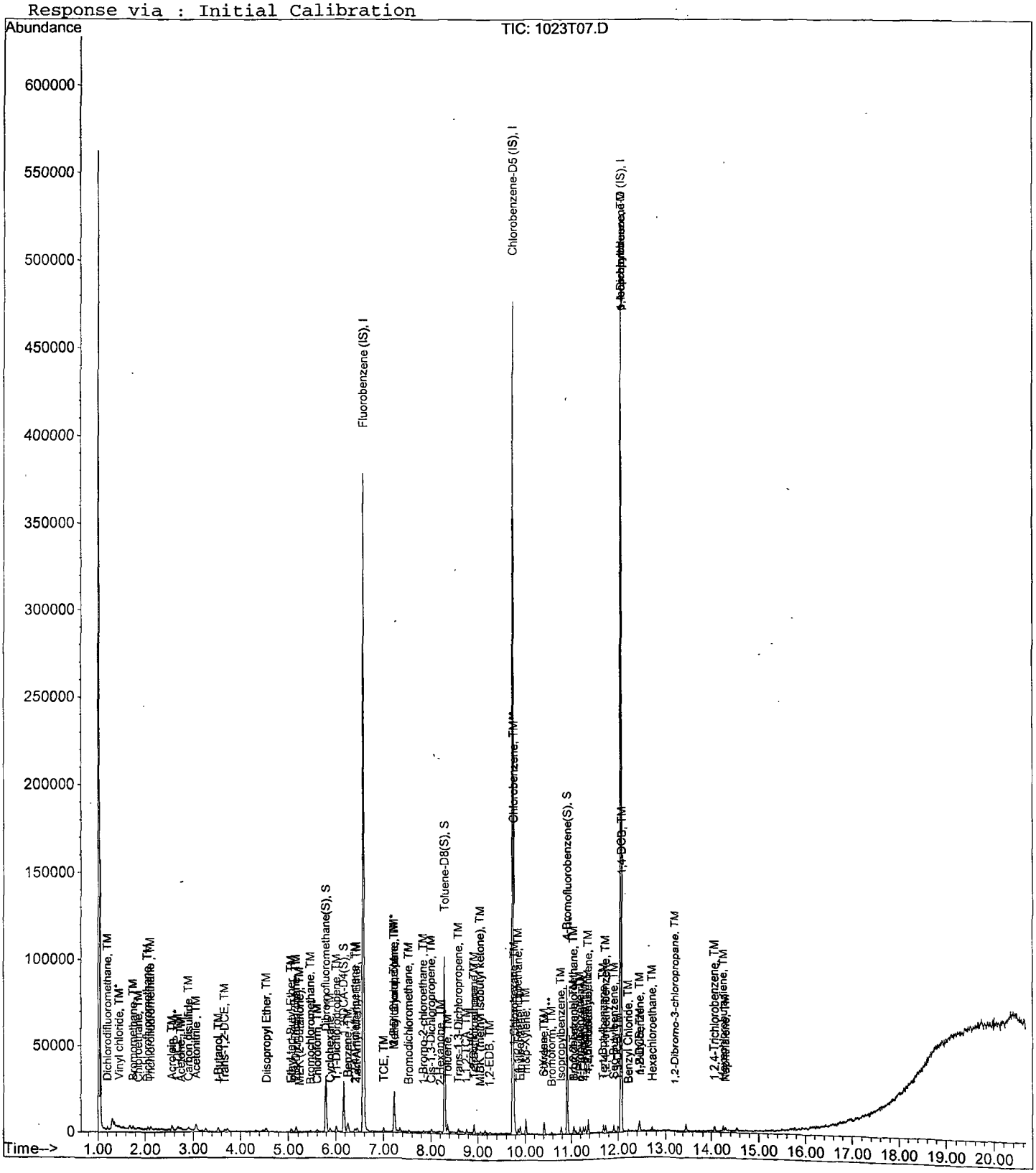
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\THOR\DATA\T191023\1023T07.D Vial: 7
Acq On : 23 Oct 19 20:01 Operator:
Sample : 0.5ug/L VOC STD 10/23/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 24 9:58 2019 Quant Results File: T1023W.RES

Method : M:\THOR\DATA\T191023\T1023W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:55:52 2019
Response via : Initial Calibration



1023T07.D T1023W.M Thu Oct 24 10:00:20 2019 Page 3

Quantitation Report (Not Reviewed)

Data File : M:\THOR\DATA\T191023\1023T08.D Vial: 8
Acq On : 23 Oct 19 20:29 Operator:
Sample : 1.0ug/L VOC STD 10/23/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 24 9:58 2019 Quant Results File: T1023W.RES

Quant Method : M:\THOR\DATA\T191023\T1023W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:55:52 2019
Response via : Initial Calibration
DataAcq Meth : T8260

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene (IS)	6.59	96	186048	25.00	ppb		0.00
65) Chlorobenzene-D5 (IS)	9.74	117	170048	25.00	ppb		0.00
80) 1,4-Dichlorobenzene-D (IS)	12.07	152	96952	25.00	ppb		0.00
System Monitoring Compounds							
40) Dibromofluoromethane(S)	5.79	111	32509	9.07	ppb		0.00
Spiked Amount 25.000			Recovery = 36.260%				
45) 1,2-DCA-D4(S)	6.18	65	35862	8.93	ppb		0.00
Spiked Amount 25.000			Recovery = 35.724%				
66) Toluene-D8(S)	8.30	98	112166	8.83	ppb		0.00
Spiked Amount 25.000			Recovery = 35.332%				
74) 4-Bromofluorobenzene(S)	10.92	174	42473	8.45	ppb		0.00
Spiked Amount 25.000			Recovery = 33.796%				
Target Compounds							Qvalue
3) Dichlorodifluoromethane	1.21	85	2213	1.28	ppb	#	81
4) Freon 114	1.32	85	1140	0.31	ppb		93
5) Chloromethane	1.36	50	2112	0.60	ppb		96
6) Vinyl chloride	1.46	62	1528	1.21	ppb		96
8) Bromomethane	1.75	96	1266	1.45	ppb		96
9) Chloroethane	1.86	64	2544	1.72	ppb		98
10) Dichlorofluoromethane	2.06	67	2822	1.23	ppb		92
11) Trichlorofluoromethane	2.12	101	2755	1.17	ppb		99
13) Acrolein	2.55	55	3800	53.36	ppb		80
14) Acetone	2.74	43	1592	3.48	ppb	#	79
15) Freon-113	2.69	101	702	-0.16	ppb	#	84
16) 1,1-DCE	2.66	61	2040	1.22	ppb		90
18) Acetonitrile	3.06	41	7539	47.94	ppb		92
19) t-Butanol	3.54	59	6157	49.86	ppb		96
21) Iodomethane	2.82	142	383	3.68	ppb		94
22) Acrylonitrile	3.62	53	431	1.01	ppb	#	78
24) Carbon disulfide	2.90	76	3805	1.15	ppb	#	93
25) Methyl t-butyl ether (MtBE	3.73	73	4207	0.25	ppb	#	89
26) Trans-1,2-DCE	3.67	61	1800	1.10	ppb		93
28) Diisopropyl Ether	4.55	45	1587	1.12	ppb	#	83
30) 1,1-DCA	4.32	63	1319	0.31	ppb	#	79
31) Vinyl Acetate	4.56	87	1404	0.62	ppb		91
32) Ethyl tert Butyl Ether	5.06	59	3779	0.99	ppb	#	77
33) MEK (2-Butanone)	5.25	43	824	1.70	ppb	#	52
34) Cis-1,2-DCE	5.16	61	1979	1.00	ppb	#	70
35) 2,2-Dichloropropane	5.15	77	1108	1.09	ppb	#	58
38) Chloroform	5.60	83	1500	1.16	ppb		98
39) Bromochloromethane	5.46	130	644	1.16	ppb	#	48
41) 1,1,1-TCA	5.80	97	1182	0.18	ppb	#	79
42) Cyclohexane	5.87	84	1886	1.27	ppb		78
43) 1,1-Dichloropropene	6.02	75	1947	1.20	ppb		85
44) 2,2,4-Trimethylpentane	6.41	57	1717	1.24	ppb		93
46) Carbon Tetrachloride	6.01	119	2530	0.67	ppb		77
47) Tert Amyl Methyl Ether	6.45	73	4183	1.08	ppb		95
49) 1,2-DCA	6.26	62	2312	1.08	ppb	#	90
50) Benzene	6.25	78	5980	1.13	ppb	#	88
51) TCE	7.01	130	1838	1.12	ppb		87
52) 2-Pentanone	7.23	43	42744	51.67	ppb		96
53) 1,2-Dichloropropane	7.23	63	1521	1.13	ppb	#	88

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\THOR\DATA\T191023\1023T08.D Vial: 8
Acq On : 23 Oct 19 20:29 Operator:
Sample : 1.0ug/L VOC STD 10/23/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 24 9:58 2019 Quant Results File: T1023W.RES

Quant Method : M:\THOR\DATA\T191023\T1023W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:55:52 2019
Response via : Initial Calibration
DataAcq Meth : T8260

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
54)	Bromodichloromethane	7.54	83	2148	1.04	ppb	#	68
55)	Methyl Cyclohexane	7.22	83	2088	1.27	ppb		88
56)	Dibromomethane	7.35	174	1320	0.68	ppb		90
57)	MIBK (methyl isobutyl ket	9.05	43	515	1.66	ppb	#	73
58)	1-Bromo-2-chloroethane	7.85	63	1624	0.94	ppb		83
60)	Cis-1,3-Dichloropropene	8.02	75	2365	1.10	ppb		98
61)	Toluene	8.37	91	6781	1.13	ppb		100
62)	Trans-1,3-Dichloropropene	8.59	75	1278	0.95	ppb	#	28
63)	1,1,2-TCA	8.77	97	1441	1.07	ppb		94
64)	2-Hexanone	8.21	43	758	1.76	ppb	#	71
67)	1,2-EDB	9.26	107	855	1.05	ppb	#	75
68)	Tetrachloroethene	8.92	166	1113	0.69	ppb		92
69)	1-Chlorohexane	9.78	91	2319	1.25	ppb		95
70)	1,1,1,2-Tetrachloroethane	9.86	131	1688	1.03	ppb		79
71)	m&p-Xylene	10.02	91	10640	2.16	ppb		91
72)	o-Xylene	10.40	91	5776	1.10	ppb		92
73)	Styrene	10.42	104	3866	1.04	ppb		93
75)	1,3-Dichloropropane	8.93	76	2450	1.16	ppb		87
76)	Dibromochloromethane	9.16	129	1649	0.91	ppb	#	81
77)	Chlorobenzene	9.77	112	2697	1.08	ppb	#	91
78)	Ethylbenzene	9.90	91	6258	1.02	ppb		96
79)	Bromoform	10.58	173	996	0.93	ppb	#	30
81)	Isopropylbenzene	10.78	105	7137	1.20	ppb		96
82)	1,1,2,2-Tetrachloroethane	11.06	83	1421	0.91	ppb	#	91
85)	Bromobenzene	11.06	77	1841	1.19	ppb		91
86)	n-Propylbenzene	11.19	91	7417	1.12	ppb		92
87)	4-Ethyltoluene	11.31	105	5822	1.02	ppb		92
88)	2-Chlorotoluene	11.26	91	3127	1.14	ppb		94
89)	1,3,5-Trimethylbenzene	11.31	105	5746	1.14	ppb		84
90)	4-Chlorotoluene	11.37	91	3169	1.01	ppb	#	85
91)	Tert-Butylbenzene	11.69	119	4538	1.00	ppb		93
92)	1,2,4-Trimethylbenzene	11.74	105	5982	1.15	ppb		91
93)	Sec-Butylbenzene	11.91	105	6363	1.08	ppb	#	92
94)	p-Isopropyltoluene	12.06	119	5492	1.06	ppb	#	89
95)	Benzyl Chloride	12.22	91	1279	1.06	ppb	#	92
96)	1,3-DCB	12.00	146	2616	1.16	ppb		92
97)	1,4-DCB	12.09	146	3564	1.04	ppb		99
98)	n-Butylbenzene	12.47	91	4131	1.05	ppb	#	83
99)	1,2-DCB	12.46	146	2218	1.08	ppb		96
100)	Hexachloroethane	12.72	117	620	0.98	ppb		92
101)	1,2-Dibromo-3-chloropropan	13.22	157	215	0.59	ppb	#	74
102)	1,2,4-Trichlorobenzene	14.06	182	1397	1.13	ppb		94
103)	Hexachlorobutadiene	14.25	225	759	1.01	ppb	#	33
104)	Naphthalene	14.30	128	3115	1.00	ppb		96
105)	1,2,3-Trichlorobenzene	14.54	182	2012	0.99	ppb	#	69

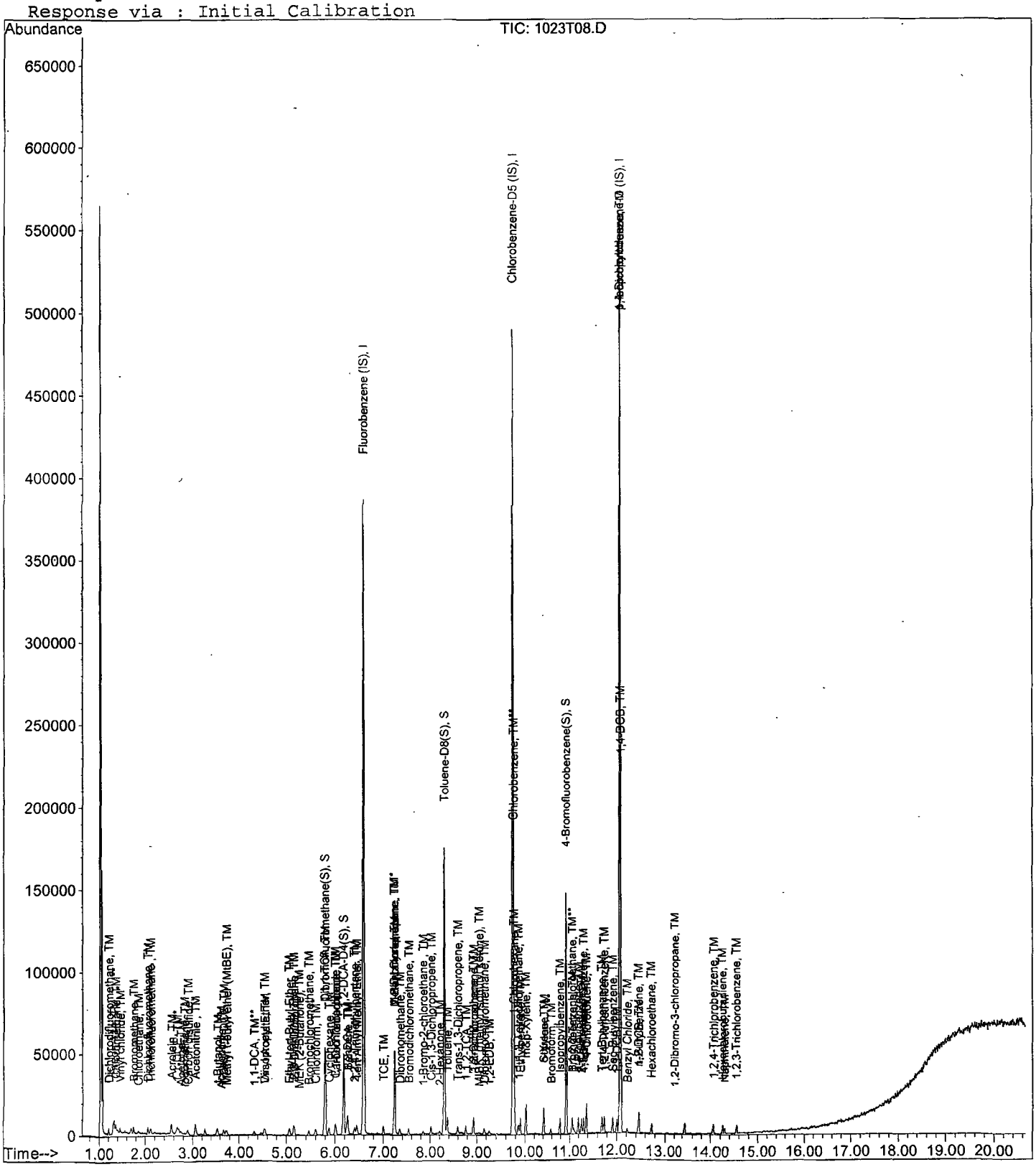
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\THOR\DATA\T191023\1023T08.D Vial: 8
Acq On : 23 Oct 19 20:29 Operator:
Sample : 1.0ug/L VOC STD 10/23/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 24 9:58 2019 Quant Results File: T1023W.RES

Method : M:\THOR\DATA\T191023\T1023W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:55:52 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\THOR\DATA\T191023\1023T09.D Vial: 9
Acq On : 23 Oct 19 20:58 Operator:
Sample : 2.0ug/L VOC STD 10/23/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 24 9:58 2019 Quant Results File: T1023W.RES

Quant Method : M:\THOR\DATA\T191023\T1023W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:55:52 2019
Response via : Initial Calibration
DataAcq Meth : T8260

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene (IS)	6.59	96	182336	25.00	ppb		0.00
65) Chlorobenzene-D5 (IS)	9.74	117	173696	25.00	ppb		0.00
80) 1,4-Dichlorobenzene-D (IS)	12.07	152	94992	25.00	ppb		0.00
System Monitoring Compounds							
40) Dibromofluoromethane(S)	5.79	111	33009	9.39	ppb		0.00
Spiked Amount 25.000			Recovery	=	37.568%		
45) 1,2-DCA-D4(S)	6.18	65	37488	9.53	ppb		0.00
Spiked Amount 25.000			Recovery	=	38.104%		
66) Toluene-D8(S)	8.30	98	117350	9.05	ppb		0.00
Spiked Amount 25.000			Recovery	=	36.188%		
74) 4-Bromofluorobenzene(S)	10.92	174	44756	8.72	ppb		0.00
Spiked Amount 25.000			Recovery	=	34.864%		
Target Compounds							Qvalue
3) Dichlorodifluoromethane	1.20	85	3175	1.88	ppb		97
4) Freon 114	1.32	85	1910	1.49	ppb		85
5) Chloromethane	1.36	50	3317	1.63	ppb	#	81
6) Vinyl chloride	1.46	62	2252	1.82	ppb		90
8) Bromomethane	1.75	96	1934	2.41	ppb		83
9) Chloroethane	1.86	64	2460	1.68	ppb	#	73
10) Dichlorofluoromethane	2.06	67	4804	2.14	ppb		89
11) Trichlorofluoromethane	2.12	101	4673	2.03	ppb		97
13) Acrolein	2.55	55	5067	72.60	ppb		97
14) Acetone	2.74	43	2190	4.88	ppb	#	76
15) Freon-113	2.70	101	2181	1.55	ppb	#	88
16) 1,1-DCE	2.67	61	3464	2.12	ppb		92
18) Acetonitrile	3.06	41	11213	74.43	ppb		97
19) t-Butanol	3.54	59	8922	73.72	ppb		93
20) Methyl Acetate	3.18	43	1823	1.05	ppb	#	78
21) Iodomethane	2.82	142	462	3.74	ppb		88
22) Acrylonitrile	3.62	53	953	2.28	ppb		92
23) Methylene chloride	3.27	49	3370	1.08	ppb		87
24) Carbon disulfide	2.89	76	6588	2.19	ppb		98
25) Methyl t-butyl ether (MtBE	3.73	73	7916	1.39	ppb	#	89
26) Trans-1,2-DCE	3.68	61	3481	2.18	ppb		89
28) Diisopropyl Ether	4.55	45	2949	2.12	ppb		97
30) 1,1-DCA	4.32	63	2103	1.32	ppb	#	92
31) Vinyl Acetate	4.55	87	2156	1.39	ppb		99
32) Ethyl tert Butyl Ether	5.06	59	7839	2.10	ppb		99
33) MEK (2-Butanone)	5.22	43	1288	2.71	ppb	#	73
34) Cis-1,2-DCE	5.16	61	4117	2.13	ppb		95
35) 2,2-Dichloropropane	5.16	77	1799	2.05	ppb		93
38) Chloroform	5.59	83	2498	1.97	ppb		97
39) Bromochloromethane	5.46	130	1094	2.01	ppb		90
41) 1,1,1-TCA	5.80	97	2390	1.46	ppb		94
42) Cyclohexane	5.87	84	3158	2.16	ppb		79
43) 1,1-Dichloropropene	6.02	75	3070	1.93	ppb		92
44) 2,2,4-Trimethylpentane	6.41	57	2379	1.89	ppb		99
46) Carbon Tetrachloride	6.01	119	3701	1.36	ppb		88
47) Tert Amyl Methyl Ether	6.46	73	7829	2.06	ppb		95
49) 1,2-DCA	6.27	62	2248	1.06	ppb		93
50) Benzene	6.25	78	10480	2.02	ppb		95
51) TCE	7.00	130	3335	2.07	ppb		95

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\THOR\DATA\T191023\1023T09.D Vial: 9
Acq On : 23 Oct 19 20:58 Operator:
Sample : 2.0ug/L VOC STD 10/23/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 24 9:58 2019 Quant Results File: T1023W.RES

Quant Method : M:\THOR\DATA\T191023\T1023W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:55:52 2019
Response via : Initial Calibration
DataAcq Meth : T8260

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
52)	2-Pentanone	7.23	43	60760	74.94	ppb		97
53)	1,2-Dichloropropane	7.23	63	3079	2.34	ppb	#	98
54)	Bromodichloromethane	7.54	83	4329	2.14	ppb		99
55)	Methyl Cyclohexane	7.22	83	3239	2.01	ppb		85
56)	Dibromomethane	7.34	174	1893	1.22	ppb		97
57)	MIBK (methyl isobutyl ket	9.05	43	929	2.63	ppb	#	84
58)	1-Bromo-2-chloroethane	7.85	63	3667	2.16	ppb		98
60)	Cis-1,3-Dichloropropene	8.02	75	4282	2.03	ppb		95
61)	Toluene	8.37	91	11816	2.01	ppb		97
62)	Trans-1,3-Dichloropropene	8.59	75	2529	1.92	ppb	#	65
63)	1,1,2-TCA	8.77	97	2858	2.17	ppb		79
64)	2-Hexanone	8.20	43	1337	2.66	ppb	#	89
67)	1,2-EDB	9.26	107	1686	2.03	ppb		80
68)	Tetrachloroethene	8.92	166	3619	2.20	ppb		93
69)	1-Chlorohexane	9.77	91	2745	1.51	ppb		92
70)	1,1,1,2-Tetrachloroethane	9.85	131	3220	1.92	ppb		97
71)	m&p-Xylene	10.02	91	19574	3.89	ppb		100
72)	o-Xylene	10.40	91	10335	1.92	ppb		93
73)	Styrene	10.42	104	6848	1.80	ppb		90
75)	1,3-Dichloropropane	8.93	76	4414	2.04	ppb		96
76)	Dibromochloromethane	9.16	129	3293	1.87	ppb		83
77)	Chlorobenzene	9.77	112	4853	1.89	ppb		96
78)	Ethylbenzene	9.90	91	12886	2.05	ppb		92
79)	Bromoform	10.58	173	2663	2.11	ppb		90
81)	Isopropylbenzene	10.78	105	11630	1.99	ppb	#	92
82)	1,1,2,2-Tetrachloroethane	11.05	83	3377	2.20	ppb	#	92
83)	1,2,3-Trichloropropane	11.09	110	1011	1.06	ppb	#	76
84)	t-1,4-Dichloro-2-Butene	11.12	53	612	1.33	ppb		90
85)	Bromobenzene	11.06	77	3079	2.02	ppb		80
86)	n-Propylbenzene	11.19	91	13209	2.04	ppb		98
87)	4-Ethyltoluene	11.31	105	11432	2.05	ppb		97
88)	2-Chlorotoluene	11.26	91	5743	2.14	ppb		91
89)	1,3,5-Trimethylbenzene	11.37	105	9508	1.92	ppb		97
90)	4-Chlorotoluene	11.37	91	6696	2.19	ppb		96
91)	Tert-Butylbenzene	11.69	119	9964	2.23	ppb		86
92)	1,2,4-Trimethylbenzene	11.74	105	10392	2.05	ppb		92
93)	Sec-Butylbenzene	11.91	105	11421	1.97	ppb		97
94)	p-Isopropyltoluene	12.06	119	10147	2.00	ppb		99
95)	Benzyl Chloride	12.22	91	2084	1.76	ppb		96
96)	1,3-DCB	12.00	146	4196	1.90	ppb		97
97)	1,4-DCB	12.09	146	7220	2.16	ppb		97
98)	n-Butylbenzene	12.47	91	7641	1.98	ppb		98
99)	1,2-DCB	12.46	146	4008	1.99	ppb		96
100)	Hexachloroethane	12.72	117	1365	2.21	ppb		88
101)	1,2-Dibromo-3-chloropropan	13.22	157	426	1.62	ppb	#	79
102)	1,2,4-Trichlorobenzene	14.06	182	2163	1.79	ppb	#	84
103)	Hexachlorobutadiene	14.26	225	1261	1.71	ppb		95
104)	Naphthalene	14.30	128	5533	1.81	ppb		93
105)	1,2,3-Trichlorobenzene	14.55	182	3184	1.72	ppb	#	75

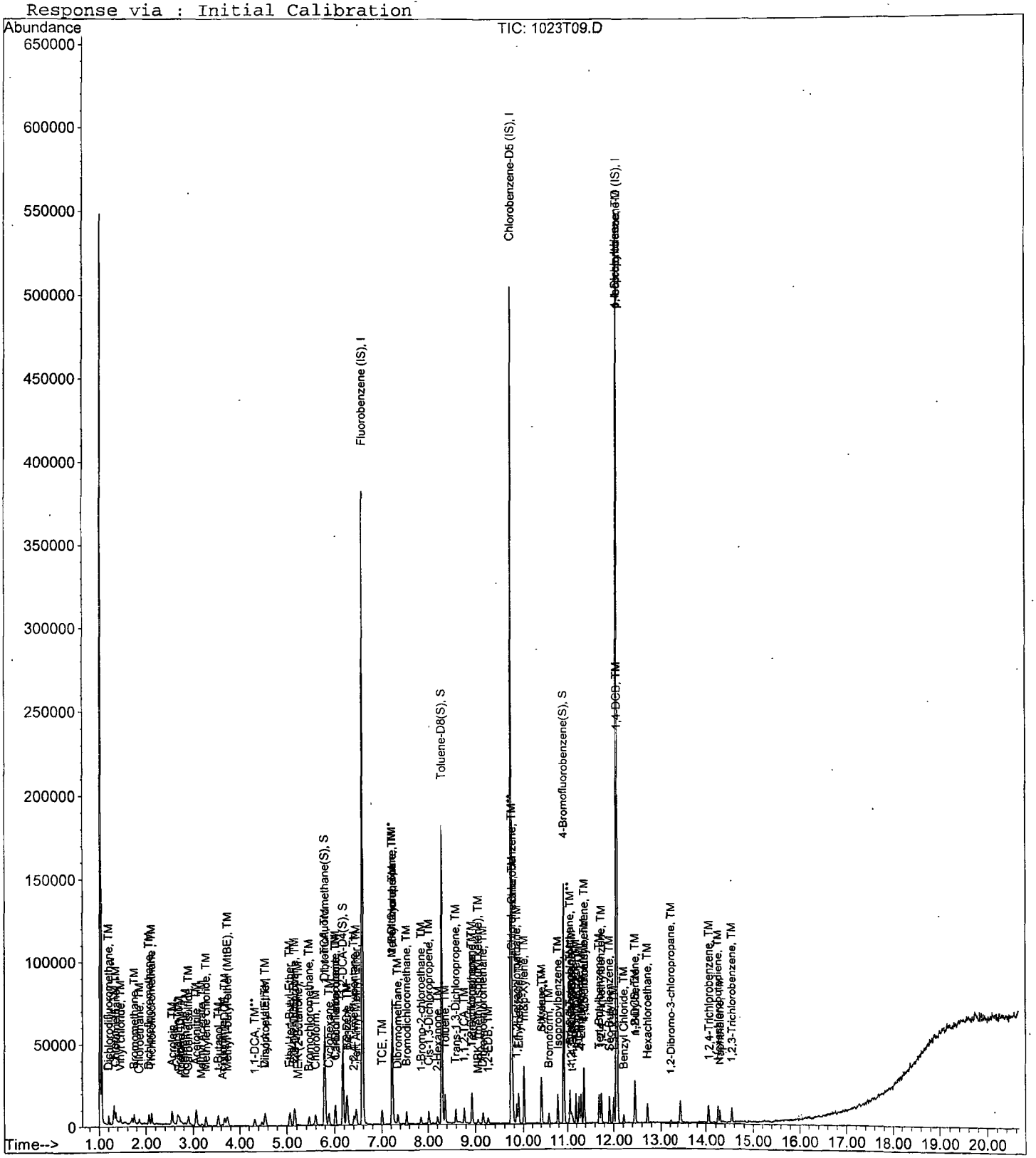
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\THOR\DATA\T191023\1023T09.D Vial: 9
Acq On : 23 Oct 19 20:58 Operator:
Sample : 2.0ug/L VOC STD 10/23/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 24 9:58 2019 Quant Results File: T1023W.RES

Method : M:\THOR\DATA\T191023\T1023W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:55:52 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\THOR\DATA\T191023\1023T10.D Vial: 10
Acq On : 23 Oct 19 21:26 Operator:
Sample : 5.0ug/L VOC STD 10/23/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 24 9:58 2019 Quant Results File: T1023W.RES

Quant Method : M:\THOR\DATA\T191023\T1023W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:55:52 2019
Response via : Initial Calibration
DataAcq Meth : T8260

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene (IS)	6.59	96	183104	25.00	ppb		0.00
65) Chlorobenzene-D5 (IS)	9.74	117	171200	25.00	ppb		0.00
80) 1,4-Dichlorobenzene-D (IS)	12.06	152	96128	25.00	ppb		0.00
System Monitoring Compounds							
40) Dibromofluoromethane(S)	5.79	111	86276	24.44	ppb		0.00
Spiked Amount 25.000			Recovery = 97.780%				
45) 1,2-DCA-D4(S)	6.18	65	97911	24.78	ppb		0.00
Spiked Amount 25.000			Recovery = 99.104%				
66) Toluene-D8(S)	8.30	98	311553	24.37	ppb		0.00
Spiked Amount 25.000			Recovery = 97.476%				
74) 4-Bromofluorobenzene(S)	10.92	174	123213	24.34	ppb		0.00
Spiked Amount 25.000			Recovery = 97.376%				
Target Compounds							Qvalue
3) Dichlorodifluoromethane	1.21	85	7047	4.15	ppb		100
4) Freon 114	1.32	85	3426	3.73	ppb		92
5) Chloromethane	1.36	50	6891	4.54	ppb		97
6) Vinyl chloride	1.46	62	5392	4.34	ppb		92
8) Bromomethane	1.75	96	3752	4.92	ppb		100
9) Chloroethane	1.86	64	4122	3.80	ppb		90
10) Dichlorofluoromethane	2.06	67	10226	4.54	ppb		92
11) Trichlorofluoromethane	2.12	101	9773	4.22	ppb		99
13) Acrolein	2.55	55	6587	93.99	ppb		94
14) Acetone	2.74	43	3112	6.90	ppb		91
15) Freon-113	2.70	101	4455	4.13	ppb		94
16) 1,1-DCE	2.66	61	7366	4.49	ppb		96
18) Acetonitrile	3.06	41	14951	99.89	ppb		97
19) t-Butanol	3.54	59	12184	100.25	ppb		95
20) Methyl Acetate	3.18	43	4022	4.10	ppb		97
21) Iodomethane	2.82	142	1130	4.26	ppb		96
22) Acrylonitrile	3.62	53	1849	4.41	ppb	#	79
23) Methylene chloride	3.27	49	6871	3.77	ppb		95
24) Carbon disulfide	2.89	76	12647	4.37	ppb	#	93
25) Methyl t-butyl ether (MtBE	3.73	73	17467	4.24	ppb		95
26) Trans-1,2-DCE	3.68	61	7009	4.37	ppb		93
28) Diisopropyl Ether	4.55	45	6353	4.56	ppb		90
30) 1,1-DCA	4.32	63	4303	4.02	ppb		96
31) Vinyl Acetate	4.54	87	4879	4.04	ppb		84
32) Ethyl tert Butyl Ether	5.06	59	17047	4.54	ppb	#	89
33) MEK (2-Butanone)	5.23	43	2473	5.18	ppb	#	57
34) Cis-1,2-DCE	5.16	61	8972	4.62	ppb	#	84
35) 2,2-Dichloropropane	5.15	77	3565	4.40	ppb		95
38) Chloroform	5.60	83	5919	4.65	ppb		98
39) Bromochloromethane	5.47	130	2359	4.32	ppb		83
41) 1,1,1-TCA	5.81	97	4991	4.13	ppb		94
42) Cyclohexane	5.88	84	6309	4.31	ppb		80
43) 1,1-Dichloropropene	6.02	75	7151	4.47	ppb		96
44) 2,2,4-Trimethylpentane	6.41	57	4801	4.13	ppb		99
46) Carbon Tetrachloride	6.02	119	8319	3.96	ppb		83
47) Tert Amyl Methyl Ether	6.46	73	17800	4.67	ppb		97
49) 1,2-DCA	6.27	62	4860	3.72	ppb		96
50) Benzene	6.25	78	24326	4.67	ppb		97
51) TCE	7.01	130	7152	4.42	ppb		92

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\THOR\DATA\T191023\1023T10.D Vial: 10
Acq On : 23 Oct 19 21:26 Operator:
Sample : 5.0ug/L VOC STD 10/23/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 24 9:58 2019 Quant Results File: T1023W.RES

Quant Method : M:\THOR\DATA\T191023\T1023W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:55:52 2019
Response via : Initial Calibration
DataAcq Meth : T8260

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
52)	2-Pentanone	7.23	43	80479	98.85	ppb		98
53)	1,2-Dichloropropane	7.23	63	5830	4.40	ppb	#	84
54)	Bromodichloromethane	7.54	83	9397	4.63	ppb	#	98
55)	Methyl Cyclohexane	7.22	83	7317	4.53	ppb		96
56)	Dibromomethane	7.35	174	4797	3.82	ppb		91
57)	MIBK (methyl isobutyl ket	9.05	43	2096	5.25	ppb	#	86
58)	1-Bromo-2-chloroethane	7.85	63	7637	4.48	ppb		98
60)	Cis-1,3-Dichloropropene	8.02	75	9274	4.37	ppb		97
61)	Toluene	8.37	91	26261	4.45	ppb		98
62)	Trans-1,3-Dichloropropene	8.59	75	5833	4.40	ppb		85
63)	1,1,2-TCA	8.77	97	6039	4.56	ppb		96
64)	2-Hexanone	8.20	43	2503	4.40	ppb		92
67)	1,2-EDB	9.26	107	4010	4.89	ppb		89
68)	Tetrachloroethene	8.92	166	8026	4.95	ppb		98
69)	1-Chlorohexane	9.77	91	7147	4.60	ppb		95
70)	1,1,1,2-Tetrachloroethane	9.86	131	7493	4.52	ppb		96
71)	m&p-Xylene	10.02	91	44412	8.96	ppb		98
72)	o-Xylene	10.41	91	23275	4.39	ppb		96
73)	Styrene	10.42	104	16167	4.30	ppb		97
75)	1,3-Dichloropropane	8.93	76	10123	4.74	ppb		100
76)	Dibromochloromethane	9.16	129	7218	4.29	ppb		94
77)	Chlorobenzene	9.77	112	11774	4.66	ppb		100
78)	Ethylbenzene	9.89	91	27457	4.44	ppb		96
79)	Bromoform	10.58	173	6093	4.66	ppb		92
81)	Isopropylbenzene	10.78	105	27436	4.65	ppb		98
82)	1,1,2,2-Tetrachloroethane	11.06	83	7046	4.54	ppb	#	94
83)	1,2,3-Trichloropropane	11.09	110	2559	4.29	ppb		89
84)	t-1,4-Dichloro-2-Butene	11.12	53	1788	5.37	ppb	#	61
85)	Bromobenzene	11.06	77	7073	4.60	ppb		88
86)	n-Propylbenzene	11.19	91	29626	4.51	ppb		97
87)	4-Ethyltoluene	11.31	105	26056	4.63	ppb		97
88)	2-Chlorotoluene	11.26	91	13299	4.89	ppb		95
89)	1,3,5-Trimethylbenzene	11.37	105	23914	4.78	ppb		96
90)	4-Chlorotoluene	11.37	91	13927	4.50	ppb		97
91)	Tert-Butylbenzene	11.69	119	23226	5.14	ppb		98
92)	1,2,4-Trimethylbenzene	11.74	105	24100	4.69	ppb		95
93)	Sec-Butylbenzene	11.91	105	26773	4.57	ppb		96
94)	p-Isopropyltoluene	12.06	119	23556	4.58	ppb		96
95)	Benzyl Chloride	12.22	91	5914	4.92	ppb		99
96)	1,3-DCB	12.00	146	9295	4.15	ppb		97
97)	1,4-DCB	12.09	146	15209	4.49	ppb		97
98)	n-Butylbenzene	12.46	91	17108	4.38	ppb		97
99)	1,2-DCB	12.45	146	9205	4.52	ppb		96
100)	Hexachloroethane	12.72	117	2949	4.71	ppb		96
101)	1,2-Dibromo-3-chloropropan	13.22	157	1225	5.34	ppb	#	67
102)	1,2,4-Trichlorobenzene	14.06	182	5412	4.43	ppb		98
103)	Hexachlorobutadiene	14.25	225	3450	4.61	ppb	#	55
104)	Naphthalene	14.30	128	13148	4.26	ppb		98
105)	1,2,3-Trichlorobenzene	14.54	182	7810	4.45	ppb	#	78

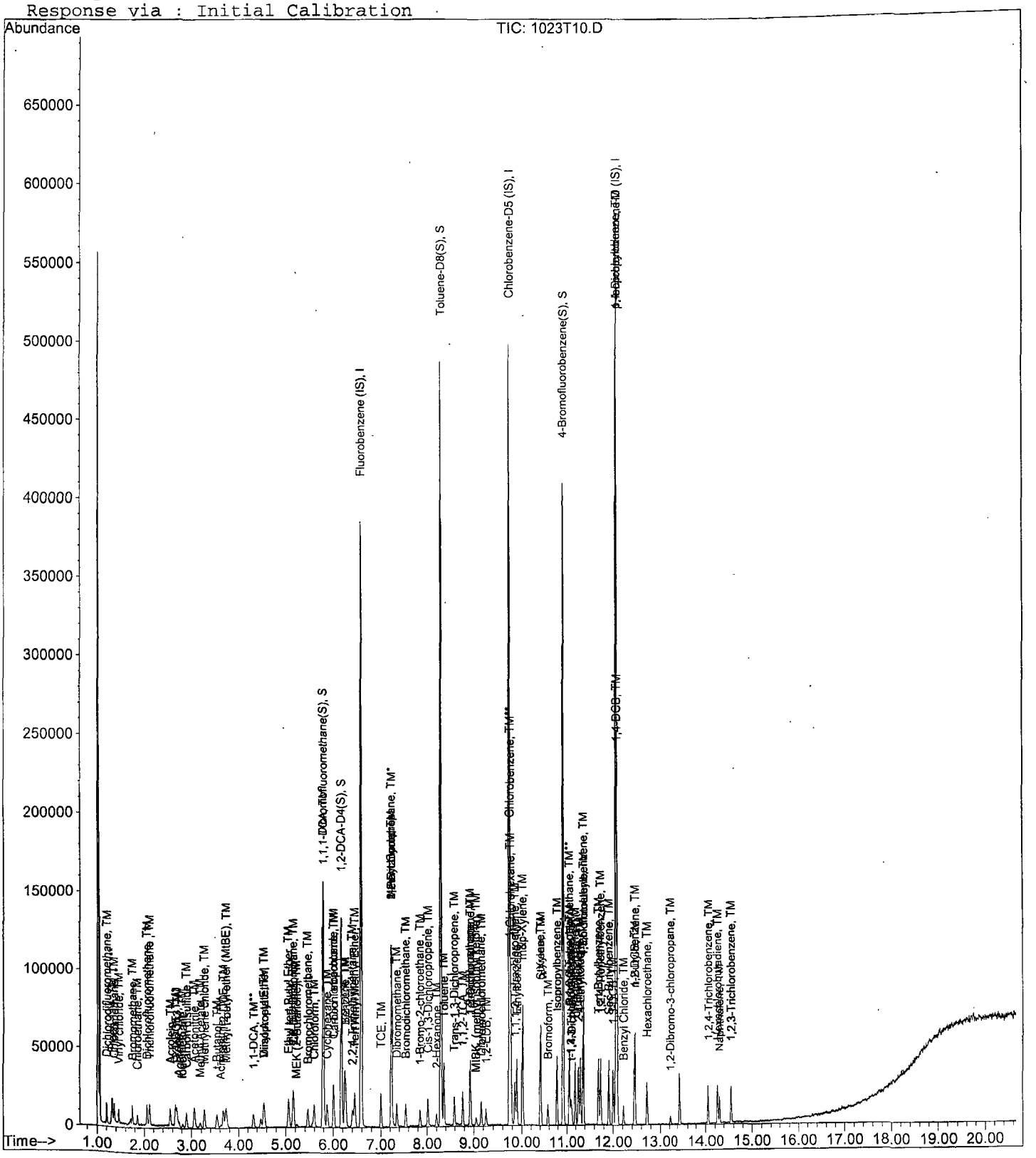
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\THOR\DATA\T191023\1023T10.D Vial: 10
Acq On : 23 Oct 19 21:26 Operator:
Sample : 5.0ug/L VOC STD 10/23/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 24 9:58 2019 Quant Results File: T1023W.RES

Method : M:\THOR\DATA\T191023\T1023W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:55:52 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\THOR\DATA\T191023\1023T11.D Vial: 11
Acq On : 23 Oct 19 21:55 Operator:
Sample : 10ug/L VOC STD 10/23/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 24 9:58 2019 Quant Results File: T1023W.RES

Quant Method : M:\THOR\DATA\T191023\T1023W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:55:52 2019
Response via : Initial Calibration
DataAcq Meth : T8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	6.59	96	178432	25.00	ppb	0.00
65) Chlorobenzene-D5 (IS)	9.74	117	159872	25.00	ppb	0.00
80) 1,4-Dichlorobenzene-D (IS)	12.06	152	97112	25.00	ppb	0.00
System Monitoring Compounds						
40) Dibromofluoromethane(S)	5.79	111	86393	25.12	ppb	0.00
Spiked Amount 25.000			Recovery = 100.476%			
45) 1,2-DCA-D4(S)	6.18	65	98312	25.53	ppb	0.00
Spiked Amount 25.000			Recovery = 102.112%			
66) Toluene-D8(S)	8.30	98	314020	26.30	ppb	0.00
Spiked Amount 25.000			Recovery = 105.208%			
74) 4-Bromofluorobenzene(S)	10.92	174	123099	26.04	ppb	0.00
Spiked Amount 25.000			Recovery = 104.180%			
Target Compounds						Qvalue
3) Dichlorodifluoromethane	1.20	85	14932	9.03	ppb	100
4) Freon 114	1.32	85	7672	10.34	ppb	100
5) Chloromethane	1.36	50	13913	10.59	ppb	100
6) Vinyl chloride	1.46	62	11629	9.61	ppb	100
8) Bromomethane	1.75	96	6929	9.57	ppb	100
9) Chloroethane	1.86	64	8442	9.63	ppb	100
10) Dichlorofluoromethane	2.06	67	21099	9.60	ppb	100
11) Trichlorofluoromethane	2.12	101	20797	9.22	ppb	100
13) Acrolein	2.55	55	8793	128.75	ppb	100
14) Acetone	2.74	43	4950	11.27	ppb	100
15) Freon-113	2.70	101	9462	10.12	ppb	100
16) 1,1-DCE	2.67	61	14233	8.91	ppb	100
18) Acetonitrile	3.06	41	18272	126.10	ppb	100
19) t-Butanol	3.53	59	14643	123.64	ppb	100
20) Methyl Acetate	3.18	43	8327	10.39	ppb	100
21) Iodomethane	2.82	142	6698	8.68	ppb	100
22) Acrylonitrile	3.62	53	4020	9.84	ppb	100
23) Methylene chloride	3.27	49	14626	10.05	ppb	100
24) Carbon disulfide	2.90	76	27007	9.83	ppb	100
25) Methyl t-butyl ether (MtBE	3.73	73	36251	10.13	ppb	100
26) Trans-1,2-DCE	3.68	61	15076	9.64	ppb	100
28) Diisopropyl Ether	4.55	45	11939	8.79	ppb	100
30) 1,1-DCA	4.32	63	8893	9.98	ppb	100
31) Vinyl Acetate	4.54	87	10490	9.80	ppb	100
32) Ethyl tert Butyl Ether	5.06	59	37233	10.18	ppb	100
33) MEK (2-Butanone)	5.23	43	4883	10.51	ppb	100
34) Cis-1,2-DCE	5.16	61	18914	9.99	ppb	100
35) 2,2-Dichloropropane	5.16	77	7007	9.26	ppb	100
38) Chloroform	5.60	83	12348	9.95	ppb	100
39) Bromochloromethane	5.46	130	5202	9.77	ppb	100
41) 1,1,1-TCA	5.80	97	10621	10.21	ppb	100
42) Cyclohexane	5.88	84	12619	8.84	ppb	100
43) 1,1-Dichloropropene	6.02	75	14583	9.35	ppb	100
44) 2,2,4-Trimethylpentane	6.41	57	10115	9.30	ppb	100
46) Carbon Tetrachloride	6.01	119	17586	9.45	ppb	100
47) Tert Amyl Methyl Ether	6.46	73	35058	9.44	ppb	100
49) 1,2-DCA	6.27	62	9957	9.19	ppb	100
50) Benzene	6.25	78	47545	9.36	ppb	100
51) TCE	7.01	130	14677	9.32	ppb	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\THOR\DATA\T191023\1023T11.D Vial: 11
Acq On : 23 Oct 19 21:55 Operator:
Sample : 10ug/L VOC STD 10/23/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 24 9:58 2019 Quant Results File: T1023W.RES

Quant Method : M:\THOR\DATA\T191023\T1023W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:55:52 2019
Response via : Initial Calibration
DataAcq Meth : T8260

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
52)	2-Pentanone	7.23	43	98031	123.56	ppb	100
53)	1,2-Dichloropropane	7.23	63	12213	9.46	ppb	100
54)	Bromodichloromethane	7.54	83	19074	9.65	ppb	100
55)	Methyl Cyclohexane	7.22	83	14678	9.33	ppb	100
56)	Dibromomethane	7.35	174	10360	9.04	ppb	100
57)	MIBK (methyl isobutyl ket	9.05	43	3951	9.67	ppb	100
58)	1-Bromo-2-chloroethane	7.85	63	16743	10.07	ppb	100
60)	Cis-1,3-Dichloropropene	8.02	75	20283	9.82	ppb	100
61)	Toluene	8.37	91	55194	9.59	ppb	100
62)	Trans-1,3-Dichloropropene	8.59	75	12534	9.70	ppb	100
63)	1,1,2-TCA	8.77	97	13065	10.12	ppb	100
64)	2-Hexanone	8.20	43	5964	9.85	ppb	100
67)	1,2-EDB	9.26	107	7535	9.84	ppb	100
68)	Tetrachloroethene	8.92	166	16538	10.92	ppb	100
69)	1-Chlorohexane	9.78	91	14226	10.24	ppb	100
70)	1,1,1,2-Tetrachloroethane	9.86	131	15300	9.89	ppb	100
71)	m&p-Xylene	10.02	91	94120	20.33	ppb	100
72)	o-Xylene	10.40	91	51227	10.35	ppb	100
73)	Styrene	10.42	104	35722	10.18	ppb	100
75)	1,3-Dichloropropane	8.93	76	20155	10.11	ppb	100
76)	Dibromochloromethane	9.15	129	16704	10.78	ppb	100
77)	Chlorobenzene	9.77	112	24896	10.56	ppb	100
78)	Ethylbenzene	9.90	91	58576	10.14	ppb	100
79)	Bromoform	10.58	173	13279	10.61	ppb	100
81)	Isopropylbenzene	10.78	105	60153	10.08	ppb	100
82)	1,1,2,2-Tetrachloroethane	11.05	83	16130	10.28	ppb	100
83)	1,2,3-Trichloropropane	11.09	110	5570	10.50	ppb	100
84)	t-1,4-Dichloro-2-Butene	11.12	53	3236	10.26	ppb	100
85)	Bromobenzene	11.06	77	15582	10.02	ppb	100
86)	n-Propylbenzene	11.19	91	63613	9.59	ppb	100
87)	4-Ethyltoluene	11.31	105	55797	9.81	ppb	100
88)	2-Chlorotoluene	11.26	91	26018	9.46	ppb	100
89)	1,3,5-Trimethylbenzene	11.37	105	50646	10.01	ppb	100
90)	4-Chlorotoluene	11.37	91	31560	10.09	ppb	100
91)	Tert-Butylbenzene	11.69	119	43879	9.61	ppb	100
92)	1,2,4-Trimethylbenzene	11.74	105	50506	9.74	ppb	100
93)	Sec-Butylbenzene	11.91	105	58662	9.91	ppb	100
94)	p-Isopropyltoluene	12.06	119	53371	10.27	ppb	100
95)	Benzyl Chloride	12.22	91	11283	9.30	ppb	100
96)	1,3-DCB	12.00	146	21112	9.34	ppb	100
97)	1,4-DCB	12.09	146	31903	9.32	ppb	100
98)	n-Butylbenzene	12.46	91	37788	9.57	ppb	100
99)	1,2-DCB	12.45	146	20424	9.93	ppb	100
100)	Hexachloroethane	12.72	117	6566	10.39	ppb	100
101)	1,2-Dibromo-3-chloropropan	13.22	157	2059	9.16	ppb	100
102)	1,2,4-Trichlorobenzene	14.06	182	12002	9.73	ppb	100
103)	Hexachlorobutadiene	14.25	225	7655	10.13	ppb	100
104)	Naphthalene	14.30	128	28762	9.22	ppb	100
105)	1,2,3-Trichlorobenzene	14.54	182	15183	8.74	ppb	100

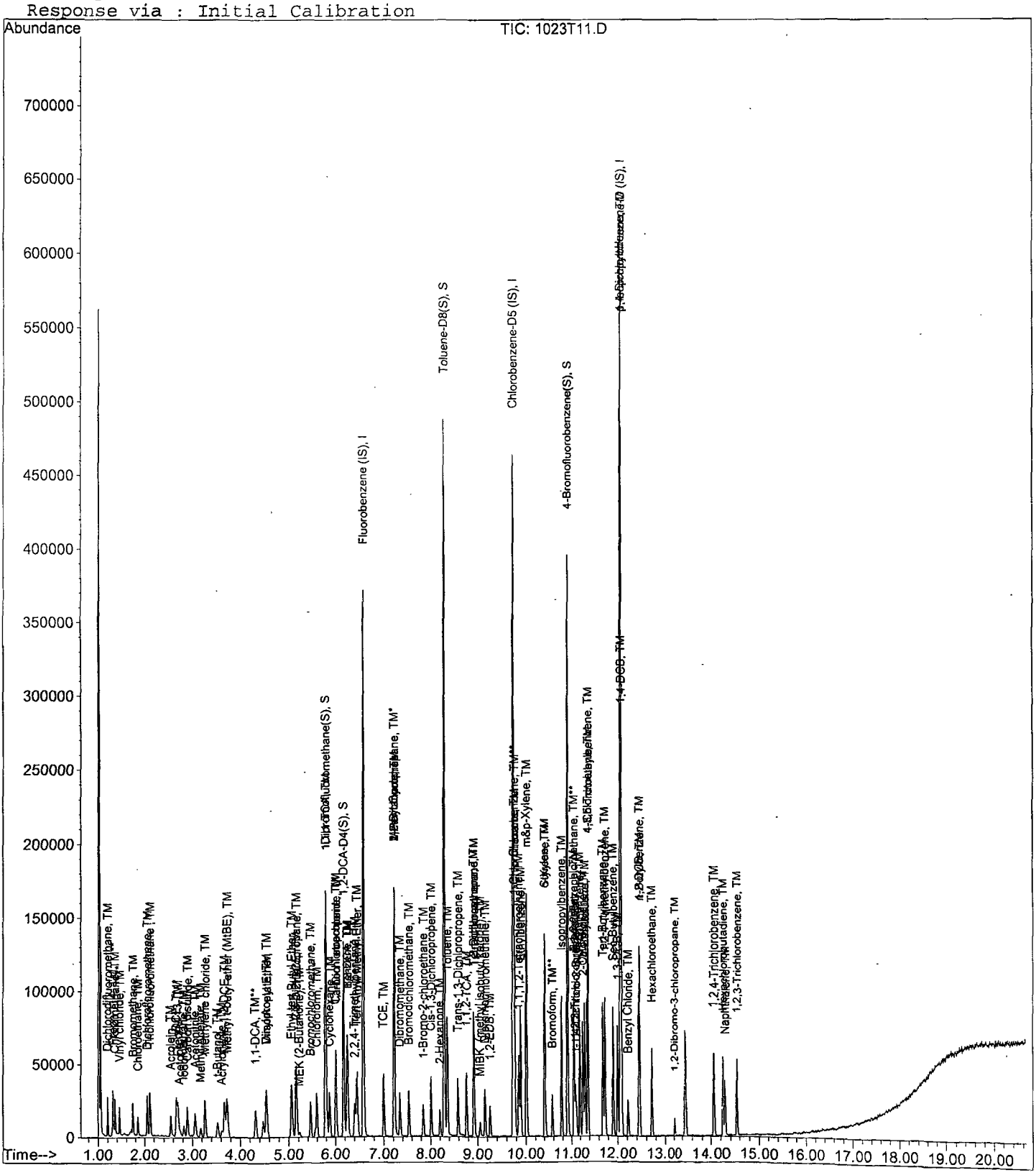
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\THOR\DATA\T191023\1023T11.D Vial: 11
Acq On : 23 Oct 19 21:55 Operator:
Sample : 10ug/L VOC STD 10/23/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 24 9:58 2019 Quant Results File: T1023W.RES

Method : M:\THOR\DATA\T191023\T1023W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:55:52 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\THOR\DATA\T191023\1023T12.D Vial: 12
Acq On : 23 Oct 19 22:23 Operator:
Sample : 20ug/L VOC STD 10/23/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 24 9:58 2019 Quant Results File: T1023W.RES

Quant Method : M:\THOR\DATA\T191023\T1023W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:55:52 2019
Response via : Initial Calibration
DataAcq Meth : T8260

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene (IS)	6.59	96	180864	25.00	ppb		0.00
65) Chlorobenzene-D5 (IS)	9.74	117	175808	25.00	ppb		0.00
80) 1,4-Dichlorobenzene-D (IS)	12.07	152	103912	25.00	ppb		0.00
System Monitoring Compounds							
40) Dibromofluoromethane(S)	5.79	111	175433	50.32	ppb		0.00
Spiked Amount 25.000			Recovery = 201.288%				
45) 1,2-DCA-D4(S)	6.18	65	197560	50.61	ppb		0.00
Spiked Amount 25.000			Recovery = 202.440%				
66) Toluene-D8(S)	8.30	98	624922	47.60	ppb		0.00
Spiked Amount 25.000			Recovery = 190.396%				
74) 4-Bromofluorobenzene(S)	10.92	174	252217	48.53	ppb		0.00
Spiked Amount 25.000			Recovery = 194.104%				
Target Compounds							Qvalue
3) Dichlorodifluoromethane	1.20	85	32288	19.26	ppb		97
4) Freon 114	1.32	85	15354	21.74	ppb		96
5) Chloromethane	1.36	50	25641	20.15	ppb		100
6) Vinyl chloride	1.46	62	22773	18.57	ppb		100
8) Bromomethane	1.75	96	14084	19.47	ppb		95
9) Chloroethane	1.85	64	16775	20.31	ppb		100
10) Dichlorofluoromethane	2.06	67	43411	19.49	ppb		96
11) Trichlorofluoromethane	2.12	101	44383	19.42	ppb		95
13) Acrolein	2.55	55	9785	141.35	ppb		92
14) Acetone	2.74	43	8290	18.61	ppb		97
15) Freon-113	2.69	101	19524	21.58	ppb		94
16) 1,1-DCE	2.67	61	32010	19.76	ppb		93
18) Acetonitrile	3.06	41	22103	151.11	ppb	#	88
19) t-Butanol	3.54	59	17879	148.94	ppb	#	93
20) Methyl Acetate	3.18	43	16422	21.63	ppb		90
21) Iodomethane	2.82	142	18596	17.90	ppb		96
22) Acrylonitrile	3.62	53	8318	20.08	ppb		98
23) Methylene chloride	3.27	49	29061	21.18	ppb		94
24) Carbon disulfide	2.89	76	53453	19.39	ppb		95
25) Methyl t-butyl ether (MtBE	3.73	73	71271	20.58	ppb	#	94
26) Trans-1,2-DCE	3.67	61	30537	19.27	ppb		96
28) Diisopropyl Ether	4.55	45	27088	19.67	ppb		93
30) 1,1-DCA	4.32	63	18088	21.33	ppb		96
31) Vinyl Acetate	4.54	87	21636	20.70	ppb		98
32) Ethyl tert Butyl Ether	5.06	59	74470	20.10	ppb		96
33) MEK (2-Butanone)	5.22	43	9649	20.48	ppb	#	90
34) Cis-1,2-DCE	5.16	61	38891	20.27	ppb		97
35) 2,2-Dichloropropane	5.15	77	15543	20.72	ppb		95
38) Chloroform	5.60	83	25136	19.99	ppb		96
39) Bromochloromethane	5.46	130	10607	19.65	ppb		92
41) 1,1,1-TCA	5.80	97	20576	20.43	ppb		89
42) Cyclohexane	5.88	84	26588	18.37	ppb		90
43) 1,1-Dichloropropene	6.02	75	30088	19.04	ppb		94
44) 2,2,4-Trimethylpentane	6.41	57	22144	20.47	ppb		99
46) Carbon Tetrachloride	6.01	119	37078	20.44	ppb		91
47) Tert Amyl Methyl Ether	6.45	73	73559	19.54	ppb		98
49) 1,2-DCA	6.27	62	22504	22.02	ppb		96
50) Benzene	6.25	78	97763	19.00	ppb		97
51) TCE	7.01	130	29788	18.66	ppb		95

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\THOR\DATA\T191023\1023T12.D Vial: 12
Acq On : 23 Oct 19 22:23 Operator:
Sample : 20ug/L VOC STD 10/23/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 24 9:58 2019 Quant Results File: T1023W.RES

Quant Method : M:\THOR\DATA\T191023\T1023W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:55:52 2019
Response via : Initial Calibration
DataAcq Meth : T8260

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
52)	2-Pentanone	7.23	43	124053	154.25	ppb		96
53)	1,2-Dichloropropane	7.23	63	24827	18.98	ppb		100
54)	Bromodichloromethane	7.54	83	39295	19.62	ppb	#	94
55)	Methyl Cyclohexane	7.22	83	30988	19.43	ppb		98
56)	Dibromomethane	7.35	174	23876	21.17	ppb		96
57)	MIBK (methyl isobutyl ket	9.05	43	7826	18.40	ppb		95
58)	1-Bromo-2-chloroethane	7.85	63	33960	20.15	ppb		97
60)	Cis-1,3-Dichloropropene	8.02	75	39658	18.93	ppb		96
61)	Toluene	8.36	91	113096	19.39	ppb		100
62)	Trans-1,3-Dichloropropene	8.59	75	25936	19.81	ppb		100
63)	1,1,2-TCA	8.77	97	25504	19.50	ppb		99
64)	2-Hexanone	8.20	43	12225	19.26	ppb		96
67)	1,2-EDB	9.26	107	16136	19.17	ppb		87
68)	Tetrachloroethene	8.92	166	33107	19.88	ppb		96
69)	1-Chlorohexane	9.77	91	30211	20.12	ppb		97
70)	1,1,1,2-Tetrachloroethane	9.86	131	31868	18.73	ppb		98
71)	m&p-Xylene	10.02	91	196759	38.64	ppb		99
72)	o-Xylene	10.40	91	102100	18.76	ppb		97
73)	Styrene	10.42	104	73591	19.06	ppb		100
75)	1,3-Dichloropropane	8.93	76	41806	19.06	ppb		97
76)	Dibromochloromethane	9.15	129	33143	19.54	ppb		99
77)	Chlorobenzene	9.77	112	48784	18.82	ppb		97
78)	Ethylbenzene	9.90	91	122474	19.27	ppb		99
79)	Bromoform	10.58	173	27267	19.65	ppb		91
81)	Isopropylbenzene	10.78	105	119982	18.79	ppb		97
82)	1,1,2,2-Tetrachloroethane	11.05	83	33329	19.86	ppb		96
83)	1,2,3-Trichloropropane	11.09	110	11514	21.30	ppb	#	88
84)	t-1,4-Dichloro-2-Butene	11.12	53	6726	20.70	ppb		93
85)	Bromobenzene	11.05	77	30824	18.53	ppb		92
86)	n-Propylbenzene	11.19	91	134615	18.97	ppb		97
87)	4-Ethyltoluene	11.31	105	116893	19.20	ppb		98
88)	2-Chlorotoluene	11.26	91	56665	19.26	ppb		97
89)	1,3,5-Trimethylbenzene	11.37	105	106438	19.66	ppb		97
90)	4-Chlorotoluene	11.37	91	65432	19.54	ppb		96
91)	Tert-Butylbenzene	11.69	119	92727	18.98	ppb		98
92)	1,2,4-Trimethylbenzene	11.74	105	106050	19.10	ppb		100
93)	Sec-Butylbenzene	11.91	105	121580	19.20	ppb		99
94)	p-Isopropyltoluene	12.06	119	110194	19.82	ppb		98
95)	Benzyl Chloride	12.22	91	24960	19.22	ppb		96
96)	1,3-DCB	12.00	146	43120	17.83	ppb		99
97)	1,4-DCB	12.09	146	66795	18.23	ppb		94
98)	n-Butylbenzene	12.47	91	82217	19.46	ppb		94
99)	1,2-DCB	12.46	146	41000	18.63	ppb		100
100)	Hexachloroethane	12.72	117	12173	18.00	ppb		86
101)	1,2-Dibromo-3-chloropropan	13.22	157	4549	19.35	ppb	#	86
102)	1,2,4-Trichlorobenzene	14.06	182	25808	19.54	ppb		96
103)	Hexachlorobutadiene	14.25	225	14803	18.31	ppb		89
104)	Naphthalene	14.30	128	66553	19.93	ppb		100
105)	1,2,3-Trichlorobenzene	14.54	182	36151	19.68	ppb		84

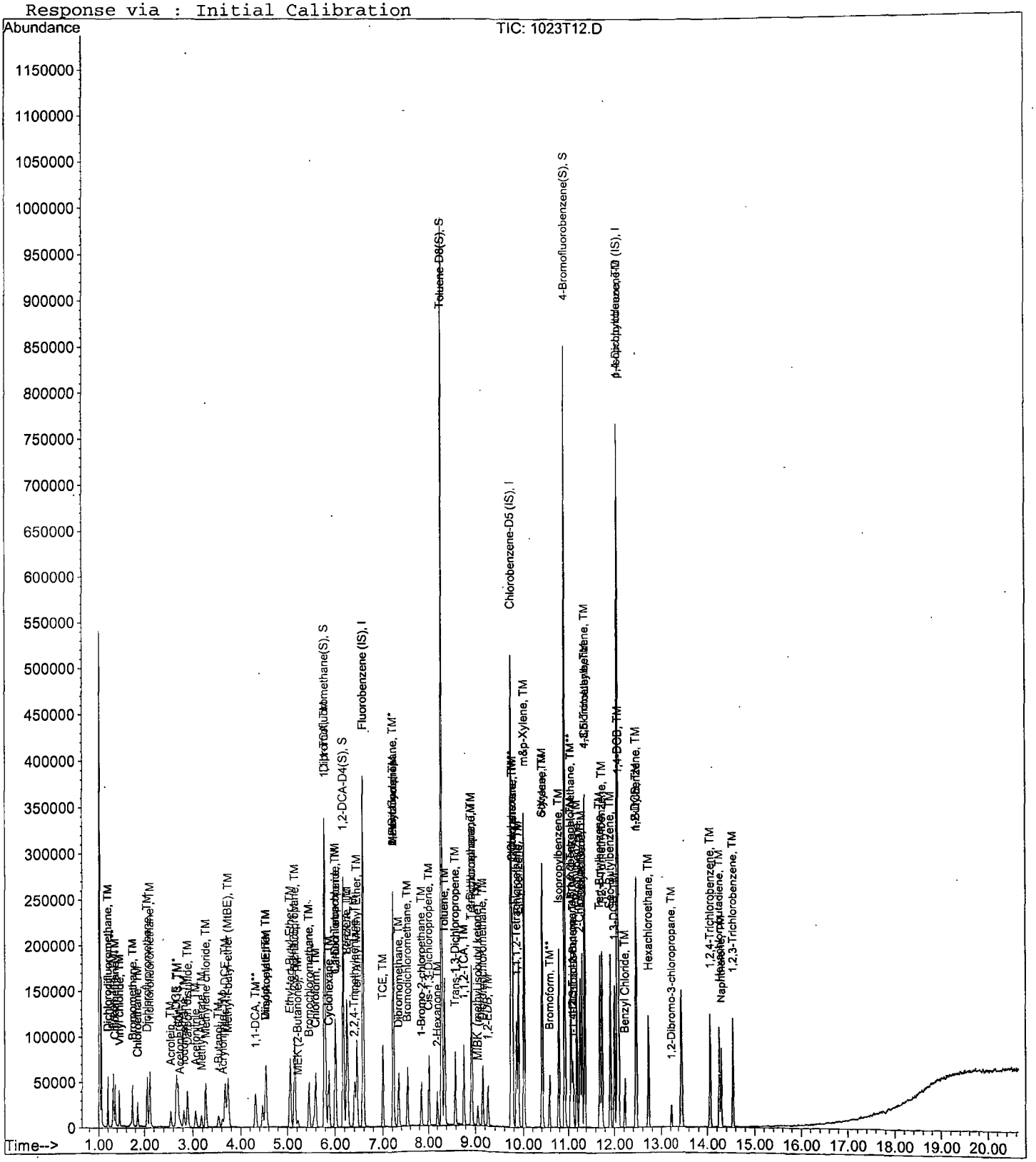
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\THOR\DATA\T191023\1023T12.D Vial: 12
Acq On : 23 Oct 19 22:23 Operator:
Sample : 20ug/L VOC STD 10/23/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 24 9:58 2019 Quant Results File: T1023W.RES

Method : M:\THOR\DATA\T191023\T1023W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:55:52 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\THOR\DATA\T191023\1023T13.D Vial: 13
Acq On : 23 Oct 19 22:52 Operator:
Sample : 40ug/L VOC STD 10/23/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 24 9:58 2019 Quant Results File: T1023W.RES

Quant Method : M:\THOR\DATA\T191023\T1023W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:55:52 2019
Response via : Initial Calibration
DataAcq Meth : T8260

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene (IS)	6.59	96	178368	25.00	ppb		0.00
65) Chlorobenzene-D5 (IS)	9.74	117	169472	25.00	ppb		0.00
80) 1,4-Dichlorobenzene-D (IS)	12.06	152	101648	25.00	ppb		0.00
System Monitoring Compounds							
40) Dibromofluoromethane(S)	5.79	111	174185	50.66	ppb		0.00
Spiked Amount 25.000			Recovery =	202.652%			
45) 1,2-DCA-D4(S)	6.18	65	193525	50.27	ppb		0.00
Spiked Amount 25.000			Recovery =	201.080%			
66) Toluene-D8(S)	8.30	98	644008	50.89	ppb		0.00
Spiked Amount 25.000			Recovery =	203.544%			
74) 4-Bromofluorobenzene(S)	10.92	174	254916	50.88	ppb		0.00
Spiked Amount 25.000			Recovery =	203.516%			
Target Compounds							Qvalue
3) Dichlorodifluoromethane	1.20	85	63760	38.56	ppb		95
4) Freon 114	1.32	85	29000	42.87	ppb		96
5) Chloromethane	1.36	50	51152	41.89	ppb		99
6) Vinyl chloride	1.46	62	46109	38.12	ppb		98
8) Bromomethane	1.74	96	28488	40.22	ppb		94
9) Chloroethane	1.85	64	31831	40.46	ppb		97
10) Dichlorofluoromethane	2.06	67	88454	40.27	ppb		97
11) Trichlorofluoromethane	2.11	101	89037	39.50	ppb		97
13) Acrolein	2.55	55	11710	171.52	ppb		99
14) Acetone	2.74	43	14990	34.13	ppb		96
15) Freon-113	2.70	101	37981	43.49	ppb	#	93
16) 1,1-DCE	2.66	61	62037	38.83	ppb		96
18) Acetonitrile	3.06	41	25122	174.65	ppb		98
19) t-Butanol	3.54	59	20185	170.50	ppb		97
20) Methyl Acetate	3.18	43	31651	43.69	ppb		95
21) Iodomethane	2.82	142	44603	38.69	ppb		97
22) Acrylonitrile	3.62	53	16801	41.12	ppb		93
23) Methylene chloride	3.27	49	59157	45.35	ppb		93
24) Carbon disulfide	2.89	76	111137	41.12	ppb		97
25) Methyl t-butyl ether (MtBE	3.73	73	145366	43.62	ppb		95
26) Trans-1,2-DCE	3.67	61	64627	41.36	ppb		100
28) Diisopropyl Ether	4.54	45	52598	38.74	ppb		97
30) 1,1-DCA	4.32	63	35560	43.80	ppb		97
31) Vinyl Acetate	4.54	87	44516	43.98	ppb		99
32) Ethyl tert Butyl Ether	5.06	59	150408	41.16	ppb		92
33) MEK (2-Butanone)	5.22	43	20713	44.58	ppb	#	85
34) Cis-1,2-DCE	5.16	61	79565	42.05	ppb		99
35) 2,2-Dichloropropane	5.15	77	32216	43.95	ppb		96
38) Chloroform	5.60	83	50728	40.90	ppb		98
39) Bromochloromethane	5.46	130	20600	38.70	ppb		93
41) 1,1,1-TCA	5.80	97	42512	43.91	ppb		91
42) Cyclohexane	5.88	84	55927	39.18	ppb		87
43) 1,1-Dichloropropene	6.02	75	63308	40.62	ppb		90
44) 2,2,4-Trimethylpentane	6.41	57	44048	41.62	ppb		99
46) Carbon Tetrachloride	6.01	119	79257	45.17	ppb		88
47) Tert Amyl Methyl Ether	6.45	73	152156	40.97	ppb		99
49) 1,2-DCA	6.27	62	42800	43.61	ppb		96
50) Benzene	6.25	78	197816	38.98	ppb		96
51) TCE	7.00	130	62914	39.96	ppb		96

(#) = qualifier out of range (m) = manual integration

Data File : M:\THOR\DATA\T191023\1023T13.D Vial: 13
Acq On : 23 Oct 19 22:52 Operator:
Sample : 40ug/L VOC STD 10/23/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 24 9:58 2019 Quant Results File: T1023W.RES

Quant Method : M:\THOR\DATA\T191023\T1023W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:55:52 2019
Response via : Initial Calibration
DataAcq Meth : T8260

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
52)	2-Pentanone	7.23	43	143761	181.26	ppb	99
53)	1,2-Dichloropropane	7.23	63	51484	39.91	ppb	95
54)	Bromodichloromethane	7.54	83	78938	39.97	ppb	96
55)	Methyl Cyclohexane	7.22	83	61467	39.08	ppb	97
56)	Dibromomethane	7.35	174	49408	44.96	ppb	97
57)	MIBK (methyl isobutyl ket	9.05	43	16584	38.93	ppb	92
58)	1-Bromo-2-chloroethane	7.85	63	69691	41.92	ppb	92
60)	Cis-1,3-Dichloropropene	8.02	75	84020	40.68	ppb	97
61)	Toluene	8.37	91	232623	40.43	ppb	98
62)	Trans-1,3-Dichloropropene	8.59	75	53280	41.27	ppb	97
63)	1,1,2-TCA	8.77	97	51015	39.54	ppb	95
64)	2-Hexanone	8.20	43	24520	38.52	ppb	96
67)	1,2-EDB	9.26	107	32704	40.30	ppb	89
68)	Tetrachloroethene	8.92	166	68825	42.87	ppb	96
69)	1-Chlorohexane	9.77	91	58810	41.01	ppb	96
70)	1,1,1,2-Tetrachloroethane	9.86	131	67043	40.89	ppb	97
71)	m&p-Xylene	10.02	91	416560	84.87	ppb	100
72)	o-Xylene	10.40	91	218808	41.71	ppb	95
73)	Styrene	10.42	104	161433	43.38	ppb	96
75)	1,3-Dichloropropane	8.93	76	82807	39.17	ppb	98
76)	Dibromochloromethane	9.16	129	68039	41.72	ppb	98
77)	Chlorobenzene	9.77	112	101480	40.61	ppb	96
78)	Ethylbenzene	9.90	91	254015	41.47	ppb	96
79)	Bromoform	10.58	173	54091	40.23	ppb	95
81)	Isopropylbenzene	10.78	105	258833	41.44	ppb	97
82)	1,1,2,2-Tetrachloroethane	11.06	83	64889	39.53	ppb	98
83)	1,2,3-Trichloropropane	11.09	110	22702	44.03	ppb	85
84)	t-1,4-Dichloro-2-Butene	11.12	53	13317	42.74	ppb	94
85)	Bromobenzene	11.06	77	65704	40.38	ppb	92
86)	n-Propylbenzene	11.19	91	284550	41.00	ppb	99
87)	4-Ethyltoluene	11.31	105	257138	43.17	ppb	99
88)	2-Chlorotoluene	11.26	91	117349	40.78	ppb	97
89)	1,3,5-Trimethylbenzene	11.37	105	226201	42.72	ppb	99
90)	4-Chlorotoluene	11.37	91	146368	44.69	ppb	96
91)	Tert-Butylbenzene	11.69	119	196787	41.18	ppb	97
92)	1,2,4-Trimethylbenzene	11.74	105	227965	41.98	ppb	96
93)	Sec-Butylbenzene	11.91	105	262624	42.40	ppb	100
94)	p-Isopropyltoluene	12.06	119	238398	43.83	ppb	99
95)	Benzyl Chloride	12.22	91	51064	40.20	ppb	96
96)	1,3-DCB	12.00	146	89560	37.85	ppb	97
97)	1,4-DCB	12.09	146	141760	39.56	ppb	98
98)	n-Butylbenzene	12.47	91	183127	44.31	ppb	96
99)	1,2-DCB	12.46	146	89128	41.40	ppb	98
100)	Hexachloroethane	12.72	117	27632	41.77	ppb	99
101)	1,2-Dibromo-3-chloropropan	13.22	157	9753	42.89	ppb	82
102)	1,2,4-Trichlorobenzene	14.06	182	55408	42.90	ppb	97
103)	Hexachlorobutadiene	14.25	225	33920	42.89	ppb	96
104)	Naphthalene	14.30	128	147855	45.27	ppb	99
105)	1,2,3-Trichlorobenzene	14.55	182	79646	44.56	ppb	85

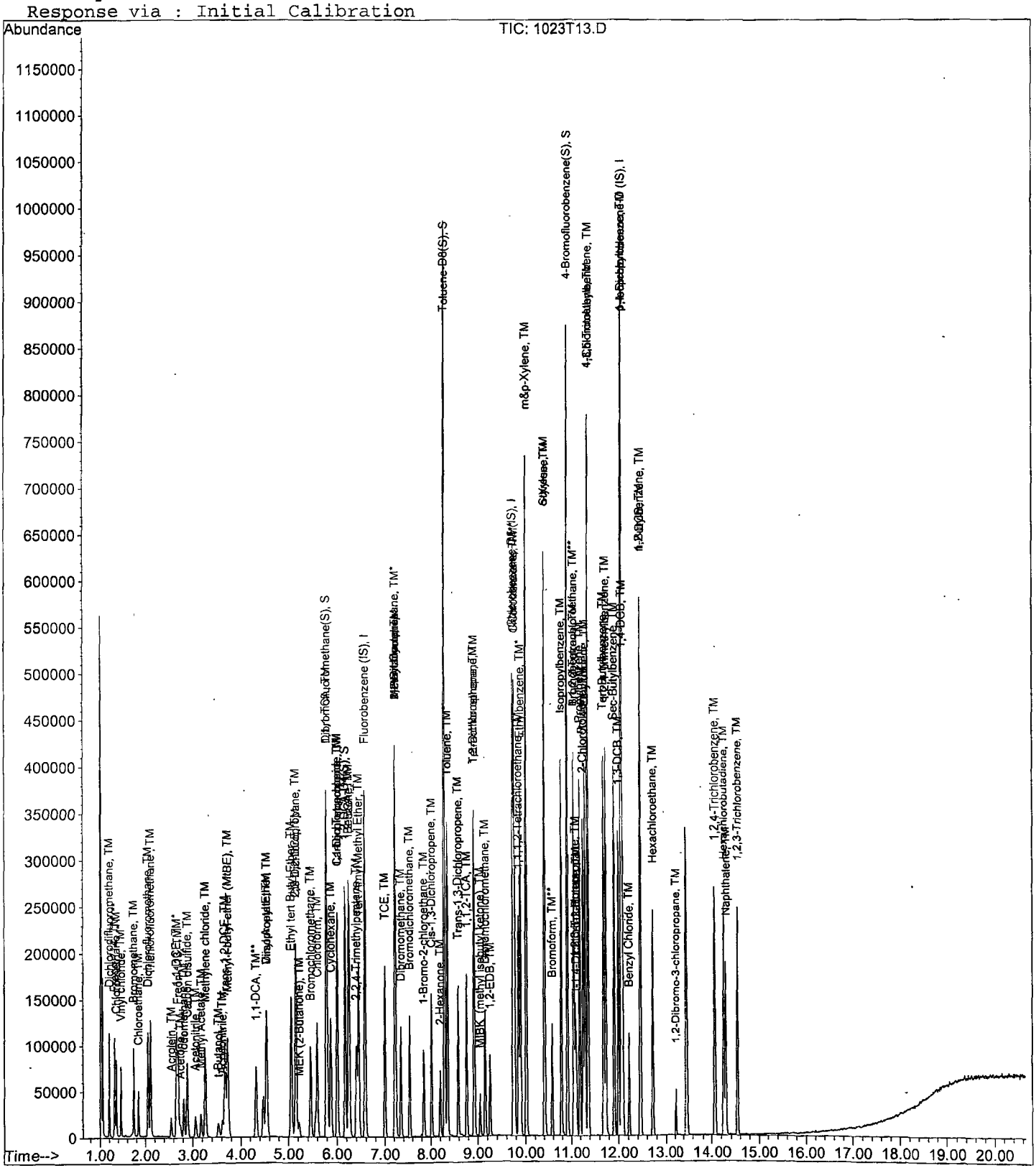
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\THOR\DATA\T191023\1023T13.D Vial: 13
Acq On : 23 Oct 19 22:52 Operator:
Sample : 40ug/L VOC STD 10/23/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 24 9:58 2019 Quant Results File: T1023W.RES

Method : M:\THOR\DATA\T191023\T1023W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:55:52 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\THOR\DATA\T191023\1023T14.D Vial: 14
Acq On : 23 Oct 19 23:20 Operator:
Sample : 100ug/L VOC STD 10/23/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 24 9:58 2019 Quant Results File: T1023W.RES

Quant Method : M:\THOR\DATA\T191023\T1023W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:55:52 2019
Response via : Initial Calibration
DataAcq Meth : T8260

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene (IS)	6.59	96	177408	25.00	ppb		0.00
65) Chlorobenzene-D5 (IS)	9.74	117	165184	25.00	ppb		0.00
80) 1,4-Dichlorobenzene-D (IS)	12.06	152	110936	25.00	ppb		0.00
System Monitoring Compounds							
40) Dibromofluoromethane(S)	5.79	111	323935	94.73	ppb		0.00
Spiked Amount 25.000			Recovery = 378.912%				
45) 1,2-DCA-D4(S)	6.18	65	358548	93.64	ppb		0.00
Spiked Amount 25.000			Recovery = 374.564%				
66) Toluene-D8(S)	8.30	98	1198840	97.19	ppb		0.00
Spiked Amount 25.000			Recovery = 388.740%				
74) 4-Bromofluorobenzene(S)	10.92	174	507561	103.93	ppb		0.00
Spiked Amount 25.000			Recovery = 415.736%				
Target Compounds							Qvalue
3) Dichlorodifluoromethane	1.20	85	161280	98.07	ppb		94
4) Freon 114	1.32	85	65160	98.56	ppb		98
5) Chloromethane	1.36	50	118541	99.05	ppb		98
6) Vinyl chloride	1.46	62	115637	96.12	ppb		97
8) Bromomethane	1.74	96	70192	100.05	ppb		95
9) Chloroethane	1.84	64	76471	99.85	ppb		98
10) Dichlorofluoromethane	2.06	67	192115	87.94	ppb		95
11) Trichlorofluoromethane	2.11	101	216549	96.59	ppb		94
13) Acrolein	2.55	55	15173	223.45	ppb		84
14) Acetone	2.75	43	30975	70.91	ppb		99
15) Freon-113	2.69	101	84420	98.35	ppb		90
16) 1,1-DCE	2.66	61	138039	86.87	ppb		98
18) Acetonitrile	3.07	41	28302	198.25	ppb		98
19) t-Butanol	3.56	59	24074	204.45	ppb		90
20) Methyl Acetate	3.18	43	69485	98.24	ppb		100
21) Iodomethane	2.82	142	122737	101.05	ppb		98
22) Acrylonitrile	3.62	53	38523	94.80	ppb		89
23) Methylene chloride	3.27	49	124543	97.71	ppb		94
24) Carbon disulfide	2.89	76	244994	91.39	ppb		97
25) Methyl t-butyl ether (MtBE	3.73	73	322426	98.48	ppb		96
26) Trans-1,2-DCE	3.67	61	137420	88.41	ppb		95
28) Diisopropyl Ether	4.55	45	119684	88.62	ppb		95
30) 1,1-DCA	4.32	63	78104	98.29	ppb		97
31) Vinyl Acetate	4.55	87	98071	98.30	ppb		99
32) Ethyl tert Butyl Ether	5.06	59	331724	91.26	ppb		92
33) MEK (2-Butanone)	5.22	43	45284	97.99	ppb	#	90
34) Cis-1,2-DCE	5.16	61	172748	91.79	ppb		96
35) 2,2-Dichloropropane	5.15	77	70056	96.54	ppb		94
38) Chloroform	5.60	83	110152	89.29	ppb		99
39) Bromochloromethane	5.46	130	44816	84.64	ppb		90
41) 1,1,1-TCA	5.80	97	93568	98.40	ppb		93
42) Cyclohexane	5.88	84	124790	87.89	ppb		86
43) 1,1-Dichloropropene	6.02	75	136901	88.30	ppb		93
44) 2,2,4-Trimethylpentane	6.41	57	104128	99.37	ppb		99
46) Carbon Tetrachloride	6.01	119	169517	97.97	ppb		91
47) Tert Amyl Methyl Ether	6.45	73	334682	90.62	ppb		99
49) 1,2-DCA	6.27	62	94504	98.32	ppb		98
50) Benzene	6.25	78	440766	87.32	ppb		99
51) TCE	7.00	130	135158	86.30	ppb		96

(#) = qualifier out of range (m) = manual integration

Data File : M:\THOR\DATA\T191023\1023T14.D Vial: 14
Acq On : 23 Oct 19 23:20 Operator:
Sample : 100ug/L VOC STD 10/23/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 24 9:58 2019 Quant Results File: T1023W.RES

Quant Method : M:\THOR\DATA\T191023\T1023W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:55:52 2019
Response via : Initial Calibration
DataAcq Meth : T8260

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
52)	2-Pentanone	7.23	43	164997	209.16	ppb		98
53)	1,2-Dichloropropane	7.23	63	115843	90.29	ppb		98
54)	Bromodichloromethane	7.54	83	177908	90.56	ppb	#	98
55)	Methyl Cyclohexane	7.22	83	141548	90.49	ppb		93
56)	Dibromomethane	7.35	174	106467	97.96	ppb		95
57)	MIBK (methyl isobutyl ket	9.05	43	43040	100.75	ppb		90
58)	1-Bromo-2-chloroethane	7.85	63	152471	92.22	ppb		95
60)	Cis-1,3-Dichloropropene	8.02	75	188241	91.63	ppb		96
61)	Toluene	8.37	91	520145	90.90	ppb		99
62)	Trans-1,3-Dichloropropene	8.59	75	121088	94.29	ppb		100
63)	1,1,2-TCA	8.77	97	114901	89.55	ppb		97
64)	2-Hexanone	8.20	43	64448	100.76	ppb		95
67)	1,2-EDB	9.26	107	74256	93.88	ppb		91
68)	Tetrachloroethene	8.92	166	149403	95.48	ppb		94
69)	1-Chlorohexane	9.77	91	138433	99.58	ppb		99
70)	1,1,1,2-Tetrachloroethane	9.86	131	150233	94.00	ppb		98
71)	m&p-Xylene	10.02	91	930569	194.51	ppb		99
72)	o-Xylene	10.41	91	497624	97.32	ppb		96
73)	Styrene	10.42	104	378992	104.49	ppb		97
75)	1,3-Dichloropropane	8.93	76	186261	90.40	ppb		99
76)	Dibromochloromethane	9.16	129	157727	99.37	ppb		96
77)	Chlorobenzene	9.77	112	229120	94.07	ppb		96
78)	Ethylbenzene	9.90	91	572206	95.84	ppb		97
79)	Bromoform	10.58	173	131325	99.93	ppb		93
81)	Isopropylbenzene	10.78	105	584266	85.72	ppb		98
82)	1,1,2,2-Tetrachloroethane	11.05	83	161391	90.08	ppb		98
83)	1,2,3-Trichloropropane	11.09	110	54492	98.15	ppb		87
84)	t-1,4-Dichloro-2-Butene	11.12	53	33220	98.75	ppb		96
85)	Bromobenzene	11.06	77	158592	89.31	ppb		95
86)	n-Propylbenzene	11.19	91	662551	87.46	ppb		99
87)	4-Ethyltoluene	11.31	105	593199	91.26	ppb		100
88)	2-Chlorotoluene	11.26	91	280887	89.44	ppb		97
89)	1,3,5-Trimethylbenzene	11.37	105	530500	91.80	ppb		99
90)	4-Chlorotoluene	11.37	91	329856	92.29	ppb		97
91)	Tert-Butylbenzene	11.69	119	458246	87.86	ppb		98
92)	1,2,4-Trimethylbenzene	11.74	105	537692	90.73	ppb		98
93)	Sec-Butylbenzene	11.91	105	619321	91.62	ppb		100
94)	p-Isopropyltoluene	12.06	119	566466	95.43	ppb		99
95)	Benzyl Chloride	12.22	91	146752	105.86	ppb		98
96)	1,3-DCB	12.00	146	219392	84.95	ppb		98
97)	1,4-DCB	12.09	146	345218	88.27	ppb		98
98)	n-Butylbenzene	12.46	91	442939	98.20	ppb		97
99)	1,2-DCB	12.46	146	223488	95.11	ppb		99
100)	Hexachloroethane	12.72	117	72808	100.84	ppb		98
101)	1,2-Dibromo-3-chloropropan	13.22	157	24448	99.05	ppb	#	81
102)	1,2,4-Trichlorobenzene	14.06	182	138944	98.56	ppb		95
103)	Hexachlorobutadiene	14.25	225	85720	99.32	ppb		97
104)	Naphthalene	14.30	128	367747	103.17	ppb		99
105)	1,2,3-Trichlorobenzene	14.54	182	191498	98.40	ppb		84

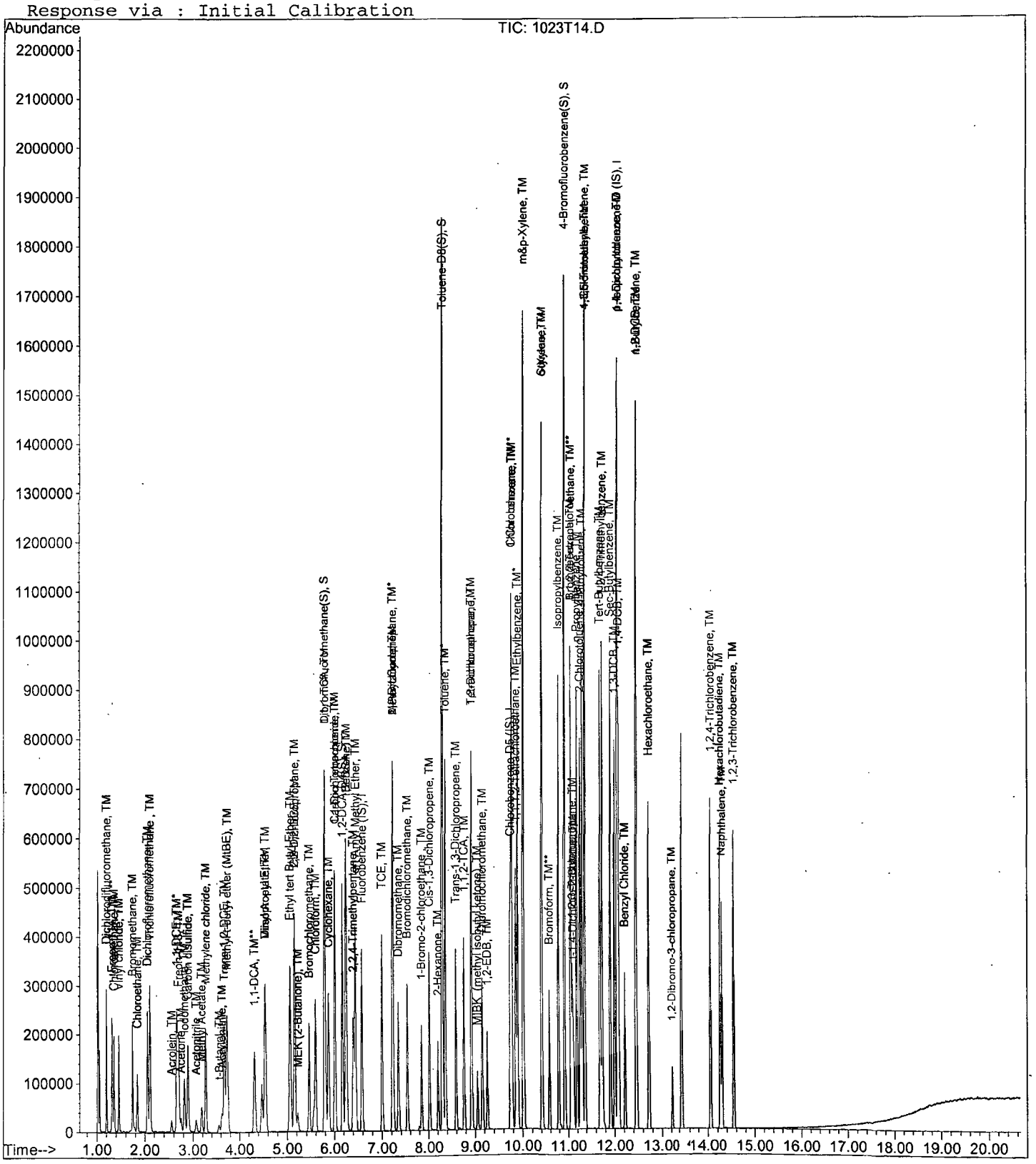
(#) = qualifier out of range (m) = manual integration

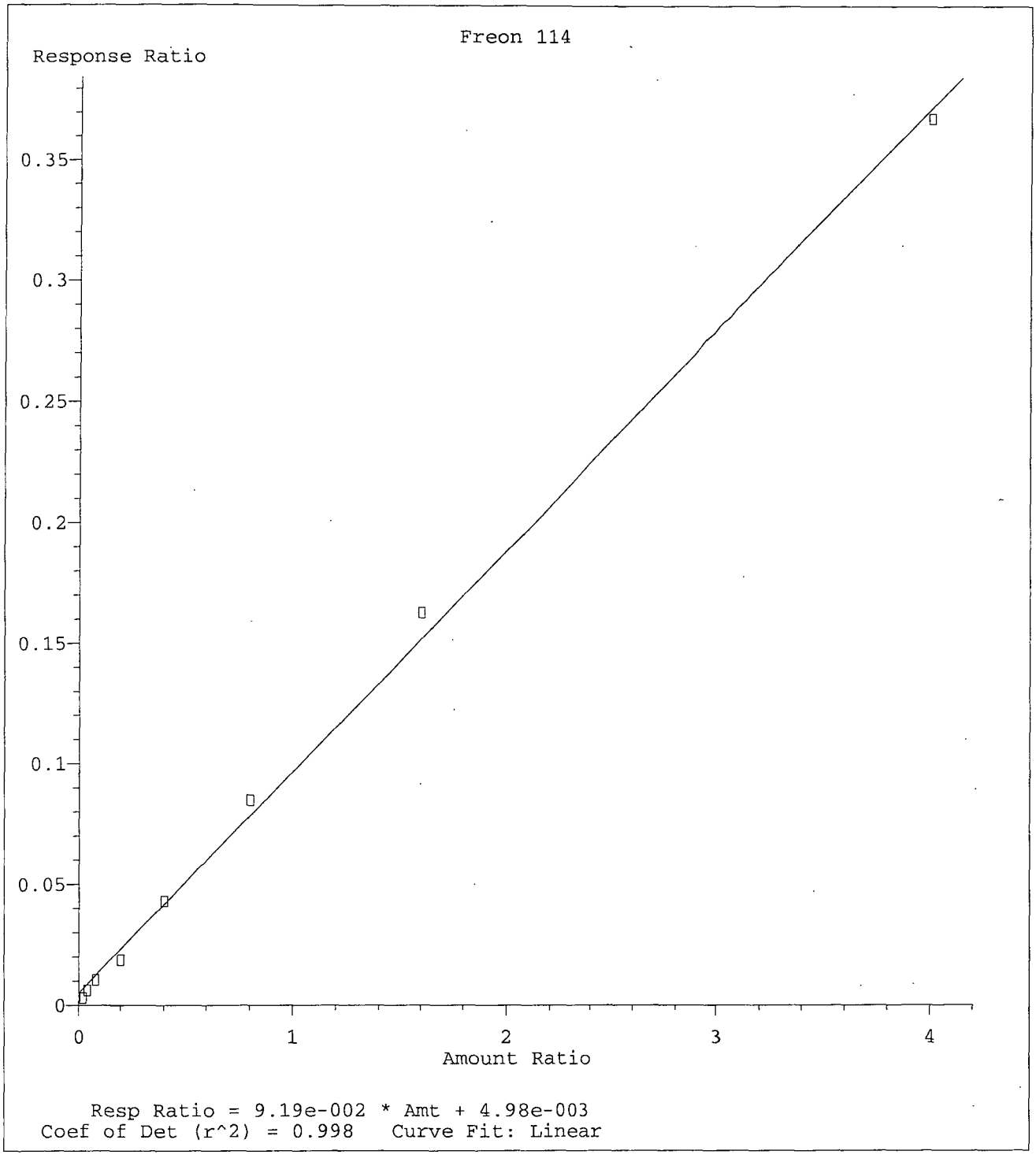
Quantitation Report

Data File : M:\THOR\DATA\T191023\1023T14.D Vial: 14
Acq On : 23 Oct 19 23:20 Operator:
Sample : 100ug/L VOC STD 10/23/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

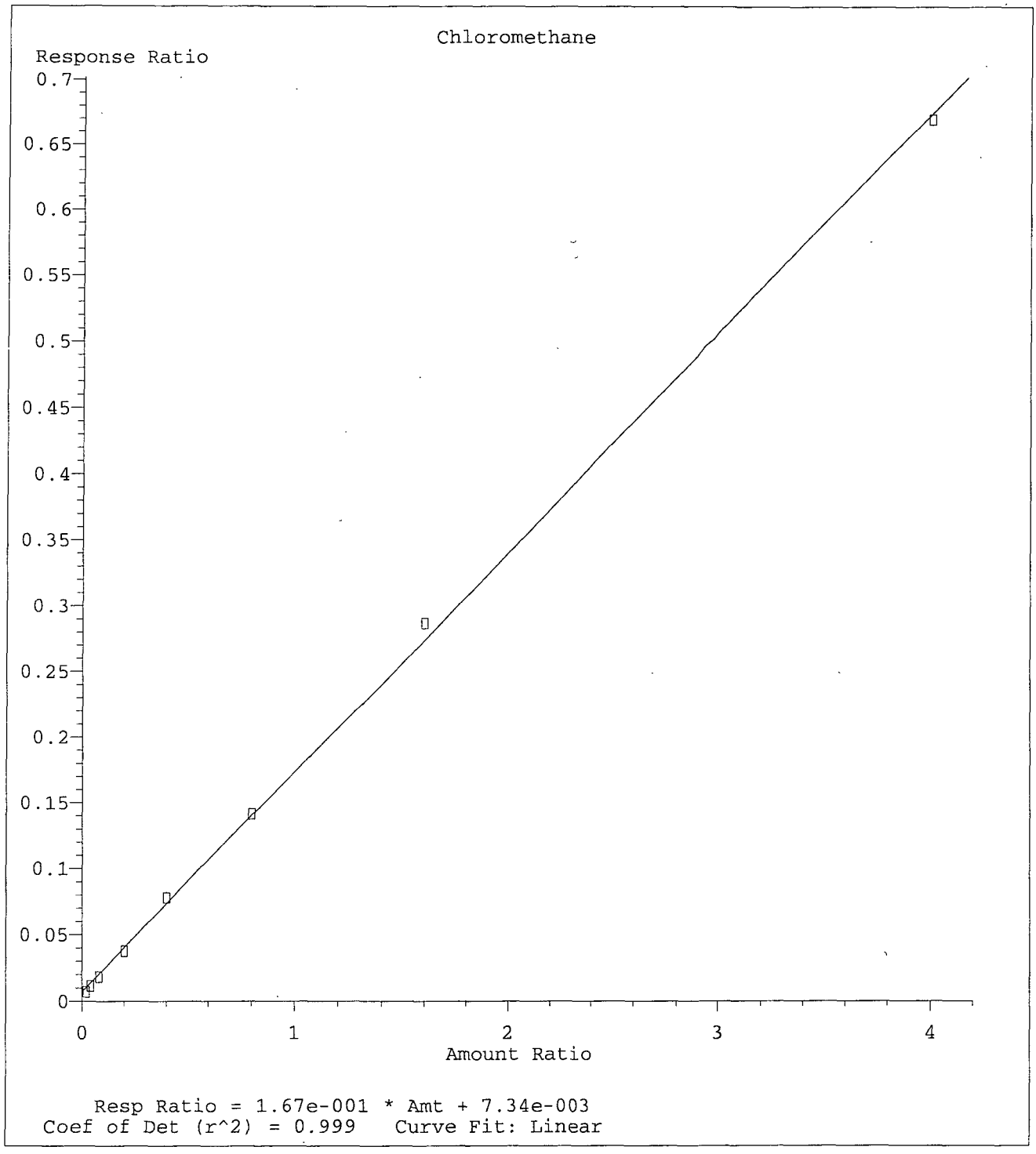
Quant Time: Oct 24 9:58 2019 Quant Results File: T1023W.RES

Method : M:\THOR\DATA\T191023\T1023W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:55:52 2019
Response via : Initial Calibration

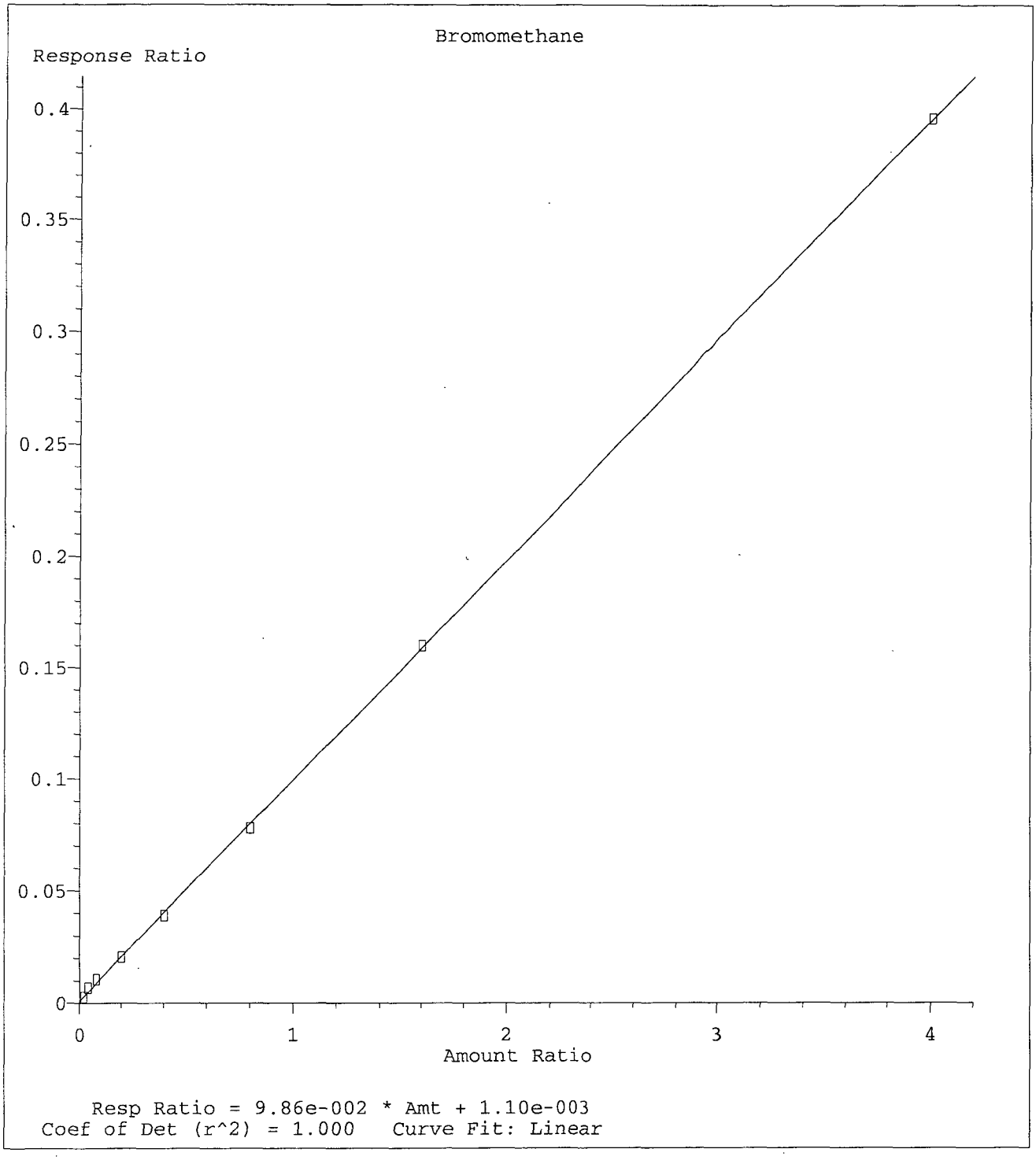




Method Name: M:\THOR\DATA\T191023\T1023W.M
Calibration Table Last Updated: Thu Oct 24 09:55:52 2019



Method Name: M:\THOR\DATA\T191023\T1023W.M
Calibration Table Last Updated: Thu Oct 24 09:55:52 2019



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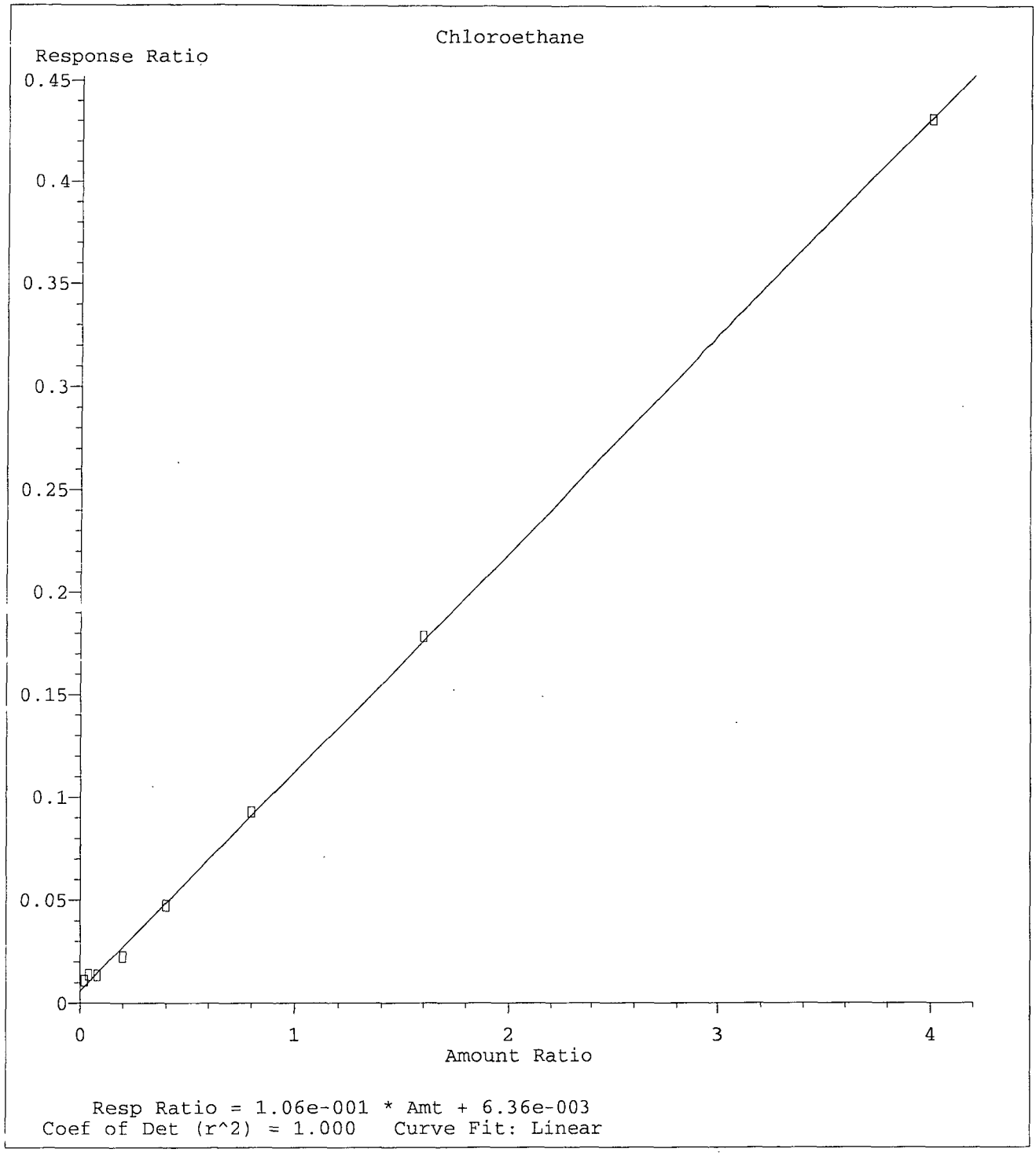
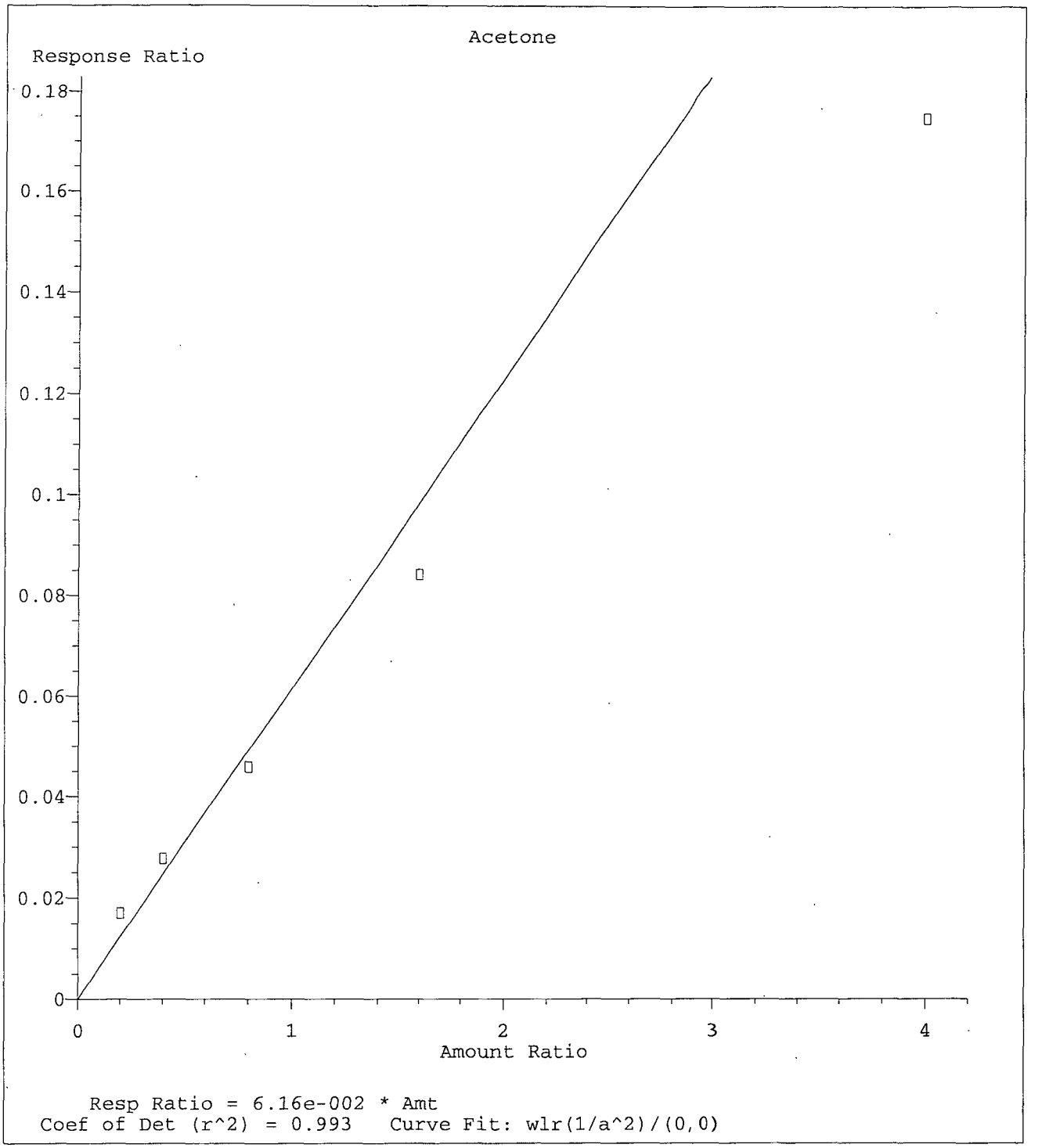
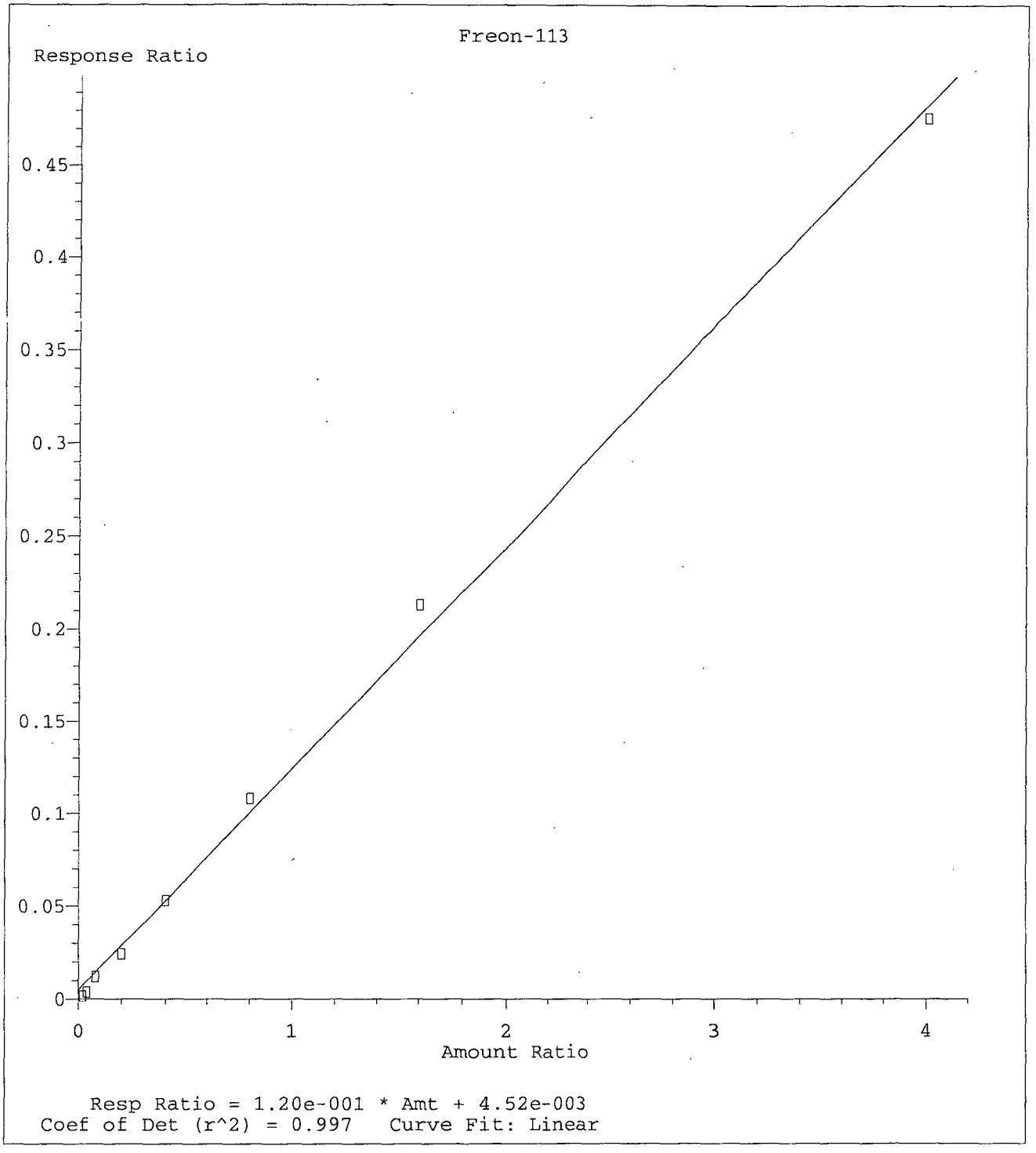
Calibration Table Last Updated: Thu Oct 24 09:55:52 2019



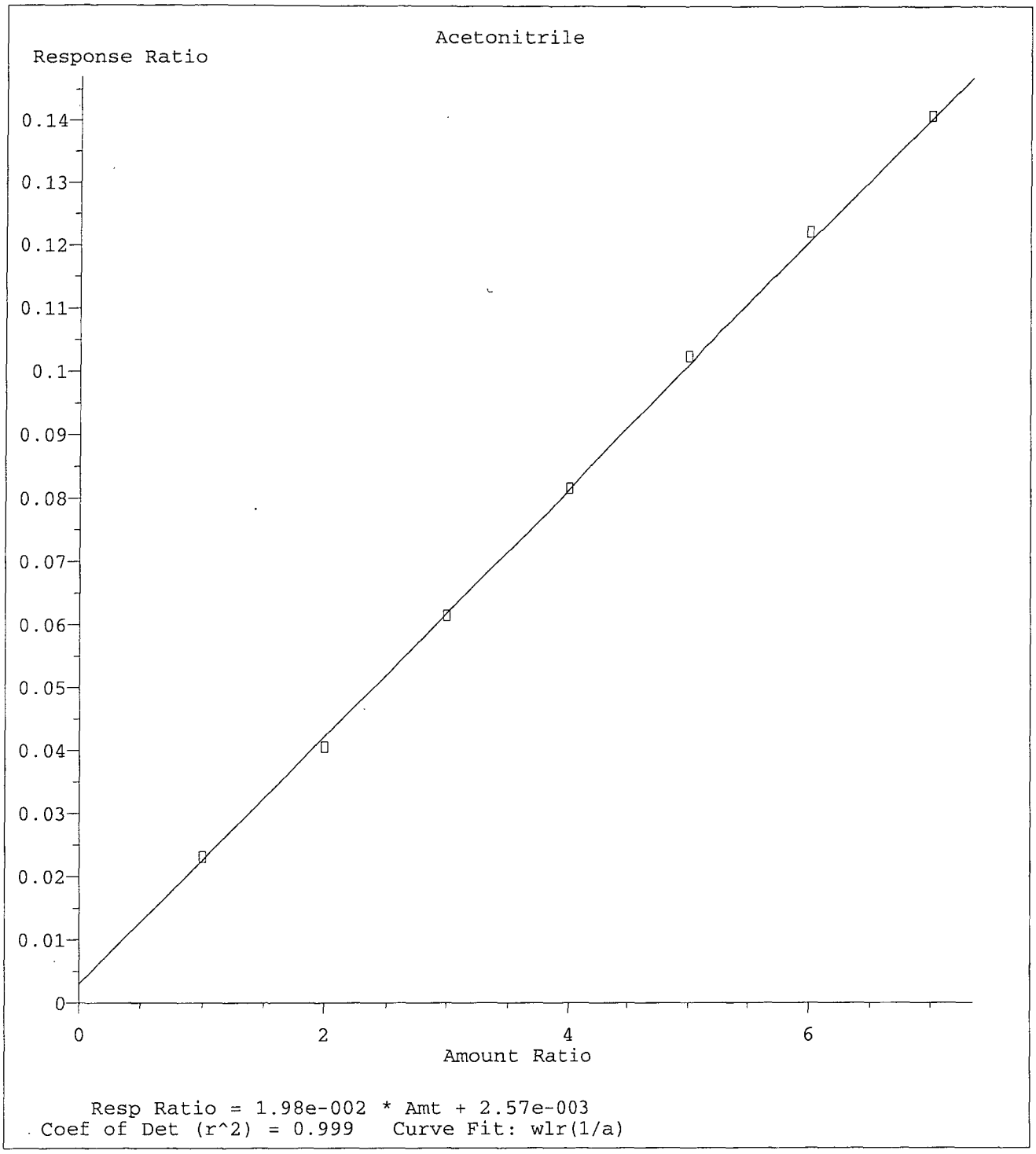
Method Name: M:\THOR\DATA\T191023\T1023W.M
Calibration Table Last Updated: Thu Oct 24 09:55:52 2019



Method Name: M:\THOR\DATA\T191023\T1023W.M
Calibration Table Last Updated: Thu Oct 24 09:55:52 2019



Method Name: M:\THOR\DATA\T191023\T1023W.M
Calibration Table Last Updated: Thu Oct 24 09:55:52 2019



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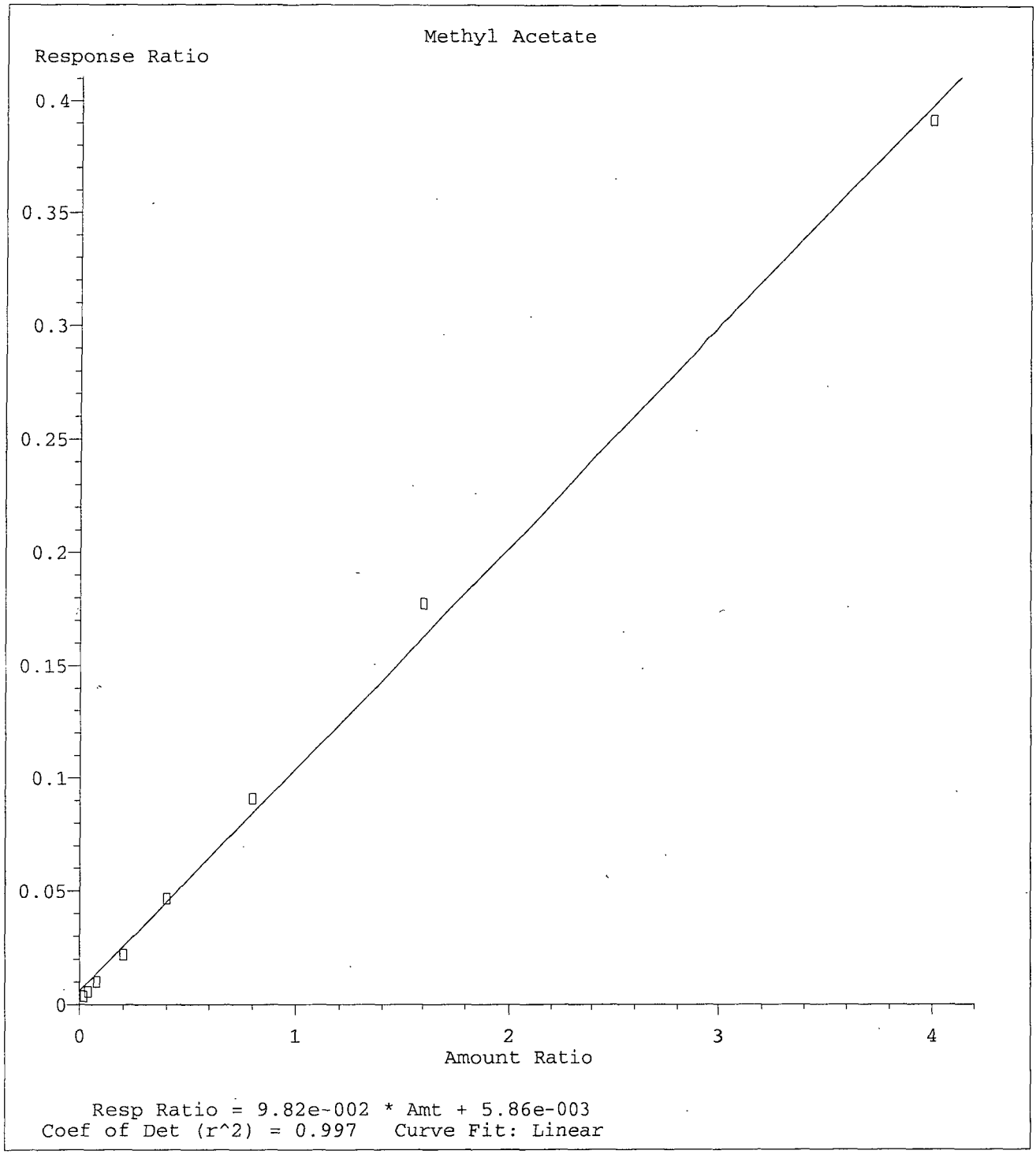
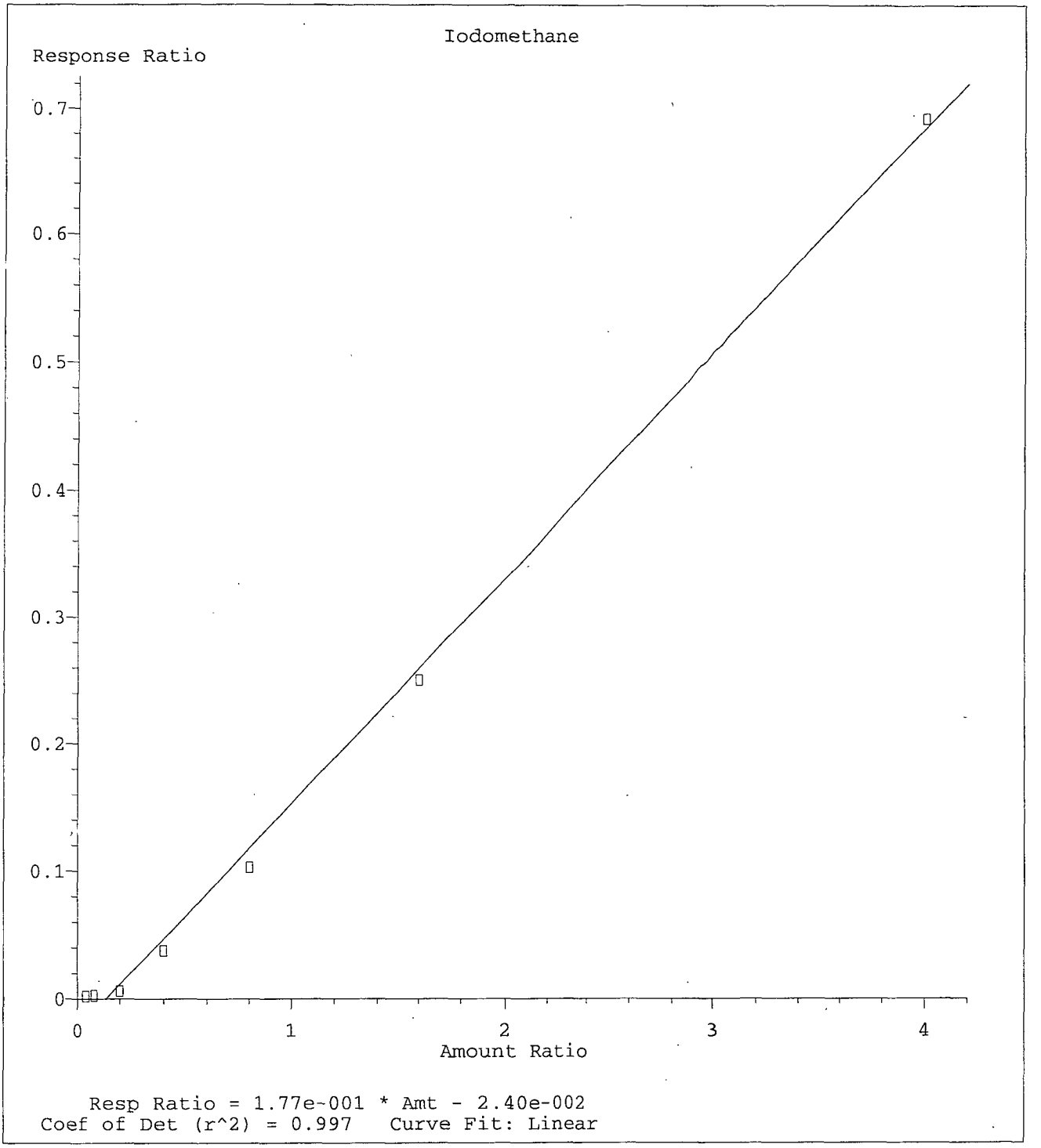
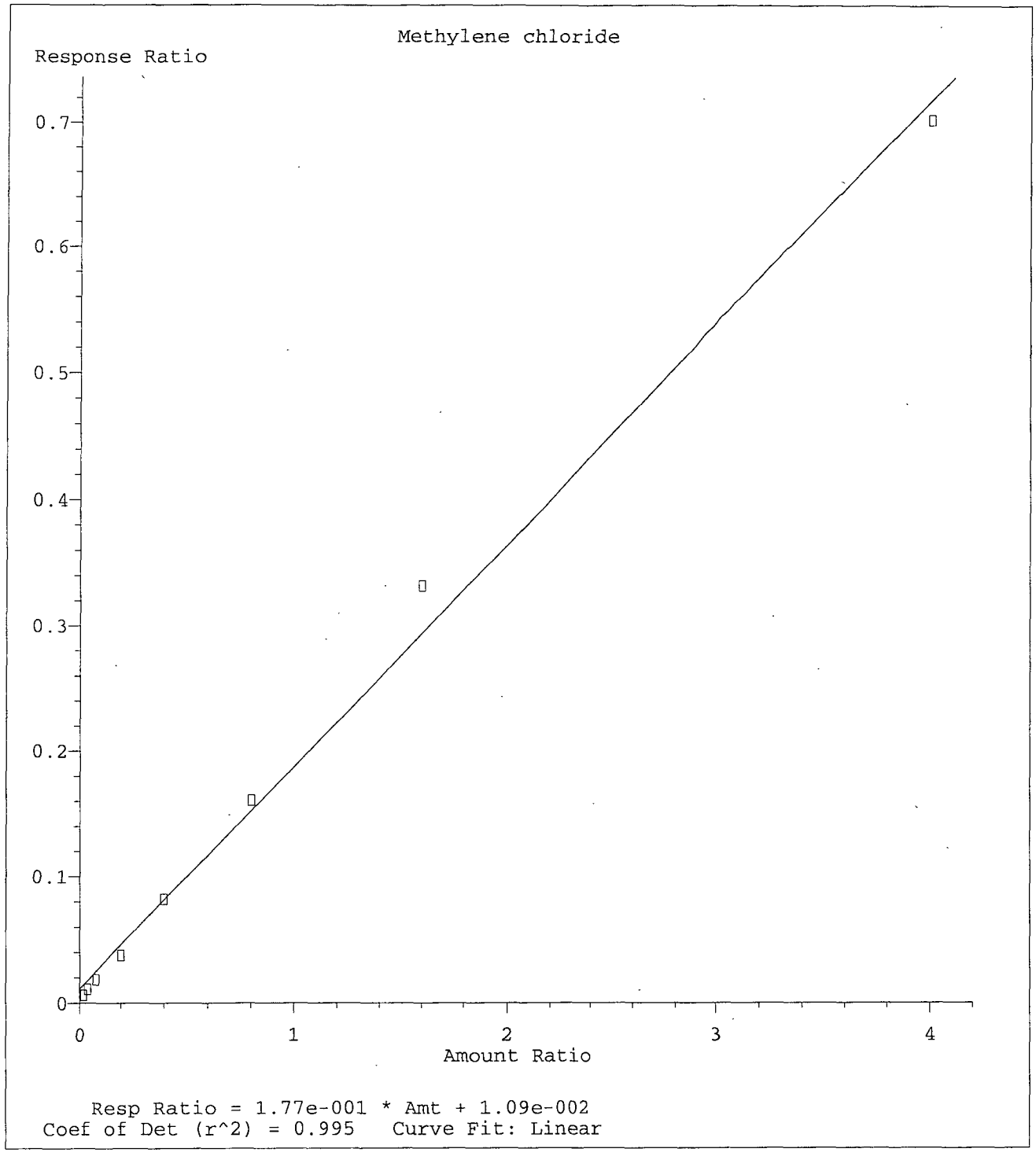
Calibration Table Last Updated: Thu Oct 24 09:55:52 2019



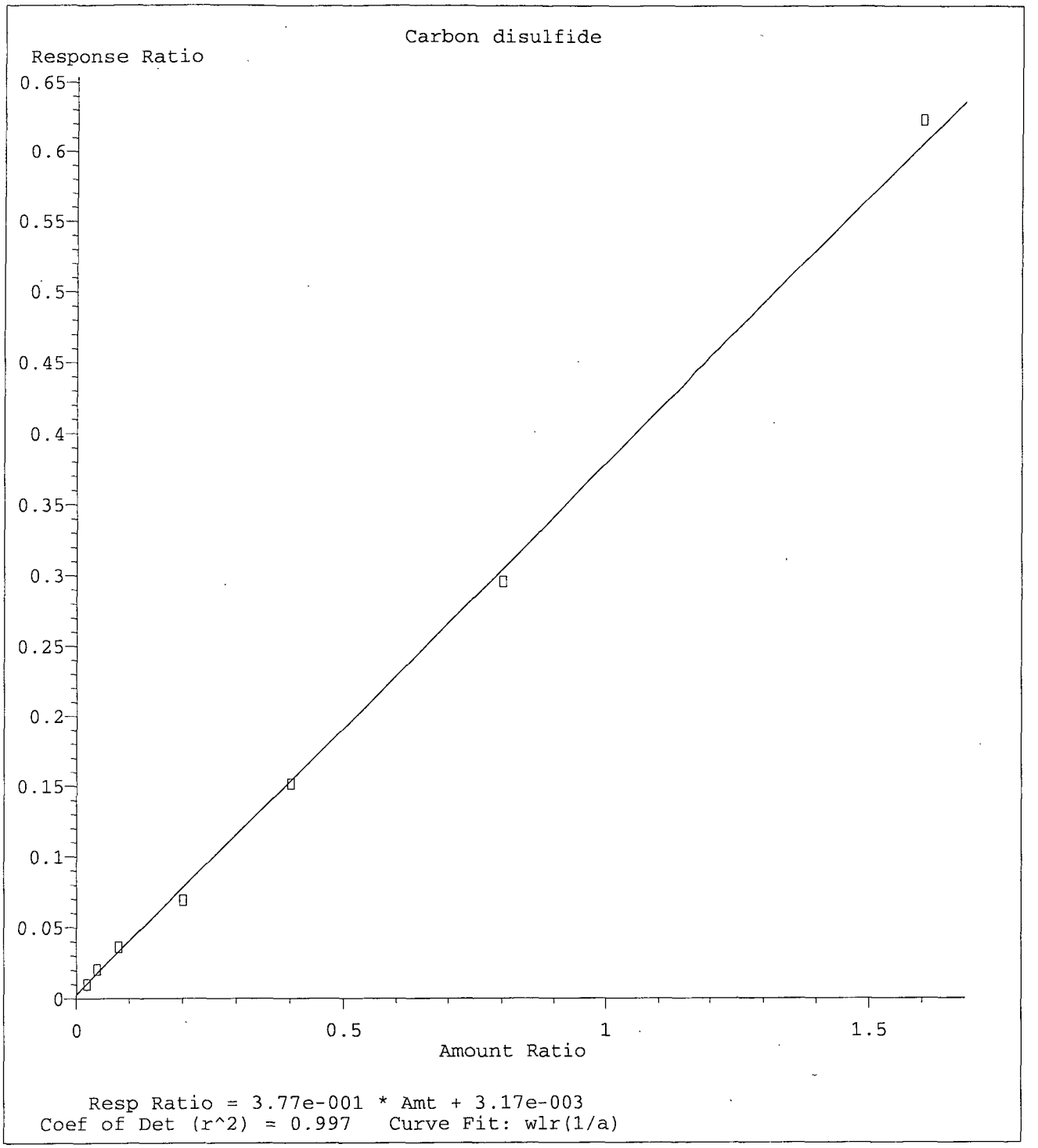
Method Name: M:\THOR\DATA\T191023\T1023W.M
Calibration Table Last Updated: Thu Oct 24 09:55:52 2019



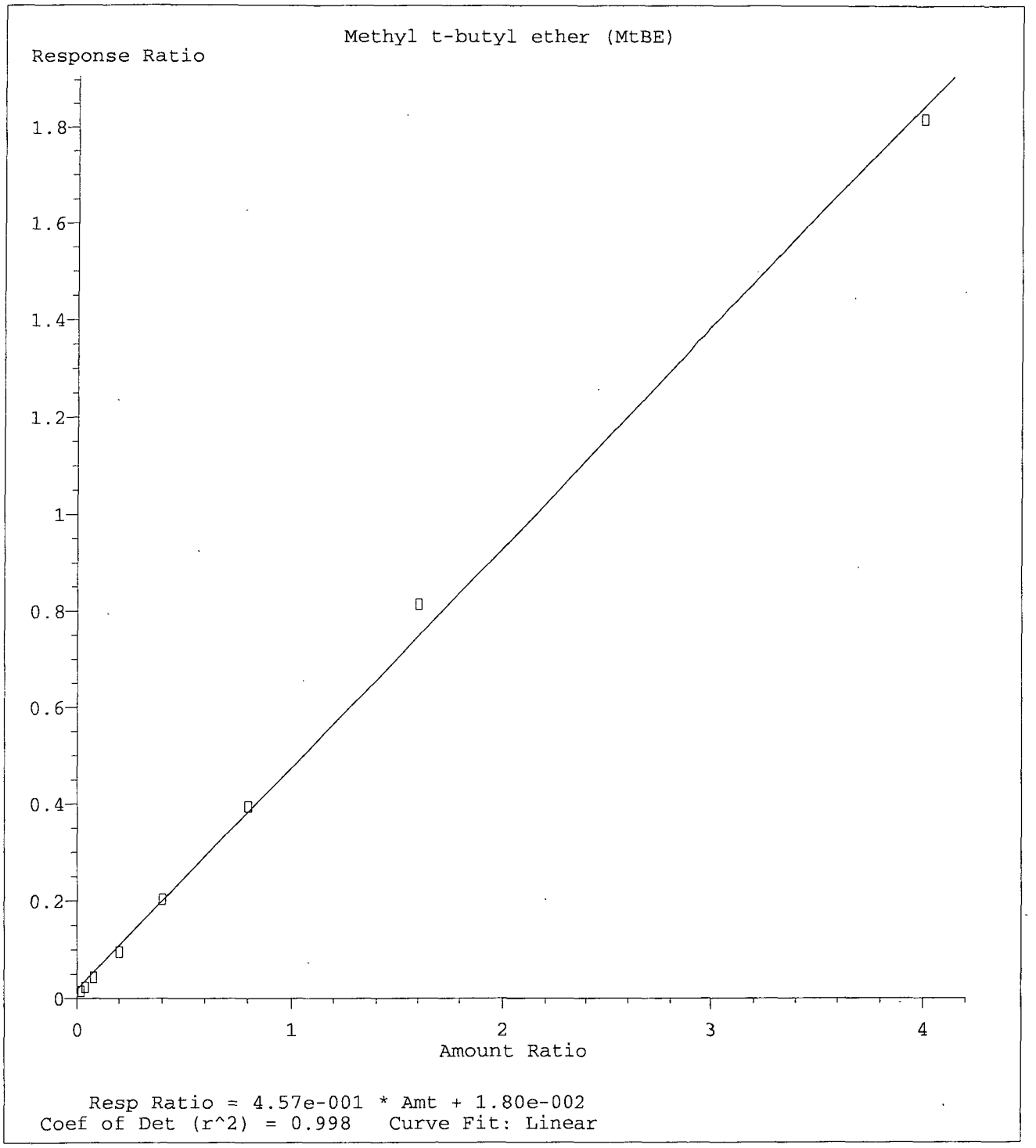
Method Name: M:\THOR\DATA\T191023\T1023W.M
Calibration Table Last Updated: Thu Oct 24 09:55:52 2019



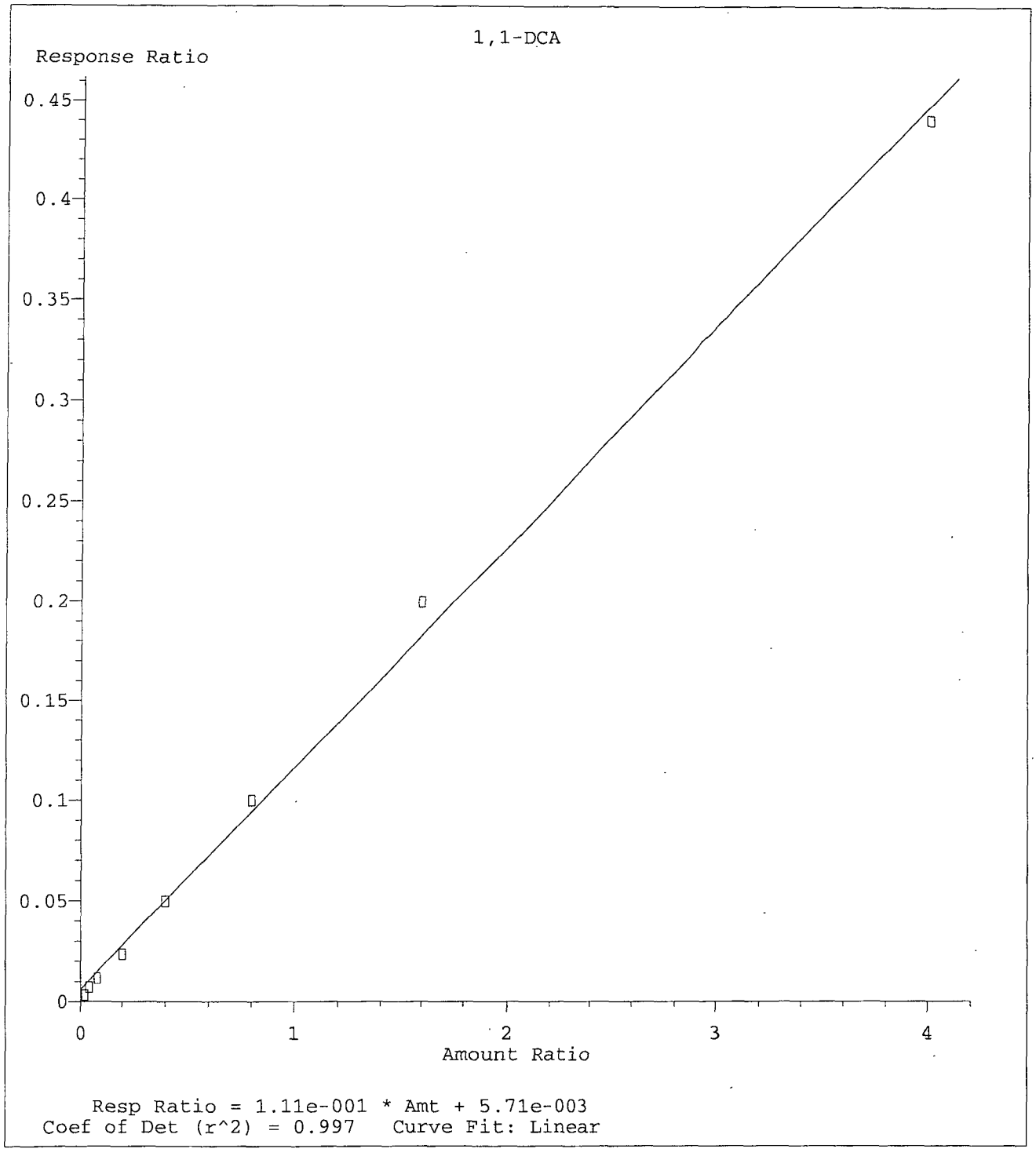
Method Name: M:\THOR\DATA\T191023\T1023W.M
Calibration Table Last Updated: Thu Oct 24 09:55:52 2019



Method Name: M:\THOR\DATA\T191023\T1023W.M
Calibration Table Last Updated: Thu Oct 24 09:55:52 2019



Method Name: M:\THOR\DATA\T191023\T1023W.M
Calibration Table Last Updated: Thu Oct 24 09:55:52 2019



Method Name: M:\THOR\DATA\T191023\T1023W.M
Calibration Table Last Updated: Thu Oct 24 09:55:52 2019

VOLATILE ORGANIC ANALYSIS
VOLATILE ORGANIC COMPOUNDS

Form 7

Second Source Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Date Analyzed: 10/24/19
Matrix: Instrument: Thor
Initial Cal. Date: 10/23/19
Data File: 1023T16.D

		Compound	MEAN	CCRF	%D		%Drift	
1	TM	Dichlorodifluoromethane	0.2318	0.2193	5.4	TM		
2	TML	Freon 114	0.1167	0.1499	28	TML	49	* NT
3	TM**L	Chloromethane	0.2206	0.1984	10	TM**L	7.9	
4	TM*	Vinyl chloride	0.1695	0.1774	4.7	TM*		
5	TM	2-Chloro-1,1,1-trifluoroethane	0.0000	0.0033	0.00	TM		
6	TML	Bromomethane	0.1168	0.1128	3.5	TML	12	
7	TML	Chloroethane	0.2026	0.1323	35	TML	9.5	
8	TM	Dichlorofluoromethane	0.3078	0.3001	2.5	TM		
9	TM	Trichlorofluoromethane	0.3159	0.2995	5.2	TM		
10	TM	Acrolein	0.0096	0.0112	18	TM		
11	TML	Acetone	0.0616	0.0554	10.0	TML	10.0	
12	TML	Freon-113	0.1219	0.1457	20	TML	12	
13	TM*	1,1-DCE	0.2239	0.2001	11	TM*		
14	TM	2-Propanol	0.0000	0.0000	0.00	TM		
15	TML	Acetonitrile	0.0207	0.0162	22	TML	21	* NT
16	TM	t-Butanol	0.0166	0.0133	20	TM		
17	TML	Methyl Acetate	0.1249	0.1273	1.9	TML	15	
18	TML	Iodomethane	0.0951	0.0641	33	TML	30	* NT
19	TM	Acrylonitrile	0.0573	0.0640	12	TM		
20	TML	Methylene chloride	0.2241	0.1875	16	TML	9.4	
21	TML	Carbon disulfide	0.4208	0.4590	9.1	TML	20	
22	TML	Methyl t-butyl ether (MtBE)	0.5335	0.5214	2.3	TML	4.3	
23	TM	Trans-1,2-DCE	0.2190	0.2083	4.9	TM		
24	TM	Diisopropyl Ether	0.1903	0.1867	1.9	TM		
25	TM**L	1,1-DCA	0.1356	0.1114	18	TM**L	12	
26	TML	Vinyl Acetate	0.1447	0.1570	8.5	TML	5.2	
27	TM	Ethyl tert Butyl Ether	0.5122	0.5159	0.73	TM		
28	TML	MEK (2-Butanone)	0.0768	0.0670	13	TML	2.8	
29	TM	Cis-1,2-DCE	0.2652	0.2502	5.7	TM		
30	TML	2,2-Dichloropropane	0.1205	0.1062	12	TML	0.49	
31	TM	3-Methylpentane	0.0000	0.1118	0.00	TM		
32	TM*	Chloroform	0.1738	0.1625	6.5	TM*		
33	TM	Bromochloromethane	0.0746	0.0630	16	TM		
34	TML	1,1,1-TCA	0.1555	0.1321	15	TML	11	
35	TM	Cyclohexane	0.2001	0.2050	2.5	TM		
36	TM	1,1-Dichloropropene	0.2185	0.1948	11	TM		
37	TML	2,2,4-Trimethylpentane	0.1692	0.1696	0.19	TML	12	
38	TML	Carbon Tetrachloride	0.2432	0.2335	4.0	TML	11	
39	TM	Tert Amyl Methyl Ether	0.5205	0.5251	0.89	TM		
40	TM	Methylcyclopentane	0.0000	0.0302	0.00	TM		
		Average			9.8			

VOLATILE ORGANIC ANALYSIS
VOLATILE ORGANIC COMPOUNDS

Form 7

Second Source Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Date Analyzed: 10/24/19
Matrix: 0 Instrument: Thor
Cal. Date: 10/23/19
Data File: 1023T16.D

		Compound	MEAN	CCRF	%D		%Drift	
41	TML	1,2-DCA	0.1715	0.1289	25	TML	16	
42	TM	Benzene	0.7114	0.6162	13	TM		
43	TM	TCE	0.2207	0.1896	14	TM		
44	TM	2-Pentanone	0.1112	0.0883	21	TM		* NT
45	TM*	1,2-Dichloropropane	0.1808	0.1591	12	TM*		
46	TM	Bromodichloromethane	0.2768	0.2438	12	TM		
47	TM	Methyl Cyclohexane	0.2204	0.2355	6.8	TM		
48	TML	Dibromomethane	0.1389	0.1511	8.8	TML	5.7	
49	TML	MIBK (methyl isobutyl ketone)	0.0628	0.0468	25	TML	17	
50	TM	1-Bromo-2-chloroethane	0.2330	0.2366	1.5	TM		
51	TM	2-Chloroethyl vinyl ether	0.0000	0.0003	0.00	TM		
52	TM	Cis-1,3-Dichloropropene	0.2895	0.2553	12	TM		
53	TM*	Toluene	0.8064	0.7207	11	TM*		
54	TM	Trans-1,3-Dichloropropene	0.1810	0.1646	9.1	TM		
55	TM	1,1,2-TCA	0.1808	0.1646	9.0	TM		
56	TML	2-Hexanone	0.0907	0.0766	16	TML	9.2	
57	TM	1,2-EDB	0.1197	0.1061	11	TM		
58	TM	Tetrachloroethene	0.2368	0.2406	1.6	TM		
59	TML	1-Chlorohexane	0.2307	0.2346	1.7	TML	8.2	
60	TM	1,1,1,2-Tetrachloroethane	0.2419	0.2138	12	TM		
61	TM	m&p-Xylene	0.7241	0.6656	8.1	TM		
62	TM	o-Xylene	0.7739	0.7175	7.3	TM		
63	TM	Styrene	0.5490	0.5082	7.4	TM		
64	TM	1,3-Dichloropropane	0.3118	0.2867	8.1	TM		
65	TML	Dibromochloromethane	0.2170	0.2142	1.3	TML	12	
66	TM**	Chlorobenzene	0.3686	0.3346	9.2	TM**		
67	TM*	Ethylbenzene	0.9036	0.8620	4.6	TM*		
68	TM**L	Bromoform	0.1737	0.1747	0.52	TM**L	10	
69	TM	Isopropylbenzene	1.536	1.414	7.9	TM		
70	TM**	1,1,2,2-Tetrachloroethane	0.4037	0.3702	8.3	TM**		
71	TML	1,2,3-Trichloropropane	0.1253	0.1278	2.0	TML	7.6	
72	TML	t-1,4-Dichloro-2-Butene	0.0727	0.0898	24	TML	11	
73	TM	Bromobenzene	0.4002	0.3609	9.8	TM		
74	TM	n-Propylbenzene	1.707	1.544	9.6	TM		
75	TM	4-Ethyltoluene	1.465	1.535	4.8	TM		
76	TM	2-Chlorotoluene	0.7078	0.6820	3.6	TM		
77	TM	1,3,5-Trimethylbenzene	1.302	1.250	4.0	TM		
78	TM	4-Chlorotoluene	0.8054	0.7723	4.1	TM		
79	TM	Tert-Butylbenzene	1.175	1.037	12	TM		
80	TM	1,2,4-Trimethylbenzene	1.336	1.253	6.2	TM		
		Average			9.1			

VOLATILE ORGANIC ANALYSIS
VOLATILE ORGANIC COMPOUNDS

Form 7

Second Source Calibration

Lab Name: APPL, Inc.
Case No:
Matrix: 0

SDG No:
Date Analyzed: 10/24/19
Instrument: Thor
Cal. Date: 10/23/19
Data File: 1023T16.D

		Compound	MEAN	CCRF	%D		%Drift	
81	TM	Sec-Butylbenzene	1.523	1.403	7.9	TM		
82	TM	p-Isopropyltoluene	1.338	1.290	3.6	TM		
83	TM	Benzyl Chloride	0.3124	0.2611	16	TM		
84	TM	1,3-DCB	0.5820	0.5032	14	TM		
85	TM	1,4-DCB	0.8814	0.7951	9.8	TM		
86	TM	n-Butylbenzene	1.016	1.002	1.4	TM		
87	TM	1,2-DCB	0.5295	0.4923	7.0	TM		
88	TM	Hexachloroethane	0.1627	0.1495	8.1	TM		
89	TML	1,2-Dibromo-3-chloropropane	0.0623	0.0560	10	TML	3.0	
90	TM	1,2,4-Trichlorobenzene	0.3177	0.3716	17	TM		
91	TM	Hexachlorobutadiene	0.1945	0.1920	1.3	TM		
92	TM	Naphthalene	0.8033	1.276	59	TM		*
93	TML	1,2,3-Trichlorobenzene	0.4030	0.5563	38	TML	25	*
94								
95								
96								
97								
98								
99								
100								
101								
102								
103								
104								
105								
106								
107								
108								
109								
110								
111								
112								
113								
114								
115								
116								
117								
118								
119								
120								
		Average			14.9			

Quantitation Report (Not Reviewed)

Data File : M:\THOR\DATA\T191023\1023T16.D Vial: 16
Acq On : 24 Oct 19 00:17 Operator:
Sample : (SS)10ug/L VOC STD 10/23/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 24 10:01 2019 Quant Results File: T1023W.RES

Quant Method : M:\THOR\DATA\T191023\T1023W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:55:52 2019
Response via : Initial Calibration
DataAcq Meth : T8260

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene (IS)	6.59	96	189056	25.00	ppb		0.00
65) Chlorobenzene-D5 (IS)	9.74	117	176576	25.00	ppb		0.00
80) 1,4-Dichlorobenzene-D (IS)	12.07	152	104576	25.00	ppb		0.00
System Monitoring Compounds							
40) Dibromofluoromethane(S)	5.79	111	88311	24.23	ppb		0.00
Spiked Amount 25.000			Recovery = 96.936%				
45) 1,2-DCA-D4(S)	6.18	65	99051	24.28	ppb		0.00
Spiked Amount 25.000			Recovery = 97.100%				
66) Toluene-D8(S)	8.30	98	317868	24.11	ppb		0.00
Spiked Amount 25.000			Recovery = 96.424%				
74) 4-Bromofluorobenzene(S)	10.92	174	125676	24.07	ppb		0.00
Spiked Amount 25.000			Recovery = 96.300%				
Target Compounds							Qvalue
3) Dichlorodifluoromethane	1.20	85	16584	9.46	ppb		95
4) Freon 114	1.32	85	11332	14.95	ppb		94
5) Chloromethane	1.36	50	15001	10.79	ppb		100
6) Vinyl chloride	1.46	62	13419	10.47	ppb		94
8) Bromomethane	1.75	96	8529	11.16	ppb		91
9) Chloroethane	1.85	64	10004	10.95	ppb		94
10) Dichlorofluoromethane	2.06	67	22695	9.75	ppb		94
11) Trichlorofluoromethane	2.12	101	22652	9.48	ppb		93
13) Acrolein	2.55	55	10633	146.94	ppb		91
14) Acetone	2.74	43	4192	9.00	ppb	#	85
15) Freon-113	2.70	101	11017	11.22	ppb		94
16) 1,1-DCE	2.67	61	15133	8.94	ppb		94
18) Acetonitrile	3.06	41	15283	98.86	ppb		93
19) t-Butanol	3.53	59	12569	100.17	ppb		90
20) Methyl Acetate	3.18	43	9624	11.47	ppb		100
21) Iodomethane	2.82	142	4850	7.01	ppb		96
22) Acrylonitrile	3.62	53	4841	11.18	ppb		92
23) Methylene chloride	3.27	49	14178	9.06	ppb		95
24) Carbon disulfide	2.89	76	34712	11.97	ppb		96
25) Methyl t-butyl ether (MtBE	3.73	73	39432	10.43	ppb	#	94
26) Trans-1,2-DCE	3.67	61	15749	9.51	ppb		99
28) Diisopropyl Ether	4.54	45	14117	9.81	ppb		93
30) 1,1-DCA	4.32	63	8425	8.79	ppb		96
31) Vinyl Acetate	4.55	87	11869	10.52	ppb		94
32) Ethyl tert Butyl Ether	5.06	59	39017	10.07	ppb		95
33) MEK (2-Butanone)	5.22	43	5065	10.28	ppb		96
34) Cis-1,2-DCE	5.16	61	18921	9.43	ppb		98
35) 2,2-Dichloropropane	5.16	77	8030	10.05	ppb		93
38) Chloroform	5.60	83	12288	9.35	ppb		98
39) Bromochloromethane	5.46	130	4761	8.44	ppb		92
41) 1,1,1-TCA	5.80	97	9986	8.94	ppb		93
42) Cyclohexane	5.88	84	15506	10.25	ppb		83
43) 1,1-Dichloropropene	6.02	75	14729	8.92	ppb		93
44) 2,2,4-Trimethylpentane	6.41	57	12822	11.20	ppb		96
46) Carbon Tetrachloride	6.01	119	17655	8.91	ppb		94
47) Tert Amyl Methyl Ether	6.45	73	39710	10.09	ppb		97
49) 1,2-DCA	6.26	62	9746	8.40	ppb		96
50) Benzene	6.25	78	46595	8.66	ppb		96
51) TCE	7.01	130	14335	8.59	ppb		94

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\THOR\DATA\T191023\1023T16.D Vial: 16
Acq On : 24 Oct 19 00:17 Operator:
Sample : (SS)10ug/L VOC STD 10/23/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 24 10:01 2019 Quant Results File: T1023W.RES

Quant Method : M:\THOR\DATA\T191023\T1023W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:55:52 2019
Response via : Initial Calibration
DataAcq Meth : T8260

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
52)	2-Pentanone	7.23	43	83503	99.33	ppb		97
53)	1,2-Dichloropropane	7.23	63	12032	8.80	ppb		99
54)	Bromodichloromethane	7.54	83	18434	8.81	ppb		96
55)	Methyl Cyclohexane	7.22	83	17807	10.68	ppb		99
56)	Dibromomethane	7.35	174	11427	9.43	ppb		89
57)	MIBK (methyl isobutyl ket	9.05	43	3541	8.26	ppb		91
58)	1-Bromo-2-chloroethane	7.85	63	17889	10.15	ppb		98
60)	Cis-1,3-Dichloropropene	8.02	75	19310	8.82	ppb		95
61)	Toluene	8.36	91	54500	8.94	ppb		98
62)	Trans-1,3-Dichloropropene	8.59	75	12446	9.09	ppb		91
63)	1,1,2-TCA	8.77	97	12450	9.10	ppb		95
64)	2-Hexanone	8.21	43	5795	9.08	ppb		91
67)	1,2-EDB	9.26	107	7497	8.87	ppb		92
68)	Tetrachloroethene	8.93	166	16992	10.16	ppb		93
69)	1-Chlorohexane	9.77	91	16573	10.82	ppb		96
70)	1,1,1,2-Tetrachloroethane	9.86	131	15099	8.84	ppb		99
71)	m&p-Xylene	10.02	91	94029	18.39	ppb		98
72)	o-Xylene	10.41	91	50679	9.27	ppb		97
73)	Styrene	10.42	104	35896	9.26	ppb		98
75)	1,3-Dichloropropane	8.93	76	20248	9.19	ppb		99
76)	Dibromochloromethane	9.15	129	15128	8.82	ppb		94
77)	Chlorobenzene	9.77	112	23632	9.08	ppb		94
78)	Ethylbenzene	9.90	91	60882	9.54	ppb		94
79)	Bromoform	10.58	173	12336	8.96	ppb		94
81)	Isopropylbenzene	10.78	105	59167	9.21	ppb		98
82)	1,1,2,2-Tetrachloroethane	11.05	83	15484	9.17	ppb		96
83)	1,2,3-Trichloropropane	11.09	110	5345	9.24	ppb		95
84)	t-1,4-Dichloro-2-Butene	11.12	53	3757	11.13	ppb		96
85)	Bromobenzene	11.06	77	15098	9.02	ppb		92
86)	n-Propylbenzene	11.19	91	64588	9.04	ppb		100
87)	4-Ethyltoluene	11.31	105	64214	10.48	ppb		98
88)	2-Chlorotoluene	11.26	91	28529	9.64	ppb		93
89)	1,3,5-Trimethylbenzene	11.37	105	52305	9.60	ppb		99
90)	4-Chlorotoluene	11.37	91	32304	9.59	ppb		96
91)	Tert-Butylbenzene	11.69	119	43377	8.82	ppb		98
92)	1,2,4-Trimethylbenzene	11.74	105	52394	9.38	ppb		99
93)	Sec-Butylbenzene	11.91	105	58680	9.21	ppb		96
94)	p-Isopropyltoluene	12.06	119	53966	9.64	ppb		97
95)	Benzyl Chloride	12.22	91	10920	8.36	ppb		98
96)	1,3-DCB	12.00	146	21048	8.65	ppb		97
97)	1,4-DCB	12.09	146	33259	9.02	ppb		98
98)	n-Butylbenzene	12.47	91	41925	9.86	ppb		97
99)	1,2-DCB	12.45	146	20592	9.30	ppb		98
100)	Hexachloroethane	12.72	117	6254	9.19	ppb		99
101)	1,2-Dibromo-3-chloropropan	13.22	157	2343	9.70	ppb		86
102)	1,2,4-Trichlorobenzene	14.06	182	15546	11.70	ppb		98
103)	Hexachlorobutadiene	14.25	225	8031	9.87	ppb		99
104)	Naphthalene	14.30	128	53370	15.88	ppb		98
105)	1,2,3-Trichlorobenzene	14.54	182	23272	12.52	ppb	#	81

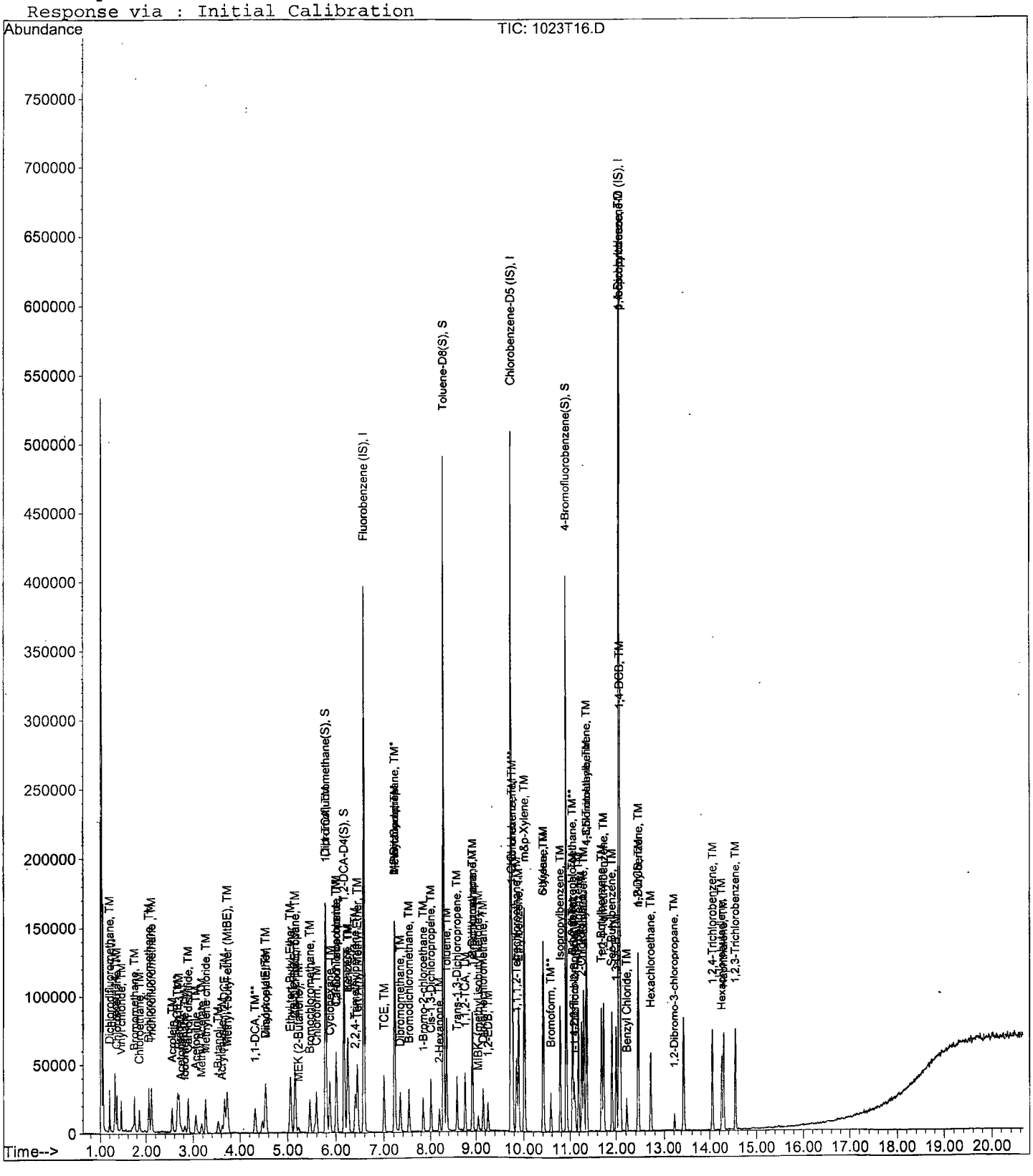
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\THOR\DATA\T191023\1023T16.D Vial: 16
Acq On : 24 Oct 19 00:17 Operator:
Sample : (SS)10ug/L VOC STD 10/23/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 24 10:01 2019 Quant Results File: T1023W.RES

Method : M:\THOR\DATA\T191023\T1023W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:55:52 2019
Response via : Initial Calibration



VOLATILE ORGANIC ANALYSIS
VOLATILE ORGANIC COMPOUNDS

Form 7

Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix:

SDG No:
Date Analyzed: 2 Nov 19 3:27
Instrument: Thor
Initial Cal. Date: 10/23/2019
Data File: 1101T31.D

		Compound	MEAN	CCRF	%D	%Drift		
1	I	Fluorobenzene (IS)	ISTD			I		
2	TM	Dichlorodifluoromethane	0.2318	0.1938	16	TM		
3	TML	Freon 114	0.1167	0.1230	5.4	TML	20	
4	TM**L	Chloromethane	0.2206	0.1997	9.5	TM**L	8.7	
5	TM*	Vinyl chloride	0.1695	0.1515	11	TM*		
6	TM	2-Chloro-1,1,1-trifluoroethane	0.0000	0.0034	0.00	TM		
7	TML	Bromomethane	0.1168	0.0869	26	TML	15	
8	TML	Chloroethane	0.2026	0.1213	40	TML	0.91	
9	TM	Dichlorofluoromethane	0.3078	0.2950	4.2	TM		
10	TM	Trichlorofluoromethane	0.3159	0.3182	0.72	TM		
11	TM	Diethyl ether	0.0000	0.0004	0.00	TM		
12	TM	Acrolein	0.0096	0.0062	36	TM		nt
13	TML	Acetone	0.0616	0.0603	2.0	TML	2.0	
14	TML	Freon-113	0.1219	0.1369	12	TML	4.8	
15	TM*	1,1-DCE	0.2239	0.2229	0.46	TM*		
16	TML	Acetonitrile	0.0207	0.0161	23	TML	21	nt
17	TM	t-Butanol	0.0166	0.0108	35	TM		nt
18	TML	Methyl Acetate	0.1249	0.0835	33	TML	30	nt
19	TML	Iodomethane	0.0951	0.0551	42	TML	35	nt
20	TM	Acrylonitrile	0.0573	0.0488	15	TM		
21	TML	Methylene chloride	0.2241	0.1995	11	TML	2.5	
22	TML	Carbon disulfide	0.4208	0.4167	0.96	TML	8.5	
23	TML	Methyl t-butyl ether (MtBE)	0.5335	0.4446	17	TML	13	
24	TM	Trans-1,2-DCE	0.2190	0.2082	4.9	TM		
25	TM	Hexane	0.0000	0.0584	0.00	TM		
26	TM	Diisopropyl Ether	0.1903	0.1643	14	TM		
27	TM**L	1,1-DCA	0.1356	0.1253	7.6	TM**L	0.46	
28	TML	Vinyl Acetate	0.1447	0.1423	1.7	TML	5.4	
29	TM	Ethyl tert Butyl Ether	0.5122	0.4335	15	TM		
30	TML	MEK (2-Butanone)	0.0768	0.0503	35	TML	23	nt
31	TM	Cis-1,2-DCE	0.2652	0.2589	2.4	TM		
32	TML	2,2-Dichloropropane	0.1205	0.0938	22	TML	12	
33	TM	3-Methylpentane	0.0000	0.0852	0.00	TM		
34	TM*	Chloroform	0.1738	0.1673	3.8	TM*		
35	TM	Bromochloromethane	0.0746	0.0650	13	TM		
36	S	Dibromofluoromethane(S)	0.4819	0.4666	3.2	S		
37	TML	1,1,1-TCA	0.1555	0.1437	7.6	TML	1.8	
38	TM	Cyclohexane	0.2001	0.1837	8.2	TM		
39	TM	1,1-Dichloropropene	0.2185	0.2075	5.0	TM		
40	TML	2,2,4-Trimethylpentane	0.1692	0.1432	15	TML	5.9	
		Average			12.8			

VOLATILE ORGANIC ANALYSIS
VOLATILE ORGANIC COMPOUNDS

Form 7

Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix: 0

SDG No:
Date Analyzed: 2 Nov 19 3:27
Instrument: Thor
Cal. Date: 10/23/2019
Data File: 1101T31.D

		Compound	MEAN	CCRF	%D		%Drift	
41	S	1,2-DCA-D4(S)	0.5396	0.5094	5.6	S		
42	TML	Carbon Tetrachloride	0.2432	0.2628	8.1	TML	1.2	
43	TM	Tert Amyl Methyl Ether	0.5205	0.4142	20	TM		
44	TM	Methylcyclopentane	0.0000	0.0273	0.00	TM		
45	TML	1,2-DCA	0.1715	0.1387	19	TML	8.7	
46	TM	Benzene	0.7114	0.6548	8.0	TM		
47	TM	TCE	0.2207	0.2779	26	TM		nt
48	TM	2-Pentanone	0.1112	0.0789	29	TM		nt
49	TM*	1,2-Dichloropropane	0.1808	0.1659	8.2	TM*		
50	TM	Bromodichloromethane	0.2768	0.2421	13	TM		
51	TM	Methyl Cyclohexane	0.2204	0.2182	0.99	TM		
52	TML	Dibromomethane	0.1389	0.1511	8.8	TML	5.7	
53	TML	MIBK (methyl isobutyl ketone)	0.0628	0.0372	41	TML	33	nt
54	TM	1-Bromo-2-chloroethane	0.2330	0.2046	12	TM		
55	TM	2-Chloroethyl vinyl ether	0.0000	0.0005	0.00	TM		
56	TM	Cis-1,3-Dichloropropene	0.2895	0.2504	14	TM		
57	TM*	Toluene	0.8064	0.7239	10	TM*		
58	TM	Trans-1,3-Dichloropropene	0.1810	0.1438	21	TM		nt
59	TM	1,1,2-TCA	0.1808	0.1505	17	TM		
60	TML	2-Hexanone	0.0907	0.0585	35	TML	29	nt
61	I	Chlorobenzene-D5 (IS)	ISTD			I		
62	S	Toluene-D8(S)	1.867	1.816	2.7	S		
63	TM	1,2-EDB	0.1197	0.1099	8.2	TM		
64	TM	Tetrachloroethene	0.2368	0.2631	11	TM		
65	TML	1-Chlorohexane	0.2307	0.1895	18	TML	13	
66	TM	1,1,1,2-Tetrachloroethane	0.2419	0.2223	8.1	TM		
67	TM	m&p-Xylene	0.7241	0.6556	9.5	TM		
68	TM	o-Xylene	0.7739	0.7065	8.7	TM		
69	TM	Styrene	0.5490	0.4947	9.9	TM		
70	S	4-Bromofluorobenzene(S)	0.7391	0.7362	0.39	S		
71	TM	1,3-Dichloropropane	0.3118	0.2729	12	TM		
72	TML	Dibromochloromethane	0.2170	0.2287	5.4	TML	5.7	
73	TM**	Chlorobenzene	0.3686	0.3436	6.8	TM**		
74	TM*	Ethylbenzene	0.9036	0.8274	8.4	TM*		
75	TM**L	Bromoform	0.1737	0.1442	17	TM**L	26	nt
76	I	1,4-Dichlorobenzene-D (IS)	ISTD			I		
77	TM	Isopropylbenzene	1.536	1.386	9.8	TM		
78	TM**	1,1,2,2-Tetrachloroethane	0.4037	0.3213	20	TM**		
79	TML	1,2,3-Trichloropropane	0.1253	0.1088	13	TML	23	nt
80	TML	t-1,4-Dichloro-2-Butene	0.0727	0.0513	29	TML	40	nt
		Average			13.0			

VOLATILE ORGANIC ANALYSIS
VOLATILE ORGANIC COMPOUNDS

Form 7

Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix: 0

SDG No:
Date Analyzed: 2 Nov 19 3:27
Instrument: Thor
Cal. Date: 10/23/2019
Data File: 1101T31.D

		Compound	MEAN	CCRF	%D		%Drift	
81	TM	Bromobenzene	0.4002	0.3537	12	TM		
82	TM	n-Propylbenzene	1.707	1.472	14	TM		
83	TM	4-Ethyltoluene	1.465	1.310	11	TM		
84	TM	2-Chlorotoluene	0.7078	0.5900	17	TM		
85	TM	1,3,5-Trimethylbenzene	1.302	1.199	7.9	TM		
86	TM	4-Chlorotoluene	0.8054	0.7323	9.1	TM		
87	TM	Tert-Butylbenzene	1.175	1.123	4.4	TM		
88	TM	1,2,4-Trimethylbenzene	1.336	1.127	16	TM		
89	TM	Sec-Butylbenzene	1.523	1.297	15	TM		
90	TM	p-Isopropyltoluene	1.338	1.157	14	TM		
91	TM	Benzyl Chloride	0.3124	0.1942	38	TM		nt
92	TM	1,3-DCB	0.5820	0.4918	16	TM		
93	TM	1,4-DCB	0.8814	0.7649	13	TM		
94	TM	n-Butylbenzene	1.016	0.7927	22	TM		nt
95	TM	1,2-DCB	0.5295	0.4354	18	TM		
96	TM	*Hexachloroethane*	0.1627	0.1617	0.62	TM		
97	TML	1,2-Dibromo-3-chloropropane	0.0623	0.0425	32	TML	27	nt
98	TM	1,2,4-Trichlorobenzene	0.3177	0.2199	31	TM		nt
99	TM	Hexachlorobutadiene	0.1945	0.1547	20	TM		
100	TM	Naphthalene	0.8033	0.4850	40	TM		nt
101	TML	1,2,3-Trichlorobenzene	0.4030	0.3266	19	TML	27	nt
102								
103								
104								
105								
106								
107								
108								
109								
110								
111								
112								
113								
114								
115								
116								
117								
118								
119								
120								
		Average			17.6			

Quantitation Report (Not Reviewed)

Data File : M:\THOR\DATA\T191028\1101T31.D Vial: 29
Acq On : 2 Nov 19 3:27 Operator:
Sample : 191101B CCV 10ug/L Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Nov 4 12:10 2019 Quant Results File: T1023W.RES

Quant Method : M:\THOR\DATA\T191023\T1023W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:55:52 2019
Response via : Initial Calibration
DataAcq Meth : T8260

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene (IS)	6.59	96	132672	25.00	ppb		0.00
65) Chlorobenzene-D5 (IS)	9.74	117	120960	25.00	ppb		0.00
80) 1,4-Dichlorobenzene-D (IS)	12.06	152	73080	25.00	ppb		0.00
System Monitoring Compounds							
40) Dibromofluoromethane(S)	5.78	111	61901	24.21	ppb		0.00
Spiked Amount 25.000			Recovery = 96.820%				
45) 1,2-DCA-D4(S)	6.17	65	67582	23.60	ppb		0.00
Spiked Amount 25.000			Recovery = 94.408%				
66) Toluene-D8(S)	8.29	98	219687	24.32	ppb		0.00
Spiked Amount 25.000			Recovery = 97.280%				
74) 4-Bromofluorobenzene(S)	10.91	174	89051	24.90	ppb		0.00
Spiked Amount 25.000			Recovery = 99.608%				
Target Compounds							Qvalue
3) Dichlorodifluoromethane	1.20	85	10286	8.36	ppb		98
4) Freon 114	1.32	85	6528	12.03	ppb		93
5) Chloromethane	1.36	50	10597	10.87	ppb		97
6) Vinyl chloride	1.46	62	8040	8.94	ppb		91
8) Bromomethane	1.75	96	4612	8.54	ppb		99
9) Chloroethane	1.86	64	6436	9.91	ppb		93
10) Dichlorofluoromethane	2.06	67	15654	9.58	ppb		93
11) Trichlorofluoromethane	2.11	101	16886	10.07	ppb		93
13) Acrolein	2.54	55	4084	80.42	ppb		98
14) Acetone	2.73	43	3200	9.80	ppb		99
15) Freon-113	2.69	101	7264	10.48	ppb	#	85
16) 1,1-DCE	2.67	61	11829	9.95	ppb		95
18) Acetonitrile	3.05	41	10655	98.19	ppb		98
19) t-Butanol	3.52	59	7183	81.57	ppb		99
20) Methyl Acetate	3.17	43	4432	7.01	ppb		91
21) Iodomethane	2.82	142	2922	6.49	ppb		91
22) Acrylonitrile	3.60	53	2591	8.53	ppb	#	69
23) Methylene chloride	3.27	49	10589	9.75	ppb		90
24) Carbon disulfide	2.89	76	22114	10.85	ppb		100
25) Methyl t-butyl ether (MtBE	3.72	73	23597	8.75	ppb		96
26) Trans-1,2-DCE	3.67	61	11051	9.51	ppb	#	82
28) Diisopropyl Ether	4.54	45	8718	8.63	ppb		93
30) 1,1-DCA	4.32	63	6650	10.05	ppb		98
31) Vinyl Acetate	4.53	87	7551	9.46	ppb		91
32) Ethyl tert Butyl Ether	5.05	59	23006	8.46	ppb	#	87
33) MEK (2-Butanone)	5.21	43	2670	7.73	ppb	#	88
34) Cis-1,2-DCE	5.15	61	13737	9.76	ppb	#	93
35) 2,2-Dichloropropane	5.15	77	4979	8.83	ppb		98
38) Chloroform	5.59	83	8877	9.62	ppb		94
39) Bromochloromethane	5.45	130	3448	8.71	ppb		87
41) 1,1,1-TCA	5.80	97	7627	9.82	ppb		93
42) Cyclohexane	5.87	84	9751	9.18	ppb		92
43) 1,1-Dichloropropene	6.01	75	11013	9.50	ppb		92
44) 2,2,4-Trimethylpentane	6.41	57	7601	9.41	ppb		98
46) Carbon Tetrachloride	6.01	119	13946	10.12	ppb		85
47) Tert Amyl Methyl Ether	6.45	73	21982	7.96	ppb		94
49) 1,2-DCA	6.26	62	7361	9.13	ppb		96
50) Benzene	6.25	78	34748	9.20	ppb		97
51) TCE	7.00	130	14750	12.59	ppb		97

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\THOR\DATA\T191028\1101T31.D Vial: 29
Acq On : 2 Nov 19 3:27 Operator:
Sample : 191101B CCV 10ug/L Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Nov 4 12:10 2019 Quant Results File: T1023W.RES

Quant Method : M:\THOR\DATA\T191023\T1023W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:55:52 2019
Response via : Initial Calibration
DataAcq Meth : T8260

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
52)	2-Pentanone	7.22	43	52349	88.74	ppb		99
53)	1,2-Dichloropropane	7.23	63	8805	9.18	ppb		93
54)	Bromodichloromethane	7.53	83	12847	8.74	ppb	#	99
55)	Methyl Cyclohexane	7.22	83	11582	9.90	ppb		89
56)	Dibromomethane	7.34	174	8019	9.43	ppb		94
57)	MIBK (methyl isobutyl ket	9.05	43	1974	6.67	ppb		92
58)	1-Bromo-2-chloroethane	7.85	63	10860	8.78	ppb		98
60)	Cis-1,3-Dichloropropene	8.01	75	13288	8.65	ppb		97
61)	Toluene	8.36	91	38415	8.98	ppb		100
62)	Trans-1,3-Dichloropropene	8.59	75	7631	7.95	ppb		83
63)	1,1,2-TCA	8.76	97	7987	8.32	ppb		90
64)	2-Hexanone	8.20	43	3107	7.09	ppb		96
67)	1,2-EDB	9.26	107	5317	9.18	ppb		85
68)	Tetrachloroethene	8.92	166	12730	11.11	ppb		96
69)	1-Chlorohexane	9.77	91	9168	8.67	ppb		95
70)	1,1,1,2-Tetrachloroethane	9.86	131	10757	9.19	ppb		100
71)	m&p-Xylene	10.01	91	63444	18.11	ppb		99
72)	o-Xylene	10.40	91	34185	9.13	ppb		99
73)	Styrene	10.41	104	23937	9.01	ppb		94
75)	1,3-Dichloropropane	8.93	76	13206	8.75	ppb		90
76)	Dibromochloromethane	9.15	129	11065	9.43	ppb		97
77)	Chlorobenzene	9.77	112	16624	9.32	ppb		93
78)	Ethylbenzene	9.89	91	40033	9.16	ppb		100
79)	Bromoform	10.57	173	6979	7.43	ppb		95
81)	Isopropylbenzene	10.78	105	40520	9.02	ppb		99
82)	1,1,2,2-Tetrachloroethane	11.05	83	9393	7.96	ppb		90
83)	1,2,3-Trichloropropane	11.09	110	3179	7.70	ppb	#	79
84)	t-1,4-Dichloro-2-Butene	11.11	53	1501	6.01	ppb	#	73
85)	Bromobenzene	11.05	77	10338	8.84	ppb		87
86)	n-Propylbenzene	11.19	91	43023	8.62	ppb		97
87)	4-Ethyltoluene	11.30	105	38287	8.94	ppb		98
88)	2-Chlorotoluene	11.26	91	17247	8.34	ppb		94
89)	1,3,5-Trimethylbenzene	11.37	105	35049	9.21	ppb		95
90)	4-Chlorotoluene	11.37	91	21408	9.09	ppb		94
91)	Tert-Butylbenzene	11.69	119	32833	9.56	ppb		99
92)	1,2,4-Trimethylbenzene	11.74	105	32934	8.44	ppb		95
93)	Sec-Butylbenzene	11.91	105	37907	8.51	ppb		98
94)	p-Isopropyltoluene	12.06	119	33810	8.65	ppb		99
95)	Benzyl Chloride	12.22	91	5678	6.22	ppb		95
96)	1,3-DCB	12.00	146	14375	8.45	ppb		95
97)	1,4-DCB	12.09	146	22359	8.68	ppb		97
98)	n-Butylbenzene	12.46	91	23173	7.80	ppb		99
99)	1,2-DCB	12.45	146	12729	8.22	ppb		97
100)	Hexachloroethane	12.72	117	4727	9.94	ppb		97
101)	1,2-Dibromo-3-chloropropan	13.22	157	1241	7.26	ppb	#	82
102)	1,2,4-Trichlorobenzene	14.06	182	6428	6.92	ppb	#	83
103)	Hexachlorobutadiene	14.25	225	4522	7.95	ppb		88
104)	Naphthalene	14.30	128	14177	6.04	ppb		98
105)	1,2,3-Trichlorobenzene	14.54	182	9546	7.27	ppb		82

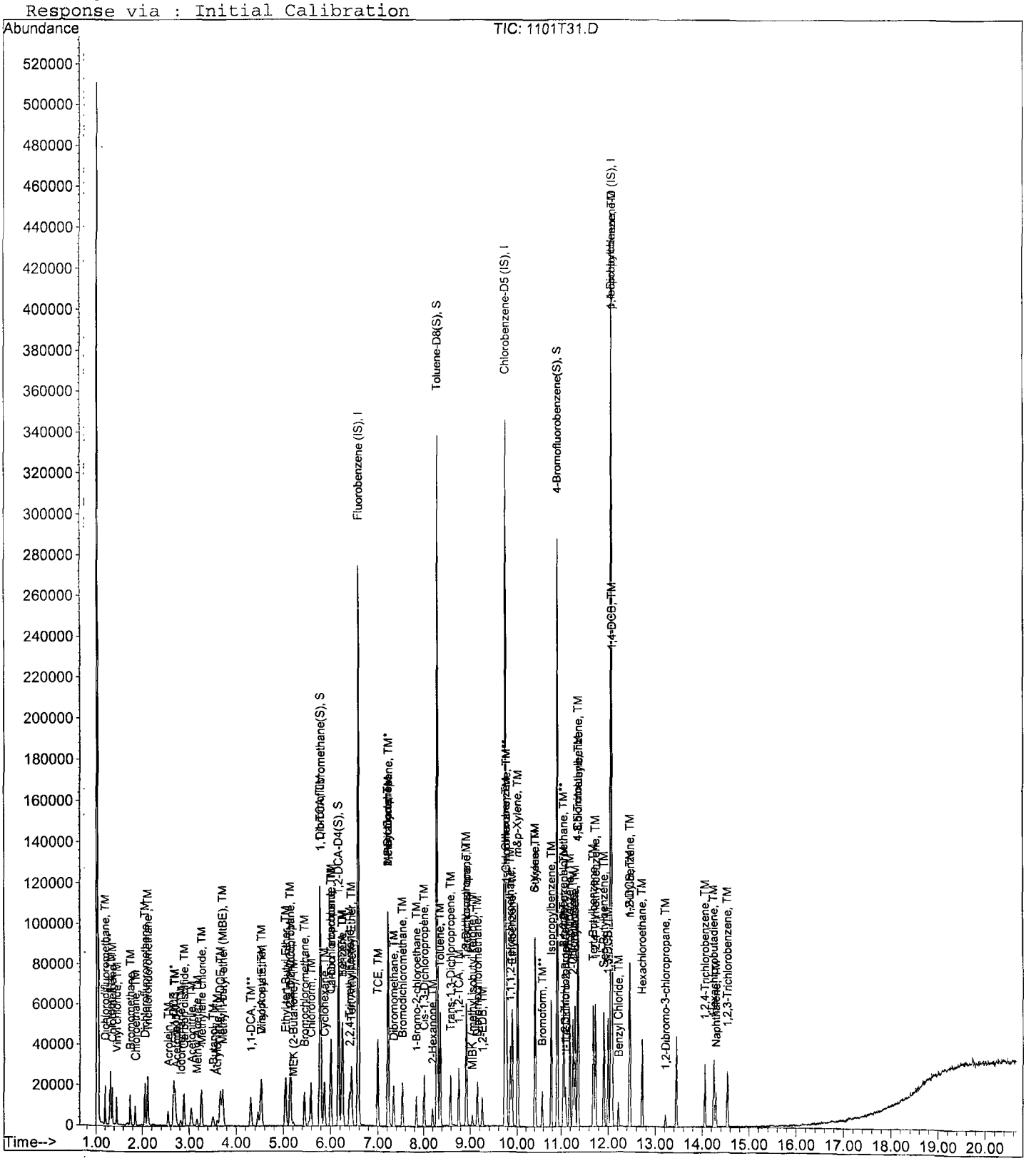
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\THOR\DATA\T191028\1101T31.D Vial: 29
Acq On : 2 Nov 19 3:27 Operator:
Sample : 191101B CCV 10ug/L Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Nov 4 12:10 2019 Quant Results File: T1023W.RES

Method : M:\THOR\DATA\T191023\T1023W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:55:52 2019
Response via : Initial Calibration



1101T31.D T1023W.M Wed Dec 04 13:31:36 2019 Page 3

VOLATILE ORGANIC ANALYSIS
VOLATILE ORGANIC COMPOUNDS

Form 7

Ending Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix:

SDG No:
Date Analyzed: 2 Nov 19 14:17
Instrument: Thor
Initial Cal. Date: 10/23/2019
Data File: 1101T54.D

		Compound	MEAN	CCRF	%D	%Drift	
1	I	Fluorobenzene (IS)	ISTD			I	
2	TM	Dichlorodifluoromethane	0.2318	0.1950	16	TM	
3	TML	Freon 114	0.1167	0.1281	9.8	TML	26
4	TM**L	Chloromethane	0.2206	0.2106	4.5	TM**L	15
5	TM*	Vinyl chloride	0.1695	0.1599	5.7	TM*	
6	TM	2-Chloro-1,1,1-trifluoroethane	0.0000	0.0040	0.00	TM	
7	TML	Bromomethane	0.1168	0.1005	14	TML	0.88
8	TML	Chloroethane	0.2026	0.1268	37	TML	4.3
9	TM	Dichlorofluoromethane	0.3078	0.3049	0.97	TM	
10	TM	Trichlorofluoromethane	0.3159	0.3159	0.01	TM	
11	TM	Acrolein	0.0096	0.0072	25	TM	
12	TML	Acetone	0.0616	0.0721	17	TML	17
13	TML	Freon-113	0.1219	0.1442	18	TML	11
14	TM*	1,1-DCE	0.2239	0.2299	2.7	TM*	
15	TML	Acetonitrile	0.0207	0.0190	8.5	TML	6.7
16	TM	t-Butanol	0.0166	0.0149	10	TM	
17	TML	Methyl Acetate	0.1249	0.1174	6.0	TML	4.6
18	TML	Iodomethane	0.0951	0.0276	71	TML	51
19	TM	Acrylonitrile	0.0573	0.0572	0.06	TM	
20	TML	Methylene chloride	0.2241	0.2005	11	TML	2.0
21	TML	Carbon disulfide	0.4208	0.4226	0.43	TML	10
22	TML	Methyl t-butyl ether (MtBE)	0.5335	0.4715	12	TML	6.6
23	TM	Trans-1,2-DCE	0.2190	0.2236	2.1	TM	
24	TM	Diisopropyl Ether	0.1903	0.1651	13	TM	
25	TM**L	1,1-DCA	0.1356	0.1207	11	TM**L	3.7
26	TML	Vinyl Acetate	0.1447	0.1426	1.4	TML	5.1
27	TM	Ethyl tert Butyl Ether	0.5122	0.4641	9.4	TM	
28	TML	MEK (2-Butanone)	0.0768	0.0651	15	TML	0.00
29	TM	Cis-1,2-DCE	0.2652	0.2711	2.2	TM	
30	TML	2,2-Dichloropropane	0.1205	0.0849	30	TML	20
31	TM	3-Methylpentane	0.0000	0.0946	0.00	TM	
32	TM*	Chloroform	0.1738	0.1767	1.6	TM*	
33	TM	Bromochloromethane	0.0746	0.0758	1.5	TM	
34	S	Dibromofluoromethane(S)	0.4819	0.4732	1.8	S	
35	TML	1,1,1-TCA	0.1555	0.1553	0.11	TML	7.0
36	TM	Cyclohexane	0.2001	0.1798	10	TM	
37	TM	1,1-Dichloropropene	0.2185	0.2069	5.3	TM	
38	TML	2,2,4-Trimethylpentane	0.1692	0.1286	24	TML	16
39	S	1,2-DCA-D4(S)	0.5396	0.5366	0.56	S	
40	TML	Carbon Tetrachloride	0.2432	0.2728	12	TML	5.4
		Average			10.5		

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VOLATILE ORGANIC ANALYSIS
VOLATILE ORGANIC COMPOUNDS

Form 7

Ending Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix: 0

SDG No:
Date Analyzed: 2 Nov 19 14:17
Instrument: Thor
Cal. Date: 10/23/2019
Data File: 1101T54.D

		Compound	MEAN	CCRF	%D		%Drift
41	TM	Tert Amyl Methyl Ether	0.5205	0.4610	11	TM	
42	TM	Methylcyclopentane	0.0000	0.0211	0.00	TM	
43	TML	1,2-DCA	0.1715	0.1511	12	TML	0.58
44	TM	Benzene	0.7114	0.6806	4.3	TM	
45	TM	TCE	0.2207	0.2651	20	TM	
46	TM	2-Pentanone	0.1112	0.1009	9.2	TM	
47	TM*	1,2-Dichloropropane	0.1808	0.1688	6.6	TM*	
48	TM	Bromodichloromethane	0.2768	0.2539	8.3	TM	
49	TM	Methyl Cyclohexane	0.2204	0.1982	10	TM	
50	TML	Dibromomethane	0.1389	0.1464	5.4	TML	8.7
51	TML	MIBK (methyl isobutyl ketone)	0.0628	0.0464	26	TML	18
52	TM	1-Bromo-2-chloroethane	0.2330	0.2203	5.5	TM	
53	TM	2-Chloroethyl vinyl ether	0.0000	0.0002	0.00	TM	
54	TM	Cis-1,3-Dichloropropene	0.2895	0.2418	16	TM	
55	TM*	Toluene	0.8064	0.7517	6.8	TM*	
56	TM	Trans-1,3-Dichloropropene	0.1810	0.1608	11	TM	
57	TM	1,1,2-TCA	0.1808	0.1780	1.6	TM	
58	TML	2-Hexanone	0.0907	0.0709	22	TML	15
59	I	Chlorobenzene-D5 (IS)	ISTD			I	
60	S	Toluene-D8(S)	1.867	1.867	0.01	S	
61	TM	1,2-EDB	0.1197	0.1160	3.1	TM	
62	TM	Tetrachloroethene	0.2368	0.2503	5.7	TM	
63	TML	1-Chlorohexane	0.2307	0.1915	17	TML	12
64	TM	1,1,1,2-Tetrachloroethane	0.2419	0.2530	4.6	TM	
65	TM	m&p-Xylene	0.7241	0.6929	4.3	TM	
66	TM	o-Xylene	0.7739	0.7265	6.1	TM	
67	TM	Styrene	0.5490	0.4930	10	TM	
68	S	4-Bromofluorobenzene(S)	0.7391	0.7497	1.4	S	
69	TM	1,3-Dichloropropane	0.3118	0.3024	3.0	TM	
70	TML	Dibromochloromethane	0.2170	0.2447	13	TML	0.93
71	TM**	Chlorobenzene	0.3686	0.3582	2.8	TM**	
72	TM*	Ethylbenzene	0.9036	0.8558	5.3	TM*	
73	TM**L	Bromoform	0.1737	0.1982	14	TM**L	1.4
74	I	1,4-Dichlorobenzene-D (IS)	ISTD			I	
75	TM	Isopropylbenzene	1.536	1.355	12	TM	
76	TM**	1,1,2,2-Tetrachloroethane	0.4037	0.3755	7.0	TM**	
77	TML	1,2,3-Trichloropropane	0.1253	0.1410	13	TML	3.1
78	TML	t-1,4-Dichloro-2-Butene	0.0727	0.0638	12	TML	23
79	TM	Bromobenzene	0.4002	0.3751	6.3	TM	
80	TM	n-Propylbenzene	1.707	1.530	10	TM	
		Average			8.6		

VOLATILE ORGANIC ANALYSIS
VOLATILE ORGANIC COMPOUNDS

Form 7

Ending Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix: 0

SDG No:
Date Analyzed: 2 Nov 19 14:17
Instrument: Thor
Cal. Date: 10/23/2019
Data File: 1101T54.D

		Compound	MEAN	CCRF	%D		%Drift
81	TM	4-Ethyltoluene	1.465	1.347	8.1	TM	
82	TM	2-Chlorotoluene	0.7078	0.6451	8.9	TM	
83	TM	1,3,5-Trimethylbenzene	1.302	1.192	8.5	TM	
84	TM	4-Chlorotoluene	0.8054	0.7982	0.90	TM	
85	TM	Tert-Butylbenzene	1.175	1.086	7.6	TM	
86	TM	1,2,4-Trimethylbenzene	1.336	1.129	15	TM	
87	TM	Sec-Butylbenzene	1.523	1.386	9.0	TM	
88	TM	p-Isopropyltoluene	1.338	1.178	12	TM	
89	TM	Benzyl Chloride	0.3124	0.1639	48	TM	
90	TM	1,3-DCB	0.5820	0.5001	14	TM	
91	TM	1,4-DCB	0.8814	0.7929	10	TM	
92	TM	n-Butylbenzene	1.016	0.8089	20	TM	
93	TM	1,2-DCB	0.5295	0.4926	7.0	TM	
94	TM	Hexachloroethane	0.1627	0.1709	5.0	TM	
95	TML	1,2-Dibromo-3-chloropropane	0.0623	0.0546	12	TML	5.5
96	TM	1,2,4-Trichlorobenzene	0.3177	0.2512	21	TM	
97	TM	Hexachlorobutadiene	0.1945	0.1722	11	TM	
98	TM	Naphthalene	0.8033	0.6160	23	TM	
99	TML	1,2,3-Trichlorobenzene	0.4030	0.3535	12	TML	21
100							
101							
102							
103							
104							
105							
106							
107							
108							
109							
110							
111							
112							
113							
114							
115							
116							
117							
118							
119							
120							
		Average			13.3		

Quantitation Report (Not Reviewed)

Data File : M:\THOR\DATA\T191028\1101T54.D Vial: 52
Acq On : 2 Nov 19 14:17 Operator:
Sample : Ending CCV 10ug/L 11/1/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Nov 4 12:11 2019 Quant Results File: T1023W.RES

Quant Method : M:\THOR\DATA\T191023\T1023W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:55:52 2019
Response via : Initial Calibration
DataAcq Meth : T8260

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene (IS)	6.59	96	127256	25.00	ppb		0.00
65) Chlorobenzene-D5 (IS)	9.74	117	115520	25.00	ppb		0.00
80) 1,4-Dichlorobenzene-D (IS)	12.06	152	69184	25.00	ppb		0.00
System Monitoring Compounds							
40) Dibromofluoromethane(S)	5.78	111	60217	24.55	ppb		0.00
Spiked Amount 25.000			Recovery =	98.196%			
45) 1,2-DCA-D4(S)	6.17	65	68282	24.86	ppb		0.00
Spiked Amount 25.000			Recovery =	99.444%			
66) Toluene-D8(S)	8.30	98	215639	25.00	ppb		0.00
Spiked Amount 25.000			Recovery =	99.984%			
74) 4-Bromofluorobenzene(S)	10.91	174	86601	25.36	ppb		0.00
Spiked Amount 25.000			Recovery =	101.428%			
Target Compounds							Qvalue
3) Dichlorodifluoromethane	1.20	85	9928	8.42	ppb		97
4) Freon 114	1.32	85	6522	12.59	ppb		96
5) Chloromethane	1.36	50	10722	11.53	ppb		100
6) Vinyl chloride	1.46	62	8141	9.43	ppb		100
8) Bromomethane	1.75	96	5114	9.91	ppb		99
9) Chloroethane	1.86	64	6453	10.43	ppb		91
10) Dichlorofluoromethane	2.06	67	15518	9.90	ppb		100
11) Trichlorofluoromethane	2.12	101	16082	10.00	ppb		92
13) Acrolein	2.55	55	4561	93.64	ppb		99
14) Acetone	2.73	43	3672	11.72	ppb		95
15) Freon-113	2.70	101	7341	11.09	ppb		84
16) 1,1-DCE	2.66	61	11702	10.27	ppb		94
18) Acetonitrile	3.05	41	12075	116.60	ppb		97
19) t-Butanol	3.52	59	9459	111.99	ppb		94
20) Methyl Acetate	3.18	43	5974	10.46	ppb		99
21) Iodomethane	2.82	142	1404	4.94	ppb		97
22) Acrylonitrile	3.61	53	2913	9.99	ppb		93
23) Methylene chloride	3.26	49	10208	9.80	ppb		97
24) Carbon disulfide	2.89	76	21510	11.00	ppb	#	94
25) Methyl t-butyl ether (MtBE	3.72	73	24001	9.34	ppb	#	94
26) Trans-1,2-DCE	3.67	61	11380	10.21	ppb		98
28) Diisopropyl Ether	4.54	45	8406	8.68	ppb		93
30) 1,1-DCA	4.32	63	6143	9.63	ppb		97
31) Vinyl Acetate	4.54	87	7261	9.49	ppb		98
32) Ethyl tert Butyl Ether	5.05	59	23623	9.06	ppb		90
33) MEK (2-Butanone)	5.22	43	3315	10.00	ppb		92
34) Cis-1,2-DCE	5.15	61	13802	10.22	ppb		98
35) 2,2-Dichloropropane	5.15	77	4320	7.96	ppb		98
38) Chloroform	5.59	83	8993	10.16	ppb		100
39) Bromochloromethane	5.46	130	3856	10.15	ppb		91
41) 1,1,1-TCA	5.80	97	7905	10.70	ppb		95
42) Cyclohexane	5.88	84	9153	8.99	ppb		86
43) 1,1-Dichloropropene	6.01	75	10534	9.47	ppb		96
44) 2,2,4-Trimethylpentane	6.41	57	6548	8.42	ppb		97
46) Carbon Tetrachloride	6.01	119	13886	10.54	ppb		89
47) Tert Amyl Methyl Ether	6.45	73	23466	8.86	ppb	#	92
49) 1,2-DCA	6.26	62	7692	10.06	ppb		94
50) Benzene	6.25	78	34645	9.57	ppb		99
51) TCE	7.00	130	13493	12.01	ppb		93

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\THOR\DATA\T191028\1101T54.D Vial: 52
Acq On : 2 Nov 19 14:17 Operator:
Sample : Ending CCV 10ug/L 11/1/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Nov 4 12:11 2019 Quant Results File: T1023W.RES

Quant Method : M:\THOR\DATA\T191023\T1023W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:55:52 2019
Response via : Initial Calibration
DataAcq Meth : T8260

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
52)	2-Pentanone	7.22	43	64211	113.48	ppb		98
53)	1,2-Dichloropropane	7.23	63	8594	9.34	ppb		99
54)	Bromodichloromethane	7.54	83	12925	9.17	ppb	#	95
55)	Methyl Cyclohexane	7.22	83	10090	8.99	ppb		100
56)	Dibromomethane	7.34	174	7453	9.13	ppb		99
57)	MIBK (methyl isobutyl ket	9.04	43	2364	8.20	ppb	#	87
58)	1-Bromo-2-chloroethane	7.84	63	11213	9.45	ppb		91
60)	Cis-1,3-Dichloropropene	8.01	75	12308	8.35	ppb		93
61)	Toluene	8.36	91	38264	9.32	ppb		95
62)	Trans-1,3-Dichloropropene	8.59	75	8185	8.89	ppb		97
63)	1,1,2-TCA	8.77	97	9059	9.84	ppb		96
64)	2-Hexanone	8.20	43	3610	8.45	ppb		100
67)	1,2-EDB	9.26	107	5361	9.69	ppb		86
68)	Tetrachloroethene	8.92	166	11567	10.57	ppb		96
69)	1-Chlorohexane	9.77	91	8849	8.76	ppb		93
70)	1,1,1,2-Tetrachloroethane	9.86	131	11691	10.46	ppb		92
71)	m&p-Xylene	10.02	91	64031	19.14	ppb		97
72)	o-Xylene	10.40	91	33571	9.39	ppb		98
73)	Styrene	10.41	104	22780	8.98	ppb		100
75)	1,3-Dichloropropane	8.93	76	13975	9.70	ppb		99
76)	Dibromochloromethane	9.15	129	11305	10.09	ppb		94
77)	Chlorobenzene	9.77	112	16552	9.72	ppb		95
78)	Ethylbenzene	9.89	91	39547	9.47	ppb		98
79)	Bromoform	10.57	173	9157	10.14	ppb	#	68
81)	Isopropylbenzene	10.78	105	37508	8.82	ppb		99
82)	1,1,2,2-Tetrachloroethane	11.05	83	10391	9.30	ppb		96
83)	1,2,3-Trichloropropane	11.09	110	3903	10.31	ppb		94
84)	t-1,4-Dichloro-2-Butene	11.11	53	1766	7.67	ppb	#	88
85)	Bromobenzene	11.05	77	10380	9.37	ppb		89
86)	n-Propylbenzene	11.19	91	42338	8.96	ppb		97
87)	4-Ethyltoluene	11.30	105	37274	9.19	ppb		98
88)	2-Chlorotoluene	11.26	91	17851	9.11	ppb		95
89)	1,3,5-Trimethylbenzene	11.37	105	32979	9.15	ppb		99
90)	4-Chlorotoluene	11.37	91	22088	9.91	ppb		97
91)	Tert-Butylbenzene	11.69	119	30050	9.24	ppb		96
92)	1,2,4-Trimethylbenzene	11.74	105	31251	8.46	ppb		97
93)	Sec-Butylbenzene	11.91	105	38363	9.10	ppb		99
94)	p-Isopropyltoluene	12.06	119	32586	8.80	ppb		98
95)	Benzyl Chloride	12.22	91	4537	5.25	ppb		99
96)	1,3-DCB	12.00	146	13839	8.59	ppb		100
97)	1,4-DCB	12.09	146	21942	9.00	ppb		98
98)	n-Butylbenzene	12.46	91	22385	7.96	ppb		88
99)	1,2-DCB	12.45	146	13631	9.30	ppb		97
100)	Hexachloroethane	12.72	117	4730	10.50	ppb		94
101)	1,2-Dibromo-3-chloropropan	13.22	157	1512	9.45	ppb		87
102)	1,2,4-Trichlorobenzene	14.06	182	6953	7.91	ppb		98
103)	Hexachlorobutadiene	14.25	225	4765	8.85	ppb		89
104)	Naphthalene	14.30	128	17046	7.67	ppb		98
105)	1,2,3-Trichlorobenzene	14.54	182	9782	7.88	ppb		85

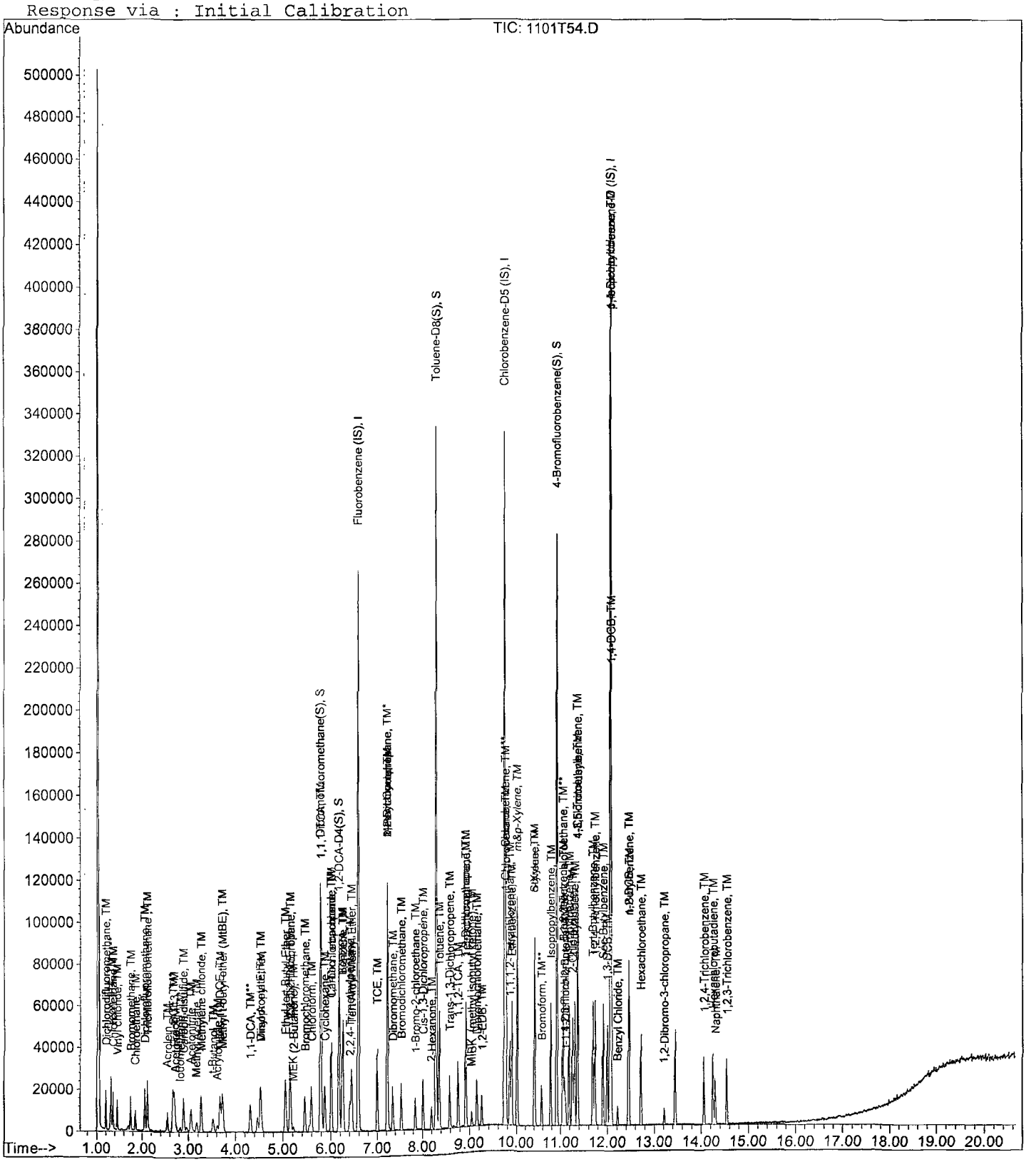
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\THOR\DATA\T191028\1101T54.D Vial: 52
Acq On : 2 Nov 19 14:17 Operator:
Sample : Ending CCV 10ug/L 11/1/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Nov 4 12:11 2019 Quant Results File: T1023W.RES

Method : M:\THOR\DATA\T191023\T1023W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:55:52 2019
Response via : Initial Calibration



ORGANICS
Raw Data

Quantitation Report (QT Reviewed)

Data File : M:\THOR\DATA\T191028\1101T50.D Vial: 48
Acq On : 2 Nov 19 12:24 Operator:
Sample : BA02213W01 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Nov 4 13:59 2019 Quant Results File: T1023W.RES

Quant Method : M:\THOR\DATA\T191023\T1023W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:55:52 2019
Response via : Initial Calibration
DataAcq Meth : T8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	6.59	96	126256	25.00	ppb	0.00
65) Chlorobenzene-D5 (IS)	9.74	117	114600	25.00	ppb	0.00
80) 1,4-Dichlorobenzene-D (IS)	12.06	152	61336	25.00	ppb	0.00
System Monitoring Compounds						
40) Dibromofluoromethane(S)	5.79	111	59567	24.48	ppb	0.00
Spiked Amount 25.000			Recovery = 97.904%			
45) 1,2-DCA-D4(S)	6.17	65	67540	24.79	ppb	0.00
Spiked Amount 25.000			Recovery = 99.144%			
66) Toluene-D8(S)	8.30	98	207081	24.20	ppb	0.00
Spiked Amount 25.000			Recovery = 96.788%			
74) 4-Bromofluorobenzene(S)	10.91	174	81597	24.08	ppb	0.00
Spiked Amount 25.000			Recovery = 96.336%			

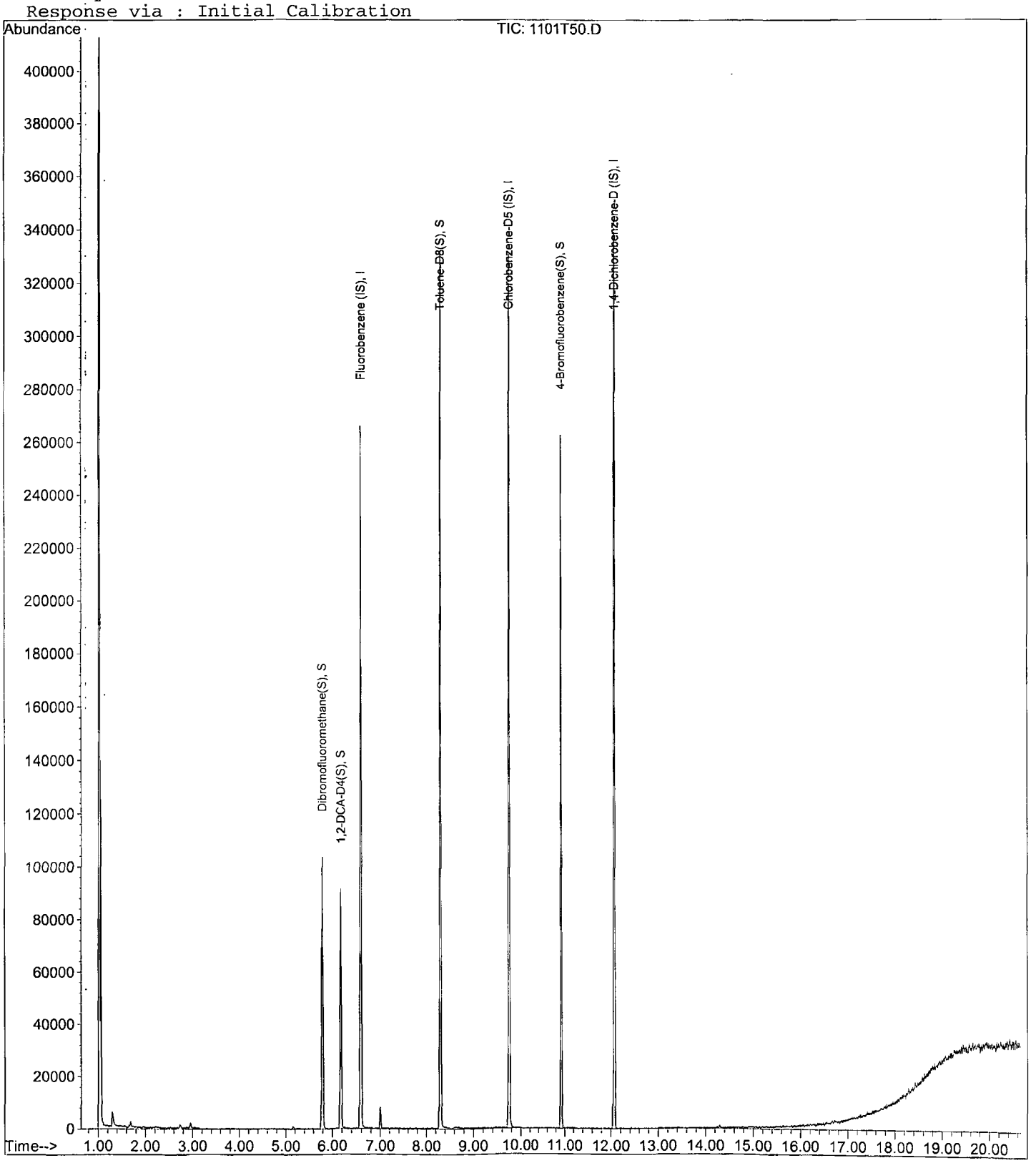
Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration

Data File : M:\THOR\DATA\T191028\1101T50.D Vial: 48
Acq On : 2 Nov 19 12:24 Operator:
Sample : BA02213W01 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Nov 4 13:59 2019 Quant Results File: T1023W.RES

Method : M:\THOR\DATA\T191023\T1023W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:55:52 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\THOR\DATA\T191028\1101T51.D Vial: 49
Acq On : 2 Nov 19 12:52 Operator:
Sample : BA02214W01 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Nov 4 13:59 2019 Quant Results File: T1023W.RES

Quant Method : M:\THOR\DATA\T191023\T1023W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:55:52 2019
Response via : Initial Calibration
DataAcq Meth : T8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	6.59	96	137984	25.00	ppb	0.00
65) Chlorobenzene-D5 (IS)	9.74	117	123512	25.00	ppb	0.00
80) 1,4-Dichlorobenzene-D (IS)	12.06	152	68592	25.00	ppb	0.00
System Monitoring Compounds						
40) Dibromofluoromethane(S)	5.79	111	59396	22.33	ppb	0.00
Spiked Amount 25.000			Recovery = 89.328%			
45) 1,2-DCA-D4(S)	6.17	65	69326	23.28	ppb	0.00
Spiked Amount 25.000			Recovery = 93.116%			
66) Toluene-D8(S)	8.30	98	207074	22.45	ppb	0.00
Spiked Amount 25.000			Recovery = 89.800%			
74) 4-Bromofluorobenzene(S)	10.92	174	81275	22.26	ppb	0.00
Spiked Amount 25.000			Recovery = 89.032%			
Target Compounds						Qvalue

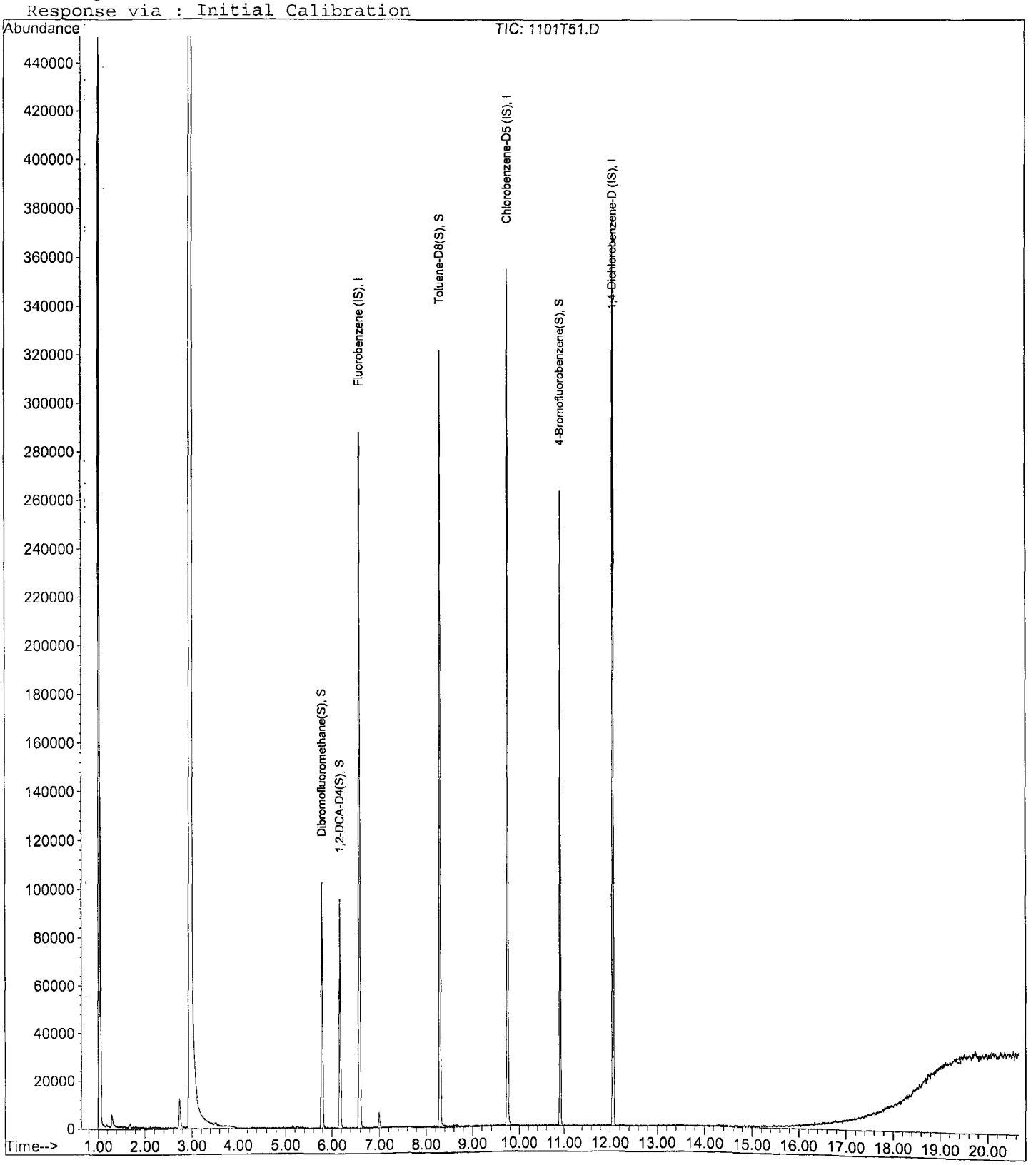
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\THOR\DATA\T191028\1101T51.D Vial: 49
Acq On : 2 Nov 19 12:52 Operator:
Sample : BA02214W01 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Nov 4 13:59 2019 Quant Results File: T1023W.RES

Method : M:\THOR\DATA\T191023\T1023W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:55:52 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\THOR\DATA\T191028\1101T52.D Vial: 50
Acq On : 2 Nov 19 13:21 Operator:
Sample : BA02215W01 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Nov 4 14:00 2019 Quant Results File: T1023W.RES

Quant Method : M:\THOR\DATA\T191023\T1023W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:55:52 2019
Response via : Initial Calibration
DataAcq Meth : T8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	6.59	96	121728	25.00	ppb	0.00
65) Chlorobenzene-D5 (IS)	9.74	117	111648	25.00	ppb	0.00
80) 1,4-Dichlorobenzene-D (IS)	12.06	152	61584	25.00	ppb	0.00
System Monitoring Compounds						
40) Dibromofluoromethane(S)	5.78	111	61750	26.32	ppb	0.00
Spiked Amount 25.000			Recovery = 105.268%			
45) 1,2-DCA-D4(S)	6.17	65	68044	25.90	ppb	0.00
Spiked Amount 25.000			Recovery = 103.596%			
66) Toluene-D8(S)	8.30	98	209654	25.15	ppb	0.00
Spiked Amount 25.000			Recovery = 100.580%			
74) 4-Bromofluorobenzene(S)	10.92	174	80482	24.38	ppb	0.00
Spiked Amount 25.000			Recovery = 97.532%			

Target Compounds Qvalue

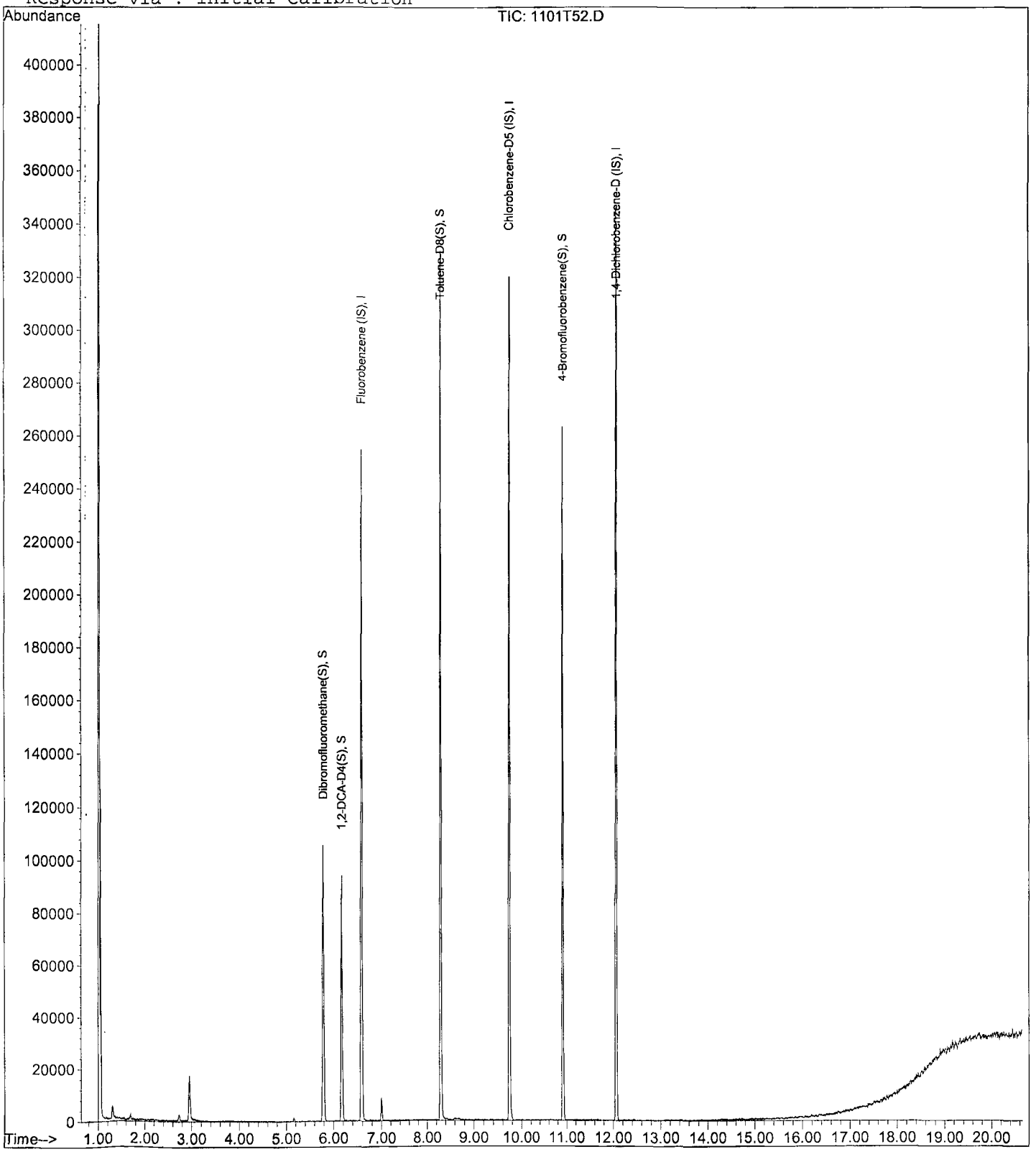
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\THOR\DATA\T191028\1101T52.D Vial: 50
Acq On : 2 Nov 19 13:21 Operator:
Sample : BA02215W01 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Nov 4 14:00 2019 Quant Results File: T1023W.RES

Method : M:\THOR\DATA\T191023\T1023W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:55:52 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\THOR\DATA\T191028\1101T53.D Vial: 51
Acq On : 2 Nov 19 13:49 Operator:
Sample : BA02216W01 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Nov 4 14:00 2019 Quant Results File: T1023W.RES

Quant Method : M:\THOR\DATA\T191023\T1023W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:55:52 2019
Response via : Initial Calibration
DataAcq Meth : T8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	6.59	96	122360	25.00	ppb	0.00
65) Chlorobenzene-D5 (IS)	9.74	117	116616	25.00	ppb	0.00
80) 1,4-Dichlorobenzene-D (IS)	12.06	152	64728	25.00	ppb	0.00
System Monitoring Compounds						
40) Dibromofluoromethane(S)	5.79	111	59581	25.26	ppb	0.00
Spiked Amount 25.000			Recovery = 101.048%			
45) 1,2-DCA-D4(S)	6.17	65	66928	25.34	ppb	0.00
Spiked Amount 25.000			Recovery = 101.372%			
66) Toluene-D8(S)	8.30	98	207574	23.84	ppb	0.00
Spiked Amount 25.000			Recovery = 95.340%			
74) 4-Bromofluorobenzene(S)	10.92	174	81007	23.50	ppb	0.00
Spiked Amount 25.000			Recovery = 93.988%			

Target Compounds Qvalue

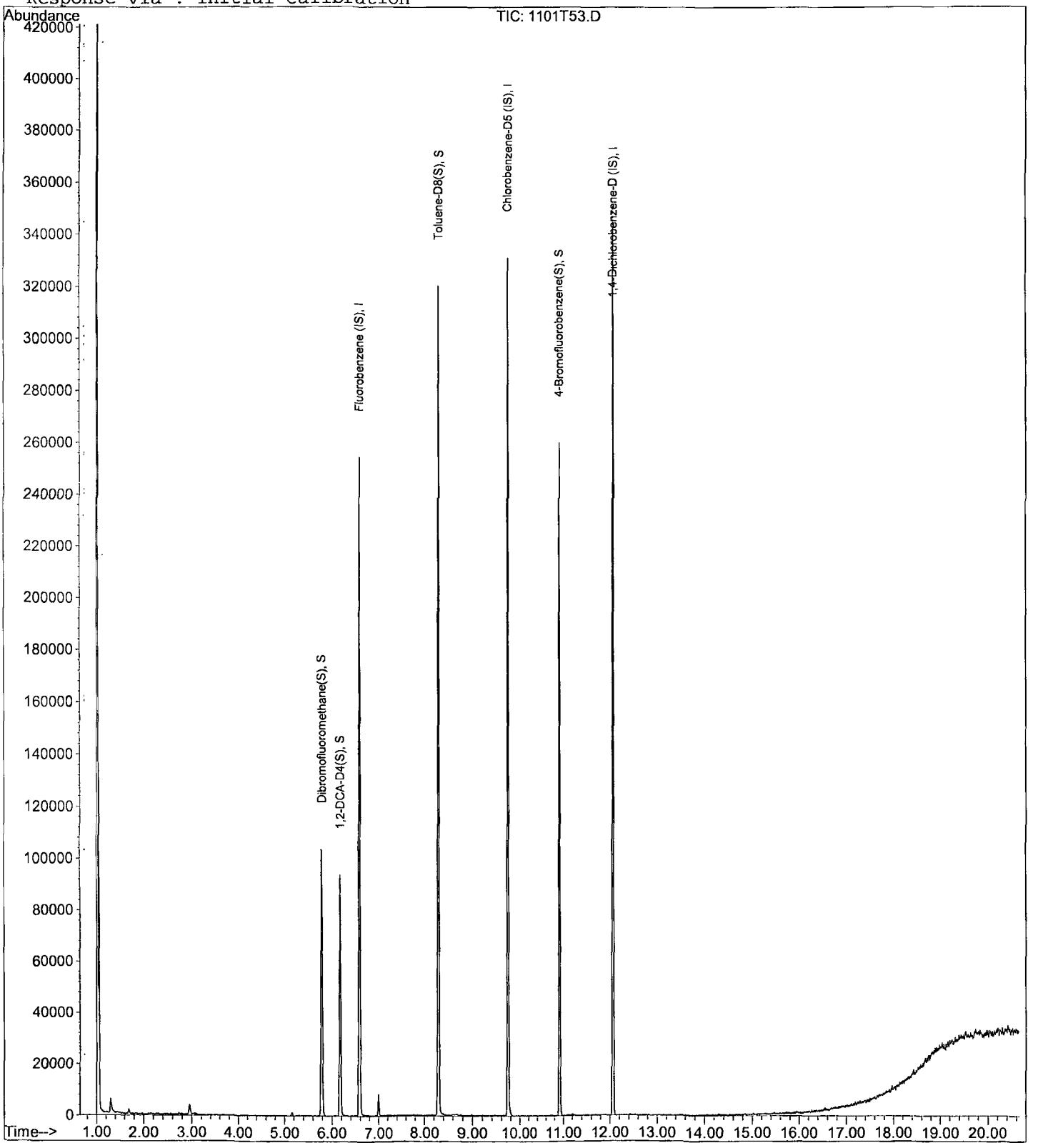
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\THOR\DATA\T191028\1101T53.D Vial: 51
Acq On : 2 Nov 19 13:49 Operator:
Sample : BA02216W01 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Nov 4 14:00 2019 Quant Results File: T1023W.RES

Method : M:\THOR\DATA\T191023\T1023W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:55:52 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\THOR\DATA\T191028\1101T40.D Vial: 38
Acq On : 2 Nov 19 7:41 Operator:
Sample : 191101B BLK Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Nov 4 13:44 2019 Quant Results File: T1023W.RES

Quant Method : M:\THOR\DATA\T191023\T1023W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:55:52 2019
Response via : Initial Calibration
DataAcq Meth : T8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	6.59	96	134144	25.00	ppb	0.00
65) Chlorobenzene-D5 (IS)	9.74	117	118384	25.00	ppb	0.00
80) 1,4-Dichlorobenzene-D (IS)	12.06	152	66672	25.00	ppb	0.00
System Monitoring Compounds						
40) Dibromofluoromethane(S)	5.78	111	60076	23.23	ppb	0.00
Spiked Amount 25.000			Recovery = 92.936%			
45) 1,2-DCA-D4(S)	6.17	65	67793	23.42	ppb	0.00
Spiked Amount 25.000			Recovery = 93.664%			
66) Toluene-D8(S)	8.30	98	214506	24.26	ppb	0.00
Spiked Amount 25.000			Recovery = 97.052%			
74) 4-Bromofluorobenzene(S)	10.92	174	82974	23.71	ppb	0.00
Spiked Amount 25.000			Recovery = 94.832%			

Target Compounds Qvalue

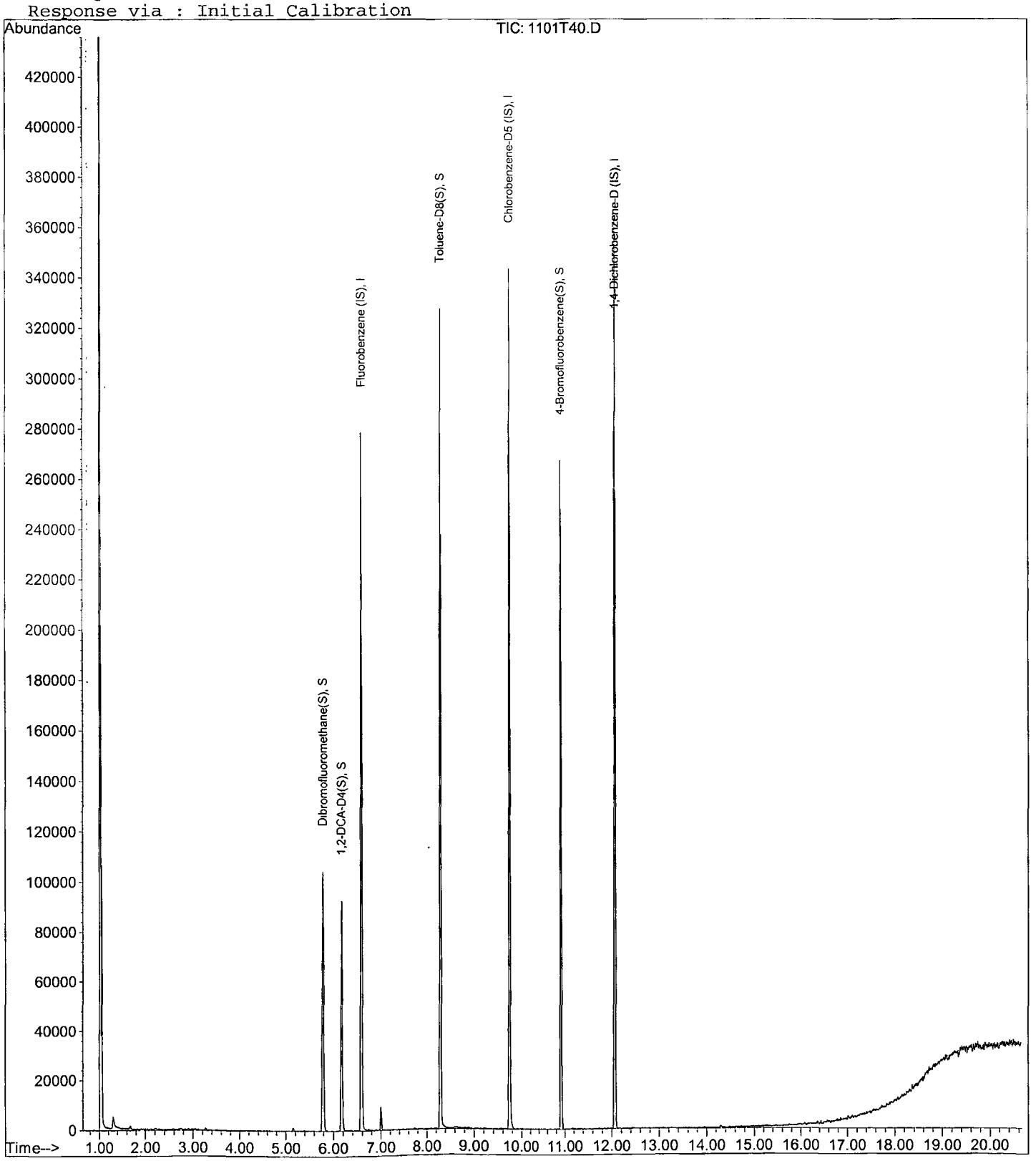
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\THOR\DATA\T191028\1101T40.D Vial: 38
Acq On : 2 Nov 19 7:41 Operator:
Sample : 191101B BLK Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Nov 4 13:44 2019 Quant Results File: T1023W.RES

Method : M:\THOR\DATA\T191023\T1023W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:55:52 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\THOR\DATA\T191028\1101T32.D Vial: 30
Acq On : 2 Nov 19 3:55 Operator:
Sample : 191101B LCS 10ug/L Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Nov 4 12:10 2019 Quant Results File: T1023W.RES

Quant Method : M:\THOR\DATA\T191023\T1023W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:55:52 2019
Response via : Initial Calibration
DataAcq Meth : T8260

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene (IS)	6.59	96	130328	25.00	ppb		0.00
65) Chlorobenzene-D5 (IS)	9.74	117	114384	25.00	ppb		0.00
80) 1,4-Dichlorobenzene-D (IS)	12.06	152	68736	25.00	ppb		0.00
System Monitoring Compounds							
40) Dibromofluoromethane(S)	5.78	111	61123	24.33	ppb		0.00
Spiked Amount 25.000			Recovery = 97.324%				
45) 1,2-DCA-D4(S)	6.17	65	68505	24.35	ppb		0.00
Spiked Amount 25.000			Recovery = 97.416%				
66) Toluene-D8(S)	8.29	98	218540	25.58	ppb		0.00
Spiked Amount 25.000			Recovery = 102.336%				
74) 4-Bromofluorobenzene(S)	10.92	174	87489	25.87	ppb		0.00
Spiked Amount 25.000			Recovery = 103.488%				
Target Compounds							Qvalue
3) Dichlorodifluoromethane	1.20	85	10250	8.48	ppb		99
4) Freon 114	1.32	85	6788	12.81	ppb		95
5) Chloromethane	1.36	50	10275	10.72	ppb		95
6) Vinyl chloride	1.46	62	8037	9.09	ppb		94
8) Bromomethane	1.75	96	5081	9.61	ppb		96
9) Chloroethane	1.86	64	6778	10.73	ppb		96
10) Dichlorofluoromethane	2.06	67	15776	9.83	ppb		93
11) Trichlorofluoromethane	2.11	101	15869	9.64	ppb		97
13) Acrolein	2.54	55	4471	89.63	ppb		82
14) Acetone	2.73	43	3233	10.07	ppb	#	87
15) Freon-113	2.69	101	7325	10.78	ppb		91
16) 1,1-DCE	2.66	61	10947	9.38	ppb		95
18) Acetonitrile	3.05	41	10304	96.61	ppb	#	95
19) t-Butanol	3.52	59	7660	88.55	ppb		97
20) Methyl Acetate	3.17	43	4845	7.97	ppb		98
21) Iodomethane	2.82	142	3162	6.81	ppb		99
22) Acrylonitrile	3.60	53	2496	8.36	ppb	#	76
23) Methylene chloride	3.26	49	10628	9.99	ppb		94
24) Carbon disulfide	2.89	76	21392	10.68	ppb		97
25) Methyl t-butyl ether (MtBE	3.72	73	23509	8.89	ppb	#	94
26) Trans-1,2-DCE	3.67	61	11061	9.69	ppb		90
28) Diisopropyl Ether	4.53	45	8643	8.71	ppb		94
30) 1,1-DCA	4.32	63	6216	9.50	ppb		98
31) Vinyl Acetate	4.53	87	7700	9.85	ppb		100
32) Ethyl tert Butyl Ether	5.05	59	22591	8.46	ppb		91
33) MEK (2-Butanone)	5.21	43	2702	7.96	ppb		95
34) Cis-1,2-DCE	5.15	61	13775	9.96	ppb		97
35) 2,2-Dichloropropane	5.15	77	5059	9.15	ppb		93
38) Chloroform	5.59	83	8682	9.58	ppb		96
39) Bromochloromethane	5.45	130	3742	9.62	ppb		96
41) 1,1,1-TCA	5.80	97	7917	10.44	ppb		96
42) Cyclohexane	5.88	84	9417	9.03	ppb		79
43) 1,1-Dichloropropene	6.01	75	10527	9.24	ppb		93
44) 2,2,4-Trimethylpentane	6.41	57	6106	7.63	ppb		94
46) Carbon Tetrachloride	6.01	119	13497	9.96	ppb		93
47) Tert Amyl Methyl Ether	6.45	73	23222	8.56	ppb		94
49) 1,2-DCA	6.26	62	7141	9.00	ppb		98
50) Benzene	6.25	78	34163	9.21	ppb		99
51) TCE	7.00	130	14306	12.43	ppb		94

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\THOR\DATA\T191028\1101T32.D Vial: 30
Acq On : 2 Nov 19 3:55 Operator:
Sample : 191101B LCS 10ug/L Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Nov 4 12:10 2019 Quant Results File: T1023W.RES

Quant Method : M:\THOR\DATA\T191023\T1023W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:55:52 2019
Response via : Initial Calibration
DataAcq Meth : T8260

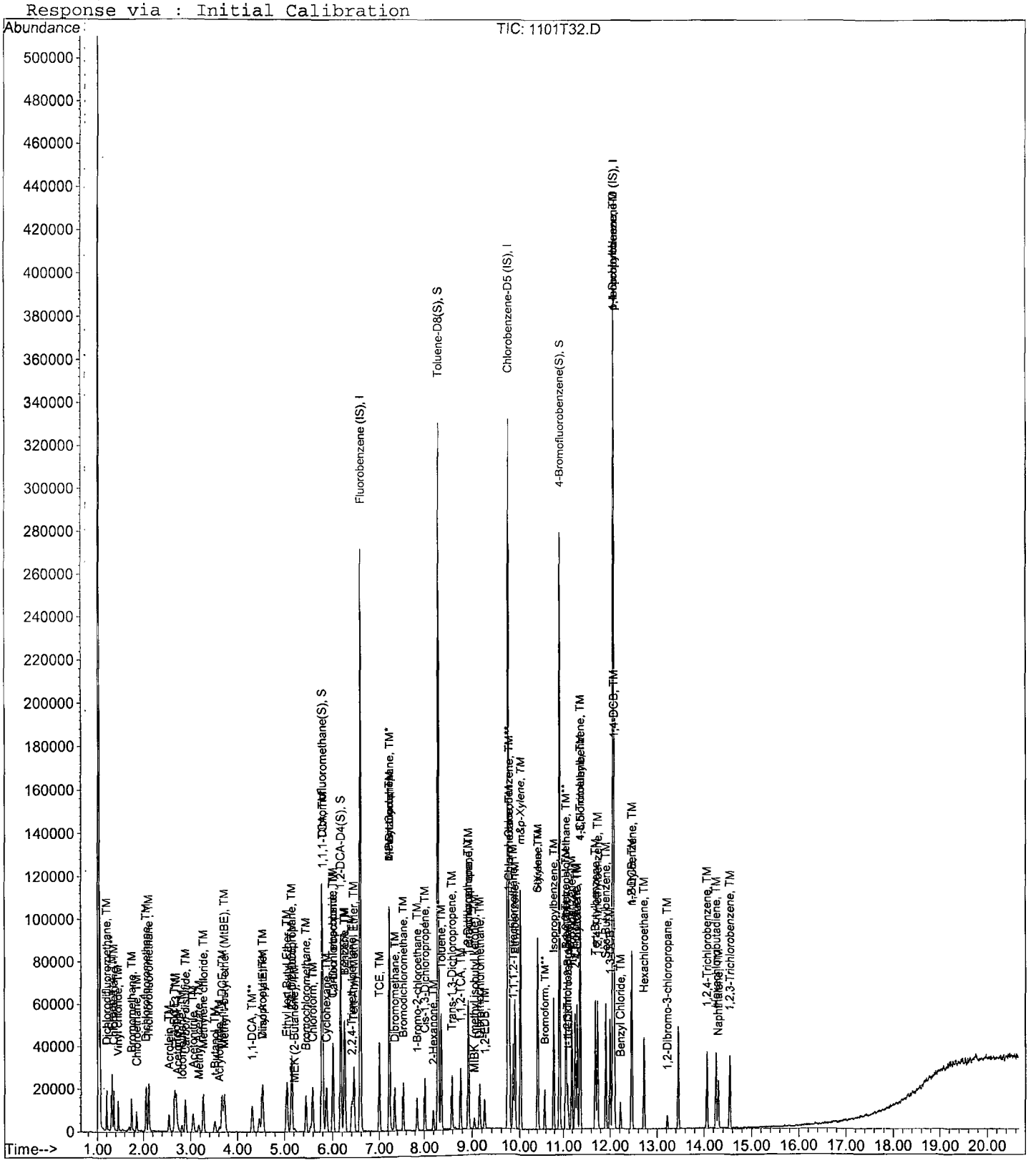
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
52)	2-Pentanone	7.22	43	55066	95.02	ppb		100
53)	1,2-Dichloropropane	7.23	63	8873	9.41	ppb	#	98
54)	Bromodichloromethane	7.53	83	13127	9.10	ppb	#	95
55)	Methyl Cyclohexane	7.22	83	10403	9.05	ppb		98
56)	Dibromomethane	7.34	174	7837	9.38	ppb		93
57)	MIBK (methyl isobutyl ket	9.04	43	1939	6.67	ppb	#	83
58)	1-Bromo-2-chloroethane	7.85	63	11010	9.06	ppb		99
60)	Cis-1,3-Dichloropropene	8.01	75	13154	8.72	ppb		96
61)	Toluene	8.36	91	37705	8.97	ppb		94
62)	Trans-1,3-Dichloropropene	8.59	75	8105	8.59	ppb		95
63)	1,1,2-TCA	8.77	97	9380	9.95	ppb		97
64)	2-Hexanone	8.20	43	3250	7.51	ppb		94
67)	1,2-EDB	9.26	107	4900	8.95	ppb		95
68)	Tetrachloroethene	8.92	166	12357	11.40	ppb		96
69)	1-Chlorohexane	9.77	91	9388	9.41	ppb		95
70)	1,1,1,2-Tetrachloroethane	9.85	131	10821	9.78	ppb		89
71)	m&p-Xylene	10.02	91	65010	19.62	ppb		100
72)	o-Xylene	10.41	91	33702	9.52	ppb		100
73)	Styrene	10.41	104	23492	9.35	ppb		99
75)	1,3-Dichloropropane	8.93	76	13171	9.23	ppb		98
76)	Dibromochloromethane	9.15	129	11103	10.01	ppb		96
77)	Chlorobenzene	9.77	112	17368	10.30	ppb		98
78)	Ethylbenzene	9.89	91	38771	9.38	ppb		100
79)	Bromoform	10.58	173	9025	10.09	ppb		92
81)	Isopropylbenzene	10.78	105	39118	9.26	ppb		98
82)	1,1,2,2-Tetrachloroethane	11.05	83	9374	8.44	ppb		97
83)	1,2,3-Trichloropropane	11.09	110	3647	9.63	ppb		89
84)	t-1,4-Dichloro-2-Butene	11.11	53	1769	7.74	ppb		91
85)	Bromobenzene	11.06	77	10124	9.20	ppb		87
86)	n-Propylbenzene	11.19	91	42593	9.07	ppb		99
87)	4-Ethyltoluene	11.31	105	36719	9.12	ppb		97
88)	2-Chlorotoluene	11.26	91	19328	9.93	ppb		96
89)	1,3,5-Trimethylbenzene	11.37	105	33395	9.33	ppb		95
90)	4-Chlorotoluene	11.37	91	21376	9.65	ppb		93
91)	Tert-Butylbenzene	11.69	119	29840	9.23	ppb		99
92)	1,2,4-Trimethylbenzene	11.74	105	32964	8.98	ppb		94
93)	Sec-Butylbenzene	11.91	105	37722	9.01	ppb		98
94)	p-Isopropyltoluene	12.06	119	33034	8.98	ppb		97
95)	Benzyl Chloride	12.22	91	6084	7.08	ppb		95
96)	1,3-DCB	12.00	146	14481	9.05	ppb		98
97)	1,4-DCB	12.09	146	23408	9.66	ppb		97
98)	n-Butylbenzene	12.47	91	24872	8.90	ppb		97
99)	1,2-DCB	12.45	146	13677	9.39	ppb		94
100)	Hexachloroethane	12.72	117	4339	9.70	ppb		90
101)	1,2-Dibromo-3-chloropropan	13.22	157	1434	9.01	ppb	#	76
102)	1,2,4-Trichlorobenzene	14.06	182	7704	8.82	ppb		99
103)	Hexachlorobutadiene	14.25	225	5422	10.14	ppb		97
104)	Naphthalene	14.30	128	17587	7.96	ppb		96
105)	1,2,3-Trichlorobenzene	14.54	182	11045	8.99	ppb	#	82

(#) = qualifier out of range (m) = manual integration

Data File : M:\THOR\DATA\T191028\1101T32.D Vial: 30
Acq On : 2 Nov 19 3:55 Operator:
Sample : 191101B LCS 10ug/L Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Nov 4 12:10 2019 Quant Results File: T1023W.RES

Method : M:\THOR\DATA\T191023\T1023W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:55:52 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\THOR\DATA\T191028\1101T33.D Vial: 31
Acq On : 2 Nov 19 4:23 Operator:
Sample : 191101B LCSD 10ug/L Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Nov 4 12:10 2019 Quant Results File: T1023W.RES

Quant Method : M:\THOR\DATA\T191023\T1023W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:55:52 2019
Response via : Initial Calibration
DataAcq Meth : T8260

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene (IS)	6.59	96	138752	25.00	ppb		0.00
65) Chlorobenzene-D5 (IS)	9.74	117	128328	25.00	ppb		0.00
80) 1,4-Dichlorobenzene-D (IS)	12.06	152	74504	25.00	ppb		0.00
System Monitoring Compounds							
40) Dibromofluoromethane(S)	5.78	111	61542	23.01	ppb		0.00
Spiked Amount 25.000			Recovery = 92.044%				
45) 1,2-DCA-D4(S)	6.17	65	67608	22.58	ppb		0.00
Spiked Amount 25.000			Recovery = 90.304%				
66) Toluene-D8(S)	8.29	98	216668	22.61	ppb		0.00
Spiked Amount 25.000			Recovery = 90.436%				
74) 4-Bromofluorobenzene(S)	10.92	174	89376	23.56	ppb		0.00
Spiked Amount 25.000			Recovery = 94.232%				
Target Compounds							Qvalue
3) Dichlorodifluoromethane	1.20	85	9792	7.61	ppb		95
4) Freon 114	1.32	85	6026	10.46	ppb		91
5) Chloromethane	1.36	50	10755	10.52	ppb		94
6) Vinyl chloride	1.46	62	7538	8.01	ppb		92
8) Bromomethane	1.75	96	4882	8.64	ppb		92
9) Chloroethane	1.86	64	6157	8.94	ppb		94
10) Dichlorofluoromethane	2.06	67	15253	8.93	ppb		91
11) Trichlorofluoromethane	2.12	101	16016	9.13	ppb		97
13) Acrolein	2.54	55	4291	80.80	ppb		95
14) Acetone	2.73	43	3035	8.88	ppb		96
15) Freon-113	2.70	101	7347	10.11	ppb	#	90
16) 1,1-DCE	2.67	61	11156	8.98	ppb		98
18) Acetonitrile	3.05	41	10905	96.02	ppb	#	95
19) t-Butanol	3.51	59	7483	81.25	ppb		93
20) Methyl Acetate	3.17	43	4910	7.52	ppb		94
21) Iodomethane	2.82	142	3786	7.24	ppb		97
22) Acrylonitrile	3.61	53	2517	7.92	ppb	#	71
23) Methylene chloride	3.27	49	10869	9.54	ppb		96
24) Carbon disulfide	2.89	76	20950	9.81	ppb		96
25) Methyl t-butyl ether (MtBE	3.72	73	23741	8.38	ppb		98
26) Trans-1,2-DCE	3.67	61	11218	9.23	ppb		98
28) Diisopropyl Ether	4.54	45	8328	7.88	ppb		96
30) 1,1-DCA	4.31	63	5946	8.40	ppb		97
31) Vinyl Acetate	4.54	87	7549	9.02	ppb		96
32) Ethyl tert Butyl Ether	5.05	59	23461	8.25	ppb		93
33) MEK (2-Butanone)	5.21	43	2799	7.74	ppb	#	72
34) Cis-1,2-DCE	5.16	61	13792	9.37	ppb		91
35) 2,2-Dichloropropane	5.15	77	5159	8.75	ppb		96
38) Chloroform	5.59	83	8378	8.68	ppb		95
39) Bromochloromethane	5.46	130	3541	8.55	ppb		91
41) 1,1,1-TCA	5.80	97	7275	8.87	ppb		92
42) Cyclohexane	5.87	84	9766	8.79	ppb		84
43) 1,1-Dichloropropene	6.01	75	11305	9.32	ppb		94
44) 2,2,4-Trimethylpentane	6.40	57	6565	7.71	ppb		93
46) Carbon Tetrachloride	6.01	119	13848	9.57	ppb		77
47) Tert Amyl Methyl Ether	6.45	73	22857	7.91	ppb		99
49) 1,2-DCA	6.26	62	7278	8.56	ppb		99
50) Benzene	6.24	78	34416	8.72	ppb		97
51) TCE	7.00	130	13639	11.14	ppb		93

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\THOR\DATA\T191028\1101T33.D Vial: 31
Acq On : 2 Nov 19 4:23 Operator:
Sample : 191101B LCSD 10ug/L Inst : Thor
Misc : : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Nov 4 12:10 2019 Quant Results File: T1023W.RES

Quant Method : M:\THOR\DATA\T191023\T1023W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:55:52 2019
Response via : Initial Calibration
DataAcq Meth : T8260

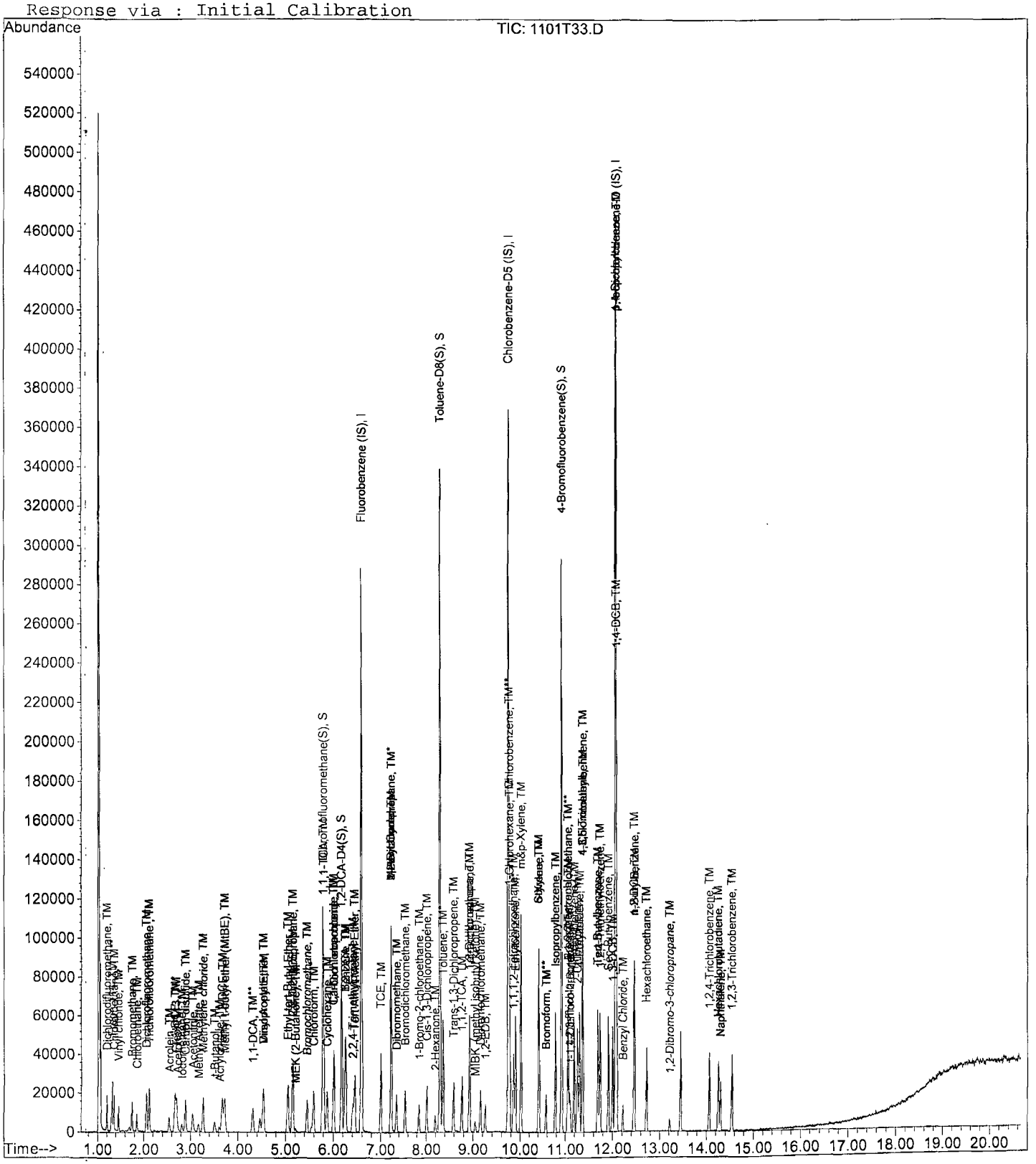
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
52)	2-Pentanone	7.22	43	55538	90.02	ppb		98
53)	1,2-Dichloropropane	7.22	63	8359	8.33	ppb		97
54)	Bromodichloromethane	7.53	83	13583	8.84	ppb		91
55)	Methyl Cyclohexane	7.22	83	10683	8.73	ppb		96
56)	Dibromomethane	7.34	174	8132	9.13	ppb		95
57)	MIBK (methyl isobutyl ket	9.04	43	2041	6.60	ppb		90
58)	1-Bromo-2-chloroethane	7.84	63	10878	8.41	ppb		97
60)	Cis-1,3-Dichloropropene	8.01	75	13090	8.15	ppb		98
61)	Toluene	8.36	91	39065	8.73	ppb		96
62)	Trans-1,3-Dichloropropene	8.59	75	8182	8.15	ppb		86
63)	1,1,2-TCA	8.77	97	8341	8.31	ppb		98
64)	2-Hexanone	8.20	43	3214	7.02	ppb		91
67)	1,2-EDB	9.26	107	5161	8.40	ppb		91
68)	Tetrachloroethene	8.92	166	12518	10.30	ppb		96
69)	1-Chlorohexane	9.77	91	9153	8.13	ppb		94
70)	1,1,1,2-Tetrachloroethane	9.85	131	11171	9.00	ppb		94
71)	m&p-Xylene	10.01	91	65573	17.64	ppb		98
72)	o-Xylene	10.40	91	33322	8.39	ppb		97
73)	Styrene	10.41	104	24035	8.53	ppb		95
75)	1,3-Dichloropropane	8.93	76	13557	8.47	ppb		98
76)	Dibromochloromethane	9.15	129	10788	8.66	ppb		96
77)	Chlorobenzene	9.77	112	16896	8.93	ppb		97
78)	Ethylbenzene	9.89	91	40997	8.84	ppb		99
79)	Bromoform	10.57	173	8768	8.76	ppb		95
81)	Isopropylbenzene	10.78	105	39164	8.56	ppb		95
82)	1,1,2,2-Tetrachloroethane	11.05	83	9588	7.97	ppb		98
83)	1,2,3-Trichloropropane	11.09	110	3604	8.68	ppb		93
84)	t-1,4-Dichloro-2-Butene	11.12	53	1615	6.39	ppb		90
85)	Bromobenzene	11.06	77	10979	9.21	ppb		91
86)	n-Propylbenzene	11.19	91	42738	8.40	ppb		97
87)	4-Ethyltoluene	11.30	105	38027	8.71	ppb		99
88)	2-Chlorotoluene	11.26	91	17992	8.53	ppb		94
89)	1,3,5-Trimethylbenzene	11.37	105	34027	8.77	ppb		98
90)	4-Chlorotoluene	11.37	91	22744	9.48	ppb		97
91)	Tert-Butylbenzene	11.69	119	31018	8.86	ppb		96
92)	1,2,4-Trimethylbenzene	11.74	105	34087	8.56	ppb		98
93)	Sec-Butylbenzene	11.91	105	38367	8.45	ppb		97
94)	p-Isopropyltoluene	12.06	119	33768	8.47	ppb		98
95)	Benzyl Chloride	12.22	91	6073	6.52	ppb		96
96)	1,3-DCB	12.00	146	14851	8.56	ppb		92
97)	1,4-DCB	12.09	146	24168	9.20	ppb		98
98)	n-Butylbenzene	12.46	91	25399	8.38	ppb		95
99)	1,2-DCB	12.45	146	14890	9.44	ppb		96
100)	Hexachloroethane	12.72	117	4721	9.74	ppb		98
101)	1,2-Dibromo-3-chloropropan	13.22	157	1292	7.42	ppb		84
102)	1,2,4-Trichlorobenzene	14.06	182	8712	9.20	ppb		97
103)	Hexachlorobutadiene	14.25	225	4806	8.29	ppb		91
104)	Naphthalene	14.30	128	19959	8.34	ppb		99
105)	1,2,3-Trichlorobenzene	14.54	182	12486	9.38	ppb	#	85

(#) = qualifier out of range (m) = manual integration

Data File : M:\THOR\DATA\T191028\1101T33.D Vial: 31
Acq On : 2 Nov 19 4:23 Operator:
Sample : 191101B LCSD 10ug/L Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

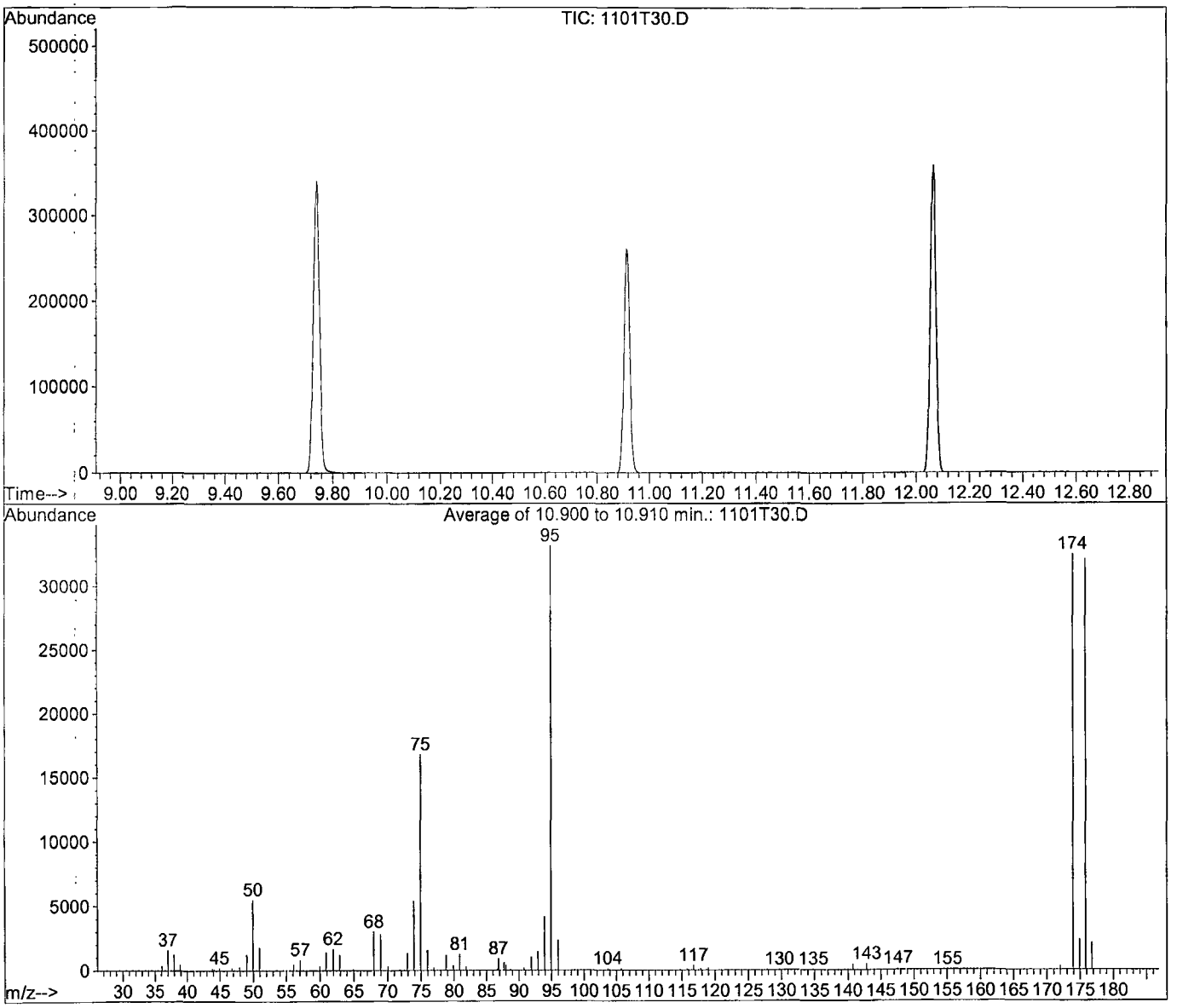
Quant Time: Nov 4 12:10 2019 Quant Results File: T1023W.RES

Method : M:\THOR\DATA\T191023\T1023W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:55:52 2019
Response via : Initial Calibration



Data File : M:\THOR\DATA\T191028\1101T30.D Vial: 28
Acq On : 2 Nov 19 2:59 Operator:
Sample : 25ug/L BFBSTD 9/24/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Method : M:\THOR\DATA\T191023\T1023W.M (RTE Integrator)
Title : METHOD 8260B



Spectrum Information: Average of 10.900 to 10.910 min.

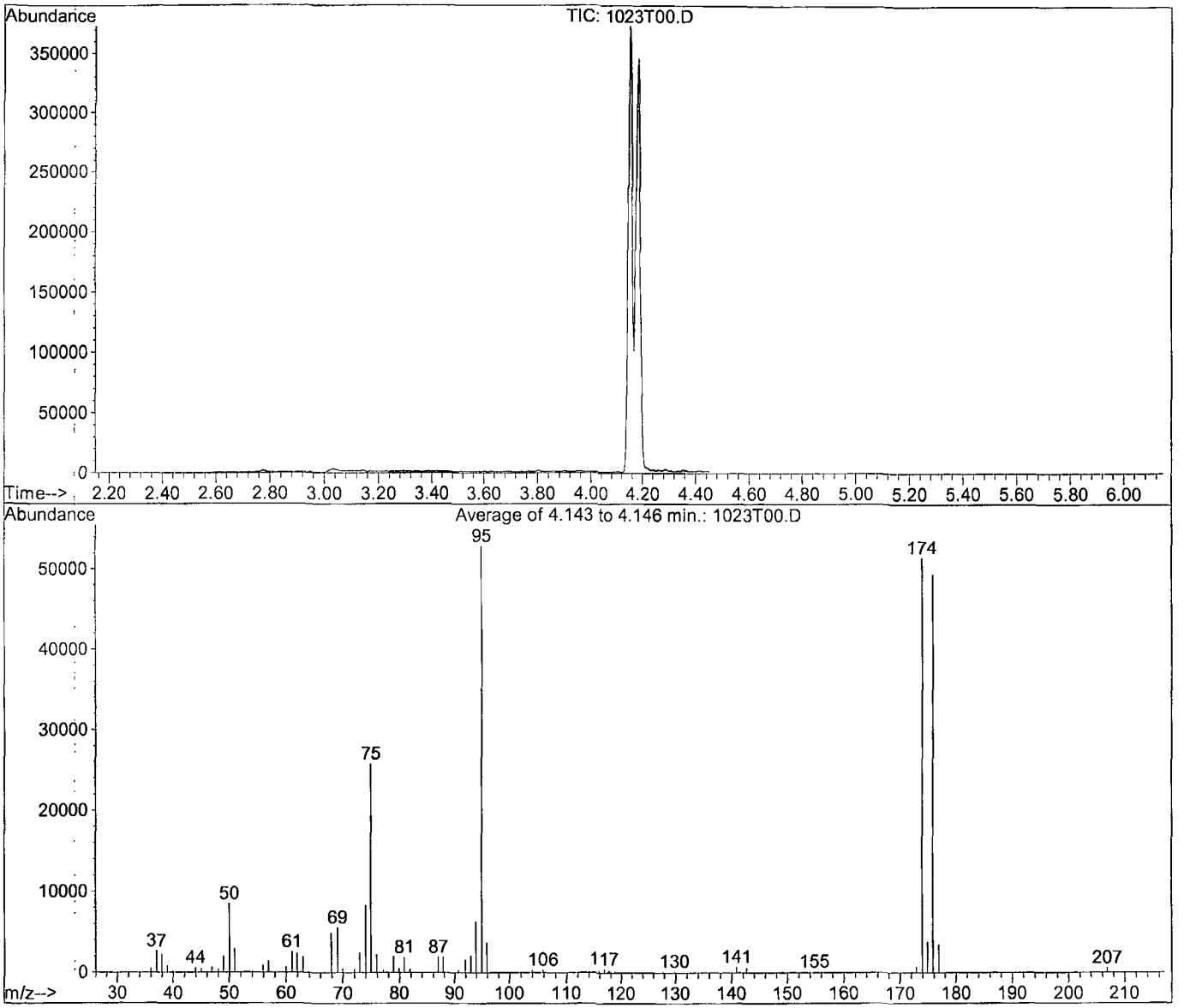
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	16.6	5511	PASS
75	95	30	60	50.7	16806	PASS
95	95	100	100	100.0	33150	PASS
96	95	5	9	7.0	2319	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	200	98.0	32476	PASS
175	174	5	9	7.2	2354	PASS
176	174	95	101	98.8	32080	PASS
177	176	5	9	6.5	2088	PASS

1101T30.D T1023W.M Wed Dec 04 13:28:20 2019

Data File : M:\THOR\DATA\T191023\1023T00.D
Acq On : 23 Oct 19 16:48
Sample : 25ug/L BFBSTD 10/10/19
Misc : 2ul BFB

Vial: 1
Operator:
Inst : Thor
Multiplr: 1.00

Method : M:\THOR\DATA\T191023\T1023W.M (RTE Integrator)
Title : METHOD 8260B



Spectrum Information: Average of 4.143 to 4.146 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	16.1	8507	PASS
75	95	30	60	48.8	25764	PASS
95	95	100	100	100.0	52848	PASS
96	95	5	9	7.0	3705	PASS
173	174	0.00	2	1.5	760	PASS
174	95	50	200	97.4	51468	PASS
175	174	5	9	7.4	3817	PASS
176	174	95	101	95.9	49368	PASS
177	176	5	9	7.0	3443	PASS

1023T00.D T1023W.M Wed Dec 04 13:21:15 2019

Injection Log

Directory: M:\THOR\DATA\T191023\

Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1023T00.D	1	25ug/L BFBSTD 10/10/19	2ul BFB	23 Oct 19 16:48
6	1023T06.D	1	0.3ug/L VOC STD 10/23/19	IS&S 9/23/19	23 Oct 19 19:32
7	1023T07.D	1	0.5ug/L VOC STD 10/23/19	IS&S 9/23/19	23 Oct 19 20:01
8	1023T08.D	1	1.0ug/L VOC STD 10/23/19	IS&S 9/23/19	23 Oct 19 20:29
9	1023T09.D	1	2.0ug/L VOC STD 10/23/19	IS&S 9/23/19	23 Oct 19 20:58
10	1023T10.D	1	5.0ug/L VOC STD 10/23/19	IS&S 9/23/19	23 Oct 19 21:26
11	1023T11.D	1	10ug/L VOC STD 10/23/19	IS&S 9/23/19	23 Oct 19 21:55
12	1023T12.D	1	20ug/L VOC STD 10/23/19	IS&S 9/23/19	23 Oct 19 22:23
13	1023T13.D	1	40ug/L VOC STD 10/23/19	IS&S 9/23/19	23 Oct 19 22:52
14	1023T14.D	1	100ug/L VOC STD 10/23/19	IS&S 9/23/19	23 Oct 19 23:20
16	1023T16.D	1	(SS)10ug/L VOC STD 10/23/19	IS&S 9/23/19	24 Oct 19 00:17
28	1101T30.D	1	25ug/L BFBSTD 9/24/19	IS&S 9/23/19	2 Nov 19 2:59
29	1101T31.D	1	191101B CCV 10ug/L	IS&S 9/23/19	2 Nov 19 3:27
30	1101T32.D	1	191101B LCS 10ug/L	IS&S 9/23/19	2 Nov 19 3:55
31	1101T33.D	1	191101B LCSD 10ug/L	IS&S 9/23/19	2 Nov 19 4:23
38	1101T40.D	1	191101B BLK	IS&S 9/23/19	2 Nov 19 7:41
48	1101T50.D	1	BA02213W01	IS&S 9/23/19	2 Nov 19 12:24
49	1101T51.D	1	BA02214W01	IS&S 9/23/19	2 Nov 19 12:52
50	1101T52.D	1	BA02215W01	IS&S 9/23/19	2 Nov 19 13:21
51	1101T53.D	1	BA02216W01	IS&S 9/23/19	2 Nov 19 13:49
52	1101T54.D	1	Ending CCV 10ug/L 11/1/19	IS&S 9/23/19	2 Nov 19 14:17

ORGANICS
Calibration Data

VOLATILE ORGANIC ANALYSIS
VOLATILE ORGANIC COMPOUNDS

Form 6
Initial Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Initial Cal. Date: 10/23/19
Matrix: water Instrument: Thor Initials: DG

			1026T02.D	1026T03.D	1026T04.D	1026T05.D	1026T06.D	1026T07.D	1026T08.D									
		Compound	1	2	3	4	5	6	7				Avg	%RSD	Type	r^2	Q	MRF
1	I	*Fluorobenzene (IS)*																
2	TMHBL	Gasoline C6-C10	12.7	5.185	2.689	1.053	0.7251	0.6177					3.8	122	TMHBL	0.991		
3	I	Chlorobenzene-D5 (IS)																
4	I	1,4-Dichlorobenzene-D (IS)																
5																		
6																		
7																		
8																		
9																		
10																		
11																		
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Quantitation Report (QT Reviewed)

Data File : M:\THOR\DATA\T191023\1026T02.D Vial: 2
Acq On : 26 Oct 19 12:41 Operator:
Sample : 20ug/L GAS 10/26/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 28 11:27 2019 Quant Results File: TGAS1026.RES

Quant Method : M:\THOR\DATA\T191023\TGAS1026.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 28 11:13:21 2019
Response via : Initial Calibration
DataAcq Meth : T8260

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene (IS)	6.59	TIC	325203	25.000 ppb	0.00
3) Chlorobenzene-D5 (IS)	9.74	TIC	402502	25.000 ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	12.07	TIC	430991	25.000 ppb	0.00
System Monitoring Compounds					
Target Compounds					Qvalue
2) Gasoline C6-C10	8.30	TIC	3299042m	24.154 ppb	100

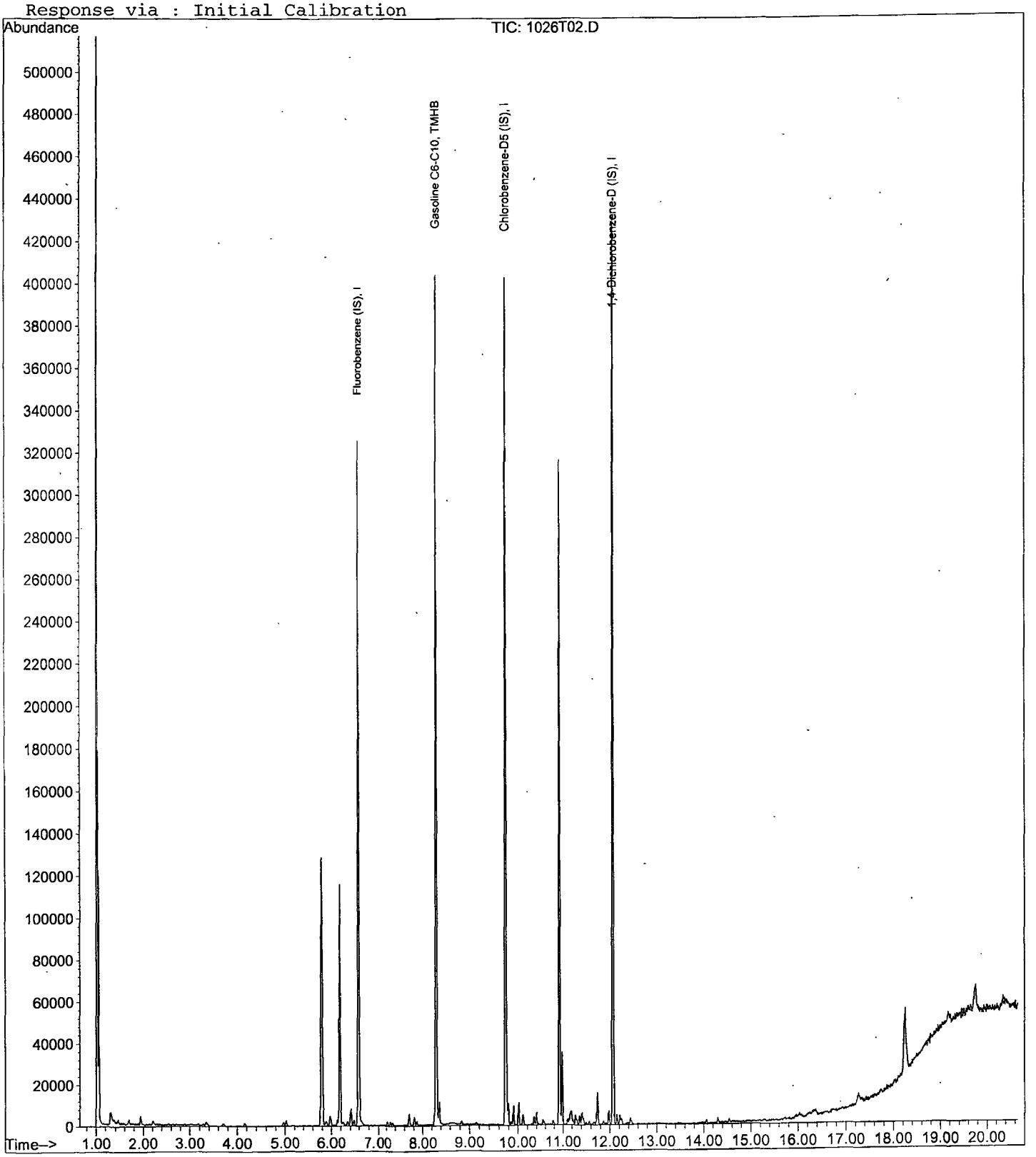
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\THOR\DATA\T191023\1026T02.D Vial: 2
Acq On : 26 Oct 19 12:41 Operator:
Sample : 20ug/L GAS 10/26/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 28 11:27 2019 Quant Results File: TGAS1026.RES

Method : M:\THOR\DATA\T191023\TGAS1026.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 28 12:08:31 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\THOR\DATA\T191023\1026T03.D Vial: 3
Acq On : 26 Oct 19 13:09 Operator:
Sample : 50ug/L GAS 10/26/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 28 12:17 2019 Quant Results File: TGAS1026.RES

Quant Method : M:\THOR\DATA\T191023\TGAS1026.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 28 11:13:21 2019
Response via : Initial Calibration
DataAcq Meth : T8260

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene (IS)	6.59	TIC	321177	25.000 ppb	0.00
3) Chlorobenzene-D5 (IS)	9.74	TIC	392178	25.000 ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	12.07	TIC	407724	25.000 ppb	0.00
System Monitoring Compounds					
Target Compounds					Qvalue
2) Gasoline C6-C10	8.30	TIC	3330329m	43.721 ppb	100

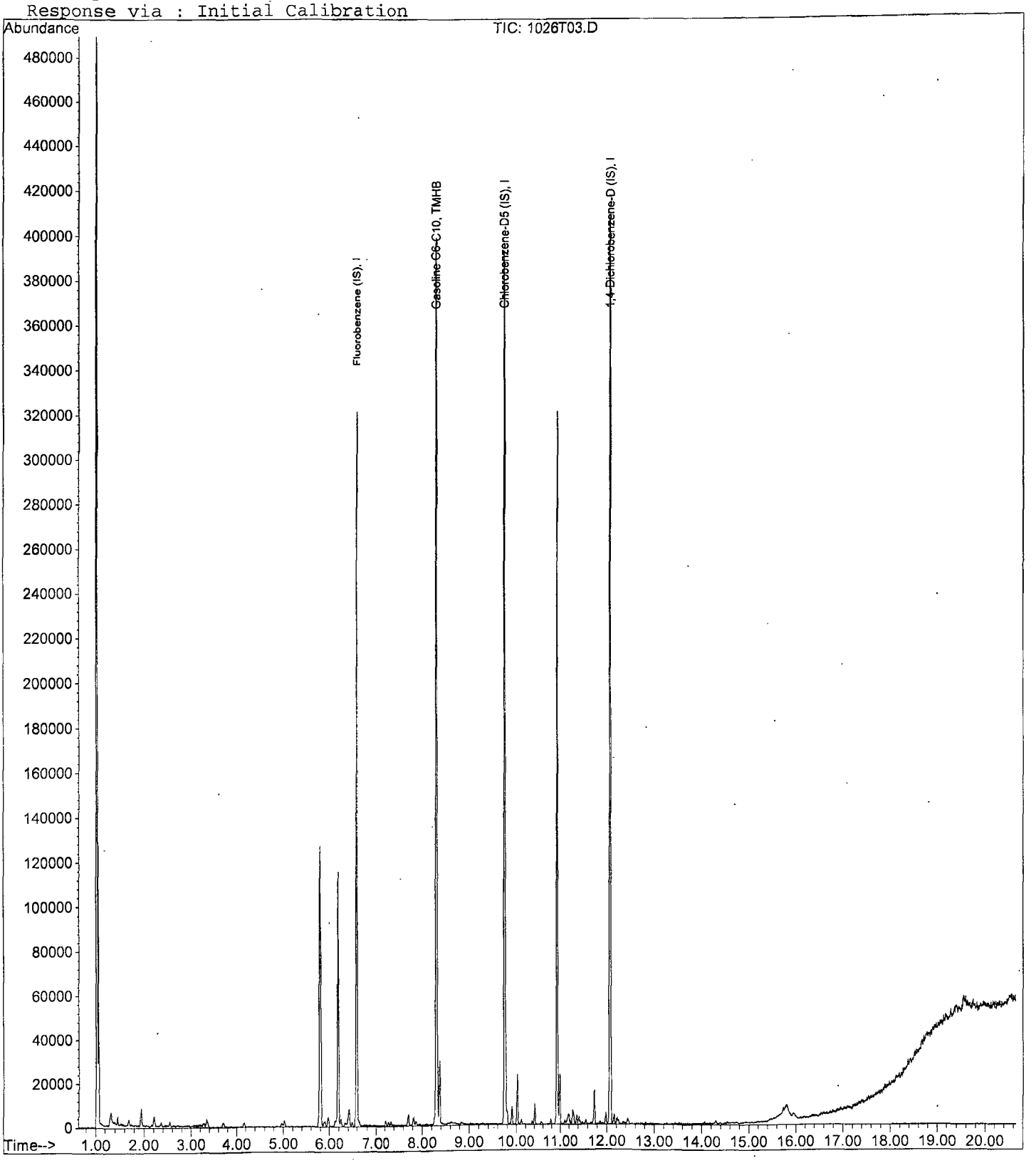
(#) = qualifier out of range (m) = manual integration
1026T03.D TGAS1026.M Mon Oct 28 12:28:58 2019 Page 1

Quantitation Report

Data File : M:\THOR\DATA\T191023\1026T03.D Vial: 3
Acq On : 26 Oct 19 13:09 Operator:
Sample : 50ug/L GAS 10/26/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 28 12:17 2019 Quant Results File: TGAS1026.RES

Method : M:\THOR\DATA\T191023\TGAS1026.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 28 12:08:31 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\THOR\DATA\T191023\1026T04.D Vial: 4
Acq On : 26 Oct 19 13:37 Operator:
Sample : 100ug/L GAS 10/26/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 28 12:21 2019 Quant Results File: TGAS1026.RES

Quant Method : M:\THOR\DATA\T191023\TGAS1026.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 28 11:13:21 2019
Response via : Initial Calibration
DataAcq Meth : T8260

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene (IS)	6.59	TIC	324811	25.000 ppb	0.00
3) Chlorobenzene-D5 (IS)	9.74	TIC	392744	25.000 ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	12.06	TIC	413459	25.000 ppb	0.00
System Monitoring Compounds					
Target Compounds					Qvalue
2) Gasoline C6-C10	8.30	TIC	3493186m	77.298 ppb	100

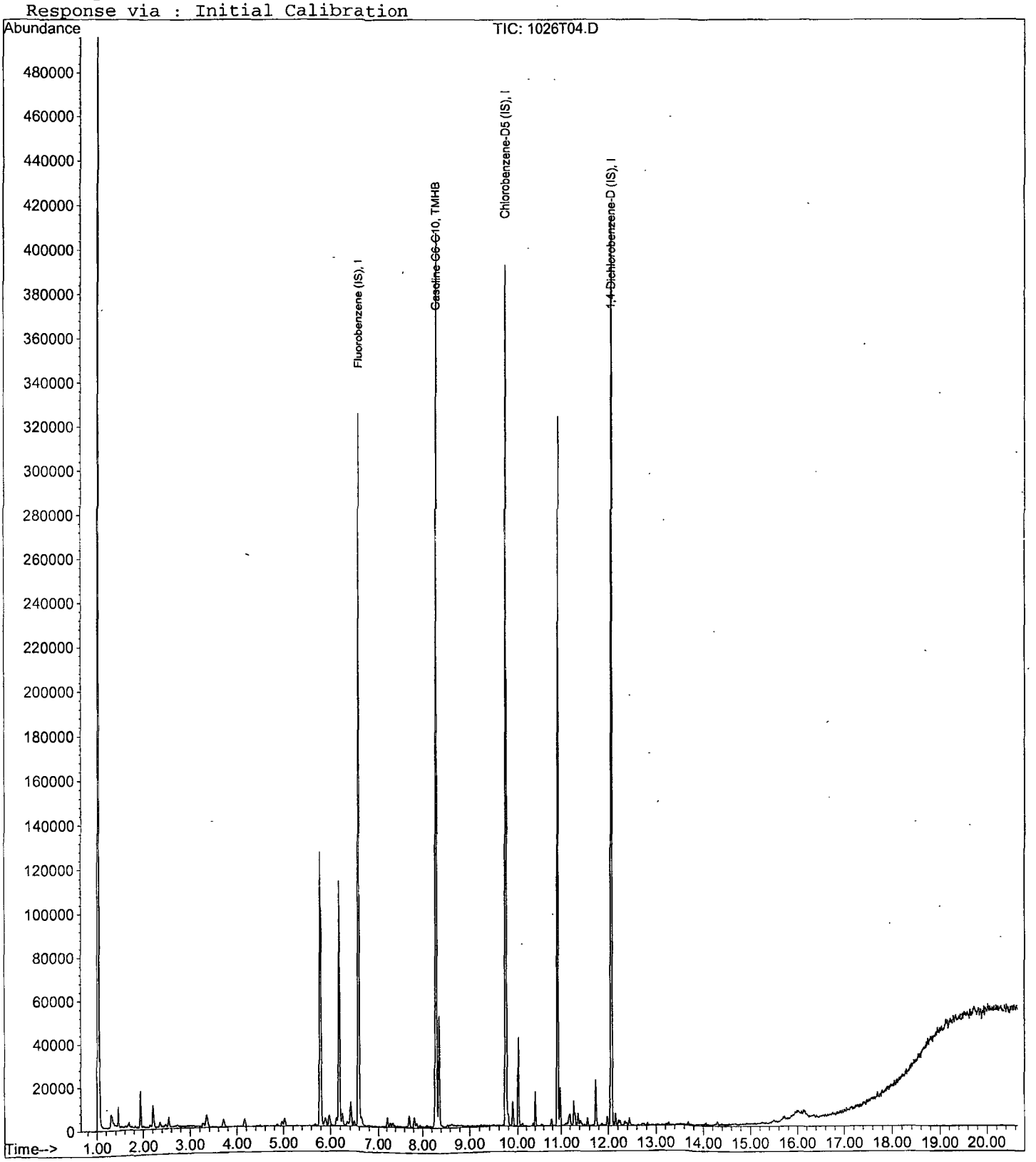
(#) = qualifier out of range (m) = manual integration
1026T04.D TGAS1026.M Mon Oct 28 12:29:00 2019 Page 1

Quantitation Report

Data File : M:\THOR\DATA\T191023\1026T04.D Vial: 4
Acq On : 26 Oct 19 13:37 Operator:
Sample : 100ug/L GAS 10/26/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 28 12:21 2019 Quant Results File: TGAS1026.RES

Method : M:\THOR\DATA\T191023\TGAS1026.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 28 12:08:31 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\THOR\DATA\T191023\1026T05.D Vial: 5
Acq On : 26 Oct 19 14:06 Operator:
Sample : 300ug/L GAS 10/26/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 28 12:14 2019 Quant Results File: TGAS1026.RES

Quant Method : M:\THOR\DATA\T191023\TGAS1026.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 28 11:13:21 2019
Response via : Initial Calibration
DataAcq Meth : T8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	6.59	TIC	338187	25.000	ppb	0.00
3) Chlorobenzene-D5 (IS)	9.74	TIC	410094	25.000	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	12.06	TIC	434804	25.000	ppb	0.00

System Monitoring Compounds

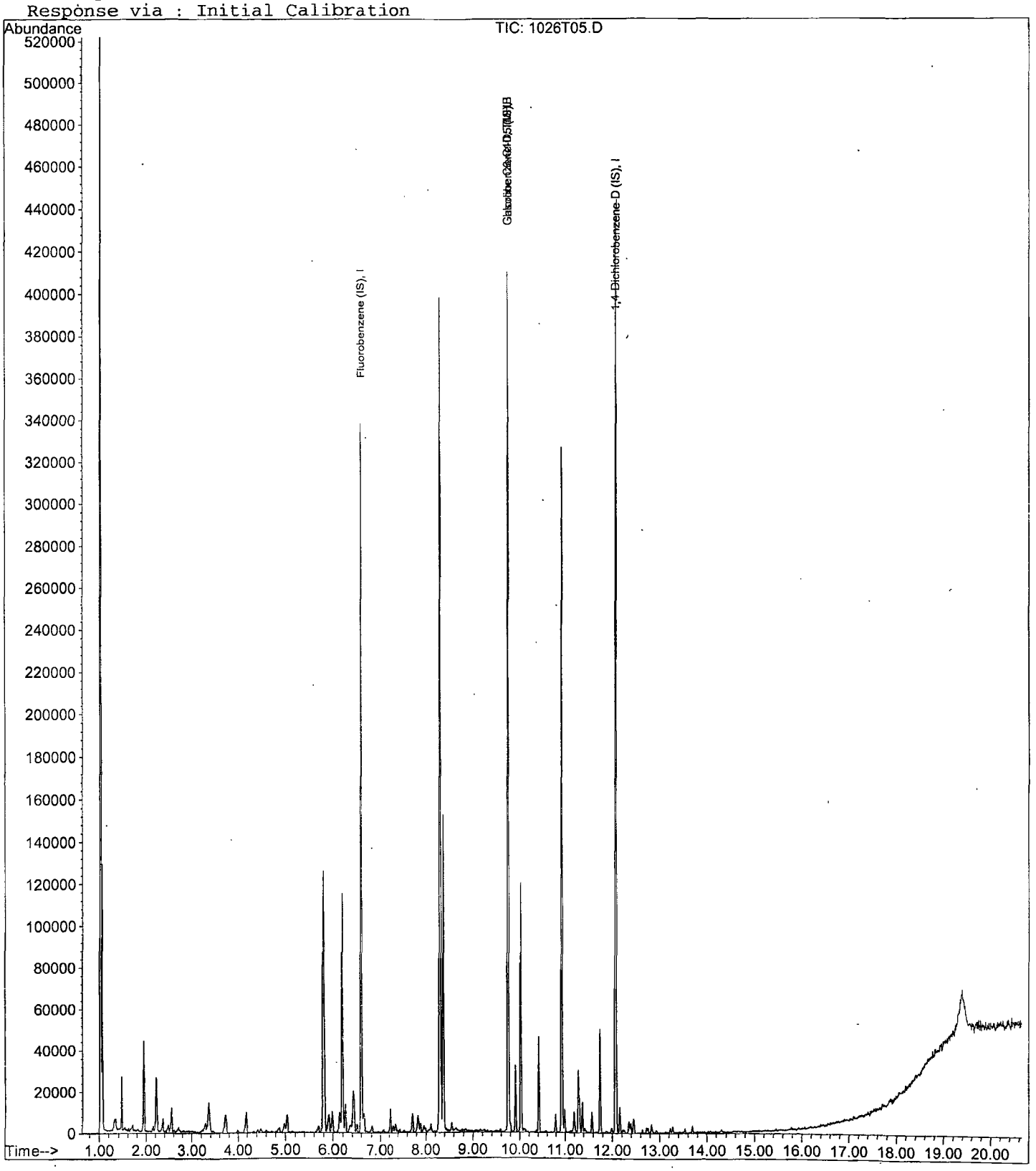
Target Compounds						Qvalue
2) Gasoline C6-C10	9.74	TIC	4271474m	240.747	ppb	100

(#) = qualifier out of range (m) = manual integration
1026T05.D TGAS1026.M Mon Oct 28 12:29:02 2019 Page 1

Data File : M:\THOR\DATA\T191023\1026T05.D Vial: 5
Acq On : 26 Oct 19 14:06 Operator:
Sample : 300ug/L GAS 10/26/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 28 12:14 2019 Quant Results File: TGAS1026.RES

Method : M:\THOR\DATA\T191023\TGAS1026.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 28 12:08:31 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\THOR\DATA\T191023\1026T06.D Vial: 6
Acq On : 26 Oct 19 14:34 Operator:
Sample : 600ug/L GAS 10/26/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 28 11:30 2019 Quant Results File: TGAS1026.RES

Quant Method : M:\THOR\DATA\T191023\TGAS1026.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 28 11:13:21 2019
Response via : Initial Calibration
DataAcq Meth : T8260

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene (IS)	6.59	TIC	311099	25.000 ppb	0.00
3) Chlorobenzene-D5 (IS)	9.74	TIC	392304	25.000 ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	12.06	TIC	407391	25.000 ppb	0.00
System Monitoring Compounds					
Target Compounds					Qvalue
2) Gasoline C6-C10	8.30	TIC	5413641m	656.442 ppb	100

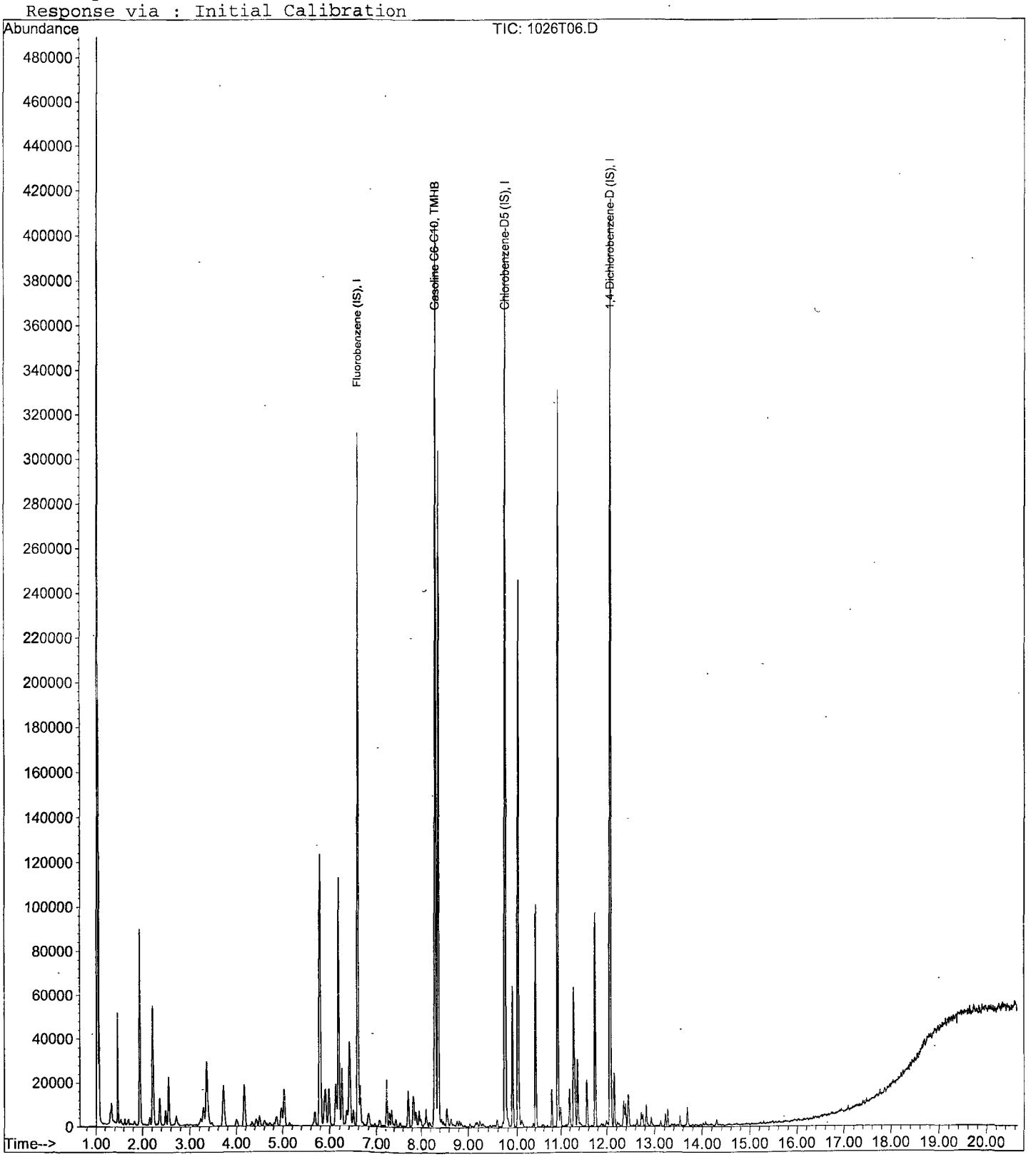
(#) = qualifier out of range (m) = manual integration
1026T06.D TGAS1026.M Mon Oct 28 12:29:04 2019 Page 1

Quantitation Report

Data File : M:\THOR\DATA\T191023\1026T06.D Vial: 6
Acq On : 26 Oct 19 14:34 Operator:
Sample : 600ug/L GAS 10/26/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 28 11:30 2019 Quant Results File: TGAS1026.RES

Method : M:\THOR\DATA\T191023\TGAS1026.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 28 12:08:31 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\THOR\DATA\T191023\1026T07.D Vial: 7
Acq On : 26 Oct 19 15:03 Operator:
Sample : 800ug/L GAS 10/26/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 28 11:31 2019 Quant Results File: TGAS1026.RES

Quant Method : M:\THOR\DATA\T191023\TGAS1026.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 28 11:13:21 2019
Response via : Initial Calibration
DataAcq Meth : T8260

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene (IS)	6.59	TIC	329742	25.000 ppb	0.00
3) Chlorobenzene-D5 (IS)	9.74	TIC	399858	25.000 ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	12.06	TIC	434700	25.000 ppb	0.00
System Monitoring Compounds					
Target Compounds					Qvalue
2) Gasoline C6-C10	8.36	TIC	6517501m	862.391 ppb	100

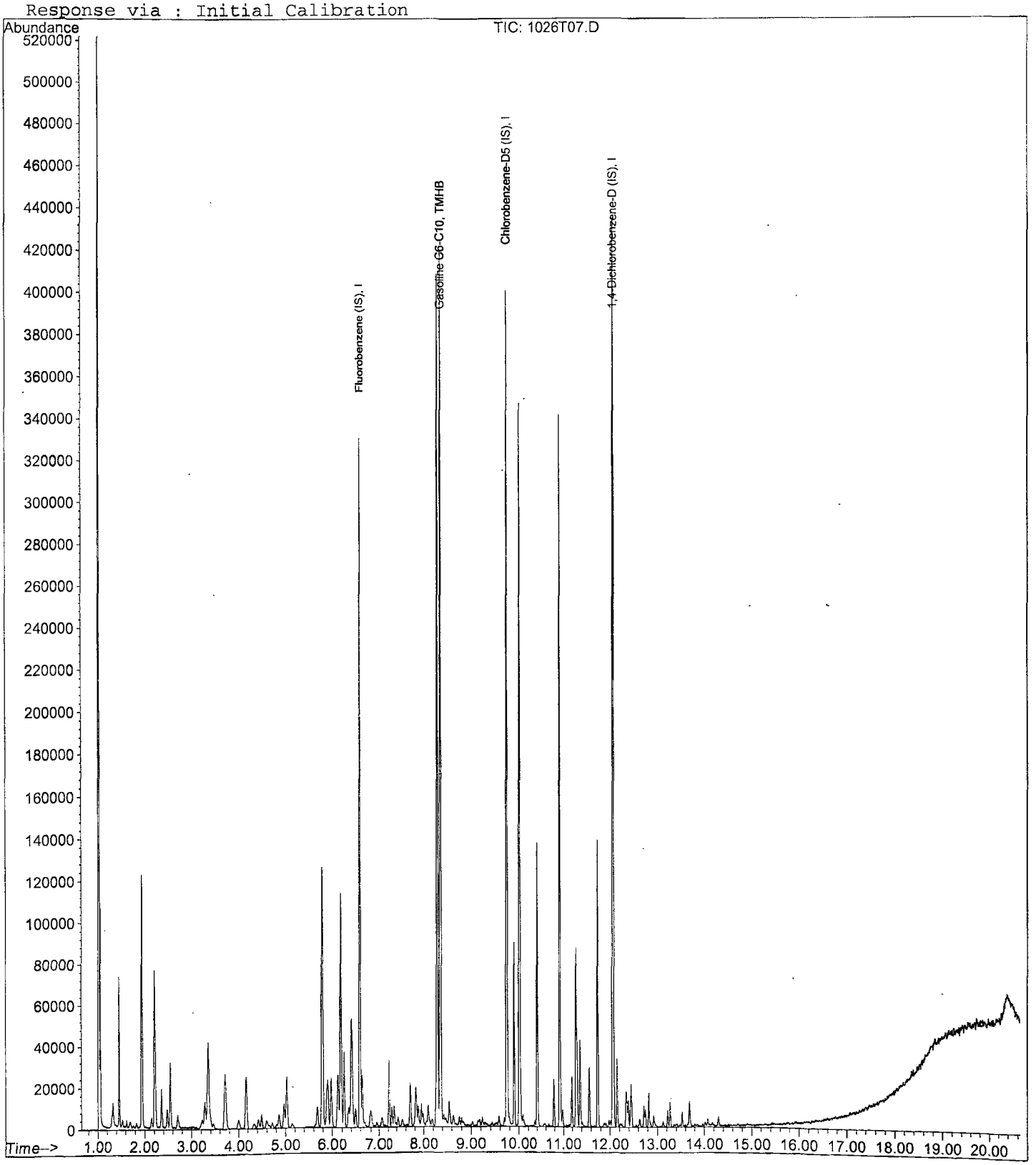
(#) = qualifier out of range (m) = manual integration

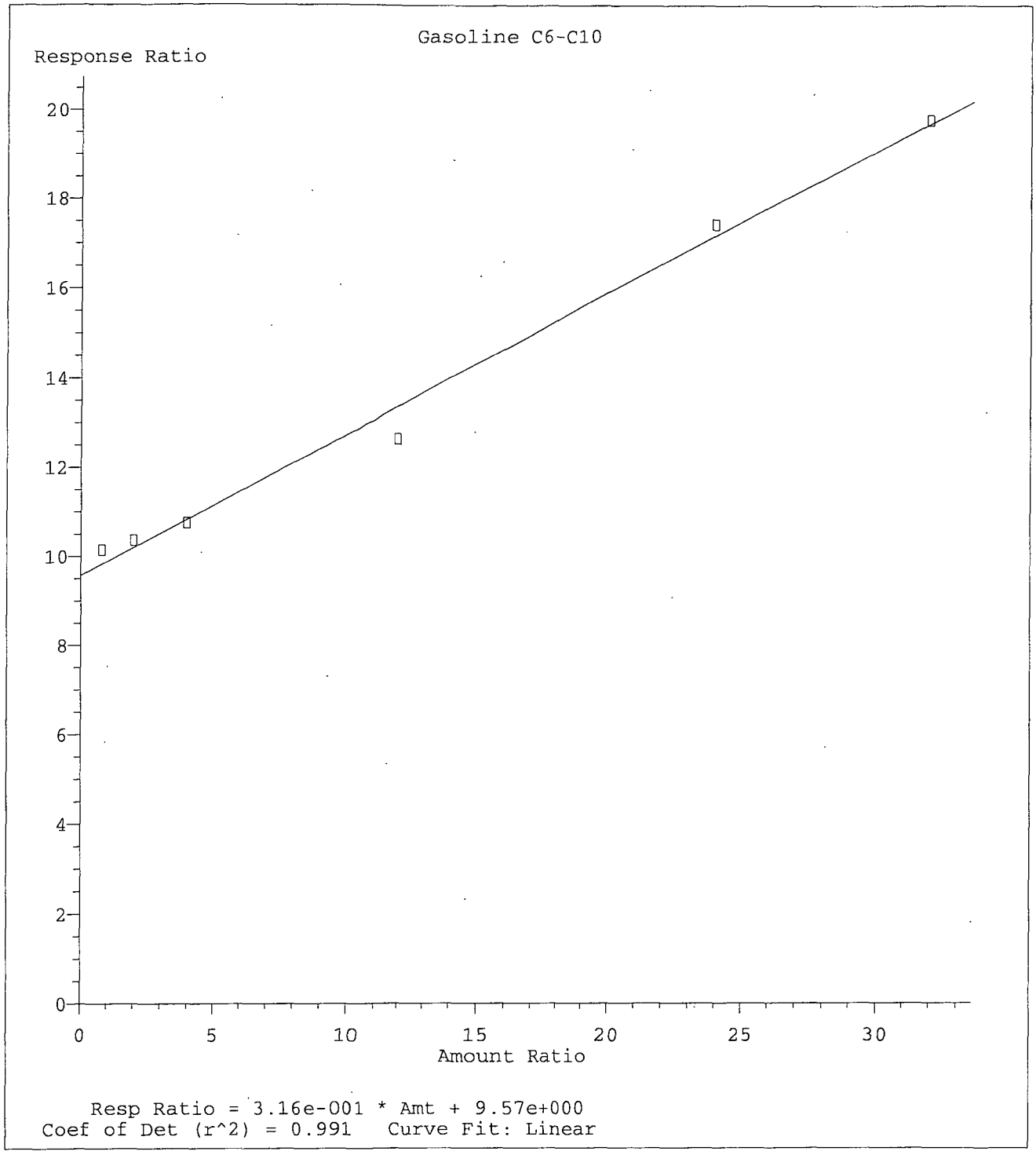
Quantitation Report

Data File : M:\THOR\DATA\T191023\1026T07.D Vial: 7
Acq On : 26 Oct 19 15:03 Operator:
Sample : 800ug/L GAS 10/26/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 28 11:31 2019 Quant Results File: TGAS1026.RES

Method : M:\THOR\DATA\T191023\TGAS1026.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 28 12:08:31 2019
Response via : Initial Calibration





Method Name: M:\THOR\DATA\T191023\TGAS1026.M
Calibration Table Last Updated: Mon Oct 28 12:08:31 2019

VOLATILE ORGANIC ANALYSIS
VOLATILE ORGANIC COMPOUNDS

Form 7

Second Source Calibration

Lab Name: APPL, Inc.
Case No:
Matrix:

SDG No:
Date Analyzed: 10/28/19
Instrument: Thor
Initial Cal. Date: 10/23/19
Data File: 1028T01.D

		Compound	MEAN	CCRF	%D	%Drift	
1	TMHB	Gasoline C6-C10	3.825	1.077	72	TMHBL	11
2							
3							
4							
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38							
39							
40							
		Average			72.0		

Quantitation Report (QT Reviewed)

Data File : M:\THOR\DATA\T191028\1028T01.D Vial: 1
Acq On : 28 Oct 19 15:43 Operator:
Sample : (SS) 300ug/L GAS 10/28/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 28 16:45 2019 Quant Results File: TGAS1026.RES

Quant Method : M:\THOR\DATA\T191023\TGAS1026.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 28 12:08:31 2019
Response via : Initial Calibration
DataAcq Meth : T8260

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene (IS)	6.58	TIC	356344	25.00 ppb	0.00
3) Chlorobenzene-D5 (IS)	9.74	TIC	432263	25.00 ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	12.06	TIC	455917	25.00 ppb	0.00
System Monitoring Compounds					
Target Compounds					Qvalue
2) Gasoline C6-C10	9.74	TIC	4607248m	265.64 ppb	100

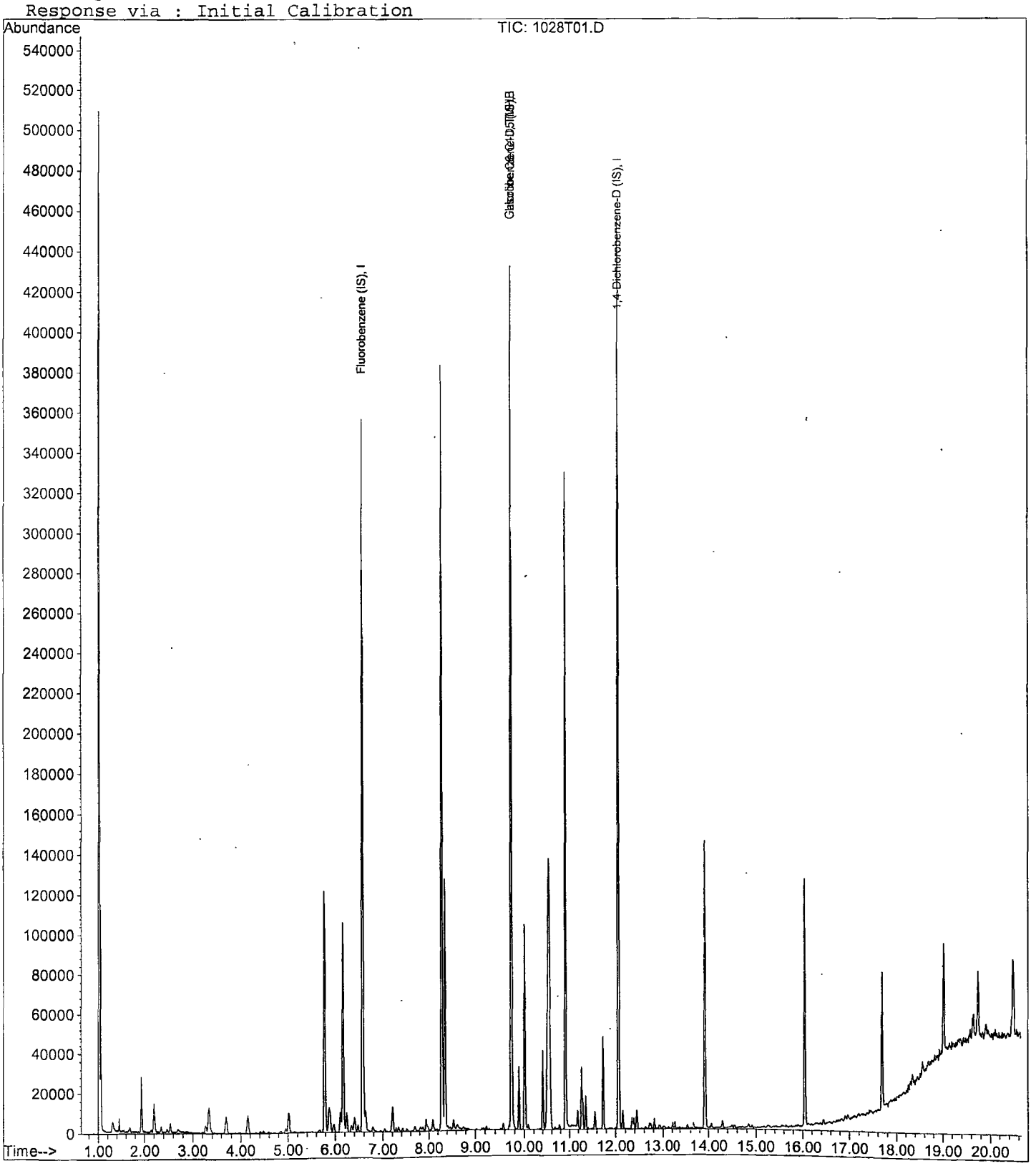
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\THOR\DATA\T191028\1028T01.D Vial: 1
Acq On : 28 Oct 19 15:43 Operator:
Sample : (SS) 300ug/L GAS 10/28/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Oct 28 16:45 2019 Quant Results File: TGAS1026.RES

Method : M:\THOR\DATA\T191023\TGAS1026.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 28 12:08:31 2019
Response via : Initial Calibration



VOLATILE ORGANIC ANALYSIS
VOLATILE ORGANIC COMPOUNDS

Form 7

Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix:

SDG No:
Date Analyzed: 2 Nov 19 4:52
Instrument: Thor
Initial Cal. Date: 10/23/19
Data File: 1101T34.D

		Compound	MEAN	CCRF	%D	%Drift	
1	I	Fluorobenzene (IS)	ISTD			I	
2	TMHB	Gasoline C6-C10	3.825	1.055	72	TMHBL	19
3	I	Chlorobenzene-D5 (IS)	ISTD			I	
4	I	1,4-Dichlorobenzene-D (IS)	ISTD			I	
5							
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40							
		Average			72.0		

Quantitation Report (QT Reviewed)

Data File : M:\THOR\DATA\T191028\1101T34.D Vial: 32
Acq On : 2 Nov 19 4:52 Operator:
Sample : 191101B CCV/LCS 300ug/L Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Nov 4 13:29 2019 Quant Results File: TGAS1026.RES

Quant Method : M:\THOR\DATA\T191028\TGAS1026.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 28 12:08:31 2019
Response via : Initial Calibration
DataAcq Meth : T8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	6.59	TIC	270443	25.00	ppb	0.00
3) Chlorobenzene-D5 (IS)	9.74	TIC	340141	25.00	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	12.06	TIC	371374	25.00	ppb	0.00

System Monitoring Compounds

Target Compounds						Qvalue
2) Gasoline C6-C10	9.74	TIC	3423167m	244.15	ppb	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\THOR\DATA\T191028\1101T34.D Vial: 32
Acq On : 2 Nov 19 4:52 Operator:
Sample : 191101B CCV/LCS 300ug/L Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Nov 4 14:58 2019 Quant Results File: TSUR1023.RES

Quant Method : M:\THOR\DATA\T191028\TSUR1023.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:27:29 2019
Response via : Initial Calibration
DataAcq Meth : T8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	6.59	96	130424	25.00	ppb	0.00
4) Chlorobenzene-D5 (IS)	9.74	117	116896	25.00	ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	12.06	152	66880	25.00	ppb	0.00
System Monitoring Compounds						
2) Dibromofluoromethane(S)	5.78	111	60686	24.14	ppb	0.00
Spiked Amount 25.000			Recovery =	96.556%		
3) 1,2-DCA-D4(S)	6.17	65	67114	23.84	ppb	0.00
Spiked Amount 25.000			Recovery =	95.368%		
5) Toluene-D8(S)	8.29	98	212419	24.33	ppb	0.00
Spiked Amount 25.000			Recovery =	97.332%		
6) 4-Bromofluorobenzene(S)	10.91	174	86519	25.04	ppb	0.00
Spiked Amount 25.000			Recovery =	100.140%		

Target Compounds Qvalue

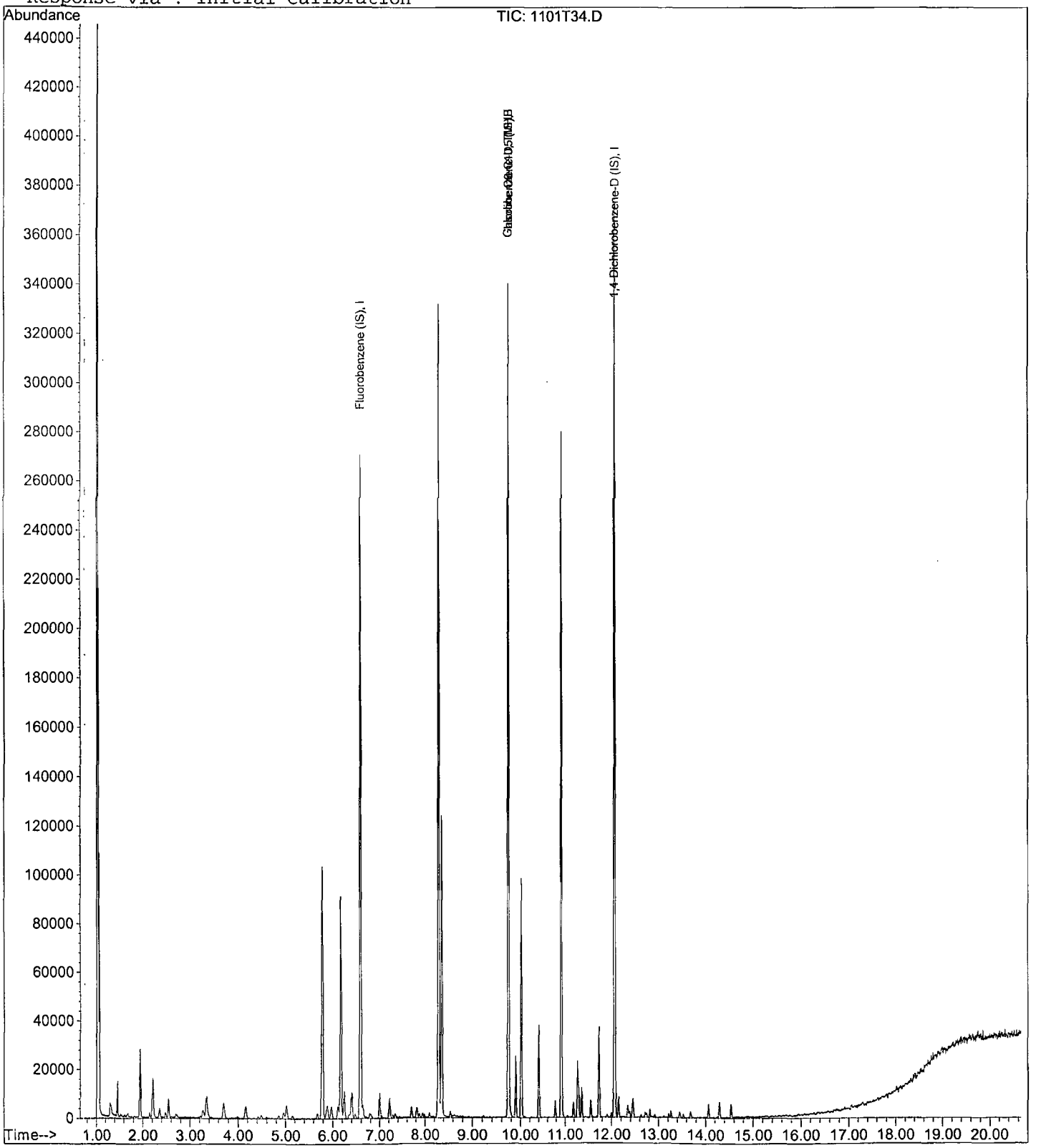
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\THOR\DATA\T191028\1101T34.D Vial: 32
Acq On : 2 Nov 19 4:52 Operator:
Sample : 191101B CCV/LCS 300ug/L Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Nov 4 13:29 2019 Quant Results File: TGAS1026.RES

Method : M:\THOR\DATA\T191023\TGAS1026.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 28 12:08:31 2019
Response via : Initial Calibration



VOLATILE ORGANIC ANALYSIS
VOLATILE ORGANIC COMPOUNDS

Form 7

Ending Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix:

SDG No:
Date Analyzed: 2 Nov 19 14:46
Instrument: Thor
Initial Cal. Date: 10/23/2019
Data File: 1101T55.D

		Compound	MEAN	CCRF	%D	%Drift	
1	I	Fluorobenzene (IS)	ISTD			I	
2	TMHB	Gasoline C6-C10	3.825	0.9992	74	TMHBL	36
3	I	Chlorobenzene-D5 (IS)	ISTD			I	
4	I	1,4-Dichlorobenzene-D (IS)	ISTD			I	
5							
6							
7							
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39							
40							
		Average			74.0		

Quantitation Report (QT Reviewed)

Data File : M:\THOR\DATA\T191028\1101T55.D Vial: 53
Acq On : 2 Nov 19 14:46 Operator:
Sample : Ending CCV 300ug/L 11/1/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Nov 4 13:34 2019 Quant Results File: TGAS1026.RES

Quant Method : M:\THOR\DATA\T191028\TGAS1026.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 28 12:08:31 2019
Response via : Initial Calibration
DataAcq Meth : T8260

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene (IS)	6.59	TIC	284074	25.00 ppb	0.00
3) Chlorobenzene-D5 (IS)	9.74	TIC	363454	25.00 ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	12.06	TIC	399464	25.00 ppb	0.00

System Monitoring Compounds

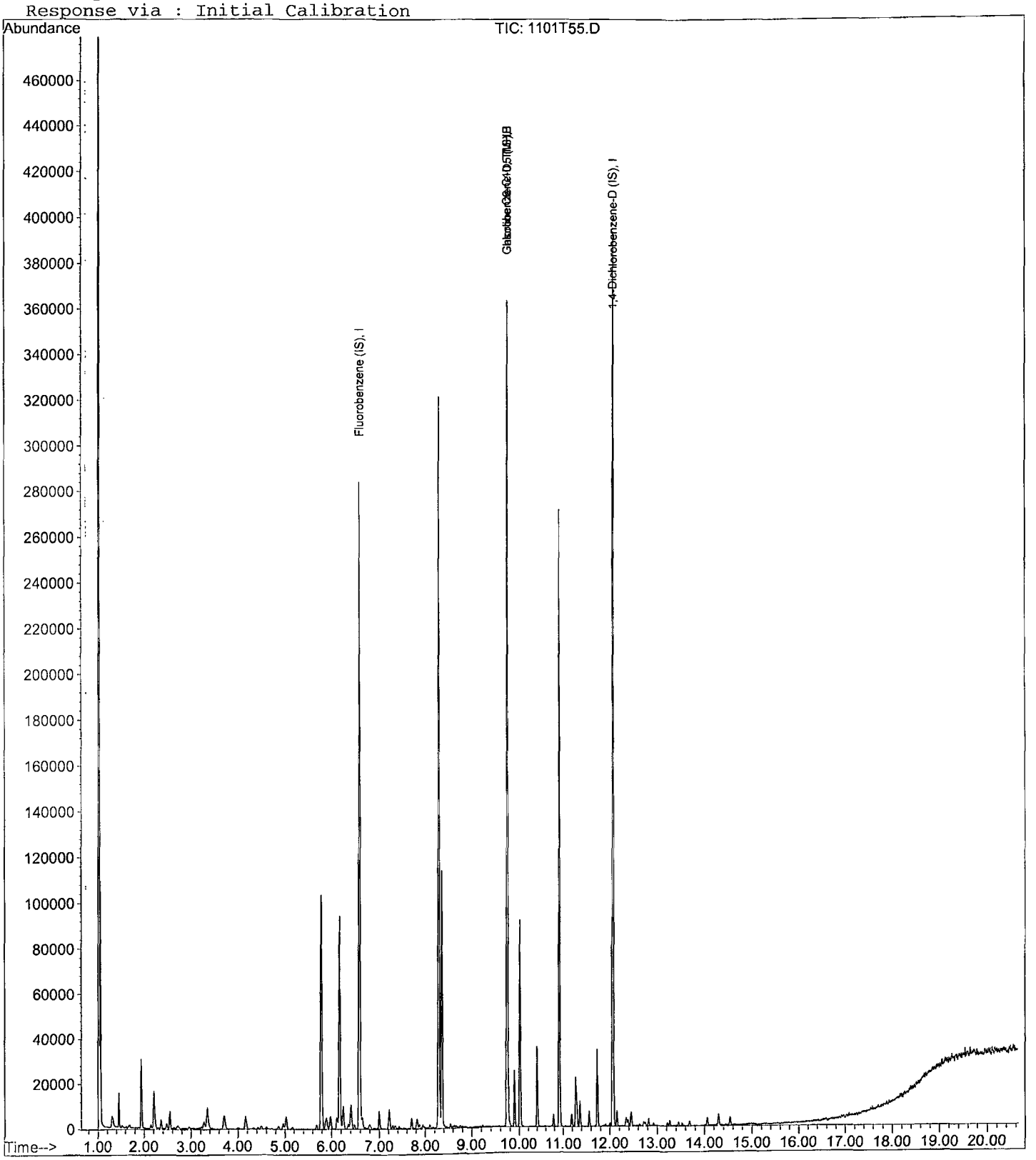
Target Compounds					Qvalue
2) Gasoline C6-C10	9.74	TIC	3406041m	191.33 ppb	100

(#) = qualifier out of range (m) = manual integration
1101T55.D TGAS1026.M Wed Dec 04 13:51:02 2019 Page 1

Data File : M:\THOR\DATA\T191028\1101T55.D Vial: 53
Acq On : 2 Nov 19 14:46 Operator:
Sample : Ending CCV 300ug/L 11/1/19 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Nov 4 13:34 2019 Quant Results File: TGAS1026.RES

Method : M:\THOR\DATA\T191023\TGAS1026.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 28 12:08:31 2019
Response via : Initial Calibration



ORGANICS
Raw Data

Quantitation Report (QT Reviewed)

Data File : M:\THOR\DATA\T191028\1101T50.D Vial: 48
Acq On : 2 Nov 19 12:24 Operator:
Sample : BA02213W01 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Nov 4 13:59 2019 Quant Results File: TGAS1026.RES

Quant Method : M:\THOR\DATA\T191028\TGAS1026.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 28 12:08:31 2019
Response via : Initial Calibration
DataAcq Meth : T8260

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene (IS)	6.59	TIC	266154	25.00 ppb	0.00
3) Chlorobenzene-D5 (IS)	9.74	TIC	330606	25.00 ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	12.06	TIC	344219	25.00 ppb	0.00

System Monitoring Compounds

Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration
1101T50.D TGAS1026.M Wed Dec 04 13:39:34 2019 Page 1

Quantitation Report (Not Reviewed)

Data File : M:\THOR\DATA\T191028\1101T50.D Vial: 48
Acq On : 2 Nov 19 12:24 Operator:
Sample : BA02213W01 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Nov 4 15:05 2019 Quant Results File: TSUR1023.RES

Quant Method : M:\THOR\DATA\T191028\TSUR1023.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:27:29 2019
Response via : Initial Calibration
DataAcq Meth : T8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	6.59	96	126256	25.00	ppb	0.00
4) Chlorobenzene-D5 (IS)	9.74	117	114600	25.00	ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	12.06	152	61336	25.00	ppb	0.00
System Monitoring Compounds						
2) Dibromofluoromethane(S)	5.79	111	59567	24.48	ppb	0.00
Spiked Amount 25.000			Recovery = 97.904%			
3) 1,2-DCA-D4(S)	6.17	65	67540	24.79	ppb	0.00
Spiked Amount 25.000			Recovery = 99.144%			
5) Toluene-D8(S)	8.30	98	207081	24.20	ppb	0.00
Spiked Amount 25.000			Recovery = 96.788%			
6) 4-Bromofluorobenzene(S)	10.91	174	81597	24.08	ppb	0.00
Spiked Amount 25.000			Recovery = 96.336%			

Target Compounds Qvalue

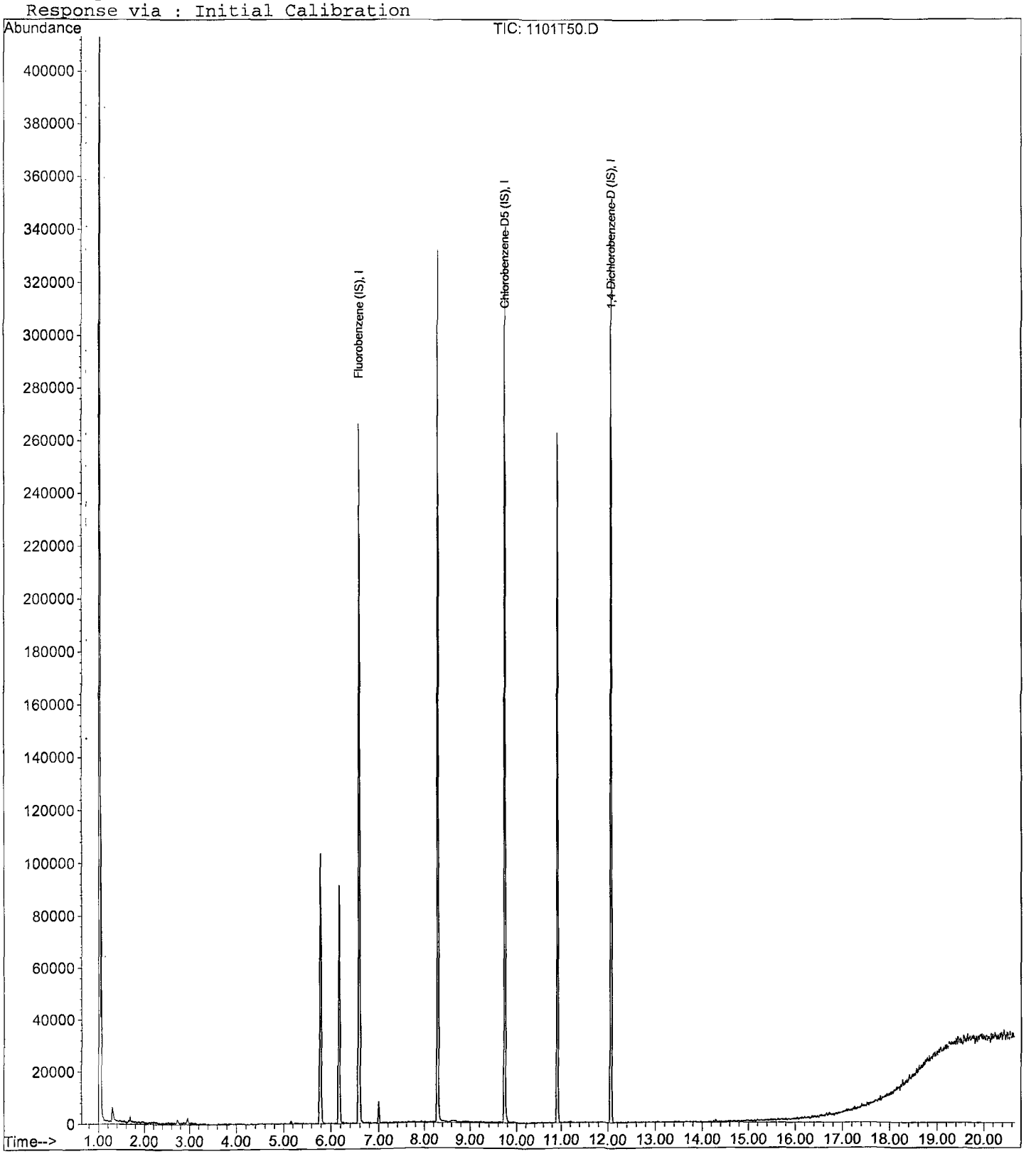
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\THOR\DATA\T191028\1101T50.D Vial: 48
Acq On : 2 Nov 19 12:24 Operator:
Sample : BA02213W01 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Nov 4 13:59 2019 Quant Results File: TGAS1026.RES

Method : M:\THOR\DATA\T191023\TGAS1026.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 28 12:08:31 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\THOR\DATA\T191028\1101T51.D Vial: 49
Acq On : 2 Nov 19 12:52 Operator:
Sample : BA02214W01 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Nov 4 13:59 2019 Quant Results File: TGAS1026.RES

Quant Method : M:\THOR\DATA\T191028\TGAS1026.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 28 12:08:31 2019
Response via : Initial Calibration
DataAcq Meth : T8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	6.59	TIC	288002	25.00	ppb	0.00
3) Chlorobenzene-D5 (IS)	9.74	TIC	354740	25.00	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	12.06	TIC	375824	25.00	ppb	0.00

System Monitoring Compounds

Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\THOR\DATA\T191028\1101T51.D Vial: 49
Acq On : 2 Nov 19 12:52 Operator:
Sample : BA02214W01 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Nov 4 15:05 2019 Quant Results File: TSUR1023.RES

Quant Method : M:\THOR\DATA\T191028\TSUR1023.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:27:29 2019
Response via : Initial Calibration
DataAcq Meth : T8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	6.59	96	137984	25.00	ppb	0.00
4) Chlorobenzene-D5 (IS)	9.74	117	123512	25.00	ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	12.06	152	68592	25.00	ppb	0.00
System Monitoring Compounds						
2) Dibromofluoromethane(S)	5.79	111	59396	22.33	ppb	0.00
Spiked Amount 25.000			Recovery =	89.328%		
3) 1,2-DCA-D4(S)	6.17	65	69326	23.28	ppb	0.00
Spiked Amount 25.000			Recovery =	93.116%		
5) Toluene-D8(S)	8.30	98	207074	22.45	ppb	0.00
Spiked Amount 25.000			Recovery =	89.800%		
6) 4-Bromofluorobenzene(S)	10.92	174	81275	22.26	ppb	0.00
Spiked Amount 25.000			Recovery =	89.032%		

Target Compounds Qvalue

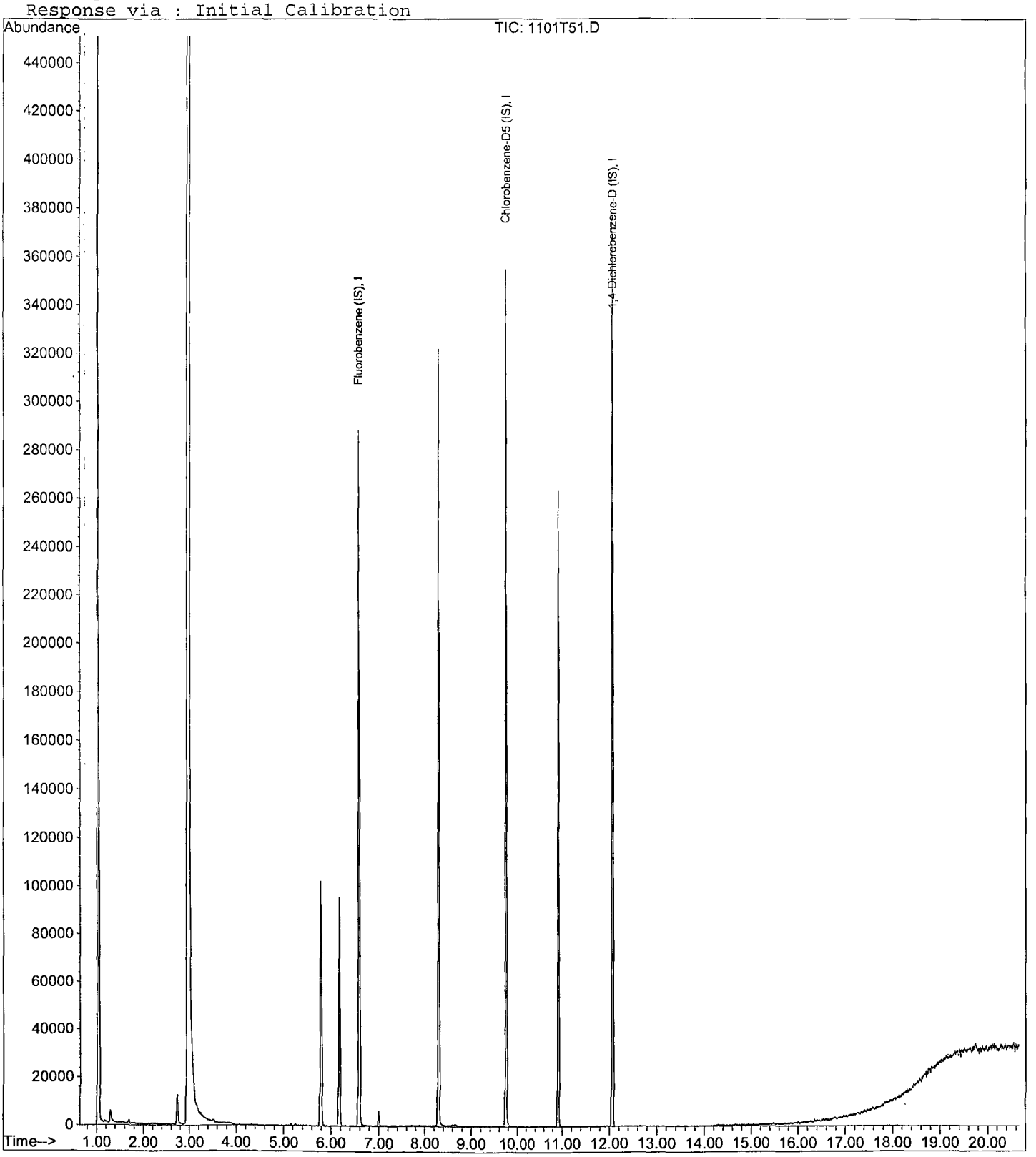
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\THOR\DATA\T191028\1101T51.D Vial: 49
Acq On : 2 Nov 19 12:52 Operator:
Sample : BA02214W01 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Nov 4 13:59 2019 Quant Results File: TGAS1026.RES

Method : M:\THOR\DATA\T191023\TGAS1026.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 28 12:08:31 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\THOR\DATA\T191028\1101T52.D Vial: 50
Acq On : 2 Nov 19 13:21 Operator:
Sample : BA02215W01 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Nov 4 14:00 2019 Quant Results File: TGAS1026.RES

Quant Method : M:\THOR\DATA\T191028\TGAS1026.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 28 12:08:31 2019
Response via : Initial Calibration
DataAcq Meth : T8260

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene (IS)	6.59	TIC	254438	25.00 ppb	0.00
3) Chlorobenzene-D5 (IS)	9.74	TIC	320145	25.00 ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	12.06	TIC	346248	25.00 ppb	0.00

System Monitoring Compounds

Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\THOR\DATA\T191028\1101T52.D Vial: 50
Acq On : 2 Nov 19 13:21 Operator:
Sample : BA02215W01 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Nov 4 15:05 2019 Quant Results File: TSUR1023.RES

Quant Method : M:\THOR\DATA\T191028\TSUR1023.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:27:29 2019
Response via : Initial Calibration
DataAcq Meth : T8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	6.59	96	121728	25.00	ppb	0.00
4) Chlorobenzene-D5 (IS)	9.74	117	111648	25.00	ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	12.06	152	61584	25.00	ppb	0.00
System Monitoring Compounds						
2) Dibromofluoromethane(S)	5.78	111	61750	26.32	ppb	0.00
Spiked Amount 25.000			Recovery = 105.268%			
3) 1,2-DCA-D4(S)	6.17	65	68044	25.90	ppb	0.00
Spiked Amount 25.000			Recovery = 103.596%			
5) Toluene-D8(S)	8.30	98	209654	25.15	ppb	0.00
Spiked Amount 25.000			Recovery = 100.580%			
6) 4-Bromofluorobenzene(S)	10.92	174	80482	24.38	ppb	0.00
Spiked Amount 25.000			Recovery = 97.532%			

Target Compounds Qvalue

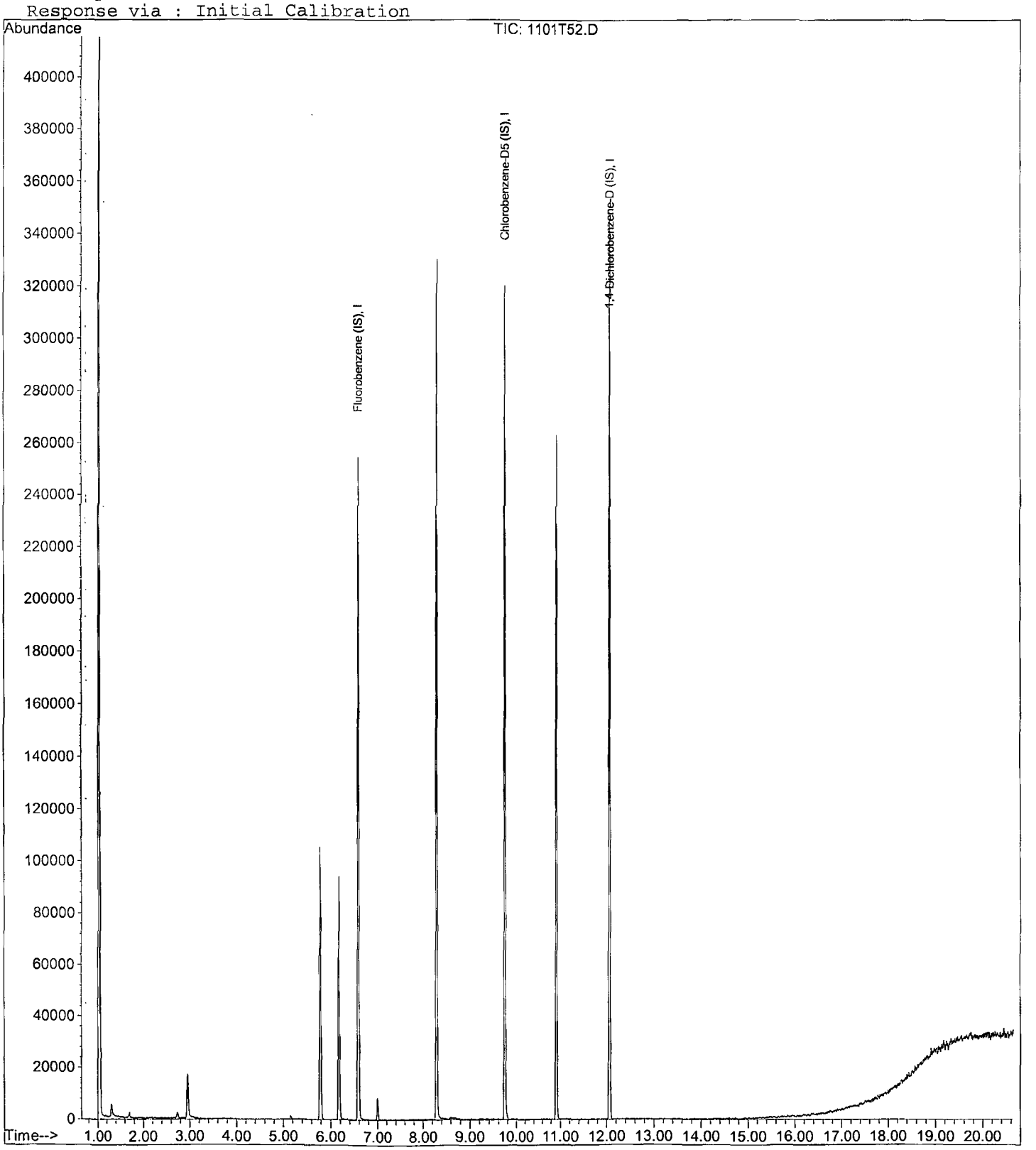
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\THOR\DATA\T191028\1101T52.D Vial: 50
Acq On : 2 Nov 19 13:21 Operator:
Sample : BA02215W01 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Nov 4 14:00 2019 Quant Results File: TGAS1026.RES

Method : M:\THOR\DATA\T191023\TGAS1026.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 28 12:08:31 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\THOR\DATA\T191028\1101T53.D Vial: 51
Acq On : 2 Nov 19 13:49 Operator:
Sample : BA02216W01 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Nov 4 14:00 2019 Quant Results File: TGAS1026.RES

Quant Method : M:\THOR\DATA\T191028\TGAS1026.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 28 12:08:31 2019
Response via : Initial Calibration
DataAcq Meth : T8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	6.59	TIC	254443	25.00	ppb	0.00
3) Chlorobenzene-D5 (IS)	9.74	TIC	331044	25.00	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	12.06	TIC	350917	25.00	ppb	0.00

System Monitoring Compounds

Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\THOR\DATA\T191028\1101T53.D Vial: 51
Acq On : 2 Nov 19 13:49 Operator:
Sample : BA02216W01 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Nov 4 15:05 2019 Quant Results File: TSUR1023.RES

Quant Method : M:\THOR\DATA\T191028\TSUR1023.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:27:29 2019
Response via : Initial Calibration
DataAcq Meth : T8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	6.59	96	122360	25.00	ppb	0.00
4) Chlorobenzene-D5 (IS)	9.74	117	116616	25.00	ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	12.06	152	64728	25.00	ppb	0.00
System Monitoring Compounds						
2) Dibromofluoromethane(S)	5.79	111	59581	25.26	ppb	0.00
Spiked Amount 25.000			Recovery =	101.048%		
3) 1,2-DCA-D4(S)	6.17	65	66928	25.34	ppb	0.00
Spiked Amount 25.000			Recovery =	101.372%		
5) Toluene-D8(S)	8.30	98	207574	23.84	ppb	0.00
Spiked Amount 25.000			Recovery =	95.340%		
6) 4-Bromofluorobenzene(S)	10.92	174	81007	23.50	ppb	0.00
Spiked Amount 25.000			Recovery =	93.988%		

Target Compounds Qvalue

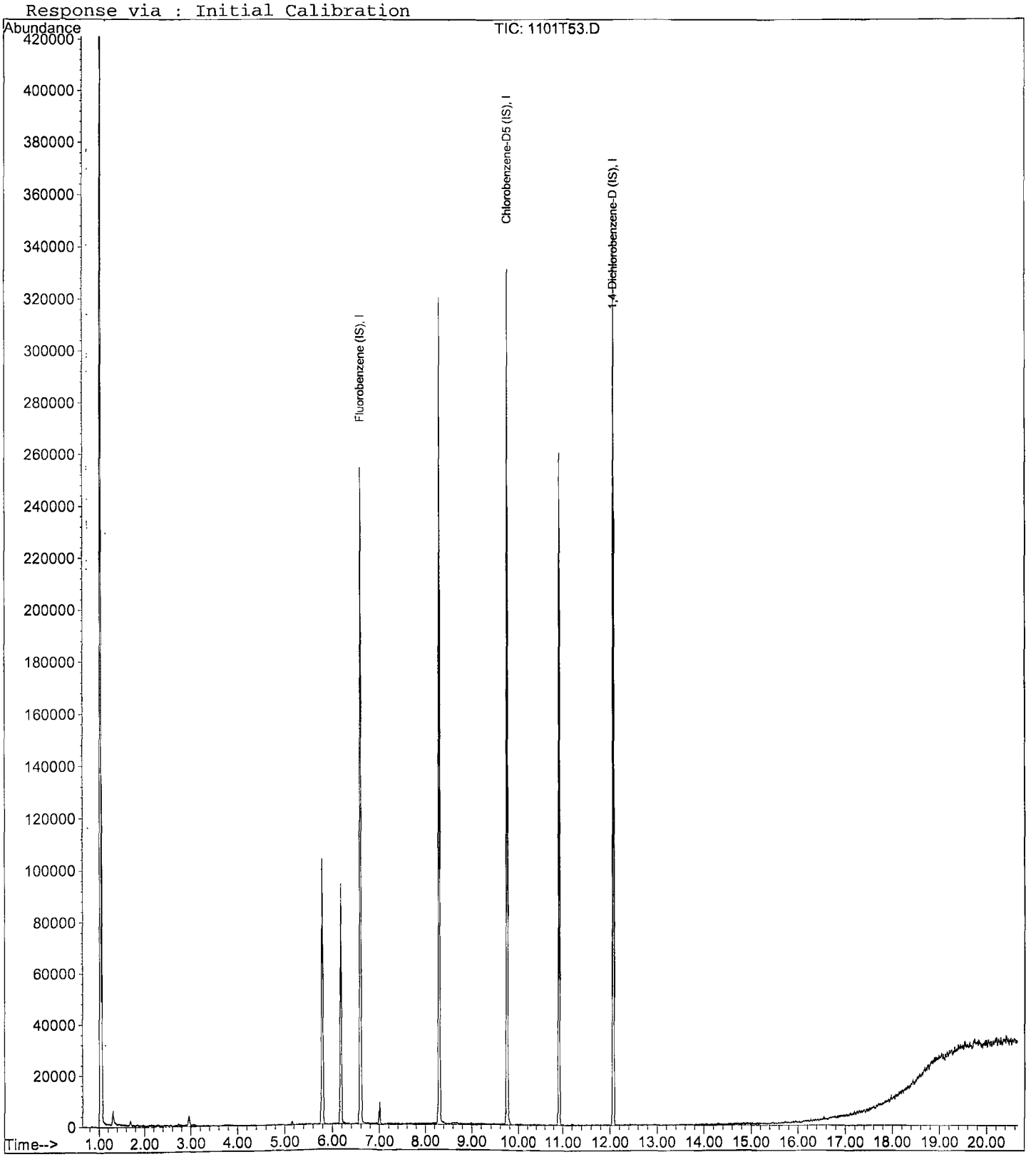
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\THOR\DATA\T191028\1101T53.D Vial: 51
Acq On : 2 Nov 19 13:49 Operator:
Sample : BA02216W01 Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Nov 4 14:00 2019 Quant Results File: TGAS1026.RES

Method : M:\THOR\DATA\T191023\TGAS1026.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 28 12:08:31 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\THOR\DATA\T191028\1101T40.D Vial: 38
Acq On : 2 Nov 19 7:41 Operator:
Sample : 191101B BLK Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Nov 4 14:59 2019 Quant Results File: TGAS1026.RES

Quant Method : M:\THOR\DATA\T191028\TGAS1026.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 28 12:08:31 2019
Response via : Initial Calibration
DataAcq Meth : T8260

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene (IS)	6.59	TIC	278295	25.00 ppb	0.00
3) Chlorobenzene-D5 (IS)	9.74	TIC	343324	25.00 ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	12.06	TIC	363500	25.00 ppb	0.00

System Monitoring Compounds

Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\THOR\DATA\T191028\1101T40.D Vial: 38
Acq On : 2 Nov 19 7:41 Operator:
Sample : 191101B BLK Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Nov 4 14:58 2019 Quant Results File: TSUR1023.RES

Quant Method : M:\THOR\DATA\T191028\TSUR1023.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:27:29 2019
Response via : Initial Calibration
DataAcq Meth : T8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	6.59	96	134144	25.00	ppb	0.00
4) Chlorobenzene-D5 (IS)	9.74	117	118384	25.00	ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	12.06	152	66672	25.00	ppb	0.00
System Monitoring Compounds						
2) Dibromofluoromethane(S)	5.78	111	60076	23.23	ppb	0.00
Spiked Amount 25.000			Recovery =	92.936%		
3) 1,2-DCA-D4(S)	6.17	65	67793	23.42	ppb	0.00
Spiked Amount 25.000			Recovery =	93.664%		
5) Toluene-D8(S)	8.30	98	214506	24.26	ppb	0.00
Spiked Amount 25.000			Recovery =	97.052%		
6) 4-Bromofluorobenzene(S)	10.92	174	82974	23.71	ppb	0.00
Spiked Amount 25.000			Recovery =	94.832%		

Target Compounds Qvalue

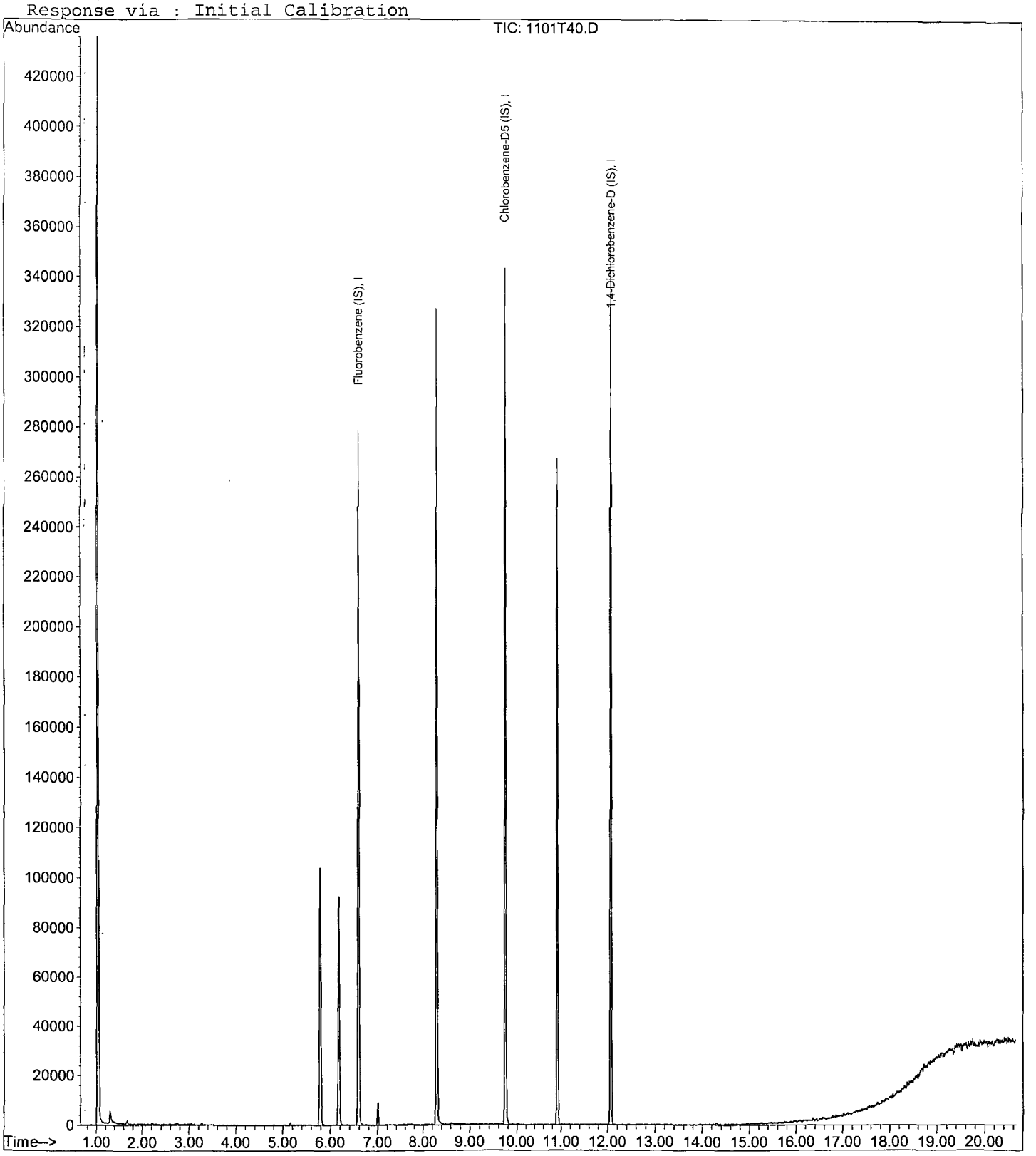
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\THOR\DATA\T191028\1101T40.D Vial: 38
Acq On : 2 Nov 19 7:41 Operator:
Sample : 191101B BLK Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Nov 4 14:59 2019 Quant Results File: TGAS1026.RES

Method : M:\THOR\DATA\T191023\TGAS1026.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 28 12:08:31 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\THOR\DATA\T191028\1101T35.D Vial: 33
Acq On : 2 Nov 19 5:20 Operator:
Sample : 191101B LCSD 300ug/L Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Nov 4 13:29 2019 Quant Results File: TGAS1026.RES

Quant Method : M:\THOR\DATA\T191028\TGAS1026.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 28 12:08:31 2019
Response via : Initial Calibration
DataAcq Meth : T8260

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene (IS)	6.59	TIC	272579	25.00 ppb	0.00
3) Chlorobenzene-D5 (IS)	9.74	TIC	344136	25.00 ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	12.06	TIC	368116	25.00 ppb	0.00
System Monitoring Compounds					
Target Compounds					Qvalue
2) Gasoline C6-C10	9.74	TIC	3416061m	234.24 ppb	100

(#) = qualifier out of range (m) = manual integration
1101T35.D TGAS1026.M Wed Dec 04 13:39:31 2019 Page 1

Quantitation Report (Not Reviewed)

Data File : M:\THOR\DATA\T191028\1101T35.D Vial: 33
Acq On : 2 Nov 19 5:20 Operator:
Sample : 191101B LCSD 300ug/L Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Nov 4 14:58 2019 Quant Results File: TSUR1023.RES

Quant Method : M:\THOR\DATA\T191028\TSUR1023.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Oct 24 09:27:29 2019
Response via : Initial Calibration
DataAcq Meth : T8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	6.59	96	132032	25.00	ppb	0.00
4) Chlorobenzene-D5 (IS)	9.74	117	121784	25.00	ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	12.06	152	66944	25.00	ppb	0.00
System Monitoring Compounds						
2) Dibromofluoromethane(S)	5.78	111	59633	23.43	ppb	0.00
Spiked Amount 25.000			Recovery =	93.728%		
3) 1,2-DCA-D4(S)	6.17	65	66256	23.25	ppb	0.00
Spiked Amount 25.000			Recovery =	93.004%		
5) Toluene-D8(S)	8.29	98	209745	23.06	ppb	0.00
Spiked Amount 25.000			Recovery =	92.252%		
6) 4-Bromofluorobenzene(S)	10.91	174	84083	23.35	ppb	0.00
Spiked Amount 25.000			Recovery =	93.416%		

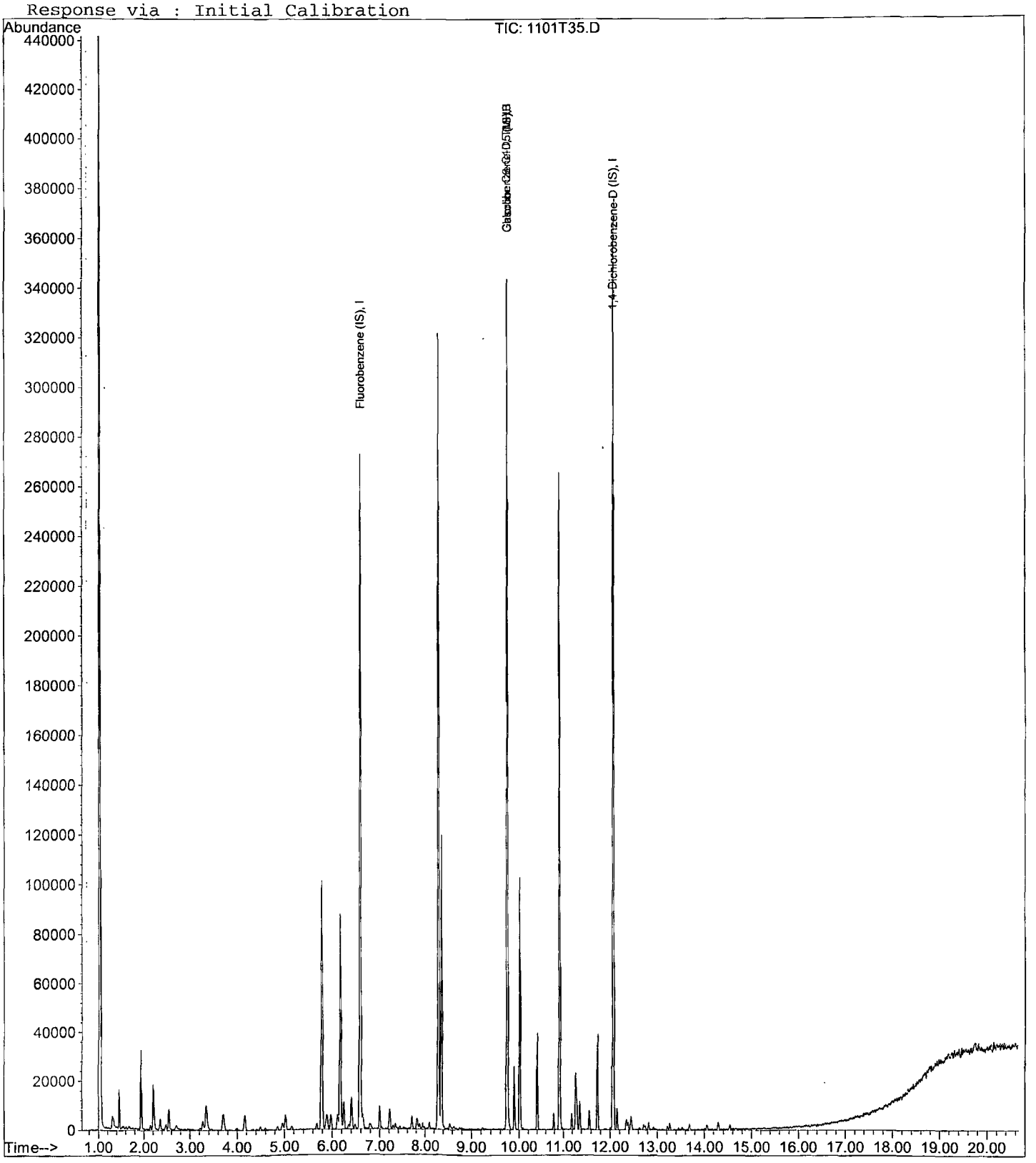
Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration

Data File : M:\THOR\DATA\T191028\1101T35.D Vial: 33
Acq On : 2 Nov 19 5:20 Operator:
Sample : 191101B LCSD 300ug/L Inst : Thor
Misc : IS&S 9/23/19 Multiplr: 1.00

Quant Time: Nov 4 13:29 2019 Quant Results File: TGAS1026.RES

Method : M:\THOR\DATA\T191023\TGAS1026.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Mon Oct 28 12:08:31 2019
Response via : Initial Calibration



Injection Log

Directory: M:\THOR\DATA\T191023\

Vial	FileName	Multiplier	SampleName	Misc Info	Injected
6	1023T06.D	1	0.3ug/L VOC STD 10/23/19	IS&S 9/23/19	23 Oct 19 19:32
7	1023T07.D	1	0.5ug/L VOC STD 10/23/19	IS&S 9/23/19	23 Oct 19 20:01
8	1023T08.D	1	1.0ug/L VOC STD 10/23/19	IS&S 9/23/19	23 Oct 19 20:29
9	1023T09.D	1	2.0ug/L VOC STD 10/23/19	IS&S 9/23/19	23 Oct 19 20:58
10	1023T10.D	1	5.0ug/L VOC STD 10/23/19	IS&S 9/23/19	23 Oct 19 21:26
11	1023T11.D	1	10ug/L VOC STD 10/23/19	IS&S 9/23/19	23 Oct 19 21:55
12	1023T12.D	1	20ug/L VOC STD 10/23/19	IS&S 9/23/19	23 Oct 19 22:23
13	1023T13.D	1	40ug/L VOC STD 10/23/19	IS&S 9/23/19	23 Oct 19 22:52
14	1023T14.D	1	100ug/L VOC STD 10/23/19	IS&S 9/23/19	23 Oct 19 23:20
2	1026T02.D	1	20ug/L GAS 10/26/19	IS&S 9/23/19	26 Oct 19 12:41
3	1026T03.D	1	50ug/L GAS 10/26/19	IS&S 9/23/19	26 Oct 19 13:09
4	1026T04.D	1	100ug/L GAS 10/26/19	IS&S 9/23/19	26 Oct 19 13:37
5	1026T05.D	1	300ug/L GAS 10/26/19	IS&S 9/23/19	26 Oct 19 14:06
6	1026T06.D	1	600ug/L GAS 10/26/19	IS&S 9/23/19	26 Oct 19 14:34
7	1026T07.D	1	800ug/L GAS 10/26/19	IS&S 9/23/19	26 Oct 19 15:03
1	1028T01.D	1	(SS) 300ug/L GAS 10/28/19	IS&S 9/23/19	28 Oct 19 15:43
32	1101T34.D	1	191101B CCV/LCS 300ug/L	IS&S 9/23/19	2 Nov 19 4:52
33	1101T35.D	1	191101B LCSD 300ug/L	IS&S 9/23/19	2 Nov 19 5:20
38	1101T40.D	1	191101B BLK	IS&S 9/23/19	2 Nov 19 7:41
48	1101T50.D	1	BA02213W01	IS&S 9/23/19	2 Nov 19 12:24
49	1101T51.D	1	BA02214W01	IS&S 9/23/19	2 Nov 19 12:52
50	1101T52.D	1	BA02215W01	IS&S 9/23/19	2 Nov 19 13:21
51	1101T53.D	1	BA02216W01	IS&S 9/23/19	2 Nov 19 13:49
53	1101T55.D	1	Ending CCV 300ug/L 11/1/19	IS&S 9/23/19	2 Nov 19 14:46

ORGANICS
Calibration Data

RSK 175
RSK 175

Form 6
Initial Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Initial Cal. Date: 10/02/19
Matrix: Instrument: 7890 Initials:

1002R02.D 1002R03.D 1002R04.D 1002R05.D 1002R06.D 1002R07.D 1002R08.D

		Compound	1	2	3	4	5	6	7				Avg	%RSD	Type	r^2	Q
1	ATM	Methane	63820	40452	36215	45202	48427	44031	45774				46274	19	ATM		
2	ATM	Ethane	42546	31037	26553	34655	37738	32771	32974				34039	15	ATM		
3	ATM	Ethene	32900	24299	20841	27689	29847	25551	26297				26775	15	ATM		
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1.377886

Quantitation Report (Not Reviewed)

Data File : G:\ROCKY\DATA\191002RS\1002R02.D Vial: 2
Acq On : 2 Oct 19 17:45 Operator: GA
Sample : RSK STD 1 10/2/19 Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 2 18:11 2019 Quant Results File: RSK1002.RES

Method : G:\ROCKY\DATA\190929RS\RSK1002.M (Chemstation Integrator)
Title : RSK 175
Last Update : Wed Oct 02 18:14:49 2019
Response via : Multiple Level Calibration

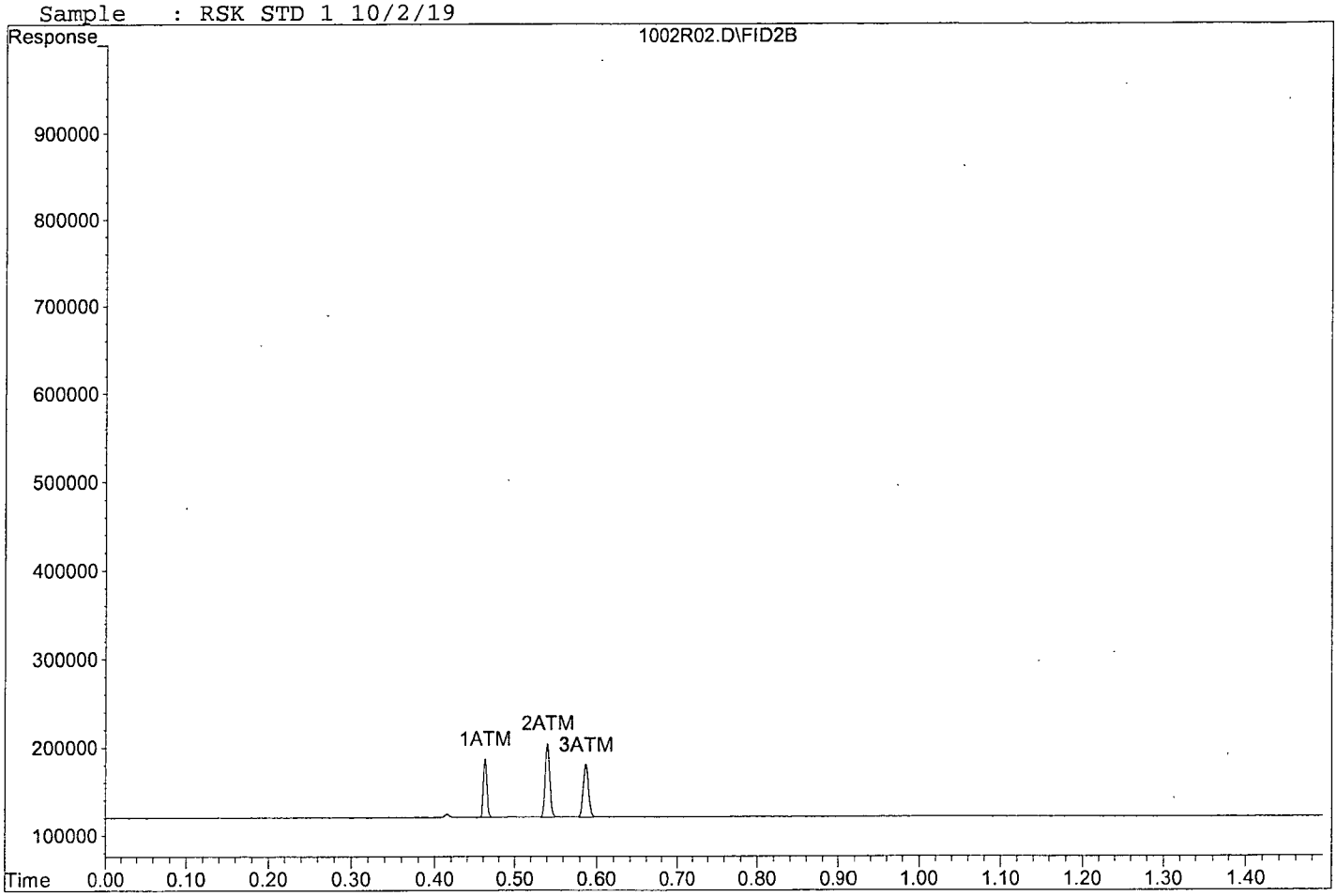
Volume Inj. : 0.500 mL
Signal Phase : CARBOPACK
Signal Info :

Compound	R.T.	Response	Conc Units
Target Compounds			
1) ATM Methane	0.46	66373	8.306 ppb
2) ATM Ethane	0.54	83177	6.216 ppb
3) ATM Ethene	0.59	60042	5.640 ppb

Target Compounds

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: G:\ROCKY\DATA\191002RS\1002R02.D
Sample : RSK STD 1 10/2/19



Quantitation Report (Not Reviewed)

Data File : G:\ROCKY\DATA\191002RS\1002R03.D Vial: 3
Acq On : 2 Oct 19 17:50 Operator: GA
Sample : RSK STD 2 10/2/19 Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 2 18:11 2019 Quant Results File: RSK1002.RES

Method : G:\ROCKY\DATA\190929RS\RSK1002.M (Chemstation Integrator)
Title : RSK 175
Last Update : Wed Oct 02 18:14:49 2019
Response via : Multiple Level Calibration

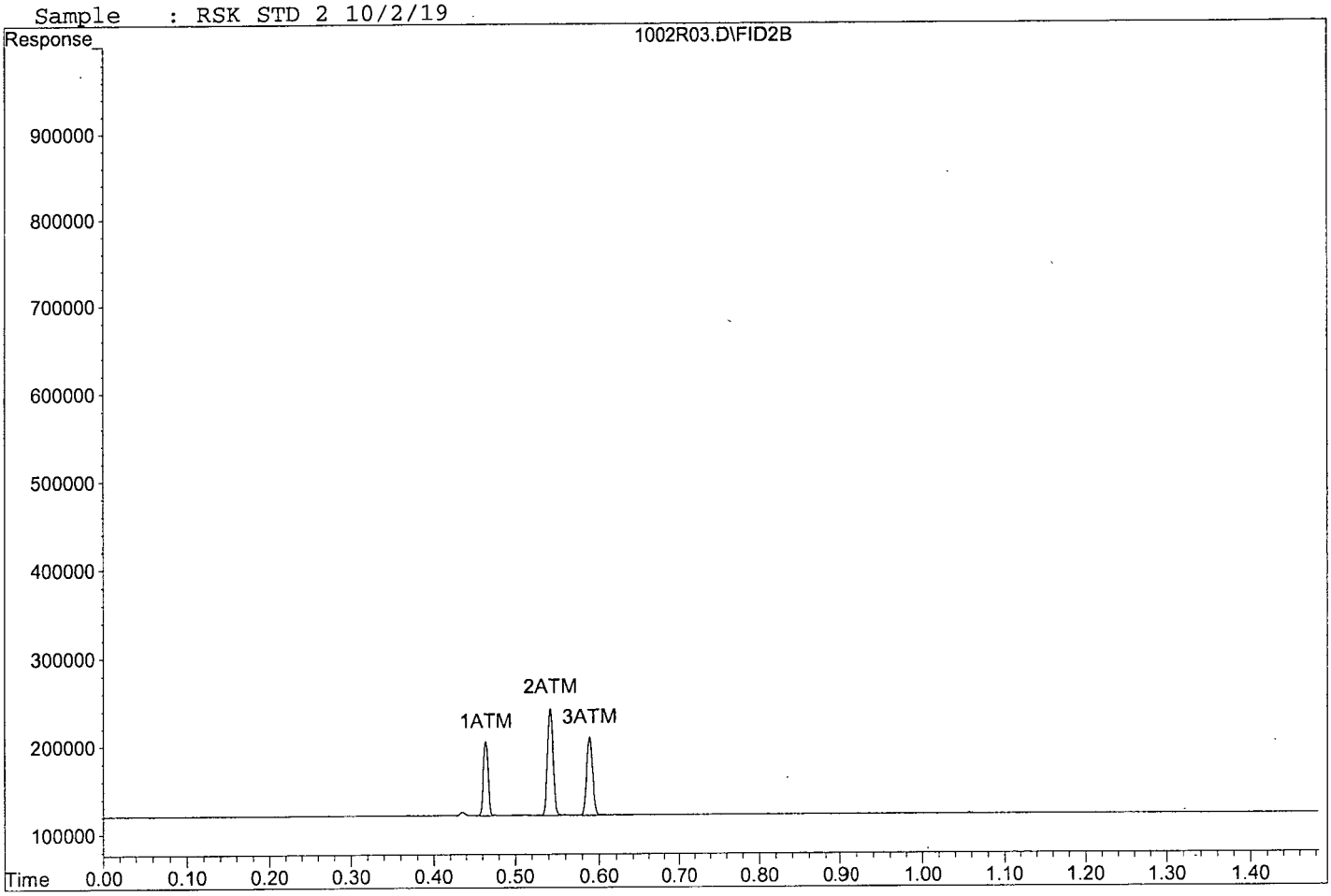
Volume Inj. : 0.500 mL
Signal Phase : CARBOPACK
Signal Info :

Compound	R.T.	Response	Conc	Units
Target Compounds				
1) ATM Methane	0.46	84140	9.332	ppb
2) ATM Ethane	0.54	121200	9.058	ppb
3) ATM Ethene	0.59	88693	8.332	ppb

Target Compounds

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: G:\ROCKY\DATA\191002RS\1002R03.D
Sample : RSK STD 2 10/2/19



Quantitation Report (Not Reviewed)

Data File : G:\ROCKY\DATA\191002RS\1002R04.D Vial: 4
Acq On : 2 Oct 19 17:52 Operator: GA
Sample : RSK STD 3 10/2/19 Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 2 18:11 2019 Quant Results File: RSK1002.RES

Method : G:\ROCKY\DATA\190929RS\RSK1002.M (Chemstation Integrator)
Title : RSK 175
Last Update : Wed Oct 02 18:14:49 2019
Response via : Multiple Level Calibration

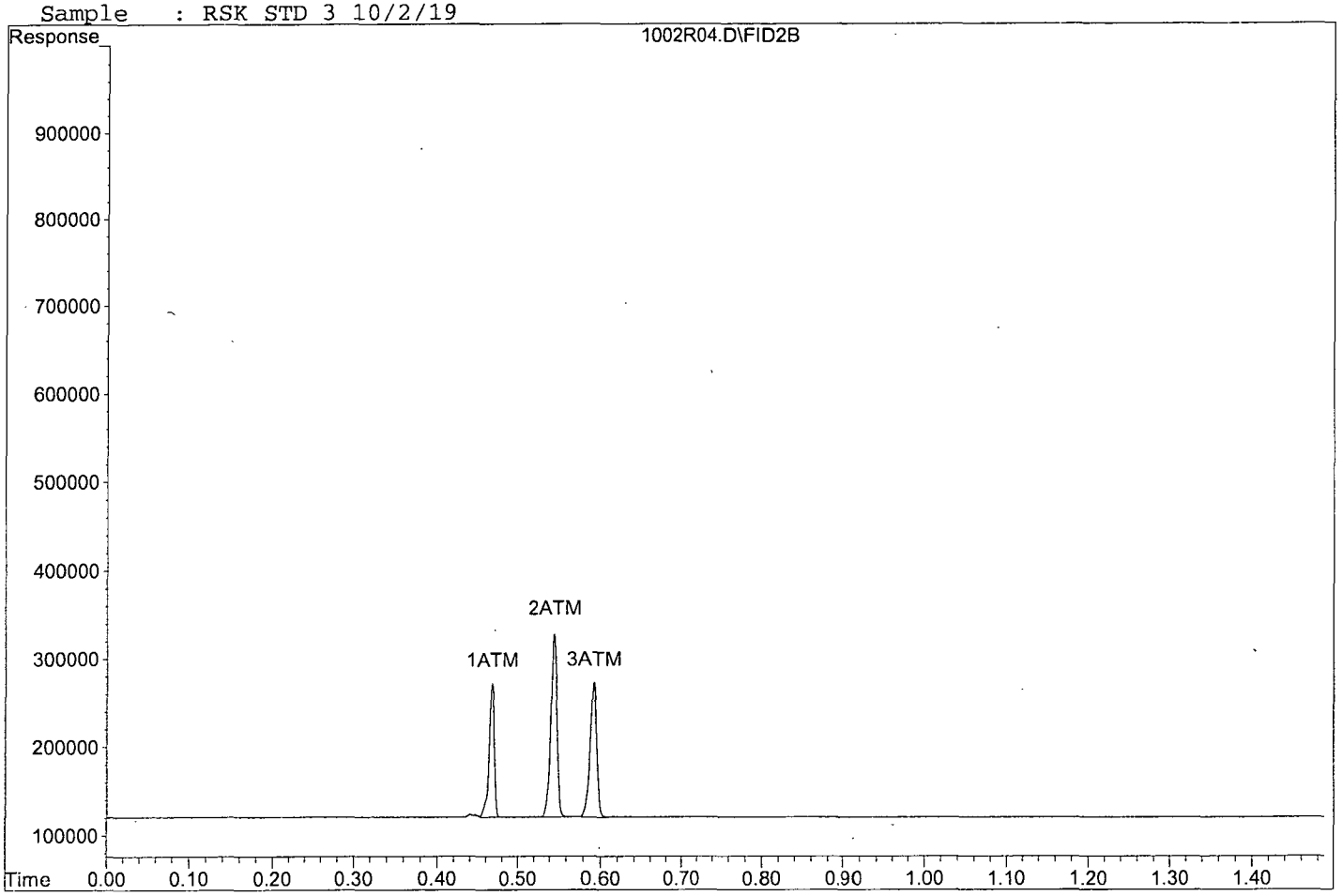
Volume Inj. : 0.500 mL
Signal Phase : CARBOPACK
Signal Info :

Compound	R.T.	Response	Conc Units
Target Compounds			
1) ATM Methane	0.47	151018	13.195 ppb
2) ATM Ethane	0.55	207113	15.479 ppb
3) ATM Ethene	0.59	152138	14.292 ppb

Target Compounds

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: G:\ROCKY\DATA\191002RS\1002R04.D
Sample : RSK STD 3 10/2/19



Quantitation Report (Not Reviewed)

Data File : G:\ROCKY\DATA\191002RS\1002R05.D Vial: 5
Acq On : 2 Oct 19 17:57 Operator: GA
Sample : RSK STD 4 10/2/19 Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 2 18:11 2019 Quant Results File: RSK1002.RES

Method : G:\ROCKY\DATA\190929RS\RSK1002.M (Chemstation Integrator)
Title : RSK 175
Last Update : Wed Oct 02 18:14:49 2019
Response via : Multiple Level Calibration

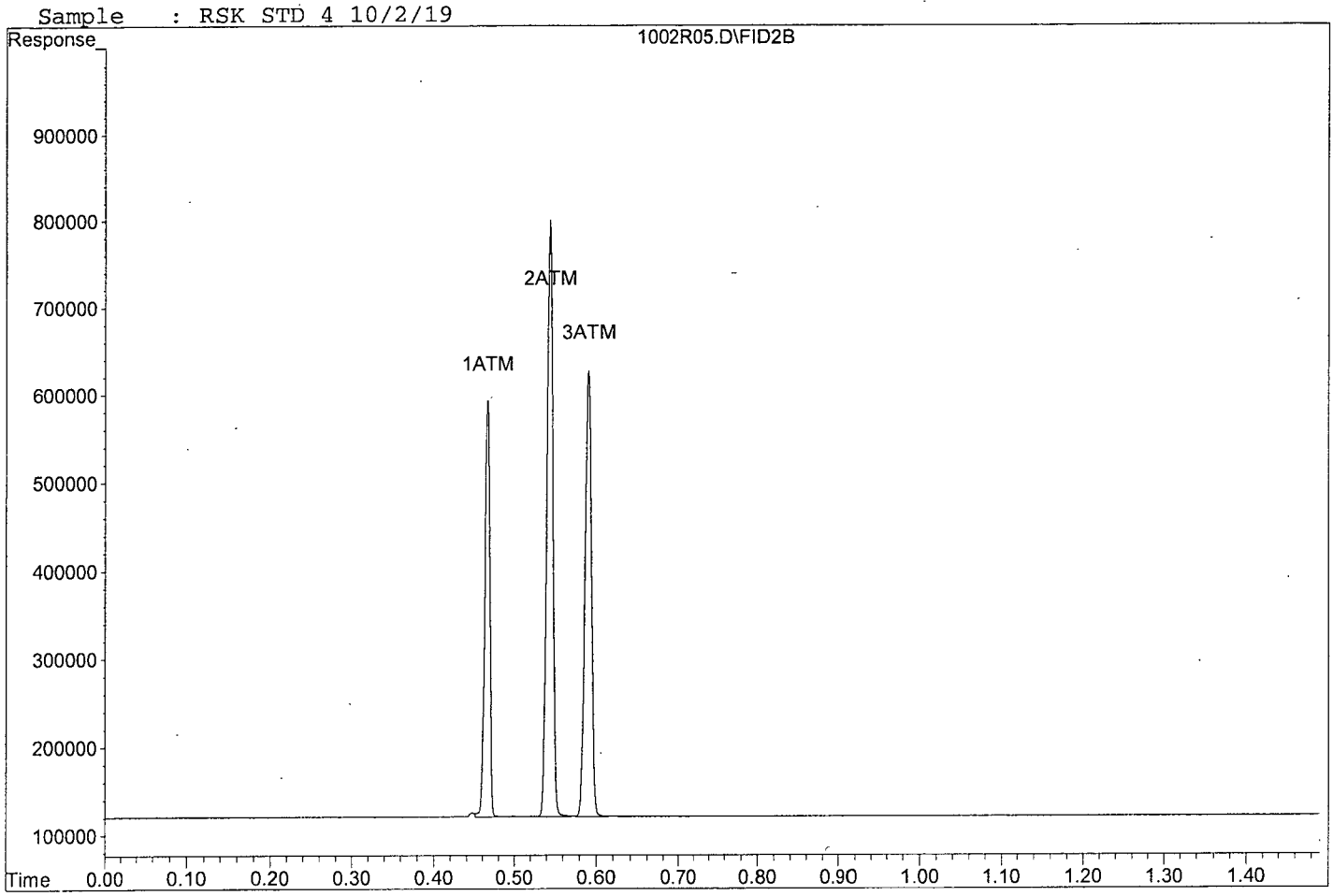
Volume Inj. : 0.500 mL
Signal Phase : CARBOPACK
Signal Info :

Compound	R.T.	Response	Conc Units
Target Compounds			
1) ATM Methane	0.47	471234	31.689 ppb
2) ATM Ethane	0.54	677330	50.623 ppb
3) ATM Ethene	0.59	504779	47.419 ppb

Target Compounds

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: G:\ROCKY\DATA\191002RS\1002R05.D
Sample : RSK STD 4 10/2/19



Quantitation Report (Not Reviewed)

Data File : G:\ROCKY\DATA\191002RS\1002R06.D Vial: 6
Acq On : 2 Oct 19 17:59 Operator: GA
Sample : RSK STD 5 10/2/19 Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 2 18:11 2019 Quant Results File: RSK1002.RES

Method : G:\ROCKY\DATA\190929RS\RSK1002.M (Chemstation Integrator)
Title : RSK 175
Last Update : Wed Oct 02 18:14:49 2019
Response via : Multiple Level Calibration

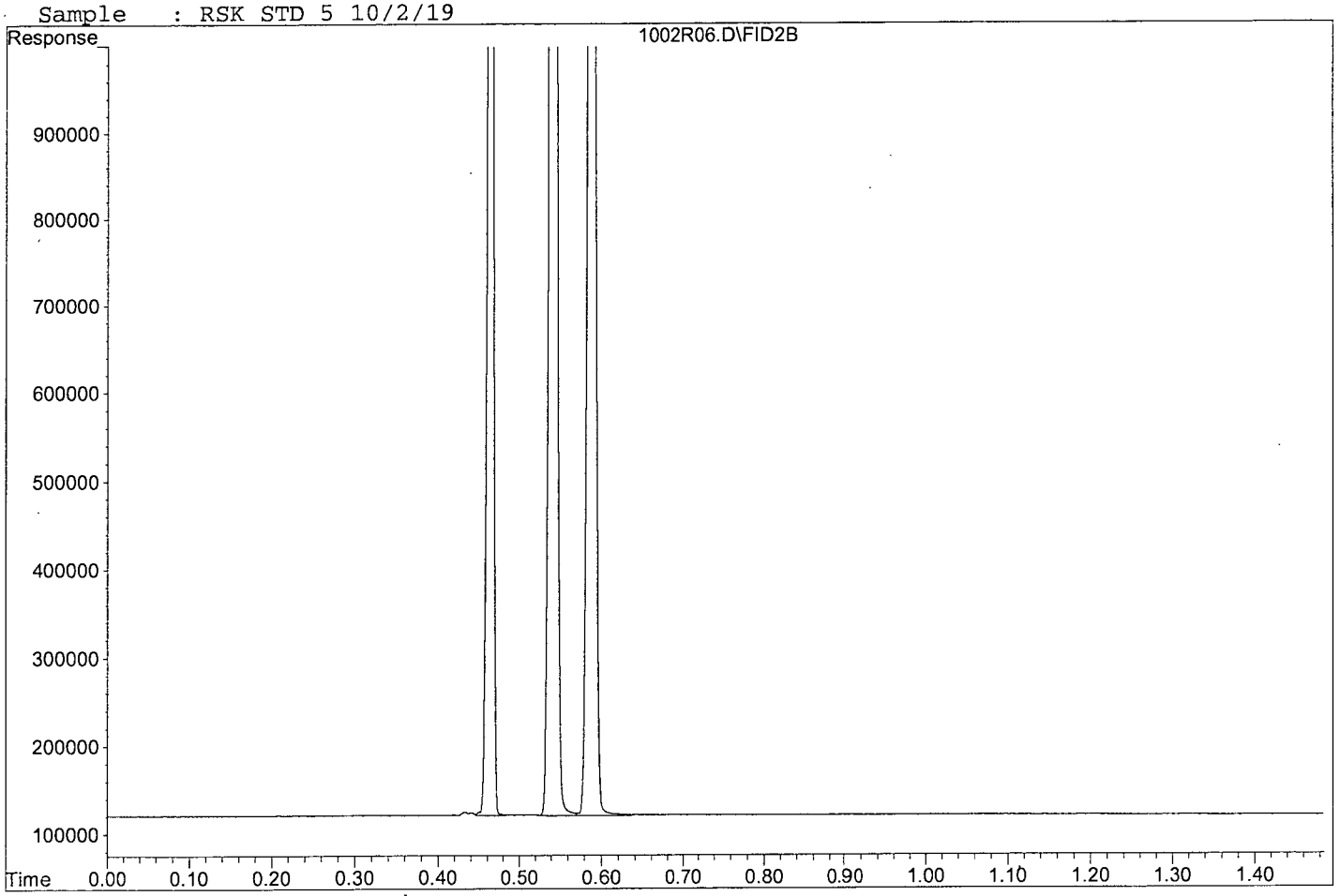
Volume Inj. : 0.500 mL
Signal Phase : CARBOPACK
Signal Info :

Compound	R.T.	Response	Conc	Units
Target Compounds				
1) ATM Methane	0.46	2019402	121.105	ppb
2) ATM Ethane	0.54	2950189	220.492	ppb
3) ATM Ethene	0.59	2176445	204.454	ppb

Target Compounds

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: G:\ROCKY\DATA\191002RS\1002R06.D
Sample : RSK STD 5 10/2/19



Quantitation Report (Not Reviewed)

Data File : G:\ROCKY\DATA\191002RS\1002R07.D Vial: 7
Acq On : 2 Oct 19 18:05 Operator: GA
Sample : RSK STD 6 10/2/19 Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 2 18:11 2019 Quant Results File: RSK1002.RES

Method : G:\ROCKY\DATA\190929RS\RSK1002.M (Chemstation Integrator)
Title : RSK 175
Last Update : Wed Oct 02 18:14:49 2019
Response via : Multiple Level Calibration

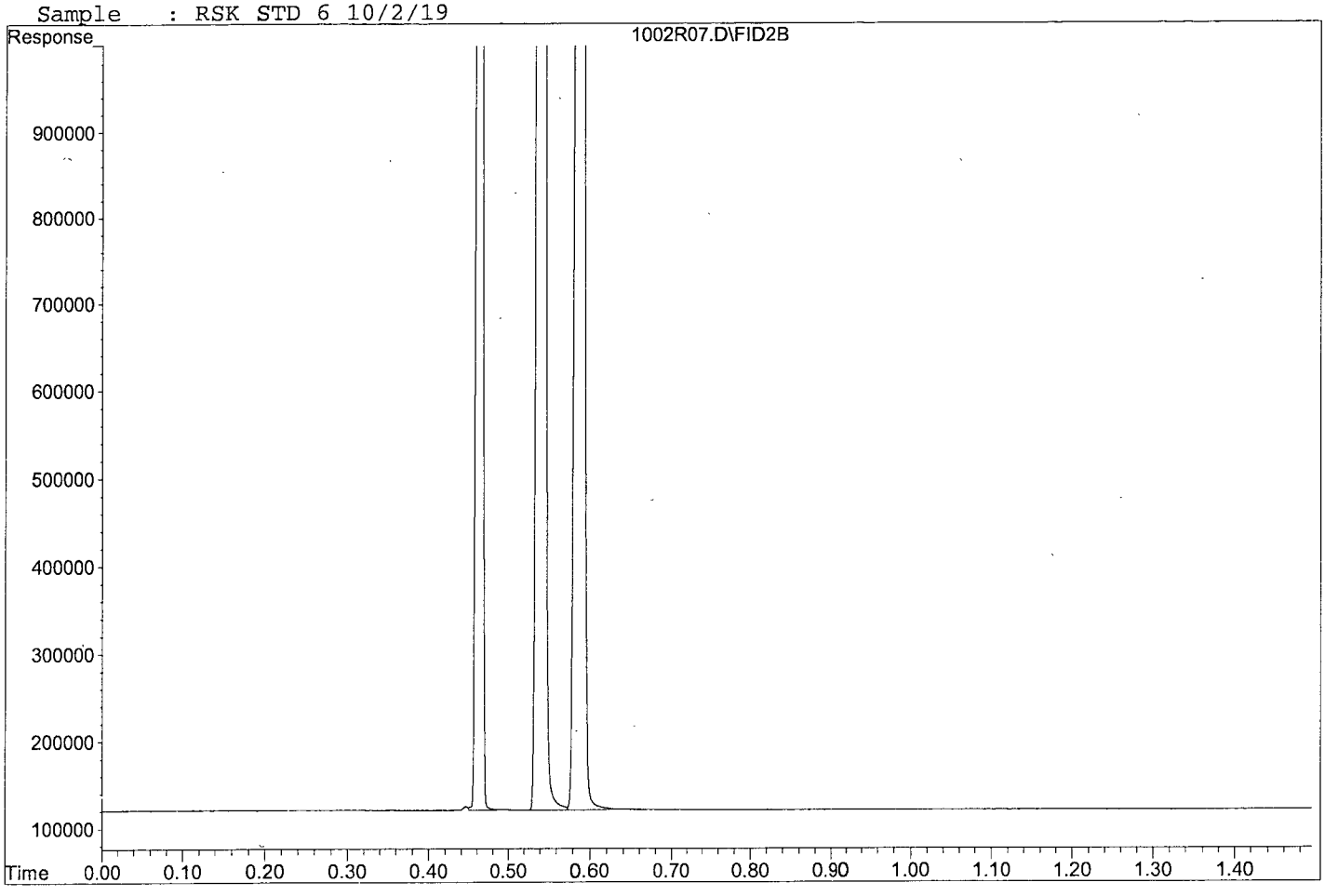
Volume Inj. : 0.500 mL
Signal Phase : CARBOPACK
Signal Info :

Compound	R.T.	Response	Conc	Units
Target Compounds				
1) ATM Methane	0.46	4590194	269.583	ppb
2) ATM Ethane	0.54	6405030	478.702	ppb
3) ATM Ethene	0.59	4657966	437.567	ppb

Target Compounds

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: G:\ROCKY\DATA\191002RS\1002R07.D
Sample : RSK STD 6 10/2/19



Quantitation Report (Not Reviewed)

Data File : G:\ROCKY\DATA\191002RS\1002R08.D Vial: 8
Acq On : 2 Oct 19 18:07 Operator: GA
Sample : RSK STD 7 10/2/19 Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 2 18:11 2019 Quant Results File: RSK1002.RES

Method : G:\ROCKY\DATA\190929RS\RSK1002.M (Chemstation Integrator)
Title : RSK 175
Last Update : Wed Oct 02 18:14:49 2019
Response via : Multiple Level Calibration

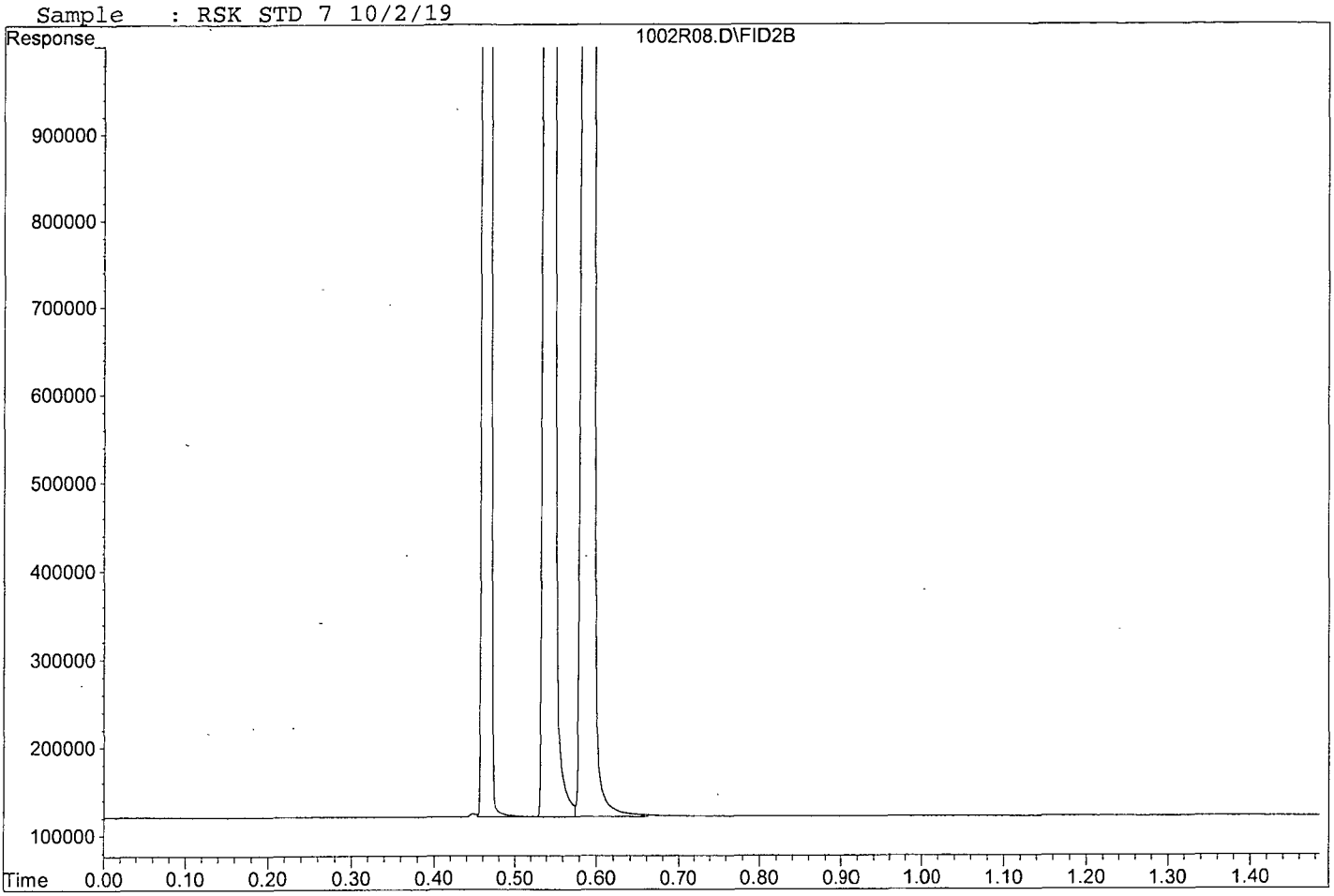
Volume Inj. : 0.500 mL
Signal Phase : CARBOPACK
Signal Info :

Compound	R.T.	Response	Conc	Units
Target Compounds				
1) ATM Methane	0.46	19087907	1106.909	ppb
2) ATM Ethane	0.54	25777712	1926.584	ppb
3) ATM Ethene	0.59	19176068	1801.389	ppb

Target Compounds

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: G:\ROCKY\DATA\191002RS\1002R08.D
Sample : RSK STD 7 10/2/19



Form 7

Second Source Calibration

Lab Name: APPL, Inc.
Case No:
Matrix:

SDG No:
Date Analyzed: 2 Oct 19 18:24
Instrument: 7890
Initial Cal. Date: 10/02/19
Data File: 1002R10.D

		Compound	MEAN	CCRF	%D		%Drift
1	ATM	Methane	46275	50203	8.5	ATM	
2	ATM	Ethane	34039	37011	8.7	ATM	
3	ATM	Ethene	26775	28699	7.2	ATM	
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
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30							
31							
32							
33							
34							
35							
36							
37							
38							
39							
40							
		Average			8.1		

Quantitation Report (Not Reviewed)

Data File : G:\ROCKY\DATA\191002RS\1002R10.D Vial: 10
Acq On : 2 Oct 19 18:24 Operator: GA
Sample : SS RSK STD 5 10/2/19 Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 2 18:27 2019 Quant Results File: RSK1002.RES

Method : G:\ROCKY\DATA\190929RS\RSK1002.M (Chemstation Integrator)
Title : RSK 175
Last Update : Wed Oct 02 18:14:49 2019
Response via : Multiple Level Calibration

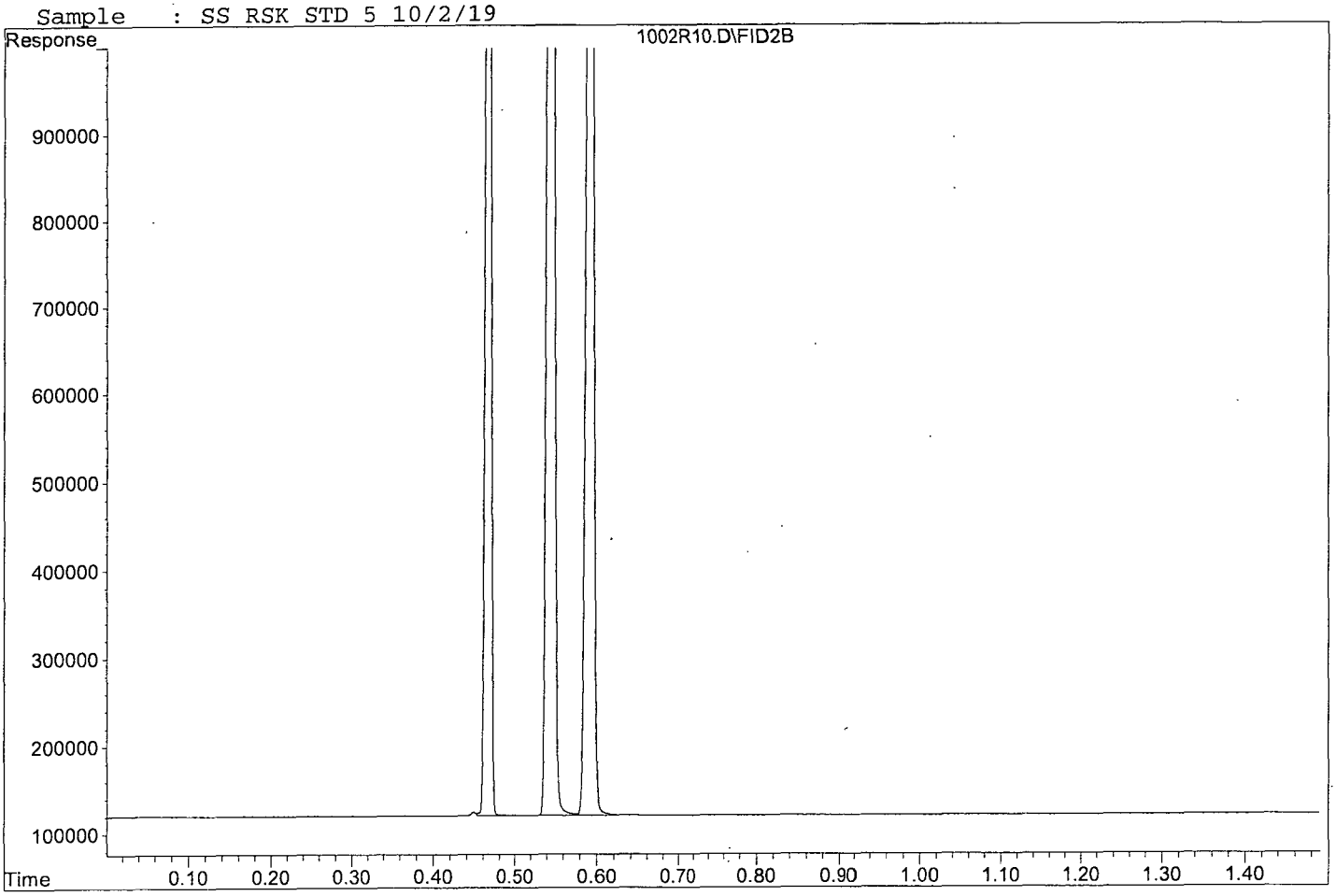
Volume Inj. : 0.500 mL
Signal Phase : CARBOPACK
Signal Info :

Compound	R.T.	Response	Conc Units
Target Compounds			
1) ATM Methane	0.47	2093456	90.480 ppb
2) ATM Ethane	0.54	2893356	170.002 ppb
3) ATM Ethene	0.59	2092707	156.318 ppb

Target Compounds

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: G:\ROCKY\DATA\191002RS\1002R10.D
Sample : SS RSK STD 5 10/2/19



Form 7

Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix:

SDG No:
Date Analyzed: 5 Nov 19 16:15
Instrument: 7890
Initial Cal. Date: 10/02/19
Data File: 1105R04.D

		Compound	MEAN	CCRF	%D		%Drift
1	ATM	Methane	46275	44205	4.5	ATM	
2	ATM	Ethane	34039	33253	2.3	ATM	
3	ATM	Ethene	26775	27961	4.4	ATM	
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
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28							
29							
30							
31							
32							
33							
34							
35							
36							
37							
38							
39							
40							
		Average			3.7		

Quantitation Report (Not Reviewed)

Data File : G:\ROCKY\DATA\191002RS\1105R04.D Vial: 4
Acq On : 5 Nov 19 16:15 Operator: GA
Sample : 191105A LCS/CCV RSK STD 5 Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Nov 5 16:18 2019 Quant Results File: RSK1002.RES

Method : G:\ROCKY\DATA\190929RS\RSK1002.M (Chemstation Integrator)
Title : RSK 175
Last Update : Tue Nov 05 16:18:20 2019
Response via : Multiple Level Calibration

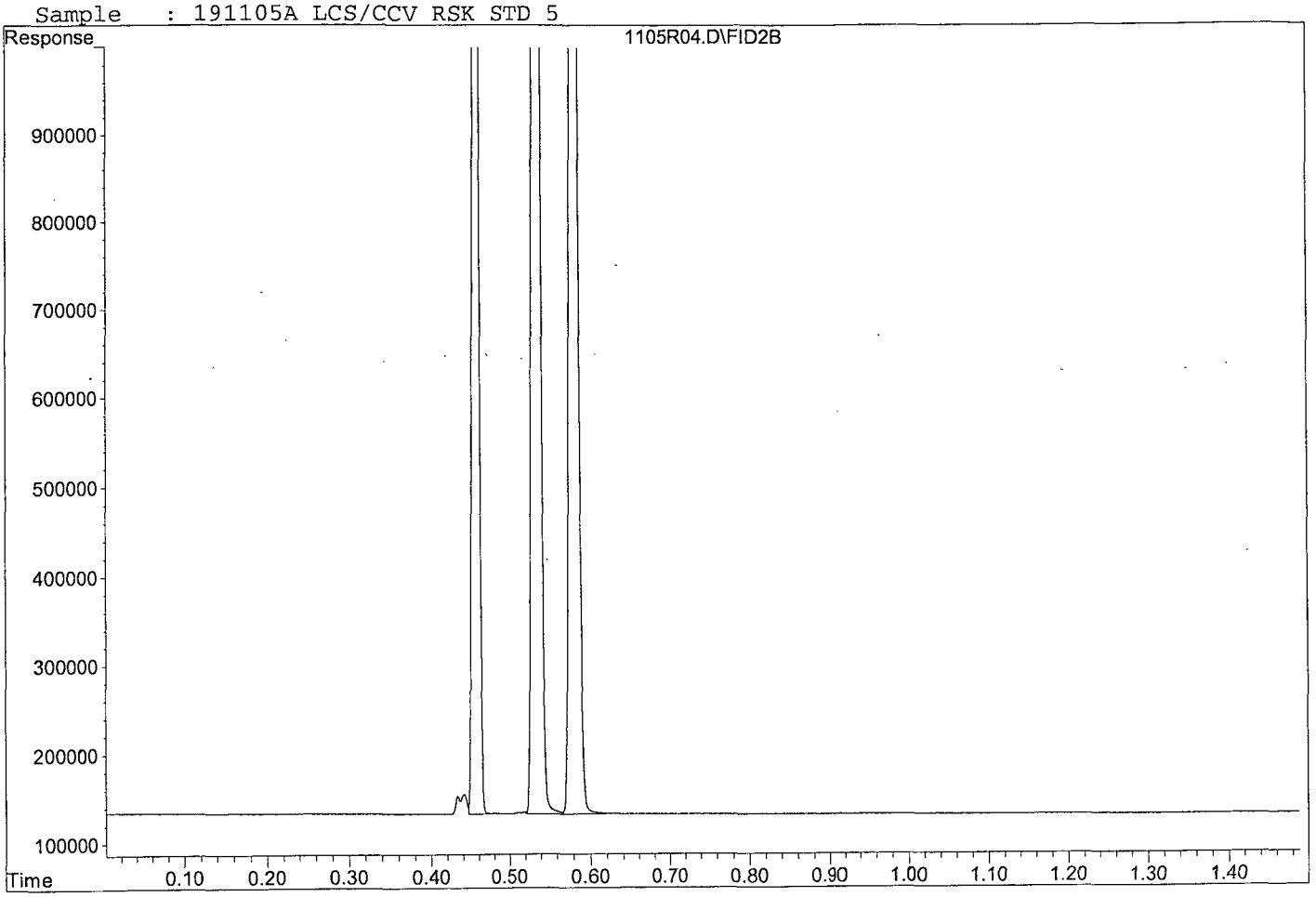
Volume Inj. : 0.500 mL
Signal Phase : CARBOPACK
Signal Info :

Compound	R.T.	Response	Conc Units
Target Compounds			
1) ATM Methane	0.46	1843337	79.670 ppb
2) ATM Ethane	0.54	2599551	152.739 ppb
3) ATM Ethene	0.58	2038888	152.298 ppb

Target Compounds

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: G:\ROCKY\DATA\191002RS\1105R04.D
Sample : 191105A LCS/CCV RSK STD 5



RSK 175
RSK 175

Form 7

Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix:

SDG No:
Date Analyzed: 5 Nov 19 17:43
Instrument: 7890
Initial Cal. Date: 10/02/19
Data File: 1105R29.D

		Compound	MEAN	CCRF	%D	%Drift	
1	ATM	Methane	46275	39919	14	ATM	
2	ATM	Ethane	34039	29129	14	ATM	
3	ATM	Ethene	26775	23744	11	ATM	
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
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28							
29							
30							
31							
32							
33							
34							
35							
36							
37							
38							
39							
40							
		Average			13.0		

Quantitation Report (Not Reviewed)

Data File : G:\ROCKY\DATA\191002RS\1105R29.D Vial: 29
Acq On : 5 Nov 19 17:43 Operator: GA
Sample : ENDING CCV RSK STD 5 11/5/19 Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Nov 5 17:45 2019 Quant Results File: RSK1002.RES

Method : G:\ROCKY\DATA\190929RS\RSK1002.M (Chemstation Integrator)
Title : RSK 175
Last Update : Tue Nov 05 16:18:20 2019
Response via : Multiple Level Calibration

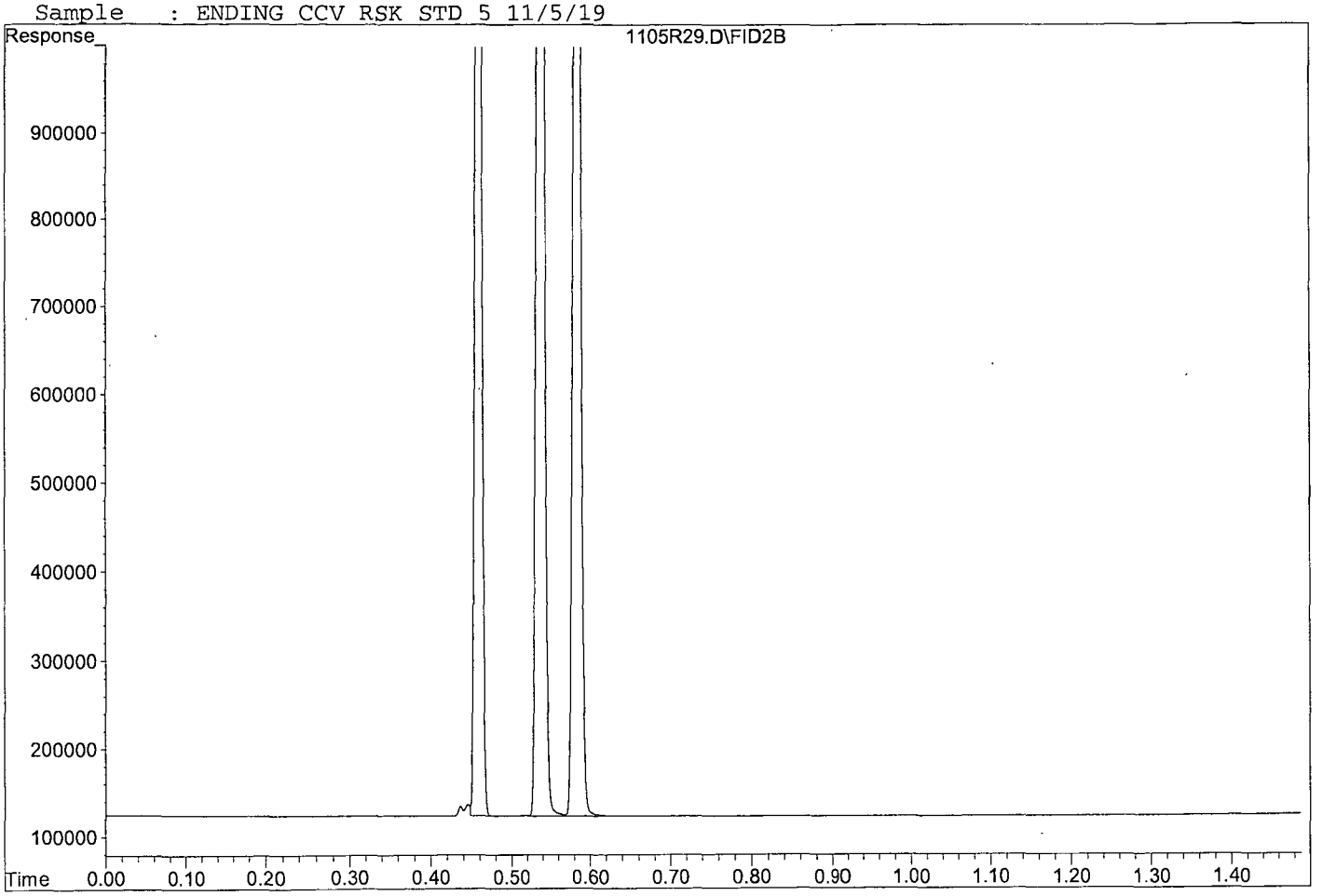
Volume Inj. : 0.500 mL
Signal Phase : CARBOPACK
Signal Info :

Compound	R.T.	Response	Conc Units
Target Compounds			
1) ATM Methane	0.46	1664622	71.946 ppb
2) ATM Ethane	0.54	2277178	133.798 ppb
3) ATM Ethene	0.58	1731413	129.331 ppb

Target Compounds

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: G:\ROCKY\DATA\191002RS\1105R29.D
Sample : ENDING CCV RSK STD 5 11/5/19



ORGANICS
Raw Data

Quantitation Report (QT Reviewed)

Data File : G:\ROCKY\DATA\191002RS\1105R20.D Vial: 20
Acq On : 5 Nov 19 17:12 Operator: GA
Sample : BA02213W02 Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Nov 5 17:16 2019 Quant Results File: RSK1002.RES

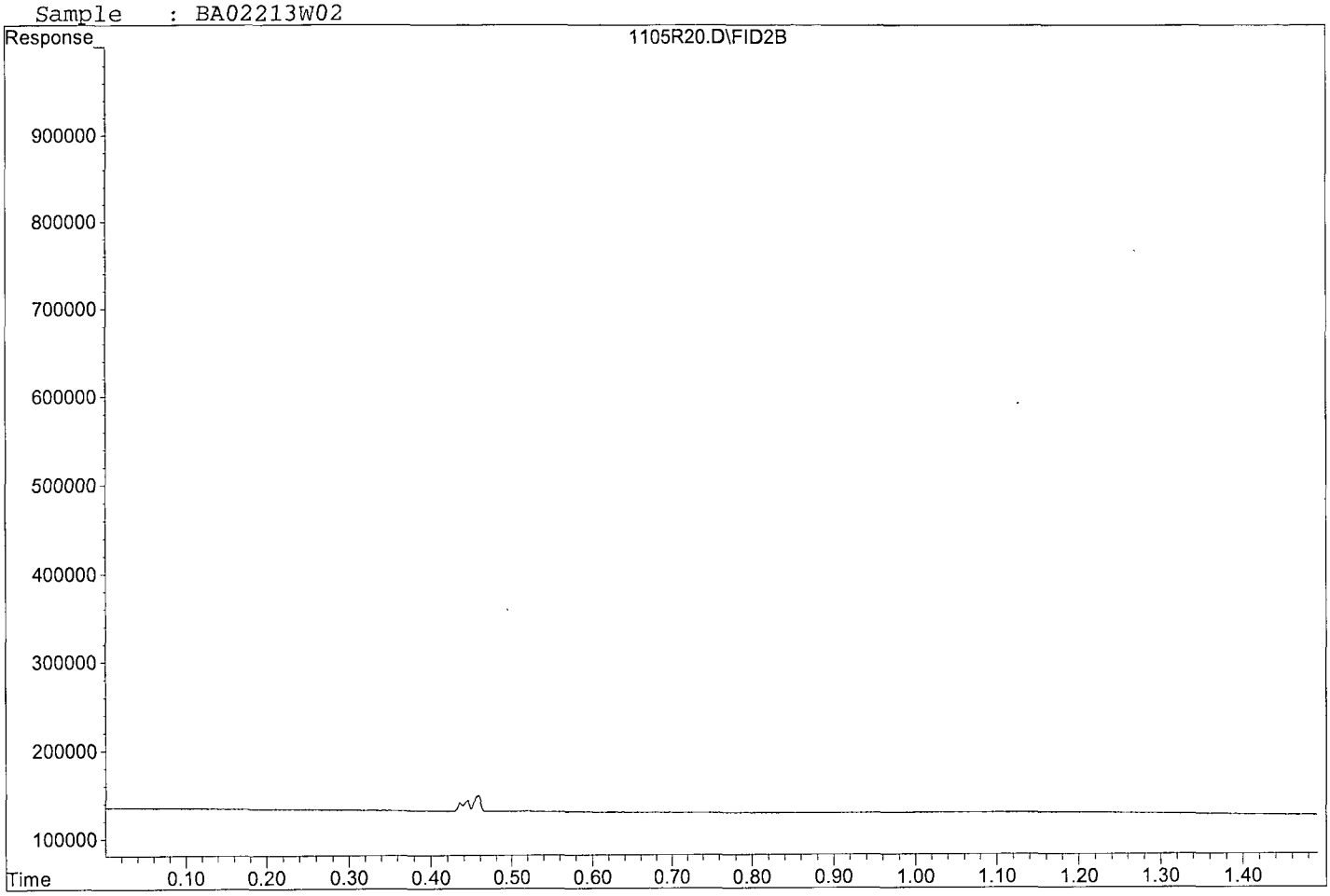
Method : G:\ROCKY\DATA\190929RS\RSK1002.M (Chemstation Integrator)
Title : RSK 175
Last Update : Tue Nov 05 16:18:20 2019
Response via : Multiple Level Calibration

Volume Inj. : 0.500 mL
Signal Phase : CARBOPACK
Signal Info :

Compound	R.T.	Response	Conc	Units	
Target Compounds					
Target Compounds					
1) ATM Methane	0.00	0	N.D.	ppb	d
2) ATM Ethane	0.00	0	N.D.	ppb	d
3) ATM Ethene	0.00	0	N.D.	ppb	d

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: G:\ROCKY\DATA\191002RS\1105R20.D
Sample : BA02213W02



Quantitation Report (QT Reviewed)

Data File : G:\ROCKY\DATA\191002RS\1105R21.D Vial: 21
Acq On : 5 Nov 19 17:16 Operator: GA
Sample : BA02214W02 Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Nov 5 17:19 2019 Quant Results File: RSK1002.RES

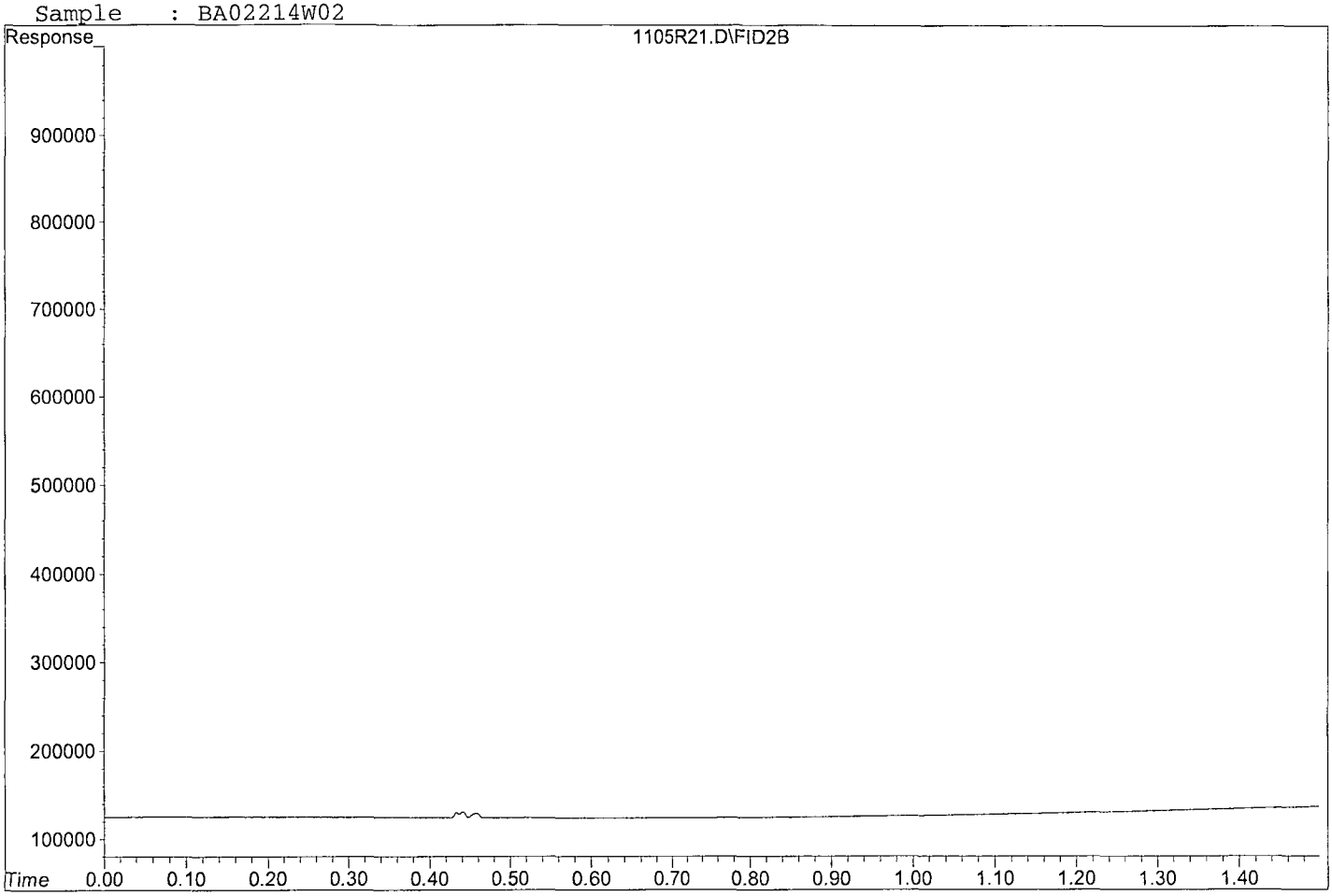
Method : G:\ROCKY\DATA\190929RS\RSK1002.M (Chemstation Integrator)
Title : RSK 175
Last Update : Tue Nov 05 16:18:20 2019
Response via : Multiple Level Calibration

Volume Inj. : 0.500 mL
Signal Phase : CARBOPACK
Signal Info :

Compound	R.T.	Response	Conc	Units	
Target Compounds					
Target Compounds					
1) ATM Methane	0.00	0	N.D.	ppb	d
2) ATM Ethane	0.00	0	N.D.	ppb	d
3) ATM Ethene	0.00	0	N.D.	ppb	d

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: G:\ROCKY\DATA\191002RS\1105R21.D
Sample : BA02214W02



Quantitation Report (QT Reviewed)

Data File : G:\ROCKY\DATA\191002RS\1105R24.D Vial: 24
Acq On : 5 Nov 19 17:26 Operator: GA
Sample : BA02215W02 Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Nov 5 17:28 2019 Quant Results File: RSK1002.RES

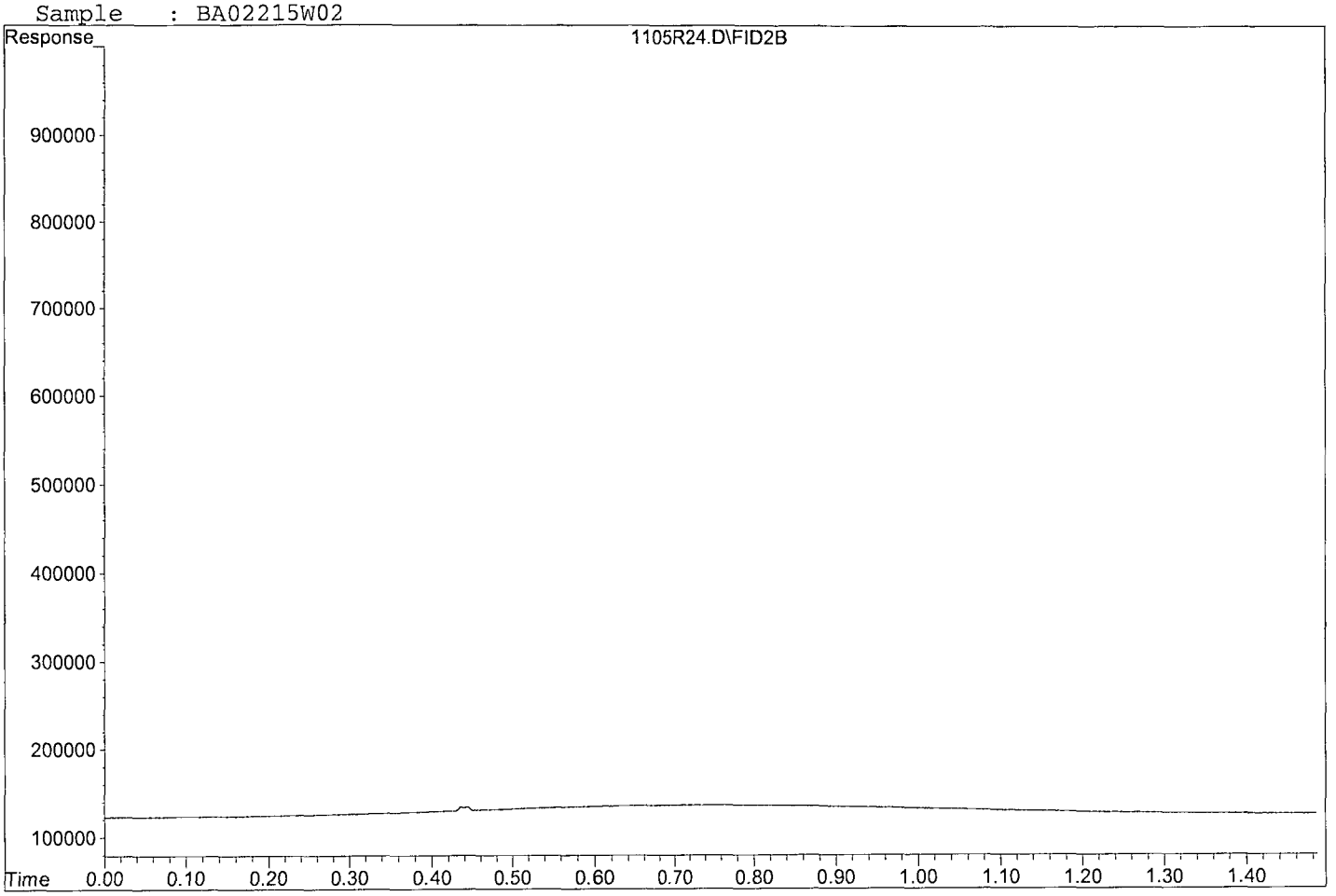
Method : G:\ROCKY\DATA\190929RS\RSK1002.M (Chemstation Integrator)
Title : RSK 175
Last Update : Tue Nov 05 16:18:20 2019
Response via : Multiple Level Calibration

Volume Inj. : 0.500 mL
Signal Phase : CARBOPACK
Signal Info :

Compound	R.T.	Response	Conc	Units	
Target Compounds					
Target Compounds					
1) ATM Methane	0.00	0	N.D.	ppb	d
2) ATM Ethane	0.00	0	N.D.	ppb	d
3) ATM Ethene	0.00	0	N.D.	ppb	d

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: G:\ROCKY\DATA\191002RS\1105R24.D
Sample : BA02215W02



Quantitation Report (QT Reviewed)

Data File : G:\ROCKY\DATA\191002RS\1105R23.D Vial: 23
Acq On : 5 Nov 19 17:23 Operator: GA
Sample : BA02216W02 Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Nov 5 17:26 2019 Quant Results File: RSK1002.RES

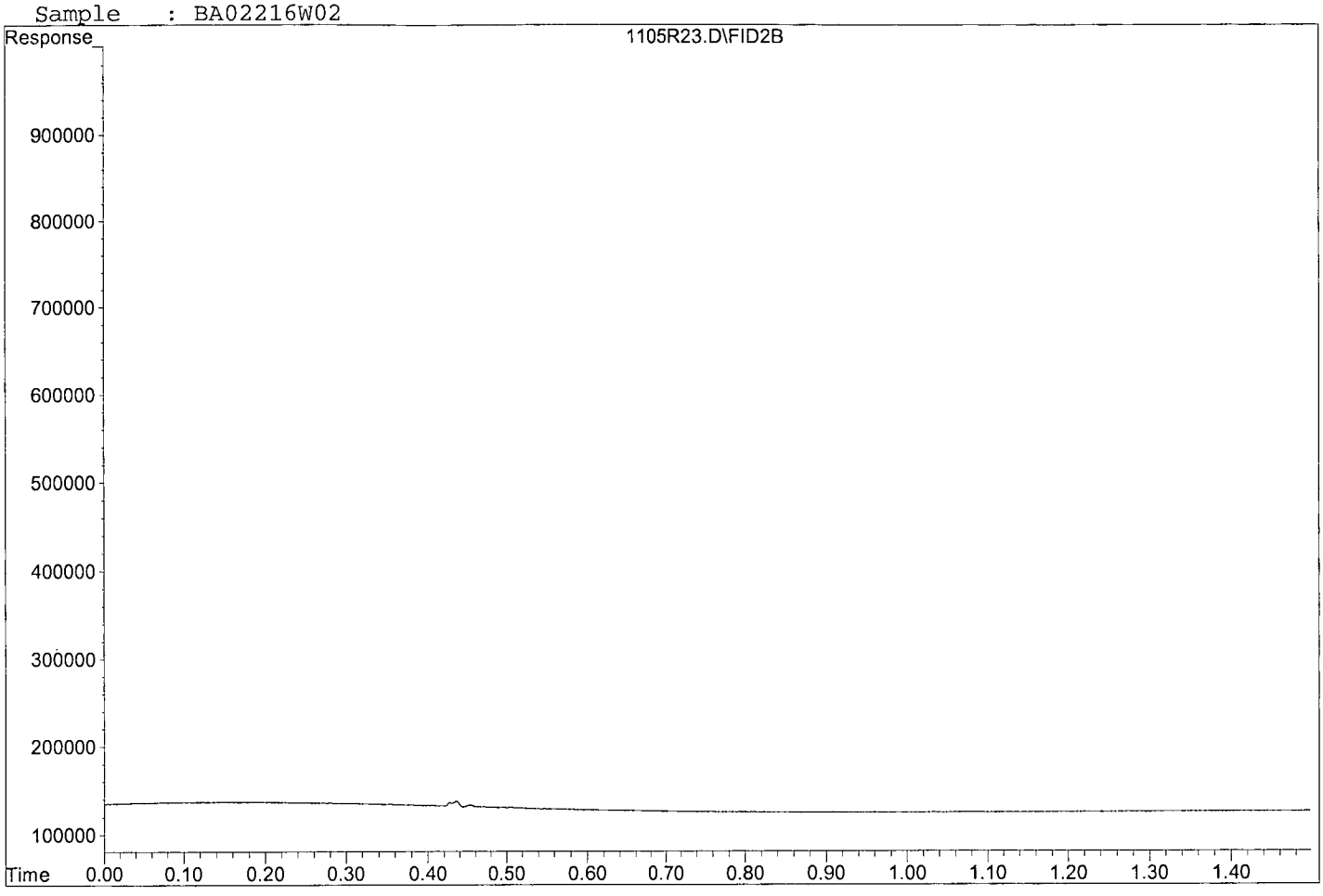
Method : G:\ROCKY\DATA\190929RS\RSK1002.M (Chemstation Integrator)
Title : RSK 175
Last Update : Tue Nov 05 16:18:20 2019
Response via : Multiple Level Calibration

Volume Inj. : 0.500 mL
Signal Phase : CARBOPACK
Signal Info :

Compound	R.T.	Response	Conc	Units	
Target Compounds					
Target Compounds					
1) ATM Methane	0.00	0	N.D.	ppb	d
2) ATM Ethane	0.00	0	N.D.	ppb	d
3) ATM Ethene	0.00	0	N.D.	ppb	d

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: G:\ROCKY\DATA\191002RS\1105R23.D
Sample : BA02216W02



Quantitation Report (QT Reviewed)

Data File : G:\ROCKY\DATA\191002RS\1105R06.D Vial: 6
Acq On : 5 Nov 19 16:23 Operator: GA
Sample : 191105A BLK Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Nov 5 16:26 2019 Quant Results File: RSK1002.RES

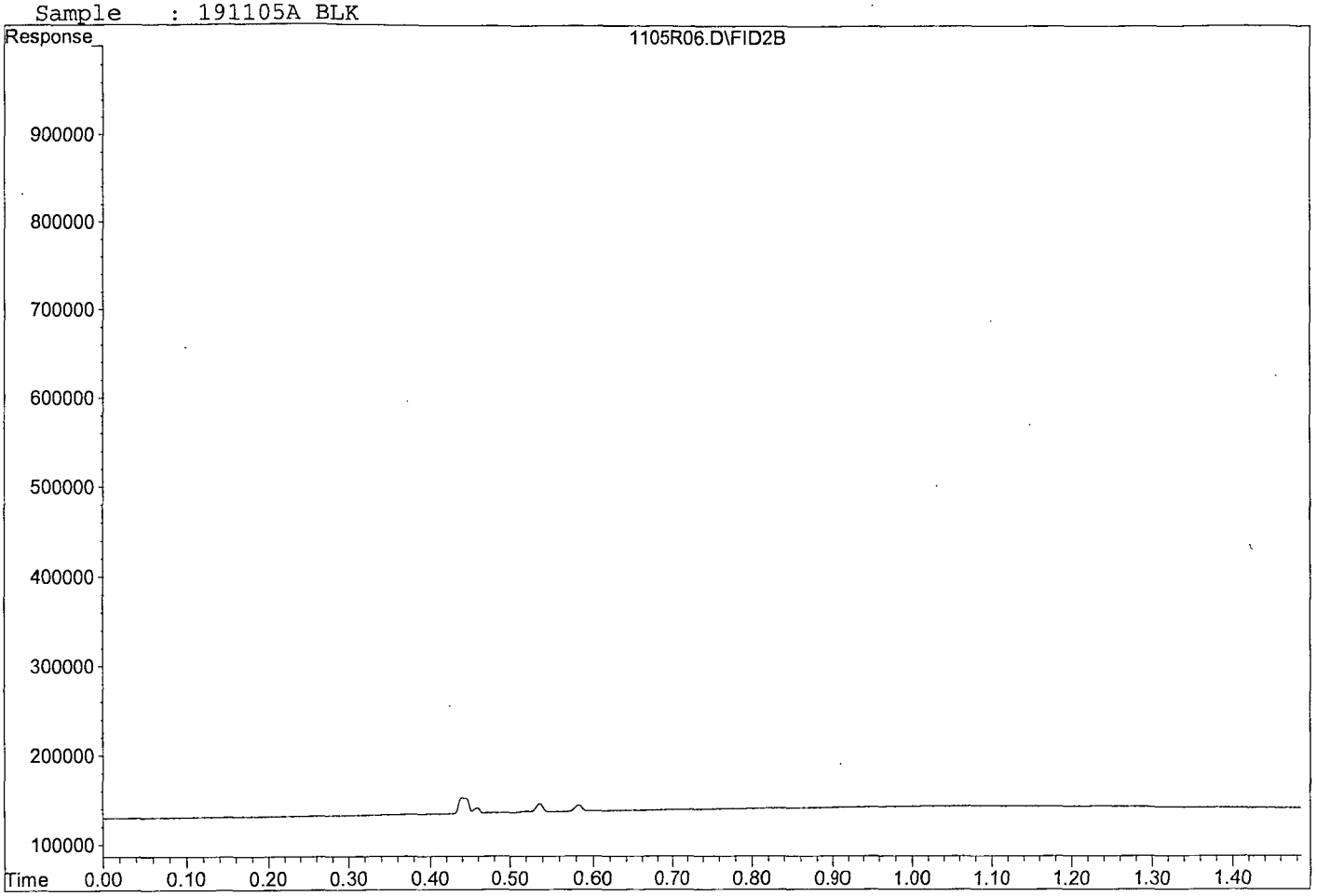
Method : G:\ROCKY\DATA\190929RS\RSK1002.M (Chemstation Integrator)
Title : RSK 175
Last Update : Tue Nov 05 16:18:20 2019
Response via : Multiple Level Calibration

Volume Inj. : 0.500 mL
Signal Phase : CARBOPACK
Signal Info :

Compound	R.T.	Response	Conc	Units	
Target Compounds					
Target Compounds					
1) ATM Methane	0.00	0	N.D.	ppb	d
2) ATM Ethane	0.00	0	N.D.	ppb	d
3) ATM Ethene	0.00	0	N.D.	ppb	d

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: G:\ROCKY\DATA\191002RS\1105R06.D
Sample : 191105A BLK



Quantitation Report (Not Reviewed)

Data File : G:\ROCKY\DATA\191002RS\1105R04.D Vial: 4
Acq On : 5 Nov 19 16:15 Operator: GA
Sample : 191105A LCS/CCV RSK STD 5 Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Nov 5 16:18 2019 Quant Results File: RSK1002.RES

Method : G:\ROCKY\DATA\190929RS\RSK1002.M (Chemstation Integrator)
Title : RSK 175
Last Update : Tue Nov 05 16:18:20 2019
Response via : Multiple Level Calibration

Volume Inj. : 0.500 mL
Signal Phase : CARBOPACK
Signal Info :

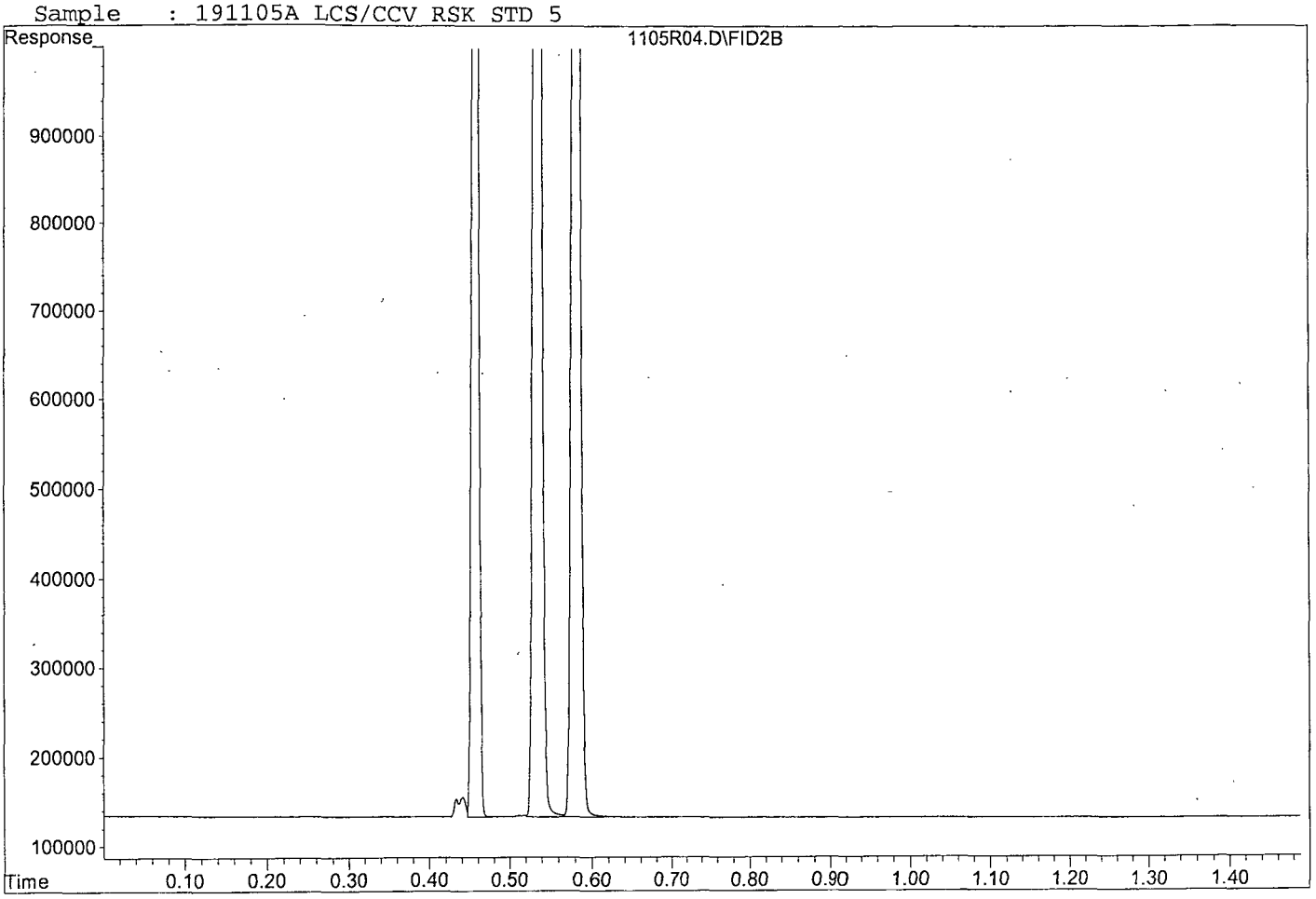
Compound	R.T.	Response	Conc Units
Target Compounds			
1) ATM Methane	0.46	1843337	79.670 ppb
2) ATM Ethane	0.54	2599551	152.739 ppb
3) ATM Ethene	0.58	2038888	152.298 ppb

Target Compounds

(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File: G:\ROCKY\DATA\191002RS\1105R04.D
Sample : 191105A LCS/CCV RSK STD 5



Quantitation Report (Not Reviewed)

Data File : G:\ROCKY\DATA\191002RS\1105R05.D Vial: 5
Acq On : 5 Nov 19 16:19 Operator: GA
Sample : 191105A LCSD Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Nov 5 16:22 2019 Quant Results File: RSK1002.RES

Method : G:\ROCKY\DATA\190929RS\RSK1002.M (Chemstation Integrator)
Title : RSK 175
Last Update : Tue Nov 05 16:18:20 2019
Response via : Multiple Level Calibration

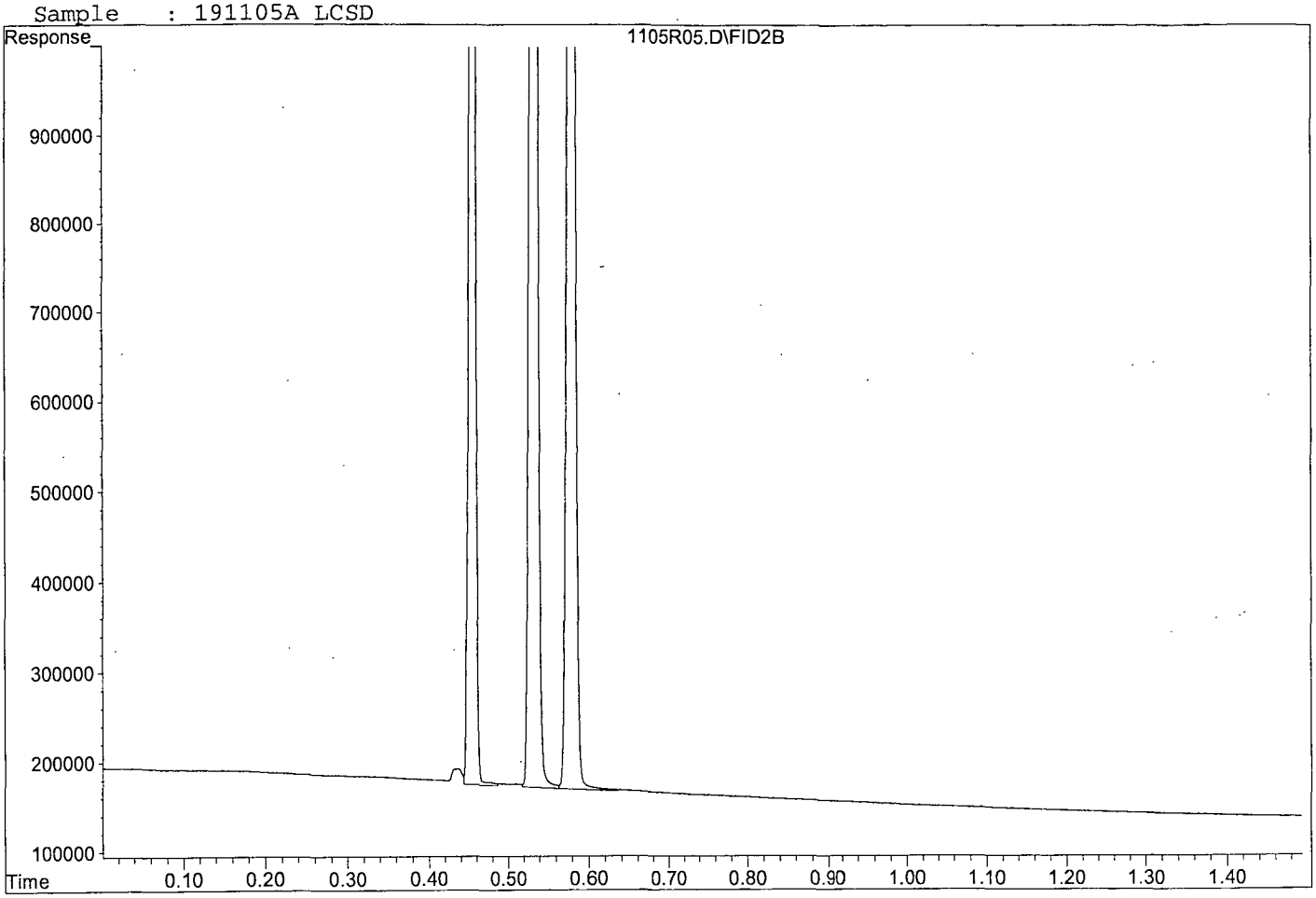
Volume Inj. : 0.500 mL
Signal Phase : CARBOPACK
Signal Info :

Compound	R.T.	Response	Conc	Units
Target Compounds				
1) ATM Methane	0.46	1975449	85.380	ppb
2) ATM Ethane	0.53	2712877	159.398	ppb
3) ATM Ethene	0.58	2102644	157.060	ppb

Target Compounds

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: G:\ROCKY\DATA\191002RS\1105R05.D
Sample : 191105A LCSD



Primary Stock Source

10,000ppmV **Manufacture Expiration:** 09/21/21

RSK Gas Mix (Scott Specialty Gas) CAT#X04NI97CP140001 LOT#160-401558175-1

1% Gas Concentration Moles = 10,000ppmV Methane, Ethane, Ethene

RSK Calibration Curve (prepared in 1.0 L Tedlar Bags at room temp) **01/02/19** **10/02/19**

Analyte	Conc Std 1 (1/2 = LOD) (ug/L)	Conc Std 2 (LOQ Chk) (ug/L)	Conc Std 3 (ug/L)	Conc Std 4 (ug/L)	Conc Std 5 (ug/L)	Conc Std 6 (ug/L)	Conc Std 7 (ug/L)
Methane (MW 16.04)	2.08	4.16	8.34	20.85	83.40	208.5	834.0
Ethane (MW 30.07)	3.91	7.81	15.6	39.09	156.35	390.9	1563.5
Ethene (MW 28.05)	3.65	7.30	14.6	36.46	145.84	364.6	1458.4
Stock Source	160-401558175-1	160-401558175-1	160-401558175-1	160-401558175-1	160-401558175-1	160-401558175-1	160-401558175-1
Stock Conc (ppmv)	10,000 ppmV	10,000 ppmV	10,000 ppmV	10,000 ppmV	10,000 ppmV	10,000 ppmV	10,000 ppmV
Stock Aliquot (mL)	0.010	0.020	0.040	0.100	0.400	1.00	4.00
Final Volume P&T Water	32 mL	32 mL	32 mL	32 mL	32 mL	32 mL	32 mL

Second Source Stock Standard 10,000ppmV **Manufacturer Exp date 9-21-2021**

RSK Gas Mix (Scott Specialty Gas) Cat.# 23452, Lot # 160-401303032-1-39774

1% Gas Concentration Moles = 10,000ppmV Methane, Ethane, Ethene

Second Source **Expires 10/03/19** **10/02/19**

2.0mL of SS from tank into 980 mL Nitrogen

final conc: 13.3ug/L Methane, 25.0 ug/L Ethane, and 23.3 ug/L Ethene

CCV/LCS/LCSD **GA 11/05/19**

Spike 0.400mL of 10,000ppmV into 32mL DI water, with 8mL Nitrogen headspace

final conc: 83.40ug/L Methane, 156.35ug/L Ethane, and 145.84ug/L Ethene

Injection Log

Directory: G:\ROCKY\DATA\191002RS\

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	2	1002R02.D	1	RSK STD 1 10/2/19		2 Oct 19 17:45
2	3	1002R03.D	1	RSK STD 2 10/2/19		2 Oct 19 17:50
3	4	1002R04.D	1	RSK STD 3 10/2/19		2 Oct 19 17:52
4	5	1002R05.D	1	RSK STD 4 10/2/19		2 Oct 19 17:57
5	6	1002R06.D	1	RSK STD 5 10/2/19		2 Oct 19 17:59
6	7	1002R07.D	1	RSK STD 6 10/2/19		2 Oct 19 18:05
7	8	1002R08.D	1	RSK STD 7 10/2/19		2 Oct 19 18:07
8	10	1002R10.D	1	SS RSK STD 5 10/2/19		2 Oct 19 18:24
9	4	1105R04.D	1	191105A LCS/CCV RSK STD 5		5 Nov 19 16:15
10	5	1105R05.D	1	191105A LCSD		5 Nov 19 16:19
11	6	1105R06.D	1	191105A BLK		5 Nov 19 16:23
12	20	1105R20.D	1	BA02213W02		5 Nov 19 17:12
13	21	1105R21.D	1	BA02214W02		5 Nov 19 17:16
14	23	1105R23.D	1	BA02216W02		5 Nov 19 17:23
15	24	1105R24.D	1	BA02215W02		5 Nov 19 17:26
18	29	1105R29.D	1	ENDING CCV RSK STD 5 11/5/19		5 Nov 19 17:43

METALS

Calibration Data

A.P.P.L. INC.

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: A.P.P.L. INC. Contract: AECOM

ARF No: 90611 SDG: 90611

Analysis Date: 11/05/19 Concentration Units: ug/L

Analyte	Initial Calibration			Continuing Calibration						M
	True	Found 10:17	%R(1)	True CCV2	Found 12:34	%R(1)	True	Found	%R(1)	
Calcium (Ca)	12500	12480	99.8	18750	18350	97.9				P
Potassium (K)	12500	11990	95.9	7500	7204	96.1				P
Magnesium (Mg)	12500	12780	102	18750	18900	101				P
Manganese (Mn)	500	491.8	98.4	375	368	98.1				P
Sodium (Na)	12500	12270	98.2	9375	9286	99.1				P

(1) Control Limits: Metals 90-110

ILM02.0

A.P.P.L. INC.
3
BLANKS

Lab Name: A.P.P.L. INC. Contract: AECOM

ARF No.: 90611 SDG: 90611

Preparation Blank Matrix (soil/water): water

Preparation Blank Concentration Units (ug/L or mg/kg): ug/L

Analysis Date: 11/05/19

Analyte	Initial Calibration Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Preparation Blank	C	M
	10:31		12:54						11:24		
Calcium (Ca)	1000.00	U	1000.00	U					1000.00	U	P
Potassium (K)	3000.00	U	3000.00	U					3000.00	U	P
Magnesium (Mg)	500.00	U	500.00	U					500.00	U	P
Manganese (Mn)	10.00	U	10.00	U					10.00	U	P
Sodium (Na)	5000.00	U	5000.00	U					5000.00	U	P

A.P.P.L. INC.
4
ICP INTERFERENCE CHECK SAMPLE

Lab Name:	A.P.P.L. INC.	Contract:	AECOM
ARF No.:	90611	SDG:	90611
ICP ID Number:	Phoebe	ICS Source:	Environmental Express

Analysis Date: 11/05/19 Concentration Units: ug/L

Analyte	True		Initial Found		
	Sol A	Sol AB	Sol A 10:55	Sol AB 10:59	%R(1)
Aluminum (Al)	100000	100000	104500	101900	102
Calcium (Ca)	100000	100000	101800	99570	99.6
Iron (Fe)	100000	100000	97870	96190	96.2
Potassium (K)			-43.11	-28.18	
Magnesium (Mg)	100000	100000	102600	101200	101
Manganese (Mn)		250	-1.811	247.3	98.9
Sodium (Na)			141.3	130	

(1) Control Limits: Metals 80-120

Low Level ICV

Sample Name	Acq Date Time	Run Sequence	Analyte	Actual Conc (ug/L)	Spiked Conc (ug/L)	Control Limits	% Recovery	QC Flag
LLICVX6	11/5/19 10:45 AM	191105A	Silver	3.464	3	80-120%	115	
	#VALUE!	191105A	Aluminum			80-120%	#VALUE!	#VALUE!
LLICVX2	11/5/19 10:40 AM	191105A	Arsenic	3.40	4	80-120%	85	
LLICV	11/5/19 10:35 AM	191105A	Boron	29.53	25	80-120%	118	
LLICV	11/5/19 10:35 AM	191105A	Barium	1.799	1.5	80-120%	120	
LLICV	11/5/19 10:35 AM	191105A	Beryllium	0.810	1	80-120%	81	
LLICV	11/5/19 10:35 AM	191105A	Calcium	50.83	50	80-120%	102	
LLICVX2	11/5/19 10:40 AM	191105A	Cadmium	0.53	0.5	80-120%	106	
LLICV	11/5/19 10:35 AM	191105A	Cobalt	2.472	2.5	80-120%	99	
LLICV	11/5/19 10:35 AM	191105A	Chromium	0.54	0.5	80-120%	107	
LLICV	11/5/19 10:35 AM	191105A	Copper	2.46	2.5	80-120%	98	
LLICV	11/5/19 10:35 AM	191105A	Iron	25.97	25	80-120%	104	
LLICV	11/5/19 10:35 AM	191105A	Potassium	420.0	500	80-120%	84	
LLICV	11/5/19 10:35 AM	191105A	Magnesium	24.45	25	80-120%	98	
LLICV	11/5/19 10:35 AM	191105A	Manganese	1.10	1	80-120%	110	
LLICV	11/5/19 10:35 AM	191105A	Molybdenum	1.15	1	80-120%	115	
LLICV	11/5/19 10:35 AM	191105A	Sodium	502.1	500	80-120%	100	
LLICV	11/5/19 10:35 AM	191105A	Nickel	1.121	1	80-120%	112	
LLICV	11/5/19 10:35 AM	191105A	Phosphorus	11.34	12.5	80-120%	91	
LLICVX6	11/5/19 10:45 AM	191105A	Lead	10.71	9	80-120%	119	
LLICVX2	11/5/19 10:40 AM	191105A	Antimony	3.91	4	80-120%	98	
LLICV	11/5/19 10:35 AM	191105A	Selenium	2.07	2	80-120%	103	
LLICV	11/5/19 10:35 AM	191105A	Tin	2.436	3	80-120%	81	
LLICVX6	11/5/19 10:45 AM	191105A	Strontium	6.428	6	80-120%	107	
LLICV	11/5/19 10:35 AM	191105A	Titanium	2.18	2.5	80-120%	87	
LLICV10	11/5/19 10:35 AM	191105A	Thallium	11.16	10	80-120%	112	
LLICVX2	11/5/19 10:40 AM	191105A	Vanadium	1.15	1	80-120%	115	
LLICVX2	11/5/19 10:40 AM	191105A	Zinc	52.78	50	80-120%	106	

Sequence No.: 1
Sample ID: CalBlk 191105 I:PB O:PW
Analyst:
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 11/05/19 9:23:05 AM
Data Type: Reprocessed on 11/06/19 8:31:34 AM
Initial Sample Vol:
Sample Prep Vol:

Mean Data: CalBlk 191105 I:PB O:PW

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Y 371.029	1254241.9	7189.23	0.57%	100.0	%
Y 371.029 Radial	1197089.9	7711.21	0.64%	100.00	%
Ag 338.289†	-375.8	9.92	2.64%	[0.00]	ug/L
Al 308.215†	17.1	11.05	64.73%	[0.00]	ug/L
As 188.979†	-58.3	3.17	5.43%	[0.00]	ug/L
B†	-240.0	3.81	1.59%	[0.00]	ug/L
Ba 233.527†	68.6	12.78	18.64%	[0.00]	ug/L
Be 313.107†	22.0	8.92	40.49%	[0.00]	ug/L
Ca 315.887†	-81.2	15.35	18.89%	[0.00]	ug/L
Cd 214.440†	-315.5	13.80	4.37%	[0.00]	ug/L
Co 228.616†	76.1	6.64	8.73%	[0.00]	ug/L
Cr 267.716†	251.8	21.23	8.43%	[0.00]	ug/L
Cu 327.393†	-589.9	148.83	25.23%	[0.00]	ug/L
Fe 273.955†	-51.9	13.09	25.23%	[0.00]	ug/L
K 766.490†	1196.4	81.01	6.77%	[0.00]	ug/L
Mg 285.213†	-29.0	3.14	10.82%	[0.00]	ug/L
Mn 257.610†	-77.1	3.16	4.09%	[0.00]	ug/L
Mo 202.031†	60.4	1.53	2.53%	[0.00]	ug/L
Na 589.592†	283.3	12.86	4.54%	[0.00]	ug/L
Ni 231.604†	47.9	9.41	19.65%	[0.00]	ug/L
P 213.617†	-94.9	4.54	4.79%	[0.00]	ug/L
Pb 220.353†	16.4	17.16	104.93%	[0.00]	ug/L
Sb 206.836†	-27.5	4.29	15.58%	[0.00]	ug/L
Se 196.026†	-0.9	12.92	>999.9%	[0.00]	ug/L
Sn 189.927†	10.0	3.17	31.60%	[0.00]	ug/L
Sr 421.552†	55.1	13.09	23.74%	[0.00]	ug/L
Ti 337.279†	-119.4	4.81	4.03%	[0.00]	ug/L
Tl 190.801†	-102.1	10.53	10.32%	[0.00]	ug/L
V 292.402†	-372.4	27.08	7.27%	[0.00]	ug/L
Zn 206.200†	-411.8	11.20	2.72%	[0.00]	ug/L

Sequence No.: 2
Sample ID: STD 1 191105 I:PB O:PW
Analyst:
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:

Autosampler Location: 2
Date Collected: 11/05/19 9:38:02 AM
Data Type: Reprocessed on 11/06/19 8:31:54 AM
Initial Sample Vol:
Sample Prep Vol:

Mean Data: STD 1 191105 I:PB O:PW

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Y 371.029	1256685.1	7171.77	0.57%	100.2	%
Y 371.029 Radial	1199483.5	7444.65	0.62%	100.2	%
Ag 338.289†	42.7	14.08	32.94%	[0.5]	ug/L
Al 308.215†	35.1	4.86	13.83%	[50]	ug/L
As 188.979†	2.0	7.04	347.20%	[2]	ug/L
B†	1140.9	9.46	0.83%	[25]	ug/L
Ba 233.527†	191.1	12.31	6.44%	[1.5]	ug/L
Be 313.107†	49.5	7.37	14.90%	[1]	ug/L
Ca 315.887†	71.3	11.74	16.47%	[50]	ug/L
Cd 214.440†	37.2	13.44	36.14%	[0.25]	ug/L
Co 228.616†	113.6	20.32	17.88%	[2.5]	ug/L
Cr 267.716†	35.2	4.67	13.27%	[0.5]	ug/L
Cu 327.393†	283.3	66.57	23.50%	[2.5]	ug/L
Fe 273.955†	438.9	14.46	3.29%	[25]	ug/L
K 766.490†	850.4	76.91	9.04%	[500]	ug/L
Mg 285.213†	49.5	9.37	18.93%	[25]	ug/L
Mn 257.610†	5.4	1.25	23.14%	[1]	ug/L
Mo 202.031†	31.1	12.42	39.94%	[1]	ug/L
Na 589.592†	1544.5	150.73	9.76%	[500]	ug/L
Ni 231.604†	33.3	7.17	21.51%	[1]	ug/L
P 213.617†	34.9	5.77	16.53%	[12.5]	ug/L
Pb 220.353†	9.5	12.85	134.93%	[1.5]	ug/L
Sb 206.836†	10.2	1.14	11.24%	[2]	ug/L
Se 196.026†	2.2	3.06	140.63%	[2]	ug/L
Sn 189.927†	21.4	3.90	18.21%	[3]	ug/L
Sr 421.552†	236.6	12.54	5.30%	[1]	ug/L
Ti 337.279†	14.5	20.26	139.72%	[2.5]	ug/L
Tl 190.801†	7.0	2.48	35.33%	[2]	ug/L
V 292.402†	86.2	66.40	77.04%	[0.5]	ug/L
Zn 206.200†	1336.2	5.19	0.39%	[25]	ug/L

Sequence No.: 3
Sample ID: STD 2 191105 I:PB O:PW
Analyst:
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:

Autosampler Location: 3
Date Collected: 11/05/19 9:42:45 AM
Data Type: Reprocessed on 11/06/19 8:31:55 AM
Initial Sample Vol:
Sample Prep Vol:

Mean Data: STD 2 191105 I:PB O:PW

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Y 371.029	1190378.8	9708.41	0.82%	94.91	%
Y 371.029 Radial	1132394.2	9938.33	0.88%	94.60	%
Ag 338.289†	19095.0	90.36	0.47%	[250]	ug/L
Al 308.215†	2663.7	22.39	0.84%	[10000]	ug/L
As 188.979†	1685.6	11.84	0.70%	[500]	ug/L
B†	21263.0	221.16	1.04%	[500]	ug/L
Ba 233.527†	56443.0	431.36	0.76%	[500]	ug/L
Be 313.107†	32194.3	630.34	1.96%	[500]	ug/L
Ca 315.887†	33403.5	224.74	0.67%	[25000]	ug/L
Cd 214.440†	71400.1	723.51	1.01%	[500]	ug/L
Co 228.616†	24082.6	200.35	0.83%	[500]	ug/L
Cr 267.716†	38835.5	202.40	0.52%	[500]	ug/L
Cu 327.393†	42945.8	322.34	0.75%	[500]	ug/L
Fe 273.955†	160606.9	1196.42	0.74%	[10000]	ug/L
K 766.490†	18933.0	185.48	0.98%	[10000]	ug/L
Mg 285.213†	53048.2	828.28	1.56%	[25000]	ug/L
Mn 257.610†	2928.0	18.22	0.62%	[500]	ug/L
Mo 202.031†	13133.8	76.23	0.58%	[500]	ug/L
Na 589.592†	37998.3	588.70	1.55%	[12500]	ug/L
Ni 231.604†	19855.0	218.71	1.10%	[500]	ug/L
P 213.617†	8820.4	75.51	0.86%	[2500]	ug/L
Pb 220.353†	5352.6	49.30	0.92%	[500]	ug/L
Sb 206.836†	2081.6	24.60	1.18%	[500]	ug/L
Se 196.026†	1431.5	25.07	1.75%	[500]	ug/L
Sn 189.927†	4775.0	37.75	0.79%	[500]	ug/L
Sr 421.552†	69094.6	936.65	1.36%	[500]	ug/L
Ti 337.279†	3454.3	26.86	0.78%	[500]	ug/L
Tl 190.801†	2154.0	21.47	1.00%	[500]	ug/L
V 292.402†	69887.9	389.58	0.56%	[500]	ug/L
Zn 206.200†	24836.0	292.58	1.18%	[500]	ug/L

Sequence No.: 4
Sample ID: STD 3 191105 I:PB O:PW
Analyst:
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:

Autosampler Location: 4
Date Collected: 11/05/19 9:47:26 AM
Data Type: Reprocessed on 11/06/19 8:31:56 AM

Initial Sample Vol:
Sample Prep Vol:

Mean Data: STD 3 191105 I:PB O:PW

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Y 371.029	1169324.3	5315.29	0.45%	93.23	%
Y 371.029 Radial	1111293.8	5560.45	0.50%	92.83	%
Ag 338.289†	38315.6	198.23	0.52%	[500]	ug/L
Al 308.215†	5294.7	138.39	2.61%	[20000]	ug/L
As 188.979†	3373.6	29.00	0.86%	[1000]	ug/L
B†	43114.2	257.45	0.60%	[1000]	ug/L
Ba 233.527†	112401.8	613.65	0.55%	[1000]	ug/L
Be 313.107†	64026.9	753.93	1.18%	[1000]	ug/L
Ca 315.887†	66765.4	1300.91	1.95%	[50000]	ug/L
Cd 214.440†	142195.3	641.40	0.45%	[1000]	ug/L
Co 228.616†	47840.0	194.31	0.41%	[1000]	ug/L
Cr 267.716†	77433.9	273.38	0.35%	[1000]	ug/L
Cu 327.393†	86266.7	479.14	0.56%	[1000]	ug/L
Fe 273.955†	320157.1	1437.49	0.45%	[20000]	ug/L
K 766.490†	38416.4	372.10	0.97%	[20000]	ug/L
Mg 285.213†	104768.8	876.37	0.84%	[50000]	ug/L
Mn 257.610†	5858.2	99.89	1.71%	[1000]	ug/L
Mo 202.031†	27117.0	147.98	0.55%	[1000]	ug/L
Na 589.592†	75956.5	500.85	0.66%	[25000]	ug/L
Ni 231.604†	39082.7	102.05	0.26%	[1000]	ug/L
P 213.617†	17648.2	107.61	0.61%	[5000]	ug/L
Pb 220.353†	10408.0	49.06	0.47%	[1000]	ug/L
Sb 206.836†	4120.1	29.52	0.72%	[1000]	ug/L
Se 196.026†	2846.4	21.61	0.76%	[1000]	ug/L
Sn 189.927†	9384.0	50.53	0.54%	[1000]	ug/L
Sr 421.552†	137090.8	931.22	0.68%	[1000]	ug/L
Ti 337.279†	6968.5	175.30	2.52%	[1000]	ug/L
Tl 190.801†	4219.1	31.96	0.76%	[1000]	ug/L
V 292.402†	140285.5	653.73	0.47%	[1000]	ug/L
Zn 206.200†	49241.7	197.51	0.40%	[1000]	ug/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 338.289	3	Lin Thru 0	0.0	76.58	0.00000	0.999999	
Al 308.215	3	Lin Thru 0	0.0	0.2651	0.00000	0.999990	
As 188.979	3	Lin Thru 0	0.0	3.373	0.00000	0.999999	
B	3	Lin Thru 0	0.0	43.00	0.00000	0.999984	
Ba 233.527	3	Lin Thru 0	0.0	112.5	0.00000	0.999999	
Be 313.107	3	Lin Thru 0	0.0	64.10	0.00000	0.999997	
Ca 315.887	3	Lin Thru 0	0.0	1.335	0.00000	1.000000	
Cd 214.440	3	Lin Thru 0	0.0	142.3	0.00000	0.999999	
Co 228.616	3	Lin Thru 0	0.0	47.91	0.00000	0.999996	
Cr 267.716	3	Lin Thru 0	0.0	77.48	0.00000	0.999999	
Cu 327.393	3	Lin Thru 0	0.0	86.19	0.00000	0.999998	
Fe 273.955	3	Lin Thru 0	0.0	16.02	0.00000	0.999999	
K 766.490	3	Lin Thru 0	0.0	1.915	0.00000	0.999980	
Mg 285.213	3	Lin Thru 0	0.0	2.101	0.00000	0.999987	
Mn 257.610	3	Lin Thru 0	0.0	5.858	0.00000	1.000000	
Mo 202.031	3	Lin Thru 0	0.0	26.95	0.00000	0.999921	
Na 589.592	3	Lin Thru 0	0.0	3.039	0.00000	1.000000	
Ni 231.604	3	Lin Thru 0	0.0	39.21	0.00000	0.999980	
P 213.617	3	Lin Thru 0	0.0	3.529	0.00000	1.000000	
Pb 220.353	3	Lin Thru 0	0.0	10.47	0.00000	0.999935	
Sb 206.836	3	Lin Thru 0	0.0	4.129	0.00000	0.999991	
Se 196.026	3	Lin Thru 0	0.0	2.850	0.00000	0.999997	
Sn 189.927	3	Lin Thru 0	0.0	9.417	0.00000	0.999975	
Sr 421.552	3	Lin Thru 0	0.0	137.3	0.00000	0.999995	

Ti 337.279	3	Lin Thru 0	0.0	6.957	0.00000	0.999994
Tl 190.801	3	Lin Thru 0	0.0	4.237	0.00000	0.999965
V 292.402	3	Lin Thru 0	0.0	140.2	0.00000	0.999999
Zn 206.200	3	Lin Thru 0	0.0	49.33	0.00000	0.999992

Sequence No.: 5
Sample ID: ICV 191105 I:PB O:PW
Analyst:
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:

Autosampler Location: 5
Date Collected: 11/05/19 10:17:01 AM
Data Type: Reprocessed on 11/06/19 8:31:57 AM
Initial Sample Vol:
Sample Prep Vol:

Mean Data: ICV 191105 I:PB O:PW

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	1215247.5	96.89	%	0.325				0.34%
Y 371.029 Radial	1158074.6	96.74	%	0.321				0.33%
Ag 338.289†	19062.0	251.1	ug/L	2.00	251.1	ug/L	2.00	0.79%
QC value within limits for Ag 338.289 Recovery = 100.42%								
Al 308.215†	3330.8	12570	ug/L	67.7	12570	ug/L	67.7	0.54%
QC value within limits for Al 308.215 Recovery = 100.58%								
As 188.979†	1656.9	495.5	ug/L	0.80	495.5	ug/L	0.80	0.16%
QC value within limits for As 188.979 Recovery = 99.11%								
B†	21592.6	502.2	ug/L	2.99	502.2	ug/L	2.99	0.60%
QC value within limits for B Recovery = 100.44%								
Ba 233.527†	55967.4	496.7	ug/L	0.93	496.7	ug/L	0.93	0.19%
QC value within limits for Ba 233.527 Recovery = 99.34%								
Be 313.107†	30939.3	484.2	ug/L	7.31	484.2	ug/L	7.31	1.51%
QC value within limits for Be 313.107 Recovery = 96.83%								
Ca 315.887†	16676.1	12480	ug/L	45.5	12480	ug/L	45.5	0.36%
QC value within limits for Ca 315.887 Recovery = 99.87%								
Cd 214.440†	70843.3	497.7	ug/L	1.47	497.7	ug/L	1.47	0.29%
QC value within limits for Cd 214.440 Recovery = 99.53%								
Co 228.616†	24240.6	504.1	ug/L	1.39	504.1	ug/L	1.39	0.28%
QC value within limits for Co 228.616 Recovery = 100.81%								
Cr 267.716†	38226.1	492.6	ug/L	2.21	492.6	ug/L	2.21	0.45%
QC value within limits for Cr 267.716 Recovery = 98.53%								
Cu 327.393†	43023.4	500.5	ug/L	4.63	500.5	ug/L	4.63	0.92%
QC value within limits for Cu 327.393 Recovery = 100.10%								
Fe 273.955†	217904.4	13560	ug/L	39.8	13560	ug/L	39.8	0.29%
QC value within limits for Fe 273.955 Recovery = 108.48%								
K 766.490†	22990.7	11990	ug/L	221.1	11990	ug/L	221.1	1.84%
QC value within limits for K 766.490 Recovery = 95.94%								
Mg 285.213†	26809.0	12780	ug/L	67.6	12780	ug/L	67.6	0.53%
QC value within limits for Mg 285.213 Recovery = 102.21%								
Mn 257.610†	2876.8	491.8	ug/L	1.96	491.8	ug/L	1.96	0.40%
QC value within limits for Mn 257.610 Recovery = 98.35%								
Mo 202.031†	12745.6	473.3	ug/L	1.55	473.3	ug/L	1.55	0.33%
QC value within limits for Mo 202.031 Recovery = 94.65%								
Na 589.592†	37244.7	12270	ug/L	156.7	12270	ug/L	156.7	1.28%
QC value within limits for Na 589.592 Recovery = 98.14%								
Ni 231.604†	19726.2	499.5	ug/L	1.36	499.5	ug/L	1.36	0.27%
QC value within limits for Ni 231.604 Recovery = 99.90%								
P 213.617†	8589.0	2434	ug/L	9.6	2434	ug/L	9.6	0.39%
QC value within limits for P 213.617 Recovery = 97.34%								
Pb 220.353†	5257.6	504.8	ug/L	1.28	504.8	ug/L	1.28	0.25%
QC value within limits for Pb 220.353 Recovery = 100.96%								
Sb 206.836†	1918.0	464.6	ug/L	0.48	464.6	ug/L	0.48	0.10%
QC value within limits for Sb 206.836 Recovery = 92.91%								
Se 196.026†	1408.0	500.0	ug/L	0.50	500.0	ug/L	0.50	0.10%
QC value within limits for Se 196.026 Recovery = 99.99%								
Sn 189.927†	2313.7	249.2	ug/L	1.49	249.2	ug/L	1.49	0.60%
QC value within limits for Sn 189.927 Recovery = 99.70%								
Sr 421.552†	65785.6	479.0	ug/L	4.30	479.0	ug/L	4.30	0.90%
QC value within limits for Sr 421.552 Recovery = 95.79%								
Ti 337.279†	3403.9	489.0	ug/L	1.79	489.0	ug/L	1.79	0.37%
QC value within limits for Ti 337.279 Recovery = 97.80%								
Tl 190.801†	2172.1	525.0	ug/L	1.82	525.0	ug/L	1.82	0.35%
QC value within limits for Tl 190.801 Recovery = 104.99%								
V 292.402†	68352.9	494.6	ug/L	2.09	494.6	ug/L	2.09	0.42%
QC value within limits for V 292.402 Recovery = 98.93%								
Zn 206.200†	24739.6	505.1	ug/L	2.04	505.1	ug/L	2.04	0.40%
QC value within limits for Zn 206.200 Recovery = 101.02%								

All analyte(s) passed QC.

Sequence No.: 6
Sample ID: ICB 191105 I:PB O:PW
Analyst:
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 11/05/19 10:31:10 AM
Data Type: Reprocessed on 11/06/19 8:31:59 AM
Initial Sample Vol:
Sample Prep Vol:

Mean Data: ICB 191105 I:PB O:PW

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	1267072.1	101.0	%	0.54				0.53%
Y 371.029 Radial	1209879.9	101.1	%	0.56				0.56%
Ag 338.289†	54.3	0.706	ug/L	0.6474	0.706	ug/L	0.6474	91.68%
QC value within limits for Ag 338.289 Recovery = Not calculated								
Al 308.215†	25.7	96.85	ug/L	10.493	96.85	ug/L	10.493	10.83%
QC value within limits for Al 308.215 Recovery = Not calculated								
As 188.979†	-2.2	-0.667	ug/L	0.7980	-0.667	ug/L	0.7980	119.68%
QC value within limits for As 188.979 Recovery = Not calculated								
B†	95.5	2.222	ug/L	0.0783	2.222	ug/L	0.0783	3.52%
QC value within limits for B Recovery = Not calculated								
Ba 233.527†	-10.4	-0.100	ug/L	0.0215	-0.100	ug/L	0.0215	21.54%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-19.9	-0.311	ug/L	0.0858	-0.311	ug/L	0.0858	27.62%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 315.887†	-17.7	-13.22	ug/L	2.758	-13.22	ug/L	2.758	20.86%
QC value within limits for Ca 315.887 Recovery = Not calculated								
Cd 214.440†	26.5	0.188	ug/L	0.0516	0.188	ug/L	0.0516	27.42%
QC value within limits for Cd 214.440 Recovery = Not calculated								
Co 228.616†	-6.3	-0.132	ug/L	0.1747	-0.132	ug/L	0.1747	132.46%
QC value within limits for Co 228.616 Recovery = Not calculated								
Cr 267.716†	11.6	0.151	ug/L	0.2813	0.151	ug/L	0.2813	186.60%
QC value within limits for Cr 267.716 Recovery = Not calculated								
Cu 327.393†	-46.8	-0.576	ug/L	0.4453	-0.576	ug/L	0.4453	77.25%
QC value within limits for Cu 327.393 Recovery = Not calculated								
Fe 273.955†	-5.5	-0.341	ug/L	0.2270	-0.341	ug/L	0.2270	66.52%
QC value within limits for Fe 273.955 Recovery = Not calculated								
K 766.490†	-123.4	-64.46	ug/L	39.430	-64.46	ug/L	39.430	61.17%
QC value within limits for K 766.490 Recovery = Not calculated								
Mg 285.213†	1.7	0.794	ug/L	2.3759	0.794	ug/L	2.3759	299.17%
QC value within limits for Mg 285.213 Recovery = Not calculated								
Mn 257.610†	-6.1	-1.026	ug/L	0.4150	-1.026	ug/L	0.4150	40.44%
QC value within limits for Mn 257.610 Recovery = Not calculated								
Mo 202.031†	5.5	0.205	ug/L	0.1013	0.205	ug/L	0.1013	49.53%
QC value within limits for Mo 202.031 Recovery = Not calculated								
Na 589.592†	26.2	8.645	ug/L	21.8411	8.645	ug/L	21.8411	252.65%
QC value within limits for Na 589.592 Recovery = Not calculated								
Ni 231.604†	5.8	0.144	ug/L	0.1338	0.144	ug/L	0.1338	92.67%
QC value within limits for Ni 231.604 Recovery = Not calculated								
P 213.617†	-4.6	-1.314	ug/L	2.4508	-1.314	ug/L	2.4508	186.51%
QC value within limits for P 213.617 Recovery = Not calculated								
Pb 220.353†	16.3	1.573	ug/L	2.1476	1.573	ug/L	2.1476	136.57%
QC value within limits for Pb 220.353 Recovery = Not calculated								
Sb 206.836†	-0.2	-0.037	ug/L	0.4639	-0.037	ug/L	0.4639	>999.9%
QC value within limits for Sb 206.836 Recovery = Not calculated								
Se 196.026†	6.0	2.097	ug/L	4.1880	2.097	ug/L	4.1880	199.76%
QC value within limits for Se 196.026 Recovery = Not calculated								
Sn 189.927†	2.3	0.239	ug/L	0.4628	0.239	ug/L	0.4628	193.37%
QC value within limits for Sn 189.927 Recovery = Not calculated								
Sr 421.552†	145.6	1.060	ug/L	0.2749	1.060	ug/L	0.2749	25.92%
QC value within limits for Sr 421.552 Recovery = Not calculated								
Ti 337.279†	-0.8	-0.112	ug/L	0.9313	-0.112	ug/L	0.9313	834.79%
QC value within limits for Ti 337.279 Recovery = Not calculated								
Tl 190.801†	11.2	2.634	ug/L	0.9131	2.634	ug/L	0.9131	34.67%
QC value within limits for Tl 190.801 Recovery = Not calculated								
V 292.402†	-4.9	-0.031	ug/L	0.1829	-0.031	ug/L	0.1829	585.85%
QC value within limits for V 292.402 Recovery = Not calculated								
Zn 206.200†	-7.6	-0.265	ug/L	0.3830	-0.265	ug/L	0.3830	144.64%
QC value within limits for Zn 206.200 Recovery = Not calculated								

All analyte(s) passed QC.

Sequence No.: 7
Sample ID: LLICV 191105 I:PB O:PW
Analyst:
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:

Autosampler Location: 2
Date Collected: 11/05/19 10:35:50 AM
Data Type: Reprocessed on 11/06/19 8:32:01 AM
Initial Sample Vol:
Sample Prep Vol:

Mean Data: LLICV 191105 I:PB O:PW

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	1272707.4	101.5	%	0.41				0.40%
Y 371.029 Radial	1215667.5	101.6	%	0.44				0.43%
Ag 338.289†	115.1	1.528	ug/L	1.2463	1.528	ug/L	1.2463	81.55%
QC value greater than the upper limit for Ag 338.289 Recovery = 305.63%								
Al 308.215†	41.0	154.7	ug/L	16.43	154.7	ug/L	16.43	10.62%
QC value greater than the upper limit for Al 308.215 Recovery = 309.40%								
As 188.979†	3.7	1.121	ug/L	1.1589	1.121	ug/L	1.1589	103.37%
QC value less than the lower limit for As 188.979 Recovery = 56.06%								
B†	1269.7	29.53	ug/L	0.235	29.53	ug/L	0.235	0.79%
QC value within limits for B Recovery = 118.11%								
Ba 233.527†	203.8	1.799	ug/L	0.0448	1.799	ug/L	0.0448	2.49%
QC value within limits for Ba 233.527 Recovery = 119.93%								
Be 313.107†	51.5	0.810	ug/L	0.1527	0.810	ug/L	0.1527	18.86%
QC value within limits for Be 313.107 Recovery = 80.95%								
Ca 315.887†	68.0	50.83	ug/L	2.790	50.83	ug/L	2.790	5.49%
QC value within limits for Ca 315.887 Recovery = 101.67%								
Cd 214.440†	50.7	0.357	ug/L	0.0905	0.357	ug/L	0.0905	25.35%
QC value greater than the upper limit for Cd 214.440 Recovery = 142.82%								
Co 228.616†	119.0	2.472	ug/L	0.4216	2.472	ug/L	0.4216	17.05%
QC value within limits for Co 228.616 Recovery = 98.89%								
Cr 267.716†	42.2	0.535	ug/L	0.2246	0.535	ug/L	0.2246	42.01%
QC value within limits for Cr 267.716 Recovery = 106.93%								
Cu 327.393†	216.6	2.461	ug/L	0.8081	2.461	ug/L	0.8081	32.83%
QC value within limits for Cu 327.393 Recovery = 98.46%								
Fe 273.955†	416.3	25.97	ug/L	0.397	25.97	ug/L	0.397	1.53%
QC value within limits for Fe 273.955 Recovery = 103.90%								
K 766.490†	804.4	420.0	ug/L	120.55	420.0	ug/L	120.55	28.71%
QC value within limits for K 766.490 Recovery = 83.99%								
Mg 285.213†	51.5	24.45	ug/L	3.089	24.45	ug/L	3.089	12.64%
QC value within limits for Mg 285.213 Recovery = 97.78%								
Mn 257.610†	6.3	1.096	ug/L	0.4811	1.096	ug/L	0.4811	43.88%
QC value within limits for Mn 257.610 Recovery = 109.63%								
Mo 202.031†	31.3	1.151	ug/L	0.2970	1.151	ug/L	0.2970	25.81%
QC value within limits for Mo 202.031 Recovery = 115.10%								
Na 589.592†	1526.1	502.1	ug/L	17.42	502.1	ug/L	17.42	3.47%
QC value within limits for Na 589.592 Recovery = 100.43%								
Ni 231.604†	45.5	1.121	ug/L	0.2080	1.121	ug/L	0.2080	18.55%
QC value within limits for Ni 231.604 Recovery = 112.14%								
P 213.617†	40.0	11.34	ug/L	0.492	11.34	ug/L	0.492	4.34%
QC value within limits for P 213.617 Recovery = 90.71%								
Pb 220.353†	26.1	2.505	ug/L	0.9275	2.505	ug/L	0.9275	37.03%
QC value greater than the upper limit for Pb 220.353 Recovery = 166.98%								
Sb 206.836†	6.5	1.586	ug/L	1.0496	1.586	ug/L	1.0496	66.17%
QC value less than the lower limit for Sb 206.836 Recovery = 79.31%								
Se 196.026†	5.9	2.069	ug/L	3.4988	2.069	ug/L	3.4988	169.07%
QC value within limits for Se 196.026 Recovery = 103.47%								
Sn 189.927†	22.8	2.436	ug/L	0.2815	2.436	ug/L	0.2815	11.56%
QC value within limits for Sn 189.927 Recovery = 81.21%								
Sr 421.552†	295.1	2.149	ug/L	0.2971	2.149	ug/L	0.2971	13.83%
QC value greater than the upper limit for Sr 421.552 Recovery = 214.87%								
Ti 337.279†	15.2	2.181	ug/L	0.2487	2.181	ug/L	0.2487	11.40%
QC value within limits for Ti 337.279 Recovery = 87.26%								
Tl 190.801†	15.9	3.789	ug/L	0.7598	3.789	ug/L	0.7598	20.05%
QC value greater than the upper limit for Tl 190.801 Recovery = 189.46%								
V 292.402†	42.6	0.317	ug/L	0.1560	0.317	ug/L	0.1560	49.19%
QC value less than the lower limit for V 292.402 Recovery = 63.44%								
Zn 206.200†	1547.5	31.21	ug/L	0.540	31.21	ug/L	0.540	1.73%
QC value greater than the upper limit for Zn 206.200 Recovery = 124.84%								

QC Failed. Continue with analysis.

Sequence No.: 11
Sample ID: ICSA 191105 I:PB O:PW
Analyst:
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 11/05/19 10:55:00 AM
Data Type: Reprocessed on 11/06/19 8:32:06 AM
Initial Sample Vol:
Sample Prep Vol:

Mean Data: ICSA 191105 I:PB O:PW

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	1151419.8	91.80	%	0.700				0.76%
Y 371.029 Radial	1091726.7	91.20	%	0.760				0.83%
Ag 338.289†	62.0	-0.083	ug/L	0.8713	-0.083	ug/L	0.8713	>999.9%
QC value within limits for Ag 338.289 Recovery = Not calculated								
Al 308.215†	27713.1	104500	ug/L	514.3	104500	ug/L	514.3	0.49%
QC value within limits for Al 308.215 Recovery = 104.53%								
As 188.979†	-68.1	2.762	ug/L	2.4277	2.762	ug/L	2.4277	87.89%
QC value within limits for As 188.979 Recovery = Not calculated								
B†	-1239.8	-28.84	ug/L	0.763	-28.84	ug/L	0.763	2.65%
QC value within limits for B Recovery = Not calculated								
Ba 233.527†	981.3	-0.556	ug/L	0.2126	-0.556	ug/L	0.2126	38.22%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-19.0	0.227	ug/L	0.0712	0.227	ug/L	0.0712	31.38%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 315.887†	135900.3	101800	ug/L	1756.7	101800	ug/L	1756.7	1.73%
QC value within limits for Ca 315.887 Recovery = 101.75%								
Cd 214.440†	544.6	0.460	ug/L	0.1265	0.460	ug/L	0.1265	27.52%
QC value within limits for Cd 214.440 Recovery = Not calculated								
Co 228.616†	353.8	0.489	ug/L	0.2395	0.489	ug/L	0.2395	48.93%
QC value within limits for Co 228.616 Recovery = Not calculated								
Cr 267.716†	-67.9	0.582	ug/L	0.1290	0.582	ug/L	0.1290	22.15%
QC value within limits for Cr 267.716 Recovery = Not calculated								
Cu 327.393†	-575.7	-1.235	ug/L	0.5979	-1.235	ug/L	0.5979	48.40%
QC value within limits for Cu 327.393 Recovery = Not calculated								
Fe 273.955†	1567981.6	97870	ug/L	413.5	97870	ug/L	413.5	0.42%
QC value within limits for Fe 273.955 Recovery = 97.87%								
K 766.490†	61.1	-43.11	ug/L	35.251	-43.11	ug/L	35.251	81.77%
QC value within limits for K 766.490 Recovery = Not calculated								
Mg 285.213†	215380.1	102600	ug/L	1844.9	102600	ug/L	1844.9	1.80%
QC value within limits for Mg 285.213 Recovery = 102.64%								
Mn 257.610†	-40.9	-1.811	ug/L	1.6088	-1.811	ug/L	1.6088	88.85%
QC value within limits for Mn 257.610 Recovery = Not calculated								
Mo 202.031†	-168.5	-1.783	ug/L	0.3964	-1.783	ug/L	0.3964	22.24%
QC value within limits for Mo 202.031 Recovery = Not calculated								
Na 589.592†	103.1	141.3	ug/L	8.93	141.3	ug/L	8.93	6.32%
QC value within limits for Na 589.592 Recovery = Not calculated								
Ni 231.604†	75.0	-0.635	ug/L	0.5619	-0.635	ug/L	0.5619	88.48%
QC value within limits for Ni 231.604 Recovery = Not calculated								
P 213.617†	-62.5	-17.70	ug/L	1.081	-17.70	ug/L	1.081	6.11%
QC value within limits for P 213.617 Recovery = Not calculated								
Pb 220.353†	-130.3	0.894	ug/L	0.3514	0.894	ug/L	0.3514	39.29%
QC value within limits for Pb 220.353 Recovery = Not calculated								
Sb 206.836†	-12.8	-3.104	ug/L	1.0030	-3.104	ug/L	1.0030	32.31%
QC value within limits for Sb 206.836 Recovery = Not calculated								
Se 196.026†	-108.3	4.742	ug/L	1.0383	4.742	ug/L	1.0383	21.90%
QC value within limits for Se 196.026 Recovery = Not calculated								
Sn 189.927†	-30.3	0.533	ug/L	0.3786	0.533	ug/L	0.3786	70.97%
QC value within limits for Sn 189.927 Recovery = Not calculated								
Sr 421.552†	304.9	1.166	ug/L	0.1976	1.166	ug/L	0.1976	16.94%
QC value within limits for Sr 421.552 Recovery = Not calculated								
Ti 337.279†	-14.2	-4.119	ug/L	0.1939	-4.119	ug/L	0.1939	4.71%
QC value within limits for Ti 337.279 Recovery = Not calculated								
Tl 190.801†	-22.6	1.733	ug/L	2.5286	1.733	ug/L	2.5286	145.90%
QC value within limits for Tl 190.801 Recovery = Not calculated								
V 292.402†	2842.4	-0.449	ug/L	0.5783	-0.449	ug/L	0.5783	128.72%
QC value within limits for V 292.402 Recovery = Not calculated								
Zn 206.200†	479.6	3.420	ug/L	0.4381	3.420	ug/L	0.4381	12.81%
QC value within limits for Zn 206.200 Recovery = Not calculated								

All analyte(s) passed QC.

Sequence No.: 12
Sample ID: ICSAB 191105 I:PB O:PW
Analyst:
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 11/05/19 10:59:46 AM
Data Type: Reprocessed on 11/06/19 8:32:09 AM
Initial Sample Vol:
Sample Prep Vol:

Mean Data: ICSAB 191105 I:PB O:PW

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	1162459.1	92.68	%	0.162				0.18%
Y 371.029 Radial	1104253.9	92.24	%	0.175				0.19%
Ag 338.289†	40525.2	526.1	ug/L	1.34	526.1	ug/L	1.34	0.25%
QC value within limits for Ag 338.289 Recovery = 105.21%								
Al 308.215†	27002.8	101900	ug/L	172.2	101900	ug/L	172.2	0.17%
QC value within limits for Al 308.215 Recovery = 101.86%								
As 188.979†	756.7	245.8	ug/L	1.72	245.8	ug/L	1.72	0.70%
QC value within limits for As 188.979 Recovery = 98.31%								
B†	-1189.7	-27.67	ug/L	1.497	-27.67	ug/L	1.497	5.41%
QC value within limits for B Recovery = Not calculated								
Ba 233.527†	29810.0	256.1	ug/L	0.73	256.1	ug/L	0.73	0.29%
QC value within limits for Ba 233.527 Recovery = 102.44%								
Be 313.107†	16228.0	253.7	ug/L	1.10	253.7	ug/L	1.10	0.43%
QC value within limits for Be 313.107 Recovery = 101.49%								
Ca 315.887†	132992.3	99570	ug/L	487.9	99570	ug/L	487.9	0.49%
QC value within limits for Ca 315.887 Recovery = 99.57%								
Cd 214.440†	69164.1	482.8	ug/L	0.29	482.8	ug/L	0.29	0.06%
QC value within limits for Cd 214.440 Recovery = 96.56%								
Co 228.616†	12186.7	247.5	ug/L	0.52	247.5	ug/L	0.52	0.21%
QC value within limits for Co 228.616 Recovery = 99.02%								
Cr 267.716†	19725.7	255.5	ug/L	0.63	255.5	ug/L	0.63	0.25%
QC value within limits for Cr 267.716 Recovery = 102.21%								
Cu 327.393†	21800.4	257.9	ug/L	1.48	257.9	ug/L	1.48	0.57%
QC value within limits for Cu 327.393 Recovery = 103.17%								
Fe 273.955†	1541533.0	96190	ug/L	118.5	96190	ug/L	118.5	0.12%
QC value within limits for Fe 273.955 Recovery = 96.19%								
K 766.490†	90.0	-28.18	ug/L	69.430	-28.18	ug/L	69.430	246.39%
QC value within limits for K 766.490 Recovery = Not calculated								
Mg 285.213†	212250.6	101200	ug/L	565.2	101200	ug/L	565.2	0.56%
QC value within limits for Mg 285.213 Recovery = 101.15%								
Mn 257.610†	1419.5	247.3	ug/L	1.21	247.3	ug/L	1.21	0.49%
QC value within limits for Mn 257.610 Recovery = 98.94%								
Mo 202.031†	6305.6	238.3	ug/L	0.84	238.3	ug/L	0.84	0.35%
QC value within limits for Mo 202.031 Recovery = 95.34%								
Na 589.592†	72.8	130.0	ug/L	12.35	130.0	ug/L	12.35	9.50%
QC value within limits for Na 589.592 Recovery = Not calculated								
Ni 231.604†	19047.6	481.9	ug/L	1.55	481.9	ug/L	1.55	0.32%
QC value within limits for Ni 231.604 Recovery = 96.37%								
P 213.617†	-124.8	-35.36	ug/L	1.120	-35.36	ug/L	1.120	3.17%
QC value within limits for P 213.617 Recovery = Not calculated								
Pb 220.353†	4951.2	486.6	ug/L	4.41	486.6	ug/L	4.41	0.91%
QC value within limits for Pb 220.353 Recovery = 97.33%								
Sb 206.836†	989.4	239.6	ug/L	0.48	239.6	ug/L	0.48	0.20%
QC value within limits for Sb 206.836 Recovery = 95.85%								
Se 196.026†	584.7	247.3	ug/L	6.86	247.3	ug/L	6.86	2.78%
QC value within limits for Se 196.026 Recovery = 98.91%								
Sn 189.927†	-39.2	-0.447	ug/L	0.2196	-0.447	ug/L	0.2196	49.16%
QC value within limits for Sn 189.927 Recovery = Not calculated								
Sr 421.552†	282.7	1.026	ug/L	0.0144	1.026	ug/L	0.0144	1.40%
QC value within limits for Sr 421.552 Recovery = Not calculated								
Ti 337.279†	-9.2	-3.361	ug/L	1.1470	-3.361	ug/L	1.1470	34.12%
QC value within limits for Ti 337.279 Recovery = Not calculated								
Tl 190.801†	1016.2	249.9	ug/L	2.15	249.9	ug/L	2.15	0.86%
QC value within limits for Tl 190.801 Recovery = 99.95%								
V 292.402†	36898.3	248.1	ug/L	0.36	248.1	ug/L	0.36	0.14%
QC value within limits for V 292.402 Recovery = 99.22%								
Zn 206.200†	24659.7	495.9	ug/L	1.79	495.9	ug/L	1.79	0.36%
QC value within limits for Zn 206.200 Recovery = 99.18%								

All analyte(s) passed QC.

Sequence No.: 29
Sample ID: CCV2 191105 I:PB O:PW
Analyst:
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 11/05/19 12:34:29 PM
Data Type: Reprocessed on 11/06/19 8:32:42 AM
Initial Sample Vol:
Sample Prep Vol:

Mean Data: CCV2 191105 I:PB O:PW

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	1209556.9	96.44	%	0.404				0.42%
Y 371.029 Radial	1153721.2	96.38	%	0.417				0.43%
Ag 338.289†	14109.3	185.8	ug/L	0.66	185.8	ug/L	0.66	0.36%
QC value within limits for Ag 338.289 Recovery = 99.08%								
Al 308.215†	1984.2	7489	ug/L	35.5	7489	ug/L	35.5	0.47%
QC value within limits for Al 308.215 Recovery = 99.85%								
As 188.979†	1218.9	363.6	ug/L	0.99	363.6	ug/L	0.99	0.27%
QC value within limits for As 188.979 Recovery = 96.97%								
B†	15745.0	366.2	ug/L	3.43	366.2	ug/L	3.43	0.94%
QC value within limits for B Recovery = 97.65%								
Ba 233.527†	42176.6	374.5	ug/L	1.46	374.5	ug/L	1.46	0.39%
QC value within limits for Ba 233.527 Recovery = 99.86%								
Be 313.107†	22978.0	359.6	ug/L	3.39	359.6	ug/L	3.39	0.94%
QC value within limits for Be 313.107 Recovery = 95.89%								
Ca 315.887†	24515.2	18350	ug/L	90.0	18350	ug/L	90.0	0.49%
QC value within limits for Ca 315.887 Recovery = 97.89%								
Cd 214.440†	52708.3	370.4	ug/L	2.42	370.4	ug/L	2.42	0.65%
QC value within limits for Cd 214.440 Recovery = 98.77%								
Co 228.616†	17819.0	370.7	ug/L	2.64	370.7	ug/L	2.64	0.71%
QC value within limits for Co 228.616 Recovery = 98.85%								
Cr 267.716†	28736.8	370.2	ug/L	2.07	370.2	ug/L	2.07	0.56%
QC value within limits for Cr 267.716 Recovery = 98.73%								
Cu 327.393†	32272.0	374.6	ug/L	0.57	374.6	ug/L	0.57	0.15%
QC value within limits for Cu 327.393 Recovery = 99.90%								
Fe 273.955†	118876.7	7387	ug/L	45.9	7387	ug/L	45.9	0.62%
QC value within limits for Fe 273.955 Recovery = 98.49%								
K 766.490†	13817.2	7204	ug/L	82.4	7204	ug/L	82.4	1.14%
QC value within limits for K 766.490 Recovery = 96.06%								
Mg 285.213†	39696.5	18900	ug/L	81.8	18900	ug/L	81.8	0.43%
QC value within limits for Mg 285.213 Recovery = 100.82%								
Mn 257.610†	2156.0	368.0	ug/L	2.26	368.0	ug/L	2.26	0.61%
QC value within limits for Mn 257.610 Recovery = 98.13%								
Mo 202.031†	10133.8	376.1	ug/L	1.24	376.1	ug/L	1.24	0.33%
QC value within limits for Mo 202.031 Recovery = 100.29%								
Na 589.592†	28183.4	9286	ug/L	76.7	9286	ug/L	76.7	0.83%
QC value within limits for Na 589.592 Recovery = 99.05%								
Ni 231.604†	14618.8	370.1	ug/L	2.67	370.1	ug/L	2.67	0.72%
QC value within limits for Ni 231.604 Recovery = 98.70%								
P 213.617†	6267.8	1776	ug/L	7.0	1776	ug/L	7.0	0.39%
QC value within limits for P 213.617 Recovery = 94.71%								
Pb 220.353†	3926.0	376.5	ug/L	1.86	376.5	ug/L	1.86	0.49%
QC value within limits for Pb 220.353 Recovery = 100.40%								
Sb 206.836†	1530.9	370.8	ug/L	1.58	370.8	ug/L	1.58	0.43%
QC value within limits for Sb 206.836 Recovery = 98.88%								
Se 196.026†	1048.8	371.2	ug/L	0.64	371.2	ug/L	0.64	0.17%
QC value within limits for Se 196.026 Recovery = 98.98%								
Sn 189.927†	3502.2	374.9	ug/L	1.46	374.9	ug/L	1.46	0.39%
QC value within limits for Sn 189.927 Recovery = 99.96%								
Sr 421.552†	50698.3	369.0	ug/L	4.21	369.0	ug/L	4.21	1.14%
QC value within limits for Sr 421.552 Recovery = 98.41%								
Ti 337.279†	2547.3	365.8	ug/L	0.40	365.8	ug/L	0.40	0.11%
QC value within limits for Ti 337.279 Recovery = 97.56%								
Tl 190.801†	1602.2	387.2	ug/L	1.27	387.2	ug/L	1.27	0.33%
QC value within limits for Tl 190.801 Recovery = 103.26%								
V 292.402†	52085.5	377.7	ug/L	1.28	377.7	ug/L	1.28	0.34%
QC value within limits for V 292.402 Recovery = 100.73%								
Zn 206.200†	18528.8	377.0	ug/L	3.06	377.0	ug/L	3.06	0.81%
QC value within limits for Zn 206.200 Recovery = 100.53%								

All analyte(s) passed QC.

Sequence No.: 30
Sample ID: CCB 191105 I:PB O:PW
Analyst:
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 11/05/19 12:54:39 PM
Data Type: Reprocessed on 11/06/19 8:32:45 AM
Initial Sample Vol:
Sample Prep Vol:

Mean Data: CCB 191105 I:PB O:PW

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	1265865.4	100.9	%	0.40				0.39%
Y 371.029 Radial	1210549.1	101.1	%	0.42				0.42%
Ag 338.289†	63.4	0.828	ug/L	1.0005	0.828	ug/L	1.0005	120.76%
QC value within limits for Ag 338.289 Recovery = Not calculated								
Al 308.215†	12.5	47.27	ug/L	27.042	47.27	ug/L	27.042	57.21%
QC value within limits for Al 308.215 Recovery = Not calculated								
As 188.979†	-3.7	-1.094	ug/L	0.4505	-1.094	ug/L	0.4505	41.17%
QC value within limits for As 188.979 Recovery = Not calculated								
B†	63.2	1.470	ug/L	0.1948	1.470	ug/L	0.1948	13.25%
QC value within limits for B Recovery = Not calculated								
Ba 233.527†	10.2	0.087	ug/L	0.1018	0.087	ug/L	0.1018	116.99%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-12.1	-0.188	ug/L	0.0697	-0.188	ug/L	0.0697	36.98%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 315.887†	-9.4	-7.029	ug/L	5.9165	-7.029	ug/L	5.9165	84.17%
QC value within limits for Ca 315.887 Recovery = Not calculated								
Cd 214.440†	21.2	0.150	ug/L	0.0154	0.150	ug/L	0.0154	10.21%
QC value within limits for Cd 214.440 Recovery = Not calculated								
Co 228.616†	-16.1	-0.339	ug/L	0.2136	-0.339	ug/L	0.2136	63.07%
QC value within limits for Co 228.616 Recovery = Not calculated								
Cr 267.716†	8.6	0.108	ug/L	0.0799	0.108	ug/L	0.0799	73.86%
QC value within limits for Cr 267.716 Recovery = Not calculated								
Cu 327.393†	141.3	1.623	ug/L	1.3412	1.623	ug/L	1.3412	82.64%
QC value within limits for Cu 327.393 Recovery = Not calculated								
Fe 273.955†	-3.0	-0.142	ug/L	0.9872	-0.142	ug/L	0.9872	696.06%
QC value within limits for Fe 273.955 Recovery = Not calculated								
K 766.490†	-144.8	-75.63	ug/L	21.163	-75.63	ug/L	21.163	27.98%
QC value within limits for K 766.490 Recovery = Not calculated								
Mg 285.213†	0.7	0.312	ug/L	1.2015	0.312	ug/L	1.2015	384.95%
QC value within limits for Mg 285.213 Recovery = Not calculated								
Mn 257.610†	1.2	0.209	ug/L	0.1946	0.209	ug/L	0.1946	93.20%
QC value within limits for Mn 257.610 Recovery = Not calculated								
Mo 202.031†	-3.2	-0.121	ug/L	0.0708	-0.121	ug/L	0.0708	58.66%
QC value within limits for Mo 202.031 Recovery = Not calculated								
Na 589.592†	104.0	34.25	ug/L	20.576	34.25	ug/L	20.576	60.07%
QC value within limits for Na 589.592 Recovery = Not calculated								
Ni 231.604†	-13.4	-0.346	ug/L	0.3029	-0.346	ug/L	0.3029	87.55%
QC value within limits for Ni 231.604 Recovery = Not calculated								
P 213.617†	-12.2	-3.453	ug/L	1.0591	-3.453	ug/L	1.0591	30.67%
QC value within limits for P 213.617 Recovery = Not calculated								
Pb 220.353†	9.2	0.877	ug/L	1.3350	0.877	ug/L	1.3350	152.16%
QC value within limits for Pb 220.353 Recovery = Not calculated								
Sb 206.836†	1.8	0.435	ug/L	0.5144	0.435	ug/L	0.5144	118.28%
QC value within limits for Sb 206.836 Recovery = Not calculated								
Se 196.026†	5.7	2.013	ug/L	2.7571	2.013	ug/L	2.7571	137.00%
QC value within limits for Se 196.026 Recovery = Not calculated								
Sn 189.927†	-7.2	-0.768	ug/L	0.1632	-0.768	ug/L	0.1632	21.24%
QC value within limits for Sn 189.927 Recovery = Not calculated								
Sr 421.552†	140.3	1.022	ug/L	0.2437	1.022	ug/L	0.2437	23.85%
QC value within limits for Sr 421.552 Recovery = Not calculated								
Ti 337.279†	1.8	0.263	ug/L	0.8671	0.263	ug/L	0.8671	329.94%
QC value within limits for Ti 337.279 Recovery = Not calculated								
Tl 190.801†	9.6	2.261	ug/L	1.0593	2.261	ug/L	1.0593	46.85%
QC value within limits for Tl 190.801 Recovery = Not calculated								
V 292.402†	-68.8	-0.492	ug/L	0.6663	-0.492	ug/L	0.6663	135.47%
QC value within limits for V 292.402 Recovery = Not calculated								
Zn 206.200†	-10.0	-0.261	ug/L	0.0671	-0.261	ug/L	0.0671	25.68%
QC value within limits for Zn 206.200 Recovery = Not calculated								

All analyte(s) passed QC.

METALS

Raw Data

Sequence No.: 28
Sample ID: BA02214W24 DF5
Analyst: P
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution: 5X

Autosampler Location: 25
Date Collected: 11/05/19 12:29:45 PM
Data Type: Reprocessed on 11/06/19 8:32:39 AM
Initial Sample Vol:
Sample Prep Vol:

Mean Data: BA02214W24 DF5

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	1256087.7	100.1	%	0.40				0.40%
Y 371.029 Radial	1200756.6	100.3	%	0.45				0.45%
Ag 338.289†	68.7	0.905	ug/L	0.4081	4.525	ug/L	2.0404	45.09%
Al 308.215†	30.2	113.6	ug/L	11.62	567.9	ug/L	58.11	10.23%
As 188.979†	-1.8	-0.467	ug/L	1.8461	-2.334	ug/L	9.2305	395.51%
B†	510.3	11.87	ug/L	0.077	59.33	ug/L	0.385	0.65%
Ba 233.527†	61.9	0.534	ug/L	0.0236	2.669	ug/L	0.1179	4.42%
Be 313.107†	-10.7	-0.156	ug/L	0.0366	-0.780	ug/L	0.1828	23.43%
Ca 315.887†	1502.5	1125	ug/L	5.7	5624	ug/L	28.3	0.50%
Cd 214.440†	-21.9	-0.161	ug/L	0.0262	-0.807	ug/L	0.1308	16.21%
Co 228.616†	8.3	0.145	ug/L	0.1830	0.723	ug/L	0.9148	126.47%
Cr 267.716†	107.8	1.375	ug/L	0.1130	6.877	ug/L	0.5652	8.22%
Cu 327.393†	81.2	0.880	ug/L	1.4502	4.402	ug/L	7.2512	164.71%
Fe 273.955†	2020.2	125.8	ug/L	1.14	629.1	ug/L	5.72	0.91%
K 766.490†	250.9	131.0	ug/L	41.14	655.1	ug/L	205.70	31.40%
Mg 285.213†	2383.0	1133	ug/L	7.0	5666	ug/L	34.9	0.62%
Mn 257.610†	10.5	1.752	ug/L	0.5688	8.759	ug/L	2.8442	32.47%
Mo 202.031†	-0.9	-0.123	ug/L	0.1085	-0.614	ug/L	0.5427	88.36%
Na 589.592†	19093.5	6284	ug/L	63.3	31420	ug/L	316.7	1.01%
Ni 231.604†	27.4	0.685	ug/L	0.2084	3.425	ug/L	1.0422	30.43%
P 213.617†	48.0	13.59	ug/L	0.978	67.97	ug/L	4.892	7.20%
Pb 220.353†	-12.6	-1.210	ug/L	0.5324	-6.048	ug/L	2.6621	44.02%
Sb 206.836†	3.0	0.723	ug/L	1.1504	3.617	ug/L	5.7519	159.01%
Se 196.026†	10.1	3.519	ug/L	1.3072	17.60	ug/L	6.536	37.14%
Sn 189.927†	-7.2	-0.705	ug/L	0.5808	-3.526	ug/L	2.9041	82.36%
Sr 421.552†	1835.5	13.35	ug/L	0.483	66.77	ug/L	2.416	3.62%
Ti 337.279†	20.6	2.946	ug/L	1.5919	14.73	ug/L	7.960	54.04%
Tl 190.801†	2.8	0.749	ug/L	0.6724	3.747	ug/L	3.3618	89.73%
V 292.402†	-0.8	-0.017	ug/L	0.6217	-0.084	ug/L	3.1084	>999.9%
Zn 206.200†	132.7	2.702	ug/L	0.1237	13.51	ug/L	0.618	4.58%

Sequence No.: 15
Sample ID: 191104A BLK
Analyst: P
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:

Autosampler Location: 26
Date Collected: 11/05/19 11:24:58 AM
Data Type: Reprocessed on 11/06/19 8:32:13 AM
Initial Sample Vol:
Sample Prep Vol:

Mean Data: 191104A BLK

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	1266248.3	101.0	%	0.22				0.22%
Y 371.029 Radial	1209907.9	101.1	%	0.23				0.23%
Ag 338.289†	121.1	1.567	ug/L	0.4145	1.567	ug/L	0.4145	26.45%
Al 308.215†	24.4	92.19	ug/L	38.211	92.19	ug/L	38.211	41.45%
As 188.979†	-10.3	-3.062	ug/L	2.6485	-3.062	ug/L	2.6485	86.49%
B†	155.7	3.621	ug/L	0.1398	3.621	ug/L	0.1398	3.86%
Ba 233.527†	14.4	0.121	ug/L	0.0720	0.121	ug/L	0.0720	59.58%
Be 313.107†	-6.4	-0.102	ug/L	0.0444	-0.102	ug/L	0.0444	43.48%
Ca 315.887†	21.9	16.42	ug/L	3.031	16.42	ug/L	3.031	18.47%
Cd 214.440†	41.5	0.292	ug/L	0.0113	0.292	ug/L	0.0113	3.85%
Co 228.616†	8.3	0.175	ug/L	0.1680	0.175	ug/L	0.1680	96.29%
Cr 267.716†	-2.5	-0.031	ug/L	0.2027	-0.031	ug/L	0.2027	644.34%
Cu 327.393†	49.9	0.558	ug/L	0.5867	0.558	ug/L	0.5867	105.11%
Fe 273.955†	410.1	25.57	ug/L	0.595	25.57	ug/L	0.595	2.33%
K 766.490†	-93.9	-49.05	ug/L	131.375	-49.05	ug/L	131.375	267.81%
Mg 285.213†	13.0	6.193	ug/L	4.8006	6.193	ug/L	4.8006	77.51%
Mn 257.610†	4.5	0.770	ug/L	0.1353	0.770	ug/L	0.1353	17.57%
Mo 202.031†	0.3	0.011	ug/L	0.1385	0.011	ug/L	0.1385	>999.9%
Na 589.592†	246.0	81.00	ug/L	43.240	81.00	ug/L	43.240	53.38%
Ni 231.604†	-17.3	-0.443	ug/L	0.2922	-0.443	ug/L	0.2922	66.02%
P 213.617†	-4.6	-1.316	ug/L	2.6627	-1.316	ug/L	2.6627	202.30%
Pb 220.353†	7.7	0.745	ug/L	0.9452	0.745	ug/L	0.9452	126.91%
Sb 206.836†	4.7	1.145	ug/L	0.6392	1.145	ug/L	0.6392	55.85%
Se 196.026†	7.6	2.680	ug/L	0.8886	2.680	ug/L	0.8886	33.15%
Sn 189.927†	-3.2	-0.347	ug/L	0.3619	-0.347	ug/L	0.3619	104.39%
Sr 421.552†	111.7	0.813	ug/L	0.2734	0.813	ug/L	0.2734	33.61%
Ti 337.279†	-7.9	-1.141	ug/L	1.3751	-1.141	ug/L	1.3751	120.53%
Tl 190.801†	-1.4	-0.333	ug/L	0.9626	-0.333	ug/L	0.9626	288.95%
V 292.402†	40.3	0.283	ug/L	0.5107	0.283	ug/L	0.5107	180.39%
Zn 206.200†	31.0	0.540	ug/L	0.0740	0.540	ug/L	0.0740	13.70%

Sequence No.: 16 **Autosampler Location: 27**
Sample ID: 191104A LCS **Date Collected: 11/05/19 11:29:41 AM**
Analyst: P **Data Type: Reprocessed on 11/06/19 8:32:15 AM**
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: 191104A LCS

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	1203064.3	95.92	%	0.945				0.99%
Y 371.029 Radial	1146789.4	95.80	%	1.028				1.07%
Ag 338.289†	7583.1	99.92	ug/L	0.711	99.92	ug/L	0.711	0.71%
Al 308.215†	556.1	2097	ug/L	15.6	2097	ug/L	15.6	0.74%
As 188.979†	821.6	244.0	ug/L	2.10	244.0	ug/L	2.10	0.86%
B†	10451.7	243.1	ug/L	1.45	243.1	ug/L	1.45	0.59%
Ba 233.527†	28698.3	255.1	ug/L	1.41	255.1	ug/L	1.41	0.55%
Be 313.107†	3028.1	47.99	ug/L	0.421	47.99	ug/L	0.421	0.88%
Ca 315.887†	33244.2	24890	ug/L	225.4	24890	ug/L	225.4	0.91%
Cd 214.440†	7110.4	50.10	ug/L	0.428	50.10	ug/L	0.428	0.85%
Co 228.616†	12632.0	263.0	ug/L	2.35	263.0	ug/L	2.35	0.90%
Cr 267.716†	19813.1	255.0	ug/L	3.20	255.0	ug/L	3.20	1.26%
Cu 327.393†	21841.4	252.2	ug/L	1.84	252.2	ug/L	1.84	0.73%
Fe 273.955†	16443.7	1000	ug/L	8.7	1000	ug/L	8.7	0.87%
K 766.490†	9272.7	4834	ug/L	64.9	4834	ug/L	64.9	1.34%
Mg 285.213†	52090.6	24790	ug/L	30.0	24790	ug/L	30.0	0.12%
Mn 257.610†	1460.8	248.5	ug/L	2.54	248.5	ug/L	2.54	1.02%
Mo 202.031†	7099.7	263.0	ug/L	1.88	263.0	ug/L	1.88	0.72%
Na 589.592†	75420.0	24830	ug/L	13.8	24830	ug/L	13.8	0.06%
Ni 231.604†	10126.5	256.2	ug/L	1.76	256.2	ug/L	1.76	0.69%
P 213.617†	6948.6	1969	ug/L	14.5	1969	ug/L	14.5	0.74%
Pb 220.353†	2665.1	254.8	ug/L	1.70	254.8	ug/L	1.70	0.67%
Sb 206.836†	990.7	240.0	ug/L	1.38	240.0	ug/L	1.38	0.57%
Se 196.026†	679.5	238.5	ug/L	2.57	238.5	ug/L	2.57	1.08%
Sn 189.927†	2411.3	258.5	ug/L	2.39	258.5	ug/L	2.39	0.93%
Sr 421.552†	33725.7	245.4	ug/L	0.28	245.4	ug/L	0.28	0.12%
Ti 337.279†	1756.1	252.1	ug/L	3.23	252.1	ug/L	3.23	1.28%
Tl 190.801†	1070.8	258.8	ug/L	2.64	258.8	ug/L	2.64	1.02%
V 292.402†	35624.1	259.3	ug/L	1.51	259.3	ug/L	1.51	0.58%
Zn 206.200†	24532.2	496.6	ug/L	4.04	496.6	ug/L	4.04	0.81%

Sequence No.: 17
Sample ID: 191104A LCSD
Analyst: P
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:

Autosampler Location: 28
Date Collected: 11/05/19 11:34:35 AM
Data Type: Reprocessed on 11/06/19 8:32:16 AM
Initial Sample Vol:
Sample Prep Vol:

Mean Data: 191104A LCSD

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	1199111.2	95.60	%	0.812				0.85%
Y 371.029 Radial	1142690.2	95.46	%	0.848				0.89%
Ag 338.289†	7329.1	96.61	ug/L	1.461	96.61	ug/L	1.461	1.51%
Al 308.215†	543.0	2047	ug/L	22.3	2047	ug/L	22.3	1.09%
As 188.979†	811.2	240.9	ug/L	4.30	240.9	ug/L	4.30	1.78%
B†	10409.2	242.1	ug/L	1.21	242.1	ug/L	1.21	0.50%
Ba 233.527†	28410.3	252.5	ug/L	1.60	252.5	ug/L	1.60	0.63%
Be 313.107†	3009.8	47.71	ug/L	0.701	47.71	ug/L	0.701	1.47%
Ca 315.887†	33043.7	24740	ug/L	312.0	24740	ug/L	312.0	1.26%
Cd 214.440†	7047.1	49.65	ug/L	0.572	49.65	ug/L	0.572	1.15%
Co 228.616†	12476.0	259.7	ug/L	3.20	259.7	ug/L	3.20	1.23%
Cr 267.716†	19769.8	254.5	ug/L	0.77	254.5	ug/L	0.77	0.30%
Cu 327.393†	21545.0	248.8	ug/L	1.68	248.8	ug/L	1.68	0.67%
Fe 273.955†	16271.7	989.7	ug/L	4.34	989.7	ug/L	4.34	0.44%
K 766.490†	9257.1	4826	ug/L	26.0	4826	ug/L	26.0	0.54%
Mg 285.213†	52047.3	24770	ug/L	288.5	24770	ug/L	288.5	1.16%
Mn 257.610†	1455.4	247.6	ug/L	3.65	247.6	ug/L	3.65	1.47%
Mo 202.031†	7028.5	260.3	ug/L	3.05	260.3	ug/L	3.05	1.17%
Na 589.592†	75220.0	24770	ug/L	237.3	24770	ug/L	237.3	0.96%
Ni 231.604†	10016.6	253.4	ug/L	2.76	253.4	ug/L	2.76	1.09%
P 213.617†	6858.2	1943	ug/L	21.4	1943	ug/L	21.4	1.10%
Pb 220.353†	2656.4	253.9	ug/L	2.86	253.9	ug/L	2.86	1.13%
Sb 206.836†	976.1	236.4	ug/L	3.91	236.4	ug/L	3.91	1.66%
Se 196.026†	668.3	234.6	ug/L	2.55	234.6	ug/L	2.55	1.09%
Sn 189.927†	2382.9	255.5	ug/L	3.25	255.5	ug/L	3.25	1.27%
Sr 421.552†	33788.1	245.8	ug/L	2.44	245.8	ug/L	2.44	0.99%
Ti 337.279†	1756.6	252.1	ug/L	3.54	252.1	ug/L	3.54	1.40%
Tl 190.801†	1060.1	256.2	ug/L	2.12	256.2	ug/L	2.12	0.83%
V 292.402†	35324.1	257.2	ug/L	1.49	257.2	ug/L	1.49	0.58%
Zn 206.200†	24250.8	491.0	ug/L	2.05	491.0	ug/L	2.05	0.42%

ICP-OES Calibration Standard Prep

Prepared: 11/05/19
Expires: 11/12/19
1% HNO3 / 5% HCl Prep: 11/04/19
Prepared By (Initials): PW

Calibration Standard 3

Initial Standard Information						Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier Part No.	Conc. Range (ug/mL)	Lot Number - QA Number/ APPL Prep Date	Exp Date	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. Range (ug/L)
Solution A	Texas Scientific	HP1810-250	200 - 5,000	m2meb662248-38391	10/11/20	500uL	100mL	1% HNO3 / 5% HCl	1000 - 25,000
Solution B	Texas Scientific	HP1810-250	4000 - 10,000	m2meb662249-38389	10/11/20	500uL			2000 - 50,000
Solution C	Texas Scientific	HP1810-250	100 - 200	m2meb662250-38394	10/11/20	500uL			500 - 1000
Calibration Standard 2									
ICP-OES Calib Standard 3	Texas Scientific	Standard 2/CCV1	0.5 - 50	Prepared 11/05/19	11/12/19	25mL	50mL	1% HNO3 / 5% HCl	250 - 25,000
Calibration Standard 1									
200.7 LDL	O2SI	160634-01-01	0.05 - 100	10080366-1-39117	11/16/19	250uL	50mL	1% HNO3 / 5% HCl	0.25 - 200

ICP-OES ICV (SS)

Prepared: 11/05/19
Expires: 08/09/19
1% HNO3 / 5% HCl Prep: 11/05/19
Prepared By (Initials): PW

ICP-OES ICV 1

Initial Standard Information						Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier Part No.	Conc. Range (ug/mL)	Lot Number - QA Number	Exp Date	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. Range (ug/mL)
QCS ICV Soln A	CPI	4400-070615RH01	50 - 500	10062445-8-40746	10/30/20	250uL	50mL	1% HNO3 / 5% HCl	0.25 - 2.5
QCS ICV Soln B	CPI	4400-070615RH01	2,500	10062445-9-40747	10/30/20	250uL			12.5

ICP-OES ICV Ba

Initial Standard Information						Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier Part No.	Conc. Range (ug/mL)	Lot Number - QA Number	Exp Date	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. Range (ug/mL)
Custom 23 Element Mix #314	O2SI	161314-01-03	5 - 25,00	1064561-8-38870	08/09/19	1mL	50mL	1% HNO3 / 5% HCl	0.1 - 50
Custom 23 Element Mix #315	O2SI	161314-01-03	10 - 25	1064561-7-38869	08/09/19	1mL			0.2 - 0.5

ICP-OES CCV2

Initial Standard Information						Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier Part No.	Conc. Range (ug/mL)	APPL Prep Date	Exp Date	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. Range (ug/mL)
ICP-OES Calib Standard 3	Texas Scientific	CCV2	0.5 - 50	Prepared 11/05/19	11/12/19	15mL	40mL	1% HNO3 / 5% HCl	0.15 - 15

ICP-OES Low Levels (LLICV)

Prepared: 10/31/19
Expires: 11/14/19
1% HNO3 / 5% HCl Prep: 10/31/19
Prepared By (Initials): PW

LLICV

Initial Standard Information						Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier Part No.	Conc. Range ug/mL	Lot Number - QA Number	Exp Date	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. Range (ug/L)
200.7 LDL	O2SI	160634-01-01	0.05 - 100	10080366-1-39117	11/16/19	250uL	50mL	1% HNO3 / 5% HCl	0.25 - 200
LLICVX2									
200.7 LDL	O2SI	160634-01-01	0.05 - 100	10080366-1-39117	11/16/19	500uL	50mL	1% HNO3 / 5% HCl	0.50 - 400
LLICVX6									
200.7 LDL	O2SI	160634-01-01	0.05 - 100	10080366-1-39117	11/16/19	1.5mL	50mL	1% HNO3 / 5% HCl	1.5 - 1,200
LLICVX10									
200.7 LDL	O2SI	160634-01-01	0.05 - 100	10080366-1-39117	11/16/19	2.5mL	50mL	1% HNO3 / 5% HCl	2.5 - 2,000
LLICV 10									
ICP-OES Calib Standard 3	Texas Scientific	HP1810-250	0.5 - 50	10080366-1-39117	11/12/19	500uL	50mL	1% HNO3 / 5% HCl	5 - 500
LLICV 50									
ICP-OES Calib Standard 3	Texas Scientific	HP1810-250	0.5 - 50	10080366-1-39117	11/12/19	2.5mL	50mL	1% HNO3 / 5% HCl	25 - 2,500

ICP-OES Interference Check Solution A

Prepared: 11/04/19
Expires: 11/18/19
1% HNO3 / 5% HCl Prep: 11/04/19
Prepared By (initials): PW

Initial Standard Information						Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier Part No.	Conc. (ug/mL)	Lot Number - QA Number	Exp Date	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
Aluminum	Inorganic Ventures	35-APPLTSP-6010ICSA	10,000	N2-MEB670092-39414	07/25/22	500uL	50mL	1% HNO3 / 5% HCl	100
Calcium			10,000						100
Magnesium			10,000						100
Iron			10,000						100
ICP-OES Interference Check Solution AB									
Aluminum	Inorganic Ventures	35-APPLTSP-6010ICSA	10,000	N2-MEB670092-39414	07/25/22	500uL	50mL	1% HNO3 / 5% HCl	100
Calcium			10,000						100
Magnesium			10,000						100
Iron			10,000						100
Special Mix (Interference)	O2SI	160495-01-01	100	10081266-39276	12/13/19	250uL			0.5

ICP-OES Internal Standards

Prepared: 11/05/18
Expires: 12/06/18
1% HNO3 / 5% HCl Prep: 11/05/18
Prepared By (initials): PW

Initial Standard Information						Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier Part No.	Conc. (mg/L)	Lot Number - QA Number	Exp Date	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (mg/L)
Yttrium	O2SI	060039-04-03	1,000	10083563-39466	01/27/20	4mL	2L	1% HNO3 / 5% HCl	2

Metals Digestion Worksheet

Method Name 3010A Digestion (Field Filter) **Prep Method** M3010F **Set** 191104A **Units** mL

Spike	
Spiked ID 1	LCSW LOT# 10064561-11-41208 Pipette AP-21
Spiked ID 2	LCSW LOT# 10064561-12-41210
Spiked ID 3	
Spiked ID 4	
Spiked By	NM Date: 11/04/19 8:30:00 AM
Witnessed By	PW Date: 11/04/19 8:30:00 AM

Starting Temp:	SLOT 17 THERM:MT1 95.2
Ending Temp:	SLOT 17 95.2
Temperature Type:	Mod Block
Sufficient Vol for Matrix QC:	YES
End Date/Time	11/04/19 11:45

	Sample	Sample Container	Spike Amount	Spike ID	Digested Amount	Final Volume	Start Date/Time	Comments
1	191104A Blk				50mL	50mL	11/04/19 8:30	equip: Modblock2
2	191104A LCS		500uL	1+2	50mL	50mL	11/04/19 8:30	equip: Modblock2
3	191104A LCSD		500uL	1+2	50mL	50mL	11/04/19 8:30	equip: Modblock1
4	BA00756	BA00756W07			50mL	50mL	11/04/19 8:30	equip: Modblock2
5	BA00757	BA00757W06			50mL	50mL	11/04/19 8:30	equip: Modblock2
6	BA00758	BA00758W05			50mL	50mL	11/04/19 8:30	equip: Modblock2
7	BA00759	BA00759W07			50mL	50mL	11/04/19 8:30	equip: Modblock2
8	BA00760	BA00760W07			50mL	50mL	11/04/19 8:30	equip: Modblock2
9	BA00761	BA00761W05			50mL	50mL	11/04/19 8:30	equip: Modblock2
10	BA00761 DUP	BA00761W05			50mL	50mL	11/04/19 8:30	equip: Modblock2
11	BA00761 MS	BA00761W05	500uL	1+2	50mL	50mL	11/04/19 8:30	equip: Modblock2
12	BA01630	BA01630W07			50mL	50mL	11/04/19 8:30	equip: Modblock2 90531
13	BA01631	BA01631W07			50mL	50mL	11/04/19 8:30	equip: Modblock2 90531
14	BA01632	BA01632W07			50mL	50mL	11/04/19 8:30	equip: Modblock2 90531
15	BA01633	BA01633W07			50mL	50mL	11/04/19 8:30	equip: Modblock2 90531
16	BA01634	BA01634W07			50mL	50mL	11/04/19 8:30	equip: Modblock2 90531
17	BA01635	BA01635W07			50mL	50mL	11/04/19 8:30	equip: Modblock2 90531
18	BA01637	BA01637W07			50mL	50mL	11/04/19 8:30	equip: Modblock1 90531
19	BA01638	BA01638W07			50mL	50mL	11/04/19 8:30	equip: Modblock2 90531
20	BA01639	BA01639W07			50mL	50mL	11/04/19 8:30	equip: Modblock2 90531
21	BA01640	BA01640W07			50mL	50mL	11/04/19 8:30	equip: Modblock2 90531
22	BA01641	BA01641W07			50mL	50mL	11/04/19 8:30	equip: Modblock2 90531
23	BA02090	BA02090W20			50mL	50mL	11/04/19 8:30	equip: Modblock2

Solvent and Lot#
HNO3 BDH 1119020 15586
1:1 HCL 10-22-19
50mL vesssel 190916

Sample COC Transfer	
Sample prep employee Initials	nm
Analyst's initials	JW
Date	11/5/19
Time	1621
Moved to	MEQ1)

Technician's Initials	
Scanned By	nm
Sample Preparation	nm
Digestion	nm
Bring up to volume	
Modified	11/04/19 8:29:34 AM

Reviewed By: PW **Date:**

Metals Digestion Worksheet

Method Name 3010A Digestion (Field Filter) **Prep Method** M3010F **Set** 191104A **Units** mL

Spikes	
Spiked ID 1	LCSW LOT# 10064561-11-41208 Pipette AP-21
Spiked ID 2	LCSW LOT# 10064561-12-41210
Spiked ID 3	
Spiked ID 4	
Spiked By	NM Date: 11/04/19 8:30:00 AM
Witnessed By	PW Date: 11/04/19 8:30:00 AM

Starting Temp:	SLOT 17 THERM:MT1 95.2
Ending Temp:	SLOT 17 95.2
Temperature Type:	Mod Block
Sufficient Vol for Matrix QC:	YES
End Date/Time	11/04/19 11:45

	Sample	Sample Container	Spike Amount	Spike ID	Digested Amount	Final Volume	Start Date/Time	Comments
24	BA02214	BA02214W24			50mL	50mL	11/04/19 8:30	equip: Modblock2

Solvent and Lot#
HNO3 BDH 1119020 15586
1:1 HCL 10-22-19
50mL vesssel 190916

Sample COC Transfer	
Sample prep employee Initials	nm
Analyst's initials	PW
Date	11/15/19
Time	1621
Moved to	METALS

Technician's Initials	
Scanned By	nm
Sample Preparation	nm
Digestion	nm
Bring up to volume	
Modified	11/04/19 8:29:34 AM

Reviewed By: PW **Date:**

6010C/3010A Injection Log

Directory: K:\ICAP PHOEBE\Backup Excel\

RunID	Injected		Sample Name	Misc Info	FileName	Multiplier
1	05 Nov 2019	09:23	CalBlk 191105 I:PB O:PW		191105A200	1.
2	05 Nov 2019	09:38	STD 1 191105 I:PB O:PW		191105A200	1.
3	05 Nov 2019	09:42	STD 2 191105 I:PB O:PW		191105A200	1.
4	05 Nov 2019	09:47	STD 3 191105 I:PB O:PW		191105A200	1.
5	05 Nov 2019	10:17	ICV 191105 I:PB O:PW		191105A200	1.
6	05 Nov 2019	10:31	ICB 191105 I:PB O:PW		191105A200	1.
7	05 Nov 2019	10:35	LLICV 191105 I:PB O:PW		191105A200	1.
11	05 Nov 2019	10:55	ICSA 191105 I:PB O:PW		191105A200	1.
12	05 Nov 2019	10:59	ICSAB 191105 I:PB O:PW		191105A200	1.
15	05 Nov 2019	11:24	191104A BLK		191105A200	1.
16	05 Nov 2019	11:29	191104A LCS		191105A200	1.
17	05 Nov 2019	11:34	191104A LCSD		191105A200	1.
28	05 Nov 2019	12:29	BA02214W24 DF5		191105A200	5.
29	05 Nov 2019	12:34	CCV2 191105 I:PB O:PW		191105A200	1.
30	05 Nov 2019	12:54	CCB 191105 I:PB O:PW		191105A200	1.

INORGANIC ANALYSIS
Calibration Data

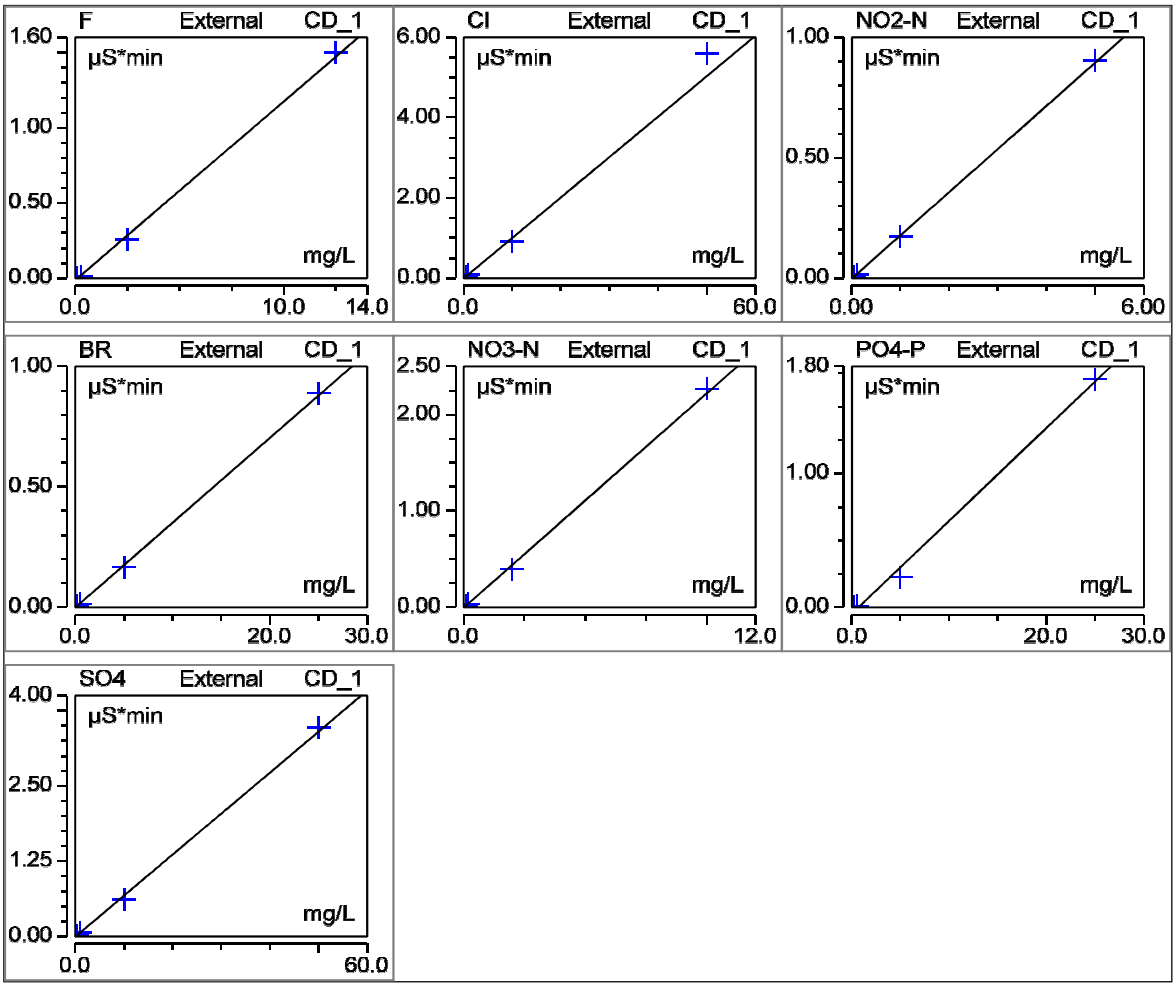
Calibration Batch Report

Sequence:	**191030iCal**	*Injection Volume:*	**25.00**
Instrument Method:	**Anions IM**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**30-Oct-2019 / 18:44**	*Run Time:*	**5.1**

Calibration Summary

Peak Name	Eval.Type	Cal.Type	Points	Offset (C0)	Slope (C1)	Curve (C2)	Coeff.Det. %
F	Area	Lin, WithOffset, 1/A	4.000	-0.014	0.119	0.000	99.7003
Cl	Area	Lin, WithOffset, 1/A²	4.000	-0.007	0.101	0.000	99.0220
NO2-N	Area	Lin, WithOffset, 1/A	4.000	-0.001	0.179	0.000	99.9623
BR	Area	Lin, WithOffset, 1/A	4.000	-0.001	0.035	0.000	99.9272
NO3-N	Area	Lin, WithOffset, 1/A	4.000	-0.005	0.223	0.000	99.7595
PO4-P	Area	Lin, WithOffset	4.000	-0.047	0.069	0.000	99.5917
SO4	Area	Lin, WithOffset, 1/A	4.000	-0.007	0.068	0.000	99.7957

Injection Name	Amount mg/L CD_1 F	Amount mg/L CD_1 Cl	Amount mg/L CD_1 NO2-N	Amount mg/L CD_1 BR	Amount mg/L CD_1 NO3-N	Amount mg/L CD_1 PO4-P	Amount mg/L CD_1 SO4
ICAL1 191030	0.125	0.4074	0.0426	0.2137	0.0909	0.7550	0.4460
ICAL2 191030	0.206	0.9606	0.0968	0.4887	0.1893	0.8434	0.9617
ICAL5 191030	2.259	9.1156	0.9605	4.7141	1.7941	3.8911	9.0418
ICAL8 191030	12.760	55.4700	5.0402	25.2835	10.2057	25.2105	50.9505

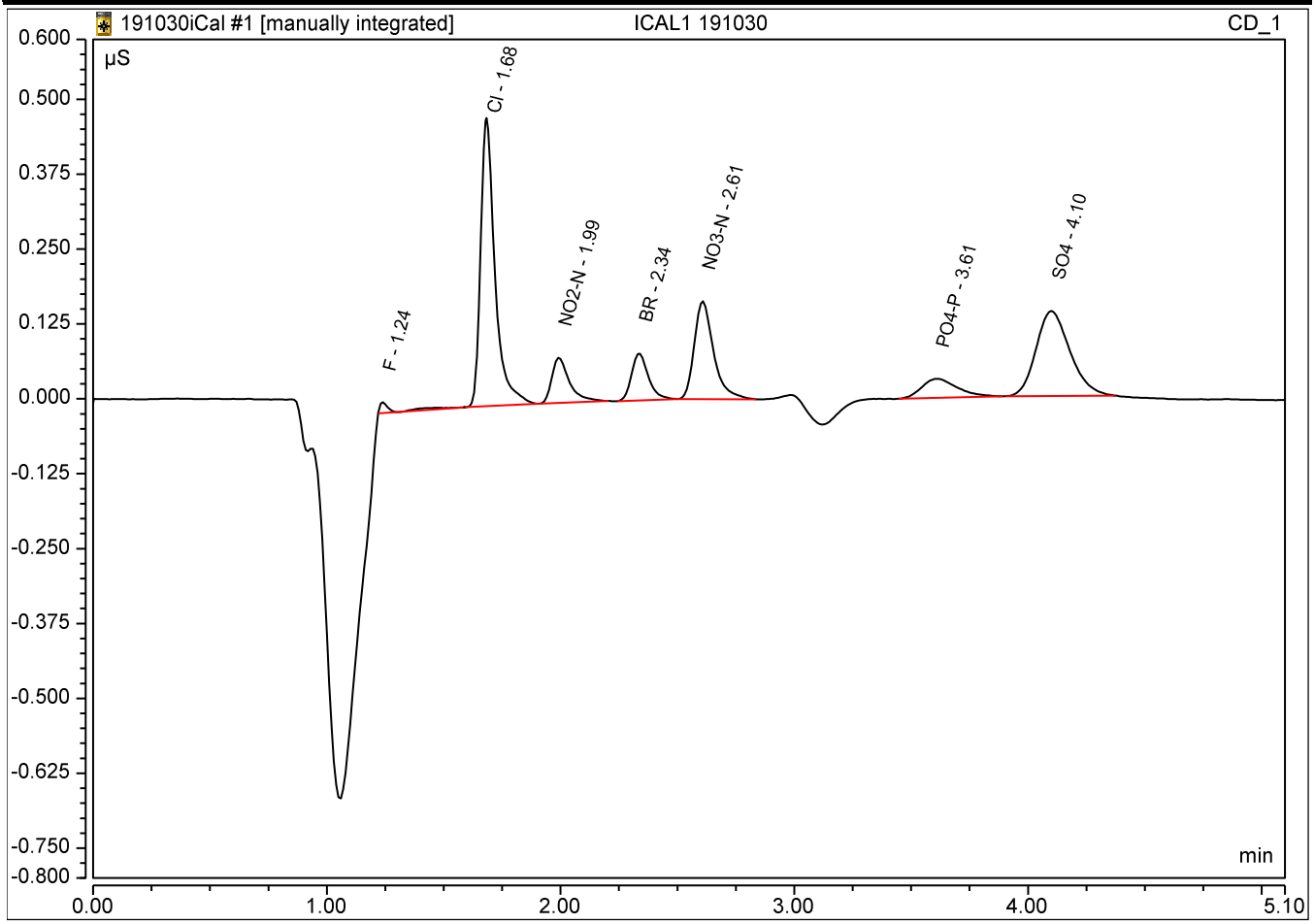


Logged on User: BW
Instrument: Charlie System_1
Sequence: 191030iCal

Peak Integration Report

Sample Name:	**ICAL1 191030**	*Inj. Vol.:*	**25uL**
Injection Type:	**Calibration Standard**	*Dilution Factor:*	**1.00**
Program:	**Anion APM 191030**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**30-Oct-2019 / 18:22**	*Run Time:*	**5.10**

No.	Time (min) min	Peak Name	Peak Type	Area (µS*min) µS*min	Height (µS) µS	Amount mg/L	Spike Level mg/L	Recovery
1	1.24	**F**	M *	0.001	0.018	0.13	0.1	125.3%
2	1.68	**Cl**	bMB*	0.034	0.481	0.41	0.4	101.8%
3	1.99	**NO2-N**	BMB	0.007	0.076	0.04	0.04	106.4%
4	2.34	**BR**	BMB	0.007	0.078	0.21	0.2	106.8%
5	2.61	**NO3-N**	BMB	0.016	0.163	0.09	0.08	113.6%
6	3.61	**PO4-P**	BMB*	0.006	0.032	0.76	0.2	377.5%
7	4.10	**SO4**	BMB	0.024	0.142	0.45	0.4	111.5%

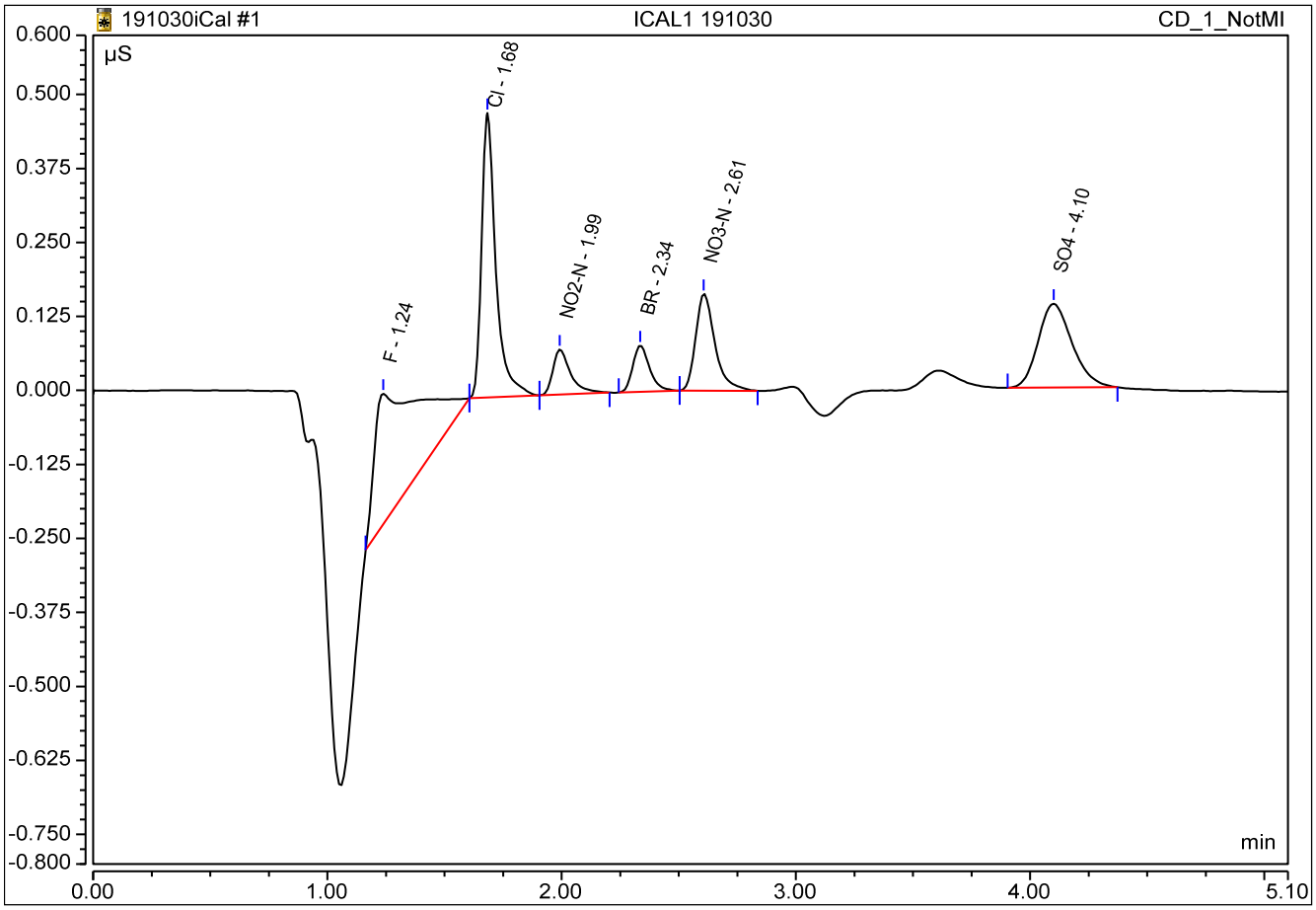


MI1 BW 191031

Not Manipulated Peak Integration Report

Sample Name:	**ICAL1 191030**	*Inj. Vol.:*	**25uL**
Injection Type:	**Calibration Standard**	*Dilution Factor:*	**1.0000**
Program:	**Anion APM 191030**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**30-Oct-2019 / 18:22**	*Run Time:*	**5.10**

No.	Time min	Peak Name	Peak Type	Area µS*min	Height µS	Ammount mg/L
1	1.24	**F**	M *	0.048	0.221	0.0926
2	1.68	**Cl**	bMB*	0.034	0.480	0.4073
3	1.99	**NO2-N**	BMB	0.007	0.076	0.0426
4	2.34	**BR**	BMB	0.007	0.078	0.2137
5	2.61	**NO3-N**	BMB	0.016	0.163	0.0909
6	n.a.	**PO4-P**	BMB*	n.a.	n.a.	n.a.
7	4.10	**SO4**	BMB	0.024	0.142	0.4460

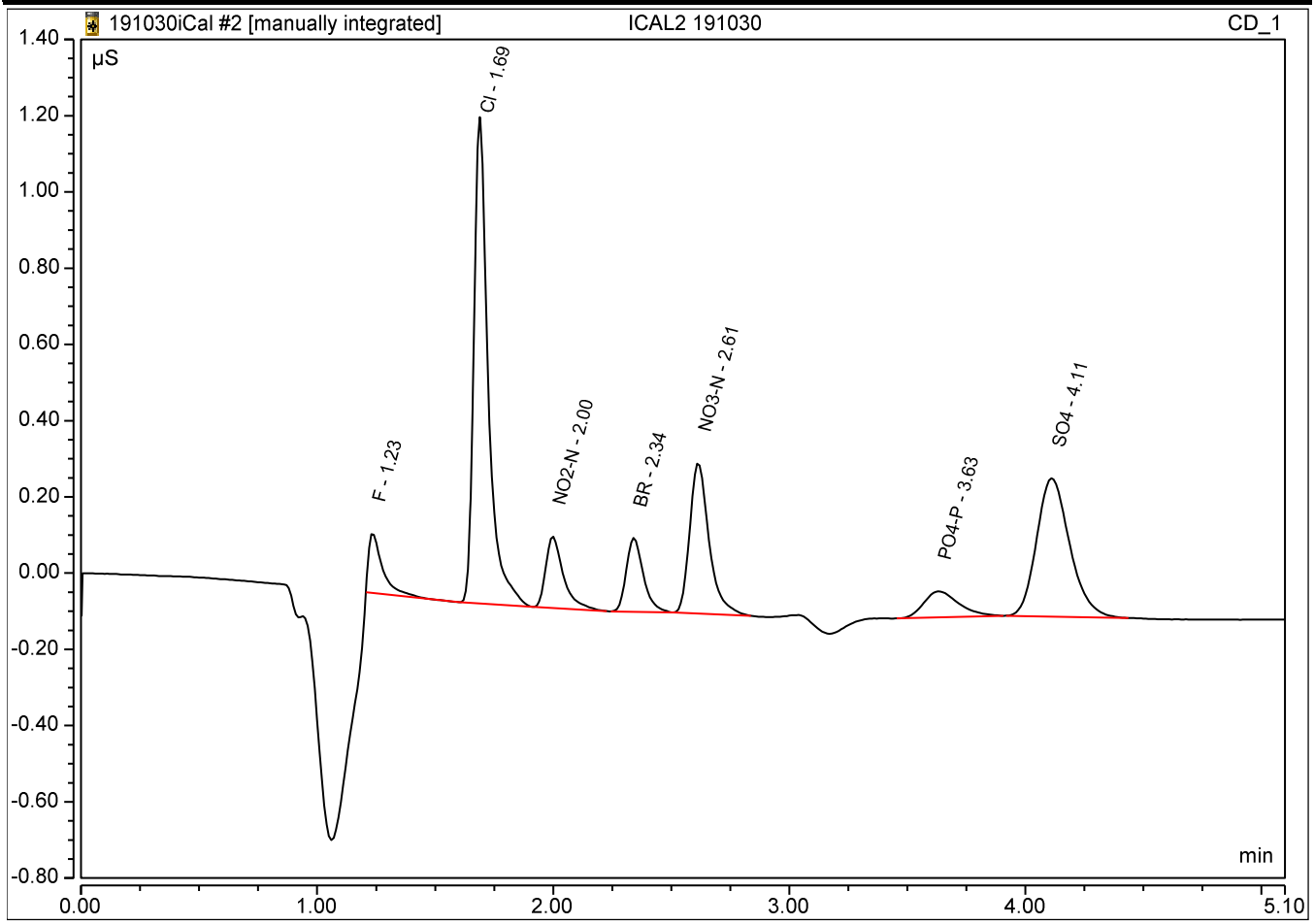


Logged on User: BW
Instrument: Charlie System_1
Sequence: 191030iCal

Peak Integration Report

Sample Name:	**ICAL2 191030**	*Inj. Vol.:*	**25uL**
Injection Type:	**Calibration Standard**	*Dilution Factor:*	**1.00**
Program:	**Anion APM 191030**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**30-Oct-2019 / 18:29**	*Run Time:*	**5.10**

No.	Time (min) min	Peak Name	Peak Type	Area (µS*min) µS*min	Height (µS) µS	Amount mg/L	Spike Level mg/L	Recovery
1	1.23	**F**	Mb*	0.011	0.157	0.21	0.25	82.3%
2	1.69	**Cl**	bMB*	0.090	1.276	0.96	1	96.1%
3	2.00	**NO2-N**	BMB	0.016	0.188	0.10	0.1	96.8%
4	2.34	**BR**	BMB	0.016	0.194	0.49	0.5	97.7%
5	2.61	**NO3-N**	BMB	0.038	0.395	0.19	0.2	94.6%
6	3.63	**PO4-P**	BMB*	0.012	0.068	0.84	0.5	168.7%
7	4.11	**SO4**	BMB	0.059	0.363	0.96	1	96.2%

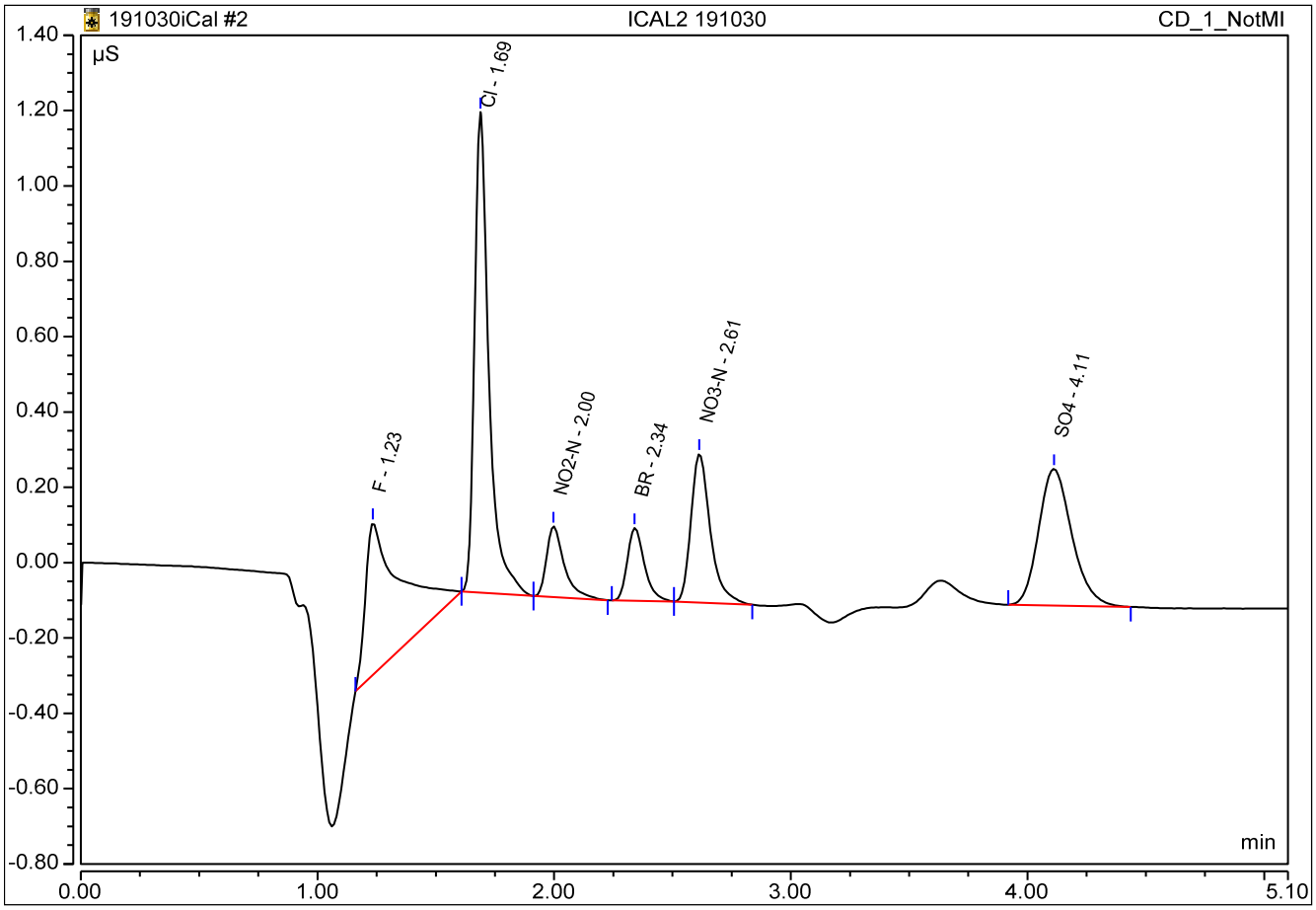


MI1 BW 190931

Not Manipulated Peak Integration Report

Sample Name:	**ICAL2 191030**	*Inj. Vol.:*	**25uL**
Injection Type:	**Calibration Standard**	*Dilution Factor:*	**1.0000**
Program:	**Anion APM 191030**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**30-Oct-2019 / 18:29**	*Run Time:*	**5.10**

No.	Time min	Peak Name	Peak Type	Area µS*min	Height µS	Ammount mg/L
1	1.23	**F**	Mb*	0.069	0.404	0.2711
2	1.69	**Cl**	bMB*	0.090	1.276	0.9610
3	2.00	**NO2-N**	BMB	0.016	0.188	0.0968
4	2.34	**BR**	BMB	0.016	0.194	0.4887
5	2.61	**NO3-N**	BMB	0.038	0.395	0.1893
6	n.a.	**PO4-P**	BMB*	n.a.	n.a.	n.a.
7	4.11	**SO4**	BMB	0.059	0.363	0.9617

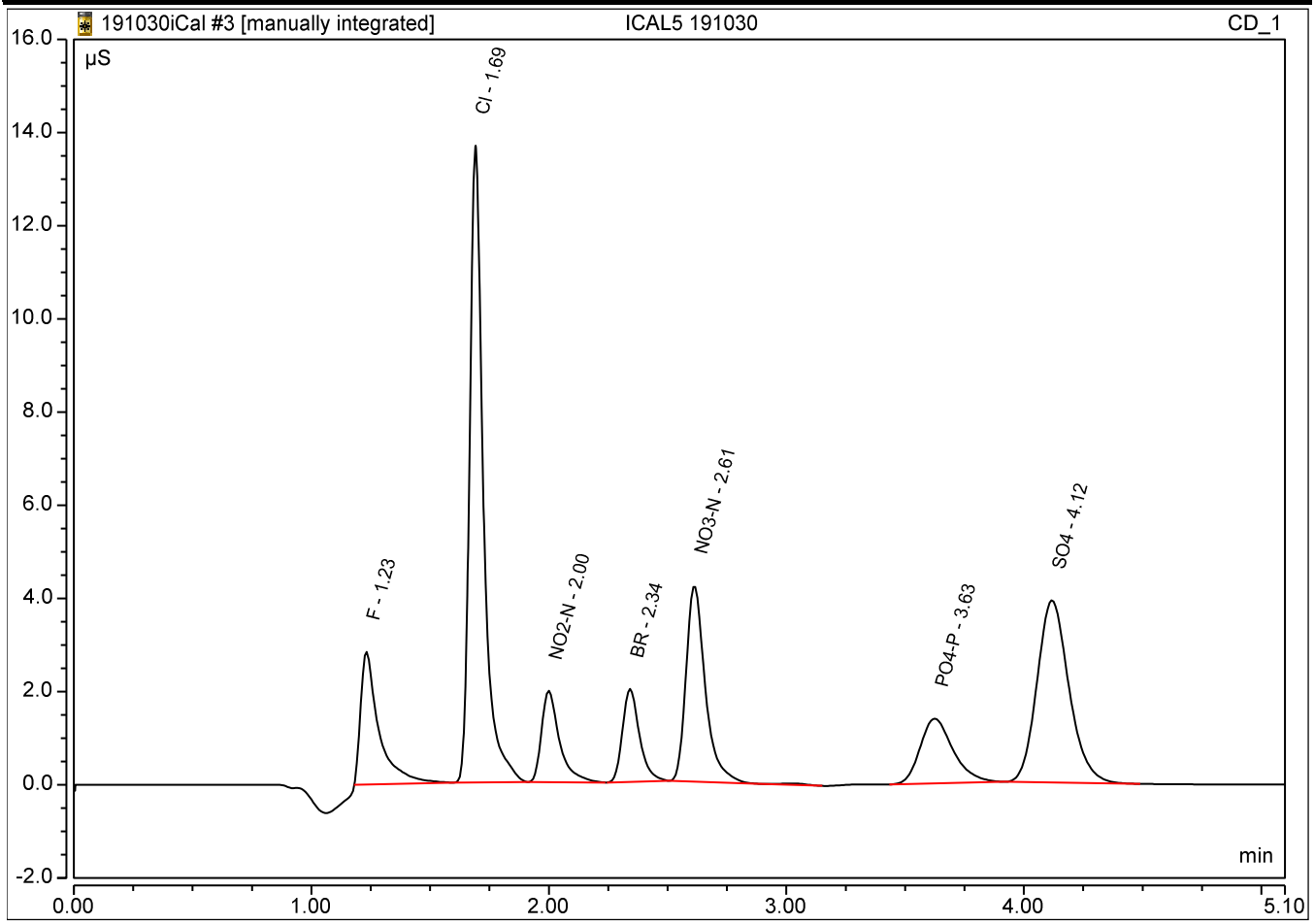


Logged on User: BW
Instrument: Charlie System_1
Sequence: 191030iCal

Peak Integration Report

Sample Name:	**ICAL5 191030**	*Inj. Vol.:*	**25uL**
Injection Type:	**Calibration Standard**	*Dilution Factor:*	**1.00**
Program:	**Anion APM 191030**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**30-Oct-2019 / 18:37**	*Run Time:*	**5.10**

No.	Time (min) min	Peak Name	Peak Type	Area (µS*min) µS*min	Height (µS) µS	Amount mg/L	Spike Level mg/L	Recovery
1	1.23	**F**	MB*	0.255	2.859	2.26	2.5	90.4%
2	1.69	**Cl**	BMB	0.913	13.668	9.12	10	91.2%
3	2.00	**NO2-N**	BMB	0.171	1.960	0.96	1	96.1%
4	2.34	**BR**	BMB	0.165	1.998	4.71	5	94.3%
5	2.61	**NO3-N**	BMB	0.395	4.211	1.79	2	89.7%
7	3.63	**PO4-P**	BMB	0.223	1.389	3.89	5	77.8%
8	4.12	**SO4**	BMB	0.610	3.910	9.04	10	90.4%

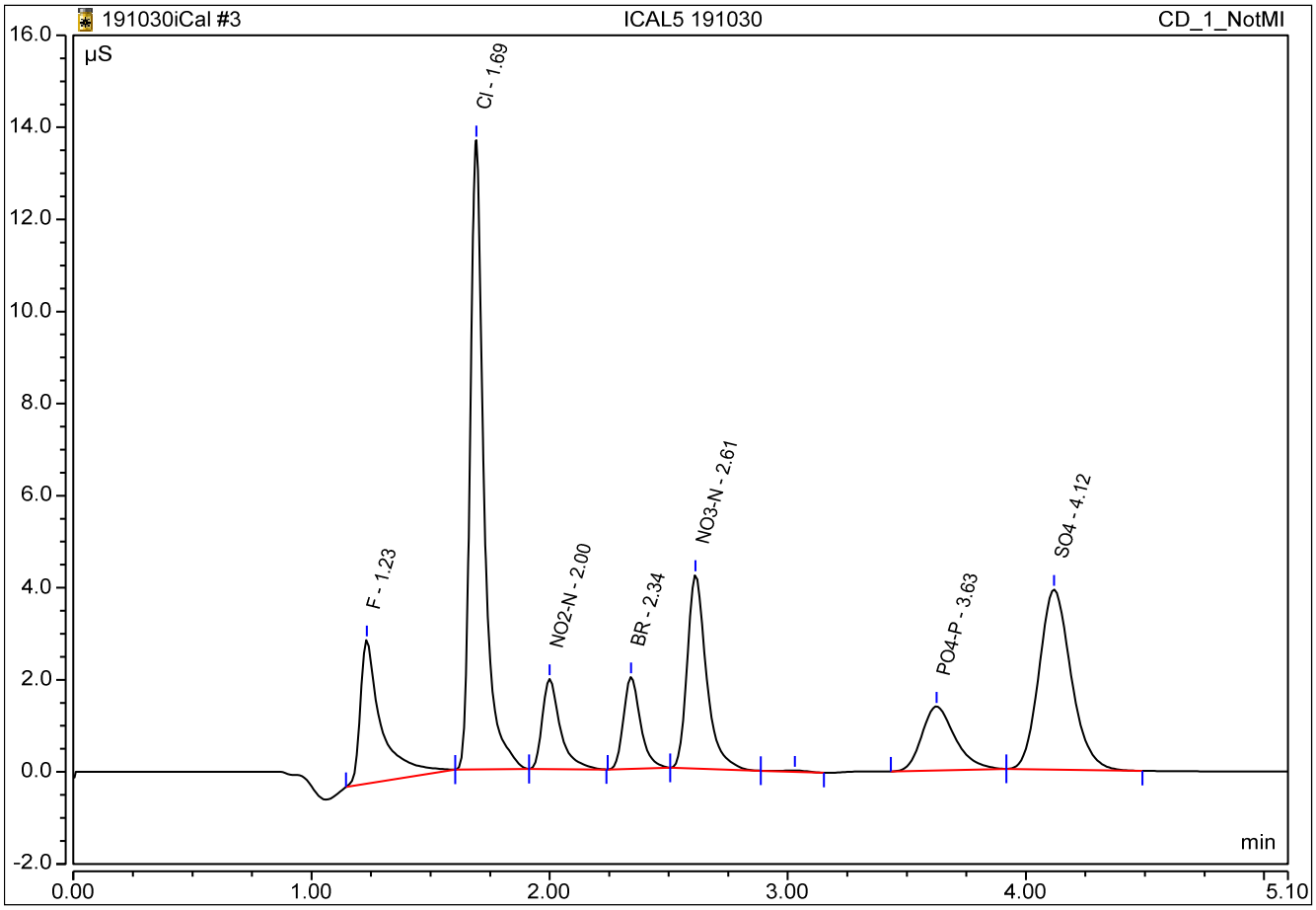


MI1 BW 190931

Not Manipulated Peak Integration Report

Sample Name:	**ICAL5 191030**	*Inj. Vol.:*	**25uL**
Injection Type:	**Calibration Standard**	*Dilution Factor:*	**1.0000**
Program:	**Anion APM 191030**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**30-Oct-2019 / 18:37**	*Run Time:*	**5.10**

No.	Time min	Peak Name	Peak Type	Area µS*min	Height µS	Ammount mg/L
1	1.23	**F**	MB*	0.321	3.121	2.4710
2	1.69	**Cl**	BMB	0.913	13.668	9.1151
3	2.00	**NO2-N**	BMB	0.171	1.960	0.9605
4	2.34	**BR**	BMB	0.165	1.998	4.7141
5	2.61	**NO3-N**	BMB	0.395	4.211	1.7941
7	3.63	**PO4-P**	BMB	0.223	1.389	5.0000
8	4.12	**SO4**	BMB	0.610	3.910	9.0418

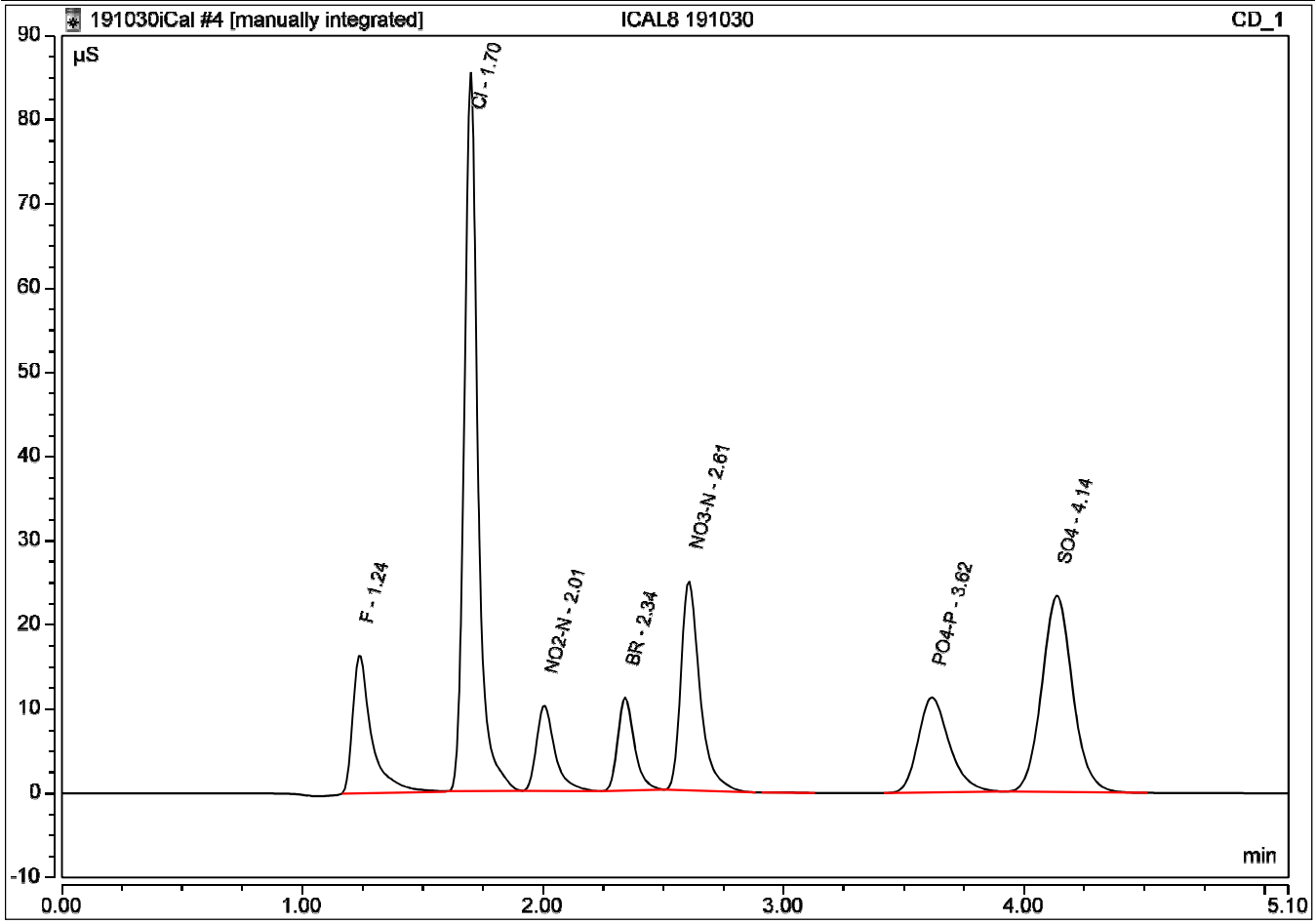


Logged on User: BW
Instrument: Charlie System_1
Sequence: 191030iCal

Peak Integration Report

Sample Name:	**ICAL8 191030**	*Inj. Vol.:*	**25uL**
Injection Type:	**Calibration Standard**	*Dilution Factor:*	**1.00**
Program:	**Anion APM 191030**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**30-Oct-2019 / 18:44**	*Run Time:*	**5.10**

No.	Time (min) min	Peak Name	Peak Type	Area (µS*min) µS*min	Height (µS) µS	Amount mg/L	Spike Level mg/L	Recovery
1	1.24	**F**	BM *	1.503	16.491	12.76	12.5	102.1%
2	1.70	**Cl**	BMB	5.591	85.358	55.47	50	110.9%
3	2.01	**NO2-N**	BMB	0.903	10.178	5.04	5	100.8%
4	2.34	**BR**	BMB	0.890	11.073	25.28	25	101.1%
5	2.61	**NO3-N**	BMB	2.269	24.891	10.21	10	102.1%
7	3.62	**PO4-P**	BMB	1.704	11.286	25.21	25	100.8%
8	4.14	**SO4**	BMB	3.469	23.343	50.95	50	101.9%

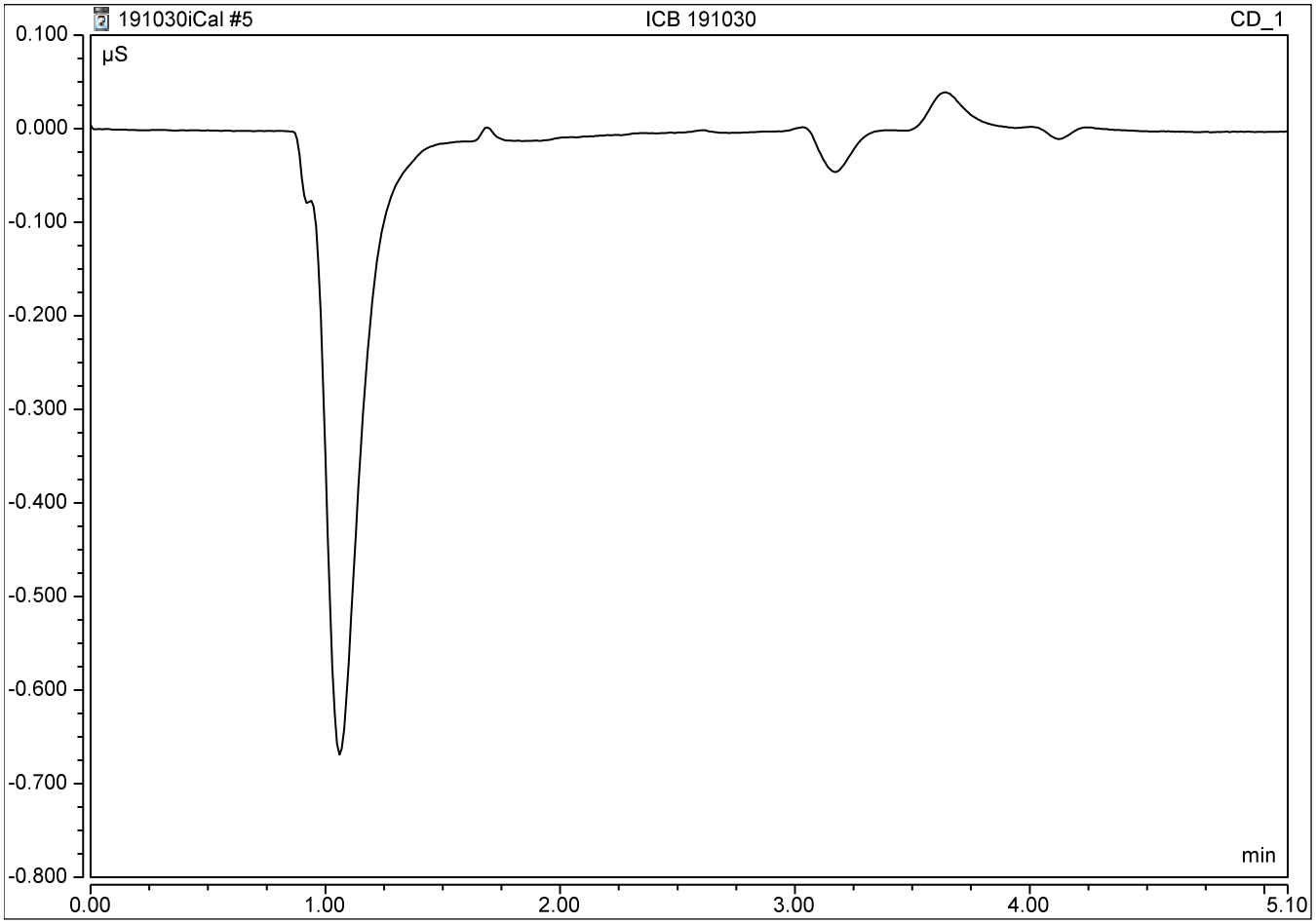


Logged on User: BW
Instrument: Charlie System_1
Sequence: 191030iCal

Peak Integration Report

Sample Name:	**ICB 191030**	*Inj. Vol.:*	**25uL**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.00**
Program:	**Anion APM 191030**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**30-Oct-2019 / 18:52**	*Run Time:*	**5.10**

No.	Time (min) min	Peak Name	Peak Type	Area (µS*min) µS*min	Height (µS) µS	Amount mg/L	Spike Level mg/L	Recovery

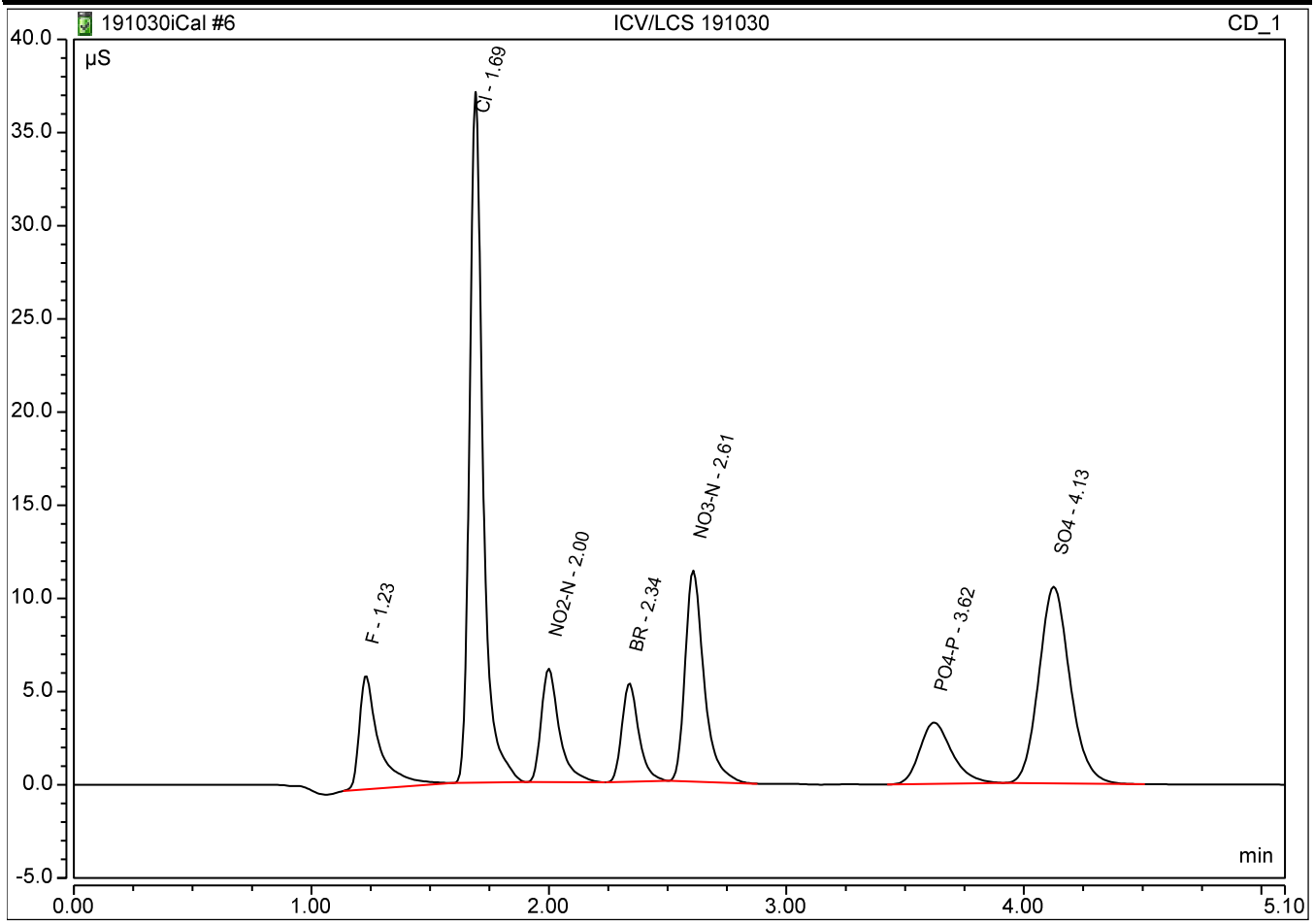


Logged on User: BW
Instrument: Charlie System_1
Sequence: 191030iCal

Peak Integration Report

Sample Name:	**ICV/LCS 191030**	*Inj. Vol.:*	**25uL**
Injection Type:	**Check Standard**	*Dilution Factor:*	**1.00**
Program:	**Anion APM 191030**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**30-Oct-2019 / 18:59**	*Run Time:*	**5.10**

No.	Time (min) min	Peak Name	Peak Type	Area (µS*min) µS*min	Height (µS) µS	Amount mg/L	Spike Level mg/L	Recovery
1	1.23	**F**	BMB	0.589	6.116	5.07	5	101.5%
2	1.69	**Cl**	BMB	2.435	37.074	24.19	25	96.8%
3	2.00	**NO2-N**	BMB	0.539	6.101	3.01	3.04	99.1%
4	2.34	**BR**	BMB	0.435	5.293	12.37	12.5	99.0%
5	2.61	**NO3-N**	BMB	1.049	11.325	4.73	5	94.5%
6	3.62	**PO4-P**	BMB	0.517	3.291	8.12	10	81.2%
7	4.13	**SO4**	BMB	1.608	10.548	23.67	25	94.7%



Algorithm Check
y = Peak Area
x = mg/L S04

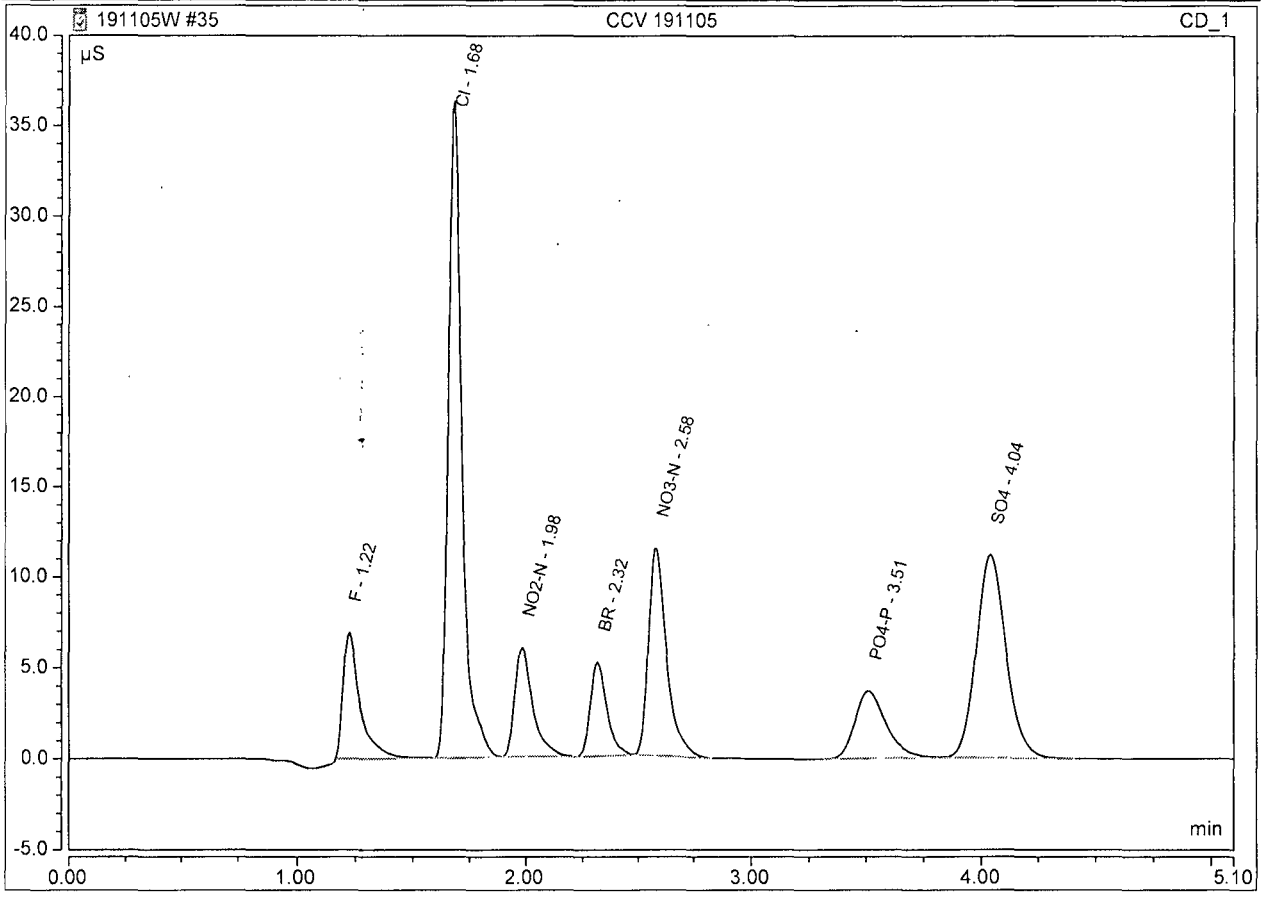
y = 0.0682 x + -0.0066
y = 1.6082 therefor x =

Logged on User: BW
Instrument: Charlie System_1
Sequence: 191105W

Peak Integration Report

Sample Name:	**CCV 191105**	*Inj. Vol.:*	**25uL**
Injection Type:	**Check Standard**	*Dilution Factor:*	**1.00**
Program:	**Anion APM 191030**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**06-Nov-2019 / 00:23**	*Run Time:*	**5.10**

No.	Time (min) min	Peak Name	Peak Type	Area (µS*min) µS*min	Height (µS) µS	Amount mg/L	Spike Level mg/L	Recovery
1	1.22	**F**	BMB	0.598	6.940	5.15	5	103.0%
2	1.68	**Cl**	BMB	2.559	36.280	25.42	25	101.7%
3	1.98	**NO2-N**	BMB	0.557	6.004	3.11	3.04	102.4%
4	2.32	**BR**	BMB	0.441	5.171	12.55	12.5	100.4%
5	2.58	**NO3-N**	BMB	1.094	11.460	4.93	5	98.6%
6	3.51	**PO4-P**	BMB	0.585	3.708	9.09	10	90.9%
7	4.04	**SO4**	BMB	1.696	11.184	24.96	25	99.9%

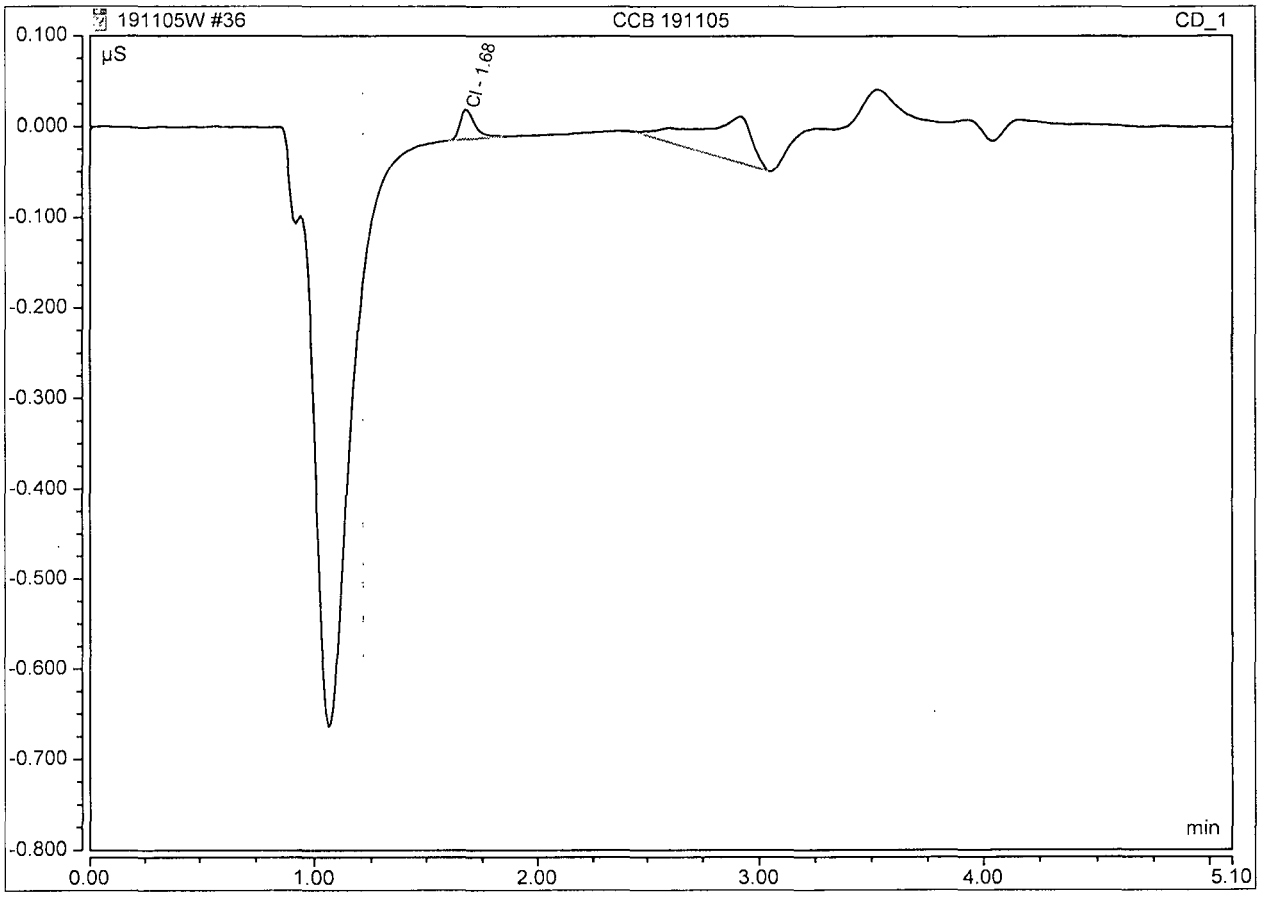


Logged on User: BW
Instrument: Charlie System_1
Sequence: 191105W

Peak Integration Report

Sample Name:	**CCB 191105**	*Inj. Vol.:*	**25uL**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.00**
Program:	**Anion APM 191030**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**06-Nov-2019 / 00:30**	*Run Time:*	**5.10**

No.	Time (min) min	Peak Name	Peak Type	Area (µS*min) µS*min	Height (µS) µS	Amount mg/L	Spike Level mg/L	Recovery
1	1.68	Cl	BMB	0.003	0.034	0.10		

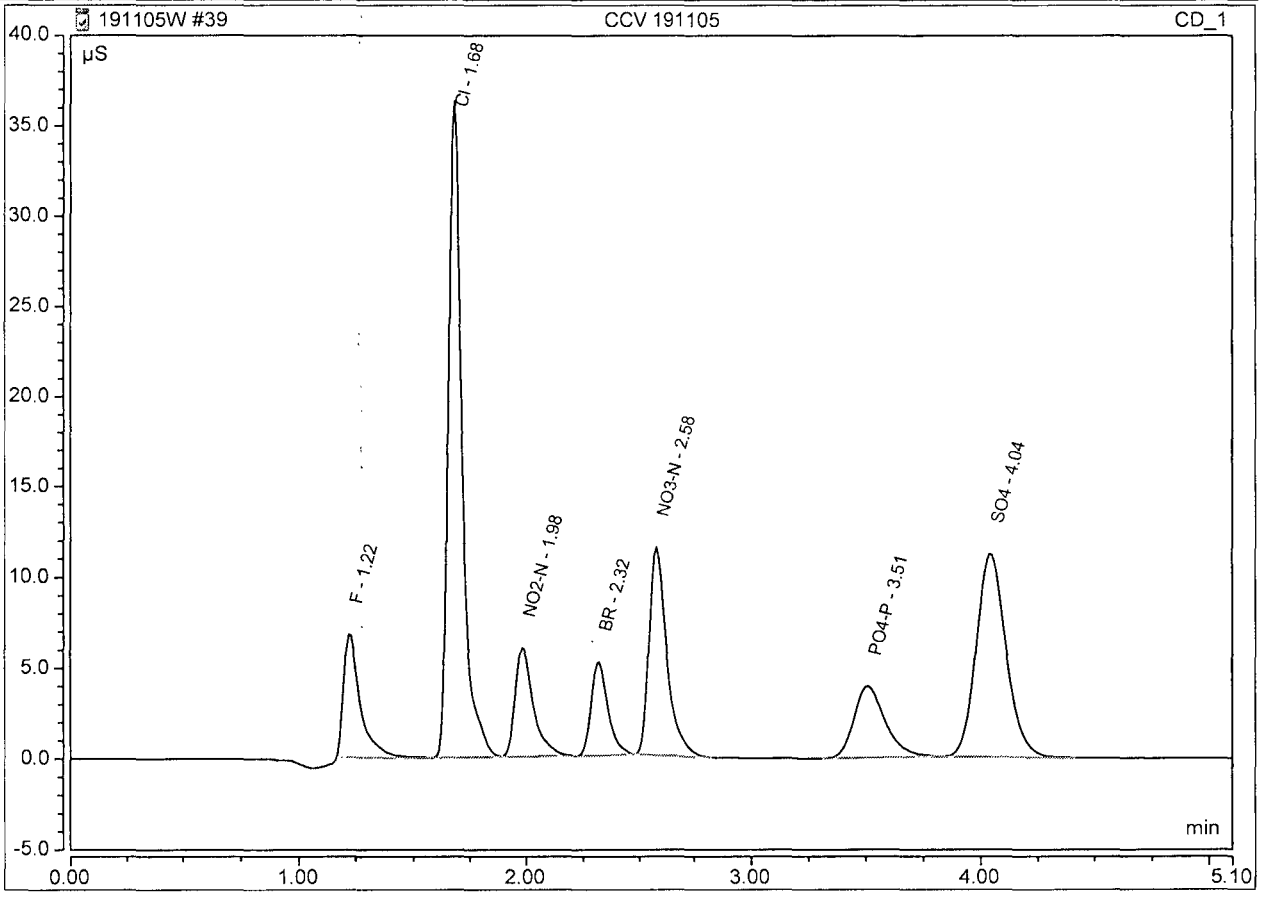


Logged on User: BW
Instrument: Charlie System_1
Sequence: 191105W

Peak Integration Report

Sample Name:	**CCV 191105**	*Inj. Vol.:*	**25uL**
Injection Type:	**Check Standard**	*Dilution Factor:*	**1.00**
Program:	**Anion APM 191030**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**06-Nov-2019 / 00:53**	*Run Time:*	**5.10**

No.	Time (min) min	Peak Name	Peak Type	Area (µS*min) µS*min	Height (µS) µS	Amount mg/L	Spike Level mg/L	Recovery
1	1.22	**F**	BMB	0.582	6.856	5.01	5	100.2%
2	1.68	**Cl**	BMB	2.561	36.295	25.44	25	101.8%
3	1.98	**NO2-N**	BMB	0.559	6.007	3.12	3.04	102.7%
4	2.32	**BR**	BMB	0.442	5.174	12.58	12.5	100.6%
5	2.58	**NO3-N**	BMB	1.095	11.464	4.93	5	98.7%
6	3.51	**PO4-P**	BMB	0.614	3.934	9.51	10	95.1%
7	4.04	**SO4**	BMB	1.699	11.196	25.00	25	100.0%

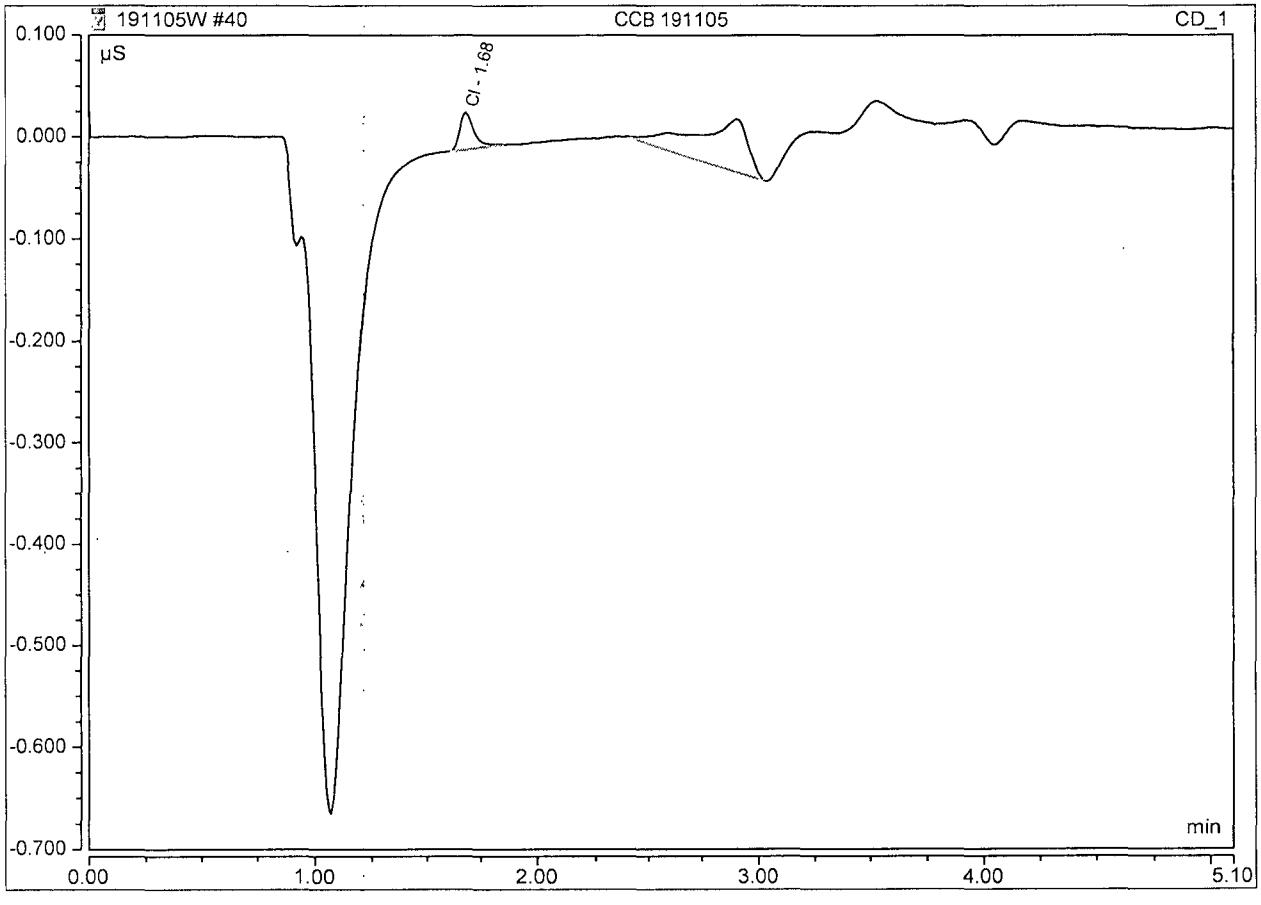


Logged on User: BW
Instrument: Charlie System_1
Sequence: 191105W

Peak Integration Report

Sample Name:	**CCB 191105**	*Inj. Vol.:*	**25uL**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.00**
Program:	**Anion APM 191030**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**06-Nov-2019 / 01:00**	*Run Time:*	**5.10**

No.	Time (min) min	Peak Name	Peak Type	Area (µS*min) µS*min	Height (µS) µS	Amount mg/L	Spike Level mg/L	Recovery
1	1.68	Cl	BMB	0.003	0.036	0.10		

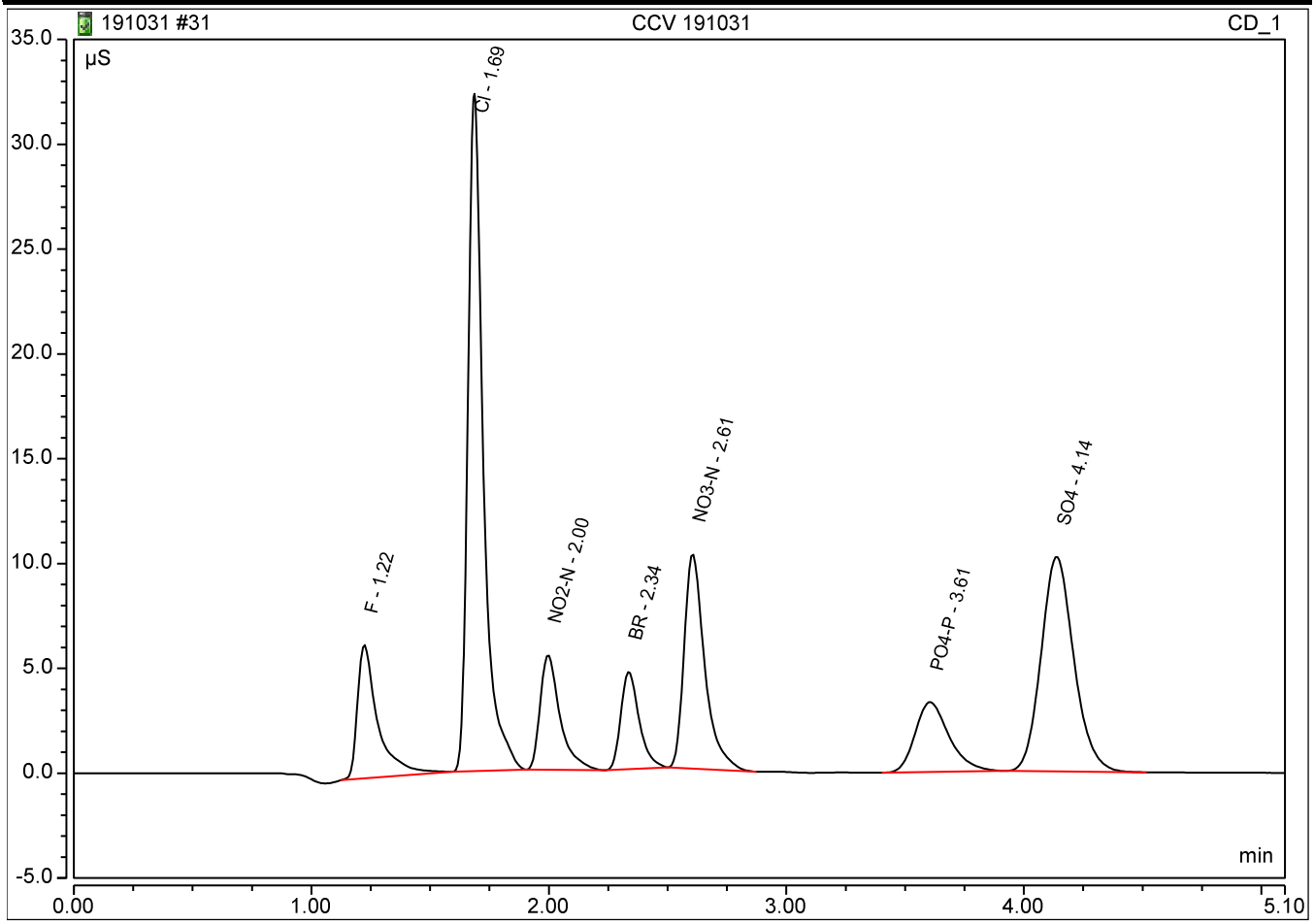


Logged on User: BW
Instrument: Charlie System_1
Sequence: 191031

Peak Integration Report

Sample Name:	**CCV 191031**	*Inj. Vol.:*	**25uL**
Injection Type:	**Check Standard**	*Dilution Factor:*	**1.00**
Program:	**Anion APM 191030**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**31-Oct-2019 / 18:34**	*Run Time:*	**5.10**

No.	Time (min) min	Peak Name	Peak Type	Area (µS*min) µS*min	Height (µS) µS	Amount mg/L	Spike Level mg/L	Recovery
1	1.22	**F**	BMB	0.635	6.376	5.45	5	109.1%
2	1.69	**Cl**	BMB	2.417	32.304	24.01	25	96.1%
3	2.00	**NO2-N**	BMB	0.532	5.478	2.97	3.04	97.8%
4	2.34	**BR**	BMB	0.415	4.648	11.80	12.5	94.4%
5	2.61	**NO3-N**	BMB	1.031	10.238	4.65	5	93.0%
6	3.61	**PO4-P**	BMB	0.553	3.336	8.63	10	86.3%
7	4.14	**SO4**	BMB	1.637	10.249	24.10	25	96.4%

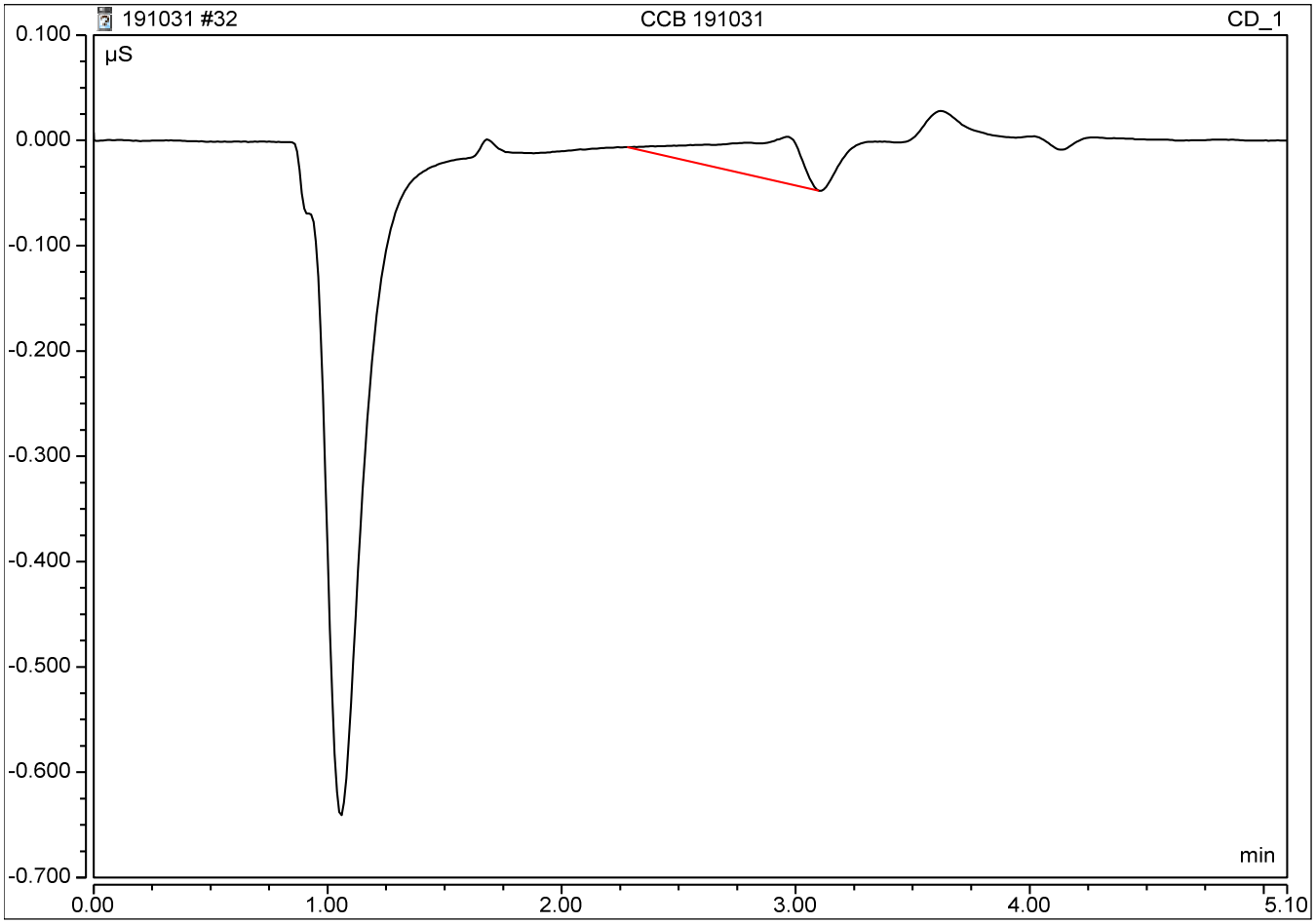


Logged on User: BW
Instrument: Charlie System_1
Sequence: 191031

Peak Integration Report

Sample Name:	**CCB 191031**	*Inj. Vol.:*	**25uL**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.00**
Program:	**Anion APM 191030**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**31-Oct-2019 / 18:42**	*Run Time:*	**5.10**

No.	Time (min) min	Peak Name	Peak Type	Area (µS*min) µS*min	Height (µS) µS	Amount mg/L	Spike Level mg/L	Recovery

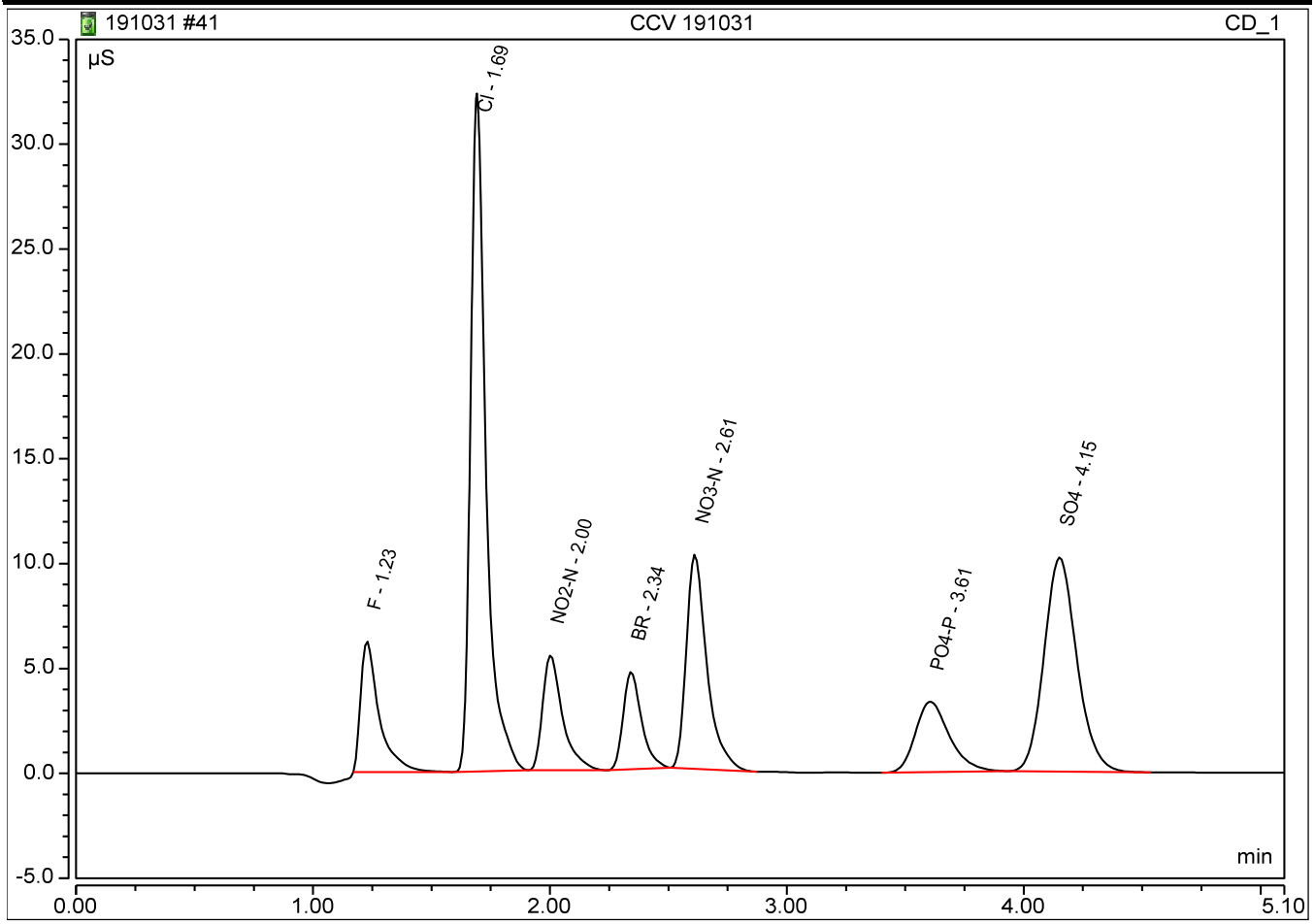


Logged on User: BW
Instrument: Charlie System_1
Sequence: 191031

Peak Integration Report

Sample Name:	**CCV 191031**	*Inj. Vol.:*	**25uL**
Injection Type:	**Check Standard**	*Dilution Factor:*	**1.00**
Program:	**Anion APM 191030**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**31-Oct-2019 / 19:49**	*Run Time:*	**5.10**

No.	Time (min) min	Peak Name	Peak Type	Area (µS*min) µS*min	Height (µS) µS	Amount mg/L	Spike Level mg/L	Recovery
1	1.23	**F**	BMB	0.566	6.242	4.87	5	97.5%
2	1.69	**Cl**	BMB	2.419	32.325	24.04	25	96.1%
3	2.00	**NO2-N**	BMB	0.536	5.483	3.00	3.04	98.6%
4	2.34	**BR**	BMB	0.419	4.651	11.91	12.5	95.3%
5	2.61	**NO3-N**	BMB	1.033	10.215	4.66	5	93.2%
6	3.61	**PO4-P**	BMB	0.560	3.365	8.74	10	87.4%
7	4.15	**SO4**	BMB	1.638	10.206	24.12	25	96.5%

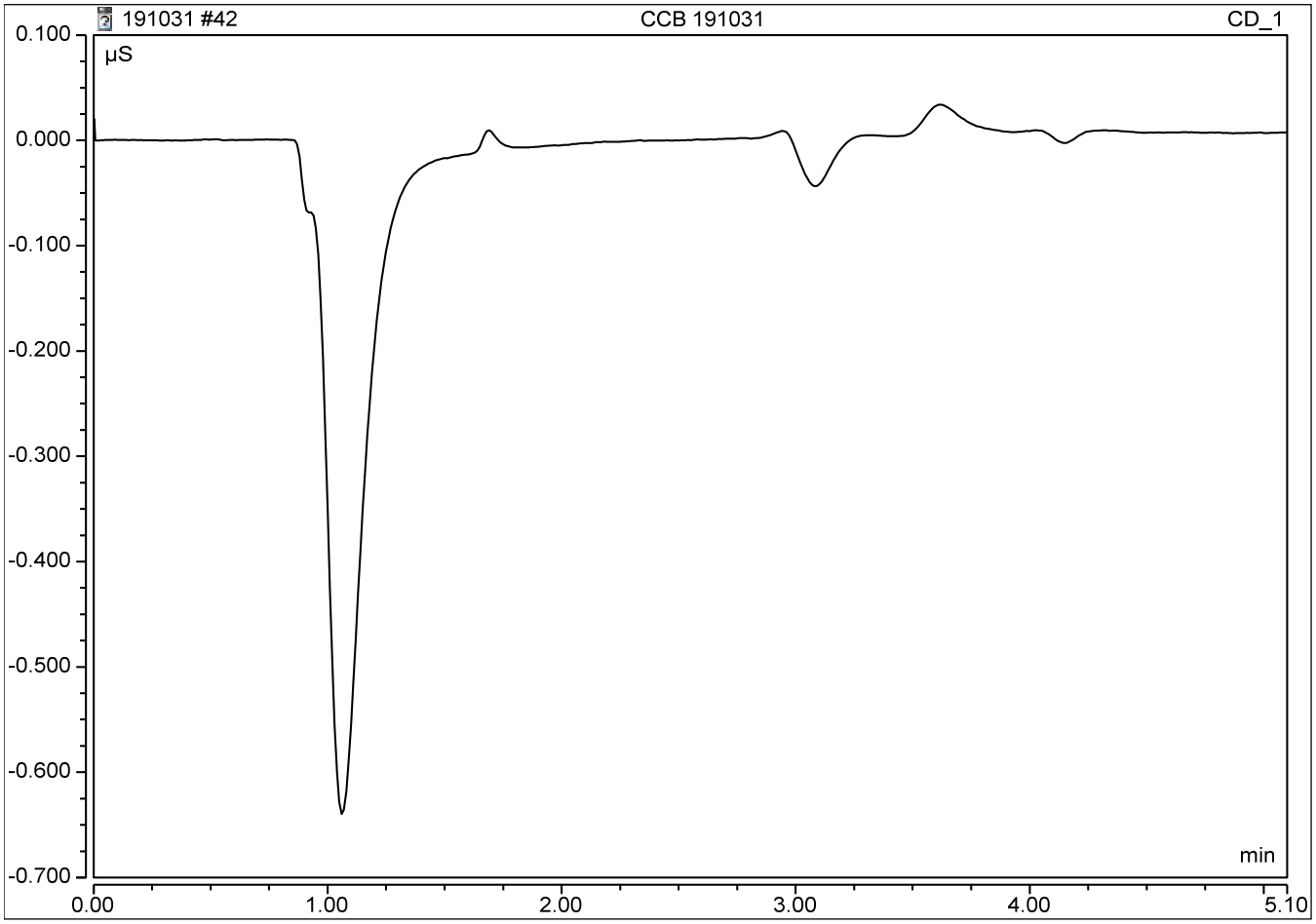


Logged on User: BW
Instrument: Charlie System_1
Sequence: 191031

Peak Integration Report

Sample Name:	**CCB 191031**	*Inj. Vol.:*	**25uL**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.00**
Program:	**Anion APM 191030**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**31-Oct-2019 / 19:56**	*Run Time:*	**5.10**

No.	Time (min) min	Peak Name	Peak Type	Area (µS*min) µS*min	Height (µS) µS	Amount mg/L	Spike Level mg/L	Recovery



A.P.P.L. INC.
2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: A.P.P.L. INC. Contract: AECOM
ARF No: 90611 SDG: 90611
Initial Calibration Source: Inorganic Ventures
Continuing Calibration Source: o2si
Analysis Date: 11/01/19

Analyte	Calibration Verification									M
	True ICV	Found 16:24	%R(1)	True CCV1	Found 16:41	%R(1)	True CCV1	Found 16:45	%R(1)	
TOXN	3	2.924	97.5	3	2.9897	99.7	3	3.0243	101	

(1) Control Limits: 90-110

ILM02.0

A.P.P.L. INC.
3
BLANKS

Lab Name: A.P.P.L. INC. Contract: AECOM

ARF No.: 90611 SDG: 90611

Preparation Blank Matrix (soil/water): water

Preparation Blank Concentration Units (ug/L or mg/kg): mg/L

Analyte	Calibration Blanks										M
	ICB 11/01/19 16:26	C	CCB 11/01/19 16:42	C	CCB 11/01/19 16:46	C		C		C	
TOXN	.100	U	.100	U	.100	U					

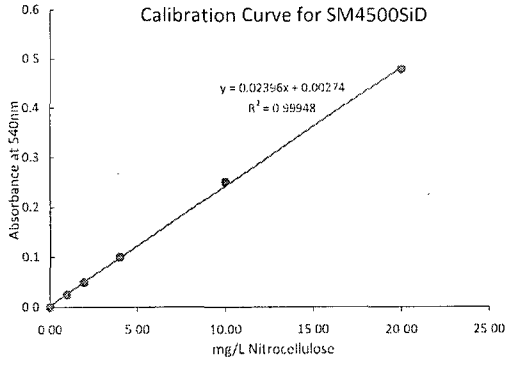
INORGANIC ANALYSIS
Raw Data

		Silica	Rev 2, 04/05/19 controlled copy
Method SM4500SiD		Units mg/L	Instrument: Genisis Spectrometer
Analyte Silica		QCG: 191106A	Wavelength: 410 nm
Analyist FJR		Final Volume: 25mL	Units: mg/L

Date	Time	Appl ID	[SiO2]	Absorbance	% Recovery
11/06/19	21:16	ICB	0.00	0.000	
11/06/19	21:16	Ical 1	1.00	0.025	92.9%
11/06/19	21:17	Ical 2	2.00	0.050	98.6%
11/06/19	21:17	Ical 3	4.00	0.100	95.2%
11/06/19	21:18	Ical 4	10.00	0.250	103.2%
11/06/19	21:18	Ical 5	20.00	0.478	99.2%
11/06/19	21:19	ICV	4.00	0.097	98.3%
11/06/19	21:20	ICB	0.00	0.001	

Slope	0.023960729
Intercept	0.002742174
Coefficient of Determination	0.999482494

Algortithm Check:	Appl ID	Absorbance	Result
	191106A 4 LCS	0.094	3.81
Result = (Absorbance-Raw Blk-Intercept)/ Slope			
Test:	11/06/19	FJR	3.810



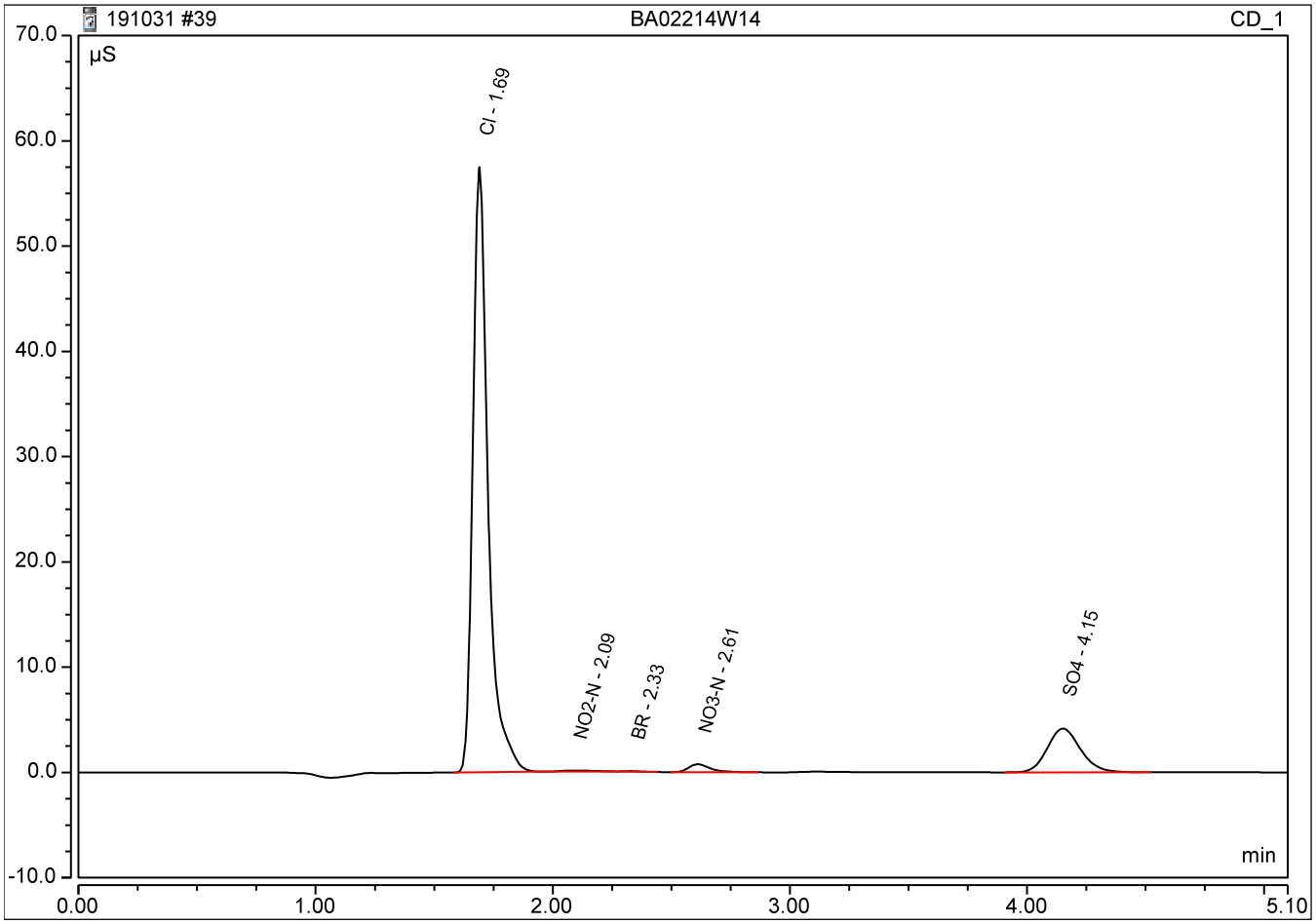
	Date	Time	Appl ID	DF	Raw Result	Sample Amount	Raw BLK	Calc Conc	Result	QC True	% Recovery
id	11/06/19	21:16	ICB	1	0.000	25.0mL		-0.11	-0.11		
id	11/06/19	21:16	Ical 1	1	0.025	25.0mL		0.93	0.93	1.00	92.9%
id	11/06/19	21:17	Ical 2	1	0.050	25.0mL		1.97	1.97	2.00	98.6%
id	11/06/19	21:17	Ical 3	1	0.094	25.0mL		3.81	3.81	4.00	95.2%
id	11/06/19	21:18	Ical 4	1	0.250	25.0mL		10.32	10.32	10.00	103.2%
id	11/06/19	21:18	Ical 5	1	0.478	25.0mL		19.83	19.83	20.00	99.2%
id	11/06/19	21:19	ICV	1	0.097	25.0mL		3.93	3.93	4.00	98.3%
id	11/06/19	21:20	ICB	1	0.001	25.0mL		-0.07	-0.07		
	11/06/19	21:20	191106A CCV1 4	1	0.245	25mL		10.11	10.11	10.00	101.1%
	11/06/19	21:21	191106A CCB	1	0.002	25mL		-0.03	-0.03		
	11/06/19	21:22	191106A BLK	1	0.001	25mL		-0.07	-0.07		
	11/06/19	21:22	191106A 4 LCS	1	0.094	25mL		3.81	3.81	4.00	95.2%
	11/06/19	21:23	191106A 4 LCSD	1	0.095	25mL		3.85	3.85	4.00	96.3%
	11/06/19	21:23	BA02090W09 Total DF5	5	0.238	25mL		9.82	49.09		
	11/06/19	21:24	BA02214W14 Total DF5	5	0.218	25mL		8.98	44.92		
	11/06/19	21:25	BA02301W09 Total DF5	5	0.224	25mL		9.23	46.17		
	11/06/19	21:25	BA02466W14 Total DF5	5	0.211	25mL		8.69	43.46		
	11/06/19	21:26	BA02525W14 Total DF5	5	0.216	25mL		8.90	44.50		
	11/06/19	21:27	BA02525W14 MS Total	5	0.297	25mL		12.28	61.40		
	11/06/19	21:27	BA02525W14 MSD Tot	5	0.298	25mL		12.32	61.61		
	11/06/19	21:28	BA02090w08 Dissolved	5	0.219	25mL		9.03	45.13		
	11/06/19	21:28	BA02214W12 Dissolve	5	0.193	25mL		7.94	39.70		
	11/06/19	21:29	BA02301w08 Dissolved	5	0.207	25mL		8.52	42.62		
	11/06/19	21:29	BA02466W13 Dissolved	5	0.193	25mL		7.94	39.70		
	11/06/19	21:30	BA02525w12 Dissolved	5	0.201	25mL		8.27	41.37		
	11/06/19	21:30	BA02525w12 MS Dissolv	5	0.286	25mL		11.82	59.11		
	11/06/19	21:31	BA02525w12 MSD Diss	5	0.287	25mL		11.86	59.32		
	11/06/19	21:31	191106A CCV1 3	1	0.096	25mL		3.89	3.89	4.00	97.3%
	11/06/19	21:32	191106A CCB	1	-0.001	25mL		-0.16	-0.16		

Logged on User: BW
Instrument: Charlie System_1
Sequence: 191031

Peak Integration Report

Sample Name:	**BA02214W14**	*Inj. Vol.:*	**25uL**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.00**
Program:	**Anion APM 191030**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**31-Oct-2019 / 19:34**	*Run Time:*	**5.10**

No.	Time (min) min	Peak Name	Peak Type	Area (µS*min) µS*min	Height (µS) µS	Amount mg/L	Spike Level mg/L	Recovery
1	1.69	**Cl**	BMB	4.275	57.492	42.43		
2	2.09	**NO2-N**	BMB	0.016	0.099	0.09		
3	2.33	**BR**	BMB	0.004	0.052	0.15		
4	2.61	**NO3-N**	BMB	0.081	0.759	0.38		
5	4.15	**SO4**	BMB	0.675	4.171	10.00		

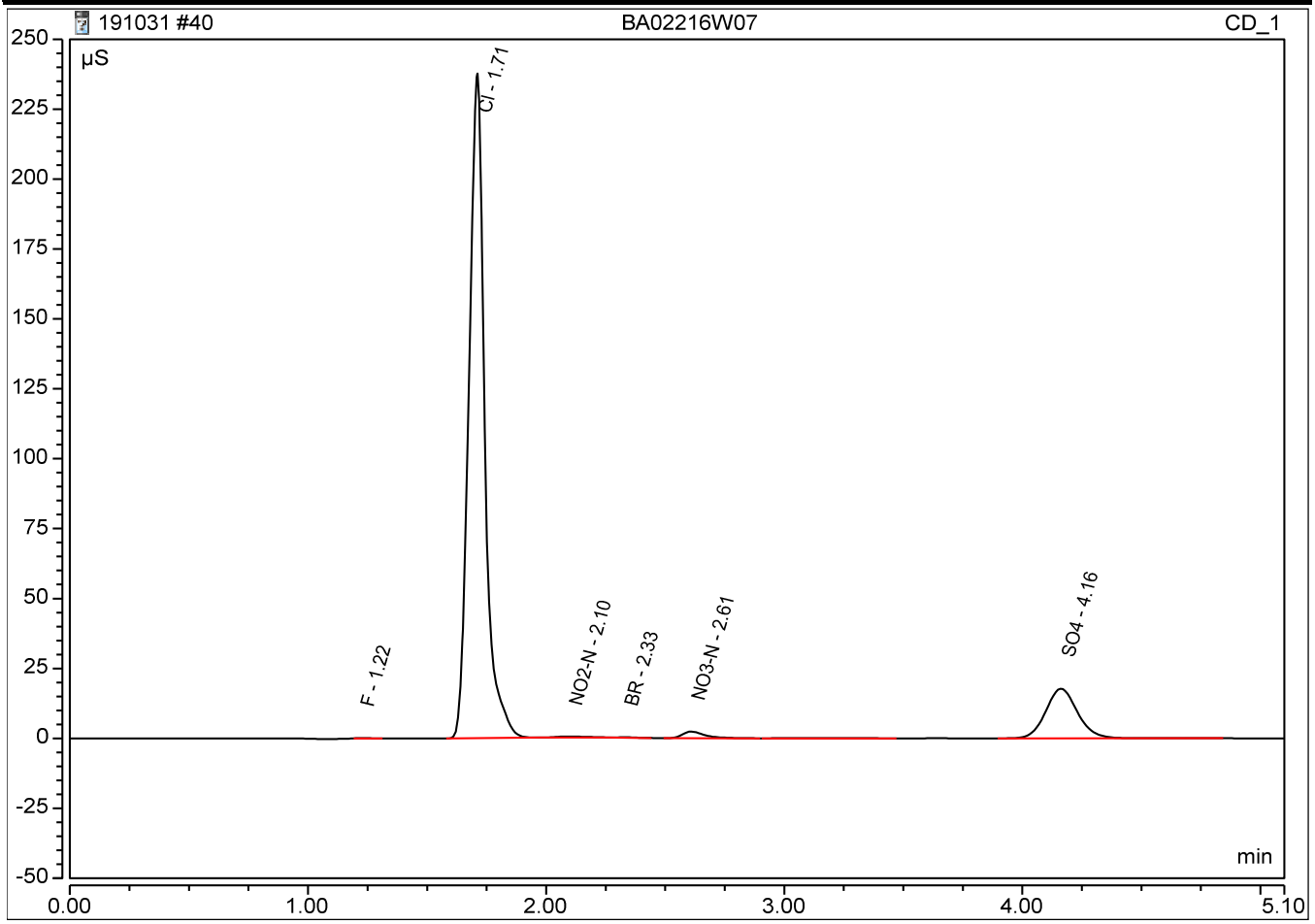


Logged on User: BW
Instrument: Charlie System_1
Sequence: 191031

Peak Integration Report

Sample Name:	**BA02216W07**	*Inj. Vol.:*	**25uL**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.00**
Program:	**Anion APM 191030**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**31-Oct-2019 / 19:41**	*Run Time:*	**5.10**

No.	Time (min) min	Peak Name	Peak Type	Area (µS*min) µS*min	Height (µS) µS	Amount mg/L	Spike Level mg/L	Recovery
1	1.22	**F**	BMB	0.007	0.119	0.17		
2	1.71	**Cl**	BMB	18.210	237.616	180.50		
3	2.10	**NO2-N**	BMB	0.055	0.346	0.31		
4	2.33	**BR**	BMB	0.011	0.134	0.33		
5	2.61	**NO3-N**	BMB	0.255	2.366	1.17		
7	4.16	**SO4**	BMB	2.741	17.740	40.27		

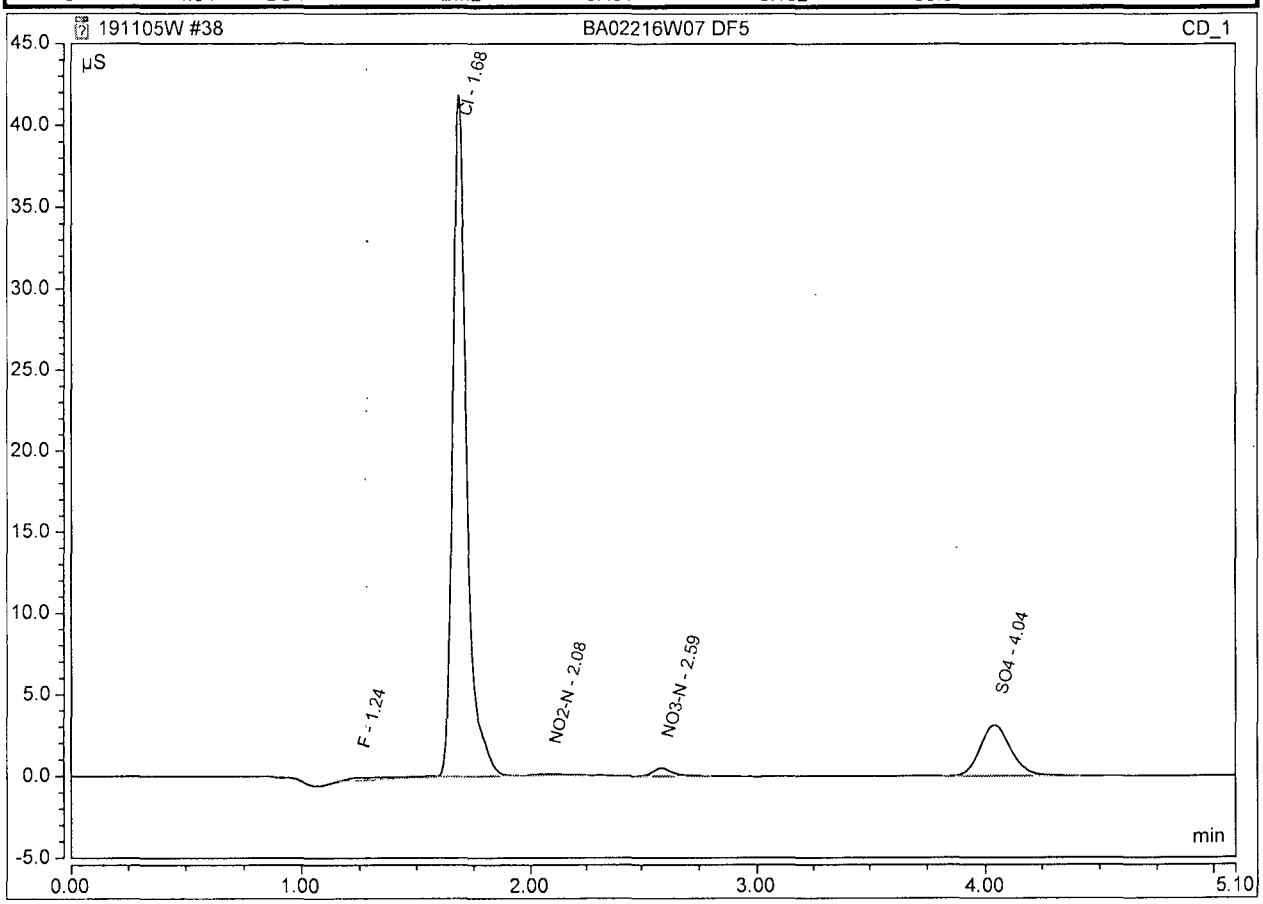


Logged on User: BW
Instrument: Charlie System_1
Sequence: 191105W

Peak Integration Report

Sample Name:	**BA02216W07 DF5**	*Inj. Vol.:*	**25uL**
Injection Type:	**Unknown**	*Dilution Factor:*	**5.00**
Program:	**Anion APM 191030**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**06-Nov-2019 / 00:45**	*Run Time:*	**5.10**

No.	Time (min) min	Peak Name	Peak Type	Area (µS*min) µS*min	Height (µS) µS	Amount mg/L	Spike Level mg/L	Recovery
1	1.24	**F**	BMB	0.039	0.161	2.23		
2	1.68	**Cl**	BMB	2.941	41.868	146.04		
3	2.08	**NO2-N**	BMB	0.012	0.078	0.37		
4	2.59	**NO3-N**	BMB	0.050	0.502	1.22		
5	4.04	**SO4**	BMB	0.491	3.132	36.51		

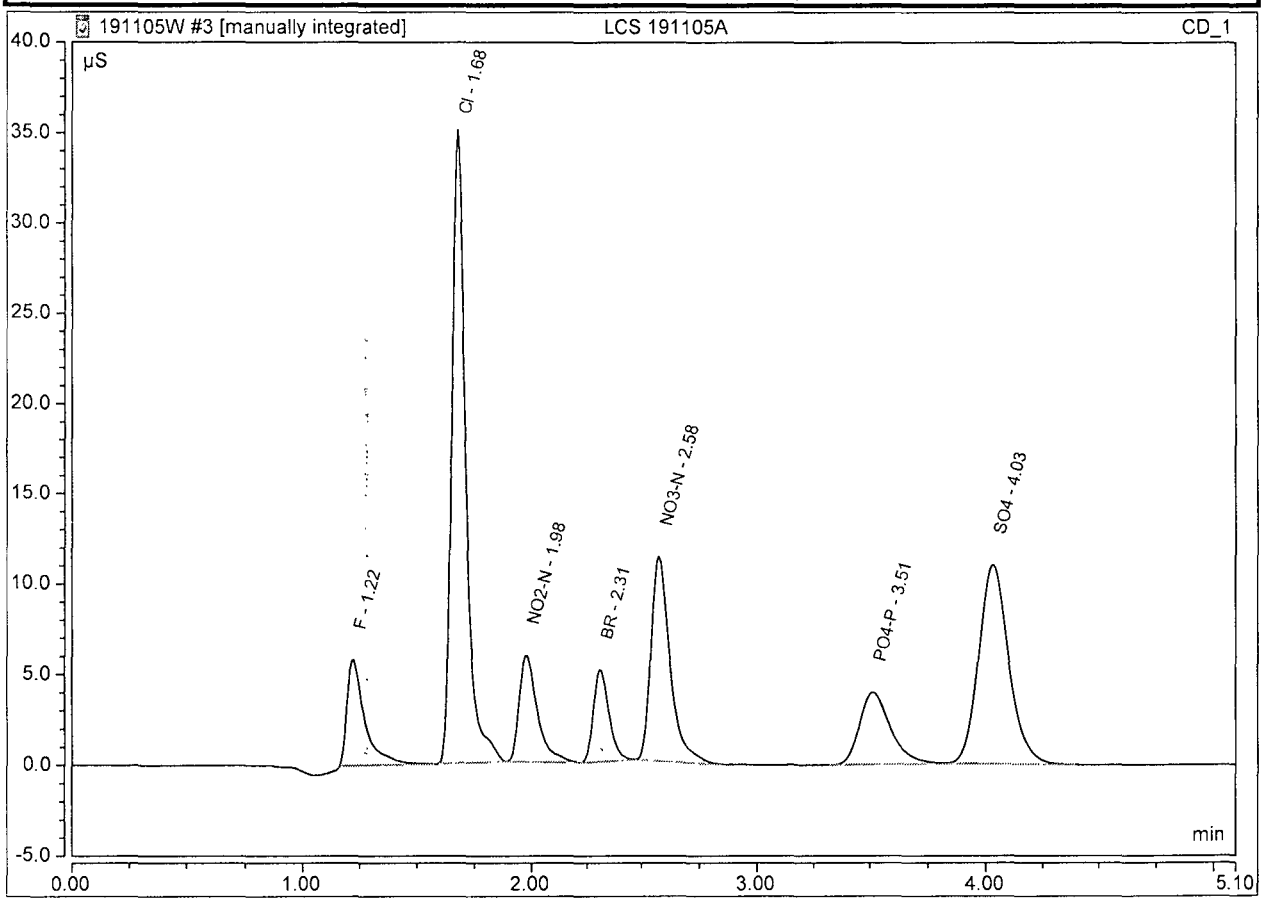


Logged on User: BW
Instrument: Charlie System_1
Sequence: 191105W

Peak Integration Report

Sample Name:	**LCS 191105A**	*Inj. Vol.:*	**25uL**
Injection Type:	**Check Standard**	*Dilution Factor:*	**1.00**
Program:	**Anion APM 191030**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**05-Nov-2019 / 20:23**	*Run Time:*	**5.10**

No.	Time (min) min	Peak Name	Peak Type	Area (µS*min) µS*min	Height (µS) µS	Amount mg/L	Spike Level mg/L	Recovery
1	1.22	**F**	BMB	0.528	5.826	4.55	5	91.1%
2	1.68	**Cl**	BMb*	2.490	35.057	24.74	25	99.0%
3	1.98	**NO2-N**	bMB*	0.542	5.891	3.03	3.04	99.6%
4	2.31	**BR**	BMB	0.427	5.091	12.14	12.5	97.1%
5	2.58	**NO3-N**	BMB	1.081	11.291	4.87	5	97.4%
6	3.51	**PO4-P**	BMB	0.619	3.977	9.59	10	95.9%
7	4.03	**SO4**	BMB	1.675	10.994	24.65	25	98.6%



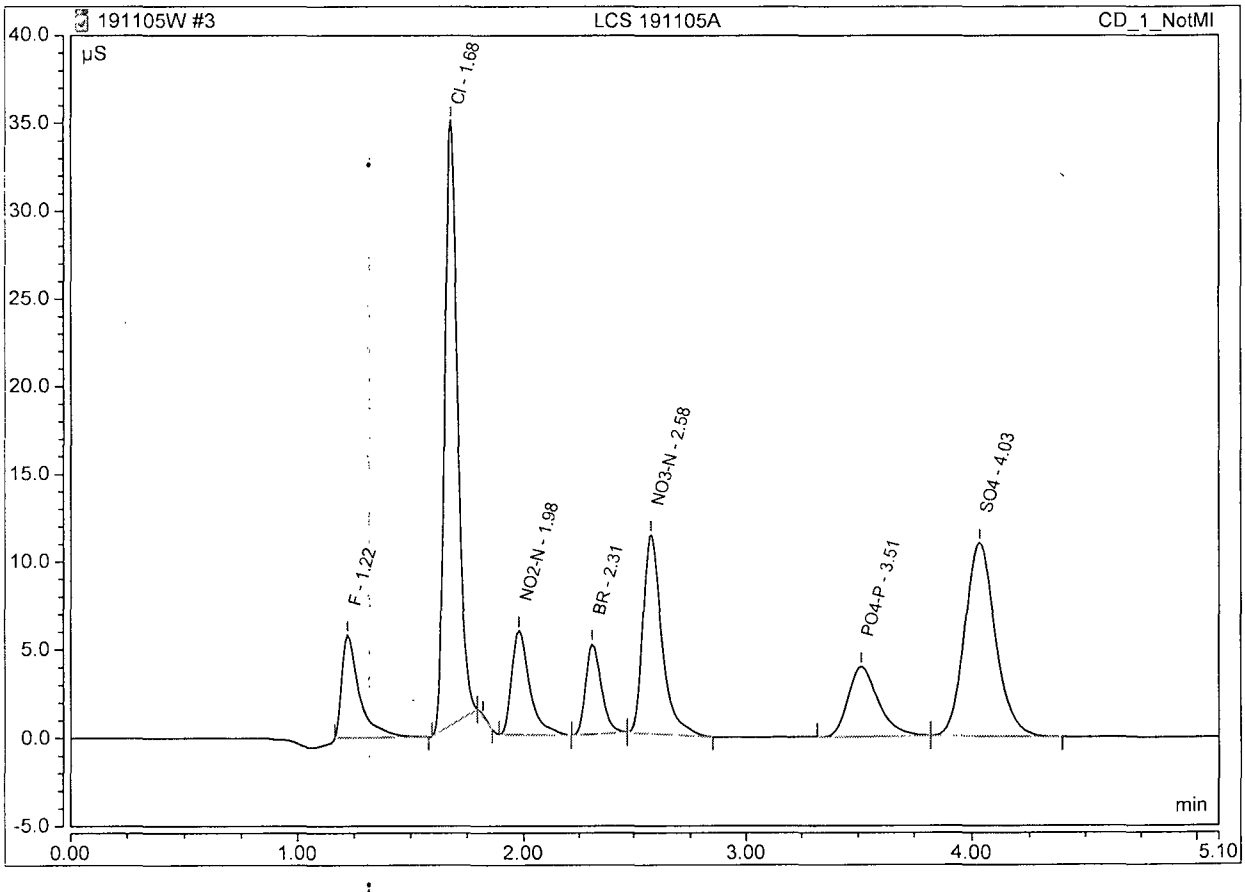
MI4 BW 191114
Algorithm Check
y = Peak Area
x = mg/L S04

y = 0.0682 x + -0.0066
y = 1.6747 therefor x =

Not Manipulated Peak Integration Report

Sample Name:	**LCS 191105A**	*Inj. Vol.:*	**25uL**
Injection Type:	**Check Standard**	*Dilution Factor:*	**1.0000**
Program:	**Anion APM 191030**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**05-Nov-2019 / 20:23**	*Run Time:*	**5.10**

No.	Time min	Peak Name	Peak Type	Area µS*min	Height µS	Ammount mg/L
1	1.22	**F**	BMB	0.528	5.826	4.2733
2	1.68	**Cl**	BMb*	2.278	34.464	22.6377
3	1.98	**NO2-N**	bMB*	0.542	5.891	3.0293
4	2.31	**BR**	BMB	0.427	5.091	12.1412
5	2.58	**NO3-N**	BMB	1.081	11.291	4.8714
6	3.51	**PO4-P**	BMB	0.619	3.977	10.3475
7	4.03	**SO4**	BMB	1.675	10.994	24.6461

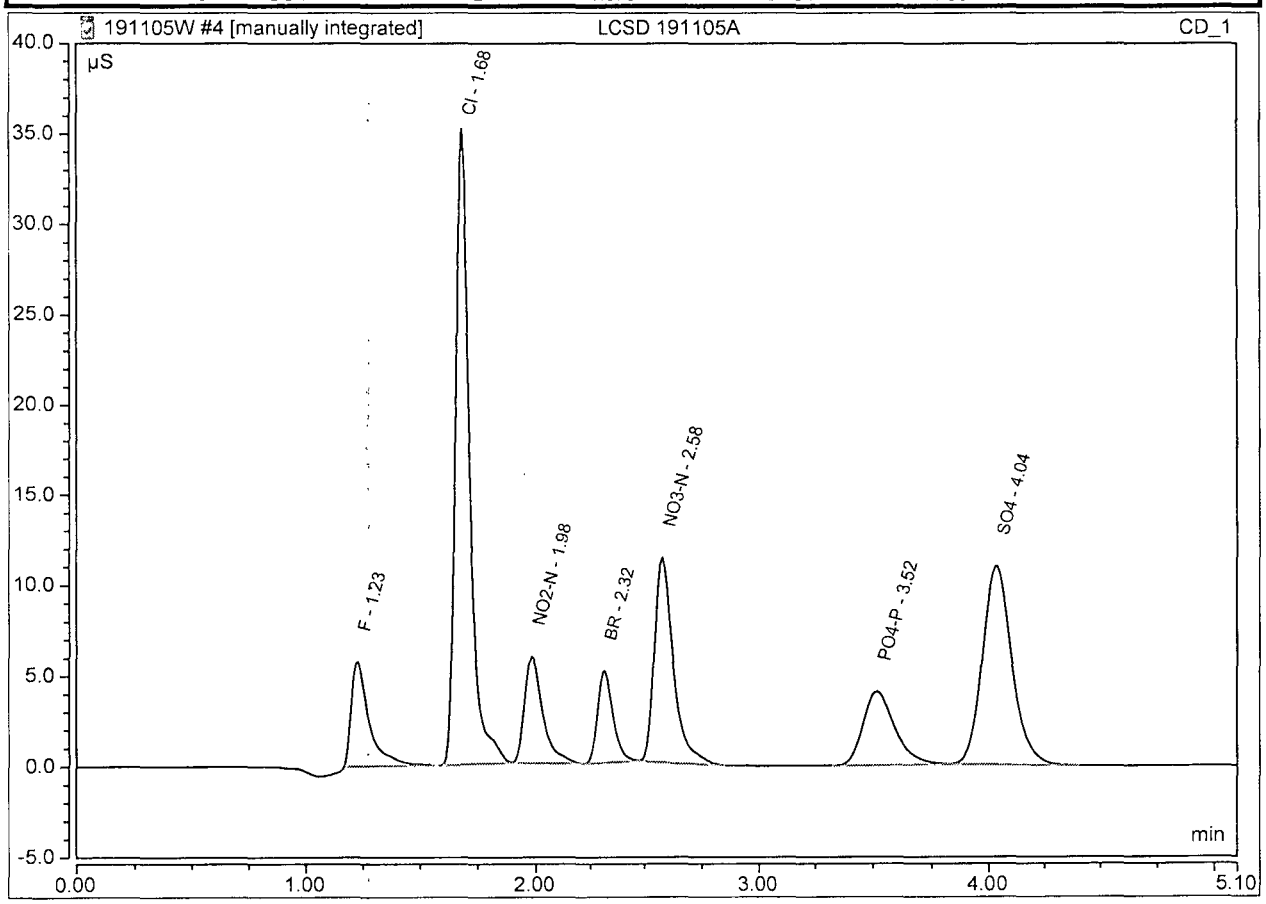


Logged on User: BW
Instrument: Charlie System_1
Sequence: 191105W

Peak Integration Report

Sample Name:	**LCSD 191105A**	*Inj. Vol.:*	**25uL**
Injection Type:	**Check Standard**	*Dilution Factor:*	**1.00**
Program:	**Anion APM 191030**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**05-Nov-2019 / 20:31**	*Run Time:*	**5.10**

No.	Time (min) min	Peak Name	Peak Type	Area (µS*min) µS*min	Height (µS) µS	Amount mg/L	Spike Level mg/L	Recovery
1	1.23	**F**	BMB	0.522	5.786	4.50	5	90.1%
2	1.68	**Cl**	BMb*	2.486	35.141	24.71	25	98.8%
3	1.98	**NO2-N**	bMB*	0.543	5.905	3.03	3.04	99.7%
4	2.32	**BR**	BMB	0.427	5.102	12.14	12.5	97.1%
5	2.58	**NO3-N**	BMB	1.077	11.289	4.86	5	97.1%
6	3.52	**PO4-P**	BMB	0.632	4.067	9.78	10	97.8%
7	4.04	**SO4**	BMB	1.670	10.964	24.58	25	98.3%

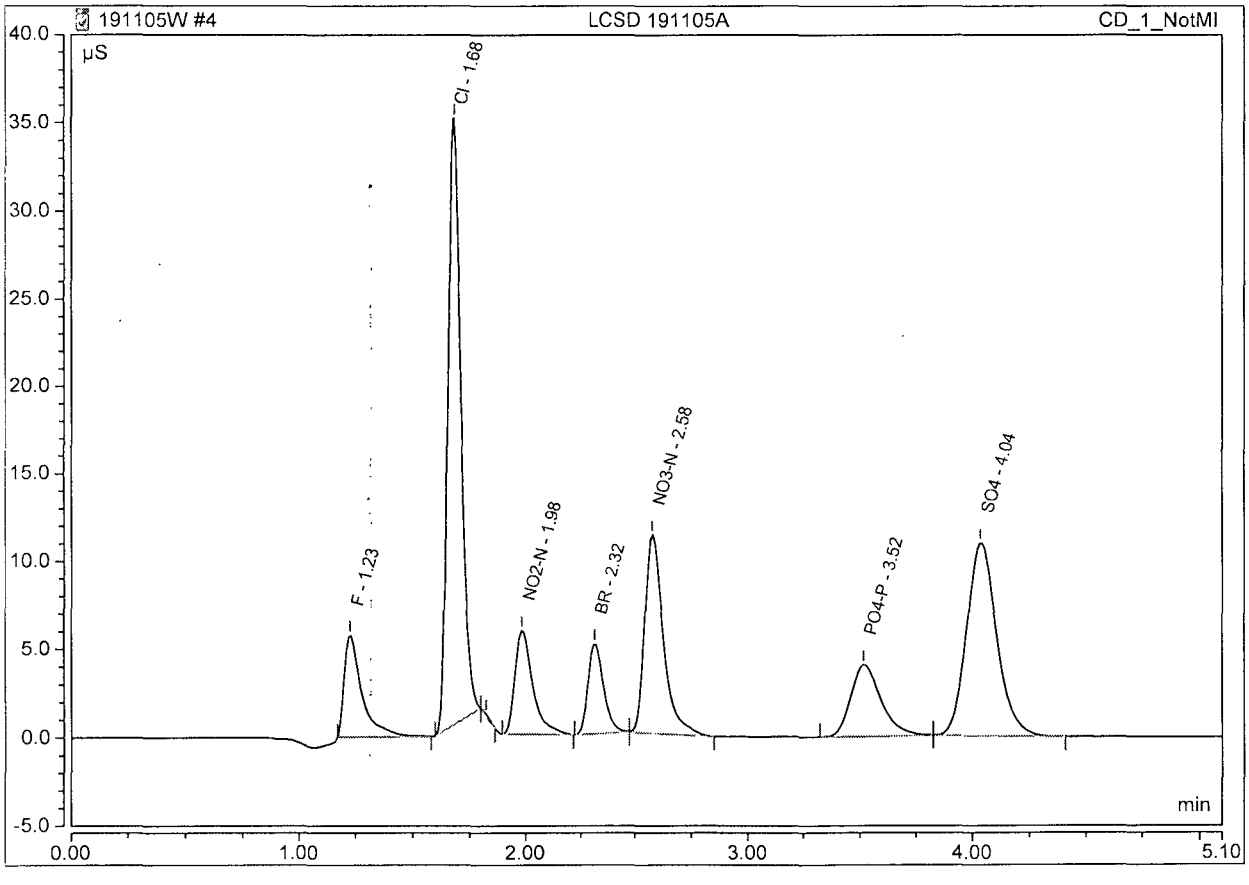


MI4 BW 191114

Not Manipulated Peak Integration Report

Sample Name:	**LCSD 191105A**	*Inj. Vol.:*	**25uL**
Injection Type:	**Check Standard**	*Dilution Factor:*	**1.0000**
Program:	**Anion APM 191030**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**05-Nov-2019 / 20:31**	*Run Time:*	**5.10**

No.	Time min	Peak Name	Peak Type	Area µS*min	Height µS	Ammount mg/L
1	1.23	**F**	BMB	0.522	5.786	4.2199
2	1.68	**Cl**	BMb*	2.270	34.526	22.5615
3	1.98	**NO2-N**	bMB*	0.543	5.905	3.0304
4	2.32	**BR**	BMB	0.427	5.102	12.1421
5	2.58	**NO3-N**	BMB	1.077	11.289	4.8551
6	3.52	**PO4-P**	BMB	0.632	4.067	10.5237
7	4.04	**SO4**	BMB	1.670	10.964	24.5754

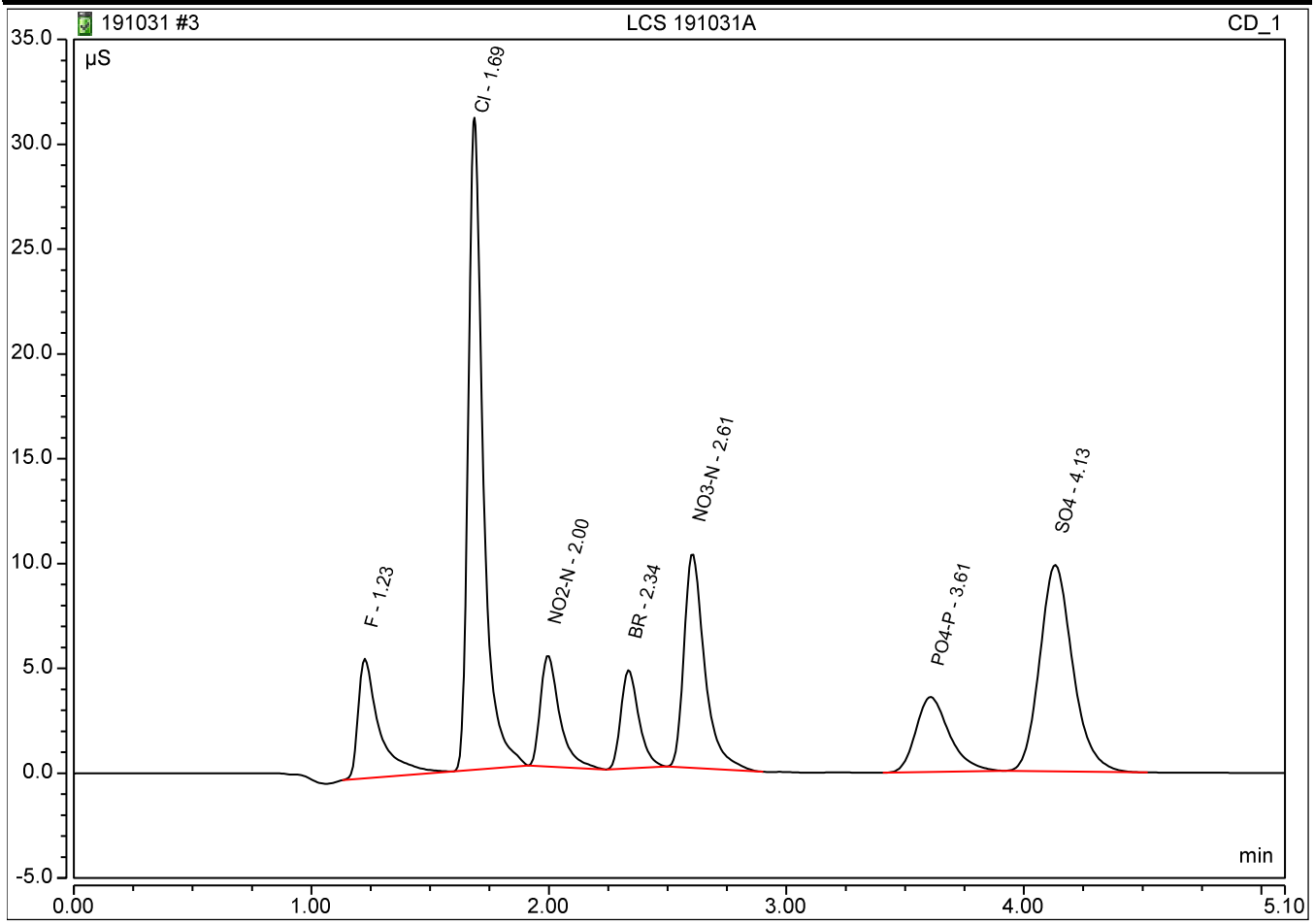


Logged on User: BW
Instrument: Charlie System_1
Sequence: 191031

Peak Integration Report

Sample Name:	**LCS 191031A**	*Inj. Vol.:*	**25uL**
Injection Type:	**Check Standard**	*Dilution Factor:*	**1.00**
Program:	**Anion APM 191030**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**31-Oct-2019 / 15:05**	*Run Time:*	**5.10**

No.	Time (min) min	Peak Name	Peak Type	Area (µS*min) µS*min	Height (µS) µS	Amount mg/L	Spike Level mg/L	Recovery
1	1.23	**F**	BMB	0.597	5.717	5.14	5	102.8%
2	1.69	**Cl**	BMB	2.272	31.096	22.58	25	90.3%
3	2.00	**NO2-N**	BMB	0.498	5.299	2.78	3.04	91.5%
4	2.34	**BR**	BMB	0.410	4.687	11.67	12.5	93.4%
5	2.61	**NO3-N**	BMB	1.038	10.237	4.68	5	93.6%
6	3.61	**PO4-P**	BMB	0.586	3.578	9.11	10	91.1%
7	4.13	**SO4**	BMB	1.583	9.848	23.30	25	93.2%



Algorithm Check
y = Peak Area
x = mg/L S04

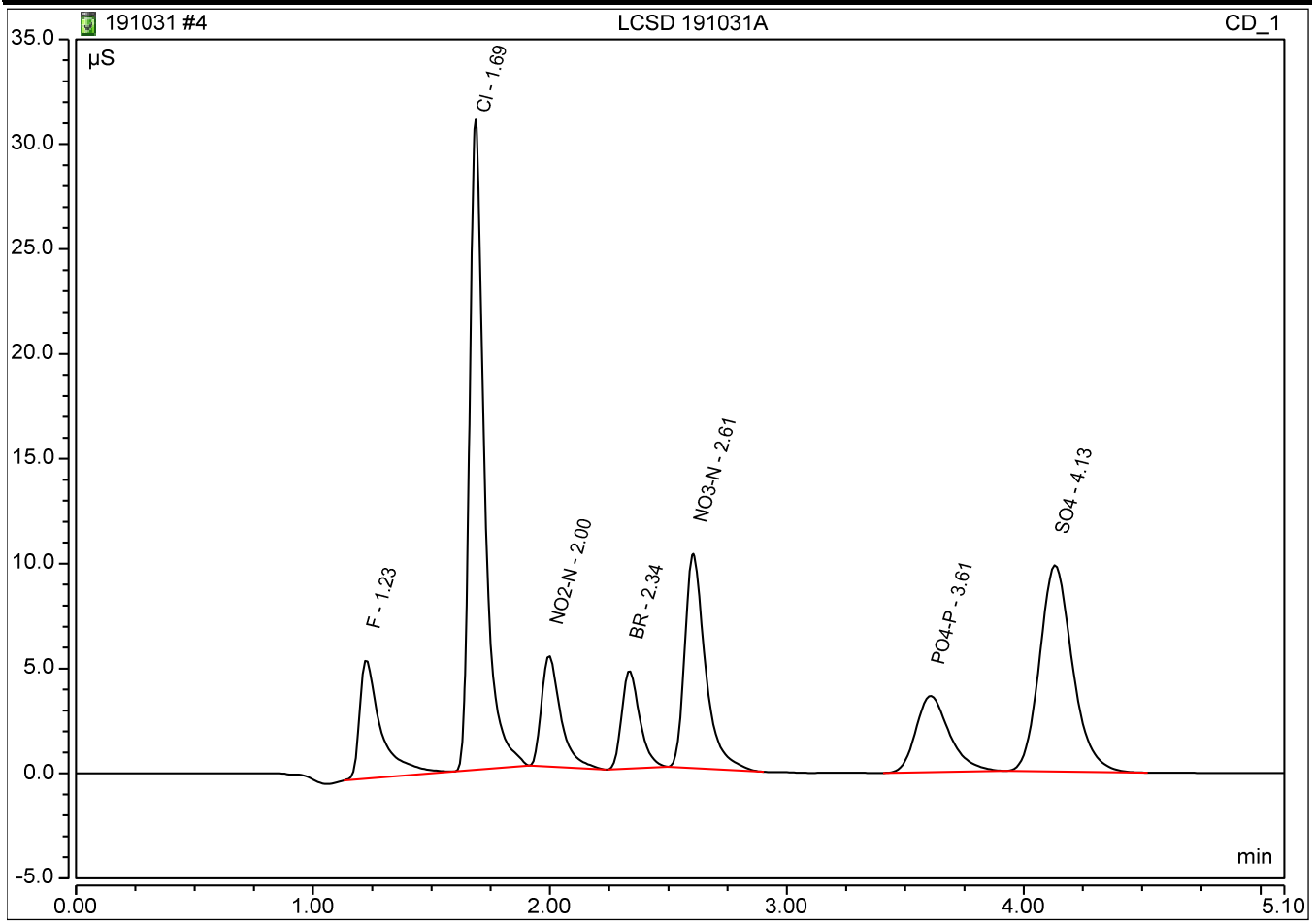
y = 0.0682 x + -0.0066
y = 1.5831 therefor x =

Logged on User: BW
Instrument: Charlie System_1
Sequence: 191031

Peak Integration Report

Sample Name:	**LCSD 191031A**	*Inj. Vol.:*	**25uL**
Injection Type:	**Check Standard**	*Dilution Factor:*	**1.00**
Program:	**Anion APM 191030**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**31-Oct-2019 / 15:12**	*Run Time:*	**5.10**

No.	Time (min) min	Peak Name	Peak Type	Area (µS*min) µS*min	Height (µS) µS	Amount mg/L	Spike Level mg/L	Recovery
1	1.23	**F**	BMB	0.593	5.670	5.10	5	102.1%
2	1.69	**Cl**	BMB	2.271	31.001	22.57	25	90.3%
3	2.00	**NO2-N**	BMB	0.499	5.299	2.79	3.04	91.7%
4	2.34	**BR**	BMB	0.411	4.682	11.69	12.5	93.6%
5	2.61	**NO3-N**	BMB	1.038	10.224	4.68	5	93.6%
6	3.61	**PO4-P**	BMB	0.596	3.637	9.26	10	92.6%
7	4.13	**SO4**	BMB	1.583	9.833	23.31	25	93.2%



Anion Chromatography Working Standard

Prep Date: 10/30/19

Exp Date: 10/30/19

Prep'd By (Initials): BW

Initial Standard Information						Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier Part No.	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date	Aliquot from Stock	Final Volume	Solvent	Final Standard Conc (µg/mL)
Ion Chromatography Standard Fluoride 1000 µg/mL in H2O	o2si	O2SI-062002-01-01	1000	687393-38-40744	10/30/20	312.5 µL	25 mL	Millipore Water	12.5
Ion Chromatography Standard Nitrite 1000 µg/mL in H2O	Inorganic Ventures	ICN021	1000	N2-NOX672889-40759	05/01/20	411 µL	25 mL	Millipore Water	5 as NO2-N
Ion Chromatography Standard Chloride 5000 µg/mL in H2O	o2si	062001-08-03	5000	10084781-1-39578	02/21/20	250 µL	25 mL	Millipore Water	50
Ortho-Phosphate as P Standard	Ultra Scientific	ICC-005A	1000	G34-CP-3323-39057	08/31/23	625 µL	25 mL	Millipore Water	25
Ion Chromatography Standard Nitrate as N 1000 µg/mL in H2O	o2si	062003-01-03	1000	880117-4-39577	02/21/20	250 µL	25 mL	Millipore Water	10
Bromide Standard	Ultra Scientific	ICC-001	1000	CR-5372-39521	12/31/21	625 µL	25 mL	Millipore Water	25
Sulfate Standard	Agilent	ICC-006	1000	CS-0688-41050	03/31/22	1250 µL	25 mL	Millipore Water	50

Anion Chromatography Calibration Curve

Prep Date: 10/30/19

Exp Date: 10/30/19

Prep'd By (Initials): BW

Initial Standard Information						Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. Range (ug/mL)	Reference To APPL Prep Date	Exp. Date	Aliquot from Stock	Final Volume	Solvent	Final Standard Conc. Range (µg/mL)
Anion Chromatography Working Standard	Varies	ICal1	5.0-50.0	Prepared 10/30/19	10/30/19	200 µL	25000 µL	Millipore Water	0.04-0.40
Anion Chromatography Working Standard	Varies	ICal2	5.0-50.0	Prepared 10/30/19	10/30/19	20 µL	1000 µL	Millipore Water	0.1-1.0
Anion Chromatography Working Standard	Varies	ICal5	5.0-50.0	Prepared 10/30/19	10/30/19	200 µL	1000 µL	Millipore Water	1.0-10.0
Anion Chromatography Working Standard	Varies	ICal8	5.0-50.0	Prepared 10/30/19	10/30/19	1000 µL	1000 µL	Millipore Water	5.0-50.0

Anion Chromatography LCS/ICV

Prep Date: See injection Log

Exp Date: 24 hours after prep

Prep'd By (Initials): BW

Initial Standard Information						Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier Part No.	Conc. Range (ug/mL)	Lot Number - QA Number	Exp. Date	Aliquot from Stock	Final Volume	Solvent	Final Standard Conc (µg/mL)
Flouride	Inorganic Ventures	ICF1	993-999	K-F652018-39801	10/23/19	125 µL	25 mL	Millipore Water	5
Nitrite	Inorganic Ventures	ICNO21	993-1001	M2-NOX660562-40468	08/25/21	250 µL	25 mL	Millipore Water	10
Chloride	Inorganic Ventures	ICCL1	995-1001	N2-CL664868-39905	11/26/19	625 µL	25 mL	Millipore Water	25
O-Phosphate as P	Inorganic Ventures	ICPPO41	1001-1009	M2-POX655826-39803	10/23/19	250 µL	25 mL	Millipore Water	10
Nitrate as N	Inorganic Ventures	ICNNO31	997-1005	P2-NOX675324-49391	02/14/23	125 µL	25 mL	Millipore Water	5
Ion Chromatography Standard Bromide, 1000 µg/mL in H2O	CPI International	4400-IC8M	995-1005	161681-8-39539	02/06/20	312.5 µL	25 mL	Millipore Water	12.5
Sulfate	Inorganic Ventures	ICSO41	998-1006	N2-SOX664928-39507	11/27/19	625 µL	25 mL	Millipore Water	25

Anion Chromatography CCV

Prep Date: See injection Log

Exp Date: 24 hours after prep

Prep'd By (Initials): BW

Initial Standard Information						Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier Part No.	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date	Aliquot from Stock	Final Volume	Solvent	Final Standard Conc (µg/mL)
Ion Chromatography Standard Fluoride 1000 µg/mL in H2O	o2si	O2SI-062002-01-01	1000	687393-38-40744	10/30/20	125 µL	25 mL	Millipore Water	5
Ion Chromatography Standard Nitrite 1000 µg/mL in H2O	Inorganic Ventures	ICN021	1000	N2-NOX672889-40759	05/01/20	250 µL	25 mL	Millipore Water	10
Ion Chromatography Standard Chloride 5000 µg/mL in H2O	o2si	062001-08-03	5000	10084781-1-39578	02/21/20	125 µL	25 mL	Millipore Water	25
Ortho-Phosphate as P Standard	Ultra Scientific	ICC-005A	1000	G34-CP-3323-39057	08/31/23	250 µL	25 mL	Millipore Water	10
Ion Chromatography Standard Nitrate as N 1000 µg/mL in H2O	o2si	062003-01-03	1000	880117-4-39577	02/21/20	125 µL	25 mL	Millipore Water	5
Bromide Standard	Ultra Scientific	ICC-001	1000	CR-5372-39521	12/31/21	312.5 µL	25 mL	Millipore Water	12.5
Sulfate Standard	Agilent	ICC-006	1000	CS-0688-41050	03/31/22	625 µL	25 mL	Millipore Water	25

Method 300 and 9056 Injection Log

No.	Position	Injection Description	Inject Time		Type	Comment
1	GE1	ICAL1 191030	30/Oct/2019	18:22	Calibration Standard	
2	GE2	ICAL2 191030	30/Oct/2019	18:29	Calibration Standard	
3	GE3	ICAL5 191030	30/Oct/2019	18:37	Calibration Standard	
4	GE4	ICAL8 191030	30/Oct/2019	18:44	Calibration Standard	
5	R1	ICB 191030	30/Oct/2019	18:52	Unknown	
6	R3	ICV/LCS 191030	30/Oct/2019	18:59	Check Standard	
7	R3	LCSD 191030A	30/Oct/2019	19:07	Check Standard	
8	BA1	BA01825W07	30/Oct/2019	19:14	Unknown	filtered
9	BA2	BA02090	30/Oct/2019	19:22	Unknown	
10	BA3	BA02160	30/Oct/2019	19:29	Unknown	
11	BA4	BA02049W12	30/Oct/2019	19:37	Unknown	filtered
12	BA5	BA02050W07	30/Oct/2019	19:44	Unknown	filtered
13	BA6	BA02053W08	30/Oct/2019	19:52	Unknown	filtered
14	BA7	BA02054W08	30/Oct/2019	19:59	Unknown	filtered
15	BA8	BA01390W01 DF20	30/Oct/2019	20:07	Unknown	NDF20 Cl
16	BB1	BA01390W01 DF5	30/Oct/2019	20:14	Unknown	NDF5 SO4
17	BB2	BA01391W01 DF5	30/Oct/2019	20:22	Unknown	NDF5 Cl SO4
18	BB3	BA01391W01 DF2	30/Oct/2019	20:29	Unknown	NDF2 NO3-N
19	BB4	BA01392W01 DF20	30/Oct/2019	20:37	Unknown	NDF20 Cl
20	R2	CCV 191030	30/Oct/2019	20:44	Check Standard	
21	R1	CCB 191030	30/Oct/2019	20:52	Unknown	
22	BB5	BA01393W01 DF10	30/Oct/2019	20:59	Unknown	NDF10 Cl SO4 NO3-N
23	BB6	BA01459W01 DF10	30/Oct/2019	21:07	Unknown	NDF10 Cl
24	BB7	BA01459W01 DF5	30/Oct/2019	21:14	Unknown	NDF5 SO4
25	BB8	BA01460W01 DF10	30/Oct/2019	21:22	Unknown	NDF10 Cl
26	BC1	BA01460W01 DF5	30/Oct/2019	21:29	Unknown	NDF5 SO4
27	BC2	BA01461W01 DF50	30/Oct/2019	21:37	Unknown	NDF50 Cl
28	BC3	BA01461W01 DF5	30/Oct/2019	21:44	Unknown	NDF5 SO4
29	BC4	BA01875 DF2	30/Oct/2019	21:52	Unknown	SO4 NO3 NO2 Cl filtered; NDF2 SC
30	BC5	BA01876 DF2	30/Oct/2019	21:59	Unknown	SO4 NO3 NO2 Cl filtered; NDF2 SC
31	R2	CCV 191030	30/Oct/2019	22:06	Check Standard	
32	R1	CCB 191030	30/Oct/2019	22:14	Unknown	
33	BC2	Stop	n.a.		Unknown	

Method 300 and 9056 Injection Log

No.	Position	Injection Description	Inject Time		Type	Comment
1	R2	CCV 191031	31/Oct/2019	14:50	Check Standard	
2	R1	CCB 191031	31/Oct/2019	14:57	Unknown	
3	R3	LCS 191031A	31/Oct/2019	15:05	Check Standard	
4	R3	LCSD 191031A	31/Oct/2019	15:12	Check Standard	
5	GA1	BA02161W01	31/Oct/2019	15:20	Unknown	
6	GA2	BA02162W01	31/Oct/2019	15:27	Unknown	
7	GA3	BA02163W01	31/Oct/2019	15:35	Unknown	
8	GA4	BA02164W01	31/Oct/2019	15:42	Unknown	
9	GA5	BA02165W01	31/Oct/2019	15:50	Unknown	
10	GA6	BA02166W01	31/Oct/2019	15:57	Unknown	
11	GA7	BA02167W01	31/Oct/2019	16:04	Unknown	
12	GA8	BA02169W01	31/Oct/2019	16:12	Unknown	filtered
13	GB1	BA02186W01	31/Oct/2019	16:20	Unknown	
14	GB2	BA02187W01	31/Oct/2019	16:27	Unknown	
15	GB3	BA02161W01 MS	31/Oct/2019	16:34	Unknown	NO3N
16	GB4	BA02161W01 MSD	31/Oct/2019	16:42	Unknown	NO3N
17	R2	CCV 191031	31/Oct/2019	16:49	Check Standard	
18	R1	CCB 191031	31/Oct/2019	16:57	Unknown	
19	GB5	BA02188W01	31/Oct/2019	17:04	Unknown	
20	GB6	BA02189W01	31/Oct/2019	17:12	Unknown	
21	GB7	BA02190W01	31/Oct/2019	17:19	Unknown	
22	GB8	BA02191W01	31/Oct/2019	17:27	Unknown	
23	GC1	BA02192W01	31/Oct/2019	17:34	Unknown	filtered
24	GC2	BA02056W09	31/Oct/2019	17:42	Unknown	
25	GC3	BA02056W09 MS	31/Oct/2019	17:49	Unknown	
26	GC4	BA02056W09 MSD	31/Oct/2019	17:57	Unknown	
27	GC5	BA02057W06	31/Oct/2019	18:04	Unknown	filtered
28	GC6	BA02058W06	31/Oct/2019	18:12	Unknown	
29	GC7	BA02059W06	31/Oct/2019	18:19	Unknown	
30	GC8	BA02060W06	31/Oct/2019	18:27	Unknown	
31	R2	CCV 191031	31/Oct/2019	18:34	Check Standard	
32	R1	CCB 191031	31/Oct/2019	18:42	Unknown	
33	GD1	BA02062W06 DF20	31/Oct/2019	18:49	Unknown	HIGH EC df20
34	GD2	BA02063W06	31/Oct/2019	18:57	Unknown	filtered
35	GD3	BA02064W06	31/Oct/2019	19:04	Unknown	
36	GD4	BA02065W06	31/Oct/2019	19:12	Unknown	
37	GD5	BA02066W06	31/Oct/2019	19:19	Unknown	
38	GD6	BA02067W06	31/Oct/2019	19:26	Unknown	
39	GD7	BA02214W14	31/Oct/2019	19:34	Unknown	
40	GD8	BA02216W07	31/Oct/2019	19:41	Unknown	
41	R2	CCV 191031	31/Oct/2019	19:49	Check Standard	
42	R1	CCB 191031	31/Oct/2019	19:56	Unknown	
43	R2	Stop	n.a.		Unknown	

Logged on User: BW
Instrument: Charlie System_1
Sequence: 191105W

Method 300 and 9056 Injection Log

No.	Position	Injection Description	Inject Time		Type	Comment
1	R2	CCV 191105	05/Nov/2019	20:08	Check Standard	
2	R1	CCB 191105	05/Nov/2019	20:16	Unknown	
3	R3	LCS 191105A	05/Nov/2019	20:23	Check Standard	
4	R3	LCSD 191105A	05/Nov/2019	20:31	Check Standard	
5	RD1	BA02459W07	05/Nov/2019	20:38	Unknown	
6	RD2	BA02460W07	05/Nov/2019	20:46	Unknown	
7	RD3	BA02461W06	05/Nov/2019	20:53	Unknown	
8	RD4	BA02462W06	05/Nov/2019	21:01	Unknown	filtered
9	RD6	BA02466W12	05/Nov/2019	21:08	Unknown	
10	RA1	BA01785W04 DF2	05/Nov/2019	21:16	Unknown	NO3 filtered
11	RA2	BA01785W04 DF5	05/Nov/2019	21:23	Unknown	SO4 filtered
12	RA3	BA01785W04 DF10	05/Nov/2019	21:31	Unknown	Cl filtered
13	RA4	BA01786W03 DF5	05/Nov/2019	21:38	Unknown	SO4
14	RA5	BA01786W03 DF20	05/Nov/2019	21:46	Unknown	Cl
15	RA6	BA01787W04 DF2	05/Nov/2019	21:53	Unknown	NO3 SO4
16	RA7	BA01788W04 DF2	05/Nov/2019	22:01	Unknown	Cl SO4 filtered
17	RA8	BA01789W04 DF2	05/Nov/2019	22:08	Unknown	SO4 filtered
18	RB1	BA01789W04 DF5	05/Nov/2019	22:16	Unknown	Cl filtered
19	R2	CCV 191105	05/Nov/2019	22:23	Check Standard	
20	R1	CCB 191105	05/Nov/2019	22:31	Unknown	
21	RB2	BA01829W05 DF2	05/Nov/2019	22:38	Unknown	Cl
22	RB3	BA01833W10 DF2	05/Nov/2019	22:46	Unknown	Cl
23	RB4	BA01824W07 DF10	05/Nov/2019	22:53	Unknown	Cl
24	RB5	BA01825W07 DF2	05/Nov/2019	23:01	Unknown	Cl
25	RB6	BA02062W06 DF50	05/Nov/2019	23:08	Unknown	SO4
26	RB7	BA01875W07 DF10	05/Nov/2019	23:16	Unknown	Cl
27	RB8	BA02187W01 MS	05/Nov/2019	23:23	Unknown	NO3
28	RC1	BA02187W01 DF2	05/Nov/2019	23:31	Unknown	NO3
29	RC2	BA02188W01 MS	05/Nov/2019	23:38	Unknown	NO3
30	RC3	BA02188W01 DF2	05/Nov/2019	23:45	Unknown	NO3
31	RC4	BA02189W01 MS	05/Nov/2019	23:53	Unknown	NO3
32	RC5	BA02189W01 DF2	06/Nov/2019	00:00	Unknown	NO3
33	RC6	BA02192W01 MS	06/Nov/2019	00:08	Unknown	NO3
34	RC7	BA02192W01 DF2	06/Nov/2019	00:15	Unknown	NO3
35	R2	CCV 191105	06/Nov/2019	00:23	Check Standard	
36	R1	CCB 191105	06/Nov/2019	00:30	Unknown	
37	RC8	BA02301W10 DF2	06/Nov/2019	00:38	Unknown	Cl
38	RD5	BA02216W07 DF5	06/Nov/2019	00:45	Unknown	Cl
39	R2	CCV 191105	06/Nov/2019	00:53	Check Standard	
40	R1	CCB 191105	06/Nov/2019	01:00	Unknown	
41	R2	Stop	06/Nov/2019	01:05	Unknown	

AQ2 Report

Serial Number:	190170
Software Version:	2.1.0
Report Requested By:	Eve V
Date & Time:	2019-11-04 08:41:25
Tray Number:	3
Tray Name:	191101A TOXN

TOXN

Calibration Chart

Type	Absorbance	Calc mg/L	Target mg/L	% Error
S1	0.0081	-0.0079	0.0000	
S90	0.0148	0.1085	0.1000	8.45
S91	0.0803	1.2459	1.2000	3.83
S92	0.1797	2.9715	3.0000	-0.95
S93	0.2785	4.6857	4.8000	-2.38
S94	0.3597	6.0964	6.0000	1.61
S0	0.0095	0.0160	0.0000	

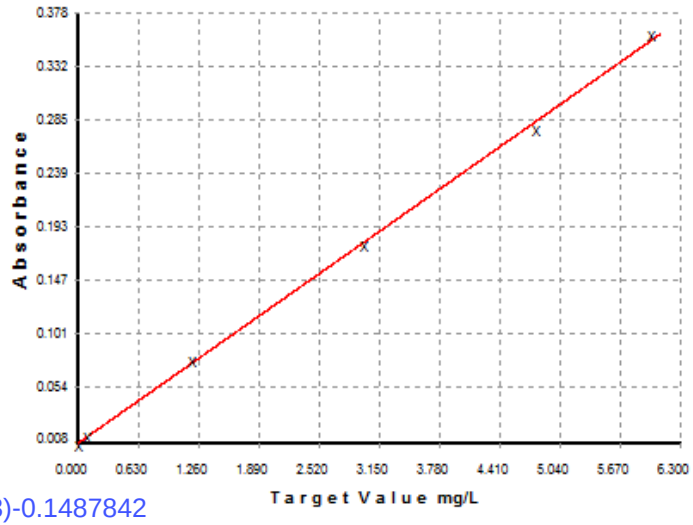
Polynomial Order:	1
Correlation Coefficient:	0.9996
Carryover(%):	0.4
Calibration equation:	y = bx + a
y =:	Concentration mg/L
x =:	Measured absorbance
a =:	-1.487842E-001
b =:	1.736073E+001
Date & Time:	2019-11-01 16:18:10

Algorithm check

y = 17.36073(0.176993)-0.1487842

y = 2.92

Calibration Graph



Reagents

Name	Batch	Prepared By	Expiry Date
NO3 W Buffer	EV 11/04/19	Joel	
Sulfa-NEDD		Joel	

Cup	Type	ID	Result	Units	QC Pro	Raw Data	Auto Dil.	Man Dil.	User	Time/Date
	S1	Standard 1	0.0081			0.008113			Ev	2019-11-01 16:05:02
	S90	Standard 90	0.0148			0.014817			Ev	2019-11-01 16:07:14
	S91	Standard 91	0.0803			0.080336			Ev	2019-11-01 16:09:25
	S92	Standard 92	0.1797			0.179732			Ev	2019-11-01 16:11:36
	S93	Standard 93	0.2785			0.278473			Ev	2019-11-01 16:13:48
	S94	Standard 94	0.3597			0.359728			Ev	2019-11-01 16:15:59
	S0	Standard 0	0.0095			0.009490			Ev	2019-11-01 16:18:10
	CCV	CCV	3.1575	mg/L		0.190446			Ev	2019-11-01 16:20:22
	CCB	CCB	0.0077	mg/L		0.009012			Ev	2019-11-01 16:22:33
3	U1	✓ICV TOXN	2.9240	mg/L		0.176993			Ev	2019-11-01 16:24:45
4	U2	ICB TOXN	0.0060	mg/L		0.008917			Ev	2019-11-01 16:26:57
5	U3	191101A BLK	-0.0030	mg/L		0.008399			Ev	2019-11-01 16:29:11
6	U4	191101A LCS	3.1020	mg/L		0.187249			Ev	2019-11-01 16:31:22
7	U5	191101A LCSD	2.9866	mg/L		0.180601			Ev	2019-11-01 16:33:34
8	U6	1ppm NO3	1.0309	mg/L		0.067952			Ev	2019-11-01 16:35:46
9	U7	BA02090W11	0.4101	mg/L		0.032195			Ev	2019-11-01 16:37:59
10	U8	BA02090W11 MS	3.7099	mg/L		0.222263			Ev	2019-11-01 16:39:05
11	U9	BA02090W11 MSD	3.8559	mg/L		0.230675			Ev	2019-11-01 16:40:01
12	U10	BA02160W08	0.0290	mg/L		0.010241			Ev	2019-11-01 16:40:57
	CCV	CCV	2.9897	mg/L		0.180783			Ev	2019-11-01 16:41:53
	CCB	CCB	-0.0063	mg/L		0.008209			Ev	2019-11-01 16:42:50
13	U11	BA02214W15	0.3897	mg/L		0.031017			Ev	2019-11-01 16:43:47
14	U12	BA02216W08	1.2323	mg/L		0.079550			Ev	2019-11-01 16:44:43
	CCV	CCV	3.0243	mg/L		0.182772			Ev	2019-11-01 16:45:39
	CCB	CCB	-0.0027	mg/L		0.008413			Ev	2019-11-01 16:46:35

TOTAL ORGANIC CARBON

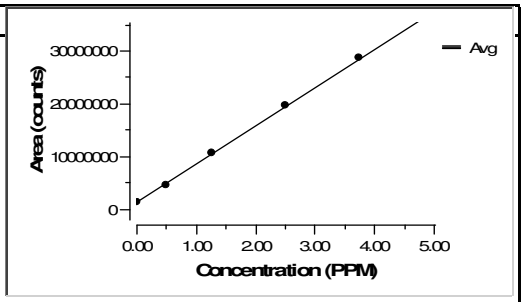
Method: WetChem | Units mg/L | Instrument: Tic Toc

Analyte: DOC | QCG: 191105B

Analyist: AR | Final Volume: 40mL

Date	Time	Appl ID	[TOC]	Raw	% Recovery
10/31/19	19:20	QC blank	0.00	1130.000	
10/31/19	19:56	Ical 1	0.50	7935.000	
10/31/19	20:28	Ical 2	2.00	24866.000	
10/31/19	21:02	Ical 3	5.00	59510.000	
10/31/19	21:35	Ical 4	10.00	118117.000	
10/31/19	22:08	Ical 5	20.00	235471.000	
11/01/19	10:03	ICB	0.08	883.000	
11/01/19	10:39	ICV	10.40	121613.000	104.0%

r^2= 0.9987



Date	Time	Appl ID	DF	Raw Result	SubSample Amount	Filter Blank Subtract	Calc Conc	Result	Range (mg/L)	QC True	% Recovery
2019-11-06	08:11 AM	CCV	1	61980	40mL	0.010	5.165	5.16	0.04	5.00	103.1%
2019-11-06	08:48 AM	CCB	1	1790	40mL	0.010	0.017	0.01	0.01		
2019-11-06	09:24 AM	191105B LCS	1	63799	40mL	0.010	5.32	5.31	0.00	5.00	106.2%
2019-11-06	10:00 AM	191105B LCSD	1	63054	40mL	0.010	5.256	5.25	0.09	5.00	104.9%
2019-11-06	10:36 AM	BA01821W09	1	79556	40mL	0.010	6.8	6.79	0.26		
2019-11-06	11:10 AM	BA01822W27	1	41131	40mL	0.010	3.514	3.50	0.04		
2019-11-06	11:43 AM	BA01822W27 DUP	1	34958	40mL	0.010	2.986	2.98	1.91		
2019-11-06	12:16 PM	BA01822W27 MS	1	87129	40mL	0.010	7.447	7.44	4.30		
2019-11-06	12:50 PM	BA01822W27 MSD	1	101635	40mL	0.010	8.688	8.68	0.20		
2019-11-06	01:23 PM	BA01823W09	1	26016	40mL	0.010	2.22	2.21	0.04		
2019-11-06	01:56 PM	BA01824W13	1	67228	40mL	0.010	5.745	5.74	0.03		
2019-11-06	02:29 PM	BA01825W14	1	129488	40mL	0.010	11.07	11.06	0.00		
2019-11-06	03:03 PM	BA01826W09	1	193050	40mL	0.010	16.506	16.50	0.29		
2019-11-06	03:36 PM	BA01869W09	1	15030	40mL	0.010	1.282	1.27	0.09		
2019-11-06	04:09 PM	BA01870W09	1	77222	40mL	0.010	6.6	6.59	0.10		
2019-11-06	04:42 PM	BA01873W09	1	30378	40mL	0.010	2.594	2.58	0.02		
2019-11-06	05:49 PM	CCV	1	64243	40mL	0.010	5.358	5.35	0.28	5.00	107.0%
2019-11-06	06:25 PM	CCB	1	2149	40mL	0.010	0.048	0.04	0.06		
2019-11-07	01:35 PM	CCV	1	64082	40mL	0.010	5.344	5.33	0.12	5.00	106.7%
2019-11-07	02:11 PM	CCB	1	1950	40mL	0.010	0.03	0.02	0.02		
2019-11-07	02:47 PM	BA01872W39	1	81042	40mL	0.010	6.927	6.92	0.09		
2019-11-07	03:20 PM	BA01872W39 DUP	1	83233	40mL	0.010	7.114	7.10	0.23		
2019-11-07	03:53 PM	BA01872W39 MS	1	137212	40mL	0.010	11.73	11.72	0.06		
2019-11-07	04:26 PM	BA01872W39 MSD	1	139273	40mL	0.010	11.907	11.90	0.04		
2019-11-07	04:59 PM	BA01875W13	1	107158	40mL	0.010	9.16	9.15	2.88		
2019-11-07	05:32 PM	BA01876W13	1	107154	40mL	0.010	9.16	9.15	2.37		
2019-11-07	06:05 PM	BA01877W13	1	141639	40mL	0.010	12.109	12.10	3.69		
2019-11-07	06:38 PM	BA02090W11	1	4734	40mL	0.010	0.401	0.39	0.25		
2019-11-07	07:11 PM	BA02049W14	1	203035	40mL	0.010	17.36	17.35	0.33		
2019-11-07	07:45 PM	BA02050W13	1	135327	40mL	0.010	11.57	11.56	2.37		
2019-11-07	08:18 PM	BA02053W10	1	68296	40mL	0.010	5.837	5.84	0.31		
2019-11-07	08:51 PM	BA02054W10	1	33426	40mL	0.010	2.854	2.85	1.61		
2019-11-07	09:24 PM	BA02214W15	1	4625	40mL	0.010	0.392	0.39	0.01		
2019-11-07	09:57 PM	CCV	1	62756	40mL	0.010	5.231	5.23	0.00	5.00	104.6%
2019-11-07	10:33 PM	CCB	1	1786	40mL	0.010	0.017	0.02	0.00		
			1		40mL			#VALUE!	0.00		
			1		40mL			#VALUE!	0.00		
			1		40mL			#VALUE!	0.00		
			1		40mL			#VALUE!	0.00		

TOTAL ORGANIC CARBON

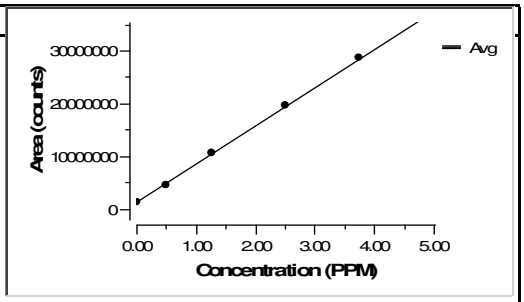
Method: WetChem | Units mg/L | Instrument: Tic Toc

Analyte: TOC | QCG: 191109B

Analyist: AR | Final Volume: 40mL

Date	Time	Appl ID	[TOC]	Raw	% Recovery
10/31/19	19:20	QC blank	0.00	1130.000	
10/31/19	19:56	Ical 1	0.50	7935.000	
10/31/19	20:28	Ical 2	2.00	24866.000	
10/31/19	21:02	Ical 3	5.00	59510.000	
10/31/19	21:35	Ical 4	10.00	118117.000	
10/31/19	22:08	Ical 5	20.00	235471.000	
11/01/19	10:03	ICB	0.08	883.000	
11/01/19	10:39	ICV	10.40	121613.000	104.0%

r^2= 0.9987



Date	Time	Appl ID	DF	Raw Result	SubSample Amount	Filter Blank Subtract	Calc Conc	Result	Range (mg/L)	QC True	% Recovery
2019-11-10	05:57 PM	CCV (using only 2 reps)	1	30693	40mL	0.000	5.092	5.09	5.02	5.00	101.8%
2019-11-10	06:33 PM	CCB	1	3132	40mL	0.000	0.132	0.13	0.03		
2019-11-10	07:09 PM	191107B LCS	1	61937	40mL	0.000	5.161	5.16	0.00	5.00	103.2%
2019-11-10	07:45 PM	191107B LCSD	1	61458	40mL	0.000	5.12	5.12	0.11	5.00	102.4%
2019-11-10	08:22 PM	BA01829W13	1	3442	40mL	0.000	0.29	0.29	0.00		
2019-11-10	08:55 PM	BA01831W18	1	3097	40mL	0.000	0.261	0.26	0.00		
2019-11-10	09:28 PM	BA01833W18	1	3748	40mL	0.000	0.316	0.32	0.01		
2019-11-10	10:01 PM	BA01943W05	1	11113	40mL	0.000	0.946	0.95	0.03		
2019-11-10	10:34 PM	BA01944W05	1	9966	40mL	0.000	0.848	0.85	0.02		
2019-11-10	11:07 PM	BA01945W05	1	80872	40mL	0.000	6.912	6.91	0.28		
2019-11-10	11:41 PM	BA01946W05	1	133487	40mL	0.000	11.412	11.41	0.22		
2019-11-11	12:15 AM	BA02090W11	1	5880	40mL	0.000	0.499	0.50	0.20		
2019-11-11	12:49 AM	BA02160W05	1	59396	40mL	0.000	5.075	5.08	0.62		
2019-11-11	01:23 AM	BA02160W05 DUP	1	62368	40mL	0.000	5.33	5.33	0.06		
2019-11-11	01:57 AM	BA02160W06 MS	1	107404	40mL	0.000	9.181	9.18	0.10		
2019-11-11	02:32 AM	BA02160W06 MSD	1	96261	40mL	0.000	8.229	8.23	3.77		
2019-11-11	03:06 AM	BA02214W15	1	3797	40mL	0.000	0.321	0.32	0.01		
2019-11-11	03:39 AM	CCV	1	60889	40mL	0.000	5.071	5.07	0.05	5.00	101.4%
2019-11-11	04:15 AM	CCB	1	2581	40mL	0.000	0.084	0.08	0.01		
2019-11-11	04:51 AM	BA02216W08	1	9510	40mL	0.000	0.809	0.81	0.01		
2019-11-11	05:24 AM	BA02216W08 DUP	1	9608	40mL	0.000	0.818	0.82	0.01		
2019-11-11	05:58 AM	BA02301W19	1	158152	40mL	0.000	13.521	13.52	0.09		
2019-11-11	06:32 AM	BA02053W10	1	72253	40mL	0.000	6.175	6.18	0.02		
2019-11-11	07:06 AM	BA02054W10	1	42094	40mL	0.000	3.596	3.60	0.01		
2019-11-11	07:40 AM	BA02401W01	1	16638	40mL	0.000	1.419	1.42	0.01		
2019-11-11	08:13 AM	BA02402W01	1	14218	40mL	0.000	1.212	1.21	0.01		
2019-11-11	08:46 AM	BA02403W01	1	10362	40mL	0.000	0.882	0.88	0.00		
2019-11-11	09:19 AM	BA02404W01	1	21221	40mL	0.000	1.811	1.81	0.05		
2019-11-11	09:52 AM	BA02405W01	1	5819	40mL	0.000	0.493	0.49	0.01		
2019-11-11	10:25 AM	BA02406W01	1	14849	40mL	0.000	1.266	1.27	0.02		
2019-11-11	10:59 AM	CCV	1	62637	40mL	0.000	5.221	5.22	0.02	5.00	104.4%
2019-11-11	11:35 AM	CCB	1	2582	40mL	0.000	0.085	0.09	0.00		

Ferrous Iron — Rev 2, 04-05-19

Method SM3500Fe | Units mg/L | Instrument: Genisis Spectrometer
Analyte Fe2+ | QCG: 191031 | Wavelength: 510 nm
Analyist fjr | Final Volume: 50mL | Units: mg/L

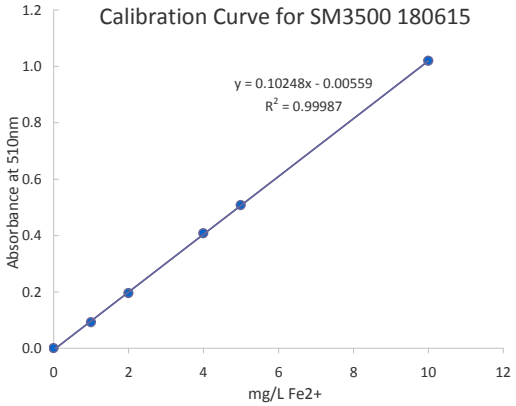
Date	Time	Appl ID	[Fe2+]	Absorbance	% Recovery
06/28/19	12:48	ICB	0.00	0.000	
06/28/19	12:49	Ical 1	1.00	0.092	95.2%
06/28/19	12:50	Ical 2	2.00	0.195	97.9%
06/28/19	12:51	Ical 3	4.00	0.408	100.9%
06/28/19	12:51	Ical 4	5.00	0.507	100.0%
06/28/19	12:52	Ical 5	10.00	1.019	100.0%
06/28/19	13:08	ICV	3.00	0.326	107.9%
06/28/19	12:53	ICB	0.00	0.002	

Slope	0.102479592
Intercept	-0.005591837
Coefficient of Determination	0.999872044

Algortithm Check:	**Appl ID**	**Absorbance**	**Result**
	ICV/LCS 191031A	0.297	2.95

Result = (Absorbance-Raw Blk-Intercept)/ Slope

Test:	FJR	10/31/19	2.95



Date	Time	Appl ID	DF	Raw Result	SubSample Amount	Raw BLK	Calc Conc	Result	QC True	% Recovery
10/31/19	23:01	CCV 4.0 191031	1	0.406	25mL		4.02	4.02	4.00	100.4%
10/31/19	23:01	CCB 191031	1	0.000	25mL		0.05	0.05		
10/31/19	23:02	ICV/LCS 191031A	1	0.297	25mL		2.95	2.95	3.00	98.4%
10/31/19	23:02	ICV/LCSD 191031A	1	0.306	25mL		3.04	3.04	3.00	101.4%
10/31/19	23:03	BA02214W16	1	0.001	25mL		0.06	0.06		
10/31/19	23:03	BA02216W09	1	0.005	25mL		0.10	0.10		
10/31/19	23:03	BA02216W09 MS	1	0.301	25mL		2.99	2.99		
10/31/19	23:04	BA02216W09 MSD	1	0.304	25mL		3.02	3.02		
10/31/19	23:04	CCV 4.0 191031	1	0.406	25mL		4.02	4.02	4.00	100.4%
10/31/19	23:05	CCB 191031	1	-0.001	25mL		0.04	0.04		

Metrohm 814/809 Titrando Data

Sample ID	Analysis Date/Time	Method	Titration Volume (to 8.3)	Titration Volume (total)	OH	CO3	HCO3	Total Alk	Unit	Sample Vol	N	Batch	Initials
BA02216W07 MSD	2019-11-01 12:05:34 UTC-8	Alkalinity	0.366	8.324	0.00	30.45	315.83	346.28	mg/L	25 mL	0.0208	191101A	CD
BA02216W07 MS	2019-11-01 11:53:56 UTC-8	Alkalinity	0.396	8.004	0.00	32.95	300.02	332.97	mg/L	25 mL	0.0208	191101A	CD
BA02216W07 DUP	2019-11-01 11:47:25 UTC-8	Alkalinity	0.136	2.416	0.00	11.32	89.19	100.51	mg/L	25 mL	0.0208	191101A	CD
BA02216W07	2019-11-01 11:41:29 UTC-8	Alkalinity	0.000	2.246	0.00	0.00	93.43	93.43	mg/L	25 mL	0.0208	191101A	CD
BA02214W12	2019-11-01 11:37:22 UTC-8	Alkalinity	0.000	1.020	0.00	0.00	42.43	42.43	mg/L	25 mL	0.0208	191101A	CD
191101A LCSD	2019-11-01 10:53:57 UTC-8	Alkalinity	0.196	5.978	0.00	16.31	232.38	248.68	mg/L	25 mL	0.0208	191101A	CD
191101A LCS	2019-11-01 10:43:38 UTC-8	Alkalinity	0.112	5.930	0.00	9.32	237.37	246.69	mg/L	25 mL	0.0208	191101A	CD
191101A BLK	2019-11-01 10:34:27 UTC-8	Alkalinity	0.000	0.016	0.00	0.00	0.67	0.67	mg/L	25 mL	0.0208	191101A	CD

Standard Prep

	Ferrous Iron Standards		Prep'd By (Initials)		FJR		
Prep Date	06/28/18						
Exp Date	06/28/19						
Stock Label	Supplier	Batch Number	Exp Date	Aliquot from Stock	Final Volume	Solvent	Ferrous Iron Concentration
Ferrous Ammonium Sulfate	J.T.Baker	0000184592	08/21/20	0.351	250mL	5ml H2SO4 (0000167828) Diluted with water	200ug/L
Ferrous Sulfate	Mallinckrodt	Lot 5056 KDRX	NA	0.250	250mL	5ml H2SO4 (0000167828) Diluted with water	200ug/L
Ferrous Iron CCV/LCS/MS/ICV			Prep'd By (Initials)		FJR		
Prep Date	See Injection Log						
Exp Date	24 Hours						
Initial Standard Information	Supplier	Batch Number	Exp Date	Final Standard Information			
Ferrous Iron CCV	J.T.Baker	0000184592	06/14/19	500uL	25mL	Deionized water	4mg/L
Ferrous Iron ICV/LCS	Mallinckrodt	Lot 5056 KDRX	06/14/19	375uL	25mL	Deionized water	3mg/L
	Ferrous Iron Calibration Curve		Prep'd By (Initials)		FJR		
Prep Date	06/28/18						
Exp Date	06/28/19						
Final Standard Information							
Point Label	Supplier	Batch Number	Exp Date	Aliquot from Stock (mL)	Final Volume	Solvent	Ferrous Iron Concentration
CCB	J.T.Baker	0000184592	06/14/19	0	25mL	Deionized water	0mg/L
Ical 1	J.T.Baker	0000184592	06/14/19	0.125	25mL	Deionized water	1mg/L
Ical 2	J.T.Baker	0000184592	06/14/19	0.25	25mL	Deionized water	2mg/L
Ical 3	J.T.Baker	0000184592	06/14/19	0.5	25mL	Deionized water	4mg/L
Ical 4	J.T.Baker	0000184592	06/14/19	0.625	25mL	Deionized water	5mg/L
Ical 5	J.T.Baker	0000184592	06/14/19	1.25	25mL	Deionized water	10mg/L
ICV	Mallinckrodt	Lot 5056 KDRX	06/14/19	0.375	25mL	Deionized water	3mg/L

Reagent Prep

Reagent	Chemical Lot #	Chemical	Chemical Expiration Date	Amount	Date Prep
Colorizer	0747C107	1,10-phenanthroline	na	1.00g 1L DI	10/24/19
		10% HCL conc	na	enough to dissolve	01/15/19
Buffer	Z28B018	Ammonia Acetate	na	248.2G	09/26/19
	2018071399	Glacial Acetic Acid	06/27/20	700mL	

Nitrite

High Point @ 1.5 mg/L
0.2463 mL NO2 Inorganic Ventures lot N2-NOX672889-40759 exp: 05/01/20
50 mL DI Water

CCV @ 0.75 mg/L
0.1232 mL NO2 Inorganic Ventures lot N2-NOX672889-40759 exp: 05/01/20
50 mL DI Water

ICV/LCS @ 0.73 mg/L
0.120 mL NO2 Inorganic Ventures lot M2-NOX660562-40468 exp: 08/25/21
50 mL DI Water

1 mg/L NO2
400 uL of High point and 200 uL of DI made directly into a sample cup

Prep 10/25/19
Exp 11/01/19
EV

Nitrate/TOXN

High Point @ 6 mg/L
0.300 mL NO3 O2Si lot 880117-4-39577 exp: 2/21/20
50 mL DI Water

CCV @ 3.0 mg/L
0.150 mL NO3 O2Si lot 880117-4-39577 exp: 2/21/20
50 mL DI Water

ICV/LCS @ 3.0 mg/L
0.150 mL NO3 Inorganic Ventures lot P2-NOX675324-49391 exp: 02/14/23
50 mL DI Water

1 mg/L NO3
100 uL of High point and 500 uLof DI made directly into a sample cup

MS @ 0.73 mg/L NO2 and 2.5 mg/L NO3
0.120 mL NO2 Inorganic Ventures lot M2-NOX660562-40468 exp: 08/25/21and
0.125 mL NO3 Inorganic Ventures lot P2-NOX675324-49391 exp: 02/14/23
Final volume 50 mL of sample

Prep 10/25/19
Exp 11/01/19
EV

Tiamo Alkalinity Standard Prep

Prep Date:

Exp Date:

Prep'd By (Initials): AR

Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Unit	Conc	Lot Number - QA Number	Prep/Opened	Exp. Date	Aliquot from Stock	Final Volume	Solvent	Final Standard Conc
Sulfuric Acid (H2SO4)	J.T.Baker	NA	NA	167828	NA	NA	PURCHASED	NA	NA	NA
0.10N Sulfuric Acid (H2SO4)	J.T.Baker	Normality	0.1N	167828	05/24/19	05/24/20	3ml	1L	DI	0.10N
0.02N Sulfuric Acid (H2SO4)	J.T.Baker	Normality	0.02N	167828	05/24/19	05/24/20	200mL	1L	DI	0.02N
Inorganic Spike(NaHCO3)	BDH	NA	NA	1575C510	10/18/18	08/14/20	PURCHASED	NA	NA	NA
Inorganic Spike Solution	BDH	Milligrams/Liters	250mg/L	1575C510	09/17/19	03/17/20	3.5g	500mL	DI	250mg/L
Standarizing Solution(NaCO3)	J.T.Baker	Normality	1N	178494	07/25/17	07/25/19	PURCHASED	NA	NA	NA

Name of Final Standard TOC Calibration Curve — **Prep'd By (Initials)** AR

Prep Date 06/11/19

Exp Date 07/09/19

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from contianer Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
Total Organic Carbon (TOC) Standard	Agilent	IQC-1 06-5	1000 mg/L	CS-5157-40233	11/30/20	20 uL	40 mL	DI Water	0.5 ppm
Total Organic Carbon (TOC) Standard	Agilent	IQC-1 06-5	1000 mg/L	CS-5157-40233	11/30/20	50 uL	40 mL	DI Water	1.25 ppm
Total Organic Carbon (TOC) Standard	Agilent	IQC-1 06-5	1000 mg/L	CS-5157-40233	11/30/20	100 uL	40 mL	DI Water	2.5 ppm
Total Organic Carbon (TOC) Standard	Agilent	IQC-1 06-5	1000 mg/L	CS-5157-40233	11/30/20	150 uL	40 mL	DI Water	3.75 ppm
Total Organic Carbon (TOC) Standard	Agilent	IQC-1 06-5	1000 mg/L	CS-5157-40233	11/30/20	200 uL	40 mL	DI Water	5 ppm

Name of Final Standard ICV (TOC) — **Prep'd By (Initials)** AR

Prep Date 06/11/19

Exp Date 07/09/19

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from contianer Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
1000 PPM ICV TOC Intermediate	APPL Inc.	Prep: 2/11/19	1000 mg/L	Prep: 2/11/19	07/09/19	100 uL	40mL	DI Water	2.5 ppm

Name of Final Standard CCV (TOC) — **Prep'd By (Initials)** AR

Prep Date See Data

Exp Date 1 year

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from contianer Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
Total Organic Carbon (TOC) Standard	Agilent	IQC-1 06-5	1000 mg/L	CS-5157-40233	11/30/20	100 uL	40 mL	DI Water	2.5 ppm

Name of Final Standard TOC_LCS/LCSD — **Prep'd By (Initials)** AR

Prep Date See Data

Exp Date 1 year

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from contianer Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
Total Organic Carbon (TOC) Standard	ULTRA Scientific	IQC-106-5	1000 mg/L	CR-0328-37639	02/28/19	100 uL	40 mL	DI Water	2.5 ppm

Name of Final Standard TOC_MS/MSD — **Prep'd By (Initials)** AR

Prep Date See Data

Exp Date 1 year

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from contianer Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
Total Organic Carbon (TOC) Standard	ULTRA Scientific	IQC-106-5	1000 mg/L	CR-0328-37639	02/28/19	100 uL	40 mL	sample	2.5 ppm

EPA 353.2 Injection Log

Directory: I:\EVE\Export\2019\

RunID	Injected		Sample Name	Misc Info	FileName	Multiplier
1	01 Nov 2019	16:05	Standard 1 TOXN/NO3		191101A TO	1.
2	01 Nov 2019	16:07	Standard 90 TOXN/NO3		191101A TO	1.
3	01 Nov 2019	16:09	Standard 91 TOXN/NO3		191101A TO	1.
4	01 Nov 2019	16:11	Standard 92 TOXN/NO3		191101A TO	1.
5	01 Nov 2019	16:13	Standard 93 TOXN/NO3		191101A TO	1.
6	01 Nov 2019	16:15	Standard 94 TOXN/NO3		191101A TO	1.
7	01 Nov 2019	16:18	Standard 0 TOXN/NO3		191101A TO	1.
10	01 Nov 2019	16:24	ICV TOXN		191101A TO	1.
11	01 Nov 2019	16:26	ICB TOXN		191101A TO	1.
12	01 Nov 2019	16:29	191101A BLK TOXN/NO3		191101A TO	1.
13	01 Nov 2019	16:31	191101A LCS TOXN/NO3		191101A TO	1.
14	01 Nov 2019	16:33	191101A LCSD TOXN/NO3		191101A TO	1.
20	01 Nov 2019	16:41	CCV TOXN/NO3		191101A TO	1.
21	01 Nov 2019	16:42	CCB TOXN/NO3		191101A TO	1.
22	01 Nov 2019	16:43	BA02214W15 TOXN/NO3		191101A TO	1.
23	01 Nov 2019	16:44	BA02216W08 TOXN/NO3		191101A TO	1.
24	01 Nov 2019	16:45	CCV TOXN/NO3		191101A TO	1.
25	01 Nov 2019	16:46	CCB TOXN/NO3		191101A TO	1.

908 North Temperance Ave. ∇ Clovis, CA 93611 ∇ Phone 559-275-2175 ∇ Fax 559-275-4422

Certification Number: CA1312
NELAP Certification number: CA00046
DoD-ELAP Certificate number: 4064.01

Data Validatable Report

December 4, 2019

AECOM
1001 Bishop Street, Suite 1600
Honolulu, Hawaii 96813

Attn: Margie Pascua

Title: Report of Data: Case 90625

Project: 60571032 CV18F0126 Red Hill Fuel Storage. HI

Contract #: Prime contract # for DoD: NAVY CLEAN N62742-17-F-1800, CV18F0126
Subcontract: 18S-22209-HI27

Dear Ms. Pascua:

Two water samples were received November 01, 2019. Written results for the requested analyses are being provided on this December 4, 2019.

Results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

If you have any questions or require further information, please contact your APPL Project Manager, Libby Cheeseborough, libby@applinc.com, at your convenience. Thank you for choosing APPL, Inc.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. These test results meet all requirements of NELAC and DoD QSM. Release of the hard copy has been authorized by the Laboratory Manager or her designee, as verified by the following signature.

Paula McCartney

Paula McCartney, Laboratory Director
APPL, Inc.

PM/lac
Enclosure
cc: File

Data Validation Package
for
60481245 CIV 0053 Red Hill Fuel Storage
APPL SDG 90625
TABLE OF CONTENTS

LABORATORY NAME: *APPL, Inc.*

CASE NARRATIVE

Case Narrative

ARF: 90625

Project: 60571032 CV18F0126 Red Hill Fuel Storage. HI

Sample Receipt Information:

Two water samples were received November 01, 2019, at 2.4°C. The sample group was assigned Analytical Request Form (ARF) number 90625.

Sample Preparation and Analysis Information:

For the EPA 8011 analysis, the samples were extracted according to APPL SOP method MWE012.

For the EPA 8015B analysis, the sample was extracted according to EPA method 3520C. The sample extracts were silica gel cleaned according to APPL's SOP CLN004 and placed on hold.

For the EPA 8270D SIM analysis, the sample was extracted according to EPA method 3520C.

For the EPA 8270D Phenol analysis, the sample was extracted according to EPA method 3520C.

For the APPL SOP ANA2MEE analysis, the sample was extracted according to EPA method 3535.

For the EPA 8260B analysis, the samples were purged according to EPA method 5030B.

For the RSK-175 analysis, the samples were allowed to equilibrate for 10 minutes at 40°C and a portion of the headspace was analyzed.

For the EPA 6010C analysis, the sample was digested according to EPA method 3010A.

For the EPA 9060A, 300.0, 353.2, SM 2320B, SM 4500-SiD and SM 3500FeB analyses, the sample was prepared according to the methods.

Only the portion of the injection log relative to these samples is included. A full sequence log is available upon request. Measurement uncertainty can be reported upon request.

Analytical Exceptions, Deviations and Abnormalities.

EPA 8011:

EPA 8015B: Manual integrations were performed in accordance with APPL's SOP. Chromatograms of before and after manual integration are enclosed.

APPL SOP ANA2MEE: : In the 191106A LCS, 2MEE recovered above the 130% higher control limit. Corrective action: No target compound was detected in the sample.

One RPD exceeded the 20% limit.

Inorganics: The EPA 9060A method requires the instrument to acquire data in quadruplicate. The opening CCV and CCB were inadvertently analyzed in duplicate, rather than quadruplicate. The subsequent samples and CCV, CCB's were all analyzed in quadruplicate,

in accordance with the method. Corrective Action: None. The recovery of the opening CCV was acceptable in duplicate "mode". There was limited sample remaining for re-analysis. The client was notified. In the SM 2320B method blank, Bicarbonate and Total Alkalinity were detected above one-half the LOQ. Corrective action: None, the concentrations of Bicarbonate and Total Alkalinity in the samples exceeds the blank concentration by ten-fold or more. In the SM 846 9060A method blank, two analytes were detected at concentrations less than one-half the LOQ: Total Organic Carbon. Corrective action None, the concentrations of Bicarbonate and Total Alkalinity in the samples exceeds the blank concentration by ten-fold or more. The SM 3500 FeB method sampled were analyzed 2 days out of hold time. The client was notified.

SDG	Received	Client ID	APPL ID	Collected DateTime	Matrix	Method	Method Description	Prep DateTime	Analysis DateTime
90625	11/1/2019	ERH960	BA02300	10/31/2019 8:00:00 AM	WATER	8011	EPA 8011	11/6/2019 2:25:00 PM	11/8/2019 8:13:00 PM
90625	11/1/2019	ERH960	BA02300	10/31/2019 8:00:00 AM	WATER	EPA 8260B	EPA 8260B BTEX & 1,2-DCA WATER	11/14/2019 9:34:00 AM	11/14/2019 9:34:00 AM
90625	11/1/2019	ERH960	BA02300	10/31/2019 8:00:00 AM	WATER	EPA 8260-GAS	EPA 8260 with GAS		
90625	11/1/2019	ERH960	BA02300	10/31/2019 8:00:00 AM	WATER	EPA 8260B	EPA 8260B GRO WATER	11/14/2019 9:34:00 AM	11/14/2019 9:34:00 AM
90625	11/1/2019	ERH960	BA02300	10/31/2019 8:00:00 AM	WATER	RSK 175	METHANE BY RSK 175	11/5/2019 5:29:00 PM	11/5/2019 5:29:00 PM
90625	11/1/2019	ERH961	BA02301	10/31/2019 9:00:00 AM	WATER	SM 2320B	Wetlab 2320B - Water	11/6/2019 7:42:00 PM	11/6/2019 7:42:00 PM
90625	11/1/2019	ERH961	BA02301	10/31/2019 9:00:00 AM	WATER	EPA 300.0	Wetlab 300.0 - Water	11/2/2019 12:02:59 PM	11/2/2019 12:02:59 PM
90625	11/1/2019	ERH961	BA02301	10/31/2019 9:00:00 AM	WATER	EPA 300.0	Wetlab 300.0 - Water	11/6/2019 12:38:19 AM	11/6/2019 12:38:19 AM
90625	11/1/2019	ERH961	BA02301	10/31/2019 9:00:00 AM	WATER	SM3500FeB	Ferrous Iron	11/4/2019 10:28:00 PM	11/4/2019 10:28:00 PM
90625	11/1/2019	ERH961	BA02301	10/31/2019 9:00:00 AM	WATER	EPA 353.2	EPA 353.2 - WATER	11/6/2019 5:12:00 PM	11/6/2019 5:12:00 PM
90625	11/1/2019	ERH961	BA02301	10/31/2019 9:00:00 AM	WATER	6010C/3010A	EPA 6010C TOTAL	11/5/2019 8:27:00 AM	11/7/2019 8:17:57 PM
90625	11/1/2019	ERH961	BA02301	10/31/2019 9:00:00 AM	WATER	8011	EPA 8011	11/6/2019 2:25:00 PM	11/8/2019 8:33:00 PM
90625	11/1/2019	ERH961	BA02301	10/31/2019 9:00:00 AM	WATER	EPA 8260B	EPA 8260B BTEX & 1,2-DCA WATER	11/14/2019 1:21:00 PM	11/14/2019 1:21:00 PM
90625	11/1/2019	ERH961	BA02301	10/31/2019 9:00:00 AM	WATER	EPA 8270D	EPA 8270D WATER	11/4/2019 1:35:00 PM	11/27/2019 1:01:00 AM
90625	11/1/2019	ERH961	BA02301	10/31/2019 9:00:00 AM	WATER	EPA 8270D	EPA 8270D MODIFIED WATER	11/6/2019 6:25:00 AM	11/8/2019 8:07:00 PM
90625	11/1/2019	ERH961	BA02301	10/31/2019 9:00:00 AM	WATER	EPA 300.0	Wetlab 300.0 - Water		
90625	11/1/2019	ERH961	BA02301	10/31/2019 9:00:00 AM	WATER	SM3500FeB	Ferrous Iron		
90625	11/1/2019	ERH961	BA02301	10/31/2019 9:00:00 AM	WATER	EPA 353.2	EPA 353.2 - WATER		
90625	11/1/2019	ERH961	BA02301	10/31/2019 9:00:00 AM	WATER	6010C/3010A	EPA 6010C TOTAL		
90625	11/1/2019	ERH961	BA02301	10/31/2019 9:00:00 AM	WATER	EPA 300.0	Wetlab 300.0 - Water		
90625	11/1/2019	ERH961	BA02301	10/31/2019 9:00:00 AM	WATER	SM3500FeB	Ferrous Iron		
90625	11/1/2019	ERH961	BA02301	10/31/2019 9:00:00 AM	WATER	EPA 353.2	EPA 353.2 - WATER		
90625	11/1/2019	ERH961	BA02301	10/31/2019 9:00:00 AM	WATER	6010C/3010A	EPA 6010C TOTAL		
90625	11/1/2019	ERH961	BA02301	10/31/2019 9:00:00 AM	WATER	EPA 8015B-eLL	EPA 8015B TPH LIQ-LIQ	11/4/2019 1:40:00 PM	11/15/2019 12:35:00 AM
90625	11/1/2019	ERH961	BA02301	10/31/2019 9:00:00 AM	WATER	SW846 9060A	9060A DOC	11/5/2019 3:44:00 PM	11/6/2019 6:26:00 AM
90625	11/1/2019	ERH961	BA02301	10/31/2019 9:00:00 AM	WATER	EPA 8260-GAS	EPA 8260 with GAS		
90625	11/1/2019	ERH961	BA02301	10/31/2019 9:00:00 AM	WATER	EPA 8260B	EPA 8260B GRO WATER	11/14/2019 1:21:00 PM	11/14/2019 1:21:00 PM
90625	11/1/2019	ERH961	BA02301	10/31/2019 9:00:00 AM	WATER	RSK 175	METHANE BY RSK 175	11/5/2019 5:32:00 PM	11/5/2019 5:32:00 PM
90625	11/1/2019	ERH961	BA02301	10/31/2019 9:00:00 AM	WATER	8270D-SIM	EPA 8270D SIM LIQ-LIQ	11/4/2019 1:35:00 PM	11/12/2019 1:01:00 PM
90625	11/1/2019	ERH961	BA02301	10/31/2019 9:00:00 AM	WATER	SM 4500-Si D	Silica W	11/6/2019 9:25:00 PM	11/6/2019 9:25:00 PM
90625	11/1/2019	ERH961	BA02301	10/31/2019 9:00:00 AM	WATER	SM 4500-Si D	SILICA W - DISSOLVED	11/6/2019 9:29:00 PM	11/6/2019 9:29:00 PM
90625	11/1/2019	ERH961	BA02301	10/31/2019 9:00:00 AM	WATER	SW846 9060A	9060A TOC	11/10/2019 5:57:00 PM	11/11/2019 5:58:00 AM

APPL Inc.
Abbreviations and Flags

FLAG	DESCRIPTION
#	Recovery or RPD outside control limits
*	Recovery or RPD outside control limits
B	Analyte detected in associated method blank
C1	Reason for correction: wrote incorrect response
C2	Reason for correction: calculated incorrectly
C3	Reason for correction: needs to be rechecked
C4	Reason for correction: data not usable
DO	Diluted out
E	Exceeds linear range
F	Estimated value
G1	Includes a wide range of hydrocarbons which does not match our gasoline standard
G10	Includes a match to hydrocarbon profiles within the range of mineral spirits
G11	Includes a match to hydrocarbon profiles within the range of JP-4
G12	Pattern does not match the gasoline standard; the carbon range for this sample is consistent with JP8
G13	Closely resembles the hydrocarbon profile of aviation gasoline
G14	Analyte concentration may be biased due to carry over
G2	Closely resembles the boiling point hydrocarbon profile consistent with weathered gasoline
G3	Includes higher boiling hydrocarbons
G4	Includes dominant peak(s) not indicative of petroleum hydrocarbons
G5	Is mainly dominant peak(s) not indicative of petroleum hydrocarbons
G6	Contains recognizable contaminant peak(s) which has been removed from quantitation
G7	Is mainly a match to hydrocarbons within the range of gasoline
G8	Closely resembles the boiling point hydrocarbon profile consistent with weathered gasoline
G9	Includes hydrocarbons within the range of kerosene
J	Estimated value
M	Matrix effect
MI1	Manual integration: integration does not follow baseline
MI2	Manual integration: non-target peak interference
MI3	Manual integration: to split a peak that was integrated as one peak by the computer.
MI4	Manual integration: to integrate a split peak
MI5	Manual integration: the whole peak or part of the peak was not integrated
MI6	Manual integration: computer integrated wrong peak
MI7	Manual integration: other – (See case narrative)
MDL	Method detection limit
ND	Not detected
NT	Non-target
Q	Acceptance criteria not met
T1 I	Includes wide range of hydrocarbons not indicative of diesel
T1 M	Is mainly wide range of hydrocarbons not necessarily indicative of diesel
T2 I	Includes lower boiling hydrocarbons, e.g. mineral spirits, kerosene, stoddard solvent, white gas
T2 M	Is mainly lower boiling hydrocarbons, e.g. mineral spirits, kerosene, stoddard solvent, white gas
T3 I	Includes higher boiling hydrocarbons, e.g. asphaltene, waste oil, motor oil, or weathered diesel fuel
T3 M	Is mainly higher boiling hydrocarbons, e.g. asphaltene, waste oil, motor oil, or weathered diesel fuel
T4 I	Includes dominant peak(s) not indicative of hydrocarbons
T4 M	Is mainly dominant peak(s) not indicative of hydrocarbons
T5	Contains recognizable contaminant peak(s) which has been removed from quantitation
T6	Is mainly a match to hydrocarbons within range of diesel fuel
T7	Closely resembles the boiling point hydrocarbon profile consistent with diesel fuel
T8	Includes a match to hydrocarbon profiles within range of diesel and kerosene fuel
T9 I	Includes non-diesel hydrocarbons within boiling point range of diesel fuel
T9 M	Is mainly non-diesel hydrocarbons within boiling point range of diesel fuel
U	Not detected
Y	Percent difference between primary and confirmation column > 40%

SAMPLE RECORDS MANAGEMENT

CHAIN OF CUSTODY,

ARF, CRF, AND

CLIENT COMMUNICATION

APPL - Analysis Request Form 90625

Client: AECOM
Address: 1001 Bishop Street, Suite 1600
Honolulu, HI 96813
Attn: Margie Pascua
Phone: 808-356-5373 Fax: 808-523-8950
Job: 60571032 CV18F0126 Red Hill Fuel Storage
PO #: 18S-22209-HI27 PO# 102604
Chain of Custody (Y/N): Y # 121
RAD Screen (Y/N): Y pH (Y/N): Y
Turn Around Type: 1 WEEK

Received by: MDA
Date Received: 11/01/19 Time: 10:00
Delivered by: FEDEX
Shuttle Custody Seals (Y/N): Y Time Zone: -10
Chest Temp(s): 2.4°C
Color: VFRG/H-PurGn/SF-BlkR
Samples Chilled until Placed in Refrig/Freezer: Y
Project Manager: Libby Cheesebor
QC Report Type: DVP4DOD/EQUIS/HI
Due Date:

Comments:
PM: login and F1s to Margie.Pascua@aecom.com
AN: 7 day TAT for Form 1s; 21 day TAT for PKG STYLE 1; DOD v5.1; DOD Forms: LOD database
Wetlab: Nitrate by EPA 300 and 353.2
8270 SIM: 1-methylnaphthalene, 2-methylnaphthalene & naphthalene only.
TPH D & O both with and w/o SGC, reverse surrogate for the SGC; analyze SGC if detections
RSK: Methane only; 8011: EDB only; $87DC53W5: report phenol ONLY
FR: 2 labeled CDs to Margie AFTER validation; email ftp info to Margie, Stella, trommelfanger@lab-data
EDD: AECOM EQuIS EDD 2.5.3 Red Hill 87DMEE->3535A to Margie.Pascua@aecom.com & jecklund@lab-data.com

Sample Distribution:
GC: 2-$8011, 1-$87DC53W5, 1-$87DMEEW5, 1-$DOC53W5LIQ, 1-$SIM53LIQ51
Extractions: 2- MWE012, 1- LIQ003, 1- LIQ005, 1- MWE2MEE
VOA: 2-$86BTOTXDCAW, 2-$GASBL, 2-$GRO86BW, 2-$RSKMETH
Metals: 1-$61CDOD5W(Ca,Mg,Mn,K,Na)
Wetlab: 1-$232W(HCO3,CO3,ALK), 1-$300W(NO3,BR,CL,F,SO4), 1-$35FE, 1-$35OF, 1-$DOCW53, 1-$SIO2, 1-$SIO2D, 1-$TOCW53
Other: 1- M3010

Charges:

Invoice To:
ACCOUNTS PAYABLE
1001 Bishop Street, Ste 1600
USAPImaging@aecom.com
mary.basano@aecom.com

	Client ID	APPL ID	Sampled	Analyses Requested
1.	ERH960	BA02300W LCSD	10/31/19 08:00	$8011, $86BTOTXDCAW, $GASBL, $GRO86BW, $RSKMETH -- see comments
2.	ERH961	BA02301W LCSD	10/31/19 09:00	$232W(HCO3,CO3,ALK), $300W(NO3,BR,CL,F,SO4), $35FE, $35OF, $61CDOD5W(Ca,Mg,Mn,K,Na), $8011, $86BTOTXDCAW, $87DC53W5, $87DMEEW5, $DOC53W5LIQ, $DOCW53, $GASBL, $GRO86BW, $RSKMETH, $SIM53LIQ51, $SIO2, $SIO2D, $TOCW53 -- see comments

Note: All times, excluding sample collection times, are Pacific Time Zone unless noted otherwise. Collection times are in: -10 UTC

APPL Sample Receipt Form

ARF# **90625**

Sample	Container Type	Count	p
BA02300	[13] VOAs - HCL	4	NA
	[15] VOAs - NP	3	NA
BA02301	[3] PL 250mL	3	NA
	[6] PL 500mL - HNO3	1	1.7
	[10] PL 250mL - H2SO4	1	1.7
	[13] VOAs - HCL	4	NA
	[15] VOAs - NP	3	NA
	[17] Amber Liter	4	NA
	[32] Clear VOA - H2SO4	4	NA
	[38] 250mL brn poly, HCl prsvd	1	1.7
	[40] 500mL Amber, unprsrvd	3	NA

Sample	Container Type	Count	p

90625

APPL, Inc.
908 N Temperance Ave
Clovis, CA 93611
www.applinc.com
Phone: (559) 275-2175
Fax: (559) 275-4422
coc@applinc.com

CHAIN OF CUSTODY RECORD

C.O.C. 121

Report to: PLEASE PRINT	Invoice to: PLEASE PRINT
Company Name: AECOM Phone: 808-356-5373	Company Name: AECOM Phone: 808-529-7249
Address: 1001 Bishop St, Suite 1600 Honolulu, HI 96813 Fax: 808-523-8950	Address: 1001 Bishop St, Suite 1600 Honolulu, HI 96813 Fax: 808-523-8950
Attn: Margie Pascua	Attn: Mary Basano
Email: margie.pascua@aecom.com	Email: mary.basano@aecom.com; usapimaging@aecom.com

Project Name/Number	Sampler (Print)
CV18F0126 / 60571032	GM, BM, TV
Purchase Order Number	**Sampler (Signature)**
102604	MF for GM, BM, TV

Date Shipped:
Carrier: FedEx
Waybill No.:
Comments:

Sample Identification	Location	Date Collected	Time Collected	Time Zone	No. of Containers	Matrix: Aq	Matrix: Sed.	Matrix: Soil	8260C BTEX,TPH-g	8260C DCA 8011 EDB	8015C TPH-d/o	3630/8015C TPH-d/o w/ SGT	8270DSIM PAHs short list	8270D Phenol, TICs (MF 10)	8270D 2-(2-methoxy ethoxy)-ethanol	RSK175M Methane	SM3500-Fe Ferrous Iron	353.2 Nitrate-Nitrite N	SM2320B Alkalinity 300.0 Nitrate,Sulfate,Chloride	300.0 Bromide/Fluoride 6010 Total Ca,Mg,Mn,K,Na SM4500 Total & Dissolved Silica	9060A TOC	4463 TDC
ERH960	Trip Blank	10/31/19	08:00	HST	7	X			X	X						X						
ERH961	RHMW15-04	10/31/19	09:00	HST	24	X			X	X	X	X*	X	X	X	X	X	X	X	X	X	X

EB 10/31/19

*Analyze TPH w/SGT only if TPH-d/o detected.

TPH-d/o & PAHs need liquid-liquid extraction.

Shuttle Temperature:	Turnaround Requested: Check one	Sample Disposal:
Ri: 2.0 / 2.4 °C	☐ Standard 2-3 wk ☒ One week ☐ 3 days ☐ 24/48 Hrs. ☐ Other:	☐ Return to client ☒ Disposal by Lab (30-day retention)

Relinquished by sampler: AECOM	Date	Time	Received by:	Relinquished by:	Date	Time	Received by:
Estelle Bonny	10/31/19	1340					
Relinquished by:	**Date**	**Time**	**Received by:**	**Relinquished by:**	**Date**	**Time**	**Received at lab by:**
					11-1-19	1000	Melody D Sta

See page 2 for Container Preservative and Sampling Information

COOLER RECEIPT FORM **ARF: 90625**

1) Project: 60571032 CV18F0126 Red Hill Fuel Storage Date Received: 11/01/19

2) Coolers: Number of Coolers: 1

3) YES Were custody seals present and intact?
How many? 1 Name/Date on seal? ~~Cut on arrival~~ See below 11/1/19

4) YES Was there a shipping slip? Carrier name: FEDEX

5) Type of packing in cooler: X bubble wrap __ popcorn __ foam X plastic bags __ other
X wet ice __ dry ice __ no ice __ gel ice

6) YES Were cooler temperatures acceptable?

7) Serial number of certified NIST thermometer use R1 CF: +0.4°C

8) Cooler temp(s): In °C. Thermometer Temp / Corrected Temp

1: 2.0/2.4	2:	3:	4:	5:	6:
7:	8:	9:	10:	11:	12:

Chain of custody:

9) YES Was a chain of custody received?

10) YES Were the custody papers complete/signed in the appropriate places?

Sample Labels:

11) YES Were all sample labels complete (sample ID, date/time of sampling, etc.)?

12) YES Did all container labels agree with custody papers?

Sample Containers:

13) YES Were all containers sealed in separate bags?

14) YES Did all containers arrive in good condition:(unbroken, no leakage, no cracked/broken lids)?

15) YES Were correct containers and preservatives used for the tests indicated?

16) YES Was a sufficient amount of sample sent for tests indicated?

17) NA Were bubbles present in volatile samples?
If yes, the following were received with air bubbles:
Larger than a pea:
Smaller than a pea:

Preservation Hold time:

18) Yes Was a sufficient amount of holding time remaining to analyze the samples?

19) Yes Was the pH taken of all non-VOA preserved samples and written on the sample container?

20) Yes Was the pH of acid preserved non-VOA samples < 2?

21) NA Was the pH of sodium hydroxide preserved samples for Cyanide > 12 and Sulfide >9?

22) NO Were unpreserved VOA Vials received?

23) NA Are unpreserved VOA vials noted in the ADD TEST FIELD on the ARF?
pH strip lot number: 90b2031
Lab notified if pH was not adequate:

Notes/Deficiencies:

CUSTODY SEAL
AECOM (808) 521-3051
Initials: EB Date: 10/31/19

Personnel receiving samples: MD Second reviewer: AA
Personnel labeling samples: AD
Project manager notified: MD Date/Time of notification 11/1/19
Name of client notified: Date/Time of notification

Revision: 22, November 5, 2013

SAMPLE RESULTS

EPA 8011

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 90625

Sample ID: ERH960

APPL ID: BA02300

Sample Collection Date: 10/31/19

QCG: #8011-191106A-247039

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
8011	EDB	0.019 U	0.02	0.019	0.010	ug/L	11/06/19	11/08/19
8011	SURROGATE: 1,3-DIBROMOPROPANE	107	70-132			%	11/06/19	11/08/19

Quant Method: 8011106A.M
Run #: 1025134
Instrument: Herbie
Sequence: 191025
Dilution Factor: 1
Initials: GAG

Printed: 11/19/19 4:44:00 PM

APPL-F1-SC-NoMC-REG MDLs-DOD

EPA 8011

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

Attn: Margie Pascua
Project: 60571032 CV18F0126 Red Hill Fuel Storage
Sample ID: ERH961
Sample Collection Date: 10/31/19

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

ARF: 90625
APPL ID: BA02301
QCG: #8011-191106A-247039

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
8011	EDB	0.019 U	0.02	0.019	0.010	ug/L	11/06/19	11/08/19
8011	SURROGATE: 1,3-DIBROMOPROPANE	109	70-132			%	11/06/19	11/08/19

Quant Method: 8011106A.M
Run #: 1025135
Instrument: Herbie
Sequence: 191025
Dilution Factor: 1
Initials: GAG

Printed: 11/19/19 4:44:00 PM
APPL-F1-SC-NoMC-REG MDLs-DOD

EPA 8015B TPH LIQ-LIQ

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 90625

Sample ID: ERH961

APPL ID: BA02301

Sample Collection Date: 10/31/19

QCG: #DOC53-191104A-247204

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8015B-eL	DIESEL (C10-C24)	25.00 U	40.0	25.00	13.07	ug/L	11/04/19	11/15/19
EPA 8015B-eL	OIL (C24-C40)	40.00 U	40.0	40.00	5.54	ug/L	11/04/19	11/15/19
EPA 8015B-eL	SURROGATE: OCTACOSANE (S)	97.8	60-142			%	11/04/19	11/15/19
EPA 8015B-eL	SURROGATE: ORTHO-TERPHENYL (S)	100	56-125			%	11/04/19	11/15/19

Quant Method: DOC1114.M
Run #: 1114018
Instrument: Apollo
Sequence: 191114
Dilution Factor: 1
Initials: LPO

Printed: 11/16/19 5:44:38 AM
APPL-F1-SC-NoMC-REG MDLs-DOD

EPA 8270D SIM LIQ-LIQ

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

Sample ID: ERH961

Sample Collection Date: 10/31/19

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

ARF: 90625

APPL ID: BA02301

QCG: #SIM53-191104A-247109

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
8270D-SIM	1-METHYLNAPHTHALENE	0.10 U	0.2	0.10	0.04	ug/L	11/04/19	11/12/19
8270D-SIM	2-METHYLNAPHTHALENE	0.10 U	0.2	0.10	0.04	ug/L	11/04/19	11/12/19
8270D-SIM	NAPHTHALENE	0.10 U	0.2	0.10	0.04	ug/L	11/04/19	11/12/19
8270D-SIM	SURROGATE: 2-METHYLNAPHTHALEN	92.3	39-114			%	11/04/19	11/12/19
8270D-SIM	SURROGATE: FLUORANTHENE-D10 (S	105	58-120			%	11/04/19	11/12/19

Quant Method: L1028.M
Run #: 1028L267
Instrument: Linus
Sequence: L191028
Dilution Factor: 1
Initials: MA

Printed: 12/03/19 6:01:38 PM

APPL-F1-SC-NoMC-REG MDLs-DOD

EPA 8270D WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 90625

Sample ID: ERH961

APPL ID: BA02301

Sample Collection Date: 10/31/19

QCG: #87DC5-191104A-247478

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8270D	PHENOL	4.00 U	5.0	4.00	1.00	ug/L	11/04/19	11/27/19
EPA 8270D	SURROGATE: 2,4,6-TRIBROMOPHENO	91.1	43-140			%	11/04/19	11/27/19
EPA 8270D	SURROGATE: 2-FLUORBIPHENYL (S)	89.7	44-119			%	11/04/19	11/27/19
EPA 8270D	SURROGATE: 2-FLUOROPHENOL (S)	87.8	19-119			%	11/04/19	11/27/19
EPA 8270D	SURROGATE: NITROBENZENE-D5 (S)	104	44-120			%	11/04/19	11/27/19
EPA 8270D	SURROGATE: PHENOL-D6 (S)	95.3	10-115			%	11/04/19	11/27/19
EPA 8270D	SURROGATE: TERPHENYL-D14 (S)	95.7	50-134			%	11/04/19	11/27/19

Quant Method: Not detected.M
Run #: 1121Y163
Instrument: Yoda
Sequence: Y191121
Dilution Factor: 1
Initials: JPR

Printed: 12/03/19 12:18:34 PM
APPL-F1-SC-NoMC-REG MDLs-DOD

EPA 8270D MODIFIED WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

Sample ID: ERH961

Sample Collection Date: 10/31/19

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

ARF: 90625

APPL ID: BA02301

QCG: #87DME-191106A-247176

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8270D	2-(2-METHOXYETHOXY)-ETHANOL	80.0 U	100	80.0	40.0	ug/L	11/06/19	11/08/19

Quant Method: YMEE1030.M
Run #: 1030L058
Instrument: Linus
Sequence: L191030M
Dilution Factor: 1
Initials: MA

Printed: 11/15/19 1:03:51 PM
APPL-F1-SC-NoMC-REG MDLs-DOD

EPA 8260B BTEX & 1,2-DCA WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

Sample ID: ERH960

Sample Collection Date: 10/31/19

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

ARF: 90625

APPL ID: BA02300

QCG: #86BTO-191113AL-247162

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8260B	1,2-DICHLOROETHANE	0.30 U	1.0	0.30	0.14	ug/L	11/14/19	11/14/19
EPA 8260B	BENZENE	0.30 U	1.0	0.30	0.15	ug/L	11/14/19	11/14/19
EPA 8260B	ETHYLBENZENE	0.50 U	1.0	0.50	0.23	ug/L	11/14/19	11/14/19
EPA 8260B	TOLUENE	0.30 U	1.0	0.30	0.15	ug/L	11/14/19	11/14/19
EPA 8260B	XYLENES (TOTAL)	0.30 U	2.0	0.30	0.15	ug/L	11/14/19	11/14/19
EPA 8260B	SURROGATE: 1,2-DICHLOROETHANE-	98.7	81-118			%	11/14/19	11/14/19
EPA 8260B	SURROGATE: 4-BROMOFLUOROBENZ	91.0	85-114			%	11/14/19	11/14/19
EPA 8260B	SURROGATE: DIBROMOFLUOROMETH	103	80-119			%	11/14/19	11/14/19
EPA 8260B	SURROGATE: TOLUENE-D8 (S)	96.4	89-112			%	11/14/19	11/14/19

Quant Method: L1113W.M
Run #: 1113L40
Instrument: Loki
Sequence: 191113
Dilution Factor: 1
Initials: DPO

Printed: 11/15/19 10:13:24 AM
APPL-F1-SC-NoMC-REG MDLs-DOD

EPA 8260B BTEX & 1,2-DCA WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

Sample ID: ERH961

Sample Collection Date: 10/31/19

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

ARF: 90625

APPL ID: BA02301

QCG: #86BTO-191113AL-247162

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8260B	1,2-DICHLOROETHANE	0.30 U	1.0	0.30	0.14	ug/L	11/14/19	11/14/19
EPA 8260B	BENZENE	0.30 U	1.0	0.30	0.15	ug/L	11/14/19	11/14/19
EPA 8260B	ETHYLBENZENE	0.50 U	1.0	0.50	0.23	ug/L	11/14/19	11/14/19
EPA 8260B	TOLUENE	0.30 U	1.0	0.30	0.15	ug/L	11/14/19	11/14/19
EPA 8260B	XYLENES (TOTAL)	0.30 U	2.0	0.30	0.15	ug/L	11/14/19	11/14/19
EPA 8260B	SURROGATE: 1,2-DICHLOROETHANE-	97.3	81-118			%	11/14/19	11/14/19
EPA 8260B	SURROGATE: 4-BROMOFLUOROBENZ	94.9	85-114			%	11/14/19	11/14/19
EPA 8260B	SURROGATE: DIBROMOFLUOROMETH	99.9	80-119			%	11/14/19	11/14/19
EPA 8260B	SURROGATE: TOLUENE-D8 (S)	97.1	89-112			%	11/14/19	11/14/19

Quant Method: L1113W.M
Run #: 1113L48
Instrument: Loki
Sequence: 191113
Dilution Factor: 1
Initials: DPO

Printed: 11/15/19 10:13:24 AM
APPL-F1-SC-NoMC-REG MDLs-DOD

EPA 8260B GRO WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

Sample ID: ERH960

Sample Collection Date: 10/31/19

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

ARF: 90625

APPL ID: BA02300

QCG: #GRO86-191113AL-247166

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8260B	GASOLINE RANGE ORGANICS	18.0 U	20	18.0	8.6	ug/L	11/14/19	11/14/19
EPA 8260B	SURROGATE: 4-BROMOFLUOROBENZ	91.0	85-114			%	11/14/19	11/14/19

Quant Method: LGAS1113.M
Run #: 1113L40
Instrument: Loki
Sequence: 191113
Dilution Factor: 1
Initials: DPO

Printed: 11/15/19 10:44:13 AM
APPL-F1-SC-NoMC-REG MDLs-DOD

EPA 8260B GRO WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

Sample ID: ERH961

Sample Collection Date: 10/31/19

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

ARF: 90625

APPL ID: BA02301

QCG: #GRO86-191113AL-247166

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8260B	GASOLINE RANGE ORGANICS	18.0 U	20	18.0	8.6	ug/L	11/14/19	11/14/19
EPA 8260B	SURROGATE: 4-BROMOFLUOROBENZ	94.9	85-114			%	11/14/19	11/14/19

Quant Method: LGAS1113.M
Run #: 1113L48
Instrument: Loki
Sequence: 191113
Dilution Factor: 1
Initials: DPO

Printed: 11/15/19 10:44:13 AM
APPL-F1-SC-NoMC-REG MDLs-DOD

METHANE

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

Sample ID: ERH960

Sample Collection Date: 10/31/19

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

ARF: 90625

APPL ID: BA02300

QCG: #RSKME-191105A-246825

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
RSK 175	METHANE	1.00 U	5.0	1.00	0.25	ug/L	11/05/19	11/05/19

Quant Method:	RSK1002.M
Run #:	1105R25
Instrument:	Rocky
Sequence:	191002
Dilution Factor:	1
Initials:	GAG

Printed: 12/04/19 1:19:03 PM
APPL-F1-SC-NoMC-REG MDLs-DOD

METHANE

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

Sample ID: ERH961

Sample Collection Date: 10/31/19

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

ARF: 90625

APPL ID: BA02301

QCG: #RSKME-191105A-246825

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
RSK 175	METHANE	1.00 U	5.0	1.00	0.25	ug/L	11/05/19	11/05/19

Quant Method:	RSK1002.M
Run #:	1105R26
Instrument:	Rocky
Sequence:	191002
Dilution Factor:	1
Initials:	GAG

Printed: 12/04/19 1:19:03 PM
APPL-F1-SC-NoMC-REG MDLs-DOD

Metals Analysis

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua
Project: 60571032 CV18F0126 Red Hill Fuel Storage
Sample ID: ERH961
Sample Collection Date: 10/31/19

ARF: 90625
APPL ID: BA02301

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
6010C/3010A	CALCIUM (CA)	9490	1000	75.0	27.5	ug/L	1	11/05/19	11/07/19
6010C/3010A	MAGNESIUM (MG)	9990	500	30.0	12.9	ug/L	1	11/05/19	11/07/19
6010C/3010A	MANGANESE (MN)	11.6	10.0	4.00	1.23	ug/L	1	11/05/19	11/07/19
6010C/3010A	POTASSIUM (K)	1730 J	3000	500.0	220.0	ug/L	1	11/05/19	11/07/19
6010C/3010A	SODIUM (NA)	28300	5000	500.0	111.1	ug/L	1	11/05/19	11/07/19

J = Estimated value.

Printed: 11/21/19 1:38:53 PM
APPL-F1-SC-NoMC-REG MDLs

Wet Lab Analysis

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

Sample ID: ERH961

Sample Collection Date: 10/31/19

APPL ID: BA02301

ARF: 90625

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
EPA 300.0	CHLORIDE	58.4	2.0	0.40	0.16	mg/L	2	11/06/19	11/06/19
EPA 300.0	BROMIDE	0.17 J	0.5	0.16	0.05	mg/L	1	11/02/19	11/02/19
EPA 300.0	FLUORIDE	0.09 U	0.1	0.09	0.08	mg/L	1	11/02/19	11/02/19
EPA 300.0	NITRATE	1.6	0.5	0.18	0.04	mg/L	1	11/02/19	11/02/19
EPA 300.0	SULFATE	8.4	1.0	0.20	0.09	mg/L	1	11/02/19	11/02/19

J = Estimated value.

Printed: 12/04/19 2:43:16 PM

APPL-F1-SC-NoMC-REG MDLs

Wet Lab Analysis

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

Sample ID: ERH961

Sample Collection Date: 10/31/19

APPL ID: BA02301

ARF: 90625

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
EPA 353.2	NITRATE-NITRITE-N	0.37	0.10	0.090	0.028	mg/L	1	11/06/19	11/06/19
SM 2320B	BICARBONATE AS CACO3	53.1	2.0	1.70	0.85	mg/L	1	11/06/19	11/06/19
SM 2320B	CARBONATE AS CACO3	1.70 U	2.0	1.70	0.85	mg/L	1	11/06/19	11/06/19
SM 2320B	TOTAL ALKALINITY AS CACO	53.1	2.0	1.70	0.85	mg/L	1	11/06/19	11/06/19
SM 4500-Si D	SILICA W	46.2	5.0	4.00	2.65	mg/L	5	11/06/19	11/06/19
SM 4500-Si D	DISSOLVED SILICA	42.6	5.0	4.00	2.65	mg/L	5	11/06/19	11/06/19
SM3500FeB	FERROUS IRON	0.32 U	1.0	0.32	0.16	mg/L	1	11/04/19	11/04/19
SW846 9060A	DISSOLVED ORGANIC CARB	3.4	0.93	0.350	0.130	mg/L	1	11/05/19	11/06/19
SW846 9060A	TOTAL ORGANIC CARBON	13.5	0.93	0.350	0.130	mg/L	1	11/10/19	11/11/19

Printed: 12/04/19 3:55:17 PM

APPL-F1-SC-NoMC-REG MDLs

QC FORMS

8011

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 90625

Case No: 90625 Date Analyzed: 11/08/19

Matrix: WATER Instrument: Herbie

APPL ID.	Client Sample No.	SURROGATE: 1,3-DIBROMOPROPANE (S)					
		Limits	Result	Qualifier	Limits	Result	Qualifier
191106A-BLK	Blank	70-132	108				
191106A-LCS	Lab Control Spike	70-132	104				
191106A-LCSD	Lab Control SpikeD	70-132	102				
BA02300	ERH960	70-132	107				
BA02301	ERH961	70-132	109				

Comments: Batch: #8011-191106A

8011

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 90625

Case No: 90625 Date Analyzed: 11/08/19

Matrix: WATER Instrument: Herbie

Blank ID: 191106A-BLK Time Analyzed: 1831

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191106A-BLK	Blank	1025129	11/08/19 1831
191106A-LCS	Lab Control Spike	1025130	11/08/19 1851
191106A-LCSD	Lab Control SpikeD	1025131	11/08/19 1912
BA02300	ERH960	1025134	11/08/19 2013
BA02301	ERH961	1025135	11/08/19 2033

Comments: Batch: #8011-191106A

Method Blank
EPA 8011

Blank Name/QCG: **191106W-02213 - 247039**
Batch ID: #8011-191106A

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	EDB	0.019 U	0.02	0.019	0.010	ug/L	11/06/19	11/08/19
BLANK	SURROGATE: 1,3-DIBROMOPRO	108	70-132			%	11/06/19	11/08/19

Quant Method: 8011106A.M
Run #: 1025129
Instrument: Herbie
Sequence: 191025
Initials: GAG

GC SC-Blank-REG MDLs-DOD
Printed: 11/19/19 4:43:59 PM

8011

Form 4

LCS Summary

Lab Name: APPL, Inc. SDG No: 90625

Case No: 90625 Date Analyzed: 11/08/19

Matrix: WATER Instrument: Herbie

LCS ID: 191106A-LCS Time Analyzed: 1851

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191106A-BLK	Blank	1025129	11/08/19 1831
191106A-LCS	Lab Control Spike	1025130	11/08/19 1851
191106A-LCSD	Lab Control SpikeD	1025131	11/08/19 1912
BA02300	ERH960	1025134	11/08/19 2013
BA02301	ERH961	1025135	11/08/19 2033

Comments: Batch: #8011-191106A

Laboratory Control Spike Recoveries

EPA 8011

APPL ID: **191106W-02213 LCS - 247039**
Batch ID: #8011-191106A

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Lvl ug/L	SPK Result ug/L	DUP Result ug/L	SPK % Recovery	DUP % Recovery	Recovery Limits	RPD %	RPD Limits
EDB	0.250	0.248	0.248	99.2	99.2	60-140	0.0	25
SURROGATE: 1,3-DIBROMOPROPANE (	0.250	0.259	0.255	104	102	70-132		

Comments: _____

Primary	SPK	DUP
Quant Method :	8011106A.M	8011106A.M
Extraction Date :	11/06/19	11/06/19
Analysis Date :	11/08/19	11/08/19
Instrument :	Herbie	Herbie
Run :	1025130	1025131
Initials :	GAG	

Printed: 11/19/19 4:44:00 PM
APPL Standard LCSD

EPA 8015B-eLL

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 90625

Case No: 90625 Date Analyzed: 11/14/19

Matrix: WATER Instrument: Apollo

APPL ID.	Client Sample No.	SURROGATE: OCTACOSANE (S)			SURROGATE: ORTHO-TERPHENYL (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
191104A-BLK	Blank	60-142	105		56-125	113	
191104A-LCS	Lab Control Spike	60-142	72.0		56-125	105	
191104A-LCSD	Lab Control SpikeD	60-142	63.3		56-125	106	
BA02301	ERH961	60-142	97.8		56-125	100	

Comments: Batch: #DOC53-191104A

EPA 8015B-eL

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 90625

Case No: 90625 Date Analyzed: 11/14/19

Matrix: WATER Instrument: Apollo

Blank ID: 191104A-BLK Time Analyzed: 2159

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191104A-BLK	Blank	1114010	11/14/19 2159
191104A-LCS	Lab Control Spike	1114011	11/14/19 2218
191104A-LCSD	Lab Control SpikeD	1114012	11/14/19 2238
BA02301	ERH961	1114018	11/15/19 0035

Comments: Batch: #DOC53-191104A

Method Blank

EPA 8015B TPH LIQ-LIQ

Blank Name/QCG: **191104W-02090 - 247204**
Batch ID: #DOC53-191104A

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	DIESEL (C10-C24)	25.00 U	40.0	25.00	13.07	ug/L	11/04/19	11/14/19
BLANK	OIL (C24-C40)	40.00 U	40.0	40.00	5.54	ug/L	11/04/19	11/14/19
BLANK	SURROGATE: OCTACOSANE (S)	105	60-142			%	11/04/19	11/14/19
BLANK	SURROGATE: ORTHO-TERPHEN	113	56-125			%	11/04/19	11/14/19

Quant Method: DOC1114.M
Run #: 1114010
Instrument: Apollo
Sequence: 191114
Initials: LPO

GC SC-Blank-REG MDLs-DOD
Printed: 11/16/19 5:44:37 AM

EPA 8015B-eL

Form 4

LCS Summary

Lab Name: APPL, Inc. SDG No: 90625

Case No: 90625 Date Analyzed: 11/14/19

Matrix: WATER Instrument: Apollo

LCS ID: 191104A-LCS Time Analyzed: 2218

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191104A-BLK	Blank	1114010	11/14/19 2159
191104A-LCS	Lab Control Spike	1114011	11/14/19 2218
191104A-LCSD	Lab Control SpikeD	1114012	11/14/19 2238
BA02301	ERH961	1114018	11/15/19 0035

Comments: Batch: #DOC53-191104A

Printed: 11/16/19 5:44:40 AM
Form 4, LCS Summary

Laboratory Control Spike Recoveries

EPA 8015B TPH LIQ-LIQ

APPL ID: **191104W-02090 LCS - 247204**
Batch ID: #DOC53-191104A

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Lvl ug/L	SPK Result ug/L	DUP Result ug/L	SPK % Recovery	DUP % Recovery	Recovery Limits	RPD %	RPD Limits
DIESEL (C10-C24)	1250	1310	1330	105	106	36-132	1.5	30
OIL (C24-C40)	2500	2400	2390	96.0	95.6	41-113	0.42	30
SURROGATE: OCTACOSANE (S)	75.0	54.0	47.5	72.0	63.3	60-142		
SURROGATE: ORTHO-TERPHENYL (S)	75.0	78.4	79.4	105	106	56-125		

Comments:

Primary	SPK	DUP
Quant Method :	DOC1114.M	DOC1114.M
Extraction Date :	11/04/19	11/04/19
Analysis Date :	11/14/19	11/14/19
Instrument :	Apollo	Apollo
Run :	1114011	1114012
Initials :	LPO	

8270D-SIM

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 90625

Case No: 90625 Date Analyzed: 11/12/19

Matrix: WATER Instrument: Linus

APPL ID.	Client Sample No.	SURROGATE: 2-METHYLNAPHTHALENE-D10 (S)			SURROGATE: FLUORANTHENE-D10 (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
191104A-BLK	Blank	39-114	88.3		58-120	105	
191104A-LCS	Lab Control Spike	39-114	96.5		58-120	105	
191104A-LCSD	Lab Control SpikeD	39-114	88.2		58-120	103	
BA02301	ERH961	39-114	92.3		58-120	105	

Comments: Batch: #SIM53-191104A

8270D-SIM

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 90625

Case No: 90625 Date Analyzed: 11/12/19

Matrix: WATER Instrument: Linus

Blank ID: 191104A-BLK Time Analyzed: 1004

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191104A-BLK	Blank	1028L259	11/12/19 1004
191104A-LCS	Lab Control Spike	1028L260	11/12/19 1026
191104A-LCSD	Lab Control SpikeD	1028L261	11/12/19 1048
BA02301	ERH961	1028L267	11/12/19 1301

Comments: Batch: #SIM53-191104A

Printed: 12/03/19 6:02:03 PM
Form 4, Blank Summary

Method Blank
EPA 8270D SIM LIQ-LIQ

Blank Name/QCG: **191104W-02090 - 247109**
Batch ID: #SIM53-191104A

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	1-METHYLNAPHTHALENE	0.10 U	0.2	0.10	0.04	ug/L	11/04/19	11/12/19
BLANK	2-METHYLNAPHTHALENE	0.10 U	0.2	0.10	0.04	ug/L	11/04/19	11/12/19
BLANK	NAPHTHALENE	0.10 U	0.2	0.10	0.04	ug/L	11/04/19	11/12/19
BLANK	SURROGATE: 2-METHYLNAPHT	88.3	39-114			%	11/04/19	11/12/19
BLANK	SURROGATE: FLUORANTHENE-	105	58-120			%	11/04/19	11/12/19

Quant Method:L1028.M
Run #:1028L259
Instrument:Linus
Sequence:L191028
Initials:MA

GC SC-Blank-REG MDLs-DOD
Printed: 12/03/19 6:01:37 PM

8270D-SIM

Form 4

LCS Summary

Lab Name: APPL, Inc. SDG No: 90625

Case No: 90625 Date Analyzed: 11/12/19

Matrix: WATER Instrument: Linus

LCS ID: 191104A-LCS Time Analyzed: 1026

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191104A-BLK	Blank	1028L259	11/12/19 1004
191104A-LCS	Lab Control Spike	1028L260	11/12/19 1026
191104A-LCSD	Lab Control SpikeD	1028L261	11/12/19 1048
BA02301	ERH961	1028L267	11/12/19 1301

Comments: Batch: #SIM53-191104A

Printed: 12/03/19 6:02:04 PM
Form 4, LCS Summary

Laboratory Control Spike Recoveries

EPA 8270D SIM LIQ-LIQ

APPL ID: **191104W-02090 LCS - 247109**
Batch ID: #SIM53-191104A

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Lvl ug/L	SPK Result ug/L	DUP Result ug/L	SPK % Recovery	DUP % Recovery	Recovery Limits	RPD %	RPD Limits
1-METHYLNAPHTHALENE	6.25	6.55	5.92	105	94.7	41-115	10.1	20
2-METHYLNAPHTHALENE	6.25	6.65	5.98	106	95.7	39-114	10.6	20
NAPHTHALENE	6.25	6.67	6.03	107	96.5	43-114	10.1	20
SURROGATE: 2-METHYLNAPHTHALEN	6.25	6.03	5.51	96.5	88.2	39-114		
SURROGATE: FLUORANTHENE-D10 (S)	6.25	6.54	6.46	105	103	58-120		

Comments: _____

Primary	SPK	DUP
Quant Method :	L1028.M	L1028.M
Extraction Date :	11/04/19	11/04/19
Analysis Date :	11/12/19	11/12/19
Instrument :	Linus	Linus
Run :	1028L260	1028L261
Initials :	MA	

Printed: 12/03/19 6:01:45 PM
APPL Standard LCSD

Form 5
Tune Summary

Lab Name: APPL Inc.
Case No:
Matrix: Water
ID: 1028L002.D

SDG No:
Date Analyzed: 10/28/19
Instrument: Linus
Time Analyzed: 10:20

	Client Sample No.	APPL ID.	File ID.	Date Analyzed
1		5 SIM 10/28/19(2)	1028L004.D	10/28/19 12:26
2		0.1 SIM 10/28/19	1028L005.D	10/28/19 12:51
3		0.2 SIM 10/28/19	1028L006.D	10/28/19 13:13
4		0.5 SIM 10/28/19	1028L007.D	10/28/19 13:35
5		1 SIM 10/28/19	1028L008.D	10/28/19 13:57
6		20 SIM 10/28/19	1028L009.D	10/28/19 14:19
7		50 SIM 10/28/19	1028L010.D	10/28/19 14:42
8		100 SIM 10/28/19	1028L011.D	10/28/19 15:04
9		SS SIM 10/28/19	1028L012.D	10/28/19 15:55
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				

m/e		
51	9.95 - 80.1% of mass 198	44.0
68	0 - 2.05% of mass 69	0.0
70	0 - 2% of mass 69	0.3
127	10 - 80% of mass 198	66.3
197	0 - 2% of mass 198	0.0
198	100 - 100% of mass 198	100.0
199	5 - 9% of mass 198	6.8
275	10 - 60% of mass 198	23.0
365	1 - 100% of mass 198	3.1
441	0.01 - 24% of mass 442	15.5
442	50 - 500% of mass 198	95.8
443	15 - 24% of mass 442	19.6

Form 5
Tune Summary

Lab Name: APPL Inc.
Case No: 90625
Matrix: Water
ID: 1028L257.D

SDG No: 90625
Date Analyzed: 11/12/19
Instrument: Linus
Time Analyzed: 9:18

	Client Sample No.	APPL ID.	File ID.	Date Analyzed
1		5 SIM 10/28/19 (1)	1028L258.D	11/12/19 9:35
2	Blank	191104A BLK 1/800	1028L259.D	11/12/19 10:04
3	Lab Control Spike	191104A LCS-2 1/800	1028L260.D	11/12/19 10:26
4	Lab Control SpikeD	191104A LCSD-2 1/800	1028L261.D	11/12/19 10:48
5	ERH961	BA02301W13 1/800	1028L267.D	11/12/19 13:01
6		5 SIM 10/28/19 (1)	1028L268.D	11/12/19 13:40
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				

m/e		
51	9.95 - 80.1% of mass 198	51.2
68	0 - 2.05% of mass 69	0.0
70	0 - 2% of mass 69	0.7
127	10 - 80% of mass 198	65.7
197	0 - 2% of mass 198	0.0
198	100 - 100% of mass 198	100.0
199	5 - 9% of mass 198	7.1
275	10 - 60% of mass 198	21.2
365	1 - 100% of mass 198	3.2
441	0.01 - 24% of mass 442	17.4
442	50 - 500% of mass 198	71.1
443	15 - 24% of mass 442	21.1

8A
INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: APPL Inc. Contract: _____

Lab Code: _____ SDG No.: _____

Lab File ID (Standard): 1028L258.D Date Analyzed: 11/12/19

Instrument ID: Linus Time Analyzed: 9:35

GC Column: _____ ID: Heated Purge: (Y/N) _____

		Napthalene-D8(IS)		Acenaphthene-D10(IS)		Phenanthrene-D10(IS)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	42226	4.27	17230	6.27	30075	7.98
	UPPER LIMIT	84452	4.44	34460	6.44	60150	8.15
	LOWER LIMIT	21113	4.10	8615	6.10	15038	7.81
	SAMPLE NO.						
01	191104A BLK 1/800	41490	4.26	17274	6.27	30878	7.98
02	191104A LCS-2 1/800	38137	4.27	15916	6.27	30577	7.98
03	191104A LCSD-2 1/800	42346	4.27	17317	6.27	31965	7.98
04	BA02301W13 1/800	43643	4.27	18026	6.27	32526	7.98
05	5 SIM 10/28/19 (1)	53473	4.27	20055	6.27	37410	7.98
06							
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19							
20							
21							
22							

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = -50% of internal standard area.
RT UPPER LIMIT = +0.17 minutes of internal standard RT
RT LOWER LIMIT = -0.17 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

8A
INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: APPL Inc. Contract: _____

Lab Code: _____ SDG No.: _____

Lab File ID (Standard): 1028L258.D Date Analyzed: 11/12/19

Instrument ID: Linus Time Analyzed: 9:35

GC Column: _____ ID: Heated Purge: (Y/N) _____

		Chrysene-D12(IS)		Perylene-D12(IS)			
		AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	35927	11.10	34153	13.52		
	UPPER LIMIT	71854	11.27	68306	13.69		
	LOWER LIMIT	17964	10.93	17077	13.35		
	SAMPLE NO.						
01	191104A BLK 1/800	37096	11.10	38223	13.52		
02	191104A LCS-2 1/800	37171	11.10	38425	13.52		
03	191104A LCSD-2 1/800	38068	11.10	38812	13.52		
04	BA02301W13 1/800	39359	11.10	41282	13.53		
05	5 SIM 10/28/19 (1)	46428	11.11	47184	13.53		
06							
07							
08							
09							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = -50% of internal standard area.
RT UPPER LIMIT = +0.17 minutes of internal standard RT
RT LOWER LIMIT = -0.17 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

EPA 8270D

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 90625

Case No: 90625 Date Analyzed: 11/27/19

Matrix: WATER Instrument: Yoda

APPL ID.	Client Sample No.	SURROGATE: 2,4,6-TRIBROMOPHENOL (S)			SURROGATE: 2-FLUORBIPHENYL (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
BA02301	ERH961	43-140	91.1		44-119	89.7	

Comments: Batch: #87DC5-191104A

EPA 8270D

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 90625

Case No: 90625 Date Analyzed: 11/27/19

Matrix: WATER Instrument: Yoda

APPL ID.	Client Sample No.	SURROGATE: 2-FLUOROPHENOL (S)			SURROGATE: NITROBENZENE-D5 (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
BA02301	ERH961	19-119	87.8		44-120	104	

Comments: Batch: #87DC5-191104A

EPA 8270D

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 90625

Case No: 90625 Date Analyzed: 11/27/19

Matrix: WATER Instrument: Yoda

APPL ID.	Client Sample No.	SURROGATE: PHENOL-D6 (S)			SURROGATE: TERPHENYL-D14 (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
BA02301	ERH961	10-115	95.3		50-134	95.7	

Comments: Batch: #87DC5-191104A

EPA 8270D

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 90625

Case No: 90625 Date Analyzed: 11/07/19

Matrix: WATER Instrument: Yoda

Blank ID: 191104A-BLK Time Analyzed: 1648

APPL ID.	Client Sample No.	File ID.	Date Analyzed
BA02301	ERH961	1121Y163	11/27/19 0101

Comments: Batch: #87DC5-191104A

Method Blank
EPA 8270D WATER

Blank Name/QCG: **191104W-02301 - 248520**
Batch ID: #87DC5-191104A1

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	PHENOL	4.00 U	5.0	4.00	1.00	ug/L	11/04/19	11/26/19
BLANK	SURROGATE: 2,4,6-TRIBROMOP	90.0	43-140			%	11/04/19	11/26/19
BLANK	SURROGATE: 2-FLUORBIPHENY	89.5	44-119			%	11/04/19	11/26/19
BLANK	SURROGATE: 2-FLUOROPHENO	84.6	19-119			%	11/04/19	11/26/19
BLANK	SURROGATE: NITROBENZENE-	95.0	44-120			%	11/04/19	11/26/19
BLANK	SURROGATE: PHENOL-D6 (S)	90.5	10-115			%	11/04/19	11/26/19
BLANK	SURROGATE: TERPHENYL-D14 (	96.3	50-134			%	11/04/19	11/26/19

Quant Method:Not detected.
Run #:1121Y155
Instrument:Yoda
Sequence:Y191121
Initials:JPR

GC SC-Blank-REG MDLs-DOD
Printed: 12/23/19 1:19:48 PM

EPA 8270D

Form 4

LCS Summary

Lab Name: APPL, Inc. SDG No: 90625

Case No: 90625 Date Analyzed: 11/07/19

Matrix: WATER Instrument: Yoda

LCS ID: 191104A-LCS Time Analyzed: 1716

APPL ID.	Client Sample No.	File ID.	Date Analyzed
BA02301	ERH961	1121Y163	11/27/19 0101

Comments: Batch: #87DC5-191104A

Printed: 12/03/19 12:18:59 PM
Form 4, LCS Summary

Laboratory Control Spike Recoveries

EPA 8270D WATER

APPL ID: **191104W-02301 LCS - 248520**
Batch ID: #87DC5-191104A1

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Lvl ug/L	SPK Result ug/L	DUP Result ug/L	SPK % Recovery	DUP % Recovery	Recovery Limits	RPD %	RPD Limits
PHENOL	62.5	69.6	78.5	111	126 #	10-115	12.0	20
SURROGATE: 2,4,6-TRIBROMOPHENOL	250	231	230	92.4	92.0	43-140		
SURROGATE: 2-FLUORBIPHENYL (S)	125	110	111	88.0	88.8	44-119		
SURROGATE: 2-FLUOROPHENOL (S)	250	240	257	96.0	103	19-119		
SURROGATE: NITROBENZENE-D5 (S)	125	127	135	102	108	44-120		
SURROGATE: PHENOL-D6 (S)	250	261	283	104	113	10-115		
SURROGATE: TERPHENYL-D14 (S)	125	86.6	100	69.3	80.0	50-134		

= Recovery is outside QC limits.

Comments:

Primary	SPK	DUP
Quant Method :	Not detected.M	Not detected.M
Extraction Date :	11/04/19	11/04/19
Analysis Date :	11/26/19	11/26/19
Instrument :	Yoda	Yoda
Run :	1121Y156	1121Y157
Initials :	JPR	

Printed: 12/23/19 1:19:53 PM
APPL Standard LCSD

Form 5
Tune Summary

Lab Name: APPL Inc.
Case No:
Matrix: Soil
ID: 1121Y002.D

SDG No:
Date Analyzed: 11/21/19
Instrument: Yoda
Time Analyzed: 13:52

	Client Sample No.	APPL ID.	File ID.	Date Analyzed
1		4ug/ml 8270 11/21/19	1121Y003.D	11/21/19 14:07
2		5ug/ml 8270 11/21/19	1121Y004.D	11/21/19 14:35
3		10ug/ml 8270 11/21/1	1121Y005.D	11/21/19 15:37
4		20ug/ml 8270 11/21/1	1121Y006.D	11/21/19 16:05
5		40ug/ml 8270 11/21/1	1121Y007.D	11/21/19 16:33
6		50ug/ml 8270 11/21/1	1121Y008.D	11/21/19 17:01
7		60ug/ml 8270 11/21/1	1121Y009.D	11/21/19 17:30
8		80ug/ml 8270 11/21/1	1121Y010.D	11/21/19 17:58
9		100ug/ml 8270 11/21/	1121Y011.D	11/21/19 18:26
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				

m/e		
51	9.95 - 80.04% of mass 198	27.9
68	0 - 2% of mass 69	0.0
70	0 - 2% of mass 69	0.7
127	10 - 80% of mass 198	43.6
197	0 - 2% of mass 198	0.0
198	100 - 100% of mass 198	100.0
199	5 - 9% of mass 198	6.9
275	10 - 60% of mass 198	32.2
365	1 - 100% of mass 198	3.9
441	0.01 - 24% of mass 442	16.6
442	50 - 500% of mass 198	139.4
443	15 - 24% of mass 442	19.7

Form 5
Tune Summary

Lab Name: APPL Inc.
Case No:
Matrix: Soil
ID: 1121Y030.D

SDG No:
Date Analyzed: 11/22/19
Instrument: Yoda
Time Analyzed: 13:23

	Client Sample No.	APPL ID.	File ID.	Date Analyzed
1		SS 8270 11/22/19	1121Y031.D	11/22/19 13:38
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				

m/e		
51	9.95 - 80.04% of mass 198	26.5
68	0 - 2% of mass 69	0.0
70	0 - 2% of mass 69	0.4
127	10 - 80% of mass 198	41.9
197	0 - 2% of mass 198	0.0
198	100 - 100% of mass 198	100.0
199	5 - 9% of mass 198	6.7
275	10 - 60% of mass 198	33.3
365	1 - 100% of mass 198	4.2
441	0.01 - 24% of mass 442	16.3
442	50 - 500% of mass 198	154.9
443	15 - 24% of mass 442	19.0

Form 5
Tune Summary

Lab Name: APPL Inc.
Case No: 90625
Matrix: Water
ID: 1121Y148.D

SDG No: 90625
Date Analyzed: 11/26/19
Instrument: Yoda
Time Analyzed: 18:16

	Client Sample No.	APPL ID.	File ID.	Date Analyzed
1		50ug/ml 8270 11/21/1	1121Y154.D	11/26/19 20:50
2	Blank	191104A BLK 2/800	1121Y155.D	11/26/19 21:18
3	Lab Control Spike	191104A LCS-1 2/800	1121Y156.D	11/26/19 21:46
4	Lab Control SpikeD	191104A LCSD-1 2/800	1121Y157.D	11/26/19 22:14
5	ERH961	BA02301W13 2/800	1121Y163.D	11/27/19 1:01
6		50ug/ml 8270 11/21/1	1121Y172.D	11/27/19 5:11
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10				
11				
12				
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15				
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17				
18				
19				
20				
21				
22				

m/e		
51	9.95 - 80.04% of mass 198	30.7
68	0 - 2% of mass 69	0.0
70	0 - 2% of mass 69	0.2
127	10 - 80% of mass 198	45.8
197	0 - 2% of mass 198	0.0
198	100 - 100% of mass 198	100.0
199	5 - 9% of mass 198	7.0
275	10 - 60% of mass 198	30.9
365	1 - 100% of mass 198	3.6
441	0.01 - 24% of mass 442	16.2
442	50 - 500% of mass 198	125.7
443	15 - 24% of mass 442	19.6

8A
INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: APPL Inc. Contract: _____

Lab Code: _____ SDG No.: _____

Lab File ID (Standard): 1121Y154.D Date Analyzed: 11/26/19

Instrument ID: Yoda Time Analyzed: 20:50

GC Column: _____ ID: Heated Purge: (Y/N) _____

		1,4-dichlorobenzene-D4(IS)		Napthalene-D8(IS)		Acenaphthene-D10(IS)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	179473	5.47	719514	6.91	453439	8.93
	UPPER LIMIT	358946	5.64	1439028	7.08	906878	9.10
	LOWER LIMIT	89737	5.30	359757	6.74	226720	8.76
	SAMPLE NO.						
01	191104A BLK 2/800	174092	5.47	683374	6.91	442513	8.93
02	191104A LCS-1 2/800	150012	5.47	600754	6.91	417278	8.93
03	191104A LCSD-1 2/800	138243	5.47	560201	6.91	405413	8.93
04	BA02301W13 2/800	161158	5.47	637023	6.91	449562	8.93
05	50ug/ml 8270 11/21/19 (	184992	5.47	734252	6.91	456477	8.93
06							
07							
08							
09							
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12							
13							
14							
15							
16							
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18							
19							
20							
21							
22							

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = -50% of internal standard area.
RT UPPER LIMIT = +0.17 minutes of internal standard RT
RT LOWER LIMIT = -0.17 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: APPL Inc. Contract: _____

Lab Code: _____ SDG No.: _____

Lab File ID (Standard): 1121Y154.D Date Analyzed: 11/26/19

Instrument ID: Yoda Time Analyzed: 20:50

GC Column: _____ ID: Heated Purge: (Y/N) _____

		Phenanthrene-D10(IS)		Chrysene-D12(IS)		Perylene-D12(IS)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	869953	10.67	1038490	13.76	946185	15.62
	UPPER LIMIT	1739906	10.84	2076980	13.93	1892370	15.79
	LOWER LIMIT	434977	10.50	519245	13.59	473093	15.45
	SAMPLE NO.						
01	191104A BLK 2/800	890536	10.66	909385	13.75	920577	15.62
02	191104A LCS-1 2/800	853592	10.67	1179960	13.76	888601	15.62
03	191104A LCSD-1 2/800	822436	10.66	1006520	13.75	875772	15.63
04	BA02301W13 2/800	891385	10.66	935842	13.75	916850	15.61
05	50ug/ml 8270 11/21/19 (	870891	10.67	1025140	13.76	935612	15.62
06							
07							
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12							
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21							
22							

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = -50% of internal standard area.
RT UPPER LIMIT = +0.17 minutes of internal standard RT
RT LOWER LIMIT = -0.17 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

EPA 8270D

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 90625

Case No: 90625 Date Analyzed: 11/08/19

Matrix: WATER Instrument: Linus

Blank ID: 191106A-BLK Time Analyzed: 1836

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191106A-BLK	Blank	1030L053	11/08/19 1836
191106A-LCS	Lab Control Spike	1030L054	11/08/19 1854
191106A-LCSD	Lab Control SpikeD	1030L055	11/08/19 1912
BA02301	ERH961	1030L058	11/08/19 2007

Comments: Batch: #87DME-191106A

Method Blank

EPA 8270D MODIFIED WATER

Blank Name/QCG: **191106W-02214 - 247176**
Batch ID: #87DME-191106A

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	2-(2-METHOXYETHOXY)-ETHAN	80.0 U	100	80.0	40.0	ug/L	11/06/19	11/08/19

Quant Method:YMEE1030.M
Run #:1030L053
Instrument:Linus
Sequence:L191030M
Initials:MA

GC SC-Blank-REG MDLs-DOD
Printed: 11/15/19 1:03:50 PM

EPA 8270D

Form 4

LCS Summary

Lab Name: APPL, Inc. SDG No: 90625

Case No: 90625 Date Analyzed: 11/08/19

Matrix: WATER Instrument: Linus

LCS ID: 191106A-LCS Time Analyzed: 1854

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191106A-BLK	Blank	1030L053	11/08/19 1836
191106A-LCS	Lab Control Spike	1030L054	11/08/19 1854
191106A-LCSD	Lab Control SpikeD	1030L055	11/08/19 1912
BA02301	ERH961	1030L058	11/08/19 2007

Comments: Batch: #87DME-191106A

Laboratory Control Spike Recoveries
EPA 8270D MODIFIED WATER

APPL ID: **191106W-02214 LCS - 247176**
Batch ID: #87DME-191106A

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Lvl ug/L	SPK Result ug/L	DUP Result ug/L	SPK % Recovery	DUP % Recovery	Recovery Limits	RPD %	RPD Limits
2-(2-METHOXYETHOXY)-ETHANOL	80.0	116	89.6	145 #	112	30-130	25.7 #	20

= Recovery is outside QC limits.

Comments: _____

Primary	SPK	DUP
Quant Method :	YMEE1030.M	YMEE1030.M
Extraction Date :	11/06/19	11/06/19
Analysis Date :	11/08/19	11/08/19
Instrument :	Linus	Linus
Run :	1030L054	1030L055
Initials :	MA	

Printed: 11/15/19 1:03:53 PM
APPL Standard LCSD

Form 5
Tune Summary

Lab Name: APPL Inc.
Case No:
Matrix: Water
ID: 1030L002.D

SDG No:
Date Analyzed: 10/31/19
Instrument: Linus
Time Analyzed: 9:39

	Client Sample No.	APPL ID.	File ID.	Date Analyzed
1		50 2MEE 4/30/19	1030L004.D	10/31/19 11:50
2		100 2MEE 4/30/19	1030L005.D	10/31/19 12:10
3		200 2MEE 4/30/19	1030L006.D	10/31/19 12:29
4		500 2MEE 4/30/19	1030L008.D	10/31/19 13:07
5		600 2MEE 4/30/19	1030L009.D	10/31/19 13:25
6		800 2MEE 4/30/19	1030L010.D	10/31/19 13:43
7		1000 2MEE 4/30/19	1030L011.D	10/31/19 14:02
8				
9				
10				
11				
12				
14				
15				
16				
17				
18				
19				
20				
21				
22				

m/e		
51	9.95 - 80.04% of mass 198	47.5
68	0 - 2.04% of mass 69	0.0
70	0 - 2.04% of mass 69	0.6
127	10 - 80% of mass 198	64.9
197	0 - 2% of mass 198	0.0
198	100 - 100% of mass 198.1	100.0
199	5 - 9% of mass 198	6.2
275	10 - 60% of mass 198	21.7
365	1 - 100% of mass 198	3.2
441	0.01 - 24% of mass 442	14.5
442	50 - 500% of mass 198.1	95.4
443	15 - 24% of mass 442	18.6

Form 5

Form 5
Tune Summary

Lab Name: APPL Inc.
Case No:
Matrix: Water
ID: 1030L014.D

SDG No:
Date Analyzed: 11/01/19
Instrument: Linus
Time Analyzed: 15:17

	Client Sample No.	APPL ID.	File ID.	Date Analyzed
1		SS 2MEE 11/1/19	1030L016.D	11/01/19 17:11
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				

m/e		
51	9.95 - 80.04% of mass 198	50.2
68	0 - 2.04% of mass 69	0.0
70	0 - 2.04% of mass 69	0.7
127	10 - 80% of mass 198	65.2
197	0 - 2% of mass 198	0.0
198	100 - 100% of mass 198	100.0
199	5 - 9% of mass 198	7.0
275	10 - 60% of mass 198	22.3
365	1 - 100% of mass 198	3.1
441	0.01 - 24% of mass 442	18.5
442	50 - 500% of mass 198	81.1
443	15 - 24% of mass 442	19.7

Form 5
Tune Summary

Lab Name: APPL Inc.
Case No: 90625
Matrix: Water
ID: 1030L041.D

SDG No: 90625
Date Analyzed: 11/08/19
Instrument: Linus
Time Analyzed: 12:30

	Client Sample No.	APPL ID.	File ID.	Date Analyzed
1		500 2MEE 4/30/19	1030L042.D	11/08/19 13:13
2	Blank	191106A BLK 2/500	1030L053.D	11/08/19 18:36
3	Lab Control Spike	191106A LCS-1 2/500	1030L054.D	11/08/19 18:54
4	Lab Control SpikeD	191106A LCSD-1 2/500	1030L055.D	11/08/19 19:12
5	ERH961	BA02301W22 2/500	1030L058.D	11/08/19 20:07
6		500 2MEE 4/30/19	1030L061.D	11/08/19 21:02
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				

m/e		
51	9.95 - 80.04% of mass 198	46.6
68	0 - 2.04% of mass 69	0.0
70	0 - 2.04% of mass 69	0.6
127	10 - 80% of mass 198	60.1
197	0 - 2% of mass 198	0.0
198	100 - 100% of mass 198	100.0
199	5 - 9% of mass 198	6.6
275	10 - 60% of mass 198	22.2
365	1 - 100% of mass 198	3.6
441	0.01 - 24% of mass 442	17.0
442	50 - 500% of mass 198	82.6
443	15 - 24% of mass 442	20.2

8A
INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: APPL Inc. Contract: _____

Lab Code: _____ SDG No.: _____

Lab File ID (Standard): 1030L042.D Date Analyzed: 8 Nov 19 13:13

Instrument ID: Linus Time Analyzed: 8 Nov 19 13:13

GC Column: _____ ID: Heated Purge: (Y/N) _____

		1,4-dichlorobenzene-D4(IS)		Napthalene-D8(IS)		Acenaphthene-D10(IS)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	742292	3.67	3312060	4.62	1556560	6.01
	UPPER LIMIT	1484584	3.84	6624120	4.79	3113120	6.18
	LOWER LIMIT	371146	3.50	1656030	4.45	778280	5.84
	SAMPLE NO.						
01	191106A BLK 2/500	601686	3.66	2463490	4.61	1386060	6.01
02	191106A LCS-1 2/500	855406	3.66	3572010	4.62	1620020	6.01
03	191106A LCSD-1 2/500	928360	3.66	3861500	4.62	1857290	6.01
04	BA02301W22 2/500	639641	3.66	2606110	4.61	1375420	6.01
05	500 2MEE 4/30/19	772424	3.67	3311190	4.61	1654190	6.01
06							
07							
08							
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10							
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16							
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18							
19							
20							
21							
22							

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = -50% of internal standard area.
RT UPPER LIMIT = +0.17 minutes of internal standard RT
RT LOWER LIMIT = -0.17 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

8A
INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: APPL Inc. Contract: _____

Lab Code: _____ SDG No.: _____

Lab File ID (Standard): 1030L042.D Date Analyzed: 8 Nov 19 13:13

Instrument ID: Linus Time Analyzed: 8 Nov 19 13:13

GC Column: _____ ID: Heated Purge: (Y/N) _____

		Phenanthrene-D10(IS)		Chrysene-D12(IS)		Perylene-D12(IS)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	2759130	7.22	2199350	9.42	2536270	10.65
	UPPER LIMIT	5518260	7.39	4398700	9.59	5072540	10.82
	LOWER LIMIT	1379565	7.05	1099675	9.25	1268135	10.48
	SAMPLE NO.						
01	191106A BLK 2/500	2629750	7.22	1937020	9.39	2166470	10.59
02	191106A LCS-1 2/500	3079090	7.22	2586820	9.40	2670110	10.60
03	191106A LCSD-1 2/500	3438680	7.22	2997260	9.40	3045950	10.60
04	BA02301W22 2/500	2757020	7.22	2093430	9.39	2205930	10.57
05	500 2MEE 4/30/19	3011210	7.22	2583760	9.39	2584580	10.57
06							
07							
08							
09							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = -50% of internal standard area.
RT UPPER LIMIT = +0.17 minutes of internal standard RT
RT LOWER LIMIT = -0.17 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

EPA 8260B

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 90625

Case No: 90625 Date Analyzed: 11/14/19

Matrix: WATER Instrument: Loki

APPL ID.	Client Sample No.	SURROGATE: 1,2-DICHLOROETHANE-D4 (S)			SURROGATE: 4-BROMOFLUOROBENZENE (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
191113AL-LCS	Lab Control Spike	81-118	98.8		85-114	102	
191113AL-LCSD	Lab Control SpikeD	81-118	98.0		85-114	103	
191113AL-BLK	Blank	81-118	98.7		85-114	92.7	
BA02300	ERH960	81-118	98.7		85-114	91.0	
BA02301	ERH961	81-118	97.3		85-114	94.9	

Comments: Batch: #86BTO-191113AL

EPA 8260B

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 90625

Case No: 90625 Date Analyzed: 11/14/19

Matrix: WATER Instrument: Loki

APPL ID.	Client Sample No.	SURROGATE: DIBROMOFLUOROMETHANE (S)			SURROGATE: TOLUENE-D8 (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
191113AL-LCS	Lab Control Spike	80-119	101		89-112	100	
191113AL-LCSD	Lab Control SpikeD	80-119	100		89-112	103	
191113AL-BLK	Blank	80-119	104		89-112	96.2	
BA02300	ERH960	80-119	103		89-112	96.4	
BA02301	ERH961	80-119	99.9		89-112	97.1	

Comments: Batch: #86BTO-191113AL

EPA 8260B

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 90625

Case No: 90625 Date Analyzed: 11/14/19

Matrix: WATER Instrument: Loki

Blank ID: 191113AL-BLK Time Analyzed: 0809

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191113AL-LCS	Lab Control Spike	1113L29	11/14/19 0422
191113AL-LCSD	Lab Control SpikeD	1113L30	11/14/19 0450
191113AL-BLK	Blank	1113L37	11/14/19 0809
BA02300	ERH960	1113L40	11/14/19 0934
BA02301	ERH961	1113L48	11/14/19 1321

Comments: Batch: #86BTO-191113AL

Method Blank

EPA 8260B BTEX & 1,2-DCA WATER

Blank Name/QCG: **191113W-02715 - 247162**

Batch ID: #86BTO-191113AL

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	1,2-DICHLOROETHANE	0.30 U	1.0	0.30	0.14	ug/L	11/14/19	11/14/19
BLANK	BENZENE	0.30 U	1.0	0.30	0.15	ug/L	11/14/19	11/14/19
BLANK	ETHYLBENZENE	0.50 U	1.0	0.50	0.23	ug/L	11/14/19	11/14/19
BLANK	TOLUENE	0.30 U	1.0	0.30	0.15	ug/L	11/14/19	11/14/19
BLANK	XYLENES (TOTAL)	0.30 U	2.0	0.30	0.15	ug/L	11/14/19	11/14/19
BLANK	SURROGATE: 1,2-DICHLOROET	98.7	81-118			%	11/14/19	11/14/19
BLANK	SURROGATE: 4-BROMOFLUORO	92.7	85-114			%	11/14/19	11/14/19
BLANK	SURROGATE: DIBROMOFLUOR	104	80-119			%	11/14/19	11/14/19
BLANK	SURROGATE: TOLUENE-D8 (S)	96.2	89-112			%	11/14/19	11/14/19

Quant Method:L1113W.M
Run #:1113L37
Instrument:Loki
Sequence:191113
Initials:DPO

GC SC-Blank-REG MDLs-DOD
Printed: 11/15/19 10:13:32 AM

EPA 8260B

Form 4

LCS Summary

Lab Name: APPL, Inc. SDG No: 90625

Case No: 90625 Date Analyzed: 11/14/19

Matrix: WATER Instrument: Loki

LCS ID: 191113AL-LCS Time Analyzed: 0422

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191113AL-LCS	Lab Control Spike	1113L29	11/14/19 0422
191113AL-LCSD	Lab Control SpikeD	1113L30	11/14/19 0450
191113AL-BLK	Blank	1113L37	11/14/19 0809
BA02300	ERH960	1113L40	11/14/19 0934
BA02301	ERH961	1113L48	11/14/19 1321

Comments: Batch: #86BTO-191113AL

Printed: 11/15/19 10:13:25 AM
Form 4, LCS Summary

Laboratory Control Spike Recoveries
EPA 8260B BTEX & 1,2-DCA WATER

APPL ID: **191114W-02715 LCS - 247162**
Batch ID: #86BTO-191113AL

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Lvl ug/L	SPK Result ug/L	DUP Result ug/L	SPK % Recovery	DUP % Recovery	Recovery Limits	RPD %	RPD Limits
1,2-DICHLOROETHANE	10.00	10.6	10.8	106	108	73-128	1.9	20
BENZENE	10.00	10.6	10.4	106	104	79-120	1.9	20
ETHYLBENZENE	10.00	10.7	10.8	107	108	79-121	0.93	20
TOLUENE	10.00	10.9	10.9	109	109	80-121	0.0	20
XYLENES (TOTAL)	30.0	29.5	29.5	98.3	98.3	79-121	0.0	20
SURROGATE: 1,2-DICHLOROETHANE-D	25.0	24.7	24.5	98.8	98.0	81-118		
SURROGATE: 4-BROMOFLUOROBENZE	25.0	25.4	25.8	102	103	85-114		
SURROGATE: DIBROMOFLUOROMETH	25.0	25.2	25.0	101	100	80-119		
SURROGATE: TOLUENE-D8 (S)	25.0	25.1	25.7	100	103	89-112		

Comments: _____

Primary	SPK	DUP
Quant Method :	L1113W.M	L1113W.M
Extraction Date :	11/14/19	11/14/19
Analysis Date :	11/14/19	11/14/19
Instrument :	Loki	Loki
Run :	1113L29	1113L30
Initials :	DPO	

Printed: 11/15/19 10:13:28 AM
APPL Standard LCSD

Form 5
Tune Summary

Lab Name: APPL Inc.
Case No:
Matrix: Water
ID: 1113L04.D

SDG No:
Date Analyzed: 11/13/2019
Instrument: Loki
Time Analyzed: 16:38

	Client Sample No.	APPL ID.	File ID.	Date Analyzed
1		0.3ug/L VOC STD 11/1	1113L07.D	11/13/2019 17:58
2		0.5ug/L VOC STD 11/1	1113L08.D	11/13/2019 18:26
3		1.0ug/L VOC STD 11/1	1113L09.D	11/13/2019 18:54
4		2.0ug/L VOC STD 11/1	1113L10.D	11/13/2019 19:23
5		5.0ug/L VOC STD 11/1	1113L11.D	11/13/2019 19:51
6		10ug/L VOC STD 11/13	1113L12.D	11/13/2019 20:19
7		20ug/L VOC STD 11/13	1113L13.D	11/13/2019 20:48
8		40ug/L VOC STD 11/13	1113L14.D	11/13/2019 21:16
9		100ug/L VOC STD 11/1	1113L15.D	11/13/2019 21:45
10		(SS) 10ug/L VOC STD	1113L17.D	11/13/2019 22:42
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				

m/e		
50	15 - 40% of mass 95	16.4
75	30 - 60% of mass 95	45.6
95	100 - 100% of mass 95	100.0
96	5 - 9% of mass 95	6.2
173	0 - 2% of mass 174	0.0
174	50 - 200% of mass 95	88.8
175	5 - 9% of mass 174	7.6
176	94.95 - 101% of mass 174	95.5
177	5 - 9% of mass 176	5.6

Form 5
Tune Summary

Lab Name: APPL Inc.
Case No: 90625
Matrix: Water
ID: 1113L27.D

SDG No: 90625
Date Analyzed: 11/14/2019
Instrument: Loki
Time Analyzed: 3:25

	Client Sample No.	APPL ID.	File ID.	Date Analyzed
1	Lab Control Spike	191113 CCV/LCS 10ug/	1113L29.D	11/14/2019 4:22
2	Lab Control SpikeD	191113 LCSD 10ug/L	1113L30.D	11/14/2019 4:50
3	Blank	191113 BLK	1113L37.D	11/14/2019 8:09
4	ERH960	BA02300W01	1113L40.D	11/14/2019 9:34
5	ERH961	BA02301W01	1113L48.D	11/14/2019 13:21
6				
7				
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12				
13				
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15				
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17				
18				
19				
20				
21				
22				

m/e		
50	15 - 40% of mass 95	17.0
75	30 - 60% of mass 95	47.0
95	100 - 100% of mass 95	100.0
96	5 - 9% of mass 95	6.7
173	0 - 2% of mass 174	1.0
174	50 - 200% of mass 95	89.9
175	5 - 9% of mass 174	7.2
176	94.95 - 101% of mass 174	97.4
177	5 - 9% of mass 176	7.3

8A
INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: APPL Inc. Contract: _____

Lab Code: _____ SDG No.: _____

Lab File ID (Standard): 1113L13.D Date Analyzed: 11/13/19

Instrument ID: Loki Time Analyzed: 20:48

GC Column: _____ ID: Heated Purge: (Y/N) _____

		Fluorobenzene (IS)		Chlorobenzene-D5 (IS)		1,4-Dichlorobenzene-D (IS)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	844096	5.18	798016	8.78	442048	11.32
	UPPER LIMIT	1688192	5.35	1596032	8.95	884096	11.49
	LOWER LIMIT	422048	5.01	399008	8.61	221024	11.15
	SAMPLE NO.						
01	191113 CCV/LCS 10ug/	838784	5.18	803776	8.78	431232	11.32
02	191113 LCSD 10ug/L	826432	5.18	772352	8.78	433408	11.32
03	191113 BLK	794688	5.18	779136	8.78	381952	11.32
04	BA02300W01	813696	5.18	802432	8.78	394560	11.32
05	BA02301W01	830336	5.18	827264	8.78	420032	11.32
06	Ending CCV 10ug/L 11/1	820480	5.18	799808	8.78	443456	11.32
07							
08							
09							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = -50% of internal standard area.
RT UPPER LIMIT = +0.17 minutes of internal standard RT
RT LOWER LIMIT = -0.17 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

EPA 8260B

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 90625

Case No: 90625 Date Analyzed: 11/14/19

Matrix: WATER Instrument: Loki

APPL ID.	Client Sample No.	SURROGATE: 4-BROMOFLUOROBENZENE (S)					
		Limits	Result	Qualifier	Limits	Result	Qualifier
191113AL-LCS	Lab Control Spike	85-114	98.4				
191113AL-LCSD	Lab Control SpikeD	85-114	96.8				
191113AL-BLK	Blank	85-114	92.7				
BA02300	ERH960	85-114	91.0				
BA02301	ERH961	85-114	94.9				

Comments: Batch: #GRO86-191113AL

EPA 8260B

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 90625

Case No: 90625 Date Analyzed: 11/14/19

Matrix: WATER Instrument: Loki

Blank ID: 191113AL-BLK Time Analyzed: 0809

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191113AL-LCS	Lab Control Spike	1113L33	11/14/19 0615
191113AL-LCSD	Lab Control SpikeD	1113L34	11/14/19 0644
191113AL-BLK	Blank	1113L37	11/14/19 0809
BA02300	ERH960	1113L40	11/14/19 0934
BA02301	ERH961	1113L48	11/14/19 1321

Comments: Batch: #GRO86-191113AL

Method Blank

EPA 8260B GRO WATER

Blank Name/QCG: **191113W-02715 - 247166**

Batch ID: #GRO86-191113AL

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	GASOLINE RANGE ORGANICS	18.0 U	20	18.0	8.6	ug/L	11/14/19	11/14/19
BLANK	SURROGATE: 4-BROMOFLUORO	92.7	85-114			%	11/14/19	11/14/19

Quant Method:LGAS1113.M
Run #:1113L37
Instrument:Loki
Sequence:191113
Initials:DPO

GC SC-Blank-REG MDLs-DOD
Printed: 11/15/19 10:44:20 AM

EPA 8260B

Form 4

LCS Summary

Lab Name: APPL, Inc. SDG No: 90625

Case No: 90625 Date Analyzed: 11/14/19

Matrix: WATER Instrument: Loki

LCS ID: 191113AL-LCS Time Analyzed: 0615

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191113AL-LCS	Lab Control Spike	1113L33	11/14/19 0615
191113AL-LCSD	Lab Control SpikeD	1113L34	11/14/19 0644
191113AL-BLK	Blank	1113L37	11/14/19 0809
BA02300	ERH960	1113L40	11/14/19 0934
BA02301	ERH961	1113L48	11/14/19 1321

Comments: Batch: #GRO86-191113AL

Printed: 11/15/19 10:44:15 AM
Form 4, LCS Summary

Laboratory Control Spike Recoveries
EPA 8260B GRO WATER

APPL ID: **191114W-02715 LCS - 247166**
Batch ID: #GRO86-191113AL

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Lvl ug/L	SPK Result ug/L	DUP Result ug/L	SPK % Recovery	DUP % Recovery	Recovery Limits	RPD %	RPD Limits
GASOLINE RANGE ORGANICS	300	311	328	104	109	78-122	5.3	20
SURROGATE: 4-BROMOFLUOROBENZE	25.0	24.6	24.2	98.4	96.8	85-114		

Comments: _____

Primary	SPK	DUP
Quant Method :	LGAS1113.M	LGAS1113.M
Extraction Date :	11/14/19	11/14/19
Analysis Date :	11/14/19	11/14/19
Instrument :	Loki	Loki
Run :	1113L33	1113L34
Initials :	DPO	

Printed: 11/15/19 10:44:17 AM
APPL Standard LCSD

RSK 175

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 90625

Case No: 90625 Date Analyzed: 11/05/19

Matrix: WATER Instrument: Rocky

Blank ID: 191105A-BLK Time Analyzed: 1623

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191105A-LCS	Lab Control Spike	1105R04	11/05/19 1615
191105A-LCSD	Lab Control SpikeD	1105R05	11/05/19 1619
191105A-BLK	Blank	1105R06	11/05/19 1623
BA02300	ERH960	1105R25	11/05/19 1729
BA02301	ERH961	1105R26	11/05/19 1732

Comments: Batch: #RSKME-191105A

Method Blank
METHANE

Blank Name/QCG: **191105W-02213 - 246825**
Batch ID: #RSKME-191105A

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	METHANE	1.00 U	5.0	1.00	0.25	ug/L	11/05/19	11/05/19

Quant Method: RSK1002.M
Run #: 1105R06
Instrument: Rocky
Sequence: 191002
Initials: GAG

GC SC-Blank-REG MDLs-DOD
Printed: 12/04/19 1:19:02 PM

RSK 175

Form 4

LCS Summary

Lab Name: APPL, Inc. SDG No: 90625

Case No: 90625 Date Analyzed: 11/05/19

Matrix: WATER Instrument: Rocky

LCS ID: 191105A-LCS Time Analyzed: 1615

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191105A-LCS	Lab Control Spike	1105R04	11/05/19 1615
191105A-LCSD	Lab Control SpikeD	1105R05	11/05/19 1619
191105A-BLK	Blank	1105R06	11/05/19 1623
BA02300	ERH960	1105R25	11/05/19 1729
BA02301	ERH961	1105R26	11/05/19 1732

Comments: Batch: #RSKME-191105A

Laboratory Control Spike Recoveries
METHANE

APPL ID: **191105W-02213 LCS - 246825**
Batch ID: #RSKME-191105A

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Lvl ug/L	SPK Result ug/L	DUP Result ug/L	SPK % Recovery	DUP % Recovery	Recovery Limits	RPD %	RPD Limits
METHANE	83.4	79.7	85.4	95.6	102	72-125	6.9	30

Comments: _____

Primary	SPK	DUP
Quant Method :	RSK1002.M	RSK1002.M
Extraction Date :	11/05/19	11/05/19
Analysis Date :	11/05/19	11/05/19
Instrument :	Rocky	Rocky
Run :	1105R04	1105R05
Initials :	GAG	

Printed: 12/04/19 1:19:09 PM
APPL Standard LCSD

6010C/3010A

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 90625

Case No: 90625 Date Analyzed: 11/07/19

Matrix: WATER Instrument: Phoebe

Blank ID: B191105-BLK Time Analyzed: 2003

APPL ID.	Client Sample No.	File ID.	Date Analyzed
B191105-LCSD	Lab Control SpikeD	191107A	11/07/19 2013
B191105-LCS	Lab Control Spike	191107A	11/07/19 2008
B191105-BLK	Blank	191107A	11/07/19 2003
BA02301	ERH961	191107A	11/07/19 2017

Comments: Batch: #61CDO-B191105

Printed: 11/21/19 1:38:45 PM
Form 4, Blank Summary

6010C/3010A

Form 4

LCS Summary

Lab Name: APPL, Inc. SDG No: 90625

Case No: 90625 Date Analyzed: 11/07/19

Matrix: WATER Instrument: Phoebe

LCS ID: B191105-LCS Time Analyzed: 2008

APPL ID.	Client Sample No.	File ID.	Date Analyzed
B191105-LCSD	Lab Control SpikeD	191107A	11/07/19 2013
B191105-LCS	Lab Control Spike	191107A	11/07/19 2008
B191105-BLK	Blank	191107A	11/07/19 2003
BA02301	ERH961	191107A	11/07/19 2017

Comments: Batch: #61CDO-B191105

Printed: 11/21/19 1:38:42 PM
Form 4, LCS Summary

METALS BLANK

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Method	Analyte	Result	LOQ	LOD	DL	Units	Prep Date	Analysis Date	QC Group
6010C	CALCIUM (CA)	81.1 J	1000	75.0	27.5	ug/L	11/05/19	11/07/19	#61CDO-B191105-BA02301
6010C	MAGNESIUM (MG)	30.0 U	500	30.0	12.9	ug/L	11/05/19	11/07/19	#61CDO-B191105-BA02301
6010C	MANGANESE (MN)	1.5 J	10.0	4.00	1.23	ug/L	11/05/19	11/07/19	#61CDO-B191105-BA02301
6010C	POTASSIUM (K)	500.0 U	3000	500.0	220.0	ug/L	11/05/19	11/07/19	#61CDO-B191105-BA02301
6010C	SODIUM (NA)	500.0 U	5000	500.0	111.1	ug/L	11/05/19	11/07/19	#61CDO-B191105-BA02301

J = Estimated value.

Metals SC-Blank-REG MDLs
Printed: 11/21/19 1:39:00 PM

Laboratory Control Spike Recoveries
METALS

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Method	Compound Name	Spike Lvl ug/L	SPK Res ug/L	DUP Res ug/L	SPK % Recov	DUP % Recov	RPD	RPD Max	QC Limits	Extract Date-Spk	Analysis Date-Spk	Extract Date-Dup	Analysis Date-Dup	QC Group
EPA 6010C	CALCIUM (CA)	25000	23500	23600	94.0	94.4	0.4	20	87-113	11/05/19	11/07/19	11/05/19	11/07/19	#61CDO-B191105-BA0230
EPA 6010C	MAGNESIUM (MG)	25000	23600	23300	94.4	93.2	1.3	20	85-113	11/05/19	11/07/19	11/05/19	11/07/19	#61CDO-B191105-BA0230
EPA 6010C	MANGANESE (MN)	250	236	236	94.4	94.4	0.0	20	90-114	11/05/19	11/07/19	11/05/19	11/07/19	#61CDO-B191105-BA0230
EPA 6010C	POTASSIUM (K)	5000	4660	4660	93.2	93.2	0.0	20	86-114	11/05/19	11/07/19	11/05/19	11/07/19	#61CDO-B191105-BA0230
EPA 6010C	SODIUM (NA)	25000	23900	23600	95.6	94.4	1.3	20	87-115	11/05/19	11/07/19	11/05/19	11/07/19	#61CDO-B191105-BA0230

Comments:

EPA 300.0

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 90625

Case No: 90625 Date Analyzed: 11/02/19

Matrix: WATER Instrument: Charlie

Blank ID: 191102AR-BLK Time Analyzed: 1040

APPL ID.	Client Sample No.	File ID.	Date Analyzed
BA02301	ERH961	13	11/02/19 1202
191102AR-BLK	Blank	2	11/02/19 1040
191102AR-LCS	Lab Control Spike	3	11/02/19 1048
191102AR-LCSD	Lab Control SpikeD	4	11/02/19 1055

Comments: Batch: #300W-191102AR

Printed: 12/04/19 2:43:40 PM
Form 4, Blank Summary

EPA 300.0

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 90625

Case No: 90625 Date Analyzed: 11/06/19

Matrix: WATER Instrument: Charlie

Blank ID: 191105DRa-BLK Time Analyzed: 0030

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191105DRa-LCS	Lab Control Spike	3	11/05/19 2023
191105DRa-BLK	Blank	36	11/06/19 0030
BA02301	ERH961	37	11/06/19 0038
191105DRa-LCSD	Lab Control SpikeD	4	11/05/19 2031

Comments: Batch: #300WD-191105D

Printed: 12/04/19 2:43:40 PM
Form 4, Blank Summary

WETLAB BLANK

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Method	Analyte	Result	LOQ	LOD	DL	Units	Prep Date	Analysis Date	QC Group
EPA 300.0	BROMIDE	0.16 U	0.5	0.16	0.05	mg/L	11/02/19	11/02/19	#300W-191102AR-BA02301
EPA 300.0	FLUORIDE	0.09 U	0.1	0.09	0.08	mg/L	11/02/19	11/02/19	#300W-191102AR-BA02301
EPA 300.0	NITRATE	0.18 U	0.5	0.18	0.04	mg/L	11/02/19	11/02/19	#300W-191102AR-BA02301
EPA 300.0	SULFATE	0.20 U	1.0	0.20	0.09	mg/L	11/02/19	11/02/19	#300W-191102AR-BA02301
EPA 300.0	CHLORIDE	0.095 J	1.0	0.20	0.08	mg/L	11/06/19	11/06/19	00WD-191105DRa-BA02216

J = Estimated value.

Wetlab SC-Blank-REG MDLs
Printed: 12/04/19 2:43:16 PM

EPA 300.0

Form 4

LCS Summary

Lab Name: APPL, Inc. SDG No: 90625

Case No: 90625 Date Analyzed: 11/02/19

Matrix: WATER Instrument: Charlie

LCS ID: 191102AR-LCS Time Analyzed: 1048

APPL ID.	Client Sample No.	File ID.	Date Analyzed
BA02301	ERH961	13	11/02/19 1202
191102AR-BLK	Blank	2	11/02/19 1040
191102AR-LCS	Lab Control Spike	3	11/02/19 1048
191102AR-LCSD	Lab Control SpikeD	4	11/02/19 1055

Comments: Batch: #300W-191102AR

Printed: 12/04/19 2:43:40 PM
Form 4, LCS Summary

EPA 300.0

Form 4

LCS Summary

Lab Name: APPL, Inc. SDG No: 90625

Case No: 90625 Date Analyzed: 11/05/19

Matrix: WATER Instrument: Charlie

LCS ID: 191105DRa-LCS Time Analyzed: 2023

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191105DRa-LCS	Lab Control Spike	3	11/05/19 2023
191105DRa-BLK	Blank	36	11/06/19 0030
BA02301	ERH961	37	11/06/19 0038
191105DRa-LCSD	Lab Control SpikeD	4	11/05/19 2031

Comments: Batch: #300WD-191105D

Printed: 12/04/19 2:43:40 PM
Form 4, LCS Summary

Laboratory Control Spike Recoveries

WETLAB

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Method	Compound Name	Spike Lvl mg/L	SPK Res mg/L	DUP Res mg/L	SPK % Recov	DUP % Recov	RPD	RPD Max	QC Limits	Extract Date-Spk	Analysis Date-Spk	Extract Date-Dup	Analysis Date-Dup	QC Group
EPA 300.0	CHLORIDE	25.0	24.7	24.7	98.8	98.8	0.0	20	90-110	11/05/19	11/05/19	11/05/19	11/05/19	#300WD-191105DRa-BA0
EPA 300.0	BROMIDE	12.5	12.3	12.4	98.4	99.2	0.81	20	90-110	11/02/19	11/02/19	11/02/19	11/02/19	#300W-191102AR-BA0230
EPA 300.0	FLUORIDE	5.00	4.52	4.60	90.4	92.0	1.8	20	90-110	11/02/19	11/02/19	11/02/19	11/02/19	#300W-191102AR-BA0230
EPA 300.0	NITRATE	22.1	21.8	21.9	98.6	99.1	0.46	20	90-110	11/02/19	11/02/19	11/02/19	11/02/19	#300W-191102AR-BA0230
EPA 300.0	SULFATE	25.0	24.4	24.4	97.6	97.6	0.0	20	90-110	11/02/19	11/02/19	11/02/19	11/02/19	#300W-191102AR-BA0230

Comments:

Printed: 12/04/19 2:43:26 PM
APPL Standard LCSD

EPA 353.2

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 90625

Case No: 90625 Date Analyzed: 11/06/19

Matrix: WATER Instrument: EVE

Blank ID: 191106A-BLK Time Analyzed: 1705

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191106A-BLK	Blank	12	11/06/19 1705
191106A-LCS	Lab Control Spike	13	11/06/19 1707
191106A-LCSD	Lab Control SpikeD	14	11/06/19 1709
BA02301	ERH961	15	11/06/19 1712

Comments: Batch: #35OF-191106A

Printed: 12/04/19 3:55:36 PM
Form 4, Blank Summary

SM 2320B

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 90625

Case No: 90625 Date Analyzed: 11/06/19

Matrix: WATER Instrument: Tiamo

Blank ID: 191106A-BLK Time Analyzed: 1919

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191106A-BLK	Blank	1	11/06/19 1919
191106A-LCS	Lab Control Spike	2	11/06/19 1922
191106A-LCSD	Lab Control SpikeD	3	11/06/19 1931
BA02301	ERH961	4	11/06/19 1942

Comments: Batch: #232W-191106A

Printed: 12/04/19 3:55:36 PM
Form 4, Blank Summary

SM 4500-Si D

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 90625

Case No: 90625 Date Analyzed: 11/06/19

Matrix: WATER Instrument: Manual Spec

Blank ID: 191106A-BLK Time Analyzed: 2122

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191106A-BLK	Blank	57	11/06/19 2122
191106A-LCS	Lab Control Spike	58	11/06/19 2122
191106A-LCSD	Lab Control SpikeD	60	11/06/19 2123
BA02301	ERH961	62	11/06/19 2125

Comments: Batch: #SIO2-191106A

Printed: 12/04/19 3:55:36 PM
Form 4, Blank Summary

SM 4500-Si D

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 90625

Case No: 90625 Date Analyzed: 11/06/19

Matrix: WATER Instrument: Manual Spec

Blank ID: 191106A-BLK Time Analyzed: 2122

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191106A-BLK	Blank	57	11/06/19 2122
191106A-LCS	Lab Control Spike	58	11/06/19 2122
191106A-LCSD	Lab Control SpikeD	60	11/06/19 2123
BA02301	ERH961	70	11/06/19 2129

Comments: Batch: #SIO2D-191106A

Printed: 12/04/19 3:55:36 PM
Form 4, Blank Summary

SM3500FeB

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 90625

Case No: 90625 Date Analyzed: 11/04/19

Matrix: WATER Instrument: Manual Spec

Blank ID: A191104-BLK Time Analyzed: 2227

APPL ID.	Client Sample No.	File ID.	Date Analyzed
A191104-BLK	Blank	33	11/04/19 2227
A191104-LCSD	Lab Control SpikeD	34	11/04/19 2227
A191104-LCS	Lab Control Spike	35	11/04/19 2227
BA02301	ERH961	38	11/04/19 2228

Comments: Batch: #35FE-A191104

Printed: 12/04/19 3:55:36 PM
Form 4, Blank Summary

SW846 9060A

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 90625

Case No: 90625 Date Analyzed: 11/05/19

Matrix: WATER Instrument: TICTOC

Blank ID: 191105A-BLK Time Analyzed: 1620

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191105A-BLK	Blank	15	11/05/19 1620
191105A-LCS	Lab Control Spike	16	11/05/19 1656
191105A-LCSD	Lab Control SpikeD	17	11/05/19 1731
BA02301	ERH961	38	11/06/19 0626

Comments: Batch: #DOCW5-191105A

Printed: 12/04/19 3:55:36 PM
Form 4, Blank Summary

SW846 9060A

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 90625

Case No: 90625 Date Analyzed: 11/10/19

Matrix: WATER Instrument: TICTOC

Blank ID: 191107B-BLK Time Analyzed: 1833

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191107B-BLK	Blank	10	11/10/19 1833
191107B-LCS	Lab Control Spike	11	11/10/19 1909
191107B-LCSD	Lab Control SpikeD	12	11/10/19 1945
BA02301	ERH961	30	11/11/19 0558

Comments: Batch: #TOCW5-191107B

Printed: 12/04/19 3:55:36 PM
Form 4, Blank Summary

WETLAB BLANK

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Method	Analyte	Result	LOQ	LOD	DL	Units	Prep Date	Analysis Date	QC Group
SM 2320B	BICARBONATE AS	1.1 J	2.0	1.70	0.85	mg/L	11/06/19	11/06/19	#232W-191106A-BA02508
SM 2320B	CARBONATE AS C	1.70 U	2.0	1.70	0.85	mg/L	11/06/19	11/06/19	#232W-191106A-BA02508
SM 2320B	TOTAL ALKALINITY	1.1 J	2.0	1.70	0.85	mg/L	11/06/19	11/06/19	#232W-191106A-BA02508
SM3500Fe	FERROUS IRON	0.32 U	1.0	0.32	0.16	mg/L	11/04/19	11/04/19	#35FE-A191104-BA02301
EPA 353.2	NITRATE-NITRITE-	0.090 U	0.10	0.090	0.028	mg/L	11/06/19	11/06/19	#35OF-191106A-BA02301
SW846 90	DISSOLVED ORGA	0.350 U	0.93	0.350	0.130	mg/L	11/05/19	11/05/19	#DOCW5-191105A-BA01784
SM 4500-S	SILICA W	0.80 U	1.0	0.80	0.53	mg/L	11/06/19	11/06/19	#SIO2-191106A-BA02525
SM 4500-S	DISSOLVED SILICA	0.80 U	1.0	0.80	0.53	mg/L	11/06/19	11/06/19	#SIO2D-191106A-BA02525
SW846 90	TOTAL ORGANIC C	0.13 J	0.93	0.350	0.130	mg/L	11/10/19	11/10/19	#TOCW5-191107B-BA01829

J = Estimated value.

Wetlab SC-Blank-REG MDLs
Printed: 12/04/19 3:55:17 PM

EPA 353.2

Form 4

LCS Summary

Lab Name: APPL, Inc. SDG No: 90625

Case No: 90625 Date Analyzed: 11/06/19

Matrix: WATER Instrument: EVE

LCS ID: 191106A-LCS Time Analyzed: 1707

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191106A-BLK	Blank	12	11/06/19 1705
191106A-LCS	Lab Control Spike	13	11/06/19 1707
191106A-LCSD	Lab Control SpikeD	14	11/06/19 1709
BA02301	ERH961	15	11/06/19 1712

Comments: Batch: #35OF-191106A

Printed: 12/04/19 3:55:36 PM
Form 4, LCS Summary

SM 2320B

Form 4

LCS Summary

Lab Name: APPL, Inc. SDG No: 90625

Case No: 90625 Date Analyzed: 11/06/19

Matrix: WATER Instrument: Tiamo

LCS ID: 191106A-LCS Time Analyzed: 1922

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191106A-BLK	Blank	1	11/06/19 1919
191106A-LCS	Lab Control Spike	2	11/06/19 1922
191106A-LCSD	Lab Control SpikeD	3	11/06/19 1931
BA02301	ERH961	4	11/06/19 1942

Comments: Batch: #232W-191106A

Printed: 12/04/19 3:55:36 PM
Form 4, LCS Summary

SM 4500-Si D

Form 4

LCS Summary

Lab Name: APPL, Inc. SDG No: 90625

Case No: 90625 Date Analyzed: 11/06/19

Matrix: WATER Instrument: Manual Spec

LCS ID: 191106A-LCS Time Analyzed: 2122

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191106A-BLK	Blank	57	11/06/19 2122
191106A-LCS	Lab Control Spike	58	11/06/19 2122
191106A-LCSD	Lab Control SpikeD	60	11/06/19 2123
BA02301	ERH961	62	11/06/19 2125

Comments: Batch: #SIO2-191106A

Printed: 12/04/19 3:55:36 PM
Form 4, LCS Summary

SM 4500-Si D

Form 4

LCS Summary

Lab Name: APPL, Inc. SDG No: 90625

Case No: 90625 Date Analyzed: 11/06/19

Matrix: WATER Instrument: Manual Spec

LCS ID: 191106A-LCS Time Analyzed: 2122

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191106A-BLK	Blank	57	11/06/19 2122
191106A-LCS	Lab Control Spike	58	11/06/19 2122
191106A-LCSD	Lab Control SpikeD	60	11/06/19 2123
BA02301	ERH961	70	11/06/19 2129

Comments: Batch: #SIO2D-191106A

Printed: 12/04/19 3:55:36 PM
Form 4, LCS Summary

SM3500FeB

Form 4

LCS Summary

Lab Name: APPL, Inc. SDG No: 90625

Case No: 90625 Date Analyzed: 11/04/19

Matrix: WATER Instrument: Manual Spec

LCS ID: A191104-LCS Time Analyzed: 2227

APPL ID.	Client Sample No.	File ID.	Date Analyzed
A191104-BLK	Blank	33	11/04/19 2227
A191104-LCSD	Lab Control SpikeD	34	11/04/19 2227
A191104-LCS	Lab Control Spike	35	11/04/19 2227
BA02301	ERH961	38	11/04/19 2228

Comments: Batch: #35FE-A191104

Printed: 12/04/19 3:55:36 PM
Form 4, LCS Summary

SW846 9060A

Form 4

LCS Summary

Lab Name: APPL, Inc. SDG No: 90625

Case No: 90625 Date Analyzed: 11/05/19

Matrix: WATER Instrument: TICTOC

LCS ID: 191105A-LCS Time Analyzed: 1656

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191105A-BLK	Blank	15	11/05/19 1620
191105A-LCS	Lab Control Spike	16	11/05/19 1656
191105A-LCSD	Lab Control SpikeD	17	11/05/19 1731
BA02301	ERH961	38	11/06/19 0626

Comments: Batch: #DOCW5-191105A

Printed: 12/04/19 3:55:36 PM
Form 4, LCS Summary

SW846 9060A

Form 4

LCS Summary

Lab Name: APPL, Inc. SDG No: 90625

Case No: 90625 Date Analyzed: 11/10/19

Matrix: WATER Instrument: TICTOC

LCS ID: 191107B-LCS Time Analyzed: 1909

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191107B-BLK	Blank	10	11/10/19 1833
191107B-LCS	Lab Control Spike	11	11/10/19 1909
191107B-LCSD	Lab Control SpikeD	12	11/10/19 1945
BA02301	ERH961	30	11/11/19 0558

Comments: Batch: #TOCW5-191107B

Printed: 12/04/19 3:55:36 PM
Form 4, LCS Summary

Laboratory Control Spike Recoveries

WETLAB

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Method	Compound Name	Spike Lvl mg/L	SPK Res mg/L	DUP Res mg/L	SPK % Recov	DUP % Recov	RPD	RPD Max	QC Limits	Extract Date-Spk	Analysis Date-Spk	Extract Date-Dup	Analysis Date-Dup	QC Group
EPA 353.2	NITRATE-NITRITE-N	3.00	3.19	2.95	106	98.3	7.8	20	90-110	11/06/19	11/06/19	11/06/19	11/06/19	#35OF-191106A-BA02301
SM 2320B	BICARBONATE AS CACO3	229.5	221	233	96.3	102	5.3	20	90-110	11/06/19	11/06/19	11/06/19	11/06/19	#232W-191106A-BA02508
SM 2320B	CARBONATE AS CACO3	20.5	24.0	16.6	117 #	81.0 #	36.5 #	20	90-110	11/06/19	11/06/19	11/06/19	11/06/19	#232W-191106A-BA02508
SM 2320B	TOTAL ALKALINITY AS CA	250	245	250	98.0	100	2.0	20	90-110	11/06/19	11/06/19	11/06/19	11/06/19	#232W-191106A-BA02508
SM 4500-Si	SILICA W	4.00	3.81	3.85	95.3	96.3	1.0	20	80-120	11/06/19	11/06/19	11/06/19	11/06/19	#SIO2-191106A-BA02525
SM 4500-Si	DISSOLVED SILICA	4.00	3.81	3.85	95.3	96.3	1.0	20	80-120	11/06/19	11/06/19	11/06/19	11/06/19	#SIO2D-191106A-BA02525
SM3500Fe	FERROUS IRON	3.00	2.90	2.92	96.7	97.3	0.69	20	80-120	11/04/19	11/04/19	11/04/19	11/04/19	#35FE-A191104-BA02301
SW846 90	DISSOLVED ORGANIC CA	5.00	5.06	5.06	101	101	0.0	20	90-110	11/05/19	11/05/19	11/05/19	11/05/19	#DOCW5-191105A-BA017
SW846 90	TOTAL ORGANIC CARBO	5.00	5.16	5.12	103	102	0.78	20	80-120	11/10/19	11/10/19	11/10/19	11/10/19	#TOCW5-191107B-BA018

= Recovery is outside QC limits.

Comments:

Printed: 12/04/19 3:55:26 PM
APPL Standard LCSD

Matrix Spike Recoveries

WETLAB

APPL ID: **191106W-02301 MS - 246862**

Sample ID: BA02301

Client ID: ERH961

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Method	Compound Name	Spike Lvl mg/L	Matrix Res mg/L	SPK Res mg/L	DUP Res mg/L	SPK % Recovery	DUP % Recovery	RPD	RPD Max	Recovery Limits	Extract Date-Spk	Analysis Date-Spk	Extract Date-Dup	Analysis Date-Dup	QC Group	QC Sample
EPA 353.2	NITRATE-NITRITE-N	4.0	0.37	4.02	3.95	91.2	89.5 #	1.8	20	90-110	11/06/19	11/06/19	11/06/19	11/06/19	246862	BA02301
SM3500Fe	FERROUS IRON	3.0	0.084	3.01	3.03	97.5	98.2	0.66	20	80-120	11/04/19	11/04/19	11/04/19	11/04/19	246798	BA02301

= Recovery is outside QC limits.

Comments: _____

Printed: 12/17/19 3:06:40 PM
APPL MSD SCII

ORGANICS
Calibration Data

DBCP/EDB/1,2,3-TCP Analysis by
504 8011

Form 6
Initial Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Initial Cal. Date: 11/08/19
Matrix: Water Instrument: Herbie Initials:

			1025122.D	1025123.D	1025124 D	1025125.D	1025126.D	1025127.D									
		Compound	1	2	3	4	5	6					Avg	%RSD	Type	r^2	Q
1	TM	EDB	884525	804465	739004	692297	694324	679871					749081	11	TM		
2	TML	1,2,3-TCP	430975	262120	240364	218305	208006	202514					260381	33	TM	0.999	
3	S	1,3-DIBROMOPROPANE(S)		1033715	901976	824027	801433	770343					866299	12	S		
4	TM	DBCP	3286575	2895745	2909434	2762260	2691157	2691364					2872756	7.8	TM		
5		Signal #2											0	0			
6																	
7																	
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35																	

1.82706

DBCP/EDB/1,2,3-TCP Analysis by
504 8011

Form 6
Initial Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Initial Cal. Date: 11/08/19
Matrix: Water Instrument: Herbie Initials:

1025122.D 1025123 D 1025124.D 1025125.D 1025126.D 1025127.D

		Compound	1	2	3	4	5	6					Avg	%RSD	Type	r^2	Q
36	TM	EDB #2	3885200	3439110	3226410	3017715	2931621	2953985					3242340	11	TM		
37	TM	1,2,3-TCP #2	680875	640785	619024	559442	550172	525478					595963	10	TM		
38	S	1,3-DIBROMOPROPANE(S) #2	2491825	2354260	2198168	2062581	1972708	1929604					2168191	10	S		
39	TM	DBCP #2	10635375	9133015	9102064	9256497	9091623	9154474					9395508	6.5	TM		
40																	
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1.092579

Quantitation Report (Not Reviewed)

Signal #1 : G:\HERBIE\DATA\191025\1025122.D\ECD1A.CH Vial: 20
Signal #2 : G:\HERBIE\DATA\191025\1025122.D\ECD2B.CH
Acq On : 11-08-19 16:07:44 Operator: MA,SS
Sample : 8011 1 11/06/19 Inst : Herbie
Misc : water Multiplr: 1.00
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Nov 12 14:22 2019 Quant Results File: 8011106A.RES

Quant Method : G:\HERBIE\DATA\190814\8011106A.M (RTE Integrator)
Title : 504.1 OR 8011
Last Update : Tue Nov 12 13:30:16 2019
Response via : Initial Calibration
DataAcq Meth : DOHS504.M

Volume Inj. : 2µL
Signal #1 Phase : DB-35MS Signal #2 Phase: DB-XLB
Signal #1 Info : 0.25 Signal #2 Info : 0.50

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L	
	System Monitoring Compounds							
3) S	1,3-DIBROMOPROPA	10.02	11.03	54908	99673	0.032	0.023	#
Spiked Amount	0.350			Recovery	=	9.14%	6.57%	
	Target Compounds							
1) TM	EDB	5.79	7.21	35381	155408	0.024	0.024	
2) TM	1,2,3-TCP	9.22	10.44	17239	27235	0.005	0.023	#
4) TM	DBCP	13.35	14.08	131463	425415	0.023	0.023	

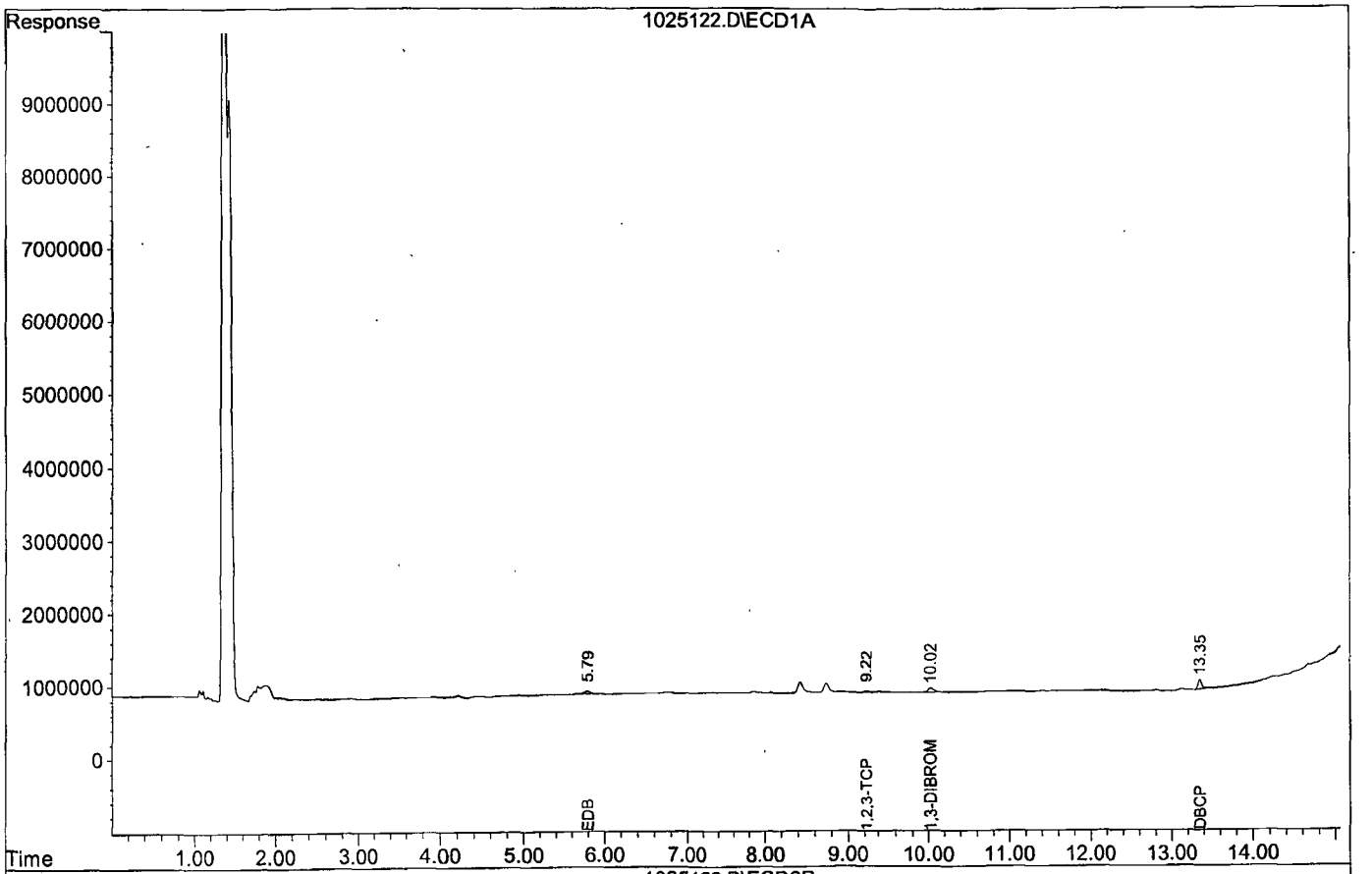
Target Compounds

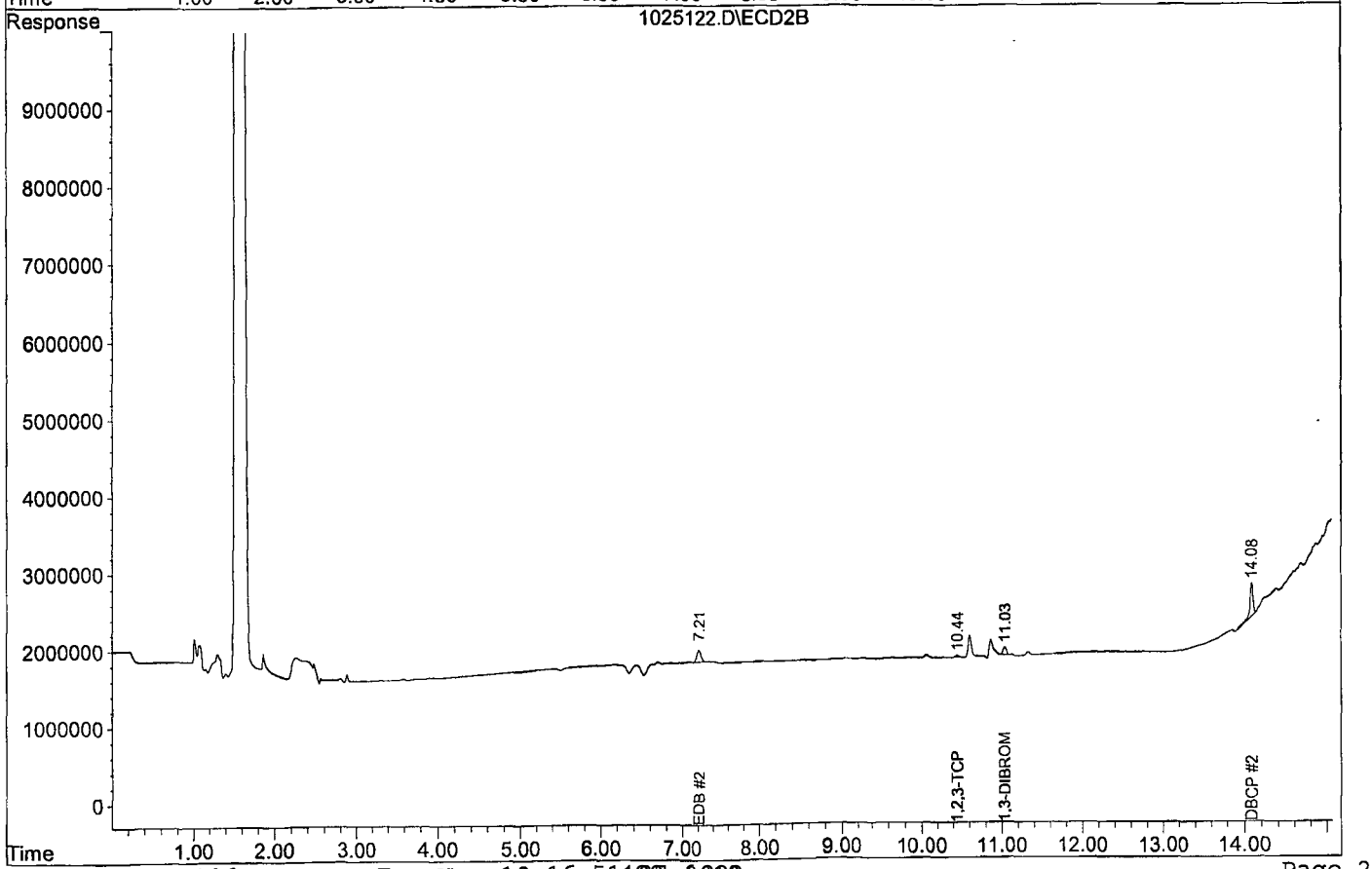
(f)=RT Delta > 1/2 Window (#)=Amounts differ by >25% (m)=manual int.

Quantitation Report (Not Reviewed)

Data File : G:\HERBIE\DATA\191025\1025122.D
Acq On : 11-08-19 16:07:44
Sample : 8011 1 11/06/19
Misc : water
Quant Method : G:\HERBIE\DATA\190814\8011106A.M

Vial: 20
Operator: MA,SS
Inst : Herbie
Multiplr: 1.00





Quantitation Report (Not Reviewed)

Signal #1 : G:\HERBIE\DATA\191025\1025123.D\ECD1A.CH Vial: 21
Signal #2 : G:\HERBIE\DATA\191025\1025123.D\ECD2B.CH
Acq On : 11-08-19 16:28:04 Operator: MA,SS
Sample : 8011 2 11/06/19 Inst : Herbie
Misc : water Multiplr: 1.00
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Nov 12 14:22 2019 Quant Results File: 8011106A.RES

Quant Method : G:\HERBIE\DATA\190814\8011106A.M (RTE Integrator)
Title : 504.1 OR 8011
Last Update : Tue Nov 12 13:30:16 2019
Response via : Initial Calibration
DataAcq Meth : DOHS504.M

Volume Inj. : 2µL
Signal #1 Phase : DB-35MS Signal #2 Phase: DB-XLB
Signal #1 Info : 0.25 Signal #2 Info : 0.50

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
	System Monitoring Compounds						
3) S	1,3-DIBROMOPROPA	10.02	11.03	206743	470852	0.119	0.109
Spiked Amount	0.350			Recovery	=	34.00%	31.14%
	Target Compounds						
1) TM	EDB	5.79	7.21	160893	687822	0.107	0.106
2) TM	1,2,3-TCP	9.25	10.44	52424	128157	0.094	0.108
4) TM	DBCP	13.34	14.08	579149	1826603	0.101	0.097
	Target Compounds						

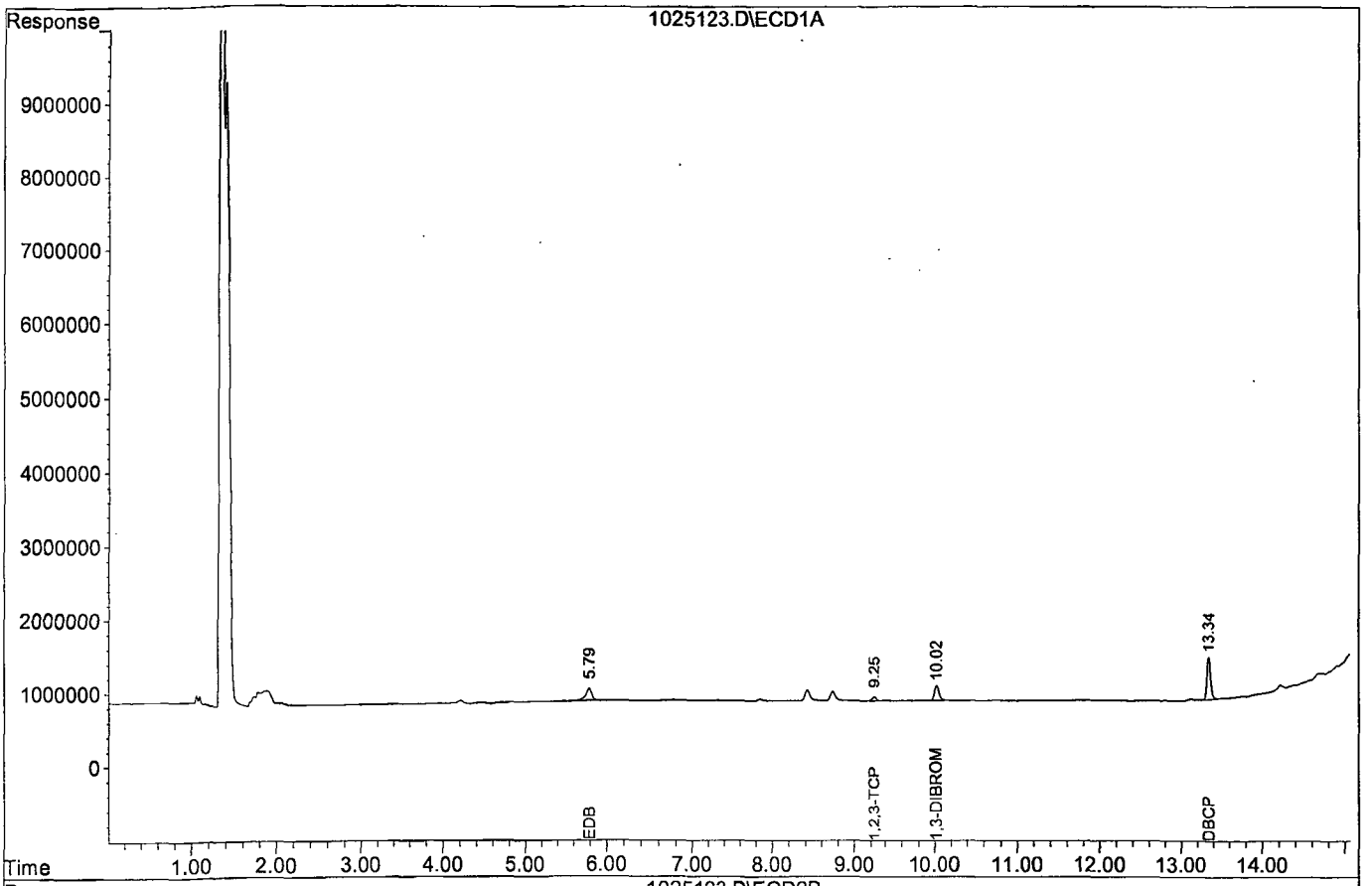
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

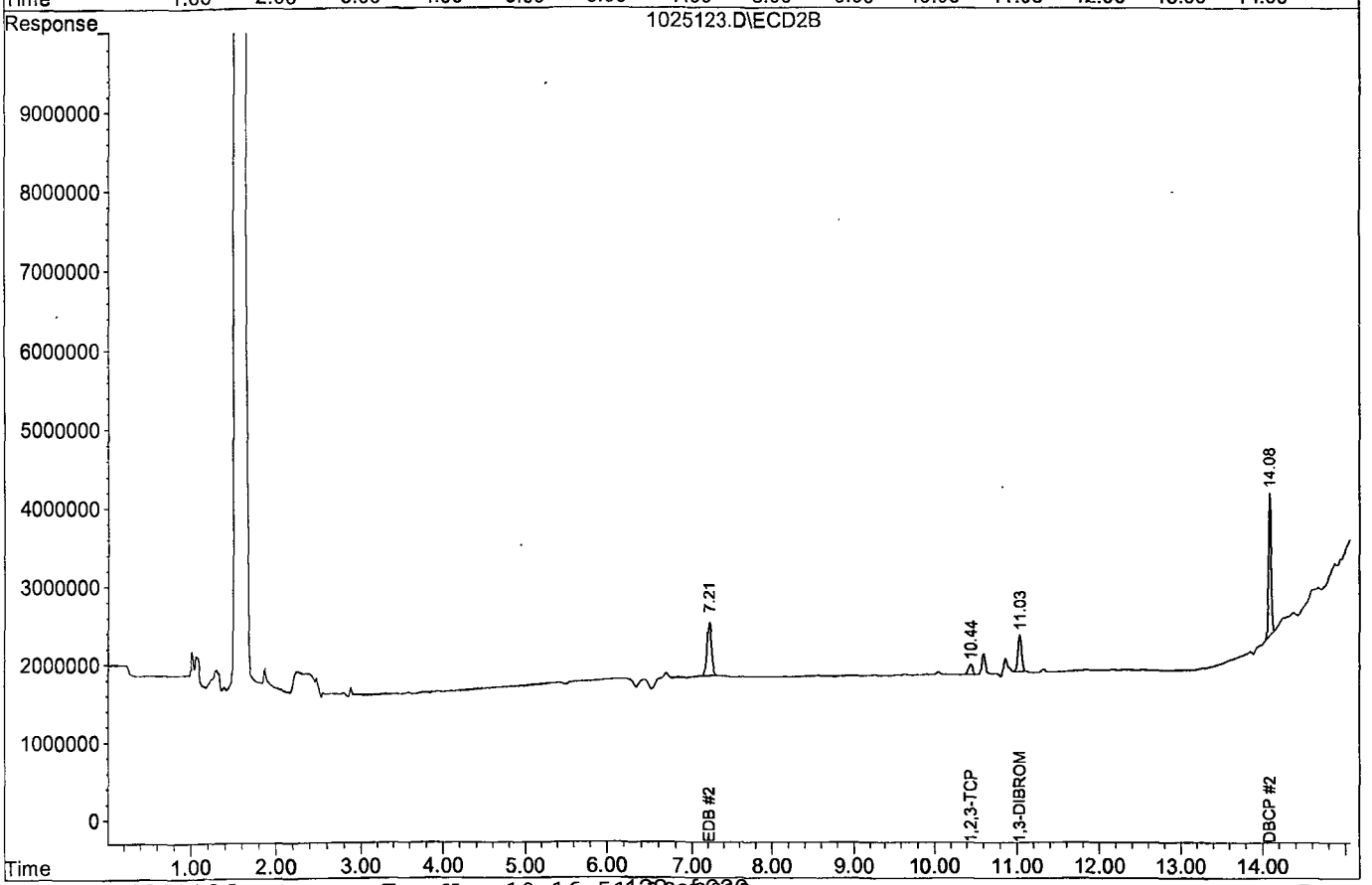
1025123.D 8011106A.M Tue Nov 19 16:51:28 2019 Page 1

Quantitation Report (Not Reviewed)

Data File : G:\HERBIE\DATA\191025\1025123.D
Acq On : 11-08-19 16:28:04
Sample : 8011 2 11/06/19
Misc : water
Quant Method : G:\HERBIE\DATA\190814\8011106A.M

Vial: 21
Operator: MA,SS
Inst : Herbie
Multiplr: 1.00





Quantitation Report (Not Reviewed)

Signal #1 : G:\HERBIE\DATA\191025\1025124.D\ECD1A.CH Vial: 22
Signal #2 : G:\HERBIE\DATA\191025\1025124.D\ECD2B.CH
Acq On : 11-08-19 16:48:46 Operator: MA,SS
Sample : 8011 3 11/06/19 Inst : Herbie
Misc : water Multiplr: 1.00
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Nov 12 14:22 2019 Quant Results File: 8011106A.RES

Quant Method : G:\HERBIE\DATA\190814\8011106A.M (RTE Integrator)
Title : 504.1 OR 8011
Last Update : Tue Nov 12 13:30:16 2019
Response via : Initial Calibration
DataAcq Meth : DOHS504.M

Volume Inj. : 2µL
Signal #1 Phase : DB-35MS Signal #2 Phase: DB-XLB
Signal #1 Info : 0.25 Signal #2 Info : 0.50

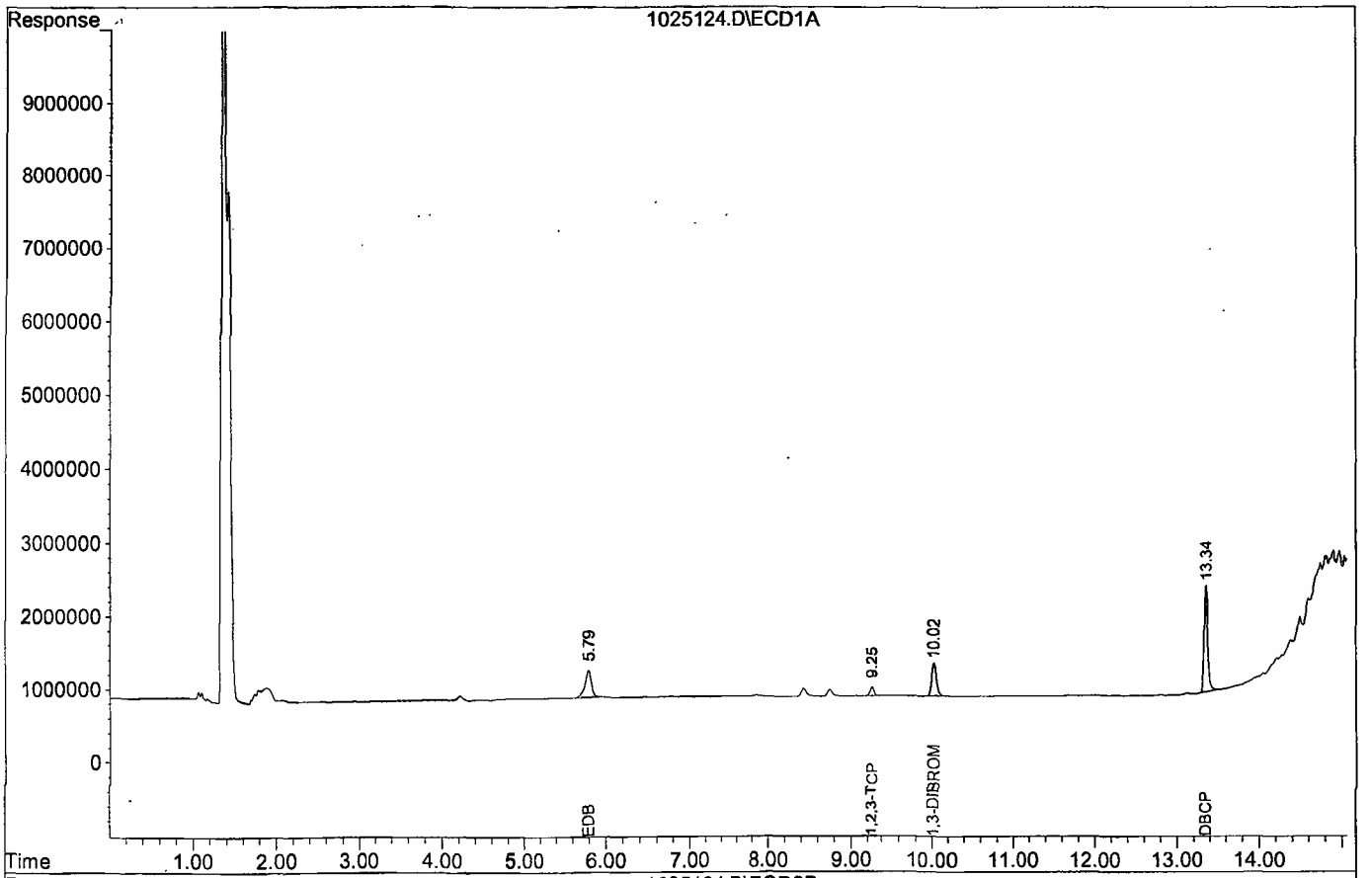
Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
System Monitoring Compounds						
3) S 1,3-DIBROMOPROPA	10.02	11.03	450988	1099084	0.260	0.253
Spiked Amount 0.350			Recovery =		74.29%	72.29%
Target Compounds						
1) TM EDB	5.79	7.21	369502	1613205	0.247	0.249
2) TM 1,2,3-TCP	9.25	10.44	120182	309512	0.266	0.260
4) TM DBCP	13.34	14.09	1454717	4551032	0.253	0.242
Target Compounds						

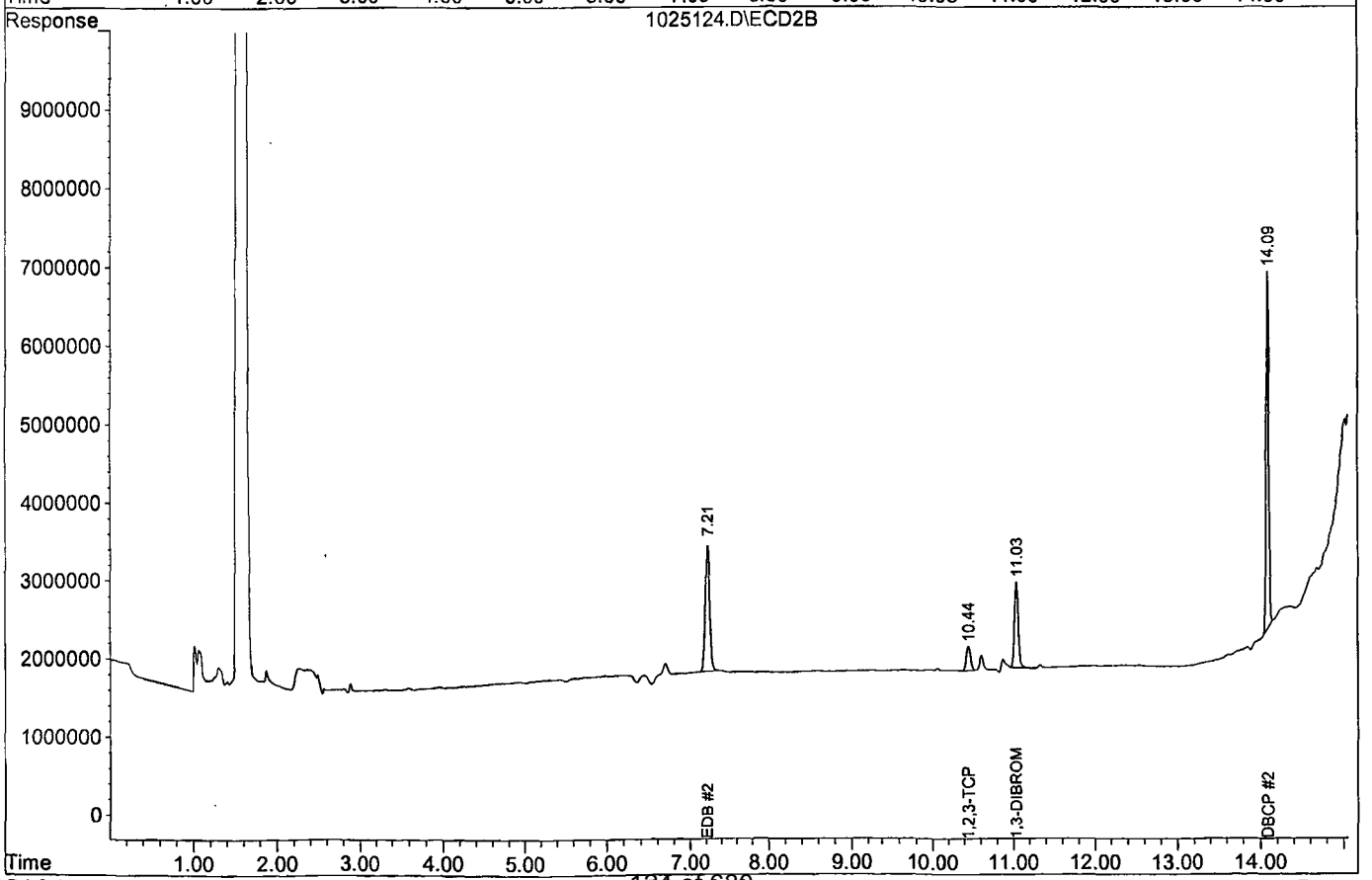
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (Not Reviewed)

Data File : G:\HERBIE\DATA\191025\1025124.D
Acq On : 11-08-19 16:48:46
Sample : 8011 3 11/06/19
Misc : water
Quant Method : G:\HERBIE\DATA\190814\8011106A.M

Vial: 22
Operator: MA,SS
Inst : Herbie
Multiplr: 1.00





Quantitation Report (Not Reviewed)

Signal #1 : G:\HERBIE\DATA\191025\1025125.D\ECD1A.CH Vial: 23
Signal #2 : G:\HERBIE\DATA\191025\1025125.D\ECD2B.CH
Acq On : 11-08-19 17:09:07 Operator: MA,SS
Sample : 8011 4 11/06/19 Inst : Herbie
Misc : water Multiplr: 1.00
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Nov 12 14:22 2019 Quant Results File: 8011106A.RES

Quant Method : G:\HERBIE\DATA\190814\8011106A.M (RTE Integrator)
Title : 504.1 OR 8011
Last Update : Tue Nov 12 13:30:16 2019
Response via : Initial Calibration
DataAcq Meth : DOHS504.M

Volume Inj. : 2µL
Signal #1 Phase : DB-35MS Signal #2 Phase: DB-XLB
Signal #1 Info : 0.25 Signal #2 Info : 0.50

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
	System Monitoring Compounds						
3) S	1,3-DIBROMOPROPA	10.02	11.03	824027	2062581	0.476	0.476
Spiked Amount	0.350			Recovery	=	136.00%	136.00%
	Target Compounds						
1) TM	EDB	5.79	7.21	692297	3017715	0.462	0.465
2) TM	1,2,3-TCP	9.25	10.44	218305	559442	0.515	0.469
4) TM	DBCP	13.34	14.08	2762260	9256497	0.481	0.493

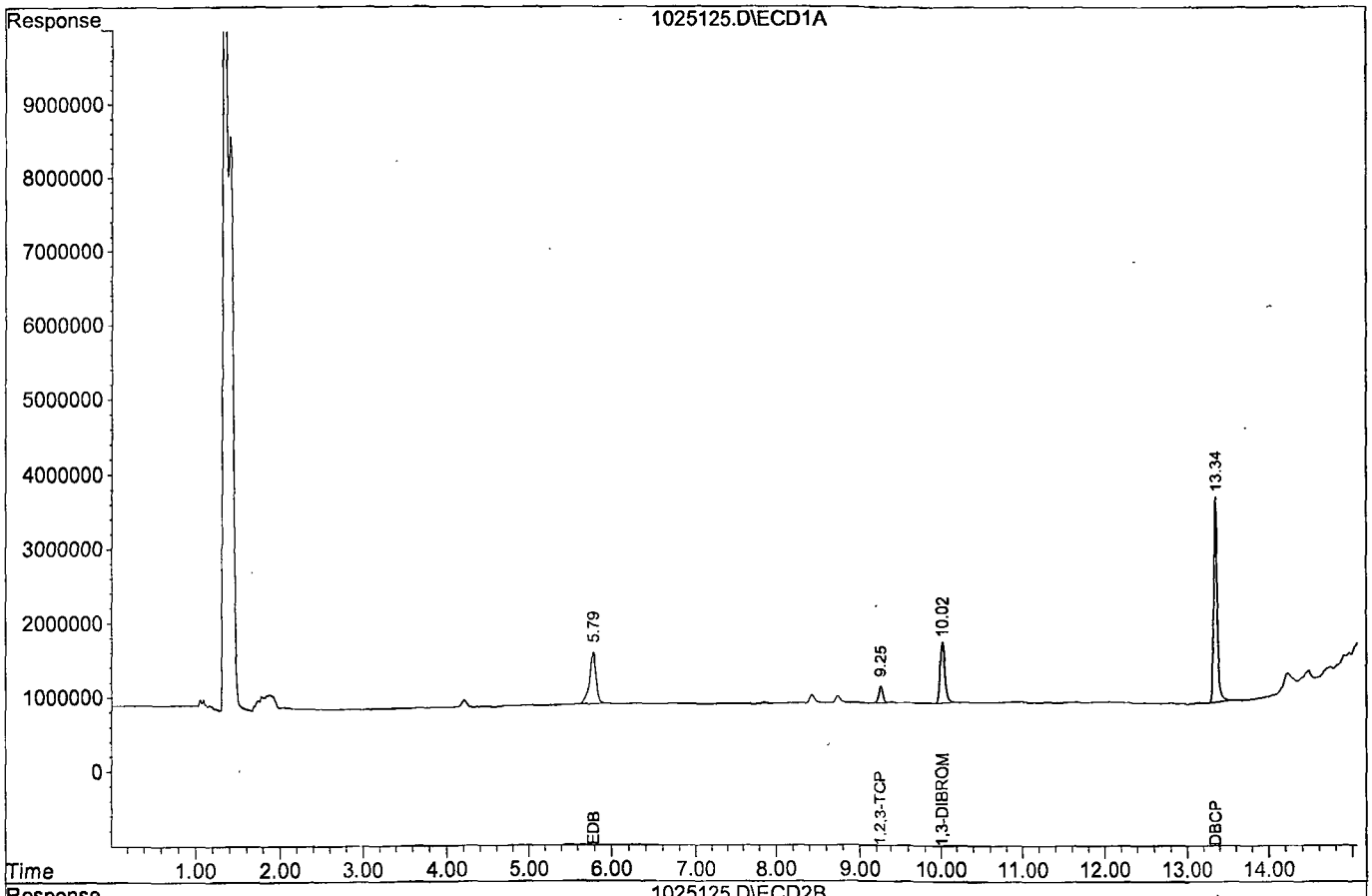
Target Compounds

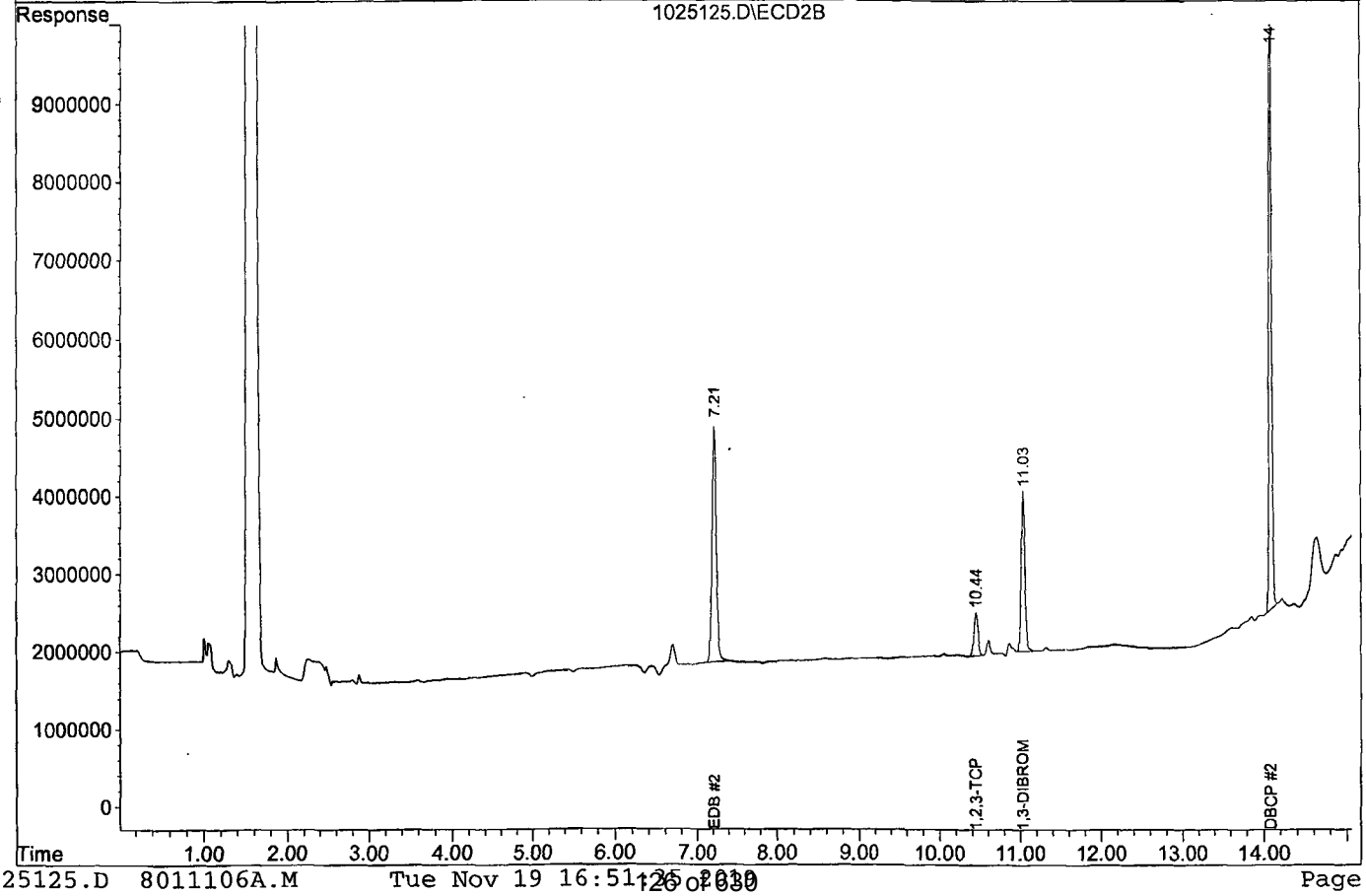
(f)=RT Delta > 1/2 Window (#)=Amounts differ by >25% (m)=manual int.

Quantitation Report (Not Reviewed)

Data File : G:\HERBIE\DATA\191025\1025125.D
Acq On : 11-08-19 17:09:07
Sample : 8011 4 11/06/19
Misc : water
Quant Method : G:\HERBIE\DATA\190814\8011106A.M

Vial: 23
Operator: MA,SS
Inst : Herbie
Multiplr: 1.00





Quantitation Report (Not Reviewed)

Signal #1 : G:\HERBIE\DATA\191025\1025126.D\ECD1A.CH Vial: 24
Signal #2 : G:\HERBIE\DATA\191025\1025126.D\ECD2B.CH
Acq On : 11-08-19 17:29:40 Operator: MA,SS
Sample : 8011 5 11/06/19 Inst : Herbie
Misc : water Multiplr: 1.00
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Nov 12 14:22 2019 Quant Results File: 8011106A.RES

Quant Method : G:\HERBIE\DATA\190814\8011106A.M (RTE Integrator)
Title : 504.1 OR 8011
Last Update : Tue Nov 12 13:30:16 2019
Response via : Initial Calibration
DataAcq Meth : DOHS504.M

Volume Inj. : 2µL
Signal #1 Phase : DB-35MS Signal #2 Phase: DB-XLB
Signal #1 Info : 0.25 Signal #2 Info : 0.50

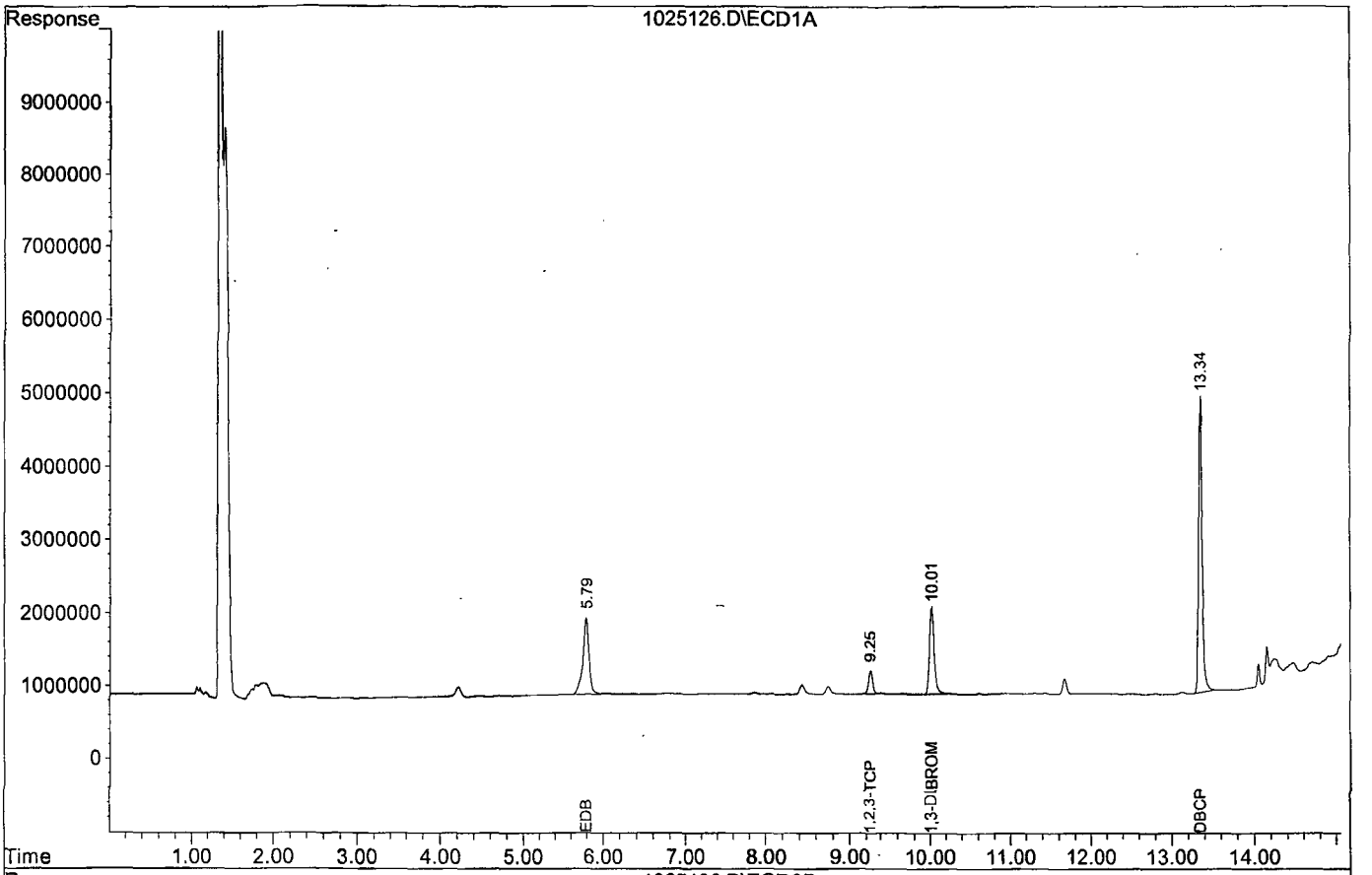
	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
	System Monitoring Compounds						
3) S	1,3-DIBROMOPROPA	10.01	11.03	1202149	2959062	0.694	0.682
Spiked Amount	0.350			Recovery	=	198.29%	194.86%
	Target Compounds						
1) TM	EDB	5.79	7.21	1041486	4397431	0.695	0.678
2) TM	1,2,3-TCP	9.25	10.44	312009	825258	0.752	0.692
4) TM	DBCP	13.34	14.09	4036736	13637434	0.703	0.726
	Target Compounds						

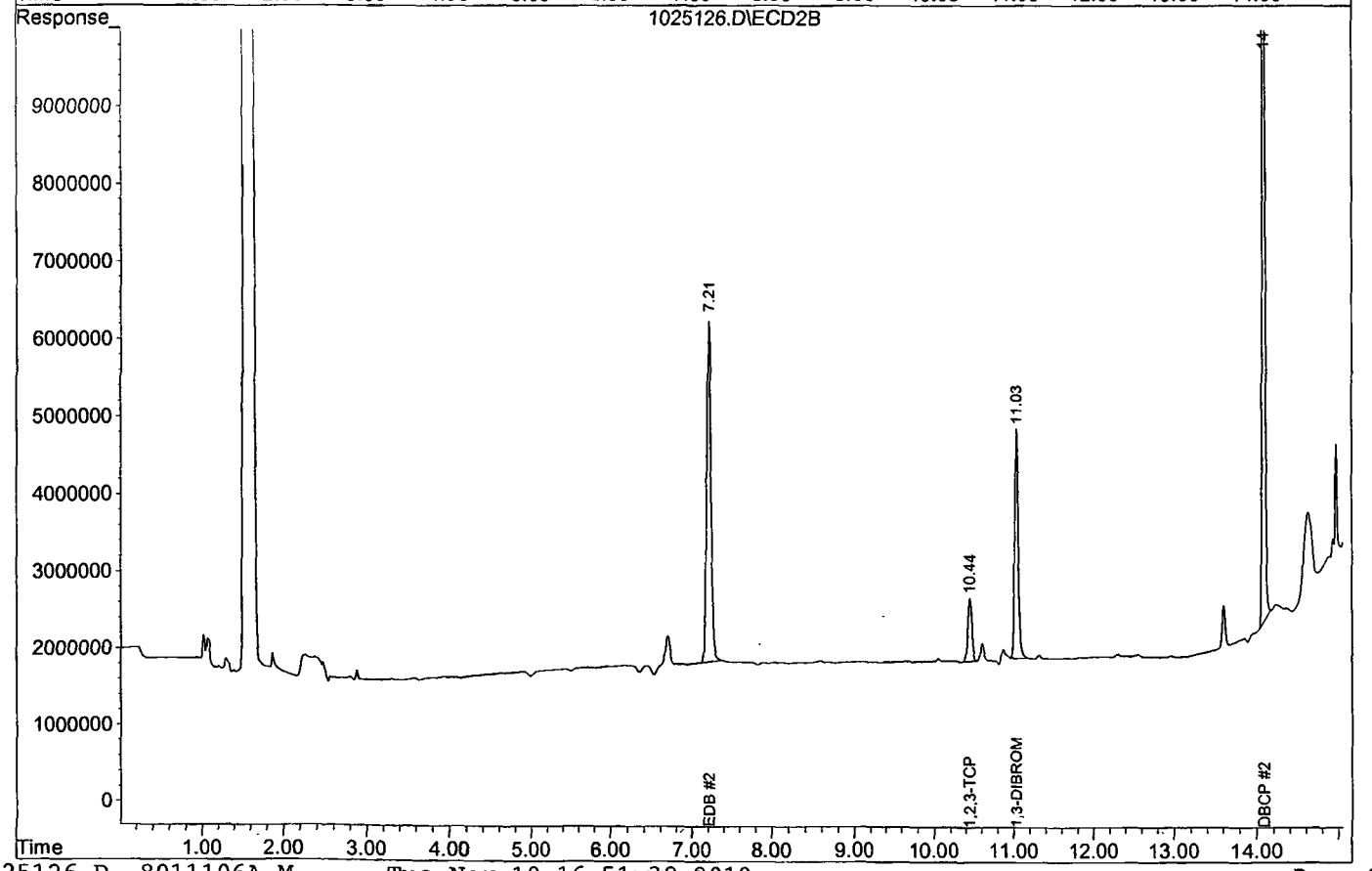
(f)=RT Delta > 1/2 Window (#)=Amounts differ by more than 30% (m)=manual int.

Quantitation Report (Not Reviewed)

Data File : G:\HERBIE\DATA\191025\1025126.D
Acq On : 11-08-19 17:29:40
Sample : 8011 5 11/06/19
Misc : water
Quant Method : G:\HERBIE\DATA\190814\8011106A.M

Vial: 24
Operator: MA,SS
Inst : Herbie
Multiplr: 1.00





Quantitation Report (Not Reviewed)

Signal #1 : G:\HERBIE\DATA\191025\1025127.D\ECD1A.CH Vial: 25
Signal #2 : G:\HERBIE\DATA\191025\1025127.D\ECD2B.CH
Acq On : 11-08-19 17:50:18 Operator: MA,SS
Sample : 8011 6 11/06/19 Inst : Herbie
Misc : water Multiplr: 1.00
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Nov 12 14:22 2019 Quant Results File: 8011106A.RES

Quant Method : G:\HERBIE\DATA\190814\8011106A.M (RTE Integrator)
Title : 504.1 OR 8011
Last Update : Tue Nov 12 13:30:16 2019
Response via : Initial Calibration
DataAcq Meth : DOHS504.M

Volume Inj. : 2µL
Signal #1 Phase : DB-35MS Signal #2 Phase: DB-XLB
Signal #1 Info : 0.25 Signal #2 Info : 0.50

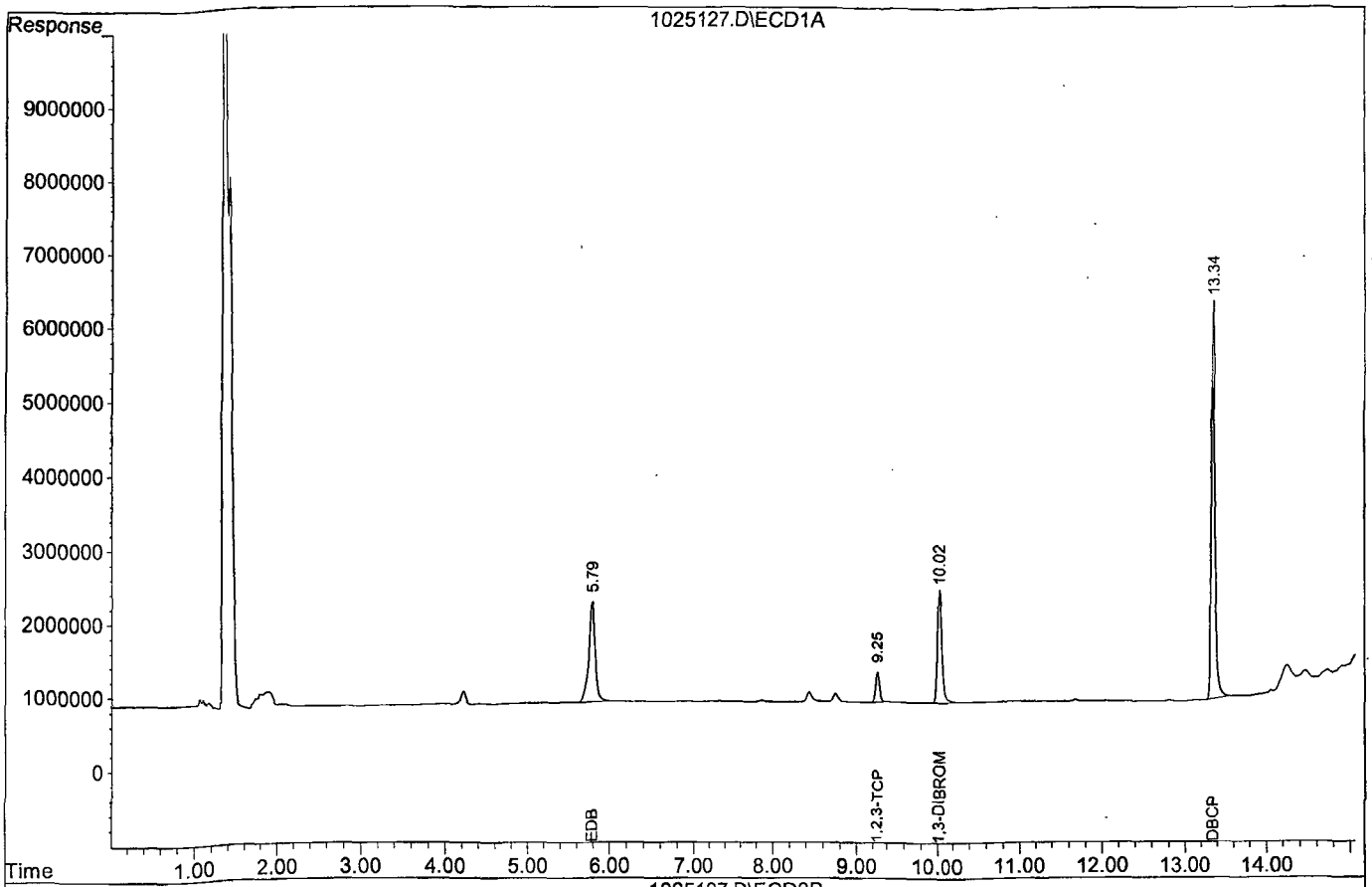
	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
	System Monitoring Compounds						
3) S	1,3-DIBROMOPROPA	10.02	11.03	1540685	3859208	0.889	0.890
Spiked Amount	0.350			Recovery	=	254.00%	254.29%
	Target Compounds						
1) TM	EDB	5.79	7.21	1359742	5907969	0.908	0.911
2) TM	1,2,3-TCP	9.25	10.44	405028	1050955	0.988	0.882
4) TM	DBCP	13.34	14.08	5382727	18308947	0.937	0.974
	Target Compounds						

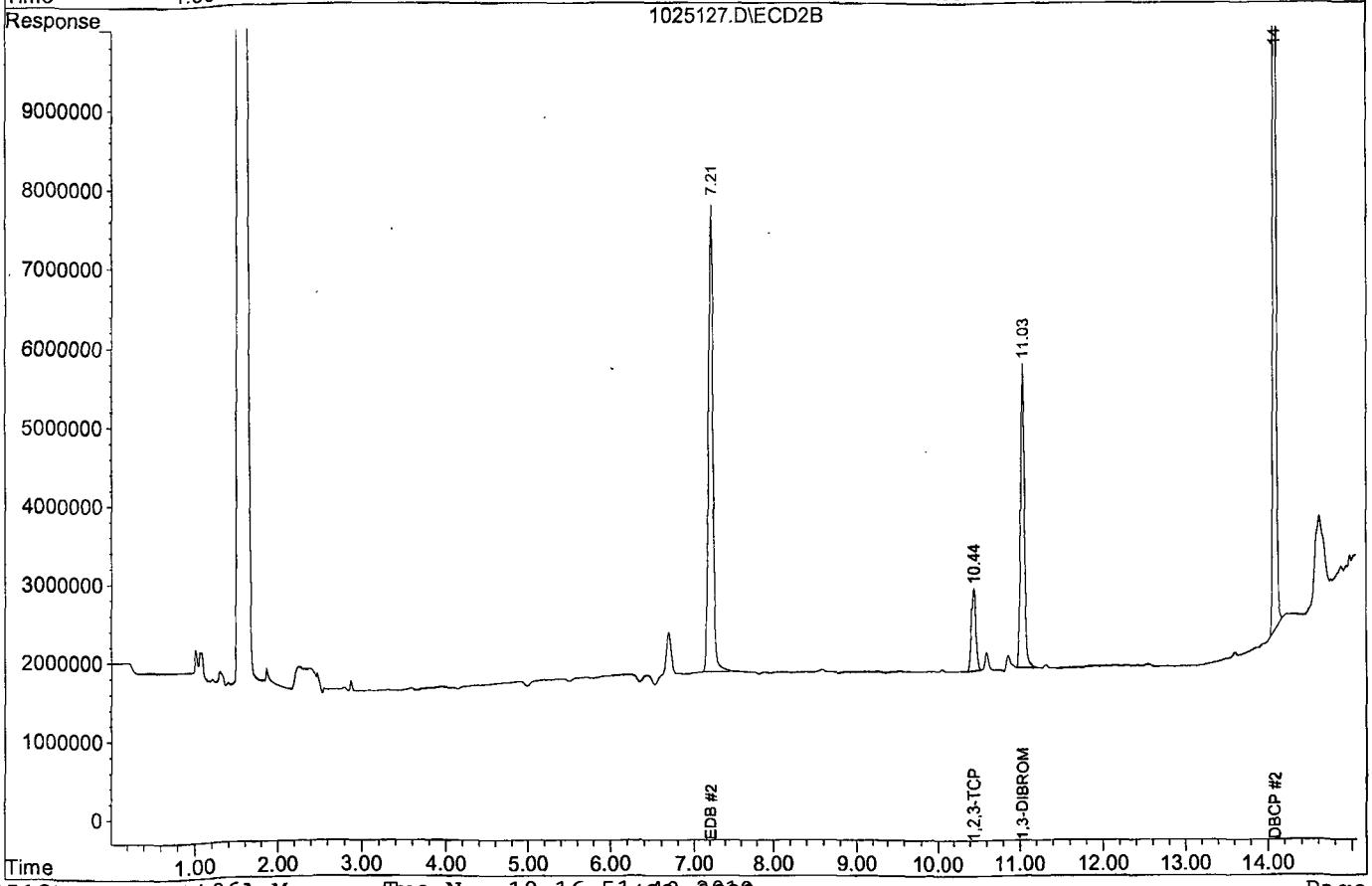
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (Not Reviewed)

Data File : G:\HERBIE\DATA\191025\1025127.D
Acq On : 11-08-19 17:50:18
Sample : 8011 6 11/06/19
Misc : water
Quant Method : G:\HERBIE\DATA\190814\8011106A.M

Vial: 25
Operator: MA,SS
Inst : Herbie
Multiplr: 1.00





DBCP/EDB/1,2,3-TCP Analysis by
504 8011

Form 7

Second Source Calibration

Lab Name: APPL, Inc.
Case No:
Matrix: Water

SDG No:
Date Analyzed: 11/08/19
Instrument: Herbie
Initial Cal. Date: 11/08/19
Data File: 1025128.D

		Compound	MEAN	CCRF	%D		%Drift
1	TM	EDB	749081	757325	1.1	TM	
2	TML	1,2,3-TCP	260381	248020	4.7	TML	13
3	TM	DBCP	2872760	2982060	3.8	TM	
4							
5							
6							
7							
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30							
31							
32							
33							
34							
35							
36							
37							
38							
39							
40							
		Average			3.2		

DBCP/EDB/1,2,3-TCP Analysis by
504 8011

Form 7

Second Source Calibration

Lab Name: APPL, Inc.
Case No:
Matrix: Water

SDG No:
Date Analyzed: 11/08/19
Instrument: Herbie
Cal. Date: 11/08/19
Data File: 1025128.D

		Compound	MEAN	CCRF	%D		%Drift
41	TM	EDB	3242340	3336070	2.9	TM	
42	TM	1,2,3-TCP	595963	605250	1.6	TM	
43	TM	DBCP	9395510	9282470	1.2	TM	
44							
45							
46							
47							
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74							
75							
76							
77							
78							
79							
80							
		Average			1.9		

Quantitation Report (Not Reviewed)

Signal #1 : G:\HERBIE\DATA\191025\1025128.D\ECD1A.CH Vial: 26
Signal #2 : G:\HERBIE\DATA\191025\1025128.D\ECD2B.CH
Acq On : 11-08-19 18:10:46 Operator: MA,SS
Sample : 8011 SS 11/06/19 Inst : Herbie
Misc : water Multiplr: 1.00
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Nov 12 14:22 2019 Quant Results File: 8011106A.RES

Quant Method : G:\HERBIE\DATA\190814\8011106A.M (RTE Integrator)
Title : 504.1 OR 8011
Last Update : Tue Nov 12 13:30:16 2019
Response via : Initial Calibration
DataAcq Meth : DOHS504.M

Volume Inj. : 2µL
Signal #1 Phase : DB-35MS Signal #2 Phase: DB-XLB
Signal #1 Info : 0.25 Signal #2 Info : 0.50

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
	System Monitoring Compounds						
3) S	1,3-DIBROMOPROPA	10.02	11.03	645848	1574249	0.373	0.363
Spiked Amount	0.350			Recovery	=	106.57%	103.71%
	Target Compounds						
1) TM	EDB	5.79	7.21	151465	667214	0.101	0.103
2) TM	1,2,3-TCP	9.24	10.44	49604	121050	0.087	0.102
4) TM	DBCP	13.34	14.08	596411	1856493	0.104	0.099

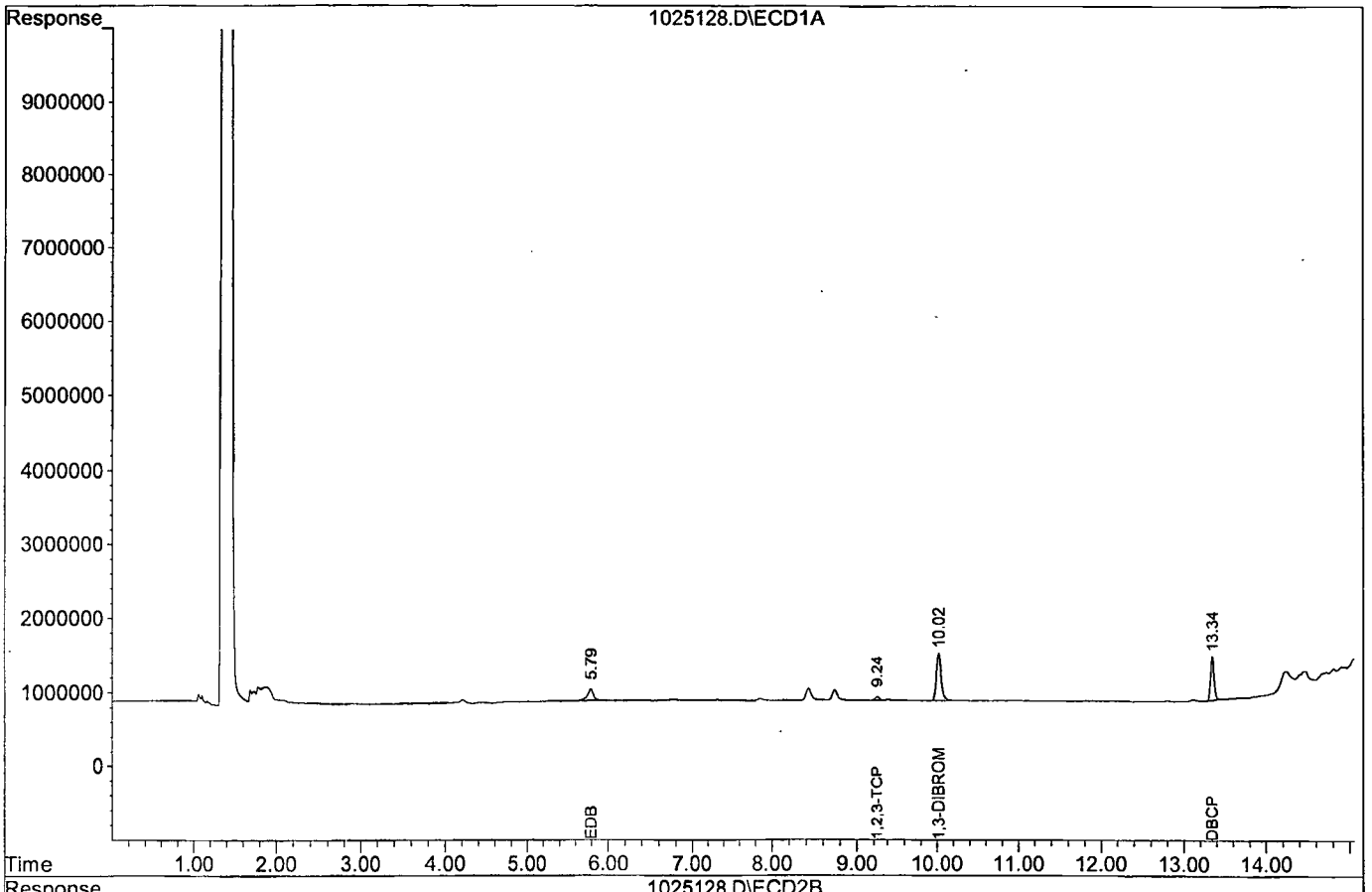
Target Compounds

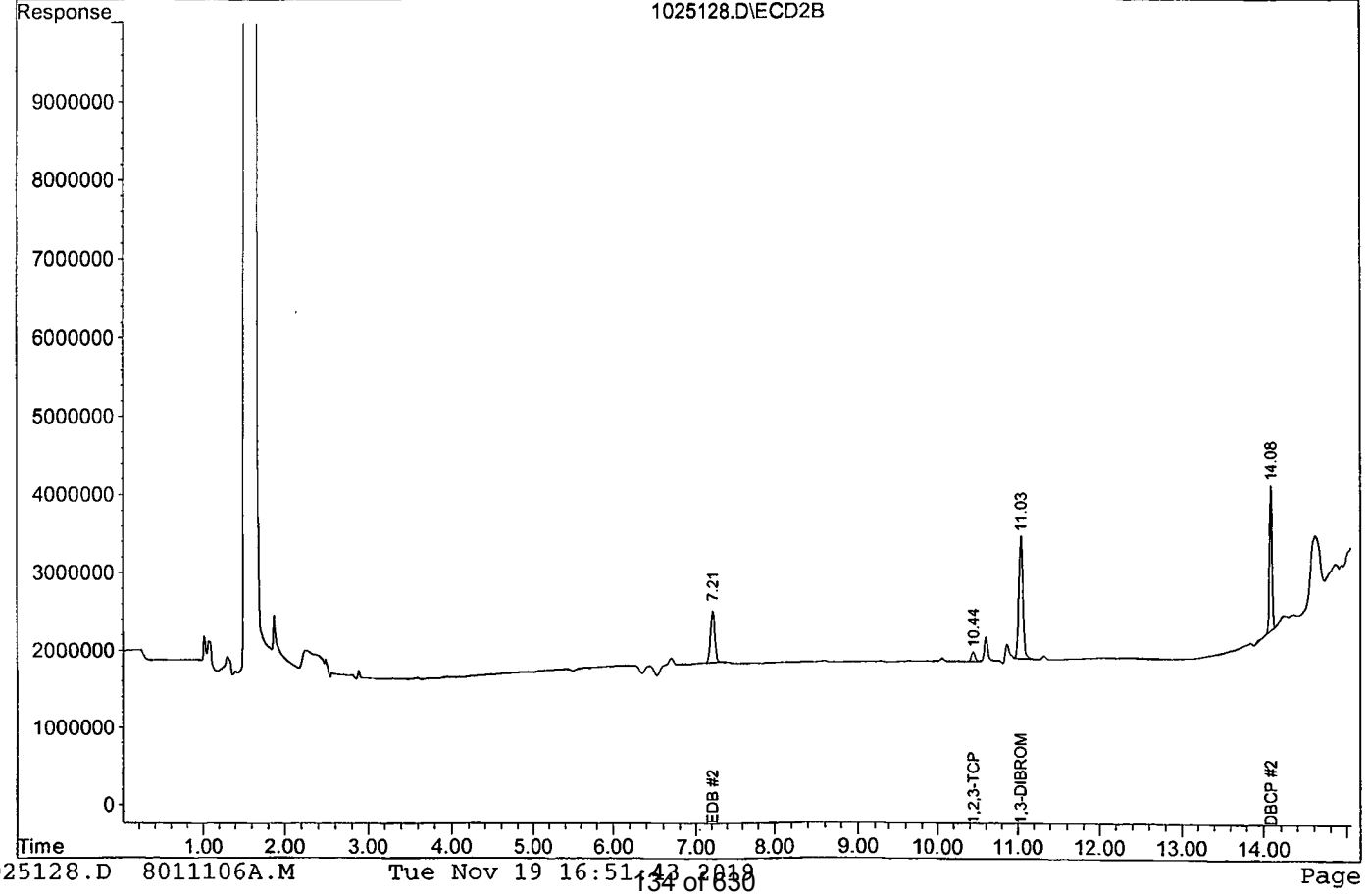
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (Not Reviewed)

Data File : G:\HERBIE\DATA\191025\1025128.D
Acq On : 11-08-19 18:10:46
Sample : 8011 SS 11/06/19
Misc : water
Quant Method : G:\HERBIE\DATA\190814\8011106A.M

Vial: 26
Operator: MA,SS
Inst : Herbie
Multiplr: 1.00





DBCP/EDB/1,2,3-TCP Analysis by
504 8011

Form 7

Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix: Water

SDG No:
Date Analyzed: 11/08/19
Instrument: Herbie
Initial Cal. Date: 11/08/19
Data File: 1025137.D

		Compound	MEAN	CCRF	%D		%Drift
1	TM	EDB	749081	713396	4.8	TM	
2	TML	1,2,3-TCP	260381	246344	5.4	TML	9.4
3	S	1,3-DIBROMOPROPANE(S)	866299	1020390	18	S	
4	TM	DBCP	2872760	3075550	7.1	TM	
5							
6							
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31							
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34							
35							
36							
37							
38							
39							
40							
		Average			8.8		

DBCP/EDB/1,2,3-TCP Analysis by
504 8011

Form 7

Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix: Water

SDG No:
Date Analyzed: 11/08/19
Instrument: Herbie
Cal. Date: 11/08/19
Data File: 1025137.D

		Compound	MEAN	CCRF	%D		%Drift
41	TM	EDB	3242340	3220210	0.68	TM	
42	TM	1,2,3-TCP	595963	632878	6.2	TM	
43	S	1,3-DIBROMOPROPANE(S)	2168190	2253730	3.9	S	
44	TM	DBCP	9395510	9829100	4.6	TM	
45							
46							
47							
48							
49							
50							
51							
52							
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72							
73							
74							
75							
76							
77							
78							
79							
80							
		Average			3.8		

Quantitation Report (Not Reviewed)

Signal #1 : G:\HERBIE\DATA\191025\1025137.D\ECD1A.CH Vial: 22
Signal #2 : G:\HERBIE\DATA\191025\1025137.D\ECD2B.CH
Acq On : 11-08-19 21:14:21 Operator: MA,SS
Sample : 8011 3 11/06/19 Inst : Herbie
Misc : water Multiplr: 1.00
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Nov 12 14:22 2019 Quant Results File: 8011106A.RES

Quant Method : G:\HERBIE\DATA\190814\8011106A.M (RTE Integrator)
Title : 504.1 OR 8011
Last Update : Tue Nov 12 13:30:16 2019
Response via : Initial Calibration
DataAcq Meth : DOHS504.M

Volume Inj. : 2µL
Signal #1 Phase : DB-35MS Signal #2 Phase: DB-XLB
Signal #1 Info : 0.25 Signal #2 Info : 0.50

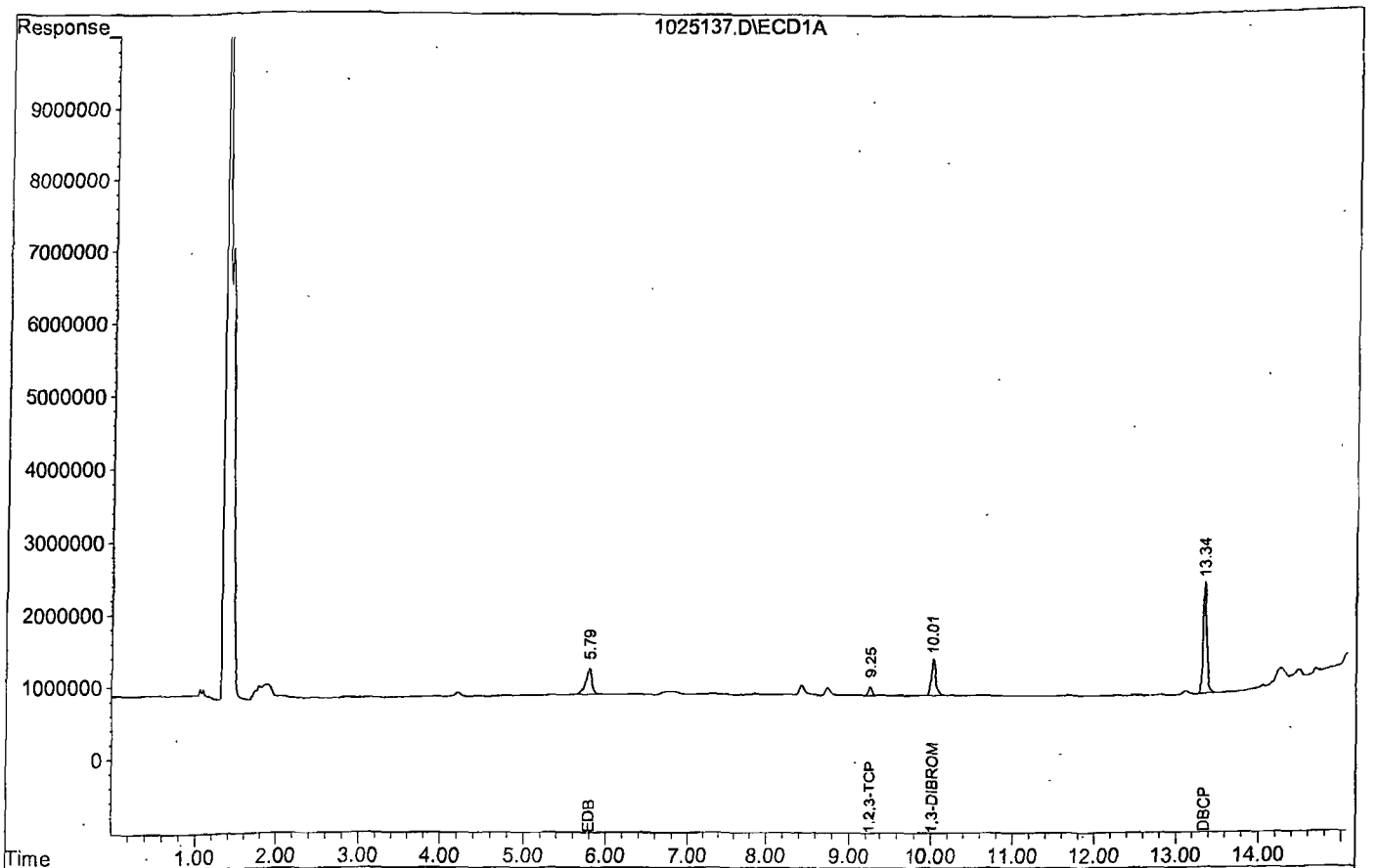
	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
	System Monitoring Compounds						
3) S	1,3-DIBROMOPROPA	10.01	11.03	510194	1126863	0.294	0.260
Spiked Amount	0.350			Recovery	=	84.00%	74.29%
	Target Compounds						
1) TM	EDB	5.79	7.21	356698	1610106	0.238	0.248
2) TM	1,2,3-TCP	9.25	10.44	123172	316439	0.274	0.265
4) TM	DBCP	13.34	14.08	1537777	4914548	0.268	0.262
	Target Compounds						

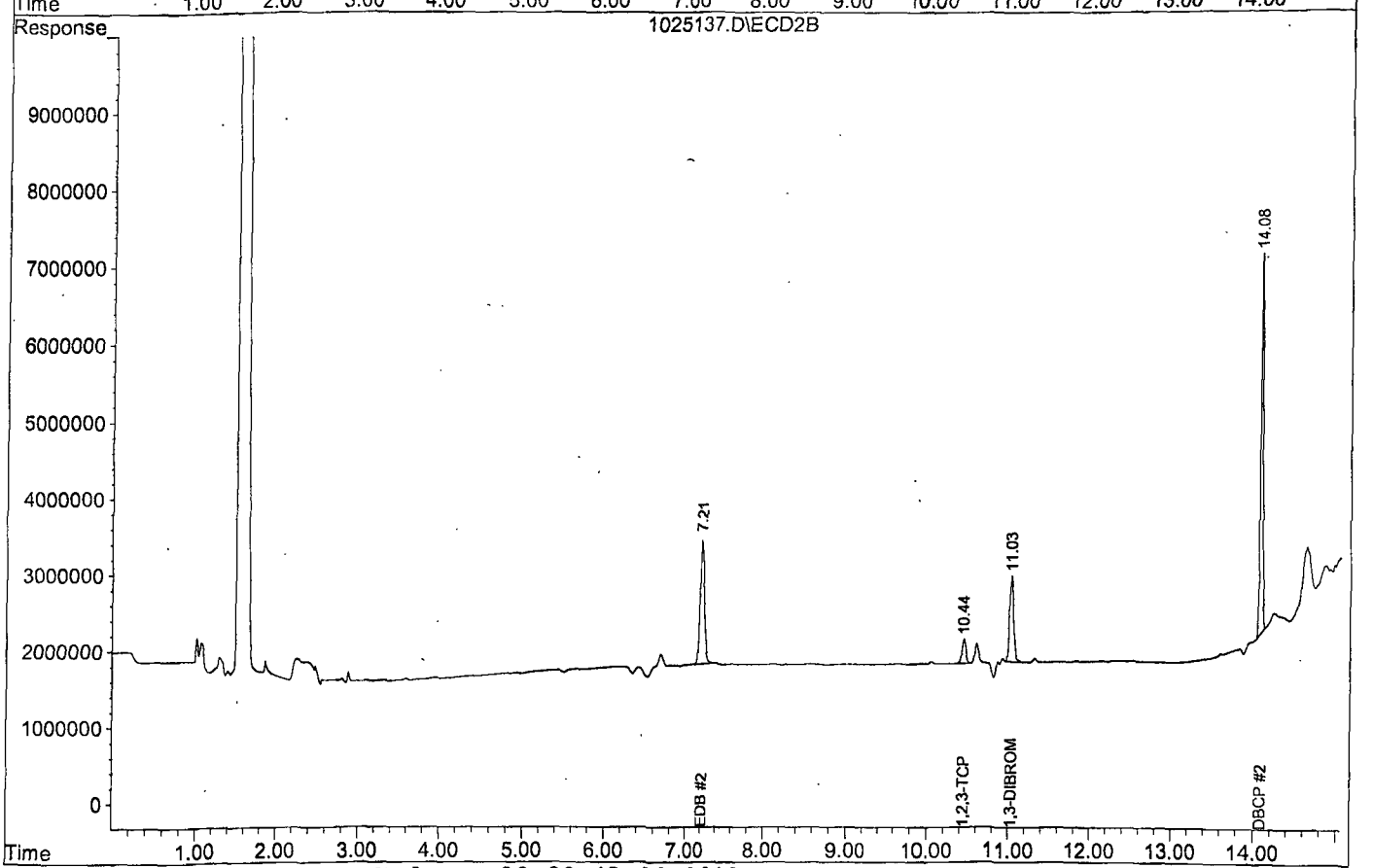
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (Not Reviewed)

Data File : G:\HERBIE\DATA\191025\1025137.D
Acq On : 11-08-19 21:14:21
Sample : 8011 3 11/06/19
Misc : water
Quant Method : G:\HERBIE\DATA\190814\8011106A.M

Vial: 22
Operator: MA,SS
Inst : Herbie
Multiplr: 1.00





ORGANICS
Raw Data

Quantitation Report (QT Reviewed)

Signal #1 : G:\HERBIE\DATA\191025\1025134.D\ECD1A.CH Vial: 32
Signal #2 : G:\HERBIE\DATA\191025\1025134.D\ECD2B.CH
Acq On : 11-08-19 20:13:27 Operator: MA,SS
Sample : BA02300W07 2/35.03G Inst : Herbie
Misc : water Multiplr: 1.00
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Nov 12 15:38 2019 Quant Results File: 8011106A.RES

Quant Method : G:\HERBIE\DATA\190814\8011106A.M (RTE Integrator)
Title : 504.1 OR 8011
Last Update : Tue Nov 12 13:30:16 2019
Response via : Initial Calibration
DataAcq Meth : DOHS504.M

Volume Inj. : 2µL
Signal #1 Phase : DB-35MS Signal #2 Phase: DB-XLB
Signal #1 Info : 0.25 Signal #2 Info : 0.50

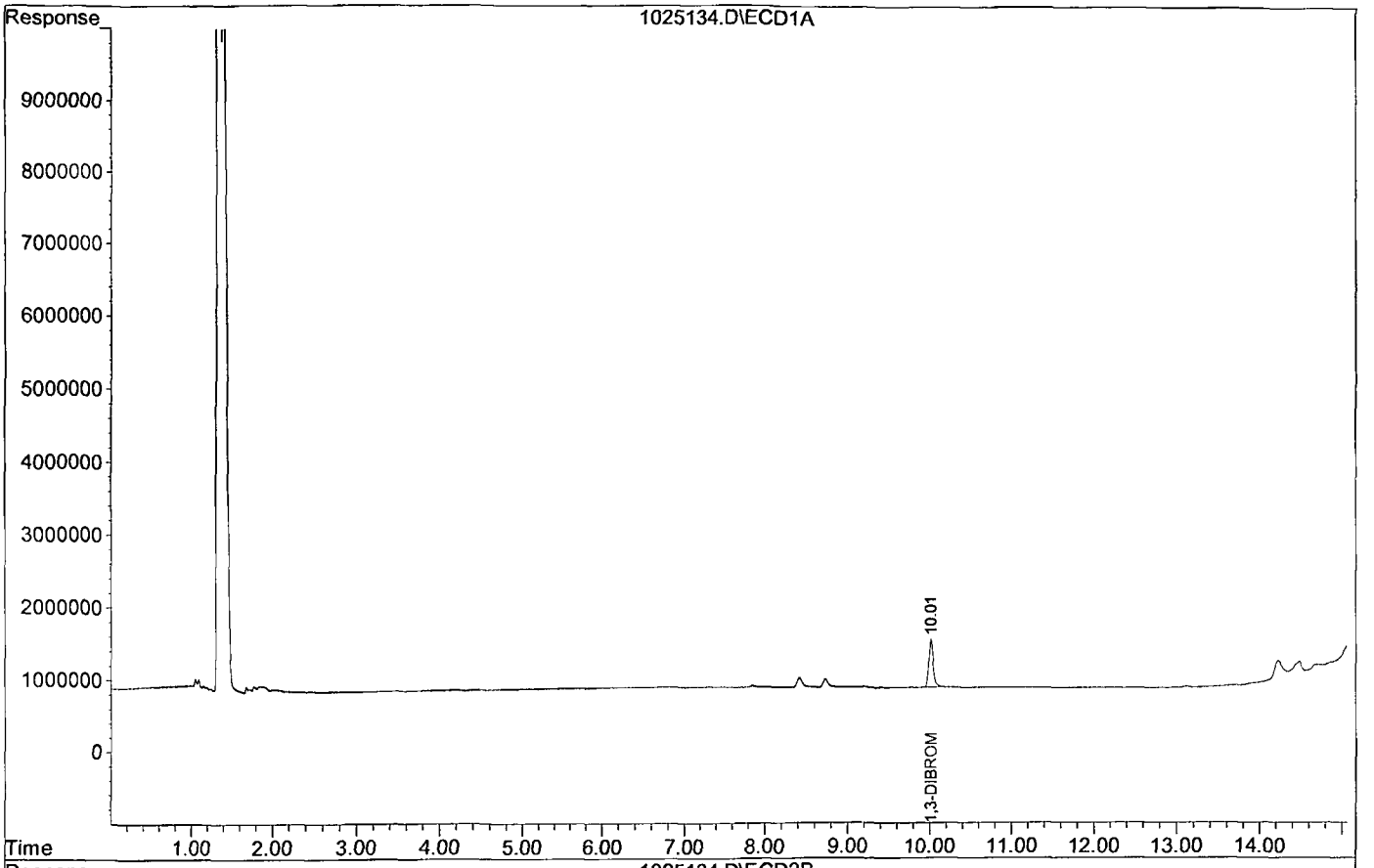
	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
	System Monitoring Compounds						
3) S	1,3-DIBROMOPROPA	10.01	11.03	660024	1625858	0.381	0.375
Spiked Amount	0.350			Recovery	=	108.86%	107.14%
	Target Compounds						
	Target Compounds						
1) TM	EDB	0.00	0.00	0	0	N.D. d	N.D. d
2) TM	1,2,3-TCP	0.00	0.00	0	0	N.D. d	N.D. d
4) TM	DBCP	0.00	0.00	0	0	N.D. d	N.D. d

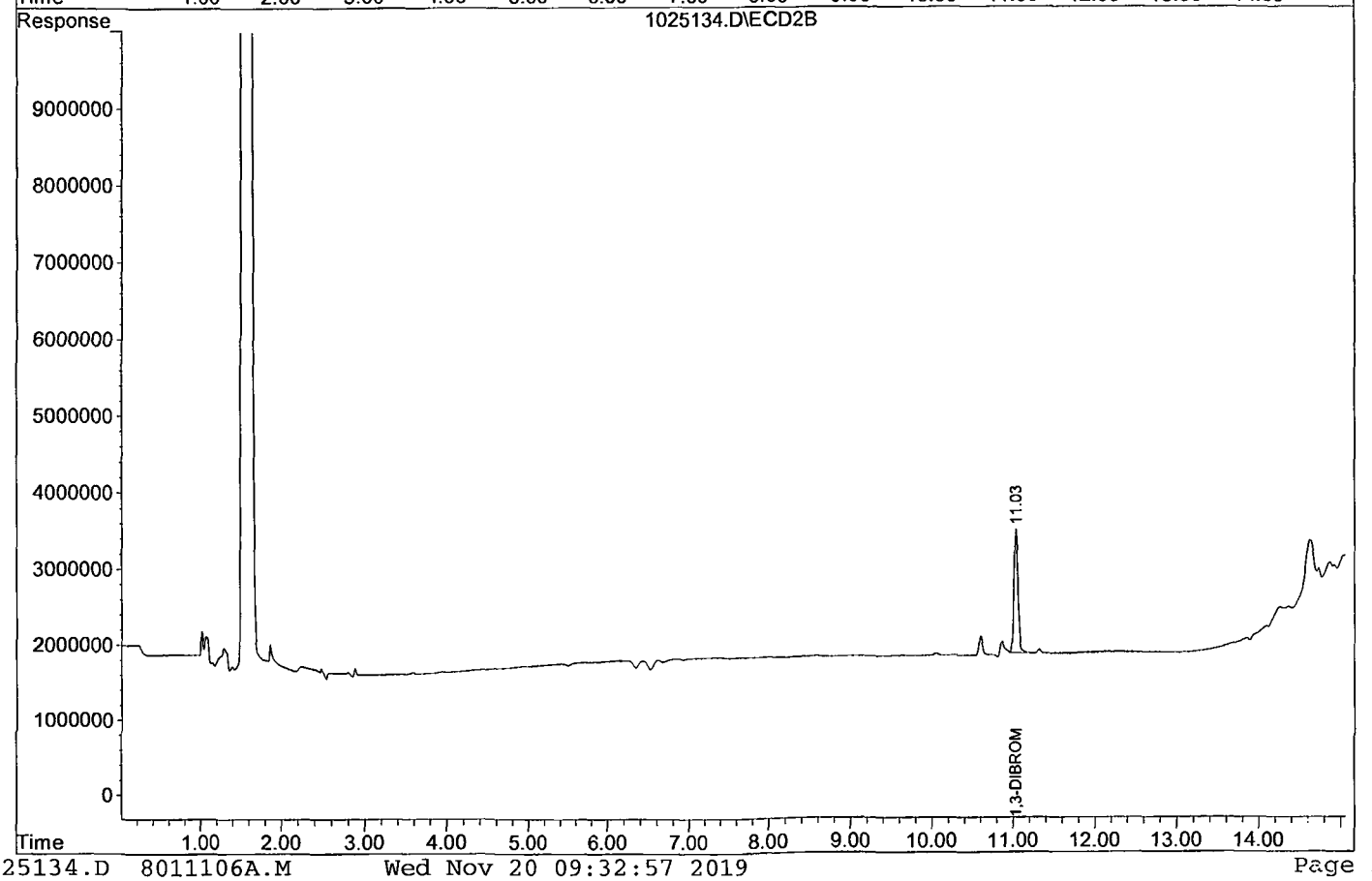
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : G:\HERBIE\DATA\191025\1025134.D
Acq On : 11-08-19 20:13:27
Sample : BA02300W07 2/35.03G
Misc : water
Quant Method : G:\HERBIE\DATA\190814\8011106A.M

Vial: 32
Operator: MA,SS
Inst : Herbie
Multiplr: 1.00





Quantitation Report (QT Reviewed)

Signal #1 : G:\HERBIE\DATA\191025\1025135.D\ECD1A.CH Vial: 33
Signal #2 : G:\HERBIE\DATA\191025\1025135.D\ECD2B.CH
Acq On : 11-08-19 20:33:45 Operator: MA,SS
Sample : BA02301W07 2/35.34G Inst : Herbie
Misc : water Multiplr: 1.00
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Nov 12 15:38 2019 Quant Results File: 8011106A.RES

Quant Method : G:\HERBIE\DATA\190814\8011106A.M (RTE Integrator)
Title : 504.1 OR 8011
Last Update : Tue Nov 12 13:30:16 2019
Response via : Initial Calibration
DataAcq Meth : DOHS504.M

Volume Inj. : 2µL
Signal #1 Phase : DB-35MS Signal #2 Phase: DB-XLB
Signal #1 Info : 0.25 Signal #2 Info : 0.50

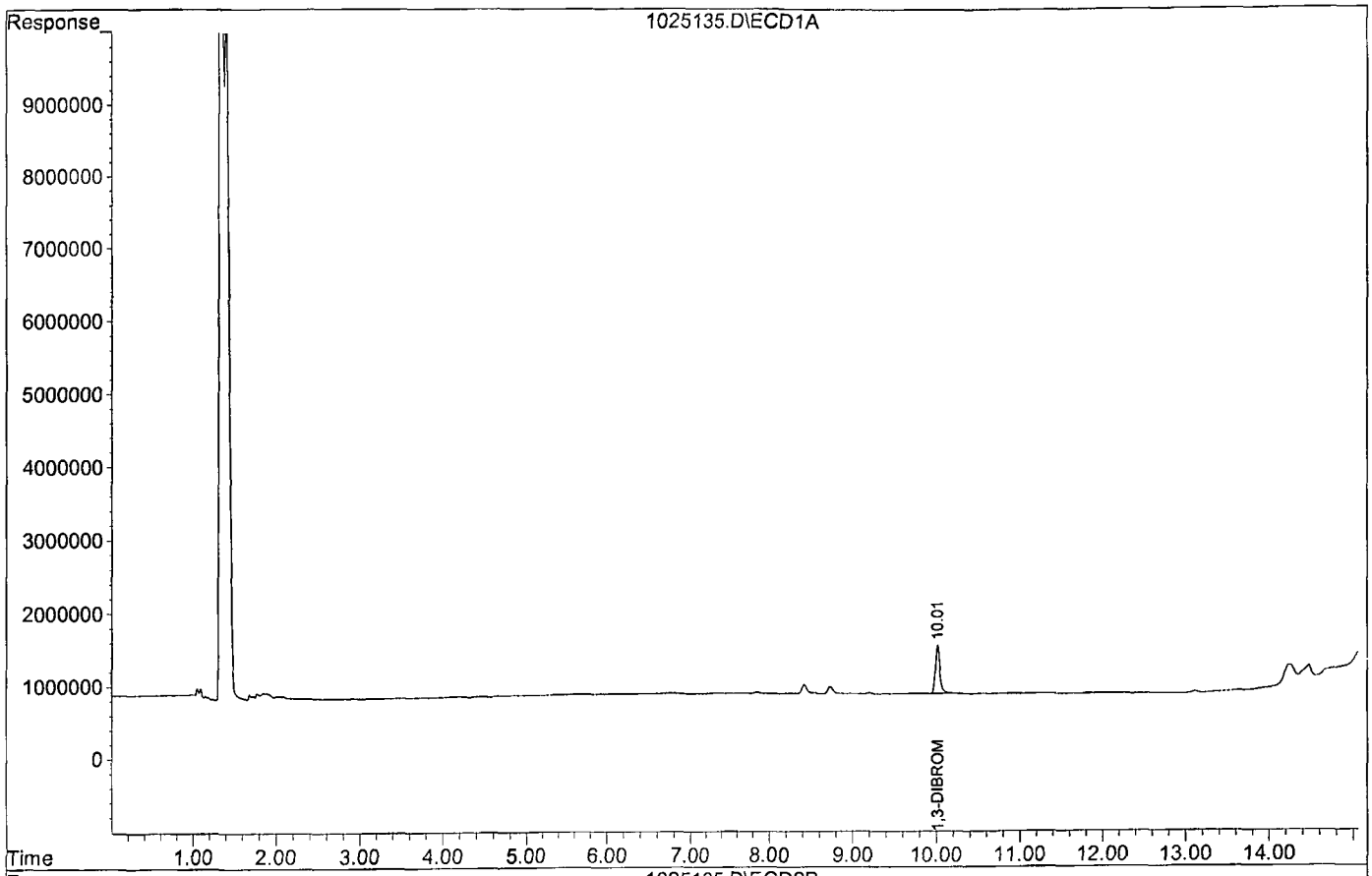
	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
	System Monitoring Compounds						
3) S	1,3-DIBROMOPROPA	10.01	11.03	675080	1653910	0.390	0.381
Spiked Amount	0.350			Recovery	=	111.43%	108.86%
	Target Compounds						
	Target Compounds						
1) TM	EDB	0.00	0.00	0	0	N.D. d	N.D. d
2) TM	1,2,3-TCP	0.00	0.00	0	0	N.D. d	N.D. d
4) TM	DBCP	0.00	0.00	0	0	N.D. d	N.D. d

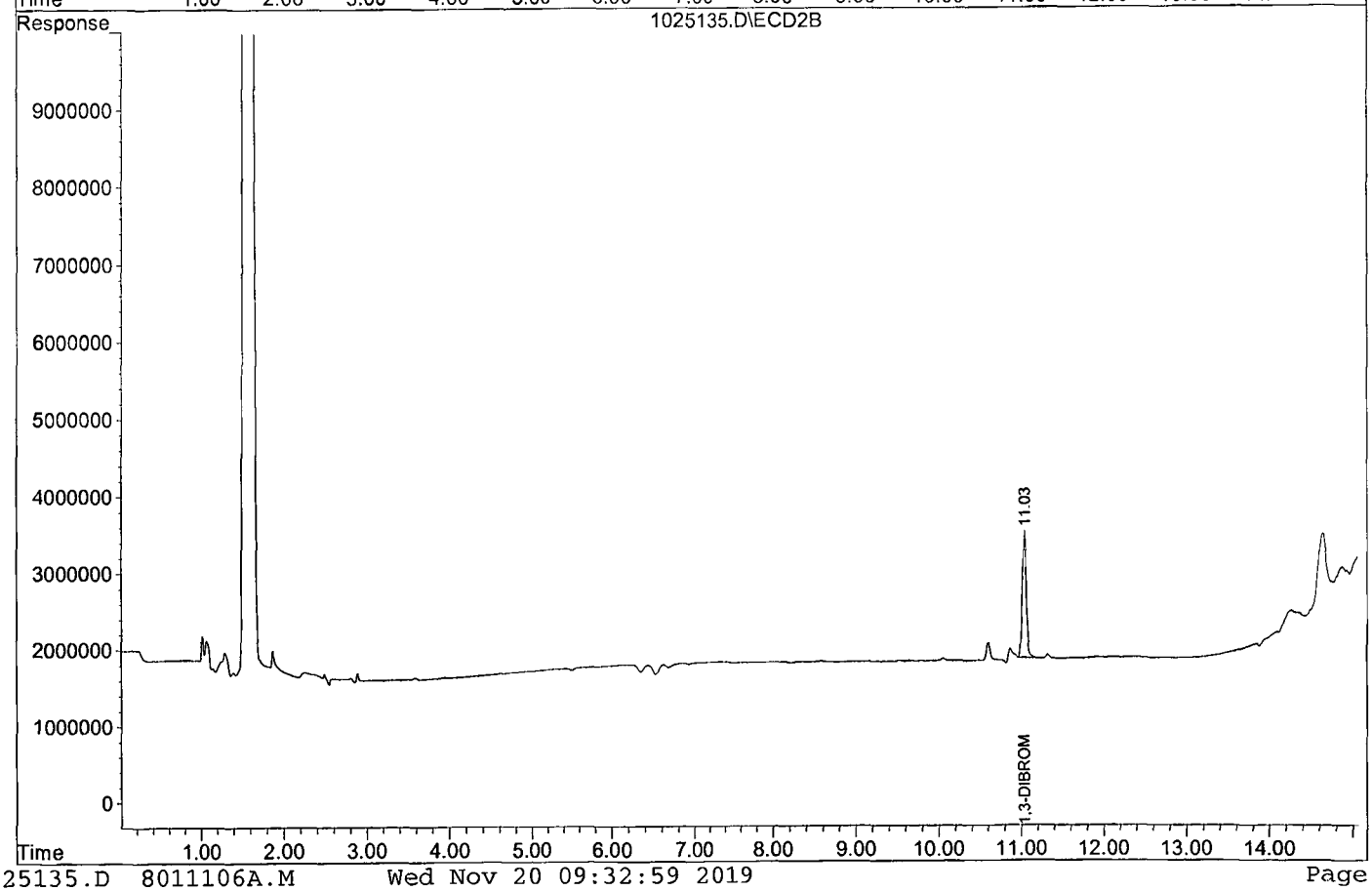
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : G:\HERBIE\DATA\191025\1025135.D
Acq On : 11-08-19 20:33:45
Sample : BA02301W07 2/35.34G
Misc : water
Quant Method : G:\HERBIE\DATA\190814\8011106A.M

Vial: 33
Operator: MA,SS
Inst : Herbie
Multiplr: 1.00





Quantitation Report (QT Reviewed)

Signal #1 : G:\HERBIE\DATA\191025\1025129.D\ECD1A.CH Vial: 27
Signal #2 : G:\HERBIE\DATA\191025\1025129.D\ECD2B.CH
Acq On : 11-08-19 18:31:13 Operator: MA,SS
Sample : 191106A BLK 2/35.15G Inst : Herbie
Misc : water Multiplr: 1.00
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Nov 12 15:35 2019 Quant Results File: 8011106A.RES

Quant Method : G:\HERBIE\DATA\190814\8011106A.M (RTE Integrator)
Title : 504.1 OR 8011
Last Update : Tue Nov 12 13:30:16 2019
Response via : Initial Calibration
DataAcq Meth : DOHS504.M

Volume Inj. : 2µL
Signal #1 Phase : DB-35MS Signal #2 Phase: DB-XLB
Signal #1 Info : 0.25 Signal #2 Info : 0.50

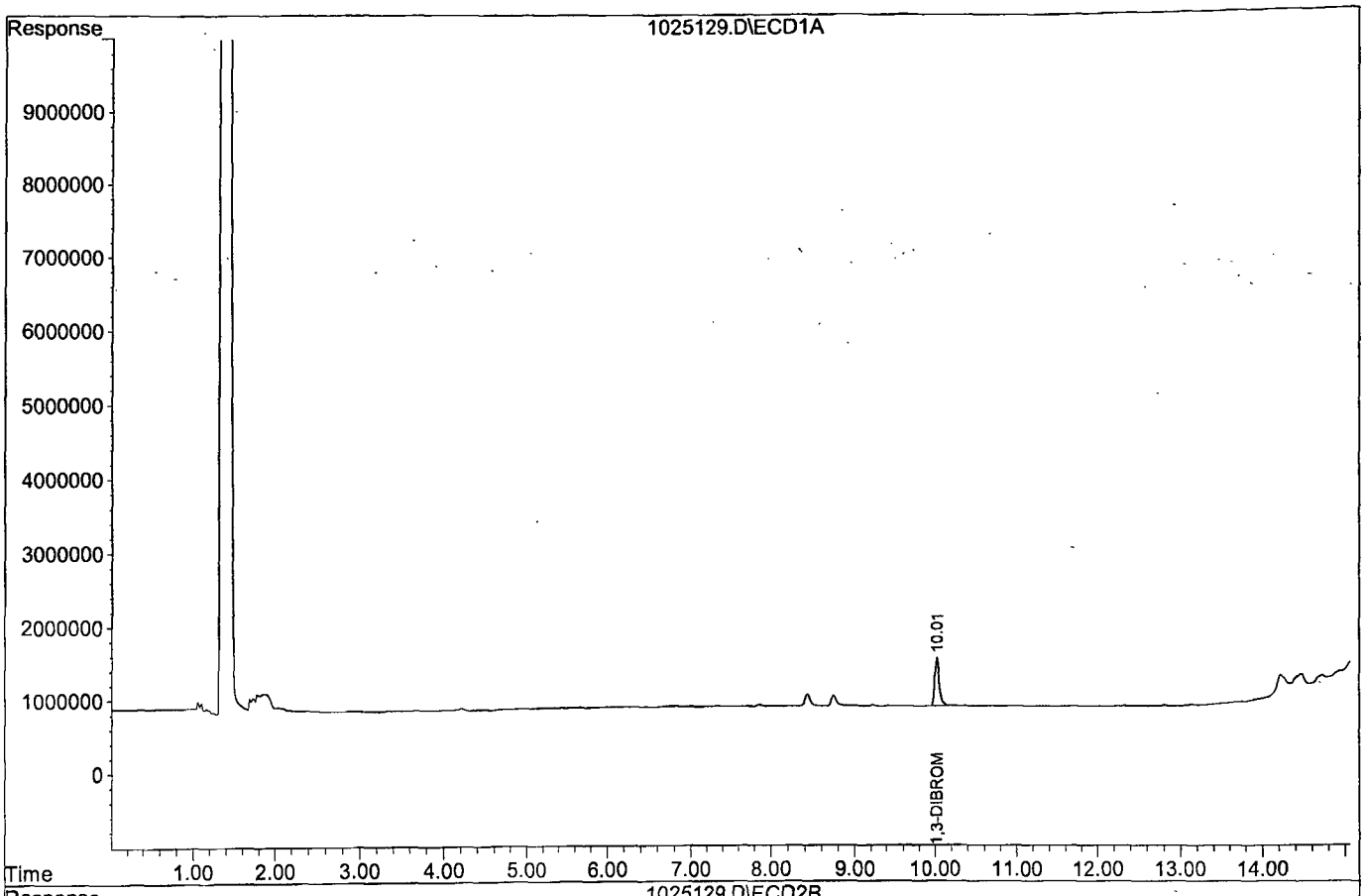
Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
System Monitoring Compounds						
3) S 1,3-DIBROMOPROPA	10.01	11.03	663144	1640384	0.383	0.378
Spiked Amount 0.350			Recovery =		109.43%	108.00%
Target Compounds						
Target Compounds						
1) TM EDB	0.00	0.00	0	0	N.D. d	N.D. d
2) TM 1,2,3-TCP	0.00	0.00	0	0	N.D. d	N.D. d
4) TM DBCP	0.00	0.00	0	0	N.D. d	N.D. d

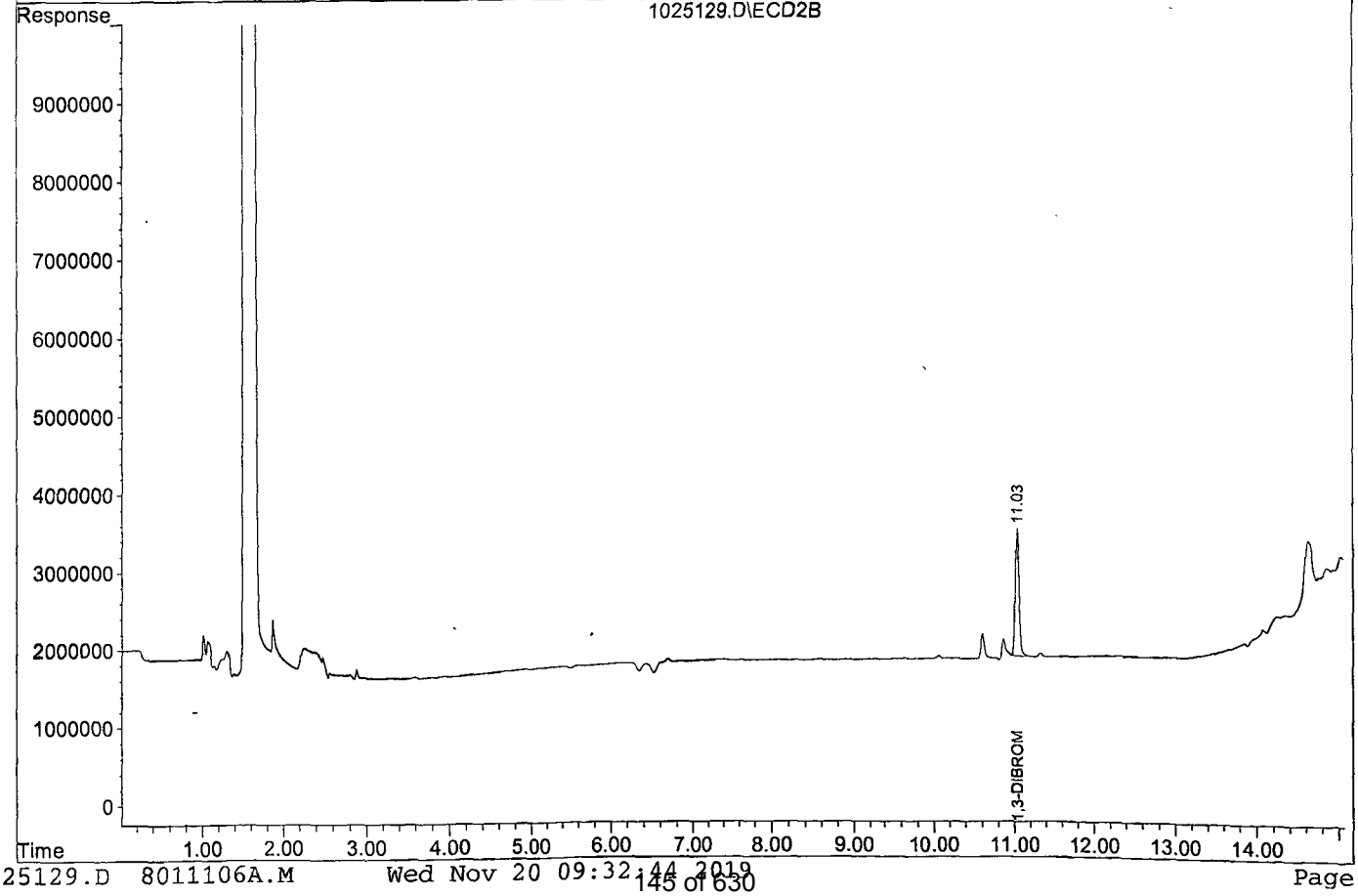
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : G:\HERBIE\DATA\191025\1025129.D
Acq On : 11-08-19 18:31:13
Sample : 191106A BLK 2/35.15G
Misc : water
Quant Method : G:\HERBIE\DATA\190814\8011106A.M

Vial: 27
Operator: MA,SS
Inst : Herbie
Multiplr: 1.00





Quantitation Report (Not Reviewed)

Signal #1 : G:\HERBIE\DATA\191025\1025130.D\ECD1A.CH Vial: 28
Signal #2 : G:\HERBIE\DATA\191025\1025130.D\ECD2B.CH
Acq On : 11-08-19 18:51:45 Operator: MA,SS
Sample : 191106A LCS-1 2/35.27G Inst : Herbie
Misc : water Multiplr: 1.00
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Nov 12 14:22 2019 Quant Results File: 8011106A.RES

Quant Method : G:\HERBIE\DATA\190814\8011106A.M (RTE Integrator)
Title : 504.1 OR 8011
Last Update : Tue Nov 12 13:30:16 2019
Response via : Initial Calibration
DataAcq Meth : DOHS504.M

Volume Inj. : 2µL
Signal #1 Phase : DB-35MS Signal #2 Phase: DB-XLB
Signal #1 Info : 0.25 Signal #2 Info : 0.50

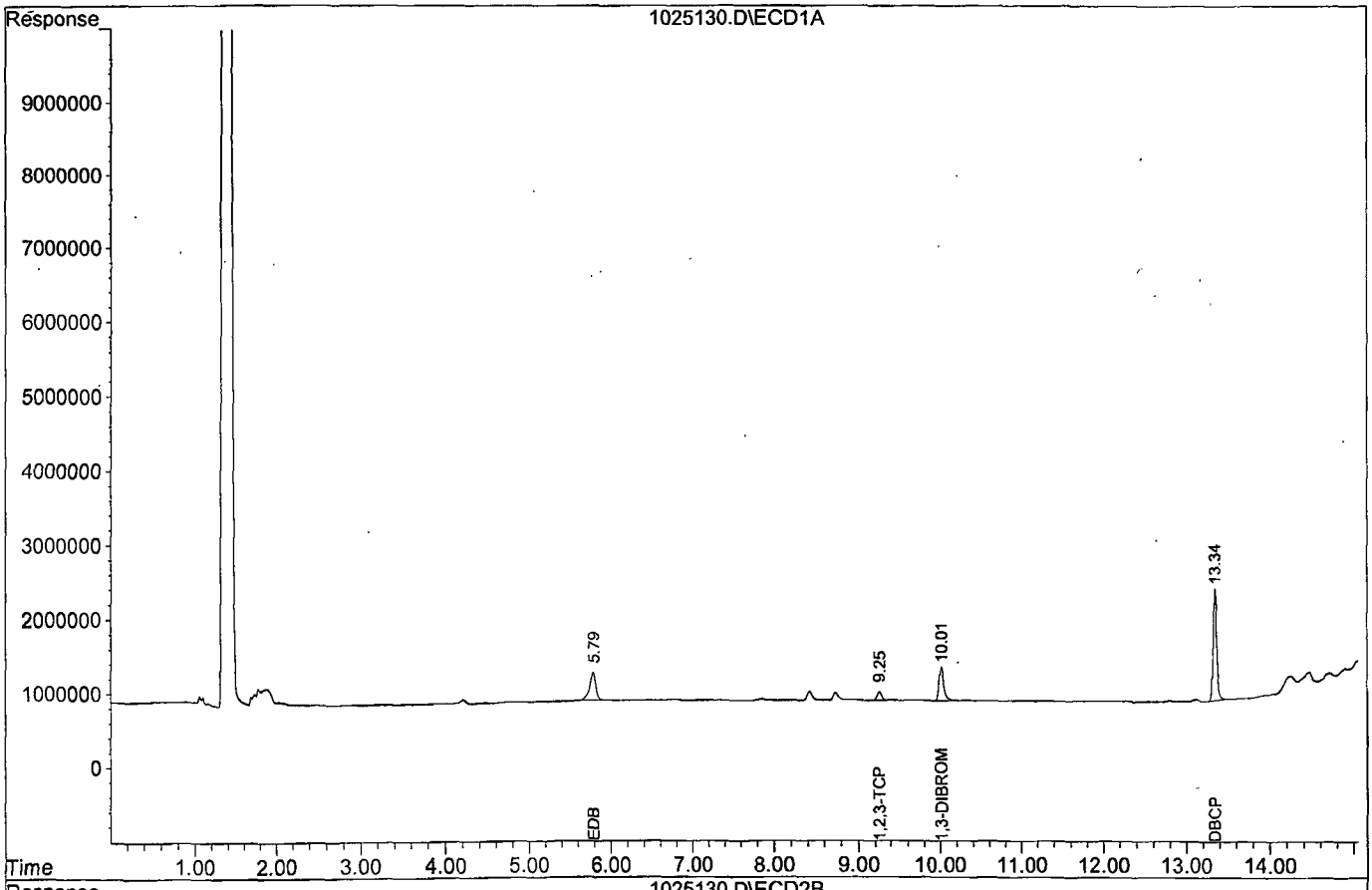
	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
	System Monitoring Compounds						
3)	S 1,3-DIBROMOPROPA	10.01	11.03	460761	1121093	0.266	0.259
	Spiked Amount 0.350			Recovery =		76.00%	74.00%
	Target Compounds						
1)	TM EDB	5.79	7.21	374458	1609219	0.250	0.248
2)	TM 1,2,3-TCP	9.25	10.44	119997	312751	0.265	0.262
4)	TM DBCP	13.34	14.08	1504812	4716770	0.262	0.251
	Target Compounds						

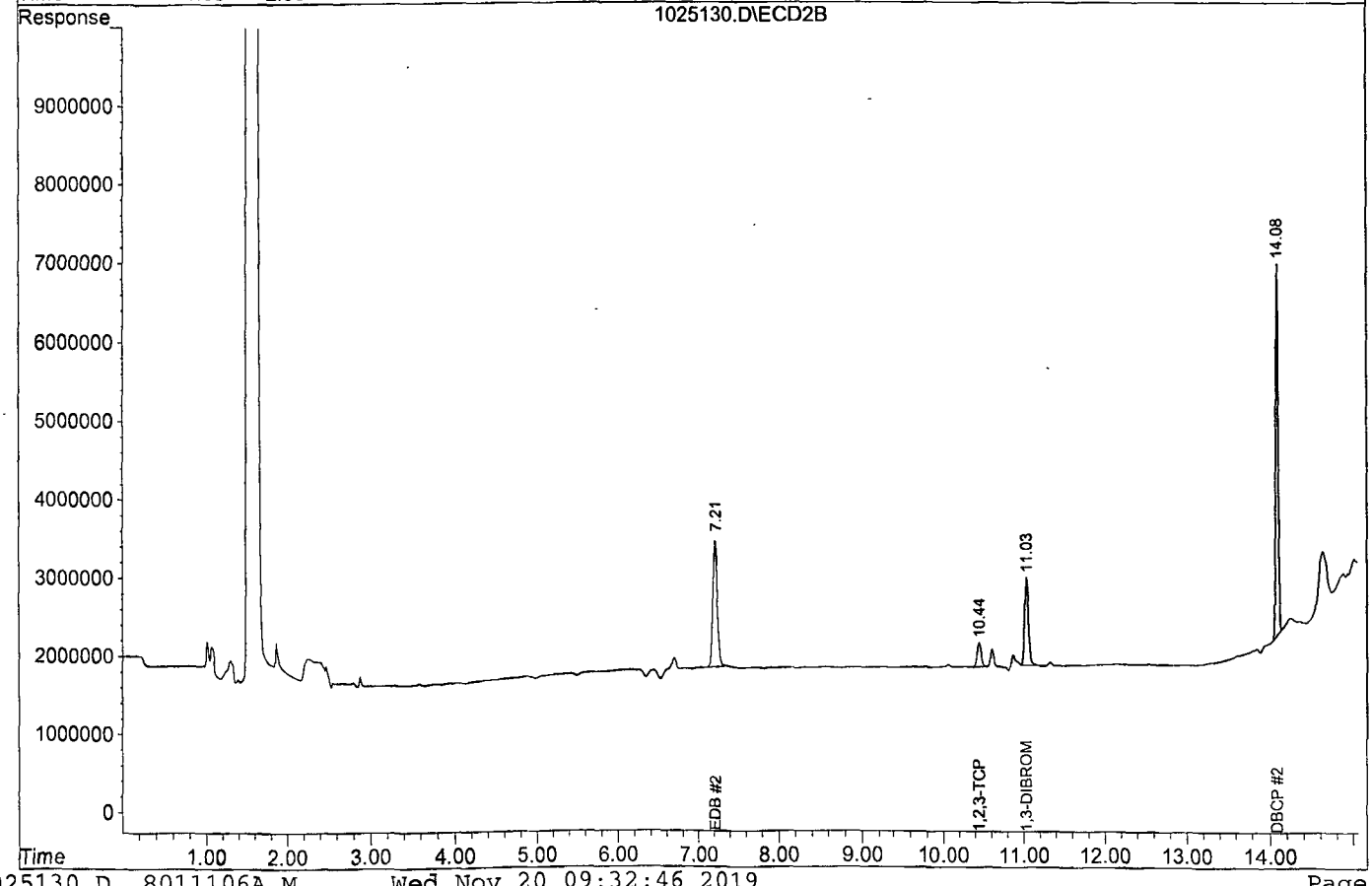
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (Not Reviewed)

Data File : G:\HERBIE\DATA\191025\1025130.D
Acq On : 11-08-19 18:51:45
Sample : 191106A LCS-1 2/35.27G
Misc : water
Quant Method : G:\HERBIE\DATA\190814\8011106A.M

Vial: 28
Operator: MA,SS
Inst : Herbie
Multiplr: 1.00





Quantitation Report (Not Reviewed)

Signal #1 : G:\HERBIE\DATA\191025\1025131.D\ECD1A.CH Vial: 29
Signal #2 : G:\HERBIE\DATA\191025\1025131.D\ECD2B.CH
Acq On : 11-08-19 19:12:10 Operator: MA,SS
Sample : 191106A LCSD-1 2/35.29G Inst : Herbie
Misc : water Multiplr: 1.00
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Nov 12 14:22 2019 Quant Results File: 8011106A.RES

Quant Method : G:\HERBIE\DATA\190814\8011106A.M (RTE Integrator)
Title : 504.1 OR 8011
Last Update : Tue Nov 12 13:30:16 2019
Response via : Initial Calibration
DataAcq Meth : DOHS504.M

Volume Inj. : 2µL
Signal #1 Phase : DB-35MS Signal #2 Phase: DB-XLB
Signal #1 Info : 0.25 Signal #2 Info : 0.50

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
	System Monitoring Compounds						
3) S	1,3-DIBROMOPROPA	10.01	11.03	466815	1106132	0.269	0.255
Spiked Amount	0.350			Recovery	=	76.86%	72.86%
	Target Compounds						
1) TM	EDB	5.79	7.21	370387	1607897	0.247	0.248
2) TM	1,2,3-TCP	9.25	10.44	121611	310695	0.270	0.261
4) TM	DBCP	13.34	14.08	1475759	4751403	0.257	0.253

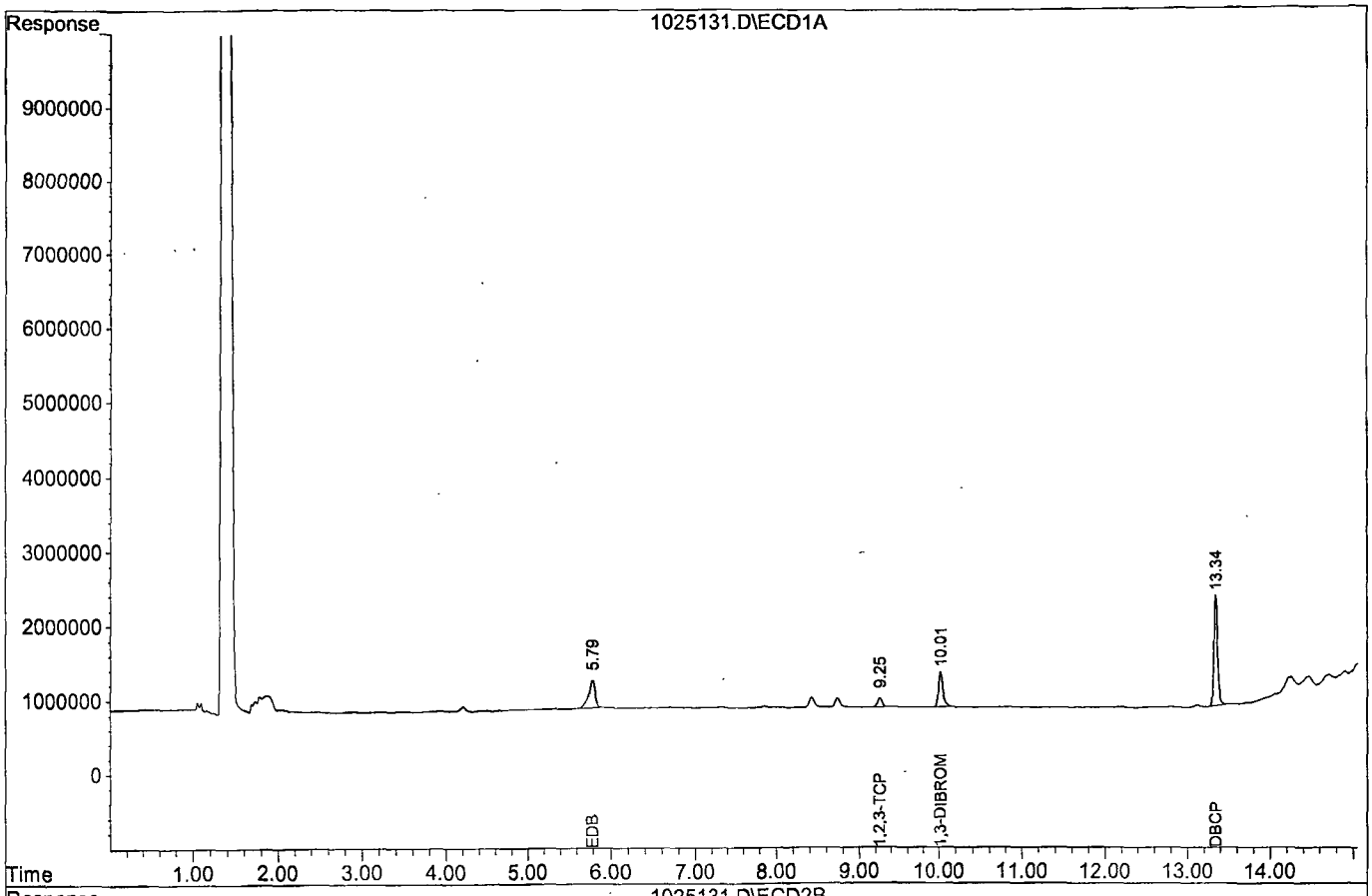
Target Compounds

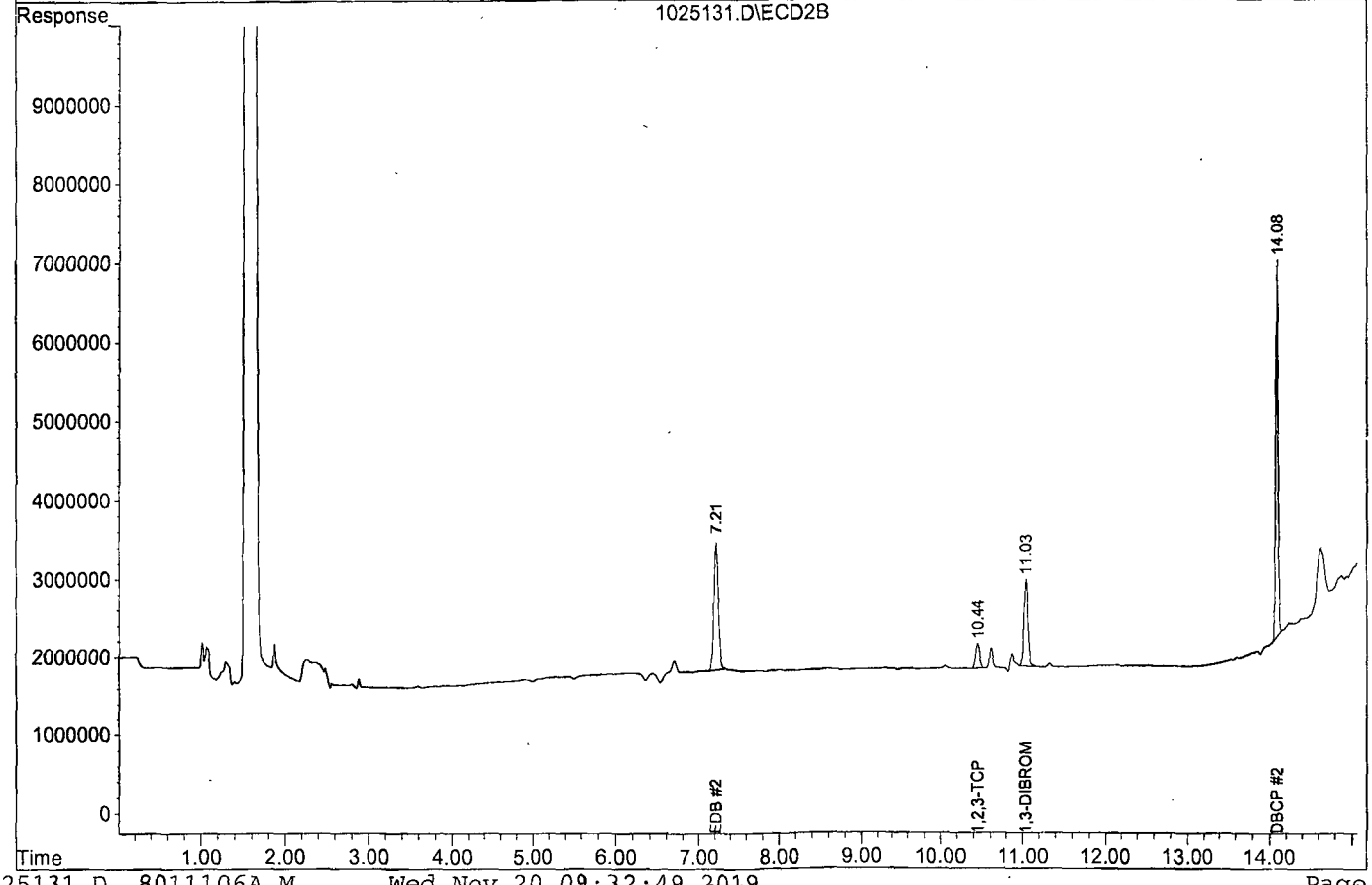
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (Not Reviewed)

Data File : G:\HERBIE\DATA\191025\1025131.D
Acq On : 11-08-19 19:12:10
Sample : 191106A LCSD-1 2/35.29G
Misc : water
Quant Method : G:\HERBIE\DATA\190814\8011106A.M

Vial: 29
Operator: MA,SS
Inst : Herbie
Multiplr: 1.00





Name of Final Standard 504/8011 Spike — **Prep'd By (Initials)** GA

Prep Date 10/31/19

Exp Date 01/06/20

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from container Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
504/8011 Stock	APPL	504/8011 Stock	0.35 ug/mL	09/09/19	01/06/20	1000 uL	10 mL	Methanol #208858	0.035 ug/mL

Name of Final Standard 504/8011 SS SPK — **Prep'd By** (Initials) GA

Prep Date 08/07/19

Exp Date 12/07/19

Initial Standard Information						Final Standard Information			
(from container Label)	Supplier	APPL Mix Name)	Conc.(range)	to APPL prep date)	Exp Date	Stock	Volume	(or APPL Prep Date)	Conc (range)
504/8011 SS Stock	APPL	504/8011 SS Stock	0.35 ug/mL	01/22/19	01/06/20	1 mL	10 mL	Methanol #042317C	0.035 ug/mL

Name of Final Standard 504/8011 Surrogate — **Prep'd By (Initials)** GA

Prep Date 09/04/19

Exp Date 01/06/19

Initial Standard Information						Final Standard Information			
(from container Label)	Supplier	APPL Mix Name)	Conc.(range)	to APPL prep date)	Exp Date	Stock	Volume	(or APPL Prep Date)	Conc (range)
1,3 DBP	APPL	1,3 DBP Stock	100 ug/mL	05/07/19	01/06/20	35 uL	10 mL	Methanol #208858	0.35ug/ml

_MWE012

Organic Extraction Worksheet

Method	EPA Method 8011 DBCP/EDB	Extraction Set	191106A	Extraction Method	MWE012	Units	mL

Spiked ID 1	504.1 M. SPIKE 10/31/19 EXP 01/06/20		Surrogate ID 1	504.1 Surrogate 09/04/19 EXP 01/06/20	
Spiked ID 2	504.1 SS 08/07/19 EXP 12/17/19		Surrogate ID 2		
Spiked ID 3			Surrogate ID 3		
Spiked ID 4			Surrogate ID 4		
Spiked ID 5			Surrogate ID 5		
Spiked ID 6			Sufficient Vol for Matrix QC:		
Spiked ID 7			Ext. Start Time:	11/06/19 14:25	
Spiked ID 8			Ext. End Time:	11/08/19 17:05	
			GC Requires Extract By:		

pH1			Water Bath Temp 1 °C	
pH2			Water Bath Temp 2 °C	
pH3			Water Bath Temp 3 °C	

Spiked By: DL **Date** 11/06/19 2:25:00 PM **Witnessed By:** CFM **Date** 11/06/19 2:25:00 PM

	Sample	Sample Container	Spike Amount	Spike ID	Surrogate Amount	Surrogate ID	Extract Amount	Final Volume	pH	Extract Date/Time	Comments
1	191106A Blk				0.035	1 equip	35.15g	2	7	11/06/19 14:25	
2	191106A LCS-1		0.250	1	NA	NA equip	35.27g	2	7	11/06/19 14:25	
3	191106A LCSD-1		0.250	1	NA	NA equip	35.29g	2	7	11/06/19 14:25	
4	BA02213	BA02213W07			0.035	1 equip	35.03g	2	7	11/06/19 14:25	90611
5	BA02214	BA02214W06			0.035	1 equip	35.47g	2	7	11/06/19 14:25	90611
6	BA02300	BA02300W07			0.035	1 equip	35.03g	2	7	11/06/19 14:25	90625
7	BA02301	BA02301W07			0.035	1 equip	35.34g	2	7	11/06/19 14:25	90625
8	M STD 1		0.020	1	NA	NA equip	35.02g	2	7	11/06/19 14:25	
9	M STD 2		0.100	1	NA	NA equip	35.20g	2	7	11/06/19 14:25	
10	M STD 3		0.250	1	NA	NA equip	35.16g	2	7	11/06/19 14:25	
11	M STD 4		0.500	1	NA	NA equip	35.04g	2	7	11/06/19 14:25	
12	M STD 5		0.750	1	NA	NA equip	35.03g	2	7	11/06/19 14:25	
13	M STD 6		1	1	NA	NA equip	35.13g	2	7	11/06/19 14:25	
14	SS		0.100	2	0.035	1 equip	35.51g	2	7	11/06/19 14:25	

GK 11/20/19

Solvent and Lot#	
ph strip	HC863463
Sod. Thiosulfate	1016C241
NaCL	19A035211
GC2 Hexane (2mLs)	DT947

Extraction COC Transfer	
Extraction lab employee Initials	DL
GC analyst's initials	GA
Date	11/08/19
Time	15:00
Refrigerator	Hobart

	Technician's Initials
Scanned By	DL
Sample Preparation	DL
Extraction	DL
Concentration	DL

Modified	11/20/19 10:07:50 AM

Reviewed By: ga **Date** 11/20/19

Injection Log

Directory: G:\HERBIE\DATA\191025\

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	20	1025122.D	1	8011 1 11/06/19	water	11-08-19 16:07:44
2	21	1025123.D	1	8011 2 11/06/19	water	11-08-19 16:28:04
3	22	1025124.D	1	8011 3 11/06/19	water	11-08-19 16:48:46
4	23	1025125.D	1	8011 4 11/06/19	water	11-08-19 17:09:07
5	24	1025126.D	1	8011 5 11/06/19	water	11-08-19 17:29:40
6	25	1025127.D	1	8011 6 11/06/19	water	11-08-19 17:50:18
7	26	1025128.D	1	8011 SS 11/06/19	water	11-08-19 18:10:46
8	27	1025129.D	1	191106A BLK 2/35.15G	water	11-08-19 18:31:13
9	28	1025130.D	1	191106A LCS-1 2/35.27G	water	11-08-19 18:51:45
10	29	1025131.D	1	191106A LCSD-1 2/35.29G	water	11-08-19 19:12:10
13	32	1025134.D	1	BA02300W07 2/35.03G	water	11-08-19 20:13:27
14	33	1025135.D	1	BA02301W07 2/35.34G	water	11-08-19 20:33:45
15	22	1025137.D	1	8011 3 11/06/19	water	11-08-19 21:14:21

ORGANICS
Calibration Data

TPH Extractables
DOC1114

Form 6
Initial Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Initial Cal. Date: 11/14/19
Matrix: Water Instrument: Apollo
Initials:

1114003.D 1114004.D 1114005.D 1114006 D 1114007 D 1114008 D

		Compound	1	2	3	4	5	6					Avg	%RSD	Type	r^2	Q
1	HATM	Diesel (C10-C24)	2027964	1336430	1489661	1454530	1384113	1359697					1508733	17	HATM		
2	HBTM	Motor Oil (C24-C40)	776455	819947	771703	744158	810038	798760					786843	3.6	HBTM		
3	SAL	Ortho-Terphenyl(S)	2345827	1504455	1492939	1513819	1376726	1360942					1599118	23	SA	0.997	
4	SA	Octacosane(S)	1517911	1093917	1010508	997320	1111697	1064489					1132640	17	SA		
5																	
6																	
7																	
8																	
9																	
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35																	

1.749733

Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\191114\1114003.D Vial: 3
Acq On : 11-14-19 19:39:49 Operator: BT
Sample : Diesel Motor Oil - 1 11/14/19 Inst : Apollo
Misc : water Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 15 9:20 2019 Quant Results File: DOC1114.RES

Method : G:\APOLLO\DATA\191114\DOC1114.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Nov 15 09:19:04 2019
Response via : Multiple Level Calibration

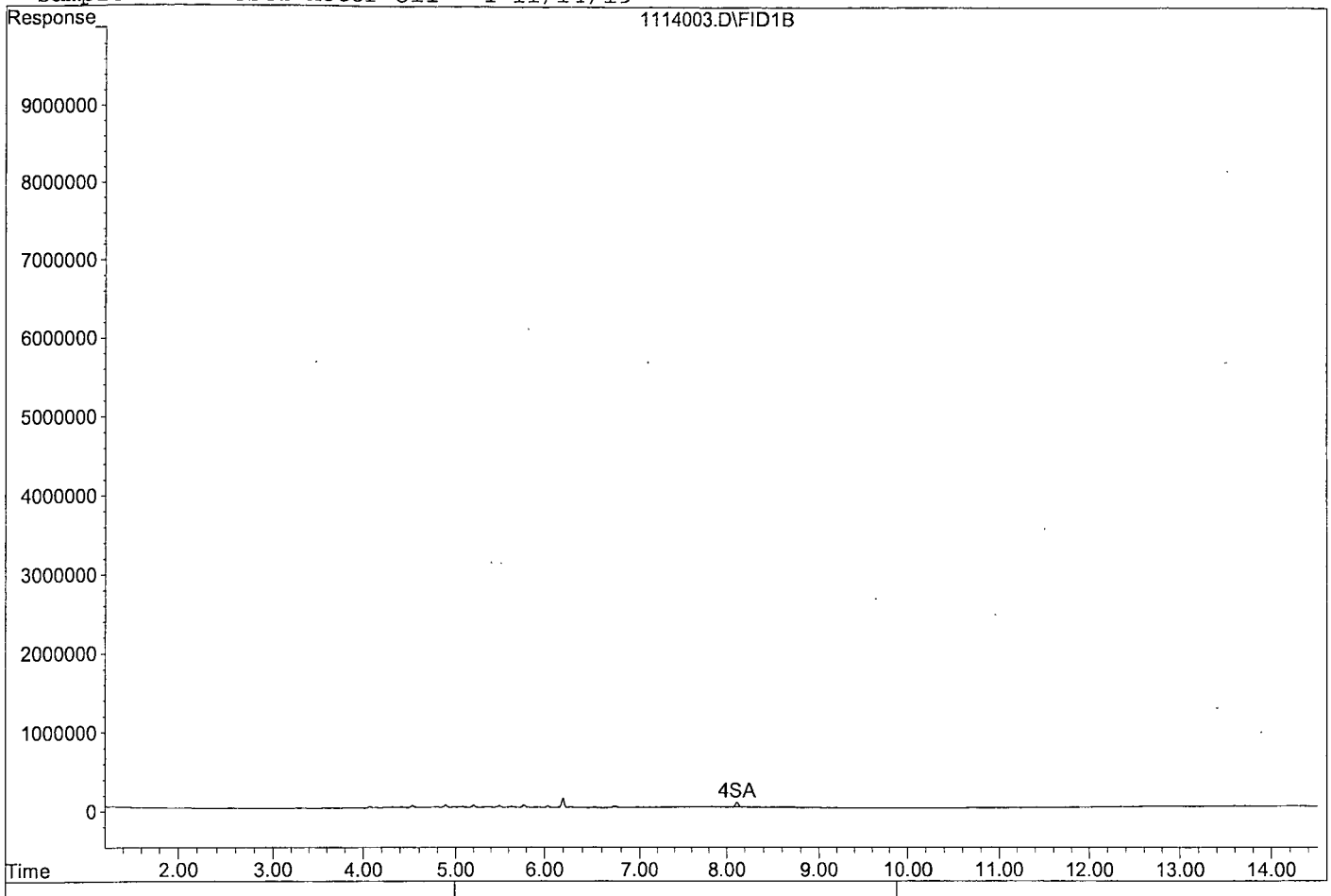
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

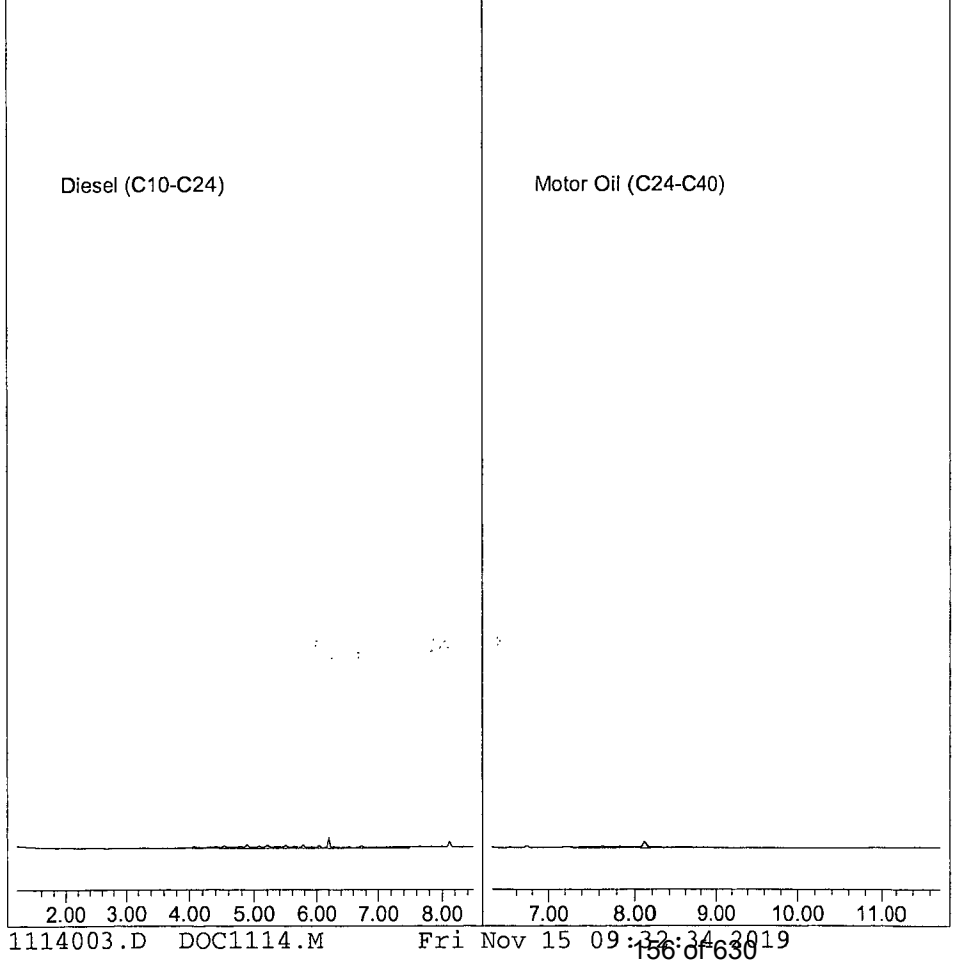
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) SA Ortho-Terphenyl(S)	6.20	2345827	N.D. ppb
Surrogate Spike 30.000	Recovery =		0.00%
4) SA Octacosane(S)	8.11	1517911	0.670 ppb
Surrogate Spike 30.000	Recovery =		2.23%
Target Compounds			
1) HATM Diesel (C10-C24)	4.42	40559274	13.446 ppb
2) HBTM Motor Oil (C24-C40)	9.01	15529092	9.868 ppb

Target Compounds

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: G:\APOLLO\DATA\191114\1114003.D
Sample : Diesel Motor Oil - 1 11/14/19

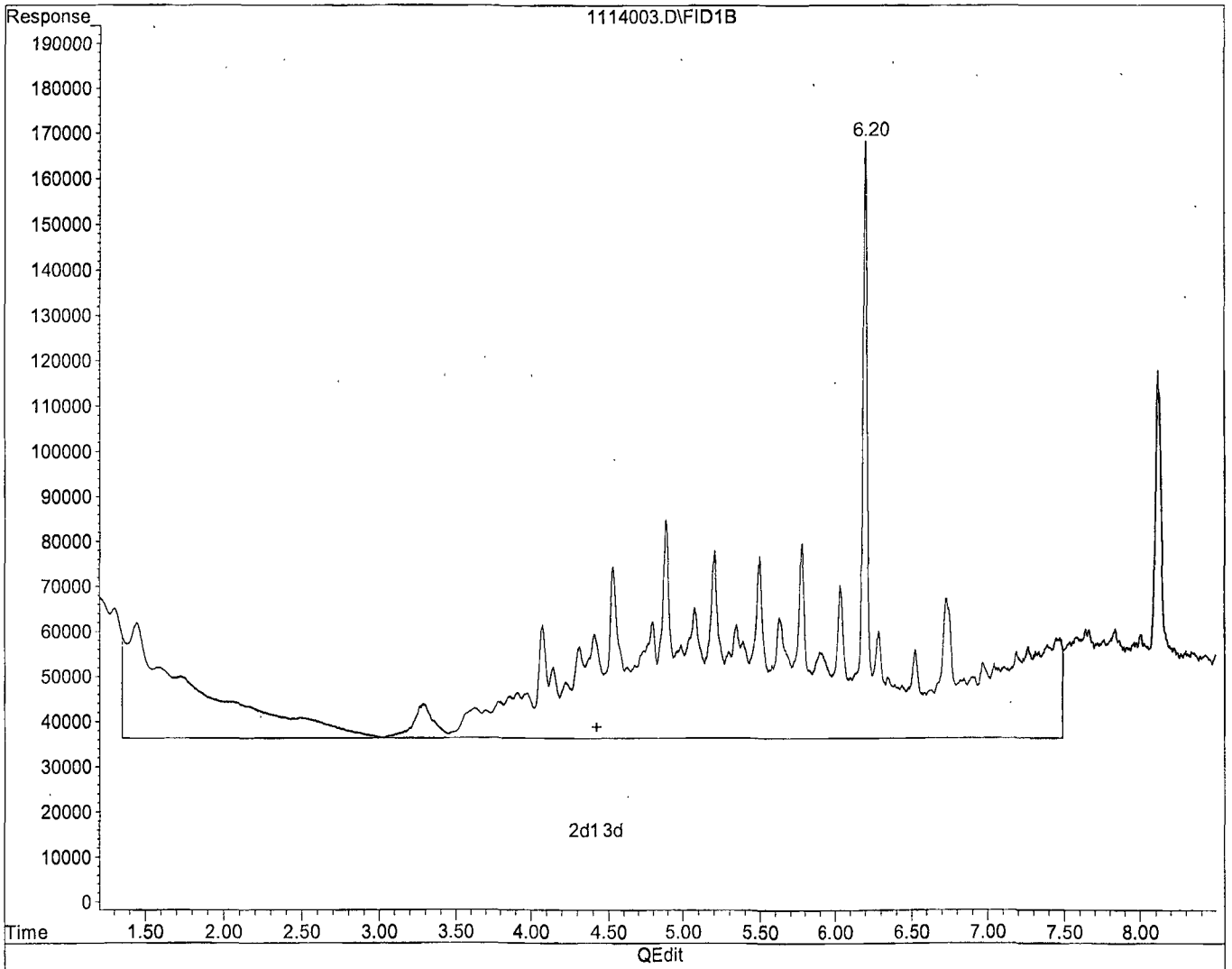




Quantitation Report

Data File : G:\APOLLO\DATA\191114\1114003.D Vial: 3
Acq On : 11-14-19 19:39:49 Operator: BT
Sample : Diesel Motor Oil - 1 11/14/19 Inst : Apollo
Misc : water Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 15 9:19 2019 Quant Results File: DOC1114.RES

Method : G:\APOLLO\DATA\191114\DOC1114.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Nov 15 09:19:04 2019
Response via : Multiple Level Calibration



(1) Diesel (C10-C24) (HATM)

4.42min 16.132ppb m

response 48662424

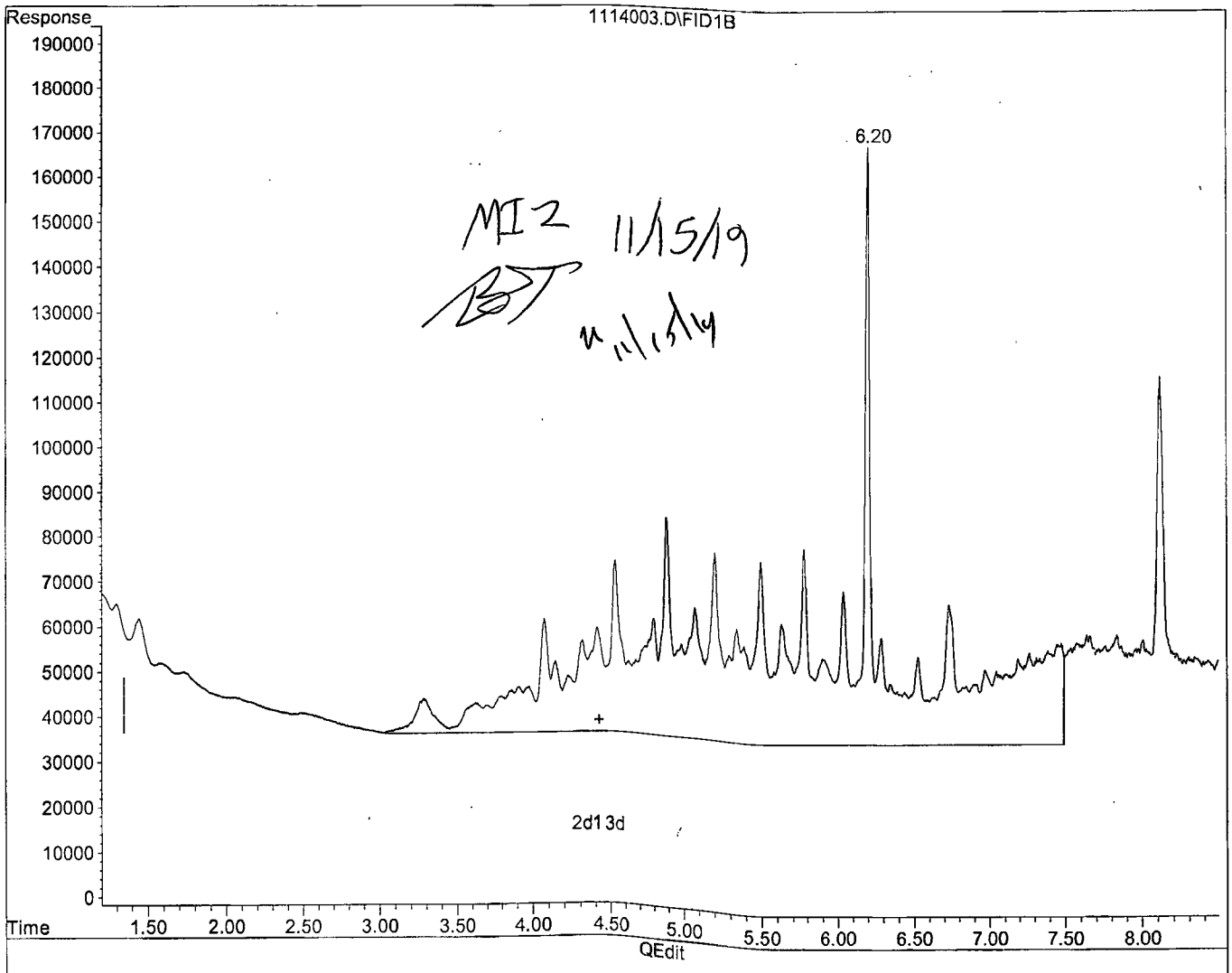
(+) = Expected Retention Time

Quantitation Report

Data File : G:\APOLLO\DATA\191114\1114003.D
Acq On : 11-14-19 19:39:49
Sample : Diesel Motor Oil - 1 11/14/19
Misc : water
IntFile : events.e
Quant Time: Nov 15 9:19 2019 Quant Results File: DOC1114.RES

Vial: 3
Operator: BT
Inst : Apollo
Multiplr: 1.00

Method : G:\APOLLO\DATA\191114\DOC1114.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Nov 15 09:19:04 2019
Response via : Multiple Level Calibration



(1) Diesel (C10-C24) (HATM)

4.42min 13.446ppb m

response 40559274

(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\191114\1114004.D Vial: 4
Acq On : 11-14-19 19:59:46 Operator: BT
Sample : Diesel Motor Oil - 2 11/14/19 Inst : Apollo
Misc : water Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 15 9:21 2019 Quant Results File: DOC1114.RES

Method : G:\APOLLO\DATA\191114\DOC1114.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Nov 15 09:19:04 2019
Response via : Multiple Level Calibration

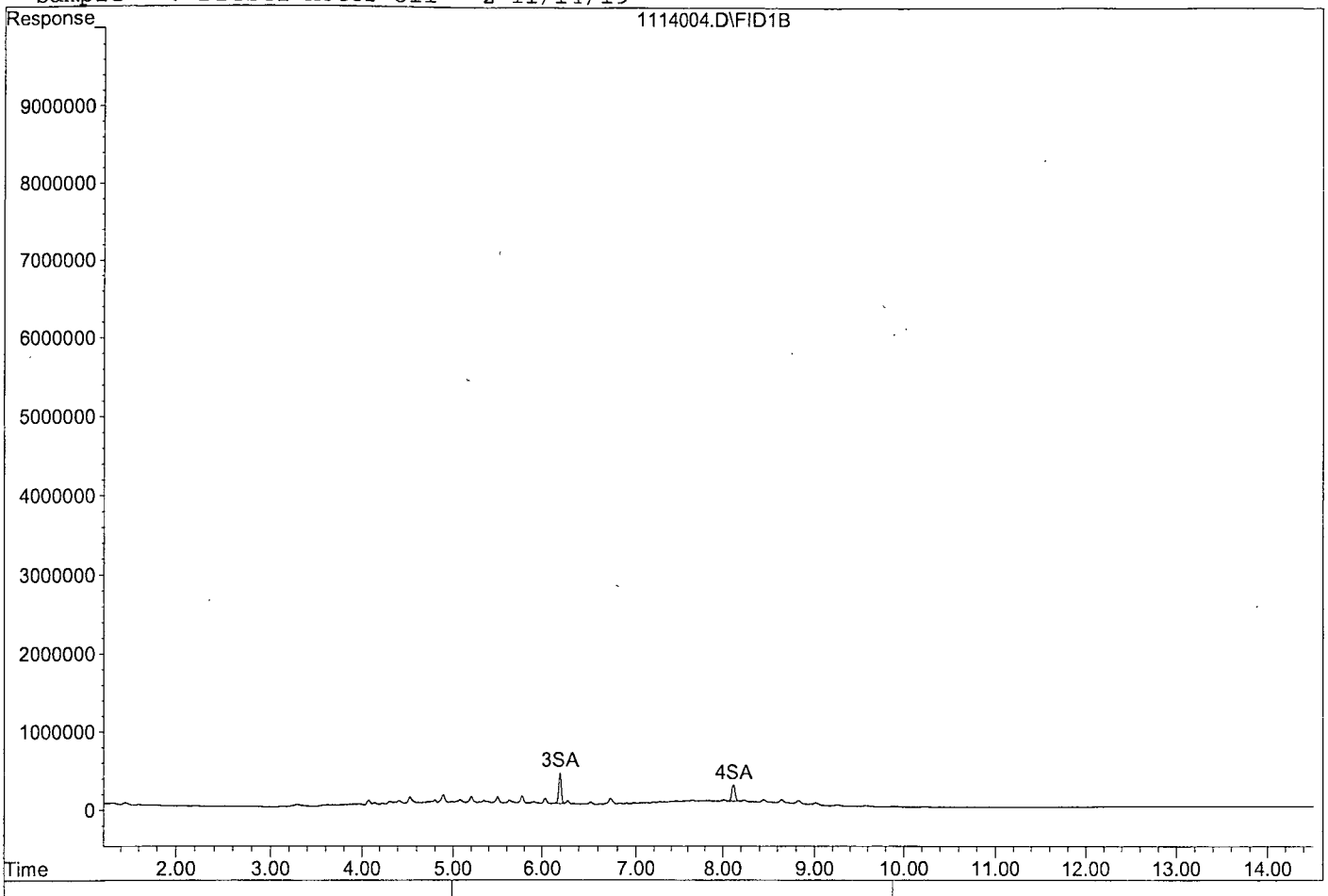
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

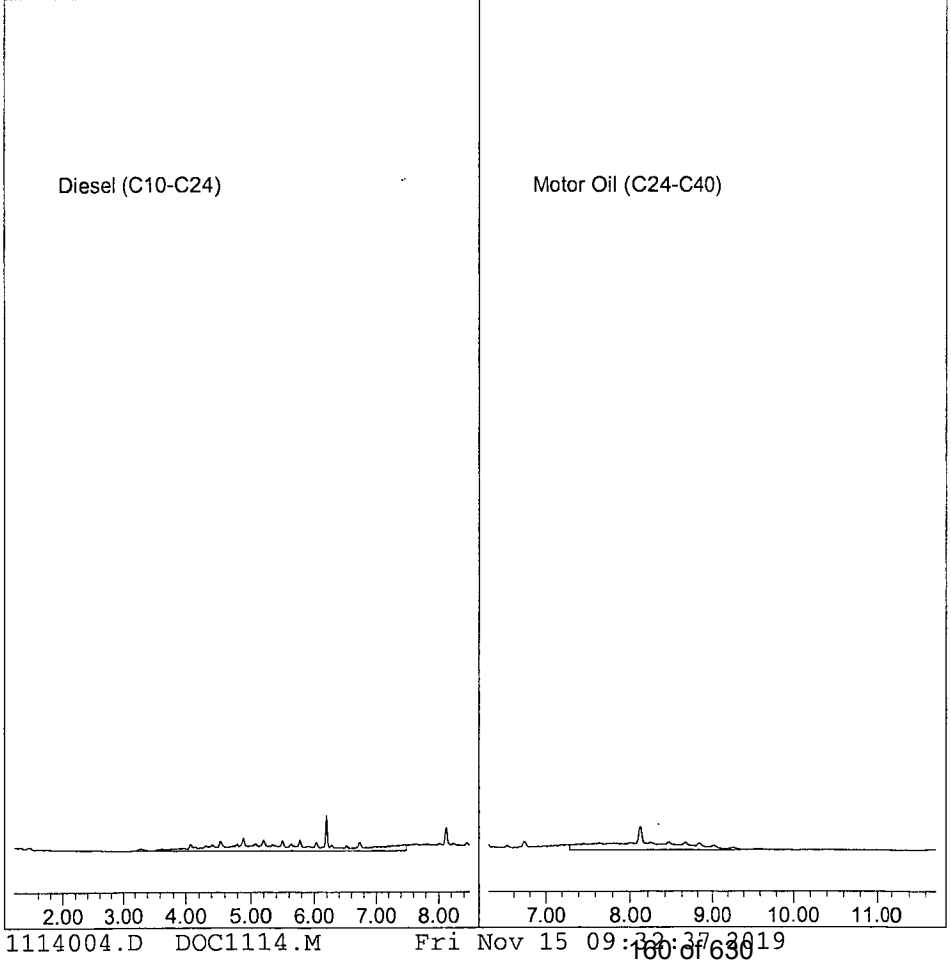
Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
3) SA Ortho-Terphenyl(S)	6.20	7522274	1.503	ppb
Surrogate Spike 30.000	Recovery =		5.01%	
4) SA Octacosane(S)	8.12	5469585	2.415	ppb
Surrogate Spike 30.000	Recovery =		8.05%	
Target Compounds				
1) HATM Diesel (C10-C24)	4.42	133643009	44.304	ppb
2) HBTM Motor Oil (C24-C40)	9.01	81994744	52.104	ppb

Target Compounds

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: G:\APOLLO\DATA\191114\1114004.D
Sample : Diesel Motor Oil - 2 11/14/19

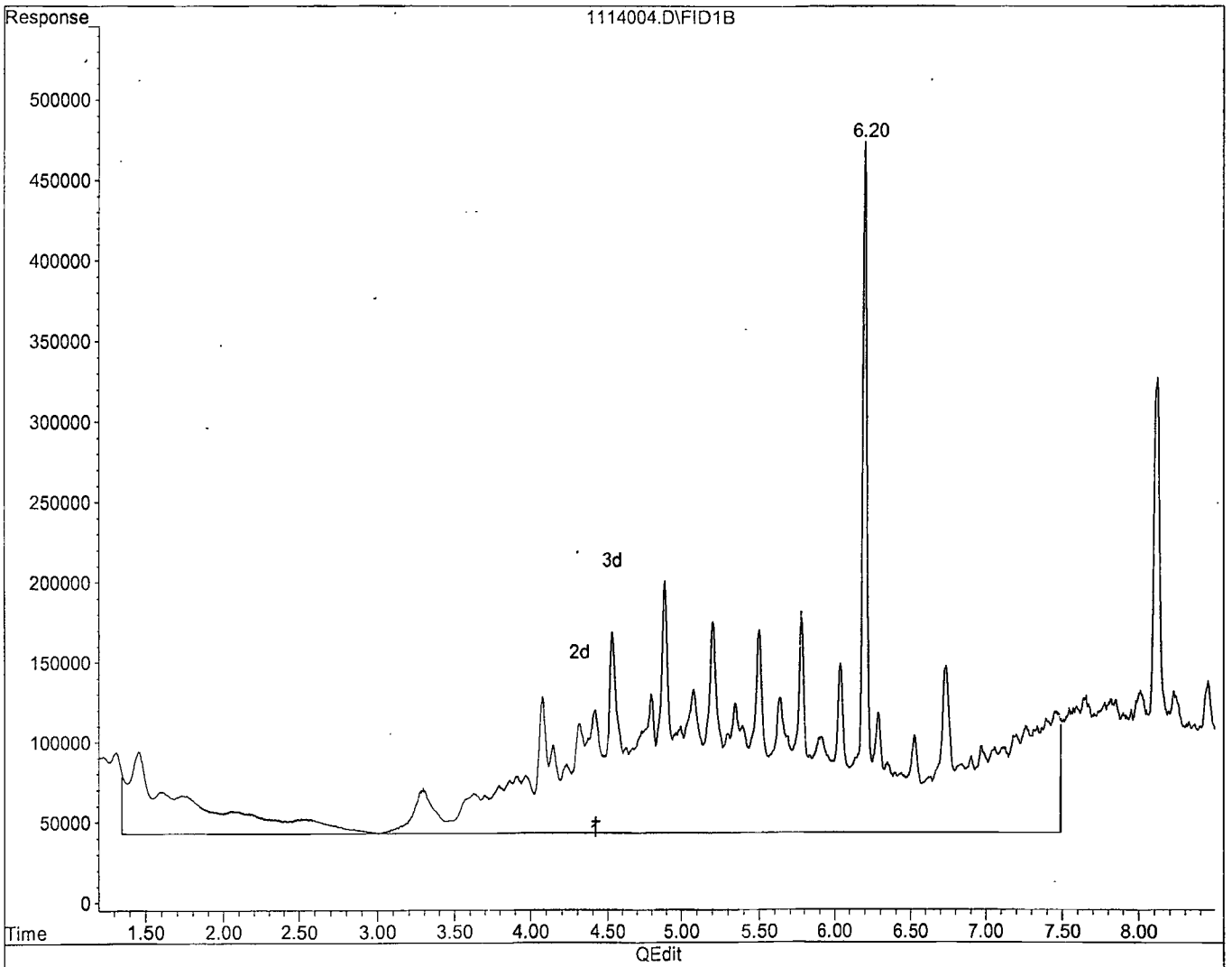




Quantitation Report

Data File : G:\APOLLO\DATA\191114\1114004.D Vial: 4
Acq On : 11-14-19 19:59:46 Operator: BT
Sample : Diesel Motor Oil - 2 11/14/19 Inst : Apollo
Misc : water Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 15 9:19 2019 Quant Results File: DOC1114.RES

Method : G:\APOLLO\DATA\191114\DOC1114.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Nov 15 09:19:04 2019
Response via : Multiple Level Calibration



(1) Diesel (C10-C24) (HATM)

4.42min 48.922ppb m

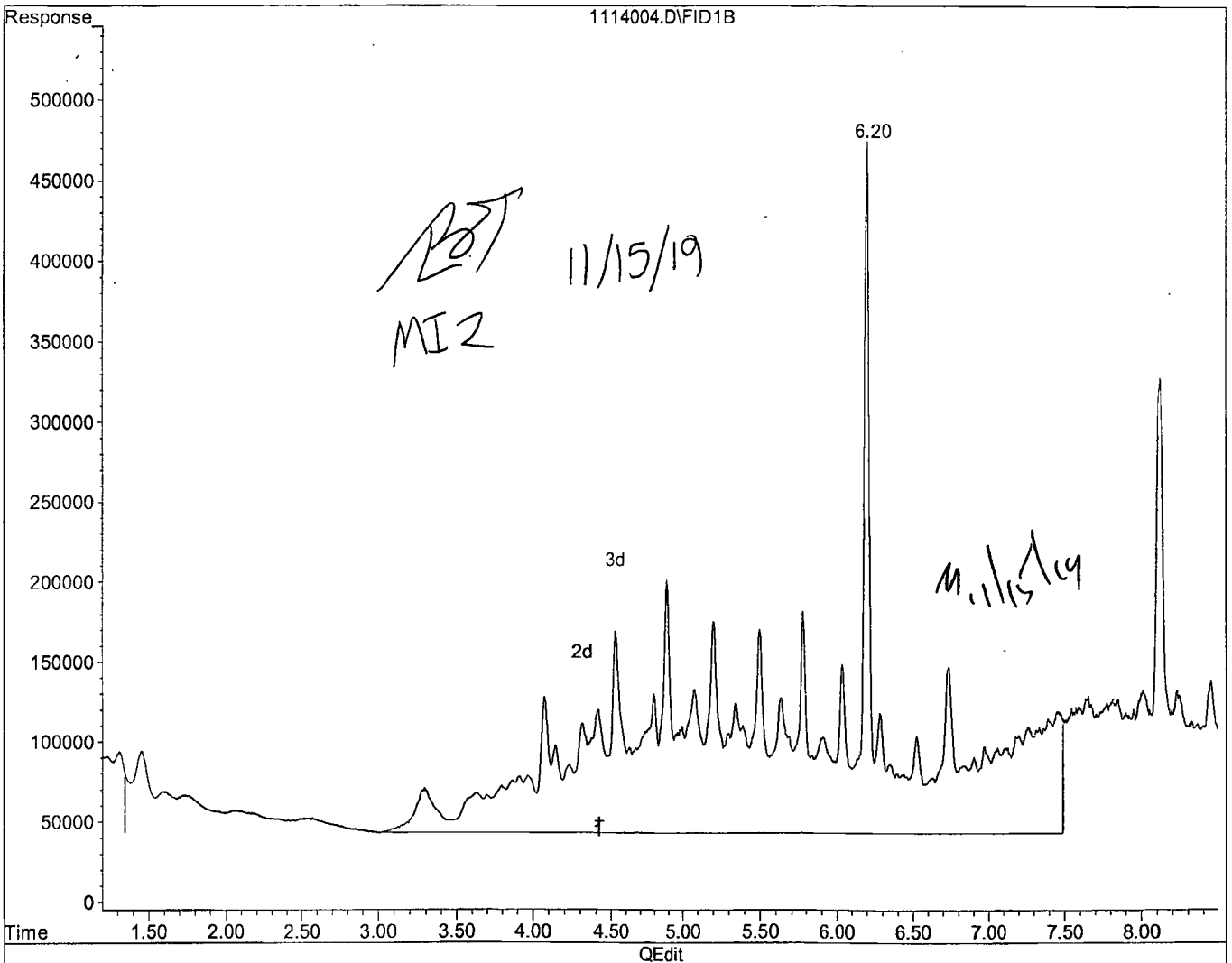
response 147576006

(+) = Expected Retention Time

Quantitation Report

Data File : G:\APOLLO\DATA\191114\1114004.D Vial: 4
Acq On : 11-14-19 19:59:46 Operator: BT
Sample : Diesel Motor Oil - 2 11/14/19 Inst : Apollo
Misc : water Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 15 9:19 2019 Quant Results File: DOC1114.RES

Method : G:\APOLLO\DATA\191114\DOC1114.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Nov 15 09:19:04 2019
Response via : Multiple Level Calibration



(1) Diesel (C10-C24) (HATM)

4.42min 44.304ppb m

response 133643009

(+) = Expected Retention Time

1114004.D DOC1114.M Fri Nov 15 09:21:28 2019

Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\191114\1114005.D Vial: 5
Acq On : 11-14-19 20:19:39 Operator: BT
Sample : Diesel Motor Oil - 3 11/14/19 Inst : Apollo
Misc : water Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 15 9:19 2019 Quant Results File: DOC1114.RES

Method : G:\APOLLO\DATA\191114\DOC1114.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Nov 15 09:19:04 2019
Response via : Multiple Level Calibration

Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

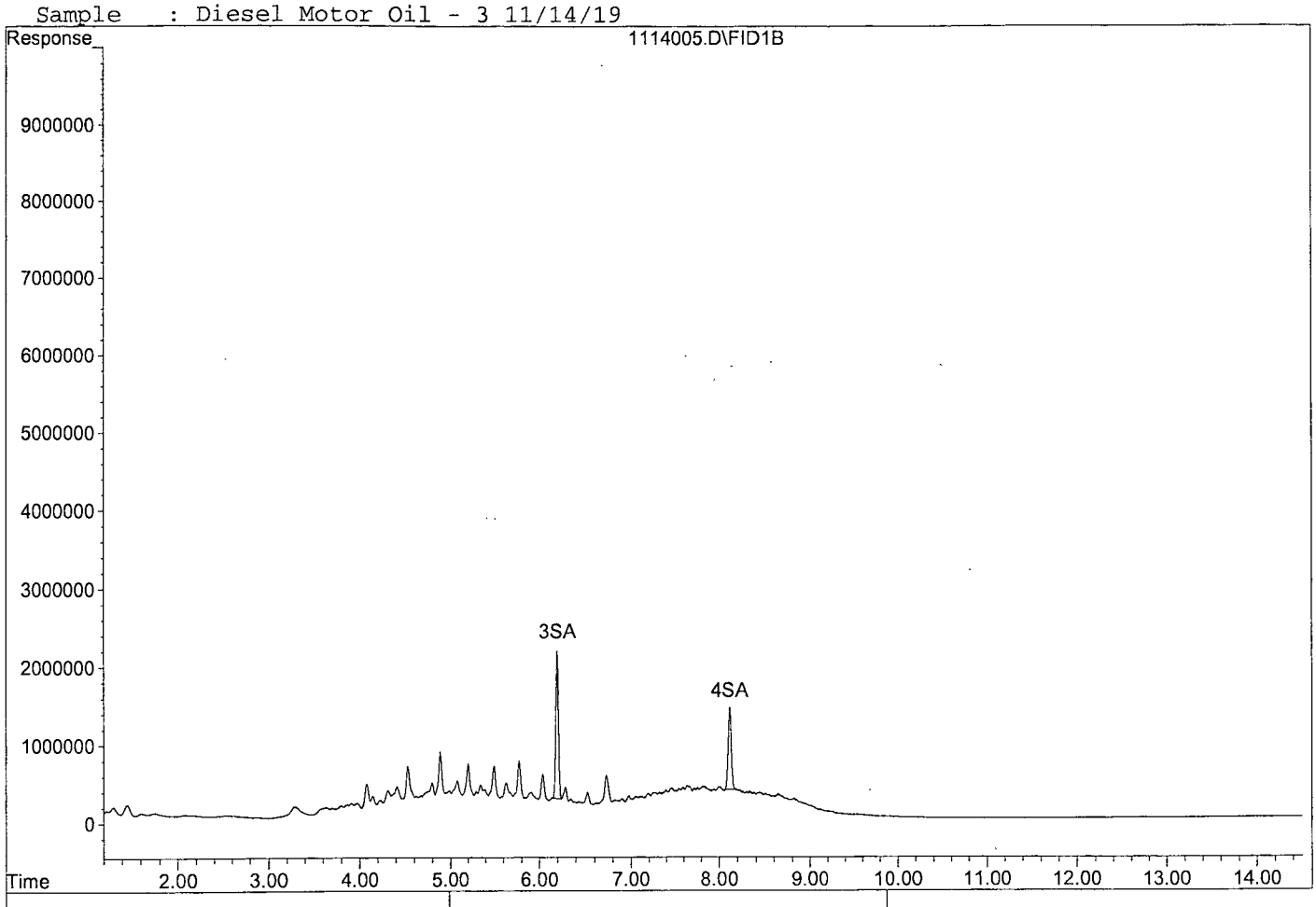
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) SA Ortho-Terphenyl(S)	6.20	37323483	12.416 ppb
Surrogate Spike 30.000	Recovery =		41.39%
4) SA Octacosane(S)	8.12	25262712	11.152 ppb
Surrogate Spike 30.000	Recovery =		37.17%
Target Compounds			
1) HATM Diesel (C10-C24)	4.42	744830742	246.917 ppb
2) HBTM Motor Oil (C24-C40)	9.01	385851504	245.190 ppb

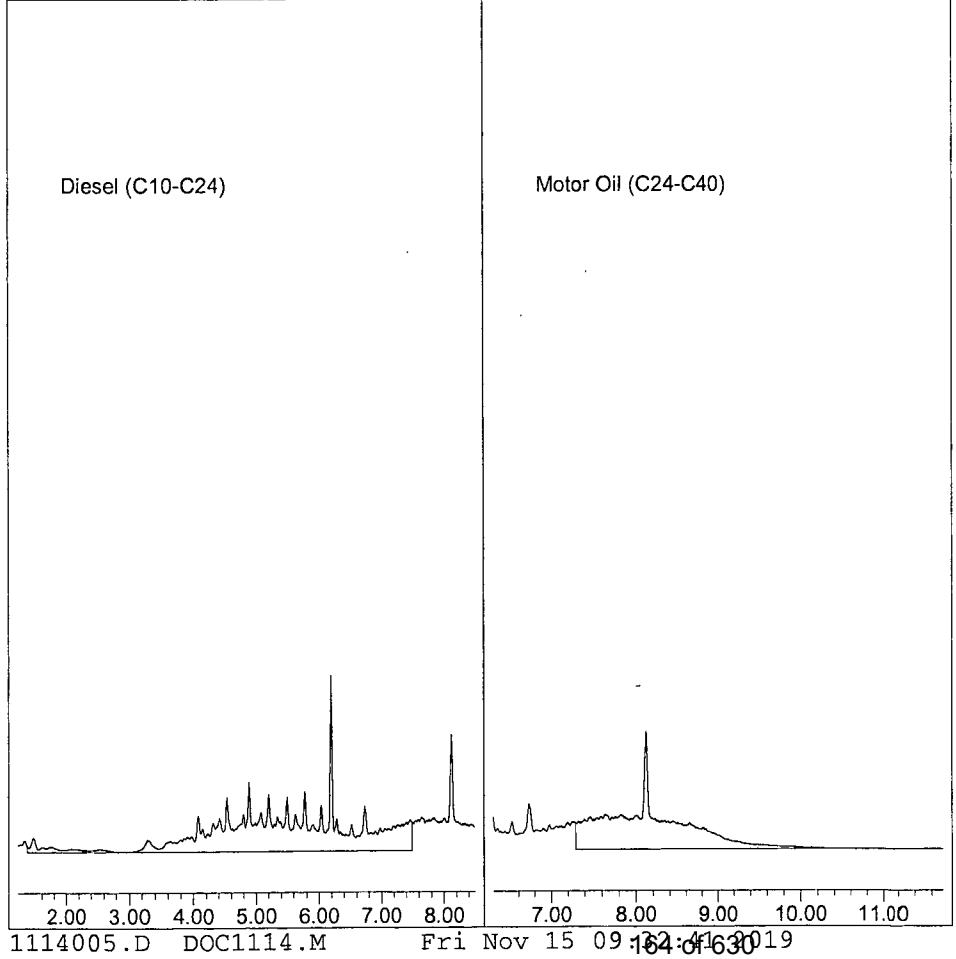
Target Compounds

(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File: G:\APOLLO\DATA\191114\1114005.D
Sample : Diesel Motor Oil - 3 11/14/19





Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\191114\1114006.D Vial: 6
Acq On : 11-14-19 20:39:34 Operator: BT
Sample : Diesel Motor Oil - 4 11/14/19 Inst : Apollo
Misc : water Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 15 9:19 2019 Quant Results File: DOC1114.RES

Method : G:\APOLLO\DATA\191114\DOC1114.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Nov 15 09:19:04 2019
Response via : Multiple Level Calibration

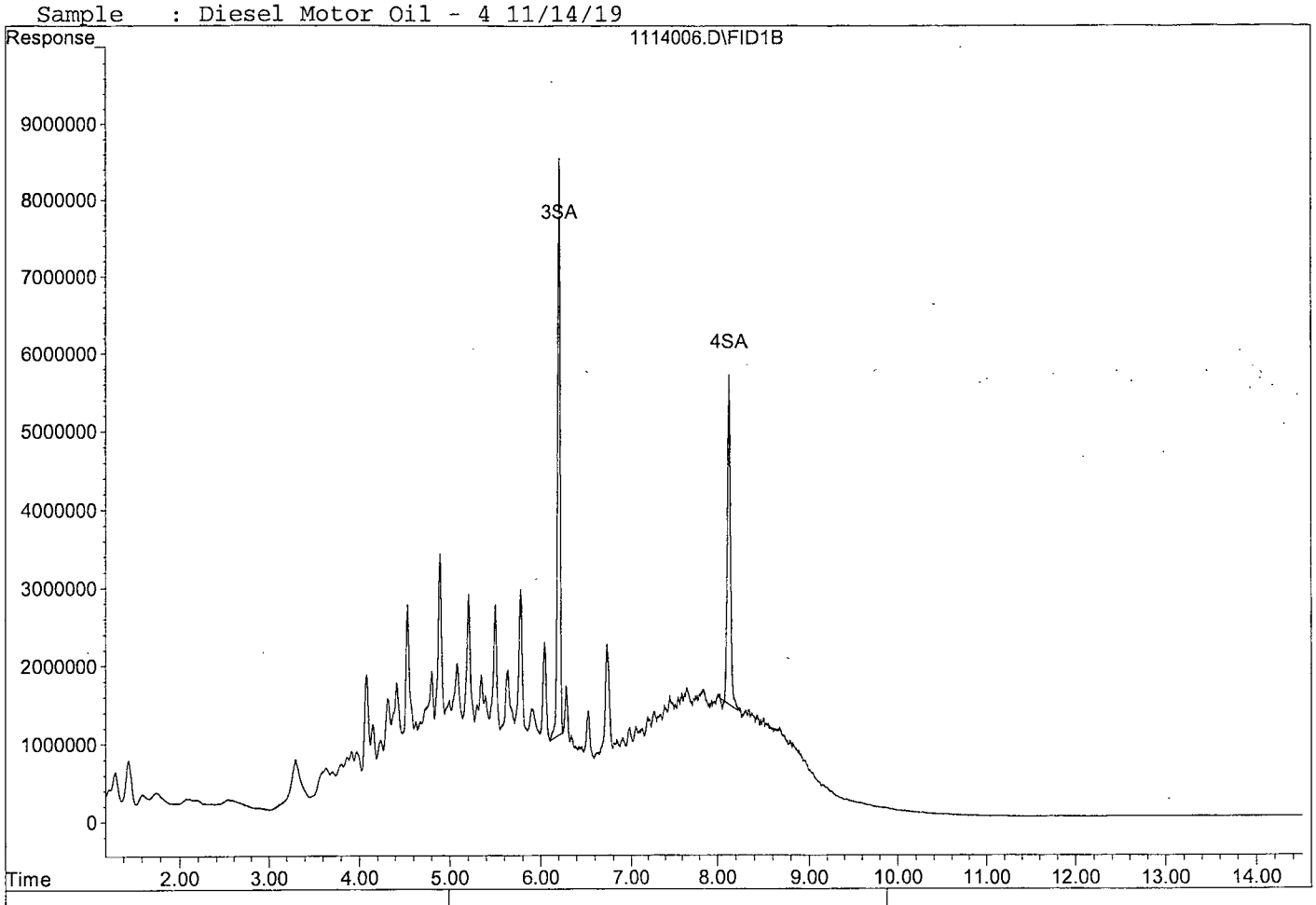
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

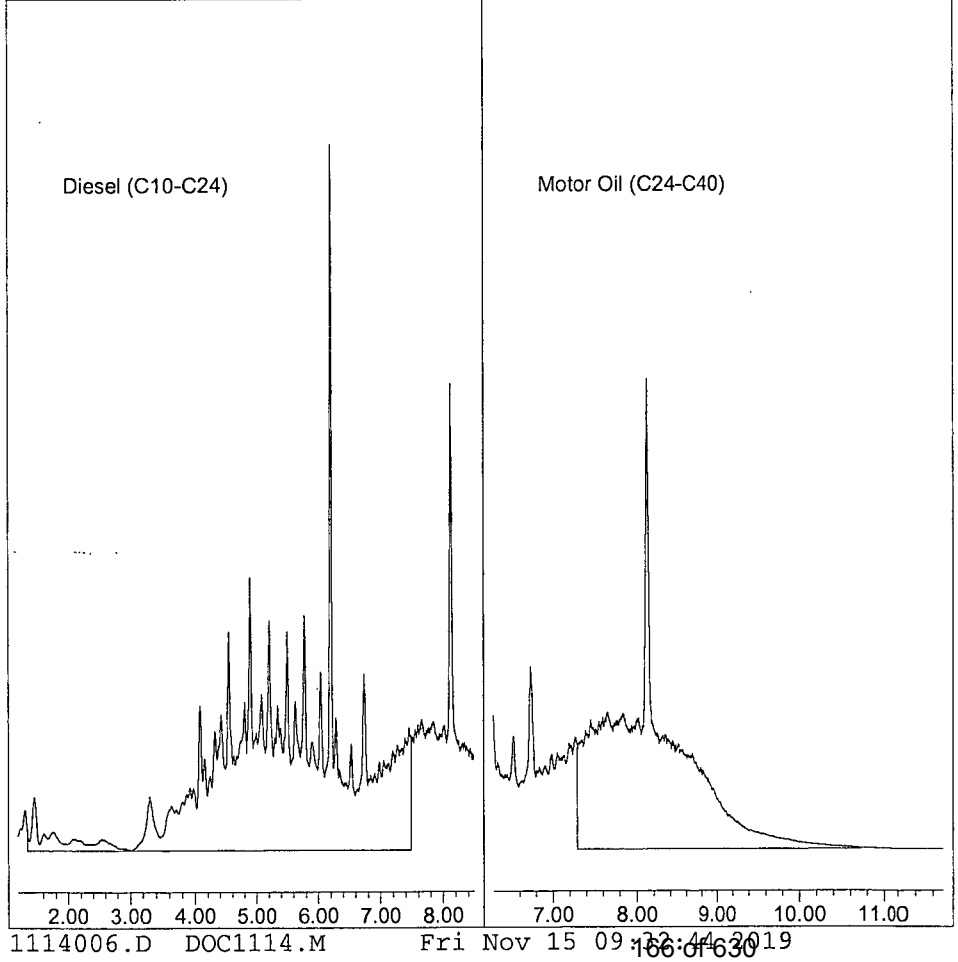
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) SA Ortho-Terphenyl(S)	6.21	151381863	54.183 ppb
Surrogate Spike 30.000		Recovery =	180.61%
4) SA Octacosane(S)	8.12	99731952	44.026 ppb
Surrogate Spike 30.000		Recovery =	146.75%
Target Compounds			
1) HATM Diesel (C10-C24)	4.42	2909060509	964.374 ppb
2) HBTM Motor Oil (C24-C40)	9.01	1488315692	945.751 ppb

Target Compounds

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: G:\APOLLO\DATA\191114\1114006.D
Sample : Diesel Motor Oil - 4 11/14/19





Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\191114\1114007.D Vial: 7
Acq On : 11-14-19 20:59:26 Operator: BT
Sample : Diesel Motor Oil - 5 11/14/19 Inst : Apollo
Misc : water Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 15 9:19 2019 Quant Results File: DOC1114.RES

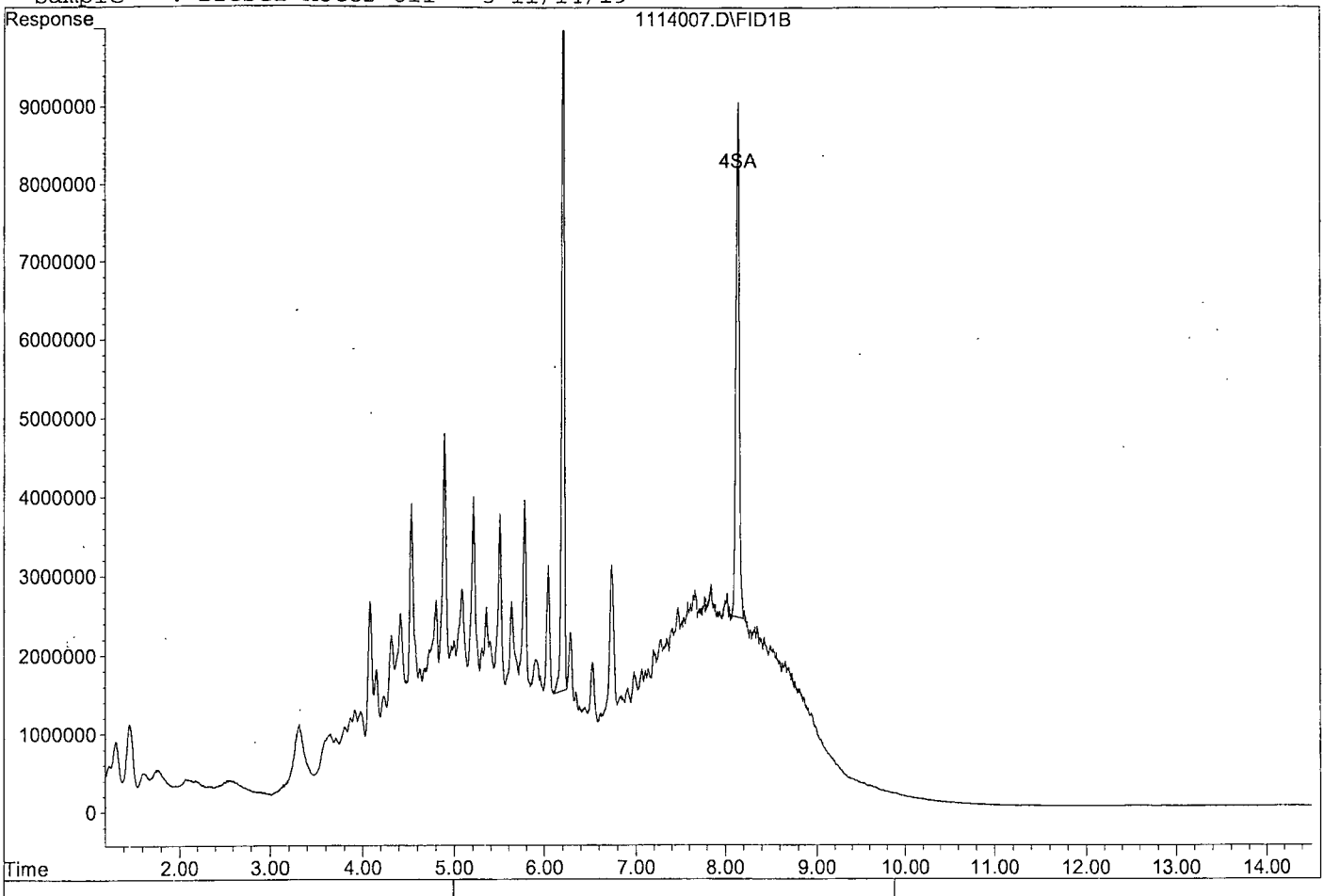
Method : G:\APOLLO\DATA\191114\DOC1114.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Nov 15 09:19:04 2019
Response via : Multiple Level Calibration

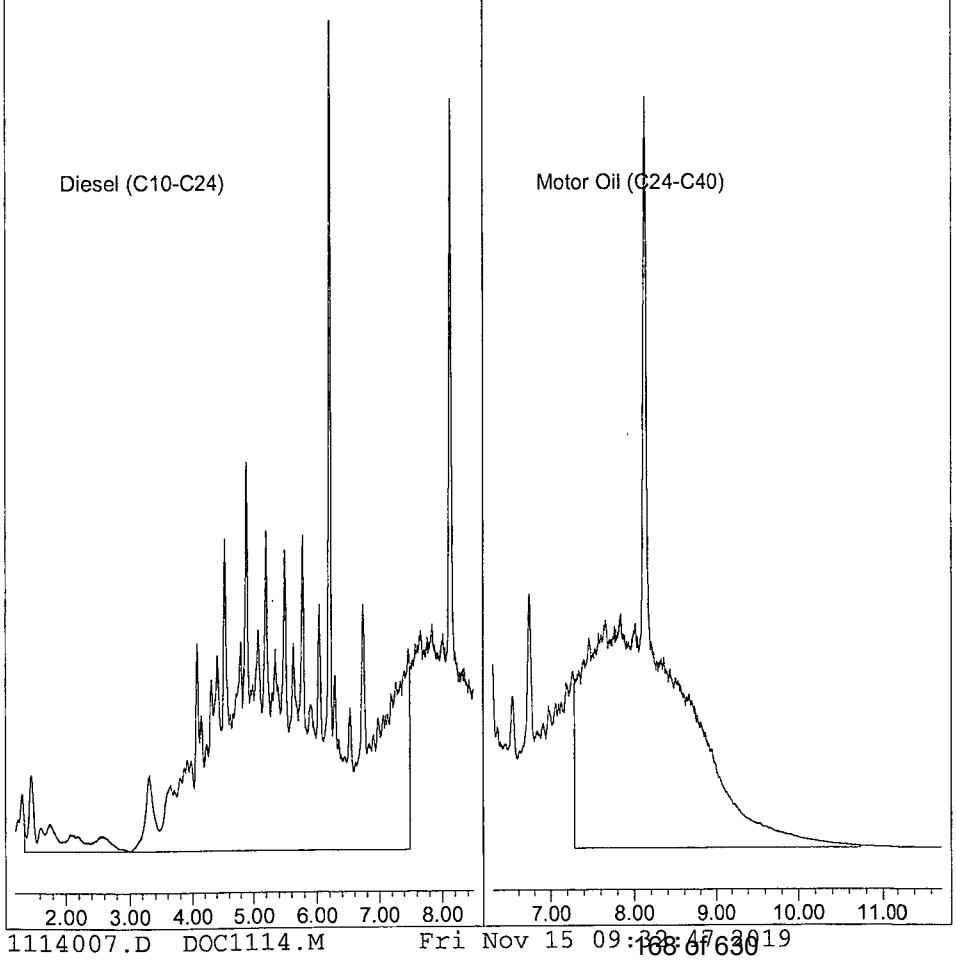
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) SA Ortho-Terphenyl(S)	6.21	206508954	74.370 ppb
Surrogate Spike 30.000		Recovery =	247.90%
4) SA Octacosane(S)	8.13	166754564	73.613 ppb
Surrogate Spike 30.000		Recovery =	245.38%
Target Compounds			
1) HATM Diesel (C10-C24)	4.42	4152339086	1376.529 ppb
2) HBTM Motor Oil (C24-C40)	9.01	2430112740	1544.216 ppb
Target Compounds			

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: G:\APOLLO\DATA\191114\1114007.D
Sample : Diesel Motor Oil - 5 11/14/19





Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\191114\1114008.D Vial: 8
Acq On : 11-14-19 21:19:19 Operator: BT
Sample : Diesel Motor Oil - 6 11/14/19 Inst : Apollo
Misc : water Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 15 9:19 2019 Quant Results File: DOC1114.RES

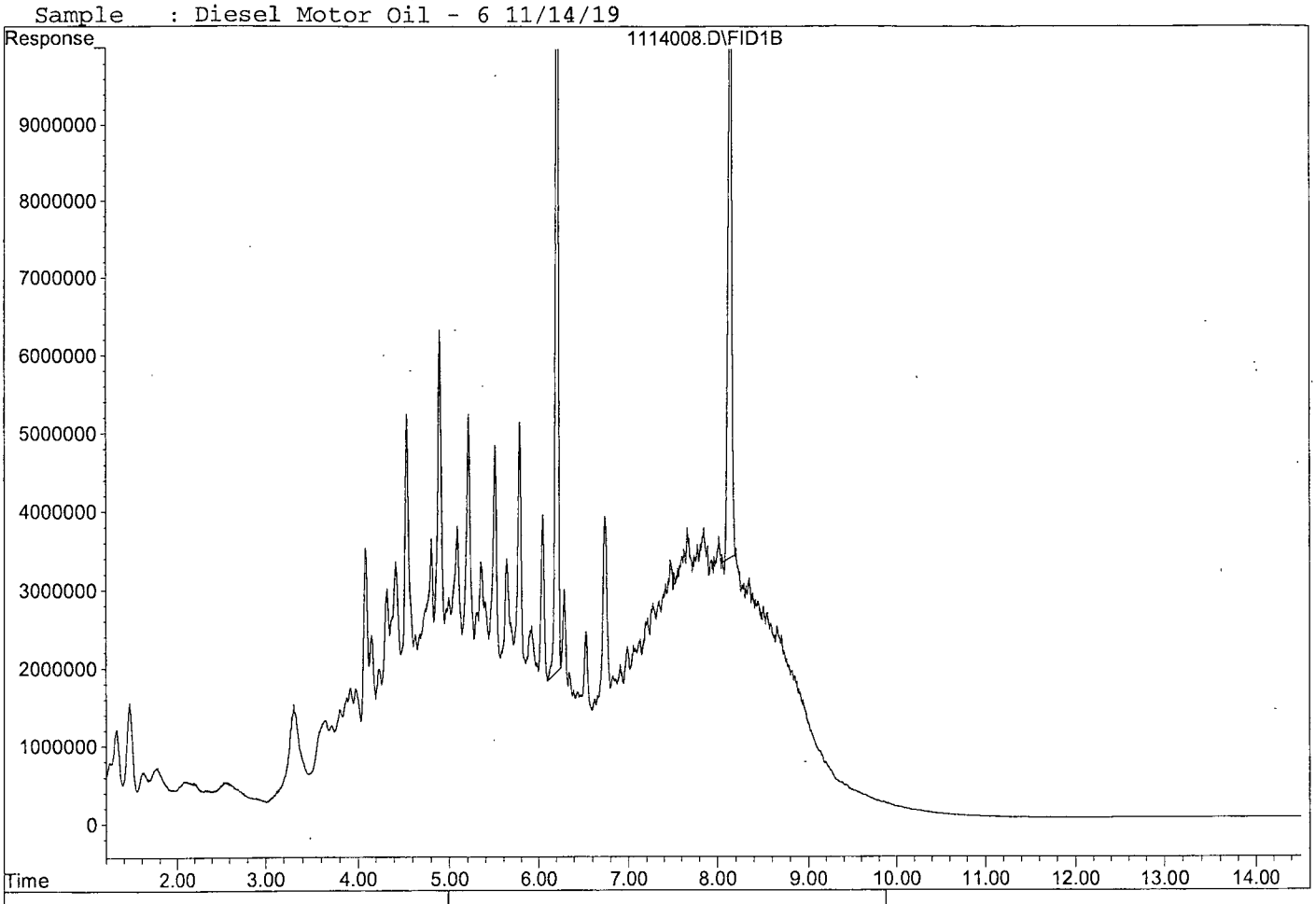
Method : G:\APOLLO\DATA\191114\DOC1114.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Nov 15 09:19:04 2019
Response via : Multiple Level Calibration

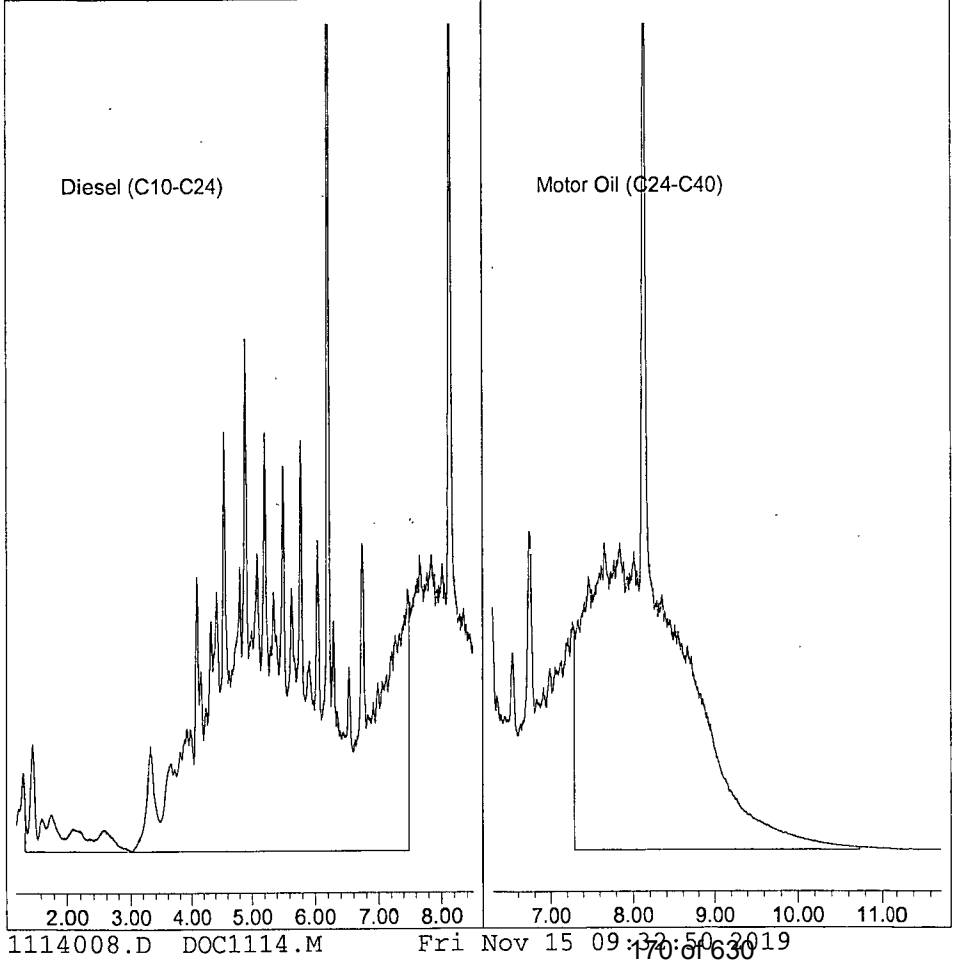
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

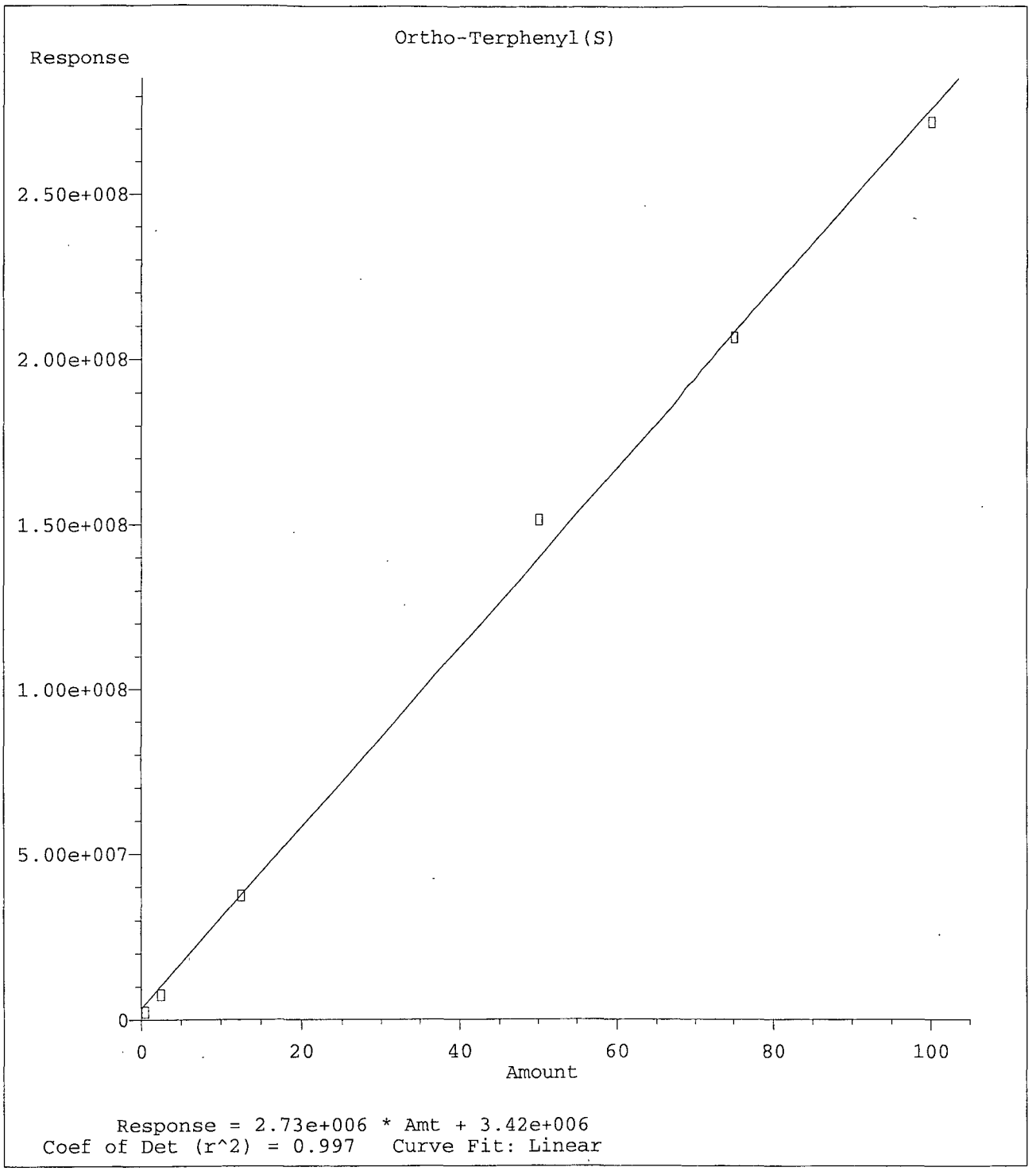
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) SA Ortho-Terphenyl(S)	6.21	272188350	98.421 ppb
Surrogate Spike 30.000	Recovery =		328.07%
4) SA Octacosane(S)	8.14	212897820	93.983 ppb
Surrogate Spike 30.000	Recovery =		313.28%
Target Compounds			
1) HATM Diesel (C10-C24)	4.42	5438788689	1802.996 ppb
2) HBTM Motor Oil (C24-C40)	9.01	3195039251	2030.289 ppb
Target Compounds			

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: G:\APOLLO\DATA\191114\1114008.D
Sample : Diesel Motor Oil - 6 11/14/19







Method Name: G:\APOLLO\DATA\191114\DOC1114.M
Calibration Table Last Updated: Fri Nov 15 09:19:04 2019

TPH Extractables
DOC1114

Form 7

Second Source Calibration

Lab Name: APPL, Inc.
Case No:
Matrix: Water

SDG No:
Date Analyzed: 11/14/19
Instrument: Apollo
Initial Cal. Date: 11/14/19
Data File: 1114009.D

		Compound	MEAN	CCRF	%D		%Drift
1	HATM	Diesel (C10-C24)	1508730	1766620	17	HATM	
2	HBTM	Motor Oil (C24-C40)	786843	841695	7.0	HBTM	
3							
4							
5							
6							
7							
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35							
36							
37							
38							
39							
40							
		Average			12.0		

Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\191114\1114009.D Vial: 9
Acq On : 11-14-19 21:39:10 Operator: BT
Sample : Diesel Motor Oil Second Source 1/15/19 Inst : Apollo
Misc : water Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 15 9:29 2019 Quant Results File: DOC1114.RES

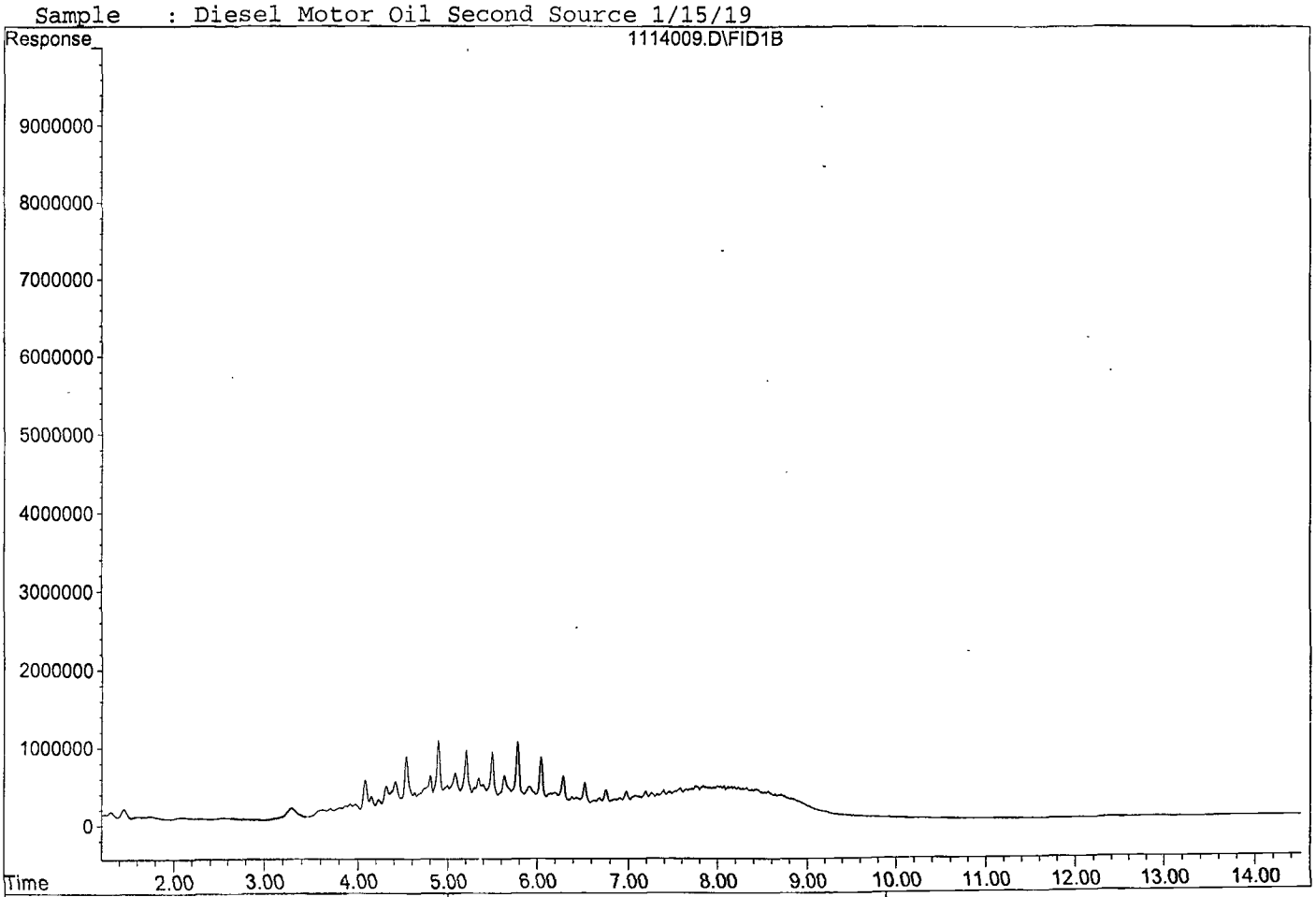
Method : G:\APOLLO\DATA\191114\DOC1114.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Nov 15 09:19:04 2019
Response via : Multiple Level Calibration

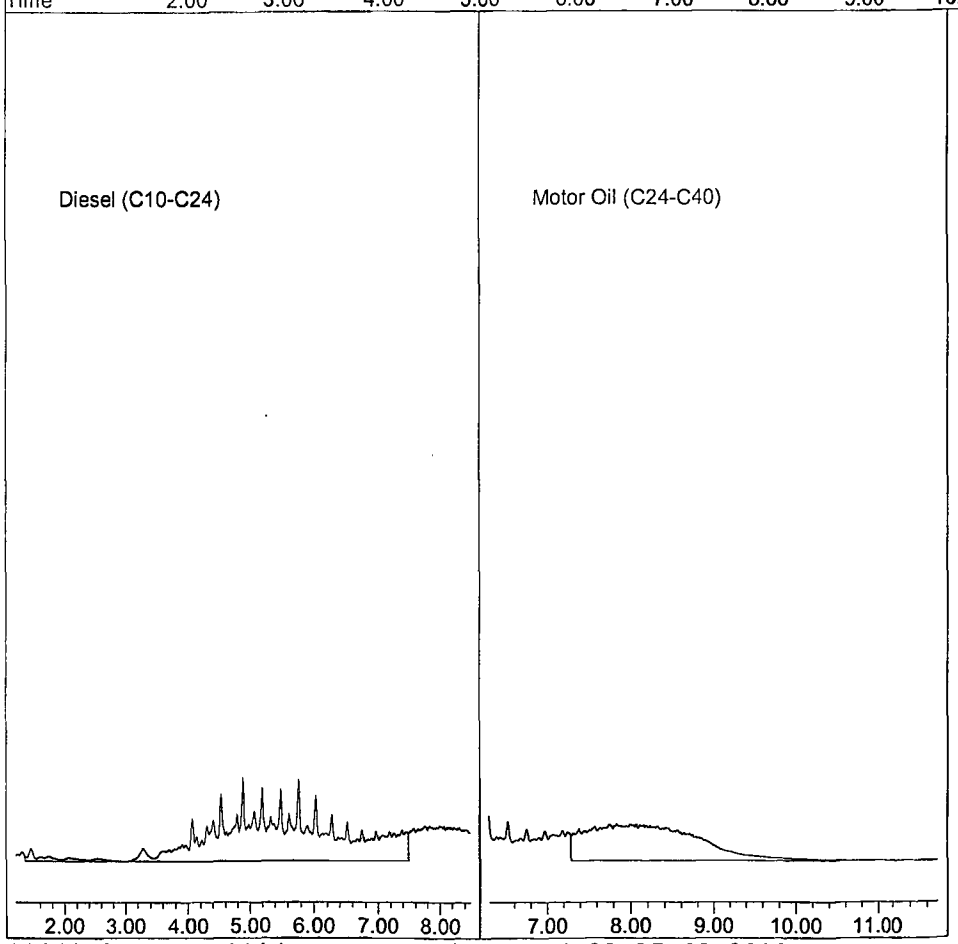
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds					
3) SA Ortho-Terphenyl(S)	0.00	0	N.D.	ppb	d
Surrogate Spike 30.000	Recovery	=	0.00%		
4) SA Octacosane(S)	0.00	0	N.D.	ppb	d
Surrogate Spike 30.000	Recovery	=	0.00%		
Target Compounds					
1) HATM Diesel (C10-C24)	4.42	883311718	292.733	ppb	
2) HBTM Motor Oil (C24-C40)	9.01	420847463	267.428	ppb	

Target Compounds

Data File: G:\APOLLO\DATA\191114\1114009.D
Sample : Diesel Motor Oil Second Source 1/15/19





1114009.D DOC1114.M Fri Nov 15 09:35:02 2019

TPH Extractables
DOC1114

Form 7

Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix: Water

SDG No:
Date Analyzed: 11/15/19
Instrument: Apollo
Initial Cal. Date: 11/14/19
Data File: 1114019.D

		Compound	MEAN	CCRF	%D	%Drift	
1	HATM	Diesel (C10-C24)	1508730	1589330	5.3	HATM	
2	HBTM	Motor Oil (C24-C40)	786843	782904	0.50	HBTM	
3	SAL	Ortho-Terphenyl(S)	1599120	1656820	3.6	SAL	11
4	SA	Octacosane(S)	1132640	1105010	2.4	SA	
5							
6							
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37							
38							
39							
40							
		Average			3.0		

Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\191114\1114019.D Vial: 19
Acq On : 11-15-19 0:55:27 Operator: BT
Sample : Diesel Motor Oil CCV 11/14/19 Inst : Apollo
Misc : water Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 15 14:46 2019 Quant Results File: DOC1114.RES

Method : G:\APOLLO\DATA\191114\DOC1114.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Nov 15 09:19:04 2019
Response via : Multiple Level Calibration

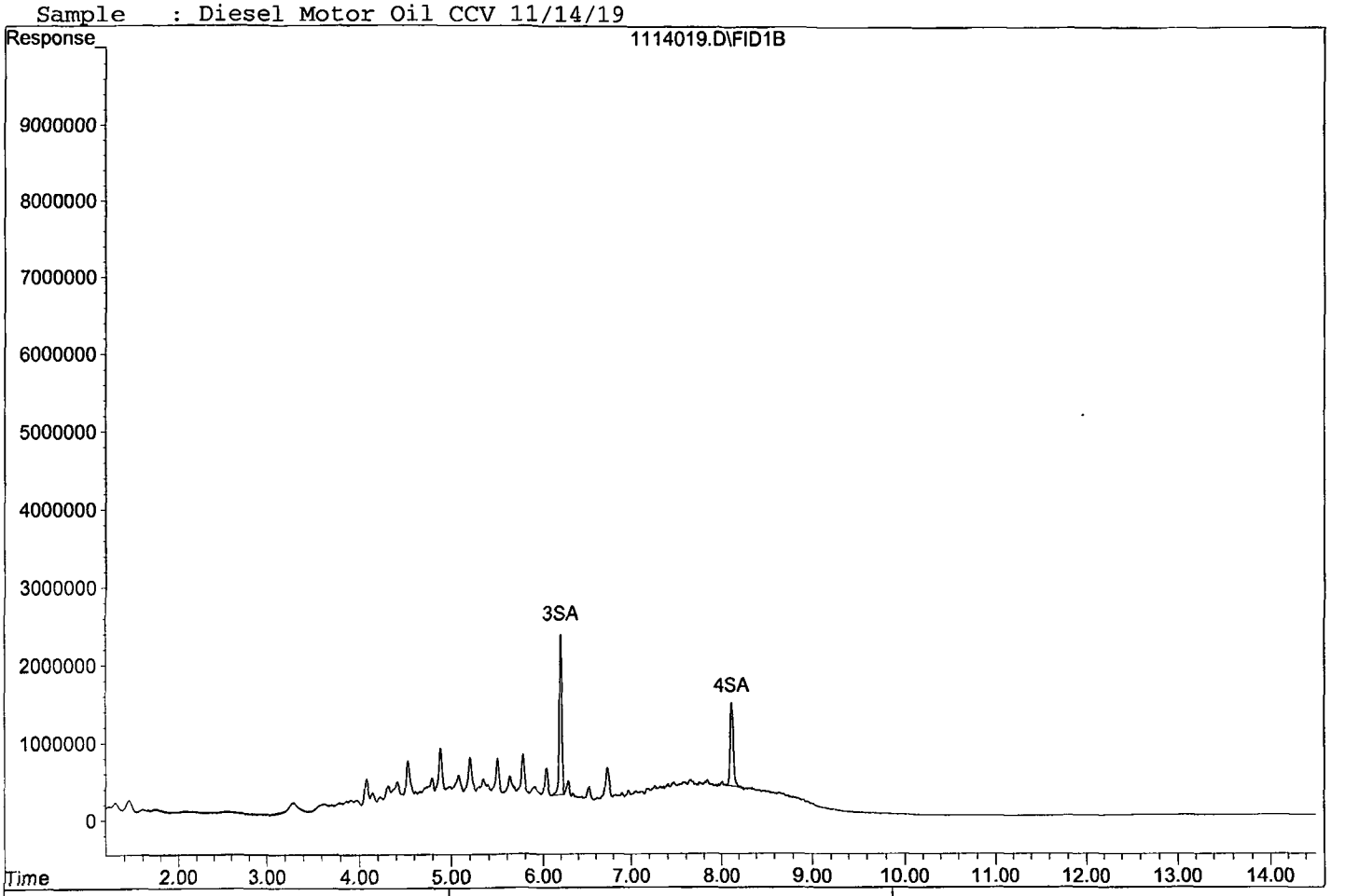
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

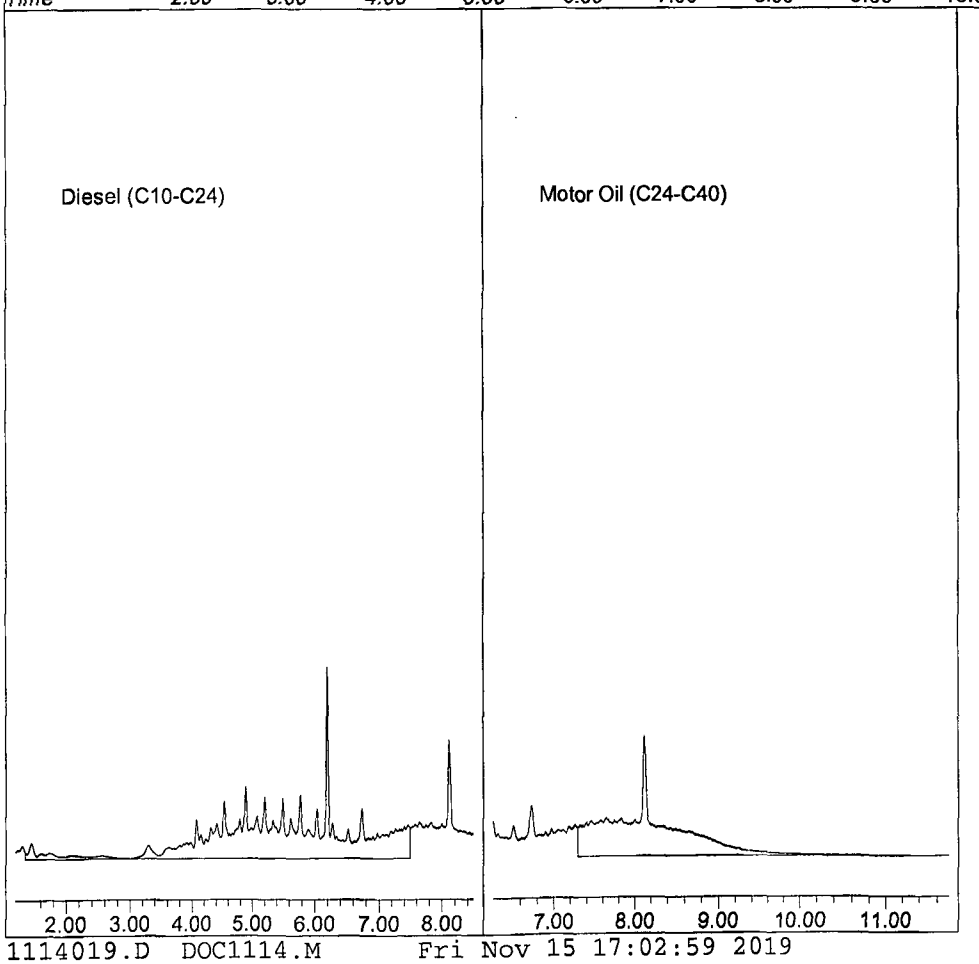
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) SA Ortho-Terphenyl(S)	6.20	41420415	13.916 ppb
Surrogate Spike 30.000	Recovery =		46.39%
4) SA Octacosane(S)	8.12	27625341	12.195 ppb
Surrogate Spike 30.000	Recovery =		40.65%
Target Compounds			
1) HATM Diesel (C10-C24)	4.42	794663386	263.355 ppb
2) HBTM Motor Oil (C24-C40)	9.01	391452103	248.748 ppb
Target Compounds			

(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File: G:\APOLLO\DATA\191114\1114019.D
Sample : Diesel Motor Oil CCV 11/14/19





ORGANICS
Raw Data

Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\191114\1114018.D Vial: 18
Acq On : 11-15-19 0:35:52 Operator: BT
Sample : BA02301W14 2/800 Inst : Apollo
Misc : water Multiplr: 2.50
IntFile : events.e
Quant Time: Nov 15 16:52 2019 Quant Results File: DOC1114.RES

Method : G:\APOLLO\DATA\191114\DOC1114.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Nov 15 09:19:04 2019
Response via : Multiple Level Calibration

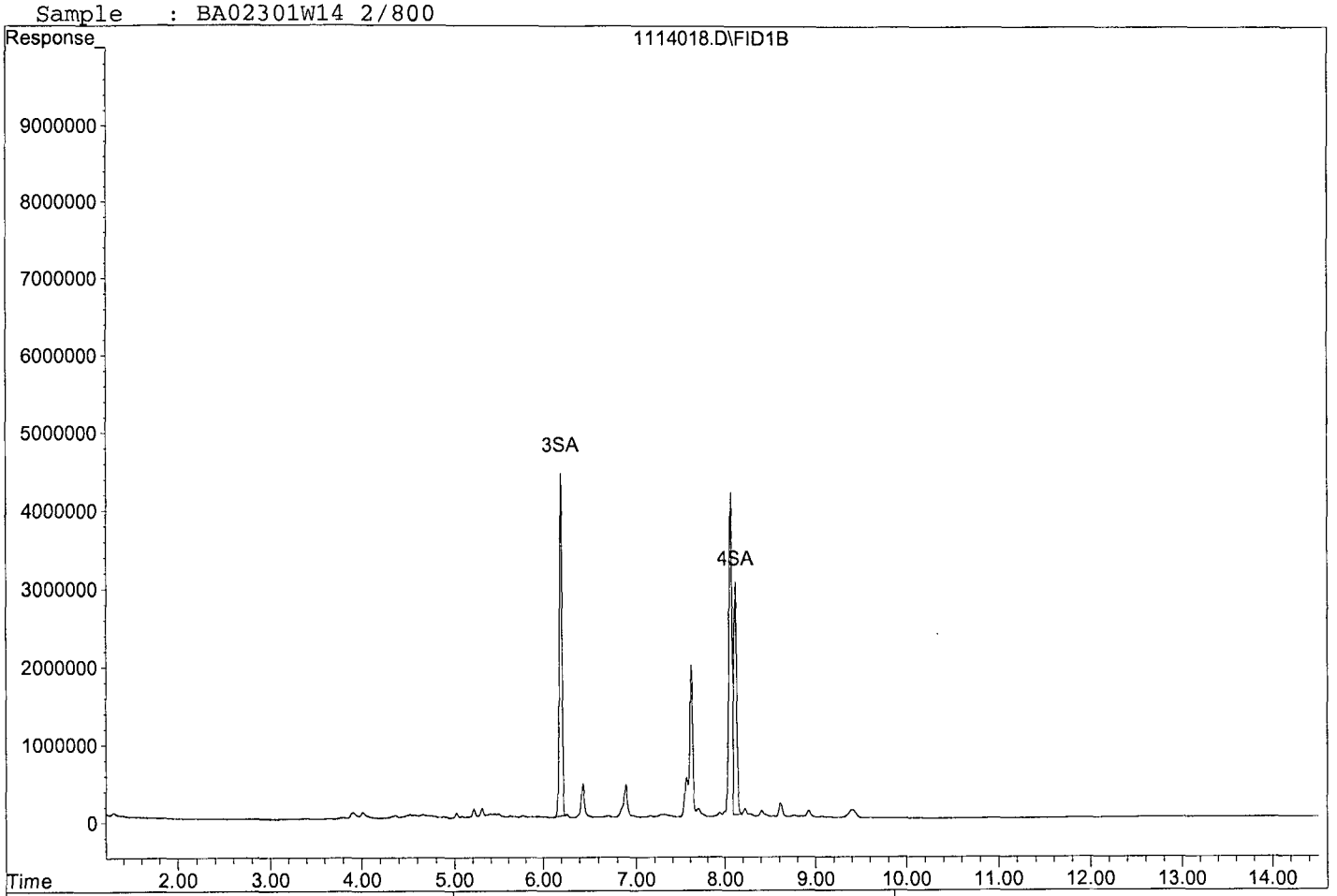
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

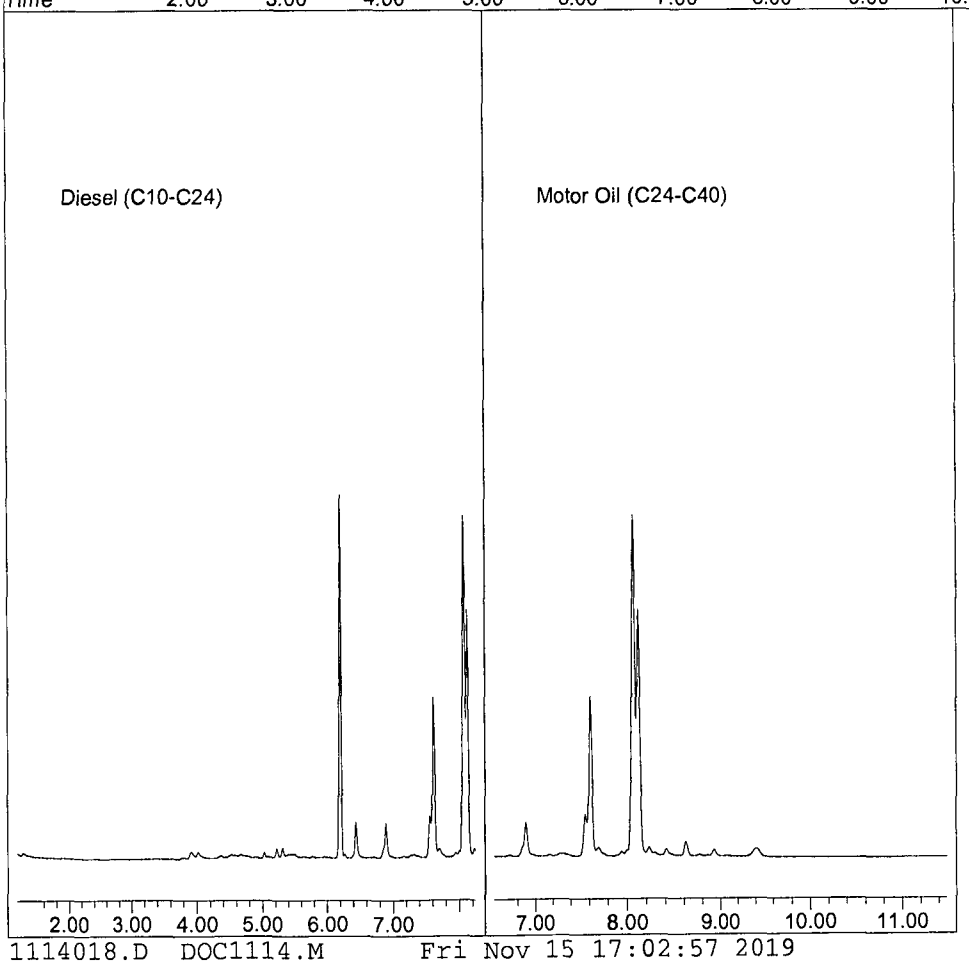
Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds					
3) SA Ortho-Terphenyl(S)	6.20	85457139	75.105	ppb	
Surrogate Spike 75.000	Recovery =		100.14%		
4) SA Octacosane(S)	8.12	66472808	73.360	ppb	m
Surrogate Spike 75.000	Recovery =		97.81%		
Target Compounds					
Target Compounds					
1) HATM Diesel (C10-C24)	0.00	0	N.D.	ppb	
2) HBTM Motor Oil (C24-C40)	0.00	0	N.D.	ppb	

(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File: G:\APOLLO\DATA\191114\1114018.D
Sample : BA02301W14 2/800

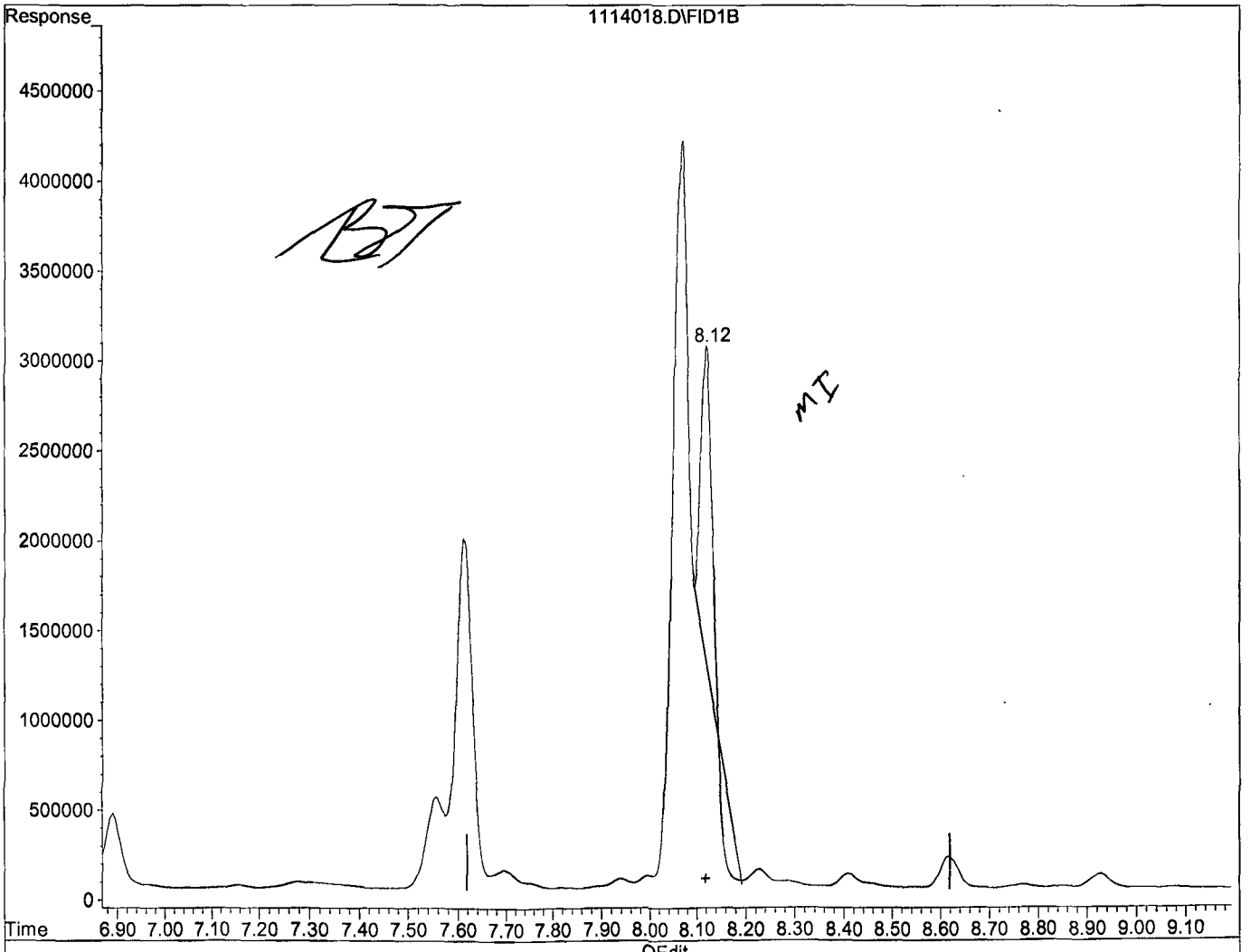




Quantitation Report

Data File : G:\APOLLO\DATA\191114\1114018.D Vial: 18
Acq On : 11-15-19 0:35:52 Operator: BT
Sample : BA02301W14 2/800 Inst : Apollo
Misc : water Multiplr: 2.50
IntFile : events.e
Quant Time: Nov 15 14:46 2019 Quant Results File: DOC1114.RES

Method : G:\APOLLO\DATA\191114\DOC1114.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Nov 15 09:19:04 2019
Response via : Multiple Level Calibration



QEdit

(4) Octacosane(S) (SA)

8.12min 22.976ppb

response 20818807

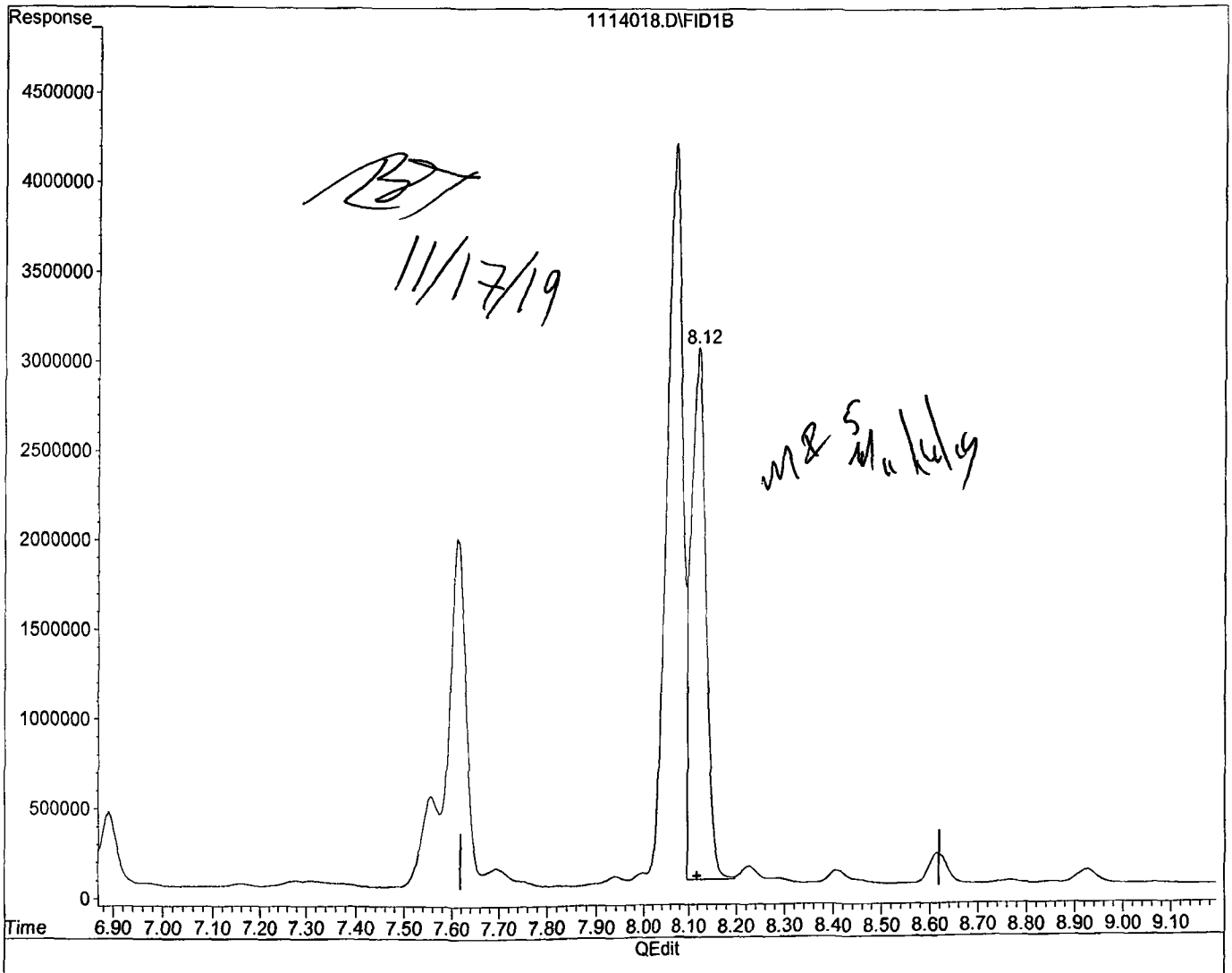
(+) = Expected Retention Time
1114018.D DOC1114.M Fri Nov 15 16:52:17 2019

Quantitation Report

Data File : G:\APOLLO\DATA\191114\1114018.D
Acq On : 11-15-19 0:35:52
Sample : BA02301W14 2/800
Misc : water
IntFile : events.e
Quant Time: Nov 15 14:46 2019 Quant Results File: DOC1114.RES

Vial: 18
Operator: BT
Inst : Apollo
Multiplr: 2.50

Method : G:\APOLLO\DATA\191114\DOC1114.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Nov 15 09:19:04 2019
Response via : Multiple Level Calibration



BT 11/17/19

MB 5 M.a 11/19

(4) Octacosane(S) (SA)

8.12min 73.360ppb m

response 66472808

(+) = Expected Retention Time

1114018.D DOC1114.M Fri Nov 15 16:52:42 2019

Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\191114\1114010.D Vial: 10
Acq On : 11-14-19 21:59:00 Operator: BT
Sample : 191104A BLK 2/800 Inst : Apollo
Misc : water Multiplr: 2.50
IntFile : events.e
Quant Time: Nov 15 14:47 2019 Quant Results File: DOC1114.RES

Method : G:\APOLLO\DATA\191114\DOC1114.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Nov 15 09:19:04 2019
Response via : Multiple Level Calibration

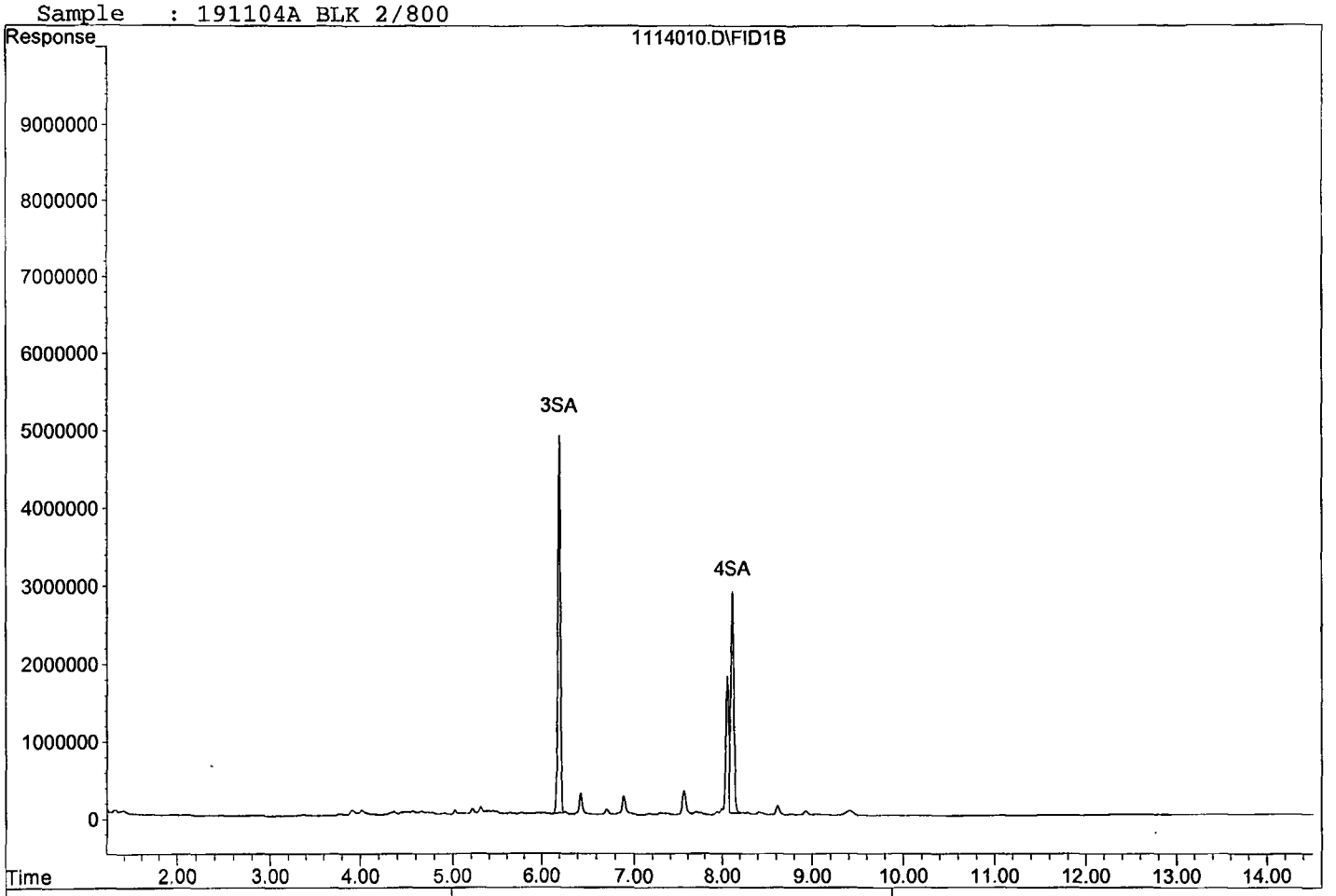
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

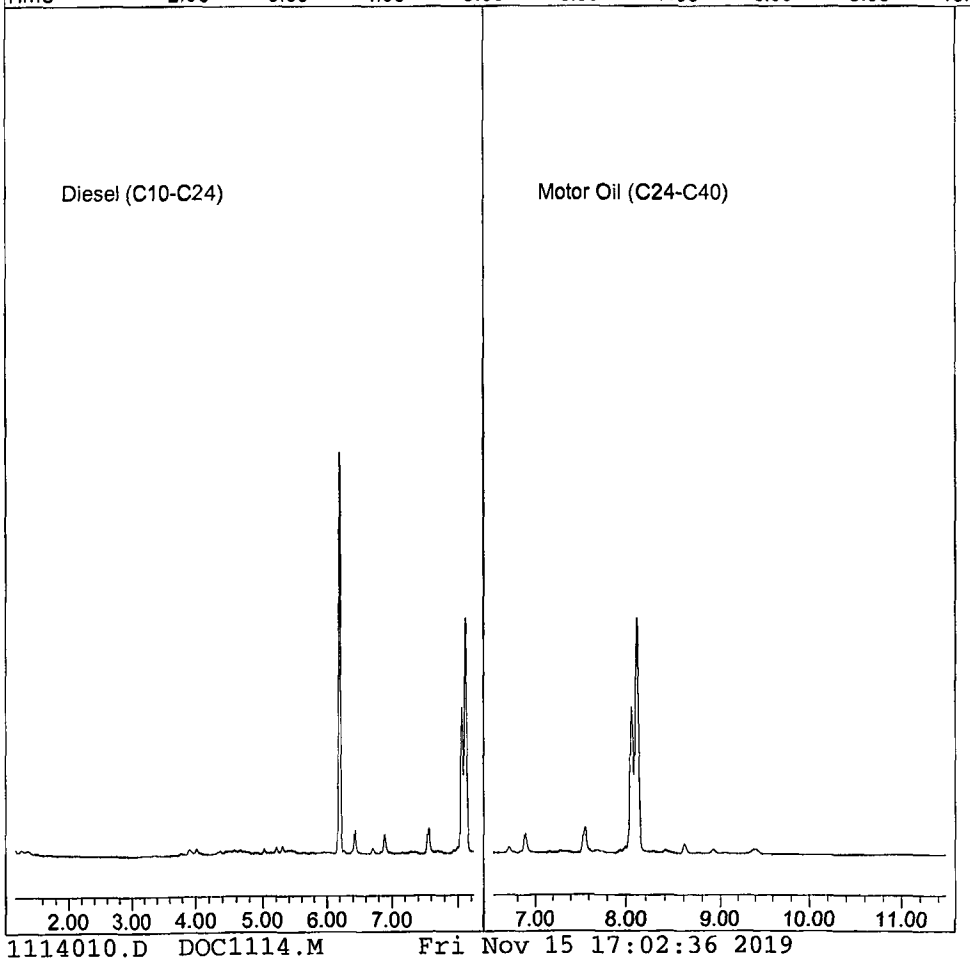
Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds					
3) SA Ortho-Terphenyl(S)	6.20	95718085	84.498	ppb	
Surrogate Spike 75.000	Recovery =		112.66%		
4) SA Octacosane(S)	8.12	71527670	78.939	ppb	m
Surrogate Spike 75.000	Recovery =		105.25%		
Target Compounds					
Target Compounds					
1) HATM Diesel (C10-C24)	0.00	0	N.D.	ppb	
2) HBTM Motor Oil (C24-C40)	0.00	0	N.D.	ppb	

(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File: G:\APOLLO\DATA\191114\1114010.D
Sample : 191104A BLK 2/800



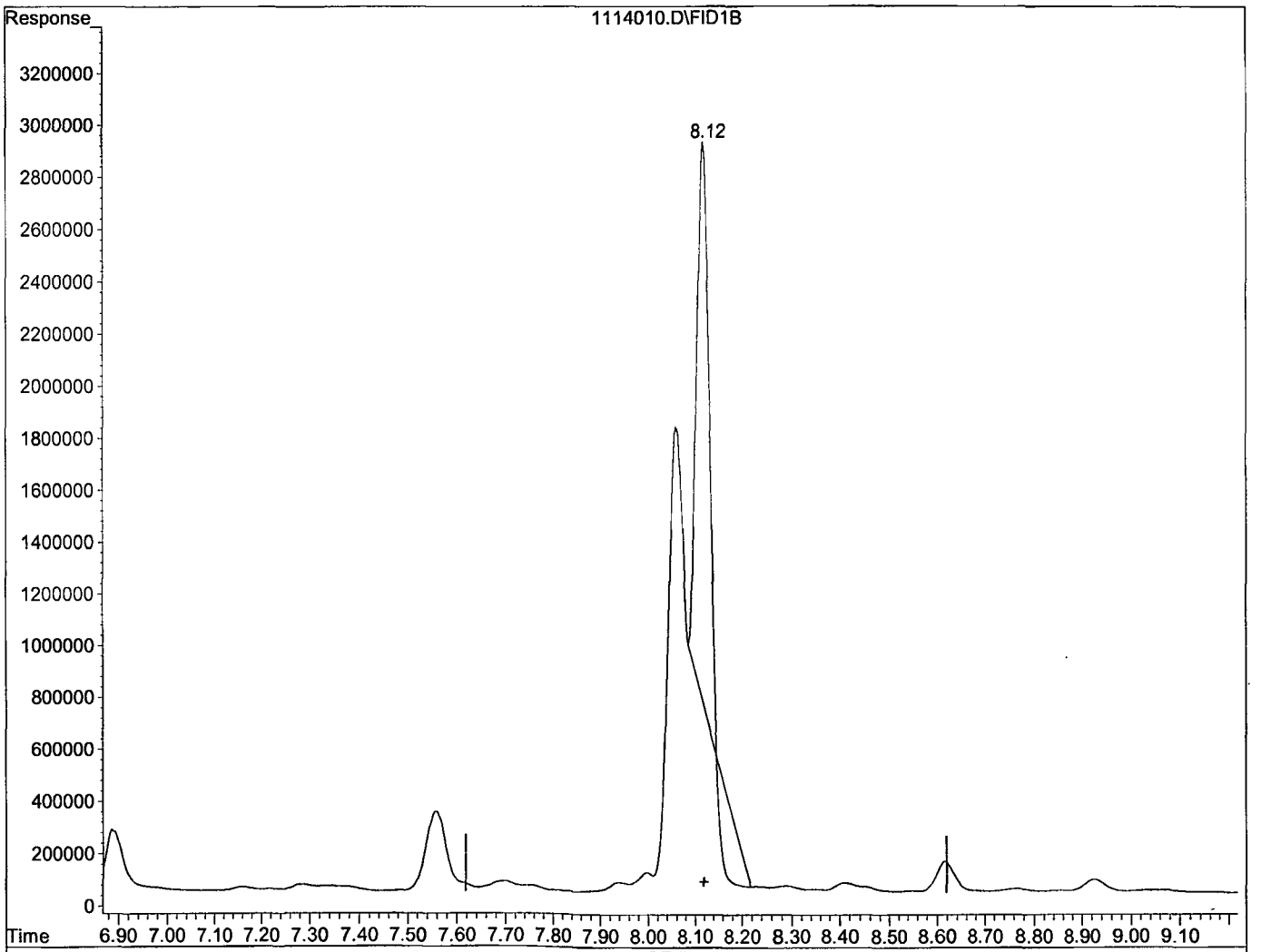


1114010.D DOC1114.M Fri Nov 15 17:02:36 2019

Quantitation Report

Data File : G:\APOLLO\DATA\191114\1114010.D Vial: 10
Acq On : 11-14-19 21:59:00 Operator: BT
Sample : 191104A BLK 2/800 Inst : Apollo
Misc : water Multiplr: 2.50
IntFile : events.e
Quant Time: Nov 15 14:45 2019 Quant Results File: DOC1114.RES

Method : G:\APOLLO\DATA\191114\DOC1114.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Nov 15 09:19:04 2019
Response via : Multiple Level Calibration



QEdit

(4) Octacosane(S) (SA)

8.12min 35.782ppb

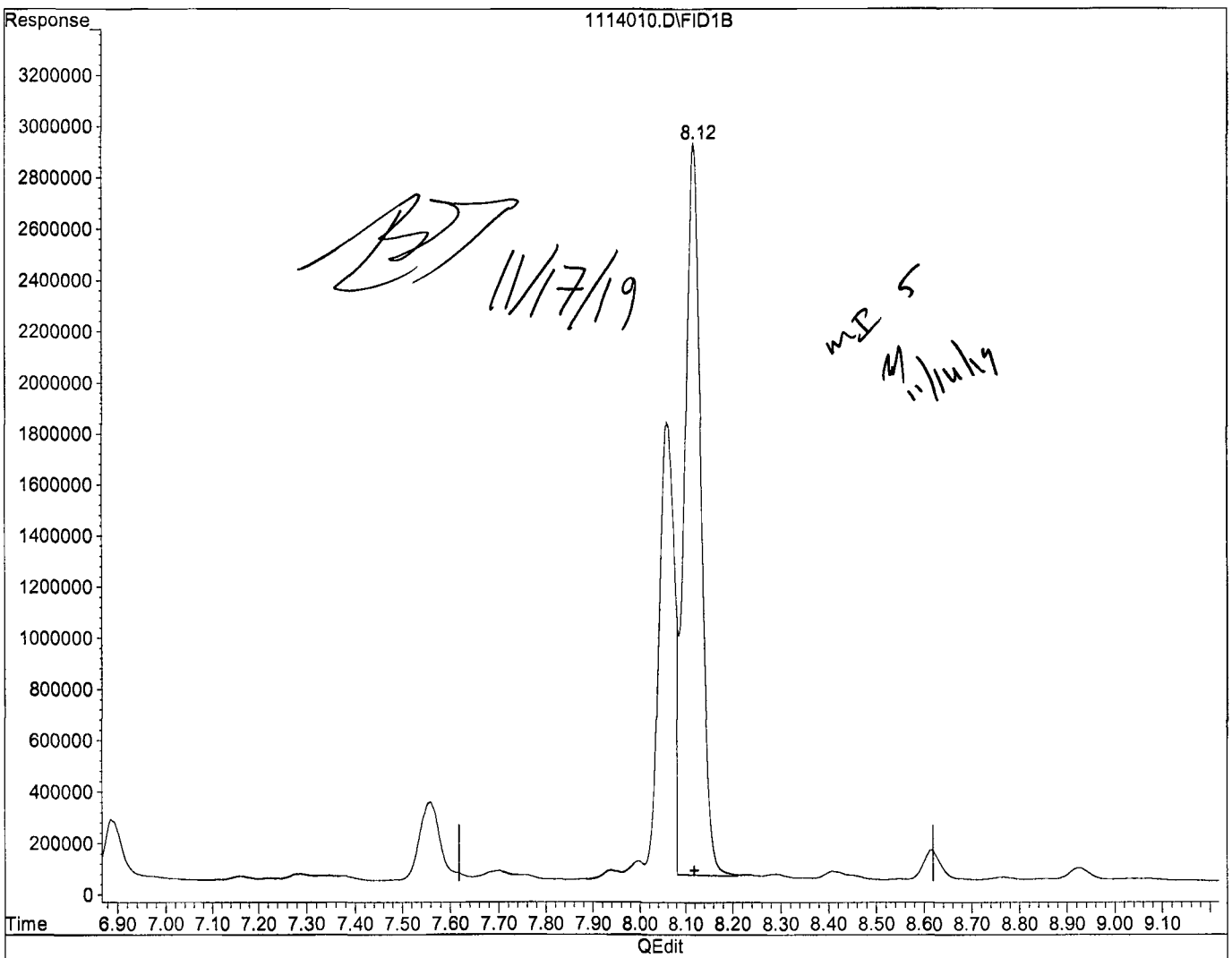
response 32422455

(+) = Expected Retention Time

Quantitation Report

Data File : G:\APOLLO\DATA\191114\1114010.D Vial: 10
Acq On : 11-14-19 21:59:00 Operator: BT
Sample : 191104A BLK 2/800 Inst : Apollo
Misc : water Multiplr: 2.50
IntFile : events.e
Quant Time: Nov 15 14:45 2019 Quant Results File: DOC1114.RES

Method : G:\APOLLO\DATA\191114\DOC1114.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Nov 15 09:19:04 2019
Response via : Multiple Level Calibration



(4) Octacosane(S) (SA)

8.12min 78.939ppb m

response 71527670

(+) = Expected Retention Time
1114010.D DOC1114.M Fri Nov 15 14:47:57 2019

Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\191114\1114011.D Vial: 11
Acq On : 11-14-19 22:18:47 Operator: BT
Sample : 191104A LCS-1 2/800 Inst : Apollo
Misc : water Multiplr: 2.50
IntFile : events.e
Quant Time: Nov 15 14:45 2019 Quant Results File: DOC1114.RES

Method : G:\APOLLO\DATA\191114\DOC1114.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Nov 15 09:19:04 2019
Response via : Multiple Level Calibration

Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

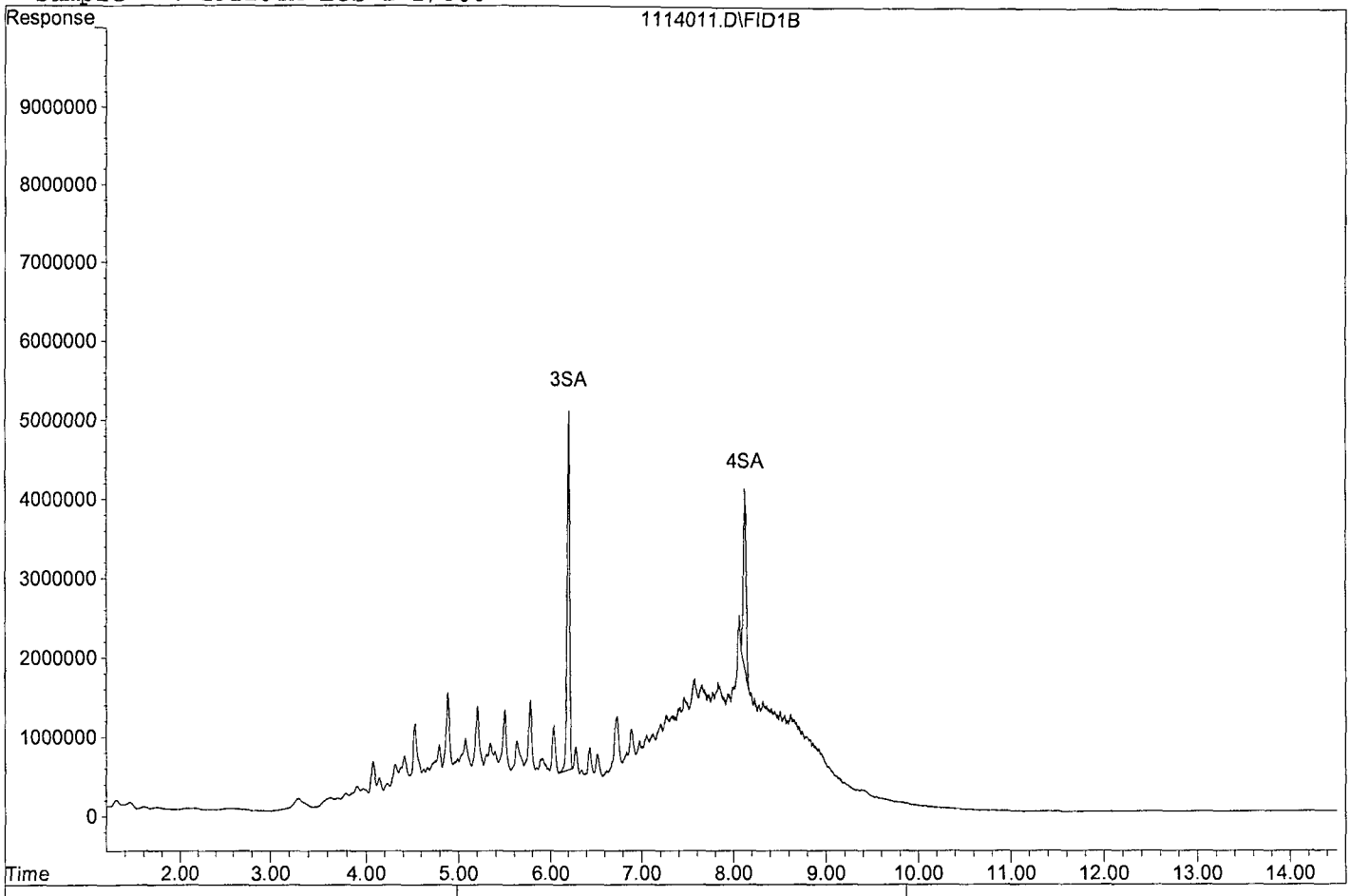
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) SA Ortho-Terphenyl(S)	6.20	89048685	78.393 ppb
Surrogate Spike 75.000	Recovery =		104.52%
4) SA Octacosane(S)	8.13	48942841	54.014 ppb
Surrogate Spike 75.000	Recovery =		72.02%
Target Compounds			
1) HATM Diesel (C10-C24)	4.42	1582024905	1310.723 ppb
2) HBTM Motor Oil (C24-C40)	9.01	1508069917	2395.759 ppb

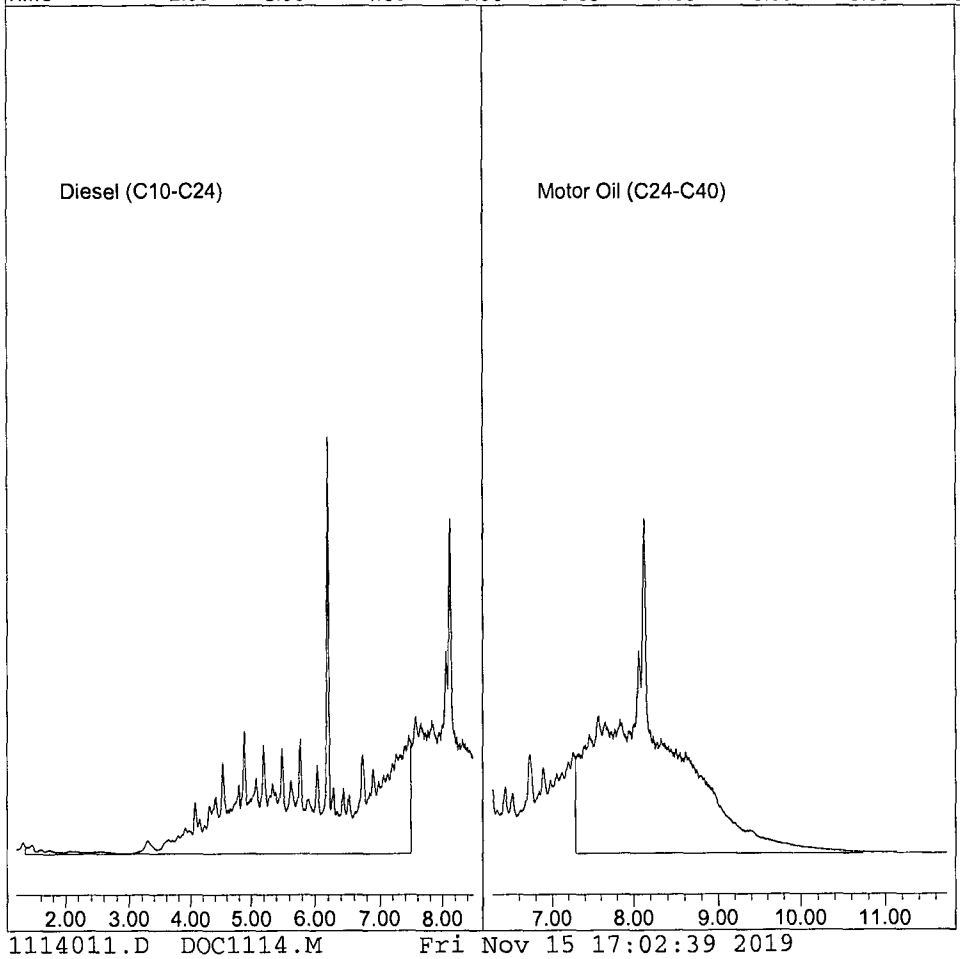
Target Compounds

(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File: G:\APOLLO\DATA\191114\1114011.D
Sample : 191104A LCS-1 2/800





1114011.D DOC1114.M Fri Nov 15 17:02:39 2019 Page 2

Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\191114\1114012.D Vial: 12
Acq On : 11-14-19 22:38:34 Operator: BT
Sample : 191104A LCSD-1 2/800 Inst : Apollo
Misc : water Multiplr: 2.50
IntFile : events.e
Quant Time: Nov 15 14:45 2019 Quant Results File: DOC1114.RES

Method : G:\APOLLO\DATA\191114\DOC1114.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Nov 15 09:19:04 2019
Response via : Multiple Level Calibration

Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

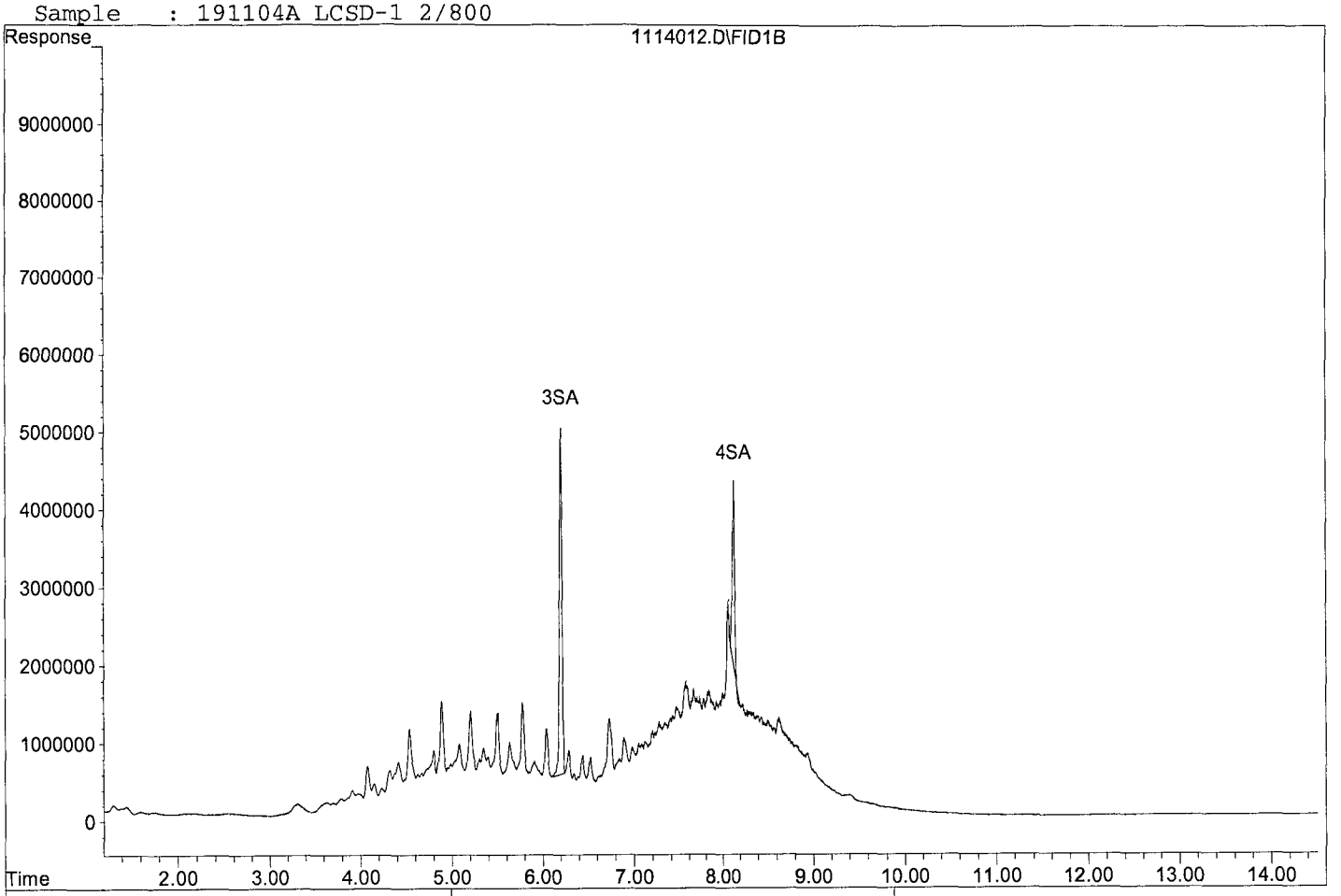
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) SA Ortho-Terphenyl(S)	6.20	90161570	79.412 ppb
Surrogate Spike 75.000		Recovery =	105.88%
4) SA Octacosane(S)	8.13	43035554	47.495 ppb
Surrogate Spike 75.000		Recovery =	63.33%
Target Compounds			
1) HATM Diesel (C10-C24)	4.42	1607261609	1331.632 ppb
2) HBTM Motor Oil (C24-C40)	9.01	1502955315	2387.634 ppb

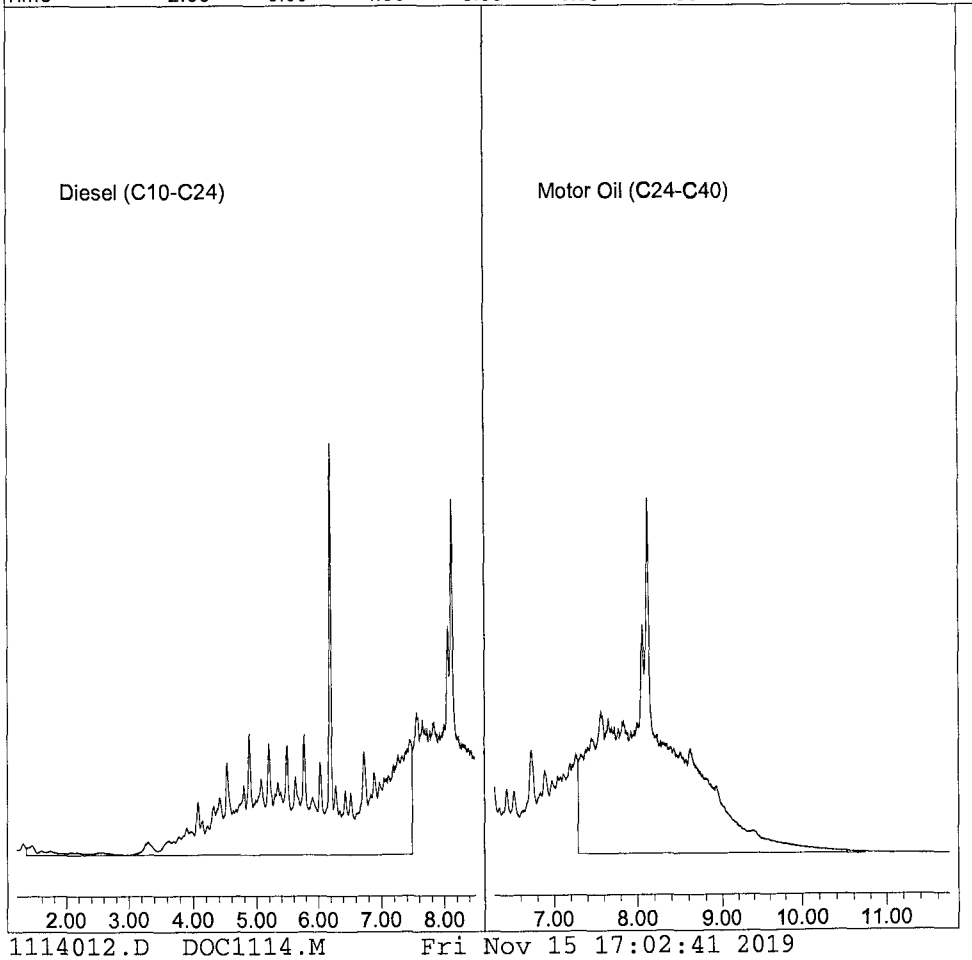
Target Compounds

(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File: G:\APOLLO\DATA\191114\1114012.D
Sample : 191104A LCSD-1 2/800





1114012.D DOC1114.M Fri Nov 15 17:02:41 2019

Organic Extraction Worksheet

Method	Continuous Liq/Liq TPH-Diesel/MO 3520C	Extraction Set	191104A	Extraction Method	LIQ005	Units	mL

Spiked ID 1	Diesel Spike 10/28/19 10/28/20		Surrogate ID 1	THC Surrogate 10/29/19 10/29/20	
Spiked ID 2	Motor Oil Spike 10/30/19 10/30/20		Surrogate ID 2		
Spiked ID 3			Surrogate ID 3		
Spiked ID 4			Surrogate ID 4		
Spiked ID 5			Surrogate ID 5		
Spiked ID 6			Sufficient Vol for Matrix QC:		
Spiked ID 7			Ext. Start Time:	11/04/19 13:40	
Spiked ID 8			Ext. End Time:	11/05/19 10:40	
			GC Requires Extract By:		

pH1			Water Bath Temp 1 °C	75/74.2 °C
pH2			Water Bath Temp 2 °C	75/74.9
pH3			Water Bath Temp 3 °C	80/79.9 °C

Spiked By: DL **Date** 11/04/19 **Witnessed By:** YL **Date** 11/04/19

	Sample	Sample Container	Spike Amount	Spike ID	Surrogate Amount	Surrogate ID	Extract Amount	Final Volume	pH	Extract Date/Time	Comments
1	191104A Blk				1	0.100 equip	800	2	2Y	11/04/19 13:40	
2	191104A LCS-1		0.020,0.040	1,2	1	0.100 equip	800	2	2Y	11/04/19 13:40	
3	191104A LCSD-1		0.020,0.040	1,2	1	0.100 equip	800	2	2Y	11/04/19 13:40	
4	BA02090	BA02090W17			1	0.100 equip	800	2	2Y	11/04/19 13:40	90587
5	BA02091	BA02091W11			1	0.100 equip	800	2	2Y	11/04/19 13:40	90587
6	BA02160	BA02160W15			1	0.100 equip	800	2	2Y	11/04/19 13:40	90599
7	BA02214	BA02214W23			1	0.100 equip	800	2	2Y	11/04/19 13:40	90611
8	BA02216	BA02216W16			1	0.100 equip	800	2	2Y	11/04/19 13:40	90611
9	BA02301	BA02301W14			1	0.100 equip	800	2	2Y	11/04/19 13:40	90625

Solvent and Lot#	
1+1 HCL	.6-15-19
PH Strips	HC863463
Dicholormethane (DCM)	59130
Filter Paper	.400171
B. Sodium Sulfate	2019020631
Silica Gel (*)	.

Extraction COC Transfer	
Extraction lab employee Initials	
GC analyst's initials	
Date	
Time	
Refrigerator	

	Technician's Initials
Scanned By	DS
Sample Preparation	DL YL RB
Extraction	DL
Concentration	DL

Modified	11/16/19 5:34:48 AM

Reviewed By: **Date**

Diesel / Motor Oil Calibration Curve

Prepared: 11/14/19

Expires: 05/13/20

Prepared By (Initials): BT

Methylene Chloride Lot No. 58059

Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference to APPL Prep Date	Exp. Date	Exp. Date (Manufacturer)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
Diesel / Motor Oil Calibration STD	APPL	Diesel / Motor Oil - 1	2,000	Prepared 11/14/19	09/11/20	N/A	5uL	1mL	MC	10
Diesel / Motor Oil Calibration STD	APPL	Diesel / Motor Oil -2	2,000	Prepared 11/14/19	09/11/20	N/A	25ul	1mL	MC	50
Diesel / Motor Oil Calibration STD	APPL	Diesel / Motor Oil - 3	2,000	Prepared 11/14/19	09/11/20	N/A	125uL	1mL	MC	250
Diesel / Motor Oil Calibration STD	APPL	Diesel / Motor Oil - 4	2,000	Prepared 11/14/19	09/11/20	N/A	500uL	1mL	MC	1000
Diesel / Motor Oil Calibration STD	APPL	Diesel / Motor Oil - 5	2,000	Prepared 11/14/19	09/11/20	N/A	750uL	1mL	MC	1500
Diesel / Motor Oil Calibration STD	APPL	Diesel / Motor Oil - 6	2,000	Prepared 11/14/19	09/11/20	N/A	100uL	100uL	N/A	2,000

Diesel / Motor Oil Second Source (SS)

Prepared: 01/15/19

Expires: 01/15/20

Prepared By (Initials): DP

Methylene Chloride Lot No. 56278

Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	*Supplier Part No.*	*Conc.* (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr.)	Exp. Date (Manufacturer)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
Diesel Fuel #2	O2SI	G34-011598-03	50,000	**G34-319187-38958**	**08/02/19**	**09/29/21**	50uL	10mL	MC	250
Motor Oil Second Source	O2SI	116390-02-SS	50,000	**301142-37652**	**07/13/19**	**03/05/22**	50uL			

Diesel / Motor Oil Calibration Standard

Prepared: 11/14/19

Expires: 09/11/20

Prepared By (Initials): BT

Methylene Chloride Lot No. 58059

Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier Part No.	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr.)	Exp. Date (Manufacturer)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
Diesel Fuel #2	Restek	31258	50,000	**A0149066-41325**	**09/24/20**	**06/03/26**	400uL	10mL	MC	2000
Motor Oil	Restek	31464	50,000	**A0147736-41330**	**09/11/20**	**05/31/26**	400uL	10mL	MC	2000
THC Surrogate	Phenova	ALO-130161	600	**CL13256-49449**	**11/13/20**	**11/28/24**	1666uL	10mL	MC	100

THC Surrogate

Prepared: 10/29/19 **Prepared By (Initials):** BT

Expires: 10/29/20

Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier Part No.	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr.)	Exp. Date (Manufacturer)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
O-terphenyl / Octacosane Mix	Phenova	ALO-130161	600	CL13256-49450	10/29/20	02/31/2024	N/A	N/A	N/A	600

Diesel Spike

Prepared: 10/28/19

Expires: 10/28/20

Prepared By (Initials): BT

Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier Part No.	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr.)	Exp. Date (Manufacturer)	From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
Diesel Fuel #2	Restek	31258	50,000	**A0149066-41319**	**10/28/20**	**06/03/26**	N/A	N/A	N/A	50,000

Motor Oil Spike

Prepared: 10/30/19 **Prepared By (Initials): BT**

Expires: 10/30/20

Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier Part No.	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr.)	Exp. Date (Manufacturer)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
Motor Oil Composite	Restek	31464	50,000	A0147736-41328	10/30/20	05/31/26	N/A	N/A	N/A	50,000

Injection Log

Directory: G:\APOLLO\DATA\191114\

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	3	1114003.D	1	Diesel Motor Oil - 1 11/14/19	water	11-14-19 19:39:49
2	4	1114004.D	1	Diesel Motor Oil - 2 11/14/19	water	11-14-19 19:59:46
3	5	1114005.D	1	Diesel Motor Oil - 3 11/14/19	water	11-14-19 20:19:39
4	6	1114006.D	1	Diesel Motor Oil - 4 11/14/19	water	11-14-19 20:39:34
5	7	1114007.D	1	Diesel Motor Oil - 5 11/14/19	water	11-14-19 20:59:26
6	8	1114008.D	1	Diesel Motor Oil - 6 11/14/19	water	11-14-19 21:19:19
7	9	1114009.D	1	Diesel Motor Oil Second Source 1/15/19	water	11-14-19 21:39:10
8	10	1114010.D	2.5	191104A BLK 2/800	water	11-14-19 21:59:00
9	11	1114011.D	2.5	191104A LCS-1 2/800	water	11-14-19 22:18:47
10	12	1114012.D	2.5	191104A LCSD-1 2/800	water	11-14-19 22:38:34
11	18	1114018.D	2.5	BA02301W14 2/800	water	11-15-19 0:35:52
12	19	1114019.D	1	Diesel Motor Oil CCV 11/14/19	water	11-15-19 0:55:27

ORGANICS
Calibration Data

PAH by GCMS SIM
EPA 8270 SIM

Form 6
Initial Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Initial Cal. Date: 10/28/19
Matrix: Instrument: Linus
Initials: MA LP

			1028L005.D	1028L006.D	1028L007.D	1028L008.D	1028L004.D	1028L009 D	1028L010.D	1028L011.D								
		Compound	0.1	0.2	0.5	1	5	20	50	100			Avg	%RSD	Type	r^2	Q	MRF
1	I	Napthalene-D8(IS)																
2	S	Surrogate Recovery (NBZ)	0.6154	0.4960	0.4602	0.4714	0.4325	0.4265	0.4474	0.4616			0.48	13	S			
3	TM	Naphthalene	1.353	1.324	1.228	1.322	1.154	1.233	1.170	1.137			1.2	6.8	TM			0.700
4	S	2-Methylnaphthalene-D10 (2M	1.381	1.311	1.233	1.321	1.228	1.192	1.177	1.148			1.2	6.5	S			
5	TM	2-Methylnaphthalene	0.7871	0.7676	0.7353	0.7876	0.7127	0.7463	0.6996	0.6884			0.74	5.2	TM			0.400
6	TM	1-Methylnaphthalene	0.8729	0.8587	0.7207	0.7851	0.7016	0.7332	0.6925	0.6878			0.76	9.8	TM			
7	I	Acenaphthene-D10(IS)																
8	S	Surrogate Recovery (FBP)	2.084	2.067	1.863	2.099	1.844	1.830	1.715	1.653			1.9	9.1	S			
9	TM	Acenaphthylene	5.495	5.363	5.078	5.658	5.251	5.751	5.010	4.930			5.3	5.7	TM			0.900
10	*TM	Acenaphthene	1.708	1.625	1.517	1.618	1.412	1.529	1.338	1.439			1.5	8.1	*TM			0.900
11	TM	Fluorene	1.748	1.717	1.628	1.812	1.633	1.776	1.673	1.592			1.7	4.6	TM			0.900
12	I	Phenanthrene-D10(IS)																
13	TM	Phenanthrene	1.669	1.541	1.498	1.635	1.381	1.470	1.355	1.265			1.5	9.4	TM			0.700
14	TM	Anthracene	1.260	1.193	1.201	1.358	1.291	1.363	1.276	1.260			1.3	4.9	TM			0.700
15	S	Fluoranthene-D10 (FRT)	1.894	1.787	1.721	1.903	1.860	1.907	1.799	1.683			1.8	4.7	S			
16	*TM	Fluoranthene	2.125	1.989	1.963	2.216	2.039	2.159	1.845	1.771			2.0	7.6	*TM			0.600
17	I	Chrysene-D12(IS)																
18	TM	Pyrene	1.917	1.787	1.752	1.917	1.747	1.808	1.714	1.669			1.8	5.0	TM			0.600
19	S	Surrogate Recovery (TPH)	1.035	0.9626	0.9160	0.9919	0.9371	0.9175	0.9804	0.9502			0.96	4.2	S			
20	TM	Benz (a) anthracene	1.534	1.359	1.345	1.415	1.416	1.448	1.430	1.415			1.4	4.0	TM			0.800
21	TM	Chrysene	1.877	1.680	1.536	1.668	1.444	1.534	1.433	1.409			1.6	10	TM			0.700
22	TM	Indeno (1,2,3-cd) pyrene	1.476	1.215	1.084	1.244	1.392	1.511	1.583	1.595			1.4	14	TM			0.500
23	I	Perylene-D12(IS)																
24	TM	Benzo (b) fluoranthene	1.329	1.058	1.106	1.231	1.301	1.421	1.375	1.322			1.3	10	TM			0.700
25	TM	Benzo (k) fluoranthene	1.285	1.483	1.360	1.569	1.476	1.628	1.346	1.365			1.4	8.3	TM			0.700
26	*TM	Benzo (a) pyrene	1.142	0.9908	0.9637	1.073	1.246	1.377	1.283	1.260			1.2	13	*TM			0.700
27	TM	Dibenz (a,h) anthracene	1.207	1.035	0.9842	1.085	1.167	1.279	1.208	1.243			1.2	9.1	TM			0.400
28	TM	Benzo (g,h,i) perylene	1.405	1.180	1.137	1.241	1.225	1.358	1.281	1.283			1.3	7.0	TM			0.500
29																		
30																		
31																		
32																		
33																		
34																		
35																		

Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L191028\1028L004.D Vial: 4
Acq On : 28 Oct 19 12:26 Operator: MA
Sample : 5 SIM 10/28/19(2) Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 30 10:37 2019 Quant Results File: L1028.RES

Quant Method : M:\LINUS\DATA\L191028\L1028.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 30 10:36:52 2019
Response via : Initial Calibration
DataAcq Meth : SIM_2

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Napthalene-D8(IS)	4.27	136	42509	2.50000 ppb		0.00
7) Acenaphthene-D10(IS)	6.27	164	17630	2.50000 ppb		0.00
12) Phenanthrene-D10(IS)	7.99	188	30825	2.50000 ppb		0.00
17) Chrysene-D12(IS)	11.11	240	35746	2.50000 ppb		0.00
23) Perylene-D12(IS)	13.53	264	35057	2.50000 ppb		0.00
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	3.49	82	18387	2.26999 ppb		0.00
Spiked Amount 5.000			Recovery	= 45.400%		
4) 2-Methylnaphthalene-D10 (2	5.05	152	52219	2.45912 ppb		0.00
Spiked Amount 5.000			Recovery	= 49.180%		
8) Surrogate Recovery (FBP)	5.52	172	32516	2.43389 ppb		0.00
Spiked Amount 5.000			Recovery	= 48.680%		
15) Fluoranthene-D10 (FRT)	9.37	212	57325	2.55457 ppb		0.00
Spiked Amount 5.000			Recovery	= 51.100%		
19) Surrogate Recovery (TPH)	9.86	244	33496	2.43703 ppb		0.00
Spiked Amount 5.000			Recovery	= 48.740%		
Target Compounds						Qvalue
3) Naphthalene	4.30	128	98104	4.65241 ppb		100
5) 2-Methylnaphthalene	5.08	142	60590	4.81172 ppb		100
6) 1-Methylnaphthalene	5.19	142	59650	4.63689 ppb		100
9) Acenaphthylene	6.11	152	185151	4.93782 ppb		100
10) Acenaphthene	6.30	154	49783	4.63497 ppb		100
11) Fluorene	6.90	166	57596	4.81102 ppb		100
13) Phenanthrene	8.01	178	85147	4.67624 ppb		100
14) Anthracene	8.08	178	79570	5.06096 ppb		100
16) Fluoranthene	9.39	202	125700	5.02216 ppb		100
18) Pyrene	9.64	202	124886	4.88571 ppb		100
20) Benz (a) anthracene	11.09	228	101233	4.98555 ppb		100
21) Chrysene	11.14	228	103205	4.58223 ppb		100
22) Indeno (1,2,3-cd) pyrene	15.00	276	99497	5.01530 ppb	#	100
24) Benzo (b) fluoranthene	12.90	252	91200	5.12901 ppb		100
25) Benzo (k) fluoranthene	12.95	252	103463	5.12718 ppb		100
26) Benzo (a) pyrene	13.43	252	87360	5.33556 ppb		100
27) Dibenz (a,h) anthracene	15.05	278	81789	5.06796 ppb		100
28) Benzo (g,h,i) perylene	15.38	276	85903	4.84757 ppb		100

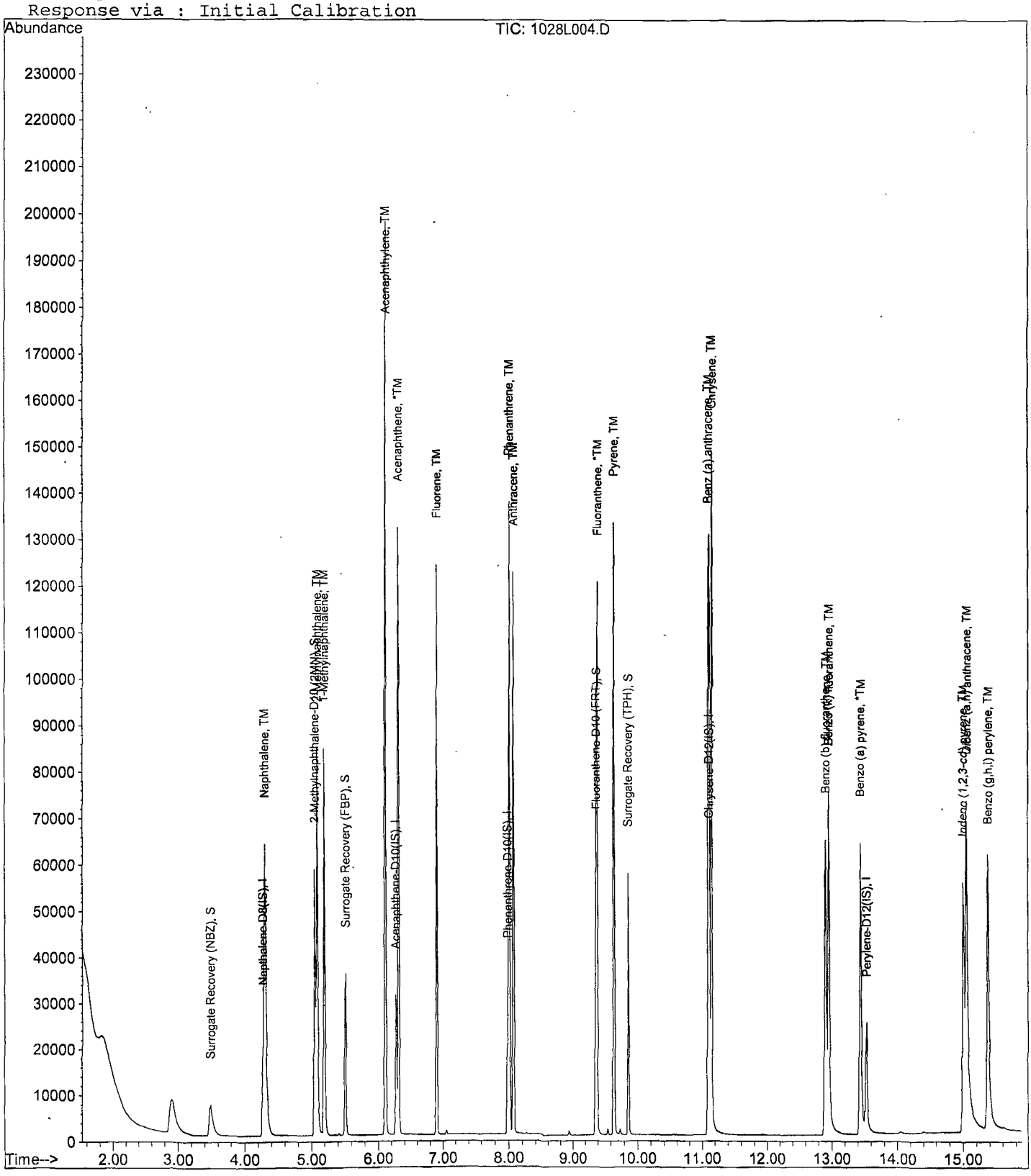
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L191028\1028L004.D Vial: 4
Acq On : 28 Oct 19 12:26 Operator: MA
Sample : 5 SIM 10/28/19(2) Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 30 10:37 2019 Quant Results File: L1028.RES

Method : M:\LINUS\DATA\L191028\L1028.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 30 10:39:31 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L191028\1028L005.D Vial: 5
Acq On : 28 Oct 19 12:51 Operator: MA
Sample : 0.1 SIM 10/28/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 30 10:34 2019 Quant Results File: L1028.RES

Quant Method : M:\LINUS\DATA\L191028\L1028.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 30 10:34:31 2019
Response via : Initial Calibration
DataAcq Meth : SIM_2

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Napthalene-D8(IS)	4.27	136	39324	2.50000 ppb		0.00
7) Acenaphthene-D10(IS)	6.27	164	16174	2.50000 ppb		0.00
12) Phenanthrene-D10(IS)	7.99	188	28360	2.50000 ppb		0.00
17) Chrysene-D12(IS)	11.10	240	31560	2.50000 ppb		-0.01
23) Perylene-D12(IS)	13.52	264	31724	2.50000 ppb		-0.01
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	3.49	82	484	0.06459 ppb		0.00
Spiked Amount 5.000			Recovery =	1.300%		
4) 2-Methylnaphthalene-D10 (2	5.05	152	1086	0.05528 ppb		0.00
Spiked Amount 5.000			Recovery =	1.100%		
8) Surrogate Recovery (FBP)	5.52	172	674	0.05499 ppb		0.00
Spiked Amount 5.000			Recovery =	1.100%		
15) Fluoranthene-D10 (FRT)	9.36	212	1074	0.05202 ppb		-0.01
Spiked Amount 5.000			Recovery =	1.040%		
19) Surrogate Recovery (TPH)	9.86	244	653	0.05381 ppb		0.00
Spiked Amount 5.000			Recovery =	1.080%		
Target Compounds						Qvalue
3) Naphthalene	4.30	128	2128	0.10909 ppb		99
5) 2-Methylnaphthalene	5.08	142	1238	0.10628 ppb		99
6) 1-Methylnaphthalene	5.19	142	1373	0.11537 ppb		95
9) Acenaphthylene	6.11	152	3555	0.10334 ppb		99
10) Acenaphthene	6.30	154	1105	0.11214 ppb		95
11) Fluorene	6.90	166	1131	0.10298 ppb		98
13) Phenanthrene	8.02	178	1893	0.11300 ppb		98
14) Anthracene	8.08	178	1429	0.09879 ppb		99
16) Fluoranthene	9.38	202	2411	0.10470 ppb	#	85
18) Pyrene	9.64	202	2420	0.10723 ppb		94
20) Benz (a) anthracene	11.09	228	1936	0.10799 ppb		99
21) Chrysene	11.14	228	2369	0.11913 ppb		96
22) Indeno (1,2,3-cd) pyrene	15.00	276	1863	0.10636 ppb	#	93
24) Benzo (b) fluoranthene	12.89	252	1687	0.10484 ppb		98
25) Benzo (k) fluoranthene	12.95	252	1630	0.08926 ppb		96
26) Benzo (a) pyrene	13.43	252	1449	0.09780 ppb		96
27) Dibenz (a,h) anthracene	15.04	278	1531	0.10483 ppb	#	91
28) Benzo (g,h,i) perylene	15.37	276	1783	0.11119 ppb		99

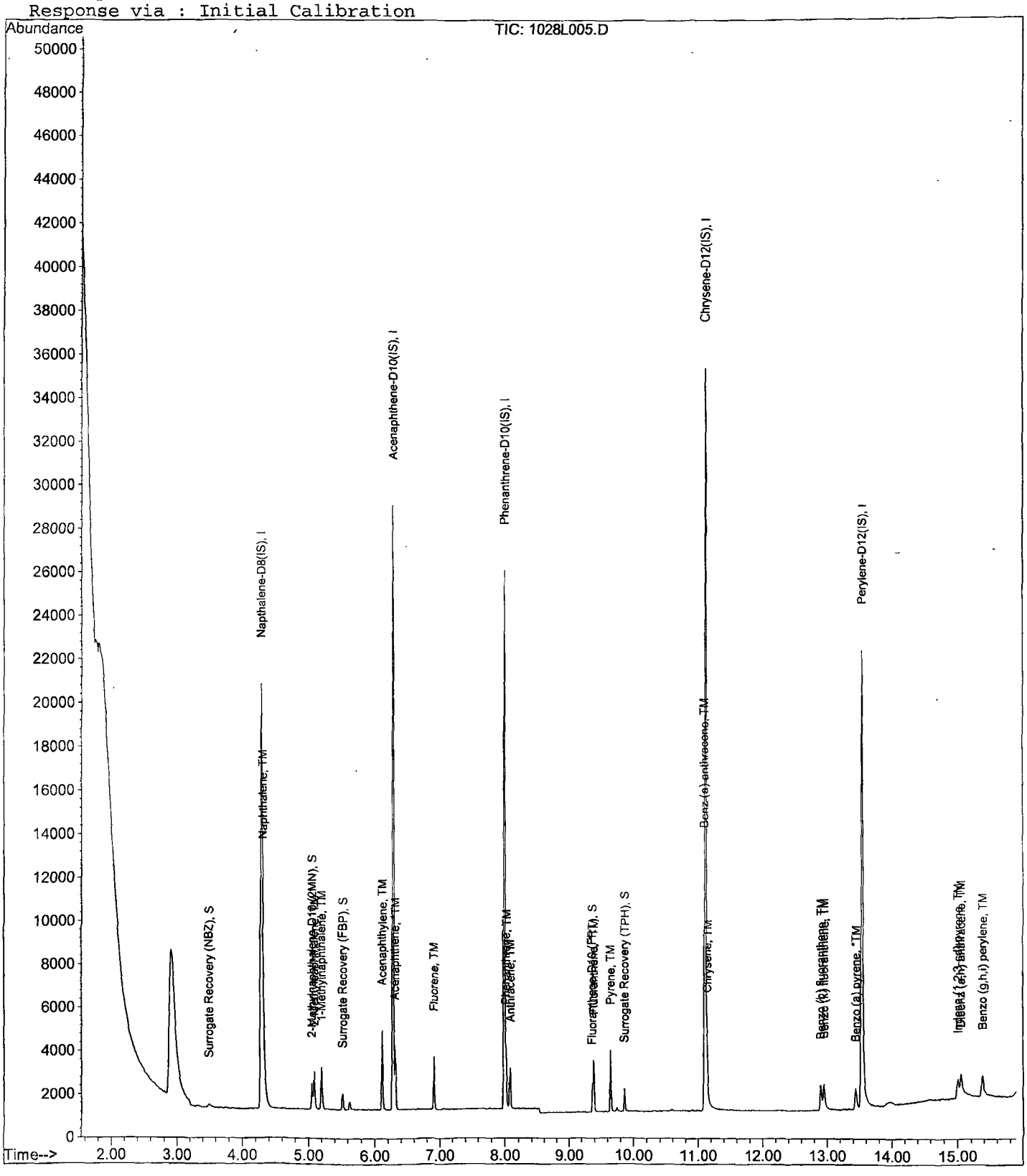
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L191028\1028L005.D Vial: 5
Acq On : 28 Oct 19 12:51 Operator: MA
Sample : 0.1 SIM 10/28/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 30 10:34 2019 Quant Results File: L1028.RES

Method : M:\LINUS\DATA\L191028\L1028.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 30 10:39:31 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L191028\1028L006.D Vial: 6
Acq On : 28 Oct 19 13:13 Operator: MA
Sample : 0.2 SIM 10/28/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 30 10:34 2019 Quant Results File: L1028.RES

Quant Method : M:\LINUS\DATA\L191028\L1028.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 30 10:34:31 2019
Response via : Initial Calibration
DataAcq Meth : SIM_2

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Napthalene-D8(IS)	4.27	136	38562	2.50000 ppb		0.00
7) Acenaphthene-D10(IS)	6.27	164	15986	2.50000 ppb		0.00
12) Phenanthrene-D10(IS)	7.99	188	28375	2.50000 ppb		0.00
17) Chrysene-D12(IS)	11.10	240	31295	2.50000 ppb		-0.01
23) Perylene-D12(IS)	13.52	264	30972	2.50000 ppb		-0.01
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	3.49	82	765	0.10411 ppb		0.00
Spiked Amount 5.000			Recovery	= 2.080%		
4) 2-Methylnaphthalene-D10 (2	5.05	152	2022	0.10497 ppb		0.00
Spiked Amount 5.000			Recovery	= 2.100%		
8) Surrogate Recovery (FBP)	5.52	172	1322	0.10913 ppb		0.00
Spiked Amount 5.000			Recovery	= 2.180%		
15) Fluoranthene-D10 (FRT)	9.36	212	2028	0.09818 ppb		-0.01
Spiked Amount 5.000			Recovery	= 1.960%		
19) Surrogate Recovery (TPH)	9.86	244	1205	0.10014 ppb		0.00
Spiked Amount 5.000			Recovery	= 2.000%		
Target Compounds						Qvalue
3) Naphthalene	4.30	128	4084	0.21350 ppb		99
5) 2-Methylnaphthalene	5.08	142	2368	0.20730 ppb		97
6) 1-Methylnaphthalene	5.19	142	2649	0.22700 ppb		98
9) Acenaphthylene	6.11	152	6859	0.20174 ppb		99
10) Acenaphthene	6.30	154	2078	0.21337 ppb		99
11) Fluorene	6.90	166	2196	0.20230 ppb		97
13) Phenanthrene	8.01	178	3498	0.20870 ppb		99
14) Anthracene	8.08	178	2709	0.18718 ppb		100
16) Fluoranthene	9.38	202	4516	0.19601 ppb	#	82
18) Pyrene	9.64	202	4473	0.19988 ppb		94
20) Benz (a) anthracene	11.09	228	3402	0.19137 ppb		98
21) Chrysene	11.14	228	4205	0.21325 ppb		96
22) Indeno (1,2,3-cd) pyrene	15.00	276	3043	0.17520 ppb	#	80
24) Benzo (b) fluoranthene	12.89	252	2622	0.16691 ppb	#	95
25) Benzo (k) fluoranthene	12.95	252	3675	0.20614 ppb		97
26) Benzo (a) pyrene	13.43	252	2455	0.16972 ppb	#	93
27) Dibenz (a,h) anthracene	15.04	278	2564	0.17983 ppb		95
28) Benzo (g,h,i) perylene	15.37	276	2923	0.18670 ppb		93

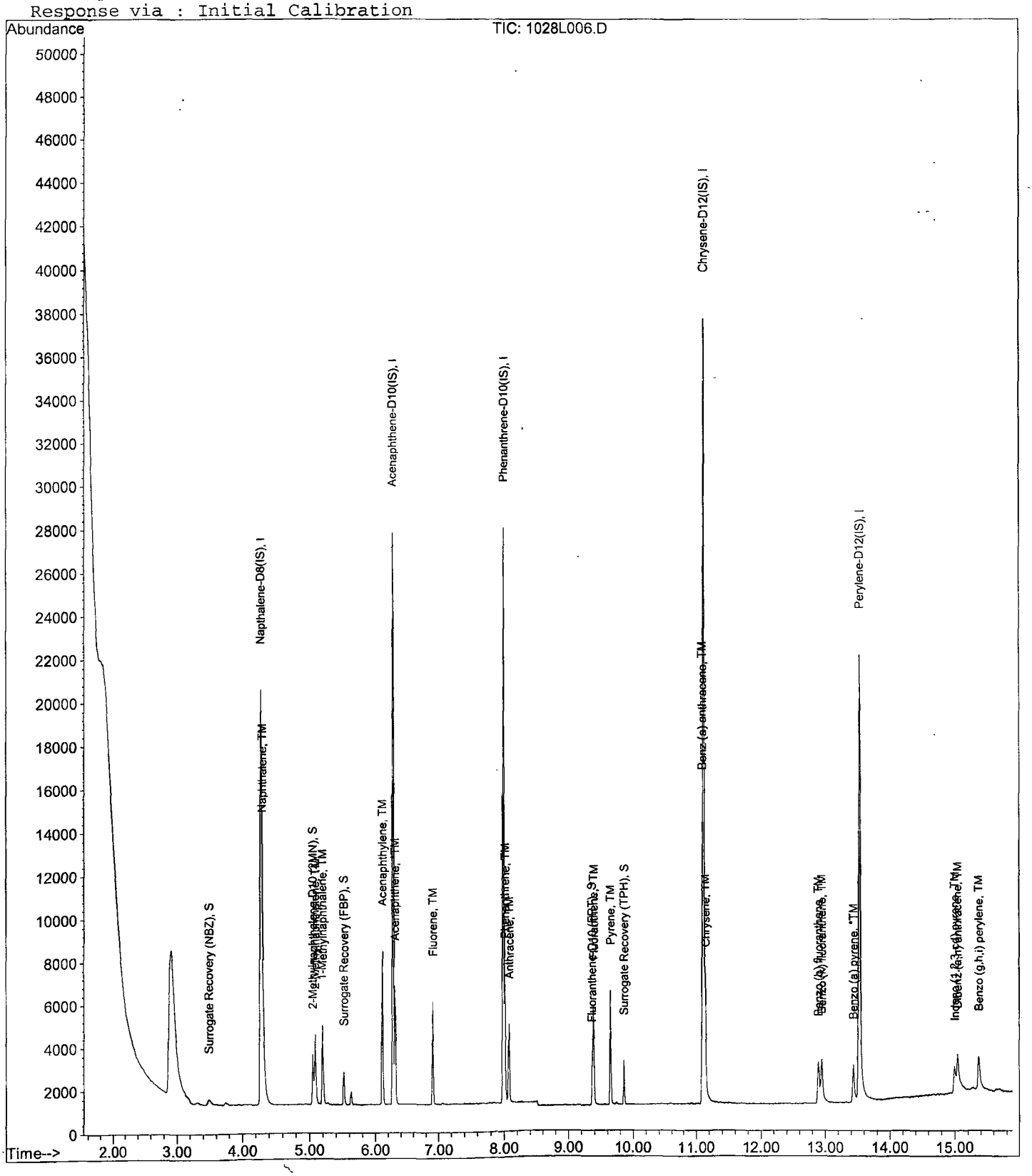
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L191028\1028L006.D Vial: 6
Acq On : 28 Oct 19 13:13 Operator: MA
Sample : 0.2 SIM 10/28/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 30 10:34 2019 Quant Results File: L1028.RES

Method : M:\LINUS\DATA\L191028\L1028.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 30 10:39:31 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L191028\1028L007.D Vial: 7
Acq On : 28 Oct 19 13:35 Operator: MA
Sample : 0.5 SIM 10/28/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 30 10:35 2019 Quant Results File: L1028.RES

Quant Method : M:\LINUS\DATA\L191028\L1028.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 30 10:34:31 2019
Response via : Initial Calibration
DataAcq Meth : SIM_2

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Napthalene-D8(IS)	4.27	136	37004	2.50000 ppb		0.00
7) Acenaphthene-D10(IS)	6.28	164	15527	2.50000 ppb		0.01
12) Phenanthrene-D10(IS)	7.99	188	27459	2.50000 ppb		0.00
17) Chrysene-D12(IS)	11.11	240	30862	2.50000 ppb		0.00
23) Perylene-D12(IS)	13.53	264	29964	2.50000 ppb		0.00
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	3.49	82	1703	0.24152 ppb		0.00
Spiked Amount 5.000			Recovery	= 4.840%		
4) 2-Methylnaphthalene-D10 (2	5.05	152	4562	0.24680 ppb		0.00
Spiked Amount 5.000			Recovery	= 4.940%		
8) Surrogate Recovery (FBP)	5.52	172	2893	0.24588 ppb		0.00
Spiked Amount 5.000			Recovery	= 4.920%		
15) Fluoranthene-D10 (FRT)	9.37	212	4727	0.23647 ppb		0.00
Spiked Amount 5.000			Recovery	= 4.720%		
19) Surrogate Recovery (TPH)	9.86	244	2827	0.23823 ppb		0.00
Spiked Amount 5.000			Recovery	= 4.760%		
Target Compounds						Qvalue
3) Naphthalene	4.30	128	9091	0.49526 ppb		99
5) 2-Methylnaphthalene	5.08	142	5442	0.49647 ppb		100
6) 1-Methylnaphthalene	5.19	142	5334	0.47632 ppb		96
9) Acenaphthylene	6.11	152	15769	0.47751 ppb		100
10) Acenaphthene	6.30	154	4710	0.49791 ppb		98
11) Fluorene	6.90	166	5056	0.47953 ppb		98
13) Phenanthrene	8.02	178	8228	0.50727 ppb		98
14) Anthracene	8.08	178	6595	0.47089 ppb		99
16) Fluoranthene	9.39	202	10783	0.48363 ppb		98
18) Pyrene	9.64	202	10814	0.49001 ppb		96
20) Benz (a) anthracene	11.09	228	8304	0.47368 ppb		99
21) Chrysene	11.14	228	9479	0.48746 ppb		99
22) Indeno (1,2,3-cd) pyrene	15.00	276	6693	0.39076 ppb	#	90
24) Benzo (b) fluoranthene	12.89	252	6629	0.43618 ppb	#	95
25) Benzo (k) fluoranthene	12.95	252	8149	0.47247 ppb		97
26) Benzo (a) pyrene	13.44	252	5775	0.41266 ppb		95
27) Dibenz (a,h) anthracene	15.04	278	5898	0.42758 ppb	#	89
28) Benzo (g,h,i) perylene	15.37	276	6815	0.44994 ppb		95

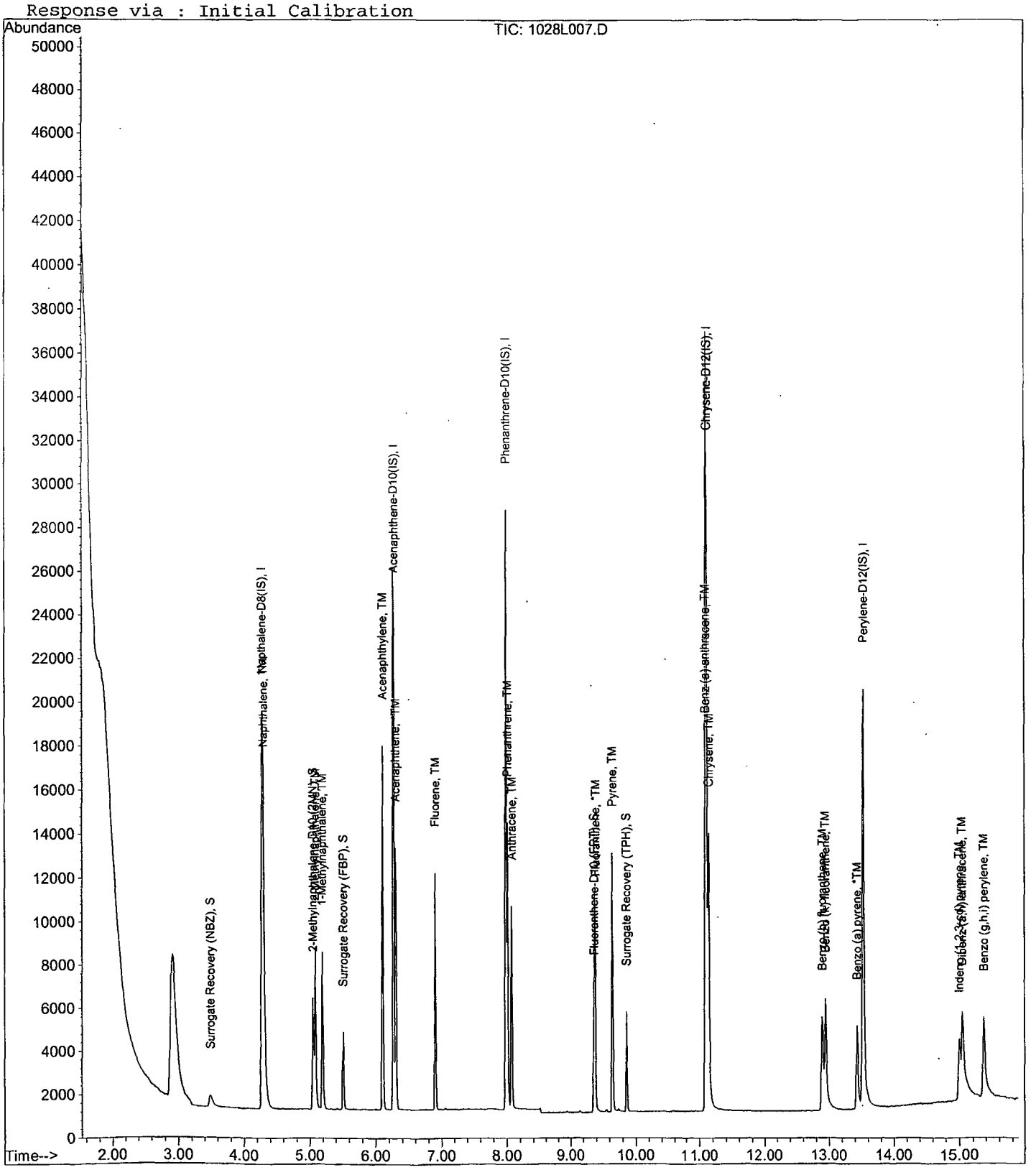
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L191028\1028L007.D Vial: 7
Acq On : 28 Oct 19 13:35 Operator: MA
Sample : 0.5 SIM 10/28/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 30 10:35 2019 Quant Results File: L1028.RES

Method : M:\LINUS\DATA\L191028\L1028.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 30 10:39:31 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L191028\1028L008.D Vial: 8
Acq On : 28 Oct 19 13:57 Operator: MA
Sample : 1 SIM 10/28/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 30 10:35 2019 Quant Results File: L1028.RES

Quant Method : M:\LINUS\DATA\L191028\L1028.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 30 10:34:31 2019
Response via : Initial Calibration
DataAcq Meth : SIM_2

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Napthalene-D8(IS)	4.29	136	32025	2.50000 ppb		0.01
7) Acenaphthene-D10(IS)	6.28	164	13099	2.50000 ppb		0.01
12) Phenanthrene-D10(IS)	7.99	188	23028	2.50000 ppb		0.00
17) Chrysene-D12(IS)	11.11	240	26425	2.50000 ppb		0.00
23) Perylene-D12(IS)	13.53	264	25032	2.50000 ppb		0.00
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	3.49	82	3019	0.49473 ppb		0.00
Spiked Amount 5.000			Recovery	= 9.900%		
4) 2-Methylnaphthalene-D10 (2	5.05	152	8459	0.52876 ppb		0.00
Spiked Amount 5.000			Recovery	= 10.580%		
8) Surrogate Recovery (FBP)	5.52	172	5500	0.55409 ppb		0.00
Spiked Amount 5.000			Recovery	= 11.080%		
15) Fluoranthene-D10 (FRT)	9.37	212	8766	0.52290 ppb		0.00
Spiked Amount 5.000			Recovery	= 10.460%		
19) Surrogate Recovery (TPH)	9.86	244	5242	0.51591 ppb		0.00
Spiked Amount 5.000			Recovery	= 10.320%		
Target Compounds						Qvalue
3) Naphthalene	4.30	128	16930	1.06571 ppb		100
5) 2-Methylnaphthalene	5.08	142	10089	1.06351 ppb		99
6) 1-Methylnaphthalene	5.19	142	10057	1.03771 ppb		97
9) Acenaphthylene	6.11	152	29648	1.06419 ppb		99
10) Acenaphthene	6.31	154	8477	1.06224 ppb		88
11) Fluorene	6.90	166	9496	1.06758 ppb		97
13) Phenanthrene	8.01	178	15064	1.10743 ppb		100
14) Anthracene	8.08	178	12506	1.06475 ppb		100
16) Fluoranthene	9.39	202	20409	1.09150 ppb		100
18) Pyrene	9.64	202	20263	1.07233 ppb		98
20) Benz (a) anthracene	11.10	228	14953	0.99617 ppb		97
21) Chrysene	11.14	228	17636	1.05923 ppb		99
22) Indeno (1,2,3-cd) pyrene	15.00	276	13150	0.89665 ppb	#	94
24) Benzo (b) fluoranthene	12.90	252	12330	0.97114 ppb		99
25) Benzo (k) fluoranthene	12.95	252	15715	1.09065 ppb		99
26) Benzo (a) pyrene	13.43	252	10748	0.91934 ppb		99
27) Dibenz (a,h) anthracene	15.05	278	10865	0.94286 ppb		98
28) Benzo (g,h,i) perylene	15.37	276	12422	0.98172 ppb	#	89

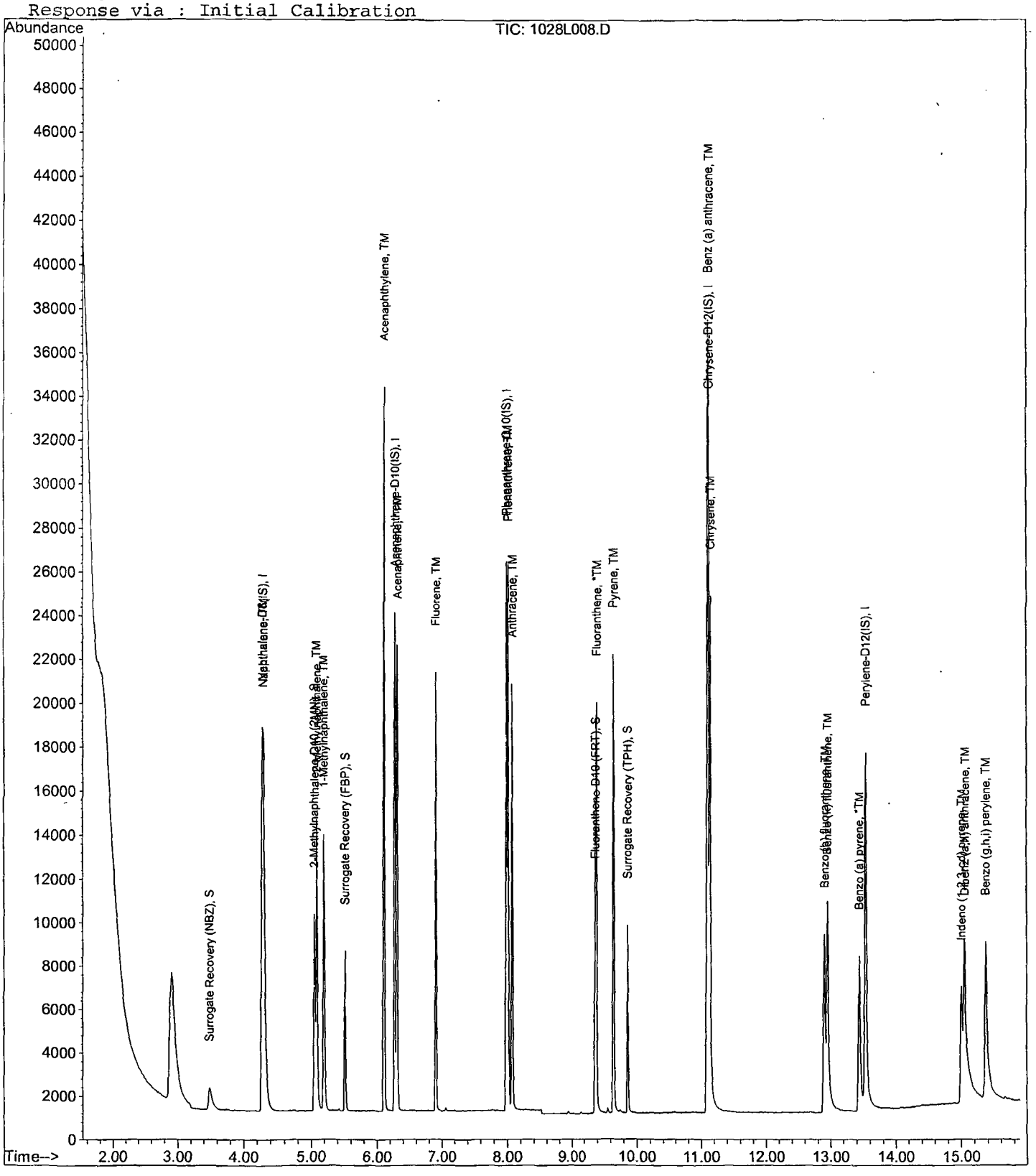
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L191028\1028L008.D Vial: 8
Acq On : 28 Oct 19 13:57 Operator: MA
Sample : 1 SIM 10/28/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 30 10:35 2019 Quant Results File: L1028.RES

Method : M:\LINUS\DATA\L191028\L1028.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 30 10:39:31 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L191028\1028L009.D Vial: 9
Acq On : 28 Oct 19 14:19 Operator: MA
Sample : 20 SIM 10/28/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 30 10:35 2019 Quant Results File: L1028.RES

Quant Method : M:\LINUS\DATA\L191028\L1028.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 30 10:34:31 2019
Response via : Initial Calibration
DataAcq Meth : SIM_2

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Napthalene-D8(IS)	4.29	136	32869	2.50000	ppb		0.01
7) Acenaphthene-D10(IS)	6.28	164	13416	2.50000	ppb		0.01
12) Phenanthrene-D10(IS)	7.99	188	23677	2.50000	ppb		0.00
17) Chrysene-D12(IS)	11.11	240	28661	2.50000	ppb		0.00
23) Perylene-D12(IS)	13.53	264	27623	2.50000	ppb		0.00
System Monitoring Compounds							
2) Surrogate Recovery (NBZ)	3.49	82	56078	8.95364	ppb		0.00
Spiked Amount 5.000			Recovery	= 179.080%			
4) 2-Methylnaphthalene-D10 (2	5.05	152	156708	9.54415	ppb		0.00
Spiked Amount 5.000			Recovery	= 190.880%			
8) Surrogate Recovery (FBP)	5.52	172	98204	9.65967	ppb		0.00
Spiked Amount 5.000			Recovery	= 193.200%			
15) Fluoranthene-D10 (FRT)	9.37	212	180565	10.47571	ppb		0.00
Spiked Amount 5.000			Recovery	= 209.520%			
19) Surrogate Recovery (TPH)	9.86	244	105182	9.54434	ppb		0.00
Spiked Amount 5.000			Recovery	= 190.880%			
Target Compounds							Qvalue
3) Naphthalene	4.31	128	324267	19.88786	ppb		99
5) 2-Methylnaphthalene	5.08	142	196246	20.15556	ppb		98
6) 1-Methylnaphthalene	5.19	142	192793	19.38213	ppb		96
9) Acenaphthylene	6.11	152	617256	21.63237	ppb		99
10) Acenaphthene	6.31	154	164055	20.07171	ppb		88
11) Fluorene	6.90	166	190667	20.92904	ppb		96
13) Phenanthrene	8.01	178	278373	19.90356	ppb		99
14) Anthracene	8.08	178	258173	21.37818	ppb		98
16) Fluoranthene	9.39	202	408909	21.26956	ppb	#	88
18) Pyrene	9.65	202	414663	20.23232	ppb	#	88
20) Benz (a) anthracene	11.10	228	331965	20.39010	ppb		99
21) Chrysene	11.15	228	351823	19.48211	ppb		99
22) Indeno (1,2,3-cd) pyrene	15.02	276	346411	21.77783	ppb	#	80
24) Benzo (b) fluoranthene	12.91	252	314014	22.41257	ppb		98
25) Benzo (k) fluoranthene	12.97	252	359815	22.62958	ppb	#	94
26) Benzo (a) pyrene	13.45	252	304231	23.58169	ppb		98
27) Dibenz (a,h) anthracene	15.07	278	282549	22.21959	ppb		96
28) Benzo (g,h,i) perylene	15.39	276	300183	21.49840	ppb	#	87

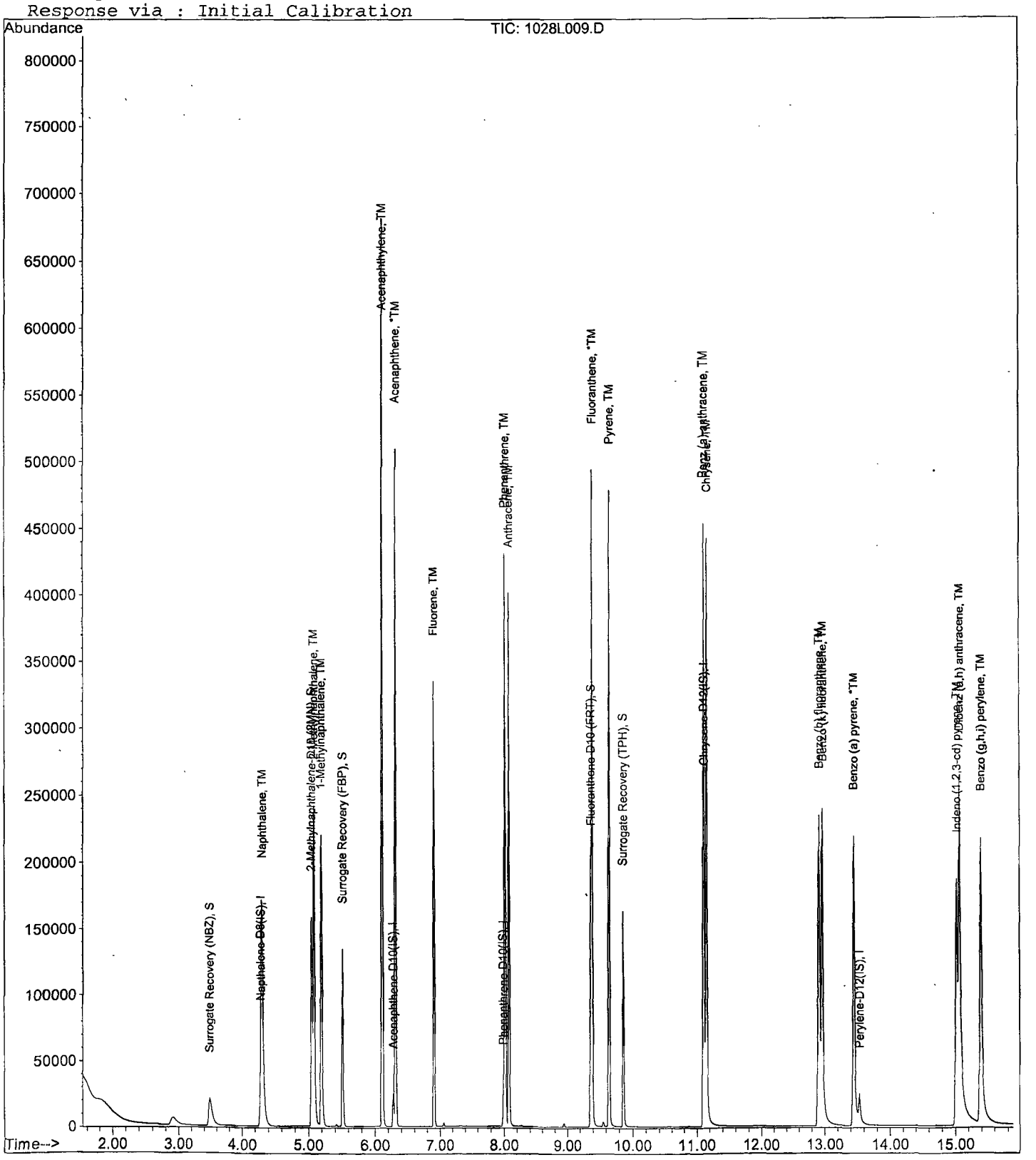
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L191028\1028L009.D Vial: 9
Acq On : 28 Oct 19 14:19 Operator: MA
Sample : 20 SIM 10/28/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 30 10:35 2019 Quant Results File: L1028.RES

Method : M:\LINUS\DATA\L191028\L1028.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 30 10:39:31 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L191028\1028L010.D Vial: 10
Acq On : 28 Oct 19 14:42 Operator: MA
Sample : 50 SIM 10/28/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 30 10:39 2019 Quant Results File: L1028.RES

Quant Method : M:\LINUS\DATA\L191028\L1028.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 30 10:39:03 2019
Response via : Initial Calibration
DataAcq Meth : SIM_2

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Napthalene-D8(IS)	4.29	136	36782	2.50000	ppb		0.01
7) Acenaphthene-D10(IS)	6.28	164	15743	2.50000	ppb		0.01
12) Phenanthrene-D10(IS)	7.99	188	27764	2.50000	ppb		0.00
17) Chrysene-D12(IS)	11.12	240	31502	2.50000	ppb		0.01
23) Perylene-D12(IS)	13.54	264	33834	2.50000	ppb		0.01
System Monitoring Compounds							
2) Surrogate Recovery (NBZ)	3.49	82	164569	23.48044	ppb		0.00
Spiked Amount 5.000			Recovery = 469.600%				
4) 2-Methylnaphthalene-D10 (2	5.05	152	432823	23.55633	ppb		0.00
Spiked Amount 5.000			Recovery = 471.120%				
8) Surrogate Recovery (FBP)	5.52	172	269987	22.63141	ppb		0.00
Spiked Amount 5.000			Recovery = 452.620%				
15) Fluoranthene-D10 (FRT)	9.38	212	499535	24.71499	ppb		0.01
Spiked Amount 5.000			Recovery = 494.300%				
19) Surrogate Recovery (TPH)	9.87	244	308848	25.49780	ppb		0.01
Spiked Amount 5.000			Recovery = 509.960%				
Target Compounds							Qvalue
3) Naphthalene	4.31	128	860769	47.17621	ppb		99
5) 2-Methylnaphthalene	5.10	142	514626	47.23207	ppb		96
6) 1-Methylnaphthalene	5.20	142	509460	45.76902	ppb		97
9) Acenaphthylene	6.11	152	1577589	47.11599	ppb		99
10) Acenaphthene	6.31	154	421153	43.91071	ppb		92
11) Fluorene	6.92	166	526911	49.28860	ppb		97
13) Phenanthrene	8.03	178	752594	45.88906	ppb		99
14) Anthracene	8.09	178	708446	50.02779	ppb		99
16) Fluoranthene	9.40	202	1024241	45.43376	ppb	#	91
18) Pyrene	9.66	202	1079871	47.93751	ppb	#	84
20) Benz (a) anthracene	11.11	228	900763	50.33740	ppb		98
21) Chrysene	11.16	228	902898	45.48872	ppb		98
22) Indeno (1,2,3-cd) pyrene	15.04	276	997292	57.04250	ppb	#	80
24) Benzo (b) fluoranthene	12.92	252	930609	54.22848	ppb		100
25) Benzo (k) fluoranthene	12.99	252	911111	46.78279	ppb		100
26) Benzo (a) pyrene	13.47	252	868154	54.93963	ppb		97
27) Dibenz (a,h) anthracene	15.09	278	817460	52.48391	ppb		97
28) Benzo (g,h,i) perylene	15.42	276	866669	50.67466	ppb		93

(#) = qualifier out of range (m) = manual integration

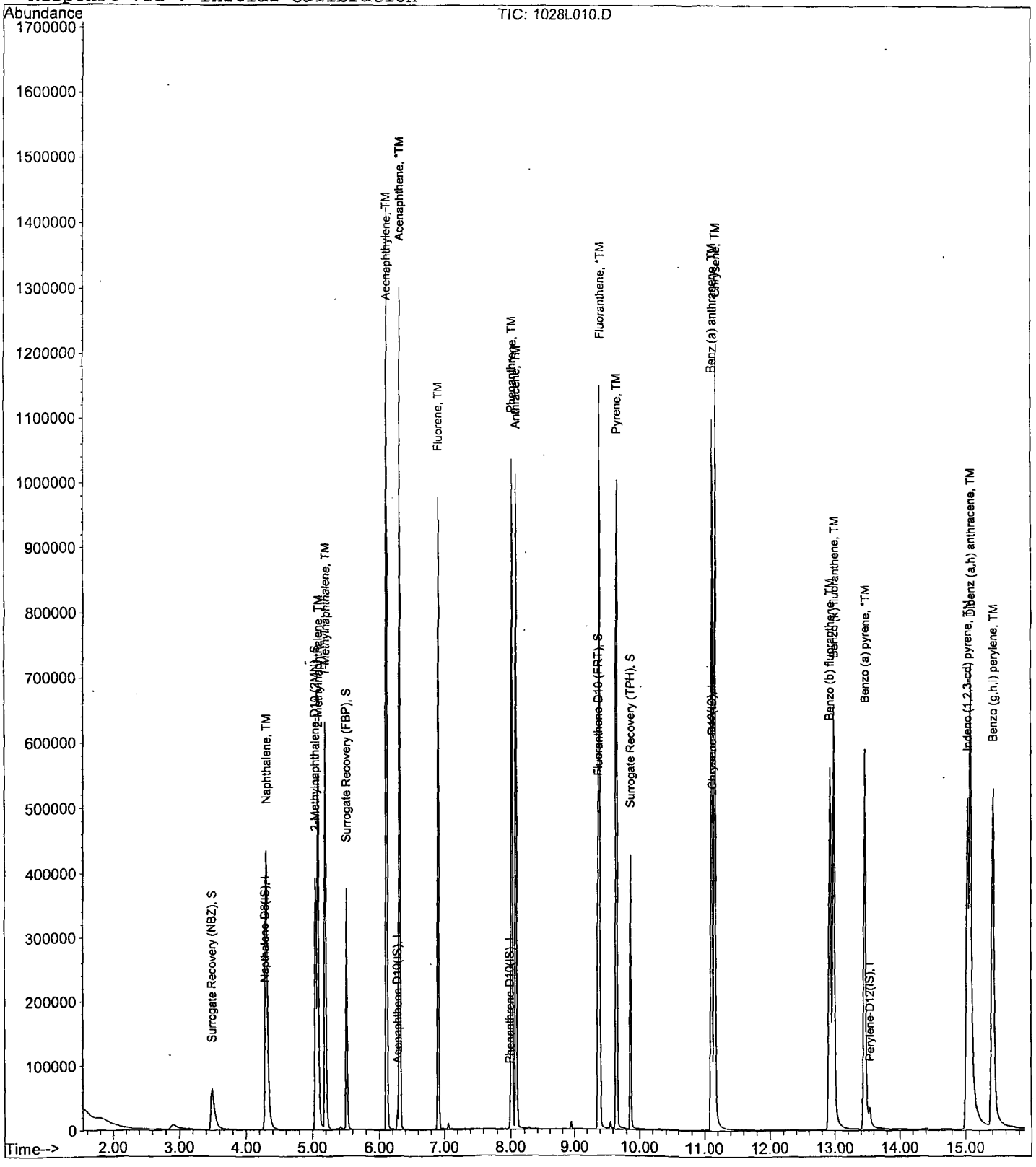
Quantitation Report

Data File : M:\LINUS\DATA\L191028\1028L010.D
Acq On : 28 Oct 19 14:42
Sample : 50 SIM 10/28/19
Misc :

Vial: 10
Operator: MA
Inst : Linus
Multiplr: 1.00

Quant Time: Oct 30 10:39 2019 Quant Results File: L1028.RES

Method : M:\LINUS\DATA\L191028\L1028.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 30 10:39:31 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L191028\1028L011.D Vial: 11
Acq On : 28 Oct 19 15:04 Operator: MA
Sample : 100 SIM 10/28/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 30 10:39 2019 Quant Results File: L1028.RES

Quant Method : M:\LINUS\DATA\L191028\L1028.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 30 10:39:03 2019
Response via : Initial Calibration
DataAcq Meth : SIM_2

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Napthalene-D8(IS)	4.29	136	35886	2.50000 ppb		0.01
7) Acenaphthene-D10(IS)	6.28	164	15357	2.50000 ppb		0.01
12) Phenanthrene-D10(IS)	7.99	188	27888	2.50000 ppb		0.00
17) Chrysene-D12(IS)	11.13	240	31266	2.50000 ppb		0.02
23) Perylene-D12(IS)	13.54	264	33574	2.50000 ppb		0.01
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	3.49	82	331274	48.44577 ppb		0.00
Spiked Amount 5.000			Recovery	= 968.920%		
4) 2-Methylnaphthalene-D10 (2	5.06	152	824254	45.97997 ppb		0.01
Spiked Amount 5.000			Recovery	= 919.600%		
8) Surrogate Recovery (FBP)	5.52	172	507607	43.61919 ppb		0.00
Spiked Amount 5.000			Recovery	= 872.380%		
15) Fluoranthene-D10 (FRT)	9.38	212	938946	46.24873 ppb		0.01
Spiked Amount 5.000			Recovery	= 924.980%		
19) Surrogate Recovery (TPH)	9.87	244	594165	49.42319 ppb		0.01
Spiked Amount 5.000			Recovery	= 988.460%		
Target Compounds						Qvalue
3) Naphthalene	4.31	128	1632322	91.69646 ppb		99
5) 2-Methylnaphthalene	5.09	142	988093	92.95084 ppb		96
6) 1-Methylnaphthalene	5.20	142	987228	90.90531 ppb		97
9) Acenaphthylene	6.12	152	3028365	92.71793 ppb		98
10) Acenaphthene	6.33	154	884058	94.49143 ppb		81
11) Fluorene	6.92	166	977828	93.76761 ppb		99
13) Phenanthrene	8.03	178	1410719	85.63545 ppb		98
14) Anthracene	8.10	178	1405385	98.80172 ppb		98
16) Fluoranthene	9.41	202	1975643	87.24682 ppb	#	93
18) Pyrene	9.67	202	2087655	93.37447 ppb	#	79
20) Benz (a) anthracene	11.12	228	1769567	99.63525 ppb		98
21) Chrysene	11.17	228	1761570	89.41920 ppb	#	95
22) Indeno (1,2,3-cd) pyrene	15.08	276	1994441	114.93788 ppb	#	97
24) Benzo (b) fluoranthene	12.95	252	1775337	104.25365 ppb		98
25) Benzo (k) fluoranthene	13.01	252	1833100	94.85304 ppb		98
26) Benzo (a) pyrene	13.49	252	1692412	107.93077 ppb		96
27) Dibenz (a,h) anthracene	15.12	278	1669599	108.02446 ppb		94
28) Benzo (g,h,i) perylene	15.46	276	1722719	101.50847 ppb		96

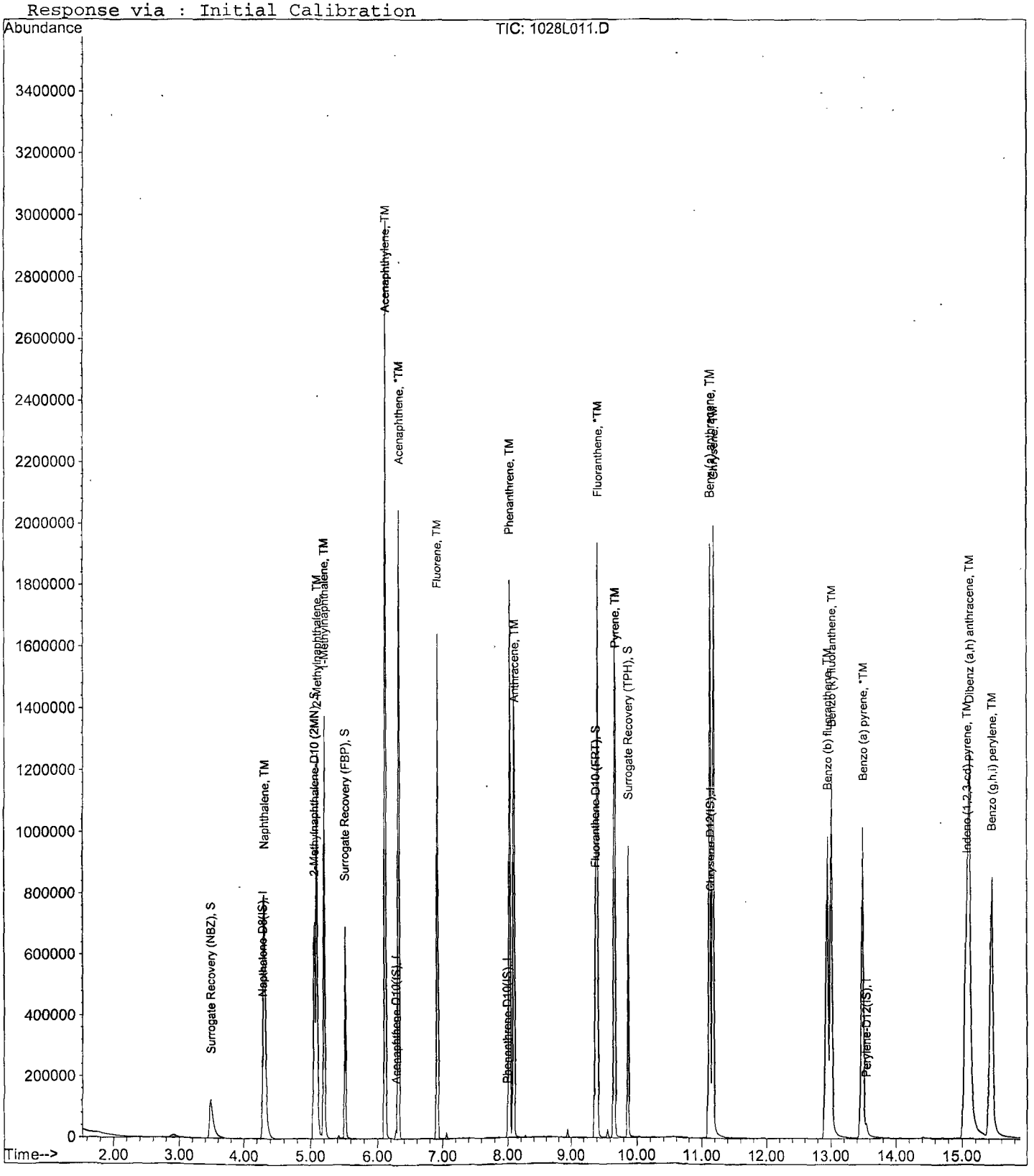
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L191028\1028L011.D Vial: 11
Acq On : 28 Oct 19 15:04 Operator: MA
Sample : 100 SIM 10/28/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 30 10:39 2019 Quant Results File: L1028.RES

Method : M:\LINUS\DATA\L191028\L1028.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 30 10:39:31 2019
Response via : Initial Calibration



PAH by GCMS SIM
EPA 8270 SIM

Form 7

Second Source Calibration

Lab Name: APPL, Inc.
Case No:
Matrix:

SDG No:
Date Analyzed: 10/28/19
Instrument: Linus
Initial Cal. Date: 10/28/19
Data File: 1028L012.D

		Compound	MEAN	CCRF	%D		%Drift
1	TM	Naphthalene	1.240	1.222	1.4	TM	
2	TM	2-Methylnaphthalene	0.7406	0.7386	0.26	TM	
3	TM	1-Methylnaphthalene	0.7566	0.7450	1.5	TM	
4	TM	Acenaphthylene	5.317	5.695	7.1	TM	
5	*TM	Acenaphthene	1.523	1.515	0.52	*TM	
6	TM	Fluorene	1.698	1.746	2.9	TM	
7	TM	Phenanthrene	1.477	1.538	4.1	TM	
8	TM	Anthracene	1.275	1.367	7.2	TM	
9	*TM	Fluoranthene	2.013	2.171	7.8	*TM	
10	TM	Pyrene	1.789	1.816	1.5	TM	
11	TM	Benz (a) anthracene	1.420	1.330	6.4	TM	
12	TM	Chrysene	1.573	1.539	2.2	TM	
13	TM	Indeno (1,2,3-cd) pyrene	1.387	1.255	9.5	TM	
14	TM	Benzo (b) fluoranthene	1.268	1.334	5.2	TM	
15	TM	Benzo (k) fluoranthene	1.439	1.585	10	TM	
16	*TM	Benzo (a) pyrene	1.167	1.265	8.4	*TM	
17	TM	Dibenz (a,h) anthracene	1.151	1.126	2.2	TM	
18	TM	Benzo (g,h,i) perylene	1.264	1.235	2.3	TM	
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
30							
31							
32							
33							
34							
35							
36							
37							
38							
39							
40							
		Average			4.5		

Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L191028\1028L012.D Vial: 12
Acq On : 28 Oct 19 15:55 Operator: MA
Sample : SS SIM 10/28/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 30 10:44 2019 Quant Results File: L1028.RES

Quant Method : M:\LINUS\DATA\L191028\L1028.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 30 10:39:31 2019
Response via : Initial Calibration
DataAcq Meth : SIM_2

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Napthalene-D8(IS)	4.29	136	37041	2.50000 ppb		0.01
7) Acenaphthene-D10(IS)	6.28	164	15072	2.50000 ppb		0.01
12) Phenanthrene-D10(IS)	7.99	188	26057	2.50000 ppb		0.00
17) Chrysene-D12(IS)	11.11	240	32042	2.50000 ppb		0.00
23) Perylene-D12(IS)	13.53	264	29024	2.50000 ppb		0.00
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	0.00	82	0d	0.00000 ppb		
Spiked Amount 5.000			Recovery	= 0.000%		
4) 2-Methylnaphthalene-D10 (2	0.00	152	0d	0.00000 ppb		
Spiked Amount 5.000			Recovery	= 0.000%		
8) Surrogate Recovery (FBP)	0.00	172	0d	0.00000 ppb		
Spiked Amount 5.000			Recovery	= 0.000%		
15) Fluoranthene-D10 (FRT)	0.00	212	0d	0.00000 ppb		
Spiked Amount 5.000			Recovery	= 0.000%		
19) Surrogate Recovery (TPH)	0.00	244	0d	0.00000 ppb		
Spiked Amount 5.000			Recovery	= 0.000%		
Target Compounds						Qvalue
3) Naphthalene	4.30	128	90550	4.92808 ppb		100
5) 2-Methylnaphthalene	5.08	142	54717	4.98678 ppb		97
6) 1-Methylnaphthalene	5.19	142	55190	4.92351 ppb		97
9) Acenaphthylene	6.11	152	171659	5.35498 ppb		99
10) Acenaphthene	6.31	154	45673	4.97401 ppb		89
11) Fluorene	6.90	166	52636	5.14291 ppb		95
13) Phenanthrene	8.01	178	80127	5.20577 ppb		98
14) Anthracene	8.08	178	71254	5.36132 ppb		99
16) Fluoranthene	9.39	202	113116	5.39024 ppb	#	93
18) Pyrene	9.65	202	116362	5.07511 ppb	#	86
20) Benz (a) anthracene	11.10	228	85204	4.68122 ppb		98
21) Chrysene	11.14	228	98596	4.89203 ppb	#	96
22) Indeno (1,2,3-cd) pyrene	15.01	276	80441	4.52347 ppb		88
24) Benzo (b) fluoranthene	12.90	252	77412	5.25853 ppb		99
25) Benzo (k) fluoranthene	12.96	252	92007	5.50721 ppb		99
26) Benzo (a) pyrene	13.45	252	73458	5.42211 ppb		97
27) Dibenz (a,h) anthracene	15.05	278	65335	4.88992 ppb	#	94
28) Benzo (g,h,i) perylene	15.38	276	71685	4.88610 ppb	#	92

(#) = qualifier out of range (m) = manual integration

Quantitation Report

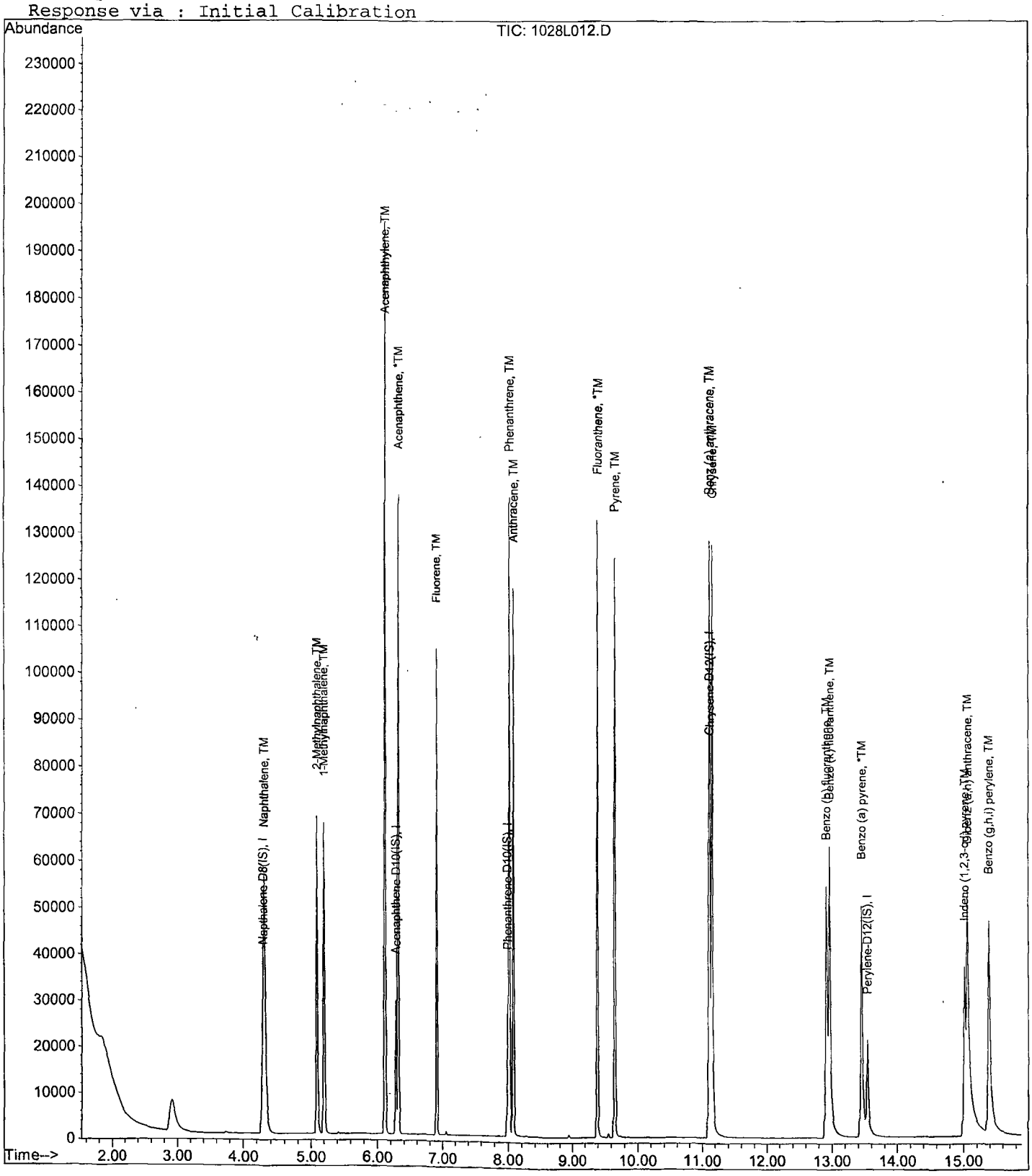
Data File : M:\LINUS\DATA\L191028\1028L012.D
Acq On : 28 Oct 19 15:55
Sample : SS SIM 10/28/19
Misc :

Vial: 12
Operator: MA
Inst : Linus
Multiplr: 1.00

Quant Time: Oct 30 10:44 2019

Quant Results File: L1028.RES

Method : M:\LINUS\DATA\L191028\L1028.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 30 10:39:31 2019
Response via : Initial Calibration



PAH by GCMS SIM
EPA 8270 SIM

Form 7

Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix:

SDG No:
Date Analyzed: 11/12/19
Instrument: Linus
Initial Cal. Date: 10/28/19
Data File: 1028L258.D

		Compound	MEAN	CCRF	%D		%Drift
1	I	Napthalene-D8(IS)	ISTD			I	
2	S	Surrogate Recovery (NBZ)	0.4764	0.4387	7.9	S	
3	TM	Naphthalene	1.240	1.213	2.2	TM	
4	S	2-Methylnaphthalene-D10 (2MN)	1.249	1.175	5.9	S	
5	TM	2-Methylnaphthalene	0.7406	0.7296	1.5	TM	
6	TM	1-Methylnaphthalene	0.7566	0.7306	3.4	TM	
7	I	Acenaphthene-D10(IS)	ISTD			I	
8	S	Surrogate Recovery (FBP)	1.894	1.817	4.1	S	
9	TM	Acenaphthylene	5.317	5.487	3.2	TM	
10	*TM	Acenaphthene	1.523	1.488	2.3	*TM	
11	TM	Fluorene	1.698	1.700	0.12	TM	
12	I	Phenanthrene-D10(IS)	ISTD			I	
13	TM	Phenanthrene	1.477	1.472	0.34	TM	
14	TM	Anthracene	1.275	1.335	4.7	TM	
15	S	Fluoranthene-D10 (FRT)	1.819	1.825	0.33	S	
16	*TM	Fluoranthene	2.013	2.140	6.3	*TM	
17	I	Chrysene-D12(IS)	ISTD			I	
18	TM	Pyrene	1.789	1.797	0.43	TM	
19	S	Surrogate Recovery (TPH)	0.9613	0.9421	2.0	S	
20	TM	Benz (a) anthracene	1.420	1.350	4.9	TM	
21	TM	Chrysene	1.573	1.501	4.5	TM	
22	TM	Indeno (1,2,3-cd) pyrene	1.387	1.330	4.1	TM	
23	I	Perylene-D12(IS)	ISTD			I	
24	TM	Benzo (b) fluoranthene	1.268	1.234	2.7	TM	
25	TM	Benzo (k) fluoranthene	1.439	1.592	11	TM	
26	*TM	Benzo (a) pyrene	1.167	1.232	5.6	*TM	
27	TM	Dibenz (a,h) anthracene	1.151	1.150	0.11	TM	
28	TM	Benzo (g,h,i) perylene	1.264	1.243	1.7	TM	
29							
30							
31							
32							
33							
34							
35							
36							
37							
38							
39							
40							
		Average			3.4		

Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L191028\1028L258.D Vial: 58
Acq On : 12 Nov 19 9:35 Operator: MA
Sample : 5 SIM 10/28/19 (1) Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Nov 12 9:58 2019 Quant Results File: L1028.RES

Quant Method : M:\LINUS\DATA\L191028\L1028.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 30 10:39:31 2019
Response via : Initial Calibration
DataAcq Meth : SIM_2

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Napthalene-D8(IS)	4.27	136	42226	2.50000 ppb		0.00
7) Acenaphthene-D10(IS)	6.27	164	17230	2.50000 ppb		0.00
12) Phenanthrene-D10(IS)	7.98	188	30075	2.50000 ppb		-0.01
17) Chrysene-D12(IS)	11.10	240	35927	2.50000 ppb		-0.01
23) Perylene-D12(IS)	13.52	264	34153	2.50000 ppb		-0.01
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	3.48	82	18525	2.30235 ppb		-0.01
Spiked Amount 5.000			Recovery	= 46.040%		
4) 2-Methylnaphthalene-D10 (2	5.03	152	49602	2.35154 ppb		-0.01
Spiked Amount 5.000			Recovery	= 47.040%		
8) Surrogate Recovery (FBP)	5.51	172	31305	2.39764 ppb		-0.01
Spiked Amount 5.000			Recovery	= 47.960%		
15) Fluoranthene-D10 (FRT)	9.36	212	54895	2.50828 ppb		-0.01
Spiked Amount 5.000			Recovery	= 50.160%		
19) Surrogate Recovery (TPH)	9.85	244	33847	2.45016 ppb		-0.01
Spiked Amount 5.000			Recovery	= 49.000%		
Target Compounds						Qvalue
3) Naphthalene	4.29	128	102434	4.89031 ppb		100
5) 2-Methylnaphthalene	5.07	142	61617	4.92608 ppb		99
6) 1-Methylnaphthalene	5.18	142	61697	4.82815 ppb		96
9) Acenaphthylene	6.10	152	189092	5.16000 ppb		99
10) Acenaphthene	6.30	154	51262	4.88347 ppb		86
11) Fluorene	6.89	166	58569	5.00587 ppb		97
13) Phenanthrene	8.00	178	88522	4.98283 ppb		99
14) Anthracene	8.06	178	80306	5.23515 ppb		99
16) Fluoranthene	9.38	202	128699	5.31347 ppb		97
18) Pyrene	9.64	202	129090	5.02141 ppb	#	82
20) Benz (a) anthracene	11.09	228	97038	4.75488 ppb		97
21) Chrysene	11.13	228	107882	4.77395 ppb		99
22) Indeno (1,2,3-cd) pyrene	15.00	276	95573	4.79323 ppb		88
24) Benzo (b) fluoranthene	12.89	252	84258	4.86403 ppb		96
25) Benzo (k) fluoranthene	12.93	252	108752	5.53193 ppb	#	95
26) Benzo (a) pyrene	13.43	252	84141	5.27795 ppb		95
27) Dibenz (a,h) anthracene	15.04	278	78522	4.99431 ppb		96
28) Benzo (g,h,i) perylene	15.37	276	84882	4.91674 ppb	#	89

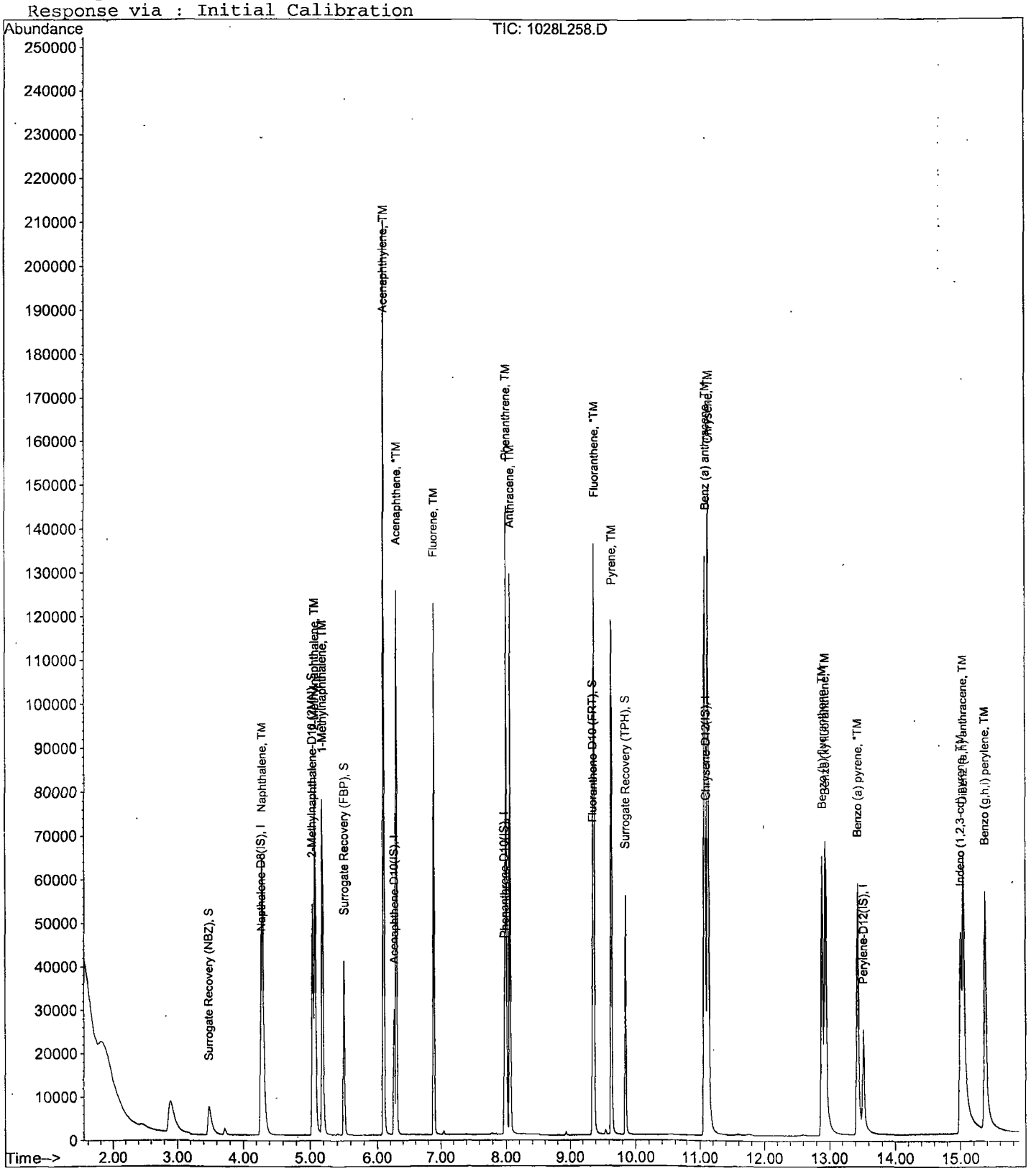
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L191028\1028L258.D Vial: 58
Acq On : 12 Nov 19 9:35 Operator: MA
Sample : 5 SIM 10/28/19 (1) Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Nov 12 9:58 2019 Quant Results File: L1028.RES

Method : M:\LINUS\DATA\L191028\L1028.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 30 10:39:31 2019
Response via : Initial Calibration



PAH by GCMS SIM
EPA 8270 SIM

Form 7

Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix:

SDG No:
Date Analyzed: 11/12/19
Instrument: Linus
Initial Cal. Date: 10/28/19
Data File: 1028L268.D

		Compound	MEAN	CCRF	%D	%Drift	
1	I	Napthalene-D8(IS)	ISTD			I	
2	S	Surrogate Recovery (NBZ)	0.4764	0.4531	4.9	S	
3	TM	Naphthalene	1.240	1.195	3.6	TM	
4	S	2-Methylnaphthalene-D10 (2MN)	1.249	1.164	6.8	S	
5	TM	2-Methylnaphthalene	0.7406	0.7246	2.2	TM	
6	TM	1-Methylnaphthalene	0.7566	0.7153	5.5	TM	
7	I	Acenaphthene-D10(IS)	ISTD			I	
8	S	Surrogate Recovery (FBP)	1.894	1.981	4.6	S	
9	TM	Acenaphthylene	5.317	5.967	12	TM	
10	*TM	Acenaphthene	1.523	1.583	3.9	*TM	
11	TM	Fluorene	1.698	1.820	7.2	TM	
12	I	Phenanthrene-D10(IS)	ISTD			I	
13	TM	Phenanthrene	1.477	1.439	2.6	TM	
14	TM	Anthracene	1.275	1.336	4.7	TM	
15	S	Fluoranthene-D10 (FRT)	1.819	1.932	6.2	S	
16	*TM	Fluoranthene	2.013	2.118	5.2	*TM	
17	I	Chrysene-D12(IS)	ISTD			I	
18	TM	Pyrene	1.789	1.705	4.7	TM	
19	S	Surrogate Recovery (TPH)	0.9613	0.9680	0.70	S	
20	TM	Benz (a) anthracene	1.420	1.405	1.0	TM	
21	TM	Chrysene	1.573	1.412	10	TM	
22	TM	Indeno (1,2,3-cd) pyrene	1.387	1.371	1.2	TM	
23	I	Perylene-D12(IS)	ISTD			I	
24	TM	Benzo (b) fluoranthene	1.268	1.207	4.8	TM	
25	TM	Benzo (k) fluoranthene	1.439	1.471	2.2	TM	
26	*TM	Benzo (a) pyrene	1.167	1.195	2.4	*TM	
27	TM	Dibenz (a,h) anthracene	1.151	1.119	2.7	TM	
28	TM	Benzo (g,h,i) perylene	1.264	1.155	8.6	TM	
29							
30							
31							
32							
33							
34							
35							
36							
37							
38							
39							
40							
		Average			4.7		

Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L191028\1028L268.D Vial: 68
Acq On : 12 Nov 19 13:40 Operator: MA
Sample : 5 SIM 10/28/19 (1) Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Nov 12 14:13 2019 Quant Results File: L1028.RES

Quant Method : M:\LINUS\DATA\L191028\L1028.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 30 10:39:31 2019
Response via : Initial Calibration
DataAcq Meth : SIM_2

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Napthalene-D8(IS)	4.27	136	53473	2.50000 ppb		0.00
7) Acenaphthene-D10(IS)	6.27	164	20055	2.50000 ppb		0.00
12) Phenanthrene-D10(IS)	7.98	188	37410	2.50000 ppb		-0.01
17) Chrysene-D12(IS)	11.11	240	46428	2.50000 ppb		0.00
23) Perylene-D12(IS)	13.53	264	47184	2.50000 ppb		0.00
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	3.49	82	24228	2.37781 ppb		0.00
Spiked Amount 5.000			Recovery	= 47.560%		
4) 2-Methylnaphthalene-D10 (2	5.05	152	62241	2.33010 ppb		0.00
Spiked Amount 5.000			Recovery	= 46.600%		
8) Surrogate Recovery (FBP)	5.51	172	39722	2.61375 ppb		-0.01
Spiked Amount 5.000			Recovery	= 52.280%		
15) Fluoranthene-D10 (FRT)	9.36	212	72284	2.65523 ppb		-0.01
Spiked Amount 5.000			Recovery	= 53.100%		
19) Surrogate Recovery (TPH)	9.86	244	44941	2.51744 ppb		0.00
Spiked Amount 5.000			Recovery	= 50.340%		
Target Compounds						Qvalue
3) Naphthalene	4.30	128	127804	4.81817 ppb		99
5) 2-Methylnaphthalene	5.08	142	77492	4.89219 ppb		100
6) 1-Methylnaphthalene	5.19	142	76496	4.72717 ppb		100
9) Acenaphthylene	6.11	152	239348	5.61137 ppb		99
10) Acenaphthene	6.30	154	63497	5.19695 ppb		96
11) Fluorene	6.90	166	72996	5.36010 ppb		99
13) Phenanthrene	8.01	178	107669	4.87229 ppb		100
14) Anthracene	8.08	178	99935	5.23741 ppb		100
16) Fluoranthene	9.38	202	158489	5.26042 ppb	#	77
18) Pyrene	9.64	202	158350	4.76641 ppb		99
20) Benz (a) anthracene	11.09	228	130498	4.94814 ppb		99
21) Chrysene	11.14	228	131121	4.48996 ppb		100
22) Indeno (1,2,3-cd) pyrene	15.01	276	127343	4.94208 ppb	#	98
24) Benzo (b) fluoranthene	12.90	252	113868	4.75796 ppb		98
25) Benzo (k) fluoranthene	12.96	252	138820	5.11123 ppb		99
26) Benzo (a) pyrene	13.45	252	112769	5.12013 ppb		96
27) Dibenz (a,h) anthracene	15.05	278	105625	4.86278 ppb	#	93
28) Benzo (g,h,i) perylene	15.39	276	108994	4.56982 ppb		98

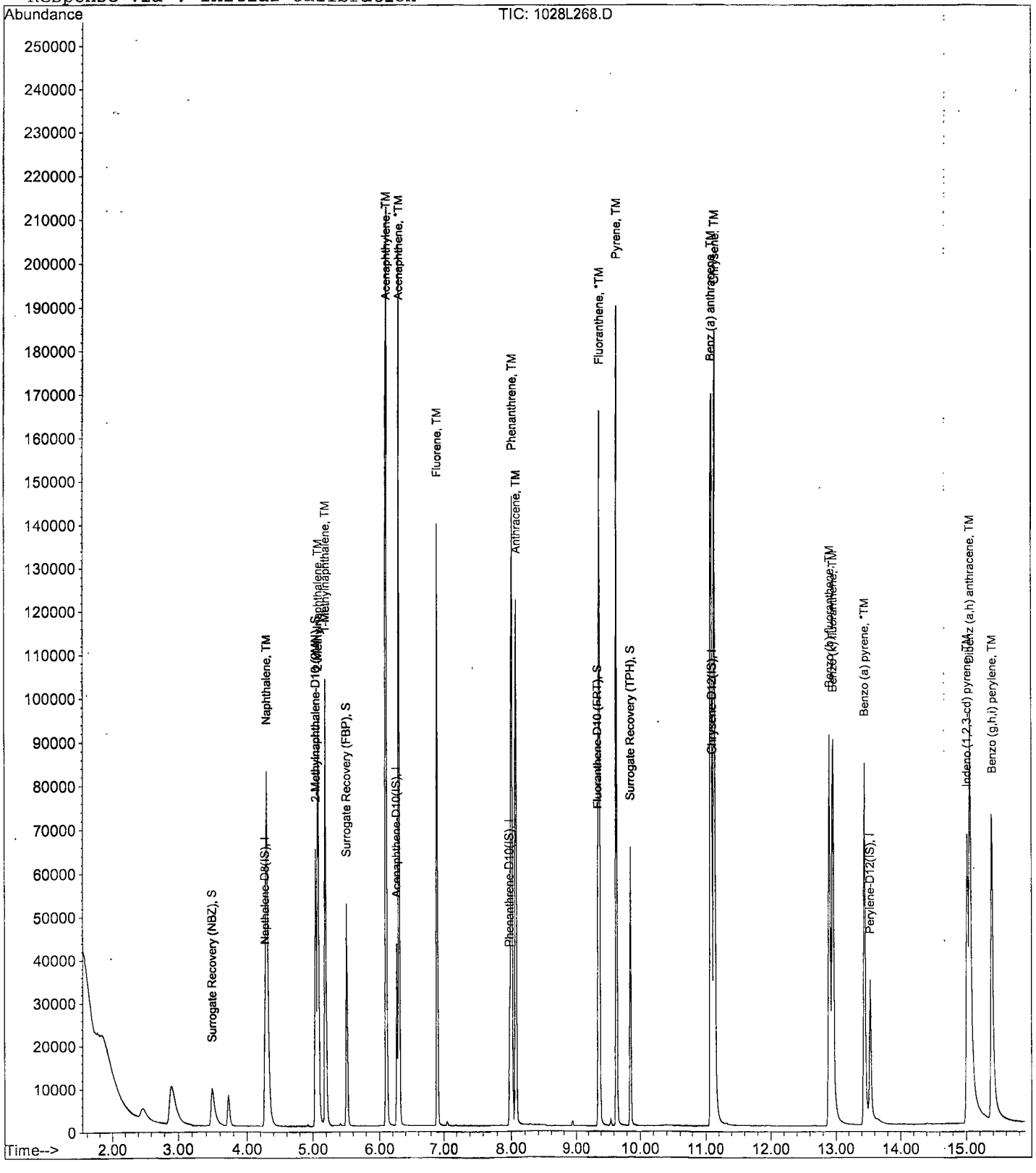
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L191028\1028L268.D Vial: 68
Acq On : 12 Nov 19 13:40 Operator: MA
Sample : 5 SIM 10/28/19 (1) Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Nov 12 14:13 2019 Quant Results File: L1028.RES

Method : M:\LINUS\DATA\L191028\L1028.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 30 10:39:31 2019
Response via : Initial Calibration



ORGANICS
Raw Data

Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L191028\1028L267.D Vial: 67
Acq On : 12 Nov 19 13:01 Operator: MA
Sample : BA02301W13 1/800 Inst : Linus
Misc : Multiplr: 1.25

Quant Time: Nov 12 13:36 2019 Quant Results File: L1028.RES

Quant Method : M:\LINUS\DATA\L191028\L1028.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 30 10:39:31 2019
Response via : Initial Calibration
DataAcq Meth : SIM_2

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Napthalene-D8(IS)	4.27	136	43643	2.50000 ppb	0.00
7) Acenaphthene-D10(IS)	6.27	164	18026	2.50000 ppb	0.00
12) Phenanthrene-D10(IS)	7.98	188	32526	2.50000 ppb	-0.01
17) Chrysene-D12(IS)	11.10	240	39359	2.50000 ppb	-0.01
23) Perylene-D12(IS)	13.53	264	41282	2.50000 ppb	0.00
System Monitoring Compounds					
2) Surrogate Recovery (NBZ)	3.49	82	639498	96.12320 ppb	0.00
Spiked Amount 6.250			Recovery	= 1537.968%	
4) 2-Methylnaphthalene-D10 (2	5.05	152	100622	5.76927 ppb	0.00
Spiked Amount 6.250			Recovery	= 92.304%	
8) Surrogate Recovery (FBP)	5.52	172	879376	80.47141 ppb	0.00
Spiked Amount 6.250			Recovery	= 1287.536%	
15) Fluoranthene-D10 (FRT)	9.36	212	124320	6.56551 ppb	-0.01
Spiked Amount 6.250			Recovery	= 105.056%	
19) Surrogate Recovery (TPH)	9.87	244	1075071	88.79717 ppb	0.01
Spiked Amount 6.250			Recovery	= 1420.752%	

Target Compounds Qvalue

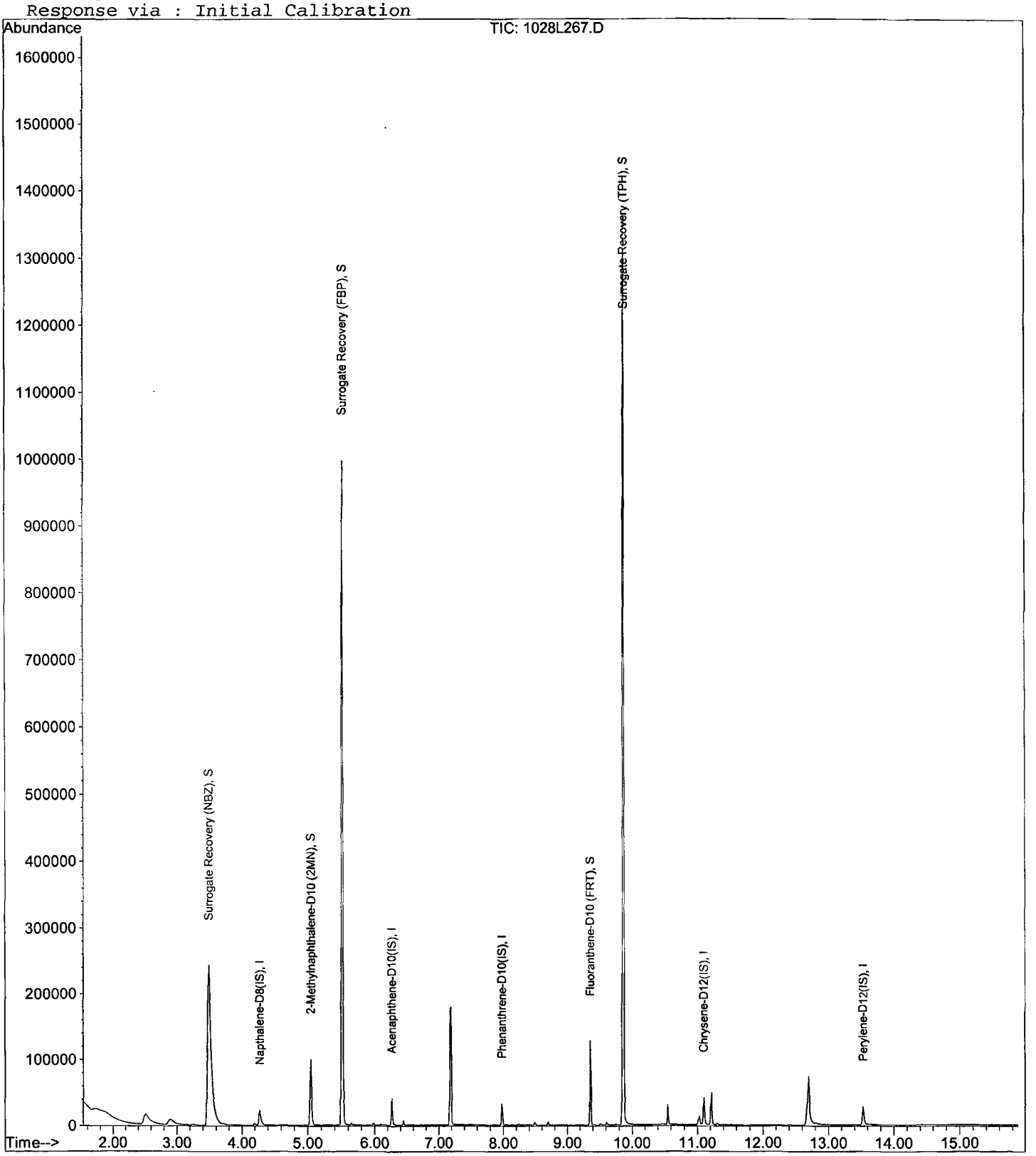
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L191028\1028L267.D Vial: 67
Acq On : 12 Nov 19 13:01 Operator: MA
Sample : BA02301W13 1/800 Inst : Linus
Misc : Multiplr: 1.25

Quant Time: Nov 12 13:36 2019 Quant Results File: L1028.RES

Method : M:\LINUS\DATA\L191028\L1028.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 30 10:39:31 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L191028\1028L259.D Vial: 59
Acq On : 12 Nov 19 10:04 Operator: MA
Sample : 191104A BLK 1/800 Inst : Linus
Misc : Multiplr: 1.25

Quant Time: Nov 12 10:44 2019 Quant Results File: L1028.RES

Quant Method : M:\LINUS\DATA\L191028\L1028.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 30 10:39:31 2019
Response via : Initial Calibration
DataAcq Meth : SIM_2

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Napthalene-D8(IS)	4.26	136	41490	2.50000 ppb	-0.01
7) Acenaphthene-D10(IS)	6.27	164	17274	2.50000 ppb	0.00
12) Phenanthrene-D10(IS)	7.98	188	30878	2.50000 ppb	-0.01
17) Chrysene-D12(IS)	11.10	240	37096	2.50000 ppb	-0.01
23) Perylene-D12(IS)	13.52	264	38223	2.50000 ppb	-0.01
System Monitoring Compounds					
2) Surrogate Recovery (NBZ)	3.48	82	621569	98.27646 ppb	-0.01
Spiked Amount 6.250			Recovery	= 1572.416%	
4) 2-Methylnaphthalene-D10 (2	5.03	152	91477	5.51710 ppb	-0.01
Spiked Amount 6.250			Recovery	= 88.272%	
8) Surrogate Recovery (FBP)	5.51	172	815996	77.92225 ppb	-0.01
Spiked Amount 6.250			Recovery	= 1246.752%	
15) Fluoranthene-D10 (FRT)	9.36	212	118382	6.58559 ppb	-0.01
Spiked Amount 6.250			Recovery	= 105.376%	
19) Surrogate Recovery (TPH)	9.86	244	1001899	87.80169 ppb	0.00
Spiked Amount 6.250			Recovery	= 1404.832%	

Target Compounds Qvalue

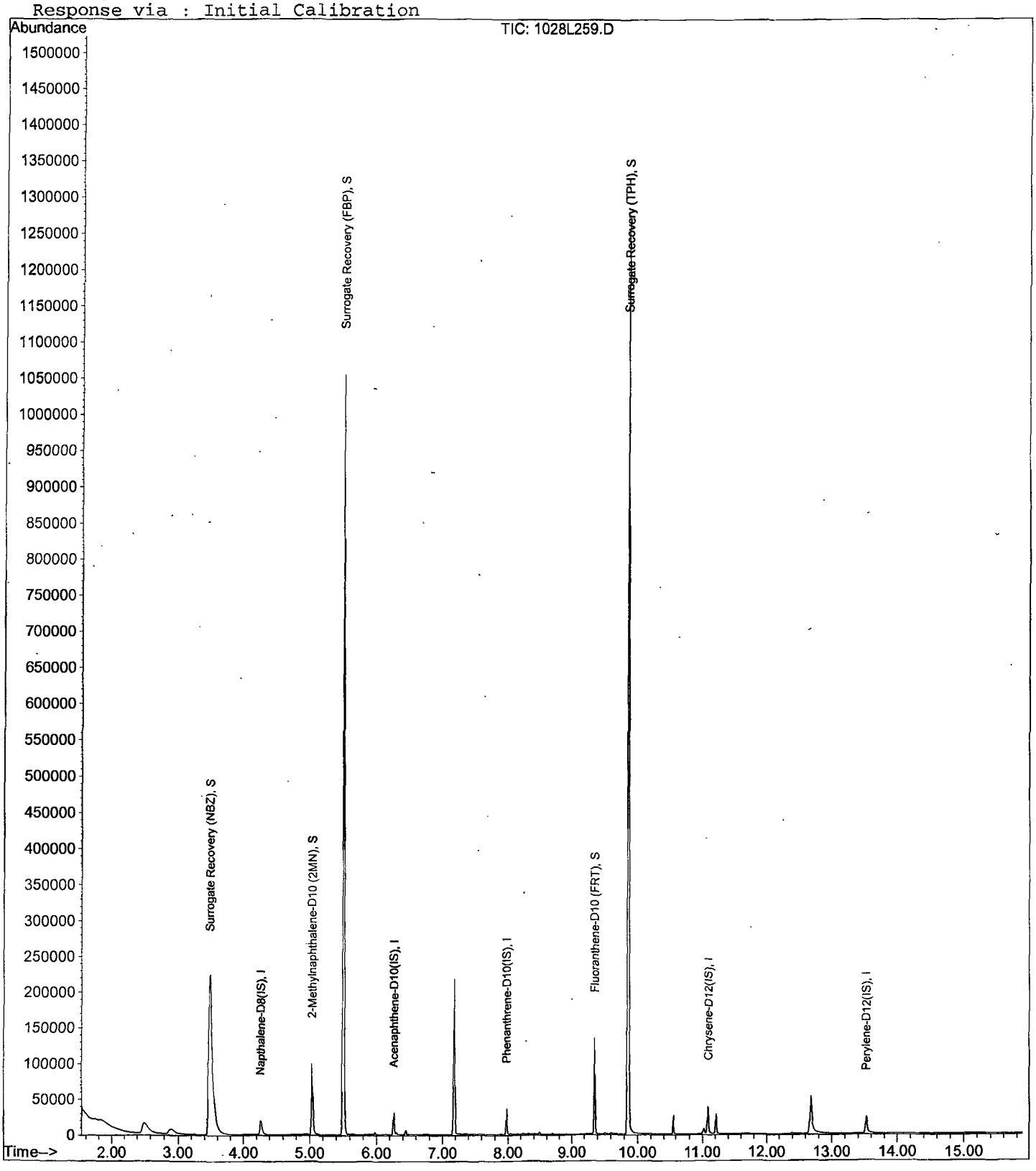
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L191028\1028L259.D Vial: 59
Acq On : 12 Nov 19 10:04 Operator: MA
Sample : 191104A BLK 1/800 Inst : Linus
Misc : Multiplr: 1.25

Quant Time: Nov 12 10:44 2019 Quant Results File: L1028.RES

Method : M:\LINUS\DATA\L191028\L1028.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 30 10:39:31 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L191028\1028L260.D Vial: 60
Acq On : 12 Nov 19 10:26 Operator: MA
Sample : 191104A LCS-2 1/800 Inst : Linus
Misc : Multiplr: 1.25

Quant Time: Nov 12 10:44 2019 Quant Results File: L1028.RES

Quant Method : M:\LINUS\DATA\L191028\L1028.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 30 10:39:31 2019
Response via : Initial Calibration
DataAcq Meth : SIM_2

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Napthalene-D8(IS)	4.27	136	38137	2.50000 ppb		0.00
7) Acenaphthene-D10(IS)	6.27	164	15916	2.50000 ppb		0.00
12) Phenanthrene-D10(IS)	7.98	188	30577	2.50000 ppb		-0.01
17) Chrysene-D12(IS)	11.10	240	37171	2.50000 ppb		-0.01
23) Perylene-D12(IS)	13.52	264	38425	2.50000 ppb		-0.01
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	3.43	82	110	0.01892 ppb		-0.06
Spiked Amount 6.250			Recovery	= 0.304%		
4) 2-Methylnaphthalene-D10 (2	5.03	152	91841	6.02605 ppb		-0.01
Spiked Amount 6.250			Recovery	= 96.416%		
8) Surrogate Recovery (FBP)	5.51	172	41	0.00425 ppb		-0.01
Spiked Amount 6.250			Recovery	= 0.064%		
15) Fluoranthene-D10 (FRT)	9.36	212	116417	6.54003 ppb		-0.01
Spiked Amount 6.250			Recovery	= 104.640%		
19) Surrogate Recovery (TPH)	9.85	244	656	0.05737 ppb		-0.01
Spiked Amount 6.250			Recovery	= 0.912%		
Target Compounds						Qvalue
3) Naphthalene	4.30	128	100989	6.67282 ppb		99
5) 2-Methylnaphthalene	5.07	142	60088	6.64862 ppb		98
6) 1-Methylnaphthalene	5.18	142	60498	6.55241 ppb		94
9) Acenaphthylene	6.10	152	198210	7.31920 ppb		99
10) Acenaphthene	6.30	154	52099	6.71620 ppb		89
11) Fluorene	6.89	166	62062	7.17792 ppb		95
13) Phenanthrene	8.00	178	94114	6.51328 ppb		99
14) Anthracene	8.06	178	81213	6.50919 ppb		99
16) Fluoranthene	9.38	202	138415	7.02598 ppb	#	91
18) Pyrene	9.64	202	143455	6.74179 ppb	#	86
20) Benz (a) anthracene	11.09	228	114358	6.77003 ppb		97
21) Chrysene	11.13	228	116810	6.24505 ppb	#	97
22) Indeno (1,2,3-cd) pyrene	15.00	276	111769	6.77238 ppb	#	94
24) Benzo (b) fluoranthene	12.89	252	101882	6.53442 ppb		98
25) Benzo (k) fluoranthene	12.95	252	125220	7.07682 ppb		100
26) Benzo (a) pyrene	13.43	252	92944	6.47745 ppb		97
27) Dibenz (a,h) anthracene	15.04	278	92971	6.56987 ppb		95
28) Benzo (g,h,i) perylene	15.37	276	96991	6.24192 ppb	#	88

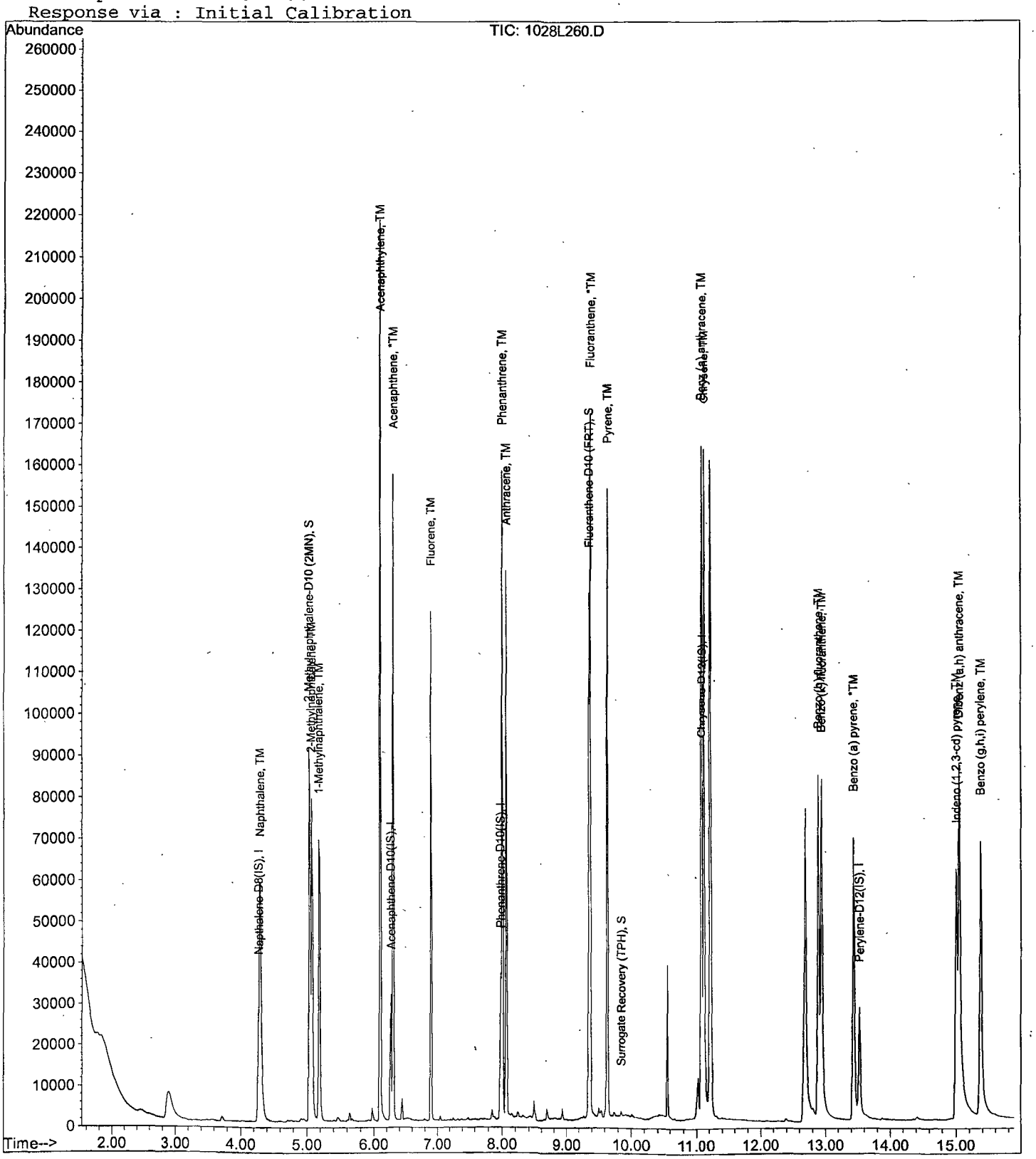
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L191028\1028L260.D Vial: 60
Acq On : 12 Nov 19 10:26 Operator: MA
Sample : 191104A LCS-2 1/800 Inst : Linus
Misc : Multiplr: 1.25

Quant Time: Nov 12 10:44 2019 Quant Results File: L1028.RES

Method : M:\LINUS\DATA\L191028\L1028.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 30 10:39:31 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L191028\1028L261.D Vial: 61
Acq On : 12 Nov 19 10:48 Operator: MA
Sample : 191104A LCSD-2 1/800 Inst : Linus
Misc : Multiplr: 1.25

Quant Time: Nov 12 11:06 2019 Quant Results File: L1028.RES

Quant Method : M:\LINUS\DATA\L191028\L1028.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 30 10:39:31 2019
Response via : Initial Calibration
DataAcq Meth : SIM_2

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Napthalene-D8(IS)	4.27	136	42346	2.50000 ppb		0.00
7) Acenaphthene-D10(IS)	6.27	164	17317	2.50000 ppb		0.00
12) Phenanthrene-D10(IS)	7.98	188	31965	2.50000 ppb		-0.01
17) Chrysene-D12(IS)	11.10	240	38068	2.50000 ppb		-0.01
23) Perylene-D12(IS)	13.52	264	38812	2.50000 ppb		-0.01
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	3.49	82	49	0.00759 ppb		0.00
Spiked Amount 6.250			Recovery	= 0.128%		
4) 2-Methylnaphthalene-D10 (2	5.03	152	93203	5.50757 ppb		-0.01
Spiked Amount 6.250			Recovery	= 88.128%		
8) Surrogate Recovery (FBP)	5.50	172	49	0.00467 ppb		-0.01
Spiked Amount 6.250			Recovery	= 0.080%		
15) Fluoranthene-D10 (FRT)	9.36	212	120142	6.45622 ppb		-0.01
Spiked Amount 6.250			Recovery	= 103.296%		
19) Surrogate Recovery (TPH)	9.85	244	483	0.04125 ppb		-0.01
Spiked Amount 6.250			Recovery	= 0.656%		
Target Compounds						Qvalue
3) Naphthalene	4.30	128	101393	6.03361 ppb		100
5) 2-Methylnaphthalene	5.07	142	60057	5.98469 ppb		95
6) 1-Methylnaphthalene	5.19	142	60646	5.91557 ppb		98
9) Acenaphthylene	6.10	152	201592	6.84183 ppb		98
10) Acenaphthene	6.30	154	52512	6.22177 ppb		91
11) Fluorene	6.89	166	62293	6.62176 ppb		94
13) Phenanthrene	8.00	178	93353	6.18008 ppb		99
14) Anthracene	8.06	178	84268	6.46077 ppb		99
16) Fluoranthene	9.38	202	139408	6.76911 ppb	#	91
18) Pyrene	9.64	202	143036	6.56370 ppb	#	86
20) Benz (a) anthracene	11.09	228	115634	6.68427 ppb		98
21) Chrysene	11.13	228	118796	6.20157 ppb		97
22) Indeno (1,2,3-cd) pyrene	15.00	276	112692	6.66741 ppb	#	96
24) Benzo (b) fluoranthene	12.89	252	113890	7.23175 ppb		98
25) Benzo (k) fluoranthene	12.95	252	113527	6.35201 ppb		99
26) Benzo (a) pyrene	13.43	252	97543	6.73018 ppb		98
27) Dibenz (a,h) anthracene	15.05	278	94122	6.58488 ppb		99
28) Benzo (g,h,i) perylene	15.37	276	96903	6.17408 ppb	#	85

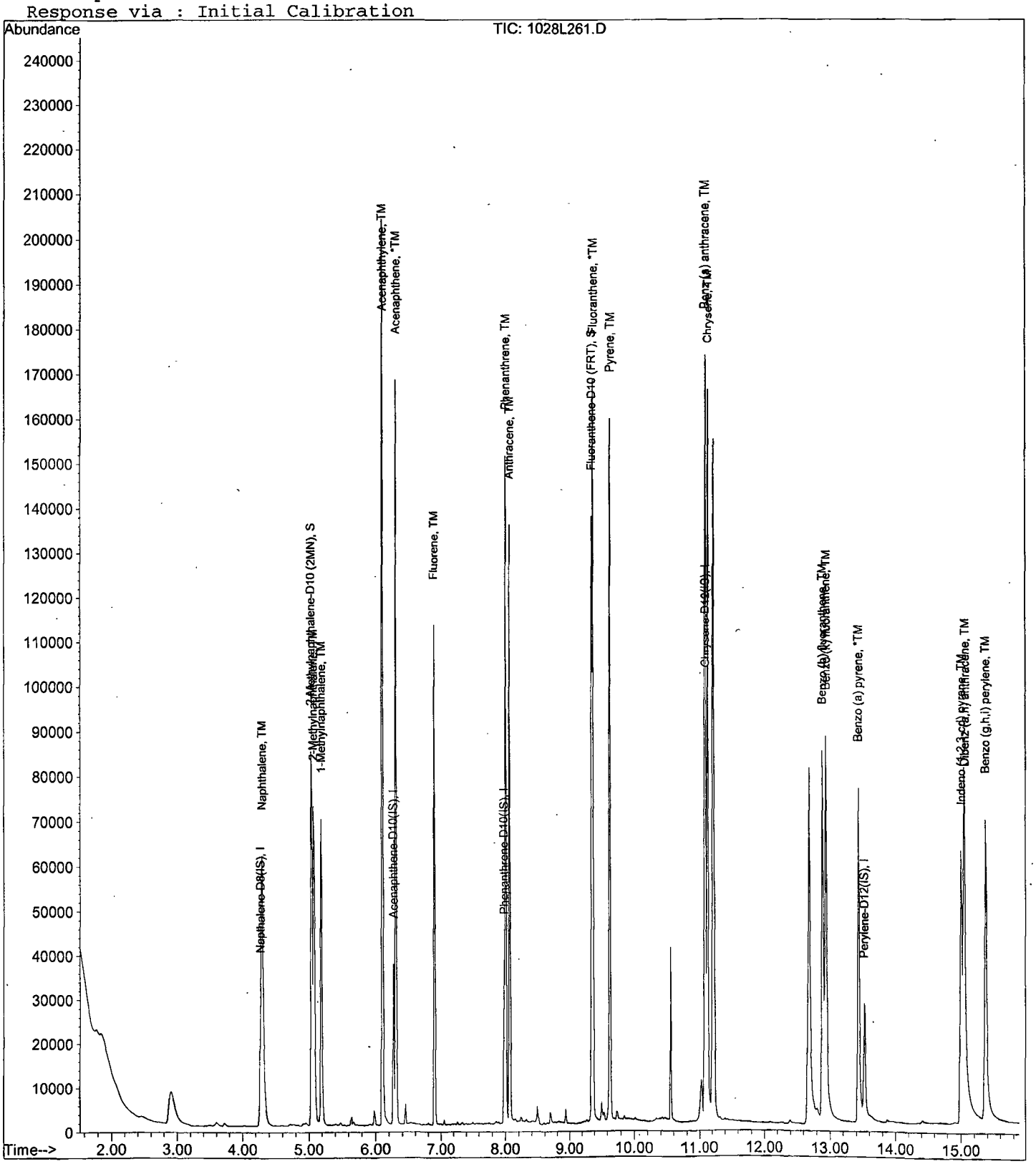
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L191028\1028L261.D Vial: 61
Acq On : 12 Nov 19 10:48 Operator: MA
Sample : 191104A LCSD-2 1/800 Inst : Linus
Misc : Multiplr: 1.25

Quant Time: Nov 12 11:06 2019 Quant Results File: L1028.RES

Method : M:\LINUS\DATA\L191028\L1028.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 30 10:39:31 2019
Response via : Initial Calibration

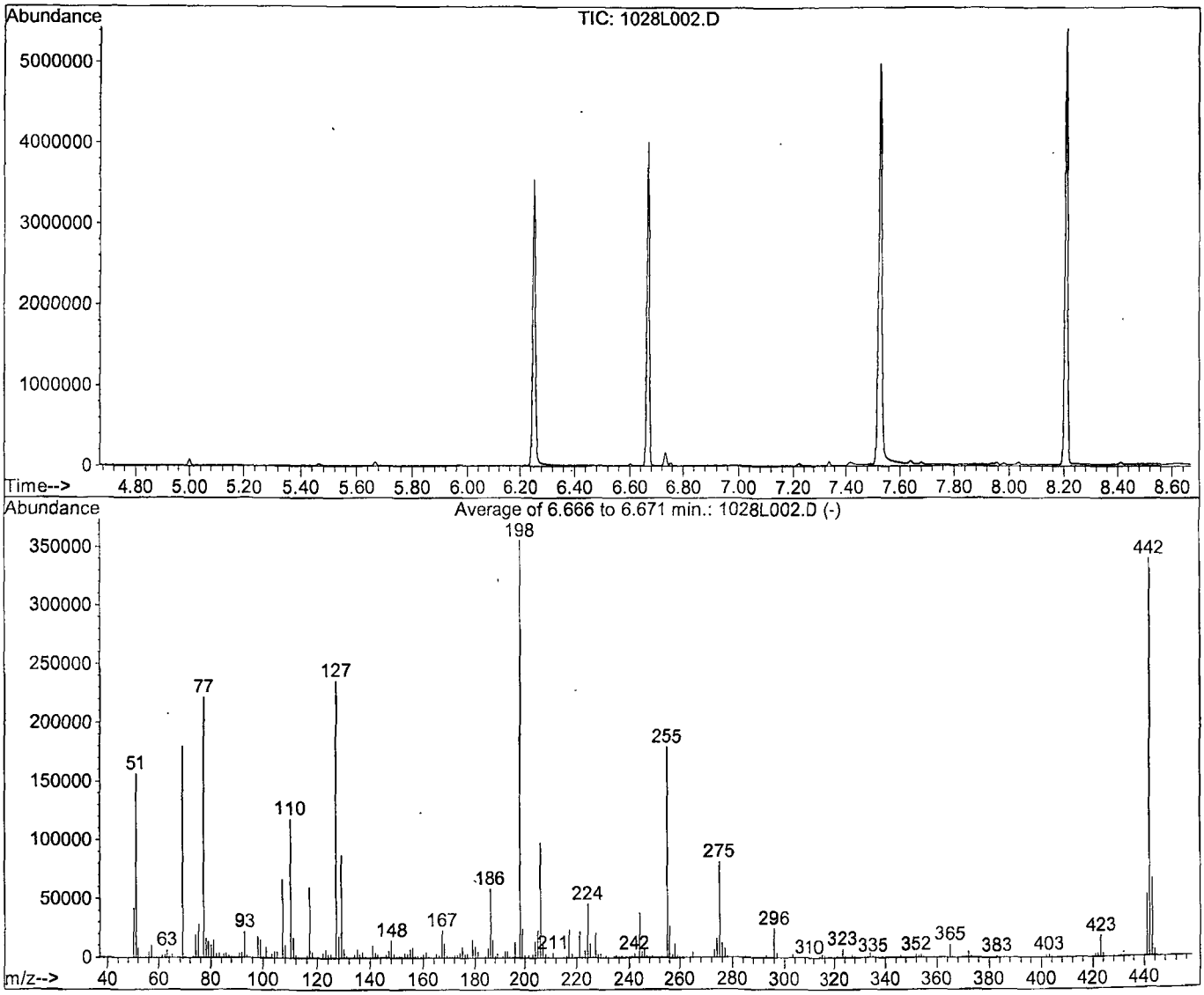


DFTPP

Data File : M:\LINUS\DATA\L191028\1028L002.D
Acq On : 28 Oct 19 10:20
Sample : SV Tune 07/11/19
Misc :

Vial: 2
Operator: MA
Inst : Linus
Multiplr: 1.00

Method : M:\LINUS\DATA\L191028\L1028.M (RTE Integrator)
Title : EPA 8270



AutoFind: Scans 1639, 1640, 1641; Background Corrected with Scan 1630

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	44.0	156621	PASS
68	69	0.00	2	0.0	0	PASS
70	69	0.00	2	0.3	628	PASS
127	198	10	80	66.3	235925	PASS
197	198	0.00	2	0.0	0	PASS
198	198	100	100	100.0	355968	PASS
199	198	5	9	6.8	24237	PASS
275	198	10	60	23.0	81733	PASS
365	198	1	100	3.1	10977	PASS
441	442	0.01	24	15.5	52947	PASS
442	198	50	500	95.8	340885	PASS
443	442	15	24	19.6	66771	PASS

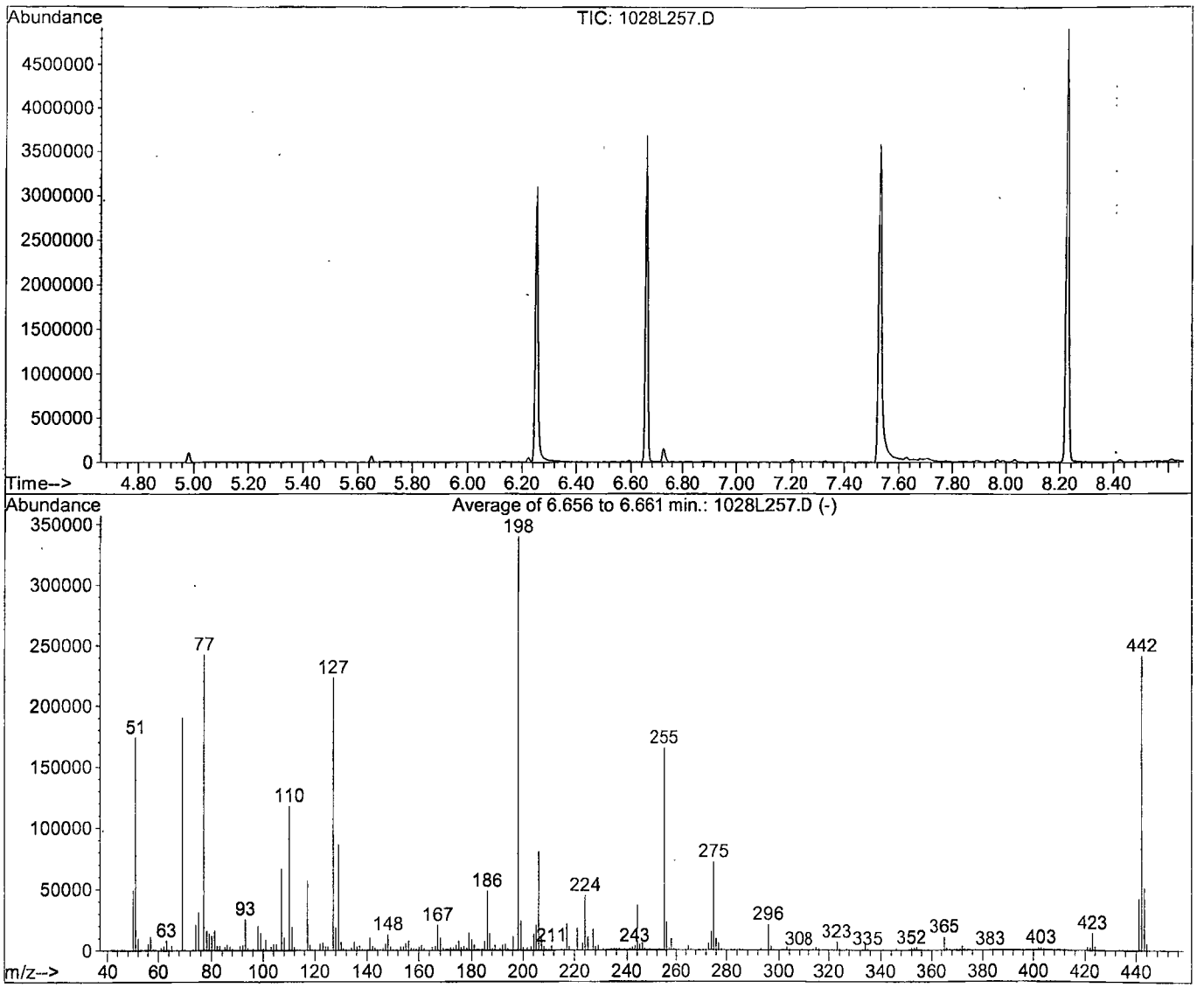
Data File Name:	**1028L002.D**
Data File Path:	**M:\LINUS\DATA\L191028**
Operator:	**MA**
Date Acquired:	**28 Oct 2019 10:20**
Method File:	**DFTPP2.M**
Sample Name:	**SV Tune 07/11/19**
Vial Number:	**2**
Instrument Name:	**Linus**

#	Name	Ret Time	Target Response
1)	DDT	8.21	37737600
2)	DDD	7.96	199800
3)	DDE	7.25	192158

Breakdown **1.03**

Data File : M:\LINUS\DATA\L191028\1028L257.D Vial: 57
Acq On : 12 Nov 19 9:18 Operator: MA
Sample : SV Tune 10/01/19 Inst : Linus
Misc : Multiplr: 1.00

Method : M:\LINUS\DATA\L191028\L1028.M (RTE Integrator)
Title : EPA 8270



AutoFind: Scans 1635, 1636, 1637; Background Corrected with Scan 1627

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	51.2	174024	PASS
68	69	0.00	2	0.0	0	PASS
70	69	0.00	2	0.7	1243	PASS
127	198	10	80	65.7	223509	PASS
197	198	0.00	2	0.0	0	PASS
198	198	100	100	100.0	340181	PASS
199	198	5	9	7.1	23997	PASS
275	198	10	60	21.2	72056	PASS
365	198	1	100	3.2	10859	PASS
441	442	0.01	24	17.4	41941	PASS
442	198	50	500	71.1	241728	PASS
443	442	15	24	21.1	50888	PASS

Data File Name:	**1028L257.D**
Data File Path:	**M:\LINUS\DATA\L191028**
Operator:	**MA**
Date Acquired:	**12 Nov 2019 09:18**
Method File:	**DFTPP2.M**
Sample Name:	**SV Tune 10/01/19**
Vial Number:	**57**
Instrument Name:	**Linus**

#	Name	Ret Time	Target Response
1)	DDT	8.21	34843200
2)	DDD	7.98	128973
3)	DDE	8.15	0

Breakdown **0.37**

Name of Final Standard	Semivolatile (SV) Tuning Solution	Prep'd By (Initials)	JP
Prep Date	10/01/19		
Exp Date	11/30/20		

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from contianer Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc.(range)
Semivolatile GC/MS Tuning Standard	Ultra Scientific	GCM-150-1	1,000 ug/mL	CR3789-38879	11/30/20	1,250 uL	25 mL	MC #58240	50 ug/mL

Name of Final Standard	8270 SIM PAH Internal Standard
Prep Date	10/28/19
Exp Date	10/28/20

Prep'd By (Initials): MA

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from contianer Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
SV Internal Standard	Restek	31206	2000 ug/mL	**A0151843-49414**	**07/35/25**	625uL	10mL	**MC 59130**	125 ug/mL

Name of Final Standard	SIM Curve
Prep Date	07/28/19
Exp Date	01/24/20

Prep'd By (Initials): MA

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from container Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
1.0 ug/mL SIM	APPL	1.0 ug/mL SIM	1.0 ug/mL	**08/10/19**	**01/24/20**	10 uL	100uL	**MC 59130 90uL**	0.1 ug/mL
SIM Internal Standard	APPL	SIM Internal Standard	125 ug/mL	**10/28/19**	**10/28/20**	2 uL	*	*	2.5ug/mL
1.0 ug/mL SIM	APPL	1.0 ug/mL SIM	1.0 ug/mL	**08/10/19**	**01/24/20**	20 uL	100uL	**MC 59130 80uL**	0.2 ug/mL
SIM Internal Standard	APPL	SIM Internal Standard	125 ug/mL	**10/28/19**	**10/28/20**	2 uL	*	*	2.5ug/mL
5.0 ug/mL SIM	APPL	5.0 ug/mL SIM	5.0 ug/mL	**08/10/19**	**01/24/20**	10 uL	100uL	**MC 59130 90uL**	0.5 ug/mL
SIM Internal Standard	APPL	SIM Internal Standard	125 ug/mL	**10/28/19**	**10/28/20**	2 uL	*	*	2.5ug/mL
5.0 ug/mL SIM	APPL	5.0 ug/mL SIM	5.0 ug/mL	**08/10/19**	**01/24/20**	20 uL	100uL	**MC 59130 80 uL**	1.0 ug/mL
SIM Internal Standard	APPL	SIM Internal Standard	125 ug/mL	**10/28/19**	**10/28/20**	2 uL	*	*	2.5ug/mL

SIM STOCK	APPL	PAH SIM STOCK	200 ug/mL	**08/10/19**	**08/10/20**	5 uL	200uL	**MC 59130 190 uL**	5.0 ug/mL
SIM 2S SURROGATE	APPL	SIM 2S SURR	100 ug/mL	**05/17/19**	**01/24/20**	5 uL	*	*	2.5ug/mL
SIM Internal Standard	APPL	SIM Internal Standard	125 ug/mL	**10/28/19**	**10/28/20**	4 uL	*	*	2.5ug/mL
SIM STOCK	APPL	PAH SIM STOCK	200 ug/mL	**08/10/19**	**08/10/20**	10 uL	100 uL	**MC 59130 80 uL**	20 ug/mL
SIM 2S SURROGATE	APPL	SIM 2S SURROGATE	100 ug/mL	**05/17/19**	**01/24/20**	10 uL	*	*	10 ug/mL
SIM Internal Standard	APPL	SIM Internal Standard	125 ug/mL	**10/28/19**	**10/28/20**	2 uL	*	*	2.5ug/mL
SIM STOCK	APPL	PAH SIM STOCK	200	**08/10/19**	**08/10/20**	25 uL	100uL	**MC 59130 50 uL**	50 ug/mL
SIM 2S SURROGATE	APPL	SIM 2S SURROGATE	100 ug/mL	**05/17/19**	**01/24/20**	25 uL	*	*	25 ug/mL
SIM Internal Standard	APPL	SIM Internal Standard	125 ug/mL	**10/28/19**	**10/28/20**	2 uL	*	*	2.5ug/mL
SIM STOCK	APPL	PAH SIM STOCK	200 ug/mL	**08/10/19**	**08/10/20**	50 uL	100uL	**na**	100 ug/mL
SIM 2S SURROGATE	APPL	SIM 2S SURROGATE	100 ug/mL	**05/17/19**	**01/24/20**	50 uL	*	*	50 ug/mL
SIM Internal Standard	APPL	SIM Internal Standard	125 ug/mL	**10/28/19**	**10/28/20**	2 uL	*	*	2.5ug/mL

Name of Final Standard **8270 PAH SIM Second Source** **Prep'd By (Initials)** **MA**

Prep Date **10/28/19**

Exp Date **12/28/19**

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from container Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
PAH SIM SS Stock	Phenova	AL0-130490	200 ug/mL	**12/28/18**	**12/28/19**	5 uL	200uL	**MC 59130 195uL**	5 ug/mL
SIM Internal Standard	APPL	SIM Internal Standard	125 ug/mL	**10/28/19**	**10/28/20**	4 uL	*	*	2.5ug/mL

Name of Final Standard	**PAH SIM Stock (Ampule)**	**Prep'd By (I**	**MA**
Prep Date	**08/10/19**		
Exp Date	**08/10/20**		

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from contianer Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
Custom PAH SIM Mix	Phenova	ALO-130490	200 ug/mL	**CL13121-41102**	**08/10/20**	1000 uL	1mL	**NA**	200ug/mL

Name of Final Standard	**PAH SIM 2nd Source Stock (Ampule)**	**Prep'd By (Initials)**	**GA**
Prep Date	**12/28/18**		
Exp Date	**12/28/19**		

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from container Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
Custom PAH SIM Mix	Phenova	AL0-130490	200 ug/mL	**CL13121 - 40082**	**12/28/19**	1 mL	na	**na**	200 ug/mL

Name of Final Standard	SIM 2S Surrogate	Prep'd By (Initials)	GA
Prep Date	05/17/19		
Exp Date	01/24/20		

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from contianer Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
SIM Surrogate Mix	Restek	33913	2000 ug/mL	A0137718 - 39318	01/24/20	250 uL	5 mL	Acetone #030817A	100 ug/mL
8270 B/N surrog mix	Restek	31086	5000 ug/mL	A0141697 - 40112	04/10/20	100 uL	"	"	"

Name of Final Standard	**SIM Spike**
Prep Date	**11/13/19**
Exp Date	**11/13/20**

Prep'd By (Initials) **SJ**

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from contianer Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
Custom PAH Sim Mix	Phenova	AL0-130490	200 ug/mL	**CL13121- 41100,41223**	**12/31/22**	2 mL	10 mL	**Acetone 0231086**	40 ug/mL

Name of Final Standard	**SIM Surrogate**	**Prep'd By (Initials)**	**MA**
Prep Date	**09/03/19**		
Exp Date	**03/03/20**		

Initial Standard Information						Final Standard Information			
Standard (from	Supplier	P/N# (or	Conc.(range)	# (or	Exp Date	from	Volume	Solvent +	Standard
Sim Surrogate Deuterated	Restek	33913	2000 ug/mL	**A0145699-40651,41234, 41236**	**1/31/25, 4/20/25**	2500 uL	50 mL	**Acetone #217497**	100 ug/mL

LIQ003

Organic Extraction Worksheet

Method	Continuous Liquid/Liquid SVOC 3520C	Extraction Set	191104A	Extraction Method	LIQ003	Units	mL

piked ID 1	8270T Spike 10/3/19 ex 10/3/20	Surrogate ID 1	8270 Surrogate 10/3/19 ex 10/3/20
piked ID 2	Sim Spike 9/30/19 ex 9/30/20	Surrogate ID 2	SIM Surrogate 10/25/19 ex 10/25/20
piked ID 3		Surrogate ID 3	
piked ID 4		Surrogate ID 4	
piked ID 5		Surrogate ID 5	
piked ID 6		Sufficient Vol for Matrix QC:	no
piked ID 7		Ext. Start Time:	11/04/19 13:35
piked ID 8		Ext. End Time:	11/06/19 6:30
		GC Requires Extract By:	

pH1	2	11/05/19 10:40	Water Bath Temp 1 °C	EWB5 75/74.2 °
pH2	14	11/06/19 13:00	Water Bath Temp 2 °C	
pH3			Water Bath Temp 3 °C	

Spiked By: DL **Date** 11/04/19 **Witnessed By:** YL **Date** 11/04/19

	Sample	Sample Container	Spike Amount	Spike ID	Surrogate Amount	Surrogate ID	Extract Amount	Final Volume	pH	Extract Date/Time	Comments
1	191104A Blk				1,0.050	1,2	800	1	2/1	11/04/19 13:35	
						equip	EWB5				
2	191104A LCS-1		1	1	1	1	800	1	2/1	11/04/19 13:35	
						equip	EWB5				
3	191104A LCS-2		0.125	2	0.050	2	800	1	2/1	11/04/19 13:35	
						equip	EWB5				
4	191104A LCSD-1		1	1	1	1	800	1	2/1	11/04/19 13:35	
						equip	EWB5				
5	191104A LCSD-2		0.125	2	0.050	2	800	1	2/1	11/04/19 13:35	
						equip	EWB5				
6	BA02090	BA02090W19			1,0.050	1,2	800	1	2/1	11/04/19 13:35	90587
						equip	EWB5				
7	BA02091	BA02091W14			1,0.050	1,2	800	1	2/1	11/04/19 13:35	90587
						equip	EWB5				
8	BA02160	BA02160W16			1,0.050	1,2	800	1	2/1	11/04/19 13:35	90599
						equip	EWB5				
9	BA02214	BA02214W21			1,0.050	1,2	800	1	2/1	11/04/19 13:35	90611
						equip	EWB5				
10	BA02216	BA02216W13			1,0.050	1,2	800	1	2/1	11/04/19 13:35	90611
						equip	EWB5				
11	BA02301	BA02301W13			1,0.050	1,2	800	1	2/1	11/04/19 13:35	90625
						equip	EWB5				

Solvent and Lot#	
PH Strips	HC863463
Dichloromethane (DCM)	59130
1+1 H2SO4	11/1/19
10N NaOH	10/25/19
Filter Paper	400171
B. Na2SO4	2019020631

Extraction COC Transfer	
Extraction lab employee Initials	SS
GC analyst's initials	MA
Date	11/7/19
Time	1:30 pm
Refrigerator	GC_C

	Technician's Initials
Scanned By	DL
Sample Preparation	DL,YL,RB
Extraction	RB,DL
Concentration	DL

Modified	11/14/19 9:54:11 AM

Reviewed By: MA 247 of 630 **Date** 11/14/19

Injection Log

Directory: M:\LINUS\DATA\L191028\

Vial	FileName	Multiplier	SampleName	Misc Info	Injected
2	1028L002.D	1	SV Tune 10/01/19		28 Oct 19 10:20
4	1028L004.D	1	5 SIM 10/28/19(2)		28 Oct 19 12:26
5	1028L005.D	1	0.1 SIM 10/28/19		28 Oct 19 12:51
6	1028L006.D	1	0.2 SIM 10/28/19		28 Oct 19 13:13
7	1028L007.D	1	0.5 SIM 10/28/19		28 Oct 19 13:35
8	1028L008.D	1	1 SIM 10/28/19		28 Oct 19 13:57
9	1028L009.D	1	20 SIM 10/28/19		28 Oct 19 14:19
10	1028L010.D	1	50 SIM 10/28/19		28 Oct 19 14:42
11	1028L011.D	1	100 SIM 10/28/19		28 Oct 19 15:04
12	1028L012.D	1	SS SIM 10/28/19		28 Oct 19 15:55
57	1028L257.D	1	SV Tune 10/01/19		12 Nov 19 9:18
58	1028L258.D	1	5 SIM 10/28/19 (1)		12 Nov 19 9:35
59	1028L259.D	1.25	191104A BLK 1/800		12 Nov 19 10:04
60	1028L260.D	1.25	191104A LCS-2 1/800		12 Nov 19 10:26
61	1028L261.D	1.25	191104A LCSD-2 1/800		12 Nov 19 10:48
67	1028L267.D	1.25	BA02301W13 1/800		12 Nov 19 13:01
68	1028L268.D	1	5 SIM 10/28/19 (1)		12 Nov 19 13:40

ORGANICS
Calibration Data

Semi-Volatile Analysis by GC-MS
EPA 8270

Form 6
Initial Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Initial Cal. Date: 11/21/19
Matrix: Instrument: Yoda
Initials: MA

			1121Y003.D	1121Y004.D	1121Y005.D	1121Y006.D	1121Y007.D	1121Y008.D	1121Y009.D	1121Y010.D	1121Y011.D							
		Compound	4	5	10	20	40	50	60	80	91		Avg	%RSD	Type	r^2	Q	MRF
1	I	1,4-dichlorobenzene-D4(IS)	ISTD															
2		1,4-Dioxane	0.4131	0.4262	0.6088	0.5154	0.4095	0.4466	0.4353	0.4216	0.5029		0.46	14				
3	TM	n-Nitrosodimethylamine	0.7472	0.7900	0.7145	0.6353	0.6209	0.6613	0.7224	0.7296	0.7209		0.70	7.8	TM			
4	TM	Pyridine	1.503	1.671	1.847	1.602	1.612	1.772	1.882	1.932	1.865		1.7	8.6	TM			
5	S	2-Fluorophenol (S)	1.487	1.348	1.400	1.254	1.237	1.355	1.453	1.534	1.468		1.4	7.4	S			
6	S	Phenol-D6 (S)	1.756	1.549	1.642	1.478	1.476	1.633	1.747	1.861	1.785		1.7	8.4	S			
7	*TM	Phenol	1.749	1.801	1.921	1.714	1.815	1.992	2.160	2.248	2.228		2.0	11	*TM			0.800
8	TM	Aniline			1.047	1.052	1.148	1.169	1.201	1.269	1.211		1.2	7.1	TM			
9	TM	Bis (2-chloroethyl) ether	0.7596	0.7864	0.8586	0.7722	0.7720	0.8416	0.9033	0.9359	0.9016		0.84	8.0	TM			0.700
10	TM	2-Chlorophenol	1.357	1.382	1.497	1.364	1.378	1.499	1.627	1.645	1.601		1.5	8.0	TM			0.800
11	TM	1,3-DCB	1.536	1.641	1.694	1.502	1.551	1.693	1.828	1.878	1.803		1.7	8.1	TM			
12	*TM	1,4-DCB	1.556	1.618	1.733	1.554	1.576	1.738	1.843	1.912	1.838		1.7	8.0	*TM			
13	TM	Benzyl alcohol	0.7592	0.7688	0.8337	0.7639	0.7868	0.8726	0.9274	0.9523	0.9245		0.84	9.2	TM			
14	TM	1,2-DCB	1.441	1.559	1.644	1.456	1.460	1.604	1.710	1.771	1.713		1.6	7.8	TM			
15	TM	2-Methylphenol	1.088	1.109	1.215	1.070	1.076	1.253	1.346	1.314	1.342		1.2	9.8	TM			0.700
16	TM	Bis (2-chloroisopropyl) ether	0.8788	0.9016	0.9685	0.8381	0.8636	0.9380	0.9966	1.034	0.9974		0.94	7.3	TM			
17	TM	Acetophenone	1.946	1.990	2.180	1.908	1.996	2.186	2.386	2.456	2.392		2.2	9.8	TM			0.010
18	TM	3&4-Methylphenol	1.435	1.509	1.633	1.441	1.512	1.696	1.829	1.913	1.862		1.6	11	TM			0.600
19	**TM	n-Nitrosodi-n-propylamine	1.093	1.149	1.236	1.108	1.128	1.259	1.349	1.390	1.363		1.2	9.5	**TM			0.500
20	TM	Hexachloroethane	0.5962	0.6514	0.7001	0.6119	0.6291	0.6831	0.7309	0.7571	0.7360		0.68	8.6	TM			0.300
21	I	Napthalene-D8(IS)	ISTD															
22	S	Nitrobenzene-D5(S)	0.4909	0.4400	0.4480	0.4249	0.4251	0.4425	0.4519	0.4695	0.4641		0.45	4.7	S			
23	TM	Nitrobenzene	0.4203	0.4487	0.4724	0.4405	0.4454	0.4667	0.4790	0.4868	0.4882		0.46	5.1	TM			0.200
24	TM	Isophorone	0.6864	0.7296	0.7374	0.7047	0.7298	0.7674	0.7743	0.7950	0.7997		0.75	5.3	TM			0.400
25	*TM	2-Nitrophenol	0.1792	0.1931	0.2068	0.2007	0.2081	0.2209	0.2244	0.2308	0.2328		0.21	8.6	*TM			0.100
26	TM	2,4-Dimethylphenol	0.2989	0.3139	0.3292	0.3055	0.3201	0.3373	0.3422	0.3500	0.3576		0.33	6.2	TM			0.200
27	TML	Benzoic acid	0.0982	0.1215	0.1867	0.2338	0.2843	0.3119	0.3253	0.3097	0.3131		0.24	36	TML	0.998		
28	TM	Bis (2-chloroethoxy) methane	0.3582	0.3873	0.3992	0.3839	0.3958	0.4153	0.4208	0.4286	0.4365		0.40	6.2	TM			0.300
29	*TM	2,4-Dichlorophenol	0.2978	0.3162	0.3333	0.3182	0.3286	0.3510	0.3576	0.3652	0.3745		0.34	7.6	*TM			0.200
30	TM	1,2,4-Trichlorobenzene	0.3477	0.3741	0.3873	0.3624	0.3854	0.3994	0.4100	0.4254	0.4290		0.39	7.0	TM			
31	TM	3,4-Dimethylphenol	0.4850	0.4923	0.5178	0.4946	0.5265	0.5486	0.5603	0.5755	0.5762		0.53	6.8	TM			
32	TM	Naphthalene	0.9679	1.050	1.070	1.002	1.044	1.102	1.121	1.156	1.183		1.1	6.5	TM			0.700
33	TM	4-Chloroaniline			0.3471	0.3393	0.3746	0.4069	0.3980	0.3986	0.3929		0.38	7.1	TM			0.010
34	TM	2,6-Dichlorophenol	0.2883	0.3109	0.3193	0.3043	0.3167	0.3407	0.3496	0.3553	0.3608		0.33	7.7	TM			
35	TM	Hexachloropropene	0.2899	0.3123	0.3296	0.3193	0.3388	0.3526	0.3667	0.3769	0.3786		0.34	9.0	TM			

Semi-Volatile Analysis by GC-MS
EPA 8270

Form 6
Initial Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Initial Cal. Date: 11/21/19
Matrix: Instrument: Yoda Initials:

		Compound	4	5	10	20	40	50	60	80	91		Avg	%RSD	Type		Q	
36	*TM	Hexachlorobutadiene	0.2483	0.2674	0.2753	0.2570	0.2714	0.2788	0.2882	0.2985	0.3013		0.28	6.4	*TM			0.010
37	TM	Caprolactum	0.1060	0.1109	0.1188	0.1116	0.1158	0.1233	0.1260	0.1284	0.1285		0.12	6.9	TM			0.010
38	*TM	4-Chloro-3-methylphenol	0.3450	0.3598	0.3803	0.3528	0.3721	0.3927	0.4005	0.4114	0.4181		0.38	6.8	*TM			0.200
39	TM	2-Methylnaphthalene	0.6586	0.6946	0.7298	0.6852	0.7108	0.7591	0.7694	0.7921	0.8092		0.73	7.0	TM			0.400
40	TM	1-Methylnaphthalene	0.6864	0.7167	0.7473	0.6960	0.7403	0.7824	0.7954	0.8312	0.8369		0.76	7.3	TM			
41	I	Acenaphthene-D10(IS)	ISTD															
42	**TM	Hexachlorocyclopentadiene			0.4047	0.4452	0.5371	0.5778	0.5356	0.5014	0.5552		0.51	12	**TM			0.050
43	TM	1,2,4,5-Tetrachlorobenzene	0.6252	0.6692	0.6757	0.6442	0.6972	0.7328	0.7295	0.7660	0.7864		0.70	7.8	TM			0.010
44	*TM	2,4,6-Trichlorophenol	0.3803	0.4337	0.4321	0.4274	0.4438	0.4740	0.4637	0.4817	0.4911		0.45	7.7	*TM			0.200
45	TM	2,4,5-Trichlorophenol	0.4406	0.4440	0.4619	0.4489	0.4678	0.5007	0.4912	0.5126	0.5208		0.48	6.4	TM			0.200
46	S	2-Fluorobiphenyl(S)	1.652	1.486	1.453	1.406	1.410	1.509	1.468	1.538	1.539		1.5	5.1	S			
47	TM	1,1'-Biphenyl	1.417	1.439	1.478	1.431	1.492	1.585	1.553	1.631	1.656		1.5	5.9	TM			0.010
48	TM	2-Chloronaphthalene	1.135	1.191	1.236	1.169	1.228	1.300	1.273	1.322	1.343		1.2	5.7	TM			0.800
49	TM	2-Nitroaniline	0.3493	0.3785	0.3935	0.3749	0.3886	0.4159	0.4088	0.4204	0.4192		0.39	6.1	TM			0.010
50	TM	Dimethyl phthalate	1.421	1.459	1.487	1.426	1.501	1.600	1.555	1.609	1.614		1.5	5.1	TM			0.010
51	TM	2,6-DNT	0.2894	0.2971	0.3276	0.3293	0.3389	0.3693	0.3603	0.3705	0.3755		0.34	9.4	TM			0.200
52	TM	Acenaphthylene	1.775	1.825	1.867	1.810	1.887	2.003	1.960	2.039	2.040		1.9	5.3	TM			0.900
53	TM	3-Nitroaniline	0.3368	0.3525	0.3811	0.3775	0.3933	0.4173	0.4102	0.4186	0.4220		0.39	7.8	TM			0.010
54	*TM	Acenaphthene	1.162	1.167	1.230	1.200	1.284	1.375	1.344	1.412	1.459		1.3	8.5	*TM			0.900
55	**TM	2,4-Dinitrophenol				0.1695	0.2095	0.2326	0.2385	0.2537	0.2583		0.23	15	**TM			0.010
56	**TM	4-Nitrophenol	0.0201	0.0218	0.0251	0.0236	0.0259	0.0275	0.0256	0.0271	0.0273		0.02	10	**TM			0.010
57	TM	Dibenzofuran	1.703	1.732	1.754	1.677	1.756	1.875	1.851	1.925	1.953		1.8	5.6	TM			0.800
58	TM	2,4-DNT	0.4206	0.4414	0.4553	0.4644	0.4861	0.5108	0.5051	0.5266	0.5373		0.48	8.3	TM			0.200
59	TM	2,3,4,6-Tetrachlorophenol	0.3407	0.3718	0.3800	0.3806	0.4047	0.4310	0.4264	0.4400	0.4478		0.40	9.0	TM			0.010
60	TM	Diethyl phthalate	1.477	1.526	1.527	1.479	1.516	1.617	1.570	1.621	1.623		1.6	3.8	TM			0.010
61	TM	4-Chlorophenyl phenyl ether	0.7839	0.8192	0.8394	0.8083	0.8621	0.9335	0.9288	0.9951	1.013		0.89	9.4	TM			0.400
62	TM	Fluorene	1.340	1.374	1.424	1.371	1.476	1.601	1.583	1.705	1.729		1.5	9.8	TM			0.900
63	TM	4-Nitroaniline	0.2712	0.2968	0.3093	0.2988	0.3132	0.3343	0.3188	0.3244	0.3253		0.31	6.2	TM			0.010
64	S	2,4,6-Tribromophenol(S)	0.3026	0.2844	0.2722	0.2744	0.2883	0.3138	0.3195	0.3429	0.3559		0.31	9.7	S			
65	I	Phenanthrene-D10(IS)	ISTD															
66	TM	4,6-Dinitro-2-methylphenol			0.1316	0.1466	0.1593	0.1737	0.1764	0.1861	0.1865		0.17	13	TM			0.010
67	TM	Diphenyl amine		0.5641	0.5584	0.5578	0.6050	0.6307	0.6433	0.6780	0.6789		0.61	8.3	TM			
68	*TM	n-Nitrosodiphenylamine		0.5641	0.5584	0.5578	0.6050	0.6307	0.6433	0.6780	0.6789		0.61	8.3	*TM			0.010
69	TM	1,2-Diphenylhydrazine	0.6919	0.7397	0.7428	0.7141	0.7574	0.7929	0.7830	0.8128	0.8106		0.76	5.6	TM			
70	TM	4-Bromophenyl phenyl ether	0.2326	0.2459	0.2506	0.2455	0.2597	0.2772	0.2835	0.2942	0.2998		0.27	9.0	TM			0.100

Semi-Volatile Analysis by GC-MS
EPA 8270

Form 6
Initial Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Initial Cal. Date: 11/21/19
Matrix: Instrument: Yoda Initials:

		Compound	4	5	10	20	40	50	60	80	91		Avg	%RSD	Type		Q	
71	TM	Hexachlorobenzene	0.2473	0.2716	0.2574	0.2566	0.2765	0.2965	0.2962	0.3085	0.3143		0.28	8.7	TM			0.100
72	TM	Atrazine		0.2382	0.2260	0.2098	0.2296	0.2382	0.2397	0.2449	0.2454		0.23	5.1	TM			0.010
73	*TM	Pentachlorophenol			0.1444	0.1557	0.1763	0.1911	0.1903	0.2076	0.2104		0.18	14	*TM			0.050
74	TM	Phenanthrene	1.008	1.049	1.046	1.011	1.056	1.105	1.113	1.171	1.184		1.1	5.9	TM			0.700
75	TM	Anthracene	1.045	1.093	1.101	1.059	1.117	1.168	1.172	1.234	1.241		1.1	6.3	TM			0.700
76	TM	Carbazol	0.9216	0.9673	1.003	0.9601	1.009	1.064	1.071	1.110	1.101		1.0	6.5	TM			0.010
77	TM	Di-n-butylphthalate	1.193	1.246	1.258	1.241	1.312	1.394	1.408	1.456	1.478		1.3	7.9	TM			0.010
78		2-Nitrodiphenylamine	0.2511	0.2717	0.2895	0.3048	0.3243	0.3416	0.3486	0.3566	0.3603		0.32	12				
79	*TM	Fluoranthene	1.196	1.214	1.252	1.210	1.307	1.376	1.389	1.459	1.454		1.3	8.0	*TM			0.600
80	I	Chrysene-D12(IS)	ISTD															
81	TM	Benzidine				0.2277	0.2870	0.3338	0.3091	0.3109	0.3119		0.30	12	TM			
82	TM	Pyrene	1.206	1.248	1.263	1.203	1.189	1.276	1.188	1.182	1.180		1.2	3.1	TM			0.600
83	S	Terphenyl-D14(S)	1.165	1.060	0.9868	0.9558	0.9291	0.9737	0.9485	0.9434	1.038		1.0	7.6	S			
84	TM	Butyl benzylphthalate	0.5532	0.5683	0.5820	0.5395	0.5376	0.5742	0.5448	0.5336	0.5306		0.55	3.4	TM			0.010
85	TM	3,3'-Dichlorobenzidine	0.3670	0.3556	0.3061	0.3163	0.3591	0.4126	0.3916	0.3865	0.3878		0.36	9.7	TM			0.010
86	TM	Benz (a) anthracene	1.298	1.428	1.370	1.289	1.276	1.359	1.302	1.327	1.342		1.3	3.6	TM			0.800
87	TM	Bis (2-ethylhexyl) phthalate	0.8211	0.8729	0.8848	0.8315	0.8196	0.8736	0.8456	0.8374	0.8443		0.85	2.8	TM			0.010
88	TM	Chrysene	1.232	1.177	1.234	1.165	1.158	1.248	1.193	1.137	1.138		1.2	3.6	TM			0.700
89	*TM	Di-n-octylphthalate	1.291	1.381	1.388	1.305	1.300	1.379	1.301	1.309	1.309		1.3	3.1	*TM			0.010
90	I	Perylene-D12(IS)	ISTD															
91	TM	Benzo (b) fluoranthene	1.124	1.138	1.268	1.226	1.210	1.412	1.326	1.337	1.342		1.3	7.8	TM			0.700
92	TM	Benzo (k) fluoranthene	1.085	1.156	1.043	1.031	1.178	1.140	1.189	1.320	1.346		1.2	9.5	TM			0.700
93	*TM	Benzo (a) pyrene	1.031	1.054	1.091	1.052	1.118	1.191	1.159	1.226	1.243		1.1	7.0	*TM			0.700
94	TM	Indeno (1,2,3-cd) pyrene	1.226	1.291	1.300	1.259	1.321	1.402	1.382	1.439	1.448		1.3	6.0	TM			0.500
95	TM	Dibenz (a,h) anthracene	1.076	1.111	1.142	1.090	1.166	1.251	1.222	1.280	1.306		1.2	7.2	TM			0.400
96	TM	Benzo (g,h,i) perylene	1.006	1.037	1.048	1.011	1.049	1.115	1.089	1.123	1.129		1.1	4.5	TM			0.500
97																		
98																		
99																		
100																		
101																		
102																		
103																		
104																		
105																		

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y191121\1121Y003.D Vial: 3
Acq On : 21 Nov 19 14:07 Operator: MA,SS
Sample : 4ug/ml 8270 11/21/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 22 15:55 2019 Quant Results File: Y1121ND.RES

Quant Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 15:42:05 2019
Response via : Initial Calibration
DataAcq Meth : SVOC1011

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.47	152	171877	40.00000	ppb		0.00
21) Napthalene-D8(IS)	6.91	136	699682	40.00000	ppb		0.00
41) Acenaphthene-D10(IS)	8.93	164	435091	40.00000	ppb		0.00
65) Phenanthrene-D10(IS)	10.66	188	880555	40.00000	ppb		0.00
80) Chrysene-D12(IS)	13.75	240	903111	40.00000	ppb		0.00
90) Perylene-D12(IS)	15.62	264	1002643	40.00000	ppb		0.00
System Monitoring Compounds							
5) 2-Fluorophenol (S)	3.90	112	51113	8.54001	ppb		0.00
Spiked Amount 200.000			Recovery	= 4.270%			
6) Phenol-D6 (S)	5.06	99	60351	8.46840	ppb		-0.02
Spiked Amount 200.000			Recovery	= 4.234%			
22) Nitrobenzene-D5(S)	6.09	82	34346	4.35589	ppb		0.00
Spiked Amount 100.000			Recovery	= 4.356%			
46) 2-Fluorobiphenyl(S)	8.14	172	71869	4.41801	ppb		0.00
Spiked Amount 100.000			Recovery	= 4.418%			
64) 2,4,6-Tribromophenol(S)	9.85	330	26335	7.91248	ppb		0.00
Spiked Amount 200.000			Recovery	= 3.956%			
83) Terphenyl-D14(S)	12.52	244	105225	4.66036	ppb		0.00
Spiked Amount 100.000			Recovery	= 4.660%			
Target Compounds							Qvalue
2) 1,4-Dioxane	1.74	58	710	0.35582		#	1
3) n-Nitrosodimethylamine	1.96	42	12843	4.24143	ppb		88
4) Pyridine	1.99	79	25828	3.44888	ppb		97
7) Phenol	5.08	94	30055	3.57098	ppb		83
8) Aniline	5.10	93	15130	3.19391	ppb	#	74
9) Bis (2-chloroethyl) ether	5.17	63	13055	3.63084	ppb		94
10) 2-Chlorophenol	5.24	128	23332	3.66070	ppb		97
11) 1,3-DCB	5.41	146	26394	3.65488	ppb		96
12) 1,4-DCB	5.49	146	26744	3.64508	ppb		99
13) Benzyl alcohol	5.63	108	13049	3.60134	ppb		94
14) 1,2-DCB	5.67	146	24759	3.61216	ppb		99
15) 2-Methylphenol	5.76	107	18692	3.62060	ppb		99
16) Bis (2-chloroisopropyl) et	5.78	45	15104	3.75895	ppb		95
17) Acetophenone	5.93	105	33450	3.60387	ppb		95
18) 3&4-Methylphenol	5.93	107	49324	6.96583	ppb		95
19) n-Nitrosodi-n-propylamine	5.92	70	18786	3.55298	ppb		92
20) Hexachloroethane	6.05	117	10248	3.52118	ppb		89
23) Nitrobenzene	6.11	77	29406	3.64767	ppb		98
24) Isophorone	6.38	82	48023	3.67460	ppb		96
25) 2-Nitrophenol	6.47	139	12539	3.40134	ppb		93
26) 2,4-Dimethylphenol	6.52	122	20911	3.64149	ppb		98
27) Benzoic acid	6.59	105	6870	6.98276	ppb		94
28) Bis (2-chloroethoxy) metha	6.62	93	25066	3.55718	ppb		98
29) 2,4-Dichlorophenol	6.75	162	20834	3.52351	ppb		92
30) 1,2,4-Trichlorobenzene	6.84	180	24329	3.55547	ppb		98
31) 3,4-Dimethylphenol	6.86	107	33935	3.65526	ppb		98
32) Naphthalene	6.94	128	67722	3.59329	ppb		99
33) 4-Chloroaniline	6.99	127	21792	3.39619	ppb		92
34) 2,6-Dichlorophenol	7.00	162	20174	3.52345	ppb		97
35) Hexachloropropene	7.04	213	20281	3.40479	ppb		98
36) Hexachlorobutadiene	7.08	225	17375	3.59566	ppb		96
37) Caprolactum	7.36	55	7420	3.57025	ppb		94

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y191121\1121Y003.D Vial: 3
Acq On : 21 Nov 19 14:07 Operator: MA,SS
Sample : 4ug/ml 8270 11/21/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 22 15:55 2019 Quant Results File: Y1121ND.RES

Quant Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 15:42:05 2019
Response via : Initial Calibration
DataAcq Meth : SVOC1011

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
38)	4-Chloro-3-methylphenol	7.55	107	24140	3.61824 ppb		96
39)	2-Methylnaphthalene	7.73	142	46079	3.58746 ppb		99
40)	1-Methylnaphthalene	7.84	142	48029	3.61675 ppb		98
42)	Hexachlorocyclopentadiene	7.90	237	13066	2.36391 ppb		98
43)	1,2,4,5-Tetrachlorobenzene	7.91	216	27200	3.55745 ppb		99
44)	2,4,6-Trichlorophenol	8.05	196	16547	3.39912 ppb		95
45)	2,4,5-Trichlorophenol	8.10	196	19169	3.69855 ppb		94
47)	1,1'-Biphenyl	8.26	154	61663	3.72896 ppb		98
48)	2-Chloronaphthalene	8.28	162	49376	3.64897 ppb		99
49)	2-Nitroaniline	8.39	65	15196	3.54290 ppb		96
50)	Dimethyl phthalate	8.61	163	61840	3.74213 ppb		99
51)	2,6-DNT	8.67	165	12592	3.40721 ppb		98
52)	Acenaphthylene	8.77	152	77248	3.71436 ppb		99
53)	3-Nitroaniline	8.39	138	14652	3.45457 ppb		92
54)	Acenaphthene	8.97	154	50577	3.59732 ppb		98
55)	2,4-Dinitrophenol	9.00	184	2218	0.89820 ppb		90
56)	4-Nitrophenol	8.67	65	876	3.23673 ppb	#	74
57)	Dibenzofuran	9.17	168	74089	3.77841 ppb		99
58)	2,4-DNT	9.15	165	18301	3.48292 ppb		89
59)	2,3,4,6-Tetrachlorophenol	9.31	232	14824	3.38549 ppb		97
60)	Diethyl phthalate	9.43	149	64247	3.80951 ppb		98
61)	4-Chlorophenyl phenyl ethe	9.56	204	34106	3.53499 ppb		95
62)	Fluorene	9.56	166	58288	3.54590 ppb		99
63)	4-Nitroaniline	8.87	138	11801	3.49716 ppb		98
66)	4,6-Dinitro-2-methylphenol	9.62	198	7216	1.97776 ppb	#	77
67)	Diphenyl amine	9.69	169	94212	6.96393 ppb		99
68)	n-Nitrosodiphenylamine	9.69	169	94212	6.96393 ppb		99
69)	1,2-Diphenylhydrazine	9.75	77	60929	3.63908 ppb		97
70)	4-Bromophenyl phenyl ether	10.13	248	20479	3.50463 ppb		93
71)	Hexachlorobenzene	10.21	284	21775	3.52596 ppb		93
72)	Atrazine	10.32	200	9503	1.84482 ppb		97
73)	Pentachlorophenol	10.45	266	10529	2.62448 ppb		88
74)	Phenanthrene	10.69	178	88775	3.72528 ppb		99
75)	Anthracene	10.74	178	92014	3.67778 ppb		98
76)	Carbazol	10.93	167	81154	3.60423 ppb		100
77)	Di-n-butylphthalate	11.34	149	105020	3.58164 ppb		99
78)	2-Nitrodiphenylamine	11.51	167	11054	1.58658 ppb		92
79)	Fluoranthene	12.08	202	105288	3.63060 ppb	#	97
81)	Benzidine	12.23	184	26925	4.01919 ppb		99
82)	Pyrene	12.34	202	108905	3.96999 ppb		99
84)	Butyl benzylphthalate	13.08	149	49960	4.01214 ppb		91
85)	3,3'-Dichlorobenzidine	13.69	252	33143	4.02465 ppb		99
86)	Benz (a) anthracene	13.73	228	117193	3.89605 ppb		99
87)	Bis (2-ethylhexyl) phthala	13.75	149	74158	3.87394 ppb	#	95
88)	Chrysene	13.77	228	111291	4.15296 ppb		99
89)	Di-n-octylphthalate	14.51	149	116580	3.88466 ppb		94
91)	Benzo (b) fluoranthene	15.05	252	112725	3.55542 ppb		99
92)	Benzo (k) fluoranthene	15.09	252	108771	3.72354 ppb	#	98
93)	Benzo (a) pyrene	15.52	252	103381	3.65175 ppb		97
94)	Indeno (1,2,3-cd) pyrene	17.50	276	122956	3.65819 ppb		96
95)	Dibenz (a,h) anthracene	17.54	278	107866	3.63839 ppb		100
96)	Benzo (g,h,i) perylene	18.07	276	100853	3.76901 ppb		99

(#) = qualifier out of range (m) = manual integration

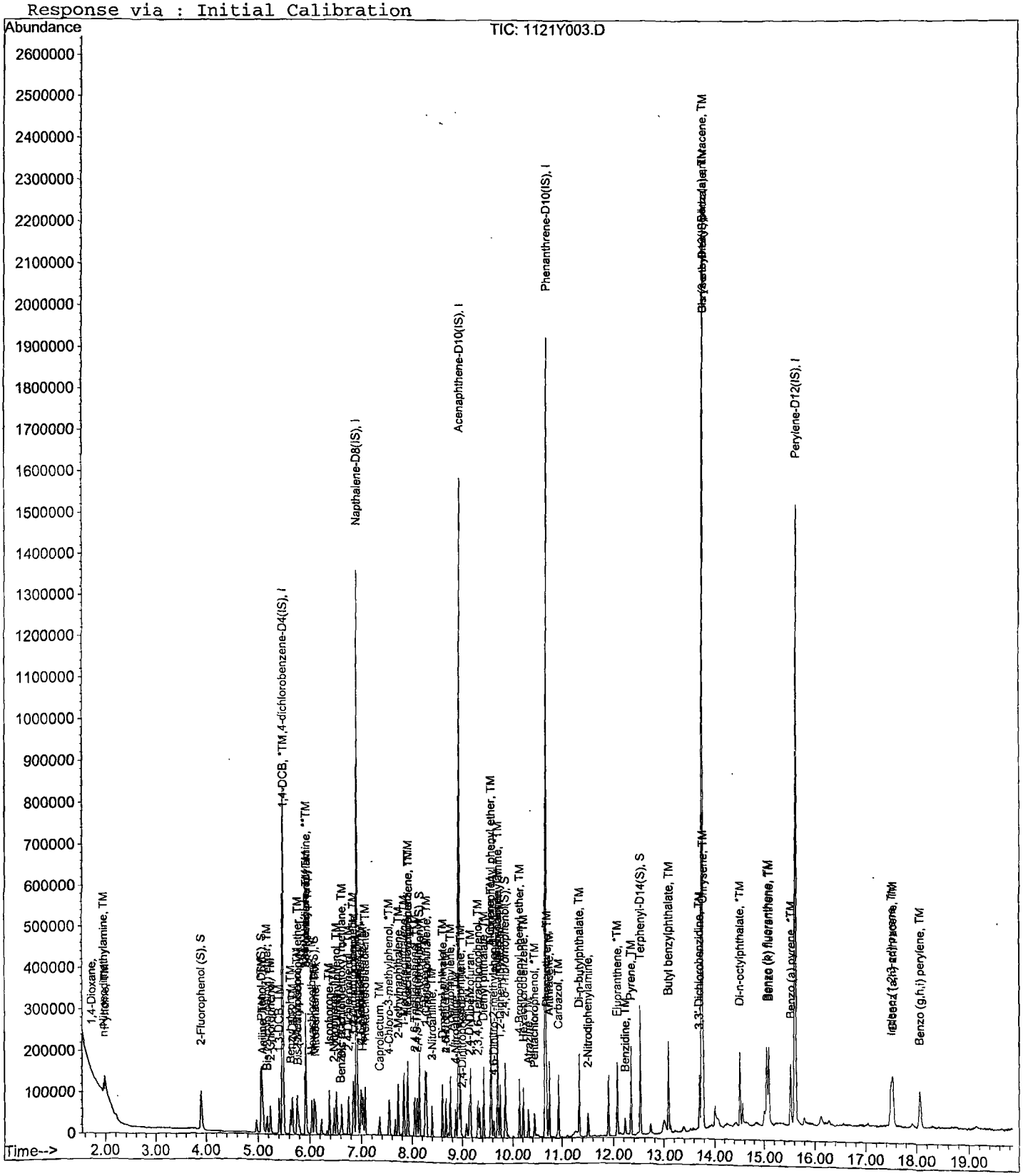
Quantitation Report

Data File : M:\YODA\DATA\Y191121\1121Y003.D
Acq On : 21 Nov 19 14:07
Sample : 4ug/ml 8270 11/21/19
Misc :

Vial: 3
Operator: MA,SS
Inst : Yoda
Multiplr: 1.00

Quant Time: Nov 22 15:55 2019 Quant Results File: Y1121ND.RES

Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 18:04:15 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y191121\1121Y004.D Vial: 4
Acq On : 21 Nov 19 14:35 Operator: MA,SS
Sample : 5ug/ml 8270 11/21/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 22 17:59 2019 Quant Results File: Y1121ND.RES

Quant Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 16:12:45 2019
Response via : Initial Calibration
DataAcq Meth : SVOC1011

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.48	152	178119	40.00000 ppb		0.00
21) Napthalene-D8(IS)	6.91	136	701942	40.00000 ppb		0.00
41) Acenaphthene-D10(IS)	8.93	164	437841	40.00000 ppb		0.00
65) Phenanthrene-D10(IS)	10.66	188	878554	40.00000 ppb		0.00
80) Chrysene-D12(IS)	13.75	240	894953	40.00000 ppb		0.00
90) Perylene-D12(IS)	15.61	264	1003571	40.00000 ppb		0.00
System Monitoring Compounds						
5) 2-Fluorophenol (S)	3.91	112	60020	9.67677 ppb		0.00
Spiked Amount 200.000			Recovery	= 4.839%		
6) Phenol-D6 (S)	5.07	99	68975	9.33934 ppb		0.00
Spiked Amount 200.000			Recovery	= 4.670%		
22) Nitrobenzene-D5(S)	6.09	82	38608	4.88065 ppb		0.00
Spiked Amount 100.000			Recovery	= 4.881%		
46) 2-Fluorobiphenyl(S)	8.14	172	81328	4.96808 ppb		0.00
Spiked Amount 100.000			Recovery	= 4.968%		
64) 2,4,6-Tribromophenol(S)	9.85	330	31127	9.29352 ppb		0.00
Spiked Amount 200.000			Recovery	= 4.647%		
83) Terphenyl-D14(S)	12.51	244	118567	5.29914 ppb		0.00
Spiked Amount 100.000			Recovery	= 5.299%		
Target Compounds						Qvalue
2) 1,4-Dioxane	1.75	58	949	0.45892	#	1
3) n-Nitrosodimethylamine	1.96	42	17590	5.60557 ppb		78
4) Pyridine	1.99	79	37212	4.79487 ppb		97
7) Phenol	5.08	94	40110	4.59865 ppb		87
8) Aniline	5.10	93	21048	4.28749 ppb	#	77
9) Bis (2-chloroethyl) ether	5.17	63	17508	4.69867 ppb		96
10) 2-Chlorophenol	5.24	128	30773	4.65897 ppb		94
11) 1,3-DCB	5.40	146	36544	4.88305 ppb		97
12) 1,4-DCB	5.50	146	36021	4.73744 ppb		96
13) Benzyl alcohol	5.63	108	17118	4.55877 ppb		99
14) 1,2-DCB	5.66	146	34722	4.88817 ppb		99
15) 2-Methylphenol	5.76	107	24694	4.61556 ppb		98
16) Bis (2-chloroisopropyl) et	5.78	45	20074	4.82076 ppb		92
17) Acetophenone	5.92	105	44298	4.60536 ppb		100
18) 3&4-Methylphenol	5.93	107	67207	9.15876 ppb		97
19) n-Nitrosodi-n-propylamine	5.92	70	25583	4.66893 ppb		97
20) Hexachloroethane	6.05	117	14504	4.80888 ppb		98
23) Nitrobenzene	6.11	77	39369	4.86780 ppb		97
24) Isophorone	6.38	82	64013	4.88234 ppb		95
25) 2-Nitrophenol	6.47	139	16944	4.58144 ppb		87
26) 2,4-Dimethylphenol	6.52	122	27539	4.78027 ppb		99
27) Benzoic acid	6.60	105	10661	5.63187 ppb		89
28) Bis (2-chloroethoxy) metha	6.62	93	33987	4.80766 ppb		95
29) 2,4-Dichlorophenol	6.75	162	27742	4.67670 ppb		96
30) 1,2,4-Trichlorobenzene	6.84	180	32824	4.78149 ppb		97
31) 3,4-Dimethylphenol	6.86	107	43196	4.63781 ppb		98
32) Naphthalene	6.94	128	92144	4.87336 ppb		98
33) 4-Chloroaniline	6.99	127	29189	4.53434 ppb		94
34) 2,6-Dichlorophenol	7.00	162	27277	4.74867 ppb		96
35) Hexachloropropene	7.04	213	27403	4.58562 ppb		96
36) Hexachlorobutadiene	7.08	225	23460	4.83929 ppb		98
37) Caprolactum	7.35	55	9733	4.66811 ppb		97

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y191121\1121Y004.D Vial: 4
Acq On : 21 Nov 19 14:35 Operator: MA,SS
Sample : 5ug/ml 8270 11/21/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 22 17:59 2019 Quant Results File: Y1121ND.RES

Quant Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 16:12:45 2019
Response via : Initial Calibration
DataAcq Meth : SVOC1011

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
38)	4-Chloro-3-methylphenol	7.55	107	31574	4.71725 ppb		98
39)	2-Methylnaphthalene	7.73	142	60949	4.72988 ppb		100
40)	1-Methylnaphthalene	7.84	142	62883	4.72006 ppb		100
42)	Hexachlorocyclopentadiene	7.91	237	19448	3.49645 ppb		97
43)	1,2,4,5-Tetrachlorobenzene	7.92	216	36627	4.76031 ppb		96
44)	2,4,6-Trichlorophenol	8.05	196	23738	4.84568 ppb		98
45)	2,4,5-Trichlorophenol	8.10	196	24300	4.65910 ppb		95
47)	1,1'-Biphenyl	8.26	154	78756	4.73271 ppb		97
48)	2-Chloronaphthalene	8.28	162	65185	4.78703 ppb		97
49)	2-Nitroaniline	8.39	65	20713	4.79884 ppb		95
50)	Dimethyl phthalate	8.61	163	79858	4.80211 ppb		99
51)	2,6-DNT	8.68	165	16261	4.37236 ppb	#	77
52)	Acenaphthylene	8.76	152	99907	4.77371 ppb		99
53)	3-Nitroaniline	8.39	138	19292	4.52000 ppb		93
54)	Acenaphthene	8.97	154	63851	4.51292 ppb		98
55)	2,4-Dinitrophenol	9.00	184	3397	1.36701 ppb	#	84
56)	4-Nitrophenol	8.67	65	1191	4.37298 ppb	#	74
57)	Dibenzofuran	9.16	168	94779	4.80321 ppb		98
58)	2,4-DNT	9.15	165	24158	4.56870 ppb		98
59)	2,3,4,6-Tetrachlorophenol	9.31	232	20347	4.61764 ppb		93
60)	Diethyl phthalate	9.42	149	83497	4.91984 ppb		99
61)	4-Chlorophenyl phenyl ethe	9.56	204	44837	4.61804 ppb		93
62)	Fluorene	9.56	166	75174	4.54443 ppb		96
63)	4-Nitroaniline	8.87	138	16245	4.78388 ppb		94
66)	4,6-Dinitro-2-methylphenol	9.62	198	10573	2.90445 ppb	#	74
67)	Diphenyl amine	9.70	169	123899	9.17918 ppb		100
68)	n-Nitrosodiphenylamine	9.70	169	123899	9.17918 ppb		100
69)	1,2-Diphenylhydrazine	9.75	77	81228	4.86252 ppb		97
70)	4-Bromophenyl phenyl ether	10.14	248	27005	4.63197 ppb		89
71)	Hexachlorobenzene	10.21	284	29823	4.84015 ppb		95
72)	Atrazine	10.31	200	13082	2.54540 ppb		93
73)	Pentachlorophenol	10.44	266	13695	3.42141 ppb		96
74)	Phenanthrene	10.69	178	115216	4.84584 ppb		99
75)	Anthracene	10.75	178	120056	4.80954 ppb		98
76)	Carbazol	10.93	167	106227	4.72853 ppb		99
77)	Di-n-butylphthalate	11.34	149	136821	4.67682 ppb		99
78)	2-Nitrodiphenylamine	11.51	167	14920	2.14635 ppb		97
79)	Fluoranthene	12.08	202	133347	4.60862 ppb	#	97
81)	Benzidine	12.23	184	22751	3.42708 ppb		99
82)	Pyrene	12.34	202	139635	5.13662 ppb		99
84)	Butyl benzylphthalate	13.08	149	63571	5.15174 ppb		88
85)	3,3'-Dichlorobenzidine	13.69	252	39776	4.87415 ppb		97
86)	Benz (a) anthracene	13.73	228	159783	5.36036 ppb		100
87)	Bis (2-ethylhexyl) phthala	13.75	149	97649	5.14758 ppb	#	96
88)	Chrysene	13.78	228	131677	4.95848 ppb		100
89)	Di-n-octylphthalate	14.51	149	154516	5.19570 ppb		96
91)	Benzo (b) fluoranthene	15.05	252	142727	4.49753 ppb		99
92)	Benzo (k) fluoranthene	15.09	252	145010	4.95951 ppb		98
93)	Benzo (a) pyrene	15.52	252	132183	4.66482 ppb		96
94)	Indeno (1,2,3-cd) pyrene	17.50	276	161903	4.81249 ppb		99
95)	Dibenz (a,h) anthracene	17.54	278	139369	4.69666 ppb		98
96)	Benzo (g,h,i) perylene	18.06	276	130106	4.85773 ppb		100

(#) = qualifier out of range (m) = manual integration

Quantitation Report

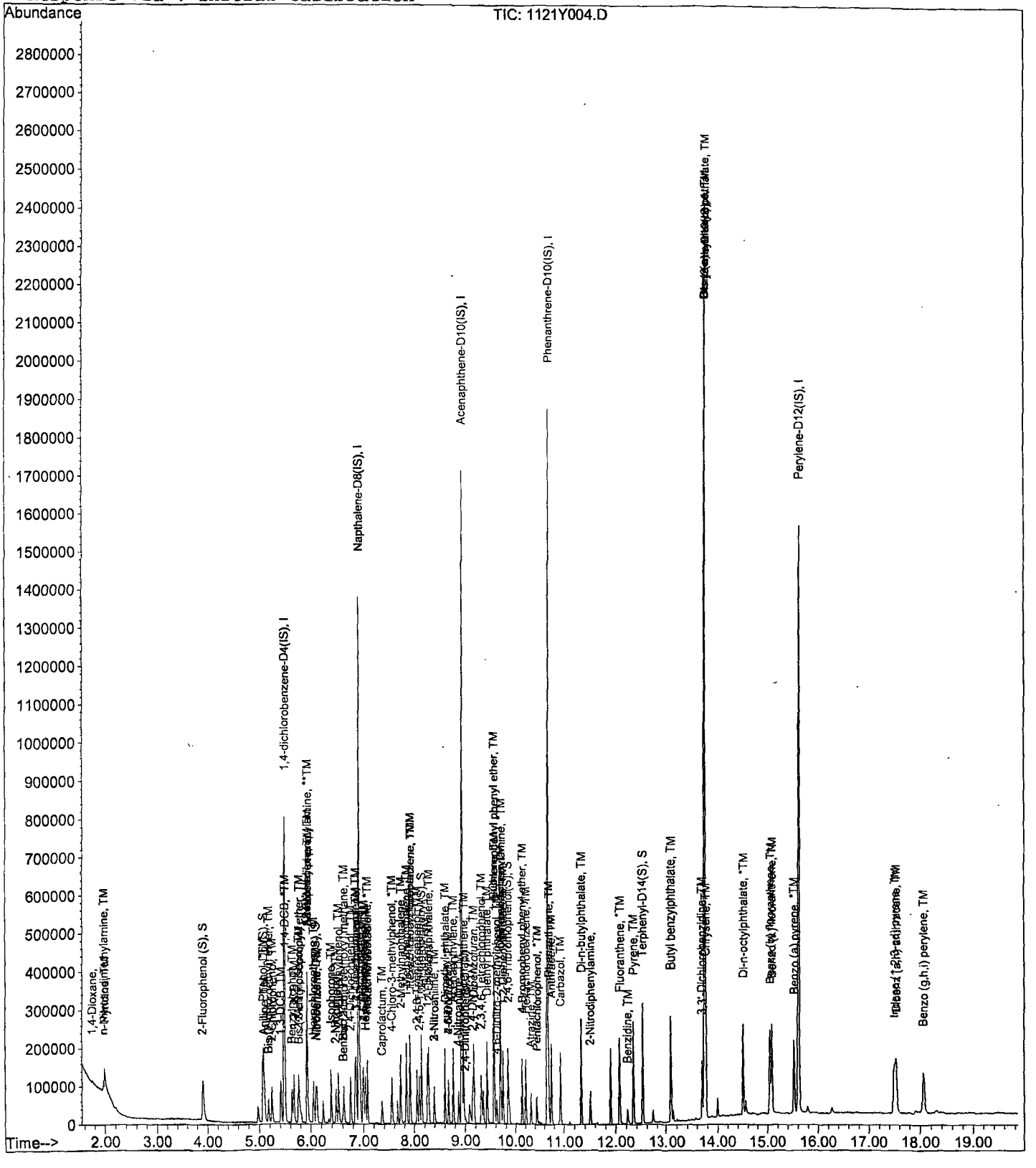
Data File : M:\YODA\DATA\Y191121\1121Y004.D
Acq On : 21 Nov 19 14:35
Sample : 5ug/ml 8270 11/21/19
Misc :

Vial: 4
Operator: MA,SS
Inst : Yoda
Multiplr: 1.00

Quant Time: Nov 22 17:59 2019

Quant Results File: Y1121ND.RES

Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 18:04:15 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y191121\1121Y005.D Vial: 5
Acq On : 21 Nov 19 15:37 Operator: MA,SS
Sample : 10ug/ml 8270 11/21/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 22 15:55 2019 Quant Results File: Y1121ND.RES

Quant Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 15:42:05 2019
Response via : Initial Calibration
DataAcq Meth : SVOC1011

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.47	152	168977	40.00000 ppb		0.00
21) Napthalene-D8(IS)	6.91	136	683114	40.00000 ppb		0.00
41) Acenaphthene-D10(IS)	8.93	164	434378	40.00000 ppb		0.00
65) Phenanthrene-D10(IS)	10.66	188	872989	40.00000 ppb		0.00
80) Chrysene-D12(IS)	13.75	240	893214	40.00000 ppb		0.00
90) Perylene-D12(IS)	15.62	264	988297	40.00000 ppb		0.00
System Monitoring Compounds						
5) 2-Fluorophenol (S)	3.90	112	118316	20.10761 ppb		0.00
Spiked Amount 200.000			Recovery = 10.054%			
6) Phenol-D6 (S)	5.06	99	138757	19.80441 ppb		-0.02
Spiked Amount 200.000			Recovery = 9.902%			
22) Nitrobenzene-D5(S)	6.09	82	76517	9.93955 ppb		0.00
Spiked Amount 100.000			Recovery = 9.940%			
46) 2-Fluorobiphenyl(S)	8.14	172	157762	9.71403 ppb		0.00
Spiked Amount 100.000			Recovery = 9.714%			
64) 2,4,6-Tribromophenol(S)	9.85	330	59109	17.78875 ppb		0.00
Spiked Amount 200.000			Recovery = 8.895%			
83) Terphenyl-D14(S)	12.52	244	220345	9.86711 ppb		0.00
Spiked Amount 100.000			Recovery = 9.867%			
Target Compounds						Qvalue
2) 1,4-Dioxane	1.74	58	2572	1.31107		53
3) n-Nitrosodimethylamine	1.96	42	30183	10.13908 ppb		98
4) Pyridine	1.98	79	78020	10.59700 ppb		97
7) Phenol	5.08	94	81147	9.80693 ppb		92
8) Aniline	5.10	93	44216	9.49410 ppb	#	72
9) Bis (2-chloroethyl) ether	5.17	63	36273	10.26135 ppb		98
10) 2-Chlorophenol	5.24	128	63228	10.09048 ppb		95
11) 1,3-DCB	5.41	146	71562	10.07954 ppb		99
12) 1,4-DCB	5.49	146	73207	10.14901 ppb		96
13) Benzyl alcohol	5.63	108	35220	9.88705 ppb		98
14) 1,2-DCB	5.67	146	69444	10.30527 ppb		96
15) 2-Methylphenol	5.76	107	51325	10.11217 ppb		95
16) Bis (2-chloroisopropyl) et	5.78	45	40914	10.35705 ppb		95
17) Acetophenone	5.93	105	92082	10.09107 ppb		99
18) 3&4-Methylphenol	5.93	107	137956	19.81735 ppb		96
19) n-Nitrosodi-n-propylamine	5.93	70	52205	10.04294 ppb		99
20) Hexachloroethane	6.05	117	29576	10.33662 ppb		87
23) Nitrobenzene	6.11	77	80674	10.24991 ppb		99
24) Isophorone	6.38	82	125937	9.87010 ppb		98
25) 2-Nitrophenol	6.47	139	35318	9.81274 ppb		95
26) 2,4-Dimethylphenol	6.52	122	56214	10.02667 ppb		98
27) Benzoic acid	6.62	105	31882	11.03508 ppb		96
28) Bis (2-chloroethoxy) metha	6.62	93	68176	9.90969 ppb		98
29) 2,4-Dichlorophenol	6.75	162	56920	9.85995 ppb		96
30) 1,2,4-Trichlorobenzene	6.84	180	66134	9.89930 ppb		98
31) 3,4-Dimethylphenol	6.86	107	88422	9.75524 ppb		94
32) Naphthalene	6.94	128	182795	9.93422 ppb		99
33) 4-Chloroaniline	6.99	127	59273	9.46150 ppb	#	93
34) 2,6-Dichlorophenol	7.00	162	54536	9.75589 ppb		97
35) Hexachloropropene	7.04	213	56293	9.67972 ppb		99
36) Hexachlorobutadiene	7.08	225	47021	9.96674 ppb		98
37) Caprolactum	7.36	55	20280	9.99472 ppb		97

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y191121\1121Y005.D Vial: 5
Acq On : 21 Nov 19 15:37 Operator: MA,SS
Sample : 10ug/ml 8270 11/21/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 22 15:55 2019 Quant Results File: Y1121ND.RES

Quant Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 15:42:05 2019
Response via : Initial Calibration
DataAcq Meth : SVOC1011

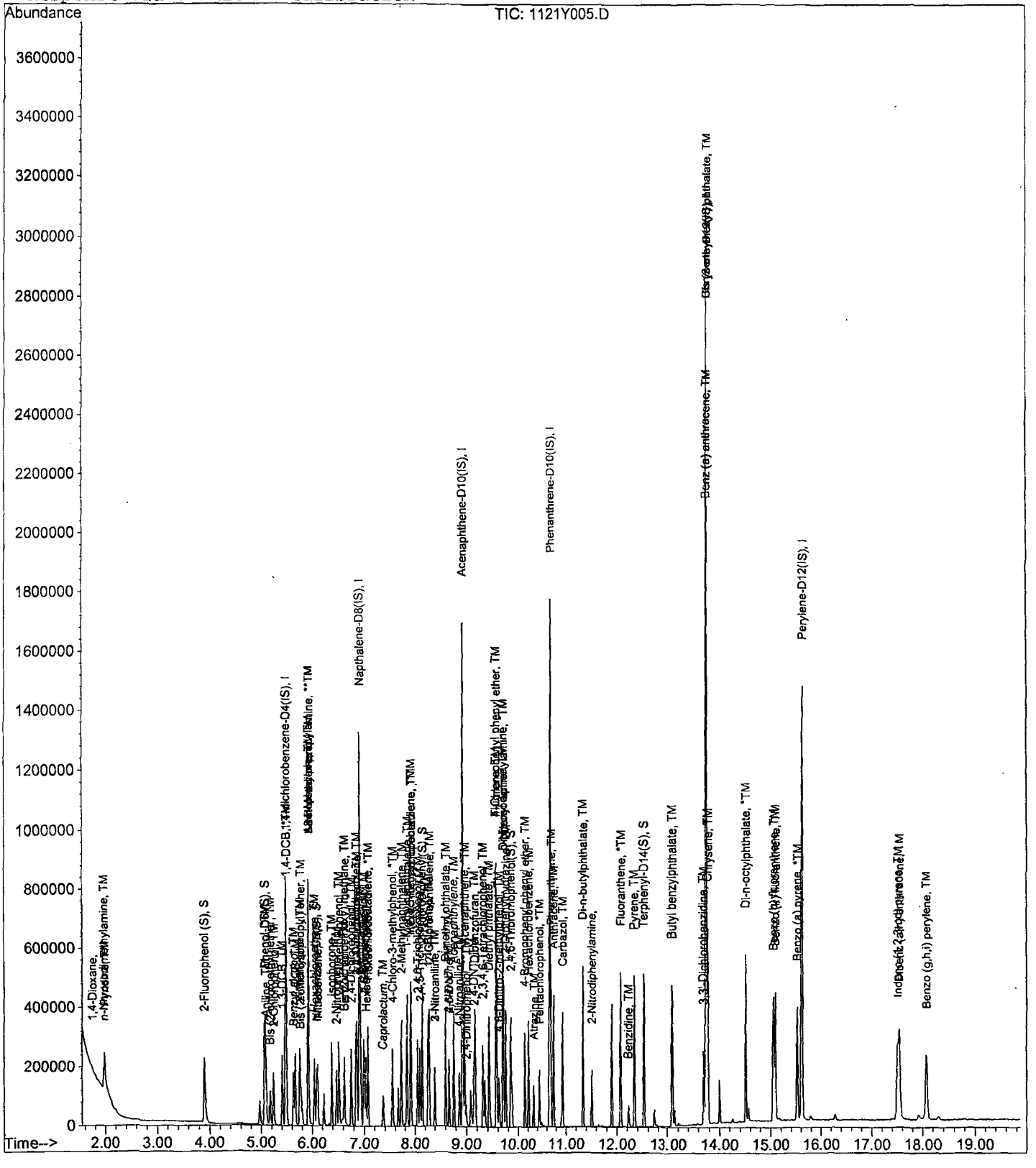
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
38)	4-Chloro-3-methylphenol	7.55	107	64955	9.97194	ppb		93
39)	2-Methylnaphthalene	7.73	142	124627	9.93812	ppb		98
40)	1-Methylnaphthalene	7.84	142	127619	9.84323	ppb		99
42)	Hexachlorocyclopentadiene	7.91	237	43952	7.96489	ppb		99
43)	1,2,4,5-Tetrachlorobenzene	7.92	216	73379	9.61289	ppb		97
44)	2,4,6-Trichlorophenol	8.05	196	46928	9.65586	ppb		94
45)	2,4,5-Trichlorophenol	8.10	196	50161	9.69416	ppb		97
47)	1,1'-Biphenyl	8.26	154	160463	9.71963	ppb		98
48)	2-Chloronaphthalene	8.28	162	134240	9.93686	ppb		98
49)	2-Nitroaniline	8.39	65	42728	9.97826	ppb		95
50)	Dimethyl phthalate	8.61	163	161526	9.79049	ppb		100
51)	2,6-DNT	8.68	165	35573	9.64134	ppb		76
52)	Acenaphthylene	8.77	152	202717	9.76335	ppb		99
53)	3-Nitroaniline	8.39	138	41383	9.77309	ppb		97
54)	Acenaphthene	8.97	154	133593	9.51748	ppb		99
55)	2,4-Dinitrophenol	9.00	184	13612	5.52138	ppb		97
56)	4-Nitrophenol	8.67	65	2725	10.08512	ppb	#	74
57)	Dibenzofuran	9.16	168	190431	9.72759	ppb		97
58)	2,4-DNT	9.15	165	49448	9.42604	ppb		99
59)	2,3,4,6-Tetrachlorophenol	9.31	232	41263	9.43906	ppb		93
60)	Diethyl phthalate	9.42	149	165836	9.84934	ppb		96
61)	4-Chlorophenyl phenyl ethe	9.56	204	91155	9.46347	ppb		92
62)	Fluorene	9.56	166	154613	9.42120	ppb		99
63)	4-Nitroaniline	8.87	138	33585	9.96907	ppb		96
66)	4,6-Dinitro-2-methylphenol	9.62	198	28721	7.94008	ppb	#	73
67)	Diphenyl amine	9.70	169	243760	18.17433	ppb		100
68)	n-Nitrosodiphenylamine	9.70	169	243760	18.17433	ppb		100
69)	1,2-Diphenylhydrazine	9.75	77	162117	9.76662	ppb		95
70)	4-Bromophenyl phenyl ether	10.14	248	54692	9.44072	ppb		93
71)	Hexachlorobenzene	10.21	284	56169	9.17412	ppb	#	88
72)	Atrazine	10.32	200	24663	4.82934	ppb		95
73)	Pentachlorophenol	10.45	266	31516	7.92382	ppb		96
74)	Phenanthrene	10.69	178	228351	9.66539	ppb		99
75)	Anthracene	10.75	178	240259	9.68633	ppb		99
76)	Carbazol	10.94	167	218795	9.80140	ppb		98
77)	Di-n-butylphthalate	11.34	149	274648	9.44787	ppb		98
78)	2-Nitrodiphenylamine	11.51	167	31586	4.57283	ppb		99
79)	Fluoranthene	12.08	202	273290	9.50542	ppb		98
81)	Benzidine	12.23	184	38752	5.84874	ppb		96
82)	Pyrene	12.34	202	281971	10.39279	ppb		99
84)	Butyl benzylphthalate	13.08	149	129957	10.55210	ppb		81
85)	3,3'-Dichlorobenzidine	13.70	252	68357	8.39277	ppb		99
86)	Benz (a) anthracene	13.73	228	305978	10.28485	ppb		100
87)	Bis (2-ethylhexyl) phthala	13.75	149	197577	10.43558	ppb		98
88)	Chrysene	13.78	228	275483	10.39389	ppb		99
89)	Di-n-octylphthalate	14.51	149	309876	10.44006	ppb		97
91)	Benzo (b) fluoranthene	15.06	252	313332	10.02614	ppb		99
92)	Benzo (k) fluoranthene	15.10	252	257771	8.95233	ppb		100
93)	Benzo (a) pyrene	15.52	252	269584	9.66082	ppb		99
94)	Indeno (1,2,3-cd) pyrene	17.51	276	321122	9.69272	ppb		98
95)	Dibenz (a,h) anthracene	17.55	278	282097	9.65343	ppb		99
96)	Benzo (g,h,i) perylene	18.08	276	259057	9.82182	ppb		98

(#) = qualifier out of range (m) = manual integration

Data File : M:\YODA\DATA\Y191121\1121Y005.D Vial: 5
Acq On : 21 Nov 19 15:37 Operator: MA,SS
Sample : 10ug/ml 8270 11/21/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 22 15:55 2019 Quant Results File: Y1121ND.RES

Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 18:04:15 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y191121\1121Y006.D Vial: 6
Acq On : 21 Nov 19 16:05 Operator: MA,SS
Sample : 20ug/ml 8270 11/21/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 22 15:55 2019 Quant Results File: Y1121ND.RES

Quant Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 15:42:05 2019
Response via : Initial Calibration
DataAcq Meth : SVOC1011

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.48	152	199064	40.00000	ppb		0.00
21) Napthalene-D8(IS)	6.91	136	758291	40.00000	ppb		0.00
41) Acenaphthene-D10(IS)	8.93	164	470271	40.00000	ppb		0.00
65) Phenanthrene-D10(IS)	10.66	188	939739	40.00000	ppb		0.00
80) Chrysene-D12(IS)	13.75	240	1001332	40.00000	ppb		0.00
90) Perylene-D12(IS)	15.61	264	1078368	40.00000	ppb		0.00
System Monitoring Compounds							
5) 2-Fluorophenol (S)	3.91	112	249667	36.01745	ppb		0.00
Spiked Amount 200.000			Recovery = 18.009%				
6) Phenol-D6 (S)	5.07	99	294157	35.63864	ppb		0.00
Spiked Amount 200.000			Recovery = 17.820%				
22) Nitrobenzene-D5(S)	6.09	82	161107	18.85299	ppb		0.00
Spiked Amount 100.000			Recovery = 18.853%				
46) 2-Fluorobiphenyl(S)	8.14	172	330526	18.79846	ppb		0.00
Spiked Amount 100.000			Recovery = 18.798%				
64) 2,4,6-Tribromophenol(S)	9.85	330	129026	35.86647	ppb		0.00
Spiked Amount 200.000			Recovery = 17.933%				
83) Terphenyl-D14(S)	12.51	244	478561	19.11619	ppb		0.00
Spiked Amount 100.000			Recovery = 19.116%				
Target Compounds							Qvalue
2) 1,4-Dioxane	1.74	58	5130	2.21977			94
3) n-Nitrosodimethylamine	1.96	42	63235	18.03137	ppb		94
4) Pyridine	1.98	79	159447	18.38350	ppb		96
7) Phenol	5.08	94	170623	17.50383	ppb		91
8) Aniline	5.10	93	104728	19.08852	ppb	#	76
9) Bis (2-chloroethyl) ether	5.17	63	76855	18.45559	ppb		95
10) 2-Chlorophenol	5.24	128	135758	18.39089	ppb		96
11) 1,3-DCB	5.41	146	149508	17.87547	ppb		100
12) 1,4-DCB	5.50	146	154683	18.20323	ppb		99
13) Benzyl alcohol	5.63	108	76033	18.11817	ppb		97
14) 1,2-DCB	5.67	146	144896	18.25222	ppb		98
15) 2-Methylphenol	5.76	107	106477	17.80762	ppb		97
16) Bis (2-chloroisopropyl) et	5.78	45	83414	17.92413	ppb		92
17) Acetophenone	5.92	105	189886	17.66405	ppb		99
18) 3&4-Methylphenol	5.93	107	286947	34.98981	ppb		99
19) n-Nitrosodi-n-propylamine	5.92	70	110325	18.01596	ppb		98
20) Hexachloroethane	6.05	117	60903	18.06811	ppb		95
23) Nitrobenzene	6.12	77	166997	19.11404	ppb		94
24) Isophorone	6.39	82	267166	18.86283	ppb		100
25) 2-Nitrophenol	6.47	139	76084	19.04342	ppb		90
26) 2,4-Dimethylphenol	6.52	122	115838	18.61318	ppb		99
27) Benzoic acid	6.60	105	88654	18.85200	ppb		98
28) Bis (2-chloroethoxy) metha	6.62	93	145536	19.05708	ppb		99
29) 2,4-Dichlorophenol	6.75	162	120650	18.82758	ppb		96
30) 1,2,4-Trichlorobenzene	6.84	180	137408	18.52887	ppb		97
31) 3,4-Dimethylphenol	6.86	107	187529	18.63818	ppb		98
32) Naphthalene	6.94	128	379858	18.59722	ppb		100
33) 4-Chloroaniline	6.99	127	128659	18.50122	ppb		96
34) 2,6-Dichlorophenol	7.00	162	115378	18.59362	ppb		98
35) Hexachloropropene	7.04	213	121057	18.75235	ppb		99
36) Hexachlorobutadiene	7.08	225	97450	18.60804	ppb		100
37) Caprolactum	7.38	55	42312	18.78553	ppb		97

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y191121\1121Y006.D Vial: 6
Acq On : 21 Nov 19 16:05 Operator: MA,SS
Sample : 20ug/ml 8270 11/21/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 22 15:55 2019 Quant Results File: Y1121ND.RES

Quant Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 15:42:05 2019
Response via : Initial Calibration
DataAcq Meth : SVOC1011

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
38)	4-Chloro-3-methylphenol	7.55	107	133766	18.49994 ppb		96
39)	2-Methylnaphthalene	7.73	142	259800	18.66330 ppb		100
40)	1-Methylnaphthalene	7.84	142	263891	18.33598 ppb		98
42)	Hexachlorocyclopentadiene	7.91	237	104680	17.52202 ppb		100
43)	1,2,4,5-Tetrachlorobenzene	7.92	216	151479	18.32966 ppb		99
44)	2,4,6-Trichlorophenol	8.05	196	100488	19.09822 ppb		99
45)	2,4,5-Trichlorophenol	8.10	196	105541	18.84018 ppb		93
47)	1,1'-Biphenyl	8.26	154	336399	18.82129 ppb		97
48)	2-Chloronaphthalene	8.28	162	274932	18.79801 ppb		98
49)	2-Nitroaniline	8.39	65	88142	19.01274 ppb		97
50)	Dimethyl phthalate	8.61	163	335325	18.77360 ppb		99
51)	2,6-DNT	8.68	165	77433	19.38486 ppb		79
52)	Acenaphthylene	8.76	152	425705	18.93812 ppb		99
53)	3-Nitroaniline	8.39	138	88770	19.36402 ppb		99
54)	Acenaphthene	8.97	154	282238	18.57264 ppb		99
55)	2,4-Dinitrophenol	9.00	184	39846	14.92897 ppb		95
56)	4-Nitrophenol	8.68	65	5546	18.95893 ppb		95
57)	Dibenzofuran	9.16	168	394383	18.60825 ppb		96
58)	2,4-DNT	9.15	165	109203	19.22802 ppb		98
59)	2,3,4,6-Tetrachlorophenol	9.31	232	89499	18.91062 ppb		95
60)	Diethyl phthalate	9.43	149	347798	19.07985 ppb		99
61)	4-Chlorophenyl phenyl ethe	9.56	204	190055	18.22506 ppb		91
62)	Fluorene	9.56	166	322405	18.14603 ppb		98
63)	4-Nitroaniline	8.88	138	70247	19.26001 ppb		80
66)	4,6-Dinitro-2-methylphenol	9.63	198	68893	17.69303 ppb		97
67)	Diphenyl amine	9.70	169	524220	36.30873 ppb		99
68)	n-Nitrosodiphenylamine	9.70	169	524220	36.30873 ppb		99
69)	1,2-Diphenylhydrazine	9.75	77	335520	18.77740 ppb		93
70)	4-Bromophenyl phenyl ether	10.14	248	115339	18.49521 ppb		93
71)	Hexachlorobenzene	10.21	284	120551	18.29110 ppb		91
72)	Atrazine	10.32	200	49292	8.96643 ppb		97
73)	Pentachlorophenol	10.44	266	73146	17.08423 ppb		99
74)	Phenanthrene	10.69	178	475206	18.68529 ppb		100
75)	Anthracene	10.75	178	497372	18.62784 ppb		99
76)	Carbazol	10.94	167	451106	18.77287 ppb		97
77)	Di-n-butylphthalate	11.34	149	583123	18.63456 ppb		99
78)	2-Nitrodiphenylamine	11.51	167	71614	9.63141 ppb		99
79)	Fluoranthene	12.08	202	568406	18.36571 ppb		98
81)	Benzidine	12.23	184	114011	15.34943 ppb		98
82)	Pyrene	12.34	202	602482	19.80839 ppb		99
84)	Butyl benzylphthalate	13.08	149	270124	19.56501 ppb		85
85)	3,3'-Dichlorobenzidine	13.69	252	158377	17.34569 ppb	#	99
86)	Benz (a) anthracene	13.74	228	645189	19.34516 ppb		98
87)	Bis (2-ethylhexyl) phthala	13.75	149	416311	19.61443 ppb	#	97
88)	Chrysene	13.78	228	583044	19.62285 ppb		100
89)	Di-n-octylphthalate	14.51	149	653172	19.62998 ppb		96
91)	Benzo (b) fluoranthene	15.06	252	660853	19.38003 ppb		100
92)	Benzo (k) fluoranthene	15.09	252	555866	17.69263 ppb		99
93)	Benzo (a) pyrene	15.52	252	567068	18.62410 ppb		99
94)	Indeno (1,2,3-cd) pyrene	17.51	276	678920	18.78083 ppb		99
95)	Dibenz (a,h) anthracene	17.55	278	587950	18.43929 ppb		99
96)	Benzo (g,h,i) perylene	18.08	276	545235	18.94528 ppb		98

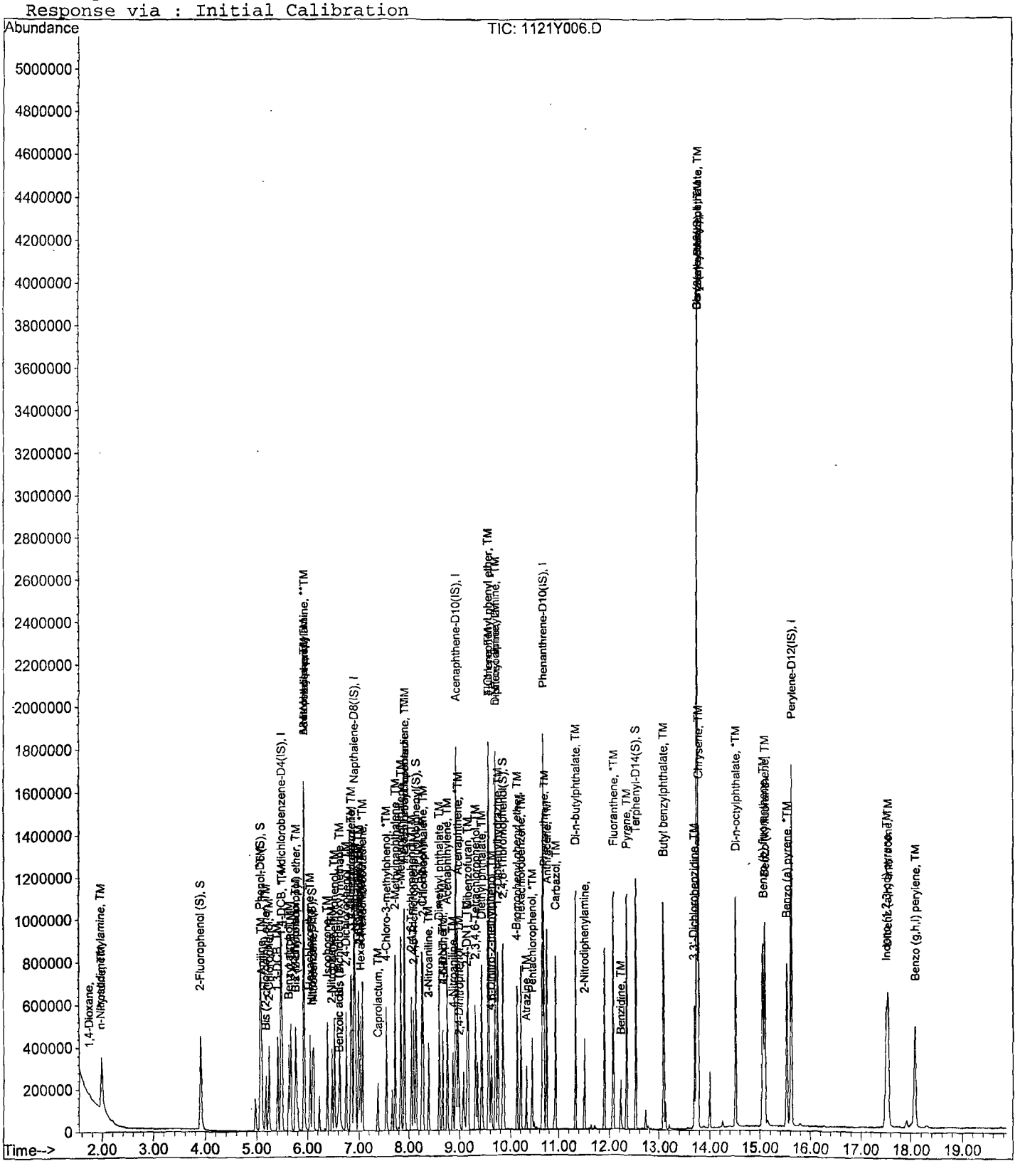
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y191121\1121Y006.D Vial: 6
Acq On : 21 Nov 19 16:05 Operator: MA,SS
Sample : 20ug/ml 8270 11/21/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 22 15:55 2019 Quant Results File: Y1121ND.RES

Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 18:04:15 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y191121\1121Y007.D Vial: 7
Acq On : 21 Nov 19 16:33 Operator: MA,SS
Sample : 40ug/ml 8270 11/21/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 22 15:55 2019 Quant Results File: Y1121ND.RES

Quant Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 15:42:05 2019
Response via : Initial Calibration
DataAcq Meth : SVOC1011

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.48	152	193290	40.00000 ppb	0.00
21) Napthalene-D8(IS)	6.91	136	718227	40.00000 ppb	0.00
41) Acenaphthene-D10(IS)	8.93	164	443843	40.00000 ppb	0.00
65) Phenanthrene-D10(IS)	10.67	188	873650	40.00000 ppb	0.00
80) Chrysene-D12(IS)	13.75	240	1011815	40.00000 ppb	0.00
90) Perylene-D12(IS)	15.61	264	1014443	40.00000 ppb	0.00
System Monitoring Compounds					
5) 2-Fluorophenol (S)	3.91	112	478213	71.04877 ppb	0.00
Spiked Amount 200.000			Recovery =	35.525%	
6) Phenol-D6 (S)	5.07	99	570499	71.18363 ppb	0.00
Spiked Amount 200.000			Recovery =	35.592%	
22) Nitrobenzene-D5(S)	6.10	82	305289	37.71822 ppb	0.00
Spiked Amount 100.000			Recovery =	37.718%	
46) 2-Fluorobiphenyl(S)	8.14	172	625810	37.71186 ppb	0.00
Spiked Amount 100.000			Recovery =	37.712%	
64) 2,4,6-Tribromophenol(S)	9.85	330	255942	75.38271 ppb	0.00
Spiked Amount 200.000			Recovery =	37.692%	
83) Terphenyl-D14(S)	12.52	244	940108	37.16368 ppb	0.00
Spiked Amount 100.000			Recovery =	37.164%	
Target Compounds					Qvalue
2) 1,4-Dioxane	1.74	58	7916	3.52761	59
3) n-Nitrosodimethylamine	1.96	42	120018	35.24528 ppb	96
4) Pyridine	1.98	79	311631	37.00290 ppb	98
7) Phenol	5.09	94	350876	37.07084 ppb	97
8) Aniline	5.10	93	221824	41.63910 ppb	86
9) Bis (2-chloroethyl) ether	5.18	63	149223	36.90413 ppb	95
10) 2-Chlorophenol	5.24	128	266304	37.15338 ppb	95
11) 1,3-DCB	5.41	146	299866	36.92356 ppb	98
12) 1,4-DCB	5.50	146	304720	36.93093 ppb	100
13) Benzyl alcohol	5.64	108	152088	37.32419 ppb	99
14) 1,2-DCB	5.66	146	282123	36.60001 ppb	98
15) 2-Methylphenol	5.77	107	208047	35.83397 ppb	99
16) Bis (2-chloroisopropyl) et	5.79	45	166924	36.94036 ppb	99
17) Acetophenone	5.93	105	385878	36.96841 ppb	91
18) 3&4-Methylphenol	5.93	107	584480	73.39947 ppb	95
19) n-Nitrosodi-n-propylamine	5.93	70	218037	36.66883 ppb	100
20) Hexachloroethane	6.05	117	121590	37.14970 ppb	95
23) Nitrobenzene	6.12	77	319916	38.65930 ppb	98
24) Isophorone	6.39	82	524152	39.07122 ppb	96
25) 2-Nitrophenol	6.48	139	149445	39.49181 ppb	97
26) 2,4-Dimethylphenol	6.53	122	229872	38.99686 ppb	98
27) Benzoic acid	6.64	105	204208	38.00783 ppb	98
28) Bis (2-chloroethoxy) metha	6.63	93	284276	39.30071 ppb	99
29) 2,4-Dichlorophenol	6.75	162	236041	38.88919 ppb	95
30) 1,2,4-Trichlorobenzene	6.84	180	276835	39.41234 ppb	97
31) 3,4-Dimethylphenol	6.86	107	378173	39.68257 ppb	99
32) Naphthalene	6.94	128	750123	38.77336 ppb	100
33) 4-Chloroaniline	6.99	127	269013	40.84206 ppb	97
34) 2,6-Dichlorophenol	7.01	162	227469	38.70236 ppb	99
35) Hexachloropropene	7.04	213	243359	39.80039 ppb	98
36) Hexachlorobutadiene	7.08	225	194922	39.29649 ppb	100
37) Caprolactum	7.40	55	83188	38.99372 ppb	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y191121\1121Y007.D Vial: 7
Acq On : 21 Nov 19 16:33 Operator: MA,SS
Sample : 40ug/ml 8270 11/21/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 22 15:55 2019 Quant Results File: Y1121ND.RES

Quant Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 15:42:05 2019
Response via : Initial Calibration
DataAcq Meth : SVOC1011

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
38)	4-Chloro-3-methylphenol	7.55	107	267287	39.02802	ppb		90
39)	2-Methylnaphthalene	7.73	142	510524	38.72037	ppb		99
40)	1-Methylnaphthalene	7.84	142	531683	39.00376	ppb		100
42)	Hexachlorocyclopentadiene	7.91	237	238400	42.28104	ppb		99
43)	1,2,4,5-Tetrachlorobenzene	7.92	216	309462	39.67603	ppb		98
44)	2,4,6-Trichlorophenol	8.05	196	196965	39.66310	ppb		98
45)	2,4,5-Trichlorophenol	8.10	196	207639	39.27277	ppb	#	91
47)	1,1'-Biphenyl	8.26	154	662128	39.25142	ppb		99
48)	2-Chloronaphthalene	8.29	162	544895	39.47465	ppb		99
49)	2-Nitroaniline	8.40	65	172460	39.41567	ppb		93
50)	Dimethyl phthalate	8.62	163	666101	39.51306	ppb		99
51)	2,6-DNT	8.68	165	150437	39.90341	ppb		96
52)	Acenaphthylene	8.76	152	837454	39.47372	ppb		100
53)	3-Nitroaniline	8.40	138	174570	40.34761	ppb		95
54)	Acenaphthene	8.97	154	569769	39.72608	ppb		98
55)	2,4-Dinitrophenol	9.01	184	93000	36.91875	ppb		94
56)	4-Nitrophenol	8.68	65	11500	41.65342	ppb		100
57)	Dibenzofuran	9.17	168	779361	38.96231	ppb		98
58)	2,4-DNT	9.15	165	215764	40.25297	ppb		89
59)	2,3,4,6-Tetrachlorophenol	9.31	232	179644	40.21787	ppb	#	93
60)	Diethyl phthalate	9.43	149	672653	39.09829	ppb		97
61)	4-Chlorophenyl phenyl ethe	9.56	204	382649	38.87845	ppb		87
62)	Fluorene	9.57	166	655165	39.07053	ppb		99
63)	4-Nitroaniline	8.88	138	138994	40.37790	ppb		93
66)	4,6-Dinitro-2-methylphenol	9.63	198	139175	38.44661	ppb	#	79
67)	Diphenyl amine	9.71	169	1057137	78.75870	ppb		99
68)	n-Nitrosodiphenylamine	9.71	169	1057137	78.75870	ppb		99
69)	1,2-Diphenylhydrazine	9.75	77	661686	39.83262	ppb	#	88
70)	4-Bromophenyl phenyl ether	10.14	248	226910	39.13870	ppb		97
71)	Hexachlorobenzene	10.21	284	241564	39.42494	ppb	#	83
72)	Atrazine	10.32	200	100285	19.62226	ppb		99
73)	Pentachlorophenol	10.44	266	153986	38.68619	ppb		100
74)	Phenanthrene	10.70	178	922442	39.01456	ppb		100
75)	Anthracene	10.75	178	975577	39.30179	ppb		100
76)	Carbazol	10.94	167	881170	39.44405	ppb		99
77)	Di-n-butylphthalate	11.34	149	1146641	39.41451	ppb		98
78)	2-Nitrodiphenylamine	11.51	167	141659	20.49302	ppb		98
79)	Fluoranthene	12.08	202	1141702	39.67999	ppb		99
81)	Benzidine	12.23	184	290367	38.68742	ppb		98
82)	Pyrene	12.35	202	1203115	39.14616	ppb		100
84)	Butyl benzylphthalate	13.09	149	543907	38.98688	ppb		97
85)	3,3'-Dichlorobenzidine	13.70	252	363359	39.38333	ppb		100
86)	Benz (a) anthracene	13.74	228	1291293	38.31661	ppb		99
87)	Bis (2-ethylhexyl) phthala	13.75	149	829295	38.66730	ppb		97
88)	Chrysene	13.78	228	1171969	39.03498	ppb		99
89)	Di-n-octylphthalate	14.51	149	1315078	39.11298	ppb		98
91)	Benzo (b) fluoranthene	15.06	252	1227741	38.27328	ppb		99
92)	Benzo (k) fluoranthene	15.09	252	1195396	40.44580	ppb		99
93)	Benzo (a) pyrene	15.53	252	1134185	39.59711	ppb		99
94)	Indeno (1,2,3-cd) pyrene	17.52	276	1340147	39.40832	ppb		100
95)	Dibenz (a,h) anthracene	17.55	278	1182851	39.43422	ppb		98
96)	Benzo (g,h,i) perylene	18.09	276	1063705	39.28962	ppb		99

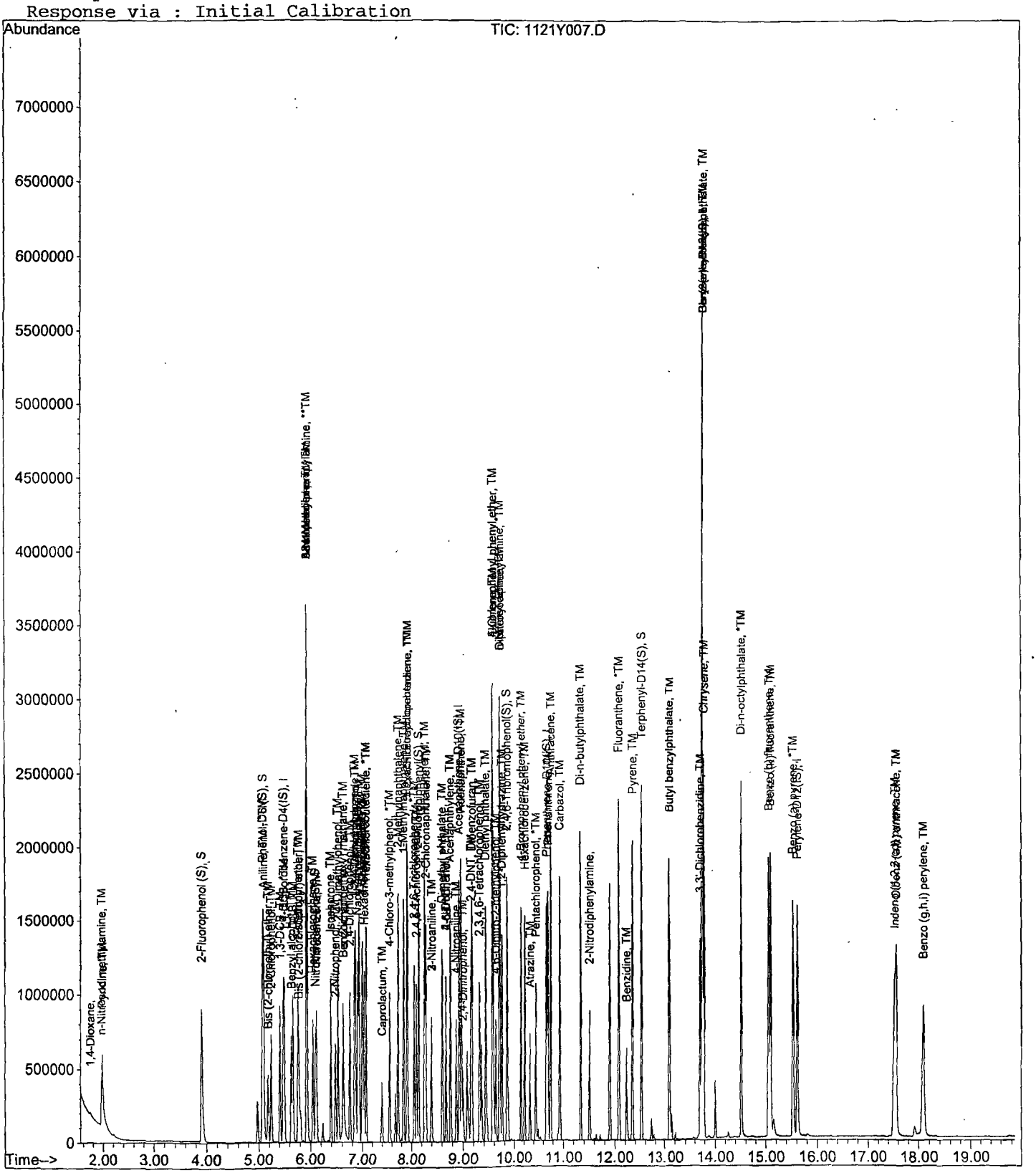
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y191121\1121Y007.D Vial: 7
Acq On : 21 Nov 19 16:33 Operator: MA,SS
Sample : 40ug/ml 8270 11/21/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 22 15:55 2019 Quant Results File: Y1121ND.RES

Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 18:04:15 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y191121\1121Y008.D Vial: 8
Acq On : 21 Nov 19 17:01 Operator: MA,SS
Sample : 50ug/ml 8270 11/21/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 22 15:55 2019 Quant Results File: Y1121ND.RES

Quant Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 15:42:05 2019
Response via : Initial Calibration
DataAcq Meth : SVOC1011

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.48	152	171005	40.00000 ppb	0.00
21) Napthalene-D8(IS)	6.92	136	663771	40.00000 ppb	0.00
41) Acenaphthene-D10(IS)	8.93	164	407738	40.00000 ppb	0.00
65) Phenanthrene-D10(IS)	10.67	188	815726	40.00000 ppb	0.00
80) Chrysene-D12(IS)	13.75	240	934599	40.00000 ppb	0.00
90) Perylene-D12(IS)	15.61	264	938399	40.00000 ppb	0.00
System Monitoring Compounds					
5) 2-Fluorophenol (S)	3.91	112	579236	97.27277 ppb	0.00
Spiked Amount 200.000			Recovery =	48.637%	
6) Phenol-D6 (S)	5.08	99	698019	98.44487 ppb	0.00
Spiked Amount 200.000			Recovery =	49.223%	
22) Nitrobenzene-D5(S)	6.10	82	367148	49.08227 ppb	0.00
Spiked Amount 100.000			Recovery =	49.082%	
46) 2-Fluorobiphenyl(S)	8.15	172	768989	50.44333 ppb	0.00
Spiked Amount 100.000			Recovery =	50.443%	
64) 2,4,6-Tribromophenol(S)	9.86	330	319887	102.55928 ppb	0.00
Spiked Amount 200.000			Recovery =	51.280%	
83) Terphenyl-D14(S)	12.52	244	1137526	48.68309 ppb	0.00
Spiked Amount 100.000			Recovery =	48.683%	
Target Compounds					Qvalue
2) 1,4-Dioxane	1.74	58	9546	4.80835	100
3) n-Nitrosodimethylamine	1.96	42	141360	46.92256 ppb	100
4) Pyridine	1.98	79	378779	50.83719 ppb	100
7) Phenol	5.09	94	425758	50.84429 ppb	100
8) Aniline	5.10	93	249856	53.01309 ppb	100
9) Bis (2-chloroethyl) ether	5.18	63	179891	50.28624 ppb	100
10) 2-Chlorophenol	5.25	128	320461	50.53548 ppb	100
11) 1,3-DCB	5.41	146	361793	50.35436 ppb	100
12) 1,4-DCB	5.50	146	371417	50.88053 ppb	100
13) Benzyl alcohol	5.64	108	186524	51.74052 ppb	100
14) 1,2-DCB	5.66	146	342793	50.26610 ppb	100
15) 2-Methylphenol	5.77	107	267866	52.14968 ppb	100
16) Bis (2-chloroisopropyl) et	5.78	45	200510	50.15555 ppb	100
17) Acetophenone	5.93	105	467300	50.60310 ppb	100
18) 3&4-Methylphenol	5.94	107	725121	102.92818 ppb	100
19) n-Nitrosodi-n-propylamine	5.93	70	269072	51.14886 ppb	100
20) Hexachloroethane	6.04	117	146012	50.42507 ppb	100
23) Nitrobenzene	6.12	77	387198	50.62844 ppb	100
24) Isophorone	6.40	82	636697	51.35420 ppb	100
25) 2-Nitrophenol	6.48	139	183318	52.41725 ppb	100
26) 2,4-Dimethylphenol	6.53	122	279872	51.37437 ppb	100
27) Benzoic acid	6.65	105	258747	50.49164 ppb	100
28) Bis (2-chloroethoxy) metha	6.63	93	344576	51.54525 ppb	100
29) 2,4-Dichlorophenol	6.76	162	291193	51.91177 ppb	100
30) 1,2,4-Trichlorobenzene	6.85	180	331385	51.04903 ppb	100
31) 3,4-Dimethylphenol	6.86	107	455150	51.67819 ppb	100
32) Naphthalene	6.94	128	913992	51.11952 ppb	100
33) 4-Chloroaniline	6.99	127	337587	55.45792 ppb	100
34) 2,6-Dichlorophenol	7.01	162	282687	52.04326 ppb	100
35) Hexachloropropene	7.04	213	292552	51.77099 ppb	100
36) Hexachlorobutadiene	7.07	225	231300	50.45591 ppb	100
37) Caprolactum	7.41	55	102304	51.88838 ppb	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y191121\1121Y008.D Vial: 8
Acq On : 21 Nov 19 17:01 Operator: MA,SS
Sample : 50ug/ml 8270 11/21/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 22 15:55 2019 Quant Results File: Y1121ND.RES

Quant Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 15:42:05 2019
Response via : Initial Calibration
DataAcq Meth : SVOC1011

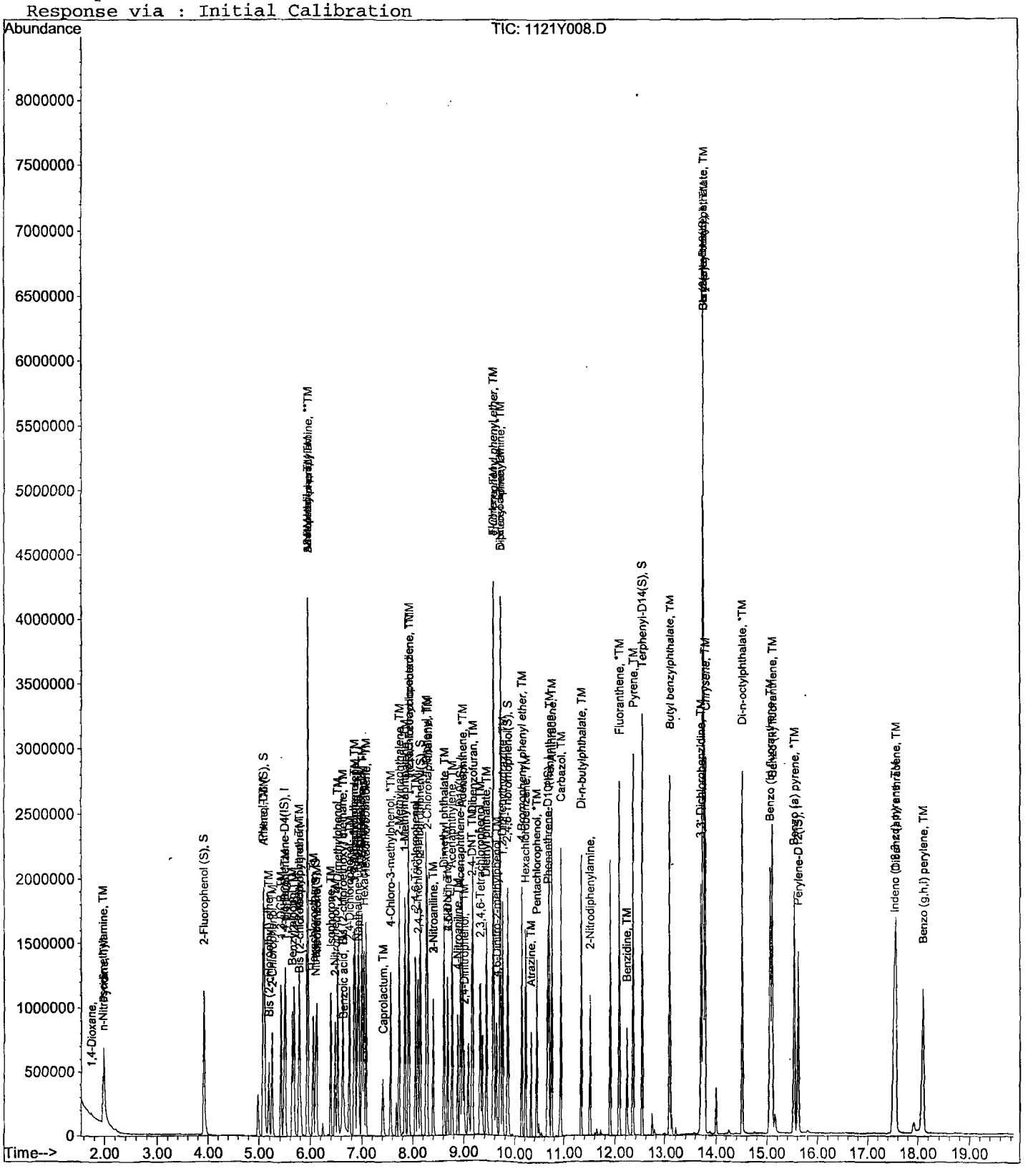
Compound	R.T.	QIon	Response	Conc Unit	Qvalue
38) 4-Chloro-3-methylphenol	7.56	107	325787	51.47257 ppb	100
39) 2-Methylnaphthalene	7.72	142	629795	51.68518 ppb	100
40) 1-Methylnaphthalene	7.84	142	649196	51.53153 ppb	100
42) Hexachlorocyclopentadiene	7.91	237	294464	56.84860 ppb	100
43) 1,2,4,5-Tetrachlorobenzene	7.92	216	373513	52.12844 ppb	100
44) 2,4,6-Trichlorophenol	8.05	196	241595	52.95826 ppb	100
45) 2,4,5-Trichlorophenol	8.11	196	255196	52.54176 ppb	100
47) 1,1'-Biphenyl	8.26	154	808031	52.14223 ppb	100
48) 2-Chloronaphthalene	8.29	162	662366	52.23381 ppb	100
49) 2-Nitroaniline	8.40	65	211988	52.73999 ppb	100
50) Dimethyl phthalate	8.62	163	815644	52.66831 ppb	100
51) 2,6-DNT	8.68	165	188199	54.34015 ppb	100
52) Acenaphthylene	8.76	152	1021037	52.38859 ppb	100
53) 3-Nitroaniline	8.40	138	212688	53.51054 ppb	100
54) Acenaphthene	8.97	154	700903	53.19649 ppb	100
55) 2,4-Dinitrophenol	9.01	184	118563	51.23438 ppb	100
56) 4-Nitrophenol	8.68	65	14018	55.26970 ppb	100
57) Dibenzofuran	9.17	168	955387	51.99165 ppb	100
58) 2,4-DNT	9.15	165	260352	52.87228 ppb	100
59) 2,3,4,6-Tetrachlorophenol	9.32	232	219669	53.53321 ppb	100
60) Diethyl phthalate	9.44	149	823957	52.13381 ppb	100
61) 4-Chlorophenyl phenyl ethe	9.57	204	475789	52.62244 ppb	100
62) Fluorene	9.57	166	815787	52.95702 ppb	100
63) 4-Nitroaniline	8.88	138	170405	53.88627 ppb	100
66) 4,6-Dinitro-2-methylphenol	9.64	198	177142	52.40968 ppb	100
67) Diphenyl amine	9.71	169	1286170	102.62633 ppb	100
68) n-Nitrosodiphenylamine	9.71	169	1286170	102.62633 ppb	100
69) 1,2-Diphenylhydrazine	9.76	77	808449	52.12339 ppb	100
70) 4-Bromophenyl phenyl ether	10.14	248	282643	52.21366 ppb	100
71) Hexachlorobenzene	10.22	284	302354	52.85033 ppb	100
72) Atrazine	10.32	200	121452	25.45135 ppb	100
73) Pentachlorophenol	10.44	266	194818	52.41999 ppb	100
74) Phenanthrene	10.69	178	1126250	51.01708 ppb	100
75) Anthracene	10.75	178	1190869	51.38164 ppb	100
76) Carbazol	10.94	167	1084434	51.98980 ppb	100
77) Di-n-butylphthalate	11.34	149	1421631	52.33699 ppb	100
78) 2-Nitrodiphenylamine	11.51	167	174136	26.98010 ppb	100
79) Fluoranthene	12.08	202	1403330	52.23623 ppb	100
81) Benzidine	12.23	184	389926	56.24456 ppb	100
82) Pyrene	12.35	202	1490379	52.49942 ppb	100
84) Butyl benzylphthalate	13.09	149	670791	52.05433 ppb	100
85) 3,3'-Dichlorobenzidine	13.70	252	482025	56.56162 ppb	100
86) Benz (a) anthracene	13.74	228	1587379	50.99396 ppb	100
87) Bis (2-ethylhexyl) phthala	13.75	149	1020587	51.51820 ppb	100
88) Chrysene	13.79	228	1457437	52.55371 ppb	100
89) Di-n-octylphthalate	14.51	149	1611365	51.88467 ppb	100
91) Benzo (b) fluoranthene	15.07	252	1656567	55.82619 ppb	100
92) Benzo (k) fluoranthene	15.10	252	1337361	48.91594 ppb	100
93) Benzo (a) pyrene	15.53	252	1397191	52.73214 ppb	100
94) Indeno (1,2,3-cd) pyrene	17.53	276	1644836	52.28754 ppb	100
95) Dibenz (a,h) anthracene	17.56	278	1467340	52.88276 ppb	100
96) Benzo (g,h,i) perylene	18.10	276	1307740	52.21774 ppb	100

(#) = qualifier out of range (m) = manual integration

Data File : M:\YODA\DATA\Y191121\1121Y008.D Vial: 8
Acq On : 21 Nov 19 17:01 Operator: MA,SS
Sample : 50ug/ml 8270 11/21/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 22 15:55 2019 Quant Results File: Y1121ND.RES

Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 18:04:15 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y191121\1121Y009.D Vial: 9
Acq On : 21 Nov 19 17:30 Operator: MA,SS
Sample : 60ug/ml 8270 11/21/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 22 15:55 2019 Quant Results File: Y1121ND.RES

Quant Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 15:42:05 2019
Response via : Initial Calibration
DataAcq Meth : SVOC1011

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.48	152	167367	40.00000 ppb		0.00
21) Napthalene-D8(IS)	6.92	136	682970	40.00000 ppb		0.00
41) Acenaphthene-D10(IS)	8.93	164	436434	40.00000 ppb		0.00
65) Phenanthrene-D10(IS)	10.67	188	853269	40.00000 ppb		0.00
80) Chrysene-D12(IS)	13.76	240	1039035	40.00000 ppb		0.00
90) Perylene-D12(IS)	15.61	264	1002354	40.00000 ppb		0.00
System Monitoring Compounds						
5) 2-Fluorophenol (S)	3.91	112	729383	125.14986 ppb		0.00
Spiked Amount 200.000			Recovery =	62.575%		
6) Phenol-D6 (S)	5.08	99	877326	126.42292 ppb		0.00
Spiked Amount 200.000			Recovery =	63.212%		
22) Nitrobenzene-D5(S)	6.10	82	462991	60.15513 ppb		0.00
Spiked Amount 100.000			Recovery =	60.155%		
46) 2-Fluorobiphenyl(S)	8.15	172	960712	58.87615 ppb		0.00
Spiked Amount 100.000			Recovery =	58.876%		
64) 2,4,6-Tribromophenol(S)	9.86	330	418277	125.28670 ppb		0.00
Spiked Amount 200.000			Recovery =	62.644%		
83) Terphenyl-D14(S)	12.52	244	1478351	56.91011 ppb		0.00
Spiked Amount 100.000			Recovery =	56.910%		
Target Compounds						Qvalue
2) 1,4-Dioxane	1.74	58	10929	5.62464		78
3) n-Nitrosodimethylamine	1.96	42	181363	61.50958 ppb		98
4) Pyridine	1.98	79	472362	64.77533 ppb		99
7) Phenol	5.10	94	542251	66.16354 ppb		91
8) Aniline	5.11	93	301632	65.38976 ppb	#	76
9) Bis (2-chloroethyl) ether	5.18	63	226768	64.76800 ppb		100
10) 2-Chlorophenol	5.25	128	408420	65.80625 ppb		99
11) 1,3-DCB	5.41	146	458825	65.24737 ppb		99
12) 1,4-DCB	5.50	146	462750	64.77020 ppb		99
13) Benzyl alcohol	5.64	108	232819	65.98625 ppb		97
14) 1,2-DCB	5.66	146	429263	64.31403 ppb		100
15) 2-Methylphenol	5.77	107	337894	67.21303 ppb		99
16) Bis (2-chloroisopropyl) et	5.78	45	250202	63.94590 ppb		97
17) Acetophenone	5.93	105	599064	66.28169 ppb		92
18) 3&4-Methylphenol	5.94	107	918482	133.20896 ppb		99
19) n-Nitrosodi-n-propylamine	5.93	70	338621	65.76885 ppb		96
20) Hexachloroethane	6.04	117	183498	64.74829 ppb		99
23) Nitrobenzene	6.12	77	490695	62.35765 ppb		99
24) Isophorone	6.40	82	793249	62.18267 ppb		99
25) 2-Nitrophenol	6.48	139	229856	63.87658 ppb		99
26) 2,4-Dimethylphenol	6.53	122	350532	62.53618 ppb		99
27) Benzoic acid	6.67	105	333277	62.42385 ppb		97
28) Bis (2-chloroethoxy) metha	6.63	93	431089	62.67397 ppb		100
29) 2,4-Dichlorophenol	6.76	162	366318	63.46873 ppb		98
30) 1,2,4-Trichlorobenzene	6.85	180	420058	62.88985 ppb		98
31) 3,4-Dimethylphenol	6.87	107	573978	63.33804 ppb		96
32) Naphthalene	6.94	128	1148408	62.42481 ppb		100
33) 4-Chloroaniline	7.00	127	407727	65.09745 ppb		95
34) 2,6-Dichlorophenol	7.01	162	358099	64.07349 ppb		99
35) Hexachloropropene	7.04	213	375716	64.61892 ppb		99
36) Hexachlorobutadiene	7.07	225	295237	62.59272 ppb		99
37) Caprolactum	7.42	55	129071	63.62427 ppb		99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y191121\1121Y009.D Vial: 9
Acq On : 21 Nov 19 17:30 Operator: MA,SS
Sample : 60ug/ml 8270 11/21/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 22 15:55 2019 Quant Results File: Y1121ND.RES

Quant Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 15:42:05 2019
Response via : Initial Calibration
DataAcq Meth : SVOC1011

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
38)	4-Chloro-3-methylphenol	7.56	107	410265	62.99749 ppb		97
39)	2-Methylnaphthalene	7.72	142	788195	62.86619 ppb		99
40)	1-Methylnaphthalene	7.84	142	814831	62.86101 ppb		100
42)	Hexachlorocyclopentadiene	7.91	237	350656	63.24577 ppb		98
43)	1,2,4,5-Tetrachlorobenzene	7.92	216	477589	62.27101 ppb		99
44)	2,4,6-Trichlorophenol	8.06	196	303584	62.17091 ppb		96
45)	2,4,5-Trichlorophenol	8.10	196	321535	61.84743 ppb		99
47)	1,1'-Biphenyl	8.26	154	1016984	61.31099 ppb		100
48)	2-Chloronaphthalene	8.29	162	833303	61.39306 ppb		99
49)	2-Nitroaniline	8.40	65	267591	62.19606 ppb		98
50)	Dimethyl phthalate	8.62	163	1017940	61.40921 ppb		100
51)	2,6-DNT	8.69	165	235838	63.61799 ppb		77
52)	Acenaphthylene	8.77	152	1283418	61.52137 ppb		99
53)	3-Nitroaniline	8.40	138	268555	63.12367 ppb		99
54)	Acenaphthene	8.98	154	879704	62.37697 ppb		99
55)	2,4-Dinitrophenol	9.01	184	156158	63.04333 ppb		98
56)	4-Nitrophenol	8.68	65	16756	61.72115 ppb		100
57)	Dibenzofuran	9.17	168	1211806	61.60982 ppb		100
58)	2,4-DNT	9.15	165	330641	62.73161 ppb		94
59)	2,3,4,6-Tetrachlorophenol	9.32	232	279128	63.55073 ppb		99
60)	Diethyl phthalate	9.44	149	1027987	60.76663 ppb		99
61)	4-Chlorophenyl phenyl ethe	9.57	204	608036	62.82731 ppb		99
62)	Fluorene	9.57	166	1036089	62.83570 ppb		99
63)	4-Nitroaniline	8.88	138	208716	61.66151 ppb		83
66)	4,6-Dinitro-2-methylphenol	9.64	198	225751	63.85252 ppb	#	86
67)	Diphenyl amine	9.71	169	1646816	125.62146 ppb		100
68)	n-Nitrosodiphenylamine	9.71	169	1646816	125.62146 ppb		100
69)	1,2-Diphenylhydrazine	9.76	77	1002105	61.76630 ppb		98
70)	4-Bromophenyl phenyl ether	10.14	248	362845	64.08043 ppb		96
71)	Hexachlorobenzene	10.22	284	379070	63.34462 ppb		98
72)	Atrazine	10.33	200	153425	30.73694 ppb		98
73)	Pentachlorophenol	10.44	266	243544	62.64748 ppb		99
74)	Phenanthrene	10.69	178	1424318	61.68024 ppb		100
75)	Anthracene	10.75	178	1499952	61.86994 ppb		99
76)	Carbazol	10.94	167	1370757	62.82519 ppb		100
77)	Di-n-butylphthalate	11.34	149	1802593	63.44215 ppb		100
78)	2-Nitrodiphenylamine	11.51	167	223110	33.04703 ppb		96
79)	Fluoranthene	12.08	202	1777159	63.24069 ppb		99
81)	Benzidine	12.23	184	481715	62.50052 ppb		100
82)	Pyrene	12.35	202	1851615	58.66831 ppb		100
84)	Butyl benzylphthalate	13.09	149	849128	59.27041 ppb		100
85)	3,3'-Dichlorobenzidine	13.70	252	610343	64.42010 ppb		97
86)	Benz (a) anthracene	13.74	228	2029724	58.65030 ppb		99
87)	Bis (2-ethylhexyl) phthala	13.75	149	1317864	59.83790 ppb		99
88)	Chrysene	13.78	228	1859803	60.32199 ppb		100
89)	Di-n-octylphthalate	14.51	149	2028250	58.74377 ppb		99
91)	Benzo (b) fluoranthene	15.07	252	1993390	62.89088 ppb		100
92)	Benzo (k) fluoranthene	15.10	252	1788270	61.23522 ppb		99
93)	Benzo (a) pyrene	15.54	252	1743187	61.59281 ppb		99
94)	Indeno (1,2,3-cd) pyrene	17.53	276	2077884	61.83912 ppb		99
95)	Dibenz (a,h) anthracene	17.56	278	1837837	62.00929 ppb		99
96)	Benzo (g,h,i) perylene	18.11	276	1637386	61.20884 ppb		100

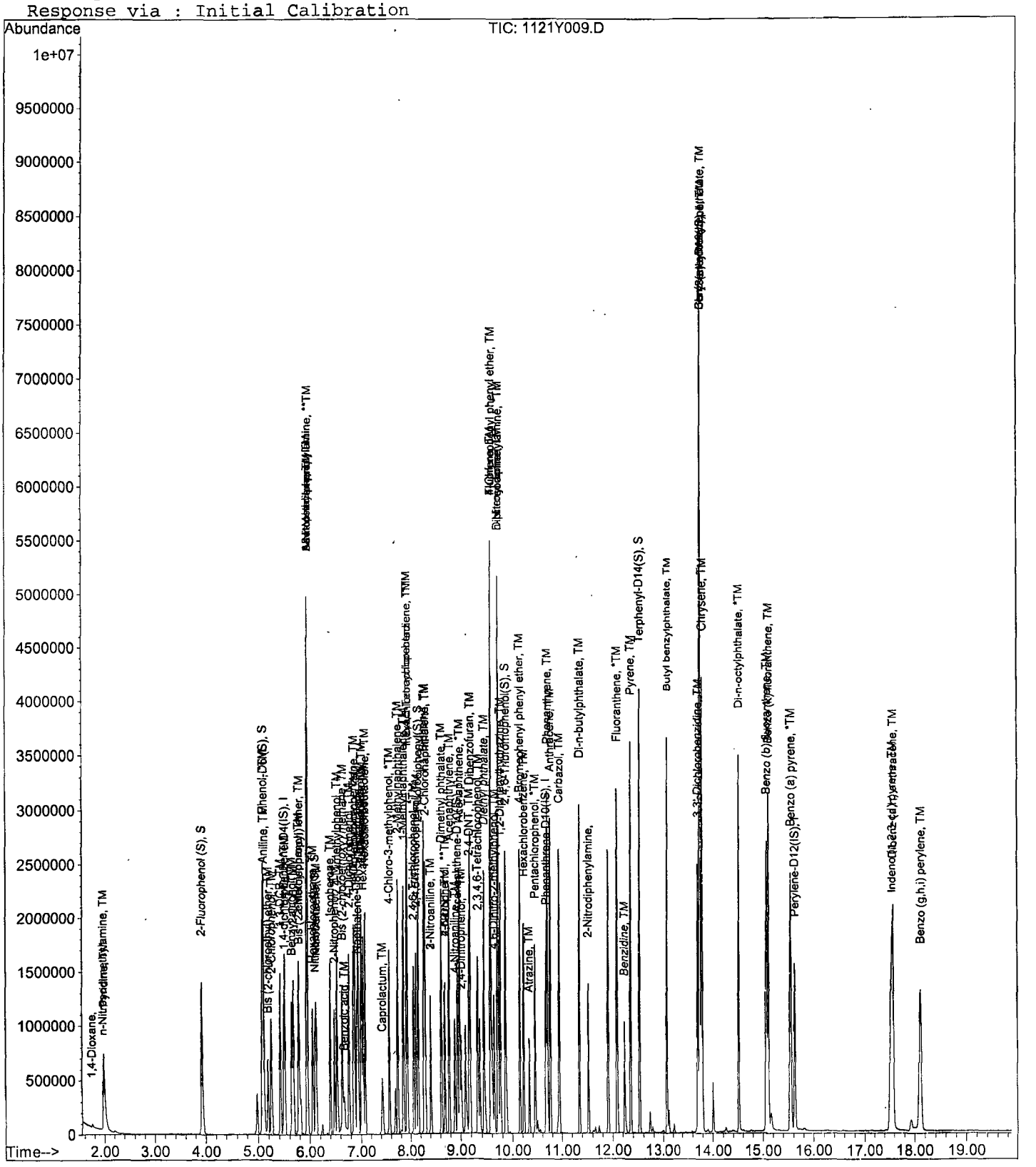
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y191121\1121Y009.D Vial: 9
Acq On : 21 Nov 19 17:30 Operator: MA,SS
Sample : 60ug/ml 8270 11/21/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 22 15:55 2019 Quant Results File: Y1121ND.RES

Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 18:04:15 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y191121\1121Y010.D Vial: 10
Acq On : 21 Nov 19 17:58 Operator: MA,SS
Sample : 80ug/ml 8270 11/21/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 22 15:55 2019 Quant Results File: Y1121ND.RES

Quant Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 15:42:05 2019
Response via : Initial Calibration
DataAcq Meth : SVOC1011

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.48	152	161505	40.00000 ppb		0.00
21) Napthalene-D8(IS)	6.92	136	659343	40.00000 ppb		0.00
41) Acenaphthene-D10(IS)	8.93	164	420757	40.00000 ppb		0.00
65) Phenanthrene-D10(IS)	10.67	188	817022	40.00000 ppb		0.00
80) Chrysene-D12(IS)	13.76	240	1057013	40.00000 ppb		0.00
90) Perylene-D12(IS)	15.62	264	952132	40.00000 ppb		0.00
System Monitoring Compounds						
5) 2-Fluorophenol (S)	3.92	112	990840	176.18224 ppb		0.00
Spiked Amount 200.000			Recovery =	88.091%		
6) Phenol-D6 (S)	5.09	99	1202244	179.53177 ppb		0.00
Spiked Amount 200.000			Recovery =	89.766%		
22) Nitrobenzene-D5(S)	6.11	82	619066	83.31579 ppb		0.00
Spiked Amount 100.000			Recovery =	83.316%		
46) 2-Fluorobiphenyl(S)	8.15	172	1294339	82.27758 ppb		0.00
Spiked Amount 100.000			Recovery =	82.278%		
64) 2,4,6-Tribromophenol(S)	9.86	330	577082	179.29400 ppb		0.00
Spiked Amount 200.000			Recovery =	89.647%		
83) Terphenyl-D14(S)	12.52	244	1994267	75.46491 ppb		0.00
Spiked Amount 100.000			Recovery =	75.465%		
Target Compounds						Qvalue
2) 1,4-Dioxane	1.74	58	13617	7.26239		84
3) n-Nitrosodimethylamine	1.96	42	235667	82.82792 ppb		94
4) Pyridine	1.98	79	624008	88.67653 ppb		98
7) Phenol	5.10	94	726252	91.83105 ppb		93
8) Aniline	5.11	93	409792	92.06184 ppb		96
9) Bis (2-chloroethyl) ether	5.18	63	302296	89.47362 ppb		97
10) 2-Chlorophenol	5.25	128	531400	88.72900 ppb		97
11) 1,3-DCB	5.41	146	606639	89.39847 ppb		98
12) 1,4-DCB	5.50	146	617470	89.56298 ppb		99
13) Benzyl alcohol	5.64	108	307594	90.34346 ppb		97
14) 1,2-DCB	5.67	146	572108	88.82682 ppb		97
15) 2-Methylphenol	5.77	107	424481	87.50142 ppb		98
16) Bis (2-chloroisopropyl) et	5.78	45	333832	88.41659 ppb	#	86
17) Acetophenone	5.94	105	793424	90.97238 ppb		96
18) 3&4-Methylphenol	5.95	107	1235710	185.72194 ppb		100
19) n-Nitrosodi-n-propylamine	5.94	70	449037	90.38001 ppb		99
20) Hexachloroethane	6.05	117	244557	89.42540 ppb		81
23) Nitrobenzene	6.13	77	641878	84.49302 ppb		96
24) Isophorone	6.41	82	1048398	85.12875 ppb		99
25) 2-Nitrophenol	6.48	139	304374	87.61603 ppb		94
26) 2,4-Dimethylphenol	6.54	122	461574	85.29730 ppb		97
27) Benzoic acid	6.68	105	408452	78.92895 ppb		96
28) Bis (2-chloroethoxy) metha	6.63	93	565143	85.10769 ppb		100
29) 2,4-Dichlorophenol	6.76	162	481524	86.41909 ppb		96
30) 1,2,4-Trichlorobenzene	6.85	180	560904	86.98614 ppb		98
31) 3,4-Dimethylphenol	6.87	107	758867	86.74117 ppb		99
32) Naphthalene	6.94	128	1524779	85.85353 ppb		99
33) 4-Chloroaniline	7.00	127	525627	86.92855 ppb		97
34) 2,6-Dichlorophenol	7.01	162	468519	86.83458 ppb		98
35) Hexachloropropene	7.04	213	497069	88.55374 ppb		99
36) Hexachlorobutadiene	7.08	225	393639	86.44530 ppb		99
37) Caprolactum	7.44	55	169346	86.46877 ppb		97

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y191121\1121Y010.D Vial: 10
Acq On : 21 Nov 19 17:58 Operator: MA,SS
Sample : 80ug/ml 8270 11/21/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 22 15:55 2019 Quant Results File: Y1121ND.RES

Quant Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 15:42:05 2019
Response via : Initial Calibration
DataAcq Meth : SVOC1011

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
38)	4-Chloro-3-methylphenol	7.56	107	542466	86.28226	ppb	91
39)	2-Methylnaphthalene	7.73	142	1044506	86.29480	ppb	99
40)	1-Methylnaphthalene	7.84	142	1096138	87.59298	ppb	99
42)	Hexachlorocyclopentadiene	7.91	237	421952	78.94061	ppb	98
43)	1,2,4,5-Tetrachlorobenzene	7.93	216	644608	87.17953	ppb	97
44)	2,4,6-Trichlorophenol	8.06	196	405336	86.10151	ppb	97
45)	2,4,5-Trichlorophenol	8.10	196	431346	86.06100	ppb	95
47)	1,1'-Biphenyl	8.27	154	1372352	85.81772	ppb	98
48)	2-Chloronaphthalene	8.29	162	1112347	85.00487	ppb	98
49)	2-Nitroaniline	8.41	65	353796	85.29656	ppb	92
50)	Dimethyl phthalate	8.61	163	1354088	84.73161	ppb	99
51)	2,6-DNT	8.69	165	311799	87.24250	ppb	89
52)	Acenaphthylene	8.77	152	1715728	85.30874	ppb	100
53)	3-Nitroaniline	8.41	138	352251	85.88127	ppb	94
54)	Acenaphthene	8.98	154	1188456	87.40938	ppb	98
55)	2,4-Dinitrophenol	9.01	184	213465	89.38997	ppb	90
56)	4-Nitrophenol	8.69	65	22795	87.09445	ppb	98
57)	Dibenzofuran	9.17	168	1619716	85.41674	ppb	99
58)	2,4-DNT	9.16	165	443127	87.20575	ppb	96
59)	2,3,4,6-Tetrachlorophenol	9.32	232	370261	87.44043	ppb	96
60)	Diethyl phthalate	9.44	149	1363775	83.61948	ppb	97
61)	4-Chlorophenyl phenyl ethe	9.57	204	837406	89.75166	ppb	98
62)	Fluorene	9.57	166	1434471	90.23778	ppb	100
63)	4-Nitroaniline	8.88	138	272975	83.65050	ppb	92
66)	4,6-Dinitro-2-methylphenol	9.65	198	304020	89.80545	ppb	95
67)	Diphenyl amine	9.72	169	2215854	176.52740	ppb	99
68)	n-Nitrosodiphenylamine	9.72	169	2215854	176.52740	ppb	99
69)	1,2-Diphenylhydrazine	9.76	77	1328140	85.49377	ppb	95
70)	4-Bromophenyl phenyl ether	10.14	248	480779	88.67516	ppb	94
71)	Hexachlorobenzene	10.22	284	504135	87.98109	ppb	92
72)	Atrazine	10.33	200	200128	41.87209	ppb	100
73)	Pentachlorophenol	10.44	266	339237	91.13425	ppb	98
74)	Phenanthrene	10.69	178	1913358	86.53416	ppb	100
75)	Anthracene	10.76	178	2016161	86.85199	ppb	99
76)	Carbazol	10.94	167	1813480	86.80372	ppb	98
77)	Di-n-butylphthalate	11.34	149	2379965	87.47883	ppb	99
78)	2-Nitrodiphenylamine	11.51	167	291341	45.06789	ppb	96
79)	Fluoranthene	12.09	202	2383800	88.59156	ppb	98
81)	Benzidine	12.23	184	657175	83.81550	ppb	100
82)	Pyrene	12.35	202	2499582	77.85207	ppb	99
84)	Butyl benzylphthalate	13.09	149	1127954	77.39377	ppb	93
85)	3,3'-Dichlorobenzidine	13.71	252	817041	84.76979	ppb	99
86)	Benz (a) anthracene	13.74	228	2804468	79.65877	ppb	100
87)	Bis (2-ethylhexyl) phthala	13.76	149	1770210	79.00970	ppb #	90
88)	Chrysene	13.78	228	2404541	76.66388	ppb	99
89)	Di-n-octylphthalate	14.52	149	2767567	78.79312	ppb	94
91)	Benzo (b) fluoranthene	15.07	252	2546511	84.57946	ppb	99
92)	Benzo (k) fluoranthene	15.11	252	2513489	90.60854	ppb	100
93)	Benzo (a) pyrene	15.54	252	2333955	86.81655	ppb	99
94)	Indeno (1,2,3-cd) pyrene	17.53	276	2739905	85.84233	ppb	100
95)	Dibenz (a,h) anthracene	17.58	278	2438265	86.60732	ppb	100
96)	Benzo (g,h,i) perylene	18.12	276	2139103	84.18191	ppb	100

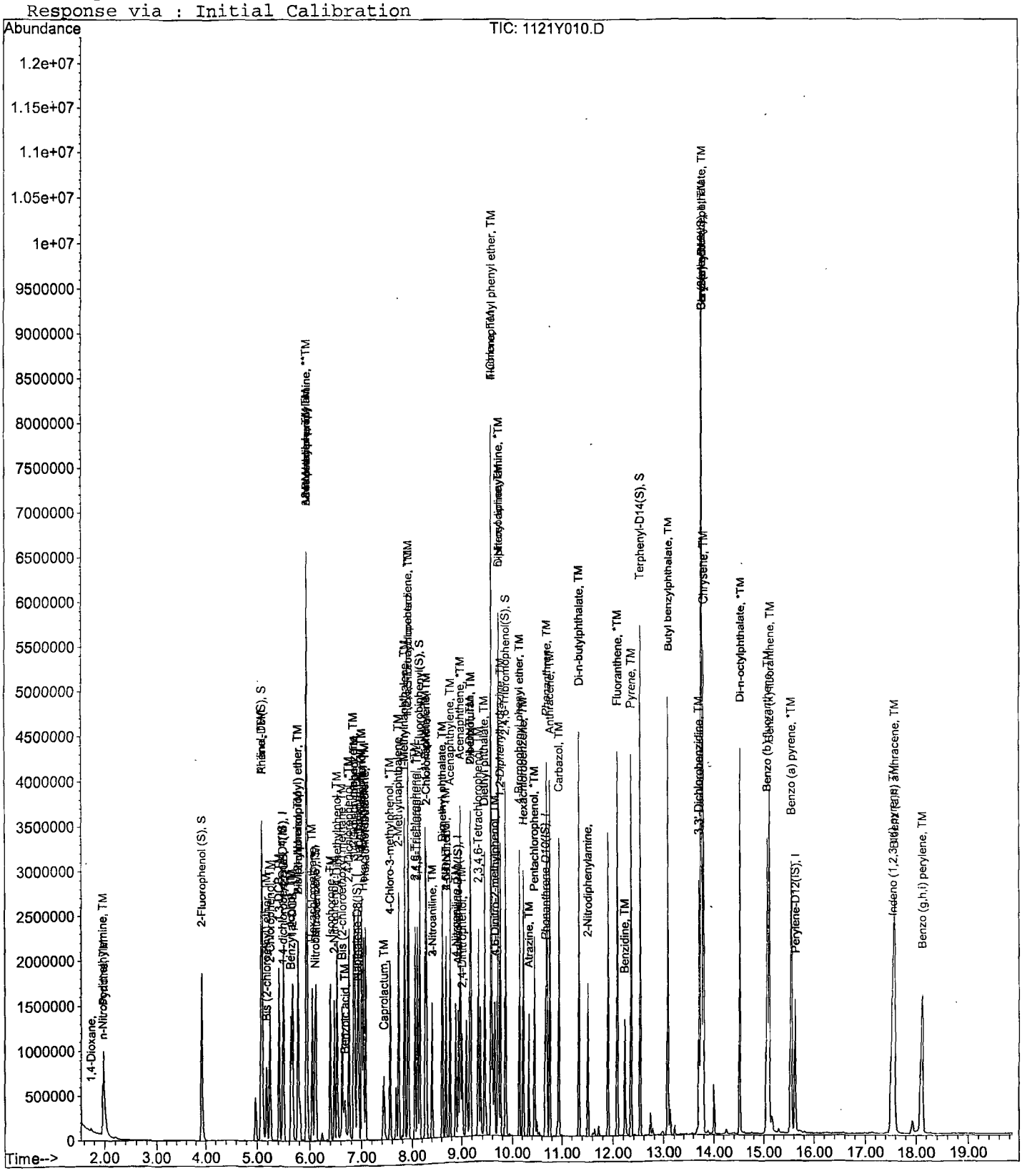
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y191121\1121Y010.D Vial: 10
Acq On : 21 Nov 19 17:58 Operator: MA,SS
Sample : 80ug/ml 8270 11/21/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 22 15:55 2019 Quant Results File: Y1121ND.RES

Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 18:04:15 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y191121\1121Y011.D Vial: 11
Acq On : 21 Nov 19 18:26 Operator: MA,SS
Sample : 100ug/ml 8270 11/21/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 22 15:55 2019 Quant Results File: Y1121ND.RES

Quant Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 15:42:05 2019
Response via : Initial Calibration
DataAcq Meth : SVOC1011

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.48	152	165464	40.00000 ppb		0.00
21) Napthalene-D8(IS)	6.92	136	652211	40.00000 ppb		0.00
41) Acenaphthene-D10(IS)	8.93	164	415860	40.00000 ppb		0.00
65) Phenanthrene-D10(IS)	10.67	188	819523	40.00000 ppb		0.00
80) Chrysene-D12(IS)	13.76	240	1060730	40.00000 ppb		0.00
90) Perylene-D12(IS)	15.62	264	938773	40.00000 ppb		0.00
System Monitoring Compounds						
5) 2-Fluorophenol (S)	3.92	112	1214721	210.82280 ppb		0.01
Spiked Amount 200.000			Recovery	= 105.412%		
6) Phenol-D6 (S)	5.09	99	1477093	215.29750 ppb		0.00
Spiked Amount 200.000			Recovery	= 107.649%		
22) Nitrobenzene-D5(S)	6.11	82	756797	102.96581 ppb		0.01
Spiked Amount 100.000			Recovery	= 102.966%		
46) 2-Fluorobiphenyl(S)	8.15	172	1600159	102.91550 ppb		0.00
Spiked Amount 100.000			Recovery	= 102.916%		
64) 2,4,6-Tribromophenol(S)	9.86	330	739921	232.59361 ppb		0.00
Spiked Amount 200.000			Recovery	= 116.297%		
83) Terphenyl-D14(S)	12.52	244	2504948	94.45739 ppb		0.00
Spiked Amount 100.000			Recovery	= 94.457%		
Target Compounds						Qvalue
2) 1,4-Dioxane	1.74	58	18929	9.85390		95
3) n-Nitrosodimethylamine	1.96	42	271356	93.08932 ppb		93
4) Pyridine	1.98	79	702025	97.37636 ppb		100
7) Phenol	5.10	94	838607	103.50067 ppb		90
8) Aniline	5.11	93	455808	99.94949 ppb		91
9) Bis (2-chloroethyl) ether	5.18	63	339378	98.04574 ppb		96
10) 2-Chlorophenol	5.25	128	602478	98.19009 ppb		96
11) 1,3-DCB	5.41	146	678718	97.62737 ppb		98
12) 1,4-DCB	5.50	146	691769	97.93912 ppb		99
13) Benzyl alcohol	5.65	108	347998	99.76497 ppb		99
14) 1,2-DCB	5.67	146	644684	97.70020 ppb		97
15) 2-Methylphenol	5.78	107	505332	101.67545 ppb		97
16) Bis (2-chloroisopropyl) et	5.79	45	375455	97.06131 ppb	#	85
17) Acetophenone	5.94	105	900554	100.78512 ppb		98
18) 3&4-Methylphenol	5.95	107	1402122	205.69082 ppb		100
19) n-Nitrosodi-n-propylamine	5.94	70	512893	100.76263 ppb		99
20) Hexachloroethane	6.05	117	277059	98.88616 ppb		77
23) Nitrobenzene	6.13	77	724399	96.39831 ppb		97
24) Isophorone	6.41	82	1186602	97.40437 ppb		99
25) 2-Nitrophenol	6.48	139	345383	100.50791 ppb		95
26) 2,4-Dimethylphenol	6.54	122	530631	99.13108 ppb		98
27) Benzoic acid	6.70	105	464552	90.96933 ppb		98
28) Bis (2-chloroethoxy) metha	6.63	93	647653	98.59982 ppb		99
29) 2,4-Dichlorophenol	6.76	162	555679	100.81822 ppb		95
30) 1,2,4-Trichlorobenzene	6.85	180	636557	99.79806 ppb		98
31) 3,4-Dimethylphenol	6.87	107	854975	98.79530 ppb		97
32) Naphthalene	6.95	128	1756038	99.95590 ppb		100
33) 4-Chloroaniline	7.00	127	582992	97.46992 ppb		96
34) 2,6-Dichlorophenol	7.01	162	535409	100.31698 ppb		99
35) Hexachloropropene	7.04	213	561742	101.16969 ppb		99
36) Hexachlorobutadiene	7.08	225	447133	99.26663 ppb		99
37) Caprolactum	7.45	55	190606	98.38846 ppb		98

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y191121\1121Y011.D Vial: 11
Acq On : 21 Nov 19 18:26 Operator: MA,SS
Sample : 100ug/ml 8270 11/21/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 22 15:55 2019 Quant Results File: Y1121ND.RES

Quant Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 15:42:05 2019
Response via : Initial Calibration
DataAcq Meth : SVOC1011

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
38)	4-Chloro-3-methylphenol	7.56	107	620360	99.75072 ppb		90
39)	2-Methylnaphthalene	7.73	142	1200691	100.28321 ppb		99
40)	1-Methylnaphthalene	7.85	142	1241758	100.31464 ppb		100
42)	Hexachlorocyclopentadiene	7.91	237	525248	99.42281 ppb		100
43)	1,2,4,5-Tetrachlorobenzene	7.93	216	743990	101.80524 ppb		97
44)	2,4,6-Trichlorophenol	8.06	196	464648	99.86283 ppb		98
45)	2,4,5-Trichlorophenol	8.11	196	492676	99.45490 ppb		95
47)	1,1'-Biphenyl	8.27	154	1566999	99.14353 ppb		98
48)	2-Chloronaphthalene	8.29	162	1270438	98.22934 ppb		99
49)	2-Nitroaniline	8.41	65	396579	96.73698 ppb		89
50)	Dimethyl phthalate	8.62	163	1527158	96.68670 ppb		100
51)	2,6-DNT	8.69	165	355236	100.56678 ppb		90
52)	Acenaphthylene	8.77	152	1930263	97.10593 ppb		99
53)	3-Nitroaniline	8.41	138	399288	98.49557 ppb		94
54)	Acenaphthene	8.98	154	1379881	102.68352 ppb		99
55)	2,4-Dinitrophenol	9.02	184	244377	103.53964 ppb		93
56)	4-Nitrophenol	8.69	65	25792	99.70573 ppb		97
57)	Dibenzofuran	9.17	168	1847326	98.56707 ppb		100
58)	2,4-DNT	9.16	165	508284	101.20631 ppb		96
59)	2,3,4,6-Tetrachlorophenol	9.32	232	423645	101.22566 ppb		98
60)	Diethyl phthalate	9.44	149	1535193	95.23836 ppb		97
61)	4-Chlorophenyl phenyl ethe	9.57	204	958012	103.88708 ppb		98
62)	Fluorene	9.57	166	1635750	104.11127 ppb		99
63)	4-Nitroaniline	8.89	138	307746	95.41624 ppb		95
66)	4,6-Dinitro-2-methylphenol	9.65	198	347696	102.39361 ppb	#	87
67)	Diphenyl amine	9.72	169	2531599	201.06594 ppb		100
68)	n-Nitrosodiphenylamine	9.72	169	2531599	201.06594 ppb		100
69)	1,2-Diphenylhydrazine	9.76	77	1511310	96.98772 ppb		94
70)	4-Bromophenyl phenyl ether	10.14	248	558947	102.77789 ppb		94
71)	Hexachlorobenzene	10.22	284	585989	101.95407 ppb		94
72)	Atrazine	10.33	200	226263	47.19575 ppb		100
73)	Pentachlorophenol	10.44	266	392286	105.06398 ppb		99
74)	Phenanthrene	10.70	178	2206608	99.49222 ppb		100
75)	Anthracene	10.76	178	2313072	99.33821 ppb		99
76)	Carbazol	10.95	167	2052704	97.95452 ppb		98
77)	Di-n-butylphthalate	11.34	149	2755900	100.98770 ppb		99
78)	2-Nitrodiphenylamine	11.51	167	332160	51.22542 ppb		97
79)	Fluoranthene	12.09	202	2710719	100.43374 ppb		98
81)	Benzidine	12.23	184	752592	95.64854 ppb		100
82)	Pyrene	12.35	202	2846621	88.35027 ppb		100
84)	Butyl benzylphthalate	13.09	149	1280524	87.55436 ppb		93
85)	3,3'-Dichlorobenzidine	13.71	252	935925	96.76400 ppb		99
86)	Benz (a) anthracene	13.74	228	3237968	91.64972 ppb		100
87)	Bis (2-ethylhexyl) phthala	13.75	149	2037331	90.61345 ppb		99
88)	Chrysene	13.79	228	2746558	87.26154 ppb		99
89)	Di-n-octylphthalate	14.52	149	3158477	89.60729 ppb		94
91)	Benzo (b) fluoranthene	15.07	252	2866820	96.57314 ppb		99
92)	Benzo (k) fluoranthene	15.11	252	2873942	105.07677 ppb		100
93)	Benzo (a) pyrene	15.55	252	2654481	100.14430 ppb		98
94)	Indeno (1,2,3-cd) pyrene	17.54	276	3092876	98.27998 ppb		99
95)	Dibenz (a,h) anthracene	17.58	278	2789126	100.47972 ppb		99
96)	Benzo (g,h,i) perylene	18.13	276	2411552	96.25433 ppb		99

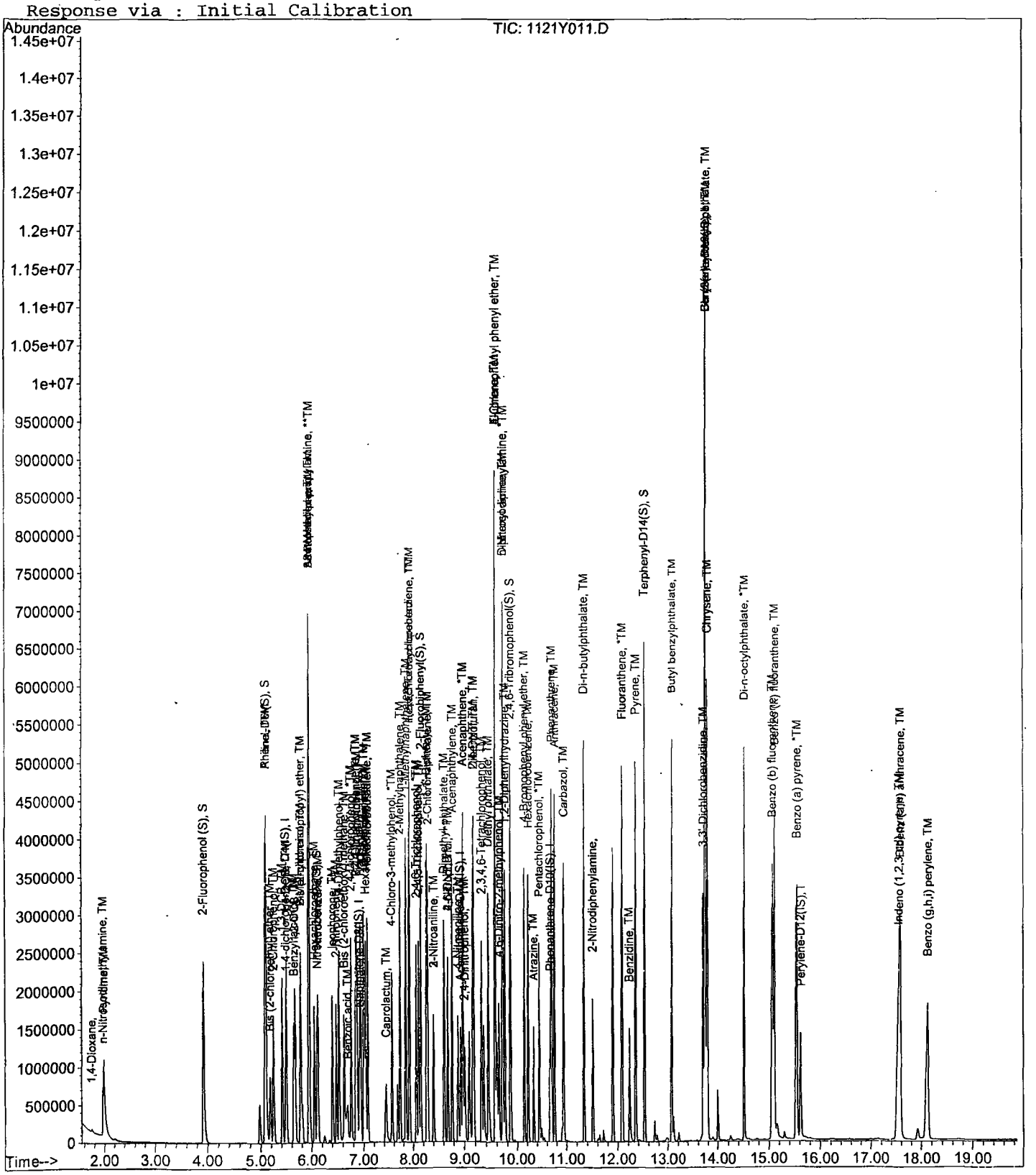
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y191121\1121Y011.D Vial: 11
Acq On : 21 Nov 19 18:26 Operator: MA,SS
Sample : 100ug/ml 8270 11/21/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 22 15:55 2019 Quant Results File: Y1121ND.RES

Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 18:04:15 2019
Response via : Initial Calibration



Semi-Volatile Analysis by GC-MS
EPA 8270

Form 7

Second Source Calibration

Lab Name: APPL, Inc.
Case No:
Matrix:

SDG No:
Date Analyzed: 11/22/19
Instrument: Yoda
Initial Cal. Date: 11/21/19
Data File: 1121Y031.D

		Compound	MEAN	CCRF	%D		%Drift
1		1,4-Dioxane	0.4644	0.4187	9.8		
2	TM	n-Nitrosodimethylamine	0.7047	0.7350	4.3	TM	
3	TM	Pyridine	1.743	1.856	6.5	TM	
4	*TM	Phenol	1.959	2.048	4.5	*TM	
5	TM	Aniline	1.157	1.383	20	TM	
6	TM	Bis (2-chloroethyl) ether	0.8368	0.8714	4.1	TM	
7	TM	2-Chlorophenol	1.483	1.540	3.8	TM	
8	TM	1,3-DCB	1.681	1.730	2.9	TM	
9	*TM	1,4-DCB	1.708	1.750	2.5	*TM	
10	TM	Benzyl alcohol	0.8432	0.9373	11	TM	
11	TM	1,2-DCB	1.595	1.611	1.0	TM	
12	TM	2-Methylphenol	1.201	1.217	1.3	TM	
13	TM	Bis (2-chloroisopropyl) ether	0.9351	0.9909	6.0	TM	
14	TM	Acetophenone	2.160	2.216	2.6	TM	
15	TM	3&4-Methylphenol	1.648	1.689	2.5	TM	
16	**TM	n-Nitrosodi-n-propylamine	1.231	1.296	5.3	**TM	
17	TM	Hexachloroethane	0.6773	0.7009	3.5	TM	
18	TM	Nitrobenzene	0.4609	0.4732	2.7	TM	
19	TM	Isophorone	0.7471	0.7881	5.5	TM	
20	*TM	2-Nitrophenol	0.2108	0.2226	5.6	*TM	
21	TM	2,4-Dimethylphenol	0.3283	0.3485	6.2	TM	
22	TML	Benzoic acid	0.2427	0.3209	32	TML	5.0
23	TM	Bis (2-chloroethoxy) methane	0.4028	0.4376	8.6	TM	
24	*TM	2,4-Dichlorophenol	0.3380	0.3552	5.1	*TM	
25	TM	1,2,4-Trichlorobenzene	0.3912	0.4061	3.8	TM	
26	TM	3,4-Dimethylphenol	0.5307	0.5603	5.6	TM	
27	TM	Naphthalene	1.077	1.149	6.7	TM	
28	TM	4-Chloroaniline	0.3796	0.4520	19	TM	
29	TM	2,6-Dichlorophenol	0.3273	0.3457	5.6	TM	
30	TM	Hexachloropropene	0.3405	0.3575	5.0	TM	
31	*TM	Hexachlorobutadiene	0.2763	0.2845	3.0	*TM	
32	TM	Caprolactum	0.1188	0.1277	7.5	TM	
33	*TM	4-Chloro-3-methylphenol	0.3814	0.4051	6.2	*TM	
34	TM	2-Methylnaphthalene	0.7343	0.7998	8.9	TM	
35	TM	1-Methylnaphthalene	0.7592	0.7910	4.2	TM	
36	**TM	Hexachlorocyclopentadiene	0.5081	0.5178	1.9	**TM	
37	TM	1,2,4,5-Tetrachlorobenzene	0.7029	0.7210	2.6	TM	
38	*TM	2,4,6-Trichlorophenol	0.4475	0.4698	5.0	*TM	
39	TM	2,4,5-Trichlorophenol	0.4765	0.4958	4.1	TM	
40	TM	1,1'-Biphenyl	1.520	1.591	4.7	TM	
		Average			6.3		

Semi-Volatile Analysis by GC-MS
EPA 8270

Form 7

Second Source Calibration

Lab Name: APPL, Inc.
Case No:
Matrix: 0

SDG No:
Date Analyzed: 11/22/19
Instrument: Yoda
Cal. Date: 11/21/19
Data File: 1121Y031.D

		Compound	MEAN	CCRF	%D		%Drift
41	TM	2-Chloronaphthalene	1.244	1.270	2.1	TM	
42	TM	2-Nitroaniline	0.3943	0.4363	11	TM	
43	TM	Dimethyl phthalate	1.519	1.581	4.0	TM	
44	TM	2,6-DNT	0.3398	0.3503	3.1	TM	
45	TM	Acenaphthylene	1.912	2.013	5.3	TM	
46	TM	3-Nitroaniline	0.3899	0.4282	9.8	TM	
47	*TM	Acenaphthene	1.293	1.374	6.3	*TM	
48	**TM	2,4-Dinitrophenol	0.2270	0.2078	8.5	**TM	
49	**TM	4-Nitrophenol	0.0249	0.0255	2.5	**TM	
50	TM	Dibenzofuran	1.803	1.948	8.0	TM	
51	TM	2,4-DNT	0.4831	0.5081	5.2	TM	
52	TM	2,3,4,6-Tetrachlorophenol	0.4026	0.4217	4.8	TM	
53	TM	Diethyl phthalate	1.550	1.616	4.2	TM	
54	TM	4-Chlorophenyl phenyl ether	0.8870	0.9201	3.7	TM	
55	TM	Fluorene	1.511	1.605	6.2	TM	
56	TM	4-Nitroaniline	0.3102	0.3481	12	TM	
57	TM	4,6-Dinitro-2-methylphenol	0.1657	0.1692	2.1	TM	
58	TM	Diphenyl amine	0.6145	0.6582	7.1	TM	
59	*TM	n-Nitrosodiphenylamine	0.6145	0.6582	7.1	*TM	
60	TM	1,2-Diphenylhydrazine	0.7606	0.7882	3.6	TM	
61	TM	4-Bromophenyl phenyl ether	0.2654	0.2802	5.6	TM	
62	TM	Hexachlorobenzene	0.2805	0.2914	3.9	TM	
63	TM	Atrazine	0.2340	0.2529	8.1	TM	
64	*TM	Pentachlorophenol	0.1822	0.1839	0.90	*TM	
65	TM	Phenanthrene	1.083	1.158	6.9	TM	
66	TM	Anthracene	1.137	1.193	5.0	TM	
67	TM	Carbazol	1.023	1.086	6.1	TM	
68	TM	Di-n-butylphthalate	1.332	1.413	6.1	TM	
69		2-Nitrodiphenylamine	0.3165	0.3476	9.8		
70	*TM	Fluoranthene	1.317	1.408	6.9	*TM	
71	TM	Benzidine	0.2967	0.3285	11	TM	
72	TM	Pyrene	1.215	1.271	4.6	TM	
73	TM	Butyl benzylphthalate	0.5515	0.5707	3.5	TM	
74	TM	3,3'-Dichlorobenzidine	0.3647	0.4360	20	TM	
75	TM	Benz (a) anthracene	1.332	1.397	4.9	TM	
76	TM	Bis (2-ethylhexyl) phthalate	0.8479	0.9274	9.4	TM	
77	TM	Chrysene	1.187	1.239	4.4	TM	
78	*TM	Di-n-octylphthalate	1.329	1.443	8.6	*TM	
79	TM	Benzo (b) fluoranthene	1.265	1.319	4.3	TM	
80	TM	Benzo (k) fluoranthene	1.165	1.283	10	TM	
		Average			6.4		

Semi-Volatile Analysis by GC-MS
EPA 8270

Form 7

Second Source Calibration

Lab Name: APPL, Inc.
Case No:
Matrix: 0

SDG No:
Date Analyzed: 11/22/19
Instrument: Yoda
Cal. Date: 11/21/19
Data File: 1121Y031.D

		Compound	MEAN	CCRF	%D		%Drift
81	*TM	Benzo (a) pyrene	1.129	1.217	7.8	*TM	
82	TM	Indeno (1,2,3-cd) pyrene	1.341	1.394	3.9	TM	
83	TM	Dibenz (a,h) anthracene	1.183	1.278	8.1	TM	
84	TM	Benzo (g,h,i) perylene	1.068	1.226	15	TM	
85							
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118							
119							
120							
		Average			8.7		

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y191121\1121Y031.D Vial: 31
Acq On : 22 Nov 19 13:38 Operator: MA,SS
Sample : SS 8270 11/22/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 25 11:24 2019 Quant Results File: Y1121ND.RES

Quant Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 18:04:15 2019
Response via : Initial Calibration
DataAcq Meth : SVOC1011

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.47	152	171421	40.00000 ppb	0.00
21) Napthalene-D8(IS)	6.91	136	662584	40.00000 ppb	0.00
41) Acenaphthene-D10(IS)	8.93	164	418442	40.00000 ppb	0.00
65) Phenanthrene-D10(IS)	10.66	188	824762	40.00000 ppb	0.00
80) Chrysene-D12(IS)	13.75	240	956637	40.00000 ppb	0.00
90) Perylene-D12(IS)	15.62	264	963616	40.00000 ppb	0.00
System Monitoring Compounds					
5) 2-Fluorophenol (S)	0.00	112	0	0.00000 ppb	
Spiked Amount 200.000			Recovery =	0.000%	
6) Phenol-D6 (S)	0.00	99	0	0.00000 ppb	
Spiked Amount 200.000			Recovery =	0.000%	
22) Nitrobenzene-D5(S)	6.05	82	44357	5.94050 ppb	-0.05
Spiked Amount 100.000			Recovery =	5.940%	
46) 2-Fluorobiphenyl(S)	8.10	172	717	0.04583 ppb	-0.05
Spiked Amount 100.000			Recovery =	0.046%	
64) 2,4,6-Tribromophenol(S)	0.00	330	0	0.00000 ppb	
Spiked Amount 200.000			Recovery =	0.000%	
83) Terphenyl-D14(S)	12.52	244	529	0.02212 ppb	0.00
Spiked Amount 100.000			Recovery =	0.022%	
Target Compounds					Qvalue
2) 1,4-Dioxane	1.73	58	8972	4.50826	97
3) n-Nitrosodimethylamine	1.94	42	157497	52.15215 ppb	85
4) Pyridine	1.97	79	397706	53.24792 ppb	97
7) Phenol	5.08	94	438769	52.27091 ppb	95
8) Aniline	5.09	93	296448	59.80681 ppb	97
9) Bis (2-chloroethyl) ether	5.17	63	186730	52.07133 ppb	97
10) 2-Chlorophenol	5.24	128	329970	51.90873 ppb	96
11) 1,3-DCB	5.41	146	370675	51.46536 ppb	99
12) 1,4-DCB	5.49	146	374910	51.23440 ppb	98
13) Benzyl alcohol	5.63	108	200832	55.57427 ppb	95
14) 1,2-DCB	5.67	146	345304	50.51143 ppb	97
15) 2-Methylphenol	5.76	107	260765	50.64401 ppb	98
16) Bis (2-chloroisopropyl) et	5.78	45	212330	52.98331 ppb	89
17) Acetophenone	5.93	105	474785	51.28887 ppb	89
18) 3&4-Methylphenol	5.94	107	723826	102.49502 ppb	98
19) n-Nitrosodi-n-propylamine	5.93	70	277635	52.64855 ppb	98
20) Hexachloroethane	6.05	117	150185	51.74034 ppb	85
23) Nitrobenzene	6.12	77	391946	51.34108 ppb	94
24) Isophorone	6.39	82	652688	52.73830 ppb	97
25) 2-Nitrophenol	6.47	139	184402	52.82167 ppb	89
26) 2,4-Dimethylphenol	6.53	122	288651	53.08080 ppb	96
27) Benzoic acid	6.65	105	265773	52.52237 ppb	98
28) Bis (2-chloroethoxy) metha	6.62	93	362438	54.31436 ppb	99
29) 2,4-Dichlorophenol	6.75	162	294151	52.53304 ppb	95
30) 1,2,4-Trichlorobenzene	6.85	180	336307	51.90006 ppb	97
31) 3,4-Dimethylphenol	6.86	107	464030	52.78082 ppb	99
32) Naphthalene	6.94	128	951836	53.33151 ppb	100
33) 4-Chloroaniline	6.99	127	374395	59.53877 ppb	96
34) 2,6-Dichlorophenol	7.00	162	286319	52.80635 ppb	98
35) Hexachloropropene	7.04	213	296131	52.49822 ppb	99
36) Hexachlorobutadiene	7.08	225	235619	51.49013 ppb	99
37) Caprolactum	7.41	55	105792	53.75361 ppb	98

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y191121\1121Y031.D Vial: 31
Acq On : 22 Nov 19 13:38 Operator: MA,SS
Sample : SS 8270 11/22/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 25 11:24 2019 Quant Results File: Y1121ND.RES

Quant Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 18:04:15 2019
Response via : Initial Calibration
DataAcq Meth : SVOC1011

Compound	R.T.	QIon	Response	Conc Unit		Qvalue
38) 4-Chloro-3-methylphenol	7.55	107	335513	53.10419 ppb		90
39) 2-Methylnaphthalene	7.73	142	662441	54.46172 ppb		99
40) 1-Methylnaphthalene	7.84	142	655119	52.09484 ppb		99
42) Hexachlorocyclopentadiene	7.91	237	270848	50.95175 ppb		98
43) 1,2,4,5-Tetrachlorobenzene	7.92	216	377114	51.28467 ppb		99
44) 2,4,6-Trichlorophenol	8.05	196	245742	52.48934 ppb		97
45) 2,4,5-Trichlorophenol	8.10	196	259336	52.02828 ppb		93
47) 1,1'-Biphenyl	8.27	154	832163	52.32581 ppb		98
48) 2-Chloronaphthalene	8.28	162	664290	51.04548 ppb		97
49) 2-Nitroaniline	8.40	65	228214	55.32443 ppb		91
50) Dimethyl phthalate	8.61	163	826771	52.02114 ppb		99
51) 2,6-DNT	8.68	165	183246	51.55656 ppb		92
52) Acenaphthylene	8.77	152	1052996	52.64630 ppb		100
53) 3-Nitroaniline	8.40	138	223977	54.90928 ppb		95
54) Acenaphthene	8.97	154	718729	53.15403 ppb		98
55) 2,4-Dinitrophenol	9.01	184	108675	45.76019 ppb		96
56) 4-Nitrophenol	8.68	65	13343	51.26258 ppb		96
57) Dibenzofuran	9.17	168	1018717	54.01990 ppb		97
58) 2,4-DNT	9.16	165	265741	52.58617 ppb		95
59) 2,3,4,6-Tetrachlorophenol	9.31	232	220565	52.37656 ppb		94
60) Diethyl phthalate	9.43	149	845111	52.10442 ppb		98
61) 4-Chlorophenyl phenyl ethe	9.56	204	481244	51.86421 ppb		92
62) Fluorene	9.57	166	839435	53.09820 ppb		98
63) 4-Nitroaniline	8.88	138	182054	56.09730 ppb		94
66) 4,6-Dinitro-2-methylphenol	9.63	198	174409	51.03576 ppb	#	72
67) Diphenyl amine	9.70	169	1357188	107.10657 ppb		100
68) n-Nitrosodiphenylamine	9.70	169	1357188	107.10657 ppb		100
69) 1,2-Diphenylhydrazine	9.75	77	812596	51.81678 ppb		91
70) 4-Bromophenyl phenyl ether	10.14	248	288847	52.77515 ppb		93
71) Hexachlorobenzene	10.21	284	300398	51.93315 ppb	#	86
72) Atrazine	10.33	200	130350	27.01674 ppb		98
73) Pentachlorophenol	10.45	266	189568	50.44853 ppb		99
74) Phenanthrene	10.69	178	1193495	53.47084 ppb		100
75) Anthracene	10.75	178	1230249	52.49920 ppb		100
76) Carbazol	10.94	167	1119240	53.07059 ppb		99
77) Di-n-butylphthalate	11.34	149	1456976	53.05055 ppb		98
78) 2-Nitrodiphenylamine	11.51	167	179156	27.45378 ppb		94
79) Fluoranthene	12.08	202	1451245	53.42793 ppb		99
81) Benzidine	12.23	184	392760	55.34822 ppb		97
82) Pyrene	12.35	202	1519982	52.30875 ppb		99
84) Butyl benzylphthalate	13.08	149	682425	51.73717 ppb		84
85) 3,3'-Dichlorobenzidine	13.70	252	521346	59.76631 ppb		98
86) Benz (a) anthracene	13.74	228	1670654	52.43277 ppb		99
87) Bis (2-ethylhexyl) phthala	13.75	149	1108962	54.68968 ppb	#	95
88) Chrysene	13.78	228	1481718	52.19841 ppb		100
89) Di-n-octylphthalate	14.51	149	1725602	54.28301 ppb		96
91) Benzo (b) fluoranthene	15.06	252	1589370	52.15999 ppb		99
92) Benzo (k) fluoranthene	15.10	252	1545615	55.05372 ppb		99
93) Benzo (a) pyrene	15.53	252	1465947	53.87924 ppb		99
94) Indeno (1,2,3-cd) pyrene	17.52	276	1678695	51.96740 ppb		99
95) Dibenz (a,h) anthracene	17.56	278	1539902	54.04555 ppb		98
96) Benzo (g,h,i) perylene	18.10	276	1476910	57.42940 ppb		100

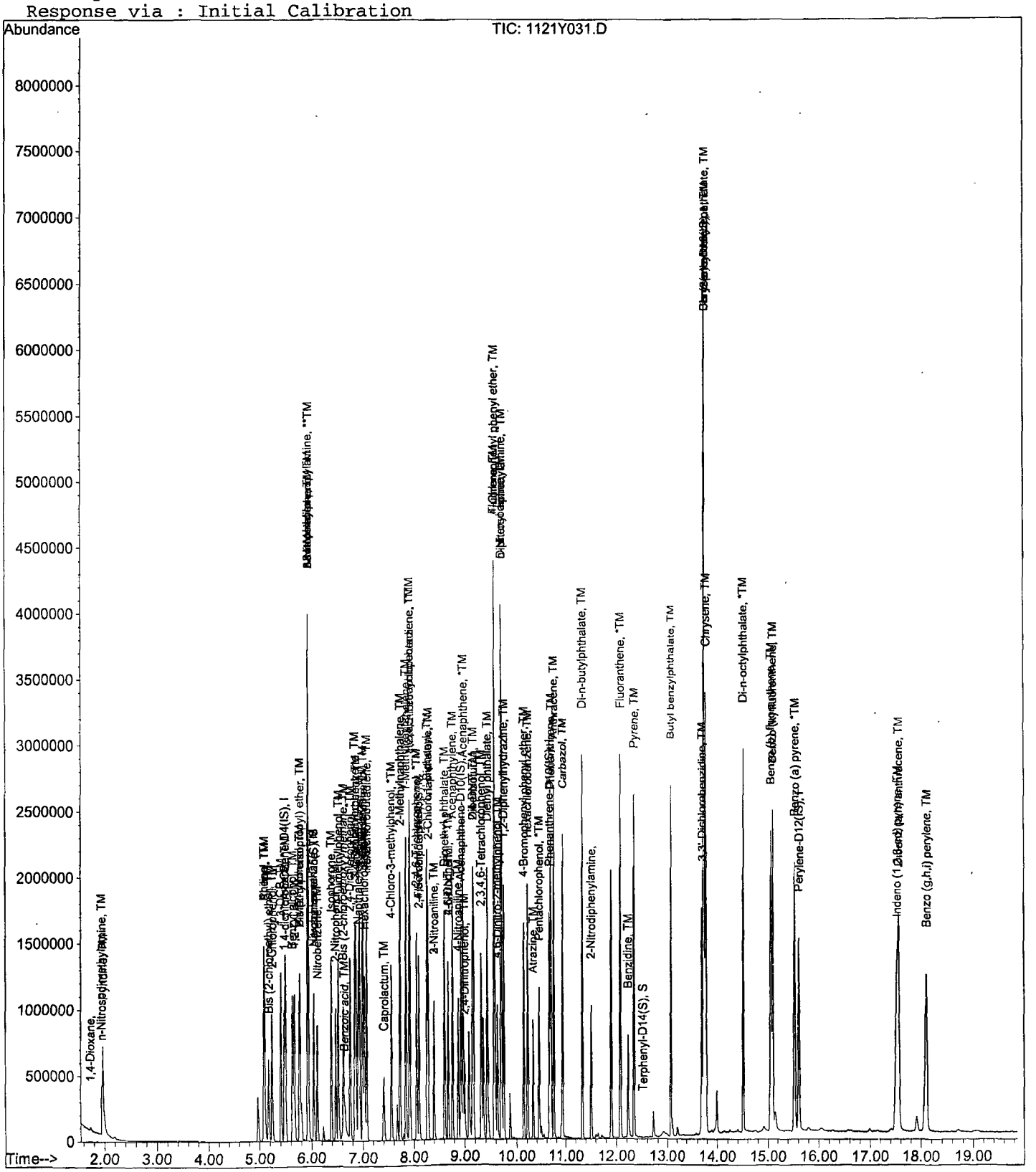
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y191121\1121Y031.D Vial: 31
Acq On : 22 Nov 19 13:38 Operator: MA,SS
Sample : SS 8270 11/22/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 25 11:24 2019 Quant Results File: Y1121ND.RES

Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 18:04:15 2019
Response via : Initial Calibration



Semi-Volatile Analysis by GC-MS
EPA 8270

Form 7

Ending Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix:

SDG No:
Date Analyzed: 11/26/19
Instrument: Yoda
Initial Cal. Date: 11/21/19
Data File: 1121Y154.D

		Compound	MEAN	CCRF	%D		%Drift
1	I	1,4-dichlorobenzene-D4(IS)	ISTD			I	
2		1,4-Dioxane	0.4644	0.4740	2.1		
3	TM	n-Nitrosodimethylamine	0.7047	0.8639	23	TM	
4	TM	Pyridine	1.743	2.050	18	TM	
5	S	2-Fluorophenol (S)	1.393	1.435	3.0	S	
6	S	Phenol-D6 (S)	1.659	1.762	6.2	S	
7	*TM	Phenol	1.959	2.184	11	*TM	
8	TM	Aniline	1.157	1.329	15	TM	
9	TM	Bis (2-chloroethyl) ether	0.8368	0.9543	14	TM	
10	TM	2-Chlorophenol	1.483	1.581	6.6	TM	
11	TM	1,3-DCB	1.681	1.715	2.0	TM	
12	*TM	1,4-DCB	1.708	1.760	3.1	*TM	
13	TM	Benzyl alcohol	0.8432	0.9323	11	TM	
14	TM	1,2-DCB	1.595	1.638	2.7	TM	
15	TM	2-Methylphenol	1.201	1.355	13	TM	
16	TM	Bis (2-chloroisopropyl) ether	0.9351	1.121	20	TM	
17	TM	Acetophenone	2.160	2.372	9.8	TM	
18	TM	3&4-Methylphenol	1.648	1.838	12	TM	
19	**TM	n-Nitrosodi-n-propylamine	1.231	1.442	17	**TM	
20	TM	Hexachloroethane	0.6773	0.7210	6.4	TM	
21	I	Napthalene-D8(IS)	ISTD			I	
22	S	Nitrobenzene-D5(S)	0.4508	0.4694	4.1	S	
23	TM	Nitrobenzene	0.4609	0.4980	8.1	TM	
24	TM	Isophorone	0.7471	0.8098	8.4	TM	
25	*TM	2-Nitrophenol	0.2108	0.2193	4.1	*TM	
26	TM	2,4-Dimethylphenol	0.3283	0.3480	6.0	TM	
27	TML	Benzoic acid	0.2427	0.3340	38	TML	9.0
28	TM	Bis (2-chloroethoxy) methane	0.4028	0.4317	7.2	TM	
29	*TM	2,4-Dichlorophenol	0.3380	0.3497	3.5	*TM	
30	TM	1,2,4-Trichlorobenzene	0.3912	0.3971	1.5	TM	
31	TM	3,4-Dimethylphenol	0.5307	0.5743	8.2	TM	
32	TM	Naphthalene	1.077	1.129	4.8	TM	
33	TM	4-Chloroaniline	0.3796	0.4418	16	TM	
34	TM	2,6-Dichlorophenol	0.3273	0.3346	2.2	TM	
35	TM	Hexachloropropene	0.3405	0.2967	13	TM	
36	*TM	Hexachlorobutadiene	0.2763	0.2758	0.17	*TM	
37	TM	Caprolactum	0.1188	0.1334	12	TM	
38	*TM	4-Chloro-3-methylphenol	0.3814	0.4063	6.5	*TM	
39	TM	2-Methylnaphthalene	0.7343	0.7765	5.8	TM	
40	TM	1-Methylnaphthalene	0.7592	0.7902	4.1	TM	
		Average			9.2		

Semi-Volatile Analysis by GC-MS
EPA 8270

Form 7

Ending Continuing Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Date Analyzed: 11/26/19
Matrix: 0 Instrument: Yoda
Cal. Date: 11/21/19
Data File: 1121Y154.D

		Compound	MEAN	CCRF	%D		%Drift
41	I	Acenaphthene-D10(IS)	ISTD			I	
42	**TM	Hexachlorocyclopentadiene	0.5081	0.3896	23	**TM	
43	TM	1,2,4,5-Tetrachlorobenzene	0.7029	0.6995	0.49	TM	
44	*TM	2,4,6-Trichlorophenol	0.4475	0.4551	1.7	*TM	
45	TM	2,4,5-Trichlorophenol	0.4765	0.4851	1.8	TM	
46	S	2-Fluorobiphenyl(S)	1.496	1.445	3.4	S	
47	TM	1,1'-Biphenyl	1.520	1.603	5.4	TM	
48	TM	2-Chloronaphthalene	1.244	1.292	3.9	TM	
49	TM	2-Nitroaniline	0.3943	0.4473	13	TM	
50	TM	Dimethyl phthalate	1.519	1.591	4.7	TM	
51	TM	2,6-DNT	0.3398	0.3560	4.8	TM	
52	TM	Acenaphthylene	1.912	1.972	3.2	TM	
53	TM	3-Nitroaniline	0.3899	0.4205	7.8	TM	
54	*TM	Acenaphthene	1.293	1.313	1.6	*TM	
55	**TM	2,4-Dinitrophenol	0.2270	0.1474	35	**TM	
56	**TM	4-Nitrophenol	0.0249	0.0292	17	**TM	
57	TM	Dibenzofuran	1.803	1.851	2.7	TM	
58	TM	2,4-DNT	0.4831	0.5120	6.0	TM	
59	TM	2,3,4,6-Tetrachlorophenol	0.4026	0.4054	0.70	TM	
60	TM	Diethyl phthalate	1.550	1.605	3.5	TM	
61	TM	4-Chlorophenyl phenyl ether	0.8870	0.9205	3.8	TM	
62	TM	Fluorene	1.511	1.612	6.7	TM	
63	TM	4-Nitroaniline	0.3102	0.3431	11	TM	
64	S	2,4,6-Tribromophenol(S)	0.3060	0.2897	5.3	S	
65	I	Phenanthrene-D10(IS)	ISTD			I	
66	TM	4,6-Dinitro-2-methylphenol	0.1657	0.1247	25	TM	
67	TM	Diphenyl amine	0.6145	0.6755	9.9	TM	
68	*TM	n-Nitrosodiphenylamine	0.6145	0.6755	9.9	*TM	
69	TM	1,2-Diphenylhydrazine	0.7606	0.8649	14	TM	
70	TM	4-Bromophenyl phenyl ether	0.2654	0.2751	3.6	TM	
71	TM	Hexachlorobenzene	0.2805	0.2811	0.22	TM	
72	TM	Atrazine	0.2340	0.2208	5.6	TM	
73	*TM	Pentachlorophenol	0.1822	0.1782	2.2	*TM	
74	TM	Phenanthrene	1.083	1.145	5.7	TM	
75	TM	Anthracene	1.137	1.205	6.0	TM	
76	TM	Carbazol	1.023	1.096	7.2	TM	
77	TM	Di-n-butylphthalate	1.332	1.457	9.4	TM	
78		2-Nitrodiphenylamine	0.3165	0.3573	13		
79	*TM	Fluoranthene	1.317	1.407	6.8	*TM	
80	I	Chrysene-D12(IS)	ISTD			I	
		Average			7.7		

Semi-Volatile Analysis by GC-MS
EPA 8270

Form 7

Ending Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix: 0

SDG No:
Date Analyzed: 11/26/19
Instrument: Yoda
Cal. Date: 11/21/19
Data File: 1121Y154.D

		Compound	MEAN	CCRF	%D		%Drift
81	TM	Benzidine	0.2967	0.3296	11	TM	
82	TM	Pyrene	1.215	1.222	0.57	TM	
83	S	Terphenyl-D14(S)	1.000	0.9423	5.8	S	
84	TM	Butyl benzylphthalate	0.5515	0.5704	3.4	TM	
85	TM	3,3'-Dichlorobenzidine	0.3647	0.4696	29	TM	
86	TM	Benz (a) anthracene	1.332	1.326	0.46	TM	
87	TM	Bis (2-ethylhexyl) phthalate	0.8479	0.9572	13	TM	
88	TM	Chrysene	1.187	1.161	2.1	TM	
89	*TM	Di-n-octylphthalate	1.329	1.409	6.0	*TM	
90	I	Perylene-D12(IS)	ISTD			I	
91	TM	Benzo (b) fluoranthene	1.265	1.329	5.0	TM	
92	TM	Benzo (k) fluoranthene	1.165	1.261	8.2	TM	
93	*TM	Benzo (a) pyrene	1.129	1.179	4.4	*TM	
94	TM	Indeno (1,2,3-cd) pyrene	1.341	1.356	1.1	TM	
95	TM	Dibenz (a,h) anthracene	1.183	1.195	1.0	TM	
96	TM	Benzo (g,h,i) perylene	1.068	1.073	0.49	TM	
97							
98							
99							
100							
101							
102							
103							
104							
105							
106							
107							
108							
109							
110							
111							
112							
113							
114							
115							
116							
117							
118							
119							
120							
		Average			6.1		

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y191121\1121Y154.D Vial: 54
Acq On : 26 Nov 19 20:50 Operator: MA,SS
Sample : 50ug/ml 8270 11/21/19 (1) Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 27 7:38 2019 Quant Results File: Y1121ND.RES

Quant Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 18:04:15 2019
Response via : Initial Calibration
DataAcq Meth : SVOC1011

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.47	152	179473	40.00000 ppb		0.00
21) Napthalene-D8(IS)	6.91	136	719514	40.00000 ppb		0.00
41) Acenaphthene-D10(IS)	8.93	164	453439	40.00000 ppb		0.00
65) Phenanthrene-D10(IS)	10.67	188	869953	40.00000 ppb		0.00
80) Chrysene-D12(IS)	13.76	240	1038491	40.00000 ppb		0.00
90) Perylene-D12(IS)	15.62	264	946185	40.00000 ppb		0.00
System Monitoring Compounds						
5) 2-Fluorophenol (S)	3.90	112	643790	103.01244 ppb		0.00
Spiked Amount 200.000			Recovery	= 51.506%		
6) Phenol-D6 (S)	5.07	99	790641	106.24656 ppb		0.00
Spiked Amount 200.000			Recovery	= 53.124%		
22) Nitrobenzene-D5(S)	6.10	82	422202	52.06943 ppb		0.00
Spiked Amount 100.000			Recovery	= 52.069%		
46) 2-Fluorobiphenyl(S)	8.14	172	819046	48.31191 ppb		0.00
Spiked Amount 100.000			Recovery	= 48.312%		
64) 2,4,6-Tribromophenol(S)	9.86	330	328385	94.67254 ppb		0.00
Spiked Amount 200.000			Recovery	= 47.337%		
83) Terphenyl-D14(S)	12.52	244	1223267	47.11515 ppb		0.00
Spiked Amount 100.000			Recovery	= 47.115%		
Target Compounds						Qvalue
2) 1,4-Dioxane	1.72	58	10634	5.10366		75
3) n-Nitrosodimethylamine	1.94	42	193799	61.29377 ppb		100
4) Pyridine	1.96	79	459851	58.80612 ppb		99
7) Phenol	5.09	94	489897	55.74345 ppb		90
8) Aniline	5.10	93	298240	57.46890 ppb		90
9) Bis (2-chloroethyl) ether	5.17	63	214083	57.02058 ppb		91
10) 2-Chlorophenol	5.24	128	354618	53.28336 ppb		96
11) 1,3-DCB	5.40	146	384680	51.01363 ppb		97
12) 1,4-DCB	5.49	146	394790	51.53065 ppb		98
13) Benzyl alcohol	5.64	108	209164	55.28314 ppb		98
14) 1,2-DCB	5.66	146	367467	51.34183 ppb		99
15) 2-Methylphenol	5.77	107	304001	56.39216 ppb		96
16) Bis (2-chloroisopropyl) et	5.78	45	251533	59.94978 ppb	#	73
17) Acetophenone	5.93	105	532131	54.90471 ppb		89
18) 3&4-Methylphenol	5.94	107	824480	111.50995 ppb		99
19) n-Nitrosodi-n-propylamine	5.93	70	323406	58.57674 ppb		96
20) Hexachloroethane	6.04	117	161743	53.22224 ppb		96
23) Nitrobenzene	6.12	77	447941	54.03327 ppb		98
24) Isophorone	6.39	82	728304	54.19197 ppb		94
25) 2-Nitrophenol	6.48	139	197237	52.02793 ppb		98
26) 2,4-Dimethylphenol	6.53	122	313026	53.00862 ppb		99
27) Benzoic acid	6.67	105	300385	54.51101 ppb		97
28) Bis (2-chloroethoxy) metha	6.63	93	388252	53.57921 ppb		99
29) 2,4-Dichlorophenol	6.76	162	314516	51.72573 ppb		99
30) 1,2,4-Trichlorobenzene	6.84	180	357184	50.76047 ppb		97
31) 3,4-Dimethylphenol	6.86	107	516511	54.10175 ppb		99
32) Naphthalene	6.94	128	1015093	52.37563 ppb		100
33) 4-Chloroaniline	6.99	127	397384	58.19449 ppb		98
34) 2,6-Dichlorophenol	7.01	162	300931	51.10985 ppb		99
35) Hexachloropropene	7.04	213	266832	43.56125 ppb		99
36) Hexachlorobutadiene	7.08	225	248033	49.91429 ppb		100
37) Caprolactum	7.42	55	119960	56.12973 ppb		94

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y191121\1121Y154.D Vial: 54
Acq On : 26 Nov 19 20:50 Operator: MA,SS
Sample : 50ug/ml 8270 11/21/19 (1) Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 27 7:38 2019 Quant Results File: Y1121ND.RES

Quant Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 18:04:15 2019
Response via : Initial Calibration
DataAcq Meth : SVOC1011

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
38)	4-Chloro-3-methylphenol	7.56	107	365424	53.26209	ppb		95
39)	2-Methylnaphthalene	7.72	142	698402	52.87511	ppb		100
40)	1-Methylnaphthalene	7.84	142	710656	52.03980	ppb		100
42)	Hexachlorocyclopentadiene	7.91	237	220800	38.33090	ppb		99
43)	1,2,4,5-Tetrachlorobenzene	7.92	216	396483	49.75720	ppb		100
44)	2,4,6-Trichlorophenol	8.05	196	257942	50.84288	ppb		100
45)	2,4,5-Trichlorophenol	8.11	196	274951	50.90359	ppb		95
47)	1,1'-Biphenyl	8.26	154	908359	52.70860	ppb		99
48)	2-Chloronaphthalene	8.29	162	732391	51.93487	ppb		99
49)	2-Nitroaniline	8.40	65	253528	56.71749	ppb		95
50)	Dimethyl phthalate	8.62	163	901594	52.35065	ppb		100
51)	2,6-DNT	8.69	165	201795	52.39336	ppb		82
52)	Acenaphthylene	8.76	152	1117973	51.58089	ppb		99
53)	3-Nitroaniline	8.40	138	238316	53.91528	ppb		99
54)	Acenaphthene	8.97	154	744268	50.79451	ppb		99
55)	2,4-Dinitrophenol	9.01	184	83537	32.46037	ppb		88
56)	4-Nitrophenol	8.68	65	16549	58.67257	ppb		97
57)	Dibenzofuran	9.17	168	1049257	51.34504	ppb		100
58)	2,4-DNT	9.15	165	290218	52.99730	ppb		86
59)	2,3,4,6-Tetrachlorophenol	9.32	232	229755	50.34795	ppb		97
60)	Diethyl phthalate	9.43	149	909668	51.75593	ppb		96
61)	4-Chlorophenyl phenyl ethe	9.56	204	521741	51.88883	ppb	#	84
62)	Fluorene	9.57	166	913843	53.34340	ppb		99
63)	4-Nitroaniline	8.88	138	194469	55.29788	ppb		87
66)	4,6-Dinitro-2-methylphenol	9.64	198	135601	37.61849	ppb	#	85
67)	Diphenyl amine	9.71	169	1469100	109.91585	ppb		100
68)	n-Nitrosodiphenylamine	9.71	169	1469100	109.91585	ppb		100
69)	1,2-Diphenylhydrazine	9.76	77	940567	56.86150	ppb		98
70)	4-Bromophenyl phenyl ether	10.14	248	299176	51.82284	ppb		96
71)	Hexachlorobenzene	10.22	284	305728	50.10899	ppb		96
72)	Atrazine	10.32	200	120041	23.58763	ppb		98
73)	Pentachlorophenol	10.44	266	193784	48.89160	ppb		99
74)	Phenanthrene	10.69	178	1244623	52.86486	ppb		100
75)	Anthracene	10.75	178	1310274	53.00961	ppb		100
76)	Carbazol	10.94	167	1191847	53.57770	ppb		98
77)	Di-n-butylphthalate	11.34	149	1584063	54.68180	ppb		98
78)	2-Nitrodiphenylamine	11.51	167	194295	28.22703	ppb		99
79)	Fluoranthene	12.08	202	1530294	53.41157	ppb		99
81)	Benzidine	12.23	184	427883	55.54512	ppb		99
82)	Pyrene	12.35	202	1586188	50.28460	ppb		99
84)	Butyl benzylphthalate	13.09	149	740503	51.71529	ppb		99
85)	3,3'-Dichlorobenzidine	13.70	252	609564	64.37158	ppb	#	98
86)	Benz (a) anthracene	13.74	228	1721546	49.77134	ppb		100
87)	Bis (2-ethylhexyl) phthala	13.75	149	1242523	56.44658	ppb		99
88)	Chrysene	13.79	228	1507683	48.92673	ppb		100
89)	Di-n-octylphthalate	14.51	149	1828785	52.99445	ppb		96
91)	Benzo (b) fluoranthene	15.07	252	1571322	52.51769	ppb		98
92)	Benzo (k) fluoranthene	15.10	252	1491286	54.09713	ppb		99
93)	Benzo (a) pyrene	15.54	252	1394881	52.21175	ppb		99
94)	Indeno (1,2,3-cd) pyrene	17.54	276	1603749	50.56191	ppb		98
95)	Dibenz (a,h) anthracene	17.57	278	1413122	50.50966	ppb		99
96)	Benzo (g,h,i) perylene	18.12	276	1268799	50.24594	ppb		98

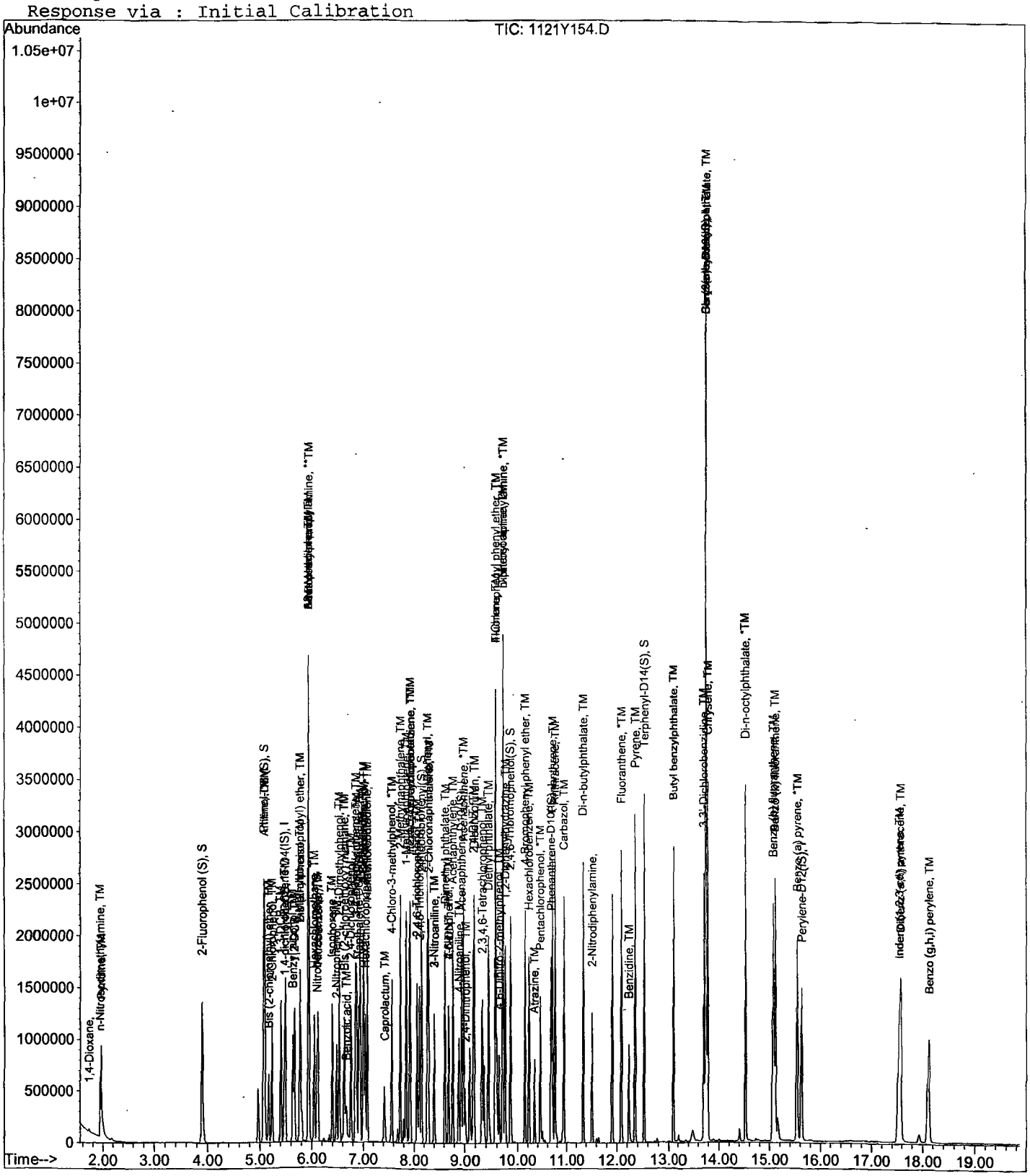
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y191121\1121Y154.D Vial: 54
Acq On : 26 Nov 19 20:50 Operator: MA,SS
Sample : 50ug/ml 8270 11/21/19 (1) Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 27 7:38 2019 Quant Results File: Y1121ND.RES

Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 18:04:15 2019
Response via : Initial Calibration



Semi-Volatile Analysis by GC-MS
EPA 8270

Form 7

Ending Continuing Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Date Analyzed: 11/27/19
Matrix: Instrument: Yoda
Initial Cal. Date: 11/21/19
Data File: 1121Y172.D

		Compound	MEAN	CCRF	%D		%Drift
1	I	1,4-dichlorobenzene-D4(IS)	ISTD			I	
2		1,4-Dioxane	0.4644	0.4417	4.9		
3	TM	n-Nitrosodimethylamine	0.7047	0.8379	19	TM	
4	TM	Pyridine	1.743	1.952	12	TM	
5	S	2-Fluorophenol (S)	1.393	1.379	1.0	S	
6	S	Phenol-D6 (S)	1.659	1.703	2.7	S	
7	*TM	Phenol	1.959	2.067	5.5	*TM	
8	TM	Aniline	1.157	1.091	5.6	TM	
9	TM	Bis (2-chloroethyl) ether	0.8368	0.9041	8.0	TM	
10	TM	2-Chlorophenol	1.483	1.502	1.2	TM	
11	TM	1,3-DCB	1.681	1.676	0.29	TM	
12	*TM	1,4-DCB	1.708	1.702	0.30	*TM	
13	TM	Benzyl alcohol	0.8432	0.8845	4.9	TM	
14	TM	1,2-DCB	1.595	1.559	2.3	TM	
15	TM	2-Methylphenol	1.201	1.294	7.7	TM	
16	TM	Bis (2-chloroisopropyl) ether	0.9351	1.075	15	TM	
17	TM	Acetophenone	2.160	2.289	6.0	TM	
18	TM	3&4-Methylphenol	1.648	1.757	6.6	TM	
19	**TM	n-Nitrosodi-n-propylamine	1.231	1.402	14	**TM	
20	TM	Hexachloroethane	0.6773	0.7003	3.4	TM	
21	I	Napthalene-D8(IS)	ISTD			I	
22	S	Nitrobenzene-D5(S)	0.4508	0.4617	2.4	S	
23	TM	Nitrobenzene	0.4609	0.4820	4.6	TM	
24	TM	Isophorone	0.7471	0.7816	4.6	TM	
25	*TM	2-Nitrophenol	0.2108	0.2130	1.1	*TM	
26	TM	2,4-Dimethylphenol	0.3283	0.3335	1.6	TM	
27	TML	Benzoic acid	0.2427	0.3303	36	TML	7.9
28	TM	Bis (2-chloroethoxy) methane	0.4028	0.4235	5.1	TM	
29	*TM	2,4-Dichlorophenol	0.3380	0.3384	0.10	*TM	
30	TM	1,2,4-Trichlorobenzene	0.3912	0.3808	2.7	TM	
31	TM	3,4-Dimethylphenol	0.5307	0.5599	5.5	TM	
32	TM	Naphthalene	1.077	1.087	0.90	TM	
33	TM	4-Chloroaniline	0.3796	0.3954	4.1	TM	
34	TM	2,6-Dichlorophenol	0.3273	0.3292	0.58	TM	
35	TM	Hexachloropropene	0.3405	0.2996	12	TM	
36	*TM	Hexachlorobutadiene	0.2763	0.2674	3.2	*TM	
37	TM	Caprolactum	0.1188	0.1328	12	TM	
38	*TM	4-Chloro-3-methylphenol	0.3814	0.3947	3.5	*TM	
39	TM	2-Methylnaphthalene	0.7343	0.7458	1.6	TM	
40	TM	1-Methylnaphthalene	0.7592	0.7694	1.3	TM	
		Average			5.9		

Semi-Volatile Analysis by GC-MS
EPA 8270

Form 7

Ending Continuing Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Date Analyzed: 11/27/19
Matrix: 0 Instrument: Yoda
Cal. Date: 11/21/19
Data File: 1121Y172.D

		Compound	MEAN	CCRF	%D		%Drift
41	I	Acenaphthene-D10(IS)	ISTD			I	
42	**TM	Hexachlorocyclopentadiene	0.5081	0.3947	22	**TM	
43	TM	1,2,4,5-Tetrachlorobenzene	0.7029	0.6869	2.3	TM	
44	*TM	2,4,6-Trichlorophenol	0.4475	0.4440	0.80	*TM	
45	TM	2,4,5-Trichlorophenol	0.4765	0.4706	1.2	TM	
46	S	2-Fluorobiphenyl(S)	1.496	1.423	4.9	S	
47	TM	1,1'-Biphenyl	1.520	1.561	2.7	TM	
48	TM	2-Chloronaphthalene	1.244	1.262	1.4	TM	
49	TM	2-Nitroaniline	0.3943	0.4340	10	TM	
50	TM	Dimethyl phthalate	1.519	1.541	1.4	TM	
51	TM	2,6-DNT	0.3398	0.3449	1.5	TM	
52	TM	Acenaphthylene	1.912	1.932	1.0	TM	
53	TM	3-Nitroaniline	0.3899	0.4015	3.0	TM	
54	*TM	Acenaphthene	1.293	1.230	4.8	*TM	
55	**TM	2,4-Dinitrophenol	0.2270	0.1679	26	**TM	
56	**TM	4-Nitrophenol	0.0249	0.0294	18	**TM	
57	TM	Dibenzofuran	1.803	1.828	1.4	TM	
58	TM	2,4-DNT	0.4831	0.4959	2.7	TM	
59	TM	2,3,4,6-Tetrachlorophenol	0.4026	0.3916	2.7	TM	
60	TM	Diethyl phthalate	1.550	1.560	0.62	TM	
61	TM	4-Chlorophenyl phenyl ether	0.8870	0.9068	2.2	TM	
62	TM	Fluorene	1.511	1.591	5.3	TM	
63	TM	4-Nitroaniline	0.3102	0.3289	6.0	TM	
64	S	2,4,6-Tribromophenol(S)	0.3060	0.2874	6.1	S	
65	I	Phenanthrene-D10(IS)	ISTD			I	
66	TM	4,6-Dinitro-2-methylphenol	0.1657	0.1350	19	TM	
67	TM	Diphenyl amine	0.6145	0.6626	7.8	TM	
68	*TM	n-Nitrosodiphenylamine	0.6145	0.6626	7.8	*TM	
69	TM	1,2-Diphenylhydrazine	0.7606	0.8556	12	TM	
70	TM	4-Bromophenyl phenyl ether	0.2654	0.2698	1.6	TM	
71	TM	Hexachlorobenzene	0.2805	0.2786	0.69	TM	
72	TM	Atrazine	0.2340	0.2257	3.5	TM	
73	*TM	Pentachlorophenol	0.1822	0.1785	2.1	*TM	
74	TM	Phenanthrene	1.083	1.106	2.1	TM	
75	TM	Anthracene	1.137	1.165	2.5	TM	
76	TM	Carbazol	1.023	1.060	3.7	TM	
77	TM	Di-n-butylphthalate	1.332	1.424	6.9	TM	
78		2-Nitrodiphenylamine	0.3165	0.3451	9.0		
79	*TM	Fluoranthene	1.317	1.373	4.2	*TM	
80	I	Chrysene-D12(IS)	ISTD			I	
		Average			5.7		

Semi-Volatile Analysis by GC-MS
EPA 8270

Form 7

Ending Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix: 0

SDG No:
Date Analyzed: 11/27/19
Instrument: Yoda
Cal. Date: 11/21/19
Data File: 1121Y172.D

		Compound	MEAN	CCRF	%D	%Drift	
81	TM	Benzidine	0.2967	0.0557	81	TM	*
82	TM	Pyrene	1.215	1.214	0.09	TM	
83	S	Terphenyl-D14(S)	1.000	0.9343	6.6	S	
84	TM	Butyl benzylphthalate	0.5515	0.5760	4.4	TM	
85	TM	3,3'-Dichlorobenzidine	0.3647	0.4464	22	TM	
86	TM	Benz (a) anthracene	1.332	1.318	1.1	TM	
87	TM	Bis (2-ethylhexyl) phthalate	0.8479	0.9482	12	TM	
88	TM	Chrysene	1.187	1.170	1.5	TM	
89	*TM	Di-n-octylphthalate	1.329	1.404	5.6	*TM	
90	I	Perylene-D12(IS)	ISTD			I	
91	TM	Benzo (b) fluoranthene	1.265	1.316	4.0	TM	
92	TM	Benzo (k) fluoranthene	1.165	1.232	5.7	TM	
93	*TM	Benzo (a) pyrene	1.129	1.183	4.8	*TM	
94	TM	Indeno (1,2,3-cd) pyrene	1.341	1.357	1.2	TM	
95	TM	Dibenz (a,h) anthracene	1.183	1.204	1.8	TM	
96	TM	Benzo (g,h,i) perylene	1.068	1.065	0.25	TM	
97							
98							
99							
100							
101							
102							
103							
104							
105							
106							
107							
108							
109							
110							
111							
112							
113							
114							
115							
116							
117							
118							
119							
120							
		Average			10.1		

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y191121\1121Y172.D Vial: 72
Acq On : 27 Nov 19 5:11 Operator: MA,SS
Sample : 50ug/ml 8270 11/21/19 (2) Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 27 7:32 2019 Quant Results File: Y1121ND.RES

Quant Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 18:04:15 2019
Response via : Initial Calibration
DataAcq Meth : SVOC1011

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.47	152	184992	40.00000	ppb		0.00
21) Napthalene-D8(IS)	6.91	136	734252	40.00000	ppb		0.00
41) Acenaphthene-D10(IS)	8.93	164	456477	40.00000	ppb		0.00
65) Phenanthrene-D10(IS)	10.67	188	870891	40.00000	ppb		0.00
80) Chrysene-D12(IS)	13.76	240	1025135	40.00000	ppb		0.00
90) Perylene-D12(IS)	15.62	264	935612	40.00000	ppb		0.00
System Monitoring Compounds							
5) 2-Fluorophenol (S)	3.90	112	637612	98.98015	ppb		0.00
Spiked Amount 200.000			Recovery = 49.490%				
6) Phenol-D6 (S)	5.07	99	787677	102.69041	ppb		0.00
Spiked Amount 200.000			Recovery = 51.345%				
22) Nitrobenzene-D5(S)	6.10	82	423758	51.21233	ppb		0.00
Spiked Amount 100.000			Recovery = 51.212%				
46) 2-Fluorobiphenyl(S)	8.14	172	811938	47.57390	ppb		0.00
Spiked Amount 100.000			Recovery = 47.574%				
64) 2,4,6-Tribromophenol(S)	9.86	330	327984	93.92762	ppb		0.00
Spiked Amount 200.000			Recovery = 46.964%				
83) Terphenyl-D14(S)	12.52	244	1197240	46.71348	ppb		0.00
Spiked Amount 100.000			Recovery = 46.713%				
Target Compounds							Qvalue
2) 1,4-Dioxane	1.72	58	10213	4.75537			80
3) n-Nitrosodimethylamine	1.94	42	193764	59.45441	ppb		95
4) Pyridine	1.96	79	451366	55.99901	ppb		99
7) Phenol	5.09	94	478022	52.76952	ppb		91
8) Aniline	5.10	93	252352	47.17587	ppb		91
9) Bis (2-chloroethyl) ether	5.17	63	209067	54.02330	ppb		91
10) 2-Chlorophenol	5.24	128	347270	50.62258	ppb		95
11) 1,3-DCB	5.40	146	387517	49.85670	ppb		98
12) 1,4-DCB	5.49	146	393673	49.85185	ppb		98
13) Benzyl alcohol	5.63	108	204538	52.44764	ppb		85
14) 1,2-DCB	5.66	146	360520	48.86844	ppb		98
15) 2-Methylphenol	5.77	107	299339	53.87077	ppb		95
16) Bis (2-chloroisopropyl) et	5.78	45	248574	57.47706	ppb	#	73
17) Acetophenone	5.92	105	529331	52.98642	ppb		87
18) 3&4-Methylphenol	5.94	107	812630	106.62831	ppb		98
19) n-Nitrosodi-n-propylamine	5.93	70	324178	56.96483	ppb		97
20) Hexachloroethane	6.04	117	161933	51.69508	ppb		91
23) Nitrobenzene	6.12	77	442354	52.28830	ppb		99
24) Isophorone	6.39	82	717342	52.30493	ppb		94
25) 2-Nitrophenol	6.48	139	195512	50.53772	ppb		99
26) 2,4-Dimethylphenol	6.53	122	306094	50.79430	ppb		99
27) Benzoic acid	6.67	105	303196	53.95801	ppb		98
28) Bis (2-chloroethoxy) metha	6.63	93	388659	52.55880	ppb		100
29) 2,4-Dichlorophenol	6.76	162	310575	50.05235	ppb		99
30) 1,2,4-Trichlorobenzene	6.84	180	349522	48.67459	ppb		98
31) 3,4-Dimethylphenol	6.86	107	513912	52.74905	ppb		99
32) Naphthalene	6.94	128	997778	50.44887	ppb		99
33) 4-Chloroaniline	6.99	127	362861	52.07220	ppb		98
34) 2,6-Dichlorophenol	7.01	162	302183	50.29233	ppb		98
35) Hexachloropropene	7.04	213	275007	43.99469	ppb		99
36) Hexachlorobutadiene	7.07	225	245404	48.39396	ppb		100
37) Caprolactum	7.42	55	121852	55.87059	ppb		93

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y191121\1121Y172.D Vial: 72
Acq On : 27 Nov 19 5:11 Operator: MA,SS
Sample : 50ug/ml 8270 11/21/19 (2) Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 27 7:32 2019 Quant Results File: Y1121ND.RES

Quant Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 18:04:15 2019
Response via : Initial Calibration
DataAcq Meth : SVOC1011

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
38)	4-Chloro-3-methylphenol	7.56	107	362279	51.74381 ppb		95
39)	2-Methylnaphthalene	7.72	142	684488	50.78153 ppb		99
40)	1-Methylnaphthalene	7.84	142	706153	50.67213 ppb		99
42)	Hexachlorocyclopentadiene	7.91	237	225216	38.83731 ppb		99
43)	1,2,4,5-Tetrachlorobenzene	7.92	216	391941	48.85984 ppb		100
44)	2,4,6-Trichlorophenol	8.05	196	253330	49.60149 ppb		97
45)	2,4,5-Trichlorophenol	8.10	196	268521	49.38230 ppb		96
47)	1,1'-Biphenyl	8.26	154	890689	51.33931 ppb		99
48)	2-Chloronaphthalene	8.29	162	720008	50.71697 ppb		100
49)	2-Nitroaniline	8.40	65	247641	55.03178 ppb		95
50)	Dimethyl phthalate	8.62	163	879421	50.72334 ppb		99
51)	2,6-DNT	8.69	165	196771	50.74893 ppb		83
52)	Acenaphthylene	8.76	152	1102374	50.52269 ppb		100
53)	3-Nitroaniline	8.40	138	229101	51.48559 ppb		98
54)	Acenaphthene	8.97	154	702020	47.59232 ppb		98
55)	2,4-Dinitrophenol	9.01	184	95794	36.97540 ppb		88
56)	4-Nitrophenol	8.68	65	16756	59.01110 ppb		97
57)	Dibenzofuran	9.17	168	1043326	50.71502 ppb		99
58)	2,4-DNT	9.15	165	282953	51.32674 ppb		84
59)	2,3,4,6-Tetrachlorophenol	9.32	232	223457	48.64192 ppb		98
60)	Diethyl phthalate	9.43	149	890191	50.31070 ppb		96
61)	4-Chlorophenyl phenyl ethe	9.56	204	517414	51.11602 ppb	#	85
62)	Fluorene	9.57	166	907725	52.63363 ppb		100
63)	4-Nitroaniline	8.88	138	187675	53.01082 ppb		86
66)	4,6-Dinitro-2-methylphenol	9.64	198	147009	40.73938 ppb	#	80
67)	Diphenyl amine	9.71	169	1442713	107.82535 ppb		100
68)	n-Nitrosodiphenylamine	9.71	169	1442713	107.82535 ppb		100
69)	1,2-Diphenylhydrazine	9.75	77	931386	56.24582 ppb	#	84
70)	4-Bromophenyl phenyl ether	10.14	248	293678	50.81569 ppb		98
71)	Hexachlorobenzene	10.22	284	303272	49.65292 ppb		97
72)	Atrazine	10.32	200	122867	24.11693 ppb		95
73)	Pentachlorophenol	10.44	266	194283	48.96471 ppb		99
74)	Phenanthrene	10.69	178	1203605	51.06758 ppb		99
75)	Anthracene	10.75	178	1268023	51.24502 ppb		100
76)	Carbazol	10.94	167	1154451	51.84072 ppb		100
77)	Di-n-butylphthalate	11.33	149	1550566	53.46784 ppb	#	98
78)	2-Nitrodiphenylamine	11.51	167	187833	27.25885 ppb		99
79)	Fluoranthene	12.08	202	1494235	52.09684 ppb		99
81)	Benzidine	12.23	184	71385	9.38749 ppb		99
82)	Pyrene	12.35	202	1555591	49.95713 ppb		100
84)	Butyl benzylphthalate	13.09	149	738067	52.21673 ppb		99
85)	3,3'-Dichlorobenzidine	13.70	252	571991	61.19074 ppb	#	97
86)	Benz (a) anthracene	13.74	228	1688421	49.44964 ppb		100
87)	Bis (2-ethylhexyl) phthala	13.75	149	1215094	55.91969 ppb		99
88)	Chrysene	13.79	228	1498662	49.26762 ppb		100
89)	Di-n-octylphthalate	14.51	149	1798749	52.80317 ppb		98
91)	Benzo (b) fluoranthene	15.07	252	1538723	52.00932 ppb		99
92)	Benzo (k) fluoranthene	15.10	252	1440477	52.84451 ppb	#	99
93)	Benzo (a) pyrene	15.54	252	1383860	52.38459 ppb		99
94)	Indeno (1,2,3-cd) pyrene	17.53	276	1586518	50.58391 ppb		98
95)	Dibenz (a,h) anthracene	17.57	278	1407996	50.89516 ppb		99
96)	Benzo (g,h,i) perylene	18.11	276	1245326	49.87369 ppb		98

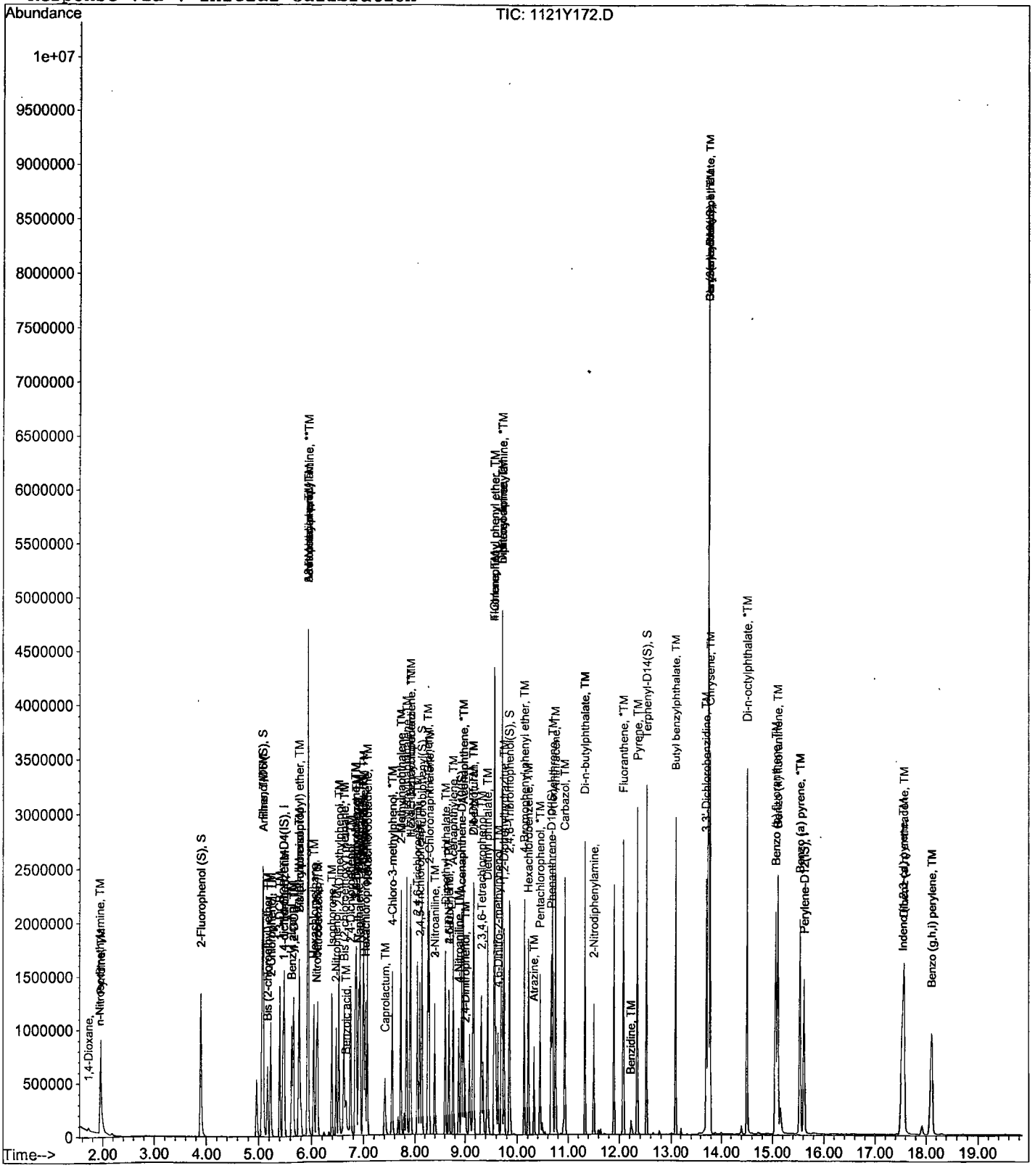
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y191121\1121Y172.D Vial: 72
Acq On : 27 Nov 19 5:11 Operator: MA,SS
Sample : 50ug/ml 8270 11/21/19 (2) Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 27 7:32 2019 Quant Results File: Y1121ND.RES

Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 18:04:15 2019
Response via : Initial Calibration



ORGANICS
Raw Data

Quantitation Report (QT Reviewed)

Data File : M:\YODA\DATA\Y191121\1121Y163.D Vial: 63
Acq On : 27 Nov 19 1:01 Operator: MA,SS
Sample : BA02301W13 2/800 Inst : Yoda
Misc : Multiplr: 1.25

Quant Time: Dec 3 12:03 2019 Quant Results File: Y1121ND.RES

Quant Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 18:04:15 2019
Response via : Initial Calibration
DataAcq Meth : SVOC1011

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.47	152	161158	40.00000 ppb	-0.01
21) Napthalene-D8(IS)	6.91	136	637023	40.00000 ppb	-0.01
41) Acenaphthene-D10(IS)	8.93	164	449562	40.00000 ppb	0.00
65) Phenanthrene-D10(IS)	10.66	188	891385	40.00000 ppb	-0.01
80) Chrysene-D12(IS)	13.75	240	935842	40.00000 ppb	0.00
90) Perylene-D12(IS)	15.61	264	916850	40.00000 ppb	0.00
System Monitoring Compounds					
5) 2-Fluorophenol (S)	3.91	112	985028	219.40740 ppb	0.00
Spiked Amount 250.000			Recovery	= 87.763%	
6) Phenol-D6 (S)	5.08	99	1273627	238.25118 ppb	0.00
Spiked Amount 250.000			Recovery	= 95.300%	
22) Nitrobenzene-D5(S)	6.09	82	749869	130.56960 ppb	-0.01
Spiked Amount 125.000			Recovery	= 104.456%	
46) 2-Fluorobiphenyl(S)	8.14	172	1508382	112.17512 ppb	-0.01
Spiked Amount 125.000			Recovery	= 89.740%	
64) 2,4,6-Tribromophenol(S)	9.85	330	626498	227.71922 ppb	-0.01
Spiked Amount 250.000			Recovery	= 91.088%	
83) Terphenyl-D14(S)	12.52	244	2238239	119.57930 ppb	0.00
Spiked Amount 125.000			Recovery	= 95.663%	

Target Compounds Qvalue

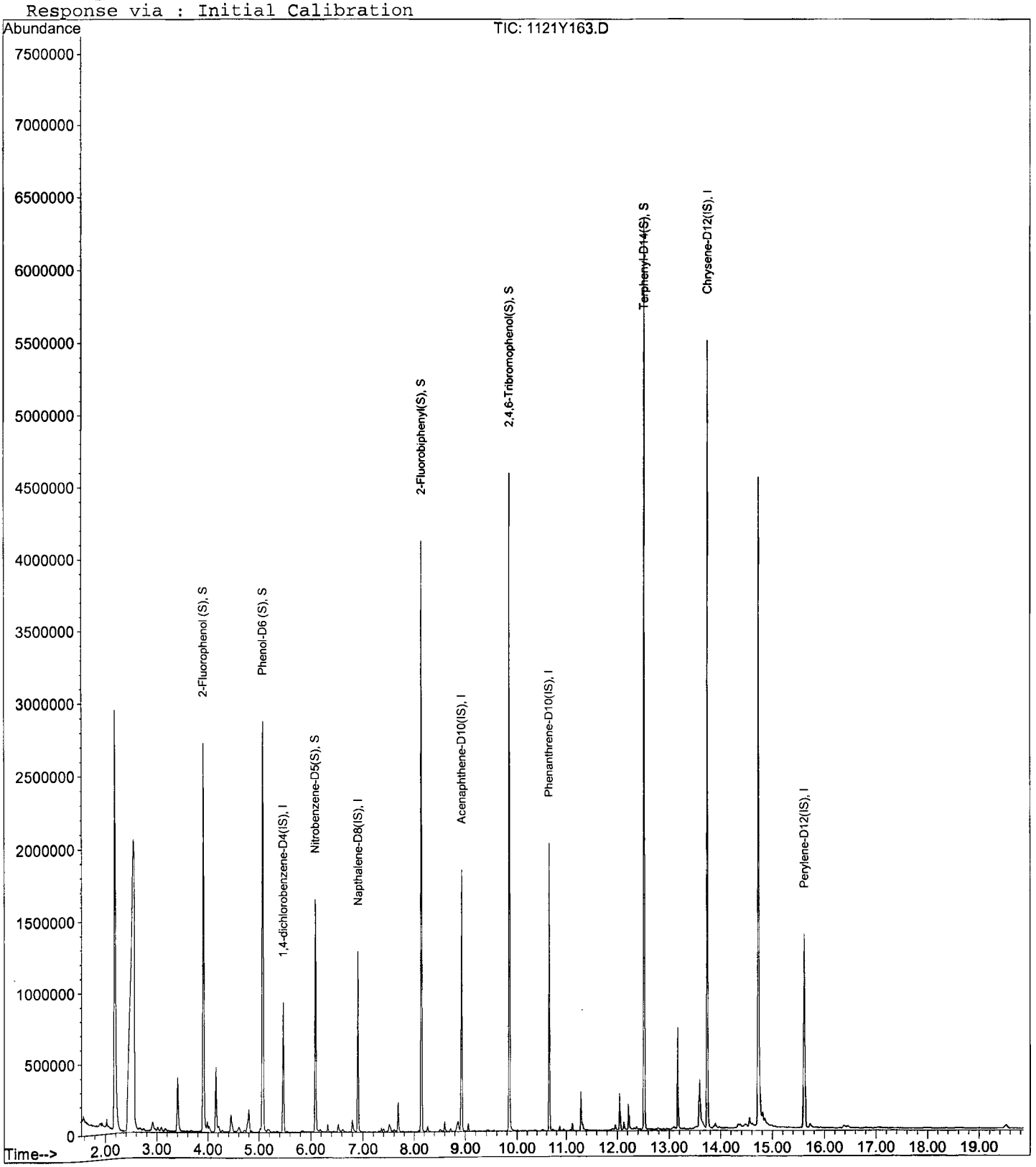
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y191121\1121Y163.D Vial: 63
Acq On : 27 Nov 19 1:01 Operator: MA,SS
Sample : BA02301W13 2/800 Inst : Yoda
Misc : Multiplr: 1.25

Quant Time: Dec 3 12:03 2019 Quant Results File: Y1121ND.RES

Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 18:04:15 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\YODA\DATA\Y191121\1121Y155.D Vial: 55
Acq On : 26 Nov 19 21:18 Operator: MA,SS
Sample : 191104A BLK 2/800 Inst : Yoda
Misc : Multiplr: 1.25

Quant Time: Dec 3 11:53 2019 Quant Results File: Y1121ND.RES

Quant Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 18:04:15 2019
Response via : Initial Calibration
DataAcq Meth : SVOC1011

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.47	152	174092	40.00000 ppb	0.00
21) Napthalene-D8(IS)	6.91	136	683374	40.00000 ppb	0.00
41) Acenaphthene-D10(IS)	8.93	164	442513	40.00000 ppb	0.00
65) Phenanthrene-D10(IS)	10.66	188	890536	40.00000 ppb	0.00
80) Chrysene-D12(IS)	13.75	240	909385	40.00000 ppb	0.00
90) Perylene-D12(IS)	15.62	264	920577	40.00000 ppb	0.00
System Monitoring Compounds					
5) 2-Fluorophenol (S)	3.91	112	1025276	211.40563 ppb	0.00
Spiked Amount 250.000			Recovery =	84.562%	
6) Phenol-D6 (S)	5.07	99	1306134	226.17968 ppb	-0.01
Spiked Amount 250.000			Recovery =	90.472%	
22) Nitrobenzene-D5(S)	6.09	82	731731	118.76946 ppb	-0.01
Spiked Amount 125.000			Recovery =	95.015%	
46) 2-Fluorobiphenyl(S)	8.14	172	1480607	111.86355 ppb	0.00
Spiked Amount 125.000			Recovery =	89.491%	
64) 2,4,6-Tribromophenol(S)	9.85	330	609236	224.97233 ppb	0.00
Spiked Amount 250.000			Recovery =	89.989%	
83) Terphenyl-D14(S)	12.52	244	2189854	120.39805 ppb	0.00
Spiked Amount 125.000			Recovery =	96.318%	

Target Compounds Qvalue

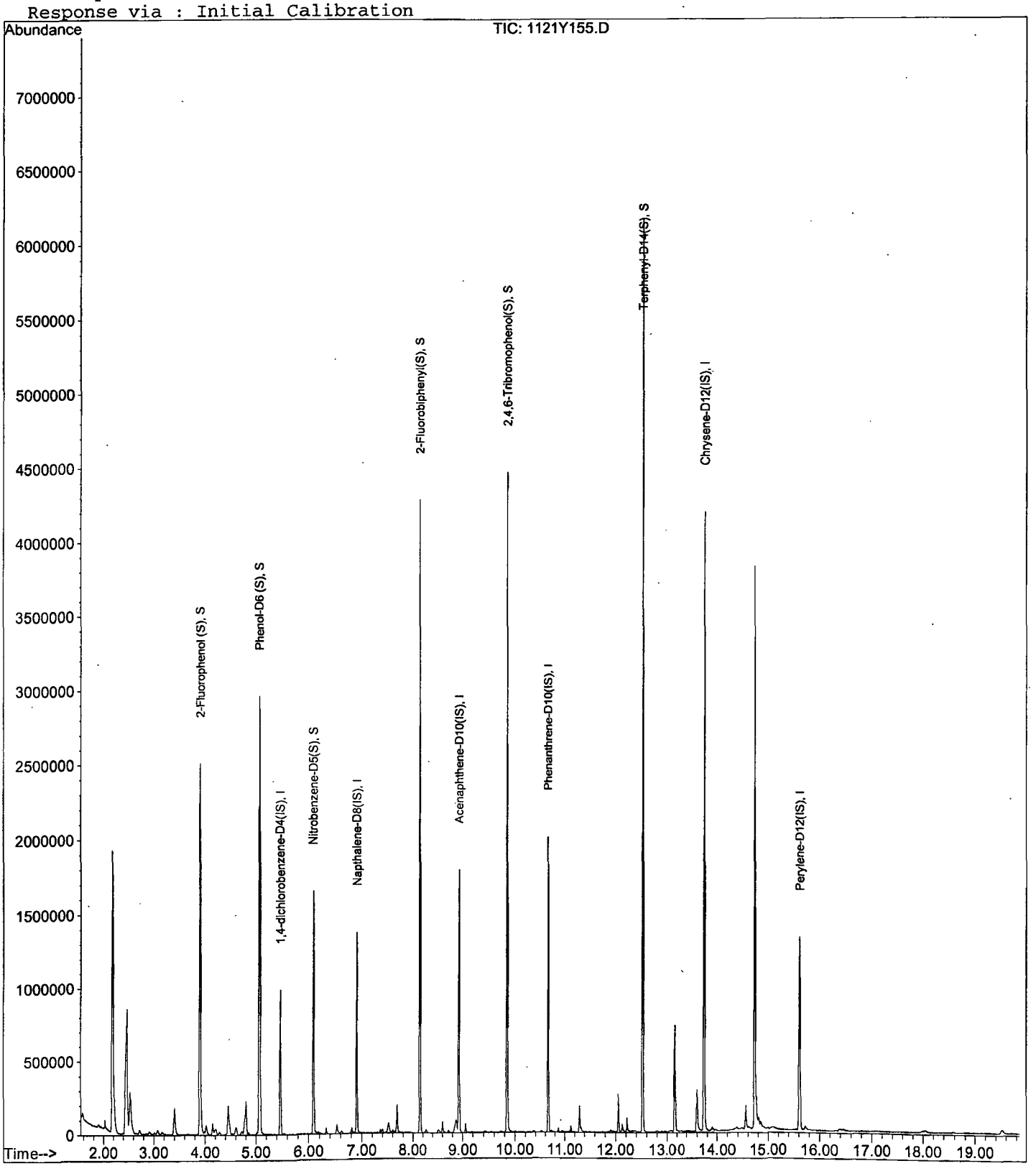
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y191121\1121Y155.D Vial: 55
Acq On : 26 Nov 19 21:18 Operator: MA,SS
Sample : 191104A BLK 2/800 Inst : Yoda
Misc : Multiplr: 1.25

Quant Time: Dec 3 11:53 2019 Quant Results File: Y1121ND.RES

Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 18:04:15 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y191121\1121Y156.D Vial: 56
Acq On : 26 Nov 19 21:46 Operator: MA,SS
Sample : 191104A LCS-1 2/800 Inst : Yoda
Misc : Multiplr: 1.25

Quant Time: Nov 27 8:02 2019 Quant Results File: Y1121ND.RES

Quant Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 18:04:15 2019
Response via : Initial Calibration
DataAcq Meth : SVOC1011

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.47	152	150012	40.00000 ppb		0.00
21) Napthalene-D8(IS)	6.91	136	600754	40.00000 ppb		0.00
41) Acenaphthene-D10(IS)	8.93	164	417278	40.00000 ppb		0.00
65) Phenanthrene-D10(IS)	10.67	188	853592	40.00000 ppb		0.00
80) Chrysene-D12(IS)	13.76	240	1179958	40.00000 ppb		0.00
90) Perylene-D12(IS)	15.62	264	888601	40.00000 ppb		0.00
System Monitoring Compounds						
5) 2-Fluorophenol (S)	3.91	112	1002367	239.85862 ppb		0.00
Spiked Amount 250.000			Recovery =	95.944%		
6) Phenol-D6 (S)	5.08	99	1297655	260.78218 ppb		0.00
Spiked Amount 250.000			Recovery =	104.313%		
22) Nitrobenzene-D5(S)	6.10	82	686931	126.83182 ppb		0.00
Spiked Amount 125.000			Recovery =	101.466%		
46) 2-Fluorobiphenyl(S)	8.15	172	1377704	110.38378 ppb		0.00
Spiked Amount 125.000			Recovery =	88.307%		
64) 2,4,6-Tribromophenol(S)	9.86	330	590841	231.37409 ppb		0.00
Spiked Amount 250.000			Recovery =	92.550%		
83) Terphenyl-D14(S)	12.52	244	2043176	86.57476 ppb		0.00
Spiked Amount 125.000			Recovery =	69.260%		
Target Compounds						Qvalue
2) 1,4-Dioxane	1.72	58	8724	6.26157		97
3) n-Nitrosodimethylamine	1.94	42	170662	80.72067 ppb		98
4) Pyridine	1.97	79	257399	49.22609 ppb		99
7) Phenol	5.10	94	409296	69.64817 ppb		89
8) Aniline	5.10	93	64712	18.64812 ppb	#	1
9) Bis (2-chloroethyl) ether	5.17	63	188247	74.98262 ppb		93
10) 2-Chlorophenol	5.24	128	309646	69.57921 ppb		94
11) 1,3-DCB	5.40	146	297762	59.05260 ppb		98
12) 1,4-DCB	5.49	146	305086	59.55317 ppb		97
13) Benzyl alcohol	5.64	108	177530	70.17148 ppb		96
14) 1,2-DCB	5.66	146	290793	60.76032 ppb		97
15) 2-Methylphenol	5.77	107	268820	74.57417 ppb		97
16) Bis (2-chloroisopropyl) et	5.78	45	225958	80.53850 ppb	#	68
17) Acetophenone	5.92	105	481917	74.36121 ppb		82
18) 3&4-Methylphenol	5.94	107	717426	145.10880 ppb		100
19) n-Nitrosodi-n-propylamine	5.93	70	283826	76.87983 ppb		96
20) Hexachloroethane	6.04	117	111182	54.71234 ppb		92
23) Nitrobenzene	6.12	77	415854	75.09896 ppb		97
24) Isophorone	6.39	82	643393	71.67227 ppb		95
25) 2-Nitrophenol	6.48	139	177235	69.99230 ppb		97
26) 2,4-Dimethylphenol	6.53	122	279024	70.73922 ppb		99
27) Benzoic acid	6.68	105	280628	75.67835 ppb		99
28) Bis (2-chloroethoxy) metha	6.63	93	334094	69.02460 ppb		98
29) 2,4-Dichlorophenol	6.76	162	279403	68.79353 ppb		98
30) 1,2,4-Trichlorobenzene	6.84	180	280779	59.73803 ppb		96
31) 3,4-Dimethylphenol	6.86	107	457727	71.77792 ppb		99
32) Naphthalene	6.94	128	858639	66.32643 ppb		100
33) 4-Chloroaniline	7.00	127	27505	6.03026 ppb	#	78
34) 2,6-Dichlorophenol	7.00	162	268048	68.15580 ppb		96
35) Hexachloropropene	7.04	213	88439	21.61518 ppb		99
36) Hexachlorobutadiene	7.07	225	167393	50.43190 ppb		99
37) Caprolactum	7.41	55	109970	77.03415 ppb		89

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y191121\1121Y156.D Vial: 56
Acq On : 26 Nov 19 21:46 Operator: MA,SS
Sample : 191104A LCS-1 2/800 Inst : Yoda
Misc : Multiplr: 1.25

Quant Time: Nov 27 8:02 2019 Quant Results File: Y1121ND.RES

Quant Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 18:04:15 2019
Response via : Initial Calibration
DataAcq Meth : SVOC1011

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
38)	4-Chloro-3-methylphenol	7.56	107	331132	72.25616	ppb		91
39)	2-Methylnaphthalene	7.72	142	584393	66.23743	ppb		99
40)	1-Methylnaphthalene	7.84	142	616888	67.62934	ppb		100
42)	Hexachlorocyclopentadiene	7.91	237	53200	12.54483	ppb		98
43)	1,2,4,5-Tetrachlorobenzene	7.92	216	328401	55.98081	ppb		100
44)	2,4,6-Trichlorophenol	8.06	196	234961	62.90820	ppb		97
45)	2,4,5-Trichlorophenol	8.10	196	243042	61.11922	ppb	#	87
47)	1,1'-Biphenyl	8.26	154	779609	61.44749	ppb		99
48)	2-Chloronaphthalene	8.29	162	630149	60.69636	ppb		99
49)	2-Nitroaniline	8.40	65	142393	43.26962	ppb		95
50)	Dimethyl phthalate	8.62	163	843658	66.53970	ppb		100
51)	2,6-DNT	8.69	165	183119	64.58068	ppb		80
52)	Acenaphthylene	8.76	152	952252	59.67780	ppb		100
53)	3-Nitroaniline	8.40	138	128039	39.34634	ppb		99
54)	Acenaphthene	8.97	154	623609	57.81003	ppb		99
55)	2,4-Dinitrophenol	9.01	184	93422	49.30911	ppb		94
56)	4-Nitrophenol	8.68	65	14681	70.70049	ppb		99
57)	Dibenzofuran	9.17	168	924809	61.47125	ppb		99
58)	2,4-DNT	9.15	165	257623	63.90244	ppb		84
59)	2,3,4,6-Tetrachlorophenol	9.32	232	209573	62.38146	ppb		98
60)	Diethyl phthalate	9.43	149	843289	65.17140	ppb		95
61)	4-Chlorophenyl phenyl ethe	9.56	204	462757	62.51371	ppb	#	84
62)	Fluorene	9.57	166	810454	64.26002	ppb		99
63)	4-Nitroaniline	8.88	138	28838	11.13850	ppb		99
66)	4,6-Dinitro-2-methylphenol	9.64	198	135350	47.83571	ppb		95
67)	Diphenyl amine	9.71	169	796279	75.89789	ppb		99
68)	n-Nitrosodiphenylamine	9.71	169	796279	75.89789	ppb		99
69)	1,2-Diphenylhydrazine	9.75	77	649736	50.04042	ppb	#	85
70)	4-Bromophenyl phenyl ether	10.14	248	270202	59.62638	ppb		99
71)	Hexachlorobenzene	10.21	284	266763	55.70081	ppb	#	75
72)	Atrazine	10.32	200	34598	8.66086	ppb		97
73)	Pentachlorophenol	10.44	266	183001	58.82004	ppb		99
74)	Phenanthrene	10.69	178	1114472	60.30508	ppb		100
75)	Anthracene	10.75	178	1127153	58.09394	ppb		100
76)	Carbazol	10.94	167	961828	55.08285	ppb		99
77)	Di-n-butylphthalate	11.34	149	1461171	64.25795	ppb		99
78)	2-Nitrodiphenylamine	11.51	167	7435	1.37607	ppb		97
79)	Fluoranthene	12.08	202	1366910	60.77933	ppb		99
82)	Pyrene	12.35	202	1389313	48.45367	ppb		100
84)	Butyl benzylphthalate	13.09	149	664662	51.06687	ppb		97
85)	3,3'-Dichlorobenzidine	13.70	252	30928	3.59313	ppb		98
86)	Benz (a) anthracene	13.74	228	1530981	48.69414	ppb		100
87)	Bis (2-ethylhexyl) phthala	13.76	149	3442060	172.02748	ppb	#	92
88)	Chrysene	13.79	228	1329301	47.45759	ppb		100
89)	Di-n-octylphthalate	14.51	149	1687020	53.78166	ppb		96
91)	Benzo (b) fluoranthene	15.07	252	1377259	61.26823	ppb		99
92)	Benzo (k) fluoranthene	15.10	252	1255218	60.60545	ppb	#	98
93)	Benzo (a) pyrene	15.54	252	1162989	57.94100	ppb		99
94)	Indeno (1,2,3-cd) pyrene	17.53	276	1403478	58.89413	ppb		98
95)	Dibenz (a,h) anthracene	17.57	278	1245481	59.25312	ppb		99
96)	Benzo (g,h,i) perylene	18.11	276	1109564	58.48437	ppb		100

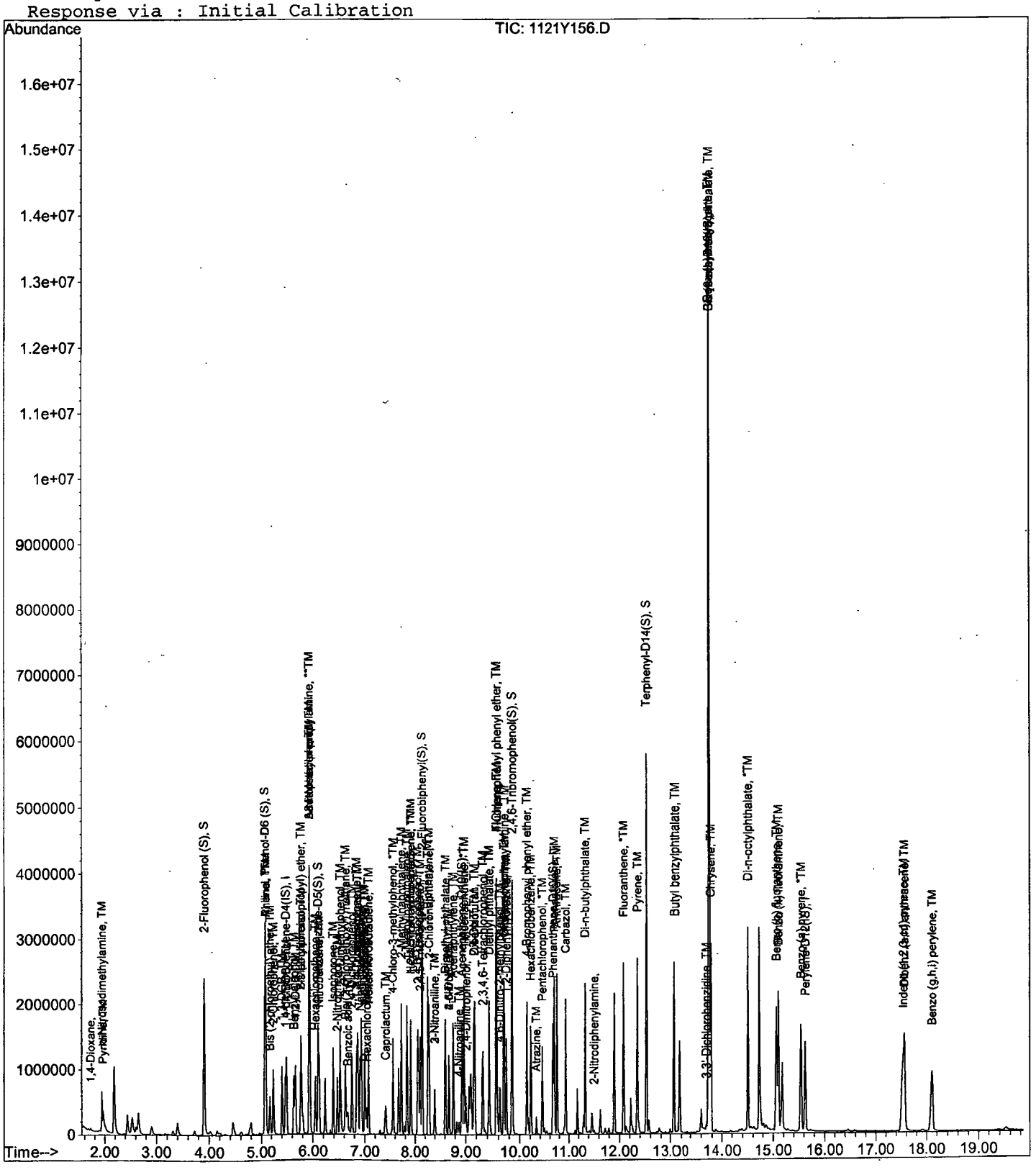
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y191121\1121Y156.D Vial: 56
Acq On : 26 Nov 19 21:46 Operator: MA,SS
Sample : 191104A LCS-1 2/800 Inst : Yoda
Misc : Multiplr: 1.25

Quant Time: Nov 27 8:02 2019 Quant Results File: Y1121ND.RES

Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 18:04:15 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y191121\1121Y157.D Vial: 57
Acq On : 26 Nov 19 22:14 Operator: MA,SS
Sample : 191104A LCSD-1 2/800 Inst : Yoda
Misc : Multiplr: 1.25

Quant Time: Nov 27 8:02 2019 Quant Results File: Y1121ND.RES

Quant Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 18:04:15 2019
Response via : Initial Calibration
DataAcq Meth : SVOC1011

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.47	152	138243	40.00000 ppb		0.00
21) Napthalene-D8(IS)	6.91	136	560201	40.00000 ppb		0.00
41) Acenaphthene-D10(IS)	8.93	164	405413	40.00000 ppb		0.00
65) Phenanthrene-D10(IS)	10.66	188	822436	40.00000 ppb		0.00
80) Chrysene-D12(IS)	13.75	240	1006521	40.00000 ppb		0.00
90) Perylene-D12(IS)	15.63	264	875772	40.00000 ppb		0.01
System Monitoring Compounds						
5) 2-Fluorophenol (S)	3.90	112	989505	256.93864 ppb		0.00
Spiked Amount 250.000			Recovery	= 102.776%		
6) Phenol-D6 (S)	5.08	99	1297791	283.01293 ppb		0.00
Spiked Amount 250.000			Recovery	= 113.205%		
22) Nitrobenzene-D5(S)	6.10	82	680099	134.66044 ppb		0.00
Spiked Amount 125.000			Recovery	= 107.728%		
46) 2-Fluorobiphenyl(S)	8.14	172	1344694	110.89210 ppb		0.00
Spiked Amount 125.000			Recovery	= 88.714%		
64) 2,4,6-Tribromophenol(S)	9.86	330	569779	229.65630 ppb		0.00
Spiked Amount 250.000			Recovery	= 91.862%		
83) Terphenyl-D14(S)	12.53	244	2014105	100.04868 ppb		0.00
Spiked Amount 125.000			Recovery	= 80.039%		
Target Compounds						Qvalue
2) 1,4-Dioxane	1.71	58	8448	6.57968		100
3) n-Nitrosodimethylamine	1.94	42	165355	84.86881 ppb		93
4) Pyridine	1.96	79	346814	71.97273 ppb		97
7) Phenol	5.09	94	425312	78.53490 ppb		90
8) Aniline	5.09	93	203328	63.58141 ppb	#	47
9) Bis (2-chloroethyl) ether	5.17	63	186617	80.66156 ppb		96
10) 2-Chlorophenol	5.24	128	306127	74.64462 ppb		96
11) 1,3-DCB	5.41	146	288569	62.10153 ppb		99
12) 1,4-DCB	5.49	146	299212	63.37887 ppb		97
13) Benzyl alcohol	5.63	108	181662	77.91764 ppb		87
14) 1,2-DCB	5.66	146	286588	64.97959 ppb		98
15) 2-Methylphenol	5.77	107	261593	78.74733 ppb		96
16) Bis (2-chloroisopropyl) et	5.78	45	224359	86.77650 ppb	#	82
17) Acetophenone	5.93	105	479129	80.22496 ppb		86
18) 3&4-Methylphenol	5.94	107	706210	155.00059 ppb		97
19) n-Nitrosodi-n-propylamine	5.94	70	283204	83.24199 ppb		97
20) Hexachloroethane	6.05	117	110262	58.87888 ppb		84
23) Nitrobenzene	6.12	77	409995	79.40071 ppb		100
24) Isophorone	6.39	82	645078	77.06192 ppb		96
25) 2-Nitrophenol	6.47	139	175265	74.22475 ppb		85
26) 2,4-Dimethylphenol	6.53	122	250472	68.09742 ppb		98
27) Benzoic acid	6.67	105	246747	71.62861 ppb		98
28) Bis (2-chloroethoxy) metha	6.62	93	338600	75.01964 ppb		98
29) 2,4-Dichlorophenol	6.75	162	275636	72.77886 ppb		95
30) 1,2,4-Trichlorobenzene	6.84	180	275337	62.82082 ppb		98
31) 3,4-Dimethylphenol	6.86	107	454029	76.35205 ppb		98
32) Naphthalene	6.94	128	860465	71.27907 ppb		99
33) 4-Chloroaniline	6.99	127	174399	41.00349 ppb		99
34) 2,6-Dichlorophenol	7.00	162	266739	72.73268 ppb		96
35) Hexachloropropene	7.03	213	93007	24.37718 ppb		99
36) Hexachlorobutadiene	7.08	225	168655	54.49040 ppb		100
37) Caprolactum	7.41	55	113079	84.94617 ppb		96

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y191121\1121Y157.D Vial: 57
Acq On : 26 Nov 19 22:14 Operator: MA,SS
Sample : 191104A LCSD-1 2/800 Inst : Yoda
Misc : Multiplr: 1.25

Quant Time: Nov 27 8:02 2019 Quant Results File: Y1121ND.RES

Quant Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 18:04:15 2019
Response via : Initial Calibration
DataAcq Meth : SVOC1011

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
38)	4-Chloro-3-methylphenol	7.56	107	326475	76.39703 ppb		96
39)	2-Methylnaphthalene	7.73	142	585352	71.14892 ppb		100
40)	1-Methylnaphthalene	7.84	142	600381	70.58437 ppb		99
42)	Hexachlorocyclopentadiene	7.91	237	46872	11.37613 ppb		98
43)	1,2,4,5-Tetrachlorobenzene	7.92	216	325126	57.04456 ppb		98
44)	2,4,6-Trichlorophenol	8.05	196	230717	63.57976 ppb		98
45)	2,4,5-Trichlorophenol	8.11	196	239542	62.00204 ppb		95
47)	1,1'-Biphenyl	8.27	154	774901	62.86391 ppb		99
48)	2-Chloronaphthalene	8.29	162	617692	61.23775 ppb		99
49)	2-Nitroaniline	8.40	65	218647	68.38578 ppb		98
50)	Dimethyl phthalate	8.61	163	841414	68.30492 ppb		99
51)	2,6-DNT	8.68	165	179924	65.31097 ppb		98
52)	Acenaphthylene	8.77	152	968358	62.46327 ppb		99
53)	3-Nitroaniline	8.40	138	198901	62.91104 ppb		99
54)	Acenaphthene	8.97	154	666328	63.57797 ppb		99
55)	2,4-Dinitrophenol	9.01	184	91626	49.77652 ppb		99
56)	4-Nitrophenol	8.68	65	14571	72.22440 ppb		100
57)	Dibenzofuran	9.17	168	922162	63.08920 ppb		98
58)	2,4-DNT	9.16	165	255374	65.19845 ppb		95
59)	2,3,4,6-Tetrachlorophenol	9.31	232	203597	62.37627 ppb	#	91
60)	Diethyl phthalate	9.43	149	818199	65.08297 ppb		96
61)	4-Chlorophenyl phenyl ethe	9.56	204	456413	63.46117 ppb		89
62)	Fluorene	9.57	166	795776	64.94282 ppb		100
63)	4-Nitroaniline	8.88	138	136446	54.24381 ppb		96
66)	4,6-Dinitro-2-methylphenol	9.64	198	136332	50.00806 ppb		94
67)	Diphenyl amine	9.71	169	1225625	121.24679 ppb		99
68)	n-Nitrosodiphenylamine	9.71	169	1225625	121.24679 ppb		99
69)	1,2-Diphenylhydrazine	9.75	77	829947	66.34109 ppb		88
70)	4-Bromophenyl phenyl ether	10.14	248	261807	59.96245 ppb		95
71)	Hexachlorobenzene	10.21	284	267387	57.94613 ppb	#	82
72)	Atrazine	10.33	200	96546	25.08376 ppb		97
73)	Pentachlorophenol	10.45	266	176286	58.80820 ppb		98
74)	Phenanthrene	10.70	178	1088739	61.14441 ppb		99
75)	Anthracene	10.75	178	1136847	60.81325 ppb		99
76)	Carbazol	10.94	167	1052079	62.53391 ppb		99
77)	Di-n-butylphthalate	11.34	149	1447537	66.06991 ppb		98
78)	2-Nitrodiphenylamine	11.51	167	5706	1.09607 ppb		94
79)	Fluoranthene	12.08	202	1327524	61.26417 ppb		100
81)	Benzidine	12.23	184	28664	4.79896 ppb	#	94
82)	Pyrene	12.35	202	1393214	56.96238 ppb		100
84)	Butyl benzylphthalate	13.08	149	663043	59.72055 ppb		79
85)	3,3'-Dichlorobenzidine	13.70	252	357212	48.65089 ppb		97
86)	Benz (a) anthracene	13.74	228	1494248	55.71515 ppb		100
87)	Bis (2-ethylhexyl) phthala	13.75	149	1708731	100.11446 ppb		98
88)	Chrysene	13.79	228	1310591	54.85210 ppb		99
89)	Di-n-octylphthalate	14.51	149	1643179	61.41048 ppb		99
91)	Benzo (b) fluoranthene	15.07	252	1451844	65.53230 ppb		100
92)	Benzo (k) fluoranthene	15.11	252	1161209	56.88774 ppb		99
93)	Benzo (a) pyrene	15.54	252	1178813	59.58968 ppb		98
94)	Indeno (1,2,3-cd) pyrene	17.54	276	1403370	59.75226 ppb		99
95)	Dibenz (a,h) anthracene	17.56	278	1249306	60.30574 ppb		98
96)	Benzo (g,h,i) perylene	18.11	276	1104140	59.05101 ppb		99

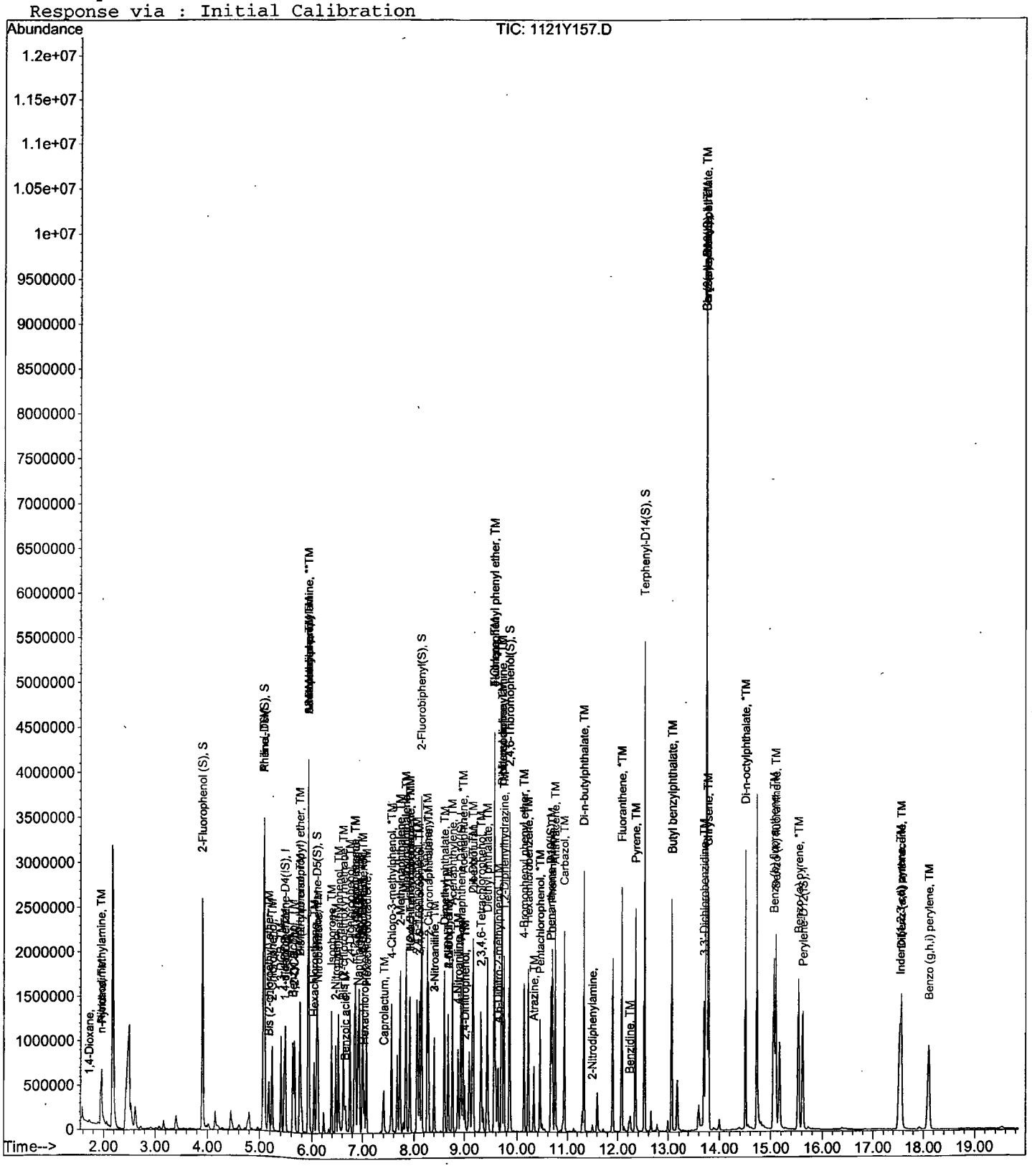
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y191121\1121Y157.D Vial: 57
Acq On : 26 Nov 19 22:14 Operator: MA,SS
Sample : 191104A LCSD-1 2/800 Inst : Yoda
Misc : Multiplr: 1.25

Quant Time: Nov 27 8:02 2019 Quant Results File: Y1121ND.RES

Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 18:04:15 2019
Response via : Initial Calibration

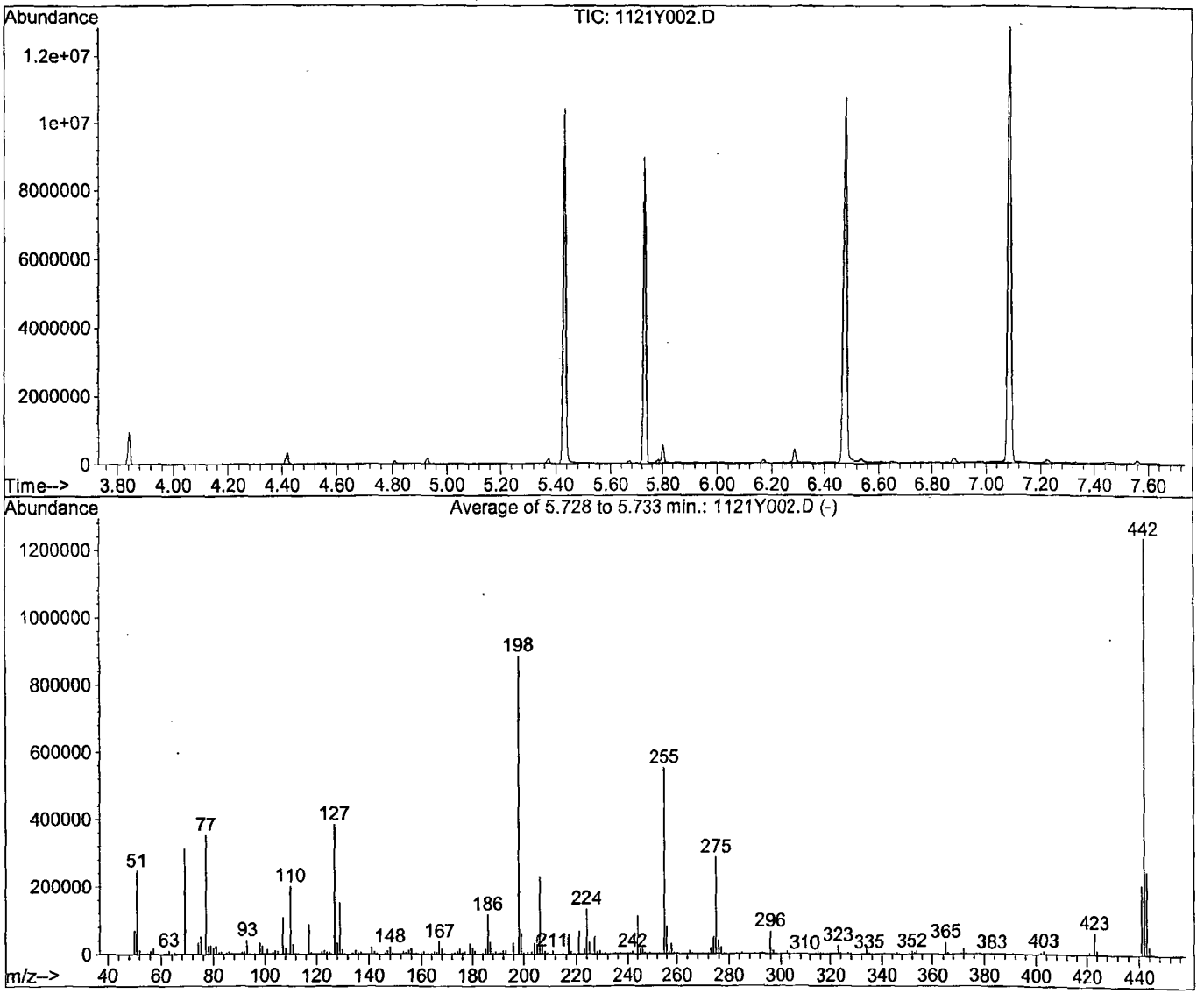


DFTPP

Data File : M:\YODA\DATA\Y191121\1121Y002.D
Acq On : 21 Nov 19 13:52
Sample : SV TUNE 10/01/19
Misc :

Vial: 2
Operator: MA,SS
Inst : Yoda
Multiplr: 1.00

Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C



Spectrum Information: Average of 5.728 to 5.733 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	27.9	246367	PASS
68	69	0.00	2	0.0	0	PASS
70	69	0.00	2	0.7	2239	PASS
127	198	10	80	43.6	385771	PASS
197	198	0.00	2	0.0	0	PASS
198	198	100	100	100.0	884437	PASS
199	198	5	9	6.9	61053	PASS
275	198	10	60	32.2	284928	PASS
365	198	1	100	3.9	34467	PASS
441	442	0.01	24	16.6	205141	PASS
442	198	50	500	139.4	1232555	PASS
443	442	15	24	19.7	243243	PASS

Data File Name:	**1121Y002.D**
Data File Path:	**M:\YODA\DATA\Y191121**
Operator:	**MA,SS**
Date Acquired:	**21 Nov 2019 13:52**
Method File:	**DFTPP2.M**
Sample Name:	**SV TUNE 10/01/19**
Vial Number:	**2**
Instrument Name:	**Yoda**

#	Name	Ret Time	Target Response
1)	DDT	7.09	103687000
2)	DDD	6.88	1239160
3)	DDE	6.61	214961

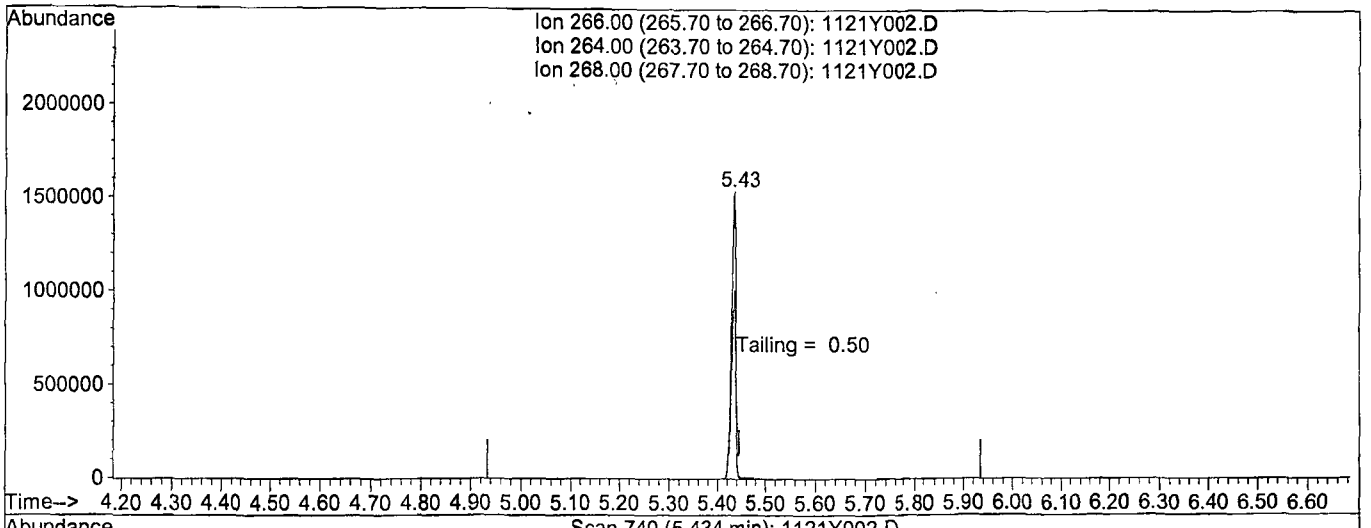
Breakdown **1.38**

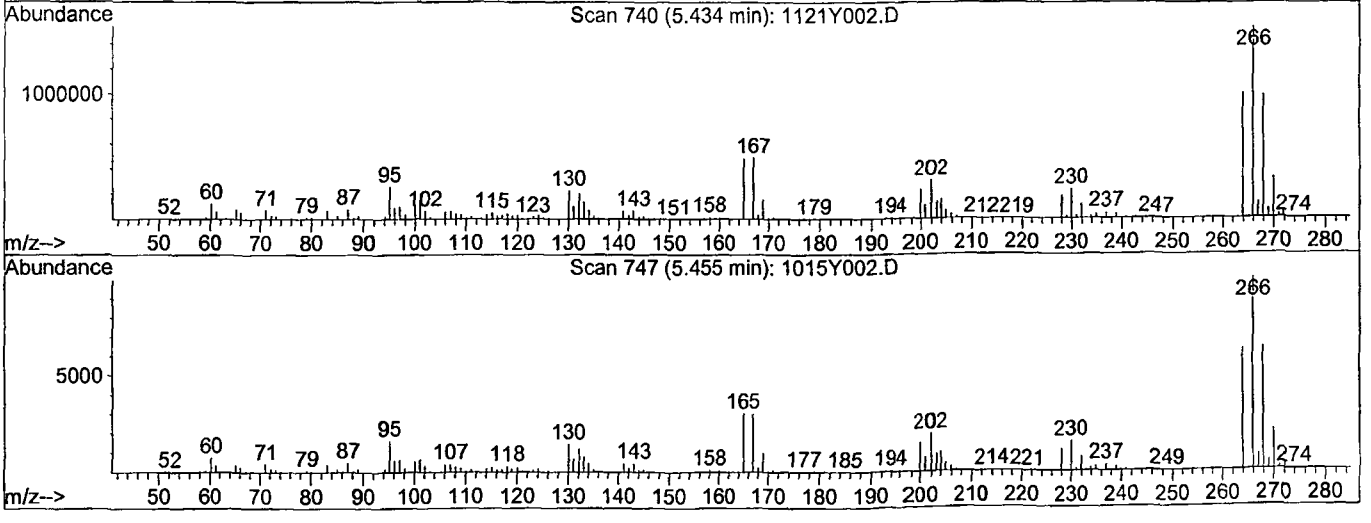
Quantitation Report

Data File : M:\YODA\DATA\Y191121\1121Y002.D
Acq On : 21 Nov 19 13:52
Sample : SV TUNE 10/01/19
Misc :
Quant Time: Nov 25 11:35 2019

Vial: 2
Operator: MA,SS
Inst : Yoda
Multiplr: 1.00
Quant Results File: temp.res

Method : M:\YODA\DATA\Y191121\DFTPP2.M (Chemstation Integrator)
Title :
Last Update : Mon Nov 25 11:35:23 2019
Response via : Single Level Calibration





TIC: 1121Y002.D

(5) Pentachlorophenol

5.43min 0.0000

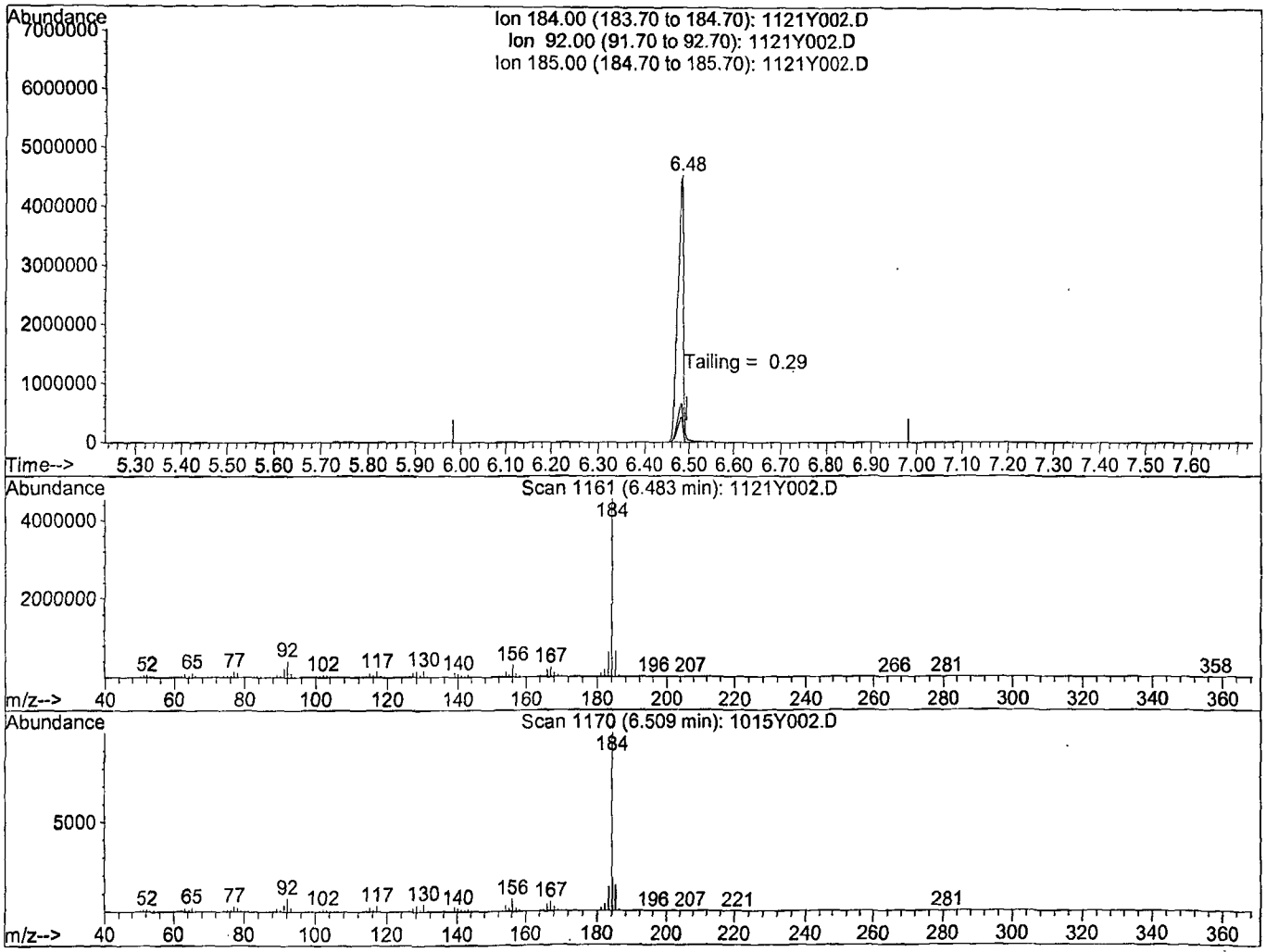
response 10183664

Ion	Exp%	Act%
266.00	100	100
264.00	65.50	63.47
268.00	64.40	63.76
0.00	0.00	0.00

Quantitation Report

Data File : M:\YODA\DATA\Y191121\1121Y002.D Vial: 2
Acq On : 21 Nov 19 13:52 Operator: MA,SS
Sample : SV TUNE 10/01/19 Inst : Yoda
Misc : Multiplr: 1.00
Quant Time: Nov 25 11:35 2019 Quant Results File: temp.res

Method : M:\YODA\DATA\Y191121\DFTPP2.M (Chemstation Integrator)
Title :
Last Update : Mon Nov 25 11:35:23 2019
Response via : Single Level Calibration



TIC: 1121Y002.D

(6) Benzidine

6.48min 0.0000

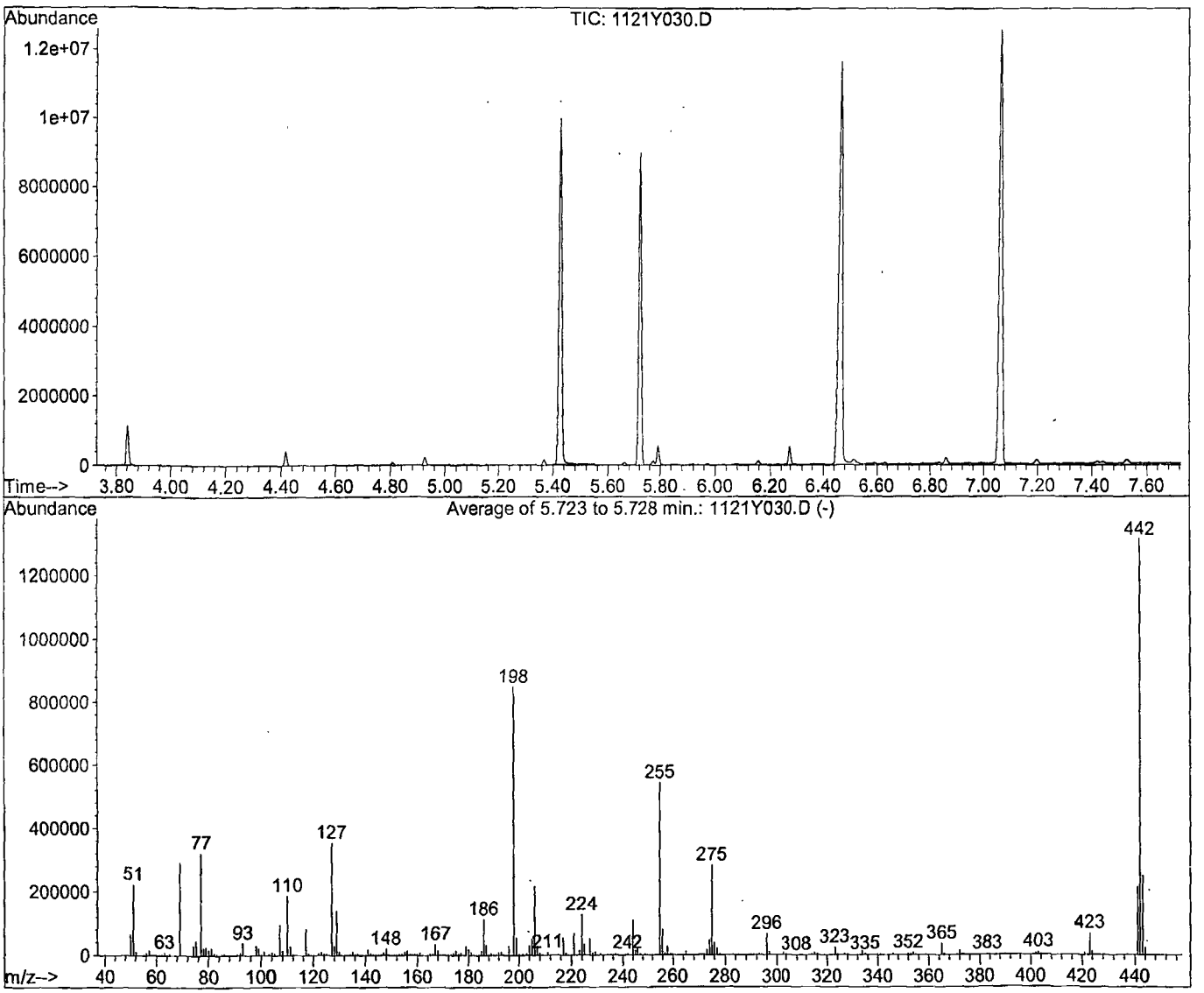
response 41952279

Ion	Exp%	Act%
184.00	100	100
92.00	9.20	8.85
185.00	14.30	14.28
0.00	0.00	0.00

DFTPP

Data File : M:\YODA\DATA\Y191121\1121Y030.D Vial: 30
Acq On : 22 Nov 19 13:23 Operator: MA,SS
Sample : SV TUNE 10/01/19 Inst : Yoda
Misc : Multiplr: 1.00

Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C



Spectrum Information: Average of 5.723 to 5.728 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	26.5	224439	PASS
68	69	0.00	2	0.0	0	PASS
70	69	0.00	2	0.4	1281	PASS
127	198	10	80	41.9	354859	PASS
197	198	0.00	2	0.0	0	PASS
198	198	100	100	100.0	847637	PASS
199	198	5	9	6.7	57211	PASS
275	198	10	60	33.3	282091	PASS
365	198	1	100	4.2	35747	PASS
441	442	0.01	24	16.3	213781	PASS
442	198	50	500	154.9	1313109	PASS
443	442	15	24	19.0	249600	PASS

M:\YODA\DATA\Y191121\1121Y030.D

Data File Name:	**1121Y030.D**
Data File Path:	**M:\YODA\DATA\Y191121**
Operator:	**MA,SS**
Date Acquired:	**22 Nov 2019 13:23**
Method File:	**DFTPP2.M**
Sample Name:	**SV TUNE 10/01/19**
Vial Number:	**30**
Instrument Name:	**Yoda**

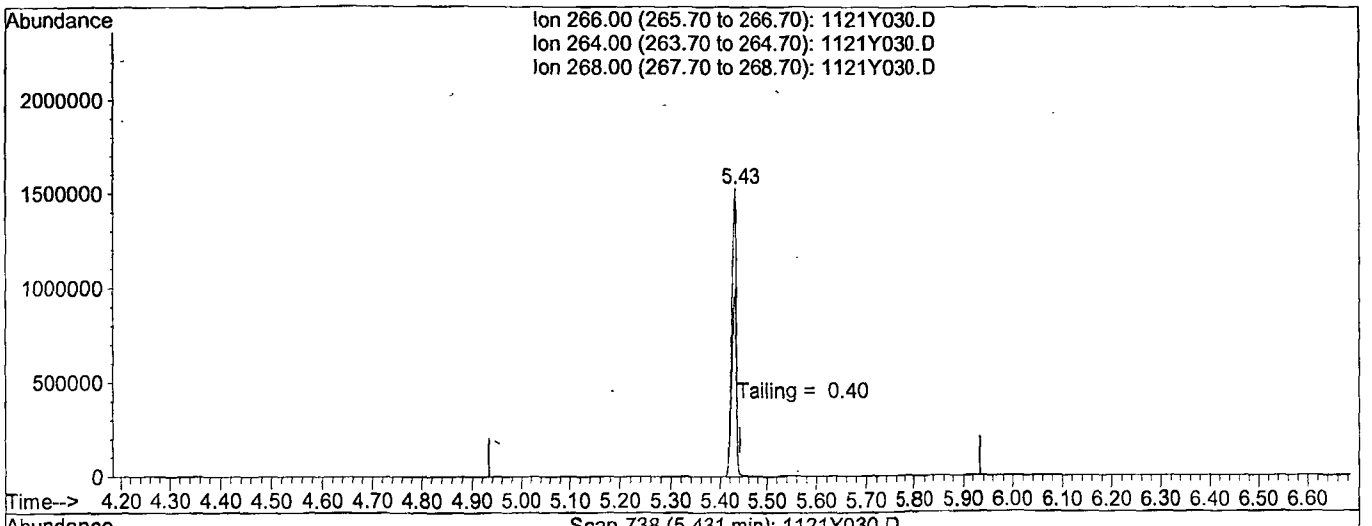
#	Name	Ret Time	Target Response
1)	DDT	7.09	106455000
2)	DDD	6.88	1407220
3)	DDE	6.61	235872

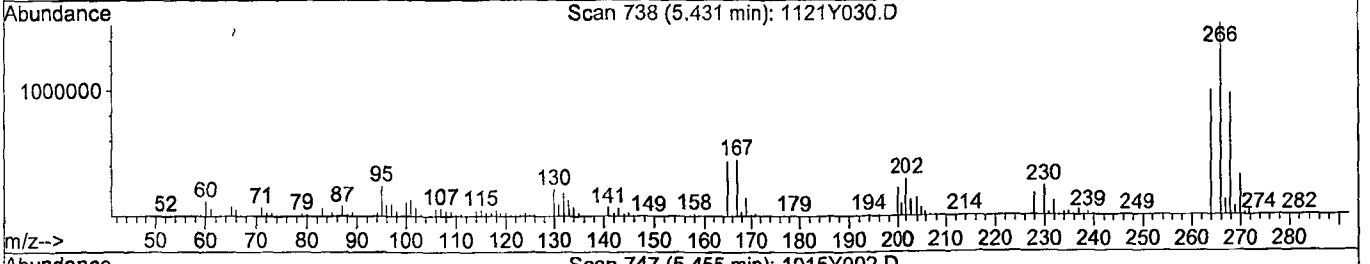
Breakdown **1.52**

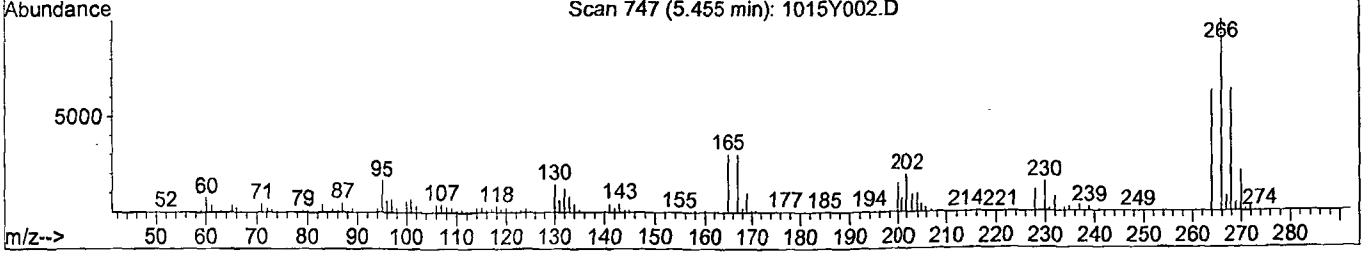
Quantitation Report

Data File : M:\YODA\DATA\Y191121\1121Y030.D Vial: 30
Acq On : 22 Nov 19 13:23 Operator: MA,SS
Sample : SV TUNE 10/01/19 Inst : Yoda
Misc : Multiplr: 1.00
Quant Time: Nov 25 11:36 2019 Quant Results File: temp.res

Method : M:\YODA\DATA\Y191121\DFTPP2.M (Chemstation Integrator)
Title :
Last Update : Mon Nov 25 11:35:23 2019
Response via : Single Level Calibration







TIC: 1121Y030.D

(5) Pentachlorophenol

5.43min 0.0000

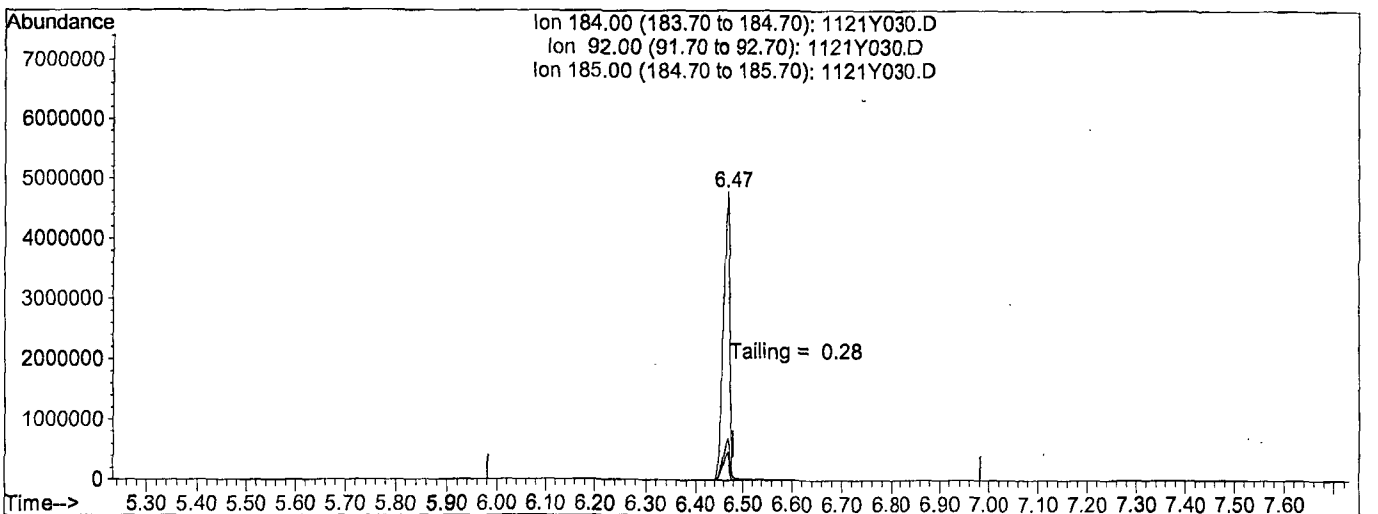
response 10296121

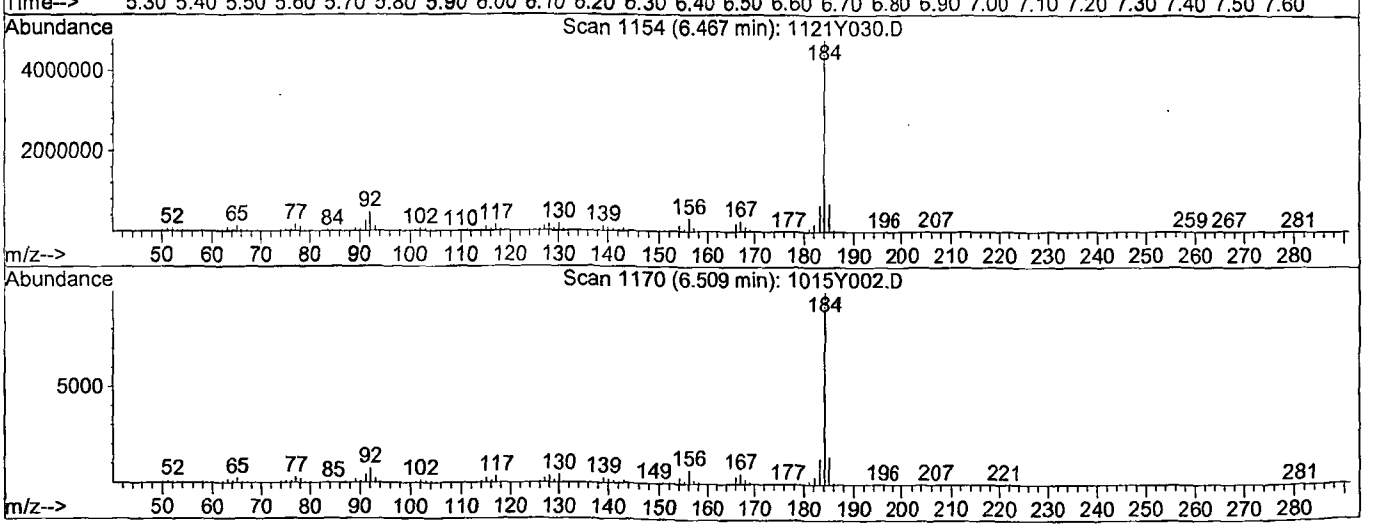
Ion	Exp%	Act%
266.00	100	100
264.00	65.50	63.86
268.00	64.40	63.64
0.00	0.00	0.00

Quantitation Report

Data File : M:\YODA\DATA\Y191121\1121Y030.D Vial: 30
Acq On : 22 Nov 19 13:23 Operator: MA,SS
Sample : SV TUNE 10/01/19 Inst : Yoda
Misc : Multiplr: 1.00
Quant Time: Nov 25 11:36 2019 Quant Results File: temp.res

Method : M:\YODA\DATA\Y191121\DFTPP2.M (Chemstation Integrator)
Title :
Last Update : Mon Nov 25 11:35:23 2019
Response via : Single Level Calibration





TIC: 1121Y030.D

(6) Benzidine

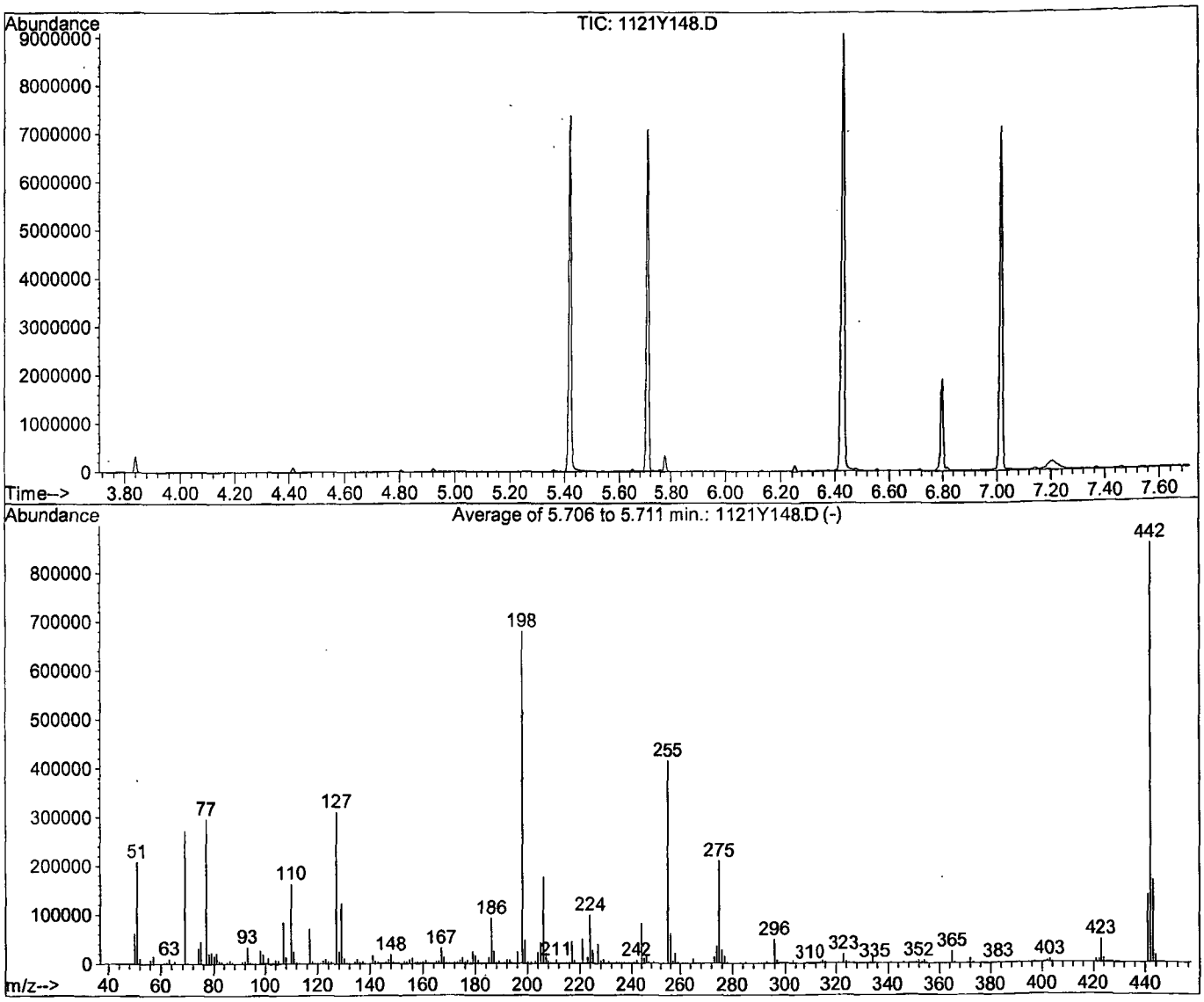
6.47min 0.0000

response 43745170

Ion	Exp%	Act%
184.00	100	100
92.00	9.20	9.26
185.00	14.30	14.55
0.00	0.00	0.00

Data File : M:\YODA\DATA\Y191121\1121Y148.D Vial: 48
Acq On : 26 Nov 19 18:16 Operator: MA,SS
Sample : SV TUNE 10/01/19 Inst : Yoda
Misc : Multiplr: 1.00

Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C



Spectrum Information: Average of 5.706 to 5.711 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	30.7	208917	PASS
68	69	0.00	2	0.0	0	PASS
70	69	0.00	2	0.2	654	PASS
127	198	10	80	45.8	311232	PASS
197	198	0.00	2	0.0	0	PASS
198	198	100	100	100.0	679979	PASS
199	198	5	9	7.0	47424	PASS
275	198	10	60	30.9	209792	PASS
365	198	1	100	3.6	24760	PASS
441	442	0.01	24	16.2	138283	PASS
442	198	50	500	125.7	854912	PASS
443	442	15	24	19.6	167749	PASS

Data File Name:	**1121Y148.D**
Data File Path:	**M:\YODA\DATA\Y191121**
Operator:	**MA,SS**
Date Acquired:	**26 Nov 2019 18:16**
Method File:	**DFTPP2.M**
Sample Name:	**SV TUNE 10/01/19**
Vial Number:	**48**
Instrument Name:	**Yoda**

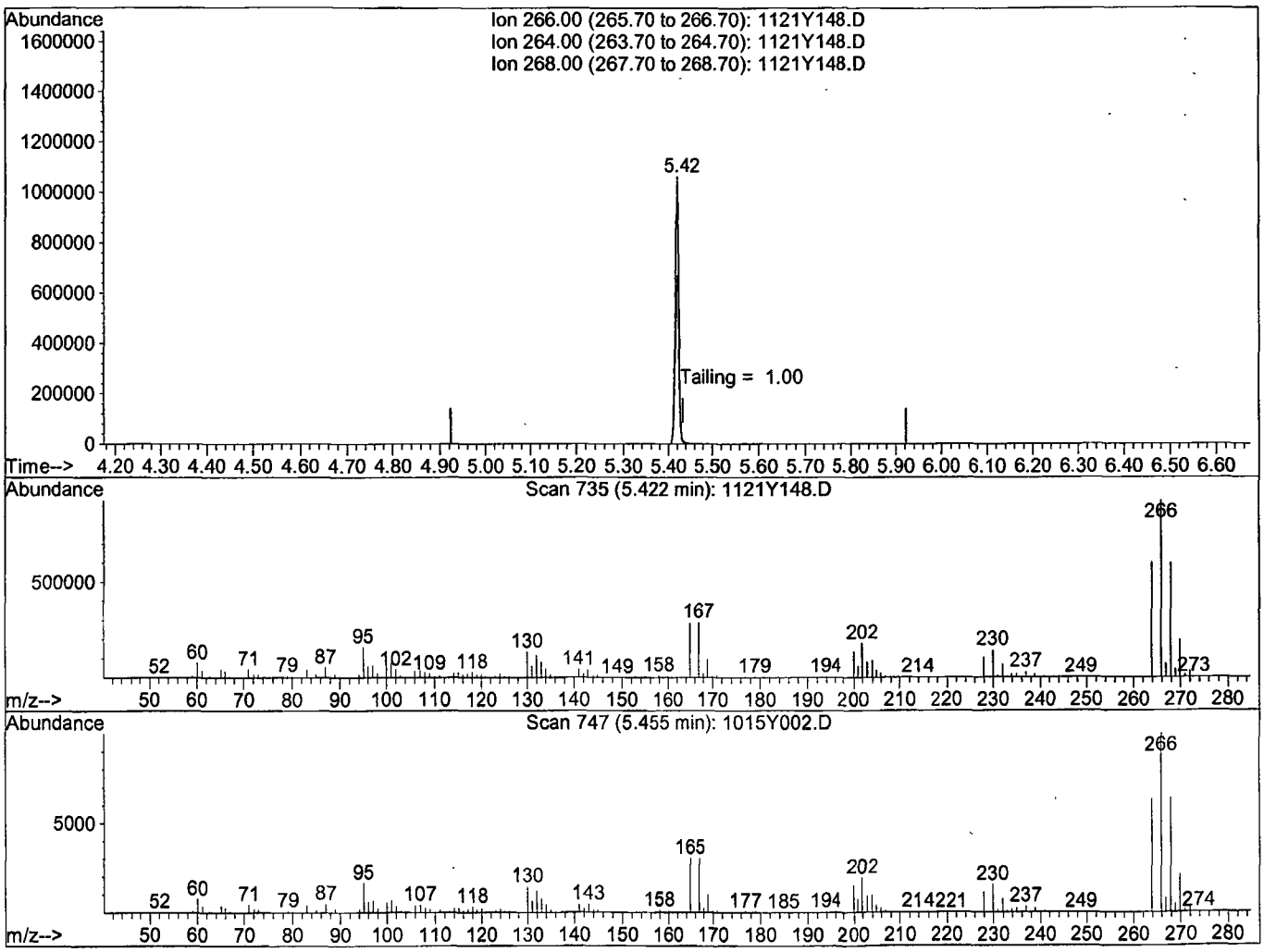
#	Name	Ret Time	Target Response
1)	DDT	7.03	50149300
2)	DDD	6.83	496078
3)	DDE	6.65	0

Breakdown **0.98**

Quantitation Report

Data File : M:\YODA\DATA\Y191121\1121Y148.D Vial: 48
Acq On : 26 Nov 19 18:16 Operator: MA,SS
Sample : SV TUNE 10/01/19 Inst : Yoda
Misc : Multiplr: 1.00
Quant Time: Nov 26 17:13 2019 Quant Results File: temp.res

Method : M:\YODA\DATA\Y191121\DFTPP2.M (Chemstation Integrator)
Title :
Last Update : Mon Nov 25 12:03:01 2019
Response via : Single Level Calibration



TIC: 1121Y148.D

(5) Pentachlorophenol

5.42min 0.0000

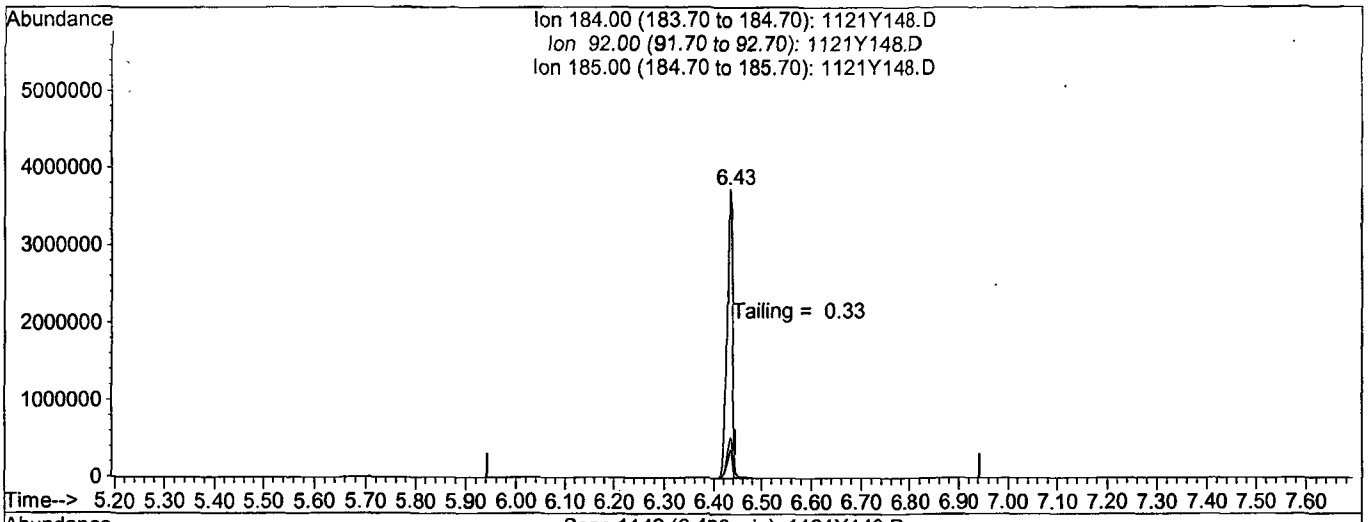
response 6348230

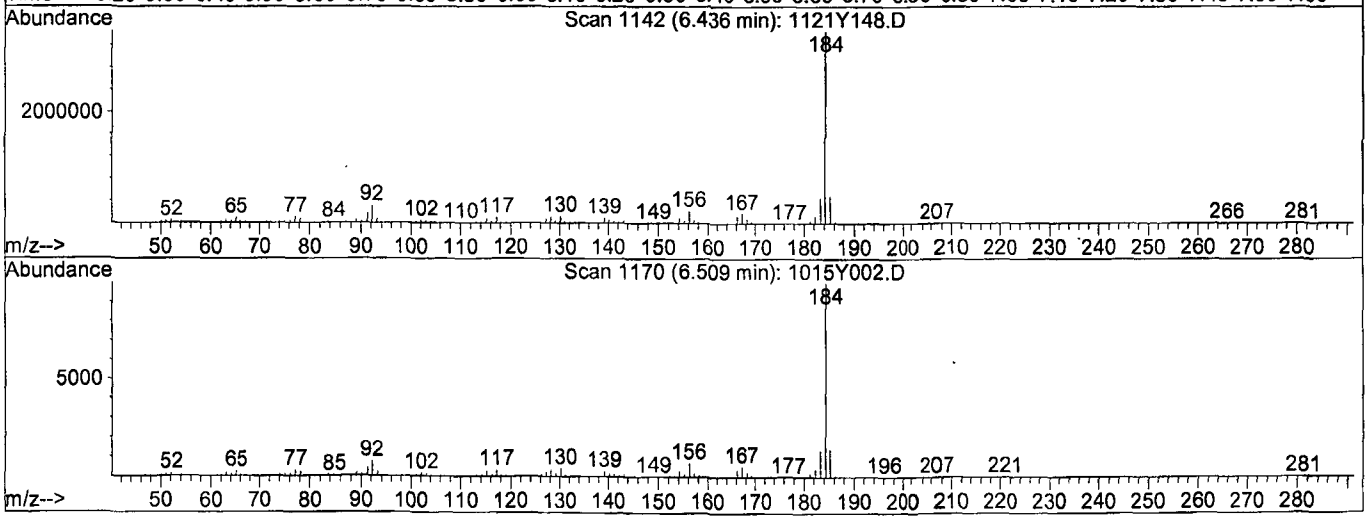
Ion	Exp%	Act%
266.00	100	100
264.00	64.40	64.10
268.00	63.20	63.12
0.00	0.00	0.00

Quantitation Report

Data File : M:\YODA\DATA\Y191121\1121Y148.D Vial: 48
Acq On : 26 Nov 19 18:16 Operator: MA,SS
Sample : SV TUNE 10/01/19 Inst : Yoda
Misc : Multiplr: 1.00
Quant Time: Nov 26 17:13 2019 Quant Results File: temp.res

Method : M:\YODA\DATA\Y191121\DFTPP2.M (Chemstation Integrator)
Title :
Last Update : Mon Nov 25 12:03:01 2019
Response via : Single Level Calibration





TIC: 1121Y148.D

(6) Benzidine

6.44min 0.0000

response 29597434

Ion	Exp%	Act%
184.00	100	100
92.00	9.40	9.28
185.00	14.10	14.36
0.00	0.00	0.00

Name of Final Standard	8270 Full Scan Stock Spike	Prep'd By (Initials)	JP
Prep Date	011/21/2019		
Exp Date	011/21/2020		

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from contianer Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
10001	Absolute	10001	2000	081419 - 49302	08/14/22	1.0 mL	11 mL	NA	181.82 ug/mL
10002	Absolute	10002	2000	090919-49211	09/09/22	1.0 mL	*	*	181.82 ug/mL
10004	Absolute	10004	2000	071618-99221	07/16/23	1.0 mL	*	*	181.82 ug/mL
10005	Absolute	10005	2000	032018-40234	03/20/23	1.0 mL	*	*	181.82 ug/mL
10006	Absolute	10006	2000	030119-49242	03/01/22	1.0 mL	*	*	181.82 ug/mL
10007	Absolute	10007	2000	080116-40254	08/01/21	1.0 mL	*	*	181.82 ug/mL
10018	Absolute	10018	2000	051719-49262	05/17/24	1.0 mL	*	*	181.82 ug/mL
70023	Absolute	70023	1000	012819-49268	01/28/24	1.0 mL	*	*	90.91ug/mL
82705	Absolute	82705	2000	090919-49293	09/09/22	1.0 mL	*	*	181.82 ug/mL
94552	Absolute	94552	various	053119-49284	05/31/21	1.0 mL	*	*	various
72304	Absolute	70023	1000	090519-49455 - 41159	09/05/24	1.0 mL	*	*	90.91ug/mL

Name of Final Standard	8270 Internal Standard Ampules (2)	Prep'd By (Initials)	JP
Prep Date	11/20/19		
Exp Date	11/20/20		

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from contianer Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
Semivolatile Internal Standard	Restek	31206	2000 ug/mL	**A0151843-49411 A0151843-49412**	**07/31/25**	2 mL	2 mL	NA	2000ug/mL

Name of Final Standard	8270 SS STOCK	Prep'd By (Initials)	JP
Prep Date	11/20/19		
Exp Date	11/20/20		

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from contianer Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
10001	Absolute	10001	2000 ug/mL	051019-40534	05/10/21	1.0 mL	20 mL	**Methanol Lot 208858**	100 ug/mL
10002	Absolute	10002	2000 ug/mL	020217-39199	02/02/20	1.0 mL	*	*	100 ug/mL
10004	Absolute	10004	2000 ug/mL	051018-39196	05/10/21	1.0 mL	*	*	100 ug/mL
10005	Absolute	10005	2000 ug/mL	031618-39207	03/16/23	1.0 mL	*	*	100 ug/mL
10006	Absolute	10006	2000 ug/mL	011718-39208	01/17/21	1.0 mL	*	*	100 ug/mL
10007	Absolute	10007	2000 ug/mL	060118-39213	06/01/23	1.0 mL	*	*	100 ug/mL
10018	Absolute	10018	2000 ug/mL	062718-40535	06/27/23	1.0 mL	*	*	100 ug/mL
70023	Absolute	70023	1000 ug/mL	051618-39214	05/16/23	1.0 mL	*	*	50 ug/mL
82705	Absolute	82705	2000 ug/mL	090617-40540	09/06/20	1.0 mL	*	*	100 ug/mL
94552	Absolute	94552	various	013118-40542	01/31/20	1.0 mL	*	*	various
72304	Absolute	72304	1000 ug/mL	110719-49477	11/07/24	1.0 mL	*	*	50 ug/mL

Name of Final Standard	8270 Full Scan Second Source	Prep'd By (Initials)	JP
Prep Date	11/22/19		
Exp Date	11/22/20		

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from container Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
8270 SS Stock	APPL	8270 SS Stock	100:50 ug/mL	**11/20/19**	**11/20/20**	100 uL	200uL	**MC DW717 150uL**	50:25 ug/mL
SV Internal Standard	APPL	SV Internal Standard	2000 ug/mL	**11/20/19**	**11/20/19**	4 uL	*	*	*

Name of Final Standard	8270 Full Scan Standard Curve	Prep'd By (Initials)	JP
Prep Date	011/21/2019		
Exp Date	011/21/2020		

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from container Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
8270 Stock	APPL	8270 Stock	182:91 ug/mL	011/21/2019	011/21/2020	4.4 uL	200uL	MC DW717 150uL	4 ug/mL
8270 Surrogate	APPL	8270 Surrogate	200:400 ug/mL	07/10/19	06/24/20	4 uL	*	*	*
SV Internal Standard	APPL	SV Internal Standard	2000 ug/mL	011/20/2019	07/31/25	4 uL	*	*	*
8270 Stock	APPL	8270 Stock	182:91 ug/mL	011/21/2019	011/21/2020	11 uL	400uL	MC DW717 150uL	5 ug/mL
8270 Surrogate	APPL	8270 Surrogate	200:400 ug/mL	07/10/19	06/24/20	10 uL	*	*	*
SV Internal Standard	APPL	SV Internal Standard	2000 ug/mL	011/20/2019	07/31/25	8 uL	*	*	*
8270 Stock	APPL	8270 Stock	182:91 ug/mL	011/21/2019	011/21/2020	11 uL	200uL	MC DW717 150uL	10 ug/mL
8270 Surrogate	APPL	8270 Surrogate	200:400 ug/mL	07/10/19	06/24/20	10 uL	*	*	*
SV Internal Standard	APPL	SV Internal Standard	2000 ug/mL	011/20/2019	07/31/25	4 uL	*	*	*
8270 Stock	APPL	8270 Stock	182:91 ug/mL	011/21/2019	011/21/2020	11 uL	100uL	MC DW717 150uL	20 ug/mL
8270 Surrogate	APPL	8270 Surrogate	200:400 ug/mL	07/10/19	06/24/20	10 uL	*	*	*
SV Internal Standard	APPL	SV Internal Standard	2000 ug/mL	011/20/2019	07/31/25	2 uL	*	*	*
8270 Stock	APPL	8270 Stock	182:91 ug/mL	011/21/2019	011/21/2020	22 uL	100uL	MC DW717 150uL	40 ug/mL
8270 Surrogate	APPL	8270 Surrogate	200:400 ug/mL	07/10/19	06/24/20	20 uL	*	*	*
SV Internal Standard	APPL	SV Internal Standard	2000 ug/mL	011/20/2019	07/31/25	2 uL	*	*	*
8270 Stock	APPL	8270 Stock	182:91 ug/mL	011/21/2019	011/21/2020	55 uL	200 uL	MC DW717 150uL	50 ug/mL
8270 Surrogate	APPL	8270 Surrogate	200:400 ug/mL	07/10/19	06/24/20	50 uL	*	*	*
SV Internal Standard	APPL	SV Internal Standard	2000 ug/mL	011/20/2019	07/31/25	4 uL	*	*	*
8270 Stock	APPL	8270 Stock	182:91 ug/mL	011/21/2019	011/21/2020	33 uL	100uL	MC DW717 150uL	60 ug/mL
8270 Surrogate	APPL	8270 Surrogate	200:400 ug/mL	07/10/19	06/24/20	30 uL	*	*	*
SV Internal Standard	APPL	SV Internal Standard	2000 ug/mL	011/20/2019	07/31/25	2 uL	*	*	*
8270 Stock	APPL	8270 Stock	182:91 ug/mL	011/21/2019	011/21/2020	44 uL	100uL	MC DW717 150uL	80 ug/mL
8270 Surrogate	APPL	8270 Surrogate	200:400 ug/mL	07/10/19	06/24/20	40 uL	*	*	*
SV Internal Standard	APPL	SV Internal Standard	2000 ug/mL	011/20/2019	07/31/25	2 uL	*	*	*
8270 Stock	APPL	8270 Stock	182:91 ug/mL	011/21/2019	011/21/2020	50 uL	100uL	na	91 ug/mL
8270 Surrogate	APPL	8270 Surrogate	200:400 ug/mL	07/10/19	06/24/20	50 uL	*	*	*
SV Internal Standard	APPL	SV Internal Standard	2000 ug/mL	011/20/2019	07/31/25	2 uL	*	*	*

Name of Final Standard	**Semivolatile (SV) Tuning Solution**
Prep Date	**10/01/19**
Exp Date	**11/30/20**

Prep'd By (Initials) **JP**

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from contianer Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
Semivolatile GC/MS Tuning Standard	Ultra Scientific	GCM-150-1	1,000 ug/mL	CR3789-38879	**11/30/20**	1,250 uL	25 mL	**MC #58240**	50 ug/mL

Organic Extraction Worksheet

Method	Continuous Liquid/Liquid SVOC 3520C	Extraction Set	191104A	Extraction Method	LIQ003	Units	mL

Spiked ID 1	8270T Spike 10/3/19 ex 10/3/20		Surrogate ID 1	8270 Surrogate 10/3/19 ex 10/3/20	
Spiked ID 2	Sim Spike 9/30/19 ex 9/30/20		Surrogate ID 2	SIM Surrogate 10/25/19 ex 10/25/20	
Spiked ID 3			Surrogate ID 3		
Spiked ID 4			Surrogate ID 4		
Spiked ID 5			Surrogate ID 5		
Spiked ID 6			Sufficient Vol for Matrix QC:	no	
Spiked ID 7			Ext. Start Time:	11/04/19 13:35	
Spiked ID 8			Ext. End Time:	11/06/19 6:30	
			GC Requires Extract By:		

pH1	2	11/05/19 10:40	Water Bath Temp 1 °C	EWB5 75/74.2 °
pH2	14	11/06/19 13:00	Water Bath Temp 2 °C	
pH3			Water Bath Temp 3 °C	

Spiked By: DL **Date** 11/04/19 **Witnessed By:** YL **Date** 11/04/19

	Sample	Sample Container	Spike Amount	Spike ID	Surrogate Amount	Surrogate ID	Extract Amount	Final Volume	pH	Extract Date/Time	Comments
1	191104A Blk				1,0.050	1,2	800	1	2/1	11/04/19 13:35	
						equip	EWB5				
2	191104A LCS-1		1	1	1	1	800	1	2/1	11/04/19 13:35	
						equip	EWB5				
3	191104A LCS-2		0.125	2	0.050	2	800	1	2/1	11/04/19 13:35	
						equip	EWB5				
4	191104A LCSD-1		1	1	1	1	800	1	2/1	11/04/19 13:35	
						equip	EWB5				
5	191104A LCSD-2		0.125	2	0.050	2	800	1	2/1	11/04/19 13:35	
						equip	EWB5				
6	BA02090	BA02090W19			1,0.050	1,2	800	1	2/1	11/04/19 13:35	90587
						equip	EWB5				
7	BA02091	BA02091W14			1,0.050	1,2	800	1	2/1	11/04/19 13:35	90587
						equip	EWB5				
8	BA02160	BA02160W16			1,0.050	1,2	800	1	2/1	11/04/19 13:35	90599
						equip	EWB5				
9	BA02214	BA02214W21			1,0.050	1,2	800	1	2/1	11/04/19 13:35	90611
						equip	EWB5				
10	BA02216	BA02216W13			1,0.050	1,2	800	1	2/1	11/04/19 13:35	90611
						equip	EWB5				
11	BA02301	BA02301W13			1,0.050	1,2	800	1	2/1	11/04/19 13:35	90625
						equip	EWB5				

Solvent and Lot#	
PH Strips	HC863463
Dichloromethane (DCM)	59130
1+1 H2SO4	11/1/19
10N NaOH	10/25/19
Filter Paper	400171
B. Na2SO4	2019020631

Extraction COC Transfer	
Extraction lab employee Initials	SS
GC analyst's initials	MA
Date	11/7/19
Time	1330
Refrigerator	GC_C

	Technician's Initials
Scanned By	DL
Sample Preparation	DL,YL,RB
Extraction	RB,DL
Concentration	DL

Modified	11/14/19 9:54:11 AM

Reviewed By: **Date**

Injection Log

Directory: M:\YODA\DATA\Y191121\

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	2	1121Y002.D	1	SV TUNE 10/01/19		21 Nov 19 13:52
2	3	1121Y003.D	1	4ug/ml 8270 11/21/19		21 Nov 19 14:07
3	4	1121Y004.D	1	5ug/ml 8270 11/21/19		21 Nov 19 14:35
4	5	1121Y005.D	1	10ug/ml 8270 11/21/19		21 Nov 19 15:37
5	6	1121Y006.D	1	20ug/ml 8270 11/21/19		21 Nov 19 16:05
6	7	1121Y007.D	1	40ug/ml 8270 11/21/19		21 Nov 19 16:33
7	8	1121Y008.D	1	50ug/ml 8270 11/21/19		21 Nov 19 17:01
8	9	1121Y009.D	1	60ug/ml 8270 11/21/19		21 Nov 19 17:30
9	10	1121Y010.D	1	80ug/ml 8270 11/21/19		21 Nov 19 17:58
10	11	1121Y011.D	1	100ug/ml 8270 11/21/19		21 Nov 19 18:26
11	31	1121Y031.D	1	SS 8270 11/22/19		22 Nov 19 13:38
12	48	1121Y148.D	1	SV TUNE 10/01/19		26 Nov 19 18:16
13	54	1121Y154.D	1	50ug/ml 8270 11/21/19 (1)		26 Nov 19 20:50
14	55	1121Y155.D	1.25	191104A BLK 2/800		26 Nov 19 21:18
15	56	1121Y156.D	1.25	191104A LCS-1 2/800		26 Nov 19 21:46
16	57	1121Y157.D	1.25	191104A LCSD-1 2/800		26 Nov 19 22:14
17	63	1121Y163.D	1.25	BA02301W13 2/800		27 Nov 19 1:01
18	72	1121Y172.D	1	50ug/ml 8270 11/21/19 (2)		27 Nov 19 5:11

ORGANICS
Calibration Data

2MEE
EPA 8270

Form 6
Initial Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Initial Cal. Date: 10/31/19
Matrix: Instrument: Linus
Initials: MR/JM

		Compound	1030L004.D	1030L005.D	1030L006.D	1030L007.D	1030L008.D	1030L009.D	1030L010.D	1030L011.D			Avg	%RSD	Type	r^2	Q	MRF
1	I	1,4-dichlorobenzene-D4(IS)																
2	TM	2-(2-Methoxyethoxy)ethanol	0.1255	0.1270	0.1199	*	0.1601	0.1377	0.1599	0.1385			0.14	12	TM			
3	I	Napthalene-D8(IS)																
4	I	Acenaphthene-D10(IS)																
5	I	Phenanthrene-D10(IS)																
6	I	Chrysene-D12(IS)																
7	I	Perylene-D12(IS)																
8																		
9																		
10																		
11																		
12																		
13		* It was concentrated. Deleted from the ICAL																
14																		
15																		
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34																		
35																		

Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L191030M\1030L004.D Vial: 4
Acq On : 31 Oct 19 11:50 Operator: MA
Sample : 50 2MEE 4/30/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 31 12:28 2019 Quant Results File: YMEE1030.RES

Quant Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Oct 31 11:46:50 2019
Response via : Initial Calibration
DataAcq Meth : GED

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	3.67	152	924546	40.00000 ppb	0.00
3) Napthalene-D8(IS)	4.62	136	3824592	40.00000 ppb	0.00
4) Acenaphthene-D10(IS)	6.02	164	1847509	40.00000 ppb	0.00
5) Phenanthrene-D10(IS)	7.22	188	3070665	40.00000 ppb	0.00
6) Chrysene-D12(IS)	9.42	240	2379935	40.00000 ppb	0.02
7) Perylene-D12(IS)	10.65	264	2480690	40.00000 ppb	0.06

System Monitoring Compounds

Target Compounds					Qvalue
2) 2-(2-Methoxyethoxy)ethanol	3.19	45	145043m	63.19099 ppb	98

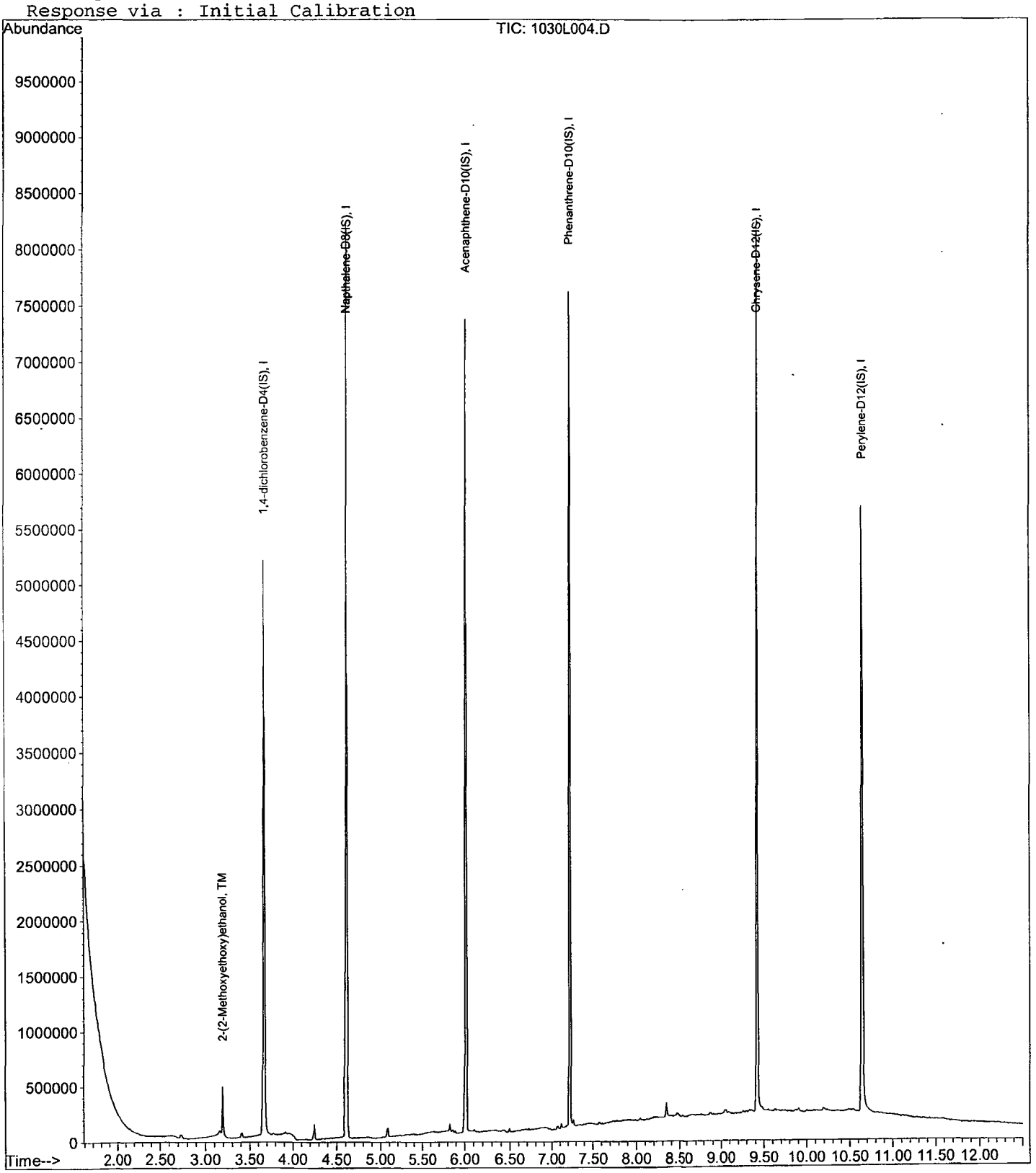
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L191030M\1030L004.D Vial: 4
Acq On : 31 Oct 19 11:50 Operator: MA
Sample : 50 2MEE 4/30/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 31 12:28 2019 Quant Results File: YMEE1030.RES

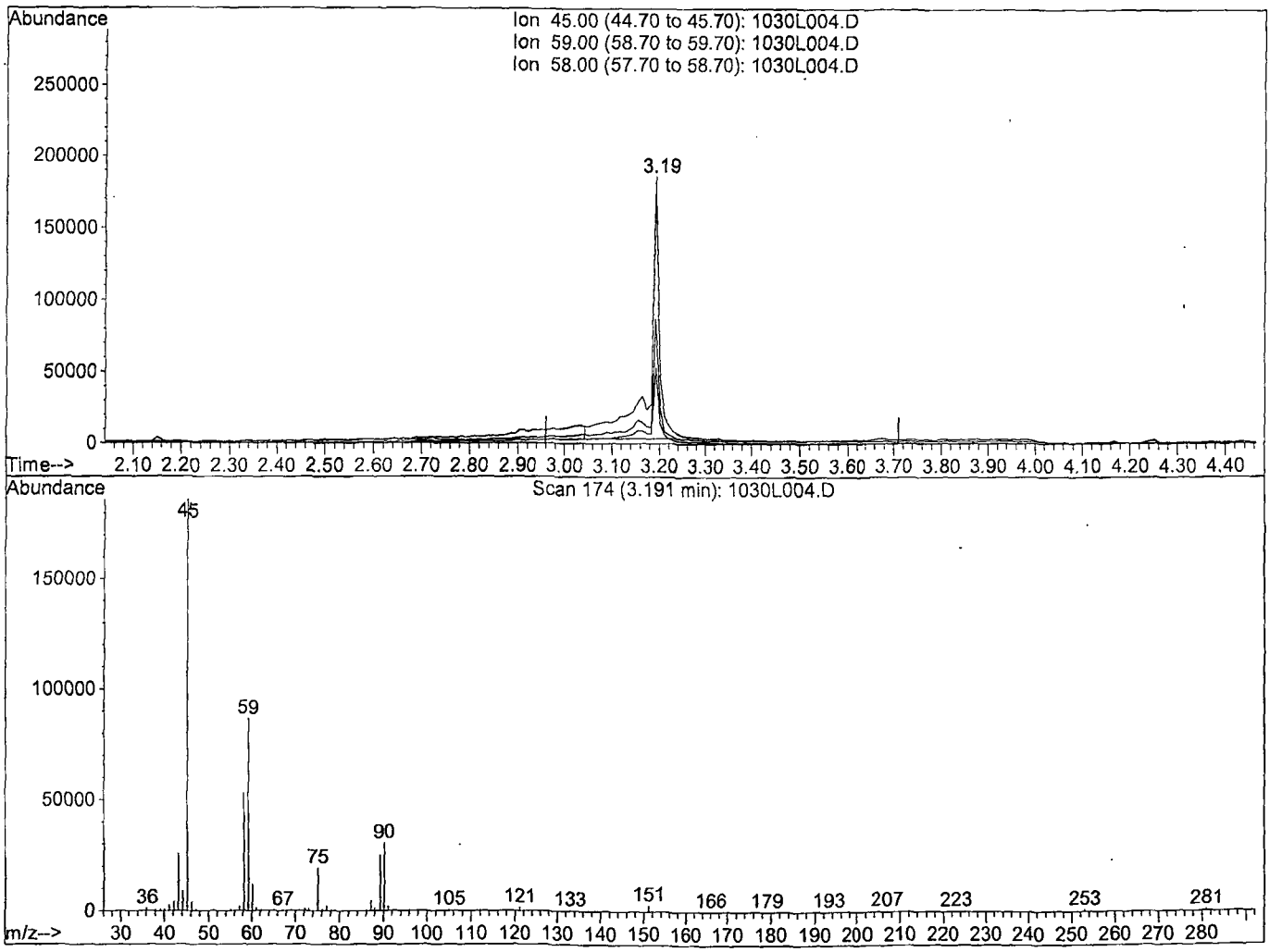
Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Oct 31 14:18:15 2019
Response via : Initial Calibration



Quantitation Report

Data File : M:\LINUS\DATA\L191030M\1030L004.D Vial: 4
Acq On : 31 Oct 19 11:50 Operator: MA
Sample : 50 2MEE 4/30/19 Inst : Linus
Misc : Multiplr: 1.00
Quant Time: Oct 31 12:04 2019 Quant Results File: temp.res

Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Oct 31 11:46:50 2019
Response via : Multiple Level Calibration



TIC: 1030L004.D

(2) 2-(2-Methoxyethoxy)ethanol (TM)

3.19min 99.2279ppb

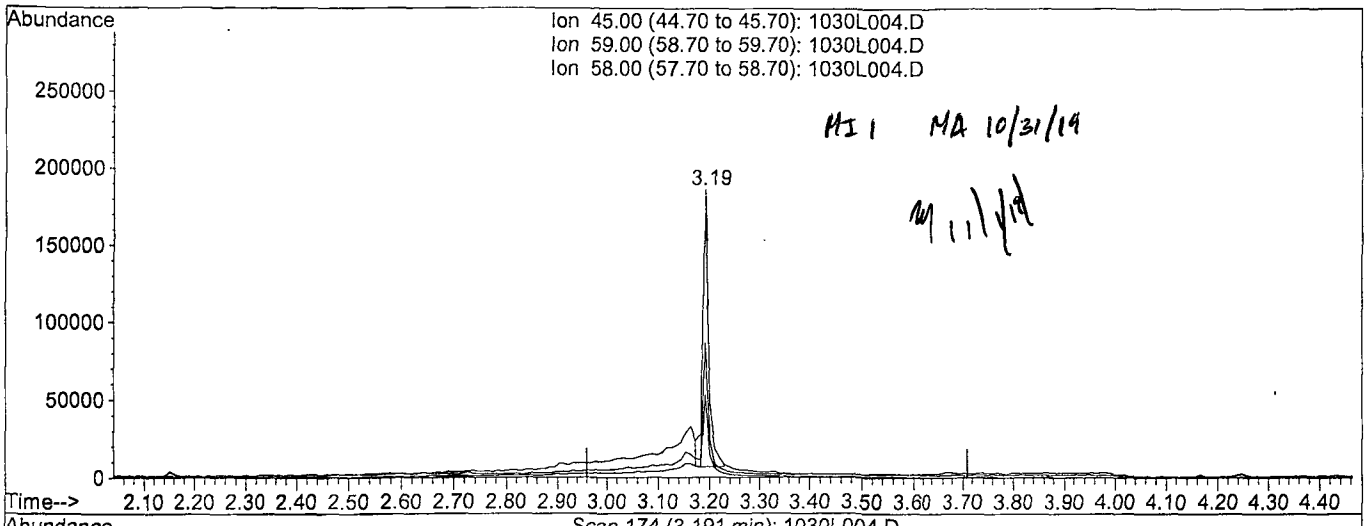
response 284001

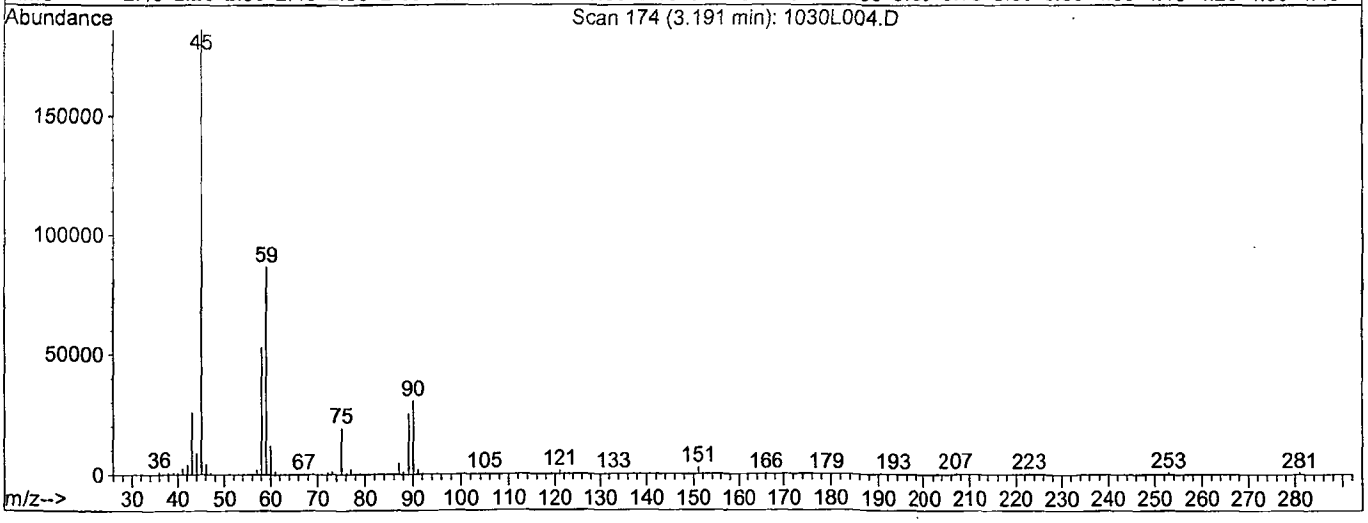
Ion	Exp%	Act%
45.00	100	100
59.00	48.10	46.59
58.00	29.40	28.49
0.00	0.00	0.00

Quantitation Report

Data File : M:\LINUS\DATA\L191030M\1030L004.D Vial: 4
Acq On : 31 Oct 19 11:50 Operator: MA
Sample : 50 2MEE 4/30/19 Inst : Linus
Misc : Multiplr: 1.00
Quant Time: Oct 31 12:28 2019 Quant Results File: temp.res

Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Oct 31 11:46:50 2019
Response via : Multiple Level Calibration





TIC: 1030L004.D

(2) 2-(2-Methoxyethoxy)ethanol (TM)

3.19min 63.1910ppb m

response 145043

Ion	Exp%	Act%
45.00	100	100
59.00	48.10	46.59
58.00	29.40	28.49
0.00	0.00	0.00

Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L191030M\1030L005.D Vial: 5
Acq On : 31 Oct 19 12:10 Operator: MA
Sample : 100 2MEE 4/30/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 31 13:29 2019 Quant Results File: YMEE1030.RES

Quant Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Oct 31 13:28:52 2019
Response via : Initial Calibration
DataAcq Meth : GED

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	3.66	152	802143	40.00000	ppb	0.00
3) Napthalene-D8(IS)	4.62	136	3947022	40.00000	ppb	0.00
4) Acenaphthene-D10(IS)	6.02	164	1905798	40.00000	ppb	0.00
5) Phenanthrene-D10(IS)	7.23	188	3352515	40.00000	ppb	0.00
6) Chrysene-D12(IS)	9.39	240	2935825	40.00000	ppb	0.00
7) Perylene-D12(IS)	10.58	264	2243163	40.00000	ppb	-0.02

System Monitoring Compounds

Target Compounds						Qvalue
2) 2-(2-Methoxyethoxy)ethanol	3.19	45	254665	101.69486	ppb	93

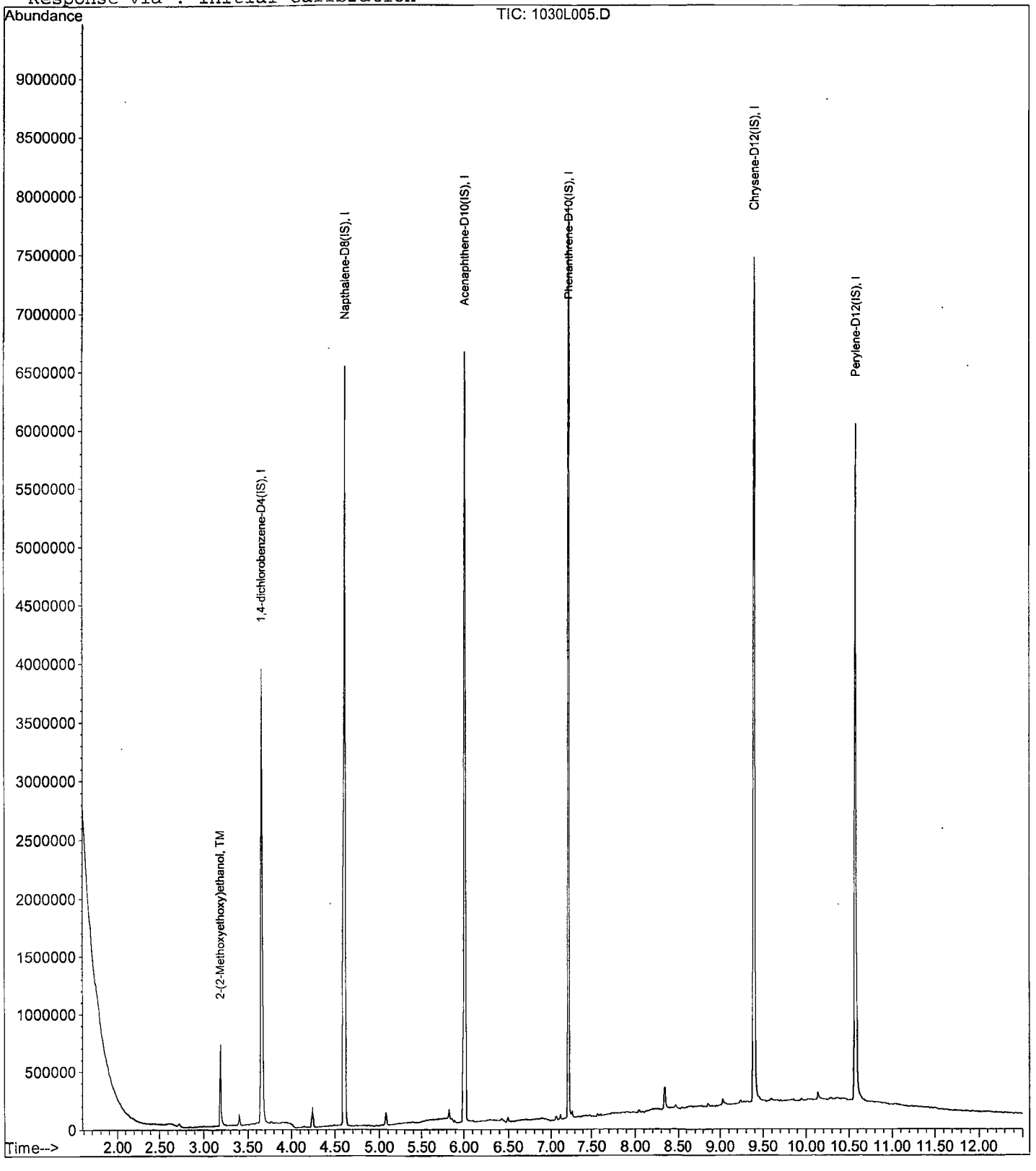
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L191030M\1030L005.D Vial: 5
Acq On : 31 Oct 19 12:10 Operator: MA
Sample : 100 2MEE 4/30/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 31 13:29 2019 Quant Results File: YMEE1030.RES

Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Oct 31 14:18:15 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L191030M\1030L006.D Vial: 6
Acq On : 31 Oct 19 12:29 Operator: MA
Sample : 200 2MEE 4/30/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 31 13:30 2019 Quant Results File: YMEE1030.RES

Quant Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Oct 31 13:28:52 2019
Response via : Initial Calibration
DataAcq Meth : GED

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	3.67	152	867176	40.00000	ppb	0.00
3) Napthalene-D8(IS)	4.62	136	3930052	40.00000	ppb	0.00
4) Acenaphthene-D10(IS)	6.02	164	2009214	40.00000	ppb	0.00
5) Phenanthrene-D10(IS)	7.22	188	3319659	40.00000	ppb	0.00
6) Chrysene-D12(IS)	9.40	240	3235629	40.00000	ppb	0.00
7) Perylene-D12(IS)	10.58	264	2613264	40.00000	ppb	-0.02

System Monitoring Compounds

Target Compounds						Qvalue
2) 2-(2-Methoxyethoxy)ethanol	3.20	45	519817	166.78709	ppb	99

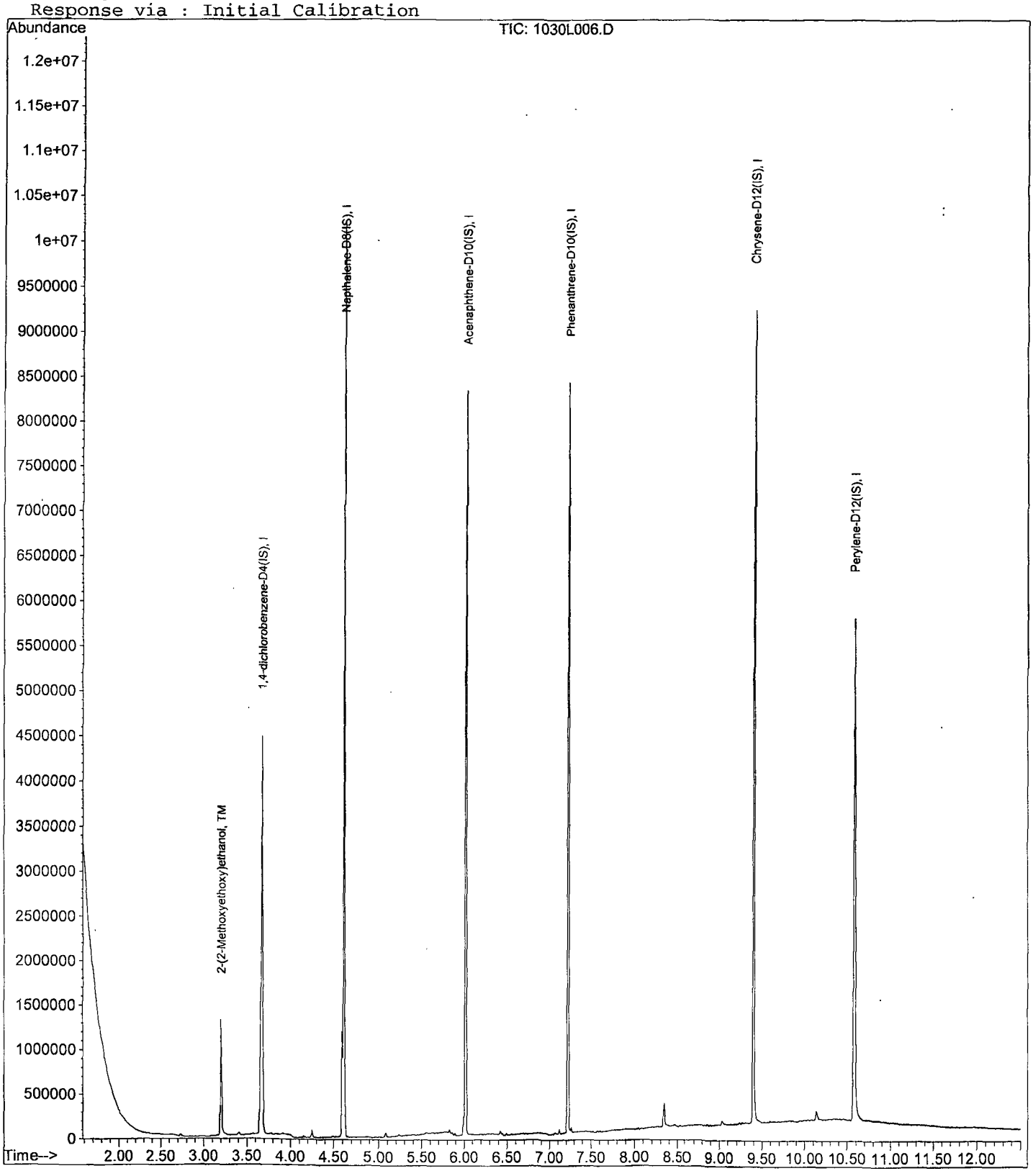
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L191030M\1030L006.D Vial: 6
Acq On : 31 Oct 19 12:29 Operator: MA
Sample : 200 2MEE 4/30/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 31 13:30 2019 Quant Results File: YMEE1030.RES

Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Oct 31 14:18:15 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L191030M\1030L007.D Vial: 7
Acq On : 31 Oct 19 12:49 Operator: MA
Sample : 400 2MEE 4/30/19 not used. It got concen Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 31 13:30 2019 Quant Results File: YMEE1030.RES

Quant Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Oct 31 13:28:52 2019
Response via : Initial Calibration
DataAcq Meth : GED

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	3.67	152	768222	40.00000	ppb	0.00
3) Napthalene-D8(IS)	4.62	136	3846001	40.00000	ppb	0.00
4) Acenaphthene-D10(IS)	6.02	164	2102228	40.00000	ppb	0.00
5) Phenanthrene-D10(IS)	7.23	188	3529522	40.00000	ppb	0.00
6) Chrysene-D12(IS)	9.40	240	2845578	40.00000	ppb	0.00
7) Perylene-D12(IS)	10.60	264	2568289	40.00000	ppb	0.00
System Monitoring Compounds						
Target Compounds						Qvalue
2) 2-(2-Methoxyethoxy)ethanol	3.22	45	1438559	476.21754	ppb	94

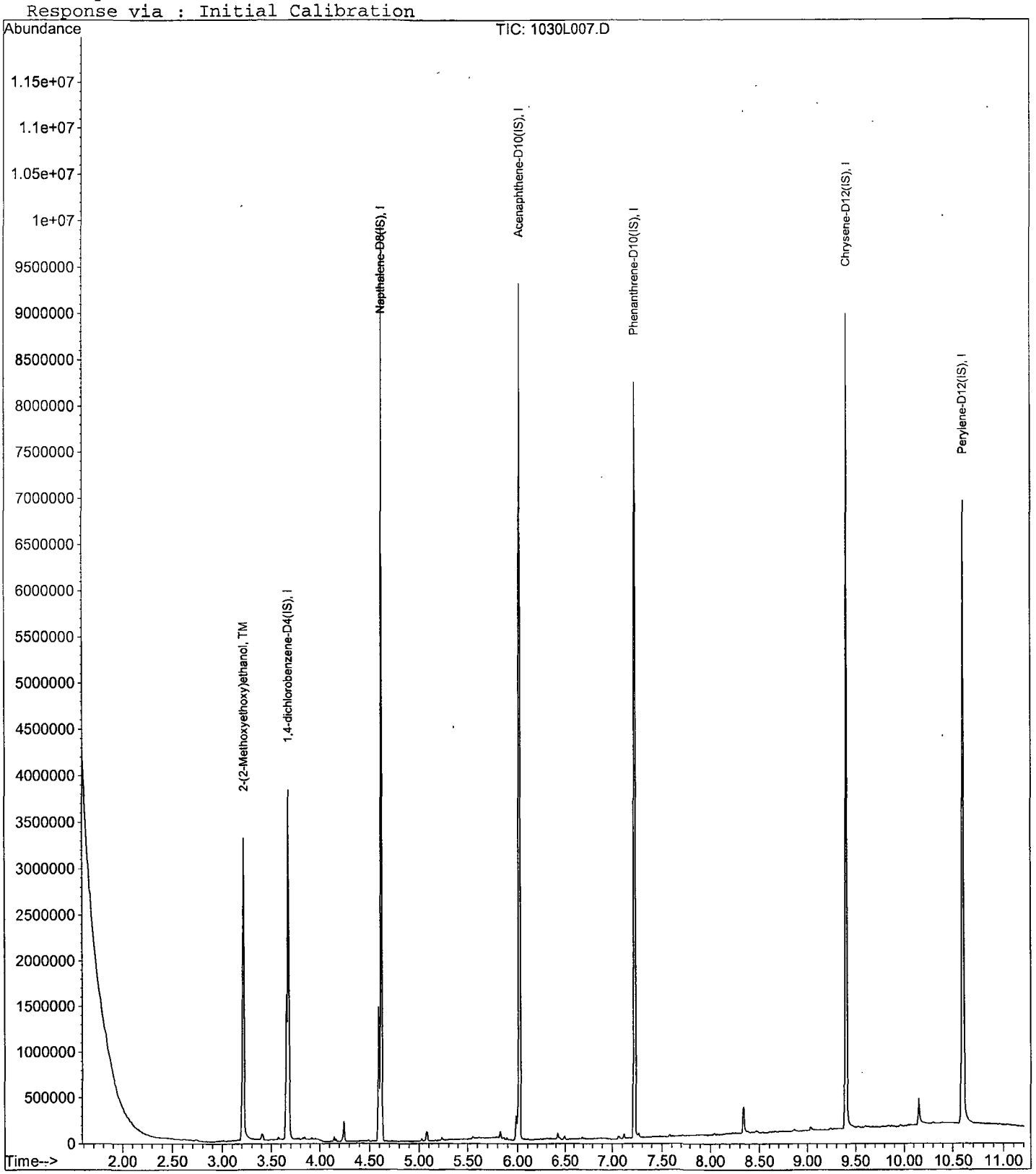
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L191030M\1030L007.D Vial: 7
Acq On : 31 Oct 19 12:49 Operator: MA
Sample : 400 2MEE 4/30/19 not used. It got concen Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 31 13:30 2019 Quant Results File: YMEE1030.RES

Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Oct 31 14:18:15 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L191030M\1030L008.D Vial: 8
Acq On : 31 Oct 19 13:07 Operator: MA
Sample : 500 2MEE 4/30/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 31 14:14 2019 Quant Results File: YMEE1030.RES

Quant Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Oct 31 14:14:39 2019
Response via : Initial Calibration
DataAcq Meth : GED

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	3.67	152	772292	40.00000 ppb	0.00
3) Napthalene-D8(IS)	4.62	136	3394425	40.00000 ppb	0.00
4) Acenaphthene-D10(IS)	6.02	164	1712966	40.00000 ppb	0.00
5) Phenanthrene-D10(IS)	7.22	188	2832000	40.00000 ppb	0.00
6) Chrysene-D12(IS)	9.40	240	2510708	40.00000 ppb	0.00
7) Perylene-D12(IS)	10.60	264	2441015	40.00000 ppb	0.00
System Monitoring Compounds					
Target Compounds					Qvalue
2) 2-(2-Methoxyethoxy)ethanol	3.21	45	1545173	578.42618 ppb	100

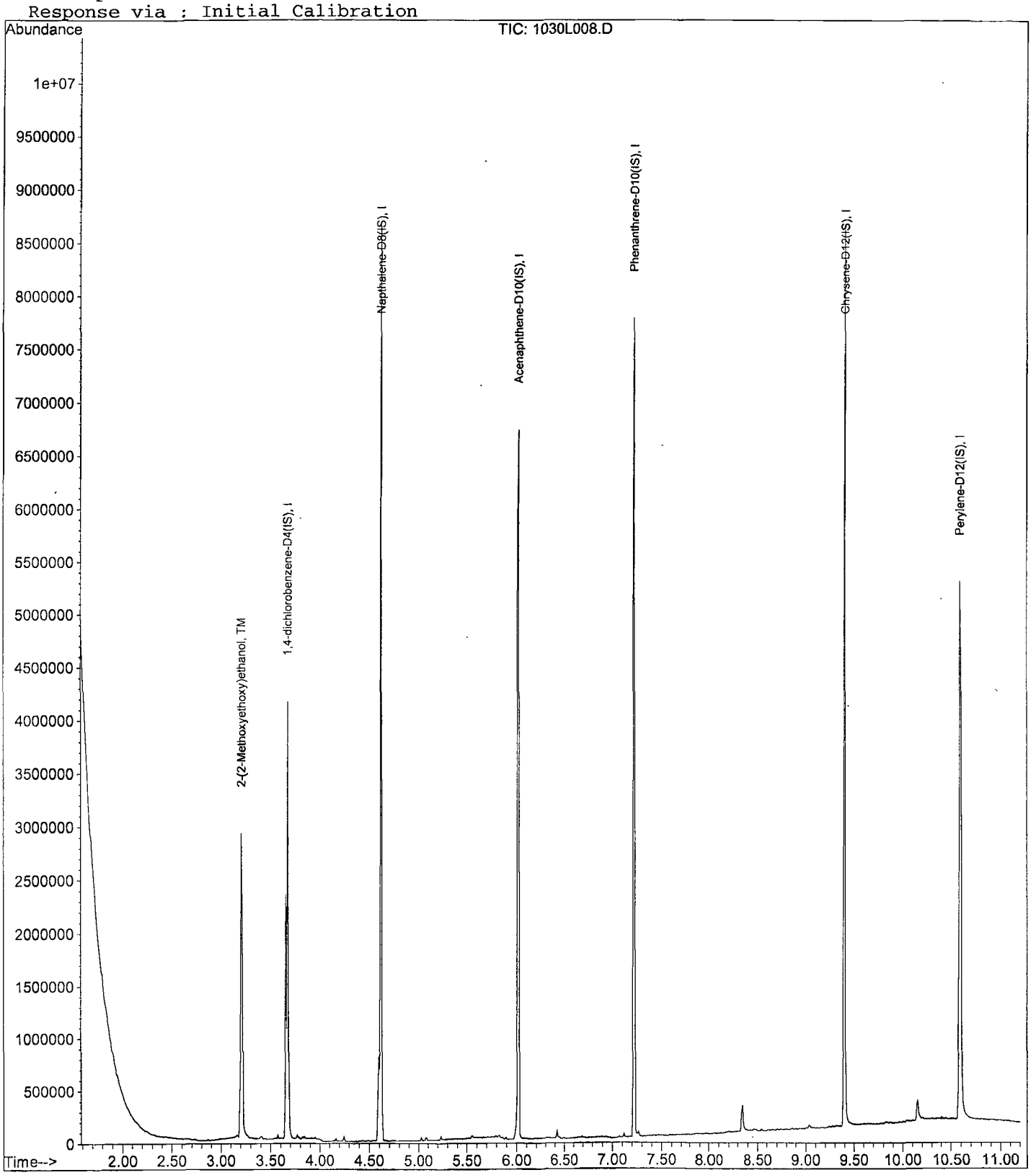
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L191030M\1030L008.D Vial: 8
Acq On : 31 Oct 19 13:07 Operator: MA
Sample : 500 2MEE 4/30/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 31 14:14 2019 Quant Results File: YMEE1030.RES

Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Oct 31 14:18:15 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L191030M\1030L009.D Vial: 9
Acq On : 31 Oct 19 13:25 Operator: MA
Sample : 600 2MEE 4/30/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 31 13:40 2019 Quant Results File: YMEE1030.RES

Quant Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Oct 31 13:28:52 2019
Response via : Initial Calibration
DataAcq Meth : GED

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	3.67	152	918679	40.00000 ppb	0.00
3) Napthalene-D8(IS)	4.62	136	3995417	40.00000 ppb	0.00
4) Acenaphthene-D10(IS)	6.02	164	2035544	40.00000 ppb	0.00
5) Phenanthrene-D10(IS)	7.23	188	3476903	40.00000 ppb	0.00
6) Chrysene-D12(IS)	9.40	240	2887642	40.00000 ppb	0.00
7) Perylene-D12(IS)	10.59	264	2390309	40.00000 ppb	0.00

System Monitoring Compounds

Target Compounds					Qvalue
2) 2-(2-Methoxyethoxy)ethanol	3.22	45	1897302	517.69156 ppb	98

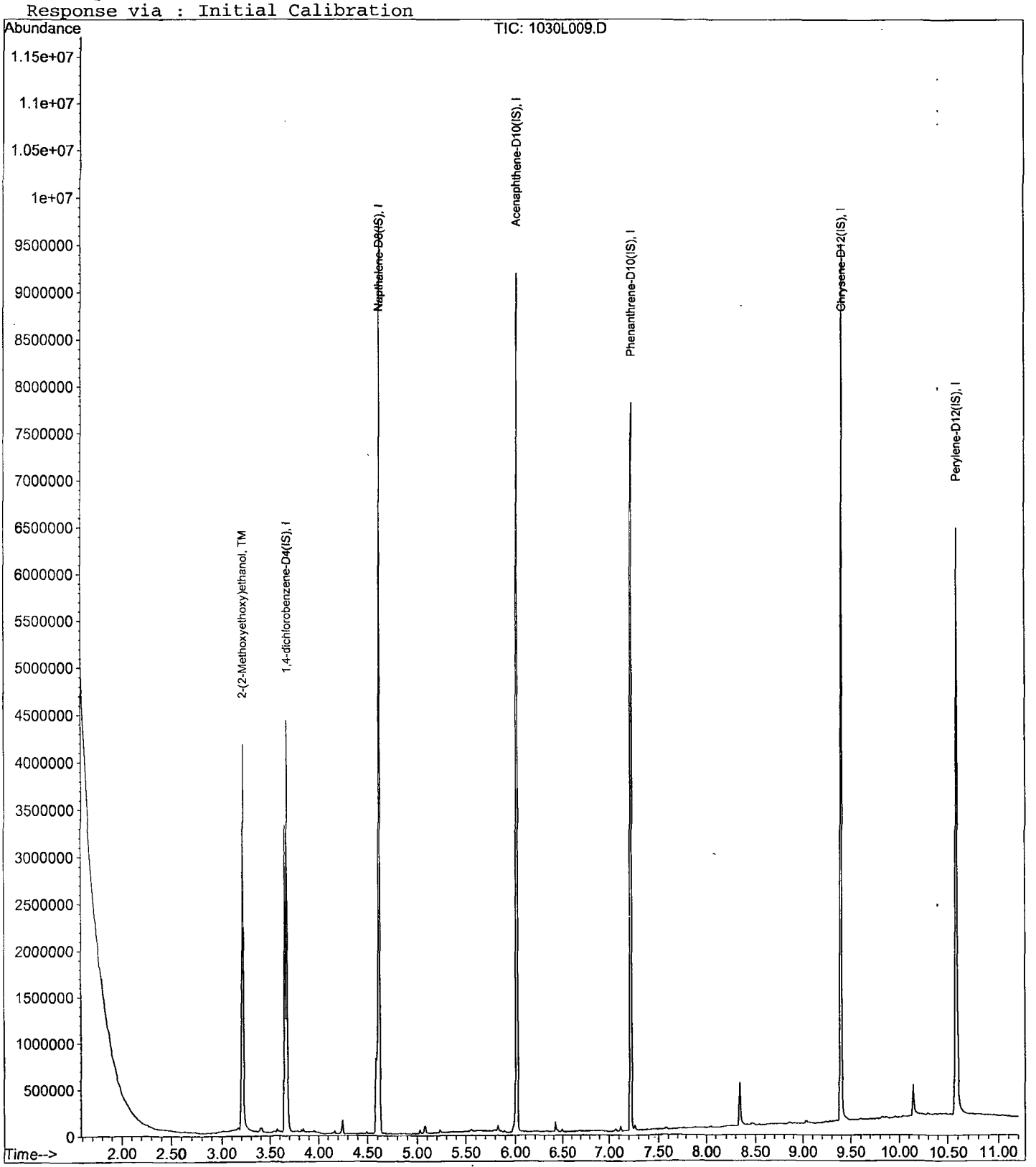
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L191030M\1030L009.D Vial: 9
Acq On : 31 Oct 19 13:25 Operator: MA
Sample : 600 2MEE 4/30/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 31 13:40 2019 Quant Results File: YMEE1030.RES

Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Oct 31 14:18:15 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L191030M\1030L010.D Vial: 10
Acq On : 31 Oct 19 13:43 Operator: MA
Sample : 800 2MEE 4/30/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 31 14:12 2019 Quant Results File: YMEE1030.RES

Quant Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Oct 31 13:28:52 2019
Response via : Initial Calibration
DataAcq Meth : GED

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	3.67	152	781913	40.00000 ppb	0.00
3) Napthalene-D8(IS)	4.62	136	3819124	40.00000 ppb	0.00
4) Acenaphthene-D10(IS)	6.02	164	2060420	40.00000 ppb	0.00
5) Phenanthrene-D10(IS)	7.23	188	3432435	40.00000 ppb	0.00
6) Chrysene-D12(IS)	9.41	240	3218071	40.00000 ppb	0.00
7) Perylene-D12(IS)	10.61	264	2421844	40.00000 ppb	0.00

System Monitoring Compounds

Target Compounds					Qvalue
2) 2-(2-Methoxyethoxy)ethanol	3.23	45	2499934	802.74185 ppb	98

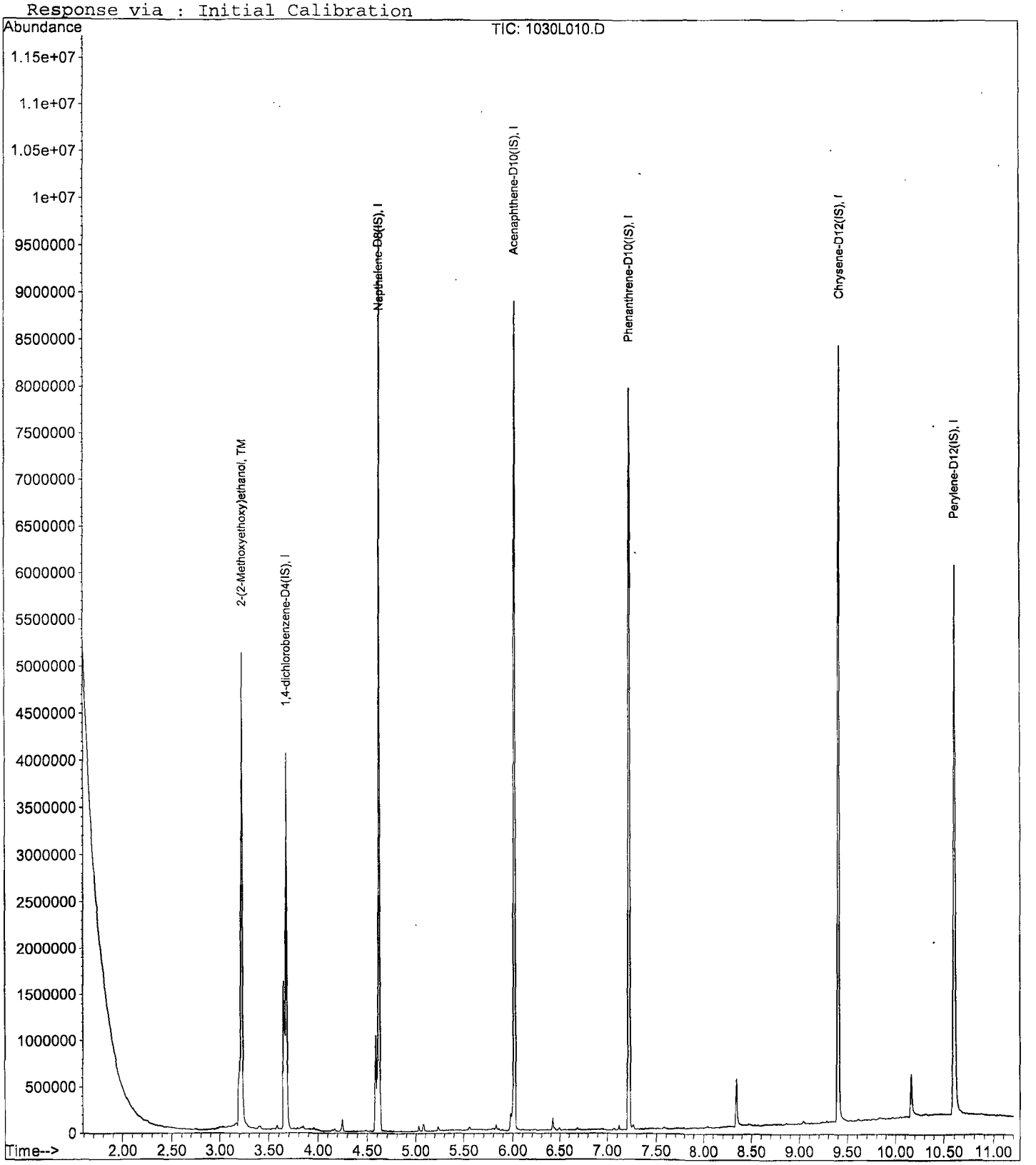
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L191030M\1030L010.D Vial: 10
Acq On : 31 Oct 19 13:43 Operator: MA
Sample : 800 2MEE 4/30/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 31 14:12 2019 Quant Results File: YMEE1030.RES

Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Oct 31 14:18:15 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L191030M\1030L011.D Vial: 11
Acq On : 31 Oct 19 14:02 Operator: MA
Sample : 1000 2MEE 4/30/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 31 14:13 2019 Quant Results File: YMEE1030.RES

Quant Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Oct 31 13:28:52 2019
Response via : Initial Calibration
DataAcq Meth : GED

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	3.67	152	893999	40.00000	ppb	0.00
3) Napthalene-D8(IS)	4.62	136	4002209	40.00000	ppb	0.00
4) Acenaphthene-D10(IS)	6.02	164	2003789	40.00000	ppb	0.00
5) Phenanthrene-D10(IS)	7.22	188	3346119	40.00000	ppb	0.00
6) Chrysene-D12(IS)	9.40	240	2853107	40.00000	ppb	0.00
7) Perylene-D12(IS)	10.60	264	2370540	40.00000	ppb	0.00

System Monitoring Compounds

Target Compounds						Qvalue
2) 2-(2-Methoxyethoxy)ethanol	3.23	45	3096034	880.60620	ppb	98

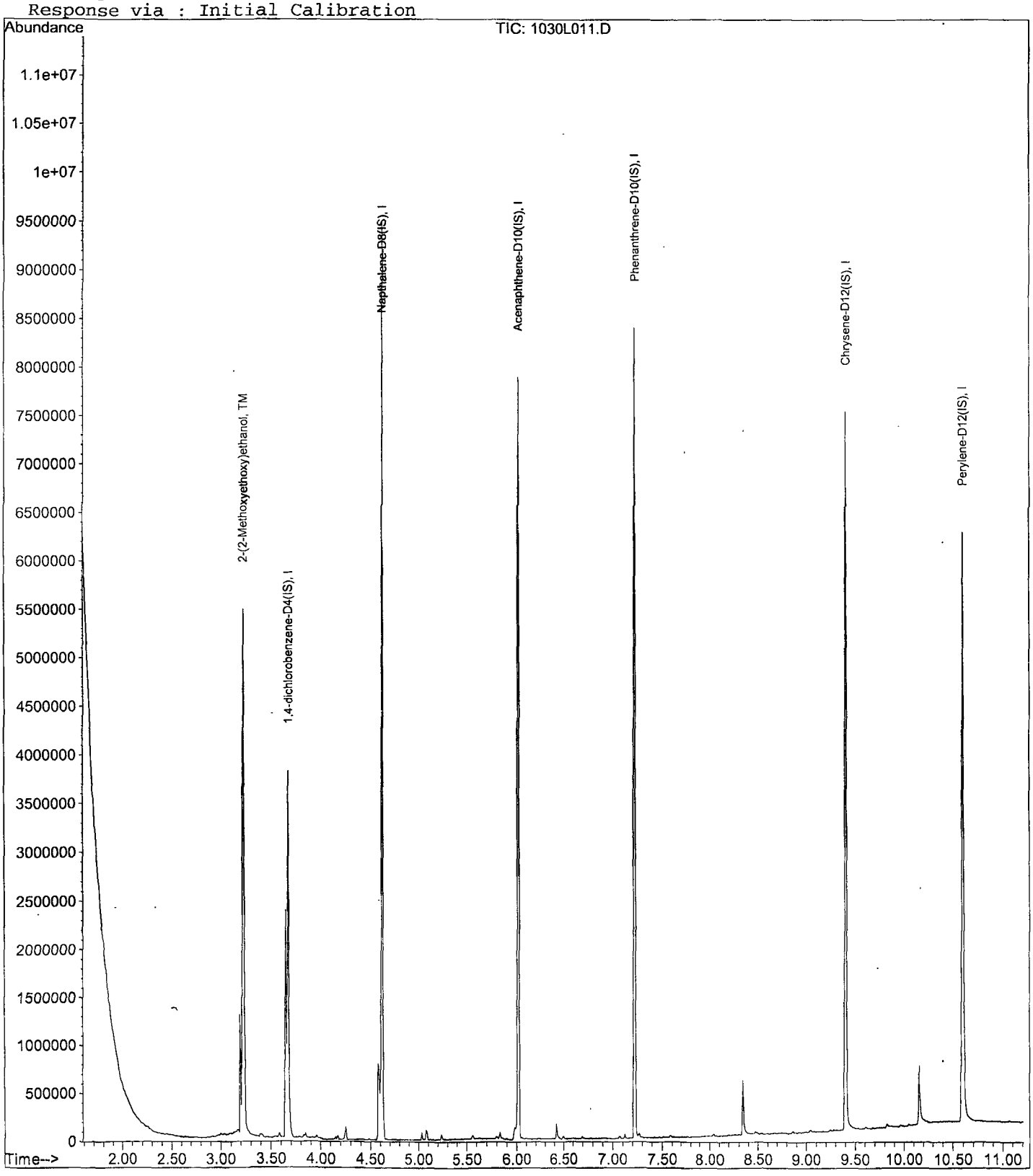
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L191030M\1030L011.D Vial: 11
Acq On : 31 Oct 19 14:02 Operator: MA
Sample : 1000 2MEE 4/30/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 31 14:13 2019 Quant Results File: YMEE1030.RES

Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Oct 31 14:18:15 2019
Response via : Initial Calibration



2MEE
EPA 8270

Form 7

Secon Source Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix:

SDG No:
Date Analyzed: 1 Nov 19 17:11
Instrument: Linus
Initial Cal. Date: 10/31/19
Data File: 1030L016.D

		Compound	MEAN	CCRF	%D		%Drift
1	I	1,4-dichlorobenzene-D4(IS)	ISTD			I	
2	TM	2-(2-Methoxyethoxy)ethanol	0.1384	0.1658	20	TM	
3	I	Napthalene-D8(IS)	ISTD			I	
4	I	Acenaphthene-D10(IS)	ISTD			I	
5	I	Phenanthrene-D10(IS)	ISTD			I	
6	I	Chrysene-D12(IS)	ISTD			I	
7	I	Perylene-D12(IS)	ISTD			I	
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
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30							
31							
32							
33							
34							
35							
36							
37							
38							
39							
40							
		Average			20.0		

Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L191030M\1030L016.D Vial: 16
Acq On : 1 Nov 19 17:11 Operator: MA
Sample : SS 2MEE 11/1/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Nov 1 17:27 2019 Quant Results File: YMEE1030.RES

Quant Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 01 17:06:59 2019
Response via : Initial Calibration
DataAcq Meth : GED

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	3.67	152	966230	40.00000 ppb	0.00
3) Napthalene-D8(IS)	4.62	136	4151555	40.00000 ppb	0.00
4) Acenaphthene-D10(IS)	6.02	164	2209408	40.00000 ppb	0.00
5) Phenanthrene-D10(IS)	7.23	188	4025811	40.00000 ppb	0.00
6) Chrysene-D12(IS)	9.40	240	2795621	40.00000 ppb	0.00
7) Perylene-D12(IS)	10.59	264	3078419	40.00000 ppb	0.00
System Monitoring Compounds					
Target Compounds					Qvalue
2) 2-(2-Methoxyethoxy)ethanol	3.20	45	2003024	599.31894 ppb	100

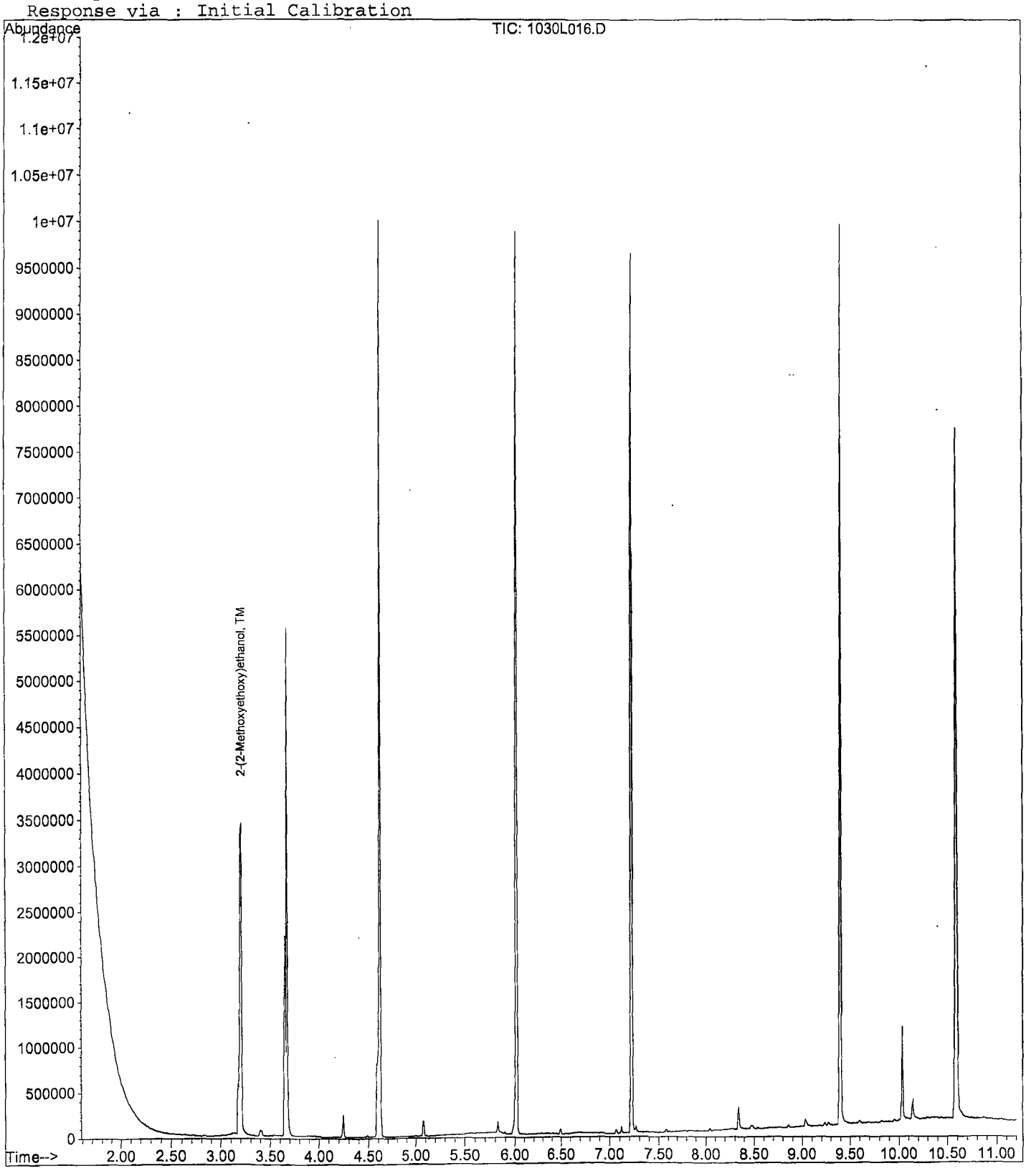
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L191030M\1030L016.D Vial: 16
Acq On : 1 Nov 19 17:11 Operator: MA
Sample : SS 2MEE 11/1/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Nov 1 17:27 2019 Quant Results File: YMEE1030.RES

Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 01 17:44:15 2019
Response via : Initial Calibration



2MEE
EPA 8270

Form 7

Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix:

SDG No:
Date Analyzed: 8 Nov 19 13:13
Instrument: Linus
Initial Cal. Date: 10/31/19
Data File: 1030L042.D

		Compound	MEAN	CCRF	%D		%Drift
1	I	1,4-dichlorobenzene-D4(IS)	ISTD			I	
2	TM	2-(2-Methoxyethoxy)ethanol	0.1384	0.1387	0.23	TM	
3	I	Napthalene-D8(IS)	ISTD			I	
4	I	Acenaphthene-D10(IS)	ISTD			I	
5	I	Phenanthrene-D10(IS)	ISTD			I	
6	I	Chrysene-D12(IS)	ISTD			I	
7	I	Perylene-D12(IS)	ISTD			I	
8							
9							
10							
11							
12							
13							
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35							
36							
37							
38							
39							
40							
		Average			0.2		

Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L191030M\1030L042.D Vial: 42
Acq On : 8 Nov 19 13:13 Operator: MA
Sample : 500 2MEE 4/30/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Nov 8 13:31 2019 Quant Results File: YMEE1030.RES

Quant Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 01 17:44:15 2019
Response via : Initial Calibration
DataAcq Meth : GED

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	3.67	152	742292m	40.00000 ppb	0.00
3) Napthalene-D8(IS)	4.62	136	3312063	40.00000 ppb	0.00
4) Acenaphthene-D10(IS)	6.01	164	1556563	40.00000 ppb	0.00
5) Phenanthrene-D10(IS)	7.22	188	2759126	40.00000 ppb	0.00
6) Chrysene-D12(IS)	9.42	240	2199352	40.00000 ppb	0.02
7) Perylene-D12(IS)	10.65	264	2536267	40.00000 ppb	0.05

System Monitoring Compounds

Target Compounds					Qvalue
2) 2-(2-Methoxyethoxy)ethanol	3.20	45	1286778	501.16556 ppb	98

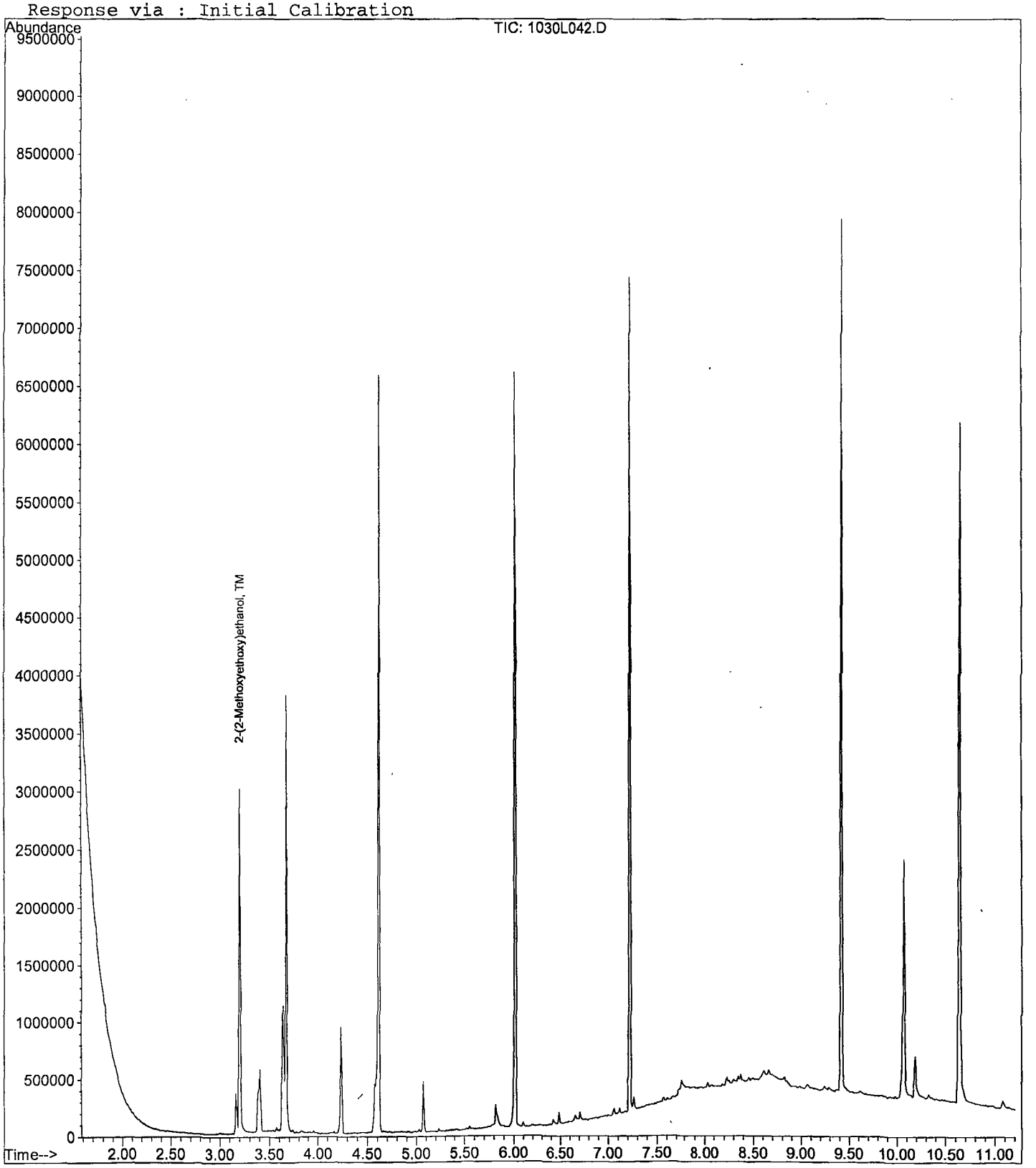
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L191030M\1030L042.D Vial: 42
Acq On : 8 Nov 19 13:13 Operator: MA
Sample : 500 2MEE 4/30/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Nov 8 13:31 2019 Quant Results File: YMEE1030.RES

Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 01 17:44:15 2019
Response via : Initial Calibration



2MEE
EPA 8270

Form 7

Ending Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix:

SDG No:
Date Analyzed: 8 Nov 19 21:02
Instrument: Linus
Initial Cal. Date: 10/31/19
Data File: 1030L061.D

		Compound	MEAN	CCRF	%D		%Drift
1	I	1,4-dichlorobenzene-D4(IS)	ISTD			I	
2	TM	2-(2-Methoxyethoxy)ethanol	0.1384	0.1103	20	TM	
3	I	Napthalene-D8(IS)	ISTD			I	
4	I	Acenaphthene-D10(IS)	ISTD			I	
5	I	Phenanthrene-D10(IS)	ISTD			I	
6	I	Chrysene-D12(IS)	ISTD			I	
7	I	Perylene-D12(IS)	ISTD			I	
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
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33							
34							
35							
36							
37							
38							
39							
40							
		Average			20.0		

Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L191030M\1030L061.D Vial: 61
Acq On : 8 Nov 19 21:02 Operator: MA
Sample : 500 2MEE 4/30/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Nov 11 9:47 2019 Quant Results File: YMEE1030.RES

Quant Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 01 17:44:15 2019
Response via : Initial Calibration
DataAcq Meth : GED

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	3.67	152	772424m	40.00000	ppb	0.00
3) Napthalene-D8(IS)	4.61	136	3311191	40.00000	ppb	0.00
4) Acenaphthene-D10(IS)	6.01	164	1654193	40.00000	ppb	0.00
5) Phenanthrene-D10(IS)	7.22	188	3011207	40.00000	ppb	0.00
6) Chrysene-D12(IS)	9.39	240	2583758	40.00000	ppb	0.00
7) Perylene-D12(IS)	10.57	264	2584578	40.00000	ppb	-0.03
System Monitoring Compounds						
Target Compounds						Qvalue
2) 2-(2-Methoxyethoxy)ethanol	3.19	45	1065305	398.72234	ppb	96

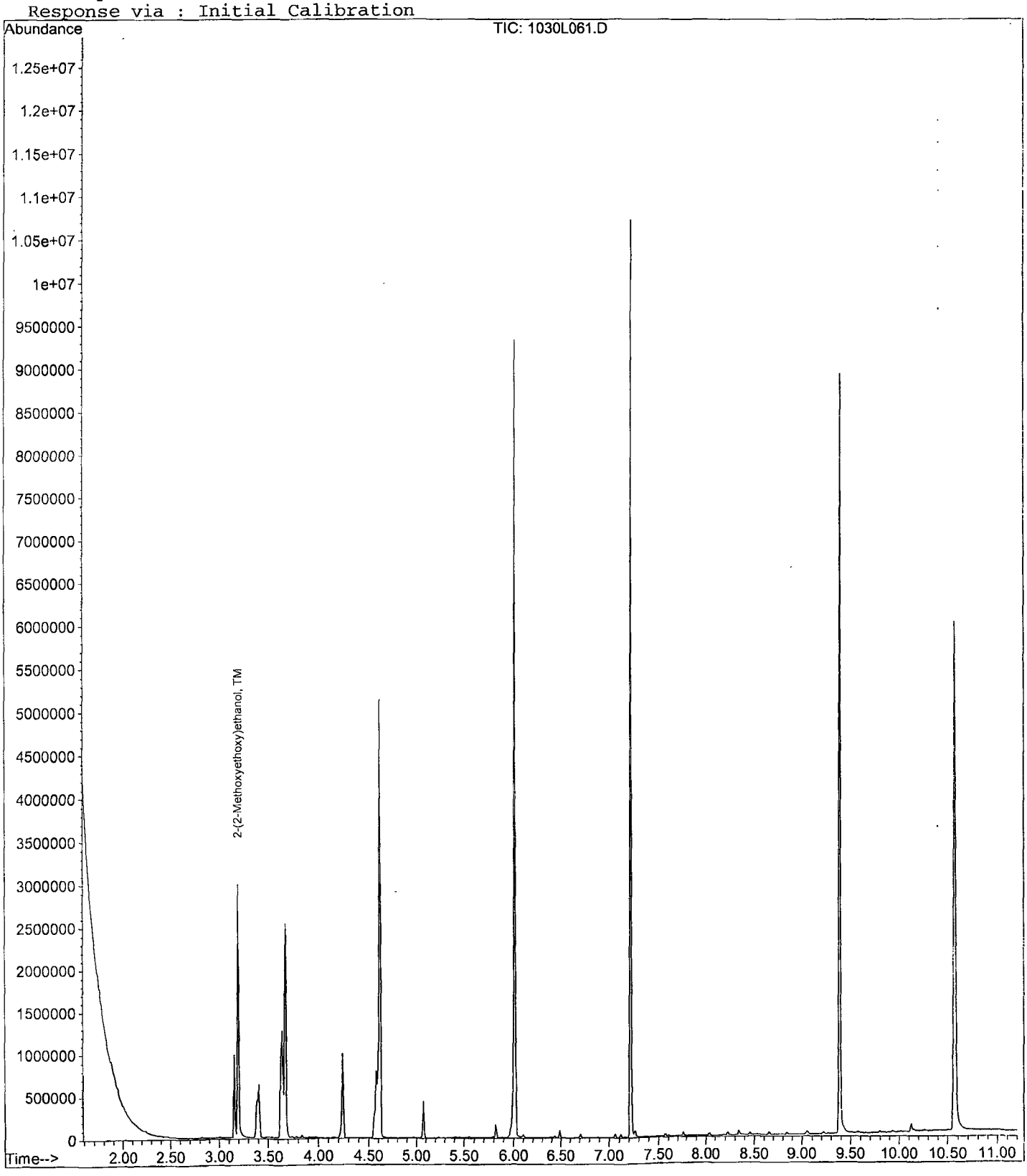
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L191030M\1030L061.D Vial: 61
Acq On : 8 Nov 19 21:02 Operator: MA
Sample : 500 2MEE 4/30/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Nov 11 9:47 2019 Quant Results File: YMEE1030.RES

Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 01 17:44:15 2019
Response via : Initial Calibration



ORGANICS
Raw Data

Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L191030M\1030L053.D Vial: 53
Acq On : 8 Nov 19 18:36 Operator: MA
Sample : 191106A BLK 2/500 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Nov 11 9:44 2019 Quant Results File: YMEE1030.RES

Quant Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 01 17:44:15 2019
Response via : Initial Calibration
DataAcq Meth : GED

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	3.66	152	601686	40.00000	ppb	0.00
3) Napthalene-D8(IS)	4.61	136	2463488	40.00000	ppb	0.00
4) Acenaphthene-D10(IS)	6.01	164	1386063	40.00000	ppb	0.00
5) Phenanthrene-D10(IS)	7.22	188	2629751	40.00000	ppb	0.00
6) Chrysene-D12(IS)	9.39	240	1937018	40.00000	ppb	0.00
7) Perylene-D12(IS)	10.59	264	2166467	40.00000	ppb	0.00

System Monitoring Compounds

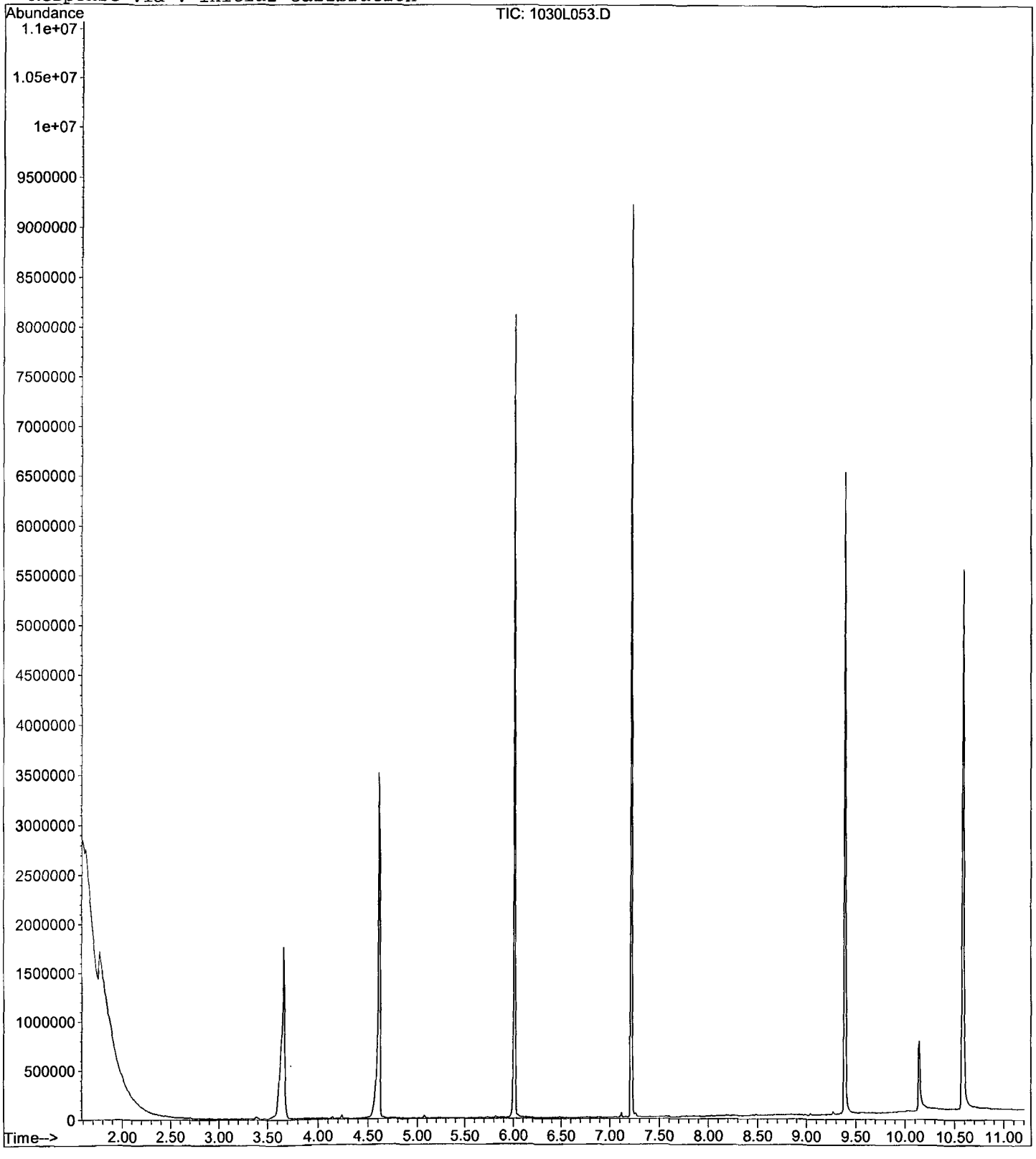
Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration

Data File : M:\LINUS\DATA\L191030M\1030L053.D Vial: 53
Acq On : 8 Nov 19 18:36 Operator: MA
Sample : 191106A BLK 2/500 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Nov 11 9:44 2019 Quant Results File: YMEE1030.RES

Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 01 17:44:15 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L191030M\1030L054.D Vial: 54
Acq On : 8 Nov 19 18:54 Operator: MA
Sample : 191106A LCS-1 2/500 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Nov 11 9:44 2019 Quant Results File: YMEE1030.RES

Quant Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 01 17:44:15 2019
Response via : Initial Calibration
DataAcq Meth : GED

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	3.66	152	855406	40.00000	ppb	0.00
3) Napthalene-D8(IS)	4.62	136	3572005	40.00000	ppb	0.00
4) Acenaphthene-D10(IS)	6.01	164	1620023	40.00000	ppb	0.00
5) Phenanthrene-D10(IS)	7.22	188	3079090	40.00000	ppb	0.00
6) Chrysene-D12(IS)	9.40	240	2586817	40.00000	ppb	0.00
7) Perylene-D12(IS)	10.60	264	2670113	40.00000	ppb	0.00

System Monitoring Compounds

Target Compounds						Qvalue
2) 2-(2-Methoxyethoxy)ethanol	3.22	45	342988	115.92017	ppb	98

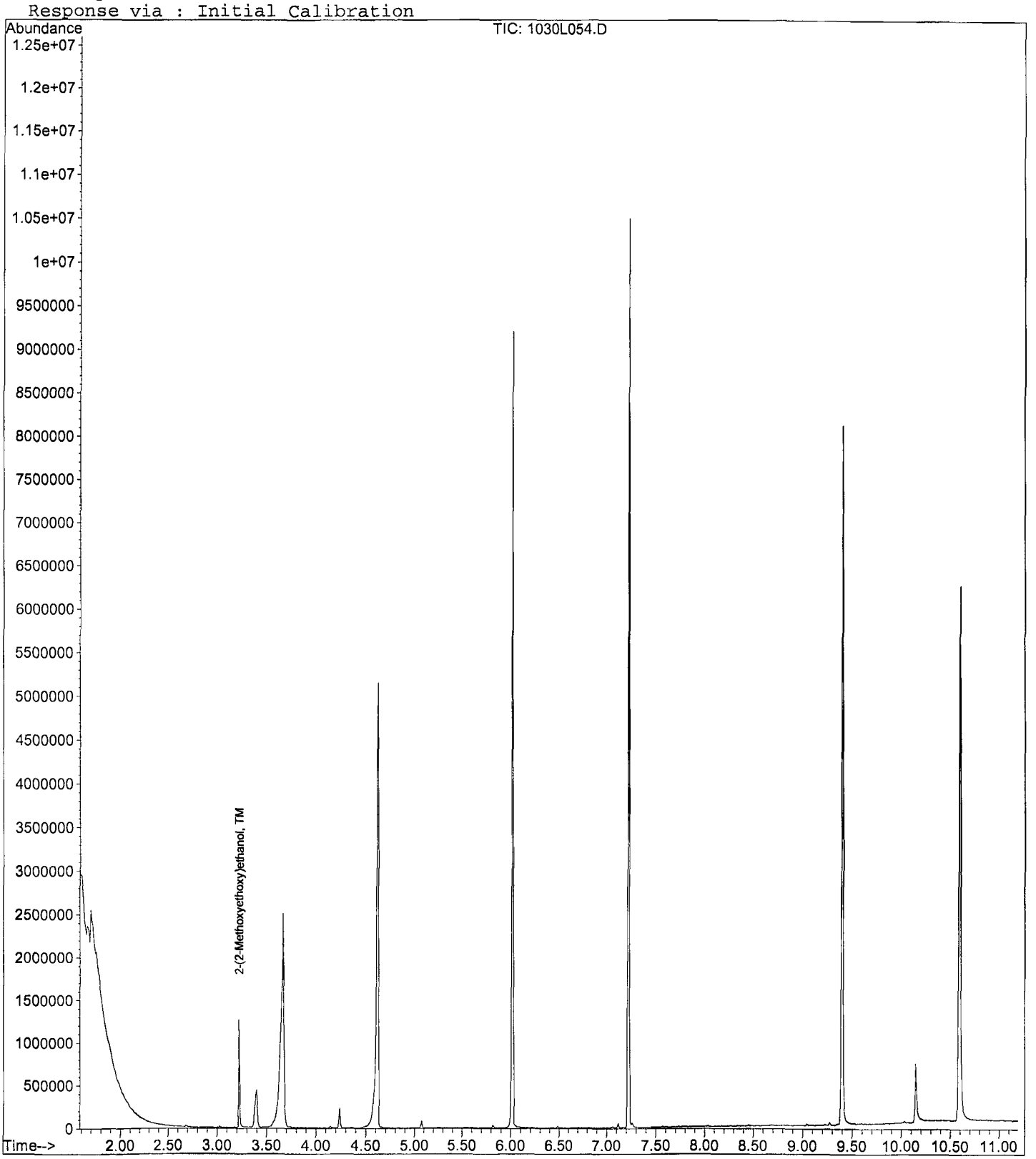
(#) = qualifier out of range (m) = manual integration
1030L054.D YMEE1030.M Wed Dec 04 11:43:02 2019

Quantitation Report

Data File : M:\LINUS\DATA\L191030M\1030L054.D Vial: 54
Acq On : 8 Nov 19 18:54 Operator: MA
Sample : 191106A LCS-1 2/500 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Nov 11 9:44 2019 Quant Results File: YMEE1030.RES

Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 01 17:44:15 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L191030M\1030L055.D Vial: 55
Acq On : 8 Nov 19 19:12 Operator: MA
Sample : 191106A LCSD-1 2/500 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Nov 11 9:44 2019 Quant Results File: YMEE1030.RES

Quant Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 01 17:44:15 2019
Response via : Initial Calibration
DataAcq Meth : GED

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	3.66	152	928360	40.00000	ppb	0.00
3) Napthalene-D8(IS)	4.62	136	3861499	40.00000	ppb	0.00
4) Acenaphthene-D10(IS)	6.01	164	1857294	40.00000	ppb	0.00
5) Phenanthrene-D10(IS)	7.22	188	3438675	40.00000	ppb	0.00
6) Chrysene-D12(IS)	9.40	240	2997263	40.00000	ppb	0.00
7) Perylene-D12(IS)	10.60	264	3045947	40.00000	ppb	0.00

System Monitoring Compounds

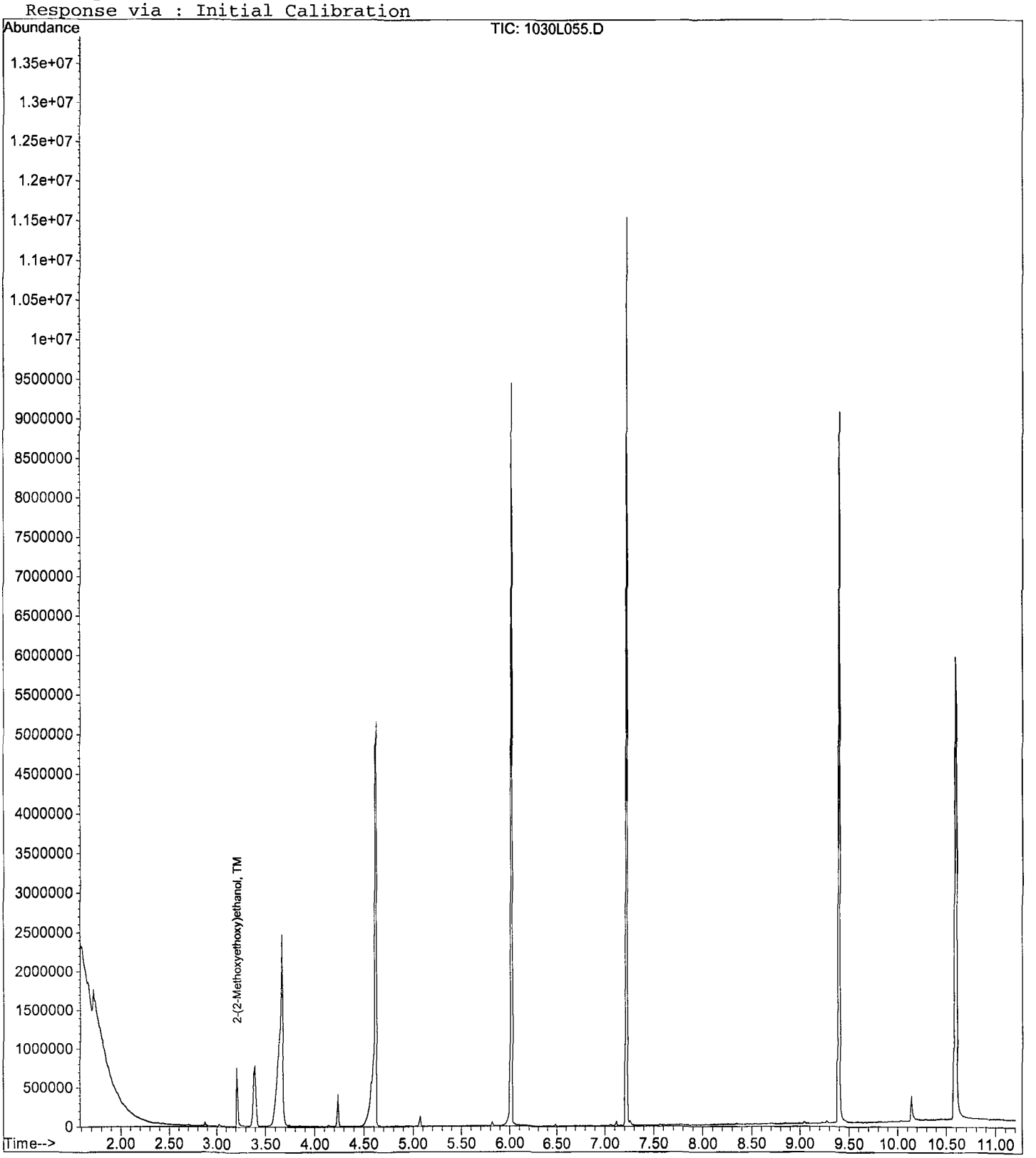
Target Compounds						Qvalue
2) 2-(2-Methoxyethoxy)ethanol	3.21	45	287751	89.60924	ppb	98

(#) = qualifier out of range (m) = manual integration

Data File : M:\LINUS\DATA\L191030M\1030L055.D Vial: 55
Acq On : 8 Nov 19 19:12 Operator: MA
Sample : 191106A LCSD-1 2/500 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Nov 11 9:44 2019 Quant Results File: YMEE1030.RES

Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 01 17:44:15 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L191030M\1030L058.D Vial: 58
Acq On : 8 Nov 19 20:07 Operator: MA
Sample : BA02301W22 2/500 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Nov 11 9:44 2019 Quant Results File: YMEE1030.RES

Quant Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 01 17:44:15 2019
Response via : Initial Calibration
DataAcq Meth : GED

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	3.66	152	639641	40.00000	ppb	0.00
3) Napthalene-D8(IS)	4.61	136	2606106	40.00000	ppb	0.00
4) Acenaphthene-D10(IS)	6.01	164	1375424	40.00000	ppb	0.00
5) Phenanthrene-D10(IS)	7.22	188	2757015	40.00000	ppb	0.00
6) Chrysene-D12(IS)	9.39	240	2093430	40.00000	ppb	0.00
7) Perylene-D12(IS)	10.57	264	2205929	40.00000	ppb	-0.03

System Monitoring Compounds

Target Compounds Qvalue

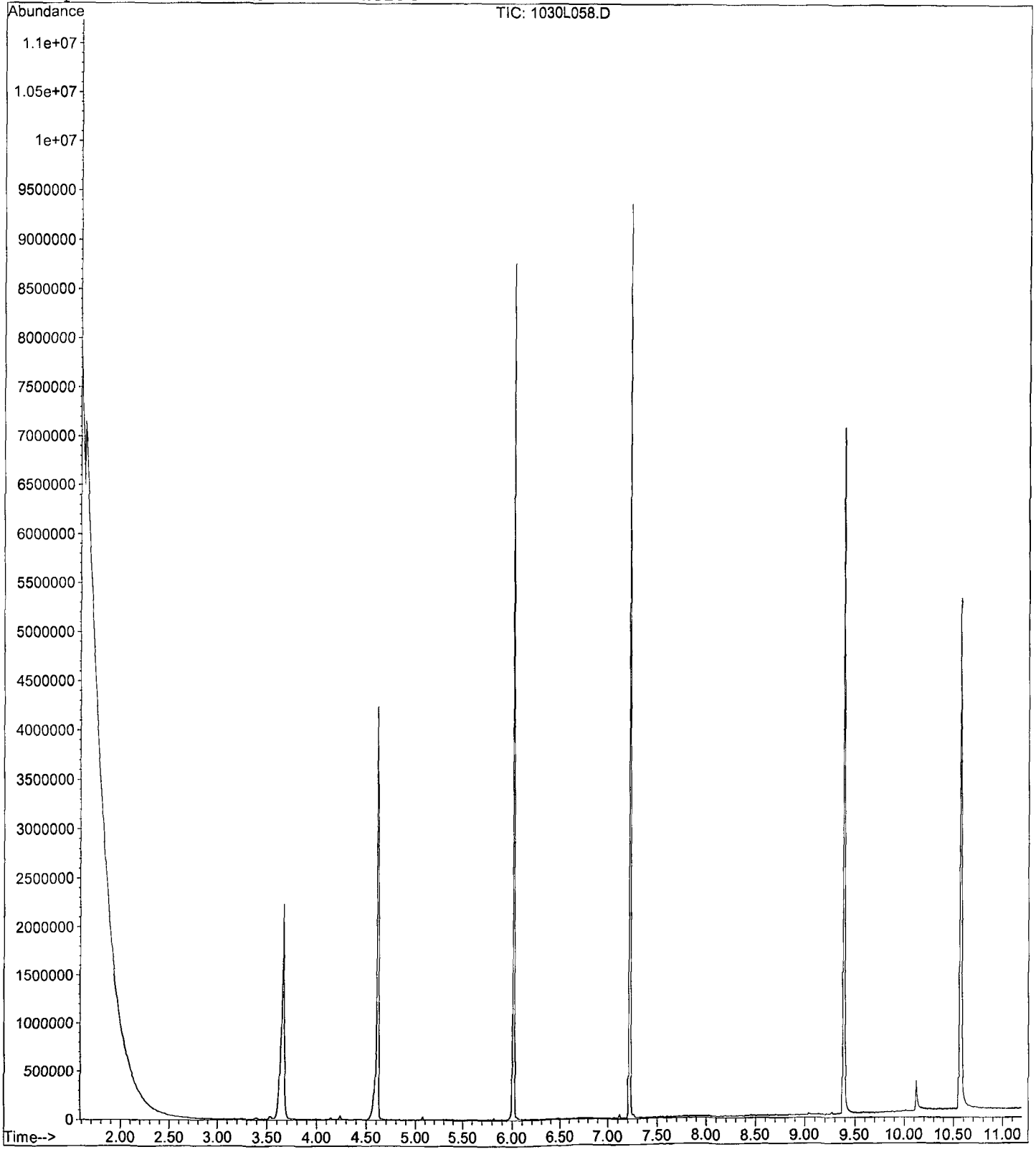
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L191030M\1030L058.D Vial: 58
Acq On : 8 Nov 19 20:07 Operator: MA
Sample : BA02301W22 2/500 Inst : Linus
Misc : Multiplr: 1.00

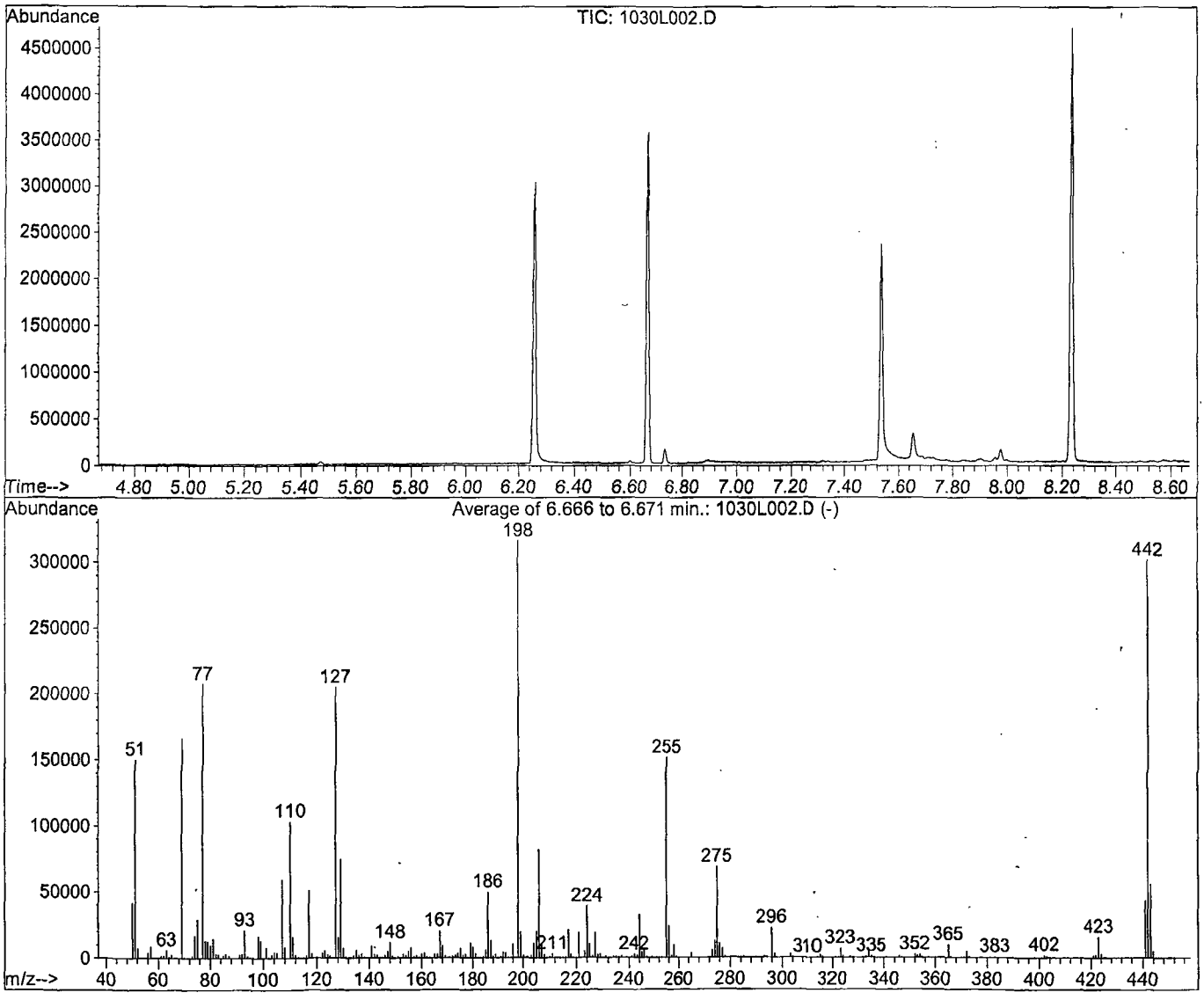
Quant Time: Nov 11 9:44 2019 Quant Results File: YMEE1030.RES

Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 01 17:44:15 2019
Response via : Initial Calibration



Data File : M:\LINUS\DATA\L191030M\1030L002.D Vial: 86
Acq On : 31 Oct 19 9:39 Operator: MA
Sample : SV Tune 10/01/19 Inst : Linus
Misc : Multiplr: 1.00

Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C



AutoFind: Scans 1639, 1640, 1641; Background Corrected with Scan 1629

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	47.5	150243	PASS
68	69	0.00	2	0.0	0	PASS
70	69	0.00	2	0.6	922	PASS
127	198	10	80	64.9	205418	PASS
197	198	0.00	2	0.0	0	PASS
198	198	100	100	100.0	316523	PASS
199	198	5	9	6.2	19776	PASS
275	198	10	60	21.7	68701	PASS
365	198	1	100	3.2	9986	PASS
441	442	0.01	24	14.5	43648	PASS
442	198	50	500	95.4	301909	PASS
443	442	15	24	18.6	56149	PASS

Data File Name:	**1030L002.D**
Data File Path:	**M:\LINUS\DATA\L191030M**
Operator:	**MA**
Date Acquired:	**31 Oct 2019 09:39**
Method File:	**DFTPP2.M**
Sample Name:	**SV Tune 07/11/19**
Vial Number:	**86**
Instrument Name:	**Linus**

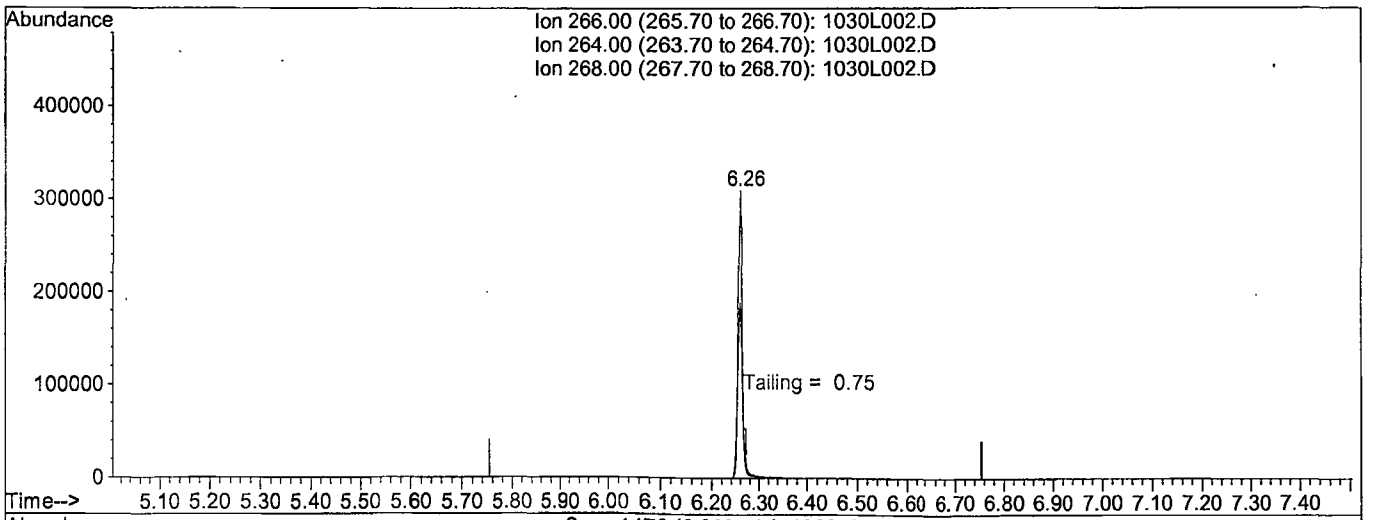
#	Name	Ret Time	Target Response
1)	DDT	8.21	32088400
2)	DDD	7.98	1040940
3)	DDE	8.00	701952

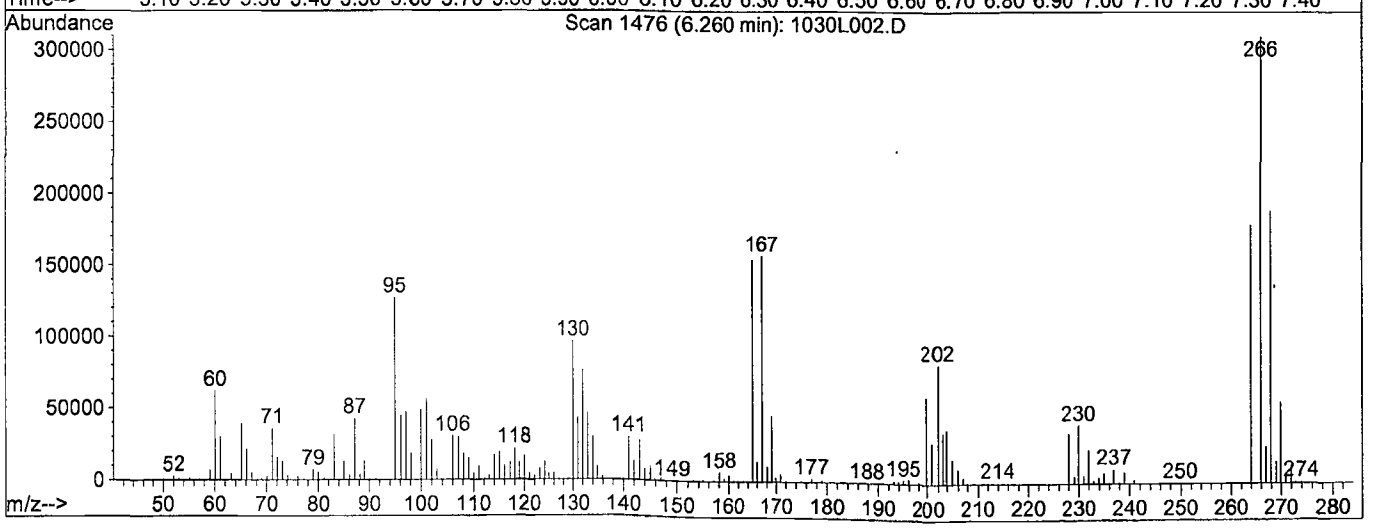
Breakdown **5.15**

Quantitation Report

Data File : M:\LINUS\DATA\L191030M\1030L002.D Vial: 86
Acq On : 31 Oct 19 9:39 Operator: MA
Sample : SV Tune 07/11/19 Inst : Linus
Misc : Multiplr: 1.00
Quant Time: Oct 31 17:15 2019 Quant Results File: temp.res

Method : M:\LINUS\DATA\L191030M\DFTPP2.M (Chemstation Integrator)
Title :
Last Update : Thu Oct 31 09:52:59 2019
Response via : Single Level Calibration





TIC: 1030L002.D

(5) Pentachlorophenol

6.26min 0.0000

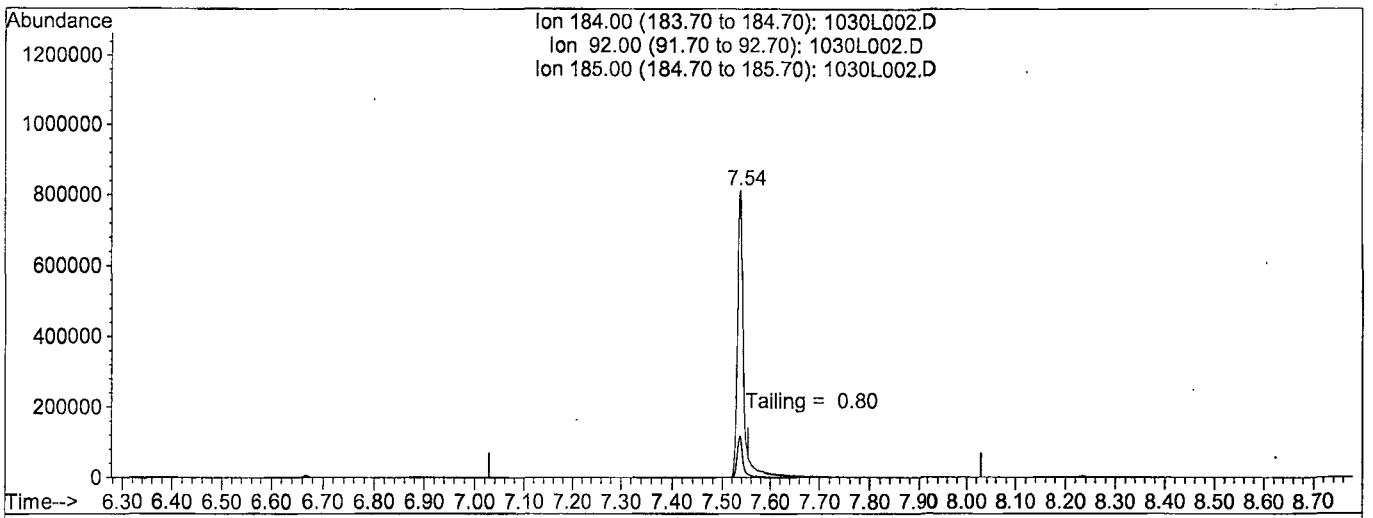
response 2123401

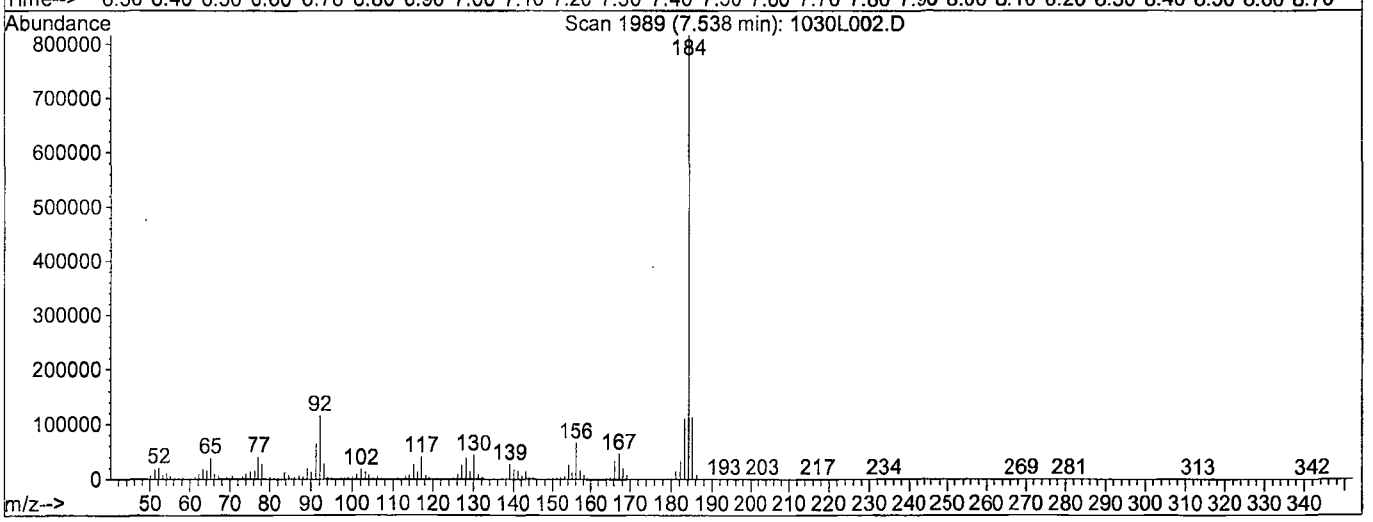
Ion	Exp%	Act%
266.00	100	100
264.00	58.90	57.25
268.00	62.10	64.34
0.00	0.00	0.00

Quantitation Report

Data File : M:\LINUS\DATA\L191030M\1030L002.D Vial: 86
Acq On : 31 Oct 19 9:39 Operator: MA
Sample : SV Tune 07/11/19 Inst : Linus
Misc : Multiplr: 1.00
Quant Time: Oct 31 17:15 2019 Quant Results File: temp.res

Method : M:\LINUS\DATA\L191030M\DFTPP2.M (Chemstation Integrator)
Title :
Last Update : Thu Oct 31 09:52:59 2019
Response via : Single Level Calibration





TIC: 1030L002.D

(6) Benzidine

7.54min 0.0000

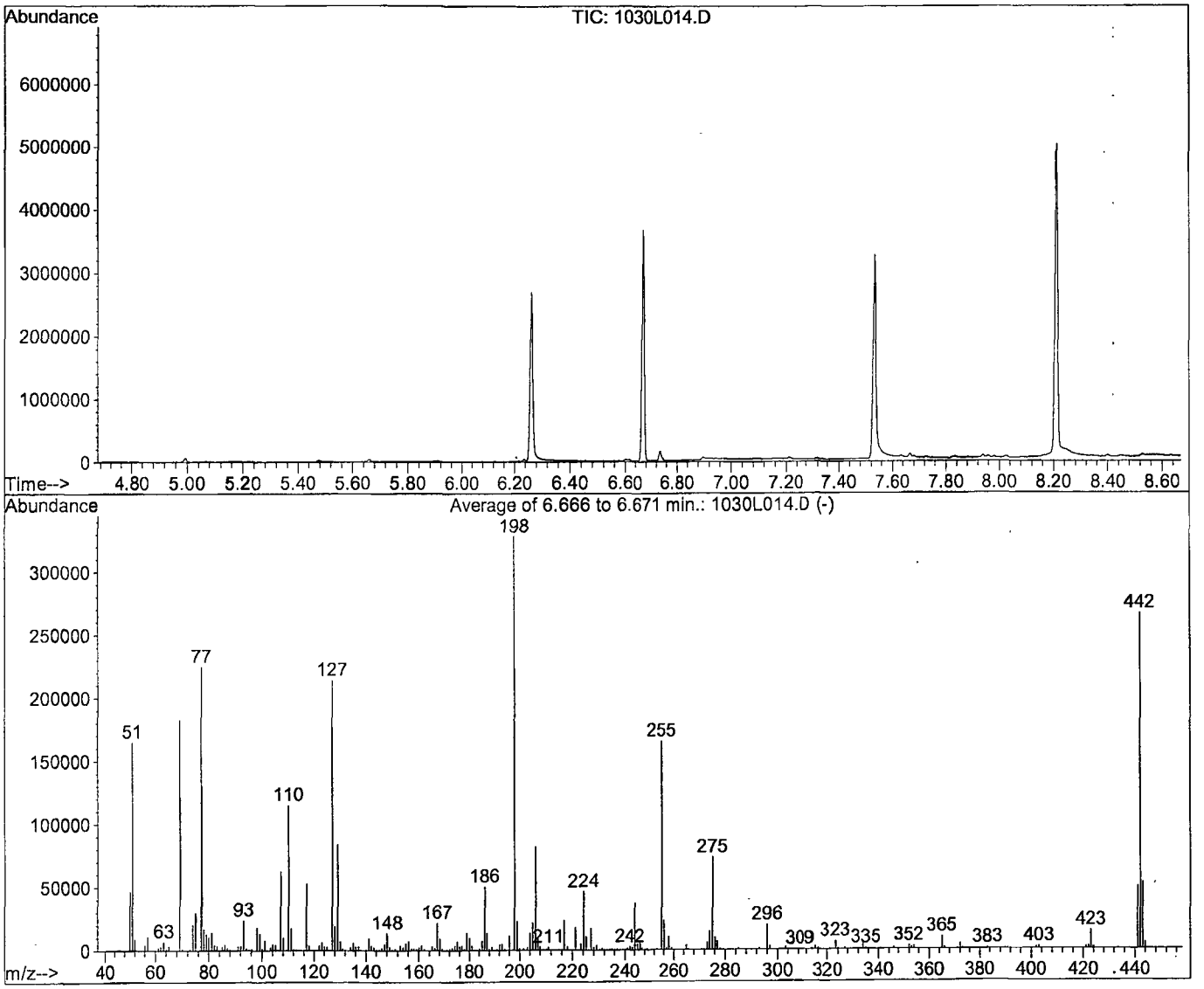
response 6810019

Ion	Exp%	Act%
184.00	100	100
92.00	12.10	14.47
185.00	13.30	14.66
0.00	0.00	0.00

DFTPP

Data File : M:\LINUS\DATA\L191030M\1030L014.D Vial: 14
Acq On : 1 Nov 19 15:17 Operator: MA
Sample : SV Tune 10/01/19 Inst : Linus
Misc : Multiplr: 1.00

Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C



AutoFind: Scans 1639, 1640, 1641; Background Corrected with Scan 1630

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	50.2	164951	PASS
68	69	0.00	2	0.0	0	PASS
70	69	0.00	2	0.7	1364	PASS
127	198	10	80	65.2	214229	PASS
197	198	0.00	2	0.0	0	PASS
198	198	100	100	100.0	328597	PASS
199	198	5	9	7.0	22899	PASS
275	198	10	60	22.3	73325	PASS
365	198	1	100	3.1	10112	PASS
441	442	0.01	24	18.5	49301	PASS
442	198	50	500	81.1	266539	PASS
443	442	15	24	19.7	52437	PASS

Data File Name:	**1030L014.D**
Data File Path:	**M:\LINUS\DATA\L191030M**
Operator:	**MA**
Date Acquired:	**1 Nov 19 15:17**
Method File:	**DFTPP2.M**
Sample Name:	**SV Tune 10/01/19**
Vial Number:	**14**
Instrument Name:	**Linus**

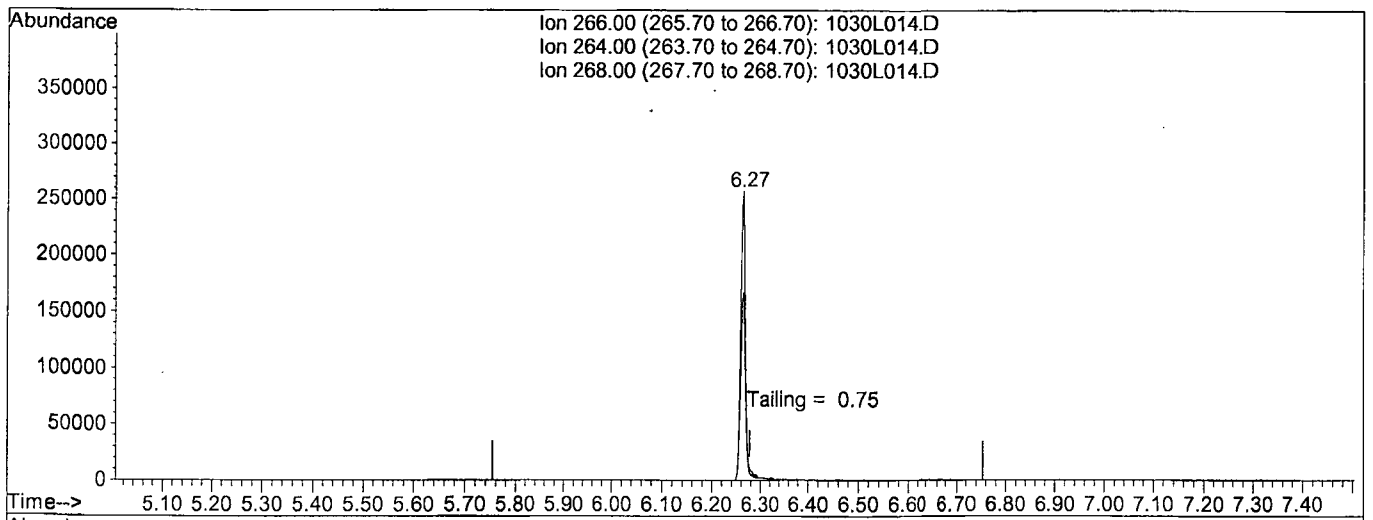
#	Name	Ret Time	Target Response
1)	DDT	8.21	38086400
2)	DDD	7.98	224750
3)	DDE	8.00	113996

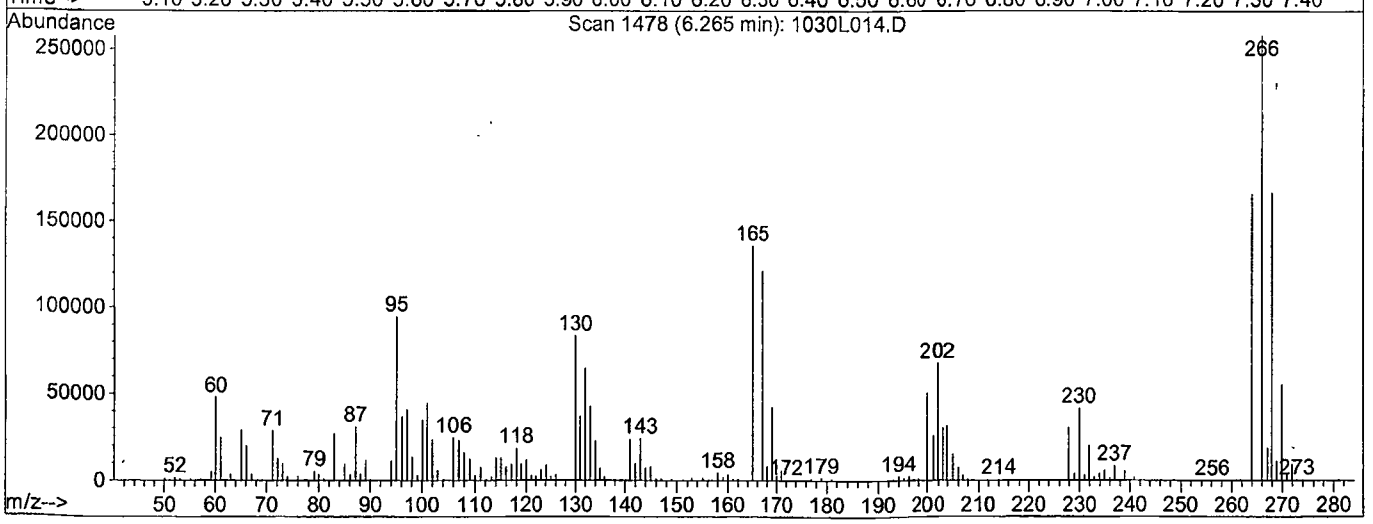
Breakdown **0.88**

Quantitation Report

Data File : M:\LINUS\DATA\L191030M\1030L014.D Vial: 14
Acq On : 1 Nov 19 15:17 Operator: MA
Sample : SV Tune 10/01/19 Inst : Linus
Misc : Multiplr: 1.00
Quant Time: Nov 1 15:30 2019 Quant Results File: temp.res

Method : M:\LINUS\DATA\L191030M\DFTPP2.M (Chemstation Integrator)
Title :
Last Update : Thu Oct 31 09:52:59 2019
Response via : Single Level Calibration





TIC: 1030L014.D

(5) Pentachlorophenol

6.26min 0.0000

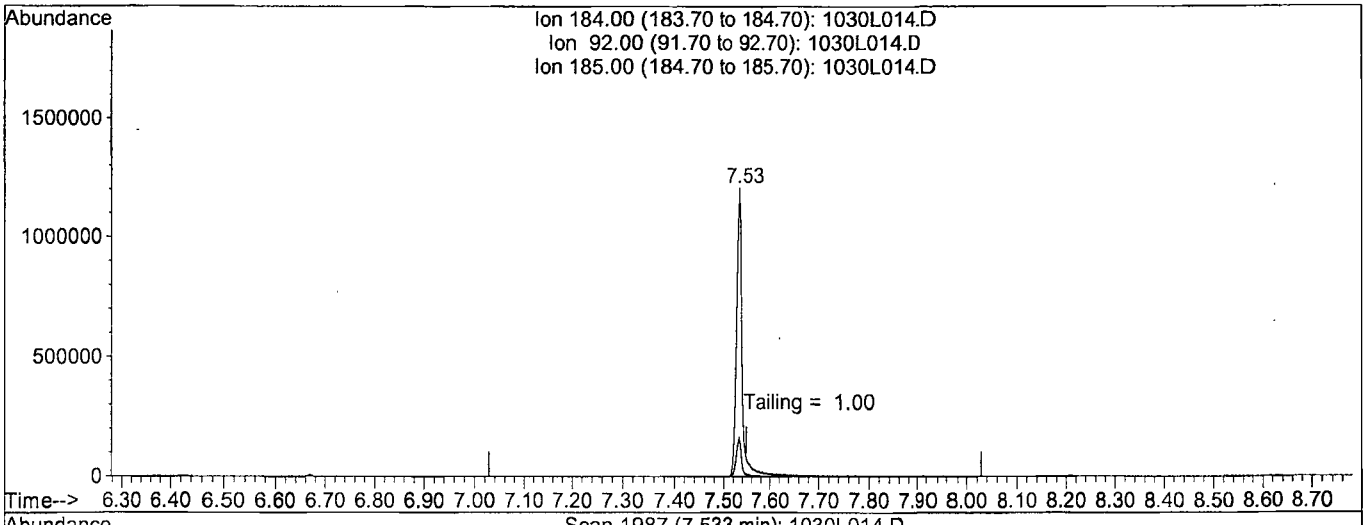
response 1793923

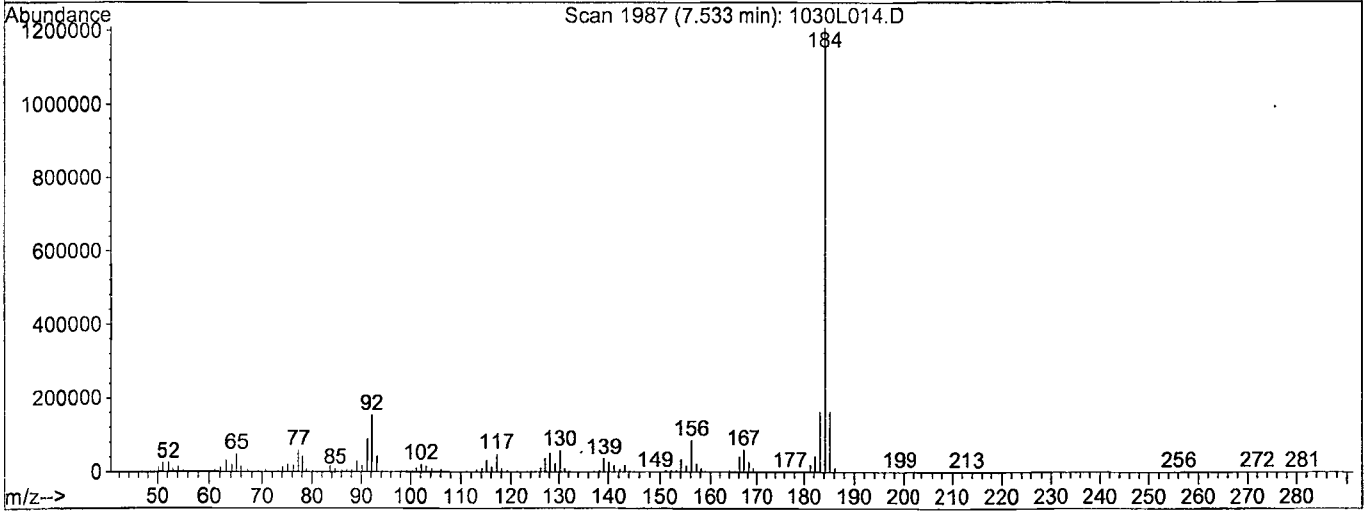
Ion	Exp%	Act%
266.00	100	100
264.00	58.90	65.01
268.00	62.10	61.84
0.00	0.00	0.00

Quantitation Report

Data File : M:\LINUS\DATA\L191030M\1030L014.D Vial: 14
Acq On : 1 Nov 19 15:17 Operator: MA
Sample : SV Tune 10/01/19 Inst : Linus
Misc : Multiplr: 1.00
Quant Time: Nov 1 15:30 2019 Quant Results File: temp.res

Method : M:\LINUS\DATA\L191030M\DFTPP2.M (Chemstation Integrator)
Title :
Last Update : Thu Oct 31 09:52:59 2019
Response via : Single Level Calibration





TIC: 1030L014.D

(6) Benzidine

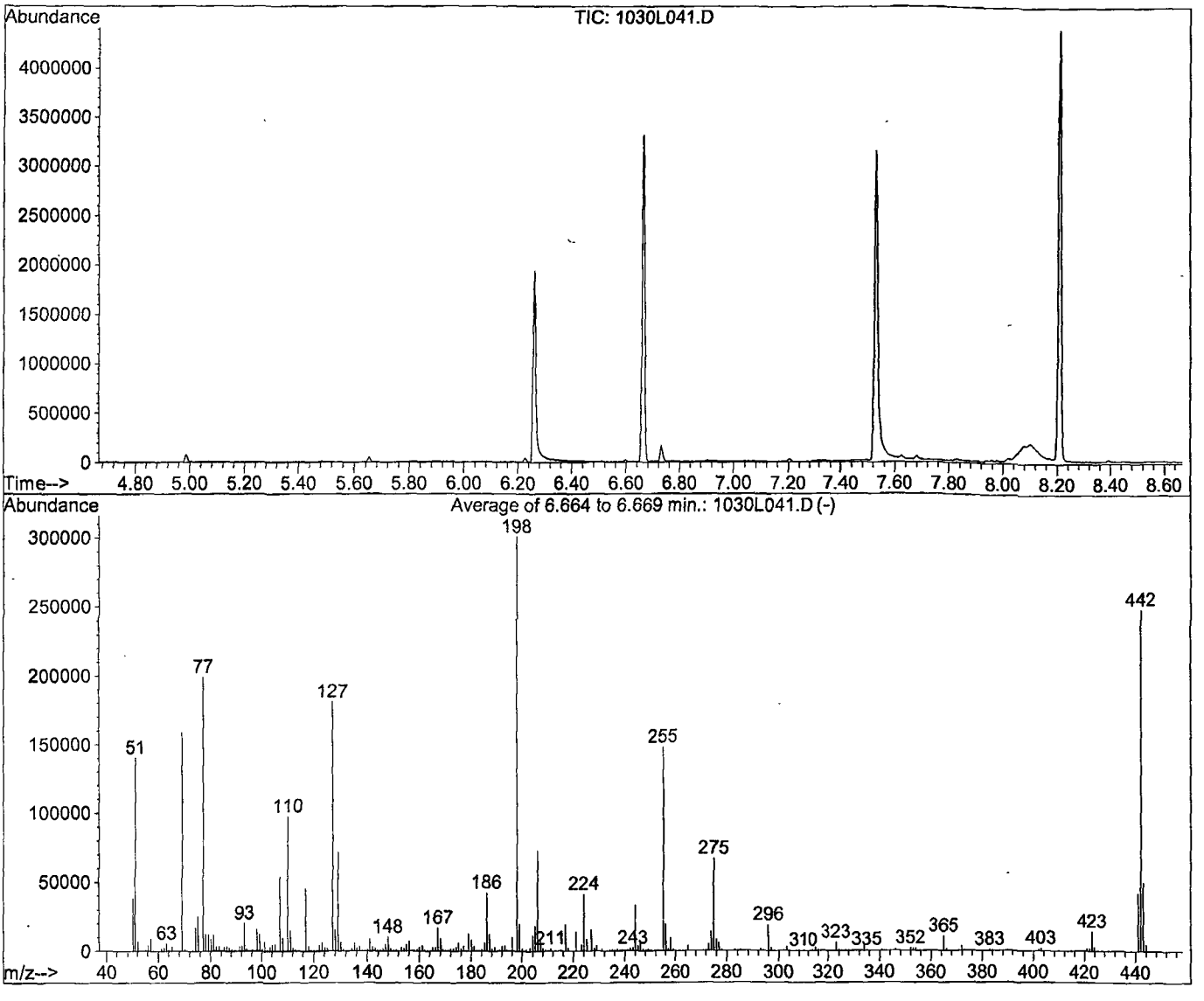
7.53min 0.0000

response 9749447

Ion	Exp%	Act%
184.00	100	100
92.00	12.10	13.21
185.00	13.30	13.73
0.00	0.00	0.00

Data File : M:\LINUS\DATA\L191030M\1030L041.D Vial: 41
Acq On : 8 Nov 19 12:30 Operator: MA
Sample : SV Tune 10/01/19 Inst : Linus
Misc : Multiplr: 1.00

Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C



AutoFind: Scans 1638, 1639, 1640; Background Corrected with Scan 1629

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	46.6	140225	PASS
68	69	0.00	2	0.0	0	PASS
70	69	0.00	2	0.6	933	PASS
127	198	10	80	60.1	180957	PASS
197	198	0.00	2	0.0	0	PASS
198	198	100	100	100.0	300928	PASS
199	198	5	9	6.6	19924	PASS
275	198	10	60	22.2	66765	PASS
365	198	1	100	3.6	10732	PASS
441	442	0.01	24	17.0	42301	PASS
442	198	50	500	82.6	248469	PASS
443	442	15	24	20.2	50115	PASS

Data File Name:	**1030L041.D**
Data File Path:	**M:\LINUS\DATA\L191030M**
Operator:	**MA**
Date Acquired:	**8 Nov 19 12:30**
Method File:	**DFTPP2.M**
Sample Name:	**SV Tune 10/01/19**
Vial Number:	**41**
Instrument Name:	**Linus**

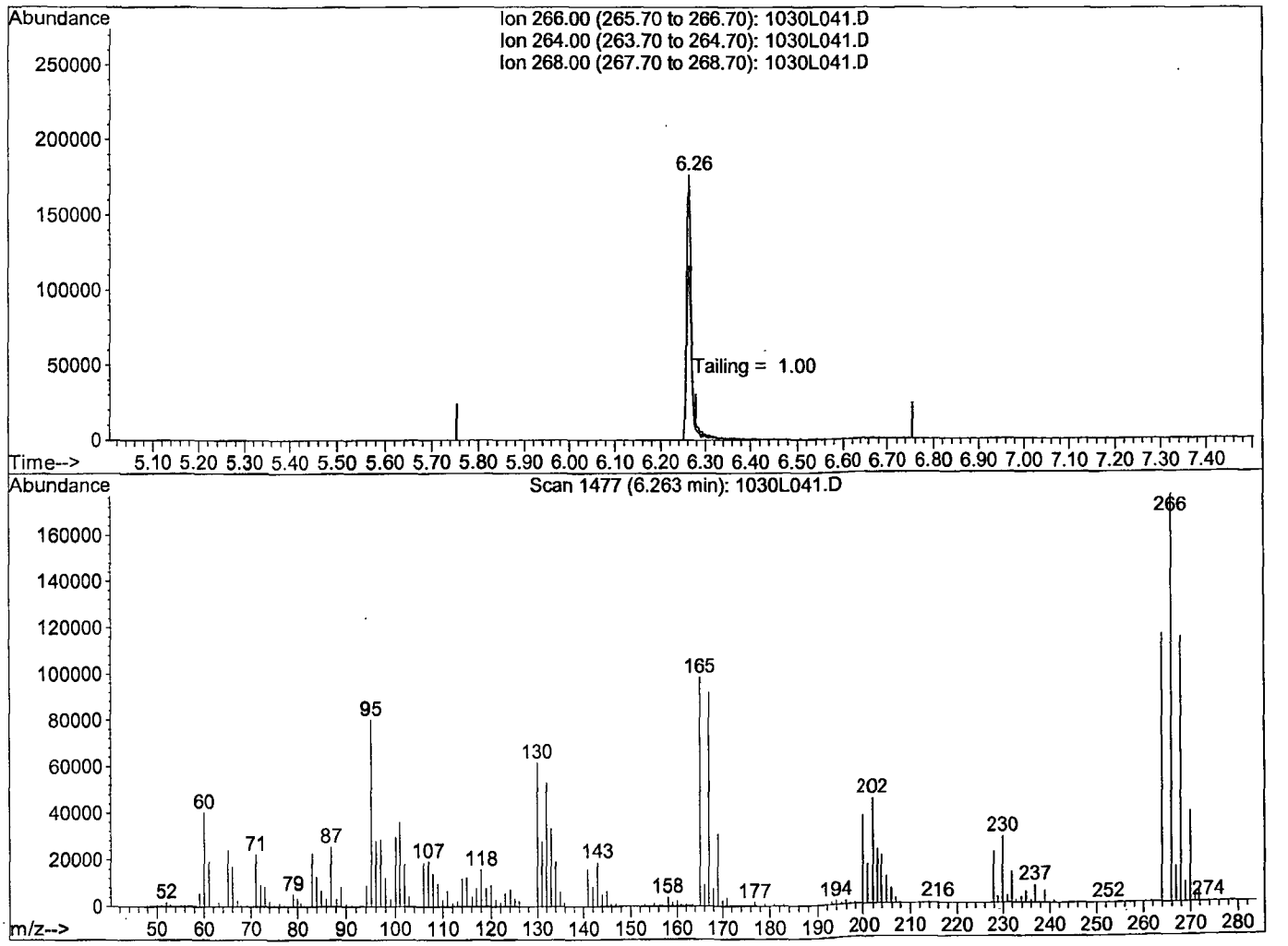
#	Name	Ret Time	Target Response
1)	DDT	8.21	31052200
2)	DDD	7.98	158999
3)	DDE	8.00	92340

Breakdown **0.80**

Quantitation Report

Data File : M:\LINUS\DATA\L191030M\1030L041.D Vial: 41
Acq On : 8 Nov 19 12:30 Operator: MA
Sample : SV Tune 10/01/19 Inst : Linus
Misc : Multiplr: 1.00
Quant Time: Nov 8 13:02 2019 Quant Results File: temp.res

Method : M:\LINUS\DATA\L191030M\DFTPP2.M (Chemstation Integrator)
Title :
Last Update : Thu Nov 14 09:49:21 2019
Response via : Single Level Calibration



TIC: 1030L041.D

(5) Pentachlorophenol

6.26min 0.0000

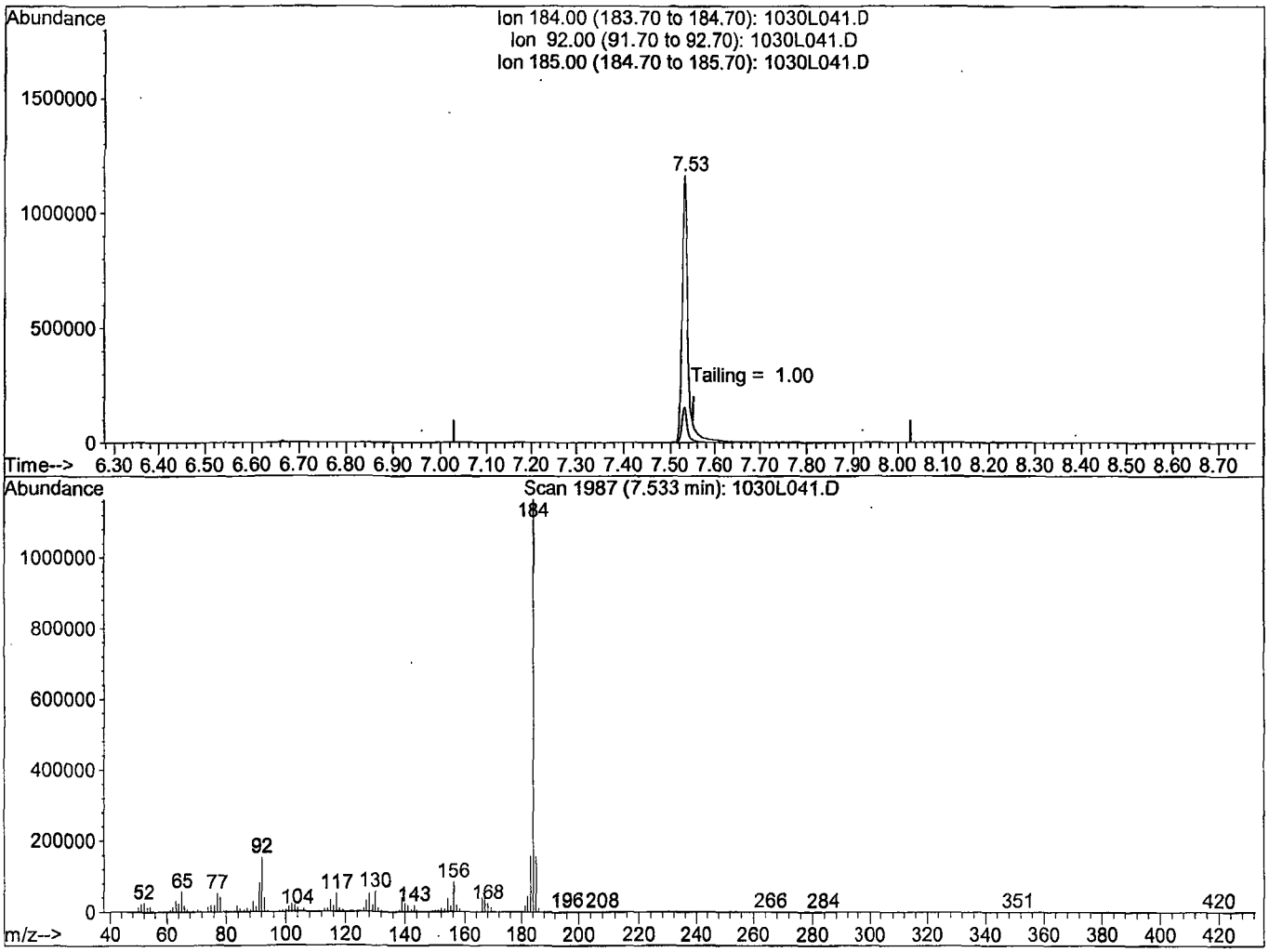
response 1378847

Ion	Exp%	Act%
266.00	100	100
264.00	58.90	61.67
268.00	62.10	65.55
0.00	0.00	0.00

Quantitation Report

Data File : M:\LINUS\DATA\L191030M\1030L041.D Vial: 41
Acq On : 8 Nov 19 12:30 Operator: MA
Sample : SV Tune 10/01/19 Inst : Linus
Misc : Multiplr: 1.00
Quant Time: Nov 8 13:02 2019 Quant Results File: temp.res

Method : M:\LINUS\DATA\L191030M\DFTPP2.M (Chemstation Integrator)
Title :
Last Update : Thu Nov 14 09:49:21 2019
Response via : Single Level Calibration



TIC: 1030L041.D

(6) Benzidine

7.53min 0.0000

response 10470755

Ion	Exp%	Act%
184.00	100	100
92.00	12.10	12.44
185.00	13.30	13.38
0.00	0.00	0.00

Name of Final Standard Diethylene Glycol **Prep'd By (Initials)** GA

Prep Date 01/31/19

Exp Date 01/31/20

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from contianer Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc.(range)
Diethylene glycol methyl ether	AccuStandard	S-72273	2000 ug/mL	**218101558-39888 39889**	01/31/20	2.0 mL	4 mL	**Methanol #042317C**	1000 ug/mL

Given to Extraction to do **MEE M STD Stock** (used for ICAL) Final concentration 2000ug/L

_MWE2MEE

Organic Extraction Worksheet

Method	Solid Phase Extraction of 2MEE in Water	Extraction Set	190429A	Extraction Method	MWE2MEE	Units	mL

Spiked ID 1	Diethylene Glycol 1-31-19 EXP 1-31-20		Surrogate ID 1		
Spiked ID 2	2MEE SS 10320ug/mL 8-3-18 exp 8-3-19		Surrogate ID 2		
Spiked ID 3			Surrogate ID 3		
Spiked ID 4			Surrogate ID 4		
Spiked ID 5			Surrogate ID 5		
Spiked ID 6			Sufficient Vol for Matrix QC:	YES	
Spiked ID 7			Ext. Start Time:	04/29/19 10:50	
Spiked ID 8			Ext. End Time:	04/29/19 16:40	
			GC Requires Extract By:	04/30/19 0:00	

M STD AND SS PREPARATION

HA 5/1/19

				Water Bath Temp Criteria	
pH1					
pH2					
pH3					

Spiked By: KY **Date** 04/29/19 **Witnessed By:** DL **Date** 04/29/19

	Sample	Sample Container	Spike Amount	Spike ID	Surrogate Amount	Surrogate ID	Extract Amount	Final Volume	pH	Extract Date/Time	Comments
1	190429A Blk				NA	NA equip	500	2	7	04/29/19 10:50	
2	190429A LCS-1		0.040	1	NA	NA equip	500	2	7	04/29/19 10:50	
3	190429A LCSD-1		0.040	1	NA	NA equip	500	2	7	04/29/19 10:50	
4	AZ89958 MS-1	AZ89958W23	0.040	1	NA	NA equip	510	2	7	04/29/19 10:50	88687
5	AZ89958 MSD-1	AZ89958W22	0.040	1	NA	NA equip	510	2	7	04/29/19 10:50	88687
6	AZ89958	AZ89958W24			NA	NA equip	500	2	7	04/29/19 10:50	88687
7	AZ89959	AZ89959W06			NA	NA equip	480	2	7	04/29/19 10:50	88687
8	AZ89961	AZ89961W22			NA	NA equip	510	2	7	04/29/19 10:50	88687
9	AZ90051 MS-1	AZ90051W21	0.040	1	NA	NA equip	500	2	7	04/29/19 10:50	88701
10	AZ90051 MSD-1	AZ90051W25	0.040	1	NA	NA equip	500	2	7	04/29/19 10:50	88701
11	AZ90051	AZ90051W22			NA	NA equip	500	2	7	04/29/19 10:50	88701
12	AZ90052	AZ90052W05			NA	NA equip	505	2	7	04/29/19 10:50	88701
13	AZ90054	AZ90054W16			NA	NA equip	510	2	7	04/29/19 10:50	88701
14	AZ90056	AZ90056W16			NA	NA equip	510	2	7	04/29/19 10:50	88701
15	AZ90058	AZ90058W17			NA	NA equip	500	2	7	04/29/19 10:50	88701
16	AZ90060	AZ90060W17			NA	NA equip	505	2	7	04/29/19 10:50	88701

Solvent and Lot#	
ENVI-Carb Plus 400MG/1ML	.
Reverible Tube Lot:	11225702
PH Strip	HC 863463
Di Water	4-29-19
Dichloromethane	58240
Methanol	58179

Extraction COC Transfer	
Extraction lab employee Initials	KY
GC analyst's initials	
Date	
Time	
Refrigerator	

	Technician's Initials
Scanned By	DL
Sample Preparation	DL
Extraction	DL
Concentration	DL

Modified	04/29/19 2:46:49 PM

Reviewed By: **Date**

Organic Extraction Worksheet

Method	Solid Phase Extraction of 2MEE in Water	Extraction Set	190429A	Extraction Method	MWE2MEE	Units	mL

Spiked ID 1	Diethylene Glycol 1-31-19 EXP 1-31-20		Surrogate ID 1		
Spiked ID 2	2MEE SS 10320ug/mL 8-3-18 exp 8-3-19		Surrogate ID 2		
Spiked ID 3			Surrogate ID 3		
Spiked ID 4			Surrogate ID 4		
Spiked ID 5			Surrogate ID 5		
Spiked ID 6			Sufficient Vol for Matrix QC:	YES	
Spiked ID 7			Ext. Start Time:	04/29/19 10:50	
Spiked ID 8			Ext. End Time:	04/29/19 16:40	
			GC Requires Extract By:	04/30/19 0:00	

pH1			Water Bath Temp Criteria	
pH2				
pH3				

Spiked By: KY **Date** 04/29/19 **Witnessed By:** DL **Date** 04/29/19

	Sample	Sample Container	Spike Amount	Spike ID	Surrogate Amount	Surrogate ID	Extract Amount	Final Volume	pH	Extract Date/Time	Comments
17	AZ90100	AZ90100W17			NA	NA equip	510	2	7	04/29/19 10:50	88714
18	AZ90102	AZ90102W16			NA	NA equip	395	2	7	04/29/19 10:50	88714
19	AZ90103	AZ90103W04			NA	NA equip	250	2	7	04/29/19 10:50	88714
20	AZ90105	AZ90105W16			NA	NA equip	500	2	7	04/29/19 10:50	88714
21	AZ90107	AZ90107W16			NA	NA equip	510	2	7	04/29/19 10:50	88714
22	AZ90109	AZ90109W17			NA	NA equip	505	2	7	04/29/19 10:50	88714
23	AZ90213	AZ90213W15			NA	NA equip	505	2	7	04/29/19 10:50	88736
24	AZ90215	AZ90215W16			NA	NA equip	500	2	7	04/29/19 10:50	88736
25	M STD		1	1	NA	NA equip	500	2	7	04/29/19 10:50	
26	SS		0.097	2	NA	NA equip	500	2	7	04/29/19 10:50	

Solvent and Lot#	
ENVI-Carb Plus 400MG/1ML	.
Reverible Tube Lot:	11225702
PH Strip	HC 863463
Di Water	4-29-19
Dichloromethane	58240
Methanol	58179

Extraction COC Transfer	
Extraction lab employee Initials	KY
GC analyst's initials	
Date	
Time	
Refrigerator	

	Technician's Initials
Scanned By	DL
Sample Preparation	DL
Extraction	DL
Concentration	DL

Modified	04/29/19 2:46:49 PM

Reviewed By: 379 of 630 **Date**

Name of Final Standard MEE Curve
Prep Date 04/30/19
Exp Date 10/30/19

Prep'd By (Initials) SS

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from container Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
MEE M STD Stock	APPL		2000 ug/mL	04/29/19	01/31/20	5 uL	200uL	Methanol 195uL Lot# 208858	50 ug/mL
SV Internal Standard	APPL	8270 I.S.	2000 ug/mL	03/12/19	03/12/20	4 uL	"	"	"
MEE M STD Stock	APPL		2000 ug/mL	04/29/19	01/31/20	5 uL	100uL	Methanol 95uL Lot# 208858	100 ug/mL
SV Internal Standard	APPL	8270 I.S.	2000 ug/mL	03/12/19	03/12/20	2 uL	"	"	"
MEE M STD Stock	APPL		2000 ug/mL	04/29/19	01/31/20	10 uL	100uL	Methanol 90uL Lot# 208858	200 ug/mL
SV Internal Standard	APPL	8270 I.S.	2000 ug/mL	03/12/19	03/12/20	2 uL	"	"	"
MEE M STD Stock	APPL		2000 ug/mL	04/29/19	01/31/20	20 uL	100uL	Methanol 80 uL Lot# 208858	400 ug/mL
SV Internal Standard	APPL	8270 I.S.	2000 ug/mL	03/12/19	03/12/20	2 uL	"	"	"
MEE M STD Stock	APPL		2000 ug/mL	04/29/19	01/31/20	50 uL	200 uL	Methanol 150 uL	500 ug/mL
SV Internal Standard	APPL	8270 I.S.	2000 ug/mL	03/12/19	03/12/20	4 uL	"	"	"
MEE M STD Stock	APPL		2000 ug/mL	04/29/19	01/31/20	30 uL	100uL	Methanol 70 uL Lot# 208858	600 ug/mL
SV Internal Standard	APPL	8270 I.S.	2000 ug/mL	03/12/19	03/12/20	2 uL	"	"	"
MEE M STD Stock	APPL		2000 ug/mL	04/29/19	01/31/20	40 uL	100uL	Methanol 60 uL Lot# 208858	800 ug/mL
SV Internal Standard	APPL	8270 I.S.	2000 ug/mL	03/12/19	03/12/20	2 uL	"	"	"
MEE M STD Stock	APPL		2000 ug/mL	04/29/19	01/31/20	50 uL	100uL	Methanol 50uL Lot# 208858	1000 ug/mL
SV Internal Standard	APPL	8270 I.S.	2000 ug/mL	03/12/19	03/12/20	2 uL	"	"	"

Name of Final Standard MEE Second Source
Prep Date 04/30/19
Exp Date 08/03/19

Prep'd By (Initials) SS

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from container Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
MEE SS	APPL		2000 ug/mL	04/29/19	08/03/19	50 uL	200uL	Methanol 150uL Lot# 208858	500 ug/mL
SV Internal Standard	APPL	8270 I.S.	2000 ug/mL	03/12/19	03/12/20	4 uL	"	"	"

Name of Final Standard **2MEE Second Source Stock** **Prep'd By (Initials)** **JP**

Prep Date **10/28/19**
Exp Date **10/28/20**

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from contianer Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
Methoxyethanol-Neat	Chem Service	N-12404-1G	Neat 99.5%	**7079100 - 39417**	**07/31/22**	0.1022g	10 mL	**MC #56258**	10220 ug/mL

Given to Extraction to do **MEE SS** (used for ICAL SS)
0.097ml were spiked in 500ml of water and extracted on 10/28/2019 . Final concentration is 2000ug/L

Name of Final Standard: MEE Second Source
Prep Date: 11/01/19
Exp Date: 11/01/20
Prep'd By (Initials): MA

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from container Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
MEE SS	APPL		2000 ug/mL	10/28/19	10/28/20	50 uL	200uL	Methanol 150uL Lot# 208858	500 ug/mL
SV Internal Standard	APPL	8270 I.S.	2000 ug/mL	10/28/19	10/28/20	4uL			

_MWE2MEE

Organic Extraction Worksheet

Method	Solid Phase Extraction of 2MEE in Water	Extraction Set	191028A	Extraction Method	MWE2MEE	Units	mL

Spiked ID 1	Diethylene Glycol 1-31-19 EXP 1-31-20		Surrogate ID 1		
Spiked ID 2	2MEE SS 10200ug/mL10/28/19 10/28/20		Surrogate ID 2		
Spiked ID 3			Surrogate ID 3		
Spiked ID 4			Surrogate ID 4		
Spiked ID 5			Surrogate ID 5		
Spiked ID 6			Sufficient Vol for Matrix QC:		
Spiked ID 7			Ext. Start Time:	10/28/19 16:10	
Spiked ID 8			Ext. End Time:	10/30/19 14:30	
			GC Requires Extract By:		

pH1			Water Bath Temp 1 °C
pH2			Water Bath Temp 2 °C
pH3			Water Bath Temp 3 °C

Spiked By: **Date** **Witnessed By:** **Date**

	Sample	Sample Container	Spike Amount	Spike ID	Surrogate Amount	Surrogate ID	Extract Amount	Final Volume	pH	Extract Date/Time	Comments
1	191028A Blk				NA	NA equip	500	2	7Y	10/28/19 11:10	
2	191028A LCS-1		0.040	1	NA	NA equip	500	2	7Y	10/28/19 11:10	
3	191028A LCSD-1		0.040	1	NA	NA equip	500	2	7Y	10/28/19 11:10	
4	BA01579 MS-1	BA01579W21	0.040	1	NA	NA equip	500	2	7Y	10/28/19 11:10	
5	BA01579 MSD-1	BA01579W18	0.040	1	NA	NA equip	500	2	7Y	10/28/19 11:10	
6	BA01579	BA01579W16			NA	NA equip	500	2	7Y	10/28/19 11:10	90524
7	BA01580	BA01580W06			NA	NA equip	500	2	7Y	10/28/19 11:10	90524
8	BA01582	BA01582W12			NA	NA equip	500	2	7Y	10/28/19 11:10	90524
9	BA01651	BA01651W11			NA	NA equip	500	2	7Y	10/28/19 11:10	90532
10	BA01652	BA01652W07			NA	NA equip	500	2	7Y	10/28/19 11:10	90532
11	BA01654	BA01654W10			NA	NA equip	500	2	7Y	10/28/19 11:10	90532
12	BA01656	BA01656W10			NA	NA equip	500	2	7Y	10/28/19 11:10	90532
13	BA01658	BA01658W11			NA	NA equip	500	2	7Y	10/28/19 11:10	90532
14	BA01660	BA01660W10			NA	NA equip	500	2	7Y	10/28/19 11:10	90532
15	BA01662	BA01662W17			NA	NA equip	500	2	7Y	10/28/19 11:10	90532
16	BA01664	BA01664W18			NA	NA equip	500	2	7Y	10/28/19 11:10	90532

Solvent and Lot#	
ENVI-Carb Plus 400MG/1ML	1169450
PH Strip	HC863463
Di Water	10/30/19
Dichloromethane	59130
Methanol	59129

Extraction COC Transfer	
Extraction lab employee Initials	SS
GC analyst's initials	JP
Date	
Time	
Refrigerator	Hobard

	Technician's Initials
Scanned By	DL
Sample Preparation	DL
Extraction	DL
Concentration	DL

Modified	10/28/19 12:42:46 PM

Reviewed By: **Date**

Organic Extraction Worksheet

Method	Solid Phase Extraction of 2MEE in Water	Extraction Set	191028A	Extraction Method	MWE2MEE	Units	mL

Spiked ID 1	Diethylene Glycol 1-31-19 EXP 1-31-20		Surrogate ID 1		
Spiked ID 2	2MEE SS 10200ug/mL10/28/19 10/28/20		Surrogate ID 2		
Spiked ID 3			Surrogate ID 3		
Spiked ID 4			Surrogate ID 4		
Spiked ID 5			Surrogate ID 5		
Spiked ID 6			Sufficient Vol for Matrix QC:		
Spiked ID 7			Ext. Start Time:	10/28/19 16:10	
Spiked ID 8			Ext. End Time:	10/30/19 14:30	
			GC Requires Extract By:		

pH1			Water Bath Temp 1 °C	
pH2			Water Bath Temp 2 °C	
pH3			Water Bath Temp 3 °C	

Spiked By: **Date** **Witnessed By:** **Date**

	Sample	Sample Container	Spike Amount	Spike ID	Surrogate Amount	Surrogate ID	Extract Amount	Final Volume	pH	Extract Date/Time	Comments
17	BA01775	BA01775W07			NA	NA equip	500	2	7Y	10/28/19 11:10	90551
18	BA01777	BA01777W08			NA	NA equip	500	2	7Y	10/28/19 11:10	90551
19	BA01779	BA01779W08			NA	NA equip	500	2	7Y	10/28/19 11:10	90551
20	BA01781	BA01781W09			NA	NA equip	500	2	7Y	10/28/19 11:10	90551
21	BA01782	BA01782W07			NA	NA equip	500	2	7Y	10/28/19 11:10	90551
22	BA01784	BA01784W13			NA	NA equip	500	2	7Y	10/28/19 11:10	90551
23	SS		0.097	2	NA	NA equip	500	2	7Y	10/28/19 11:10	90551

Solvent and Lot#	
ENVI-Carb Plus 400MG/1ML	1169450
PH Strip	HC863463
Di Water	10/30/19
Dichloromethane	59130
Methanol	59129

Extraction COC Transfer	
Extraction lab employee Initials	SS
GC analyst's initials	JP
Date	
Time	
Refrigerator	Hobard

	Technician's Initials
Scanned By	DL
Sample Preparation	DL
Extraction	DL
Concentration	DL

Modified	10/28/19 12:42:46 PM

Reviewed By: **Date**

_MWE2MEE

Organic Extraction Worksheet

Method	Solid Phase Extraction of 2MEE in Water	Extraction Set	191106A	Extraction Method	MWE2MEE	Units	mL

Spiked ID 1	Diethylene Glycol 1-31-19 EXP 1-31-20		Surrogate ID 1		
Spiked ID 2	2MEE SS 10320ug/mL 10/28/19 exp 10/28/20		Surrogate ID 2		
Spiked ID 3	Diethylene Glycol 11-5-19 exp 11-5-20		Surrogate ID 3		
Spiked ID 4			Surrogate ID 4		
Spiked ID 5			Surrogate ID 5		
Spiked ID 6			Sufficient Vol for Matrix QC:	no	
Spiked ID 7			Ext. Start Time:	11/06/19 6:25	
Spiked ID 8			Ext. End Time:	11/06/19 13:30	
			GC Requires Extract By:		

pH1			Water Bath Temp 1 °C	
pH2			Water Bath Temp 2 °C	
pH3			Water Bath Temp 3 °C	

Spiked By: DL **Date** 11/06/19 **Witnessed By:** CFM **Date** 11/06/19

	Sample	Sample Container	Spike Amount	Spike ID	Surrogate Amount	Surrogate ID	Extract Amount	Final Volume	pH	Extract Date/Time	Comments
1	191106A Blk				NA	NA equip	500	2	7Y	11/06/19 6:25	
2	191106A LCS-1		0.040	1	NA	NA equip	500	2	7Y	11/06/19 6:25	
3	191106A LCSD-1		0.040	1	NA	NA equip	500	2	7Y	11/06/19 6:25	
4	BA02214	BA02214W18			NA	NA equip	500	2	7Y	11/06/19 6:25	90611
5	BA02216	BA02216W10			NA	NA equip	500	2	7Y	11/06/19 6:25	90611
6	BA02301	BA02301W22			NA	NA equip	500	2	7Y	11/06/19 6:25	90625
7	M STD		1	3	na	na equip	500	2	7Y	11/06/19 6:25	
8	SS		0.097	2	NA	NA equip	500	2	7Y	11/06/19 6:25	

Solvent and Lot#	
ENVI-Carb Plus 400MG/1ML	11694501
Reverible Tube Lot:	11694501
PH Strip	HC863463
Di Water	11/6/19
Dichloromethane	59130
Methanol	59129

Extraction COC Transfer	
Extraction lab employee Initials	SS
GC analyst's initials	MA
Date	11/6/19
Time	1:30
Refrigerator	Hobart

	Technician's Initials
Scanned By	DL
Sample Preparation	DL
Extraction	DL
Concentration	DL

Modified	11/06/19 6:07:34 AM

Reviewed By: MA **Date** 11/19/19

Injection Log

Directory: M:\LINUS\DATA\L191030M\

Vial	FileName	Multiplier	SampleName	Misc Info	Injected
86	1030L002.D	1	SV Tune 10/01/19		31 Oct 19 9:39
4	1030L004.D	1	50 2MEE 4/30/19		31 Oct 19 11:50
5	1030L005.D	1	100 2MEE 4/30/19		31 Oct 19 12:10
6	1030L006.D	1	200 2MEE 4/30/19		31 Oct 19 12:29
8	1030L008.D	1	500 2MEE 4/30/19		31 Oct 19 13:07
9	1030L009.D	1	600 2MEE 4/30/19		31 Oct 19 13:25
10	1030L010.D	1	800 2MEE 4/30/19		31 Oct 19 13:43
11	1030L011.D	1	1000 2MEE 4/30/19		31 Oct 19 14:02
14	1030L014.D	1	SV Tune 10/01/19		1 Nov 19 15:17
16	1030L016.D	1	SS 2MEE 11/1/19		1 Nov 19 17:11
41	1030L041.D	1	SV Tune 10/01/19		8 Nov 19 12:30
42	1030L042.D	1	500 2MEE 4/30/19		8 Nov 19 13:13
53	1030L053.D	1	191106A BLK 2/500		8 Nov 19 18:36
54	1030L054.D	1	191106A LCS-1 2/500		8 Nov 19 18:54
55	1030L055.D	1	191106A LCSD-1 2/500		8 Nov 19 19:12
58	1030L058.D	1	BA02301W22 2/500		8 Nov 19 20:07
61	1030L061.D	1	500 2MEE 4/30/19		8 Nov 19 21:02

ORGANICS
Calibration Data

VOLATILE ORGANIC ANALYSIS
VOLATILE ORGANIC COMPOUNDS

Form 6
Initial Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Initial Cal. Date: 11/13/2019
Matrix: Instrument: Loki Initials:

			1113L07 D	1113L08.D	1113L09.D	1113L10 D	1113L11 D	1113L12.D	1113L13.D	1113L14 D	1113L15.D								
		Compound	1	2	3	4	5	6	7	8	9		Avg	%RSD	Type	r^2	Q	MRF
1	I	Fluorobenzene (IS)																
2	TM	Chlorotrifluoroethene													TM			
3	TML	Dichlorodifluoromethane		0.1135	0.1424	0.1092	0.1027	0.1384	0.1238	0.1293	0.1278		0.12	11	TML	1.000		
4	TML	Freon 114		0.0907	0.1236	0.0747	0.0744	0.0874	0.0920	0.0950	0.0972		0.09	17	TML	1.000		
5	TM**L	Chloromethane		0.2111	0.2281	0.1275	0.1480	0.1531	0.1406	0.1380	0.1320		0.16	24	TM**L	1.000		
6	TM*	Vinyl chloride		0.1455	0.1609	0.1127	0.1258	0.1445	0.1293	0.1306	0.1296		0.13	11	TM*			
7	TM	2-Chloro-1,1,1-trifluoroethane													TM			
8	TM	Bromomethane		0.1383	0.1413	0.1042	0.1142	0.1209	0.1079	0.1022	0.0960		0.12	14	TM			
9	TML	Chloroethane		0.1097	0.1289	0.0792	0.0920	0.0982	0.0889	0.0877	0.0824		0.10	17	TML	0.999		
10	TM	Dichlorofluoromethane		0.2349	0.2323	0.1646	0.2161	0.2361	0.2272	0.2364	0.2337		0.22	11	TM			
11	TM	Trichlorofluoromethane		0.1865	0.1937	0.1518	0.1677	0.2072	0.1855	0.1934	0.1880		0.18	9.3	TM			
12	TM	Diethyl ether													TM			
13	TM	Acrolein		0.0223	0.0240	0.0224	0.0224	0.0230	0.0239	0.0228	0.0243		0.02	3.6	TM			
14	TML	Acetone				0.0496	0.0345	0.0232	0.0171	0.0152	0.0139		0.03	55	TML	0.999		
15	TML	Freon-113		0.0964	0.1077	0.0759	0.0897	0.1066	0.1025	0.1048			0.10	12	TML	1.000		
16	TM*	1,1-DCE		0.1780	0.1712	0.1302	0.1609	0.1716	0.1708	0.1701	0.1737		0.17	9.2	TM*			
17	TMQ	t-Butanol	0.0050	0.0052	0.0057	0.0056	0.0061	0.0068	0.0080	0.0085			0.01	20	TMQ	0.998		
18	TM	2-Propanol													TM			
19	TM	Acetonitrile		0.0087	0.0140	0.0118	0.0123	0.0115	0.0126	0.0110	0.0124		0.01	13	TM			
20	TML	Methyl Acetate		0.1511	0.1247	0.0631	0.0869	0.0851	0.0852	0.0853	0.0876		0.10	29	TML	1.000		
21	TML	Iodomethane		0.0904	0.0825	0.0577	0.0562	0.0924	0.1014	0.1247	0.1494		0.09	33	TML	0.994		
22	TML	Acrylonitrile		0.0894	0.0643	0.0302	0.0512	0.0548	0.0525	0.0487	0.0502		0.06	30	TML	1.000		
23	TML	Methylene chloride		0.7623	0.4212	0.2463	0.1906	0.1684	0.1489	0.1411	0.1363		0.28	79	TML	1.000		
24	TM	Carbon disulfide		0.3041	0.2506	0.1938	0.2161	0.2310	0.2174	0.2275	0.2226		0.23	14	TM			
25	TM	Methyl t-butyl ether (MtBE)		0.3158	0.3329	0.2330	0.2767	0.3211	0.3068	0.3141	0.3223		0.30	11	TM			
26	TM	Trans-1,2-DCE		0.1724	0.1715	0.1260	0.1606	0.1804	0.1702	0.1687	0.1701		0.16	10	TM			
27	TML	Diisopropyl Ether		0.3967	0.3134	0.2436	0.3071	0.3543	0.3462	0.3669	0.3781		0.34	14	TML	1.000		
28	TM**	2,2-Dichloro-1,1,1-trifluoroethane													TM**			
29	TM**	1,1-DCA		0.2204	0.2348	0.1648	0.2245	0.2310	0.2379	0.2248	0.2247		0.22	11	TM**			
30	TML	Vinyl Acetate		0.3967	0.3134	0.2436	0.3071	0.3543	0.3462	0.3669	0.3781		0.34	14	TML	1.000		
31	TM	Ethyl tert Butyl Ether		0.2401	0.2258	0.1654	0.2015	0.2493	0.2346	0.2496	0.2706		0.23	14	TM			
32	TM	MEK (2-Butanone)				0.0176	0.0188	0.0148	0.0147	0.0151	0.0162		0.02	10	TM			
33	TM	Cis-1,2-DCE		0.2043	0.1967	0.1347	0.1743	0.1930	0.1916	0.1897	0.1924		0.18	12	TM			
34	TM	2,2-Dichloropropane		0.1936	0.1834	0.1272	0.1669	0.1820	0.1673	0.1697	0.1684		0.17	12	TM			
35	TM	2-Methylpentane													TM			

VOLATILE ORGANIC ANALYSIS
VOLATILE ORGANIC COMPOUNDS

Form 6
Initial Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Initial Cal. Date: 11/13/2019
Matrix: Instrument: Loki Initials:

		Compound	1	2	3	4	5	6	7	8	9		Avg	%RSD	Type		Q	MRF
36	TM	3-Methylpentane													TM			
37	TM*	Chloroform		0.2368	0.2336	0.1635	0.2112	0.2388	0.2276	0.2281	0.2288		0.22	11	TM*			
38	TM	Bromochloromethane		0.1175	0.0848	0.0716	0.0861	0.0943	0.0935	0.0950	0.0940		0.09	14	TM			
39	S	Dibromofluoromethane(S)	0.2919	0.2844	0.2356	0.2291	0.2565	0.2501	0.2532	0.2524	0.2418		0.25	8.2	S			
40	TM	1,1,1-TCA		0.1796	0.1740	0.1400	0.1779	0.1932	0.1845	0.1888	0.1881		0.18	9.4	TM			
41	TML	Cyclohexane		0.1287	0.1513	0.0982	0.1141	0.1364	0.1408	0.1517	0.1660		0.14	16	TML	0.999		
42	TM	1,1-Dichloropropene		0.1452	0.1461	0.0885	0.1345	0.1420	0.1459	0.1513	0.1570		0.14	15	TM			
43	TML	2,2,4-Trimethylpentane		0.2644	0.2677	0.1904	0.2273	0.2692	0.2796	0.3019	0.3333		0.27	16	TML	0.998		
44	S	1,2-DCA-D4(S)	0.3348	0.3295	0.2709	0.2654	0.2847	0.2841	0.2866	0.2858	0.2750		0.29	8.5	S			
45	TM	Carbon Tetrachloride		0.1596	0.1527	0.1095	0.1462	0.1600	0.1552	0.1592	0.1601		0.15	11	TM			
46	TML	Tert Amyl Methyl Ether		0.2077	0.1937	0.1402	0.1628	0.2062	0.2042	0.2205	0.2397		0.20	16	TML	0.999		
47	TM	Methylcyclopentane													TM			
48	TM	1,2-DCA		0.1533	0.1614	0.1318	0.1607	0.1808	0.1745	0.1716	0.1708		0.16	9.4	TM			
49	TM	Benzene		0.5273	0.4737	0.3400	0.4550	0.5031	0.4893	0.4950	0.5037		0.47	12	TM			
50	TML	TCE		0.2152	0.1655	0.1198	0.1295	0.1360	0.1370	0.1381	0.1380		0.15	21	TML	1.00		
51	TM	2-Pentanone		0.0606	0.0643	0.0626	0.0677	0.0673	0.0729	0.0708	0.0762		0.07	7.9	TM			
52	TM*	1,2-Dichloropropane		0.1489	0.1368	0.1067	0.1286	0.1385	0.1394	0.1400	0.1412		0.14	9.4	TM*			
53	TM	Bromodichloromethane		0.1766	0.1699	0.1199	0.1724	0.1853	0.1815	0.1836	0.1847		0.17	13	TM			
54	TM	Methyl Cyclohexane		0.1335	0.1413	0.1088	0.1231	0.1423	0.1448	0.1598	0.1780		0.14	15	TM			
55	TML	Dibromomethane		0.0771	0.0960	0.0577	0.0861	0.0970	0.0986	0.0990	0.0988		0.09	17	TML	1.000		
56	TM	2-Chloroethyl vinyl ether													TM			
57	TM	MIBK (methyl isobutyl ketone)		0.1030	0.1455	0.1139	0.1269	0.1064	0.1135	0.1020	0.1091		0.12	13	TM			
58	TML	1-Bromo-2-chloroethane		0.1735	0.1800	0.1354	0.1682	0.1982	0.1854	0.1912	0.1960		0.18	11	TML	1.000		
59	TM	Cis-1,3-Dichloropropene		0.1632	0.1663	0.1281	0.1730	0.1966	0.1944	0.1978	0.2112		0.18	15	TM			
60	TM*	Toluene		0.4615	0.4771	0.3657	0.4967	0.5403	0.5453	0.5491	0.5633		0.50	13	TM*			
61	TML	Trans-1,3-Dichloropropene		0.1716	0.1394	0.1243	0.1701	0.1894	0.1875	0.1890	0.2016		0.17	16	TML	0.999		
62	TM	1,1,2-TCA		0.0948	0.1216	0.0912	0.1256	0.1341	0.1344	0.1288	0.1305		0.12	14	TM			
63	TM	2-Hexanone		0.0542	0.0501	0.0471	0.0669	0.0519	0.0607	0.0562	0.0635		0.06	12	TM			
64	I	Chlorobenzene-D5 (IS)																
65	S	Toluene-D8(S)	1.091	1.067	0.8536	0.9070	0.9939	0.9552	1.023	1.029	0.9731		0.99	7.7	S			
66	TM	1,2-EDB		0.1321	0.1306	0.0864	0.1196	0.1335	0.1341	0.1344	0.1344		0.13	13	TM			
67	TM	Tetrachloroethene		0.1438	0.1500	0.1257	0.1445	0.1644	0.1538	0.1568	0.1511		0.15	7.7	TM			
68	TML	1-Chlorohexane		0.1260	0.1259	0.0991	0.1216	0.1355	0.1400	0.1595	0.1693		0.13	16	TML	0.999		
69	TM	1,1,1,2-Tetrachloroethane		0.1644	0.1271	0.1119	0.1326	0.1467	0.1471	0.1468	0.1441		0.14	11	TM			
70	TML	m&p-Xylene		0.3783	0.3661	0.2899	0.4004	0.4427	0.4677	0.5000	0.5096		0.42	18	TML	1.000		

VOLATILE ORGANIC ANALYSIS
VOLATILE ORGANIC COMPOUNDS

Form 6
Initial Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Initial Cal. Date: 11/13/2019
Matrix: Instrument: Loki Initials:

		Compound	1	2	3	4	5	6	7	8	9		Avg	%RSD	Type		Q	MRF
71	TML	o-Xylene		0.4174	0.4038	0.3042	0.4014	0.4464	0.4741	0.4998	0.5215		0.43	16	TML	1.000		
72	TML	Styrene		0.2935	0.2629	0.2462	0.3126	0.3594	0.3819	0.4217	0.4330		0.34	21	TML	1.000		
73	S	4-Bromofluorobenzene(S)	0.4068	0.3887	0.3091	0.3334	0.3741	0.3658	0.3912	0.3997	0.3800		0.37	8.6	S			
74	TM	1,3-Dichloropropane		0.2346	0.2074	0.1553	0.2137	0.2252	0.2242	0.2330	0.2285		0.22	12	TM			
75	TM	Dibromochloromethane		0.1453	0.1408	0.1122	0.1388	0.1548	0.1535	0.1549	0.1511		0.14	9.9	TM			
76	TM**	Chlorobenzene		0.4021	0.3656	0.2767	0.3869	0.3889	0.3912	0.3944	0.3891		0.37	11	TM**			
77	TM*	Ethylbenzene		0.5296	0.4902	0.3983	0.5169	0.5822	0.5961	0.6305	0.6382		0.55	15	TM*			
78	TM**	Bromoform		0.0915	0.0913	0.0762	0.1040	0.1091	0.1093	0.1104	0.1111		0.10	13	TM**			
79	I	1,4-Dichlorobenzene-D (IS)																
80	TM	Isopropylbenzene		0.5603	0.5442	0.3897	0.5248	0.5984	0.5851	0.6019	0.6697		0.56	15	TM			
81	TM**	1,1,2,2-Tetrachloroethane		0.3237	0.3162	0.2346	0.3035	0.3568	0.3376	0.3231	0.3185		0.31	11	TM**			
82	TM	1,2,3-Trichloropropane		0.1098	0.0958	0.0749	0.0963	0.1111	0.1017	0.0963	0.0955		0.10	11	TM			
83	TML	t-1,4-Dichloro-2-Butene		0.0458	0.0397	0.0333	0.0525	0.0602	0.0589	0.0605	0.0635		0.05	21	TML	0.998		
84	TM	Bromobenzene		0.3271	0.2674	0.2275	0.2871	0.3187	0.3111	0.3019	0.3000		0.29	11	TM			
85	TML	n-Propylbenzene		1.090	1.009	0.7817	1.051	1.216	1.225	1.259	1.318		1.1	16	TML	1.000		
86	TML	4-Ethyltoluene		0.7571	0.7646	0.5779	0.7930	1.005	0.9900	1.075	1.104		0.88	21	TML	1.000		
87	TML	2-Chlorotoluene		0.4142	0.3825	0.2850	0.3949	0.4805	0.4700	0.4719	0.4839		0.42	16	TML	1.000		
88	TML	1,3,5-Trimethylbenzene		0.6562	0.6557	0.5163	0.7370	0.8831	0.9190	0.9320	0.9330		0.78	21	TML	1.000		
89	TML	4-Chlorotoluene		0.4032	0.4114	0.2946	0.4389	0.5101	0.4995	0.5064	0.5050		0.45	17	TML	1.000		
90	TML	Tert-Butylbenzene		0.6155	0.6773	0.4690	0.6254	0.7379	0.8416	0.7621	0.7988		0.69	17	TML	0.999		
91	TML	1,2,4-Trimethylbenzene		0.6763	0.6162	0.4874	0.6732	0.8715	0.8836	0.9339	0.9500		0.76	22	TML	1.000		
92	TML	Sec-Butylbenzene		0.9674	0.8198	0.6091	0.8815	1.100	1.100	1.149	1.193		0.98	20	TML	1.000		
93	TML	p-Isopropyltoluene		0.8731	0.8237	0.6442	0.8552	1.030	1.014	1.022	1.054		0.91	16	TML	1.000		
94	TM	Benzyl Chloride		0.3076	0.3253	0.2367	0.3018	0.3227	0.2943	0.2943	0.3241		0.30	9.6	TM			
95	TM	1,3-DCB		0.5285	0.5229	0.3992	0.5287	0.5989	0.5747	0.5647	0.5627		0.54	11	TM			
96	TM	1,4-DCB		0.6271	0.6038	0.4525	0.5513	0.6458	0.5997	0.5871	0.5739		0.58	10	TM			
97	TML	n-Butylbenzene		0.6973	0.6741	0.4697	0.6506	0.7968	0.8198	0.8727	0.9375		0.74	20	TML	0.999		
98	TM	1,2-DCB		0.5645	0.5213	0.3895	0.5284	0.5848	0.5694	0.5550	0.5538		0.53	12	TM			
99	TM	Hexachloroethane		0.1944	0.1907	0.1266	0.1885	0.1955	0.1773	0.1818	0.1828		0.18	12	TM			
100	TML	1,2-Dibromo-3-chloropropane		0.0727	0.0448	0.0418	0.0547	0.0632	0.0612	0.0588	0.0638		0.06	18	TML	0.999		
101	TML	1,2,4-Trichlorobenzene		0.3202	0.2899	0.2100	0.2723	0.3239	0.3358	0.3486	0.3924		0.31	18	TML	0.998		
102	TM	Hexachlorobutadiene		0.1160	0.0851	0.0699	0.0894	0.1004	0.0944	0.0959	0.1004		0.09	14	TM			
103	TML	Naphthalene		0.4658	0.4175	0.3120	0.4794	0.5989	0.6667	0.7455	0.8984		0.57	33	TML	0.995		
104	TML	1,2,3-Trichlorobenzene		0.1651	0.1554	0.1101	0.1477	0.1738	0.1810	0.1837	0.1979		0.16	17	TML	0.999		
105																		

Quantitation Report (Not Reviewed)

Data File : M:\LOKI\DATA\191113\1113L07.D Vial: 3
Acq On : 13 Nov 19 17:58 Operator:
Sample : 0.3ug/L VOC STD 11/13/19 Inst : Loki
Misc : IS&S:10/7/19, 10/23/19 Multiplr: 1.00

Quant Time: Nov 14 9:29 2019 Quant Results File: L1113W.RES

Quant Method : M:\LOKI\DATA\191113\L1113W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 14 09:28:54 2019
Response via : Initial Calibration
DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene (IS)	5.18	96	803072	25.00	ppb		0.00
64) Chlorobenzene-D5 (IS)	8.78	117	761728	25.00	ppb		0.00
79) 1,4-Dichlorobenzene-D (IS)	11.32	152	381696	25.00	ppb		0.00
System Monitoring Compounds							
39) Dibromofluoromethane(S)	4.22	111	46881	5.72	ppb		0.00
Spiked Amount 25.000			Recovery = 22.892%				
44) 1,2-DCA-D4(S)	4.69	65	53771	5.76	ppb		0.00
Spiked Amount 25.000			Recovery = 23.028%				
65) Toluene-D8(S)	7.17	98	166263	5.52	ppb		0.00
Spiked Amount 25.000			Recovery = 22.092%				
73) 4-Bromofluorobenzene(S)	10.08	95	61981	5.47	ppb		0.00
Spiked Amount 25.000			Recovery = 21.868%				
Target Compounds							Qvalue
3) Dichlorodifluoromethane	0.78	85	1243	0.43	ppb	#	82
4) Freon 114	0.85	85	887	0.89	ppb		95
5) Chloromethane	0.88	50	2534	-0.25	ppb		91
6) Vinyl chloride	0.94	62	1573	0.36	ppb	#	64
8) Bromomethane	1.12	94	1560	0.42	ppb		94
9) Chloroethane	1.26	64	1425	-0.40	ppb	#	74
10) Dichlorofluoromethane	1.31	67	2566	0.36	ppb		86
11) Trichlorofluoromethane	1.35	101	1740	0.29	ppb		95
13) Acrolein	1.63	56	7910	10.64	ppb		87
14) Acetone	1.75	43	2613	-0.79	ppb		91
15) Freon-113	1.70	101	1048	0.58	ppb	#	84
16) 1,1-DCE	1.69	61	1578	0.30	ppb	#	90
17) t-Butanol	2.28	59	1610	5.08	ppb	#	67
19) Acetonitrile	1.98	41	4256	11.25	ppb	#	76
20) Methyl Acetate	2.01	43	1250	0.61	ppb	#	50
21) Iodomethane	1.79	142	936	3.01	ppb	#	78
22) Acrylonitrile	2.30	53	868	0.36	ppb	#	50
23) Methylene chloride	2.07	84	10160	0.16	ppb		91
24) Carbon disulfide	1.83	76	2789	0.37	ppb	#	80
25) Methyl t-butyl ether (MtBE	2.35	73	3400	0.35	ppb	#	87
26) Trans-1,2-DCE	2.32	61	1675	0.32	ppb		94
27) Diisopropyl Ether	2.88	45	3125	0.98	ppb	#	80
29) 1,1-DCA	2.74	63	2157	0.30	ppb		90
30) Vinyl Acetate	2.88	45	3125	0.98	ppb	#	80
31) Ethyl tert Butyl Ether	3.35	59	2400	0.33	ppb	#	69
32) MEK (2-Butanone)	3.54	43	387	0.74	ppb	#	51
33) Cis-1,2-DCE	3.45	61	1914	0.32	ppb		87
34) 2,2-Dichloropropane	3.44	77	1790	0.33	ppb		98
37) Chloroform	3.97	83	1950	0.27	ppb		81
38) Bromochloromethane	3.80	130	756	0.26	ppb	#	66
40) 1,1,1-TCA	4.21	97	1830	0.32	ppb		82
41) Cyclohexane	4.26	56	1417	1.66	ppb	#	56
42) 1,1-Dichloropropene	4.48	75	1287	0.29	ppb		97
43) 2,2,4-Trimethylpentane	4.93	57	3374	1.81	ppb		99
45) Carbon Tetrachloride	4.45	117	1318	0.27	ppb	#	68
46) Tert Amyl Methyl Ether	5.02	73	1859	1.57	ppb	#	73
48) 1,2-DCA	4.80	62	1518	0.29	ppb	#	72
49) Benzene	4.76	78	5245	0.34	ppb		93
50) TCE	5.67	130	2176	0.54	ppb		90

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\LOKI\DATA\191113\1113L07.D Vial: 3
Acq On : 13 Nov 19 17:58 Operator:
Sample : 0.3ug/L VOC STD 11/13/19 Inst : Loki
Misc : IS&S:10/7/19, 10/23/19 Multiplr: 1.00

Quant Time: Nov 14 9:29 2019 Quant Results File: L1113W.RES

Quant Method : M:\LOKI\DATA\191113\L1113W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 14 09:28:54 2019
Response via : Initial Calibration
DataAcq Meth : L8260

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
51)	2-Pentanone	5.99	43	22583	10.37	ppb		92
52)	1,2-Dichloropropane	5.94	63	1535	0.35	ppb	#	76
53)	Bromodichloromethane	6.32	83	1672	0.30	ppb		100
54)	Methyl Cyclohexane	5.89	83	1225	0.27	ppb		88
55)	Dibromomethane	6.07	174	930	0.61	ppb	#	65
57)	MIBK (methyl isobutyl ket	7.11	43	2739	0.74	ppb	#	78
58)	1-Bromo-2-chloroethane	6.65	63	1590	0.71	ppb		94
59)	Cis-1,3-Dichloropropene	6.87	75	1719	0.30	ppb		95
60)	Toluene	7.24	91	5021	0.31	ppb		96
61)	Trans-1,3-Dichloropropene	7.54	75	1790	1.09	ppb		86
62)	1,1,2-TCA	7.74	97	1247	0.32	ppb		80
63)	2-Hexanone	8.08	43	566	0.31	ppb	#	23
66)	1,2-EDB	8.24	107	963	0.25	ppb	#	63
67)	Tetrachloroethene	7.86	166	1529	0.34	ppb		87
68)	1-Chlorohexane	8.84	91	1219	1.64	ppb	#	60
69)	1,1,1,2-Tetrachloroethane	8.92	131	1076	0.25	ppb		79
70)	m&p-Xylene	9.10	91	6162	2.18	ppb	#	77
71)	o-Xylene	9.53	91	3456	1.22	ppb		83
72)	Styrene	9.54	104	2844	1.36	ppb		94
74)	1,3-Dichloropropane	7.90	76	1909	0.29	ppb		90
75)	Dibromochloromethane	8.14	129	1204	0.27	ppb		100
76)	Chlorobenzene	8.81	112	3762	0.33	ppb	#	64
77)	Ethylbenzene	8.96	91	4831	0.29	ppb		99
78)	Bromoform	9.70	173	779	0.25	ppb		94
80)	Isopropylbenzene	9.94	105	2226	0.26	ppb	#	81
81)	1,1,2,2-Tetrachloroethane	10.27	83	1533	0.32	ppb		88
82)	1,2,3-Trichloropropane	10.29	110	423	0.28	ppb		98
83)	t-1,4-Dichloro-2-Butene	10.34	53	87	0.44	ppb	#	26
84)	Bromobenzene	10.21	156	1370	0.31	ppb		91
85)	n-Propylbenzene	10.39	91	4553	1.05	ppb		99
86)	4-Ethyltoluene	10.51	105	3907	1.22	ppb	#	78
87)	2-Chlorotoluene	10.45	91	1938	0.78	ppb		86
88)	1,3,5-Trimethylbenzene	10.59	105	2872	0.75	ppb		92
89)	4-Chlorotoluene	10.57	91	2085	0.59	ppb	#	87
90)	Tert-Butylbenzene	10.93	119	3458	0.79	ppb		94
91)	1,2,4-Trimethylbenzene	10.98	105	3633	1.13	ppb		86
92)	Sec-Butylbenzene	11.17	105	3992	1.13	ppb		99
93)	p-Isopropyltoluene	11.34	119	4286	0.85	ppb	#	84
94)	Benzyl Chloride	11.51	91	1724	0.38	ppb		97
95)	1,3-DCB	11.24	146	3223	0.39	ppb	#	76
96)	1,4-DCB	11.35	146	3292	0.37	ppb	#	56
97)	n-Butylbenzene	11.77	91	3143	1.51	ppb		90
98)	1,2-DCB	11.74	146	2633	0.32	ppb		91
99)	Hexachloroethane	12.01	117	910	0.33	ppb	#	66
100)	1,2-Dibromo-3-chloropropan	12.57	157	93	0.75	ppb	#	44
101)	1,2,4-Trichlorobenzene	13.47	180	1507	1.75	ppb		81
102)	Hexachlorobutadiene	13.68	225	639	0.45	ppb	#	69
103)	Naphthalene	13.72	128	2323	2.67	ppb		96
104)	1,2,3-Trichlorobenzene	13.99	182	803	1.34	ppb	#	79

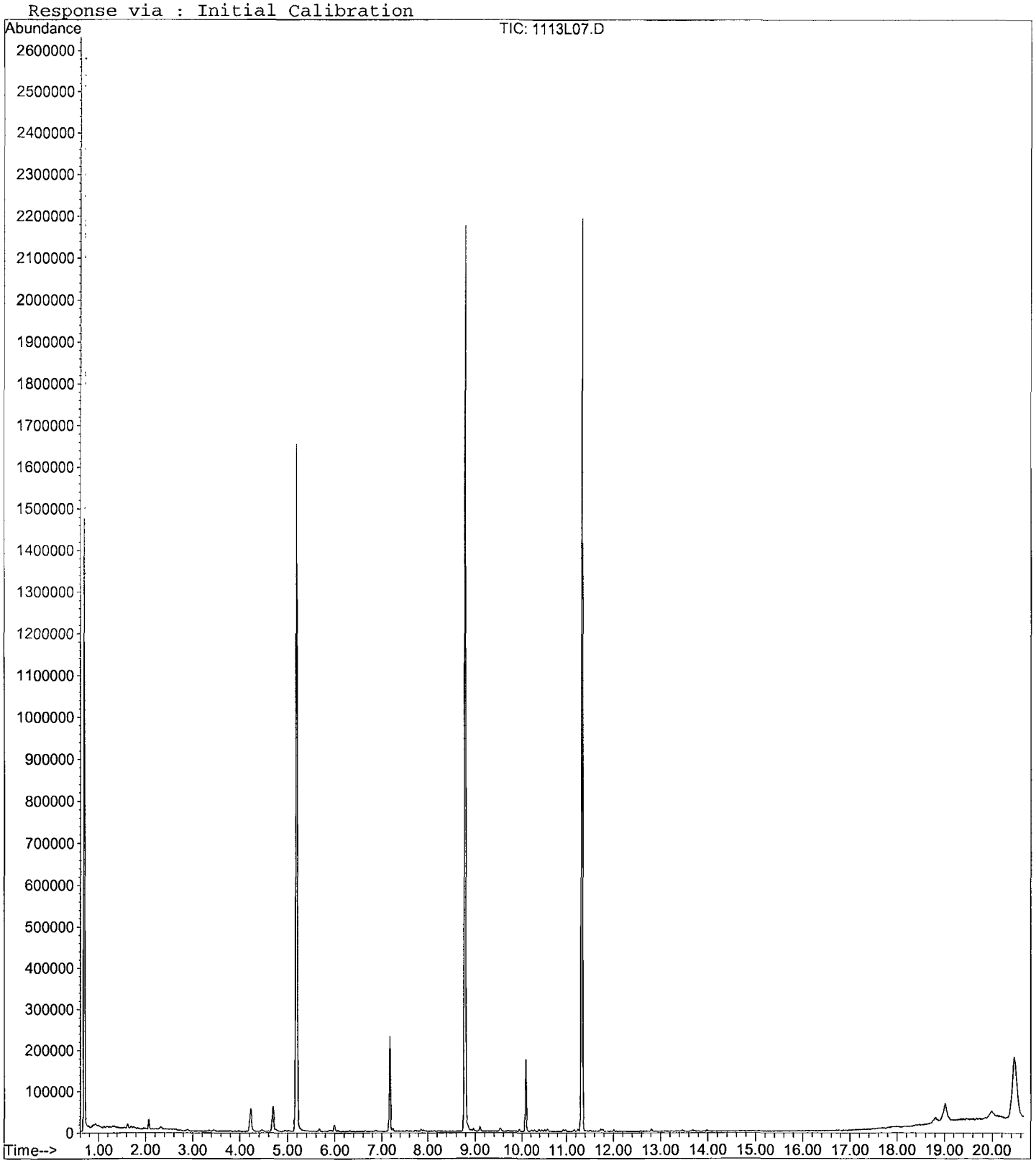
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LOKI\DATA\191113\1113L07.D Vial: 3
Acq On : 13 Nov 19 17:58 Operator:
Sample : 0.3ug/L VOC STD 11/13/19 Inst : Loki
Misc : IS&S:10/7/19, 10/23/19 Multiplr: 1.00

Quant Time: Nov 14 9:29 2019 Quant Results File: L1113W.RES

Method : M:\LOKI\DATA\191113\L1113W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 14 09:28:54 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LOKI\DATA\191113\1113L08.D Vial: 4
Acq On : 13 Nov 19 18:26 Operator:
Sample : 0.5ug/L VOC STD 11/13/19 Inst : Loki
Misc : IS&S:10/7/19, 10/23/19 Multiplr: 1.00

Quant Time: Nov 14 9:29 2019 Quant Results File: L1113W.RES

Quant Method : M:\LOKI\DATA\191113\L1113W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 14 09:28:54 2019
Response via : Initial Calibration
DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene (IS)	5.18	96	821504	25.00	ppb		0.00
64) Chlorobenzene-D5 (IS)	8.78	117	759296	25.00	ppb		0.00
79) 1,4-Dichlorobenzene-D (IS)	11.32	152	384320	25.00	ppb		0.00
System Monitoring Compounds							
39) Dibromofluoromethane(S)	4.23	111	46733	5.58	ppb		0.00
Spiked Amount 25.000			Recovery = 22.308%				
44) 1,2-DCA-D4(S)	4.69	65	54144	5.67	ppb		0.00
Spiked Amount 25.000			Recovery = 22.668%				
65) Toluene-D8(S)	7.17	98	162063	5.40	ppb		0.00
Spiked Amount 25.000			Recovery = 21.600%				
73) 4-Bromofluorobenzene(S)	10.08	95	59028	5.22	ppb		0.00
Spiked Amount 25.000			Recovery = 20.892%				
Target Compounds							Qvalue
3) Dichlorodifluoromethane	0.78	85	1865	0.57	ppb	#	74
4) Freon 114	0.85	85	1491	1.08	ppb		88
6) Vinyl chloride	0.94	62	2390	0.54	ppb	#	69
8) Bromomethane	1.12	94	2273	0.60	ppb	#	75
9) Chloroethane	1.19	64	1802	-0.27	ppb		88
10) Dichlorofluoromethane	1.31	67	3859	0.53	ppb		98
11) Trichlorofluoromethane	1.35	101	3064	0.51	ppb		90
13) Acrolein	1.63	56	18295	24.06	ppb		90
14) Acetone	1.75	43	2737	-0.64	ppb	#	86
15) Freon-113	1.71	101	1584	0.73	ppb		76
16) 1,1-DCE	1.69	61	2925	0.54	ppb	#	87
17) t-Butanol	2.26	59	4243	25.99	ppb	#	72
19) Acetonitrile	1.97	41	7090	18.32	ppb	#	65
20) Methyl Acetate	2.01	43	2483	1.03	ppb		89
21) Iodomethane	1.79	142	1486	3.12	ppb		93
22) Acrylonitrile	2.31	53	1469	0.72	ppb	#	80
23) Methylene chloride	2.07	84	12525	0.64	ppb		90
24) Carbon disulfide	1.83	76	4996	0.65	ppb		95
25) Methyl t-butyl ether (MtBE	2.35	73	5188	0.52	ppb		96
26) Trans-1,2-DCE	2.32	61	2833	0.52	ppb		84
27) Diisopropyl Ether	2.90	45	6518	1.25	ppb	#	83
29) 1,1-DCA	2.73	63	3622	0.50	ppb		89
30) Vinyl Acetate	2.90	45	6518	1.25	ppb	#	83
31) Ethyl tert Butyl Ether	3.35	59	3945	0.52	ppb		89
32) MEK (2-Butanone)	3.55	43	601	1.13	ppb	#	51
33) Cis-1,2-DCE	3.46	61	3356	0.55	ppb		95
34) 2,2-Dichloropropane	3.45	77	3181	0.57	ppb	#	86
37) Chloroform	3.97	83	3890	0.54	ppb		80
38) Bromochloromethane	3.80	130	1931	0.64	ppb	#	58
40) 1,1,1-TCA	4.20	97	2951	0.50	ppb	#	79
41) Cyclohexane	4.28	56	2115	1.78	ppb	#	77
42) 1,1-Dichloropropene	4.47	75	2386	0.52	ppb		96
43) 2,2,4-Trimethylpentane	4.95	57	4344	1.89	ppb		97
45) Carbon Tetrachloride	4.45	117	2623	0.53	ppb		77
46) Tert Amyl Methyl Ether	5.02	73	3413	1.76	ppb		98
48) 1,2-DCA	4.79	62	2518	0.47	ppb	#	72
49) Benzene	4.75	78	8663	0.56	ppb		98
50) TCE	5.67	130	3535	0.83	ppb		89
51) 2-Pentanone	5.99	43	49743	22.33	ppb		98

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\LOKI\DATA\191113\1113L08.D Vial: 4
Acq On : 13 Nov 19 18:26 Operator:
Sample : 0.5ug/L VOC STD 11/13/19 Inst : Loki
Misc : IS&S:10/7/19, 10/23/19 Multiplr: 1.00

Quant Time: Nov 14 9:29 2019 Quant Results File: L1113W.RES

Quant Method : M:\LOKI\DATA\191113\L1113W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 14 09:28:54 2019
Response via : Initial Calibration
DataAcq Meth : L8260

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
52)	1,2-Dichloropropane	5.93	63	2447	0.55	ppb		82
53)	Bromodichloromethane	6.32	83	2901	0.51	ppb		88
54)	Methyl Cyclohexane	5.90	83	2193	0.47	ppb		87
55)	Dibromomethane	6.07	174	1267	0.71	ppb		82
57)	MIBK (methyl isobutyl ket	7.11	43	1692	0.45	ppb		93
58)	1-Bromo-2-chloroethane	6.65	63	2851	0.90	ppb		90
59)	Cis-1,3-Dichloropropene	6.87	75	2682	0.46	ppb		97
60)	Toluene	7.24	91	7582	0.46	ppb		95
61)	Trans-1,3-Dichloropropene	7.54	75	2819	1.24	ppb		88
62)	1,1,2-TCA	7.73	97	1558	0.39	ppb	#	86
63)	2-Hexanone	8.09	43	890	0.48	ppb	#	23
66)	1,2-EDB	8.24	107	2006	0.53	ppb		95
67)	Tetrachloroethene	7.85	166	2184	0.48	ppb		96
68)	1-Chlorohexane	8.85	91	1914	1.78	ppb		94
69)	1,1,1,2-Tetrachloroethane	8.92	131	2497	0.59	ppb		94
70)	m&p-Xylene	9.10	91	11489	2.52	ppb		96
71)	o-Xylene	9.52	91	6338	1.40	ppb		94
72)	Styrene	9.54	104	4457	1.49	ppb		86
74)	1,3-Dichloropropane	7.90	76	3563	0.55	ppb		93
75)	Dibromochloromethane	8.15	129	2206	0.50	ppb		94
76)	Chlorobenzene	8.81	112	6106	0.54	ppb		85
77)	Ethylbenzene	8.97	91	8043	0.48	ppb		94
78)	Bromoform	9.70	173	1389	0.46	ppb	#	68
80)	Isopropylbenzene	9.94	105	4307	0.50	ppb	#	85
81)	1,1,2,2-Tetrachloroethane	10.27	83	2488	0.52	ppb		90
82)	1,2,3-Trichloropropane	10.30	110	844	0.56	ppb	#	76
83)	t-1,4-Dichloro-2-Butene	10.34	53	352	0.71	ppb	#	73
84)	Bromobenzene	10.22	156	2514	0.56	ppb		94
85)	n-Propylbenzene	10.38	91	8381	1.24	ppb		96
86)	4-Ethyltoluene	10.52	105	5819	1.33	ppb	#	80
87)	2-Chlorotoluene	10.45	91	3184	0.95	ppb		92
88)	1,3,5-Trimethylbenzene	10.59	105	5044	0.90	ppb		89
89)	4-Chlorotoluene	10.57	91	3099	0.72	ppb		89
90)	Tert-Butylbenzene	10.93	119	4731	0.89	ppb		94
91)	1,2,4-Trimethylbenzene	10.98	105	5198	1.23	ppb		94
92)	Sec-Butylbenzene	11.17	105	7436	1.32	ppb		100
93)	p-Isopropyltoluene	11.33	119	6711	1.00	ppb		89
94)	Benzyl Chloride	11.50	91	2364	0.51	ppb		98
95)	1,3-DCB	11.24	146	4062	0.49	ppb		92
96)	1,4-DCB	11.35	146	4820	0.54	ppb	#	59
97)	n-Butylbenzene	11.78	91	5360	1.66	ppb		93
98)	1,2-DCB	11.73	146	4339	0.53	ppb		85
99)	Hexachloroethane	12.00	117	1494	0.54	ppb	#	76
100)	1,2-Dibromo-3-chloropropan	12.56	157	559	1.23	ppb	#	72
101)	1,2,4-Trichlorobenzene	13.47	180	2461	1.90	ppb		75
102)	Hexachlorobutadiene	13.67	225	892	0.62	ppb	#	81
103)	Naphthalene	13.72	128	3580	2.76	ppb		99
104)	1,2,3-Trichlorobenzene	13.98	182	1269	1.49	ppb	#	53

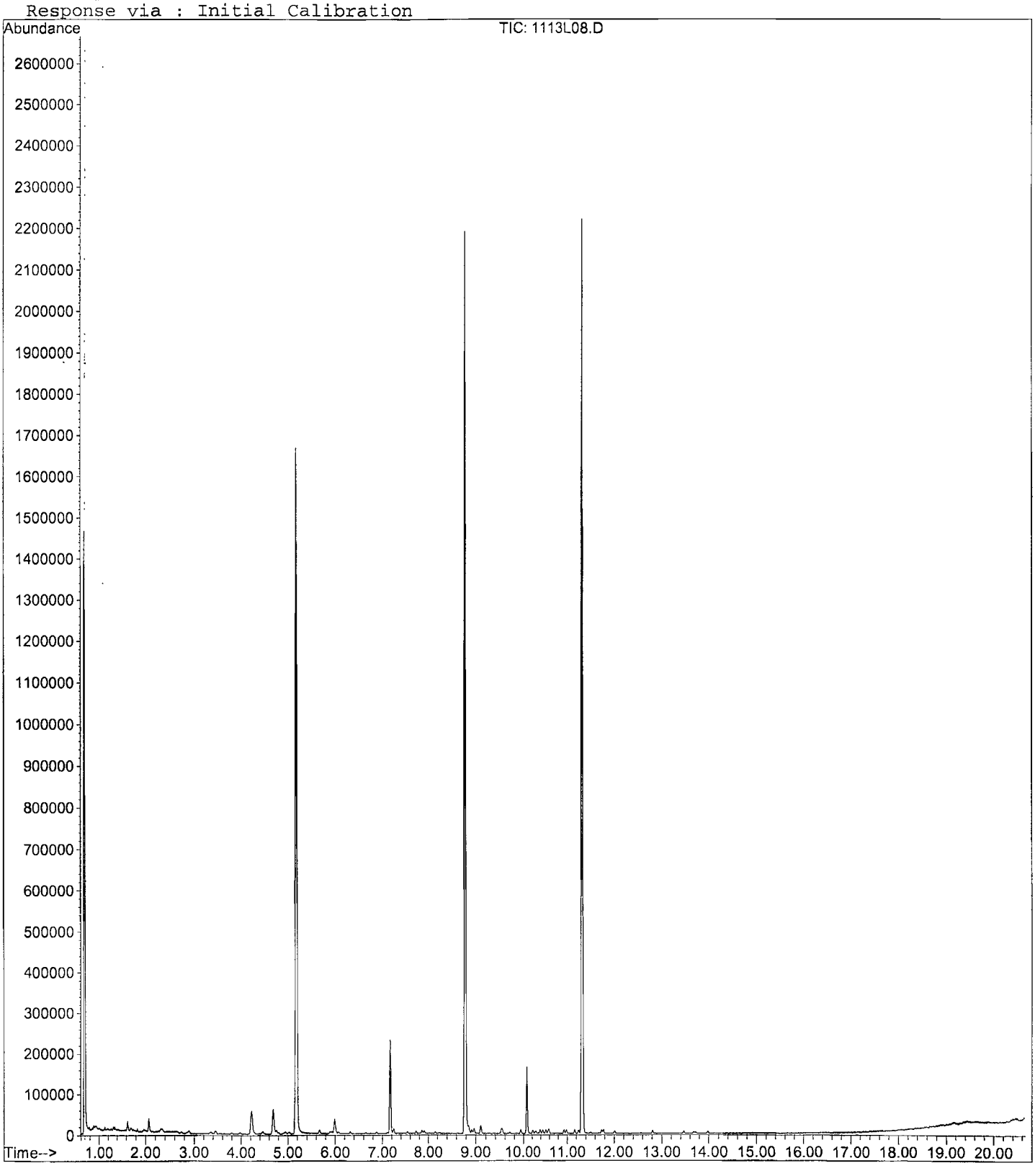
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LOKI\DATA\191113\1113L08.D Vial: 4
Acq On : 13 Nov 19 18:26 Operator:
Sample : 0.5ug/L VOC STD 11/13/19 Inst : Loki
Misc : IS&S:10/7/19, 10/23/19 Multiplr: 1.00

Quant Time: Nov 14 9:29 2019 Quant Results File: L1113W.RES

Method : M:\LOKI\DATA\191113\L1113W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 14 09:28:54 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LOKI\DATA\191113\1113L09.D Vial: 5
Acq On : 13 Nov 19 18:54 Operator:
Sample : 1.0ug/L VOC STD 11/13/19 Inst : Loki
Misc : IS&S:10/7/19, 10/23/19 Multiplr: 1.00

Quant Time: Nov 14 9:29 2019 Quant Results File: L1113W.RES

Quant Method : M:\LOKI\DATA\191113\L1113W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 14 09:28:54 2019
Response via : Initial Calibration
DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene (IS)	5.18	96	793920	25.00	ppb		0.00
64) Chlorobenzene-D5 (IS)	8.78	117	772864	25.00	ppb		0.00
79) 1,4-Dichlorobenzene-D (IS)	11.32	152	383680	25.00	ppb		0.00
System Monitoring Compounds							
39) Dibromofluoromethane(S)	4.22	111	74834	9.24	ppb		0.00
Spiked Amount 25.000			Recovery = 36.964%				
44) 1,2-DCA-D4(S)	4.69	65	86043	9.32	ppb		0.00
Spiked Amount 25.000			Recovery = 37.276%				
65) Toluene-D8(S)	7.17	98	263875	8.64	ppb		0.00
Spiked Amount 25.000			Recovery = 34.556%				
73) 4-Bromofluorobenzene(S)	10.08	95	95550	8.31	ppb		0.00
Spiked Amount 25.000			Recovery = 33.224%				
Target Compounds							Qvalue
3) Dichlorodifluoromethane	0.78	85	4521	1.24	ppb		93
4) Freon 114	0.85	85	3925	1.88	ppb		84
5) Chloromethane	0.88	50	7245	0.89	ppb		91
6) Vinyl chloride	0.94	62	5011	1.17	ppb	#	79
8) Bromomethane	1.13	94	4486	1.22	ppb		93
9) Chloroethane	1.19	64	4092	0.63	ppb		86
10) Dichlorofluoromethane	1.31	67	7378	1.04	ppb		95
11) Trichlorofluoromethane	1.35	101	6152	1.05	ppb		96
13) Acrolein	1.62	56	38102	51.84	ppb		92
14) Acetone	1.75	43	3037	0.32	ppb	#	81
15) Freon-113	1.71	101	3421	1.29	ppb		86
16) 1,1-DCE	1.69	61	5437	1.03	ppb		92
17) t-Butanol	2.26	59	9123	55.45	ppb	#	89
19) Acetonitrile	1.97	41	21342	57.06	ppb	#	82
20) Methyl Acetate	2.00	43	3960	1.59	ppb		85
21) Iodomethane	1.79	142	2621	3.37	ppb		96
22) Acrylonitrile	2.30	53	2043	1.11	ppb		93
23) Methylene chloride	2.07	84	13377	0.94	ppb		91
24) Carbon disulfide	1.83	76	7958	1.08	ppb		95
25) Methyl t-butyl ether (MtBE	2.34	73	10573	1.10	ppb		96
26) Trans-1,2-DCE	2.32	61	5446	1.04	ppb		91
27) Diisopropyl Ether	2.89	45	9951	1.55	ppb		95
29) 1,1-DCA	2.74	63	7455	1.07	ppb		93
30) Vinyl Acetate	2.89	45	9951	1.55	ppb		95
31) Ethyl tert Butyl Ether	3.35	59	7172	0.98	ppb		94
32) MEK (2-Butanone)	3.56	43	713	1.39	ppb	#	51
33) Cis-1,2-DCE	3.46	61	6246	1.07	ppb		86
34) 2,2-Dichloropropane	3.45	77	5825	1.08	ppb		91
37) Chloroform	3.98	83	7418	1.06	ppb		97
38) Bromochloromethane	3.80	130	2694	0.92	ppb		95
40) 1,1,1-TCA	4.21	97	5525	0.98	ppb		82
41) Cyclohexane	4.28	56	4805	2.31	ppb		87
42) 1,1-Dichloropropene	4.47	75	4639	1.05	ppb		93
43) 2,2,4-Trimethylpentane	4.95	57	8500	2.30	ppb		91
45) Carbon Tetrachloride	4.45	117	4850	1.02	ppb		99
46) Tert Amyl Methyl Ether	5.02	73	6152	2.13	ppb		97
48) 1,2-DCA	4.80	62	5127	0.99	ppb	#	91
49) Benzene	4.75	78	15042	1.00	ppb		99
50) TCE	5.67	130	5255	1.25	ppb	#	80

(#) = qualifier out of range (m) = manual integration

Data File : M:\LOKI\DATA\191113\1113L09.D Vial: 5
Acq On : 13 Nov 19 18:54 Operator:
Sample : 1.0ug/L VOC STD 11/13/19 Inst : Loki
Misc : IS&S:10/7/19, 10/23/19 Multiplr: 1.00

Quant Time: Nov 14 9:29 2019 Quant Results File: L1113W.RES

Quant Method : M:\LOKI\DATA\191113\L1113W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 14 09:28:54 2019
Response via : Initial Calibration
DataAcq Meth : L8260

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
51)	2-Pentanone	5.99	43	102064	47.40	ppb		99
52)	1,2-Dichloropropane	5.93	63	4344	1.01	ppb		96
53)	Bromodichloromethane	6.32	83	5397	0.99	ppb		98
54)	Methyl Cyclohexane	5.89	83	4488	1.00	ppb	#	51
55)	Dibromomethane	6.08	174	3049	1.29	ppb		87
57)	MIBK (methyl isobutyl ket	7.11	43	4620	1.26	ppb	#	79
58)	1-Bromo-2-chloroethane	6.65	63	5715	1.38	ppb		92
59)	Cis-1,3-Dichloropropene	6.87	75	5280	0.93	ppb		100
60)	Toluene	7.24	91	15150	0.95	ppb		100
61)	Trans-1,3-Dichloropropene	7.54	75	4426	1.51	ppb		100
62)	1,1,2-TCA	7.73	97	3861	1.01	ppb		89
63)	2-Hexanone	8.08	43	1591	0.89	ppb	#	74
66)	1,2-EDB	8.24	107	4038	1.04	ppb		81
67)	Tetrachloroethene	7.86	166	4636	1.01	ppb		93
68)	1-Chlorohexane	8.85	91	3893	2.15	ppb	#	82
69)	1,1,1,2-Tetrachloroethane	8.92	131	3930	0.91	ppb		77
70)	m&p-Xylene	9.10	91	22637	3.21	ppb		92
71)	o-Xylene	9.52	91	12482	1.77	ppb		98
72)	Styrene	9.54	104	8126	1.75	ppb		97
74)	1,3-Dichloropropane	7.90	76	6411	0.96	ppb		97
75)	Dibromochloromethane	8.14	129	4353	0.98	ppb		97
76)	Chlorobenzene	8.81	112	11303	0.98	ppb		93
77)	Ethylbenzene	8.96	91	15153	0.89	ppb		98
78)	Bromoform	9.70	173	2822	0.91	ppb		90
80)	Isopropylbenzene	9.94	105	8352	0.97	ppb		90
81)	1,1,2,2-Tetrachloroethane	10.27	83	4853	1.01	ppb		93
82)	1,2,3-Trichloropropane	10.29	110	1471	0.98	ppb	#	53
83)	t-1,4-Dichloro-2-Butene	10.33	53	610	0.98	ppb	#	26
84)	Bromobenzene	10.21	156	4104	0.91	ppb		99
85)	n-Propylbenzene	10.38	91	15480	1.59	ppb		99
86)	4-Ethyltoluene	10.52	105	11734	1.68	ppb		91
87)	2-Chlorotoluene	10.44	91	5870	1.31	ppb		99
88)	1,3,5-Trimethylbenzene	10.59	105	10063	1.25	ppb		89
89)	4-Chlorotoluene	10.57	91	6314	1.13	ppb		98
90)	Tert-Butylbenzene	10.93	119	10395	1.35	ppb		96
91)	1,2,4-Trimethylbenzene	10.98	105	9457	1.52	ppb	#	75
92)	Sec-Butylbenzene	11.17	105	12582	1.60	ppb		94
93)	p-Isopropyltoluene	11.34	119	12641	1.37	ppb		97
94)	Benzyl Chloride	11.50	91	4992	1.08	ppb		89
95)	1,3-DCB	11.25	146	8025	0.98	ppb		98
96)	1,4-DCB	11.34	146	9266	1.04	ppb		91
97)	n-Butylbenzene	11.78	91	10346	2.01	ppb		89
98)	1,2-DCB	11.73	146	8000	0.98	ppb		89
99)	Hexachloroethane	12.01	117	2926	1.06	ppb		90
100)	1,2-Dibromo-3-chloropropan	12.57	157	688	1.36	ppb	#	84
101)	1,2,4-Trichlorobenzene	13.47	180	4449	2.23	ppb		94
102)	Hexachlorobutadiene	13.68	225	1306	0.91	ppb	#	84
103)	Naphthalene	13.72	128	6408	2.97	ppb		98
104)	1,2,3-Trichlorobenzene	13.98	182	2385	1.85	ppb		89

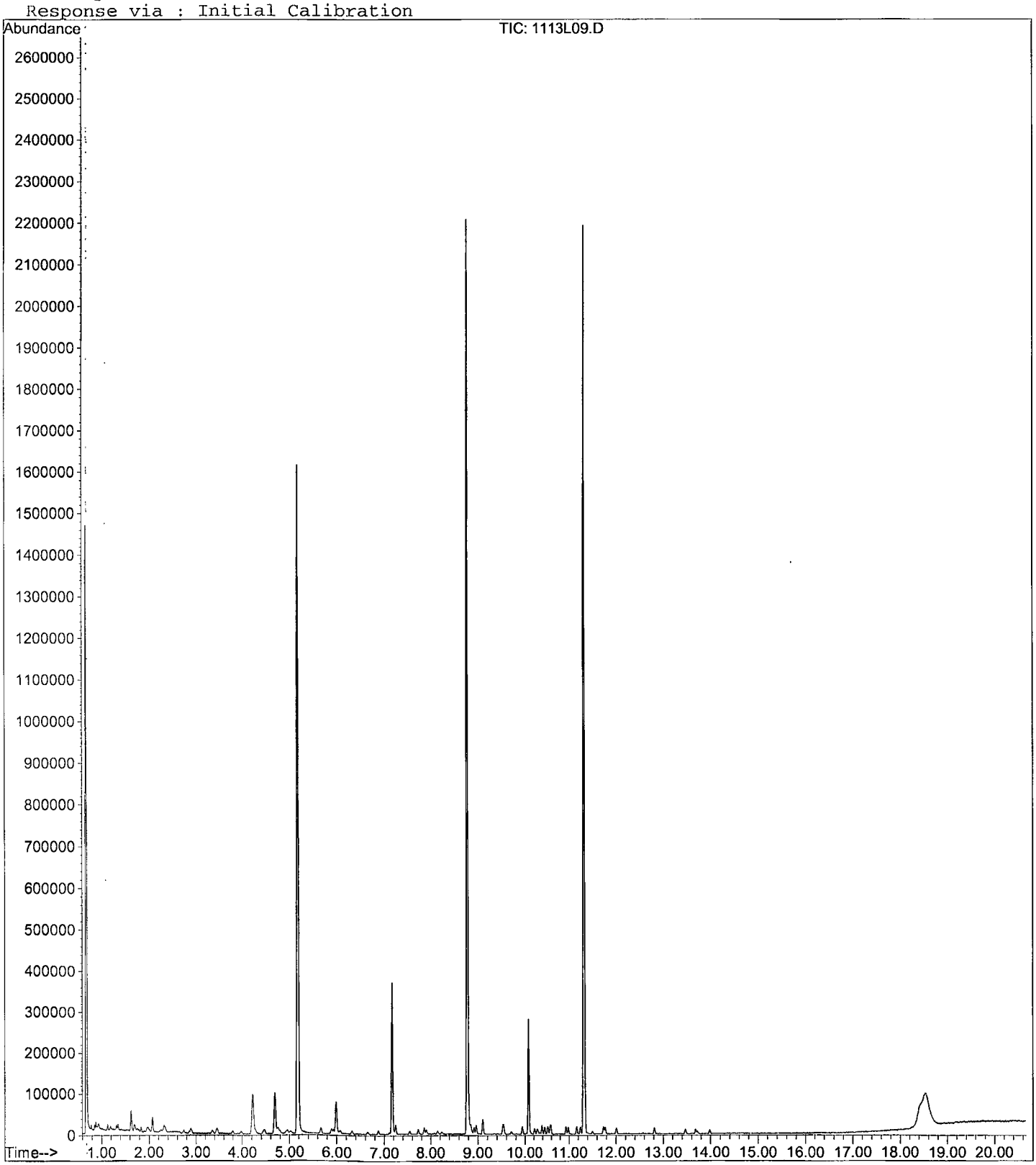
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LOKI\DATA\191113\1113L09.D Vial: 5
Acq On : 13 Nov 19 18:54 Operator:
Sample : 1.0ug/L VOC STD 11/13/19 Inst : Loki
Misc : IS&S:10/7/19, 10/23/19 Multiplr: 1.00

Quant Time: Nov 14 9:29 2019 Quant Results File: L1113W.RES

Method : M:\LOKI\DATA\191113\L1113W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 14 09:28:54 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LOKI\DATA\191113\1113L10.D Vial: 6
Acq On : 13 Nov 19 19:23 Operator:
Sample : 2.0ug/L VOC STD 11/13/19 Inst : Loki
Misc : IS&S:10/7/19, 10/23/19 Multiplr: 1.00

Quant Time: Nov 14 9:29 2019 Quant Results File: L1113W.RES

Quant Method : M:\LOKI\DATA\191113\L1113W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 14 09:28:54 2019
Response via : Initial Calibration
DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene (IS)	5.18	96	803648	25.00	ppb		0.00
64) Chlorobenzene-D5 (IS)	8.78	117	755520	25.00	ppb		0.00
79) 1,4-Dichlorobenzene-D (IS)	11.32	152	385984	25.00	ppb		0.00
System Monitoring Compounds							
39) Dibromofluoromethane(S)	4.22	111	73656	8.99	ppb		0.00
Spiked Amount 25.000			Recovery = 35.944%				
44) 1,2-DCA-D4(S)	4.69	65	85301	9.13	ppb		0.00
Spiked Amount 25.000			Recovery = 36.508%				
65) Toluene-D8(S)	7.17	98	274091	9.18	ppb		0.00
Spiked Amount 25.000			Recovery = 36.716%				
73) 4-Bromofluorobenzene(S)	10.08	95	100746	8.96	ppb		0.00
Spiked Amount 25.000			Recovery = 35.836%				
Target Compounds							Qvalue
3) Dichlorodifluoromethane	0.78	85	7023	1.83	ppb		91
4) Freon 114	0.85	85	4805	2.14	ppb		86
5) Chloromethane	0.88	50	8200	1.09	ppb		98
6) Vinyl chloride	0.94	62	7248	1.67	ppb		91
8) Bromomethane	1.13	94	6675	1.80	ppb		92
9) Chloroethane	1.19	64	5094	0.99	ppb		97
10) Dichlorofluoromethane	1.31	67	10585	1.48	ppb		97
11) Trichlorofluoromethane	1.35	101	9759	1.65	ppb		98
13) Acrolein	1.63	56	53899	72.45	ppb		98
14) Acetone	1.75	43	3200	0.62	ppb		97
15) Freon-113	1.71	101	4879	1.71	ppb		95
16) 1,1-DCE	1.69	61	8370	1.57	ppb		97
17) t-Butanol	2.27	59	13575	74.96	ppb	#	85
19) Acetonitrile	1.97	41	27888	73.66	ppb		100
20) Methyl Acetate	2.01	43	4025	1.60	ppb		98
21) Iodomethane	1.79	142	3707	3.59	ppb		94
22) Acrylonitrile	2.29	53	1943	1.03	ppb	#	78
23) Methylene chloride	2.07	84	15838	1.48	ppb		99
24) Carbon disulfide	1.83	76	12458	1.66	ppb		95
25) Methyl t-butyl ether (MtBE	2.35	73	14981	1.54	ppb		93
26) Trans-1,2-DCE	2.31	61	8101	1.53	ppb		91
27) Diisopropyl Ether	2.89	45	15660	2.01	ppb		97
29) 1,1-DCA	2.73	63	10593	1.50	ppb		91
30) Vinyl Acetate	2.89	45	15660	2.01	ppb		97
31) Ethyl tert Butyl Ether	3.35	59	10637	1.44	ppb		93
32) MEK (2-Butanone)	3.55	43	1134	2.18	ppb		94
33) Cis-1,2-DCE	3.46	61	8662	1.46	ppb		93
34) 2,2-Dichloropropane	3.44	77	8178	1.50	ppb		99
37) Chloroform	3.98	83	10513	1.48	ppb		91
38) Bromochloromethane	3.80	130	4606	1.56	ppb		95
40) 1,1,1-TCA	4.20	97	9002	1.57	ppb		87
41) Cyclohexane	4.28	56	6311	2.58	ppb		87
42) 1,1-Dichloropropene	4.47	75	5691	1.28	ppb		100
43) 2,2,4-Trimethylpentane	4.96	57	12243	2.64	ppb		96
45) Carbon Tetrachloride	4.45	117	7038	1.46	ppb		98
46) Tert Amyl Methyl Ether	5.03	73	9016	2.50	ppb		95
48) 1,2-DCA	4.80	62	8474	1.62	ppb		98
49) Benzene	4.76	78	21858	1.44	ppb		94
50) TCE	5.67	130	7703	1.79	ppb		92

(#) = qualifier out of range (m) = manual integration

Data File : M:\LOKI\DATA\191113\1113L10.D Vial: 6
Acq On : 13 Nov 19 19:23 Operator:
Sample : 2.0ug/L VOC STD 11/13/19 Inst : Loki
Misc : IS&S:10/7/19, 10/23/19 Multiplr: 1.00

Quant Time: Nov 14 9:29 2019 Quant Results File: L1113W.RES

Quant Method : M:\LOKI\DATA\191113\L1113W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 14 09:28:54 2019
Response via : Initial Calibration
DataAcq Meth : L8260

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
51)	2-Pentanone	5.99	43	150950	69.26	ppb		97
52)	1,2-Dichloropropane	5.94	63	6860	1.58	ppb		92
53)	Bromodichloromethane	6.32	83	7707	1.40	ppb	#	75
54)	Methyl Cyclohexane	5.89	83	6994	1.54	ppb		94
55)	Dibromomethane	6.08	174	3709	1.48	ppb		89
57)	MIBK (methyl isobutyl ket	7.11	43	7322	1.98	ppb		97
58)	1-Bromo-2-chloroethane	6.65	63	8708	1.84	ppb		98
59)	Cis-1,3-Dichloropropene	6.87	75	8234	1.43	ppb		91
60)	Toluene	7.24	91	23510	1.46	ppb		87
61)	Trans-1,3-Dichloropropene	7.54	75	7992	2.05	ppb		91
62)	1,1,2-TCA	7.73	97	5863	1.52	ppb		91
63)	2-Hexanone	8.07	43	3029	1.67	ppb		94
66)	1,2-EDB	8.24	107	5222	1.38	ppb		97
67)	Tetrachloroethene	7.86	166	7598	1.69	ppb		97
68)	1-Chlorohexane	8.85	91	5991	2.57	ppb		95
69)	1,1,1,2-Tetrachloroethane	8.92	131	6766	1.60	ppb		81
70)	m&p-Xylene	9.10	91	35040	4.05	ppb		96
71)	o-Xylene	9.52	91	18387	2.16	ppb		96
72)	Styrene	9.54	104	14881	2.28	ppb		88
74)	1,3-Dichloropropane	7.90	76	9387	1.44	ppb		96
75)	Dibromochloromethane	8.14	129	6783	1.56	ppb		98
76)	Chlorobenzene	8.81	112	16726	1.48	ppb		85
77)	Ethylbenzene	8.96	91	24072	1.45	ppb		93
78)	Bromoform	9.70	173	4604	1.52	ppb		99
80)	Isopropylbenzene	9.94	105	12034	1.39	ppb		97
81)	1,1,2,2-Tetrachloroethane	10.26	83	7245	1.49	ppb		100
82)	1,2,3-Trichloropropane	10.29	110	2312	1.53	ppb	#	76
83)	t-1,4-Dichloro-2-Butene	10.34	53	1029	1.42	ppb	#	68
84)	Bromobenzene	10.22	156	7026	1.56	ppb		99
85)	n-Propylbenzene	10.38	91	24137	2.01	ppb		95
86)	4-Ethyltoluene	10.52	105	17845	2.03	ppb		95
87)	2-Chlorotoluene	10.44	91	8800	1.69	ppb		99
88)	1,3,5-Trimethylbenzene	10.59	105	15942	1.65	ppb		89
89)	4-Chlorotoluene	10.57	91	9097	1.48	ppb		99
90)	Tert-Butylbenzene	10.93	119	14482	1.68	ppb		94
91)	1,2,4-Trimethylbenzene	10.98	105	15050	1.90	ppb		97
92)	Sec-Butylbenzene	11.17	105	18808	1.93	ppb		96
93)	p-Isopropyltoluene	11.34	119	19891	1.81	ppb		94
94)	Benzyl Chloride	11.50	91	7308	1.57	ppb		86
95)	1,3-DCB	11.25	146	12326	1.49	ppb		98
96)	1,4-DCB	11.34	146	13974	1.56	ppb	#	89
97)	n-Butylbenzene	11.77	91	14503	2.29	ppb		82
98)	1,2-DCB	11.73	146	12026	1.46	ppb		91
99)	Hexachloroethane	12.01	117	3910	1.41	ppb		86
100)	1,2-Dibromo-3-chloropropan	12.58	157	1291	1.97	ppb		93
101)	1,2,4-Trichlorobenzene	13.46	180	6486	2.57	ppb		99
102)	Hexachlorobutadiene	13.68	225	2158	1.49	ppb		89
103)	Naphthalene	13.72	128	9634	3.20	ppb	#	90
104)	1,2,3-Trichlorobenzene	13.98	182	3400	2.18	ppb	#	79

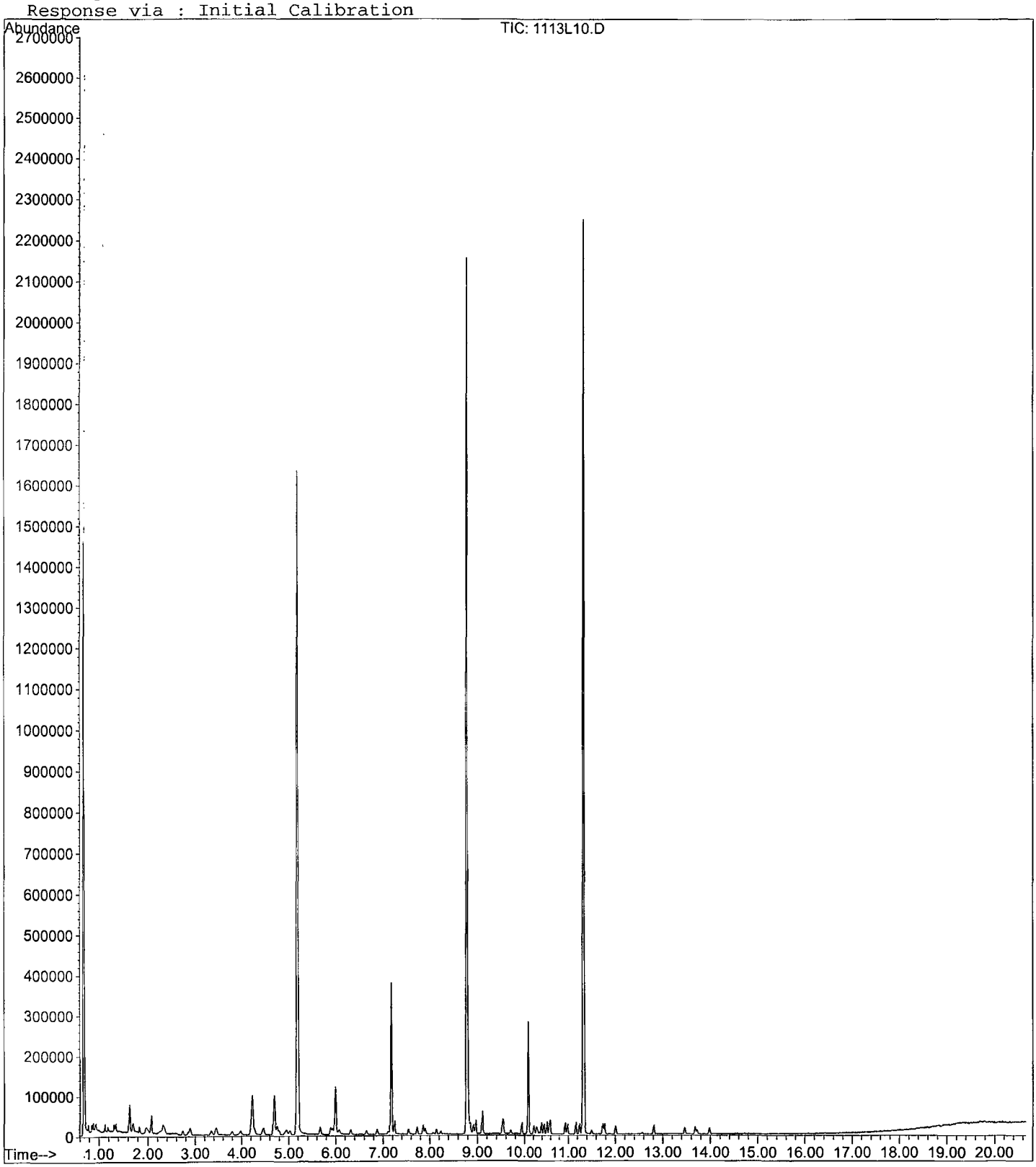
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LOKI\DATA\191113\1113L10.D Vial: 6
Acq On : 13 Nov 19 19:23 Operator:
Sample : 2.0ug/L VOC STD 11/13/19 Inst : Loki
Misc : IS&S:10/7/19, 10/23/19 Multiplr: 1.00

Quant Time: Nov 14 9:29 2019 Quant Results File: L1113W.RES

Method : M:\LOKI\DATA\191113\L1113W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 14 09:28:54 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LOKI\DATA\191113\1113L11.D Vial: 7
Acq On : 13 Nov 19 19:51 Operator:
Sample : 5.0ug/L VOC STD 11/13/19 Inst : Loki
Misc : IS&S:10/7/19, 10/23/19 Multiplr: 1.00

Quant Time: Nov 14 9:29 2019 Quant Results File: L1113W.RES

Quant Method : M:\LOKI\DATA\191113\L1113W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 14 09:28:54 2019
Response via : Initial Calibration
DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	5.18	96	834560	25.00	ppb	0.00
64) Chlorobenzene-D5 (IS)	8.78	117	783552	25.00	ppb	0.00
79) 1,4-Dichlorobenzene-D (IS)	11.32	152	427200	25.00	ppb	0.00
System Monitoring Compounds						
39) Dibromofluoromethane(S)	4.22	111	214074	25.15	ppb	0.00
Spiked Amount 25.000			Recovery =	100.596%		
44) 1,2-DCA-D4(S)	4.69	65	237593	24.48	ppb	0.00
Spiked Amount 25.000			Recovery =	97.916%		
65) Toluene-D8(S)	7.17	98	778741	25.15	ppb	0.00
Spiked Amount 25.000			Recovery =	100.584%		
73) 4-Bromofluorobenzene(S)	10.08	95	293164	25.14	ppb	0.00
Spiked Amount 25.000			Recovery =	100.552%		
Target Compounds						Qvalue
3) Dichlorodifluoromethane	0.78	85	17137	4.13	ppb	94
4) Freon 114	0.85	85	12420	4.43	ppb	98
5) Chloromethane	0.88	50	24705	4.78	ppb	99
6) Vinyl chloride	0.94	62	20997	4.66	ppb	98
8) Bromomethane	1.12	94	19042	4.93	ppb	94
9) Chloroethane	1.19	64	15354	4.65	ppb	92
10) Dichlorofluoromethane	1.31	67	36068	4.85	ppb	96
11) Trichlorofluoromethane	1.35	101	27995	4.55	ppb	96
13) Acrolein	1.63	56	74829	96.86	ppb	97
14) Acetone	1.74	43	5758	6.25	ppb	97
15) Freon-113	1.71	101	14967	4.53	ppb	90
16) 1,1-DCE	1.69	61	26859	4.85	ppb	95
17) t-Butanol	2.25	59	20209	97.19	ppb	92
19) Acetonitrile	1.97	41	41112	104.56	ppb	99
20) Methyl Acetate	2.01	43	14509	5.14	ppb	100
21) Iodomethane	1.79	142	9386	4.69	ppb	86
22) Acrylonitrile	2.30	53	8550	4.95	ppb	93
23) Methylene chloride	2.07	84	31820	4.93	ppb	95
24) Carbon disulfide	1.83	76	36064	4.64	ppb	98
25) Methyl t-butyl ether (MtBE	2.35	73	46190	4.57	ppb	99
26) Trans-1,2-DCE	2.32	61	26802	4.87	ppb	99
27) Diisopropyl Ether	2.89	45	51262	4.78	ppb	100
29) 1,1-DCA	2.74	63	37480	5.10	ppb	97
30) Vinyl Acetate	2.89	45	51262	4.78	ppb	100
31) Ethyl tert Butyl Ether	3.35	59	33628	4.39	ppb	95
32) MEK (2-Butanone)	3.54	43	3063	5.66	ppb	99
33) Cis-1,2-DCE	3.46	61	29099	4.72	ppb	93
34) 2,2-Dichloropropane	3.45	77	27850	4.91	ppb	96
37) Chloroform	3.98	83	35256	4.78	ppb	100
38) Bromochloromethane	3.79	130	14376	4.68	ppb	93
40) 1,1,1-TCA	4.20	97	29695	4.99	ppb	94
41) Cyclohexane	4.27	56	19044	4.83	ppb	93
42) 1,1-Dichloropropene	4.47	75	22442	4.84	ppb	88
43) 2,2,4-Trimethylpentane	4.95	57	37933	4.90	ppb	98
45) Carbon Tetrachloride	4.45	117	24401	4.86	ppb	96
46) Tert Amyl Methyl Ether	5.02	73	27165	4.72	ppb	98
48) 1,2-DCA	4.80	62	26829	4.93	ppb	98
49) Benzene	4.75	78	75946	4.81	ppb	96
50) TCE	5.67	130	21621	4.74	ppb	96

(#) = qualifier out of range (m) = manual integration

Data File : M:\LOKI\DATA\191113\1113L11.D Vial: 7
Acq On : 13 Nov 19 19:51 Operator:
Sample : 5.0ug/L VOC STD 11/13/19 Inst : Loki
Misc : IS&S:10/7/19, 10/23/19 Multiplr: 1.00

Quant Time: Nov 14 9:29 2019 Quant Results File: L1113W.RES

Quant Method : M:\LOKI\DATA\191113\L1113W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 14 09:28:54 2019
Response via : Initial Calibration
DataAcq Meth : L8260

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
51)	2-Pentanone	5.99	43	225906	99.81	ppb		98
52)	1,2-Dichloropropane	5.93	63	21469	4.76	ppb		97
53)	Bromodichloromethane	6.32	83	28778	5.02	ppb		97
54)	Methyl Cyclohexane	5.89	83	20550	4.35	ppb		95
55)	Dibromomethane	6.07	174	14375	4.66	ppb		95
57)	MIBK (methyl isobutyl ket	7.11	43	21187	5.52	ppb		87
58)	1-Bromo-2-chloroethane	6.65	63	28072	4.74	ppb		95
59)	Cis-1,3-Dichloropropene	6.87	75	28883	4.84	ppb		93
60)	Toluene	7.24	91	82913	4.97	ppb		92
61)	Trans-1,3-Dichloropropene	7.54	75	28390	5.03	ppb		98
62)	1,1,2-TCA	7.73	97	20967	5.23	ppb		98
63)	2-Hexanone	8.07	43	11165	5.94	ppb	#	81
66)	1,2-EDB	8.23	107	18748	4.76	ppb		87
67)	Tetrachloroethene	7.86	166	22651	4.86	ppb		89
68)	1-Chlorohexane	8.85	91	19060	4.98	ppb		97
69)	1,1,1,2-Tetrachloroethane	8.92	131	20787	4.73	ppb		99
70)	m&p-Xylene	9.10	91	125491	9.59	ppb		98
71)	o-Xylene	9.52	91	62878	4.83	ppb		98
72)	Styrene	9.54	104	48985	4.73	ppb		100
74)	1,3-Dichloropropane	7.90	76	33489	4.96	ppb		97
75)	Dibromochloromethane	8.15	129	21748	4.82	ppb		90
76)	Chlorobenzene	8.81	112	60635	5.17	ppb		92
77)	Ethylbenzene	8.96	91	80996	4.72	ppb		100
78)	Bromoform	9.70	173	16303	5.18	ppb		92
80)	Isopropylbenzene	9.94	105	44840	4.69	ppb		93
81)	1,1,2,2-Tetrachloroethane	10.27	83	25933	4.83	ppb		99
82)	1,2,3-Trichloropropane	10.29	110	8224	4.93	ppb		91
83)	t-1,4-Dichloro-2-Butene	10.34	53	4482	4.56	ppb		94
84)	Bromobenzene	10.22	156	24530	4.91	ppb		91
85)	n-Propylbenzene	10.38	91	89785	4.80	ppb		94
86)	4-Ethyltoluene	10.52	105	67756	4.56	ppb		94
87)	2-Chlorotoluene	10.44	91	33741	4.59	ppb		94
88)	1,3,5-Trimethylbenzene	10.59	105	62970	4.47	ppb		97
89)	4-Chlorotoluene	10.57	91	37496	4.64	ppb		99
90)	Tert-Butylbenzene	10.93	119	53431	4.41	ppb		99
91)	1,2,4-Trimethylbenzene	10.98	105	57522	4.40	ppb		94
92)	Sec-Butylbenzene	11.17	105	75314	4.59	ppb		99
93)	p-Isopropyltoluene	11.34	119	73065	4.63	ppb		96
94)	Benzyl Chloride	11.50	91	25786	5.02	ppb		95
95)	1,3-DCB	11.25	146	45169	4.94	ppb		99
96)	1,4-DCB	11.35	146	47105	4.75	ppb		91
97)	n-Butylbenzene	11.77	91	55584	4.75	ppb		96
98)	1,2-DCB	11.73	146	45147	4.95	ppb		97
99)	Hexachloroethane	12.01	117	16108	5.25	ppb		91
100)	1,2-Dibromo-3-chloropropan	12.57	157	4671	4.95	ppb		90
101)	1,2,4-Trichlorobenzene	13.47	180	23263	4.96	ppb		96
102)	Hexachlorobutadiene	13.68	225	7641	4.76	ppb		88
103)	Naphthalene	13.72	128	40962	5.17	ppb		98
104)	1,2,3-Trichlorobenzene	13.98	182	12623	4.80	ppb		95

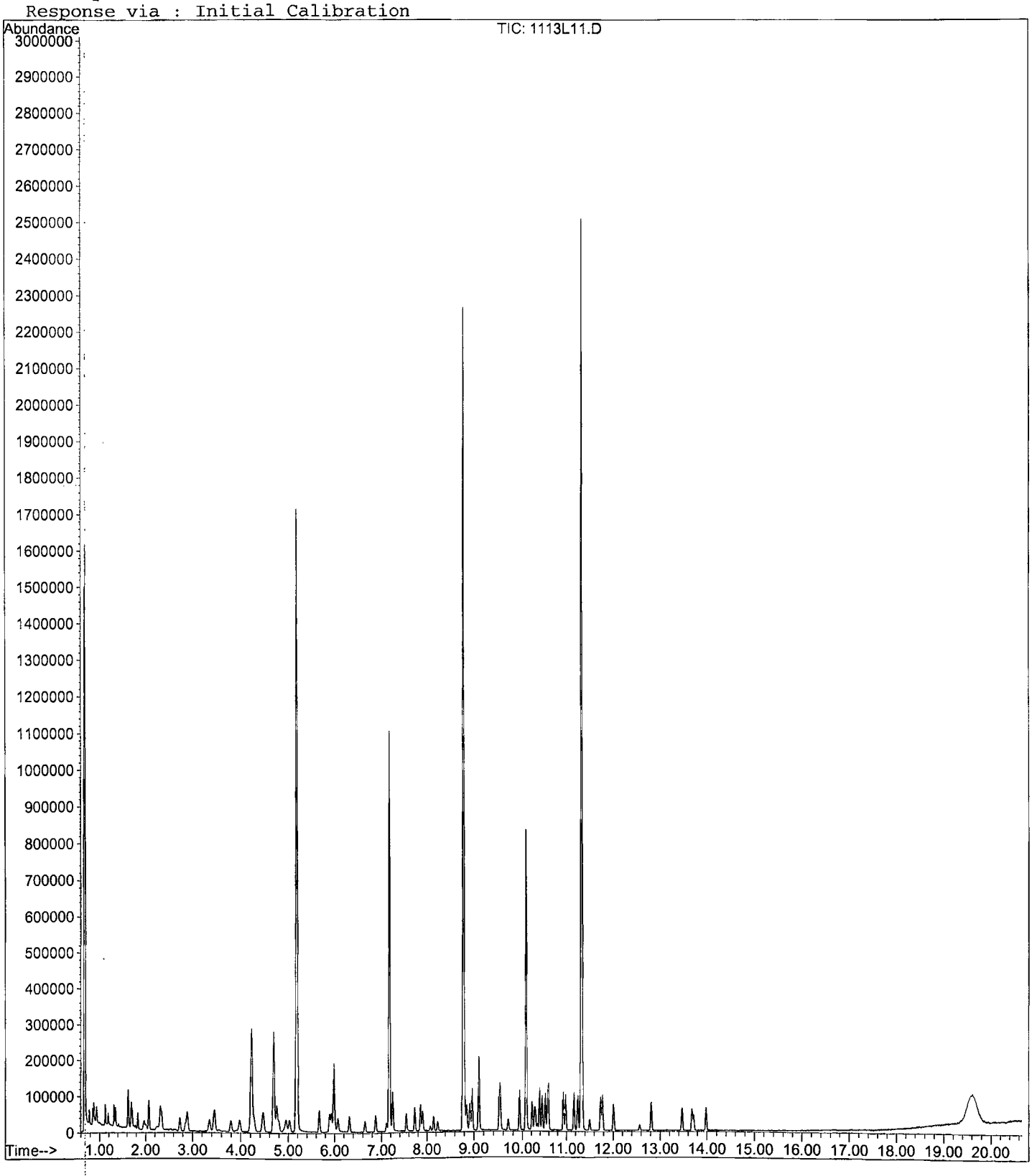
(#) = qualifier out of range (m) = manual integration
1113L11.D L1113W.M Wed Dec 04 17:05:56 2019

Quantitation Report

Data File : M:\LOKI\DATA\191113\1113L11.D Vial: 7
Acq On : 13 Nov 19 19:51 Operator:
Sample : 5.0ug/L VOC STD 11/13/19 Inst : Loki
Misc : IS&S:10/7/19, 10/23/19 Multiplr: 1.00

Quant Time: Nov 14 9:29 2019 Quant Results File: L1113W.RES

Method : M:\LOKI\DATA\191113\L1113W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 14 09:28:54 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LOKI\DATA\191113\1113L12.D Vial: 8
Acq On : 13 Nov 19 20:19 Operator:
Sample : 10ug/L VOC STD 11/13/19 Inst : Loki
Misc : IS&S:10/7/19, 10/23/19 Multiplr: 1.00

Quant Time: Nov 14 9:29 2019 Quant Results File: L1113W.RES

Quant Method : M:\LOKI\DATA\191113\L1113W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 14 09:28:54 2019
Response via : Initial Calibration
DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	5.18	96	844928	25.00	ppb	0.00
64) Chlorobenzene-D5 (IS)	8.78	117	817088	25.00	ppb	0.00
79) 1,4-Dichlorobenzene-D (IS)	11.32	152	426752	25.00	ppb	0.00
System Monitoring Compounds						
39) Dibromofluoromethane(S)	4.22	111	211274	24.52	ppb	0.00
Spiked Amount 25.000			Recovery =	98.060%		
44) 1,2-DCA-D4(S)	4.69	65	240043	24.43	ppb	0.00
Spiked Amount 25.000			Recovery =	97.712%		
65) Toluene-D8(S)	7.17	98	780454	24.17	ppb	0.00
Spiked Amount 25.000			Recovery =	96.668%		
73) 4-Bromofluorobenzene(S)	10.08	95	298907	24.58	ppb	0.00
Spiked Amount 25.000			Recovery =	98.312%		
Target Compounds						Qvalue
3) Dichlorodifluoromethane	0.78	85	46774	10.93	ppb	100
4) Freon 114	0.85	85	29522	9.57	ppb	100
5) Chloromethane	0.88	50	51728	10.78	ppb	100
6) Vinyl chloride	0.94	62	48840	10.71	ppb	100
8) Bromomethane	1.12	94	40772	10.43	ppb	100
9) Chloroethane	1.19	64	33202	11.00	ppb	100
10) Dichlorofluoromethane	1.31	67	79802	10.60	ppb	100
11) Trichlorofluoromethane	1.35	101	70017	11.25	ppb	100
13) Acrolein	1.62	56	97253	124.34	ppb	100
14) Acetone	1.74	43	7837	10.84	ppb	100
15) Freon-113	1.71	101	36040	10.40	ppb	100
16) 1,1-DCE	1.69	61	58012	10.35	ppb	100
17) t-Butanol	2.25	59	28861	122.70	ppb	100
19) Acetonitrile	1.96	41	48663	122.24	ppb	95
20) Methyl Acetate	2.01	43	28758	9.90	ppb	100
21) Iodomethane	1.79	142	31227	8.98	ppb	100
22) Acrylonitrile	2.29	53	18509	10.79	ppb	100
23) Methylene chloride	2.07	84	56903	10.40	ppb	100
24) Carbon disulfide	1.83	76	78072	9.92	ppb	100
25) Methyl t-butyl ether (MtBE	2.34	73	108534	10.60	ppb	100
26) Trans-1,2-DCE	2.32	61	60976	10.94	ppb	100
27) Diisopropyl Ether	2.89	45	119754	10.07	ppb	100
29) 1,1-DCA	2.74	63	78068	10.48	ppb	100
30) Vinyl Acetate	2.89	45	119754	10.07	ppb	100
31) Ethyl tert Butyl Ether	3.35	59	84255	10.86	ppb	100
32) MEK (2-Butanone)	3.54	43	5006	9.14	ppb	100
33) Cis-1,2-DCE	3.46	61	65223	10.45	ppb	100
34) 2,2-Dichloropropane	3.45	77	61499	10.72	ppb	100
37) Chloroform	3.98	83	80699	10.80	ppb	100
38) Bromochloromethane	3.79	130	31878	10.24	ppb	100
40) 1,1,1-TCA	4.20	97	65295	10.84	ppb	100
41) Cyclohexane	4.28	56	46084	9.60	ppb	100
42) 1,1-Dichloropropene	4.47	75	47993	10.23	ppb	100
43) 2,2,4-Trimethylpentane	4.95	57	90990	9.56	ppb	100
45) Carbon Tetrachloride	4.45	117	54085	10.65	ppb	100
46) Tert Amyl Methyl Ether	5.02	73	69693	9.91	ppb	100
48) 1,2-DCA	4.80	62	61098	11.08	ppb	100
49) Benzene	4.75	78	170022	10.63	ppb	100
50) TCE	5.67	130	45956	9.90	ppb	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\LOKI\DATA\191113\1113L12.D Vial: 8
Acq On : 13 Nov 19 20:19 Operator:
Sample : 10ug/L VOC STD 11/13/19 Inst : Loki
Misc : IS&S:10/7/19, 10/23/19 Multiplr: 1.00

Quant Time: Nov 14 9:29 2019 Quant Results File: L1113W.RES

Quant Method : M:\LOKI\DATA\191113\L1113W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 14 09:28:54 2019
Response via : Initial Calibration
DataAcq Meth : L8260

	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
51)	2-Pentanone	5.99	43	284315	124.08 ppb	100
52)	1,2-Dichloropropane	5.93	63	46815	10.26 ppb	100
53)	Bromodichloromethane	6.32	83	62631	10.79 ppb	100
54)	Methyl Cyclohexane	5.89	83	48087	10.06 ppb	100
55)	Dibromomethane	6.07	174	32798	10.09 ppb	100
57)	MIBK (methyl isobutyl ket	7.10	43	35975	9.25 ppb	100
58)	1-Bromo-2-chloroethane	6.65	63	66980	10.56 ppb	100
59)	Cis-1,3-Dichloropropene	6.87	75	66454	11.00 ppb	100
60)	Toluene	7.24	91	182622	10.81 ppb	100
61)	Trans-1,3-Dichloropropene	7.54	75	64021	10.21 ppb	100
62)	1,1,2-TCA	7.73	97	45332	11.17 ppb	100
63)	2-Hexanone	8.07	43	17534	9.21 ppb	100
66)	1,2-EDB	8.23	107	43641	10.63 ppb	100
67)	Tetrachloroethene	7.86	166	53726	11.05 ppb	100
68)	1-Chlorohexane	8.85	91	44288	9.37 ppb	100
69)	1,1,1,2-Tetrachloroethane	8.92	131	47949	10.47 ppb	100
70)	m&p-Xylene	9.10	91	289370	19.05 ppb	100
71)	o-Xylene	9.52	91	145835	9.52 ppb	100
72)	Styrene	9.54	104	117458	9.39 ppb	100
74)	1,3-Dichloropropane	7.90	76	73594	10.46 ppb	100
75)	Dibromochloromethane	8.14	129	50605	10.76 ppb	100
76)	Chlorobenzene	8.81	112	127095	10.39 ppb	100
77)	Ethylbenzene	8.96	91	190276	10.63 ppb	100
78)	Bromoform	9.70	173	35643	10.87 ppb	100
80)	Isopropylbenzene	9.94	105	102144	10.70 ppb	100
81)	1,1,2,2-Tetrachloroethane	10.27	83	60910	11.35 ppb	100
82)	1,2,3-Trichloropropane	10.29	110	18968	11.38 ppb	100
83)	t-1,4-Dichloro-2-Butene	10.34	53	10275	10.02 ppb	100
84)	Bromobenzene	10.21	156	54396	10.89 ppb	100
85)	n-Propylbenzene	10.38	91	207575	10.03 ppb	100
86)	4-Ethyltoluene	10.52	105	171625	10.04 ppb	100
87)	2-Chlorotoluene	10.45	91	82015	10.42 ppb	100
88)	1,3,5-Trimethylbenzene	10.59	105	150750	9.95 ppb	100
89)	4-Chlorotoluene	10.57	91	87080	10.38 ppb	100
90)	Tert-Butylbenzene	10.93	119	125965	9.73 ppb	100
91)	1,2,4-Trimethylbenzene	10.98	105	148773	9.99 ppb	100
92)	Sec-Butylbenzene	11.17	105	187835	10.09 ppb	100
93)	p-Isopropyltoluene	11.34	119	175754	10.33 ppb	100
94)	Benzyl Chloride	11.50	91	55087	10.73 ppb	100
95)	1,3-DCB	11.25	146	102238	11.19 ppb	100
96)	1,4-DCB	11.35	146	110239	11.13 ppb	100
97)	n-Butylbenzene	11.77	91	136015	9.76 ppb	100
98)	1,2-DCB	11.73	146	99831	10.97 ppb	100
99)	Hexachloroethane	12.01	117	33366	10.88 ppb	100
100)	1,2-Dibromo-3-chloropropan	12.57	157	10780	10.58 ppb	100
101)	1,2,4-Trichlorobenzene	13.47	180	55293	9.75 ppb	100
102)	Hexachlorobutadiene	13.68	225	17136	10.69 ppb	100
103)	Naphthalene	13.72	128	102235	9.16 ppb	100
104)	1,2,3-Trichlorobenzene	13.98	182	29664	9.84 ppb	100

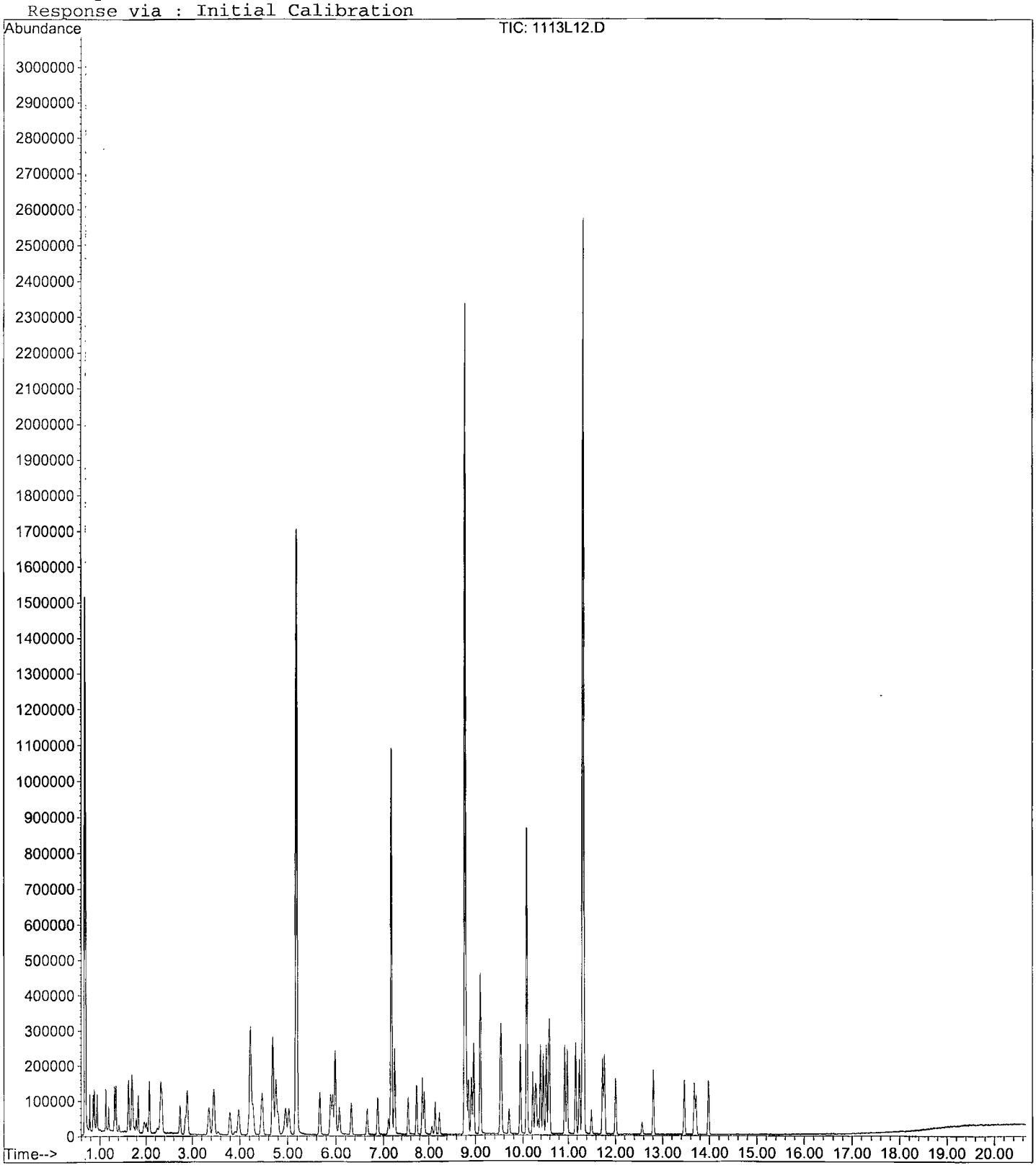
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LOKI\DATA\191113\1113L12.D Vial: 8
Acq On : 13 Nov 19 20:19 Operator:
Sample : 10ug/L VOC STD 11/13/19 Inst : Loki
Misc : IS&S:10/7/19, 10/23/19 Multiplr: 1.00

Quant Time: Nov 14 9:29 2019 Quant Results File: L1113W.RES

Method : M:\LOKI\DATA\191113\L1113W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 14 09:28:54 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LOKI\DATA\191113\1113L13.D Vial: 9
Acq On : 13 Nov 19 20:48 Operator:
Sample : 20ug/L VOC STD 11/13/19 Inst : Loki
Misc : IS&S:10/7/19, 10/23/19 Multiplr: 1.00

Quant Time: Nov 14 9:29 2019 Quant Results File: L1113W.RES

Quant Method : M:\LOKI\DATA\191113\L1113W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 14 09:28:54 2019
Response via : Initial Calibration
DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	5.18	96	844096	25.00	ppb	0.00
64) Chlorobenzene-D5 (IS)	8.78	117	798016	25.00	ppb	0.00
79) 1,4-Dichlorobenzene-D (IS)	11.32	152	442048	25.00	ppb	0.00
System Monitoring Compounds						
39) Dibromofluoromethane(S)	4.22	111	427447	49.65	ppb	0.00
Spiked Amount 25.000			Recovery = 198.592%			
44) 1,2-DCA-D4(S)	4.69	65	483752	49.28	ppb	0.00
Spiked Amount 25.000			Recovery = 197.112%			
65) Toluene-D8(S)	7.17	98	1632219	51.75	ppb	0.00
Spiked Amount 25.000			Recovery = 207.004%			
73) 4-Bromofluorobenzene(S)	10.08	95	624436	52.57	ppb	0.00
Spiked Amount 25.000			Recovery = 210.292%			
Target Compounds						Qvalue
3) Dichlorodifluoromethane	0.78	85	83582	19.44	ppb	98
4) Freon 114	0.85	85	62101	19.48	ppb	100
5) Chloromethane	0.88	50	94940	20.51	ppb	100
6) Vinyl chloride	0.94	62	87790	19.28	ppb	100
8) Bromomethane	1.12	94	72726	18.63	ppb	98
9) Chloroethane	1.19	64	60054	20.67	ppb	100
10) Dichlorofluoromethane	1.31	67	153410	20.41	ppb	95
11) Trichlorofluoromethane	1.35	101	125256	20.14	ppb	98
13) Acrolein	1.62	56	121204	155.12	ppb	95
14) Acetone	1.74	43	11576	19.40	ppb	98
15) Freon-113	1.71	101	69247	19.75	ppb	97
16) 1,1-DCE	1.69	61	115335	20.60	ppb	96
17) t-Butanol	2.25	59	40507	152.77	ppb	99
19) Acetonitrile	1.97	41	64052	161.06	ppb	96
20) Methyl Acetate	2.01	43	57528	19.66	ppb	96
21) Iodomethane	1.79	142	68502	16.34	ppb	99
22) Acrylonitrile	2.30	53	35430	20.83	ppb	96
23) Methylene chloride	2.07	84	100547	20.10	ppb	99
24) Carbon disulfide	1.83	76	146816	18.67	ppb	97
25) Methyl t-butyl ether (MtBE	2.34	73	207152	20.26	ppb	99
26) Trans-1,2-DCE	2.31	61	114916	20.63	ppb	98
27) Diisopropyl Ether	2.89	45	233795	18.99	ppb	100
29) 1,1-DCA	2.74	63	160645	21.59	ppb	97
30) Vinyl Acetate	2.89	45	233795	18.99	ppb	100
31) Ethyl tert Butyl Ether	3.35	59	158448	20.44	ppb	99
32) MEK (2-Butanone)	3.55	43	9954	18.19	ppb	94
33) Cis-1,2-DCE	3.46	61	129381	20.76	ppb	99
34) 2,2-Dichloropropane	3.45	77	112996	19.71	ppb	97
37) Chloroform	3.98	83	153672	20.59	ppb	96
38) Bromochloromethane	3.79	130	63134	20.30	ppb	92
40) 1,1,1-TCA	4.20	97	124591	20.70	ppb	99
41) Cyclohexane	4.27	56	95093	18.33	ppb	98
42) 1,1-Dichloropropene	4.47	75	98529	21.02	ppb	97
43) 2,2,4-Trimethylpentane	4.95	57	188839	18.24	ppb	99
45) Carbon Tetrachloride	4.46	117	104783	20.65	ppb	93
46) Tert Amyl Methyl Ether	5.02	73	137905	18.33	ppb	99
48) 1,2-DCA	4.80	62	117851	21.40	ppb	100
49) Benzene	4.75	78	330395	20.67	ppb	99
50) TCE	5.67	130	92521	19.90	ppb	98

(#) = qualifier out of range (m) = manual integration

Data File : M:\LOKI\DATA\191113\1113L13.D Vial: 9
Acq On : 13 Nov 19 20:48 Operator:
Sample : 20ug/L VOC STD 11/13/19 Inst : Loki
Misc : IS&S:10/7/19, 10/23/19 Multiplr: 1.00

Quant Time: Nov 14 9:29 2019 Quant Results File: L1113W.RES

Quant Method : M:\LOKI\DATA\191113\L1113W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 14 09:28:54 2019
Response via : Initial Calibration
DataAcq Meth : L8260

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
51)	2-Pentanone	5.99	43	369454	161.39	ppb	98
52)	1,2-Dichloropropane	5.93	63	94164	20.65	ppb	99
53)	Bromodichloromethane	6.32	83	122588	21.14	ppb	100
54)	Methyl Cyclohexane	5.89	83	97759	20.47	ppb	100
55)	Dibromomethane	6.07	174	66550	20.18	ppb	99
57)	MIBK (methyl isobutyl ket	7.11	43	76676	19.74	ppb	98
58)	1-Bromo-2-chloroethane	6.65	63	125214	19.35	ppb	98
59)	Cis-1,3-Dichloropropene	6.87	75	131250	21.74	ppb	95
60)	Toluene	7.24	91	368209	21.82	ppb	98
61)	Trans-1,3-Dichloropropene	7.54	75	126630	19.41	ppb	95
62)	1,1,2-TCA	7.73	97	90759	22.38	ppb	96
63)	2-Hexanone	8.07	43	41004	21.56	ppb	94
66)	1,2-EDB	8.23	107	85582	21.34	ppb	96
67)	Tetrachloroethene	7.86	166	98175	20.67	ppb	88
68)	1-Chlorohexane	8.85	91	89373	17.86	ppb	94
69)	1,1,1,2-Tetrachloroethane	8.92	131	93936	21.00	ppb	96
70)	m&p-Xylene	9.10	91	595860	38.19	ppb	98
71)	o-Xylene	9.52	91	302602	19.10	ppb	99
72)	Styrene	9.54	104	243785	18.65	ppb	99
74)	1,3-Dichloropropane	7.90	76	143102	20.83	ppb	98
75)	Dibromochloromethane	8.14	129	98004	21.33	ppb	95
76)	Chlorobenzene	8.81	112	249728	20.90	ppb	100
77)	Ethylbenzene	8.96	91	380568	21.77	ppb	99
78)	Bromoform	9.70	173	69790	21.79	ppb	99
80)	Isopropylbenzene	9.94	105	206912	20.92	ppb	99
81)	1,1,2,2-Tetrachloroethane	10.27	83	119387	21.49	ppb	100
82)	1,2,3-Trichloropropane	10.29	110	35959	20.82	ppb	89
83)	t-1,4-Dichloro-2-Butene	10.34	53	20820	19.27	ppb	99
84)	Bromobenzene	10.21	156	110010	21.26	ppb	97
85)	n-Propylbenzene	10.38	91	433135	19.36	ppb	96
86)	4-Ethyltoluene	10.52	105	350101	18.81	ppb	99
87)	2-Chlorotoluene	10.45	91	166202	19.89	ppb	96
88)	1,3,5-Trimethylbenzene	10.59	105	324978	20.12	ppb	97
89)	4-Chlorotoluene	10.57	91	176638	20.01	ppb	99
90)	Tert-Butylbenzene	10.93	119	297614	21.54	ppb	99
91)	1,2,4-Trimethylbenzene	10.98	105	312465	19.35	ppb	95
92)	Sec-Butylbenzene	11.17	105	388948	19.27	ppb	100
93)	p-Isopropyltoluene	11.34	119	358536	19.77	ppb	99
94)	Benzyl Chloride	11.50	91	104092	19.57	ppb	97
95)	1,3-DCB	11.25	146	203237	21.48	ppb	99
96)	1,4-DCB	11.35	146	212060	20.67	ppb	99
97)	n-Butylbenzene	11.77	91	289918	18.72	ppb	96
98)	1,2-DCB	11.73	146	201367	21.35	ppb	99
99)	Hexachloroethane	12.01	117	62688	19.73	ppb	97
100)	1,2-Dibromo-3-chloropropan	12.57	157	21639	19.88	ppb	97
101)	1,2,4-Trichlorobenzene	13.47	180	118737	18.60	ppb	99
102)	Hexachlorobutadiene	13.68	225	33368	20.09	ppb	96
103)	Naphthalene	13.72	128	235766	17.32	ppb	99
104)	1,2,3-Trichlorobenzene	13.98	182	63992	19.32	ppb	97

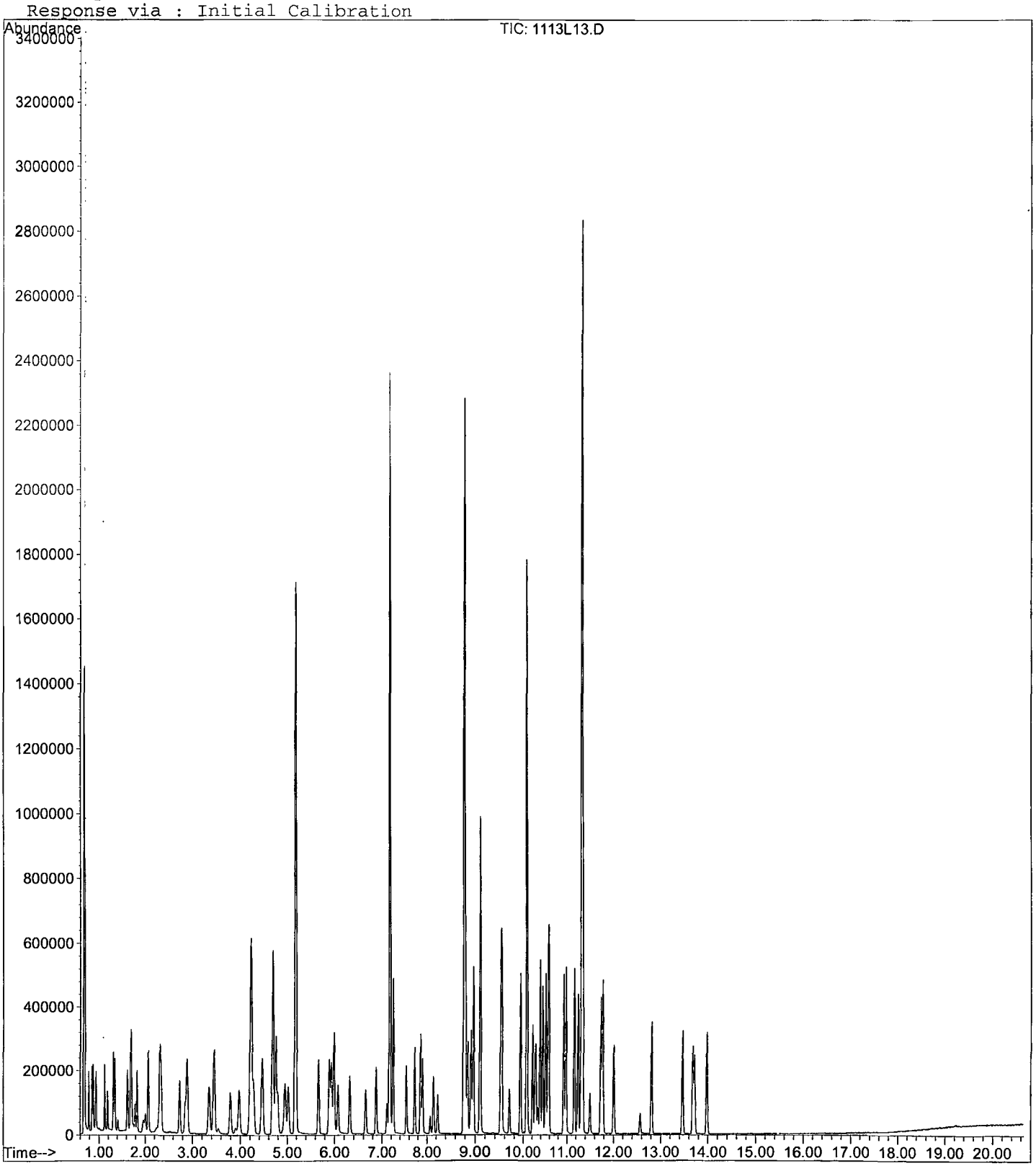
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LOKI\DATA\191113\1113L13.D Vial: 9
Acq On : 13 Nov 19 20:48 Operator:
Sample : 20ug/L VOC STD 11/13/19 Inst : Loki
Misc : IS&S:10/7/19, 10/23/19 Multiplr: 1.00

Quant Time: Nov 14 9:29 2019 Quant Results File: L1113W.RES

Method : M:\LOKI\DATA\191113\L1113W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 14 09:28:54 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LOKI\DATA\191113\1113L14.D Vial: 10
Acq On : 13 Nov 19 21:16 Operator:
Sample : 40ug/L VOC STD 11/13/19 Inst : Loki
Misc : IS&S:10/7/19, 10/23/19 Multiplr: 1.00

Quant Time: Nov 14 9:29 2019 Quant Results File: L1113W.RES

Quant Method : M:\LOKI\DATA\191113\L1113W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 14 09:28:54 2019
Response via : Initial Calibration
DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene (IS)	5.18	96	861440	25.00	ppb		0.00
64) Chlorobenzene-D5 (IS)	8.78	117	807616	25.00	ppb		0.00
79) 1,4-Dichlorobenzene-D (IS)	11.32	152	465536	25.00	ppb		0.00
System Monitoring Compounds							
39) Dibromofluoromethane(S)	4.22	111	434802	49.49	ppb		0.00
Spiked Amount 25.000			Recovery = 197.940%				
44) 1,2-DCA-D4(S)	4.69	65	492412	49.15	ppb		0.00
Spiked Amount 25.000			Recovery = 196.600%				
65) Toluene-D8(S)	7.17	98	1661500	52.05	ppb		0.00
Spiked Amount 25.000			Recovery = 208.212%				
73) 4-Bromofluorobenzene(S)	10.08	95	645541	53.70	ppb		0.00
Spiked Amount 25.000			Recovery = 214.816%				
Target Compounds							Qvalue
3) Dichlorodifluoromethane	0.78	85	178163	40.47	ppb		99
4) Freon 114	0.85	85	130899	39.59	ppb		99
5) Chloromethane	0.88	50	190202	41.08	ppb		97
6) Vinyl chloride	0.94	62	181055	38.96	ppb		96
8) Bromomethane	1.12	94	140632	35.30	ppb		100
9) Chloroethane	1.19	64	120931	41.70	ppb		99
10) Dichlorofluoromethane	1.31	67	325792	42.46	ppb		96
11) Trichlorofluoromethane	1.35	101	266495	41.98	ppb		98
13) Acrolein	1.62	56	137414	172.32	ppb	#	82
14) Acetone	1.74	43	20943	39.85	ppb		96
15) Freon-113	1.71	101	144491	40.09	ppb		99
16) 1,1-DCE	1.69	61	234465	41.03	ppb		96
17) t-Butanol	2.25	59	51050	174.23	ppb	#	90
19) Acetonitrile	1.96	41	66233	163.19	ppb		93
20) Methyl Acetate	2.01	43	117526	39.18	ppb		96
21) Iodomethane	1.79	142	171832	36.05	ppb		99
22) Acrylonitrile	2.29	53	67185	38.85	ppb		93
23) Methylene chloride	2.07	84	194451	40.07	ppb		100
24) Carbon disulfide	1.83	76	313600	39.08	ppb		98
25) Methyl t-butyl ether (MtBE	2.34	73	432915	41.49	ppb		98
26) Trans-1,2-DCE	2.32	61	232543	40.90	ppb		99
27) Diisopropyl Ether	2.89	45	505674	39.42	ppb		98
29) 1,1-DCA	2.73	63	309790	40.80	ppb		99
30) Vinyl Acetate	2.89	45	505674	39.42	ppb		98
31) Ethyl tert Butyl Ether	3.35	59	344056	43.48	ppb		99
32) MEK (2-Butanone)	3.54	43	20738	37.14	ppb		95
33) Cis-1,2-DCE	3.46	61	261507	41.11	ppb		97
34) 2,2-Dichloropropane	3.45	77	233875	39.97	ppb		95
37) Chloroform	3.98	83	314365	41.27	ppb		100
38) Bromochloromethane	3.80	130	130879	41.23	ppb		99
40) 1,1,1-TCA	4.20	97	260176	42.36	ppb		97
41) Cyclohexane	4.27	56	209056	37.88	ppb		96
42) 1,1-Dichloropropene	4.47	75	208556	43.60	ppb		100
43) 2,2,4-Trimethylpentane	4.95	57	416136	37.66	ppb		98
45) Carbon Tetrachloride	4.45	117	219380	42.36	ppb		99
46) Tert Amyl Methyl Ether	5.02	73	303856	38.04	ppb		98
48) 1,2-DCA	4.80	62	236577	42.09	ppb		98
49) Benzene	4.75	78	682129	41.82	ppb		96
50) TCE	5.67	130	190321	40.06	ppb		99

(#) = qualifier out of range (m) = manual integration

Data File : M:\LOKI\DATA\191113\1113L14.D Vial: 10
Acq On : 13 Nov 19 21:16 Operator:
Sample : 40ug/L VOC STD 11/13/19 Inst : Loki
Misc : IS&S:10/7/19, 10/23/19 Multiplr: 1.00

Quant Time: Nov 14 9:29 2019 Quant Results File: L1113W.RES

Quant Method : M:\LOKI\DATA\191113\L1113W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 14 09:28:54 2019
Response via : Initial Calibration
DataAcq Meth : L8260

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
51)	2-Pentanone	5.98	43	426946	182.75	ppb	99
52)	1,2-Dichloropropane	5.93	63	192932	41.47	ppb	95
53)	Bromodichloromethane	6.32	83	253077	42.76	ppb	99
54)	Methyl Cyclohexane	5.89	83	220209	45.18	ppb	100
55)	Dibromomethane	6.07	174	136420	40.20	ppb	98
57)	MIBK (methyl isobutyl ket	7.11	43	140553	35.46	ppb	97
58)	1-Bromo-2-chloroethane	6.65	63	263491	39.42	ppb	97
59)	Cis-1,3-Dichloropropene	6.87	75	272670	44.25	ppb	97
60)	Toluene	7.24	91	756877	43.94	ppb	99
61)	Trans-1,3-Dichloropropene	7.54	75	260492	38.29	ppb	99
62)	1,1,2-TCA	7.73	97	177497	42.88	ppb	97
63)	2-Hexanone	8.07	43	77400	39.88	ppb	97
66)	1,2-EDB	8.23	107	173691	42.79	ppb	94
67)	Tetrachloroethene	7.86	166	202586	42.16	ppb	94
68)	1-Chlorohexane	8.85	91	206069	38.89	ppb	93
69)	1,1,1,2-Tetrachloroethane	8.92	131	189650	41.90	ppb	100
70)	m&p-Xylene	9.10	91	1292056	79.78	ppb	98
71)	o-Xylene	9.52	91	645598	39.15	ppb	99
72)	Styrene	9.54	104	544889	39.81	ppb	98
74)	1,3-Dichloropropane	7.90	76	301060	43.30	ppb	97
75)	Dibromochloromethane	8.14	129	200197	43.06	ppb	95
76)	Chlorobenzene	8.81	112	509665	42.14	ppb	99
77)	Ethylbenzene	8.96	91	814740	46.04	ppb	99
78)	Bromoform	9.70	173	142639	44.00	ppb	98
80)	Isopropylbenzene	9.94	105	448320	43.05	ppb	99
81)	1,1,2,2-Tetrachloroethane	10.27	83	240653	41.12	ppb	98
82)	1,2,3-Trichloropropane	10.29	110	71695	39.42	ppb	92
83)	t-1,4-Dichloro-2-Butene	10.33	53	45031	39.21	ppb	99
84)	Bromobenzene	10.21	156	224898	41.28	ppb	96
85)	n-Propylbenzene	10.39	91	937474	38.93	ppb	95
86)	4-Ethyltoluene	10.52	105	800825	39.69	ppb	99
87)	2-Chlorotoluene	10.44	91	351475	39.41	ppb	92
88)	1,3,5-Trimethylbenzene	10.59	105	694222	40.25	ppb	99
89)	4-Chlorotoluene	10.57	91	377197	40.26	ppb	99
90)	Tert-Butylbenzene	10.93	119	567692	38.60	ppb	98
91)	1,2,4-Trimethylbenzene	10.98	105	695621	39.93	ppb	99
92)	Sec-Butylbenzene	11.17	105	855967	39.27	ppb	98
93)	p-Isopropyltoluene	11.34	119	761539	39.28	ppb	99
94)	Benzyl Chloride	11.50	91	219217	39.13	ppb	98
95)	1,3-DCB	11.25	146	420610	42.22	ppb	99
96)	1,4-DCB	11.35	146	437273	40.48	ppb	99
97)	n-Butylbenzene	11.77	91	650013	38.39	ppb	95
98)	1,2-DCB	11.73	146	413365	41.62	ppb	99
99)	Hexachloroethane	12.01	117	135397	40.47	ppb	96
100)	1,2-Dibromo-3-chloropropan	12.57	157	43824	37.62	ppb	95
101)	1,2,4-Trichlorobenzene	13.47	180	259677	37.02	ppb	96
102)	Hexachlorobutadiene	13.68	225	71400	40.82	ppb	92
103)	Naphthalene	13.72	128	555276	35.63	ppb	100
104)	1,2,3-Trichlorobenzene	13.98	182	136832	38.13	ppb	99

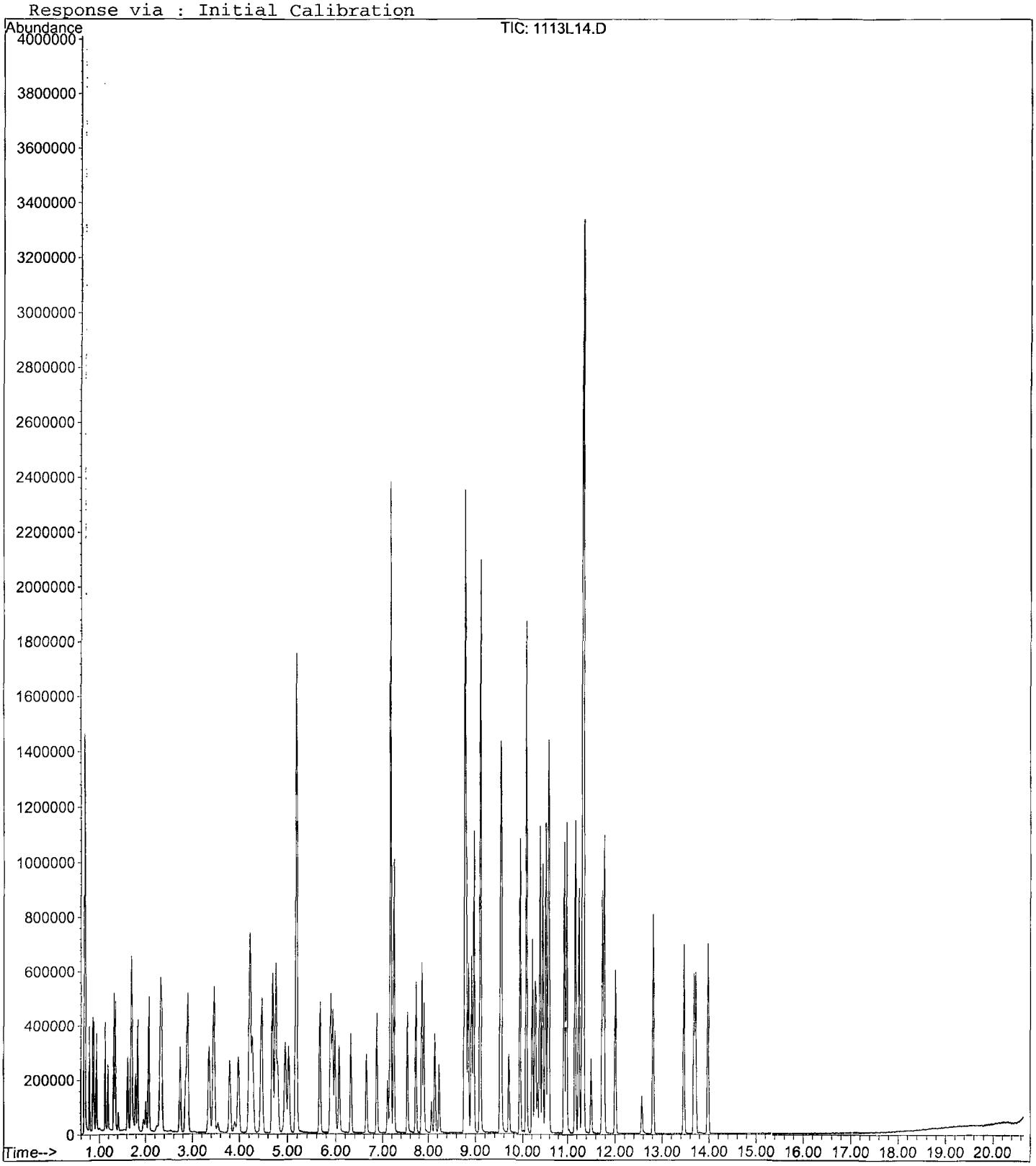
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LOKI\DATA\191113\1113L14.D Vial: 10
Acq On : 13 Nov 19 21:16 Operator:
Sample : 40ug/L VOC STD 11/13/19 Inst : Loki
Misc : IS&S:10/7/19, 10/23/19 Multiplr: 1.00

Quant Time: Nov 14 9:29 2019 Quant Results File: L1113W.RES

Method : M:\LOKI\DATA\191113\L1113W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 14 09:28:54 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LOKI\DATA\191113\1113L15.D Vial: 11
Acq On : 13 Nov 19 21:45 Operator:
Sample : 100ug/L VOC STD 11/13/19 Inst : Loki
Misc : IS&S:10/7/19, 10/23/19 Multiplr: 1.00

Quant Time: Nov 14 9:29 2019 Quant Results File: L1113W.RES

Quant Method : M:\LOKI\DATA\191113\L1113W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 14 09:28:54 2019
Response via : Initial Calibration
DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene (IS)	5.18	96	876864	25.00	ppb		0.00
64) Chlorobenzene-D5 (IS)	8.78	117	853696	25.00	ppb		0.00
79) 1,4-Dichlorobenzene-D (IS)	11.32	152	492352	25.00	ppb		0.00
System Monitoring Compounds							
39) Dibromofluoromethane(S)	4.22	111	848044	94.82	ppb		0.00
Spiked Amount 25.000			Recovery = 379.276%				
44) 1,2-DCA-D4(S)	4.69	65	964420	94.57	ppb		0.00
Spiked Amount 25.000			Recovery = 378.284%				
65) Toluene-D8(S)	7.17	98	3321531	98.44	ppb		0.00
Spiked Amount 25.000			Recovery = 393.772%				
73) 4-Bromofluorobenzene(S)	10.08	95	1297589	102.12	ppb		0.00
Spiked Amount 25.000			Recovery = 408.488%				
Target Compounds							Qvalue
3) Dichlorodifluoromethane	0.78	85	448343	99.86	ppb		99
4) Freon 114	0.85	85	340811	100.32	ppb		98
5) Chloromethane	0.88	50	463046	99.42	ppb		99
6) Vinyl chloride	0.94	62	454676	96.11	ppb		96
8) Bromomethane	1.13	94	336133	82.89	ppb		99
9) Chloroethane	1.19	64	288952	99.13	ppb		99
10) Dichlorofluoromethane	1.31	67	819792	104.97	ppb		97
11) Trichlorofluoromethane	1.35	101	659452	102.06	ppb		100
13) Acrolein	1.62	56	170422	209.95	ppb	#	55
14) Acetone	1.74	43	48672	100.06	ppb		96
15) Freon-113	1.71	101	373301	101.34	ppb		97
16) 1,1-DCE	1.69	61	609388	104.77	ppb		95
17) t-Butanol	2.32	59	84638	233.63	ppb	#	1
19) Acetonitrile	1.96	41	86821	210.16	ppb		93
20) Methyl Acetate	2.01	43	307306	100.40	ppb		98
21) Iodomethane	1.79	142	523888	102.36	ppb		97
22) Acrylonitrile	2.29	53	175762	100.12	ppb		96
23) Methylene chloride	2.07	84	478074	99.92	ppb		99
24) Carbon disulfide	1.83	76	780736	95.58	ppb		98
25) Methyl t-butyl ether (MtBE	2.34	73	1130469	106.43	ppb		99
26) Trans-1,2-DCE	2.32	61	596617	103.10	ppb		99
27) Diisopropyl Ether	2.89	45	1326219	100.43	ppb		98
29) 1,1-DCA	2.74	63	788221	101.98	ppb		98
30) Vinyl Acetate	2.89	45	1326219	100.43	ppb		98
31) Ethyl tert Butyl Ether	3.35	59	949191	117.85	ppb		98
32) MEK (2-Butanone)	3.54	43	56779	99.88	ppb		99
33) Cis-1,2-DCE	3.46	61	674979	104.25	ppb		98
34) 2,2-Dichloropropane	3.45	77	590774	99.19	ppb		96
37) Chloroform	3.97	83	802639	103.53	ppb		99
38) Bromochloromethane	3.79	130	329714	102.05	ppb		93
40) 1,1,1-TCA	4.20	97	659906	105.54	ppb		99
41) Cyclohexane	4.27	56	582130	101.20	ppb		97
42) 1,1-Dichloropropene	4.47	75	550545	113.08	ppb		100
43) 2,2,4-Trimethylpentane	4.95	57	1169156	101.30	ppb		97
45) Carbon Tetrachloride	4.45	117	561539	106.51	ppb		98
46) Tert Amyl Methyl Ether	5.02	73	840117	101.03	ppb		99
48) 1,2-DCA	4.80	62	599177	104.73	ppb		100
49) Benzene	4.75	78	1766618	106.40	ppb		98
50) TCE	5.67	130	484012	100.02	ppb		98

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\LOKI\DATA\191113\1113L15.D Vial: 11
Acq On : 13 Nov 19 21:45 Operator:
Sample : 100ug/L VOC STD 11/13/19 Inst : Loki
Misc : IS&S:10/7/19, 10/23/19 Multiplr: 1.00

Quant Time: Nov 14 9:29 2019 Quant Results File: L1113W.RES

Quant Method : M:\LOKI\DATA\191113\L1113W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 14 09:28:54 2019
Response via : Initial Calibration
DataAcq Meth : L8260

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
51)	2-Pentanone	5.99	43	534812	224.89	ppb	99
52)	1,2-Dichloropropane	5.93	63	495358	104.59	ppb	96
53)	Bromodichloromethane	6.32	83	647972	107.56	ppb	99
54)	Methyl Cyclohexane	5.89	83	624328	125.85	ppb	96
55)	Dibromomethane	6.07	174	346617	99.88	ppb	97
57)	MIBK (methyl isobutyl ket	7.11	43	382659	94.83	ppb	100
58)	1-Bromo-2-chloroethane	6.65	63	687520	100.32	ppb	100
59)	Cis-1,3-Dichloropropene	6.87	75	740598	118.08	ppb	98
60)	Toluene	7.24	91	1975664	112.68	ppb	98
61)	Trans-1,3-Dichloropropene	7.54	75	707196	100.77	ppb	100
62)	1,1,2-TCA	7.73	97	457736	108.64	ppb	98
63)	2-Hexanone	8.07	43	222690	112.72	ppb	100
66)	1,2-EDB	8.23	107	459095	107.00	ppb	90
67)	Tetrachloroethene	7.86	166	516028	101.58	ppb	95
68)	1-Chlorohexane	8.85	91	578249	100.91	ppb	89
69)	1,1,1,2-Tetrachloroethane	8.92	131	491910	102.82	ppb	100
70)	m&p-Xylene	9.10	91	3480318	200.53	ppb	100
71)	o-Xylene	9.52	91	1780731	100.55	ppb	99
72)	Styrene	9.54	104	1478603	100.40	ppb	98
74)	1,3-Dichloropropane	7.90	76	780350	106.18	ppb	98
75)	Dibromochloromethane	8.14	129	515995	104.98	ppb	95
76)	Chlorobenzene	8.81	112	1328574	103.93	ppb	99
77)	Ethylbenzene	8.96	91	2179337	116.52	ppb	98
78)	Bromoform	9.70	173	379497	110.74	ppb	99
80)	Isopropylbenzene	9.94	105	1318912	119.75	ppb	99
81)	1,1,2,2-Tetrachloroethane	10.27	83	627239	101.35	ppb	96
82)	1,2,3-Trichloropropane	10.29	110	188037	97.76	ppb	91
83)	t-1,4-Dichloro-2-Butene	10.34	53	124959	102.32	ppb	98
84)	Bromobenzene	10.21	156	590911	102.54	ppb	99
85)	n-Propylbenzene	10.39	91	2595078	100.55	ppb	96
86)	4-Ethyltoluene	10.52	105	2174795	100.37	ppb	99
87)	2-Chlorotoluene	10.44	91	953022	100.24	ppb	96
88)	1,3,5-Trimethylbenzene	10.59	105	1837362	99.91	ppb	98
89)	4-Chlorotoluene	10.57	91	994523	99.88	ppb	98
90)	Tert-Butylbenzene	10.93	119	1573213	100.31	ppb	98
91)	1,2,4-Trimethylbenzene	10.98	105	1870988	100.18	ppb	98
92)	Sec-Butylbenzene	11.17	105	2349180	100.44	ppb	100
93)	p-Isopropyltoluene	11.34	119	2076112	100.32	ppb	100
94)	Benzyl Chloride	11.50	91	638225	107.72	ppb	100
95)	1,3-DCB	11.25	146	1108103	105.17	ppb	100
96)	1,4-DCB	11.35	146	1130147	98.92	ppb	99
97)	n-Butylbenzene	11.77	91	1846264	100.92	ppb	96
98)	1,2-DCB	11.73	146	1090686	103.84	ppb	99
99)	Hexachloroethane	12.01	117	360022	101.74	ppb	97
100)	1,2-Dibromo-3-chloropropan	12.57	157	125694	100.91	ppb	100
101)	1,2,4-Trichlorobenzene	13.46	180	772881	101.47	ppb	98
102)	Hexachlorobutadiene	13.68	225	197632	106.84	ppb	92
103)	Naphthalene	13.72	128	1769221	102.31	ppb	100
104)	1,2,3-Trichlorobenzene	13.98	182	389760	100.89	ppb	100

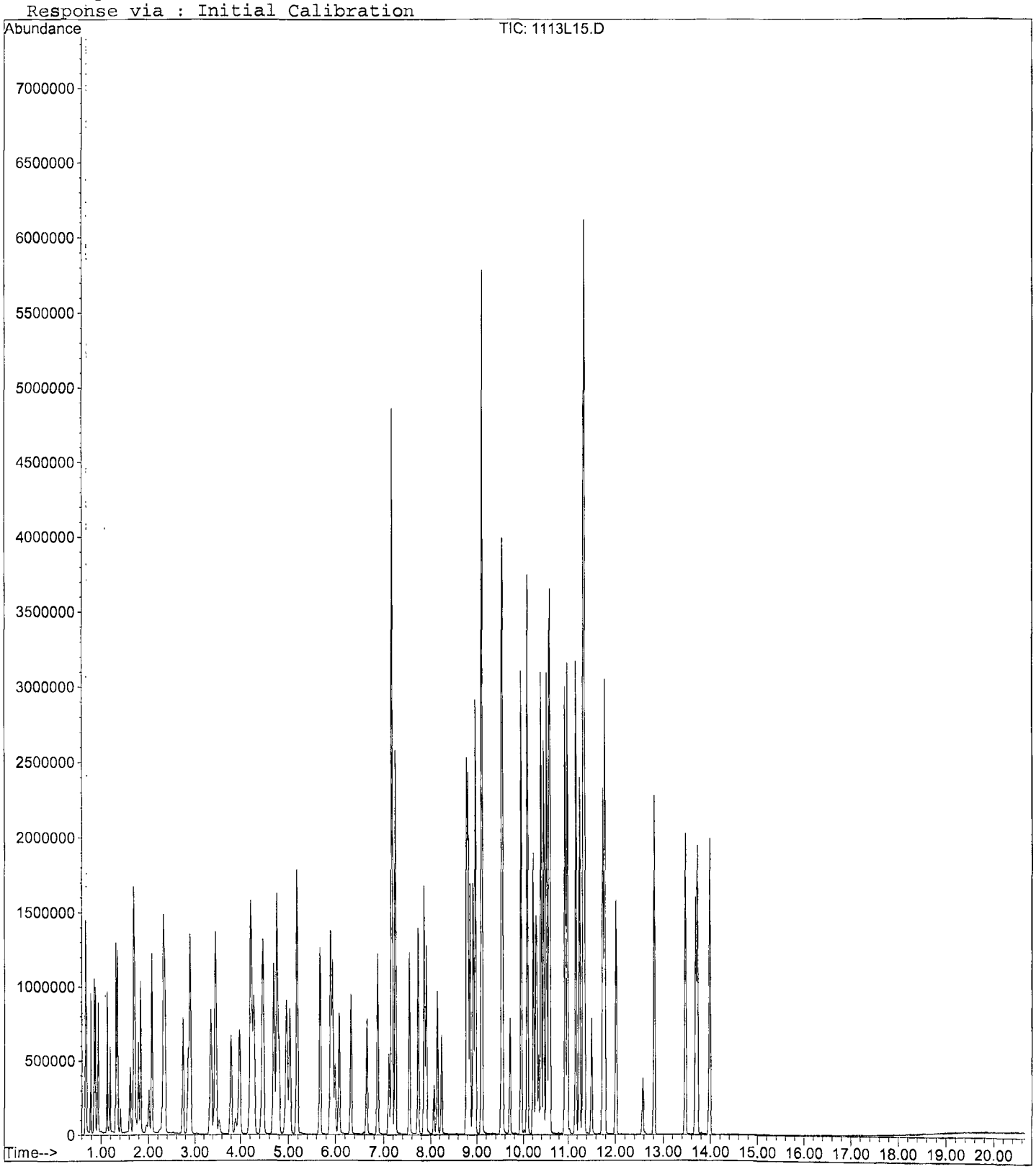
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LOKI\DATA\191113\1113L15.D Vial: 11
Acq On : 13 Nov 19 21:45 Operator:
Sample : 100ug/L VOC STD 11/13/19 Inst : Loki
Misc : IS&S:10/7/19, 10/23/19 Multiplr: 1.00

Quant Time: Nov 14 9:29 2019 Quant Results File: L1113W.RES

Method : M:\LOKI\DATA\191113\L1113W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 14 09:28:54 2019
Response via : Initial Calibration



VOLATILE ORGANIC ANALYSIS
VOLATILE ORGANIC COMPOUNDS

Form 7

Second Source Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Date Analyzed: 11/13/2019
Matrix: Instrument: Loki
Initial Cal. Date: 11/13/2019
Data File: 1113L17.D

		Compound	MEAN	CCRF	%D		%Drift	
1	TM	Chlorotrifluoroethene	0.0000	0.0004	0.00	TM		
2	TML	Dichlorodifluoromethane	0.1234	0.1559	26	TML	23	nt
3	TML	Freon 114	0.0919	0.1372	49	TML	47	nt
4	TM**L	Chloromethane	0.1598	0.1789	12	TM**L	27	nt
5	TM*	Vinyl chloride	0.1349	0.1752	30	TM*		nt
6	TM	Bromomethane	0.1156	0.1257	8.7	TM		
7	TML	Chloroethane	0.0959	0.1217	27	TML	38	nt
8	TM	Dichlorofluoromethane	0.2227	0.2622	18	TM		
9	TM	Trichlorofluoromethane	0.1842	0.2078	13	TM		
10	TM	Diethyl ether	0.0000	0.0238	0.00	TM		
11	TM	Acrolein	0.0231	0.0182	21	TM		nt
12	TML	Acetone	0.0256	0.0215	16	TML	4.3	
13	TML	Freon-113	0.0977	0.1264	29	TML	23	nt
14	TM*	1,1-DCE	0.1658	0.1673	0.89	TM*		
15	TMQ	t-Butanol	0.0064	0.0065	1.6	TMQ	5.3	
16	TM	2-Propanol	0.0000	0.0000	0.00	TM		
17	TM	Acetonitrile	0.0118	0.0132	12	TM		
18	TML	Methyl Acetate	0.0961	0.1028	6.9	TML	19	
19	TML	Iodomethane	0.0943	0.1202	27	TML	8.3	
20	TML	Acrylonitrile	0.0552	0.0605	9.6	TML	19	
21	TML	Methylene chloride	0.2769	0.1680	39	TML	3.7	
22	TM	Carbon disulfide	0.2329	0.2994	29	TM		nt
23	TM	Methyl t-butyl ether (MtBE)	0.3028	0.3699	22	TM		nt
24	TM	Trans-1,2-DCE	0.1650	0.1680	1.8	TM		
25	TML	Diisopropyl Ether	0.3383	0.4089	21	TML	15	
26	TM**	2,2-Dichloro-1,1,1-trifluoroethane	0.0000	0.0001	0.00	TM**		
27	TM**	1,1-DCA	0.2204	0.2386	8.3	TM**		
28	TML	Vinyl Acetate	0.3383	0.4089	21	TML	15	
29	TM	Ethyl tert Butyl Ether	0.2296	0.2844	24	TM		nt
30	TM	MEK (2-Butanone)	0.0162	0.0165	1.9	TM		
31	TM	Cis-1,2-DCE	0.1846	0.1889	2.3	TM		
32	TM	2,2-Dichloropropane	0.1698	0.1696	0.13	TM		
33	TM	2-Methylpentane	0.0000	0.0003	0.00	TM		
34	TM	3-Methylpentane	0.0000	0.0006	0.00	TM		
35	TM*	Chloroform	0.2210	0.2317	4.8	TM*		
36	TM	Bromochloromethane	0.0921	0.0957	3.9	TM		
37	TM	1,1,1-TCA	0.1783	0.1869	4.8	TM		
38	TML	Cyclohexane	0.1359	0.1734	28	TML	18	
39	TM	1,1-Dichloropropene	0.1388	0.1529	10	TM		
40	TML	2,2,4-Trimethylpentane	0.2667	0.3276	23	TML	13	
		Average			13.8			

VOLATILE ORGANIC ANALYSIS
VOLATILE ORGANIC COMPOUNDS

Form 7

Second Source Calibration

Lab Name: APPL, Inc.
Case No:
Matrix: 0

SDG No:
Date Analyzed: 11/13/2019
Instrument: Loki
Cal. Date: 11/13/2019
Data File: 1113L17.D

		Compound	MEAN	CCRF	%D		%Drift
41	TM	Carbon Tetrachloride	0.1503	0.1548	3.0	TM	
42	TML	Tert Amyl Methyl Ether	0.1969	0.2417	23	TML	14
43	TM	Methylcyclopentane	0.0000	0.0002	0.00	TM	
44	TM	1,2-DCA	0.1631	0.1779	9.1	TM	
45	TM	Benzene	0.4734	0.4977	5.1	TM	
46	TML	TCE	0.1474	0.1414	4.1	TML	2.9
47	TM	2-Pentanone	0.0678	0.0708	4.4	TM	
48	TM*	1,2-Dichloropropane	0.1350	0.1410	4.4	TM*	
49	TM	Bromodichloromethane	0.1718	0.1848	7.6	TM	
50	TM	Methyl Cyclohexane	0.1414	0.1802	27	TM	nt
51	TML	Dibromomethane	0.0888	0.0989	11	TML	2.8
52	TM	2-Chloroethyl vinyl ether	0.0000	0.0001	0.00	TM	
53	TM	MIBK (methyl isobutyl ketone)	0.1150	0.1169	1.6	TM	
54	TML	1-Bromo-2-chloroethane	0.1785	0.2167	21	TML	15
55	TM	Cis-1,3-Dichloropropene	0.1788	0.2005	12	TM	
56	TM*	Toluene	0.4999	0.5442	8.9	TM*	
57	TML	Trans-1,3-Dichloropropene	0.1716	0.1864	8.6	TML	0.55
58	TM	1,1,2-TCA	0.1201	0.1283	6.8	TM	
59	TM	2-Hexanone	0.0563	0.0590	4.8	TM	
60	TM	1,2-EDB	0.1256	0.1374	9.3	TM	
61	TM	Tetrachloroethene	0.1488	0.1647	11	TM	
62	TML	1-Chlorohexane	0.1346	0.1623	21	TML	9.5
63	TM	1,1,1,2-Tetrachloroethane	0.1401	0.1495	6.7	TM	
64	TML	m&p-Xylene	0.4193	0.4553	8.6	TML	2.3
65	TML	o-Xylene	0.4336	0.4610	6.3	TML	2.0
66	TML	Styrene	0.3389	0.3703	9.3	TML	3.6
67	TM	1,3-Dichloropropane	0.2152	0.2337	8.6	TM	
68	TM	Dibromochloromethane	0.1439	0.1477	2.6	TM	
69	TM**	Chlorobenzene	0.3744	0.4057	8.4	TM**	
70	TM*	Ethylbenzene	0.5477	0.5999	9.5	TM*	
71	TM**	Bromoform	0.1004	0.1007	0.34	TM**	
72	TM	Isopropylbenzene	0.5593	0.6085	8.8	TM	
73	TM**	1,1,2,2-Tetrachloroethane	0.3143	0.3450	9.8	TM**	
74	TM	1,2,3-Trichloropropane	0.0977	0.1091	12	TM	
75	TML	t-1,4-Dichloro-2-Butene	0.0518	0.0715	38	TML	18
76	TM	Bromobenzene	0.2926	0.3126	6.8	TM	
77	TML	n-Propylbenzene	1.119	1.231	10	TML	1.4
78	TML	4-Ethyltoluene	0.8834	1.142	29	TML	13
79	TML	2-Chlorotoluene	0.4229	0.4522	6.9	TML	1.6
80	TML	1,3,5-Trimethylbenzene	0.7790	0.9317	20	TML	4.7
		Average			10.1		

VOLATILE ORGANIC ANALYSIS
VOLATILE ORGANIC COMPOUNDS

Form 7

Second Source Calibration

Lab Name: APPL, Inc.
Case No:
Matrix: 0

SDG No:
Date Analyzed: 11/13/2019
Instrument: Loki
Cal. Date: 11/13/2019
Data File: 1113L17.D

		Compound	MEAN	CCRF	%D		%Drift
81	TML	4-Chlorotoluene	0.4461	0.4846	8.6	TML	1.3
82	TML	Tert-Butylbenzene	0.6910	0.7417	7.4	TML	2.3
83	TML	1,2,4-Trimethylbenzene	0.7615	0.8794	15	TML	0.71
84	TML	Sec-Butylbenzene	0.9775	1.098	12	TML	0.77
85	TML	p-Isopropyltoluene	0.9145	1.029	13	TML	3.2
86	TM	Benzyl Chloride	0.3008	0.3118	3.7	TM	
87	TM	1,3-DCB	0.5350	0.5878	9.9	TM	
88	TM	1,4-DCB	0.5801	0.6207	7.0	TM	
89	TML	n-Butylbenzene	0.7398	0.8084	9.3	TML	1.2
90	TM	1,2-DCB	0.5333	0.5672	6.4	TM	
91	TM	Hexachloroethane	0.1797	0.1998	11	TM	
92	TML	1,2-Dibromo-3-chloropropane	0.0576	0.0630	9.3	TML	5.5
93	TML	1,2,4-Trichlorobenzene	0.3116	0.3471	11	TML	3.4
94	TM	Hexachlorobutadiene	0.0939	0.1071	14	TM	
95	TML	Naphthalene	0.5730	0.6675	16	TML	0.81
96	TML	1,2,3-Trichlorobenzene	0.1643	0.1766	7.5	TML	0.22
97							
98							
99							
100							
101							
102							
103							
104							
105							
106							
107							
108							
109							
110							
111							
112							
113							
114							
115							
116							
117							
118							
119							
120							
		Average			10.1		

Quantitation Report (Not Reviewed)

Data File : M:\LOKI\DATA\191113\1113L17.D Vial: 13
Acq On : 13 Nov 19 22:42 Operator:
Sample : (SS) 10ug/L VOC STD 11/12/19 Inst : Loki
Misc : IS&S:10/7/19, 10/23/19 Multiplr: 1.00

Quant Time: Nov 14 9:29 2019 Quant Results File: L1113W.RES

Quant Method : M:\LOKI\DATA\191113\L1113W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 14 09:28:54 2019
Response via : Initial Calibration
DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	5.18	96	837824	25.00	ppb	0.00
64) Chlorobenzene-D5 (IS)	8.78	117	797440	25.00	ppb	0.00
79) 1,4-Dichlorobenzene-D (IS)	11.32	152	425344	25.00	ppb	0.00
System Monitoring Compounds						
39) Dibromofluoromethane(S)	4.22	111	213719	25.01	ppb	0.00
Spiked Amount 25.000			Recovery = 100.036%			
44) 1,2-DCA-D4(S)	4.69	65	240652	24.70	ppb	0.00
Spiked Amount 25.000			Recovery = 98.792%			
65) Toluene-D8(S)	7.17	98	788771	25.03	ppb	0.00
Spiked Amount 25.000			Recovery = 100.108%			
73) 4-Bromofluorobenzene(S)	10.08	95	302496	25.49	ppb	0.00
Spiked Amount 25.000			Recovery = 101.944%			
Target Compounds						Qvalue
3) Dichlorodifluoromethane	0.78	85	52234	12.29	ppb	99
4) Freon 114	0.85	85	45988	14.69	ppb	90
5) Chloromethane	0.88	50	59960	12.74	ppb	95
6) Vinyl chloride	0.94	62	58725	12.99	ppb	98
8) Bromomethane	1.13	94	42135	10.87	ppb	99
9) Chloroethane	1.19	64	40787	13.85	ppb	100
10) Dichlorofluoromethane	1.31	67	87869	11.78	ppb	95
11) Trichlorofluoromethane	1.35	101	69633	11.28	ppb	99
13) Acrolein	1.63	56	76319	98.40	ppb	91
14) Acetone	1.74	43	7222	9.57	ppb	99
15) Freon-113	1.71	101	42375	12.28	ppb	99
16) 1,1-DCE	1.69	61	56070	10.09	ppb	94
17) t-Butanol	2.26	59	27106	118.37	ppb	95
19) Acetonitrile	1.97	41	55382	140.30	ppb	89
20) Methyl Acetate	2.01	43	34453	11.93	ppb	99
21) Iodomethane	1.79	142	40277	10.83	ppb	94
22) Acrylonitrile	2.29	53	20267	11.93	ppb	96
23) Methylene chloride	2.07	84	56291	10.37	ppb	100
24) Carbon disulfide	1.83	76	100336	12.86	ppb	95
25) Methyl t-butyl ether (MtBE	2.34	73	123970	12.21	ppb	99
26) Trans-1,2-DCE	2.32	61	56289	10.18	ppb	97
27) Diisopropyl Ether	2.89	45	137028	11.51	ppb	96
29) 1,1-DCA	2.73	63	79955	10.83	ppb	97
30) Vinyl Acetate	2.89	45	137028	11.51	ppb	96
31) Ethyl tert Butyl Ether	3.35	59	95326	12.39	ppb	98
32) MEK (2-Butanone)	3.55	43	5534	10.19	ppb	93
33) Cis-1,2-DCE	3.46	61	63294	10.23	ppb	97
34) 2,2-Dichloropropane	3.45	77	56833	9.99	ppb	96
37) Chloroform	3.98	83	77642	10.48	ppb	97
38) Bromochloromethane	3.80	130	32077	10.39	ppb	88
40) 1,1,1-TCA	4.21	97	62637	10.48	ppb	99
41) Cyclohexane	4.27	56	58117	11.82	ppb	98
42) 1,1-Dichloropropene	4.47	75	51255	11.02	ppb	93
43) 2,2,4-Trimethylpentane	4.95	57	109785	11.31	ppb	100
45) Carbon Tetrachloride	4.45	117	51873	10.30	ppb	99
46) Tert Amyl Methyl Ether	5.02	73	81008	11.39	ppb	98
48) 1,2-DCA	4.80	62	59618	10.91	ppb	99
49) Benzene	4.75	78	166779	10.51	ppb	99
50) TCE	5.67	130	47382	10.29	ppb	97

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\LOKI\DATA\191113\1113L17.D Vial: 13
Acq On : 13 Nov 19 22:42 Operator:
Sample : (SS) 10ug/L VOC STD 11/12/19 Inst : Loki
Misc : IS&S:10/7/19, 10/23/19 Multiplr: 1.00

Quant Time: Nov 14 9:29 2019 Quant Results File: L1113W.RES

Quant Method : M:\LOKI\DATA\191113\L1113W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 14 09:28:54 2019
Response via : Initial Calibration
DataAcq Meth : L8260

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
51)	2-Pentanone	5.99	43	296659	130.56	ppb	95
52)	1,2-Dichloropropane	5.93	63	47249	10.44	ppb	96
53)	Bromodichloromethane	6.32	83	61946	10.76	ppb	96
54)	Methyl Cyclohexane	5.89	83	60389	12.74	ppb	96
55)	Dibromomethane	6.07	174	33145	10.28	ppb	96
57)	MIBK (methyl isobutyl ket	7.11	43	39172	10.16	ppb	97
58)	1-Bromo-2-chloroethane	6.65	63	72629	11.50	ppb	96
59)	Cis-1,3-Dichloropropene	6.87	75	67187	11.21	ppb	98
60)	Toluene	7.24	91	182382	10.89	ppb	97
61)	Trans-1,3-Dichloropropene	7.54	75	62465	10.06	ppb	98
62)	1,1,2-TCA	7.73	97	42994	10.68	ppb	96
63)	2-Hexanone	8.07	43	19781	10.48	ppb	98
66)	1,2-EDB	8.23	107	43824	10.93	ppb	95
67)	Tetrachloroethene	7.86	166	52525	11.07	ppb	96
68)	1-Chlorohexane	8.85	91	51780	10.95	ppb	94
69)	1,1,1,2-Tetrachloroethane	8.92	131	47703	10.67	ppb	98
70)	m&p-Xylene	9.10	91	290439	19.54	ppb	99
71)	o-Xylene	9.52	91	147037	9.80	ppb	96
72)	Styrene	9.54	104	118122	9.64	ppb	98
74)	1,3-Dichloropropane	7.90	76	74545	10.86	ppb	94
75)	Dibromochloromethane	8.15	129	47107	10.26	ppb	88
76)	Chlorobenzene	8.81	112	129423	10.84	ppb	99
77)	Ethylbenzene	8.96	91	191362	10.95	ppb	98
78)	Bromoform	9.70	173	32121	10.03	ppb	94
80)	Isopropylbenzene	9.94	105	103528	10.88	ppb	96
81)	1,1,2,2-Tetrachloroethane	10.27	83	58693	10.98	ppb	98
82)	1,2,3-Trichloropropane	10.29	110	18559	11.17	ppb	97
83)	t-1,4-Dichloro-2-Butene	10.34	53	12166	11.84	ppb	86
84)	Bromobenzene	10.21	156	53187	10.68	ppb	95
85)	n-Propylbenzene	10.39	91	209489	10.14	ppb	92
86)	4-Ethyltoluene	10.52	105	194326	11.27	ppb	97
87)	2-Chlorotoluene	10.44	91	76930	9.84	ppb	94
88)	1,3,5-Trimethylbenzene	10.59	105	158520	10.47	ppb	95
89)	4-Chlorotoluene	10.57	91	82448	9.87	ppb	95
90)	Tert-Butylbenzene	10.93	119	126199	9.77	ppb	99
91)	1,2,4-Trimethylbenzene	10.98	105	149619	10.07	ppb	99
92)	Sec-Butylbenzene	11.17	105	186880	10.08	ppb	98
93)	p-Isopropyltoluene	11.34	119	175093	10.32	ppb	96
94)	Benzyl Chloride	11.50	91	53056	10.37	ppb	98
95)	1,3-DCB	11.25	146	100006	10.99	ppb	99
96)	1,4-DCB	11.35	146	105607	10.70	ppb	99
97)	n-Butylbenzene	11.77	91	137535	9.88	ppb	98
98)	1,2-DCB	11.73	146	96507	10.64	ppb	95
99)	Hexachloroethane	12.01	117	33985	11.12	ppb	93
100)	1,2-Dibromo-3-chloropropan	12.57	157	10718	10.55	ppb	91
101)	1,2,4-Trichlorobenzene	13.47	180	59048	10.34	ppb	100
102)	Hexachlorobutadiene	13.68	225	18216	11.40	ppb	89
103)	Naphthalene	13.72	128	113572	9.92	ppb	98
104)	1,2,3-Trichlorobenzene	13.98	182	30048	9.98	ppb	96

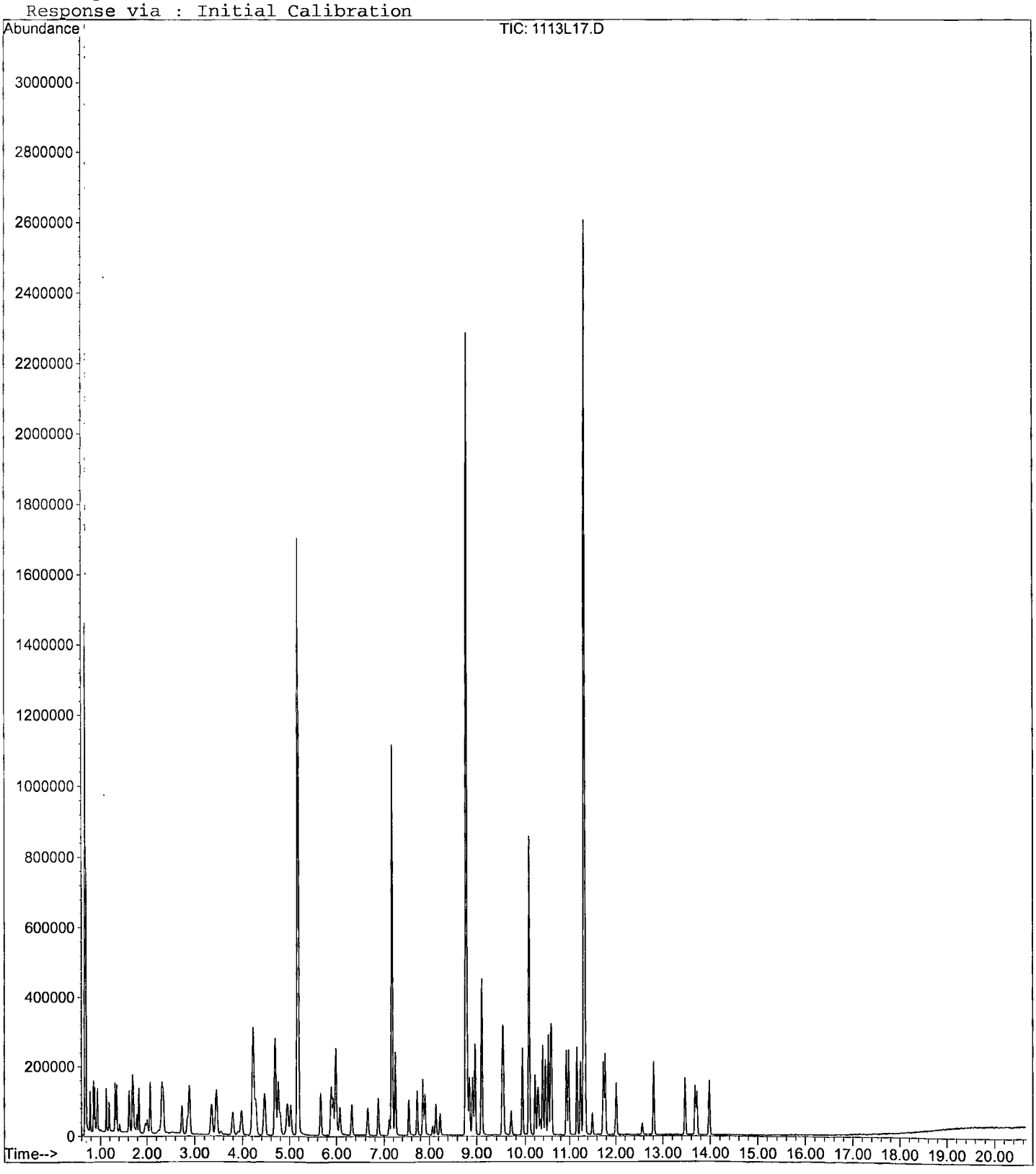
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LOKI\DATA\191113\1113L17.D Vial: 13
Acq On : 13 Nov 19 22:42 Operator:
Sample : (SS) 10ug/L VOC STD 11/12/19 Inst : Loki
Misc : IS&S:10/7/19, 10/23/19 Multiplr: 1.00

Quant Time: Nov 14 9:29 2019 Quant Results File: L1113W.RES

Method : M:\LOKI\DATA\191113\L1113W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 14 09:28:54 2019
Response via : Initial Calibration



VOLATILE ORGANIC ANALYSIS
VOLATILE ORGANIC COMPOUNDS

Form 7

Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix:

SDG No:
Date Analyzed: 11/14/2019
Instrument: Loki
Initial Cal. Date: 11/13/2019
Data File: 1113L29.D

		Compound	MEAN	CCRF	%D		%Drift
1	I	Fluorobenzene (IS)	ISTD			I	
2	TM	Chlorotrifluoroethene	0.0000	0.0002	0.00	TM	
3	TML	Dichlorodifluoromethane	0.1234	0.1279	3.6	TML	1.1
4	TML	Freon 114	0.0919	0.0980	6.7	TML	6.7
5	TM**L	Chloromethane	0.1598	0.1457	8.8	TM**L	2.2
6	TM*	Vinyl chloride	0.1349	0.1311	2.8	TM*	
7	TM	2-Chloro-1,1,1-trifluoroethane	0.0000	0.0000	0.00	TM	
8	TM	Bromomethane	0.1156	0.1180	2.1	TM	
9	TML	Chloroethane	0.0959	0.0897	6.4	TML	0.38
10	TM	Dichlorofluoromethane	0.2227	0.2377	6.8	TM	
11	TM	Trichlorofluoromethane	0.1842	0.1918	4.1	TM	
12	TM	Diethyl ether	0.0000	0.0212	0.00	TM	
13	TM	Acrolein	0.0231	0.0212	8.5	TM	
14	TML	Acetone	0.0256	0.0200	22	TML	16
15	TML	Freon-113	0.0977	0.1116	14	TML	8.7
16	TM*	1,1-DCE	0.1658	0.1733	4.5	TM*	
17	TMQ	t-Butanol	0.0064	0.0069	7.6	TMQ	1.7
18	TM	2-Propanol	0.0000	0.0001	0.00	TM	
19	TM	Acetonitrile	0.0118	0.0129	9.1	TM	
20	TML	Methyl Acetate	0.0961	0.0872	9.2	TML	1.5
21	TML	Iodomethane	0.0943	0.0986	4.5	TML	6.1
22	TML	Acrylonitrile	0.0552	0.0519	5.9	TML	2.2
23	TML	Methylene chloride	0.2769	0.1718	38	TML	6.6
24	TM	Carbon disulfide	0.2329	0.2459	5.6	TM	
25	TM	Methyl t-butyl ether (MtBE)	0.3028	0.3228	6.6	TM	
26	TM	Trans-1,2-DCE	0.1650	0.1754	6.3	TM	
27	TML	Diisopropyl Ether	0.3383	0.3594	6.3	TML	2.1
28	TM**	2,2-Dichloro-1,1,1-trifluoroethane	0.0000	0.0002	0.00	TM**	
29	TM**	1,1-DCA	0.2204	0.2418	9.7	TM**	
30	TML	Vinyl Acetate	0.3383	0.3594	6.3	TML	2.1
31	TM	Ethyl tert Butyl Ether	0.2296	0.2329	1.4	TM	
32	TM	MEK (2-Butanone)	0.0162	0.0133	18	TM	
33	TM	Cis-1,2-DCE	0.1846	0.1842	0.24	TM	
34	TM	2,2-Dichloropropane	0.1698	0.1586	6.6	TM	
35	TM	2-Methylpentane	0.0000	0.0003	0.00	TM	
36	TM	3-Methylpentane	0.0000	0.0010	0.00	TM	
37	TM*	Chloroform	0.2210	0.2372	7.3	TM*	
38	TM	Bromochloromethane	0.0921	0.0938	1.9	TM	
39	S	Dibromofluoromethane(S)	0.2550	0.2565	0.61	S	
40	TM	1,1,1-TCA	0.1783	0.1904	6.8	TM	
		Average			6.4		

VOLATILE ORGANIC ANALYSIS
VOLATILE ORGANIC COMPOUNDS

Form 7

Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix: 0

SDG No:
Date Analyzed: 11/14/2019
Instrument: Loki
Cal. Date: 11/13/2019
Data File: 1113L29.D

		Compound	MEAN	CCRF	%D		%Drift
41	TML	Cyclohexane	0.1359	0.1526	12	TML	5.7
42	TM	1,1-Dichloropropene	0.1388	0.1497	7.8	TM	
43	TML	2,2,4-Trimethylpentane	0.2667	0.2785	4.4	TML	1.6
44	S	1,2-DCA-D4(S)	0.2907	0.2876	1.1	S	
45	TM	Carbon Tetrachloride	0.1503	0.1647	9.5	TM	
46	TML	Tert Amyl Methyl Ether	0.1969	0.2029	3.1	TML	2.2
47	TM	1,2-DCA	0.1631	0.1728	6.0	TM	
48	TM	Benzene	0.4734	0.5023	6.1	TM	
49	TML	TCE	0.1474	0.1443	2.1	TML	5.0
50	TM	2-Pentanone	0.0678	0.0674	0.60	TM	
51	TM*	1,2-Dichloropropane	0.1350	0.1427	5.7	TM*	
52	TM	Bromodichloromethane	0.1718	0.1840	7.1	TM	
53	TM	Methyl Cyclohexane	0.1414	0.1560	10	TM	
54	TML	Dibromomethane	0.0888	0.0991	12	TML	3.0
55	TM	MIBK (methyl isobutyl ketone)	0.1150	0.1032	10	TM	
56	TML	1-Bromo-2-chloroethane	0.1785	0.1964	10	TML	4.6
57	TM	Cis-1,3-Dichloropropene	0.1788	0.1868	4.4	TM	
58	TM*	Toluene	0.4999	0.5431	8.6	TM*	
59	TML	Trans-1,3-Dichloropropene	0.1716	0.1770	3.1	TML	4.1
60	TM	1,1,2-TCA	0.1201	0.1348	12	TM	
61	TM	2-Hexanone	0.0563	0.0554	1.7	TM	
62	I	Chlorobenzene-D5 (IS)	ISTD			I	
63	S	Toluene-D8(S)	0.9881	0.9903	0.22	S	
64	TM	1,2-EDB	0.1256	0.1294	3.0	TM	
65	TM	Tetrachloroethene	0.1488	0.1591	6.9	TM	
66	TML	1-Chlorohexane	0.1346	0.1427	6.0	TML	2.1
67	TM	1,1,1,2-Tetrachloroethane	0.1401	0.1508	7.6	TM	
68	TML	m&p-Xylene	0.4193	0.4587	9.4	TML	1.6
69	TML	o-Xylene	0.4336	0.4624	6.7	TML	1.7
70	TML	Styrene	0.3389	0.3666	8.2	TML	4.5
71	S	4-Bromofluorobenzene(S)	0.3721	0.3773	1.4	S	
72	TM	1,3-Dichloropropane	0.2152	0.2187	1.6	TM	
73	TM	Dibromochloromethane	0.1439	0.1462	1.6	TM	
74	TM**	Chlorobenzene	0.3744	0.4070	8.7	TM**	
75	TM*	Ethylbenzene	0.5477	0.5854	6.9	TM*	
76	TM**	Bromoform	0.1004	0.1056	5.3	TM**	
77	I	1,4-Dichlorobenzene-D (IS)	ISTD			I	
78	TM	Isopropylbenzene	0.5593	0.6158	10	TM	
79	TM**	1,1,2,2-Tetrachloroethane	0.3143	0.3275	4.2	TM**	
80	TM	1,2,3-Trichloropropane	0.0977	0.1031	5.5	TM	
		Average			6.1		

VOLATILE ORGANIC ANALYSIS
VOLATILE ORGANIC COMPOUNDS

Form 7

Continuing Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Date Analyzed: 11/14/2019
Matrix: 0 Instrument: Loki
Cal. Date: 11/13/2019
Data File: 1113L29.D

		Compound	MEAN	CCRF	%D		%Drift	
81	TML	t-1,4-Dichloro-2-Butene	0.0518	0.0551	6.3	TML	8.0	
82	TM	Bromobenzene	0.2926	0.3170	8.3	TM		
83	TML	n-Propylbenzene	1.119	1.200	7.3	TML	0.91	
84	TML	4-Ethyltoluene	0.8834	1.022	16	TML	1.9	
85	TML	2-Chlorotoluene	0.4229	0.4653	10	TML	1.1	
86	TML	1,3,5-Trimethylbenzene	0.7790	0.8985	15	TML	1.2	
87	TML	4-Chlorotoluene	0.4461	0.4694	5.2	TML	4.3	
88	TML	Tert-Butylbenzene	0.6910	0.8334	21	TML	9.2	
89	TML	1,2,4-Trimethylbenzene	0.7615	0.8400	10	TML	3.4	
90	TML	Sec-Butylbenzene	0.9775	1.077	10	TML	1.1	
91	TML	p-Isopropyltoluene	0.9145	0.9935	8.6	TML	0.13	
92	TM	Benzyl Chloride	0.3008	0.2201	27	TM		*
93	TM	1,3-DCB	0.5350	0.5743	7.3	TM		
94	TM	1,4-DCB	0.5801	0.6179	6.5	TM		
95	TML	n-Butylbenzene	0.7398	0.7998	8.1	TML	2.1	
96	TM	1,2-DCB	0.5333	0.5696	6.8	TM		
97	TM	Hexachloroethane	0.1797	0.1876	4.4	TM		
98	TML	1,2-Dibromo-3-chloropropane	0.0576	0.0565	1.9	TML	4.6	
99	TML	1,2,4-Trichlorobenzene	0.3116	0.3250	4.3	TML	2.3	
100	TM	Hexachlorobutadiene	0.0939	0.1020	8.6	TM		
101	TML	Naphthalene	0.5730	0.5548	3.2	TML	13	
102	TML	1,2,3-Trichlorobenzene	0.1643	0.1604	2.4	TML	8.4	
103								
104								
105								
106								
107								
108								
109								
110								
111								
112								
113								
114								
115								
116								
117								
118								
119								
120								
		Average			9.0			

Quantitation Report (Not Reviewed)

Data File : M:\LOKI\DATA\191113\1113L29.D Vial: 25
Acq On : 14 Nov 19 4:22 Operator:
Sample : 191113 CCV/LCS 10ug/L Inst : Loki
Misc : IS&S:10/7/19, 10/23/19 Multiplr: 1.00

Quant Time: Nov 14 9:29 2019 Quant Results File: L1113W.RES

Quant Method : M:\LOKI\DATA\191113\L1113W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 14 09:28:54 2019
Response via : Initial Calibration
DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene (IS)	5.18	96	838784	25.00	ppb		0.00
64) Chlorobenzene-D5 (IS)	8.78	117	803776	25.00	ppb		0.00
79) 1,4-Dichlorobenzene-D (IS)	11.32	152	431232	25.00	ppb		0.00
System Monitoring Compounds							
39) Dibromofluoromethane(S)	4.22	111	215186	25.15	ppb		0.00
Spiked Amount 25.000			Recovery = 100.608%				
44) 1,2-DCA-D4(S)	4.69	65	241224	24.73	ppb		0.00
Spiked Amount 25.000			Recovery = 98.912%				
65) Toluene-D8(S)	7.17	98	795961	25.06	ppb		0.00
Spiked Amount 25.000			Recovery = 100.224%				
73) 4-Bromofluorobenzene(S)	10.08	95	303275	25.35	ppb		0.00
Spiked Amount 25.000			Recovery = 101.404%				
Target Compounds							Qvalue
3) Dichlorodifluoromethane	0.78	85	42910	10.11	ppb		99
4) Freon 114	0.85	85	32897	10.67	ppb		95
5) Chloromethane	0.88	50	48885	10.22	ppb		97
6) Vinyl chloride	0.94	62	43995	9.72	ppb		99
8) Bromomethane	1.13	94	39597	10.21	ppb		99
9) Chloroethane	1.19	64	30099	9.96	ppb		98
10) Dichlorofluoromethane	1.31	67	79751	10.68	ppb		96
11) Trichlorofluoromethane	1.35	101	64355	10.41	ppb		95
13) Acrolein	1.63	56	88855	114.44	ppb		98
14) Acetone	1.75	43	6702	8.35	ppb		94
15) Freon-113	1.71	101	37448	10.87	ppb		92
16) 1,1-DCE	1.69	61	58135	10.45	ppb		96
17) t-Butanol	2.26	59	28729	122.92	ppb	#	88
19) Acetonitrile	1.97	41	53899	136.39	ppb		88
20) Methyl Acetate	2.01	43	29273	10.15	ppb		99
21) Iodomethane	1.79	142	33091	9.39	ppb		97
22) Acrylonitrile	2.30	53	17425	10.22	ppb		93
23) Methylene chloride	2.07	84	57653	10.66	ppb		96
24) Carbon disulfide	1.83	76	82504	10.56	ppb		97
25) Methyl t-butyl ether (MtBE	2.34	73	108296	10.66	ppb		99
26) Trans-1,2-DCE	2.32	61	58843	10.63	ppb		98
27) Diisopropyl Ether	2.90	45	120597	10.21	ppb		100
29) 1,1-DCA	2.74	63	81139	10.97	ppb		93
30) Vinyl Acetate	2.90	45	120597	10.21	ppb		100
31) Ethyl tert Butyl Ether	3.35	59	78146	10.14	ppb		92
32) MEK (2-Butanone)	3.55	43	4458	8.20	ppb		92
33) Cis-1,2-DCE	3.46	61	61788	9.98	ppb		93
34) 2,2-Dichloropropane	3.45	77	53210	9.34	ppb		98
37) Chloroform	3.98	83	79585	10.73	ppb		97
38) Bromochloromethane	3.80	130	31479	10.19	ppb		87
40) 1,1,1-TCA	4.21	97	63895	10.68	ppb		99
41) Cyclohexane	4.27	56	51210	10.57	ppb		96
42) 1,1-Dichloropropene	4.47	75	50217	10.78	ppb		98
43) 2,2,4-Trimethylpentane	4.95	57	93450	9.84	ppb		99
45) Carbon Tetrachloride	4.45	117	55247	10.95	ppb		99
46) Tert Amyl Methyl Ether	5.02	73	68088	9.78	ppb		99
48) 1,2-DCA	4.80	62	57993	10.60	ppb		94
49) Benzene	4.75	78	168535	10.61	ppb		97
50) TCE	5.67	130	48405	10.50	ppb		98

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\LOKI\DATA\191113\1113L29.D Vial: 25
Acq On : 14 Nov 19 4:22 Operator:
Sample : 191113 CCV/LCS 10ug/L Inst : Loki
Misc : IS&S:10/7/19, 10/23/19 Multiplr: 1.00

Quant Time: Nov 14 9:29 2019 Quant Results File: L1113W.RES

Quant Method : M:\LOKI\DATA\191113\L1113W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 14 09:28:54 2019
Response via : Initial Calibration
DataAcq Meth : L8260

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
51)	2-Pentanone	5.99	43	282631	124.24	ppb	99
52)	1,2-Dichloropropane	5.94	63	47880	10.57	ppb	100
53)	Bromodichloromethane	6.32	83	61720	10.71	ppb	97
54)	Methyl Cyclohexane	5.90	83	52337	11.03	ppb	98
55)	Dibromomethane	6.07	174	33234	10.30	ppb	92
57)	MIBK (methyl isobutyl ket	7.11	43	34641	8.97	ppb	99
58)	1-Bromo-2-chloroethane	6.65	63	65891	10.46	ppb	96
59)	Cis-1,3-Dichloropropene	6.87	75	62661	10.44	ppb	97
60)	Toluene	7.24	91	182203	10.86	ppb	96
61)	Trans-1,3-Dichloropropene	7.54	75	59372	9.59	ppb	99
62)	1,1,2-TCA	7.73	97	45224	11.22	ppb	95
63)	2-Hexanone	8.08	43	18585	9.83	ppb	98
66)	1,2-EDB	8.23	107	41597	10.30	ppb	98
67)	Tetrachloroethene	7.86	166	51145	10.69	ppb	88
68)	1-Chlorohexane	8.85	91	45878	9.79	ppb	94
69)	1,1,1,2-Tetrachloroethane	8.92	131	48483	10.76	ppb	94
70)	m&p-Xylene	9.10	91	294967	19.68	ppb	97
71)	o-Xylene	9.52	91	148666	9.83	ppb	99
72)	Styrene	9.54	104	117873	9.55	ppb	98
74)	1,3-Dichloropropane	7.90	76	70305	10.16	ppb	96
75)	Dibromochloromethane	8.14	129	47006	10.16	ppb	91
76)	Chlorobenzene	8.81	112	130862	10.87	ppb	99
77)	Ethylbenzene	8.96	91	188216	10.69	ppb	96
78)	Bromoform	9.70	173	33967	10.53	ppb	100
80)	Isopropylbenzene	9.94	105	106224	11.01	ppb	97
81)	1,1,2,2-Tetrachloroethane	10.27	83	56494	10.42	ppb	97
82)	1,2,3-Trichloropropane	10.29	110	17781	10.55	ppb	78
83)	t-1,4-Dichloro-2-Butene	10.33	53	9499	9.20	ppb	90
84)	Bromobenzene	10.21	156	54679	10.83	ppb	97
85)	n-Propylbenzene	10.39	91	207075	9.91	ppb	97
86)	4-Ethyltoluene	10.52	105	176317	10.19	ppb	100
87)	2-Chlorotoluene	10.44	91	80268	10.11	ppb	93
88)	1,3,5-Trimethylbenzene	10.59	105	154993	10.12	ppb	98
89)	4-Chlorotoluene	10.57	91	80976	9.57	ppb	98
90)	Tert-Butylbenzene	10.93	119	143757	10.92	ppb	100
91)	1,2,4-Trimethylbenzene	10.98	105	144898	9.66	ppb	92
92)	Sec-Butylbenzene	11.17	105	185697	9.89	ppb	99
93)	p-Isopropyltoluene	11.34	119	171380	9.99	ppb	100
94)	Benzyl Chloride	11.50	91	37971	7.32	ppb	97
95)	1,3-DCB	11.25	146	99058	10.73	ppb	99
96)	1,4-DCB	11.35	146	106582	10.65	ppb	99
97)	n-Butylbenzene	11.77	91	137962	9.79	ppb	99
98)	1,2-DCB	11.74	146	98244	10.68	ppb	99
99)	Hexachloroethane	12.01	117	32357	10.44	ppb	96
100)	1,2-Dibromo-3-chloropropan	12.57	157	9751	9.54	ppb	91
101)	1,2,4-Trichlorobenzene	13.47	180	56064	9.77	ppb	97
102)	Hexachlorobutadiene	13.68	225	17600	10.86	ppb	85
103)	Naphthalene	13.72	128	95697	8.67	ppb	100
104)	1,2,3-Trichlorobenzene	13.98	182	27672	9.16	ppb	98

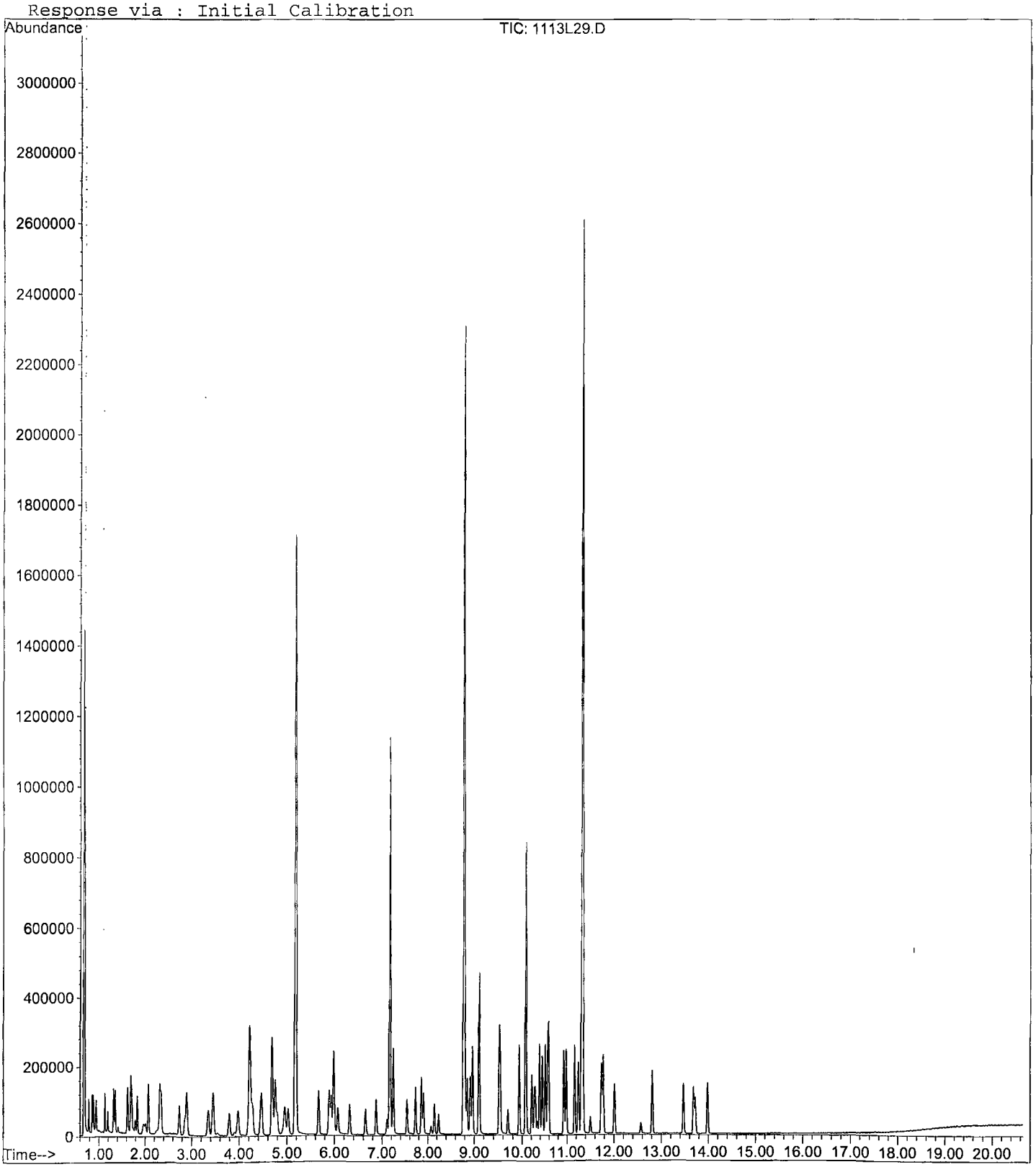
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LOKI\DATA\191113\1113L29.D Vial: 25
Acq On : 14 Nov 19 4:22 Operator:
Sample : 191113 CCV/LCS 10ug/L Inst : Loki
Misc : IS&S:10/7/19, 10/23/19 Multiplr: 1.00

Quant Time: Nov 14 9:29 2019 Quant Results File: L1113W.RES

Method : M:\LOKI\DATA\191113\L1113W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 14 09:28:54 2019
Response via : Initial Calibration



VOLATILE ORGANIC ANALYSIS
VOLATILE ORGANIC COMPOUNDS

Form 7

Ending Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix:

SDG No:
Date Analyzed: 11/14/2019
Instrument: Loki
Initial Cal. Date: 11/13/2019
Data File: 1113L53.D

		Compound	MEAN	CCRF	%D		%Drift
1	I	Fluorobenzene (IS)	ISTD			I	
2	TM	Chlorotrifluoroethene	0.0000	0.0002	0.00	TM	
3	TML	Dichlorodifluoromethane	0.1234	0.1313	6.4	TML	3.7
4	TML	Freon 114	0.0919	0.0888	3.3	TML	2.8
5	TM**L	Chloromethane	0.1598	0.1388	13	TM**L	3.1
6	TM*	Vinyl chloride	0.1349	0.1342	0.49	TM*	
7	TM	Bromomethane	0.1156	0.0933	19	TM	
8	TML	Chloroethane	0.0959	0.0956	0.29	TML	6.8
9	TM	Dichlorofluoromethane	0.2227	0.2467	11	TM	
10	TM	Trichlorofluoromethane	0.1842	0.2010	9.1	TM	
11	TM	Diethyl ether	0.0000	0.0218	0.00	TM	
12	TM	Acrolein	0.0231	0.0211	8.8	TM	
13	TML	Acetone	0.0256	0.0180	29	TML	31
14	TML	Freon-113	0.0977	0.1021	4.6	TML	0.30
15	TM*	1,1-DCE	0.1658	0.1755	5.8	TM*	
16	TMQ	t-Butanol	0.0064	0.0060	5.2	TMQ	9.6
17	TM	2-Propanol	0.0000	0.0001	0.00	TM	
18	TM	Acetonitrile	0.0118	0.0110	6.5	TM	
19	TML	Methyl Acetate	0.0961	0.0901	6.3	TML	4.7
20	TML	Iodomethane	0.0943	0.0688	27	TML	26
21	TML	Acrylonitrile	0.0552	0.0525	4.8	TML	3.4
22	TML	Methylene chloride	0.2769	0.1736	37	TML	8.0
23	TM	Carbon disulfide	0.2329	0.2441	4.8	TM	
24	TM	Methyl t-butyl ether (MtBE)	0.3028	0.3230	6.6	TM	
25	TM	Trans-1,2-DCE	0.1650	0.1755	6.4	TM	
26	TML	Diisopropyl Ether	0.3383	0.3450	2.0	TML	1.8
27	TM**	2,2-Dichloro-1,1,1-trifluoroethane	0.0000	0.0001	0.00	TM**	
28	TM**	1,1-DCA	0.2204	0.2315	5.0	TM**	
29	TML	Vinyl Acetate	0.3383	0.3450	2.0	TML	1.8
30	TM	Ethyl tert Butyl Ether	0.2296	0.2420	5.4	TM	
31	TM	MEK (2-Butanone)	0.0162	0.0124	24	TM	
32	TM	Cis-1,2-DCE	0.1846	0.1864	0.96	TM	
33	TM	2,2-Dichloropropane	0.1698	0.1304	23	TM	
34	TM	2-Methylpentane	0.0000	0.0001	0.00	TM	
35	TM	3-Methylpentane	0.0000	0.0016	0.00	TM	
36	TM*	Chloroform	0.2210	0.2408	8.9	TM*	
37	TM	Bromochloromethane	0.0921	0.0930	0.91	TM	
38	S	Dibromofluoromethane(S)	0.2550	0.2605	2.2	S	
39	TM	1,1,1-TCA	0.1783	0.1991	12	TM	
40	TML	Cyclohexane	0.1359	0.1465	7.8	TML	2.0
		Average			7.9		

VOLATILE ORGANIC ANALYSIS
VOLATILE ORGANIC COMPOUNDS

Form 7

Ending Continuing Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Date Analyzed: 11/14/2019
Matrix: 0 Instrument: Loki
Cal. Date: 11/13/2019
Data File: 1113L53.D

		Compound	MEAN	CCRF	%D	%Drift	
41	TM	1,1-Dichloropropene	0.1388	0.1498	7.9	TM	
42	TML	2,2,4-Trimethylpentane	0.2667	0.2323	13	TML	15
43	S	1,2-DCA-D4(S)	0.2907	0.2885	0.79	S	
44	TM	Carbon Tetrachloride	0.1503	0.1662	11	TM	
45	TML	Tert Amyl Methyl Ether	0.1969	0.2012	2.2	TML	3.0
46	TM	Methylcyclopentane	0.0000	0.0001	0.00	TM	
47	TM	1,2-DCA	0.1631	0.1678	2.9	TM	
48	TM	Benzene	0.4734	0.5103	7.8	TM	
49	TML	TCE	0.1474	0.1404	4.7	TML	2.2
50	TM	2-Pentanone	0.0678	0.0697	2.8	TM	
51	TM*	1,2-Dichloropropane	0.1350	0.1424	5.5	TM*	
52	TM	Bromodichloromethane	0.1718	0.1851	7.8	TM	
53	TM	Methyl Cyclohexane	0.1414	0.1509	6.7	TM	
54	TML	Dibromomethane	0.0888	0.0997	12	TML	3.6
55	TM	MIBK (methyl isobutyl ketone)	0.1150	0.1052	8.5	TM	
56	TML	1-Bromo-2-chloroethane	0.1785	0.1877	5.1	TML	0.19
57	TM	Cis-1,3-Dichloropropene	0.1788	0.1804	0.88	TM	
58	TM*	Toluene	0.4999	0.5529	11	TM*	
59	TML	Trans-1,3-Dichloropropene	0.1716	0.1764	2.8	TML	4.4
60	TM	1,1,2-TCA	0.1201	0.1361	13	TM	
61	TM	2-Hexanone	0.0563	0.0565	0.26	TM	
62	I	Chlorobenzene-D5 (IS)	ISTD			I	
63	S	Toluene-D8(S)	0.9881	1.000	1.3	S	
64	TM	1,2-EDB	0.1256	0.1356	7.9	TM	
65	TM	Tetrachloroethene	0.1488	0.1554	4.5	TM	
66	TML	1-Chlorohexane	0.1346	0.1439	6.9	TML	1.4
67	TM	1,1,1,2-Tetrachloroethane	0.1401	0.1458	4.1	TM	
68	TML	m&p-Xylene	0.4193	0.4515	7.7	TML	3.0
69	TML	o-Xylene	0.4336	0.4696	8.3	TML	0.37
70	TML	Styrene	0.3389	0.3601	6.3	TML	6.0
71	S	4-Bromofluorobenzene(S)	0.3721	0.3841	3.2	S	
72	TM	1,3-Dichloropropane	0.2152	0.2277	5.8	TM	
73	TM	Dibromochloromethane	0.1439	0.1507	4.7	TM	
74	TM**	Chlorobenzene	0.3744	0.3955	5.7	TM**	
75	TM*	Ethylbenzene	0.5477	0.6045	10	TM*	
76	TM**	Bromoform	0.1004	0.1074	7.0	TM**	
77	I	1,4-Dichlorobenzene-D (IS)	ISTD			I	
78	TM	Isopropylbenzene	0.5593	0.5761	3.0	TM	
79	TM**	1,1,2,2-Tetrachloroethane	0.3143	0.3274	4.2	TM**	
80	TM	1,2,3-Trichloropropane	0.0977	0.1011	3.5	TM	
		Average			5.8		

VOLATILE ORGANIC ANALYSIS
VOLATILE ORGANIC COMPOUNDS

Form 7

Ending Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix: 0

SDG No:
Date Analyzed: 11/14/2019
Instrument: Loki
Cal. Date: 11/13/2019
Data File: 1113L53.D

		Compound	MEAN	CCRF	%D		%Drift
81	TML	t-1,4-Dichloro-2-Butene	0.0518	0.0474	8.5	TML	20
82	TM	Bromobenzene	0.2926	0.3095	5.8	TM	
83	TML	n-Propylbenzene	1.119	1.157	3.4	TML	4.2
84	TML	4-Ethyltoluene	0.8834	0.9716	10.0	TML	2.7
85	TML	2-Chlorotoluene	0.4229	0.4543	7.4	TML	1.2
86	TML	1,3,5-Trimethylbenzene	0.7790	0.8729	12	TML	1.6
87	TML	4-Chlorotoluene	0.4461	0.4670	4.7	TML	4.7
88	TML	Tert-Butylbenzene	0.6910	0.7141	3.4	TML	5.7
89	TML	1,2,4-Trimethylbenzene	0.7615	0.8279	8.7	TML	4.7
90	TML	Sec-Butylbenzene	0.9775	1.028	5.2	TML	5.1
91	TML	p-Isopropyltoluene	0.9145	0.9532	4.2	TML	3.9
92	TM	Benzyl Chloride	0.3008	0.1641	45	TM	
93	TM	1,3-DCB	0.5350	0.5675	6.1	TM	
94	TM	1,4-DCB	0.5801	0.5887	1.5	TM	
95	TML	n-Butylbenzene	0.7398	0.7308	1.2	TML	9.4
96	TM	1,2-DCB	0.5333	0.5467	2.5	TM	
97	TM	Hexachloroethane	0.1797	0.1774	1.2	TM	
98	TML	1,2-Dibromo-3-chloropropane	0.0576	0.0626	8.7	TML	4.9
99	TML	1,2,4-Trichlorobenzene	0.3116	0.3124	0.24	TML	5.5
100	TM	Hexachlorobutadiene	0.0939	0.0840	11	TM	
101	TML	Naphthalene	0.5730	0.5958	4.0	TML	8.8
102	TML	1,2,3-Trichlorobenzene	0.1643	0.1619	1.5	TML	7.7
103							
104							
105							
106							
107							
108							
109							
110							
111							
112							
113							
114							
115							
116							
117							
118							
119							
120							
		Average			7.1		

Quantitation Report (Not Reviewed)

Data File : M:\LOKI\DATA\191113\1113L53.D Vial: 49
Acq On : 14 Nov 19 15:43 Operator:
Sample : Ending CCV 10ug/L 11/13/19 Inst : Loki
Misc : IS&S:10/7/19, 10/23/19 Multiplr: 1.00

Quant Time: Nov 14 16:19 2019 Quant Results File: L1113W.RES

Quant Method : M:\LOKI\DATA\191113\L1113W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 14 09:28:54 2019
Response via : Initial Calibration
DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene (IS)	5.18	96	820480	25.00	ppb		0.00
64) Chlorobenzene-D5 (IS)	8.78	117	799808	25.00	ppb		0.00
79) 1,4-Dichlorobenzene-D (IS)	11.32	152	443456	25.00	ppb		0.00
System Monitoring Compounds							
39) Dibromofluoromethane(S)	4.22	111	213773	25.54	ppb		0.00
Spiked Amount 25.000			Recovery = 102.176%				
44) 1,2-DCA-D4(S)	4.69	65	236669	24.80	ppb		0.00
Spiked Amount 25.000			Recovery = 99.212%				
65) Toluene-D8(S)	7.17	98	800199	25.31	ppb		0.00
Spiked Amount 25.000			Recovery = 101.256%				
73) 4-Bromofluorobenzene(S)	10.08	95	307196	25.81	ppb		0.00
Spiked Amount 25.000			Recovery = 103.224%				
Target Compounds							Qvalue
3) Dichlorodifluoromethane	0.78	85	43104	10.37	ppb		97
4) Freon 114	0.85	85	29142	9.72	ppb		99
5) Chloromethane	0.88	50	45540	9.69	ppb		98
6) Vinyl chloride	0.94	62	44047	9.95	ppb		99
8) Bromomethane	1.13	94	30636	8.07	ppb		96
9) Chloroethane	1.19	64	31375	10.68	ppb		97
10) Dichlorofluoromethane	1.31	67	80975	11.08	ppb		98
11) Trichlorofluoromethane	1.35	101	65981	10.91	ppb		98
13) Acrolein	1.63	56	86616	114.04	ppb		96
14) Acetone	1.75	43	5923	6.87	ppb	#	79
15) Freon-113	1.71	101	33518	9.97	ppb		94
16) 1,1-DCE	1.69	61	57606	10.58	ppb		96
17) t-Butanol	2.28	59	24758	112.98	ppb		97
19) Acetonitrile	1.97	41	45196	116.92	ppb		100
20) Methyl Acetate	2.01	43	29572	10.47	ppb		91
21) Iodomethane	1.79	142	22576	7.40	ppb		100
22) Acrylonitrile	2.30	53	17238	10.34	ppb		93
23) Methylene chloride	2.07	84	56983	10.80	ppb		97
24) Carbon disulfide	1.83	76	80120	10.48	ppb		95
25) Methyl t-butyl ether (MtBE	2.35	73	105995	10.66	ppb		99
26) Trans-1,2-DCE	2.32	61	57590	10.64	ppb		97
27) Diisopropyl Ether	2.89	45	113225	9.82	ppb		98
29) 1,1-DCA	2.74	63	75968	10.50	ppb		98
30) Vinyl Acetate	2.89	45	113225	9.82	ppb		98
31) Ethyl tert Butyl Ether	3.35	59	79415	10.54	ppb		93
32) MEK (2-Butanone)	3.55	43	4064	7.64	ppb	#	85
33) Cis-1,2-DCE	3.46	61	61165	10.10	ppb		95
34) 2,2-Dichloropropane	3.45	77	42801	7.68	ppb		93
37) Chloroform	3.98	83	79032	10.89	ppb		95
38) Bromochloromethane	3.80	130	30506	10.09	ppb		98
40) 1,1,1-TCA	4.20	97	65328	11.17	ppb		97
41) Cyclohexane	4.28	56	48073	10.20	ppb		91
42) 1,1-Dichloropropene	4.47	75	49149	10.79	ppb		97
43) 2,2,4-Trimethylpentane	4.95	57	76251	8.45	ppb		99
45) Carbon Tetrachloride	4.45	117	54561	11.06	ppb		95
46) Tert Amyl Methyl Ether	5.03	73	66027	9.70	ppb		95
48) 1,2-DCA	4.80	62	55067	10.29	ppb		99
49) Benzene	4.75	78	167476	10.78	ppb		99
50) TCE	5.67	130	46087	10.22	ppb		91

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\LOKI\DATA\191113\1113L53.D Vial: 49
Acq On : 14 Nov 19 15:43 Operator:
Sample : Ending CCV 10ug/L 11/13/19 Inst : Loki
Misc : IS&S:10/7/19, 10/23/19 Multiplr: 1.00

Quant Time: Nov 14 16:19 2019 Quant Results File: L1113W.RES

Quant Method : M:\LOKI\DATA\191113\L1113W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 14 09:28:54 2019
Response via : Initial Calibration
DataAcq Meth : L8260

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
51)	2-Pentanone	5.99	43	285837	128.46	ppb	98
52)	1,2-Dichloropropane	5.93	63	46738	10.55	ppb	97
53)	Bromodichloromethane	6.32	83	60753	10.78	ppb	100
54)	Methyl Cyclohexane	5.90	83	49532	10.67	ppb	93
55)	Dibromomethane	6.08	174	32708	10.36	ppb	89
57)	MIBK (methyl isobutyl ket	7.11	43	34542	9.15	ppb	97
58)	1-Bromo-2-chloroethane	6.65	63	61588	10.02	ppb	96
59)	Cis-1,3-Dichloropropene	6.87	75	59207	10.09	ppb	98
60)	Toluene	7.24	91	181469	11.06	ppb	98
61)	Trans-1,3-Dichloropropene	7.54	75	57884	9.56	ppb	97
62)	1,1,2-TCA	7.73	97	44654	11.33	ppb	95
63)	2-Hexanone	8.07	43	18533	10.03	ppb	96
66)	1,2-EDB	8.23	107	43390	10.79	ppb	99
67)	Tetrachloroethene	7.86	166	49717	10.45	ppb	92
68)	1-Chlorohexane	8.85	91	46032	9.86	ppb	93
69)	1,1,1,2-Tetrachloroethane	8.92	131	46652	10.41	ppb	98
70)	m&p-Xylene	9.10	91	288860	19.39	ppb	100
71)	o-Xylene	9.52	91	150222	9.96	ppb	98
72)	Styrene	9.54	104	115204	9.40	ppb	97
74)	1,3-Dichloropropane	7.90	76	72831	10.58	ppb	100
75)	Dibromochloromethane	8.14	129	48197	10.47	ppb	93
76)	Chlorobenzene	8.81	112	126536	10.57	ppb	100
77)	Ethylbenzene	8.96	91	193387	11.04	ppb	94
78)	Bromoform	9.70	173	34347	10.70	ppb	90
80)	Isopropylbenzene	9.94	105	102192	10.30	ppb	98
81)	1,1,2,2-Tetrachloroethane	10.27	83	58074	10.42	ppb	98
82)	1,2,3-Trichloropropane	10.29	110	17934	10.35	ppb	87
83)	t-1,4-Dichloro-2-Butene	10.34	53	8408	7.96	ppb	88
84)	Bromobenzene	10.21	156	54904	10.58	ppb	99
85)	n-Propylbenzene	10.38	91	205147	9.58	ppb	95
86)	4-Ethyltoluene	10.52	105	172343	9.73	ppb	100
87)	2-Chlorotoluene	10.44	91	80579	9.88	ppb	97
88)	1,3,5-Trimethylbenzene	10.59	105	154838	9.84	ppb	99
89)	4-Chlorotoluene	10.57	91	82832	9.53	ppb	95
90)	Tert-Butylbenzene	10.93	119	126671	9.43	ppb	98
91)	1,2,4-Trimethylbenzene	10.98	105	146851	9.53	ppb	99
92)	Sec-Butylbenzene	11.17	105	182328	9.49	ppb	100
93)	p-Isopropyltoluene	11.34	119	169081	9.61	ppb	99
94)	Benzyl Chloride	11.50	91	29108	5.45	ppb	97
95)	1,3-DCB	11.25	146	100659	10.61	ppb	98
96)	1,4-DCB	11.35	146	104428	10.15	ppb	98
97)	n-Butylbenzene	11.77	91	129623	9.06	ppb	98
98)	1,2-DCB	11.73	146	96967	10.25	ppb	98
99)	Hexachloroethane	12.01	117	31475	9.88	ppb	96
100)	1,2-Dibromo-3-chloropropan	12.57	157	11109	10.49	ppb	89
101)	1,2,4-Trichlorobenzene	13.47	180	55413	9.45	ppb	99
102)	Hexachlorobutadiene	13.68	225	14901	8.94	ppb	95
103)	Naphthalene	13.72	128	105687	9.12	ppb	97
104)	1,2,3-Trichlorobenzene	13.98	182	28712	9.23	ppb	99

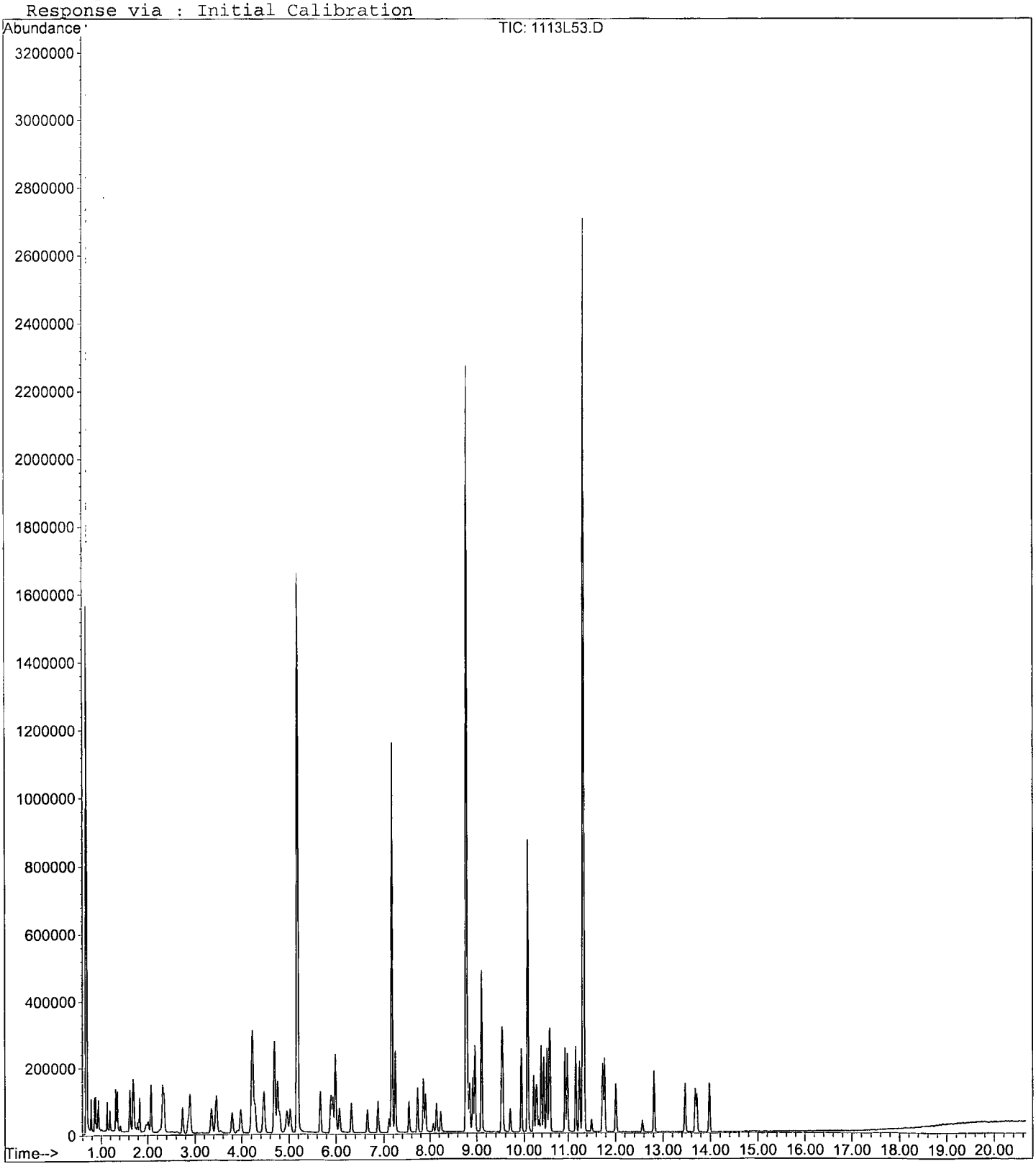
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LOKI\DATA\191113\1113L53.D Vial: 49
Acq On : 14 Nov 19 15:43 Operator:
Sample : Ending CCV 10ug/L 11/13/19 Inst : Loki
Misc : IS&S:10/7/19, 10/23/19 Multiplr: 1.00

Quant Time: Nov 14 16:19 2019 Quant Results File: L1113W.RES

Method : M:\LOKI\DATA\191113\L1113W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 14 09:28:54 2019
Response via : Initial Calibration



ORGANICS
Raw Data

Quantitation Report (QT Reviewed)

Data File : M:\LOKI\DATA\191113\1113L40.D Vial: 36
Acq On : 14 Nov 19 9:34 Operator:
Sample : BA02300W01 Inst : Loki
Misc : IS&S:10/7/19, 10/23/19 Multiplr: 1.00

Quant Time: Nov 15 10:02 2019 Quant Results File: L1113W.RES

Quant Method : M:\LOKI\DATA\191113\L1113W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 14 09:28:54 2019
Response via : Initial Calibration
DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	5.18	96	813696	25.00	ppb	0.00
64) Chlorobenzene-D5 (IS)	8.78	117	802432	25.00	ppb	0.00
79) 1,4-Dichlorobenzene-D (IS)	11.32	152	394560	25.00	ppb	0.00
System Monitoring Compounds						
39) Dibromofluoromethane(S)	4.23	111	214472	25.84	ppb	0.00
Spiked Amount 25.000			Recovery = 103.364%			
44) 1,2-DCA-D4(S)	4.69	65	233458	24.67	ppb	0.00
Spiked Amount 25.000			Recovery = 98.680%			
65) Toluene-D8(S)	7.17	98	764016	24.09	ppb	0.00
Spiked Amount 25.000			Recovery = 96.360%			
73) 4-Bromofluorobenzene(S)	10.08	95	271579	22.74	ppb	0.00
Spiked Amount 25.000			Recovery = 90.956%			

Target Compounds Qvalue

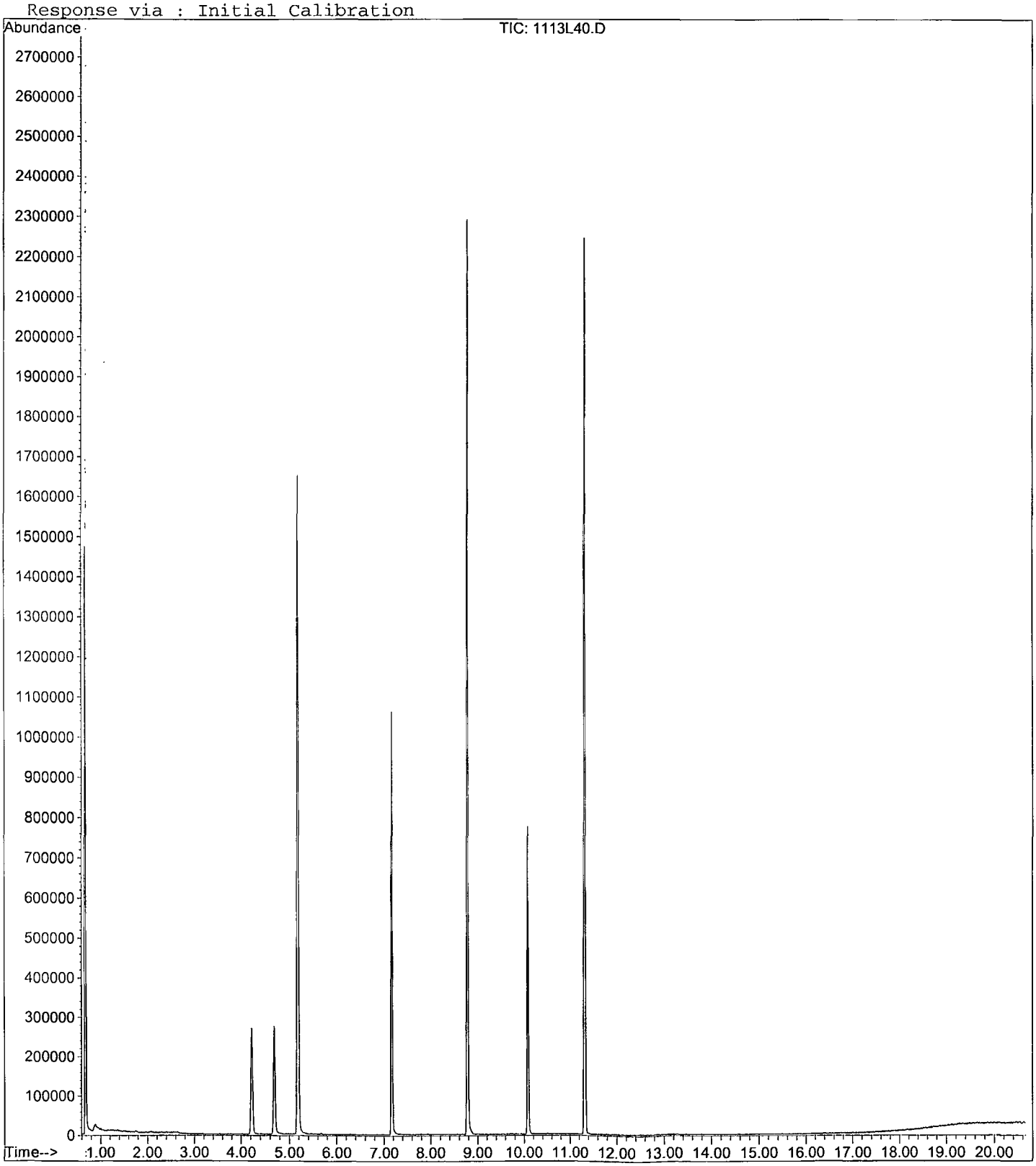
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LOKI\DATA\191113\1113L40.D Vial: 36
Acq On : 14 Nov 19 9:34 Operator:
Sample : BA02300W01 Inst : Loki
Misc : IS&S:10/7/19, 10/23/19 Multiplr: 1.00

Quant Time: Nov 15 10:02 2019 Quant Results File: L1113W.RES

Method : M:\LOKI\DATA\191113\L1113W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 14 09:28:54 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\LOKI\DATA\191113\1113L48.D Vial: 44
Acq On : 14 Nov 19 13:21 Operator:
Sample : BA02301W01 Inst : Loki
Misc : IS&S:10/7/19, 10/23/19 Multiplr: 1.00

Quant Time: Nov 15 10:04 2019 Quant Results File: L1113W.RES

Quant Method : M:\LOKI\DATA\191113\L1113W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 14 09:28:54 2019
Response via : Initial Calibration
DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	5.18	96	830336	25.00	ppb	0.00
64) Chlorobenzene-D5 (IS)	8.78	117	827264	25.00	ppb	0.00
79) 1,4-Dichlorobenzene-D (IS)	11.32	152	420032	25.00	ppb	0.00
System Monitoring Compounds						
39) Dibromofluoromethane(S)	4.22	111	211539	24.98	ppb	0.00
Spiked Amount 25.000			Recovery = 99.908%			
44) 1,2-DCA-D4(S)	4.69	65	235015	24.34	ppb	0.00
Spiked Amount 25.000			Recovery = 97.348%			
65) Toluene-D8(S)	7.17	98	793403	24.27	ppb	0.00
Spiked Amount 25.000			Recovery = 97.064%			
73) 4-Bromofluorobenzene(S)	10.08	95	292169	23.73	ppb	0.00
Spiked Amount 25.000			Recovery = 94.916%			

Target Compounds Qvalue

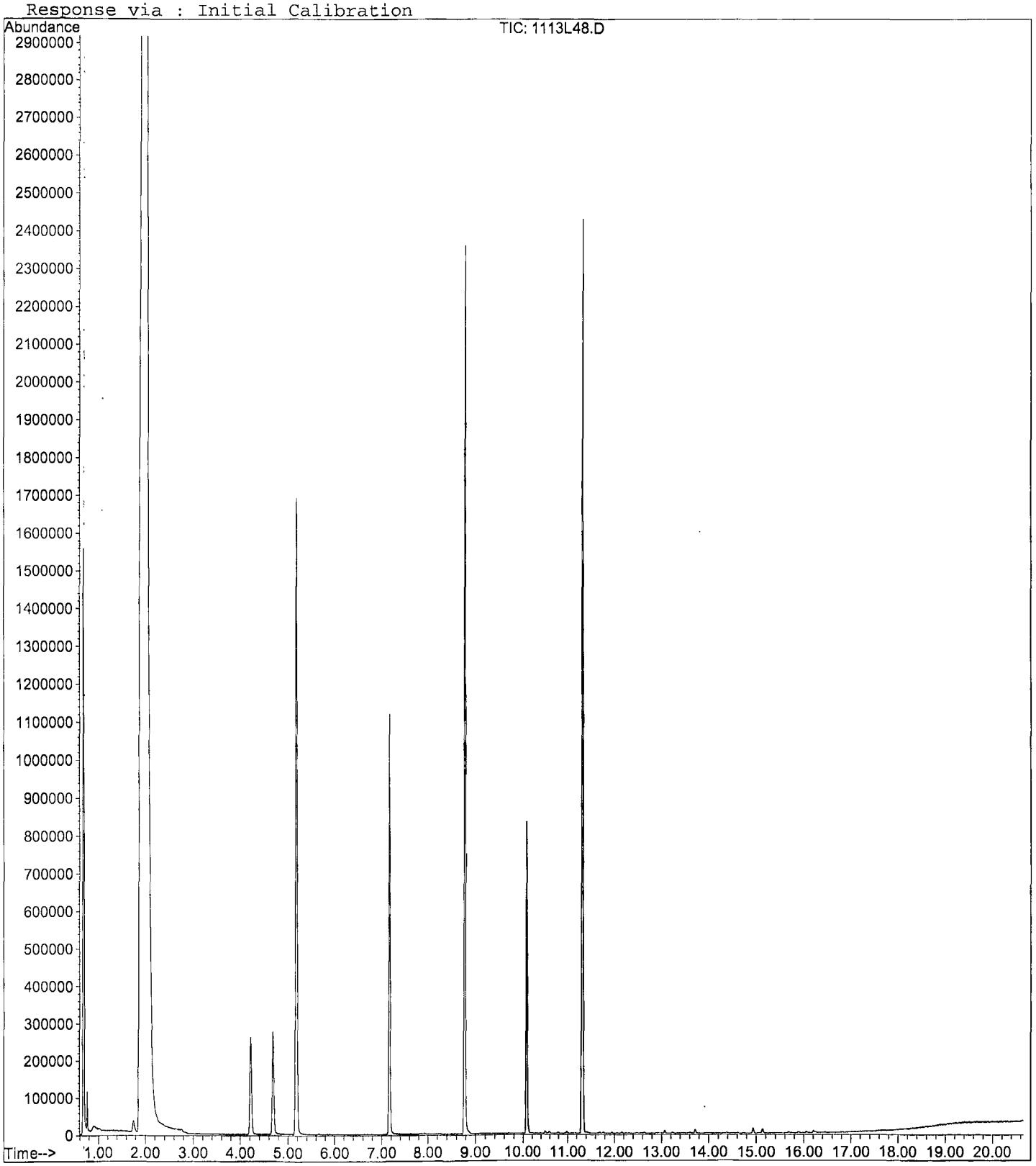
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LOKI\DATA\191113\1113L48.D Vial: 44
Acq On : 14 Nov 19 13:21 Operator:
Sample : BA02301W01 Inst : Loki
Misc : IS&S:10/7/19, 10/23/19 Multiplr: 1.00

Quant Time: Nov 15 10:04 2019 Quant Results File: L1113W.RES

Method : M:\LOKI\DATA\191113\L1113W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 14 09:28:54 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\LOKI\DATA\191113\1113L37.D Vial: 33
Acq On : 14 Nov 19 8:09 Operator:
Sample : 191113 BLK Inst : Loki
Misc : IS&S:10/7/19, 10/23/19 Multiplr: 1.00

Quant Time: Nov 14 16:44 2019 Quant Results File: L1113W.RES

Quant Method : M:\LOKI\DATA\191113\L1113W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 14 09:28:54 2019
Response via : Initial Calibration
DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	5.18	96	794688	25.00	ppb	0.00
64) Chlorobenzene-D5 (IS)	8.78	117	779136	25.00	ppb	0.00
79) 1,4-Dichlorobenzene-D (IS)	11.32	152	381952	25.00	ppb	0.00
System Monitoring Compounds						
39) Dibromofluoromethane(S)	4.22	111	210420	25.96	ppb	0.00
Spiked Amount 25.000			Recovery = 103.840%			
44) 1,2-DCA-D4(S)	4.69	65	227996	24.67	ppb	0.00
Spiked Amount 25.000			Recovery = 98.676%			
65) Toluene-D8(S)	7.17	98	740348	24.04	ppb	0.00
Spiked Amount 25.000			Recovery = 96.168%			
73) 4-Bromofluorobenzene(S)	10.08	95	268849	23.18	ppb	0.00
Spiked Amount 25.000			Recovery = 92.736%			

Target Compounds Qvalue

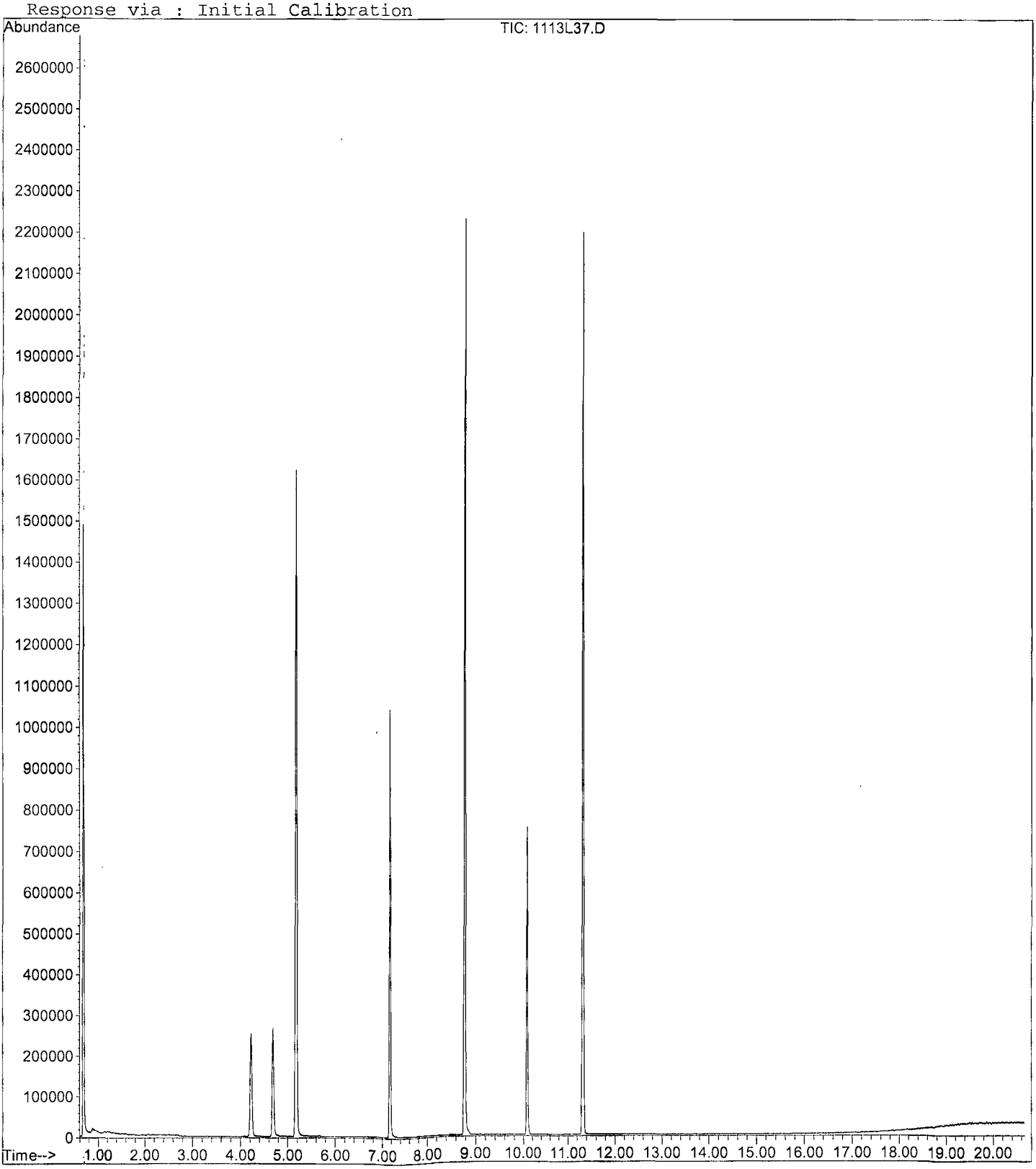
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LOKI\DATA\191113\1113L37.D Vial: 33
Acq On : 14 Nov 19 8:09 Operator:
Sample : 191113 BLK Inst : Loki
Misc : IS&S:10/7/19, 10/23/19 Multiplr: 1.00

Quant Time: Nov 14 16:44 2019 Quant Results File: L1113W.RES

Method : M:\LOKI\DATA\191113\L1113W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 14 09:28:54 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LOKI\DATA\191113\1113L30.D Vial: 26
Acq On : 14 Nov 19 4:50 Operator:
Sample : 191113 LCSD 10ug/L Inst : Loki
Misc : IS&S:10/7/19, 10/23/19 Multiplr: 1.00

Quant Time: Nov 14 9:29 2019 Quant Results File: L1113W.RES

Quant Method : M:\LOKI\DATA\191113\L1113W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 14 09:28:54 2019
Response via : Initial Calibration
DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene (IS)	5.18	96	826432	25.00	ppb		0.00
64) Chlorobenzene-D5 (IS)	8.78	117	772352	25.00	ppb		0.00
79) 1,4-Dichlorobenzene-D (IS)	11.32	152	433408	25.00	ppb		0.00
System Monitoring Compounds							
39) Dibromofluoromethane(S)	4.22	111	210636	24.99	ppb		0.00
Spiked Amount 25.000			Recovery = 99.952%				
44) 1,2-DCA-D4(S)	4.69	65	235520	24.50	ppb		0.00
Spiked Amount 25.000			Recovery = 98.016%				
65) Toluene-D8(S)	7.17	98	785388	25.73	ppb		0.00
Spiked Amount 25.000			Recovery = 102.916%				
73) 4-Bromofluorobenzene(S)	10.08	95	296322	25.78	ppb		0.00
Spiked Amount 25.000			Recovery = 103.108%				
Target Compounds							Qvalue
3) Dichlorodifluoromethane	0.78	85	40397	9.66	ppb		97
4) Freon 114	0.85	85	33437	10.99	ppb		99
5) Chloromethane	0.88	50	46662	9.88	ppb		97
6) Vinyl chloride	0.94	62	43708	9.80	ppb		99
8) Bromomethane	1.13	94	37566	9.83	ppb		100
9) Chloroethane	1.19	64	28682	9.60	ppb		95
10) Dichlorofluoromethane	1.31	67	78109	10.61	ppb		95
11) Trichlorofluoromethane	1.35	101	62219	10.22	ppb		97
13) Acrolein	1.63	56	84057	109.88	ppb		100
14) Acetone	1.75	43	6182	7.37	ppb	#	87
15) Freon-113	1.71	101	35978	10.61	ppb		98
16) 1,1-DCE	1.69	61	54162	9.88	ppb		98
17) t-Butanol	2.26	59	25154	113.64	ppb		95
19) Acetonitrile	1.97	41	49173	126.29	ppb		98
20) Methyl Acetate	2.01	43	27692	9.75	ppb		95
21) Iodomethane	1.79	142	32845	9.44	ppb		96
22) Acrylonitrile	2.30	53	16791	9.99	ppb		97
23) Methylene chloride	2.07	84	54971	10.25	ppb		100
24) Carbon disulfide	1.83	76	78168	10.15	ppb		97
25) Methyl t-butyl ether (MtBE	2.34	73	103234	10.31	ppb		100
26) Trans-1,2-DCE	2.32	61	57956	10.63	ppb		99
27) Diisopropyl Ether	2.89	45	116101	9.99	ppb		99
29) 1,1-DCA	2.74	63	79206	10.87	ppb		96
30) Vinyl Acetate	2.89	45	116101	9.99	ppb		99
31) Ethyl tert Butyl Ether	3.35	59	79387	10.46	ppb		97
32) MEK (2-Butanone)	3.54	43	4763	8.89	ppb		98
33) Cis-1,2-DCE	3.46	61	59286	9.72	ppb		95
34) 2,2-Dichloropropane	3.45	77	50740	9.04	ppb		96
37) Chloroform	3.97	83	77330	10.58	ppb		96
38) Bromochloromethane	3.79	130	32321	10.61	ppb		91
40) 1,1,1-TCA	4.20	97	65269	11.08	ppb		95
41) Cyclohexane	4.27	56	49041	10.32	ppb		91
42) 1,1-Dichloropropene	4.47	75	49216	10.73	ppb		99
43) 2,2,4-Trimethylpentane	4.95	57	90056	9.66	ppb		98
45) Carbon Tetrachloride	4.45	117	53771	10.82	ppb		100
46) Tert Amyl Methyl Ether	5.02	73	67401	9.82	ppb	#	94
48) 1,2-DCA	4.80	62	58231	10.80	ppb		99
49) Benzene	4.75	78	163227	10.43	ppb		96
50) TCE	5.67	130	45336	9.99	ppb		98

(#) = qualifier out of range (m) = manual integration

Data File : M:\LOKI\DATA\191113\1113L30.D Vial: 26
Acq On : 14 Nov 19 4:50 Operator:
Sample : 191113 LCSD 10ug/L Inst : Loki
Misc : IS&S:10/7/19, 10/23/19 Multiplr: 1.00

Quant Time: Nov 14 9:29 2019 Quant Results File: L1113W.RES

Quant Method : M:\LOKI\DATA\191113\L1113W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 14 09:28:54 2019
Response via : Initial Calibration
DataAcq Meth : L8260

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
51)	2-Pentanone	5.99	43	272577	121.62	ppb	97
52)	1,2-Dichloropropane	5.93	63	49586	11.11	ppb	90
53)	Bromodichloromethane	6.32	83	61339	10.80	ppb	99
54)	Methyl Cyclohexane	5.89	83	50204	10.74	ppb	96
55)	Dibromomethane	6.07	174	32532	10.23	ppb	94
57)	MIBK (methyl isobutyl ket	7.11	43	35779	9.41	ppb	94
58)	1-Bromo-2-chloroethane	6.65	63	64615	10.42	ppb	98
59)	Cis-1,3-Dichloropropene	6.87	75	62054	10.50	ppb	96
60)	Toluene	7.24	91	179957	10.89	ppb	99
61)	Trans-1,3-Dichloropropene	7.54	75	57291	9.41	ppb	100
62)	1,1,2-TCA	7.73	97	44292	11.15	ppb	96
63)	2-Hexanone	8.07	43	17411	9.35	ppb	93
66)	1,2-EDB	8.23	107	42133	10.85	ppb	96
67)	Tetrachloroethene	7.86	166	49928	10.86	ppb	90
68)	1-Chlorohexane	8.85	91	45616	10.08	ppb	95
69)	1,1,1,2-Tetrachloroethane	8.92	131	46048	10.64	ppb	89
70)	m&p-Xylene	9.10	91	284151	19.72	ppb	100
71)	o-Xylene	9.52	91	141651	9.75	ppb	100
72)	Styrene	9.54	104	111657	9.43	ppb	96
74)	1,3-Dichloropropane	7.90	76	69596	10.47	ppb	97
75)	Dibromochloromethane	8.14	129	46431	10.44	ppb	88
76)	Chlorobenzene	8.81	112	125020	10.81	ppb	100
77)	Ethylbenzene	8.96	91	182528	10.79	ppb	97
78)	Bromoform	9.70	173	33342	10.75	ppb	100
80)	Isopropylbenzene	9.94	105	97240	10.03	ppb	100
81)	1,1,2,2-Tetrachloroethane	10.27	83	55854	10.25	ppb	97
82)	1,2,3-Trichloropropane	10.29	110	17604	10.40	ppb	90
83)	t-1,4-Dichloro-2-Butene	10.34	53	9845	9.47	ppb	89
84)	Bromobenzene	10.21	156	52823	10.41	ppb	99
85)	n-Propylbenzene	10.39	91	206736	9.85	ppb	95
86)	4-Ethyltoluene	10.52	105	168010	9.71	ppb	99
87)	2-Chlorotoluene	10.44	91	77043	9.68	ppb	95
88)	1,3,5-Trimethylbenzene	10.59	105	151052	9.83	ppb	97
89)	4-Chlorotoluene	10.57	91	80704	9.50	ppb	99
90)	Tert-Butylbenzene	10.93	119	122832	9.36	ppb	99
91)	1,2,4-Trimethylbenzene	10.98	105	140347	9.34	ppb	94
92)	Sec-Butylbenzene	11.17	105	181104	9.63	ppb	97
93)	p-Isopropyltoluene	11.34	119	166926	9.70	ppb	99
94)	Benzyl Chloride	11.51	91	36429	6.98	ppb	98
95)	1,3-DCB	11.25	146	97426	10.50	ppb	96
96)	1,4-DCB	11.35	146	104325	10.37	ppb	99
97)	n-Butylbenzene	11.77	91	133067	9.45	ppb	99
98)	1,2-DCB	11.73	146	94556	10.23	ppb	99
99)	Hexachloroethane	12.01	117	29129	9.35	ppb	95
100)	1,2-Dibromo-3-chloropropan	12.57	157	10103	9.81	ppb	94
101)	1,2,4-Trichlorobenzene	13.47	180	53846	9.41	ppb	94
102)	Hexachlorobutadiene	13.68	225	15438	9.48	ppb	97
103)	Naphthalene	13.72	128	97089	8.72	ppb	98
104)	1,2,3-Trichlorobenzene	13.98	182	27320	9.02	ppb	94

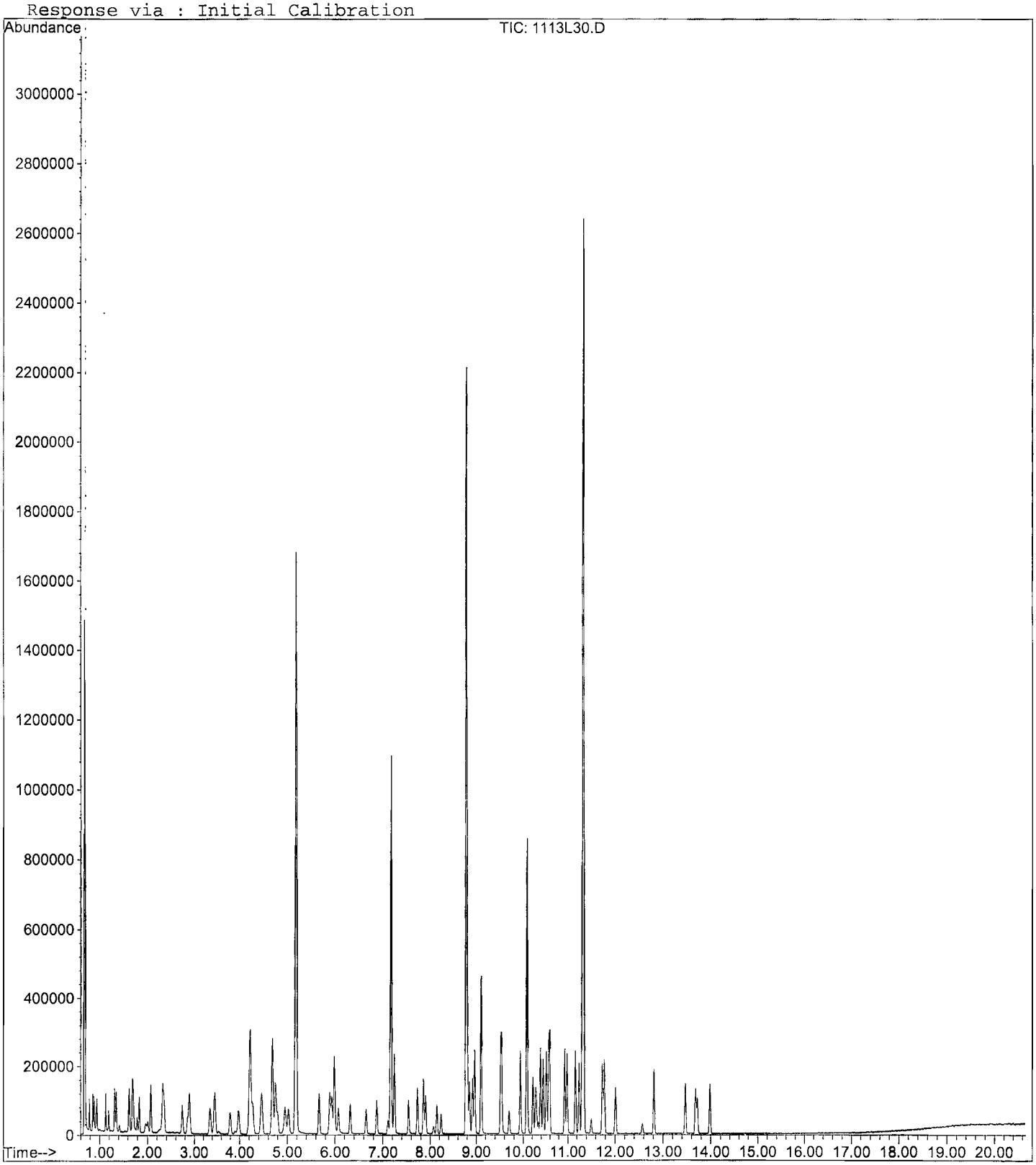
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LOKI\DATA\191113\1113L30.D Vial: 26
Acq On : 14 Nov 19 4:50 Operator:
Sample : 191113 LCSD 10ug/L Inst : Loki
Misc : IS&S:10/7/19, 10/23/19 Multiplr: 1.00

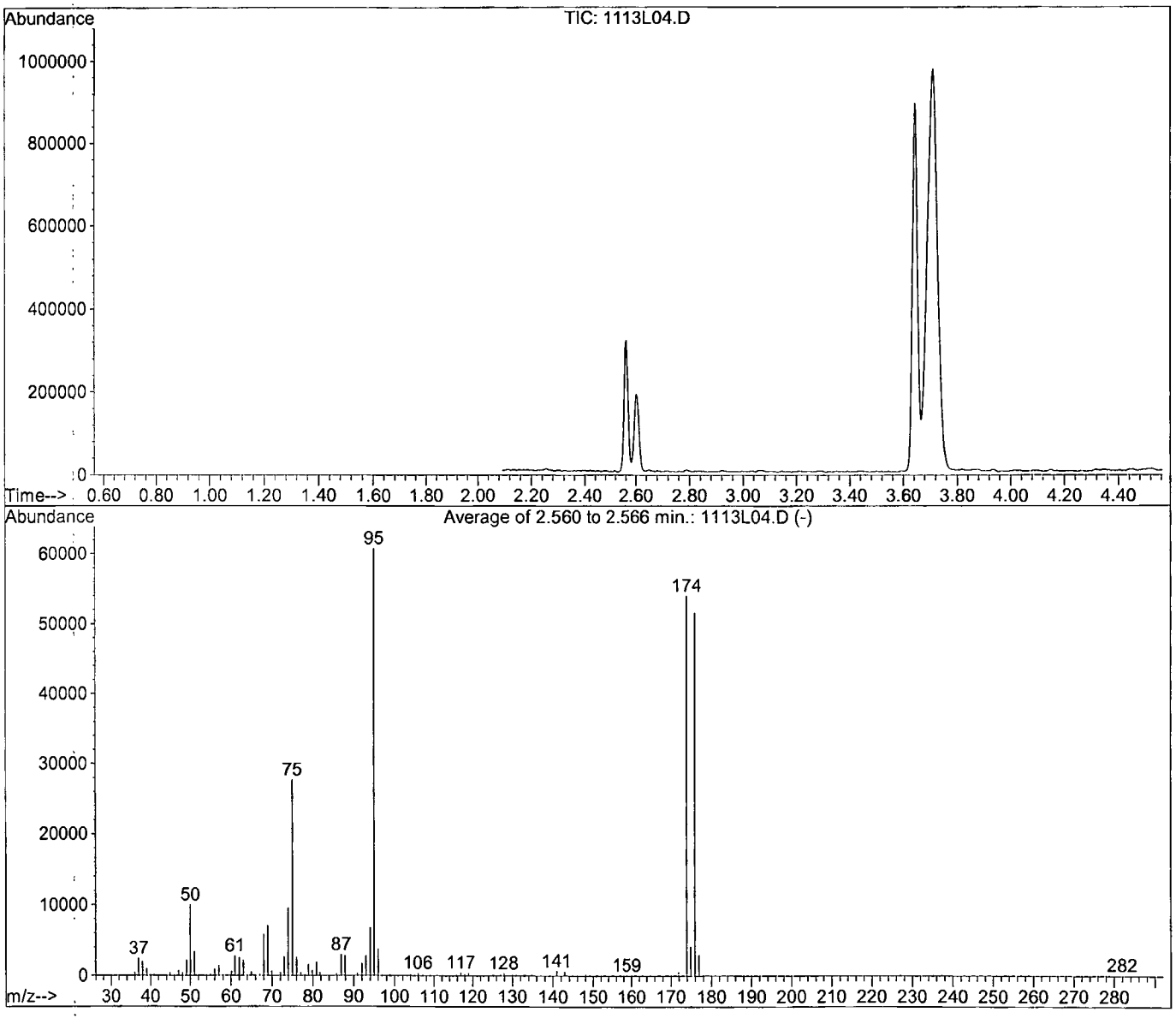
Quant Time: Nov 14 9:29 2019 Quant Results File: L1113W.RES

Method : M:\LOKI\DATA\191113\L1113W.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 14 09:28:54 2019
Response via : Initial Calibration



Data File : M:\LOKI\DATA\191113\1113L04.D Vial: 1
Acq On : 13 Nov 19 16:38 Operator:
Sample : 25ug/L BFB STD 10/10/19 Inst : Loki
Misc : IS&S:10/7/19, 10/23/19 Multiplr: 1.00

Method : M:\LOKI\DATA\191113\LSUR1113.M (RTE Integrator)
Title : METHOD 8260B

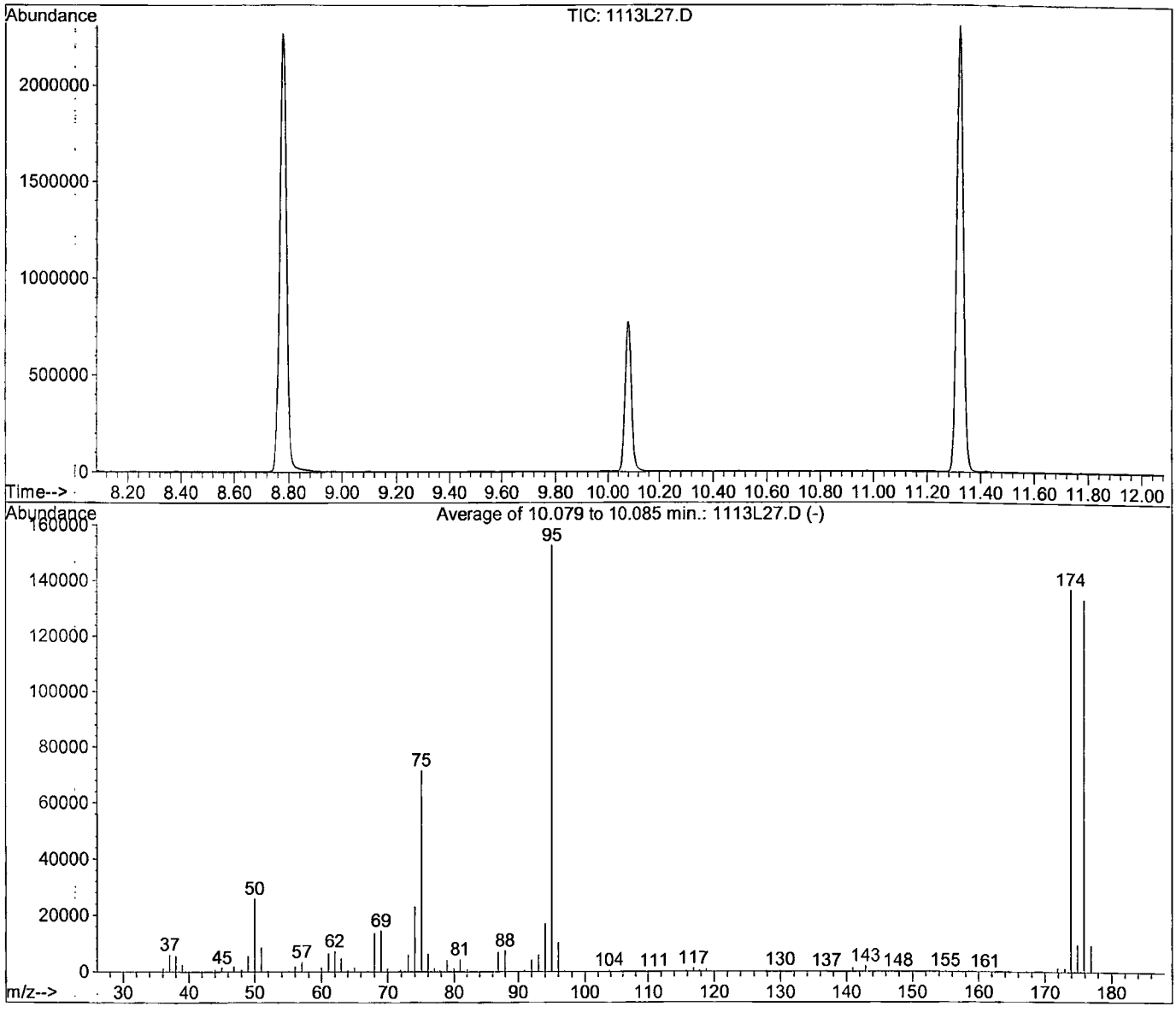


Spectrum Information: Average of 2.560 to 2.566 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	16.4	9980	PASS
75	95	30	60	45.6	27715	PASS
95	95	100	100	100.0	60803	PASS
96	95	5	9	6.2	3754	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	200	88.8	54019	PASS
175	174	5	9	7.6	4128	PASS
176	174	95	101	95.5	51595	PASS
177	176	5	9	5.6	2876	PASS

Data File : M:\LOKI\DATA\191113\1113L27.D Vial: 23
Acq On : 14 Nov 19 3:25 Operator:
Sample : 25ug/L BFB STD 10/10/19 Inst : Loki
Misc : IS&S:10/7/19, 10/23/19 Multiplr: 1.00

Method : M:\LOKI\DATA\191113\LSUR1113.M (RTE Integrator)
Title : METHOD 8260B



Spectrum Information: Average of 10.079 to 10.085 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	17.0	25925	PASS
75	95	30	60	47.0	71725	PASS
95	95	100	100	100.0	152619	PASS
96	95	5	9	6.7	10254	PASS
173	174	0.00	2	1.0	1415	PASS
174	95	50	200	89.9	137195	PASS
175	174	5	9	7.2	9923	PASS
176	174	95	101	97.4	133589	PASS
177	176	5	9	7.3	9734	PASS

Injection Log

Directory: M:\LOKI\DATA\191113\

Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1113L04.D	1	25ug/L BFB STD 10/10/19	IS&S:10/7/19, 10/23/19	13 Nov 19 16:38
3	1113L07.D	1	0.3ug/L VOC STD 11/13/19	IS&S:10/7/19, 10/23/19	13 Nov 19 17:58
4	1113L08.D	1	0.5ug/L VOC STD 11/13/19	IS&S:10/7/19, 10/23/19	13 Nov 19 18:26
5	1113L09.D	1	1.0ug/L VOC STD 11/13/19	IS&S:10/7/19, 10/23/19	13 Nov 19 18:54
6	1113L10.D	1	2.0ug/L VOC STD 11/13/19	IS&S:10/7/19, 10/23/19	13 Nov 19 19:23
7	1113L11.D	1	5.0ug/L VOC STD 11/13/19	IS&S:10/7/19, 10/23/19	13 Nov 19 19:51
8	1113L12.D	1	10ug/L VOC STD 11/13/19	IS&S:10/7/19, 10/23/19	13 Nov 19 20:19
9	1113L13.D	1	20ug/L VOC STD 11/13/19	IS&S:10/7/19, 10/23/19	13 Nov 19 20:48
10	1113L14.D	1	40ug/L VOC STD 11/13/19	IS&S:10/7/19, 10/23/19	13 Nov 19 21:16
11	1113L15.D	1	100ug/L VOC STD 11/13/19	IS&S:10/7/19, 10/23/19	13 Nov 19 21:45
13	1113L17.D	1	(SS) 10ug/L VOC STD 11/12/19	IS&S:10/7/19, 10/23/19	13 Nov 19 22:42
23	1113L27.D	1	25ug/L BFB STD 10/10/19	IS&S:10/7/19, 10/23/19	14 Nov 19 3:25
25	1113L29.D	1	191113 CCV/LCS 10ug/L	IS&S:10/7/19, 10/23/19	14 Nov 19 4:22
26	1113L30.D	1	191113 LCSD 10ug/L	IS&S:10/7/19, 10/23/19	14 Nov 19 4:50
33	1113L37.D	1	191113 BLK	IS&S:10/7/19, 10/23/19	14 Nov 19 8:09
36	1113L40.D	1	BA02300W01	IS&S:10/7/19, 10/23/19	14 Nov 19 9:34
44	1113L48.D	1	BA02301W01	IS&S:10/7/19, 10/23/19	14 Nov 19 13:21
49	1113L53.D	1	Ending CCV 10ug/L 11/13/19	IS&S:10/7/19, 10/23/19	14 Nov 19 15:43

Injection Log

Directory: M:\LOKI\DATA\191113\

Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1113L04.D	1	25ug/L BFB STD 10/10/19	IS&S:10/7/19, 10/23/19	13 Nov 19 16:38
3	1113L07.D	1	0.3ug/L VOC STD 11/13/19	IS&S:10/7/19, 10/23/19	13 Nov 19 17:58
4	1113L08.D	1	0.5ug/L VOC STD 11/13/19	IS&S:10/7/19, 10/23/19	13 Nov 19 18:26
5	1113L09.D	1	1.0ug/L VOC STD 11/13/19	IS&S:10/7/19, 10/23/19	13 Nov 19 18:54
6	1113L10.D	1	2.0ug/L VOC STD 11/13/19	IS&S:10/7/19, 10/23/19	13 Nov 19 19:23
7	1113L11.D	1	5.0ug/L VOC STD 11/13/19	IS&S:10/7/19, 10/23/19	13 Nov 19 19:51
8	1113L12.D	1	10ug/L VOC STD 11/13/19	IS&S:10/7/19, 10/23/19	13 Nov 19 20:19
9	1113L13.D	1	20ug/L VOC STD 11/13/19	IS&S:10/7/19, 10/23/19	13 Nov 19 20:48
10	1113L14.D	1	40ug/L VOC STD 11/13/19	IS&S:10/7/19, 10/23/19	13 Nov 19 21:16
11	1113L15.D	1	100ug/L VOC STD 11/13/19	IS&S:10/7/19, 10/23/19	13 Nov 19 21:45
13	1113L17.D	1	(SS) 10ug/L VOC STD 11/12/19	IS&S:10/7/19, 10/23/19	13 Nov 19 22:42
23	1113L27.D	1	25ug/L BFB STD 10/10/19	IS&S:10/7/19, 10/23/19	14 Nov 19 3:25
25	1113L29.D	1	191113 CCV/LCS 10ug/L	IS&S:10/7/19, 10/23/19	14 Nov 19 4:22
26	1113L30.D	1	191113 LCSD 10ug/L	IS&S:10/7/19, 10/23/19	14 Nov 19 4:50
33	1113L37.D	1	191113 BLK	IS&S:10/7/19, 10/23/19	14 Nov 19 8:09
36	1113L40.D	1	BA02300W01	IS&S:10/7/19, 10/23/19	14 Nov 19 9:34
44	1113L48.D	1	BA02301W01	IS&S:10/7/19, 10/23/19	14 Nov 19 13:21
49	1113L53.D	1	Ending CCV 10ug/L 11/13/19	IS&S:10/7/19, 10/23/19	14 Nov 19 15:43

ORGANICS
Calibration Data

VOLATILE ORGANIC ANALYSIS
VOLATILE ORGANIC COMPOUNDS

Form 6
Initial Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Initial Cal. Date: 11/13/2019
Matrix: Instrument: Loki Initials:

			1113L07.D	1113L08.D	1113L09 D	1113L10.D	1113L11.D	1113L12.D	1113L13.D	1113L14 D	1113L15 D							
		Compound	1	2	3	4	5	6	7	8	9		Avg	%RSD	Type	r^2	Q	MRF
1	I	Fluorobenzene (IS)																
2	S	Dibromofluoromethane(S)	0.2919	0.2844	0.2356	0.2291	0.2565	0.2501	0.2532	0.2524	0.2418		0.25	8.2	S			
3	S	1,2-DCA-D4(S)	0.3348	0.3295	0.2709	0.2654	0.2847	0.2841	0.2866	0.2858	0.2750		0.29	8.5	S			
4	I	Chlorobenzene-D5 (IS)																
5	S	Toluene-D8(S)	1.091	1.067	0.8536	0.9070	0.9939	0.9552	1.023	1.029	0.9731		0.99	7.7	S			
6	S	4-Bromofluorobenzene(S)	0.4068	0.3887	0.3091	0.3334	0.3741	0.3658	0.3912	0.3997	0.3800		0.37	8.6	S			
7	I	1,4-Dichlorobenzene-D (IS)																
8																		
9																		
10																		
11																		
12																		
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14																		
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Quantitation Report (Not Reviewed)

Data File : M:\LOKI\DATA\191113\1113L07.D Vial: 3
Acq On : 13 Nov 19 17:58 Operator:
Sample : 0.3ug/L VOC STD 11/13/19 Inst : Loki
Misc : IS&S:10/7/19, 10/23/19 Multiplr: 1.00

Quant Time: Nov 14 9:53 2019 Quant Results File: LSUR1113.RES

Quant Method : M:\LOKI\DATA\191113\LSUR1113.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 14 09:28:54 2019
Response via : Initial Calibration
DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	5.18	96	803072	25.00	ppb	0.00
4) Chlorobenzene-D5 (IS)	8.78	117	761728	25.00	ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	11.32	152	381696	25.00	ppb	0.00
System Monitoring Compounds						
2) Dibromofluoromethane(S)	4.22	111	46881	5.72	ppb	0.00
Spiked Amount 25.000			Recovery =	22.892%		
3) 1,2-DCA-D4(S)	4.69	65	53771	5.76	ppb	0.00
Spiked Amount 25.000			Recovery =	23.028%		
5) Toluene-D8(S)	7.17	98	166263	5.52	ppb	0.00
Spiked Amount 25.000			Recovery =	22.092%		
6) 4-Bromofluorobenzene(S)	10.08	95	61981	5.47	ppb	0.00
Spiked Amount 25.000			Recovery =	21.868%		
Target Compounds						Qvalue

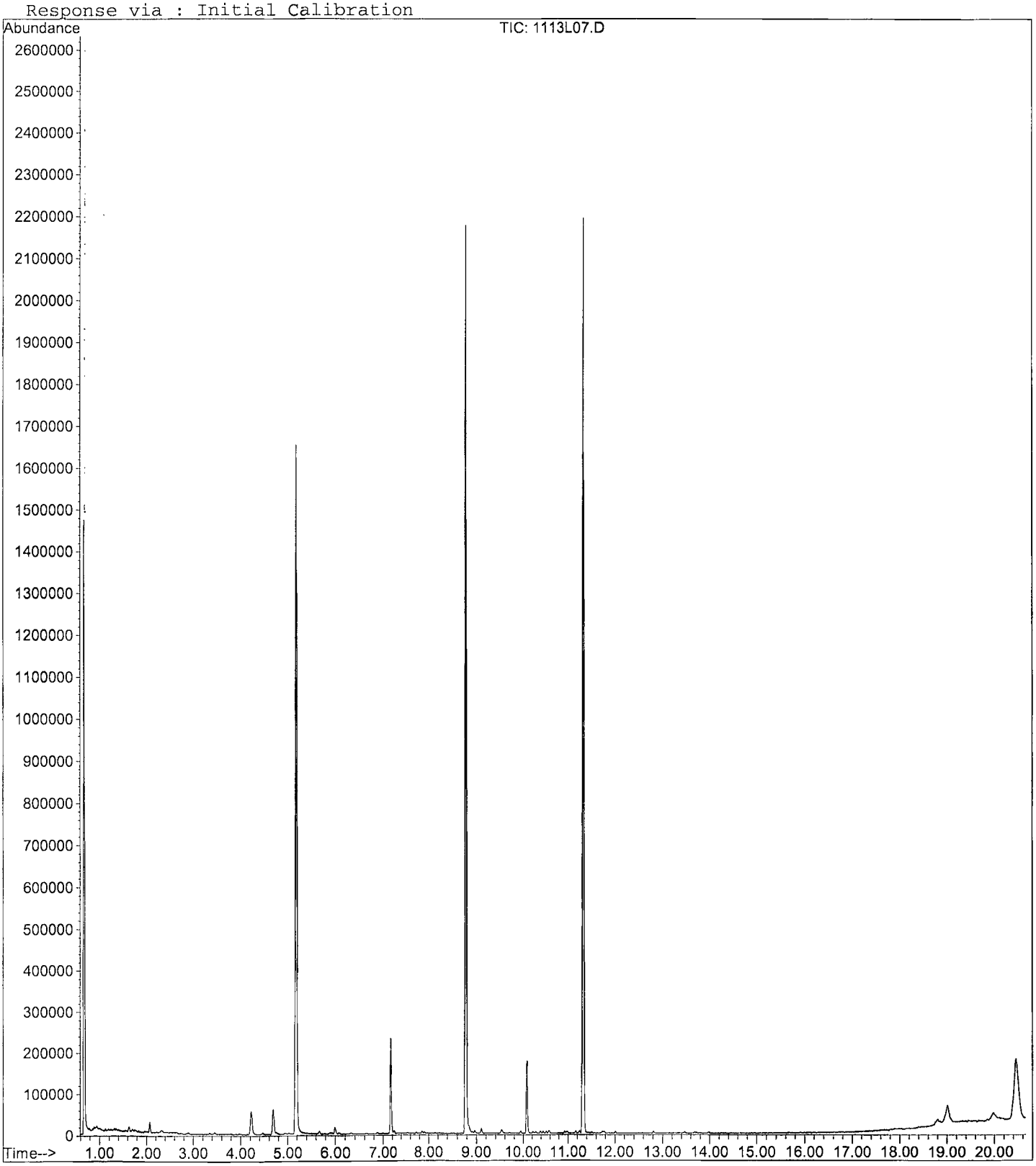
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LOKI\DATA\191113\1113L07.D Vial: 3
Acq On : 13 Nov 19 17:58 Operator:
Sample : 0.3ug/L VOC STD 11/13/19 Inst : Loki
Misc : IS&S:10/7/19, 10/23/19 Multiplr: 1.00

Quant Time: Nov 14 9:53 2019 Quant Results File: LSUR1113.RES

Method : M:\LOKI\DATA\191113\LSUR1113.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 14 09:28:54 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LOKI\DATA\191113\1113L08.D Vial: 4
Acq On : 13 Nov 19 18:26 Operator:
Sample : 0.5ug/L VOC STD 11/13/19 Inst : Loki
Misc : IS&S:10/7/19, 10/23/19 Multiplr: 1.00

Quant Time: Nov 14 9:53 2019 Quant Results File: LSUR1113.RES

Quant Method : M:\LOKI\DATA\191113\LSUR1113.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 14 09:28:54 2019
Response via : Initial Calibration
DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	5.18	96	821504	25.00	ppb	0.00
4) Chlorobenzene-D5 (IS)	8.78	117	759296	25.00	ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	11.32	152	384320	25.00	ppb	0.00
System Monitoring Compounds						
2) Dibromofluoromethane(S)	4.23	111	46733	5.58	ppb	0.00
Spiked Amount 25.000			Recovery = 22.308%			
3) 1,2-DCA-D4(S)	4.69	65	54144	5.67	ppb	0.00
Spiked Amount 25.000			Recovery = 22.668%			
5) Toluene-D8(S)	7.17	98	162063	5.40	ppb	0.00
Spiked Amount 25.000			Recovery = 21.600%			
6) 4-Bromofluorobenzene(S)	10.08	95	59028	5.22	ppb	0.00
Spiked Amount 25.000			Recovery = 20.892%			

Target Compounds Qvalue

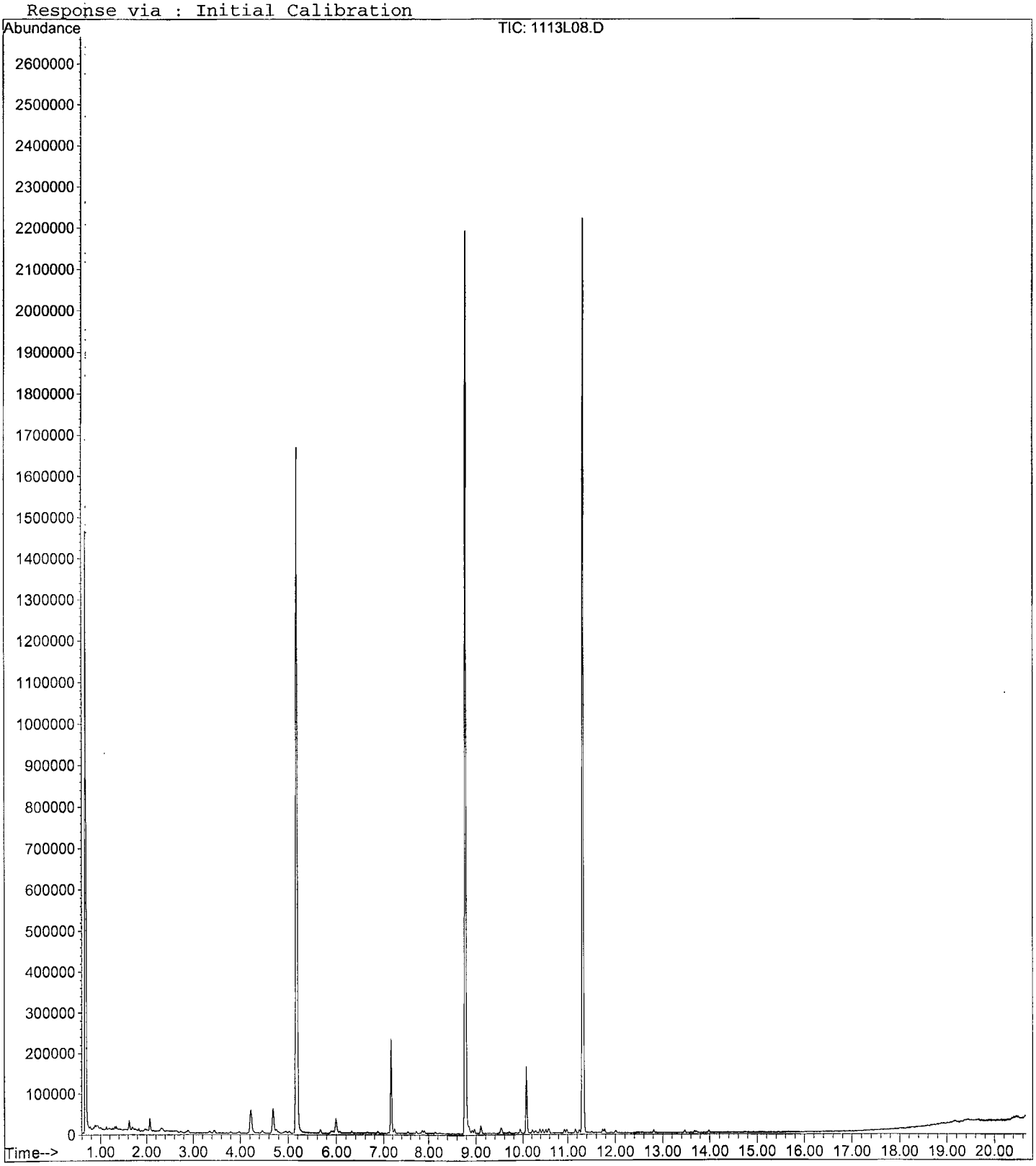
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LOKI\DATA\191113\1113L08.D Vial: 4
Acq On : 13 Nov 19 18:26 Operator:
Sample : 0.5ug/L VOC STD 11/13/19 Inst : Loki
Misc : IS&S:10/7/19, 10/23/19 Multiplr: 1.00

Quant Time: Nov 14 9:53 2019 Quant Results File: LSUR1113.RES

Method : M:\LOKI\DATA\191113\LSUR1113.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 14 09:28:54 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LOKI\DATA\191113\1113L09.D Vial: 5
Acq On : 13 Nov 19 18:54 Operator:
Sample : 1.0ug/L VOC STD 11/13/19 Inst : Loki
Misc : IS&S:10/7/19, 10/23/19 Multiplr: 1.00

Quant Time: Nov 14 9:53 2019 Quant Results File: LSUR1113.RES

Quant Method : M:\LOKI\DATA\191113\LSUR1113.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 14 09:28:54 2019
Response via : Initial Calibration
DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	5.18	96	793920	25.00	ppb	0.00
4) Chlorobenzene-D5 (IS)	8.78	117	772864	25.00	ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	11.32	152	383680	25.00	ppb	0.00
System Monitoring Compounds						
2) Dibromofluoromethane(S)	4.22	111	74834	9.24	ppb	0.00
Spiked Amount 25.000			Recovery	=	36.964%	
3) 1,2-DCA-D4(S)	4.69	65	86043	9.32	ppb	0.00
Spiked Amount 25.000			Recovery	=	37.276%	
5) Toluene-D8(S)	7.17	98	263875	8.64	ppb	0.00
Spiked Amount 25.000			Recovery	=	34.556%	
6) 4-Bromofluorobenzene(S)	10.08	95	95550	8.31	ppb	0.00
Spiked Amount 25.000			Recovery	=	33.224%	

Target Compounds Qvalue

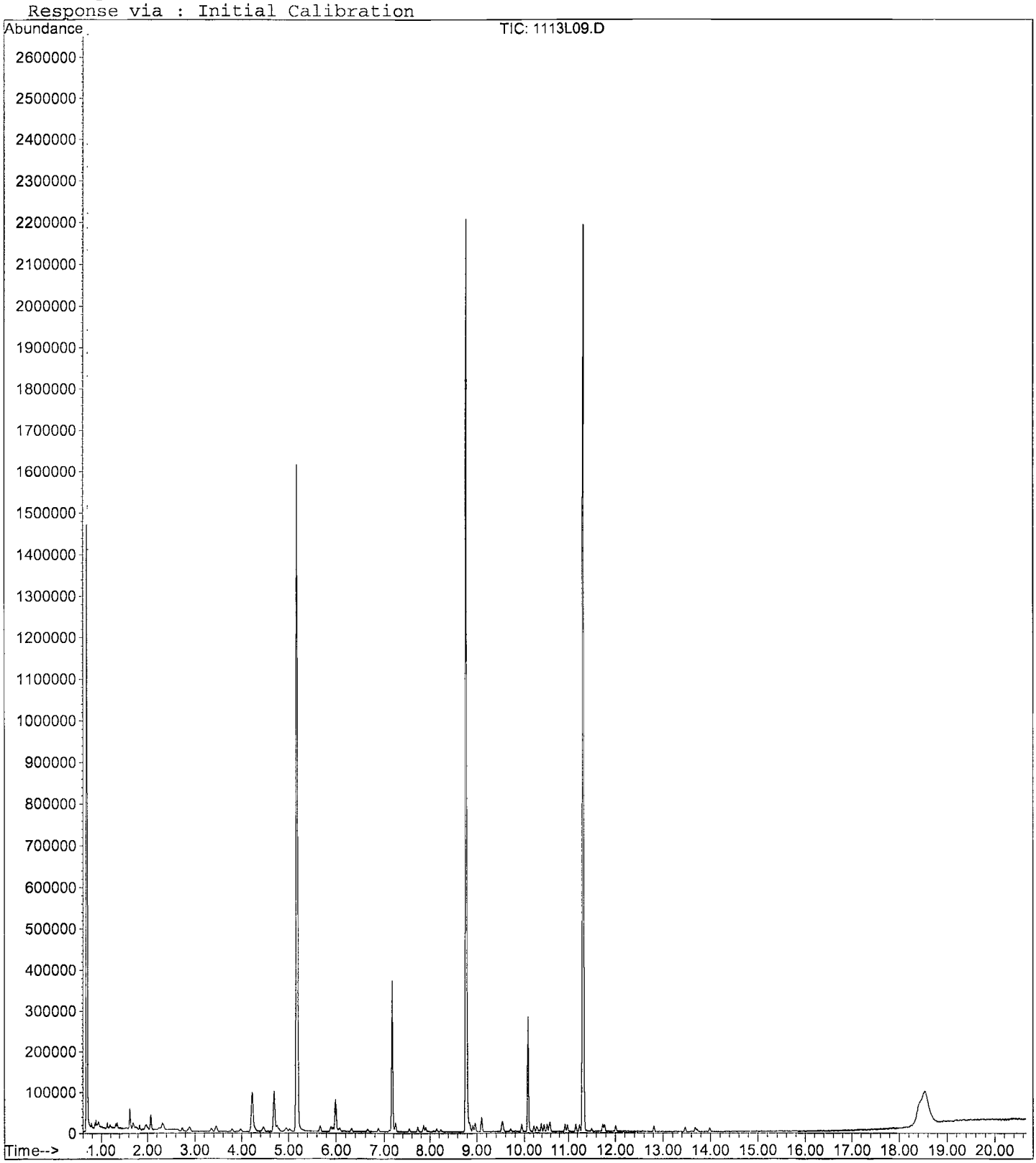
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LOKI\DATA\191113\1113L09.D Vial: 5
Acq On : 13 Nov 19 18:54 Operator:
Sample : 1.0ug/L VOC STD 11/13/19 Inst : Loki
Misc : IS&S:10/7/19, 10/23/19 Multiplr: 1.00

Quant Time: Nov 14 9:53 2019 Quant Results File: LSUR1113.RES

Method : M:\LOKI\DATA\191113\LSUR1113.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 14 09:28:54 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LOKI\DATA\191113\1113L10.D Vial: 6
Acq On : 13 Nov 19 19:23 Operator:
Sample : 2.0ug/L VOC STD 11/13/19 Inst : Loki
Misc : IS&S:10/7/19, 10/23/19 Multiplr: 1.00

Quant Time: Nov 14 9:53 2019 Quant Results File: LSUR1113.RES

Quant Method : M:\LOKI\DATA\191113\LSUR1113.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 14 09:28:54 2019
Response via : Initial Calibration
DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	5.18	96	803648	25.00	ppb	0.00
4) Chlorobenzene-D5 (IS)	8.78	117	755520	25.00	ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	11.32	152	385984	25.00	ppb	0.00
System Monitoring Compounds						
2) Dibromofluoromethane(S)	4.22	111	73656	8.99	ppb	0.00
Spiked Amount 25.000			Recovery =	35.944%		
3) 1,2-DCA-D4(S)	4.69	65	85301	9.13	ppb	0.00
Spiked Amount 25.000			Recovery =	36.508%		
5) Toluene-D8(S)	7.17	98	274091	9.18	ppb	0.00
Spiked Amount 25.000			Recovery =	36.716%		
6) 4-Bromofluorobenzene(S)	10.08	95	100746	8.96	ppb	0.00
Spiked Amount 25.000			Recovery =	35.836%		

Target Compounds Qvalue

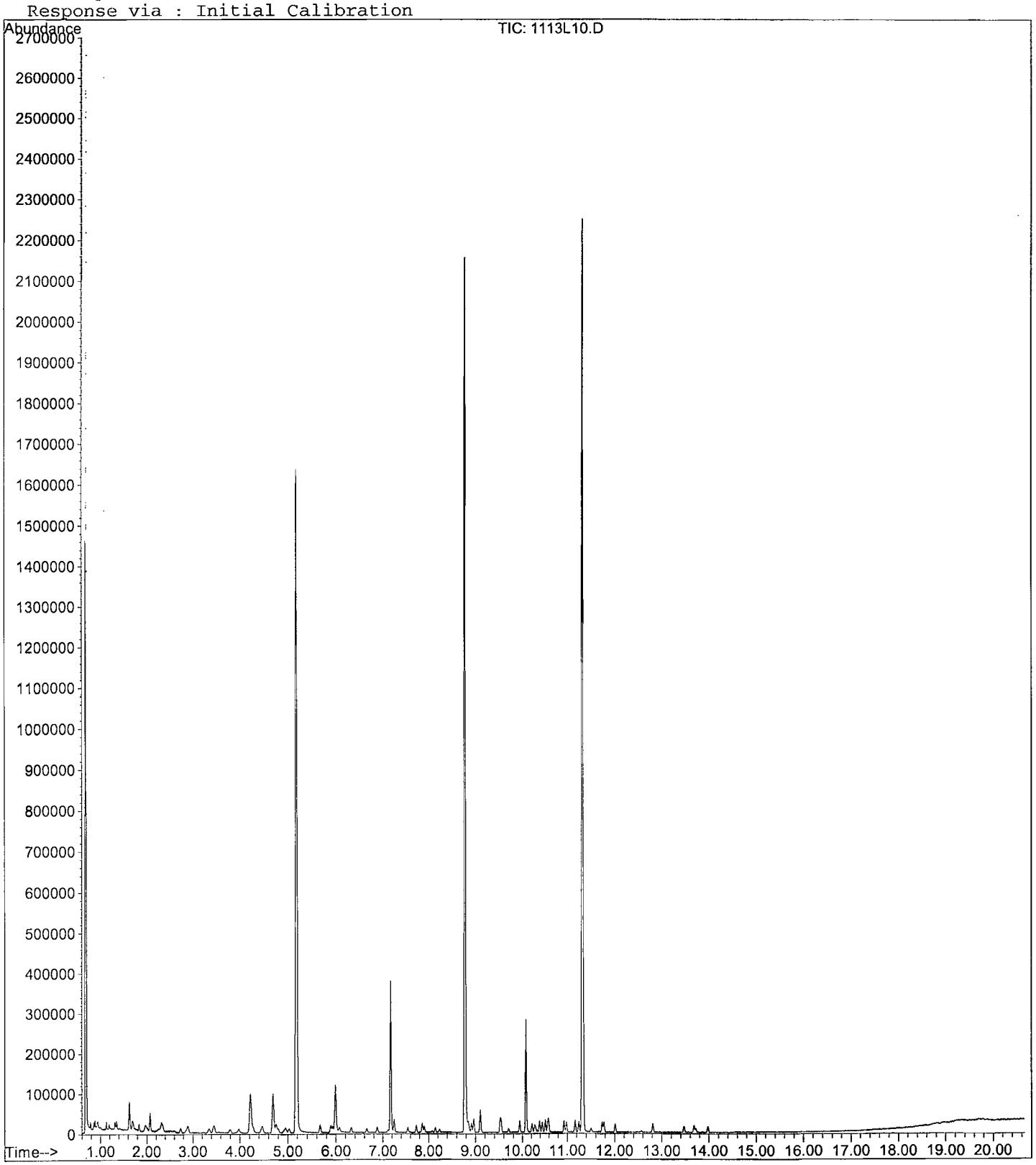
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LOKI\DATA\191113\1113L10.D Vial: 6
Acq On : 13 Nov 19 19:23 Operator:
Sample : 2.0ug/L VOC STD 11/13/19 Inst : Loki
Misc : IS&S:10/7/19, 10/23/19 Multiplr: 1.00

Quant Time: Nov 14 9:53 2019 Quant Results File: LSUR1113.RES

Method : M:\LOKI\DATA\191113\LSUR1113.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 14 09:28:54 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LOKI\DATA\191113\1113L11.D Vial: 7
Acq On : 13 Nov 19 19:51 Operator:
Sample : 5.0ug/L VOC STD 11/13/19 Inst : Loki
Misc : IS&S:10/7/19, 10/23/19 Multiplr: 1.00

Quant Time: Nov 14 9:53 2019 Quant Results File: LSUR1113.RES

Quant Method : M:\LOKI\DATA\191113\LSUR1113.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 14 09:28:54 2019
Response via : Initial Calibration
DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	5.18	96	834560	25.00	ppb	0.00
4) Chlorobenzene-D5 (IS)	8.78	117	783552	25.00	ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	11.32	152	427200	25.00	ppb	0.00
System Monitoring Compounds						
2) Dibromofluoromethane(S)	4.22	111	214074	25.15	ppb	0.00
Spiked Amount 25.000			Recovery = 100.596%			
3) 1,2-DCA-D4(S)	4.69	65	237593	24.48	ppb	0.00
Spiked Amount 25.000			Recovery = 97.916%			
5) Toluene-D8(S)	7.17	98	778741	25.15	ppb	0.00
Spiked Amount 25.000			Recovery = 100.584%			
6) 4-Bromofluorobenzene(S)	10.08	95	293164	25.14	ppb	0.00
Spiked Amount 25.000			Recovery = 100.552%			

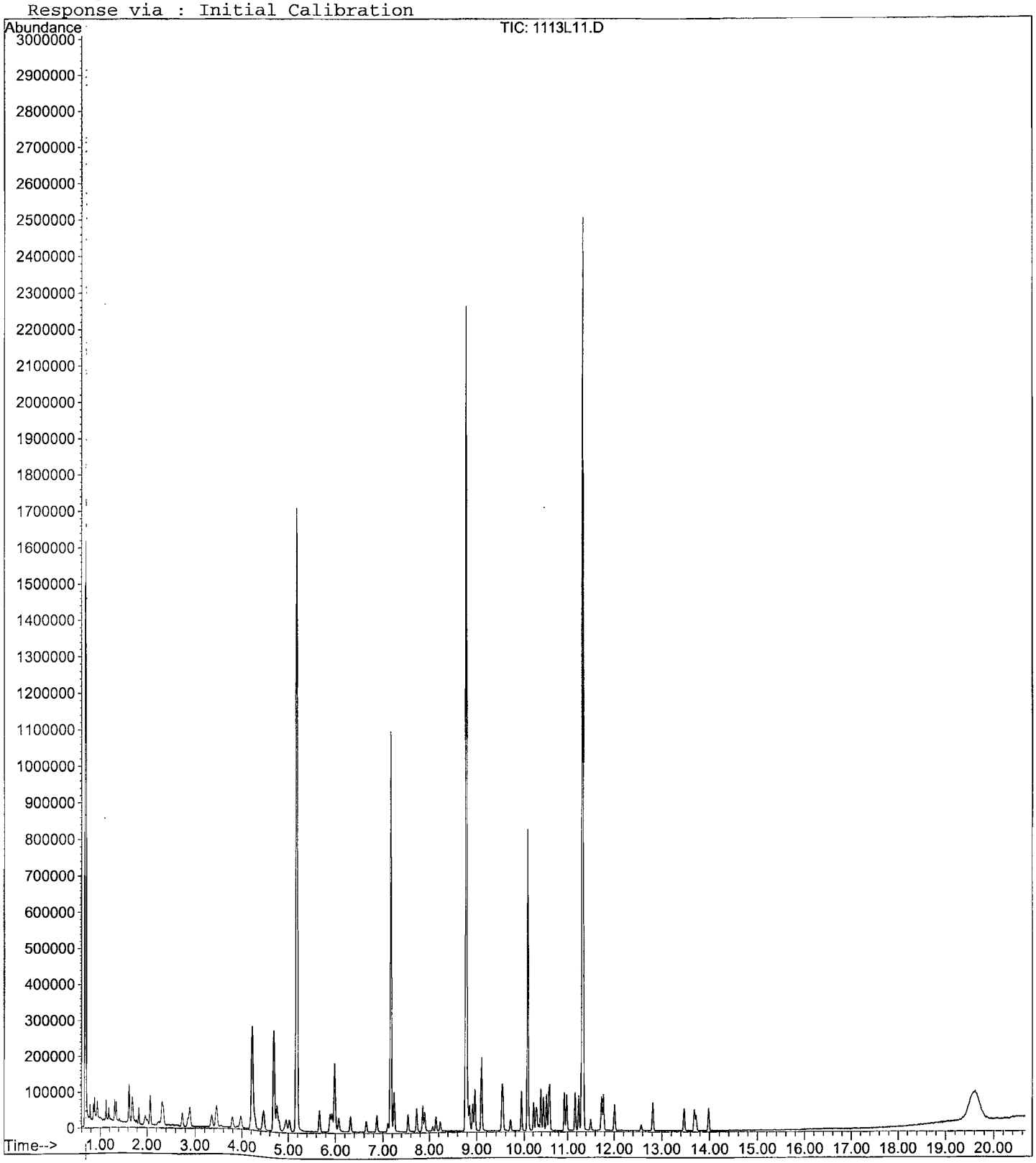
Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration

Data File : M:\LOKI\DATA\191113\1113L11.D Vial: 7
Acq On : 13 Nov 19 19:51 Operator:
Sample : 5.0ug/L VOC STD 11/13/19 Inst : Loki
Misc : IS&S:10/7/19, 10/23/19 Multiplr: 1.00

Quant Time: Nov 14 9:53 2019 Quant Results File: LSUR1113.RES

Method : M:\LOKI\DATA\191113\LSUR1113.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 14 09:28:54 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LOKI\DATA\191113\1113L12.D Vial: 8
Acq On : 13 Nov 19 20:19 Operator:
Sample : 10ug/L VOC STD 11/13/19 Inst : Loki
Misc : IS&S:10/7/19, 10/23/19 Multiplr: 1.00

Quant Time: Nov 14 9:53 2019 Quant Results File: LSUR1113.RES

Quant Method : M:\LOKI\DATA\191113\LSUR1113.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 14 09:28:54 2019
Response via : Initial Calibration
DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	5.18	96	844928	25.00	ppb	0.00
4) Chlorobenzene-D5 (IS)	8.78	117	817088	25.00	ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	11.32	152	426752	25.00	ppb	0.00
System Monitoring Compounds						
2) Dibromofluoromethane(S)	4.22	111	211274	24.52	ppb	0.00
Spiked Amount 25.000			Recovery =	98.060%		
3) 1,2-DCA-D4(S)	4.69	65	240043	24.43	ppb	0.00
Spiked Amount 25.000			Recovery =	97.712%		
5) Toluene-D8(S)	7.17	98	780454	24.17	ppb	0.00
Spiked Amount 25.000			Recovery =	96.668%		
6) 4-Bromofluorobenzene(S)	10.08	95	298907	24.58	ppb	0.00
Spiked Amount 25.000			Recovery =	98.312%		

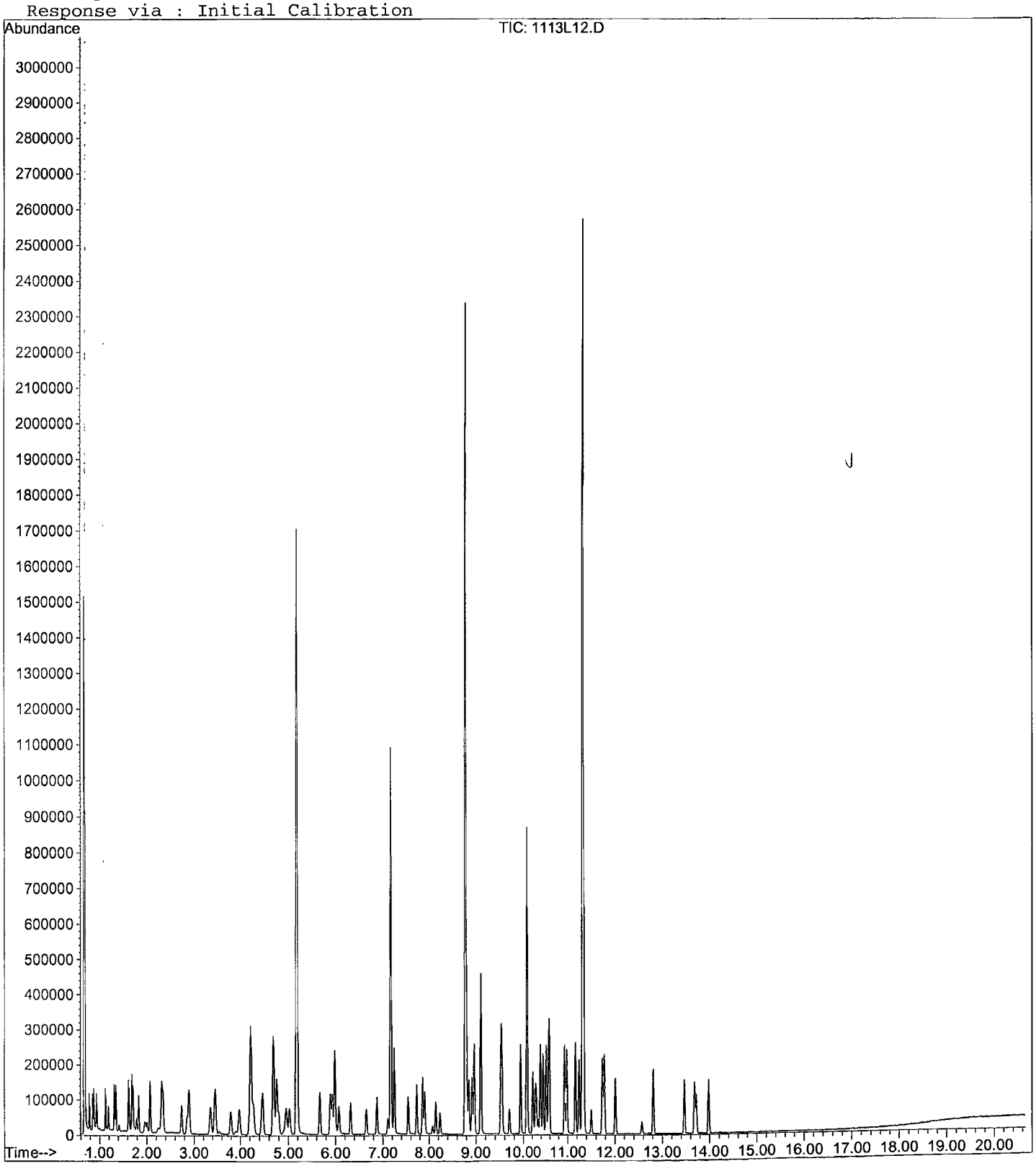
Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration

Data File : M:\LOKI\DATA\191113\1113L12.D Vial: 8
Acq On : 13 Nov 19 20:19 Operator:
Sample : 10ug/L VOC STD 11/13/19 Inst : Loki
Misc : IS&S:10/7/19, 10/23/19 Multiplr: 1.00

Quant Time: Nov 14 9:53 2019 Quant Results File: LSUR1113.RES

Method : M:\LOKI\DATA\191113\LSUR1113.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 14 09:28:54 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LOKI\DATA\191113\1113L13.D Vial: 9
Acq On : 13 Nov 19 20:48 Operator:
Sample : 20ug/L VOC STD 11/13/19 Inst : Loki
Misc : IS&S:10/7/19, 10/23/19 Multiplr: 1.00

Quant Time: Nov 14 9:53 2019 Quant Results File: LSUR1113.RES

Quant Method : M:\LOKI\DATA\191113\LSUR1113.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 14 09:28:54 2019
Response via : Initial Calibration
DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	5.18	96	844096	25.00	ppb	0.00
4) Chlorobenzene-D5 (IS)	8.78	117	798016	25.00	ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	11.32	152	442048	25.00	ppb	0.00
System Monitoring Compounds						
2) Dibromofluoromethane(S)	4.22	111	427447	49.65	ppb	0.00
Spiked Amount 25.000			Recovery = 198.592%			
3) 1,2-DCA-D4(S)	4.69	65	483752	49.28	ppb	0.00
Spiked Amount 25.000			Recovery = 197.112%			
5) Toluene-D8(S)	7.17	98	1632219	51.75	ppb	0.00
Spiked Amount 25.000			Recovery = 207.004%			
6) 4-Bromofluorobenzene(S)	10.08	95	624436	52.57	ppb	0.00
Spiked Amount 25.000			Recovery = 210.292%			

Target Compounds Qvalue

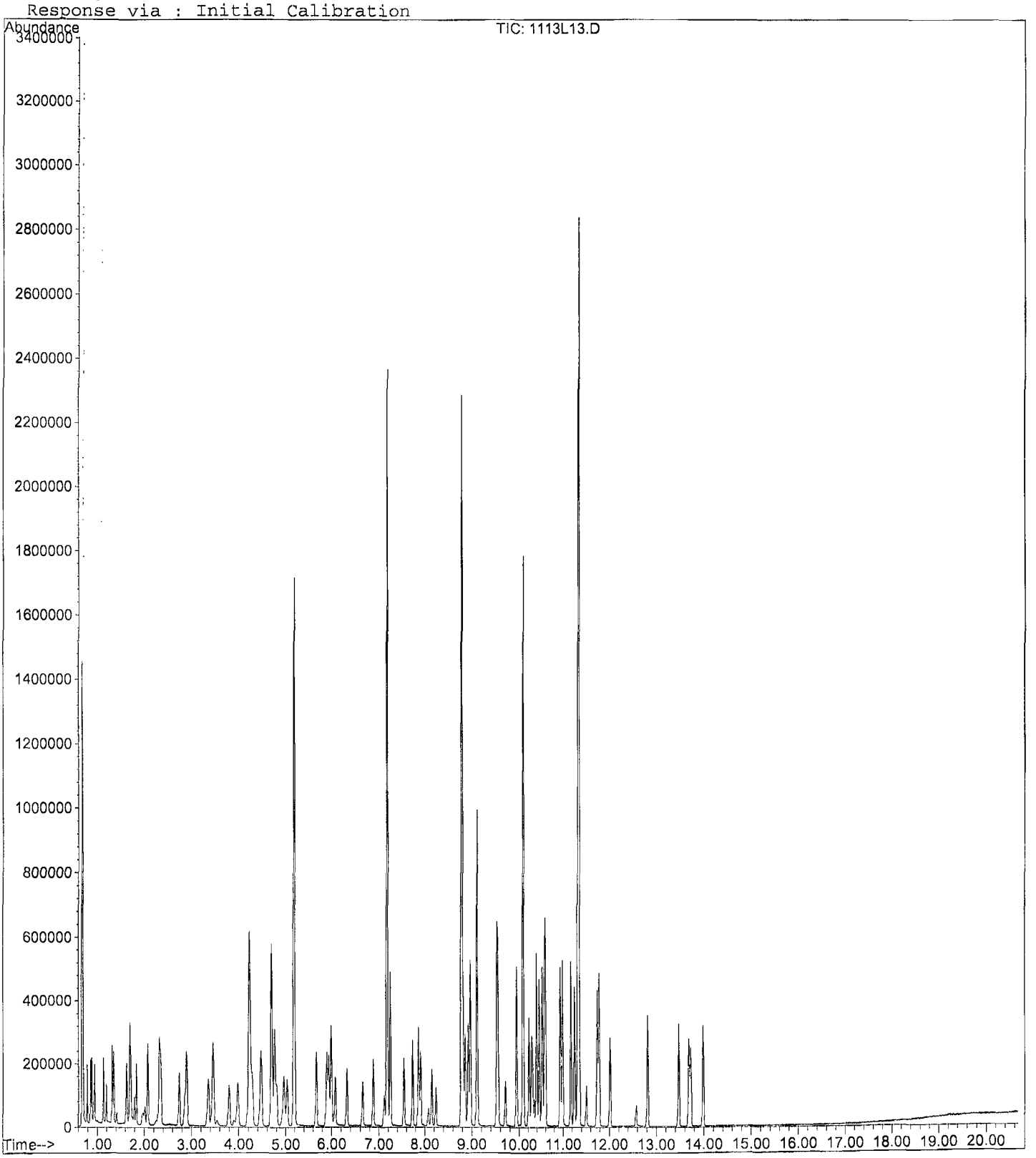
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LOKI\DATA\191113\1113L13.D Vial: 9
Acq On : 13 Nov 19 20:48 Operator:
Sample : 20ug/L VOC STD 11/13/19 Inst : Loki
Misc : IS&S:10/7/19, 10/23/19 Multiplr: 1.00

Quant Time: Nov 14 9:53 2019 Quant Results File: LSUR1113.RES

Method : M:\LOKI\DATA\191113\LSUR1113.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 14 09:28:54 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LOKI\DATA\191113\1113L14.D Vial: 10
Acq On : 13 Nov 19 21:16 Operator:
Sample : 40ug/L VOC STD 11/13/19 Inst : Loki
Misc : IS&S:10/7/19, 10/23/19 Multiplr: 1.00

Quant Time: Nov 14 9:53 2019 Quant Results File: LSUR1113.RES

Quant Method : M:\LOKI\DATA\191113\LSUR1113.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 14 09:28:54 2019
Response via : Initial Calibration
DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	5.18	96	861440	25.00	ppb	0.00
4) Chlorobenzene-D5 (IS)	8.78	117	807616	25.00	ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	11.32	152	465536	25.00	ppb	0.00
System Monitoring Compounds						
2) Dibromofluoromethane(S)	4.22	111	434802	49.49	ppb	0.00
Spiked Amount 25.000			Recovery =	197.940%		
3) 1,2-DCA-D4(S)	4.69	65	492412	49.15	ppb	0.00
Spiked Amount 25.000			Recovery =	196.600%		
5) Toluene-D8(S)	7.17	98	1661500	52.05	ppb	0.00
Spiked Amount 25.000			Recovery =	208.212%		
6) 4-Bromofluorobenzene(S)	10.08	95	645541	53.70	ppb	0.00
Spiked Amount 25.000			Recovery =	214.816%		

Target Compounds Qvalue

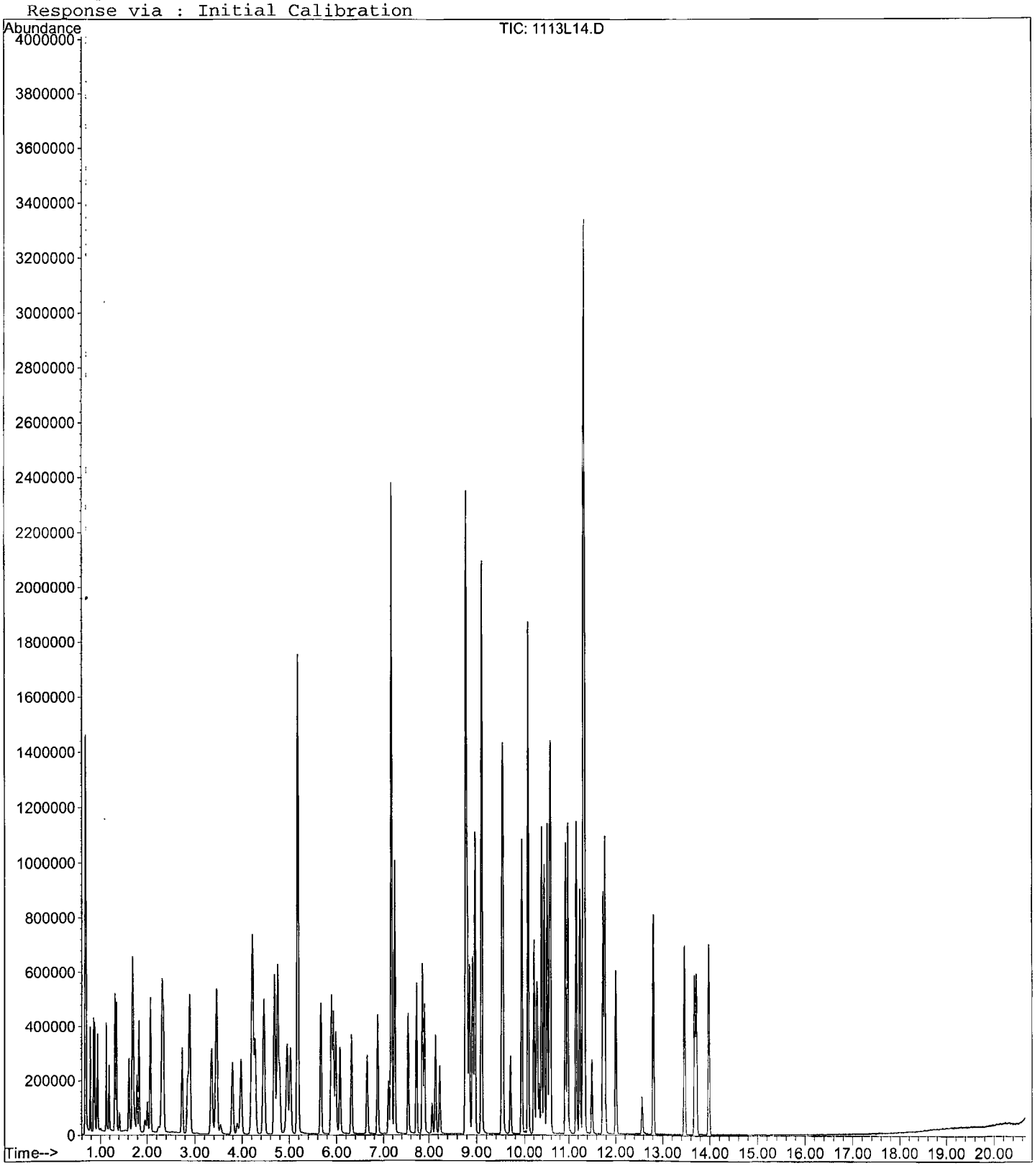
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LOKI\DATA\191113\1113L14.D Vial: 10
Acq On : 13 Nov 19 21:16 Operator:
Sample : 40ug/L VOC STD 11/13/19 Inst : Loki
Misc : IS&S:10/7/19, 10/23/19 Multiplr: 1.00

Quant Time: Nov 14 9:53 2019 Quant Results File: LSUR1113.RES

Method : M:\LOKI\DATA\191113\LSUR1113.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 14 09:28:54 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LOKI\DATA\191113\1113L15.D Vial: 11
Acq On : 13 Nov 19 21:45 Operator:
Sample : 100ug/L VOC STD 11/13/19 Inst : Loki
Misc : IS&S:10/7/19, 10/23/19 Multiplr: 1.00

Quant Time: Nov 14 9:53 2019 Quant Results File: LSUR1113.RES

Quant Method : M:\LOKI\DATA\191113\LSUR1113.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 14 09:28:54 2019
Response via : Initial Calibration
DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	5.18	96	876864	25.00	ppb	0.00
4) Chlorobenzene-D5 (IS)	8.78	117	853696	25.00	ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	11.32	152	492352	25.00	ppb	0.00
System Monitoring Compounds						
2) Dibromofluoromethane(S)	4.22	111	848044	94.82	ppb	0.00
Spiked Amount 25.000			Recovery = 379.276%			
3) 1,2-DCA-D4(S)	4.69	65	964420	94.57	ppb	0.00
Spiked Amount 25.000			Recovery = 378.284%			
5) Toluene-D8(S)	7.17	98	3321531	98.44	ppb	0.00
Spiked Amount 25.000			Recovery = 393.772%			
6) 4-Bromofluorobenzene(S)	10.08	95	1297589	102.12	ppb	0.00
Spiked Amount 25.000			Recovery = 408.488%			

Target Compounds Qvalue

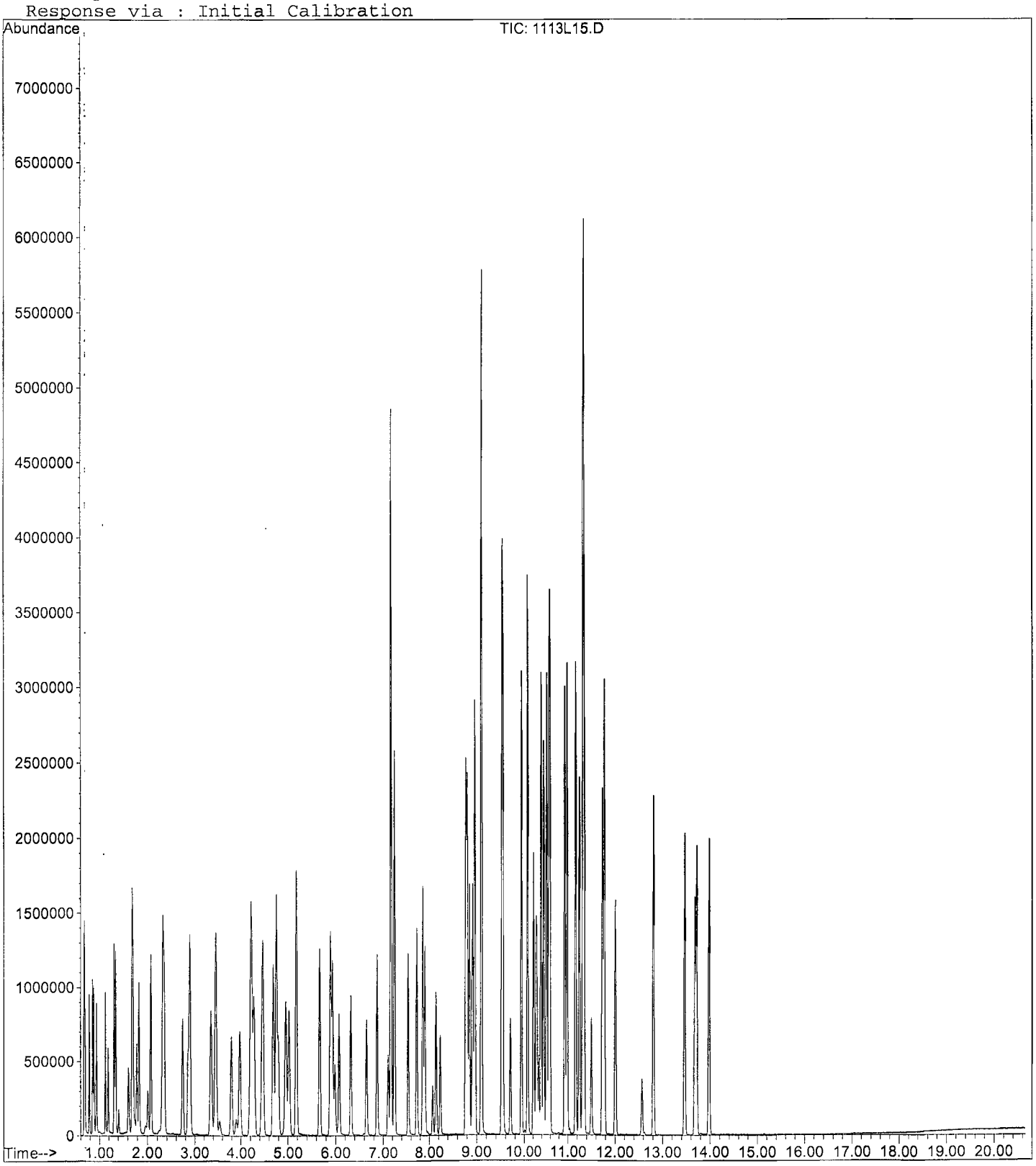
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LOKI\DATA\191113\1113L15.D Vial: 11
Acq On : 13 Nov 19 21:45 Operator:
Sample : 100ug/L VOC STD 11/13/19 Inst : Loki
Misc : IS&S:10/7/19, 10/23/19 Multiplr: 1.00

Quant Time: Nov 14 9:53 2019 Quant Results File: LSUR1113.RES

Method : M:\LOKI\DATA\191113\LSUR1113.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 14 09:28:54 2019
Response via : Initial Calibration



VOLATILE ORGANIC ANALYSIS
VOLATILE ORGANIC COMPOUNDS

Form 6
Initial Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Initial Cal. Date: 11/13/2019
Matrix: Instrument: Loki Initials:

1113L18 D 1113L19.D 1113L20 D 1113L21 D 1113L22 D 1113L23 D 1113L24 D

		Compound	1	2	3	4	5	6	7				Avg	%RSD	Type	r^2	Q	MRF
1	I	Fluorobenzene (IS)																
2	TMHBL	Gasoline C6-C10	9.824	4.100	2.148	0.8665	0.5448	0.4668	0.4154				2.6	131	TMHBL	1.000		
3	I	Chlorobenzene-D5 (IS)																
4	I	1,4-Dichlorobenzene-D (IS)																
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Quantitation Report (QT Reviewed)

Data File : M:\LOKI\DATA\191113\1113L18.D Vial: 14
Acq On : 13 Nov 19 23:10 Operator:
Sample : 20ug/L GAS STD 11/13/19 Inst : Loki
Misc : IS&S:10/7/19, 10/23/19 Multiplr: 1.00

Quant Time: Nov 14 9:39 2019 Quant Results File: LGAS1113.RES

Quant Method : M:\LOKI\DATA\191113\LGAS1113.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 14 09:38:10 2019
Response via : Initial Calibration
DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	5.18	TIC	1669822	25.00	ppb	0.00
3) Chlorobenzene-D5 (IS)	8.78	TIC	2216796	25.00	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	11.32	TIC	2208992	25.00	ppb	0.00
System Monitoring Compounds						
Target Compounds						Qvalue
2) Gasoline C6-C10	8.78	TIC	13123474m	21.58	ppb	100

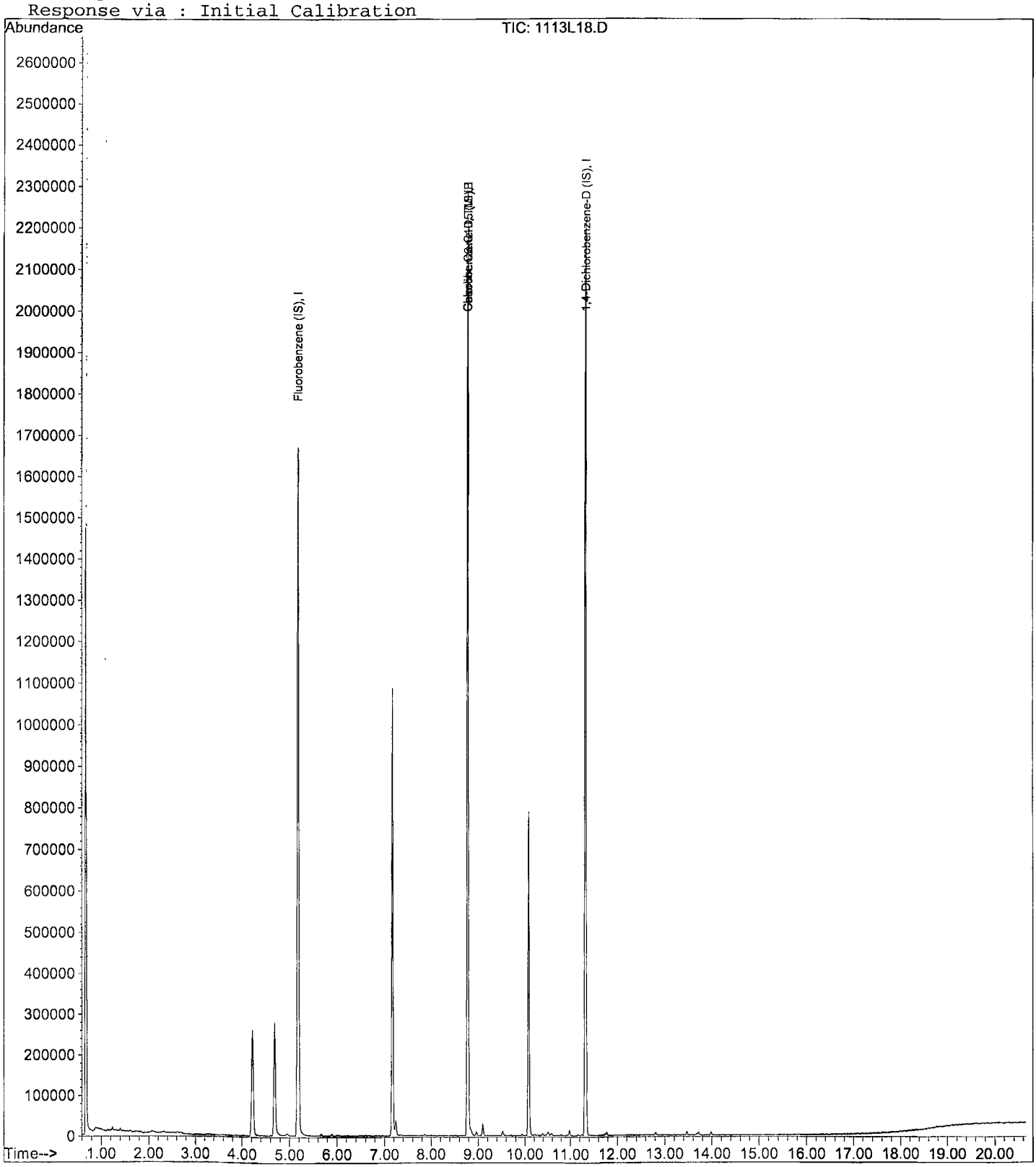
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LOKI\DATA\191113\1113L18.D Vial: 14
Acq On : 13 Nov 19 23:10 Operator:
Sample : 20ug/L GAS STD 11/13/19 Inst : Loki
Misc : IS&S:10/7/19, 10/23/19 Multiplr: 1.00

Quant Time: Nov 14 9:39 2019 Quant Results File: LGAS1113.RES

Method : M:\LOKI\DATA\191113\LGAS1113.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 14 09:41:04 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\LOKI\DATA\191113\1113L19.D Vial: 15
Acq On : 13 Nov 19 23:38 Operator:
Sample : 50ug/L GAS STD 11/13/19 Inst : Loki
Misc : IS&S:10/7/19, 10/23/19 Multiplr: 1.00

Quant Time: Nov 14 9:39 2019 Quant Results File: LGAS1113.RES

Quant Method : M:\LOKI\DATA\191113\LGAS1113.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 14 09:38:10 2019
Response via : Initial Calibration
DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	5.18	TIC	1642247	25.00	ppb	0.00
3) Chlorobenzene-D5 (IS)	8.78	TIC	2231811	25.00	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	11.32	TIC	2294532	25.00	ppb	0.00

System Monitoring Compounds

Target Compounds						Qvalue
2) Gasoline C6-C10	8.78	TIC	13468008m	58.02	ppb	100

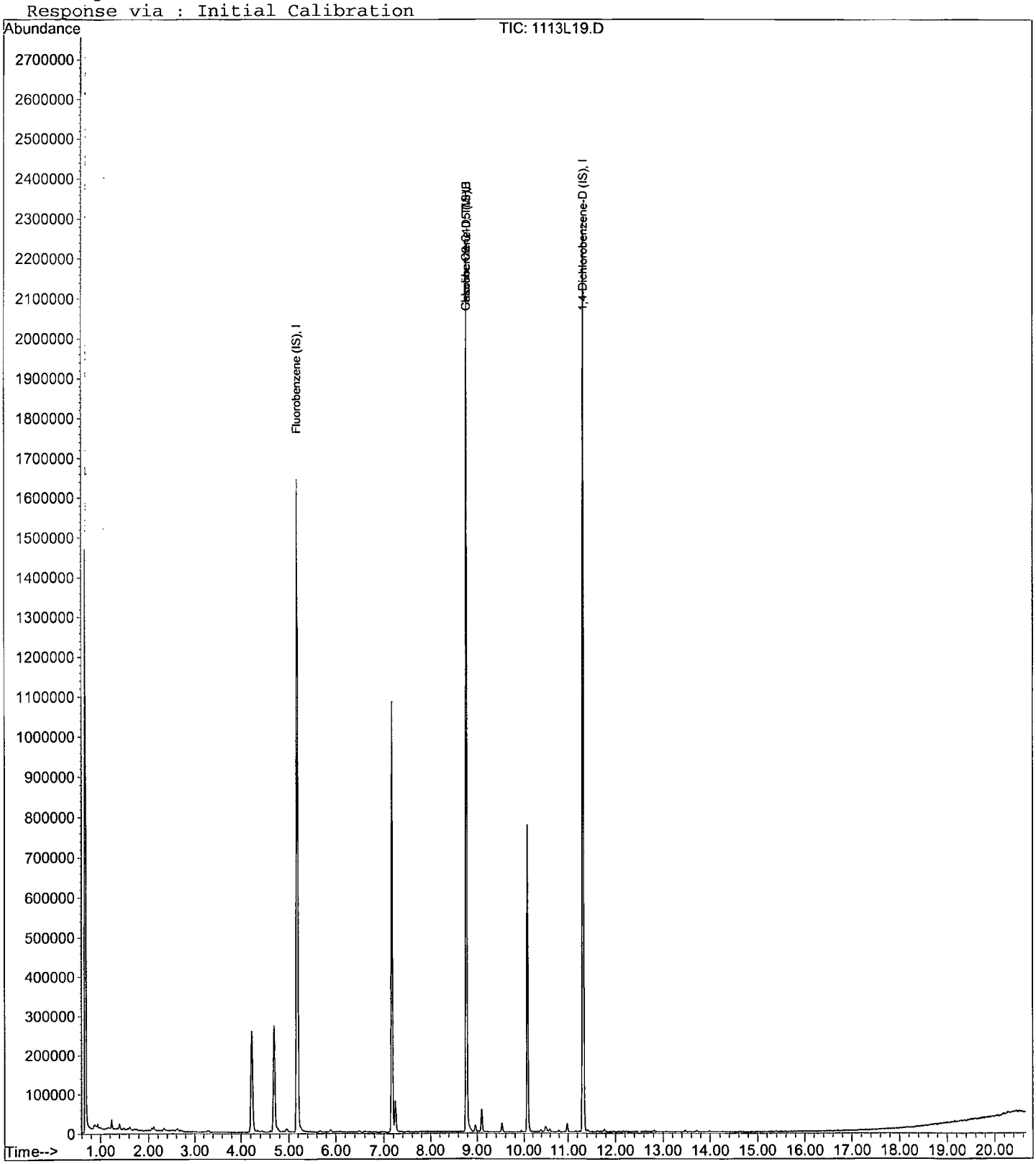
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LOKI\DATA\191113\1113L19.D Vial: 15
Acq On : 13 Nov 19 23:38 Operator:
Sample : 50ug/L GAS STD 11/13/19 Inst : Loki
Misc : IS&S:10/7/19, 10/23/19 Multiplr: 1.00

Quant Time: Nov 14 9:39 2019 Quant Results File: LGAS1113.RES

Method : M:\LOKI\DATA\191113\LGAS1113.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 14 09:41:04 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\LOKI\DATA\191113\1113L20.D Vial: 16
Acq On : 14 Nov 19 00:07 Operator:
Sample : 100ug/L GAS STD 11/13/19 Inst : Loki
Misc : IS&S:10/7/19, 10/23/19 Multiplr: 1.00

Quant Time: Nov 14 9:39 2019 Quant Results File: LGAS1113.RES

Quant Method : M:\LOKI\DATA\191113\LGAS1113.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 14 09:38:10 2019
Response via : Initial Calibration
DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	5.18	TIC	1656538	25.00	ppb	0.00
3) Chlorobenzene-D5 (IS)	8.78	TIC	2218313	25.00	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	11.32	TIC	2280819	25.00	ppb	0.00

System Monitoring Compounds

Target Compounds						Qvalue
2) Gasoline C6-C10	8.78	TIC	14229690m	99.51	ppb	100

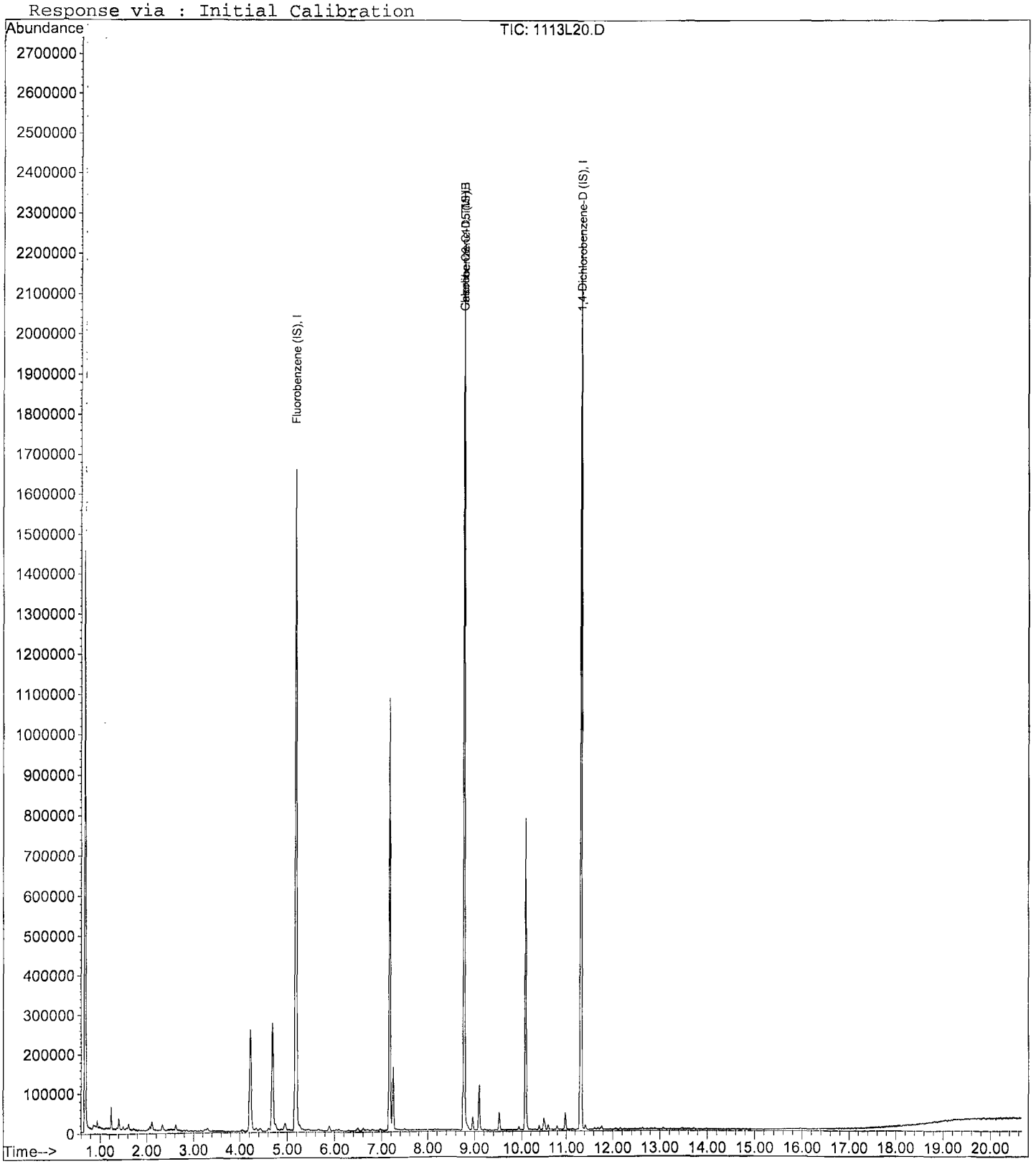
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LOKI\DATA\191113\1113L20.D Vial: 16
Acq On : 14 Nov 19 00:07 Operator:
Sample : 100ug/L GAS STD 11/13/19 Inst : Loki
Misc : IS&S:10/7/19, 10/23/19 Multiplr: 1.00

Quant Time: Nov 14 9:39 2019 Quant Results File: LGAS1113.RES

Method : M:\LOKI\DATA\191113\LGAS1113.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 14 09:41:04 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\LOKI\DATA\191113\1113L21.D Vial: 17
Acq On : 14 Nov 19 00:35 Operator:
Sample : 300ug/L GAS STD 11/13/19 Inst : Loki
Misc : IS&S:10/7/19, 10/23/19 Multiplr: 1.00

Quant Time: Nov 14 9:40 2019 Quant Results File: LGAS1113.RES

Quant Method : M:\LOKI\DATA\191113\LGAS1113.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 14 09:38:10 2019
Response via : Initial Calibration
DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	5.18	TIC	1659501	25.00	ppb	0.00
3) Chlorobenzene-D5 (IS)	8.78	TIC	2280339	25.00	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	11.32	TIC	2346751	25.00	ppb	0.00

System Monitoring Compounds

Target Compounds						Qvalue
2) Gasoline C6-C10	8.78	TIC	17255533m	292.30	ppb	100

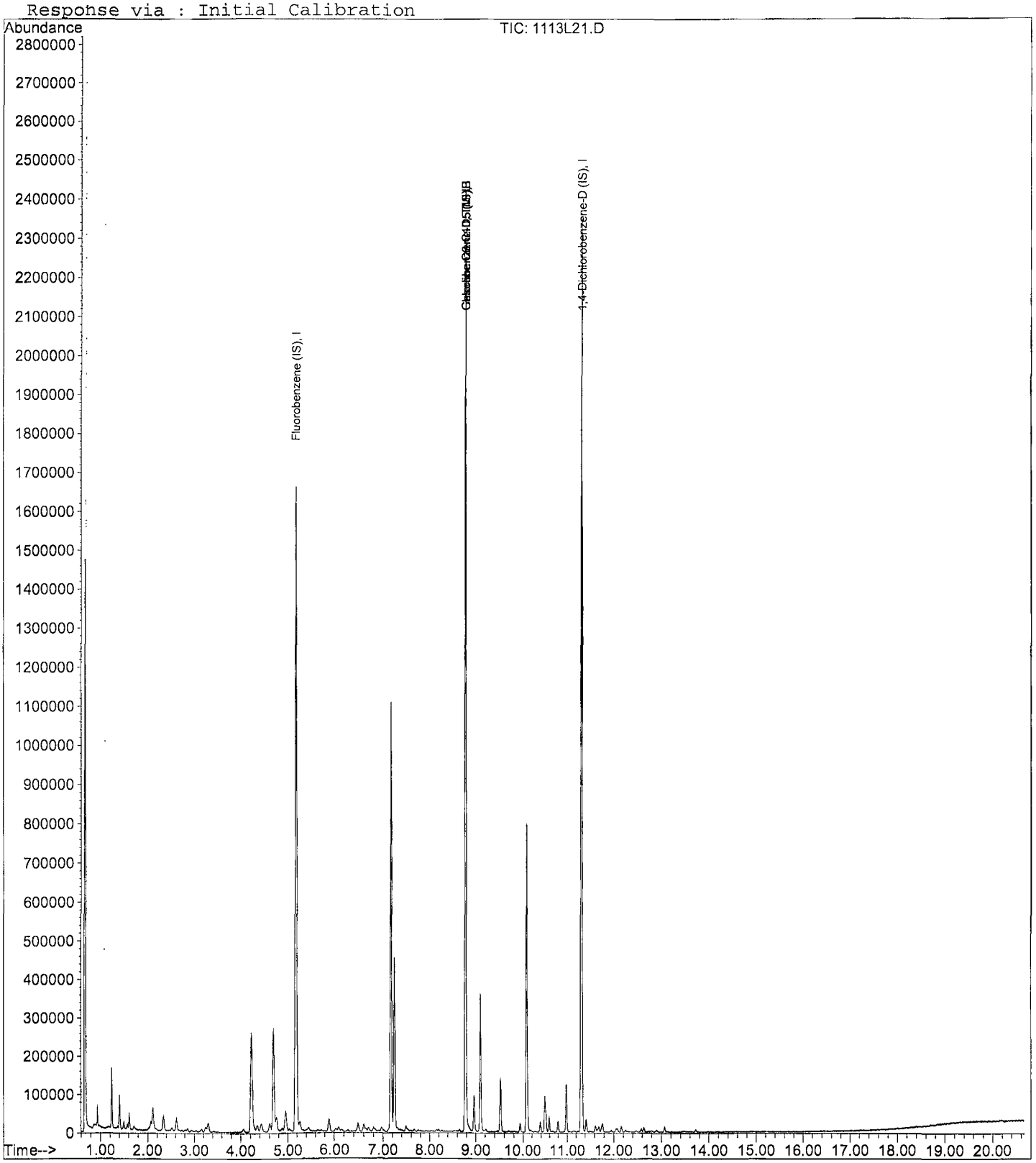
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LOKI\DATA\191113\1113L21.D Vial: 17
Acq On : 14 Nov 19 00:35 Operator:
Sample : 300ug/L GAS STD 11/13/19 Inst : Loki
Misc : IS&S:10/7/19, 10/23/19 Multiplr: 1.00

Quant Time: Nov 14 9:40 2019 Quant Results File: LGAS1113.RES

Method : M:\LOKI\DATA\191113\LGAS1113.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 14 09:41:04 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\LOKI\DATA\191113\1113L22.D Vial: 18
Acq On : 14 Nov 19 1:03 Operator:
Sample : 600ug/L GAS STD 11/13/19 Inst : Loki
Misc : IS&S:10/7/19, 10/23/19 Multiplr: 1.00

Quant Time: Nov 14 9:40 2019 Quant Results File: LGAS1113.RES

Quant Method : M:\LOKI\DATA\191113\LGAS1113.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 14 09:38:10 2019
Response via : Initial Calibration
DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	5.18	TIC	1675971	25.00	ppb	0.00
3) Chlorobenzene-D5 (IS)	8.78	TIC	2287582	25.00	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	11.32	TIC	2336752	25.00	ppb	0.00

System Monitoring Compounds

Target Compounds						Qvalue
2) Gasoline C6-C10	8.78	TIC	21915024m	577.86	ppb	100

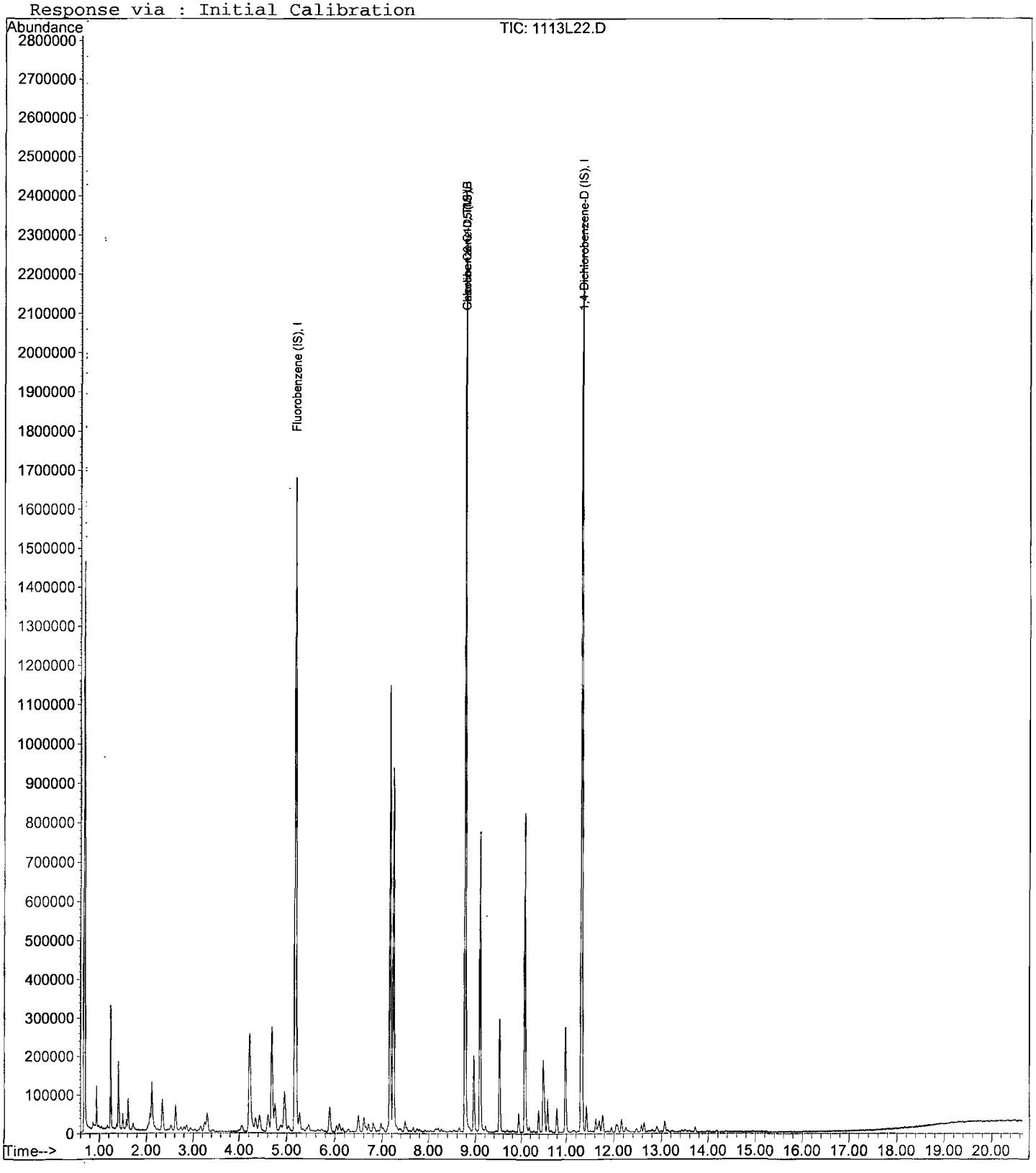
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LOKI\DATA\191113\1113L22.D Vial: 18
Acq On : 14 Nov 19 1:03 Operator:
Sample : 600ug/L GAS STD 11/13/19 Inst : Loki
Misc : IS&S:10/7/19, 10/23/19 Multiplr: 1.00

Quant Time: Nov 14 9:40 2019 Quant Results File: LGAS1113.RES

Method : M:\LOKI\DATA\191113\LGAS1113.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 14 09:41:04 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\LOKI\DATA\191113\1113L23.D Vial: 19
Acq On : 14 Nov 19 1:32 Operator:
Sample : 800ug/L GAS STD 11/13/19 Inst : Loki
Misc : IS&S:10/7/19, 10/23/19 Multiplr: 1.00

Quant Time: Nov 14 9:40 2019 Quant Results File: LGAS1113.RES

Quant Method : M:\LOKI\DATA\191113\LGAS1113.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 14 09:38:10 2019
Response via : Initial Calibration
DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	5.18	TIC	1662574	25.00	ppb	0.00
3) Chlorobenzene-D5 (IS)	8.78	TIC	2264814	25.00	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	11.32	TIC	2396916	25.00	ppb	0.00
System Monitoring Compounds						
Target Compounds						Qvalue
2) Gasoline C6-C10	8.78	TIC	24834560m	776.35	ppb	100

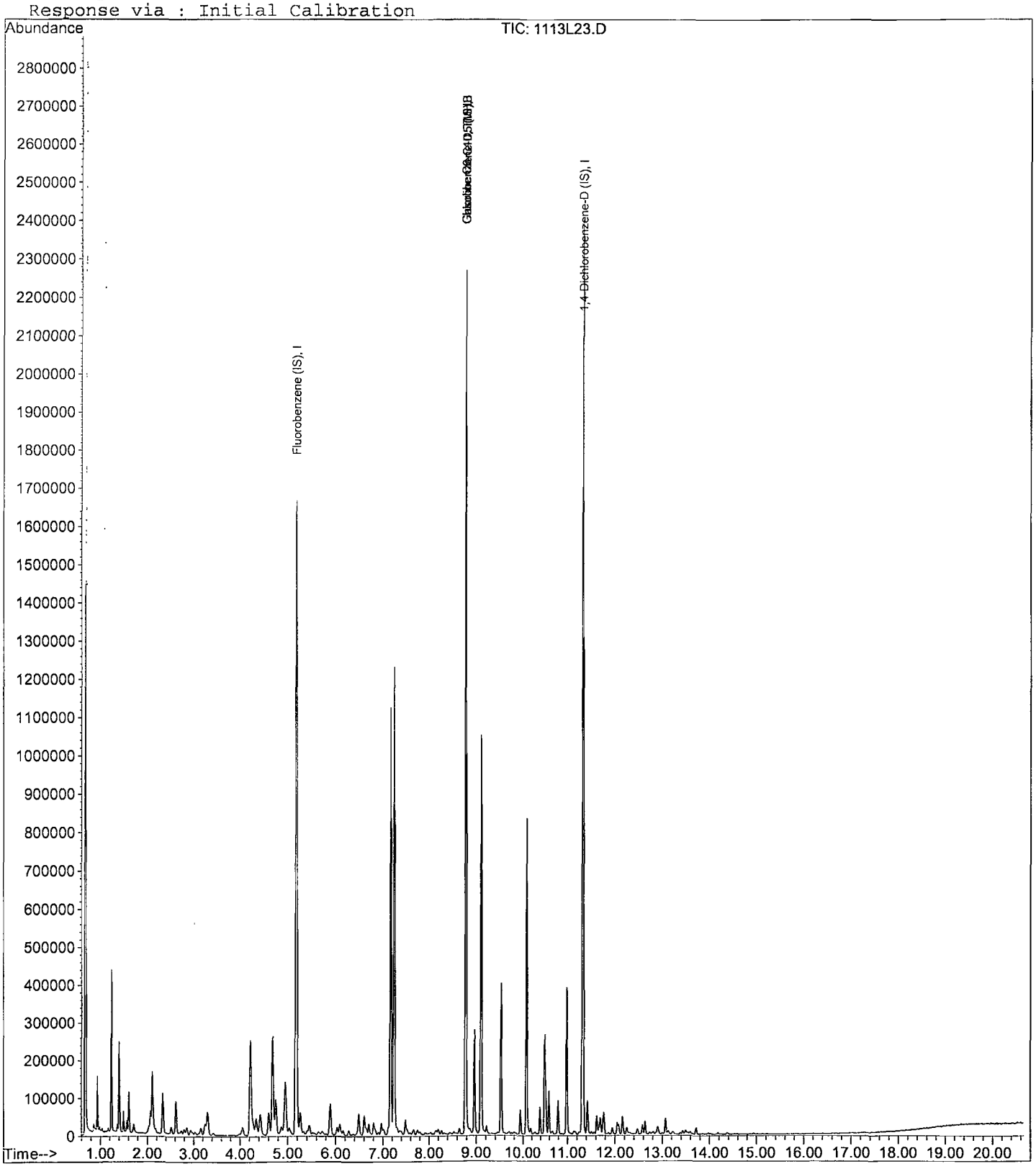
(#) = qualifier out of range (m) = manual integration
1113L23.D LGAS1113.M Wed Dec 04 16:40:47 2019 Page 1

Quantitation Report

Data File : M:\LOKI\DATA\191113\1113L23.D Vial: 19
Acq On : 14 Nov 19 1:32 Operator:
Sample : 800ug/L GAS STD 11/13/19 Inst : Loki
Misc : IS&S:10/7/19, 10/23/19 Multiplr: 1.00

Quant Time: Nov 14 9:40 2019 Quant Results File: LGAS1113.RES

Method : M:\LOKI\DATA\191113\LGAS1113.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 14 09:41:04 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\LOKI\DATA\191113\1113L24.D Vial: 20
Acq On : 14 Nov 19 2:00 Operator:
Sample : 1000ug/L GAS STD 11/13/19 Inst : Loki
Misc : IS&S:10/7/19, 10/23/19 Multiplr: 1.00

Quant Time: Nov 14 9:40 2019 Quant Results File: LGAS1113.RES

Quant Method : M:\LOKI\DATA\191113\LGAS1113.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 14 09:38:10 2019
Response via : Initial Calibration
DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	5.18	TIC	1758859	25.00	ppb	0.00
3) Chlorobenzene-D5 (IS)	8.78	TIC	2347988	25.00	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	11.32	TIC	2422367	25.00	ppb	0.00

System Monitoring Compounds

Target Compounds						Qvalue
2) Gasoline C6-C10	8.78	TIC	29224877m	955.32	ppb	100

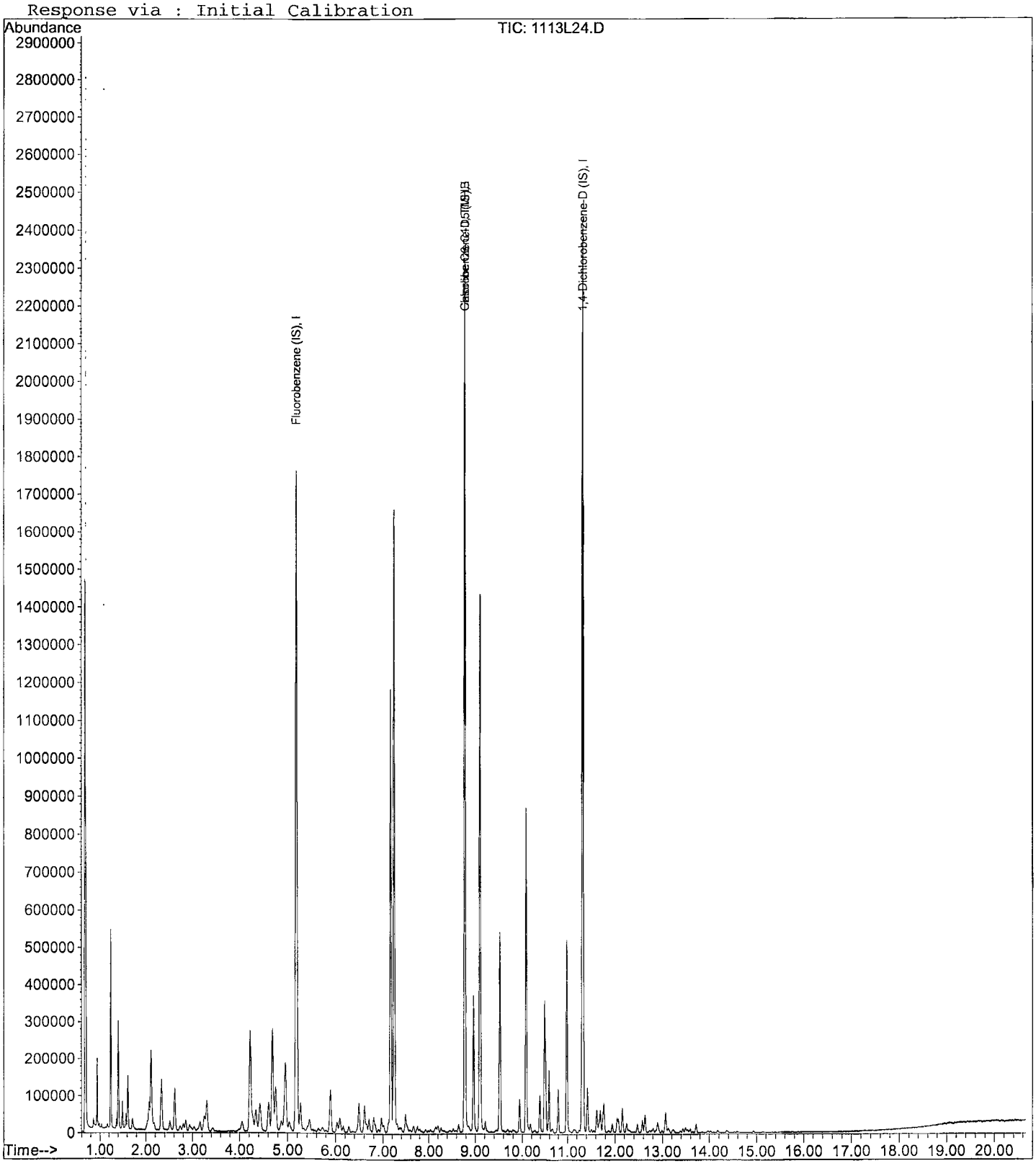
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LOKI\DATA\191113\1113L24.D Vial: 20
Acq On : 14 Nov 19 2:00 Operator:
Sample : 1000ug/L GAS STD 11/13/19 Inst : Loki
Misc : IS&S:10/7/19, 10/23/19 Multiplr: 1.00

Quant Time: Nov 14 9:40 2019 Quant Results File: LGAS1113.RES

Method : M:\LOKI\DATA\191113\LGAS1113.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 14 09:41:04 2019
Response via : Initial Calibration



VOLATILE ORGANIC ANALYSIS
VOLATILE ORGANIC COMPOUNDS

Form 7

Second Source Calibration

Lab Name: APPL, Inc.
Case No:
Matrix:

SDG No:
Date Analyzed: 11/14/2019
Instrument: Loki
Initial Cal. Date: 11/13/2019
Data File: 1113L26.D

		Compound	MEAN	CCRF	%D		%Drift
1	TMHB	Gasoline C6-C10	2.624	0.8690	67	TMHBL	1.1
2							
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36							
37							
38							
39							
40							
		Average			67.0		

VOLATILE ORGANIC ANALYSIS
VOLATILE ORGANIC COMPOUNDS

Form 7

Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix:

SDG No:
Date Analyzed: 11/14/2019
Instrument: Loki
Initial Cal. Date: 11/13/2019
Data File: 1113L32.D

		Compound	MEAN	CCRF	%D	%Drift	
1	I	Fluorobenzene (IS)	ISTD			I	
2	TMHB	Gasoline C6-C10	2.624	0.8620	67	TMHBL	2.0
3	I	Chlorobenzene-D5 (IS)	ISTD			I	
4	I	1,4-Dichlorobenzene-D (IS)	ISTD			I	
5							
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7							
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38							
39							
40							
		Average			67.0		

Quantitation Report (QT Reviewed)

Data File : M:\LOKI\DATA\191113\1113L26.D Vial: 22
Acq On : 14 Nov 19 2:57 Operator:
Sample : (SS) 300ug/L GAS STD 11/13/19 Inst : Loki
Misc : IS&S:10/7/19, 10/23/19 Multiplr: 1.00

Quant Time: Nov 14 9:41 2019 Quant Results File: LGAS1113.RES

Quant Method : M:\LOKI\DATA\191113\LGAS1113.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 14 09:41:04 2019
Response via : Initial Calibration
DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	5.18	TIC	1659097	25.00	ppb	0.00
3) Chlorobenzene-D5 (IS)	8.78	TIC	2282544	25.00	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	11.32	TIC	2329910	25.00	ppb	0.00

System Monitoring Compounds

Target Compounds						Qvalue
2) Gasoline C6-C10	8.78	TIC	17300228m	303.29	ppb	100

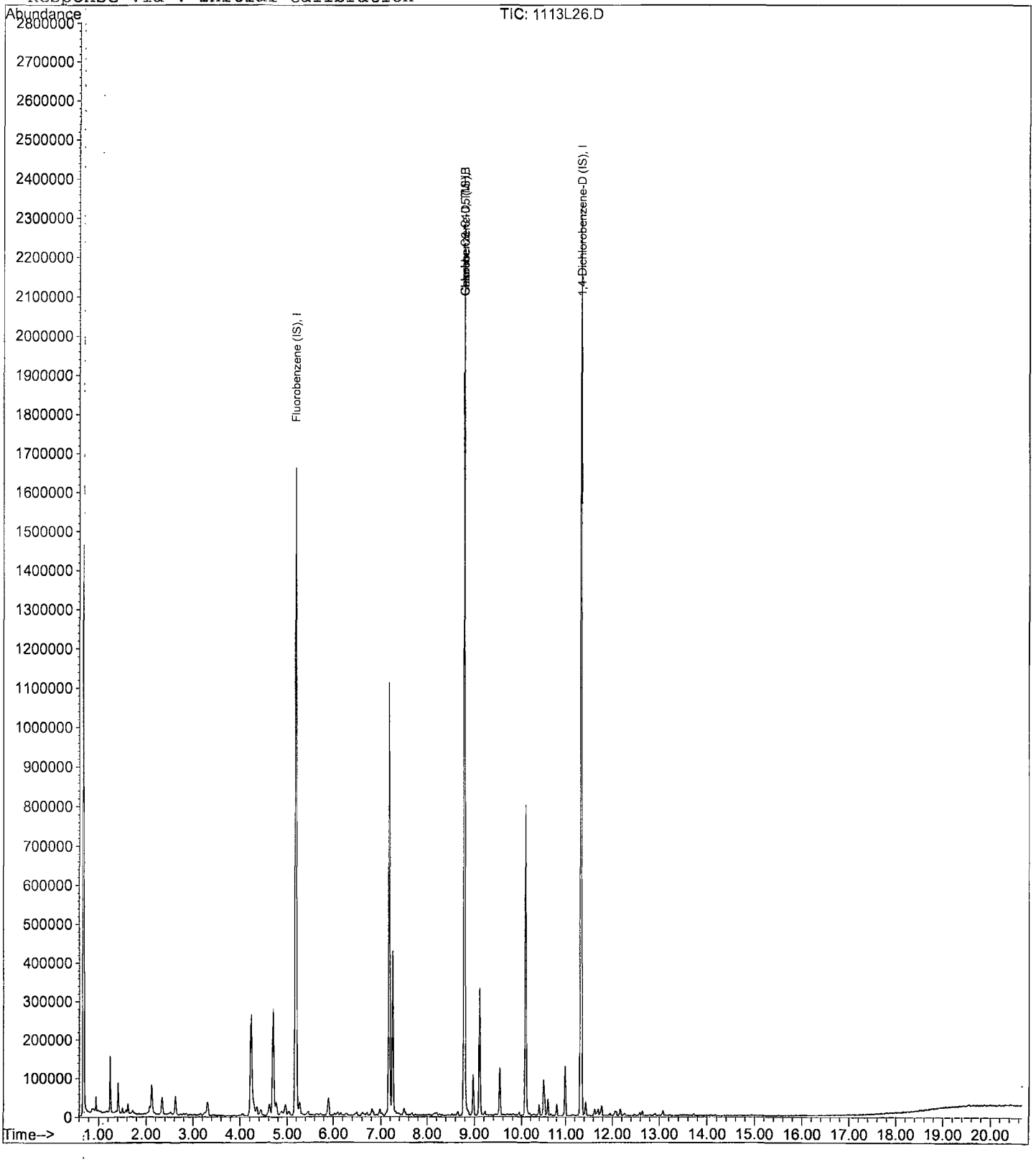
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LOKI\DATA\191113\1113L26.D Vial: 22
Acq On : 14 Nov 19 2:57 Operator:
Sample : (SS) 300ug/L GAS STD 11/13/19 Inst : Loki
Misc : IS&S:10/7/19, 10/23/19 Multiplr: 1.00

Quant Time: Nov 14 9:41 2019 Quant Results File: LGAS1113.RES

Method : M:\LOKI\DATA\191113\LGAS1113.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 14 09:41:04 2019
Response via : Initial Calibration



VOLATILE ORGANIC ANALYSIS
VOLATILE ORGANIC COMPOUNDS

Form 7

Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix:

SDG No:
Date Analyzed: 11/14/2019
Instrument: Loki
Initial Cal. Date: 11/13/2019
Data File: 1113L32.D

		Compound	MEAN	CCRF	%D		%Drift
1	I	Fluorobenzene (IS)	ISTD			I	
2	TMHB	Gasoline C6-C10	2.624	0.8620	67	TMHBL	2.0
3	I	Chlorobenzene-D5 (IS)	ISTD			I	
4	I	1,4-Dichlorobenzene-D (IS)	ISTD			I	
5							
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39							
40							
		Average			67.0		

Quantitation Report (QT Reviewed)

Data File : M:\LOKI\DATA\191113\1113L32.D Vial: 28
Acq On : 14 Nov 19 5:47 Operator:
Sample : 191113 CCV 300ug/L Inst : Loki
Misc : IS&S:10/7/19, 10/23/19 Multiplr: 1.00

Quant Time: Nov 14 16:30 2019 Quant Results File: LGAS1113.RES

Quant Method : M:\LOKI\DATA\191113\LGAS1113.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 14 09:41:04 2019
Response via : Initial Calibration
DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	5.18	TIC	1661726	25.00	ppb	0.00
3) Chlorobenzene-D5 (IS)	8.78	TIC	2252761	25.00	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	11.32	TIC	2328975	25.00	ppb	0.00
System Monitoring Compounds						
Target Compounds						Qvalue
2) Gasoline C6-C10	8.78	TIC	17189248m	293.99	ppb	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\LOKI\DATA\191113\1113L32.D Vial: 28
Acq On : 14 Nov 19 5:47 Operator:
Sample : 191113 CCV 300ug/L Inst : Loki
Misc : IS&S:10/7/19, 10/23/19 Multiplr: 1.00

Quant Time: Nov 15 10:25 2019 Quant Results File: LSUR1113.RES

Quant Method : M:\LOKI\DATA\191113\LSUR1113.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 14 09:28:54 2019
Response via : Initial Calibration
DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	5.18	96	812864	25.00	ppb	0.00
4) Chlorobenzene-D5 (IS)	8.78	117	780480	25.00	ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	11.32	152	401792	25.00	ppb	0.00
System Monitoring Compounds						
2) Dibromofluoromethane(S)	4.22	111	208193	25.11	ppb	0.00
Spiked Amount 25.000			Recovery = 100.444%			
3) 1,2-DCA-D4(S)	4.69	65	230224	24.35	ppb	0.00
Spiked Amount 25.000			Recovery = 97.412%			
5) Toluene-D8(S)	7.17	98	764643	24.79	ppb	0.00
Spiked Amount 25.000			Recovery = 99.152%			
6) 4-Bromofluorobenzene(S)	10.08	95	278013	23.93	ppb	0.00
Spiked Amount 25.000			Recovery = 95.732%			

Target Compounds Qvalue

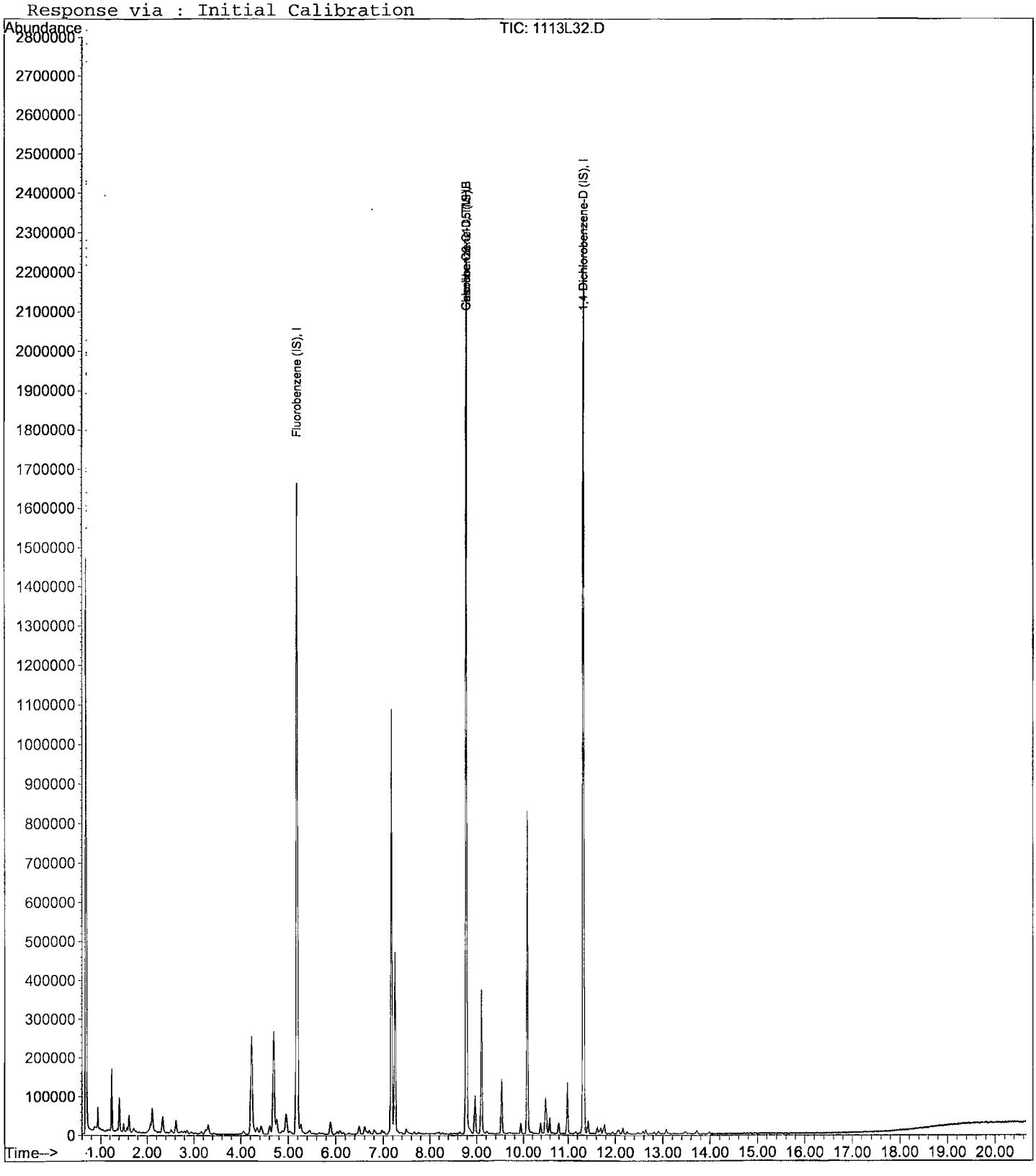
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LOKI\DATA\191113\1113L32.D Vial: 28
Acq On : 14 Nov 19 5:47 Operator:
Sample : 191113 CCV 300ug/L Inst : Loki
Misc : IS&S:10/7/19, 10/23/19 Multiplr: 1.00

Quant Time: Nov 14 16:30 2019 Quant Results File: LGAS1113.RES

Method : M:\LOKI\DATA\191113\LGAS1113.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 14 09:41:04 2019
Response via : Initial Calibration



VOLATILE ORGANIC ANALYSIS
VOLATILE ORGANIC COMPOUNDS

Form 7

Ending Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix:

SDG No:
Date Analyzed: 11/14/2019
Instrument: Loki
Initial Cal. Date: 11/13/2019
Data File: 1113L54.D

		Compound	MEAN	CCRF	%D	%Drift	
1	I	Fluorobenzene (IS)	ISTD			I	
2	TMHB	Gasoline C6-C10	2.624	0.8844	66	TMHBL	8.0
3	I	Chlorobenzene-D5 (IS)	ISTD			I	
4	I	1,4-Dichlorobenzene-D (IS)	ISTD			I	
5							
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		Average			66.0		

Quantitation Report (QT Reviewed)

Data File : M:\LOKI\DATA\191113\1113L54.D Vial: 50
Acq On : 14 Nov 19 16:11 Operator:
Sample : Ending CCV 300ug/L 11/13/19 Inst : Loki
Misc : IS&S:10/7/19, 10/23/19 Multiplr: 1.00

Quant Time: Nov 14 16:35 2019 Quant Results File: LGAS1113.RES

Quant Method : M:\LOKI\DATA\191113\LGAS1113.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 14 09:41:04 2019
Response via : Initial Calibration
DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	5.18	TIC	1674029	25.00	ppb	0.00
3) Chlorobenzene-D5 (IS)	8.78	TIC	2358486	25.00	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	11.32	TIC	2398899	25.00	ppb	0.00
System Monitoring Compounds						
Target Compounds						Qvalue
2) Gasoline C6-C10	8.78	TIC	17766375m	324.01	ppb	100

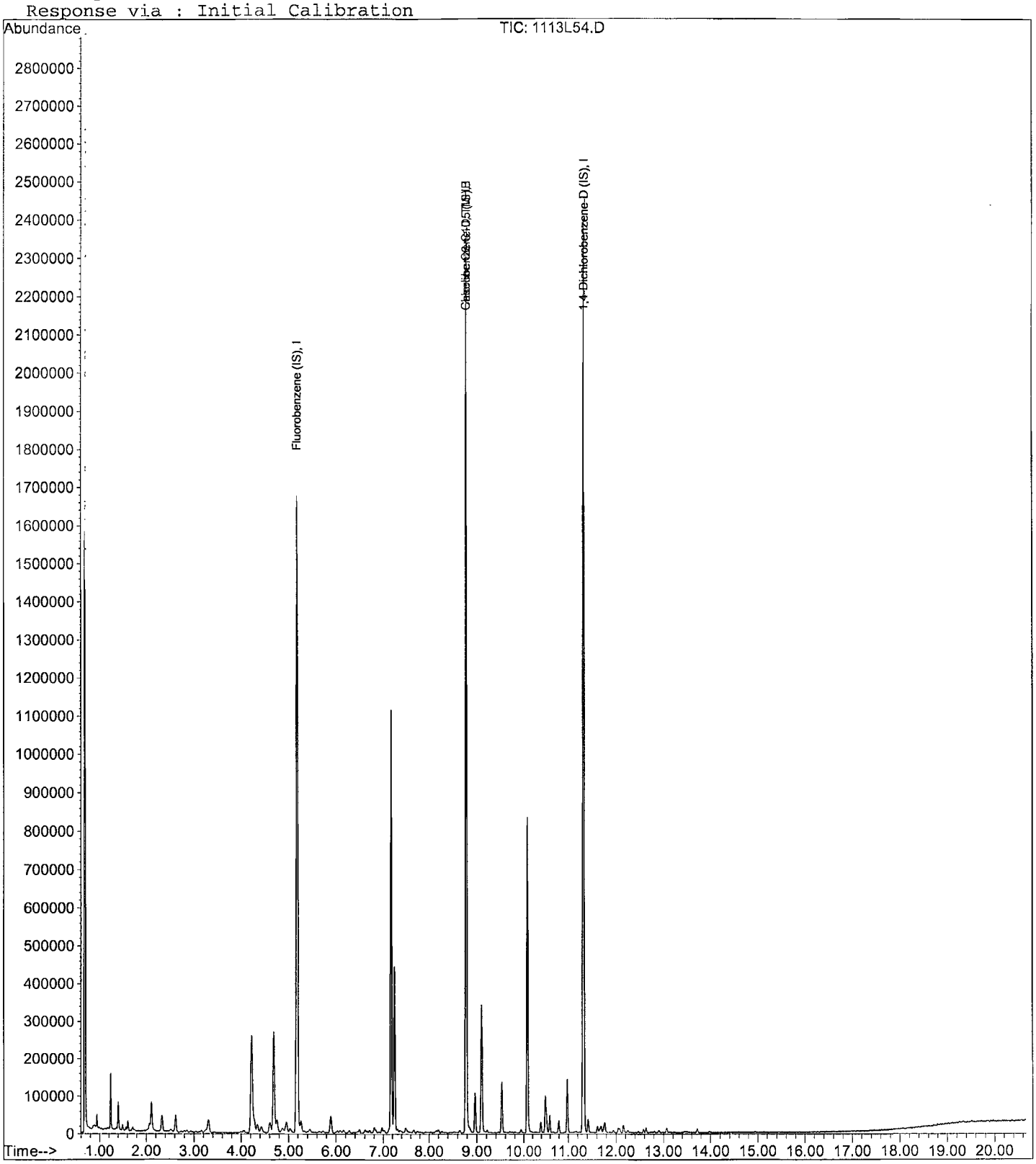
(#) = qualifier out of range (m) = manual integration
1113L54.D LGAS1113.M Wed Dec 04 16:41:45 2019 Page 1

Quantitation Report

Data File : M:\LOKI\DATA\191113\1113L54.D Vial: 50
Acq On : 14 Nov 19 16:11 Operator:
Sample : Ending CCV 300ug/L 11/13/19 Inst : Loki
Misc : IS&S:10/7/19, 10/23/19 Multiplr: 1.00

Quant Time: Nov 14 16:35 2019 Quant Results File: LGAS1113.RES

Method : M:\LOKI\DATA\191113\LGAS1113.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 14 09:41:04 2019
Response via : Initial Calibration



ORGANICS
Raw Data

Quantitation Report (QT Reviewed)

Data File : M:\LOKI\DATA\191113\1113L40.D Vial: 36
Acq On : 14 Nov 19 9:34 Operator:
Sample : BA02300W01 Inst : Loki
Misc : IS&S:10/7/19, 10/23/19 Multiplr: 1.00

Quant Time: Nov 15 10:32 2019 Quant Results File: LGAS1113.RES

Quant Method : M:\LOKI\DATA\191113\LGAS1113.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 14 09:41:04 2019
Response via : Initial Calibration
DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	5.18	TIC	1651179	25.00	ppb	0.00
3) Chlorobenzene-D5 (IS)	8.78	TIC	2289937	25.00	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	11.32	TIC	2243776	25.00	ppb	0.00

System Monitoring Compounds

Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\LOKI\DATA\191113\1113L40.D Vial: 36
Acq On : 14 Nov 19 9:34 Operator:
Sample : BA02300W01 Inst : Loki
Misc : IS&S:10/7/19, 10/23/19 Multiplr: 1.00

Quant Time: Nov 15 10:31 2019 Quant Results File: LSUR1113.RES

Quant Method : M:\LOKI\DATA\191113\LSUR1113.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 14 09:28:54 2019
Response via : Initial Calibration
DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	5.18	96	813696	25.00	ppb	0.00
4) Chlorobenzene-D5 (IS)	8.78	117	802432	25.00	ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	11.32	152	394560	25.00	ppb	0.00
System Monitoring Compounds						
2) Dibromofluoromethane(S)	4.23	111	214472	25.84	ppb	0.00
Spiked Amount 25.000			Recovery = 103.364%			
3) 1,2-DCA-D4(S)	4.69	65	233458	24.67	ppb	0.00
Spiked Amount 25.000			Recovery = 98.680%			
5) Toluene-D8(S)	7.17	98	764016	24.09	ppb	0.00
Spiked Amount 25.000			Recovery = 96.360%			
6) 4-Bromofluorobenzene(S)	10.08	95	271579	22.74	ppb	0.00
Spiked Amount 25.000			Recovery = 90.956%			

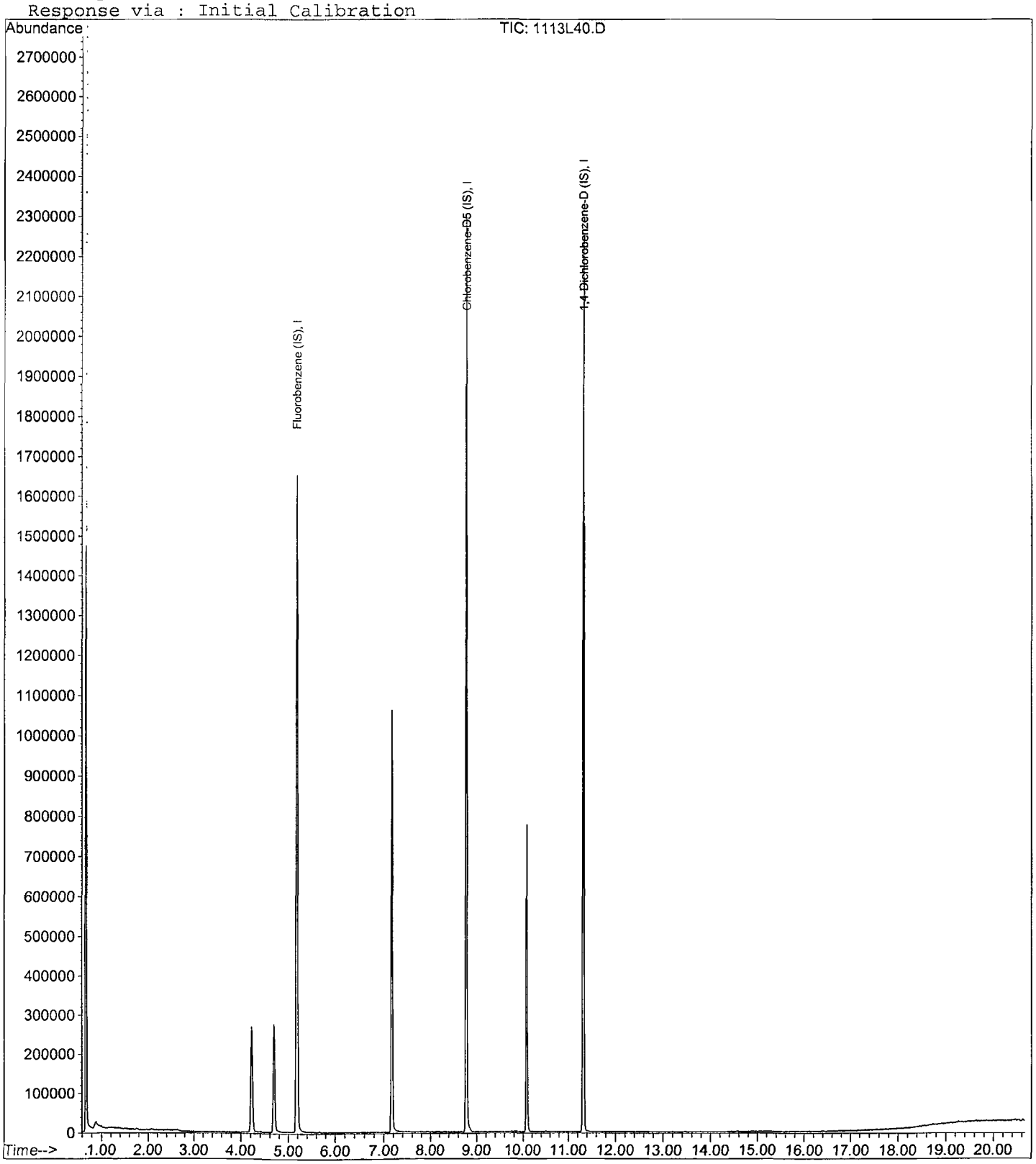
Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration

Data File : M:\LOKI\DATA\191113\1113L40.D Vial: 36
Acq On : 14 Nov 19 9:34 Operator:
Sample : BA02300W01 Inst : Loki
Misc : IS&S:10/7/19, 10/23/19 Multiplr: 1.00

Quant Time: Nov 15 10:32 2019 Quant Results File: LGAS1113.RES

Method : M:\LOKI\DATA\191113\LGAS1113.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 14 09:41:04 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\LOKI\DATA\191113\1113L48.D Vial: 44
Acq On : 14 Nov 19 13:21 Operator:
Sample : BA02301W01 Inst : Loki
Misc : IS&S:10/7/19, 10/23/19 Multiplr: 1.00

Quant Time: Nov 14 16:38 2019 Quant Results File: LGAS1113.RES

Quant Method : M:\LOKI\DATA\191113\LGAS1113.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 14 09:41:04 2019
Response via : Initial Calibration
DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	5.18	TIC	1689423	25.00	ppb	0.00
3) Chlorobenzene-D5 (IS)	8.78	TIC	2358016	25.00	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	11.32	TIC	2427926	25.00	ppb	0.00

System Monitoring Compounds

Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\LOKI\DATA\191113\1113L48.D Vial: 44
Acq On : 14 Nov 19 13:21 Operator:
Sample : BA02301W01 Inst : Loki
Misc : IS&S:10/7/19, 10/23/19 Multiplr: 1.00

Quant Time: Nov 15 10:32 2019 Quant Results File: LSUR1113.RES

Quant Method : M:\LOKI\DATA\191113\LSUR1113.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 14 09:28:54 2019
Response via : Initial Calibration
DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	5.18	96	830336	25.00	ppb	0.00
4) Chlorobenzene-D5 (IS)	8.78	117	827264	25.00	ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	11.32	152	420032	25.00	ppb	0.00
System Monitoring Compounds						
2) Dibromofluoromethane(S)	4.22	111	211539	24.98	ppb	0.00
Spiked Amount 25.000			Recovery = 99.908%			
3) 1,2-DCA-D4(S)	4.69	65	235015	24.34	ppb	0.00
Spiked Amount 25.000			Recovery = 97.348%			
5) Toluene-D8(S)	7.17	98	793403	24.27	ppb	0.00
Spiked Amount 25.000			Recovery = 97.064%			
6) 4-Bromofluorobenzene(S)	10.08	95	292169	23.73	ppb	0.00
Spiked Amount 25.000			Recovery = 94.916%			

Target Compounds Qvalue

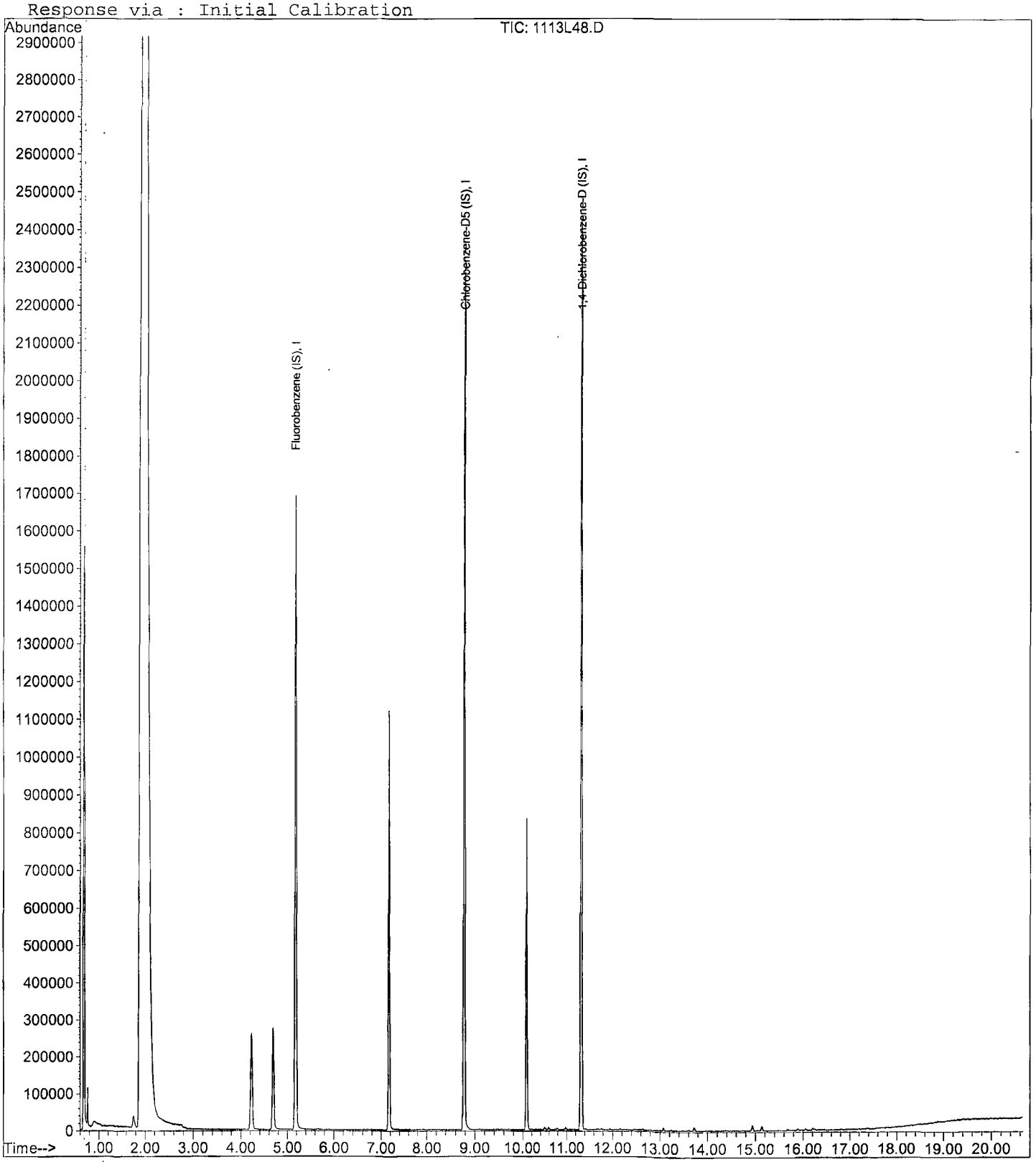
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LOKI\DATA\191113\1113L48.D Vial: 44
Acq On : 14 Nov 19 13:21 Operator:
Sample : BA02301W01 Inst : Loki
Misc : IS&S:10/7/19, 10/23/19 Multiplr: 1.00

Quant Time: Nov 14 16:38 2019 Quant Results File: LGAS1113.RES

Method : M:\LOKI\DATA\191113\LGAS1113.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 14 09:41:04 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\LOKI\DATA\191113\1113L37.D Vial: 33
Acq On : 14 Nov 19 8:09 Operator:
Sample : 191113 BLK Inst : Loki
Misc : IS&S:10/7/19, 10/23/19 Multiplr: 1.00

Quant Time: Nov 14 16:44 2019 Quant Results File: LGAS1113.RES

Quant Method : M:\LOKI\DATA\191113\LGAS1113.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 14 09:41:04 2019
Response via : Initial Calibration
DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	5.18	TIC	1622221	25.00	ppb	0.00
3) Chlorobenzene-D5 (IS)	8.78	TIC	2228507	25.00	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	11.32	TIC	2196889	25.00	ppb	0.00

System Monitoring Compounds

Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\LOKI\DATA\191113\1113L37.D Vial: 33
Acq On : 14 Nov 19 8:09 Operator:
Sample : 191113 BLK Inst : Loki
Misc : IS&S:10/7/19, 10/23/19 Multiplr: 1.00

Quant Time: Nov 15 10:31 2019 Quant Results File: LSUR1113.RES

Quant Method : M:\LOKI\DATA\191113\LSUR1113.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 14 09:28:54 2019
Response via : Initial Calibration
DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	5.18	96	794688	25.00	ppb	0.00
4) Chlorobenzene-D5 (IS)	8.78	117	779136	25.00	ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	11.32	152	381952	25.00	ppb	0.00
System Monitoring Compounds						
2) Dibromofluoromethane(S)	4.22	111	210420	25.96	ppb	0.00
Spiked Amount 25.000			Recovery = 103.840%			
3) 1,2-DCA-D4(S)	4.69	65	227996	24.67	ppb	0.00
Spiked Amount 25.000			Recovery = 98.676%			
5) Toluene-D8(S)	7.17	98	740348	24.04	ppb	0.00
Spiked Amount 25.000			Recovery = 96.168%			
6) 4-Bromofluorobenzene(S)	10.08	95	268849	23.18	ppb	0.00
Spiked Amount 25.000			Recovery = 92.736%			

Target Compounds Qvalue

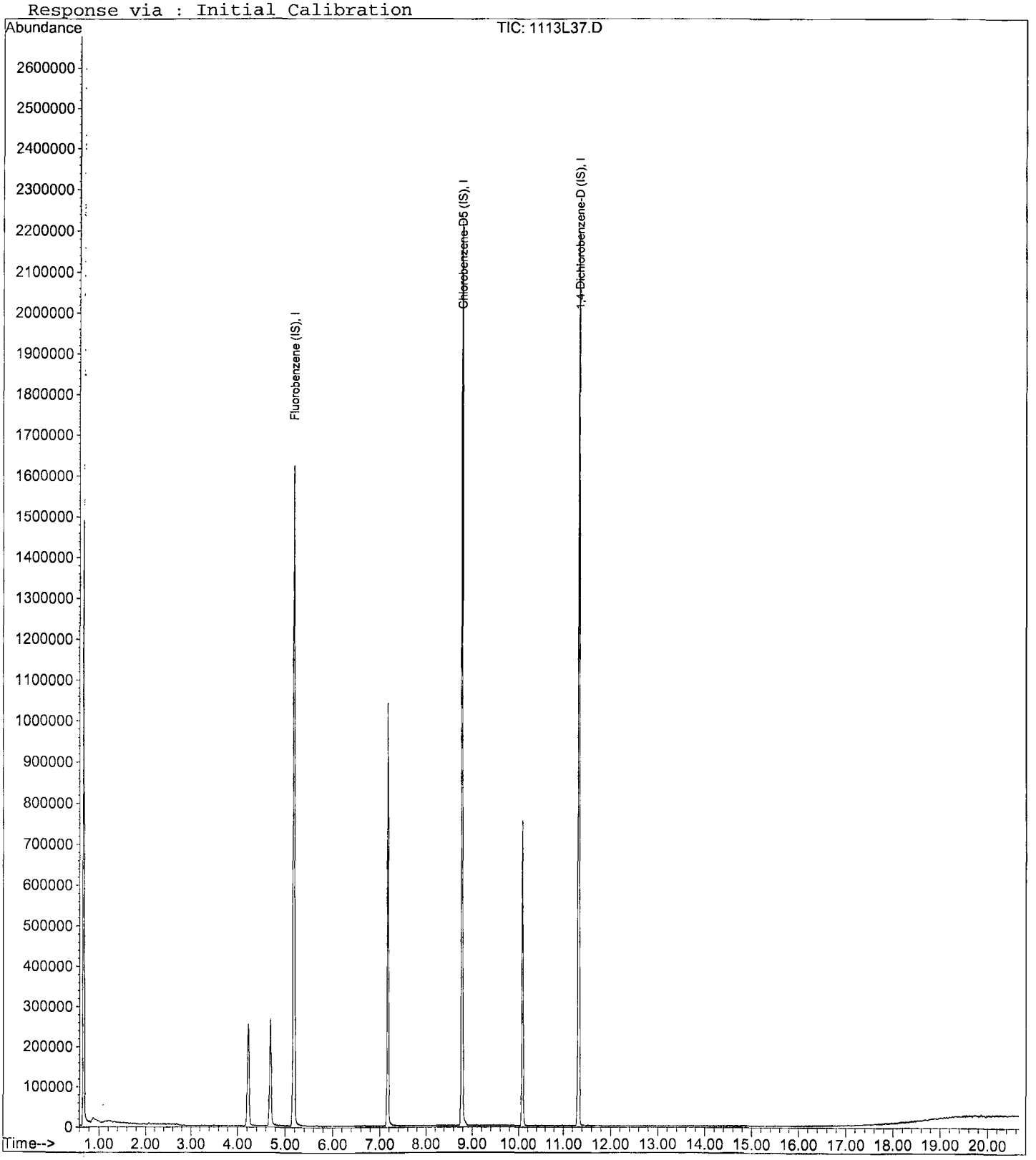
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LOKI\DATA\191113\1113L37.D Vial: 33
Acq On : 14 Nov 19 8:09 Operator:
Sample : 191113 BLK Inst : Loki
Misc : IS&S:10/7/19, 10/23/19 Multiplr: 1.00

Quant Time: Nov 14 16:44 2019 Quant Results File: LGAS1113.RES

Method : M:\LOKI\DATA\191113\LGAS1113.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 14 09:41:04 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\LOKI\DATA\191113\1113L33.D Vial: 29
Acq On : 14 Nov 19 6:15 Operator:
Sample : 191113 LCS 300ug/L Inst : Loki
Misc : IS&S:10/7/19, 10/23/19 Multiplr: 1.00

Quant Time: Nov 14 16:31 2019 Quant Results File: LGAS1113.RES

Quant Method : M:\LOKI\DATA\191113\LGAS1113.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 14 09:41:04 2019
Response via : Initial Calibration
DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	5.18	TIC	1595369	25.00	ppb	0.00
3) Chlorobenzene-D5 (IS)	8.78	TIC	2189845	25.00	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	11.32	TIC	2241853	25.00	ppb	0.00
System Monitoring Compounds						
Target Compounds						Qvalue
2) Gasoline C6-C10	8.78	TIC	16744262m	310.90	ppb	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\LOKI\DATA\191113\1113L33.D Vial: 29
Acq On : 14 Nov 19 6:15 Operator:
Sample : 191113 LCS 300ug/L Inst : Loki
Misc : IS&S:10/7/19, 10/23/19 Multiplr: 1.00

Quant Time: Nov 15 10:34 2019 Quant Results File: LSUR1113.RES

Quant Method : M:\LOKI\DATA\191113\LSUR1113.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 14 09:28:54 2019
Response via : Initial Calibration
DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	5.18	96	786752	25.00	ppb	0.00
4) Chlorobenzene-D5 (IS)	8.78	117	773248	25.00	ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	11.32	152	389888	25.00	ppb	0.00
System Monitoring Compounds						
2) Dibromofluoromethane(S)	4.22	111	203964	25.42	ppb	0.00
Spiked Amount 25.000			Recovery = 101.668%			
3) 1,2-DCA-D4(S)	4.69	65	225162	24.61	ppb	0.00
Spiked Amount 25.000			Recovery = 98.432%			
5) Toluene-D8(S)	7.17	98	756319	24.75	ppb	0.00
Spiked Amount 25.000			Recovery = 98.992%			
6) 4-Bromofluorobenzene(S)	10.08	95	283612	24.64	ppb	0.00
Spiked Amount 25.000			Recovery = 98.572%			

Target Compounds Qvalue

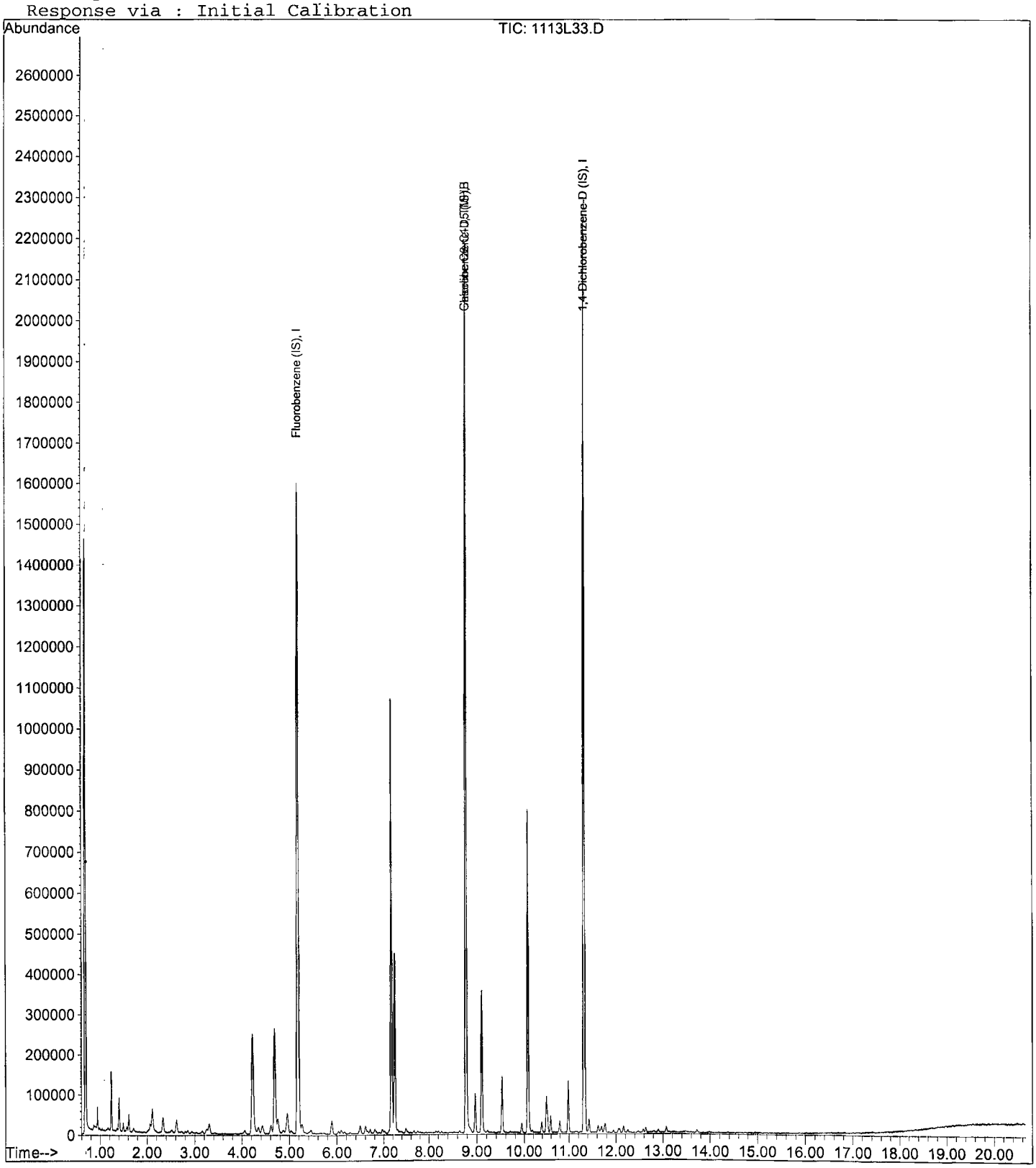
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LOKI\DATA\191113\1113L33.D Vial: 29
Acq On : 14 Nov 19 6:15 Operator:
Sample : 191113 LCS 300ug/L Inst : Loki
Misc : IS&S:10/7/19, 10/23/19 Multiplr: 1.00

Quant Time: Nov 14 16:31 2019 Quant Results File: LGAS1113.RES

Method : M:\LOKI\DATA\191113\LGAS1113.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 14 09:41:04 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\LOKI\DATA\191113\1113L34.D Vial: 30
Acq On : 14 Nov 19 6:44 Operator:
Sample : 191113 LCSD 300ug/L Inst : Loki
Misc : IS&S:10/7/19, 10/23/19 Multiplr: 1.00

Quant Time: Nov 14 16:31 2019 Quant Results File: LGAS1113.RES

Quant Method : M:\LOKI\DATA\191113\LGAS1113.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 14 09:41:04 2019
Response via : Initial Calibration
DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	5.18	TIC	1659130	25.00	ppb	0.00
3) Chlorobenzene-D5 (IS)	8.78	TIC	2260369	25.00	ppb	0.00
4) 1,4-Dichlorobenzene-D (IS)	11.32	TIC	2284990	25.00	ppb	0.00
System Monitoring Compounds						
Target Compounds						Qvalue
2) Gasoline C6-C10	8.78	TIC	17660084m	327.50	ppb	100

(#) = qualifier out of range (m) = manual integration
1113L34.D LGAS1113.M Wed Dec 04 16:42:41 2019 Page 1

Quantitation Report (Not Reviewed)

Data File : M:\LOKI\DATA\191113\1113L34.D Vial: 30
Acq On : 14 Nov 19 6:44 Operator:
Sample : 191113 LCSD 300ug/L Inst : Loki
Misc : IS&S:10/7/19, 10/23/19 Multiplr: 1.00

Quant Time: Nov 15 10:34 2019 Quant Results File: LSUR1113.RES

Quant Method : M:\LOKI\DATA\191113\LSUR1113.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 14 09:28:54 2019
Response via : Initial Calibration
DataAcq Meth : L8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	5.18	96	815104	25.00	ppb	0.00
4) Chlorobenzene-D5 (IS)	8.78	117	790528	25.00	ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	11.32	152	392896	25.00	ppb	0.00
System Monitoring Compounds						
2) Dibromofluoromethane(S)	4.22	111	214498	25.80	ppb	0.00
Spiked Amount 25.000			Recovery = 103.200%			
3) 1,2-DCA-D4(S)	4.69	65	235732	24.87	ppb	0.00
Spiked Amount 25.000			Recovery = 99.468%			
5) Toluene-D8(S)	7.17	98	777642	24.89	ppb	0.00
Spiked Amount 25.000			Recovery = 99.556%			
6) 4-Bromofluorobenzene(S)	10.08	95	285179	24.24	ppb	0.00
Spiked Amount 25.000			Recovery = 96.948%			

Target Compounds Qvalue

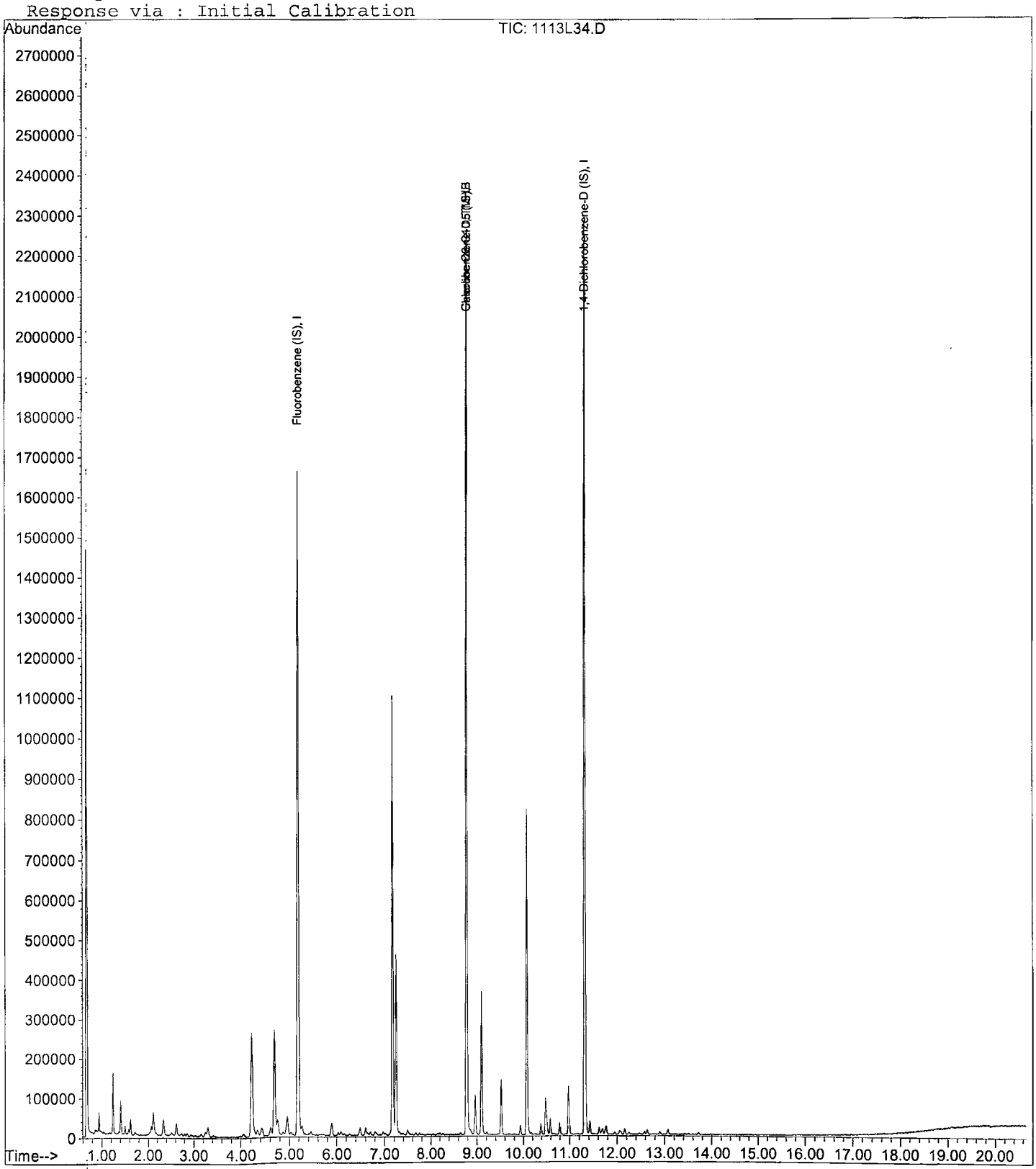
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LOKI\DATA\191113\1113L34.D Vial: 30
Acq On : 14 Nov 19 6:44 Operator:
Sample : 191113 LCSD 300ug/L Inst : Loki
Misc : IS&S:10/7/19, 10/23/19 Multiplr: 1.00

Quant Time: Nov 14 16:31 2019 Quant Results File: LGAS1113.RES

Method : M:\LOKI\DATA\191113\LGAS1113.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 14 09:41:04 2019
Response via : Initial Calibration



Injection Log

Directory: M:\LOKI\DATA\191113\

Vial	FileName	Multiplier	SampleName	Misc Info	Injected
3	1113L07.D	1	0.3ug/L VOC STD 11/13/19	IS&S:10/7/19, 10/23/19	13 Nov 19 17:58
4	1113L08.D	1	0.5ug/L VOC STD 11/13/19	IS&S:10/7/19, 10/23/19	13 Nov 19 18:26
5	1113L09.D	1	1.0ug/L VOC STD 11/13/19	IS&S:10/7/19, 10/23/19	13 Nov 19 18:54
6	1113L10.D	1	2.0ug/L VOC STD 11/13/19	IS&S:10/7/19, 10/23/19	13 Nov 19 19:23
7	1113L11.D	1	5.0ug/L VOC STD 11/13/19	IS&S:10/7/19, 10/23/19	13 Nov 19 19:51
8	1113L12.D	1	10ug/L VOC STD 11/13/19	IS&S:10/7/19, 10/23/19	13 Nov 19 20:19
9	1113L13.D	1	20ug/L VOC STD 11/13/19	IS&S:10/7/19, 10/23/19	13 Nov 19 20:48
10	1113L14.D	1	40ug/L VOC STD 11/13/19	IS&S:10/7/19, 10/23/19	13 Nov 19 21:16
11	1113L15.D	1	100ug/L VOC STD 11/13/19	IS&S:10/7/19, 10/23/19	13 Nov 19 21:45
14	1113L18.D	1	20ug/L GAS STD 11/13/19	IS&S:10/7/19, 10/23/19	13 Nov 19 23:10
15	1113L19.D	1	50ug/L GAS STD 11/13/19	IS&S:10/7/19, 10/23/19	13 Nov 19 23:38
16	1113L20.D	1	100ug/L GAS STD 11/13/19	IS&S:10/7/19, 10/23/19	14 Nov 19 00:07
17	1113L21.D	1	300ug/L GAS STD 11/13/19	IS&S:10/7/19, 10/23/19	14 Nov 19 00:35
18	1113L22.D	1	600ug/L GAS STD 11/13/19	IS&S:10/7/19, 10/23/19	14 Nov 19 1:03
19	1113L23.D	1	800ug/L GAS STD 11/13/19	IS&S:10/7/19, 10/23/19	14 Nov 19 1:32
20	1113L24.D	1	1000ug/L GAS STD 11/13/19	IS&S:10/7/19, 10/23/19	14 Nov 19 2:00
22	1113L26.D	1	(SS) 300ug/L GAS STD 11/13/19	IS&S:10/7/19, 10/23/19	14 Nov 19 2:57
28	1113L32.D	1	191113 CCV 300ug/L	IS&S:10/7/19, 10/23/19	14 Nov 19 5:47
29	1113L33.D	1	191113 LCS 300ug/L	IS&S:10/7/19, 10/23/19	14 Nov 19 6:15
30	1113L34.D	1	191113 LCSD 300ug/L	IS&S:10/7/19, 10/23/19	14 Nov 19 6:44
33	1113L37.D	1	191113 BLK	IS&S:10/7/19, 10/23/19	14 Nov 19 8:09
36	1113L40.D	1	BA02300W01	IS&S:10/7/19, 10/23/19	14 Nov 19 9:34
44	1113L48.D	1	BA02301W01	IS&S:10/7/19, 10/23/19	14 Nov 19 13:21
50	1113L54.D	1	Ending CCV 300ug/L 11/13/19	IS&S:10/7/19, 10/23/19	14 Nov 19 16:11

ORGANICS
Calibration Data

Form 6
Initial Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Initial Cal. Date: 10/02/19
Matrix: Instrument: 7890
Initials:

1002R02.D 1002R03.D 1002R04.D 1002R05.D 1002R06.D 1002R07.D 1002R08.D

		Compound	1	2	3	4	5	6	7				Avg	%RSD	Type	r^2	Q
1	ATM	Methane	63820	40452	36215	45202	46427	44031	45774				46274	19	ATM		
2	ATM	Ethane	42546	31037	26553	34655	37738	32771	32974				34039	15	ATM		
3	ATM	Ethene	32900	24299	20841	27689	29847	25551	26297				26775	15	ATM		
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1.377886

Quantitation Report (Not Reviewed)

Data File : G:\ROCKY\DATA\191002RS\1002R02.D Vial: 2
Acq On : 2 Oct 19 17:45 Operator: GA
Sample : RSK STD 1 10/2/19 Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 2 18:11 2019 Quant Results File: RSK1002.RES

Method : G:\ROCKY\DATA\190929RS\RSK1002.M (Chemstation Integrator)
Title : RSK 175
Last Update : Wed Oct 02 18:14:49 2019
Response via : Multiple Level Calibration

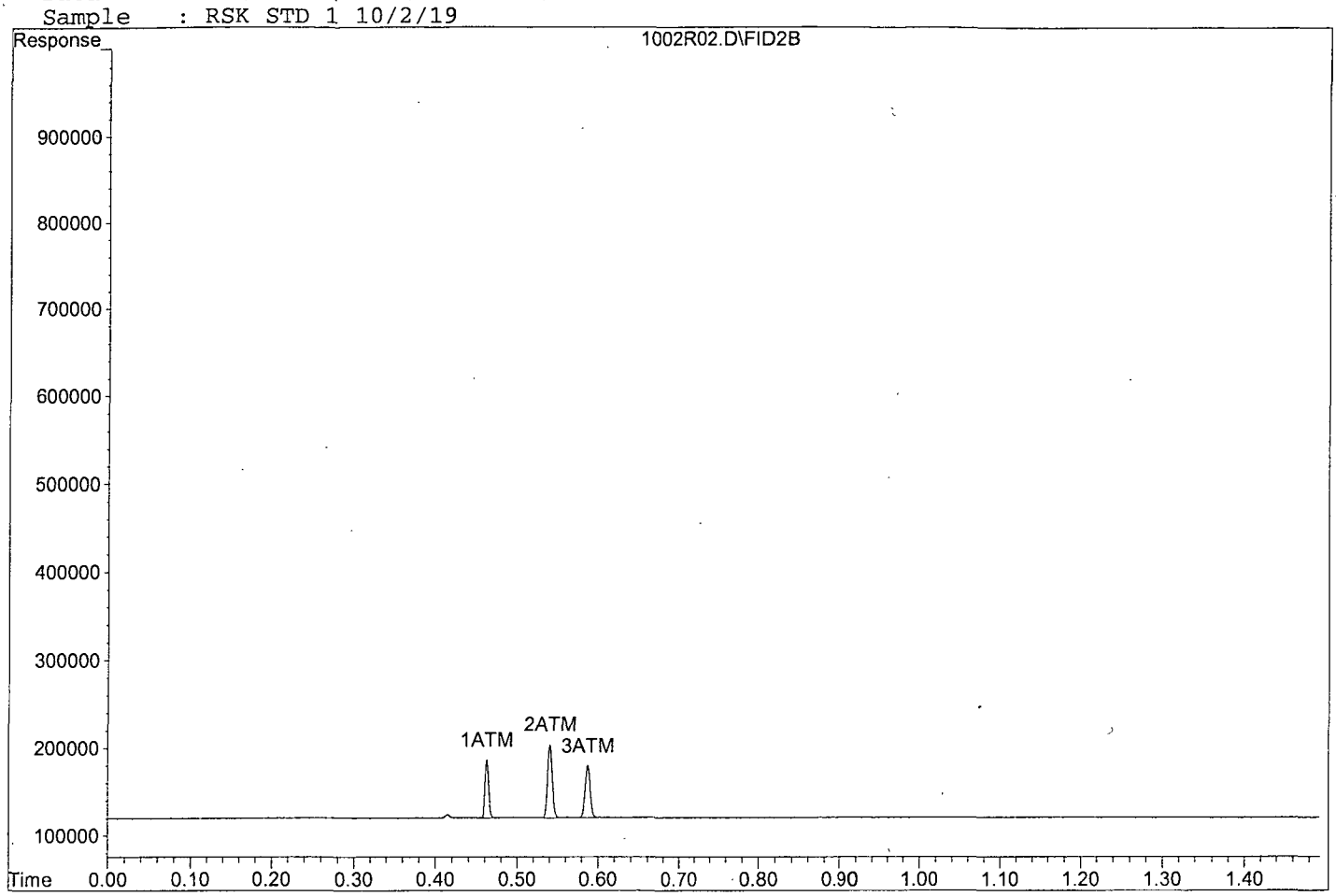
Volume Inj. : 0.500 mL
Signal Phase : CARBOPACK
Signal Info :

Compound	R.T.	Response	Conc Units
Target Compounds			
1) ATM Methane	0.46	66373	8.306 ppb
2) ATM Ethane	0.54	83177	6.216 ppb
3) ATM Ethene	0.59	60042	5.640 ppb

Target Compounds

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: G:\ROCKY\DATA\191002RS\1002R02.D
Sample : RSK STD 1 10/2/19



Quantitation Report (Not Reviewed)

Data File : G:\ROCKY\DATA\191002RS\1002R03.D Vial: 3
Acq On : 2 Oct 19 17:50 Operator: GA
Sample : RSK STD 2 10/2/19 Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 2 18:11 2019 Quant Results File: RSK1002.RES

Method : G:\ROCKY\DATA\190929RS\RSK1002.M (Chemstation Integrator)
Title : RSK 175
Last Update : Wed Oct 02 18:14:49 2019
Response via : Multiple Level Calibration

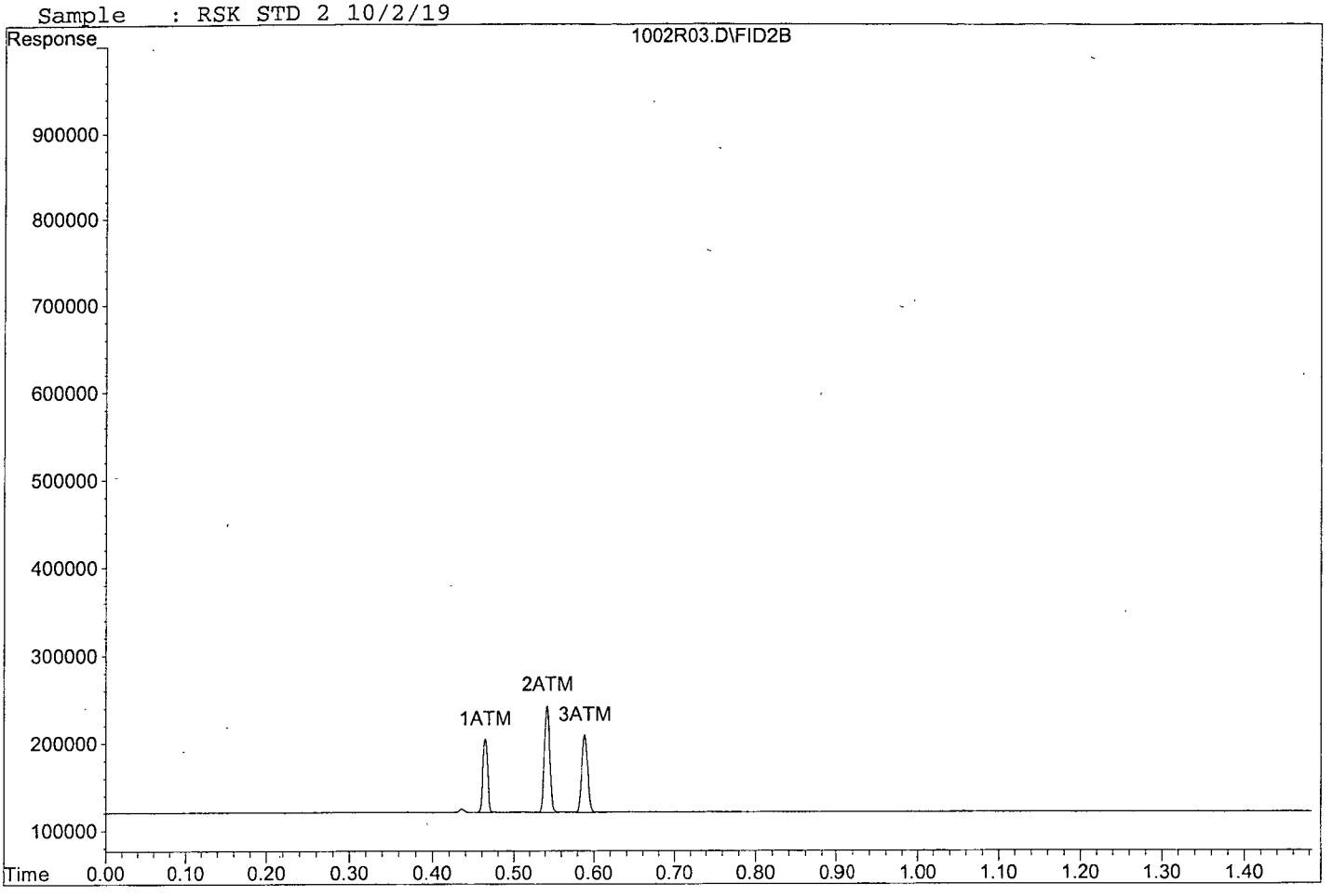
Volume Inj. : 0.500 mL
Signal Phase : CARBOPACK
Signal Info :

Compound	R.T.	Response	Conc Units
Target Compounds			
1) ATM Methane	0.46	84140	9.332 ppb
2) ATM Ethane	0.54	121200	9.058 ppb
3) ATM Ethene	0.59	88693	8.332 ppb

Target Compounds

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: G:\ROCKY\DATA\191002RS\1002R03.D
Sample : RSK STD 2 10/2/19



Quantitation Report (Not Reviewed)

Data File : G:\ROCKY\DATA\191002RS\1002R04.D Vial: 4
Acq On : 2 Oct 19 17:52 Operator: GA
Sample : RSK STD 3 10/2/19 Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 2 18:11 2019 Quant Results File: RSK1002.RES

Method : G:\ROCKY\DATA\190929RS\RSK1002.M (Chemstation Integrator)
Title : RSK 175
Last Update : Wed Oct 02 18:14:49 2019
Response via : Multiple Level Calibration

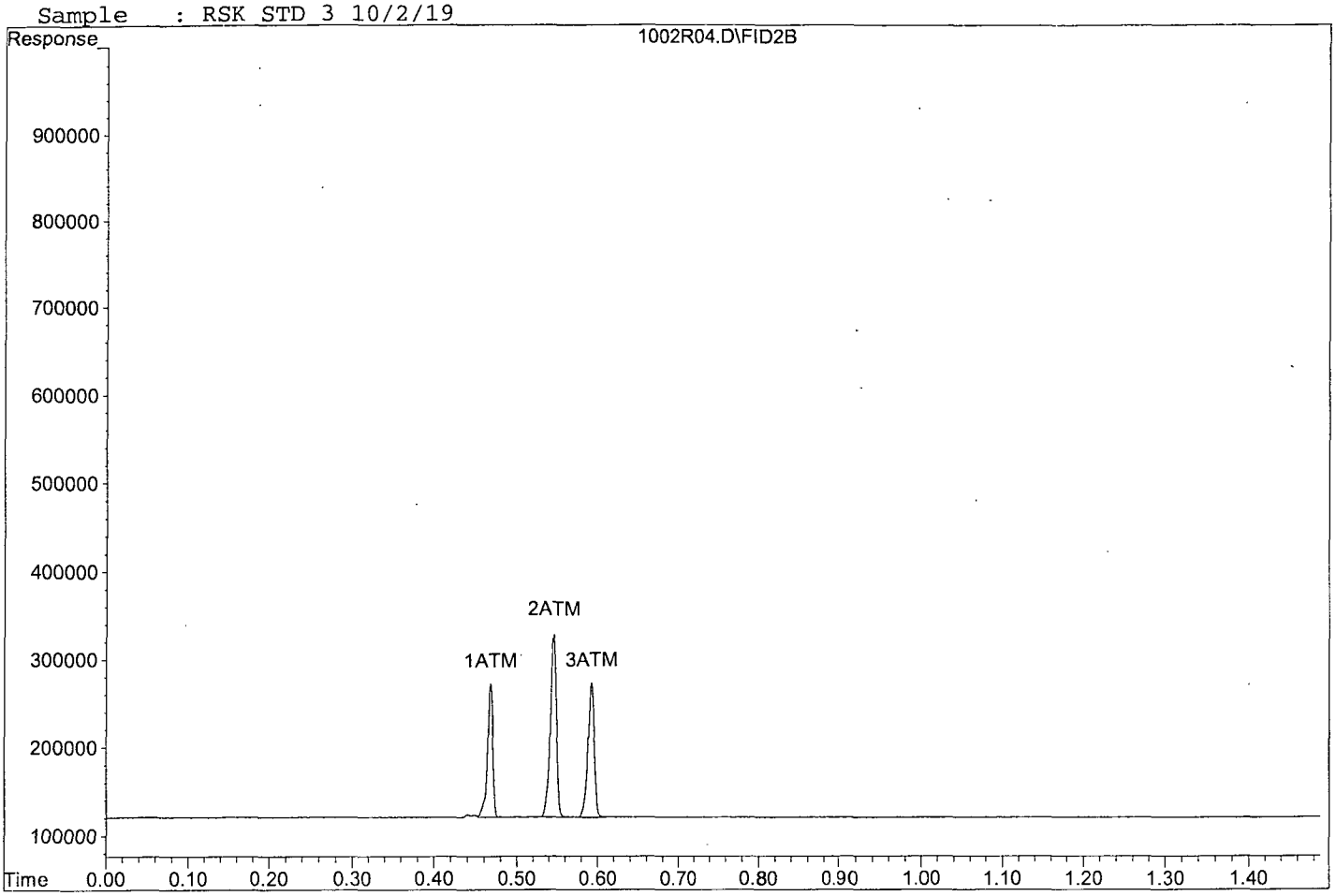
Volume Inj. : 0.500 mL
Signal Phase : CARBOPACK
Signal Info :

Compound	R.T.	Response	Conc Units
Target Compounds			
1) ATM Methane	0.47	151018	13.195 ppb
2) ATM Ethane	0.55	207113	15.479 ppb
3) ATM Ethene	0.59	152138	14.292 ppb

Target Compounds

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: G:\ROCKY\DATA\191002RS\1002R04.D
Sample : RSK STD 3 10/2/19



Quantitation Report (Not Reviewed)

Data File : G:\ROCKY\DATA\191002RS\1002R05.D Vial: 5
Acq On : 2 Oct 19 17:57 Operator: GA
Sample : RSK STD 4 10/2/19 Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 2 18:11 2019 Quant Results File: RSK1002.RES

Method : G:\ROCKY\DATA\190929RS\RSK1002.M (Chemstation Integrator)
Title : RSK 175
Last Update : Wed Oct 02 18:14:49 2019
Response via : Multiple Level Calibration

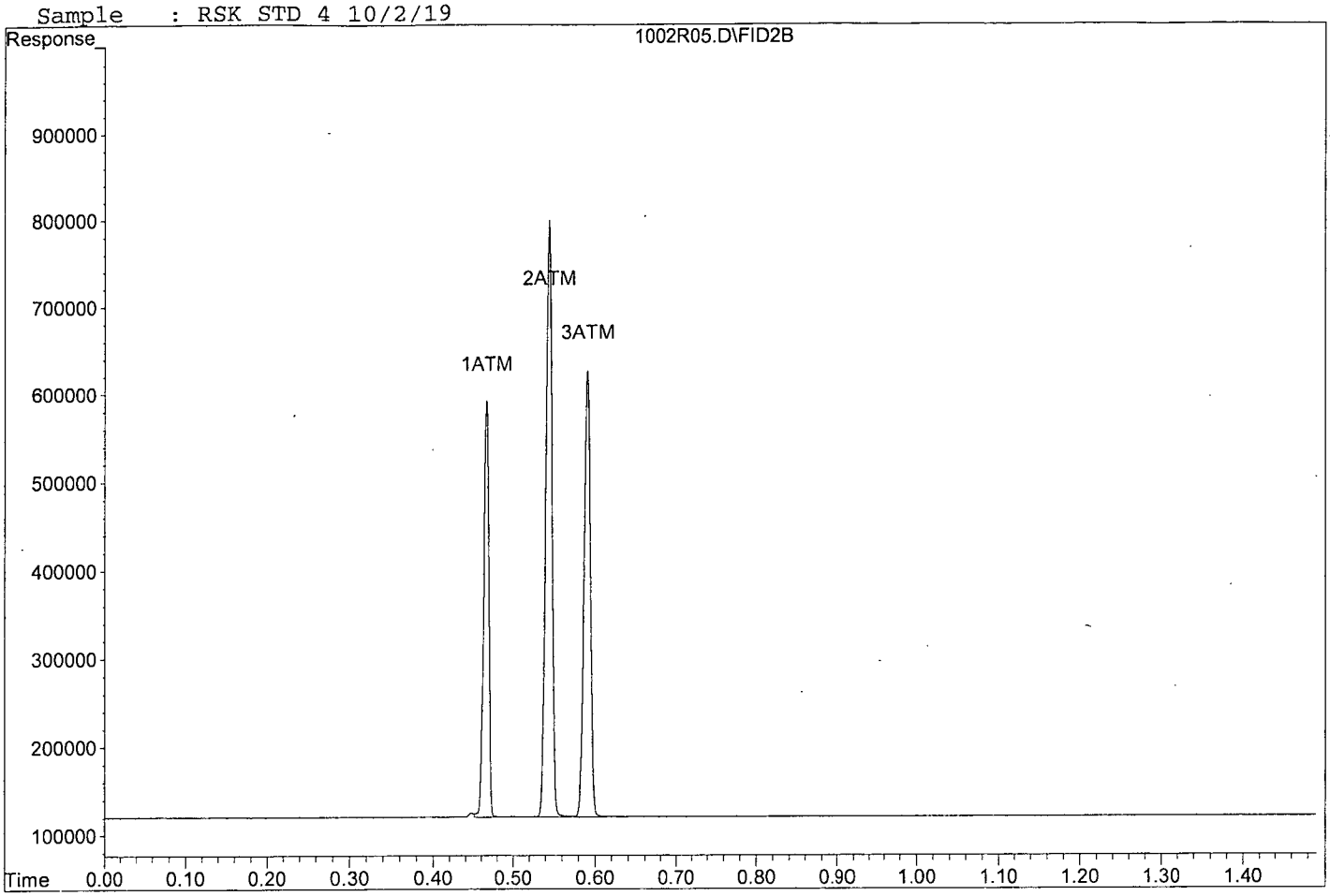
Volume Inj. : 0.500 mL
Signal Phase : CARBOPACK
Signal Info :

Compound	R.T.	Response	Conc Units
Target Compounds			
1) ATM Methane	0.47	471234	31.689 ppb
2) ATM Ethane	0.54	677330	50.623 ppb
3) ATM Ethene	0.59	504779	47.419 ppb

Target Compounds

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: G:\ROCKY\DATA\191002RS\1002R05.D
Sample : RSK STD 4 10/2/19



Quantitation Report (Not Reviewed)

Data File : G:\ROCKY\DATA\191002RS\1002R06.D Vial: 6
Acq On : 2 Oct 19 17:59 Operator: GA
Sample : RSK STD 5 10/2/19 Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 2 18:11 2019 Quant Results File: RSK1002.RES

Method : G:\ROCKY\DATA\190929RS\RSK1002.M (Chemstation Integrator)
Title : RSK 175
Last Update : Wed Oct 02 18:14:49 2019
Response via : Multiple Level Calibration

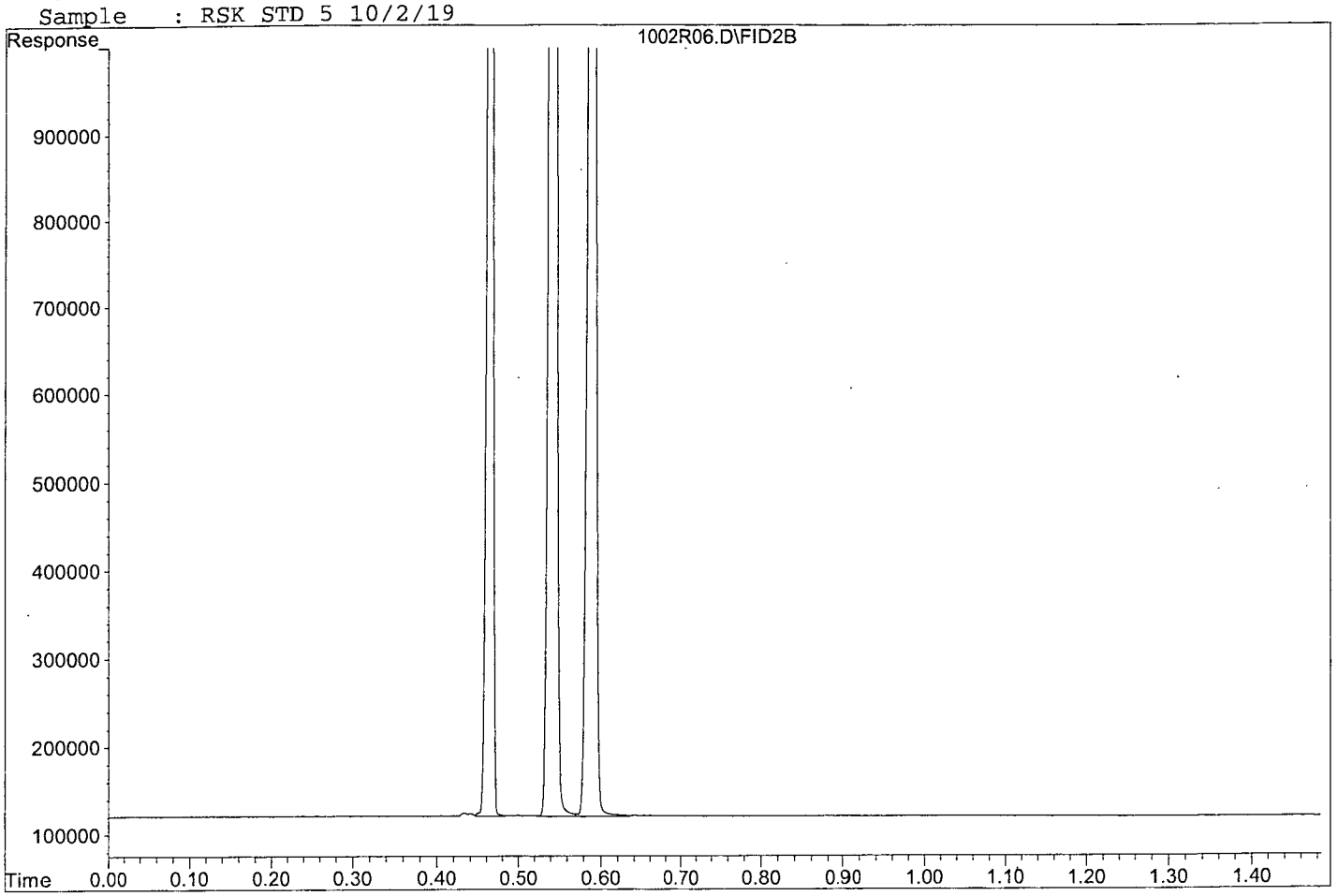
Volume Inj. : 0.500 mL
Signal Phase : CARBOPACK
Signal Info :

Compound	R.T.	Response	Conc Units
Target Compounds			
1) ATM Methane	0.46	2019402	121.105 ppb
2) ATM Ethane	0.54	2950189	220.492 ppb
3) ATM Ethene	0.59	2176445	204.454 ppb

Target Compounds

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: G:\ROCKY\DATA\191002RS\1002R06.D
Sample : RSK STD 5 10/2/19



Quantitation Report (Not Reviewed)

Data File : G:\ROCKY\DATA\191002RS\1002R07.D Vial: 7
Acq On : 2 Oct 19 18:05 Operator: GA
Sample : RSK STD 6 10/2/19 Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 2 18:11 2019 Quant Results File: RSK1002.RES

Method : G:\ROCKY\DATA\190929RS\RSK1002.M (Chemstation Integrator)
Title : RSK 175
Last Update : Wed Oct 02 18:14:49 2019
Response via : Multiple Level Calibration

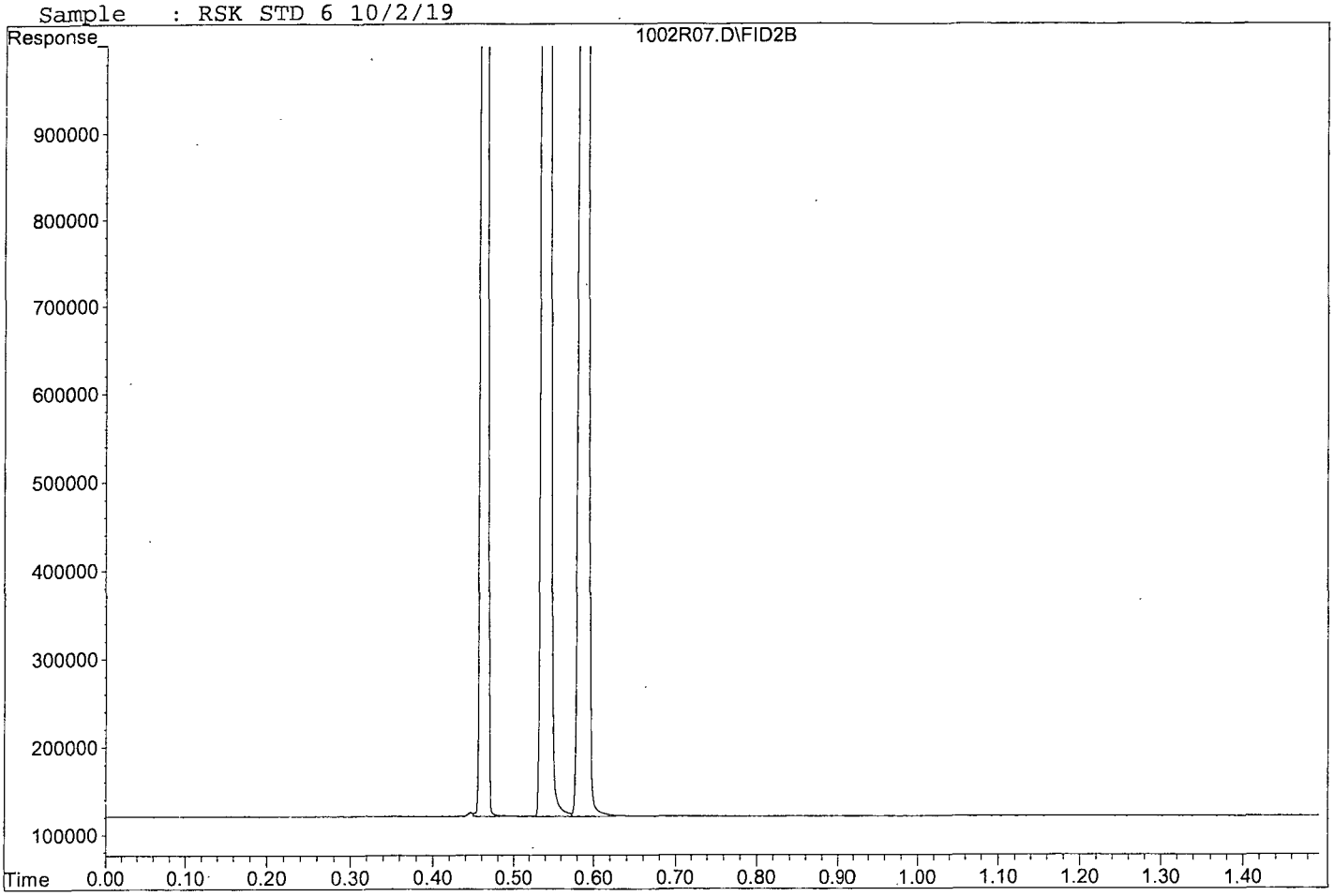
Volume Inj. : 0.500 mL
Signal Phase : CARBOPACK
Signal Info :

Compound	R.T.	Response	Conc Units
Target Compounds			
1) ATM Methane	0.46	4590194	269.583 ppb
2) ATM Ethane	0.54	6405030	478.702 ppb
3) ATM Ethene	0.59	4657966	437.567 ppb

Target Compounds

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: G:\ROCKY\DATA\191002RS\1002R07.D
Sample : RSK STD 6 10/2/19



Quantitation Report (Not Reviewed)

Data File : G:\ROCKY\DATA\191002RS\1002R08.D Vial: 8
Acq On : 2 Oct 19 18:07 Operator: GA
Sample : RSK STD 7 10/2/19 Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 2 18:11 2019 Quant Results File: RSK1002.RES

Method : G:\ROCKY\DATA\190929RS\RSK1002.M (Chemstation Integrator)
Title : RSK 175
Last Update : Wed Oct 02 18:14:49 2019
Response via : Multiple Level Calibration

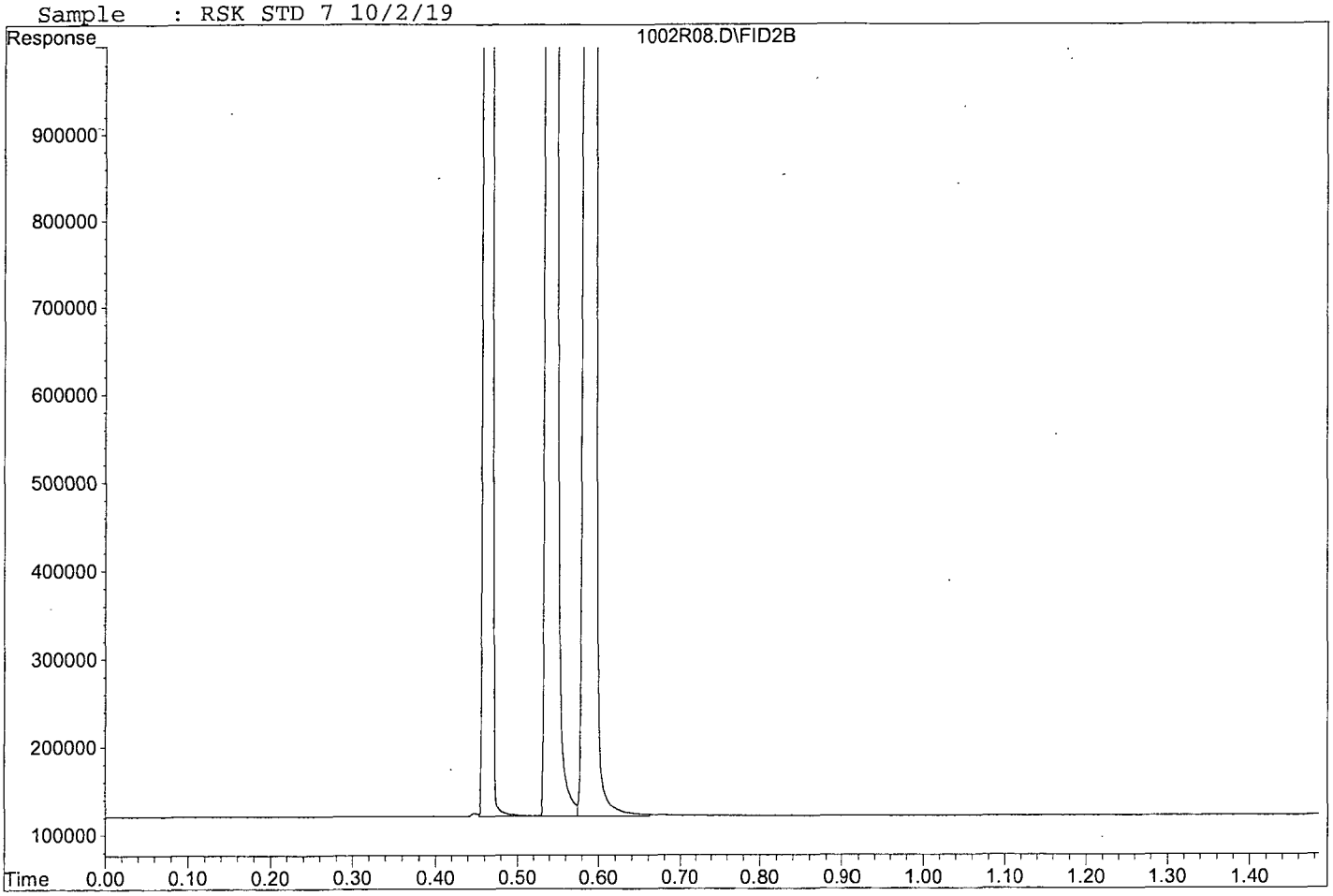
Volume Inj. : 0.500 mL
Signal Phase : CARBOPACK
Signal Info :

Compound	R.T.	Response	Conc	Units
Target Compounds				
1) ATM Methane	0.46	19087907	1106.909	ppb
2) ATM Ethane	0.54	25777712	1926.584	ppb
3) ATM Ethene	0.59	19176068	1801.389	ppb

Target Compounds

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: G:\ROCKY\DATA\191002RS\1002R08.D
Sample : RSK STD 7 10/2/19



Form 7

Second Source Calibration

Lab Name: APPL, Inc.
Case No:
Matrix:

SDG No:
Date Analyzed: 2 Oct 19 18:24
Instrument: 7890
Initial Cal. Date: 10/02/19
Data File: 1002R10.D

		Compound	MEAN	CCRF	%D		%Drift
1	ATM	Methane	46275	50203	8.5	ATM	
2	ATM	Ethane	34039	37011	8.7	ATM	
3	ATM	Ethene	26775	28699	7.2	ATM	
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
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29							
30							
31							
32							
33							
34							
35							
36							
37							
38							
39							
40							
		Average			8.1		

Quantitation Report (Not Reviewed)

Data File : G:\ROCKY\DATA\191002RS\1002R10.D Vial: 10
Acq On : 2 Oct 19 18:24 Operator: GA
Sample : SS RSK STD 5 10/2/19 Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 2 18:27 2019 Quant Results File: RSK1002.RES

Method : G:\ROCKY\DATA\190929RS\RSK1002.M (Chemstation Integrator)
Title : RSK 175
Last Update : Wed Oct 02 18:14:49 2019
Response via : Multiple Level Calibration

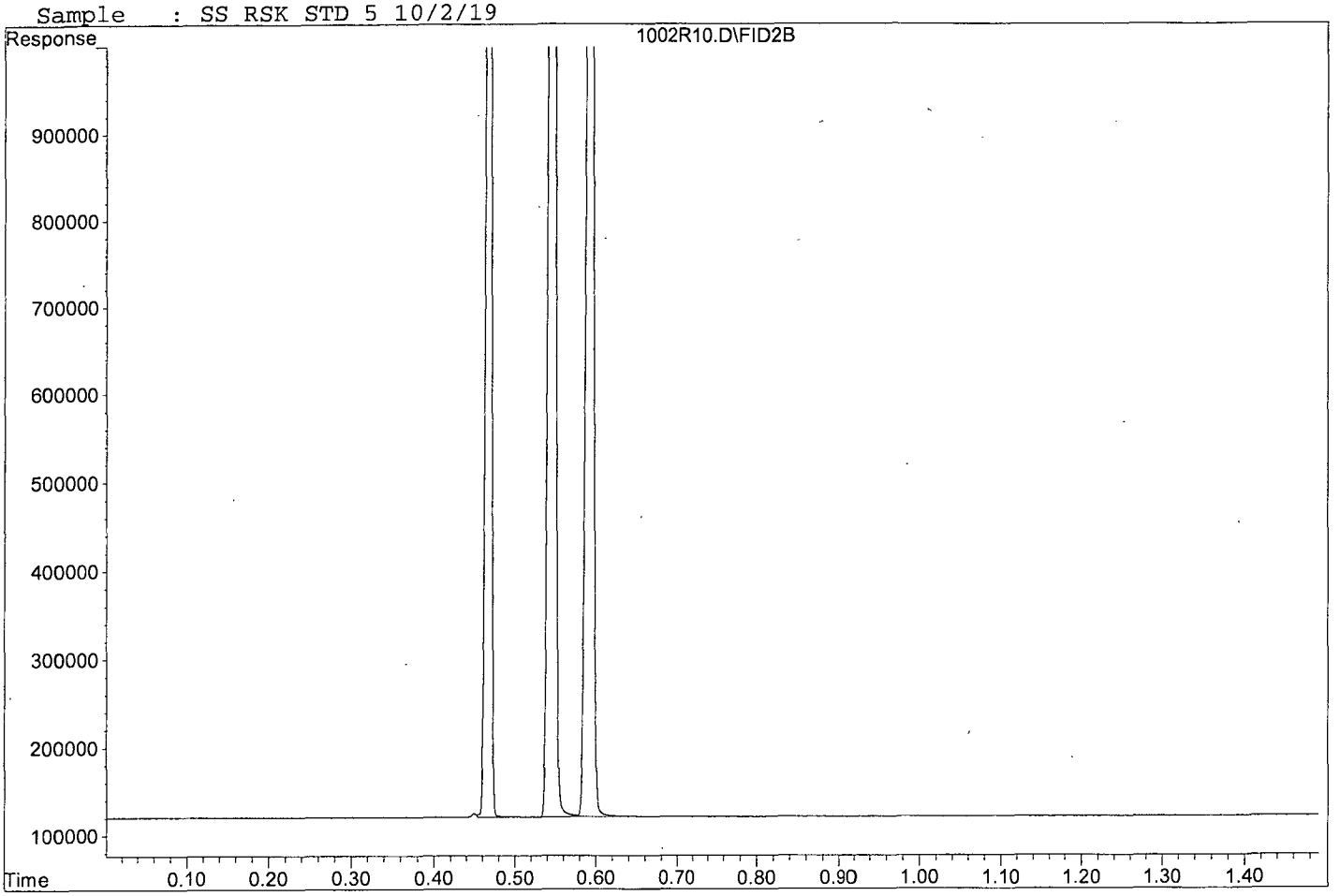
Volume Inj. : 0.500 mL
Signal Phase : CARBOPACK
Signal Info :

Compound	R.T.	Response	Conc Units
Target Compounds			
1) ATM Methane	0.47	2093456	90.480 ppb
2) ATM Ethane	0.54	2893356	170.002 ppb
3) ATM Ethene	0.59	2092707	156.318 ppb

Target Compounds

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: G:\ROCKY\DATA\191002RS\1002R10.D
Sample : SS RSK STD 5 10/2/19



Form 7

Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix:

SDG No:
Date Analyzed: 5 Nov 19 16:15
Instrument: 7890
Initial Cal. Date: 10/02/19
Data File: 1105R04.D

		Compound	MEAN	CCRF	%D		%Drift
1	ATM	Methane	46275	44205	4.5	ATM	
2	ATM	Ethane	34039	33253	2.3	ATM	
3	ATM	Ethene	26775	27961	4.4	ATM	
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
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30							
31							
32							
33							
34							
35							
36							
37							
38							
39							
40							
		Average			3.7		

Quantitation Report (Not Reviewed)

Data File : G:\ROCKY\DATA\191002RS\1105R04.D Vial: 4
Acq On : 5 Nov 19 16:15 Operator: GA
Sample : 191105A LCS/CCV RSK STD 5 Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Nov 5 16:18 2019 Quant Results File: RSK1002.RES

Method : G:\ROCKY\DATA\190929RS\RSK1002.M (Chemstation Integrator)
Title : RSK 175
Last Update : Tue Nov 05 16:18:20 2019
Response via : Multiple Level Calibration

Volume Inj. : 0.500 mL
Signal Phase : CARBOPACK
Signal Info :

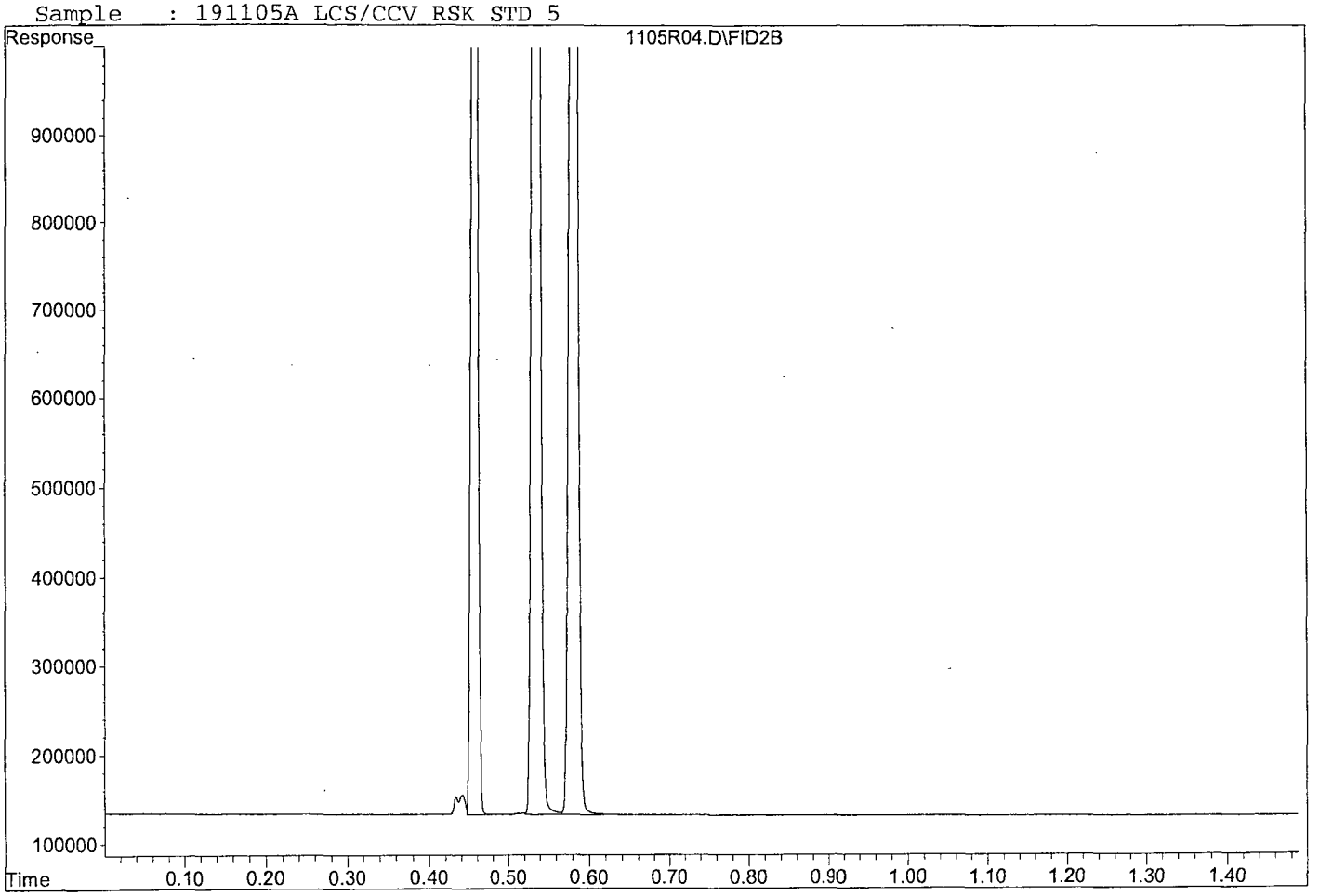
Compound	R.T.	Response	Conc	Units
Target Compounds				
1) ATM Methane	0.46	1843337	79.670	ppb
2) ATM Ethane	0.54	2599551	152.739	ppb
3) ATM Ethene	0.58	2038888	152.298	ppb

Target Compounds

(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File: G:\ROCKY\DATA\191002RS\1105R04.D
Sample : 191105A LCS/CCV RSK STD 5



Form 7

Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix:

SDG No:
Date Analyzed: 5 Nov 19 17:43
Instrument: 7890
Initial Cal. Date: 10/02/19
Data File: 1105R29.D

		Compound	MEAN	CCRF	%D	%Drift	
1	ATM	Methane	46275	39919	14	ATM	
2	ATM	Ethane	34039	29129	14	ATM	
3	ATM	Ethene	26775	23744	11	ATM	
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
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28							
29							
30							
31							
32							
33							
34							
35							
36							
37							
38							
39							
40							
		Average			13.0		

Quantitation Report (Not Reviewed)

Data File : G:\ROCKY\DATA\191002RS\1105R29.D Vial: 29
Acq On : 5 Nov 19 17:43 Operator: GA
Sample : ENDING CCV RSK STD 5 11/5/19 Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Nov 5 17:45 2019 Quant Results File: RSK1002.RES

Method : G:\ROCKY\DATA\190929RS\RSK1002.M (Chemstation Integrator)
Title : RSK 175
Last Update : Tue Nov 05 16:18:20 2019
Response via : Multiple Level Calibration

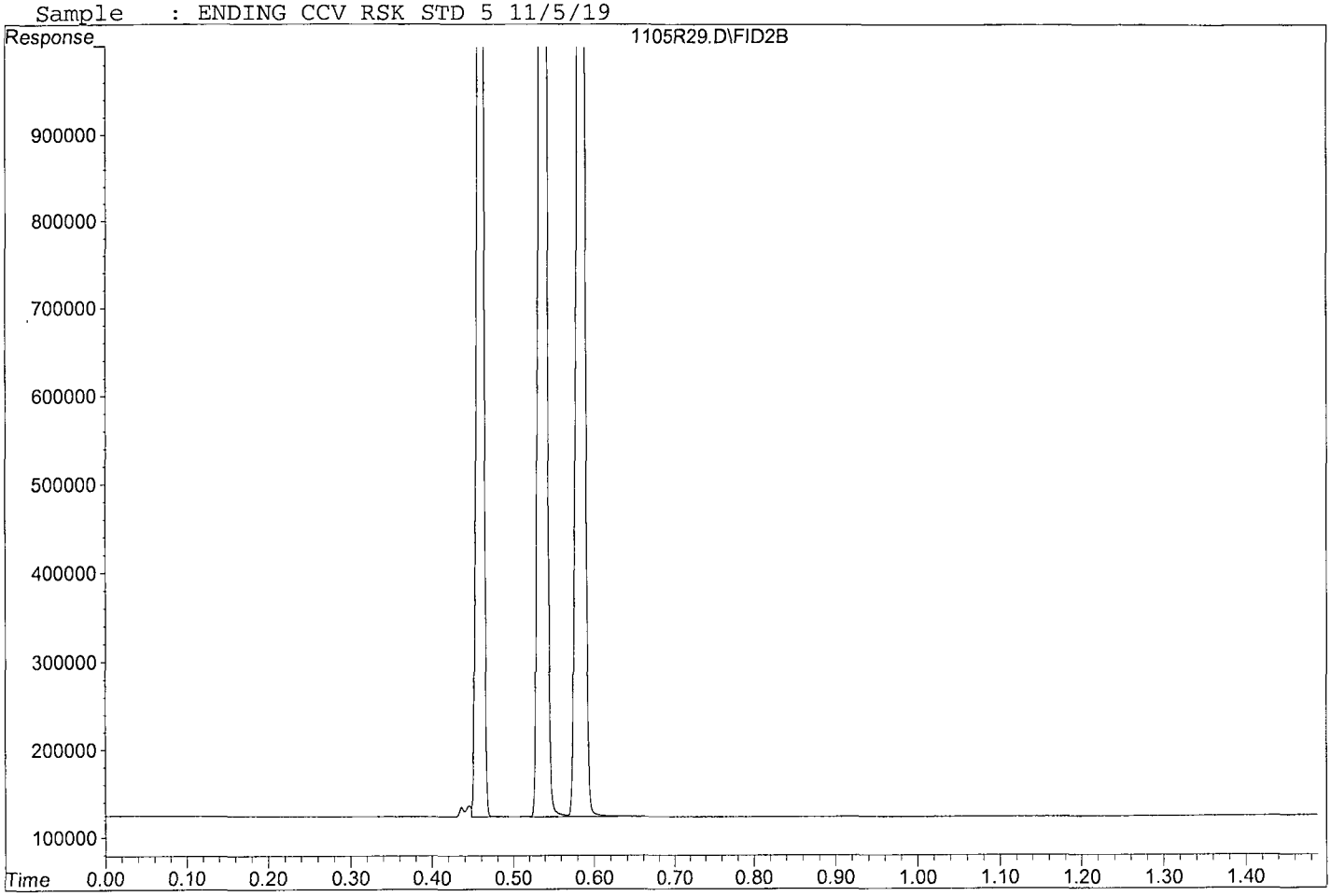
Volume Inj. : 0.500 mL
Signal Phase : CARBOPACK
Signal Info :

Compound	R.T.	Response	Conc Units
Target Compounds			
1) ATM Methane	0.46	1664622	71.946 ppb
2) ATM Ethane	0.54	2277178	133.798 ppb
3) ATM Ethene	0.58	1731413	129.331 ppb

Target Compounds

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: G:\ROCKY\DATA\191002RS\1105R29.D
Sample : ENDING CCV RSK STD 5 11/5/19



ORGANICS
Raw Data

Quantitation Report (QT Reviewed)

Data File : G:\ROCKY\DATA\191002RS\1105R25.D Vial: 25
Acq On : 5 Nov 19 17:29 Operator: GA
Sample : BA02300W02 Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Nov 5 17:31 2019 Quant Results File: RSK1002.RES

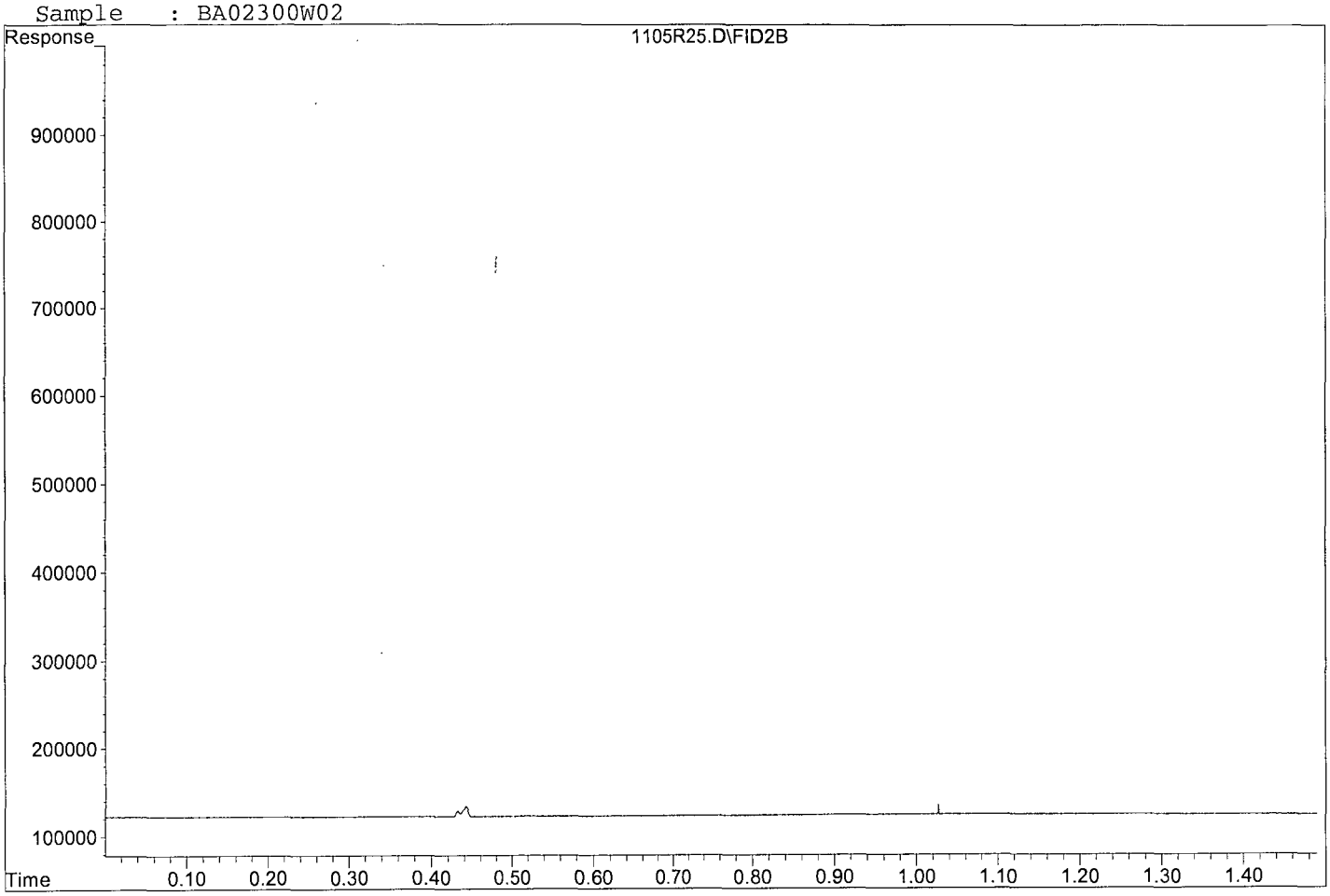
Method : G:\ROCKY\DATA\190929RS\RSK1002.M (Chemstation Integrator)
Title : RSK 175
Last Update : Tue Nov 05 16:18:20 2019
Response via : Multiple Level Calibration

Volume Inj. : 0.500 mL
Signal Phase : CARBOPACK
Signal Info :

Compound	R.T.	Response	Conc	Units	
Target Compounds					
Target Compounds					
1) ATM Methane	0.00	0	N.D.	ppb	d
2) ATM Ethane	0.00	0	N.D.	ppb	d
3) ATM Ethene	0.00	0	N.D.	ppb	d

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: G:\ROCKY\DATA\191002RS\1105R25.D
Sample : BA02300W02



Quantitation Report (QT Reviewed)

Data File : G:\ROCKY\DATA\191002RS\1105R26.D Vial: 26
Acq On : 5 Nov 19 17:32 Operator: GA
Sample : BA02301W02 Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Nov 5 17:35 2019 Quant Results File: RSK1002.RES

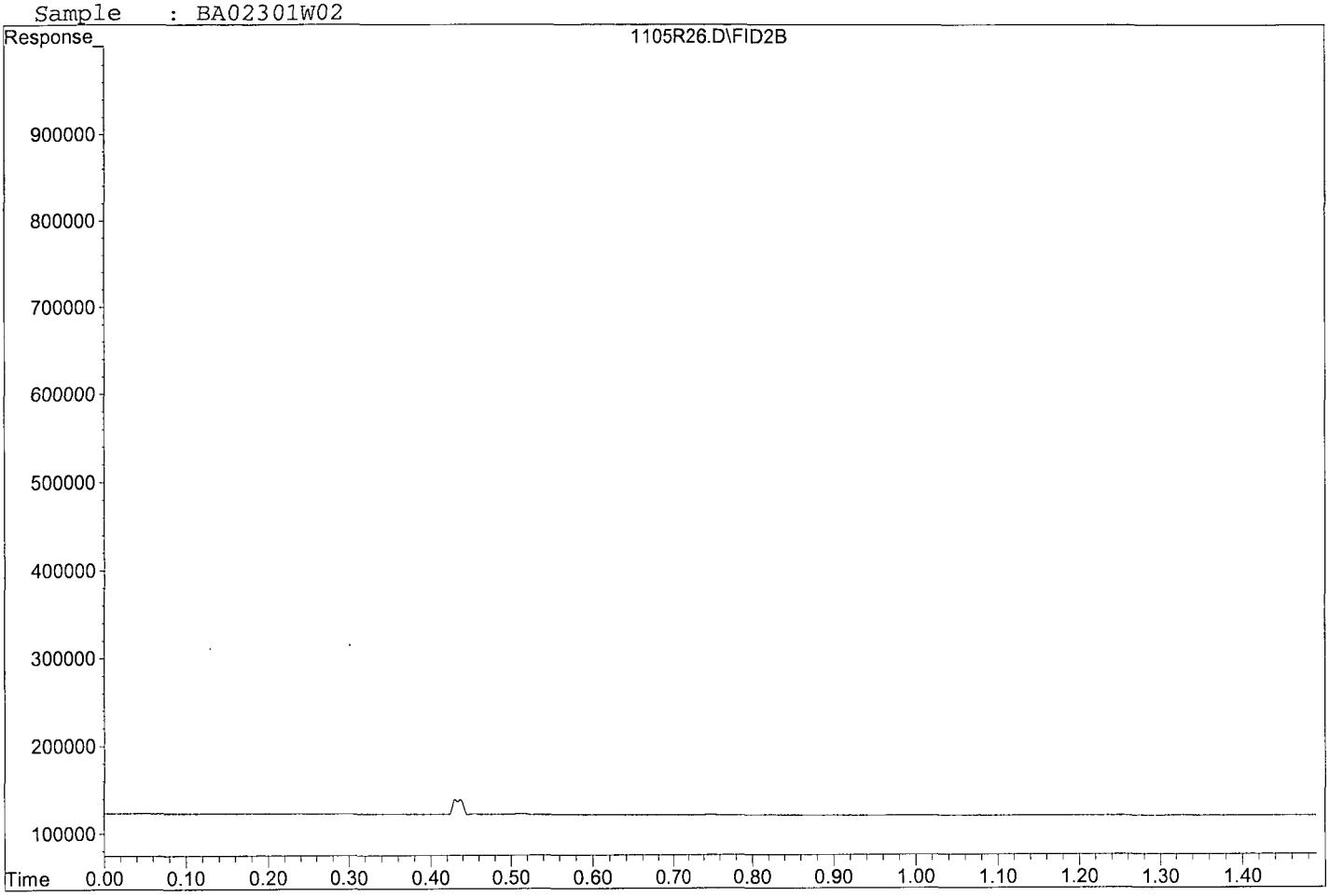
Method : G:\ROCKY\DATA\190929RS\RSK1002.M (Chemstation Integrator)
Title : RSK 175
Last Update : Tue Nov 05 16:18:20 2019
Response via : Multiple Level Calibration

Volume Inj. : 0.500 mL
Signal Phase : CARBOPACK
Signal Info :

Compound	R.T.	Response	Conc	Units	
Target Compounds					
Target Compounds					
1) ATM Methane	0.00	0	N.D.	ppb	d
2) ATM Ethane	0.00	0	N.D.	ppb	d
3) ATM Ethene	0.00	0	N.D.	ppb	d

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: G:\ROCKY\DATA\191002RS\1105R26.D
Sample : BA02301W02



Quantitation Report (QT Reviewed)

Data File : G:\ROCKY\DATA\191002RS\1105R06.D Vial: 6
Acq On : 5 Nov 19 16:23 Operator: GA
Sample : 191105A BLK Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Nov 5 16:26 2019 Quant Results File: RSK1002.RES

Method : G:\ROCKY\DATA\190929RS\RSK1002.M (Chemstation Integrator)
Title : RSK 175
Last Update : Tue Nov 05 16:18:20 2019
Response via : Multiple Level Calibration

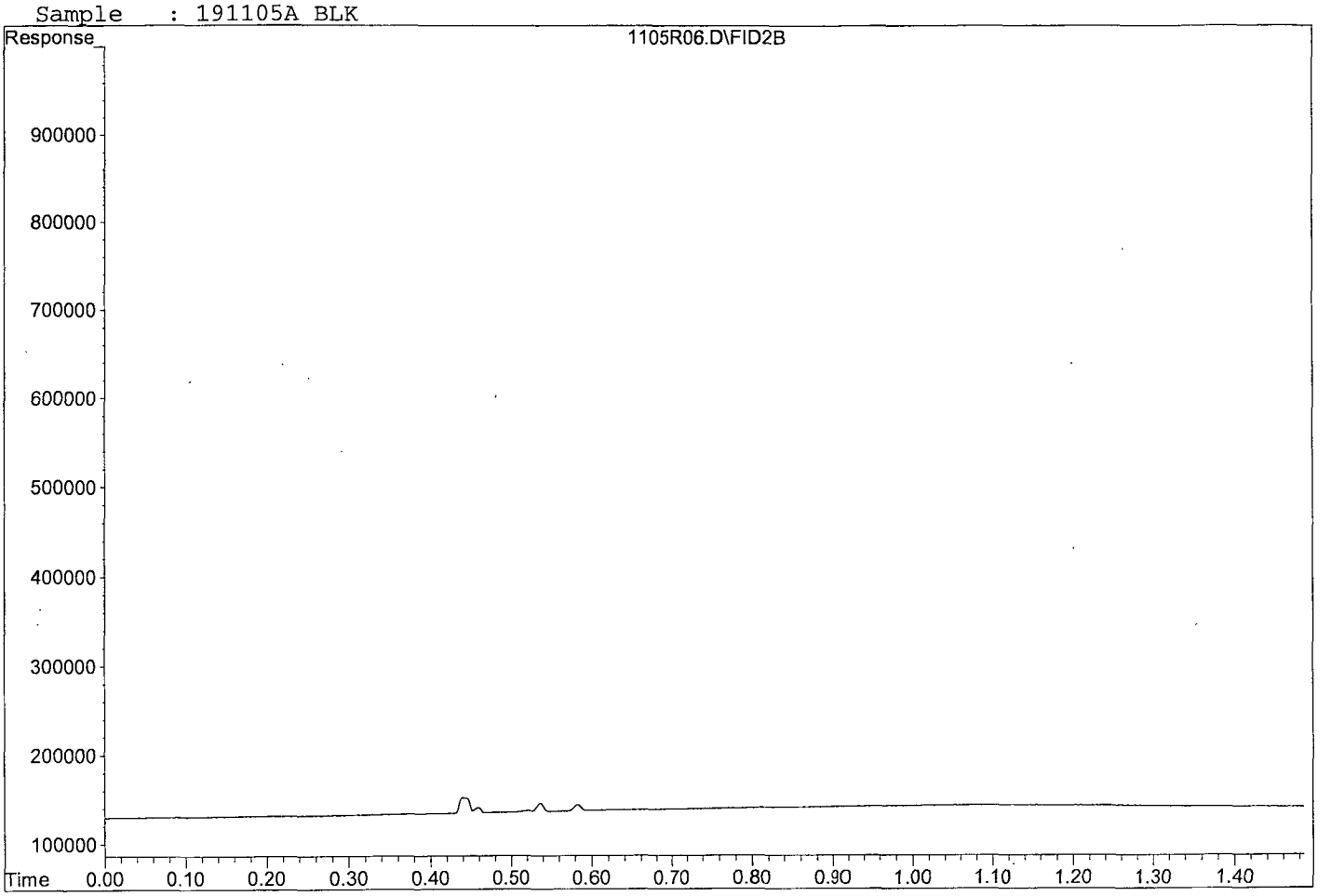
Volume Inj. : 0.500 mL
Signal Phase : CARBOPACK
Signal Info :

Compound	R.T.	Response	Conc	Units	
Target Compounds					
Target Compounds					
1) ATM Methane	0.00	0	N.D.	ppb	d
2) ATM Ethane	0.00	0	N.D.	ppb	d
3) ATM Ethene	0.00	0	N.D.	ppb	d

(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File: G:\ROCKY\DATA\191002RS\1105R06.D
Sample : 191105A BLK



Quantitation Report (Not Reviewed)

Data File : G:\ROCKY\DATA\191002RS\1105R04.D Vial: 4
Acq On : 5 Nov 19 16:15 Operator: GA
Sample : 191105A LCS/CCV RSK STD 5 Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Nov 5 16:18 2019 Quant Results File: RSK1002.RES

Method : G:\ROCKY\DATA\190929RS\RSK1002.M (Chemstation Integrator)
Title : RSK 175
Last Update : Tue Nov 05 16:18:20 2019
Response via : Multiple Level Calibration

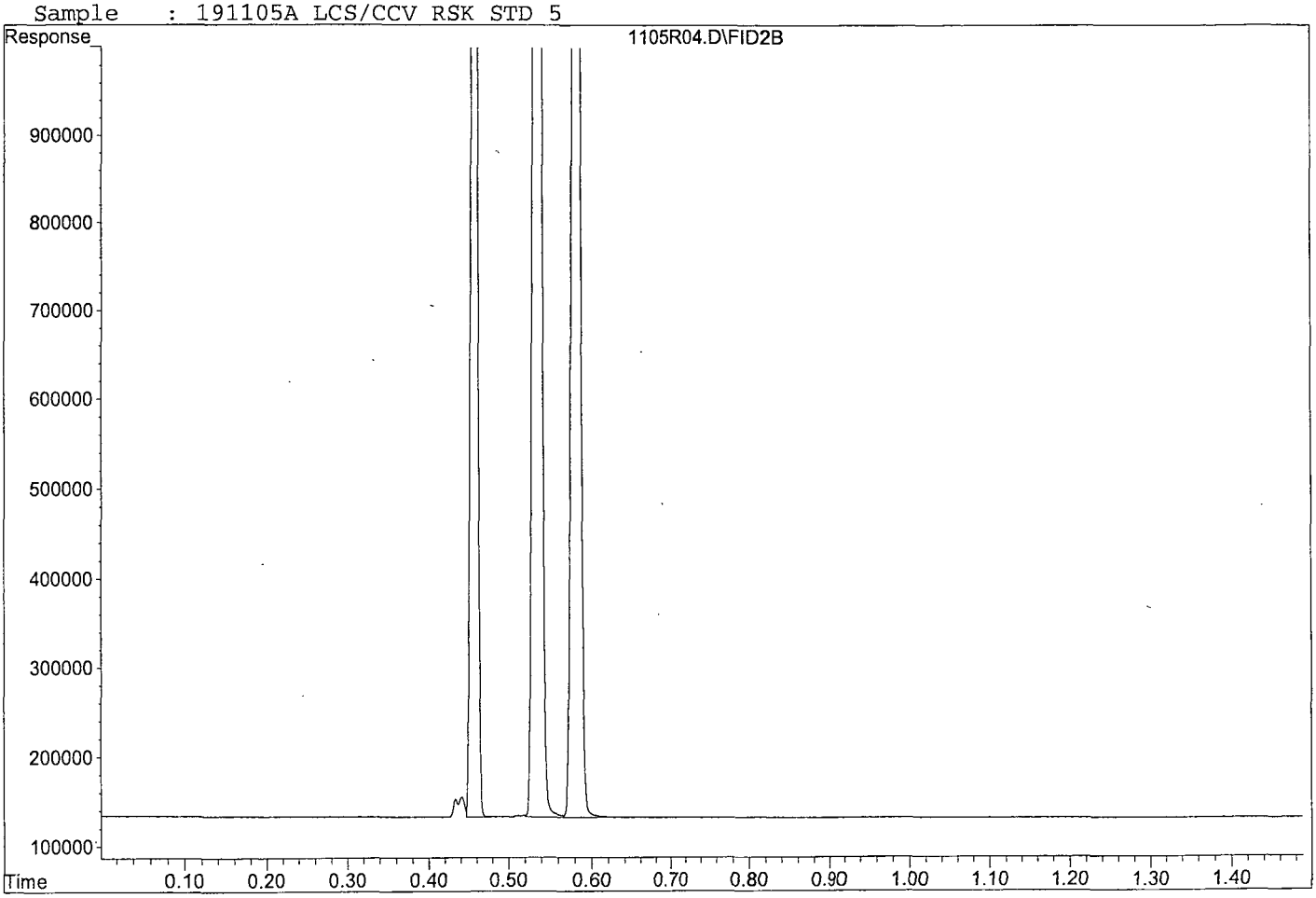
Volume Inj. : 0.500 mL
Signal Phase : CARBOPACK
Signal Info :

Compound	R.T.	Response	Conc Units
Target Compounds			
1) ATM Methane	0.46	1843337	79.670 ppb
2) ATM Ethane	0.54	2599551	152.739 ppb
3) ATM Ethene	0.58	2038888	152.298 ppb

Target Compounds

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: G:\ROCKY\DATA\191002RS\1105R04.D
Sample : 191105A LCS/CCV RSK STD 5



Quantitation Report (Not Reviewed)

Data File : G:\ROCKY\DATA\191002RS\1105R05.D Vial: 5
Acq On : 5 Nov 19 16:19 Operator: GA
Sample : 191105A LCSD Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Nov 5 16:22 2019 Quant Results File: RSK1002.RES

Method : G:\ROCKY\DATA\190929RS\RSK1002.M (Chemstation Integrator)
Title : RSK 175
Last Update : Tue Nov 05 16:18:20 2019
Response via : Multiple Level Calibration

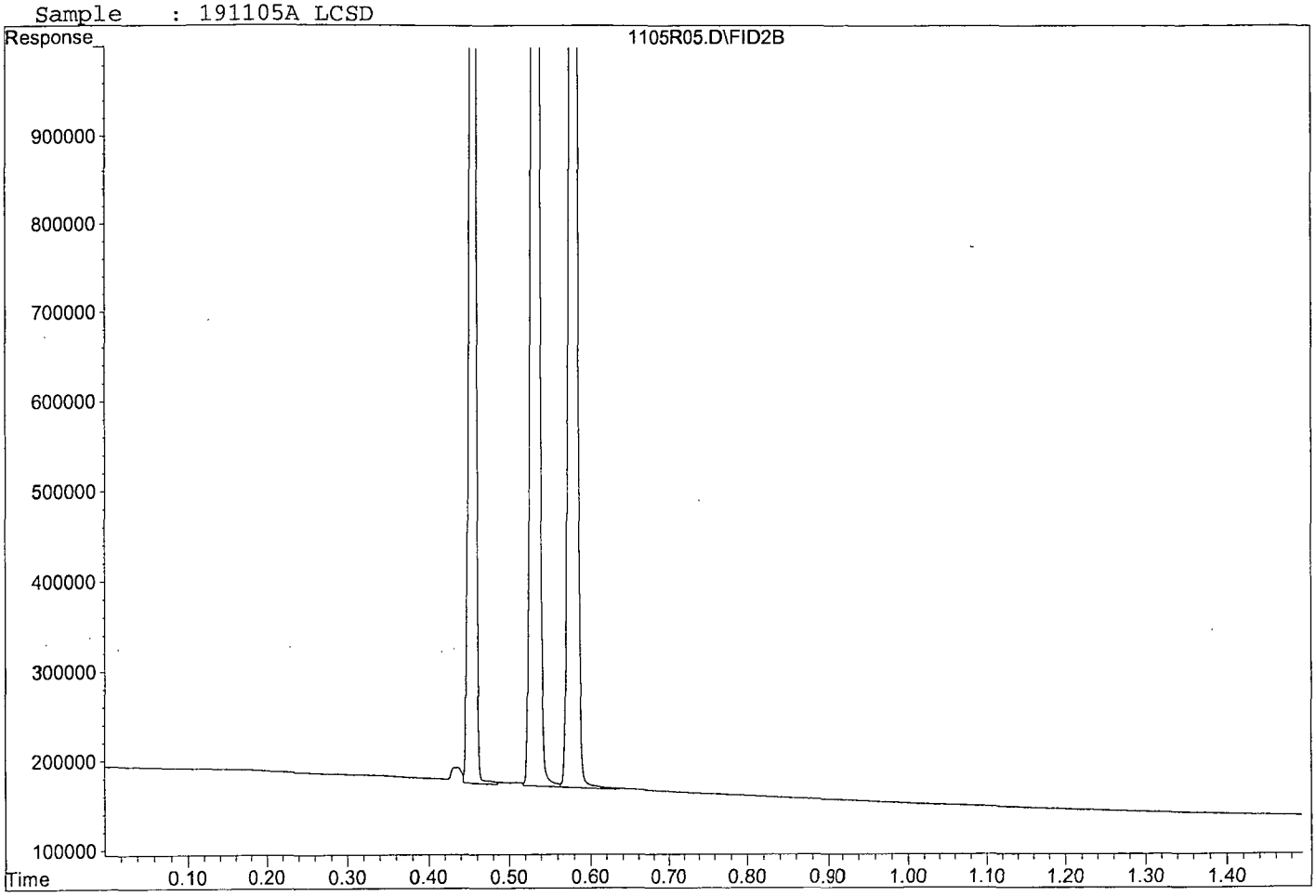
Volume Inj. : 0.500 mL
Signal Phase : CARBOPACK
Signal Info :

Compound	R.T.	Response	Conc Units
Target Compounds			
1) ATM Methane	0.46	1975449	85.380 ppb
2) ATM Ethane	0.53	2712877	159.398 ppb
3) ATM Ethene	0.58	2102644	157.060 ppb

Target Compounds

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: G:\ROCKY\DATA\191002RS\1105R05.D
Sample : 191105A LCSD



Primary Stock Source

10,000ppmV **Manufacture Expiration:** 09/21/21

RSK Gas Mix (Scott Specialty Gas) CAT#X04NI97CP140001 LOT#160-401558175-1

1% Gas Concentration Moles = 10,000ppmV Methane, Ethane, Ethene

RSK Calibration Curve (prepared in 1.0 L Tedlar Bags at room temp) **01/02/19** **10/02/19**

Analyte	Conc Std 1 (1/2 = LOD) (ug/L)	Conc Std 2 (LOQ Chk) (ug/L)	Conc Std 3 (ug/L)	Conc Std 4 (ug/L)	Conc Std 5 (ug/L)	Conc Std 6 (ug/L)	Conc Std 7 (ug/L)
Methane (MW 16.04)	2.08	4.16	8.34	20.85	83.40	208.5	834.0
Ethane (MW 30.07)	3.91	7.81	15.6	39.09	156.35	390.9	1563.5
Ethene (MW 28.05)	3.65	7.30	14.6	36.46	145.84	364.6	1458.4
Stock Source	160-401558175-1	160-401558175-1	160-401558175-1	160-401558175-1	160-401558175-1	160-401558175-1	160-401558175-1
Stock Conc (ppmv)	10,000 ppmV	10,000 ppmV	10,000 ppmV	10,000 ppmV	10,000 ppmV	10,000 ppmV	10,000 ppmV
Stock Aliquot (mL)	0.010	0.020	0.040	0.100	0.400	1.00	4.00
Final Volume P&T Water	32 mL	32 mL	32 mL	32 mL	32 mL	32 mL	32 mL

Second Source Stock Standard 10,000ppmV **Manufacturer Exp date 9-21-2021**

RSK Gas Mix (Scott Specialty Gas) Cat.# 23452, Lot # 160-401303032-1-39774

1% Gas Concentration Moles = 10,000ppmV Methane, Ethane, Ethene

Second Source **Expires 10/03/19** **10/02/19**

2.0mL of SS from tank into 980 mL Nitrogen

final conc: 13.3ug/L Methane, 25.0 ug/L Ethane, and 23.3 ug/L Ethene

CCV/LCS/LCSD **GA 11/05/19**

Spike 0.400mL of 10,000ppmV into 32mL DI water, with 8mL Nitrogen headspace

final conc: 83.40ug/L Methane, 156.35ug/L Ethane, and 145.84ug/L Ethene

Injection Log

Directory: G:\ROCKY\DATA\191002RS\

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	2	1002R02.D	1	RSK STD 1 10/2/19		2 Oct 19 17:45
2	3	1002R03.D	1	RSK STD 2 10/2/19		2 Oct 19 17:50
3	4	1002R04.D	1	RSK STD 3 10/2/19		2 Oct 19 17:52
4	5	1002R05.D	1	RSK STD 4 10/2/19		2 Oct 19 17:57
5	6	1002R06.D	1	RSK STD 5 10/2/19		2 Oct 19 17:59
6	7	1002R07.D	1	RSK STD 6 10/2/19		2 Oct 19 18:05
7	8	1002R08.D	1	RSK STD 7 10/2/19		2 Oct 19 18:07
8	10	1002R10.D	1	SS RSK STD 5 10/2/19		2 Oct 19 18:24
9	4	1105R04.D	1	191105A LCS/CCV RSK STD 5		5 Nov 19 16:15
10	5	1105R05.D	1	191105A LCSD		5 Nov 19 16:19
11	6	1105R06.D	1	191105A BLK		5 Nov 19 16:23
16	25	1105R25.D	1	BA02300W02		5 Nov 19 17:29
17	26	1105R26.D	1	BA02301W02		5 Nov 19 17:32
18	29	1105R29.D	1	ENDING CCV RSK STD 5 11/5/19		5 Nov 19 17:43

METALS

Calibration Data

A.P.P.L. INC.

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: A.P.P.L. INC. Contract: AECOM

ARF No: 90625 SDG: 90625

Analysis Date: 11/07/19 Concentration Units: ug/L

Analyte	Initial Calibration			Continuing Calibration						M
	True	Found 10:27	%R(1)	True CCV2	Found 19:24	%R(1)	True CCV1	Found 20:32	%R(1)	
Calcium (Ca)	12500	12190	97.5	18750	17850	95.2	25000	23620	94.5	P
Potassium (K)	12500	12070	96.6	7500	6969	92.9	10000	9650	96.5	P
Magnesium (Mg)	12500	12490	99.9	18750	17840	95.1	25000	24100	96.4	P
Manganese (Mn)	500	485.5	97.1	375.5	357.8	95.3	500	476.9	95.4	P
Sodium (Na)	12500	12290	98.3	9375	8990	95.9	12500	12100	96.8	P

(1) Control Limits: Metals 90-110

A.P.P.L. INC.
3
BLANKS

Lab Name: A.P.P.L. INC. Contract: AECOM

ARF No.: 90625 SDG: 90625

Preparation Blank Matrix (soil/water): water

Preparation Blank Concentration Units (ug/L or mg/kg): ug/L

Analysis Date: 11/07/19

Analyte	Initial Calibration Blank (ug/L)		Continuing Calibration Blank (ug/L)								Preparation Blank		M
		C	1	C	2	C	3	C		C			
	10:32		19:29		20:36						20:03		
Calcium (Ca)	1000.00	U	1000.00	U	31.80	J					81.10	J	P
Potassium (K)	3000.00	U	3000.00	U	3000.00	U					3000.00	U	P
Magnesium (Mg)	500.00	U	500.00	U	500.00	U					500.00	U	P
Manganese (Mn)	10.00	U	10.00	U	10.00	U					1.46	J	P
Sodium (Na)	5000.00	U	5000.00	U	5000.00	U					5000.00	U	P

A.P.P.L. INC.
4
ICP INTERFERENCE CHECK SAMPLE

Lab Name:	A.P.P.L. INC.	Contract:	AECOM
ARF No.:	90625	SDG:	90625
ICP ID Number:	Phoebe	ICS Source:	Environmental Express

Analysis Date: 11/07/19 Concentration Units: ug/L

Analyte	True		Initial Found		
	Sol A	Sol AB	Sol A 10:57	Sol AB 11:02	%R(1)
Aluminum (Al)	100000	100000	101000	101700	102
Calcium (Ca)	100000	100000	97450	98600	98.6
Iron (Fe)	100000	100000	95620	95540	95.5
Potassium (K)			-64.17	-128.2	
Magnesium (Mg)	100000	100000	98090	99540	99.5
Manganese (Mn)		250	-0.04	245.5	98.2
Sodium (Na)			103	100.1	

(1) Control Limits: Metals 80-120

Low Level ICV

Sample Name	Acq Date Time	Run Sequence	Analyte	Actual Conc (ug/L)	Spiked Conc (ug/L)	Control Limits	% Recovery	QC Flag
LLICVX6	11/7/19 10:47 AM	191107A	Silver	3.327	3	80-120%	111	
LLICVX2	11/7/19 10:42 AM	191107A	Aluminum	115.7	100	80-120%	116	
LLICVX2	11/7/19 10:42 AM	191107A	Arsenic	4.79	4	80-120%	120	
LLICVX2	11/7/19 10:42 AM	191107A	Boron	53.31	50	80-120%	107	
LLICV	11/7/19 10:37 AM	191107A	Barium	1.750	1.5	80-120%	117	
LLICV	11/7/19 10:37 AM	191107A	Beryllium	0.889	1	80-120%	89	
LLICV	11/7/19 10:37 AM	191107A	Calcium	52.98	50	80-120%	106	
LLICVX6	11/7/19 10:47 AM	191107A	Cadmium	1.67	1.5	80-120%	111	
LLICV	11/7/19 10:37 AM	191107A	Cobalt	2.711	2.5	80-120%	108	
LLICVX6	11/7/19 10:47 AM	191107A	Chromium	2.75	3	80-120%	92	
LLICVX6	11/7/19 10:47 AM	191107A	Copper	15.77	15	80-120%	105	
LLICV	11/7/19 10:37 AM	191107A	Iron	26.61	25	80-120%	106	
LLICV	11/7/19 10:37 AM	191107A	Potassium	439.0	500	80-120%	88	
LLICV	11/7/19 10:37 AM	191107A	Magnesium	25.67	25	80-120%	103	
LLICVX6	11/7/19 10:47 AM	191107A	Manganese	6.02	6	80-120%	100	
LLICVX2	11/7/19 10:42 AM	191107A	Molybdenum	1.75	2	80-120%	87	
LLICV	11/7/19 10:37 AM	191107A	Sodium	425.0	500	80-120%	85	
LLICV	11/7/19 10:37 AM	191107A	Nickel	1.123	1	80-120%	112	
LLICV	11/7/19 10:37 AM	191107A	Phosphorus	10.04	12.5	80-120%	80	
LLICVX6	11/7/19 10:47 AM	191107A	Lead	7.80	9	80-120%	87	
LLICV	11/7/19 10:37 AM	191107A	Antimony	1.68	2	80-120%	84	
LLICVX2	11/7/19 10:42 AM	191107A	Selenium	4.19	4	80-120%	105	
LLICV	11/7/19 10:37 AM	191107A	Tin	3.578	3	80-120%	119	
LLICV	11/7/19 10:37 AM	191107A	Strontium	0.908	1	80-120%	91	
LLICVX2	11/7/19 10:42 AM	191107A	Titanium	4.59	5	80-120%	92	
LLICV25	11/7/19 12:33 PM	191107A	Thallium	27.79	25.00	80-120%	111	
LLICVX6	11/7/19 10:47 AM	191107A	Vanadium	2.96	3	80-120%	99	
LLICV	11/7/19 10:37 AM	191107A	Zinc	26.32	25	80-120%	105	

Sequence No.: 1
Sample ID: CalBlk 191107 I:PB O:PW
Analyst:
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 11/07/19 10:05:03 AM
Data Type: Reprocessed on 11/08/19 8:17:52 AM

Initial Sample Vol:
Sample Prep Vol:

Mean Data: CalBlk 191107 I:PB O:PW

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Y 371.029	1271757.7	5648.37	0.44%	100.0	%
Y 371.029 Radial	1214176.5	5847.62	0.48%	100.00	%
Ag 338.289†	-198.2	60.48	30.51%	[0.00]	ug/L
Al 308.215†	43.0	7.33	17.05%	[0.00]	ug/L
As 188.979†	-61.8	5.79	9.36%	[0.00]	ug/L
B†	-248.7	1.49	0.60%	[0.00]	ug/L
Ba 233.527†	57.4	16.44	28.66%	[0.00]	ug/L
Be 313.107†	6.1	4.51	74.01%	[0.00]	ug/L
Ca 315.887†	-122.1	9.25	7.58%	[0.00]	ug/L
Cd 214.440†	-309.9	10.61	3.42%	[0.00]	ug/L
Co 228.616†	66.7	6.50	9.75%	[0.00]	ug/L
Cr 267.716†	273.3	29.13	10.66%	[0.00]	ug/L
Cu 327.393†	-692.9	43.75	6.31%	[0.00]	ug/L
Fe 273.955†	-84.2	14.87	17.66%	[0.00]	ug/L
K 766.490†	1166.6	109.68	9.40%	[0.00]	ug/L
Mg 285.213†	-29.6	2.63	8.87%	[0.00]	ug/L
Mn 257.610†	-86.6	0.70	0.80%	[0.00]	ug/L
Mo 202.031†	63.4	3.70	5.83%	[0.00]	ug/L
Na 589.592†	392.4	150.29	38.30%	[0.00]	ug/L
Ni 231.604†	32.4	27.44	84.67%	[0.00]	ug/L
P 213.617†	-88.0	2.94	3.34%	[0.00]	ug/L
Pb 220.353†	39.2	6.87	17.53%	[0.00]	ug/L
Sb 206.836†	-25.9	2.22	8.57%	[0.00]	ug/L
Se 196.026†	-8.6	8.58	100.02%	[0.00]	ug/L
Sn 189.927†	1.7	4.55	261.17%	[0.00]	ug/L
Sr 421.552†	106.8	56.26	52.69%	[0.00]	ug/L
Ti 337.279†	-117.7	6.02	5.11%	[0.00]	ug/L
Tl 190.801†	-103.4	4.44	4.29%	[0.00]	ug/L
V 292.402†	-341.9	64.22	18.79%	[0.00]	ug/L
Zn 206.200†	-455.2	14.33	3.15%	[0.00]	ug/L

Sequence No.: 2
Sample ID: STD 1 191107 I:PB O:PW
Analyst:
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:

Autosampler Location: 2
Date Collected: 11/07/19 10:14:52 AM
Data Type: Reprocessed on 11/08/19 8:17:58 AM
Initial Sample Vol:
Sample Prep Vol:

Mean Data: STD 1 191107 I:PB O:PW

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Y 371.029	1274736.8	3423.74	0.27%	100.2	%
Y 371.029 Radial	1217180.6	3379.55	0.28%	100.2	%
Ag 338.289†	112.1	25.34	22.59%	[0.5]	ug/L
Al 308.215†	13.8	8.29	60.23%	[50]	ug/L
As 188.979†	11.4	8.10	71.19%	[2]	ug/L
B†	1022.7	6.03	0.59%	[25]	ug/L
Ba 233.527†	202.8	18.21	8.98%	[1.5]	ug/L
Be 313.107†	59.6	2.31	3.87%	[1]	ug/L
Ca 315.887†	65.1	7.83	12.04%	[50]	ug/L
Cd 214.440†	41.7	8.54	20.49%	[0.25]	ug/L
Co 228.616†	138.6	12.55	9.06%	[2.5]	ug/L
Cr 267.716†	30.1	12.75	42.28%	[0.5]	ug/L
Cu 327.393†	225.3	98.16	43.57%	[2.5]	ug/L
Fe 273.955†	447.5	9.16	2.05%	[25]	ug/L
K 766.490†	902.2	73.34	8.13%	[500]	ug/L
Mg 285.213†	56.0	4.67	8.33%	[25]	ug/L
Mn 257.610†	10.5	2.21	20.94%	[1]	ug/L
Mo 202.031†	36.7	4.78	13.02%	[1]	ug/L
Na 589.592†	1425.9	75.23	5.28%	[500]	ug/L
Ni 231.604†	50.0	10.28	20.57%	[1]	ug/L
P 213.617†	44.0	4.16	9.47%	[12.5]	ug/L
Pb 220.353†	13.4	5.05	37.74%	[1.5]	ug/L
Sb 206.836†	9.9	0.26	2.65%	[2]	ug/L
Se 196.026†	19.6	2.90	14.84%	[2]	ug/L
Sn 189.927†	22.5	4.83	21.49%	[3]	ug/L
Sr 421.552†	111.6	27.78	24.89%	[1]	ug/L
Ti 337.279†	14.4	8.59	59.76%	[2.5]	ug/L
Tl 190.801†	12.1	2.62	21.64%	[2]	ug/L
V 292.402†	18.9	55.41	293.58%	[0.5]	ug/L
Zn 206.200†	1298.5	5.41	0.42%	[25]	ug/L

Sequence No.: 3
Sample ID: STD 2 191107 I:PB O:PW
Analyst:
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:

Autosampler Location: 3
Date Collected: 11/07/19 10:19:40 AM
Data Type: Reprocessed on 11/08/19 8:18:12 AM

Initial Sample Vol:
Sample Prep Vol:

Mean Data: STD 2 191107 I:PB O:PW

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Y 371.029	1216243.7	7173.10	0.59%	95.63	%
Y 371.029 Radial	1158474.4	7507.94	0.65%	95.41	%
Ag 338.289†	20213.1	115.40	0.57%	[250]	ug/L
Al 308.215†	2920.8	28.99	0.99%	[10000]	ug/L
As 188.979†	1799.2	14.54	0.81%	[500]	ug/L
B†	21508.7	111.11	0.52%	[500]	ug/L
Ba 233.527†	60093.2	145.41	0.24%	[500]	ug/L
Be 313.107†	36022.6	614.78	1.71%	[500]	ug/L
Ca 315.887†	37117.8	318.63	0.86%	[25000]	ug/L
Cd 214.440†	75429.5	148.56	0.20%	[500]	ug/L
Co 228.616†	25916.1	76.64	0.30%	[500]	ug/L
Cr 267.716†	40744.0	63.90	0.16%	[500]	ug/L
Cu 327.393†	45437.4	169.64	0.37%	[500]	ug/L
Fe 273.955†	171547.3	403.81	0.24%	[10000]	ug/L
K 766.490†	20433.5	44.71	0.22%	[10000]	ug/L
Mg 285.213†	59074.8	526.50	0.89%	[25000]	ug/L
Mn 257.610†	3295.0	40.14	1.22%	[500]	ug/L
Mo 202.031†	13793.5	68.97	0.50%	[500]	ug/L
Na 589.592†	40393.9	376.50	0.93%	[12500]	ug/L
Ni 231.604†	20957.3	65.36	0.31%	[500]	ug/L
P 213.617†	9459.9	42.75	0.45%	[2500]	ug/L
Pb 220.353†	5550.5	22.55	0.41%	[500]	ug/L
Sb 206.836†	2190.9	12.27	0.56%	[500]	ug/L
Se 196.026†	1535.1	12.92	0.84%	[500]	ug/L
Sn 189.927†	4950.4	18.35	0.37%	[500]	ug/L
Sr 421.552†	74561.9	820.42	1.10%	[500]	ug/L
Ti 337.279†	3806.3	36.24	0.95%	[500]	ug/L
Tl 190.801†	2265.9	12.07	0.53%	[500]	ug/L
V 292.402†	73772.6	44.49	0.06%	[500]	ug/L
Zn 206.200†	27106.9	47.12	0.17%	[500]	ug/L

Sequence No.: 4
Sample ID: STD 3 191107 I:PB O:PW
Analyst:
Logged In Analyst (Original) .: chemist_metals
Initial Sample Wt:
Dilution:

Autosampler Location: 4
Date Collected: 11/07/19 10:23:29 AM
Data Type: Reprocessed on 11/08/19 8:18:13 AM

Initial Sample Vol:
Sample Prep Vol:

Mean Data: STD 3 191107 I:PB O:PW

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Y 371.029	1185834.9	9578.19	0.81%	93.24	%
Y 371.029 Radial	1127737.9	9903.05	0.88%	92.88	%
Ag 338.289†	38782.8	84.18	0.22%	[500]	ug/L
Al 308.215†	5653.6	37.46	0.66%	[20000]	ug/L
As 188.979†	3429.2	27.05	0.79%	[1000]	ug/L
B†	41952.5	142.74	0.34%	[1000]	ug/L
Ba 233.527†	114926.0	499.51	0.43%	[1000]	ug/L
Be 313.107†	69517.2	1001.31	1.44%	[1000]	ug/L
Ca 315.887†	72283.4	1188.39	1.64%	[50000]	ug/L
Cd 214.440†	143650.0	688.58	0.48%	[1000]	ug/L
Co 228.616†	49415.1	260.34	0.53%	[1000]	ug/L
Cr 267.716†	77708.6	440.31	0.57%	[1000]	ug/L
Cu 327.393†	86944.4	174.98	0.20%	[1000]	ug/L
Fe 273.955†	327457.2	1243.13	0.38%	[20000]	ug/L
K 766.490†	39687.0	536.54	1.35%	[20000]	ug/L
Mg 285.213†	112613.5	1431.12	1.27%	[50000]	ug/L
Mn 257.610†	6382.7	131.14	2.05%	[1000]	ug/L
Mo 202.031†	27338.3	224.01	0.82%	[1000]	ug/L
Na 589.592†	78417.7	1072.08	1.37%	[25000]	ug/L
Ni 231.604†	39509.9	231.07	0.58%	[1000]	ug/L
P 213.617†	18219.3	177.53	0.97%	[5000]	ug/L
Pb 220.353†	10501.7	105.36	1.00%	[1000]	ug/L
Sb 206.836†	4172.0	43.68	1.05%	[1000]	ug/L
Se 196.026†	2915.0	32.95	1.13%	[1000]	ug/L
Sn 189.927†	9346.3	63.57	0.68%	[1000]	ug/L
Sr 421.552†	144616.6	1994.09	1.38%	[1000]	ug/L
Ti 337.279†	7428.0	110.83	1.49%	[1000]	ug/L
Tl 190.801†	4280.4	26.97	0.63%	[1000]	ug/L
V 292.402†	141462.6	538.27	0.38%	[1000]	ug/L
Zn 206.200†	48278.8	274.60	0.57%	[1000]	ug/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 338.289	3	Lin Thru 0	0.0	78.22	0.00000	0.999857	
Al 308.215	3	Lin Thru 0	0.0	0.2846	0.00000	0.999913	
As 188.979	3	Lin Thru 0	0.0	3.463	0.00000	0.999809	
B	3	Lin Thru 0	0.0	42.16	0.00000	0.999949	
Ba 233.527	3	Lin Thru 0	0.0	116.0	0.00000	0.999835	
Be 313.107	3	Lin Thru 0	0.0	70.02	0.00000	0.999896	
Ca 315.887	3	Lin Thru 0	0.0	1.453	0.00000	0.999942	
Cd 214.440	3	Lin Thru 0	0.0	145.1	0.00000	0.999803	
Co 228.616	3	Lin Thru 0	0.0	49.90	0.00000	0.999812	
Cr 267.716	3	Lin Thru 0	0.0	78.46	0.00000	0.999814	
Cu 327.393	3	Lin Thru 0	0.0	87.73	0.00000	0.999839	
Fe 273.955	3	Lin Thru 0	0.0	16.53	0.00000	0.999821	
K 766.490	3	Lin Thru 0	0.0	1.996	0.00000	0.999928	
Mg 285.213	3	Lin Thru 0	0.0	2.274	0.00000	0.999810	
Mn 257.610	3	Lin Thru 0	0.0	6.424	0.00000	0.999917	
Mo 202.031	3	Lin Thru 0	0.0	27.39	0.00000	0.999993	
Na 589.592	3	Lin Thru 0	0.0	3.156	0.00000	0.999926	
Ni 231.604	3	Lin Thru 0	0.0	39.99	0.00000	0.999711	
P 213.617	3	Lin Thru 0	0.0	3.672	0.00000	0.999884	
Pb 220.353	3	Lin Thru 0	0.0	10.62	0.00000	0.999745	
Sb 206.836	3	Lin Thru 0	0.0	4.214	0.00000	0.999802	
Se 196.026	3	Lin Thru 0	0.0	2.946	0.00000	0.999769	
Sn 189.927	3	Lin Thru 0	0.0	9.457	0.00000	0.999725	
Sr 421.552	3	Lin Thru 0	0.0	145.5	0.00000	0.999923	

Ti 337.279	3	Lin Thru 0	0.0	7.465	0.00000	0.999951
Tl 190.801	3	Lin Thru 0	0.0	4.331	0.00000	0.999730
V 292.402	3	Lin Thru 0	0.0	142.7	0.00000	0.999855
Zn 206.200	3	Lin Thru 0	0.0	49.47	0.00000	0.998850

Sequence No.: 5
Sample ID: ICV 191107 I:PB O:PW
Analyst:
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:

Autosampler Location: 5
Date Collected: 11/07/19 10:27:25 AM
Data Type: Reprocessed on 11/08/19 8:18:15 AM
Initial Sample Vol:
Sample Prep Vol:

Mean Data: ICV 191107 I:PB O:PW

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	1215733.7	95.59	%	0.327				0.34%
Y 371.029 Radial	1157834.9	95.36	%	0.327				0.34%
Ag 338.289†	19172.2	247.2	ug/L	0.24	247.2	ug/L	0.24	0.10%
QC value within limits for Ag 338.289 Recovery = 98.88%								
Al 308.215†	3501.4	12310	ug/L	63.9	12310	ug/L	63.9	0.52%
QC value within limits for Al 308.215 Recovery = 98.49%								
As 188.979†	1684.4	490.7	ug/L	1.64	490.7	ug/L	1.64	0.33%
QC value within limits for As 188.979 Recovery = 98.13%								
B†	20841.6	494.3	ug/L	1.20	494.3	ug/L	1.20	0.24%
QC value within limits for B Recovery = 98.86%								
Ba 233.527†	57393.9	494.1	ug/L	0.76	494.1	ug/L	0.76	0.15%
QC value within limits for Ba 233.527 Recovery = 98.82%								
Be 313.107†	33871.4	485.2	ug/L	14.71	485.2	ug/L	14.71	3.03%
QC value within limits for Be 313.107 Recovery = 97.04%								
Ca 315.887†	17723.9	12190	ug/L	66.6	12190	ug/L	66.6	0.55%
QC value within limits for Ca 315.887 Recovery = 97.52%								
Cd 214.440†	71921.7	495.6	ug/L	0.71	495.6	ug/L	0.71	0.14%
QC value within limits for Cd 214.440 Recovery = 99.11%								
Co 228.616†	25062.2	500.3	ug/L	2.97	500.3	ug/L	2.97	0.59%
QC value within limits for Co 228.616 Recovery = 100.07%								
Cr 267.716†	38442.6	489.2	ug/L	0.88	489.2	ug/L	0.88	0.18%
QC value within limits for Cr 267.716 Recovery = 97.85%								
Cu 327.393†	43024.5	491.7	ug/L	1.78	491.7	ug/L	1.78	0.36%
QC value within limits for Cu 327.393 Recovery = 98.35%								
Fe 273.955†	220984.3	13330	ug/L	21.9	13330	ug/L	21.9	0.16%
QC value within limits for Fe 273.955 Recovery = 106.61%								
K 766.490†	24122.9	12070	ug/L	275.0	12070	ug/L	275.0	2.28%
QC value within limits for K 766.490 Recovery = 96.59%								
Mg 285.213†	28369.6	12490	ug/L	79.2	12490	ug/L	79.2	0.63%
QC value within limits for Mg 285.213 Recovery = 99.90%								
Mn 257.610†	3114.9	485.5	ug/L	2.47	485.5	ug/L	2.47	0.51%
QC value within limits for Mn 257.610 Recovery = 97.10%								
Mo 202.031†	12817.7	468.3	ug/L	0.26	468.3	ug/L	0.26	0.05%
QC value within limits for Mo 202.031 Recovery = 93.66%								
Na 589.592†	38747.2	12290	ug/L	243.5	12290	ug/L	243.5	1.98%
QC value within limits for Na 589.592 Recovery = 98.31%								
Ni 231.604†	20095.3	498.9	ug/L	2.40	498.9	ug/L	2.40	0.48%
QC value within limits for Ni 231.604 Recovery = 99.78%								
P 213.617†	8928.2	2432	ug/L	3.8	2432	ug/L	3.8	0.16%
QC value within limits for P 213.617 Recovery = 97.26%								
Pb 220.353†	5345.3	505.7	ug/L	1.46	505.7	ug/L	1.46	0.29%
QC value within limits for Pb 220.353 Recovery = 101.15%								
Sb 206.836†	1959.9	465.1	ug/L	1.78	465.1	ug/L	1.78	0.38%
QC value within limits for Sb 206.836 Recovery = 93.02%								
Se 196.026†	1441.3	494.1	ug/L	2.34	494.1	ug/L	2.34	0.47%
QC value within limits for Se 196.026 Recovery = 98.83%								
Sn 189.927†	2325.8	249.4	ug/L	1.78	249.4	ug/L	1.78	0.71%
QC value within limits for Sn 189.927 Recovery = 99.78%								
Sr 421.552†	70597.6	485.0	ug/L	8.89	485.0	ug/L	8.89	1.83%
QC value within limits for Sr 421.552 Recovery = 97.00%								
Ti 337.279†	3610.9	483.4	ug/L	3.74	483.4	ug/L	3.74	0.77%
QC value within limits for Ti 337.279 Recovery = 96.69%								
Tl 190.801†	2186.7	517.1	ug/L	4.01	517.1	ug/L	4.01	0.77%
QC value within limits for Tl 190.801 Recovery = 103.42%								
V 292.402†	69042.3	490.9	ug/L	0.41	490.9	ug/L	0.41	0.08%
QC value within limits for V 292.402 Recovery = 98.18%								
Zn 206.200†	24334.9	495.6	ug/L	1.00	495.6	ug/L	1.00	0.20%
QC value within limits for Zn 206.200 Recovery = 99.12%								

All analyte(s) passed QC.

Sequence No.: 6
Sample ID: ICB 191107 I:PB O:PW
Analyst:
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 11/07/19 10:32:11 AM
Data Type: Reprocessed on 11/08/19 8:18:23 AM

Initial Sample Vol:
Sample Prep Vol:

Mean Data: ICB 191107 I:PB O:PW

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	1271263.8	99.96	%	0.564				0.56%
Y 371.029 Radial	1213621.6	99.95	%	0.580				0.58%
Ag 338.289†	19.0	0.234	ug/L	0.6627	0.234	ug/L	0.6627	282.79%
QC value within limits for Ag 338.289 Recovery = Not calculated								
Al 308.215†	-2.2	-7.614	ug/L	22.5768	-7.614	ug/L	22.5768	296.52%
QC value within limits for Al 308.215 Recovery = Not calculated								
As 188.979†	-4.2	-1.210	ug/L	1.7878	-1.210	ug/L	1.7878	147.81%
QC value within limits for As 188.979 Recovery = Not calculated								
B†	394.2	9.348	ug/L	0.2522	9.348	ug/L	0.2522	2.70%
QC value within limits for B Recovery = Not calculated								
Ba 233.527†	37.4	0.322	ug/L	0.1067	0.322	ug/L	0.1067	33.12%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	5.1	0.070	ug/L	0.1096	0.070	ug/L	0.1096	156.65%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 315.887†	-2.7	-1.887	ug/L	7.4295	-1.887	ug/L	7.4295	393.72%
QC value within limits for Ca 315.887 Recovery = Not calculated								
Cd 214.440†	33.5	0.230	ug/L	0.0293	0.230	ug/L	0.0293	12.70%
QC value within limits for Cd 214.440 Recovery = Not calculated								
Co 228.616†	2.9	0.061	ug/L	0.1763	0.061	ug/L	0.1763	289.95%
QC value within limits for Co 228.616 Recovery = Not calculated								
Cr 267.716†	-15.6	-0.200	ug/L	0.0568	-0.200	ug/L	0.0568	28.37%
QC value within limits for Cr 267.716 Recovery = Not calculated								
Cu 327.393†	11.8	0.136	ug/L	0.4686	0.136	ug/L	0.4686	344.98%
QC value within limits for Cu 327.393 Recovery = Not calculated								
Fe 273.955†	29.2	1.790	ug/L	1.1538	1.790	ug/L	1.1538	64.45%
QC value within limits for Fe 273.955 Recovery = Not calculated								
K 766.490†	-55.4	-27.78	ug/L	35.652	-27.78	ug/L	35.652	128.34%
QC value within limits for K 766.490 Recovery = Not calculated								
Mg 285.213†	10.3	4.554	ug/L	2.1659	4.554	ug/L	2.1659	47.56%
QC value within limits for Mg 285.213 Recovery = Not calculated								
Mn 257.610†	4.7	0.726	ug/L	0.2729	0.726	ug/L	0.2729	37.57%
QC value within limits for Mn 257.610 Recovery = Not calculated								
Mo 202.031†	11.3	0.414	ug/L	0.3867	0.414	ug/L	0.3867	93.34%
QC value within limits for Mo 202.031 Recovery = Not calculated								
Na 589.592†	-91.7	-29.04	ug/L	28.250	-29.04	ug/L	28.250	97.30%
QC value within limits for Na 589.592 Recovery = Not calculated								
Ni 231.604†	9.5	0.233	ug/L	0.1643	0.233	ug/L	0.1643	70.58%
QC value within limits for Ni 231.604 Recovery = Not calculated								
P 213.617†	-0.8	-0.212	ug/L	0.5991	-0.212	ug/L	0.5991	282.04%
QC value within limits for P 213.617 Recovery = Not calculated								
Pb 220.353†	6.1	0.579	ug/L	0.4173	0.579	ug/L	0.4173	72.13%
QC value within limits for Pb 220.353 Recovery = Not calculated								
Sb 206.836†	3.3	0.781	ug/L	1.2237	0.781	ug/L	1.2237	156.62%
QC value within limits for Sb 206.836 Recovery = Not calculated								
Se 196.026†	10.5	3.559	ug/L	1.7917	3.559	ug/L	1.7917	50.34%
QC value within limits for Se 196.026 Recovery = Not calculated								
Sn 189.927†	13.4	1.410	ug/L	0.3567	1.410	ug/L	0.3567	25.30%
QC value within limits for Sn 189.927 Recovery = Not calculated								
Sr 421.552†	-13.3	-0.092	ug/L	0.2007	-0.092	ug/L	0.2007	218.91%
QC value within limits for Sr 421.552 Recovery = Not calculated								
Ti 337.279†	-6.4	-0.851	ug/L	0.7308	-0.851	ug/L	0.7308	85.88%
QC value within limits for Ti 337.279 Recovery = Not calculated								
Tl 190.801†	15.7	3.609	ug/L	0.8509	3.609	ug/L	0.8509	23.58%
QC value within limits for Tl 190.801 Recovery = Not calculated								
V 292.402†	-45.5	-0.314	ug/L	0.2744	-0.314	ug/L	0.2744	87.28%
QC value within limits for V 292.402 Recovery = Not calculated								
Zn 206.200†	6.3	0.130	ug/L	0.1578	0.130	ug/L	0.1578	121.07%
QC value within limits for Zn 206.200 Recovery = Not calculated								

All analyte(s) passed QC.

Sequence No.: 7
Sample ID: LLICV 191107 I:PB O:PW
Analyst:
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:

Autosampler Location: 2
Date Collected: 11/07/19 10:37:09 AM
Data Type: Reprocessed on 11/08/19 8:18:25 AM
Initial Sample Vol:
Sample Prep Vol:

Mean Data: LLICV 191107 I:PB O:PW

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	1272280.7	100.0	%	0.76				0.76%
Y 371.029 Radial	1214959.1	100.1	%	0.82				0.82%
Ag 338.289†	86.8	1.132	ug/L	1.0184	1.132	ug/L	1.0184	89.97%
QC value greater than the upper limit for Ag 338.289 Recovery = 226.39%								
Al 308.215†	24.6	86.38	ug/L	36.886	86.38	ug/L	36.886	42.70%
QC value greater than the upper limit for Al 308.215 Recovery = 172.75%								
As 188.979†	5.1	1.497	ug/L	0.8235	1.497	ug/L	0.8235	55.01%
QC value less than the lower limit for As 188.979 Recovery = 74.84%								
B†	1277.7	30.30	ug/L	0.125	30.30	ug/L	0.125	0.41%
QC value greater than the upper limit for B Recovery = 121.21%								
Ba 233.527†	203.9	1.750	ug/L	0.0883	1.750	ug/L	0.0883	5.05%
QC value within limits for Ba 233.527 Recovery = 116.68%								
Be 313.107†	61.9	0.889	ug/L	0.0599	0.889	ug/L	0.0599	6.73%
QC value within limits for Be 313.107 Recovery = 88.93%								
Ca 315.887†	77.1	52.98	ug/L	5.844	52.98	ug/L	5.844	11.03%
QC value within limits for Ca 315.887 Recovery = 105.96%								
Cd 214.440†	58.8	0.405	ug/L	0.0491	0.405	ug/L	0.0491	12.12%
QC value greater than the upper limit for Cd 214.440 Recovery = 162.04%								
Co 228.616†	135.7	2.711	ug/L	0.3567	2.711	ug/L	0.3567	13.15%
QC value within limits for Co 228.616 Recovery = 108.46%								
Cr 267.716†	17.6	0.214	ug/L	0.1252	0.214	ug/L	0.1252	58.51%
QC value less than the lower limit for Cr 267.716 Recovery = 42.80%								
Cu 327.393†	311.6	3.523	ug/L	0.9553	3.523	ug/L	0.9553	27.11%
QC value greater than the upper limit for Cu 327.393 Recovery = 140.93%								
Fe 273.955†	439.7	26.61	ug/L	0.368	26.61	ug/L	0.368	1.38%
QC value within limits for Fe 273.955 Recovery = 106.45%								
K 766.490†	877.0	439.4	ug/L	34.81	439.4	ug/L	34.81	7.92%
QC value within limits for K 766.490 Recovery = 87.87%								
Mg 285.213†	58.5	25.67	ug/L	1.958	25.67	ug/L	1.958	7.63%
QC value within limits for Mg 285.213 Recovery = 102.69%								
Mn 257.610†	9.6	1.507	ug/L	0.6958	1.507	ug/L	0.6958	46.17%
QC value greater than the upper limit for Mn 257.610 Recovery = 150.70%								
Mo 202.031†	33.5	1.217	ug/L	0.1522	1.217	ug/L	0.1522	12.50%
QC value greater than the upper limit for Mo 202.031 Recovery = 121.72%								
Na 589.592†	1341.4	425.0	ug/L	13.23	425.0	ug/L	13.23	3.11%
QC value within limits for Na 589.592 Recovery = 84.99%								
Ni 231.604†	46.2	1.123	ug/L	0.2890	1.123	ug/L	0.2890	25.74%
QC value within limits for Ni 231.604 Recovery = 112.26%								
P 213.617†	36.9	10.04	ug/L	1.278	10.04	ug/L	1.278	12.73%
QC value within limits for P 213.617 Recovery = 80.33%								
Pb 220.353†	19.9	1.877	ug/L	1.6987	1.877	ug/L	1.6987	90.52%
QC value greater than the upper limit for Pb 220.353 Recovery = 125.11%								
Sb 206.836†	7.1	1.680	ug/L	0.6815	1.680	ug/L	0.6815	40.56%
QC value within limits for Sb 206.836 Recovery = 84.00%								
Se 196.026†	12.5	4.239	ug/L	2.0459	4.239	ug/L	2.0459	48.26%
QC value greater than the upper limit for Se 196.026 Recovery = 211.96%								
Sn 189.927†	33.7	3.578	ug/L	0.3125	3.578	ug/L	0.3125	8.74%
QC value within limits for Sn 189.927 Recovery = 119.25%								
Sr 421.552†	132.2	0.908	ug/L	0.0458	0.908	ug/L	0.0458	5.05%
QC value within limits for Sr 421.552 Recovery = 90.76%								
Ti 337.279†	13.1	1.755	ug/L	1.2909	1.755	ug/L	1.2909	73.57%
QC value less than the lower limit for Ti 337.279 Recovery = 70.19%								
Tl 190.801†	16.9	3.914	ug/L	0.9323	3.914	ug/L	0.9323	23.82%
QC value greater than the upper limit for Tl 190.801 Recovery = 195.68%								
V 292.402†	-2.9	-0.009	ug/L	0.2964	-0.009	ug/L	0.2964	>999.9%
QC value less than the lower limit for V 292.402 Recovery = -1.73%								
Zn 206.200†	1305.9	26.32	ug/L	0.246	26.32	ug/L	0.246	0.94%
QC value within limits for Zn 206.200 Recovery = 105.28%								

QC Failed. Continue with analysis.

Sequence No.: 9
Sample ID: LLICVX6 191107 I:PB O:PW
Analyst:
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:

Autosampler Location: 11
Date Collected: 11/07/19 10:47:32 AM
Data Type: Reprocessed on 11/08/19 8:18:29 AM
Initial Sample Vol:
Sample Prep Vol:

Mean Data: LLICVX6 191107 I:PB O:PW

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	1284620.7	101.0	%	0.88				0.88%
Y 371.029 Radial	1227374.5	101.1	%	0.94				0.93%
Ag 338.289†	247.1	3.327	ug/L	0.2912	3.327	ug/L	0.2912	8.75%
QC value within limits for Ag 338.289 Recovery = 110.89%								
Al 308.215†	87.5	307.1	ug/L	13.01	307.1	ug/L	13.01	4.24%
QC value within limits for Al 308.215 Recovery = 102.37%								
As 188.979†	40.3	11.76	ug/L	1.243	11.76	ug/L	1.243	10.56%
QC value within limits for As 188.979 Recovery = 98.02%								
B†	6142.2	145.7	ug/L	1.78	145.7	ug/L	1.78	1.22%
QC value within limits for B Recovery = 97.11%								
Ba 233.527†	1081.2	9.295	ug/L	0.2008	9.295	ug/L	0.2008	2.16%
QC value within limits for Ba 233.527 Recovery = 103.28%								
Be 313.107†	394.4	5.674	ug/L	0.1602	5.674	ug/L	0.1602	2.82%
QC value within limits for Be 313.107 Recovery = 94.57%								
Ca 315.887†	423.4	291.1	ug/L	5.17	291.1	ug/L	5.17	1.78%
QC value within limits for Ca 315.887 Recovery = 97.02%								
Cd 214.440†	243.2	1.672	ug/L	0.1254	1.672	ug/L	0.1254	7.50%
QC value within limits for Cd 214.440 Recovery = 111.46%								
Co 228.616†	813.4	16.24	ug/L	0.216	16.24	ug/L	0.216	1.33%
QC value within limits for Co 228.616 Recovery = 108.25%								
Cr 267.716†	219.8	2.751	ug/L	0.0898	2.751	ug/L	0.0898	3.26%
QC value within limits for Cr 267.716 Recovery = 91.70%								
Cu 327.393†	1391.5	15.77	ug/L	0.323	15.77	ug/L	0.323	2.05%
QC value within limits for Cu 327.393 Recovery = 105.12%								
Fe 273.955†	2535.6	153.2	ug/L	2.80	153.2	ug/L	2.80	1.82%
QC value within limits for Fe 273.955 Recovery = 102.15%								
K 766.490†	5695.7	2853	ug/L	75.5	2853	ug/L	75.5	2.65%
QC value within limits for K 766.490 Recovery = 95.11%								
Mg 285.213†	336.8	147.6	ug/L	2.41	147.6	ug/L	2.41	1.64%
QC value within limits for Mg 285.213 Recovery = 98.41%								
Mn 257.610†	38.5	6.022	ug/L	0.1232	6.022	ug/L	0.1232	2.05%
QC value within limits for Mn 257.610 Recovery = 100.36%								
Mo 202.031†	152.3	5.513	ug/L	0.2475	5.513	ug/L	0.2475	4.49%
QC value within limits for Mo 202.031 Recovery = 91.88%								
Na 589.592†	8840.5	2801	ug/L	48.7	2801	ug/L	48.7	1.74%
QC value within limits for Na 589.592 Recovery = 93.35%								
Ni 231.604†	259.9	6.311	ug/L	0.5982	6.311	ug/L	0.5982	9.48%
QC value within limits for Ni 231.604 Recovery = 105.18%								
P 213.617†	259.7	70.73	ug/L	1.098	70.73	ug/L	1.098	1.55%
QC value within limits for P 213.617 Recovery = 94.31%								
Pb 220.353†	82.8	7.801	ug/L	1.3012	7.801	ug/L	1.3012	16.68%
QC value within limits for Pb 220.353 Recovery = 86.68%								
Sb 206.836†	45.6	10.82	ug/L	0.542	10.82	ug/L	0.542	5.01%
QC value within limits for Sb 206.836 Recovery = 90.13%								
Se 196.026†	42.4	14.40	ug/L	1.448	14.40	ug/L	1.448	10.06%
QC value within limits for Se 196.026 Recovery = 119.96%								
Sn 189.927†	176.3	18.74	ug/L	0.886	18.74	ug/L	0.886	4.73%
QC value within limits for Sn 189.927 Recovery = 104.14%								
Sr 421.552†	864.6	5.938	ug/L	0.4693	5.938	ug/L	0.4693	7.90%
QC value within limits for Sr 421.552 Recovery = 98.97%								
Ti 337.279†	105.3	14.09	ug/L	1.221	14.09	ug/L	1.221	8.66%
QC value within limits for Ti 337.279 Recovery = 93.96%								
Tl 190.801†	66.0	15.42	ug/L	1.192	15.42	ug/L	1.192	7.73%
QC value greater than the upper limit for Tl 190.801 Recovery = 128.51%								
V 292.402†	414.6	2.963	ug/L	0.1601	2.963	ug/L	0.1601	5.40%
QC value within limits for V 292.402 Recovery = 98.77%								
Zn 206.200†	7537.3	152.2	ug/L	1.24	152.2	ug/L	1.24	0.81%
QC value within limits for Zn 206.200 Recovery = 101.46%								

QC Failed. Continue with analysis.

Sequence No.: 11
Sample ID: ICSA 191107 I:PB O:PW
Analyst:
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 11/07/19 10:57:19 AM
Data Type: Reprocessed on 11/08/19 8:18:32 AM
Initial Sample Vol:
Sample Prep Vol:

Mean Data: ICSA 191107 I:PB O:PW

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	1199778.8	94.34	%	0.571				0.61%
Y 371.029 Radial	1141489.0	94.01	%	0.627				0.67%
Ag 338.289†	22.8	-0.527	ug/L	0.5259	-0.527	ug/L	0.5259	99.71%
QC value within limits for Ag 338.289 Recovery = Not calculated								
Al 308.215†	28746.3	101000	ug/L	347.2	101000	ug/L	347.2	0.34%
QC value within limits for Al 308.215 Recovery = 101.00%								
As 188.979†	-74.2	1.026	ug/L	3.1872	1.026	ug/L	3.1872	310.79%
QC value within limits for As 188.979 Recovery = Not calculated								
B†	-1343.5	-31.86	ug/L	0.513	-31.86	ug/L	0.513	1.61%
QC value within limits for B Recovery = Not calculated								
Ba 233.527†	1036.5	-0.042	ug/L	0.6869	-0.042	ug/L	0.6869	>999.9%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	0.5	0.524	ug/L	0.0521	0.524	ug/L	0.0521	9.94%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 315.887†	141650.9	97450	ug/L	1008.7	97450	ug/L	1008.7	1.04%
QC value within limits for Ca 315.887 Recovery = 97.45%								
Cd 214.440†	553.0	0.504	ug/L	0.1566	0.504	ug/L	0.1566	31.08%
QC value within limits for Cd 214.440 Recovery = Not calculated								
Co 228.616†	364.9	0.591	ug/L	0.4882	0.591	ug/L	0.4882	82.64%
QC value within limits for Co 228.616 Recovery = Not calculated								
Cr 267.716†	-78.7	0.434	ug/L	0.5010	0.434	ug/L	0.5010	115.45%
QC value within limits for Cr 267.716 Recovery = Not calculated								
Cu 327.393†	-521.9	-0.188	ug/L	0.2091	-0.188	ug/L	0.2091	111.32%
QC value within limits for Cu 327.393 Recovery = Not calculated								
Fe 273.955†	1580888.0	95620	ug/L	45.7	95620	ug/L	45.7	0.05%
QC value within limits for Fe 273.955 Recovery = 95.62%								
K 766.490†	16.9	-64.17	ug/L	68.340	-64.17	ug/L	68.340	106.50%
QC value within limits for K 766.490 Recovery = Not calculated								
Mg 285.213†	222831.7	98090	ug/L	1014.1	98090	ug/L	1014.1	1.03%
QC value within limits for Mg 285.213 Recovery = 98.09%								
Mn 257.610†	-32.7	-0.040	ug/L	0.4659	-0.040	ug/L	0.4659	>999.9%
QC value within limits for Mn 257.610 Recovery = Not calculated								
Mo 202.031†	-177.6	-2.093	ug/L	0.2321	-2.093	ug/L	0.2321	11.09%
QC value within limits for Mo 202.031 Recovery = Not calculated								
Na 589.592†	-2.8	103.0	ug/L	4.27	103.0	ug/L	4.27	4.14%
QC value within limits for Na 589.592 Recovery = Not calculated								
Ni 231.604†	115.8	0.424	ug/L	0.2780	0.424	ug/L	0.2780	65.61%
QC value within limits for Ni 231.604 Recovery = Not calculated								
P 213.617†	-56.8	-15.46	ug/L	1.621	-15.46	ug/L	1.621	10.49%
QC value within limits for P 213.617 Recovery = Not calculated								
Pb 220.353†	-143.9	-0.577	ug/L	1.3621	-0.577	ug/L	1.3621	235.97%
QC value within limits for Pb 220.353 Recovery = Not calculated								
Sb 206.836†	-8.7	-2.068	ug/L	1.1065	-2.068	ug/L	1.1065	53.50%
QC value within limits for Sb 206.836 Recovery = Not calculated								
Se 196.026†	-106.6	-0.346	ug/L	2.4260	-0.346	ug/L	2.4260	700.87%
QC value within limits for Se 196.026 Recovery = Not calculated								
Sn 189.927†	-32.1	0.225	ug/L	0.9315	0.225	ug/L	0.9315	414.45%
QC value within limits for Sn 189.927 Recovery = Not calculated								
Sr 421.552†	126.5	-0.143	ug/L	0.1136	-0.143	ug/L	0.1136	79.70%
QC value within limits for Sr 421.552 Recovery = Not calculated								
Ti 337.279†	-0.2	-2.023	ug/L	0.8766	-2.023	ug/L	0.8766	43.33%
QC value within limits for Ti 337.279 Recovery = Not calculated								
Tl 190.801†	-11.3	4.316	ug/L	2.5674	4.316	ug/L	2.5674	59.49%
QC value within limits for Tl 190.801 Recovery = Not calculated								
V 292.402†	2930.8	0.280	ug/L	0.6097	0.280	ug/L	0.6097	217.92%
QC value within limits for V 292.402 Recovery = Not calculated								
Zn 206.200†	538.7	6.165	ug/L	0.4454	6.165	ug/L	0.4454	7.22%
QC value within limits for Zn 206.200 Recovery = Not calculated								

All analyte(s) passed QC.

Sequence No.: 12
Sample ID: ICSAB 191107 I:PB O:PW
Analyst:
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 11/07/19 11:02:14 AM
Data Type: Reprocessed on 11/08/19 8:18:34 AM
Initial Sample Vol:
Sample Prep Vol:

Mean Data: ICSAB 191107 I:PB O:PW

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	1179973.7	92.78	%	0.409				0.44%
Y 371.029 Radial	1121176.9	92.34	%	0.420				0.45%
Ag 338.289†	40858.2	519.2	ug/L	2.67	519.2	ug/L	2.67	0.51%
QC value within limits for Ag 338.289 Recovery = 103.84%								
Al 308.215†	28933.4	101700	ug/L	397.3	101700	ug/L	397.3	0.39%
QC value within limits for Al 308.215 Recovery = 101.66%								
As 188.979†	798.0	251.7	ug/L	1.24	251.7	ug/L	1.24	0.49%
QC value within limits for As 188.979 Recovery = 100.68%								
B†	-1428.4	-33.88	ug/L	0.595	-33.88	ug/L	0.595	1.76%
QC value within limits for B Recovery = Not calculated								
Ba 233.527†	30887.5	257.5	ug/L	1.02	257.5	ug/L	1.02	0.40%
QC value within limits for Ba 233.527 Recovery = 102.98%								
Be 313.107†	17605.0	252.0	ug/L	0.99	252.0	ug/L	0.99	0.39%
QC value within limits for Be 313.107 Recovery = 100.78%								
Ca 315.887†	143333.0	98600	ug/L	727.8	98600	ug/L	727.8	0.74%
QC value within limits for Ca 315.887 Recovery = 98.60%								
Cd 214.440†	70589.3	483.3	ug/L	0.28	483.3	ug/L	0.28	0.06%
QC value within limits for Cd 214.440 Recovery = 96.67%								
Co 228.616†	12746.0	248.6	ug/L	0.63	248.6	ug/L	0.63	0.25%
QC value within limits for Co 228.616 Recovery = 99.45%								
Cr 267.716†	20060.9	256.6	ug/L	0.58	256.6	ug/L	0.58	0.23%
QC value within limits for Cr 267.716 Recovery = 102.64%								
Cu 327.393†	22234.2	258.2	ug/L	0.33	258.2	ug/L	0.33	0.13%
QC value within limits for Cu 327.393 Recovery = 103.30%								
Fe 273.955†	1579816.0	95540	ug/L	249.7	95540	ug/L	249.7	0.26%
QC value within limits for Fe 273.955 Recovery = 95.54%								
K 766.490†	-107.1	-128.2	ug/L	37.58	-128.2	ug/L	37.58	29.33%
QC value within limits for K 766.490 Recovery = Not calculated								
Mg 285.213†	226141.8	99540	ug/L	545.0	99540	ug/L	545.0	0.55%
QC value within limits for Mg 285.213 Recovery = 99.54%								
Mn 257.610†	1544.4	245.5	ug/L	1.30	245.5	ug/L	1.30	0.53%
QC value within limits for Mn 257.610 Recovery = 98.19%								
Mo 202.031†	6440.0	239.4	ug/L	0.49	239.4	ug/L	0.49	0.21%
QC value within limits for Mo 202.031 Recovery = 95.78%								
Na 589.592†	-15.8	100.1	ug/L	6.74	100.1	ug/L	6.74	6.73%
QC value within limits for Na 589.592 Recovery = Not calculated								
Ni 231.604†	19620.7	486.7	ug/L	0.70	486.7	ug/L	0.70	0.14%
QC value within limits for Ni 231.604 Recovery = 97.34%								
P 213.617†	-110.0	-29.96	ug/L	0.808	-29.96	ug/L	0.808	2.70%
QC value within limits for P 213.617 Recovery = Not calculated								
Pb 220.353†	5050.4	489.1	ug/L	0.36	489.1	ug/L	0.36	0.07%
QC value within limits for Pb 220.353 Recovery = 97.82%								
Sb 206.836†	1020.5	242.2	ug/L	1.18	242.2	ug/L	1.18	0.49%
QC value within limits for Sb 206.836 Recovery = 96.86%								
Se 196.026†	613.2	244.1	ug/L	5.30	244.1	ug/L	5.30	2.17%
QC value within limits for Se 196.026 Recovery = 97.62%								
Sn 189.927†	-34.7	0.004	ug/L	0.3094	0.004	ug/L	0.3094	>999.9%
QC value within limits for Sn 189.927 Recovery = Not calculated								
Sr 421.552†	137.6	-0.078	ug/L	0.0595	-0.078	ug/L	0.0595	76.24%
QC value within limits for Sr 421.552 Recovery = Not calculated								
Ti 337.279†	-7.0	-2.951	ug/L	0.9258	-2.951	ug/L	0.9258	31.37%
QC value within limits for Ti 337.279 Recovery = Not calculated								
Tl 190.801†	1045.1	251.3	ug/L	2.57	251.3	ug/L	2.57	1.02%
QC value within limits for Tl 190.801 Recovery = 100.51%								
V 292.402†	37194.7	245.7	ug/L	0.90	245.7	ug/L	0.90	0.37%
QC value within limits for V 292.402 Recovery = 98.28%								
Zn 206.200†	24771.9	496.2	ug/L	2.06	496.2	ug/L	2.06	0.42%
QC value within limits for Zn 206.200 Recovery = 99.24%								

All analyte(s) passed QC.

Sequence No.: 92
Sample ID: CCV2 191107 I:PB O:PW
Analyst:
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 11/07/19 7:24:51 PM
Data Type: Reprocessed on 11/08/19 8:20:56 AM
Initial Sample Vol:
Sample Prep Vol:

Mean Data: CCV2 191107 I:PB O:PW

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	1248450.6	98.17	%	0.407				0.41%
Y 371.029 Radial	1193284.0	98.28	%	0.418				0.42%
Ag 338.289†	13953.3	179.9	ug/L	0.62	179.9	ug/L	0.62	0.34%
QC value within limits for Ag 338.289 Recovery = 95.94%								
Al 308.215†	2053.7	7220	ug/L	28.5	7220	ug/L	28.5	0.40%
QC value within limits for Al 308.215 Recovery = 96.26%								
As 188.979†	1207.6	351.0	ug/L	1.97	351.0	ug/L	1.97	0.56%
QC value within limits for As 188.979 Recovery = 93.59%								
B†	15510.6	367.9	ug/L	1.39	367.9	ug/L	1.39	0.38%
QC value within limits for B Recovery = 98.09%								
Ba 233.527†	42431.7	365.4	ug/L	1.13	365.4	ug/L	1.13	0.31%
QC value within limits for Ba 233.527 Recovery = 97.45%								
Be 313.107†	24332.0	348.6	ug/L	4.44	348.6	ug/L	4.44	1.27%
QC value within limits for Be 313.107 Recovery = 92.95%								
Ca 315.887†	25955.2	17850	ug/L	101.6	17850	ug/L	101.6	0.57%
QC value within limits for Ca 315.887 Recovery = 95.22%								
Cd 214.440†	52747.2	363.6	ug/L	0.97	363.6	ug/L	0.97	0.27%
QC value within limits for Cd 214.440 Recovery = 96.95%								
Co 228.616†	18063.1	360.7	ug/L	1.92	360.7	ug/L	1.92	0.53%
QC value within limits for Co 228.616 Recovery = 96.20%								
Cr 267.716†	28358.2	360.8	ug/L	0.20	360.8	ug/L	0.20	0.05%
QC value within limits for Cr 267.716 Recovery = 96.21%								
Cu 327.393†	31197.7	355.8	ug/L	0.89	355.8	ug/L	0.89	0.25%
QC value within limits for Cu 327.393 Recovery = 94.89%								
Fe 273.955†	119652.3	7205	ug/L	12.8	7205	ug/L	12.8	0.18%
QC value within limits for Fe 273.955 Recovery = 96.07%								
K 766.490†	13930.0	6969	ug/L	165.9	6969	ug/L	165.9	2.38%
QC value within limits for K 766.490 Recovery = 92.92%								
Mg 285.213†	40568.8	17840	ug/L	220.1	17840	ug/L	220.1	1.23%
QC value within limits for Mg 285.213 Recovery = 95.17%								
Mn 257.610†	2299.1	357.8	ug/L	1.93	357.8	ug/L	1.93	0.54%
QC value within limits for Mn 257.610 Recovery = 95.42%								
Mo 202.031†	9959.5	363.7	ug/L	1.98	363.7	ug/L	1.98	0.55%
QC value within limits for Mo 202.031 Recovery = 96.98%								
Na 589.592†	28338.1	8990	ug/L	114.5	8990	ug/L	114.5	1.27%
QC value within limits for Na 589.592 Recovery = 95.90%								
Ni 231.604†	14583.1	362.0	ug/L	0.92	362.0	ug/L	0.92	0.25%
QC value within limits for Ni 231.604 Recovery = 96.53%								
P 213.617†	6231.8	1697	ug/L	7.5	1697	ug/L	7.5	0.44%
QC value within limits for P 213.617 Recovery = 90.52%								
Pb 220.353†	3835.1	362.5	ug/L	2.25	362.5	ug/L	2.25	0.62%
QC value within limits for Pb 220.353 Recovery = 96.65%								
Sb 206.836†	1510.1	358.4	ug/L	1.77	358.4	ug/L	1.77	0.49%
QC value within limits for Sb 206.836 Recovery = 95.56%								
Se 196.026†	1046.8	357.9	ug/L	1.45	357.9	ug/L	1.45	0.41%
QC value within limits for Se 196.026 Recovery = 95.45%								
Sn 189.927†	3449.6	367.7	ug/L	3.73	367.7	ug/L	3.73	1.01%
QC value within limits for Sn 189.927 Recovery = 98.04%								
Sr 421.552†	52127.6	358.0	ug/L	3.57	358.0	ug/L	3.57	1.00%
QC value within limits for Sr 421.552 Recovery = 95.48%								
Ti 337.279†	2677.7	358.4	ug/L	1.81	358.4	ug/L	1.81	0.50%
QC value within limits for Ti 337.279 Recovery = 95.57%								
Tl 190.801†	1606.3	379.7	ug/L	0.64	379.7	ug/L	0.64	0.17%
QC value within limits for Tl 190.801 Recovery = 101.27%								
V 292.402†	51333.2	365.8	ug/L	1.55	365.8	ug/L	1.55	0.42%
QC value within limits for V 292.402 Recovery = 97.54%								
Zn 206.200†	17985.8	365.0	ug/L	1.89	365.0	ug/L	1.89	0.52%
QC value within limits for Zn 206.200 Recovery = 97.34%								

All analyte(s) passed QC.

Sequence No.: 93
Sample ID: CCB 191107 I:PB O:PW
Analyst:
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 11/07/19 7:29:40 PM
Data Type: Reprocessed on 11/08/19 8:20:57 AM
Initial Sample Vol:
Sample Prep Vol:

Mean Data: CCB 191107 I:PB O:PW

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	1304071.2	102.5	%	0.81				0.79%
Y 371.029 Radial	1249032.0	102.9	%	0.86				0.84%
Ag 338.289†	132.7	1.674	ug/L	0.2292	1.674	ug/L	0.2292	13.69%
QC value greater than the upper limit for Ag 338.289 Recovery = Not calculated								
Al 308.215†	4.6	16.16	ug/L	39.289	16.16	ug/L	39.289	243.14%
QC value within limits for Al 308.215 Recovery = Not calculated								
As 188.979†	0.0	-0.004	ug/L	2.8410	-0.004	ug/L	2.8410	>999.9%
QC value within limits for As 188.979 Recovery = Not calculated								
B†	249.2	5.910	ug/L	0.3655	5.910	ug/L	0.3655	6.18%
QC value within limits for B Recovery = Not calculated								
Ba 233.527†	14.2	0.121	ug/L	0.1052	0.121	ug/L	0.1052	86.94%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-0.8	-0.017	ug/L	0.0297	-0.017	ug/L	0.0297	172.59%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 315.887†	26.1	17.96	ug/L	4.472	17.96	ug/L	4.472	24.90%
QC value within limits for Ca 315.887 Recovery = Not calculated								
Cd 214.440†	29.2	0.202	ug/L	0.0674	0.202	ug/L	0.0674	33.42%
QC value within limits for Cd 214.440 Recovery = Not calculated								
Co 228.616†	9.2	0.188	ug/L	0.2225	0.188	ug/L	0.2225	118.55%
QC value within limits for Co 228.616 Recovery = Not calculated								
Cr 267.716†	-33.2	-0.426	ug/L	0.0383	-0.426	ug/L	0.0383	9.00%
QC value within limits for Cr 267.716 Recovery = Not calculated								
Cu 327.393†	211.9	2.406	ug/L	0.3652	2.406	ug/L	0.3652	15.18%
QC value within limits for Cu 327.393 Recovery = Not calculated								
Fe 273.955†	18.9	1.165	ug/L	0.4893	1.165	ug/L	0.4893	42.00%
QC value within limits for Fe 273.955 Recovery = Not calculated								
K 766.490†	-68.0	-34.06	ug/L	76.494	-34.06	ug/L	76.494	224.59%
QC value within limits for K 766.490 Recovery = Not calculated								
Mg 285.213†	11.3	4.970	ug/L	3.8153	4.970	ug/L	3.8153	76.76%
QC value within limits for Mg 285.213 Recovery = Not calculated								
Mn 257.610†	3.2	0.494	ug/L	1.0641	0.494	ug/L	1.0641	215.48%
QC value within limits for Mn 257.610 Recovery = Not calculated								
Mo 202.031†	-2.4	-0.088	ug/L	0.4860	-0.088	ug/L	0.4860	552.54%
QC value within limits for Mo 202.031 Recovery = Not calculated								
Na 589.592†	184.0	58.32	ug/L	17.522	58.32	ug/L	17.522	30.04%
QC value within limits for Na 589.592 Recovery = Not calculated								
Ni 231.604†	-16.7	-0.421	ug/L	0.2462	-0.421	ug/L	0.2462	58.53%
QC value within limits for Ni 231.604 Recovery = Not calculated								
P 213.617†	-22.8	-6.223	ug/L	0.7950	-6.223	ug/L	0.7950	12.78%
QC value within limits for P 213.617 Recovery = Not calculated								
Pb 220.353†	-22.2	-2.096	ug/L	1.7213	-2.096	ug/L	1.7213	82.13%
QC value within limits for Pb 220.353 Recovery = Not calculated								
Sb 206.836†	0.8	0.192	ug/L	0.3880	0.192	ug/L	0.3880	202.38%
QC value within limits for Sb 206.836 Recovery = Not calculated								
Se 196.026†	15.9	5.398	ug/L	0.5193	5.398	ug/L	0.5193	9.62%
QC value greater than the upper limit for Se 196.026 Recovery = Not calculated								
Sn 189.927†	8.5	0.888	ug/L	0.5992	0.888	ug/L	0.5992	67.45%
QC value within limits for Sn 189.927 Recovery = Not calculated								
Sr 421.552†	-18.4	-0.127	ug/L	0.5057	-0.127	ug/L	0.5057	399.75%
QC value within limits for Sr 421.552 Recovery = Not calculated								
Ti 337.279†	-15.0	-2.013	ug/L	0.4866	-2.013	ug/L	0.4866	24.17%
QC value within limits for Ti 337.279 Recovery = Not calculated								
Tl 190.801†	13.9	3.187	ug/L	0.6835	3.187	ug/L	0.6835	21.45%
QC value within limits for Tl 190.801 Recovery = Not calculated								
V 292.402†	-46.2	-0.327	ug/L	0.4940	-0.327	ug/L	0.4940	151.26%
QC value within limits for V 292.402 Recovery = Not calculated								
Zn 206.200†	13.6	0.247	ug/L	0.1494	0.247	ug/L	0.1494	60.48%
QC value within limits for Zn 206.200 Recovery = Not calculated								

QC Failed. Continue with analysis.

Sequence No.: 106
Sample ID: CCV1 191107 I:PB O:PW
Analyst:
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:

Autosampler Location: 3
Date Collected: 11/07/19 8:32:31 PM
Data Type: Reprocessed on 11/08/19 8:21:11 AM
Initial Sample Vol:
Sample Prep Vol:

Mean Data: CCV1 191107 I:PB O:PW

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	1241398.9	97.61	%	0.568				0.58%
Y 371.029 Radial	1186340.3	97.71	%	0.593				0.61%
Ag 338.289†	18517.9	238.8	ug/L	0.21	238.8	ug/L	0.21	0.09%
QC value within limits for Ag 338.289 Recovery = 95.52%								
Al 308.215†	2724.6	9579	ug/L	40.7	9579	ug/L	40.7	0.43%
QC value within limits for Al 308.215 Recovery = 95.79%								
As 188.979†	1632.1	474.4	ug/L	2.74	474.4	ug/L	2.74	0.58%
QC value within limits for As 188.979 Recovery = 94.88%								
B†	20954.6	497.0	ug/L	0.64	497.0	ug/L	0.64	0.13%
QC value within limits for B Recovery = 99.39%								
Ba 233.527†	56679.3	488.2	ug/L	1.97	488.2	ug/L	1.97	0.40%
QC value within limits for Ba 233.527 Recovery = 97.63%								
Be 313.107†	32663.8	467.9	ug/L	4.08	467.9	ug/L	4.08	0.87%
QC value within limits for Be 313.107 Recovery = 93.59%								
Ca 315.887†	34336.1	23620	ug/L	139.5	23620	ug/L	139.5	0.59%
QC value within limits for Ca 315.887 Recovery = 94.48%								
Cd 214.440†	70463.4	485.7	ug/L	2.16	485.7	ug/L	2.16	0.44%
QC value within limits for Cd 214.440 Recovery = 97.13%								
Co 228.616†	23987.2	479.0	ug/L	1.94	479.0	ug/L	1.94	0.41%
QC value within limits for Co 228.616 Recovery = 95.80%								
Cr 267.716†	37842.8	481.4	ug/L	1.97	481.4	ug/L	1.97	0.41%
QC value within limits for Cr 267.716 Recovery = 96.29%								
Cu 327.393†	41739.4	476.1	ug/L	3.04	476.1	ug/L	3.04	0.64%
QC value within limits for Cu 327.393 Recovery = 95.21%								
Fe 273.955†	159034.5	9577	ug/L	33.5	9577	ug/L	33.5	0.35%
QC value within limits for Fe 273.955 Recovery = 95.77%								
K 766.490†	19288.1	9650	ug/L	132.8	9650	ug/L	132.8	1.38%
QC value within limits for K 766.490 Recovery = 96.50%								
Mg 285.213†	54791.6	24100	ug/L	225.2	24100	ug/L	225.2	0.93%
QC value within limits for Mg 285.213 Recovery = 96.40%								
Mn 257.610†	3064.5	476.9	ug/L	6.40	476.9	ug/L	6.40	1.34%
QC value within limits for Mn 257.610 Recovery = 95.38%								
Mo 202.031†	12942.7	472.6	ug/L	3.14	472.6	ug/L	3.14	0.66%
QC value within limits for Mo 202.031 Recovery = 94.52%								
Na 589.592†	38141.3	12100	ug/L	168.9	12100	ug/L	168.9	1.40%
QC value within limits for Na 589.592 Recovery = 96.80%								
Ni 231.604†	19323.3	479.6	ug/L	2.22	479.6	ug/L	2.22	0.46%
QC value within limits for Ni 231.604 Recovery = 95.93%								
P 213.617†	8274.3	2253	ug/L	10.8	2253	ug/L	10.8	0.48%
QC value within limits for P 213.617 Recovery = 90.14%								
Pb 220.353†	5123.0	484.1	ug/L	2.71	484.1	ug/L	2.71	0.56%
QC value within limits for Pb 220.353 Recovery = 96.82%								
Sb 206.836†	2021.1	479.6	ug/L	3.60	479.6	ug/L	3.60	0.75%
QC value within limits for Sb 206.836 Recovery = 95.92%								
Se 196.026†	1402.7	479.6	ug/L	3.38	479.6	ug/L	3.38	0.71%
QC value within limits for Se 196.026 Recovery = 95.92%								
Sn 189.927†	4664.7	497.1	ug/L	1.81	497.1	ug/L	1.81	0.36%
QC value within limits for Sn 189.927 Recovery = 99.43%								
Sr 421.552†	70898.3	487.0	ug/L	4.85	487.0	ug/L	4.85	1.00%
QC value within limits for Sr 421.552 Recovery = 97.40%								
Ti 337.279†	3611.9	483.4	ug/L	6.22	483.4	ug/L	6.22	1.29%
QC value within limits for Ti 337.279 Recovery = 96.69%								
Tl 190.801†	2152.9	509.1	ug/L	3.57	509.1	ug/L	3.57	0.70%
QC value within limits for Tl 190.801 Recovery = 101.81%								
V 292.402†	69003.3	491.4	ug/L	1.74	491.4	ug/L	1.74	0.35%
QC value within limits for V 292.402 Recovery = 98.29%								
Zn 206.200†	24314.2	493.5	ug/L	1.53	493.5	ug/L	1.53	0.31%
QC value within limits for Zn 206.200 Recovery = 98.70%								

All analyte(s) passed QC.

Sequence No.: 107
Sample ID: CCB 191107 I:PB O:PW
Analyst:
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 11/07/19 8:36:17 PM
Data Type: Reprocessed on 11/08/19 8:21:12 AM
Initial Sample Vol:
Sample Prep Vol:

Mean Data: CCB 191107 I:PB O:PW

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	1301213.0	102.3	%	0.19				0.19%
Y 371.029 Radial	1246421.4	102.7	%	0.21				0.20%
Ag 338.289†	54.8	0.686	ug/L	0.7582	0.686	ug/L	0.7582	110.52%
QC value within limits for Ag 338.289 Recovery = Not calculated								
Al 308.215†	1.2	4.324	ug/L	34.4837	4.324	ug/L	34.4837	797.43%
QC value within limits for Al 308.215 Recovery = Not calculated								
As 188.979†	2.3	0.663	ug/L	1.1947	0.663	ug/L	1.1947	180.11%
QC value within limits for As 188.979 Recovery = Not calculated								
B†	317.7	7.535	ug/L	0.2831	7.535	ug/L	0.2831	3.76%
QC value within limits for B Recovery = Not calculated								
Ba 233.527†	29.1	0.250	ug/L	0.1867	0.250	ug/L	0.1867	74.63%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	11.5	0.160	ug/L	0.0644	0.160	ug/L	0.0644	40.24%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 315.887†	46.2	31.81	ug/L	3.457	31.81	ug/L	3.457	10.87%
QC value within limits for Ca 315.887 Recovery = Not calculated								
Cd 214.440†	44.2	0.304	ug/L	0.0450	0.304	ug/L	0.0450	14.80%
QC value within limits for Cd 214.440 Recovery = Not calculated								
Co 228.616†	5.3	0.108	ug/L	0.3290	0.108	ug/L	0.3290	305.79%
QC value within limits for Co 228.616 Recovery = Not calculated								
Cr 267.716†	-30.2	-0.387	ug/L	0.2501	-0.387	ug/L	0.2501	64.57%
QC value within limits for Cr 267.716 Recovery = Not calculated								
Cu 327.393†	142.9	1.624	ug/L	1.3854	1.624	ug/L	1.3854	85.29%
QC value within limits for Cu 327.393 Recovery = Not calculated								
Fe 273.955†	35.5	2.193	ug/L	0.9020	2.193	ug/L	0.9020	41.14%
QC value within limits for Fe 273.955 Recovery = Not calculated								
K 766.490†	34.3	17.16	ug/L	46.611	17.16	ug/L	46.611	271.61%
QC value within limits for K 766.490 Recovery = Not calculated								
Mg 285.213†	9.3	4.090	ug/L	1.8783	4.090	ug/L	1.8783	45.93%
QC value within limits for Mg 285.213 Recovery = Not calculated								
Mn 257.610†	2.8	0.442	ug/L	0.6700	0.442	ug/L	0.6700	151.46%
QC value within limits for Mn 257.610 Recovery = Not calculated								
Mo 202.031†	-9.5	-0.348	ug/L	0.0493	-0.348	ug/L	0.0493	14.15%
QC value within limits for Mo 202.031 Recovery = Not calculated								
Na 589.592†	135.4	42.91	ug/L	19.602	42.91	ug/L	19.602	45.68%
QC value within limits for Na 589.592 Recovery = Not calculated								
Ni 231.604†	-4.0	-0.104	ug/L	0.0690	-0.104	ug/L	0.0690	66.60%
QC value within limits for Ni 231.604 Recovery = Not calculated								
P 213.617†	-33.7	-9.180	ug/L	0.5411	-9.180	ug/L	0.5411	5.89%
QC value within limits for P 213.617 Recovery = Not calculated								
Pb 220.353†	-22.0	-2.077	ug/L	0.8429	-2.077	ug/L	0.8429	40.59%
QC value within limits for Pb 220.353 Recovery = Not calculated								
Sb 206.836†	0.8	0.192	ug/L	1.4321	0.192	ug/L	1.4321	747.55%
QC value within limits for Sb 206.836 Recovery = Not calculated								
Se 196.026†	19.7	6.680	ug/L	1.5163	6.680	ug/L	1.5163	22.70%
QC value greater than the upper limit for Se 196.026 Recovery = Not calculated								
Sn 189.927†	0.0	-0.006	ug/L	1.0207	-0.006	ug/L	1.0207	>999.9%
QC value within limits for Sn 189.927 Recovery = Not calculated								
Sr 421.552†	-13.2	-0.091	ug/L	0.1912	-0.091	ug/L	0.1912	209.48%
QC value within limits for Sr 421.552 Recovery = Not calculated								
Ti 337.279†	-9.4	-1.253	ug/L	1.1314	-1.253	ug/L	1.1314	90.26%
QC value within limits for Ti 337.279 Recovery = Not calculated								
Tl 190.801†	17.6	4.052	ug/L	1.1157	4.052	ug/L	1.1157	27.54%
QC value within limits for Tl 190.801 Recovery = Not calculated								
V 292.402†	-83.8	-0.594	ug/L	0.3019	-0.594	ug/L	0.3019	50.81%
QC value within limits for V 292.402 Recovery = Not calculated								
Zn 206.200†	9.7	0.185	ug/L	0.0809	0.185	ug/L	0.0809	43.83%
QC value within limits for Zn 206.200 Recovery = Not calculated								

QC Failed. Continue with analysis.

METALS

Raw Data

Sequence No.: 103
Sample ID: BA02301W24 DF5
Analyst: P
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution: 5X

Autosampler Location: 105
Date Collected: 11/07/19 8:17:57 PM
Data Type: Reprocessed on 11/08/19 8:21:08 AM
Initial Sample Vol:
Sample Prep Vol:

Mean Data: BA02301W24 DF5

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	1346254.2	105.9	%	0.94				0.89%
Y 371.029 Radial	1290890.1	106.3	%	1.00				0.94%
Ag 338.289†	69.6	0.893	ug/L	0.7583	4.464	ug/L	3.7915	84.94%
Al 308.215†	-5.6	-20.10	ug/L	50.721	-100.5	ug/L	253.60	252.29%
As 188.979†	4.7	1.398	ug/L	0.9049	6.992	ug/L	4.5247	64.71%
B†	476.1	11.29	ug/L	0.206	56.46	ug/L	1.028	1.82%
Ba 233.527†	121.7	1.045	ug/L	0.0296	5.226	ug/L	0.1479	2.83%
Be 313.107†	3.5	0.057	ug/L	0.1016	0.283	ug/L	0.5081	179.54%
Ca 315.887†	2759.9	1899	ug/L	25.3	9493	ug/L	126.7	1.34%
Cd 214.440†	-3.2	-0.035	ug/L	0.0879	-0.174	ug/L	0.4397	253.26%
Co 228.616†	4.7	0.063	ug/L	0.3494	0.315	ug/L	1.7468	554.19%
Cr 267.716†	32.9	0.401	ug/L	0.1213	2.006	ug/L	0.6067	30.24%
Cu 327.393†	192.9	2.175	ug/L	1.2435	10.87	ug/L	6.217	57.18%
Fe 273.955†	2562.5	154.3	ug/L	2.49	771.5	ug/L	12.45	1.61%
K 766.490†	690.4	345.6	ug/L	58.94	1728	ug/L	294.7	17.05%
Mg 285.213†	4548.6	1999	ug/L	18.1	9994	ug/L	90.6	0.91%
Mn 257.610†	15.5	2.329	ug/L	0.2568	11.64	ug/L	1.284	11.03%
Mo 202.031†	-4.8	-0.255	ug/L	0.1927	-1.276	ug/L	0.9634	75.49%
Na 589.592†	17862.2	5661	ug/L	40.5	28310	ug/L	202.4	0.71%
Ni 231.604†	16.6	0.390	ug/L	0.1791	1.950	ug/L	0.8956	45.93%
P 213.617†	32.6	8.870	ug/L	0.8632	44.35	ug/L	4.316	9.73%
Pb 220.353†	-27.9	-2.663	ug/L	1.5486	-13.32	ug/L	7.743	58.15%
Sb 206.836†	-0.5	-0.114	ug/L	0.4169	-0.570	ug/L	2.0847	365.53%
Se 196.026†	14.2	4.773	ug/L	3.1377	23.87	ug/L	15.689	65.74%
Sn 189.927†	4.5	0.554	ug/L	0.1272	2.769	ug/L	0.6361	22.97%
Sr 421.552†	1920.2	13.18	ug/L	0.543	65.88	ug/L	2.716	4.12%
Ti 337.279†	12.3	1.626	ug/L	0.2381	8.131	ug/L	1.1906	14.64%
Tl 190.801†	14.0	3.361	ug/L	1.1871	16.80	ug/L	5.935	35.32%
V 292.402†	440.1	3.060	ug/L	0.4598	15.30	ug/L	2.299	15.03%
Zn 206.200†	168.2	3.582	ug/L	0.1625	17.91	ug/L	0.813	4.54%

Sequence No.: 100
Sample ID: 191105A BLK
Analyst: P
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:

Autosampler Location: 102
Date Collected: 11/07/19 8:03:31 PM
Data Type: Reprocessed on 11/08/19 8:21:04 AM
Initial Sample Vol:
Sample Prep Vol:

Mean Data: 191105A BLK

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	1368843.1	107.6	%	1.32				1.23%
Y 371.029 Radial	1313315.8	108.2	%	1.40				1.29%
Ag 338.289†	101.9	1.313	ug/L	0.1298	1.313	ug/L	0.1298	9.89%
Al 308.215†	-0.3	-0.931	ug/L	11.4418	-0.931	ug/L	11.4418	>999.9%
As 188.979†	-5.6	-1.607	ug/L	1.1781	-1.607	ug/L	1.1781	73.32%
B†	120.1	2.849	ug/L	0.1212	2.849	ug/L	0.1212	4.25%
Ba 233.527†	24.5	0.211	ug/L	0.0322	0.211	ug/L	0.0322	15.28%
Be 313.107†	11.6	0.167	ug/L	0.1033	0.167	ug/L	0.1033	61.93%
Ca 315.887†	117.9	81.12	ug/L	1.548	81.12	ug/L	1.548	1.91%
Cd 214.440†	49.4	0.340	ug/L	0.0753	0.340	ug/L	0.0753	22.19%
Co 228.616†	11.3	0.223	ug/L	0.1371	0.223	ug/L	0.1371	61.40%
Cr 267.716†	-52.8	-0.678	ug/L	0.1590	-0.678	ug/L	0.1590	23.44%
Cu 327.393†	263.4	3.003	ug/L	0.6867	3.003	ug/L	0.6867	22.87%
Fe 273.955†	95.4	5.805	ug/L	1.1704	5.805	ug/L	1.1704	20.16%
K 766.490†	-113.2	-56.73	ug/L	24.905	-56.73	ug/L	24.905	43.90%
Mg 285.213†	28.5	12.53	ug/L	2.424	12.53	ug/L	2.424	19.34%
Mn 257.610†	9.4	1.460	ug/L	0.3995	1.460	ug/L	0.3995	27.36%
Mo 202.031†	-3.0	-0.110	ug/L	0.3263	-0.110	ug/L	0.3263	296.03%
Na 589.592†	143.8	45.62	ug/L	16.442	45.62	ug/L	16.442	36.04%
Ni 231.604†	-3.7	-0.102	ug/L	0.1115	-0.102	ug/L	0.1115	108.89%
P 213.617†	-16.3	-4.430	ug/L	0.8603	-4.430	ug/L	0.8603	19.42%
Pb 220.353†	-20.4	-1.928	ug/L	0.6329	-1.928	ug/L	0.6329	32.83%
Sb 206.836†	4.6	1.097	ug/L	1.5428	1.097	ug/L	1.5428	140.65%
Se 196.026†	16.8	5.705	ug/L	4.4178	5.705	ug/L	4.4178	77.44%
Sn 189.927†	0.7	0.084	ug/L	0.2352	0.084	ug/L	0.2352	280.91%
Sr 421.552†	-62.1	-0.427	ug/L	0.0838	-0.427	ug/L	0.0838	19.61%
Ti 337.279†	1.4	0.194	ug/L	0.3306	0.194	ug/L	0.3306	170.75%
Tl 190.801†	5.6	1.300	ug/L	0.2016	1.300	ug/L	0.2016	15.51%
V 292.402†	-45.4	-0.326	ug/L	0.0115	-0.326	ug/L	0.0115	3.53%
Zn 206.200†	438.9	8.861	ug/L	0.3366	8.861	ug/L	0.3366	3.80%

Sequence No.: 101
Sample ID: 191105A LCS
Analyst: P
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:

Autosampler Location: 103
Date Collected: 11/07/19 8:08:27 PM
Data Type: Reprocessed on 11/08/19 8:21:06 AM
Initial Sample Vol:
Sample Prep Vol:

Mean Data: 191105A LCS

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	1282271.7	100.8	%	0.87				0.86%
Y 371.029 Radial	1226950.9	101.1	%	0.91				0.90%
Ag 338.289†	7135.3	92.08	ug/L	0.430	92.08	ug/L	0.430	0.47%
Al 308.215†	541.6	1902	ug/L	17.1	1902	ug/L	17.1	0.90%
As 188.979†	800.3	231.5	ug/L	3.65	231.5	ug/L	3.65	1.58%
B†	10068.5	238.8	ug/L	1.04	238.8	ug/L	1.04	0.44%
Ba 233.527†	28286.0	243.9	ug/L	0.27	243.9	ug/L	0.27	0.11%
Be 313.107†	3111.9	45.15	ug/L	0.601	45.15	ug/L	0.601	1.33%
Ca 315.887†	34188.3	23520	ug/L	295.0	23520	ug/L	295.0	1.25%
Cd 214.440†	6953.1	48.05	ug/L	0.318	48.05	ug/L	0.318	0.66%
Co 228.616†	12339.9	246.6	ug/L	2.39	246.6	ug/L	2.39	0.97%
Cr 267.716†	18984.3	241.3	ug/L	0.75	241.3	ug/L	0.75	0.31%
Cu 327.393†	20882.6	236.9	ug/L	0.95	236.9	ug/L	0.95	0.40%
Fe 273.955†	16240.6	957.6	ug/L	2.14	957.6	ug/L	2.14	0.22%
K 766.490†	9317.9	4661	ug/L	61.6	4661	ug/L	61.6	1.32%
Mg 285.213†	53671.4	23590	ug/L	37.6	23590	ug/L	37.6	0.16%
Mn 257.610†	1519.5	235.7	ug/L	3.47	235.7	ug/L	3.47	1.47%
Mo 202.031†	6745.1	245.8	ug/L	2.20	245.8	ug/L	2.20	0.90%
Na 589.592†	75477.4	23930	ug/L	35.6	23930	ug/L	35.6	0.15%
Ni 231.604†	9760.6	242.1	ug/L	2.28	242.1	ug/L	2.28	0.94%
P 213.617†	6652.1	1812	ug/L	14.8	1812	ug/L	14.8	0.81%
Pb 220.353†	2536.1	238.9	ug/L	2.58	238.9	ug/L	2.58	1.08%
Sb 206.836†	943.9	224.0	ug/L	2.36	224.0	ug/L	2.36	1.06%
Se 196.026†	656.6	222.9	ug/L	4.99	222.9	ug/L	4.99	2.24%
Sn 189.927†	2291.1	244.6	ug/L	2.17	244.6	ug/L	2.17	0.89%
Sr 421.552†	34683.2	238.1	ug/L	0.42	238.1	ug/L	0.42	0.18%
Ti 337.279†	1789.0	239.3	ug/L	3.59	239.3	ug/L	3.59	1.50%
Tl 190.801†	1029.4	243.5	ug/L	2.72	243.5	ug/L	2.72	1.12%
V 292.402†	34473.8	246.5	ug/L	0.88	246.5	ug/L	0.88	0.36%
Zn 206.200†	23628.9	477.1	ug/L	1.65	477.1	ug/L	1.65	0.35%

Sequence No.: 102
Sample ID: 191105A LCSD
Analyst: P
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:

Autosampler Location: 104
Date Collected: 11/07/19 8:13:11 PM
Data Type: Reprocessed on 11/08/19 8:21:07 AM
Initial Sample Vol:
Sample Prep Vol:

Mean Data: 191105A LCSD

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	1267119.3	99.64	%	0.548				0.55%
Y 371.029 Radial	1211991.6	99.82	%	0.596				0.60%
Ag 338.289†	7238.2	93.39	ug/L	0.848	93.39	ug/L	0.848	0.91%
Al 308.215†	550.7	1934	ug/L	17.3	1934	ug/L	17.3	0.89%
As 188.979†	792.1	229.2	ug/L	2.85	229.2	ug/L	2.85	1.24%
B†	10224.9	242.5	ug/L	1.65	242.5	ug/L	1.65	0.68%
Ba 233.527†	28466.7	245.4	ug/L	1.22	245.4	ug/L	1.22	0.50%
Be 313.107†	3120.3	45.28	ug/L	0.092	45.28	ug/L	0.092	0.20%
Ca 315.887†	34252.3	23560	ug/L	123.0	23560	ug/L	123.0	0.52%
Cd 214.440†	6948.4	48.02	ug/L	0.351	48.02	ug/L	0.351	0.73%
Co 228.616†	12364.1	247.1	ug/L	1.81	247.1	ug/L	1.81	0.73%
Cr 267.716†	19111.6	242.9	ug/L	0.30	242.9	ug/L	0.30	0.12%
Cu 327.393†	21060.2	239.0	ug/L	1.73	239.0	ug/L	1.73	0.72%
Fe 273.955†	16327.7	962.8	ug/L	6.39	962.8	ug/L	6.39	0.66%
K 766.490†	9318.1	4661	ug/L	13.2	4661	ug/L	13.2	0.28%
Mg 285.213†	52912.1	23260	ug/L	126.6	23260	ug/L	126.6	0.54%
Mn 257.610†	1522.8	236.3	ug/L	1.47	236.3	ug/L	1.47	0.62%
Mo 202.031†	6768.5	246.7	ug/L	1.42	246.7	ug/L	1.42	0.57%
Na 589.592†	74391.2	23580	ug/L	170.7	23580	ug/L	170.7	0.72%
Ni 231.604†	9747.2	241.8	ug/L	1.65	241.8	ug/L	1.65	0.68%
P 213.617†	6640.9	1809	ug/L	10.3	1809	ug/L	10.3	0.57%
Pb 220.353†	2527.4	238.1	ug/L	1.92	238.1	ug/L	1.92	0.81%
Sb 206.836†	952.0	225.9	ug/L	1.65	225.9	ug/L	1.65	0.73%
Se 196.026†	654.8	222.3	ug/L	2.94	222.3	ug/L	2.94	1.32%
Sn 189.927†	2310.9	246.7	ug/L	2.01	246.7	ug/L	2.01	0.81%
Sr 421.552†	34100.3	234.1	ug/L	1.56	234.1	ug/L	1.56	0.66%
Ti 337.279†	1794.4	240.0	ug/L	1.12	240.0	ug/L	1.12	0.47%
Tl 190.801†	1043.0	246.6	ug/L	0.79	246.6	ug/L	0.79	0.32%
V 292.402†	34607.0	247.5	ug/L	0.51	247.5	ug/L	0.51	0.21%
Zn 206.200†	23811.8	480.8	ug/L	0.27	480.8	ug/L	0.27	0.06%

ICP-OES Calibration Standard Prep

Prepared: 11/07/19
Expires: 11/14/19
1% HNO3 / 5% HCl Prep: 11/07/19
Prepared By (Initials): PW

Calibration Standard 3

Initial Standard Information						Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier Part No.	Conc. Range (ug/mL)	Lot Number - QA Number/ APPL Prep Date	Exp Date	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. Range (ug/L)
Solution A	Texas Scientific	HP1810-250	200 - 5,000	m2meb662248-38391	10/11/20	500uL	100mL	1% HNO3 / 5% HCl	1000 - 25,000
Solution B	Texas Scientific	HP1810-250	4000 - 10,000	m2meb662249-38389	10/11/20	500uL			2000 - 50,000
Solution C	Texas Scientific	HP1810-250	100 - 200	m2meb662250-38394	10/11/20	500uL			500 - 1000
Calibration Standard 2									
ICP-OES Calib Standard 3	Texas Scientific	Standard 2/CCV1	0.5 - 50	Prepared 11/07/19	11/14/19	25mL	50mL	1% HNO3 / 5% HCl	250 - 25,000
Calibration Standard 1									
200.7 LDL	O2SI	160634-01-01	0.05 - 100	10080366-1-39117	11/16/19	250uL	50mL	1% HNO3 / 5% HCl	0.25 - 200

ICP-OES ICV (SS)

Prepared: 11/05/19
Expires: 08/09/19
1% HNO3 / 5% HCl Prep: 11/05/19
Prepared By (Initials): PW

ICP-OES ICV 1

Initial Standard Information						Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier Part No.	Conc. Range (ug/mL)	Lot Number - QA Number	Exp Date	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. Range (ug/mL)
QCS ICV Soln A	CPI	4400-070615RH01	50 - 500	10062445-8-40746	10/30/20	250uL	50mL	1% HNO3 / 5% HCl	0.25 - 2.5
QCS ICV Soln B	CPI	4400-070615RH01	2,500	10062445-9-40747	10/30/20	250uL			12.5

ICP-OES ICV Ba

Initial Standard Information						Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier Part No.	Conc. Range (ug/mL)	Lot Number - QA Number	Exp Date	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. Range (ug/mL)
Custom 23 Element Mix #314	O2SI	161314-01-03	5 - 25,00	1064561-8-38870	08/09/19	1mL	50mL	1% HNO3 / 5% HCl	0.1 - 50
Custom 23 Element Mix #315	O2SI	161314-01-03	10 - 25	1064561-7-38869	08/09/19	1mL			0.2 - 0.5

ICP-OES CCV2

Initial Standard Information						Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier Part No.	Conc. Range (ug/mL)	APPL Prep Date	Exp Date	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. Range (ug/mL)
ICP-OES Calib Standard 3	Texas Scientific	CCV2	0.5 - 50	Prepared 11/07/19	11/14/19	15mL	40mL	1% HNO3 / 5% HCl	0.15 - 15

ICP-OES Low Levels (LLICV)

Prepared: 11/06/19
Expires: 11/20/19
1% HNO3 / 5% HCl Prep: 11/06/19
Prepared By (Initials): PW

LLICV

Initial Standard Information						Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier Part No.	Conc. Range ug/mL	Lot Number - QA Number	Exp Date	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. Range (ug/L)
200.7 LDL	O2SI	160634-01-01	0.05 - 100	10080366-1-39117	11/16/19	250uL	50mL	1% HNO3 / 5% HCl	0.25 - 200
LLICVX2									
200.7 LDL	O2SI	160634-01-01	0.05 - 100	10080366-1-39117	11/16/19	500uL	50mL	1% HNO3 / 5% HCl	0.50 - 400
LLICVX6									
200.7 LDL	O2SI	160634-01-01	0.05 - 100	10080366-1-39117	11/16/19	1.5mL	50mL	1% HNO3 / 5% HCl	1.5 - 1,200
LLICVX10									
200.7 LDL	O2SI	160634-01-01	0.05 - 100	10080366-1-39117	11/16/19	2.5mL	50mL	1% HNO3 / 5% HCl	2.5 - 2,000
LLICV 10									
ICP-OES Calib Standard 3	Texas Scientific	HP1810-250	0.5 - 50	10080366-1-39117	11/14/19	500uL	50mL	1% HNO3 / 5% HCl	5 - 500
LLICV 50									
ICP-OES Calib Standard 3	Texas Scientific	HP1810-250	0.5 - 50	10080366-1-39117	11/14/19	2.5mL	50mL	1% HNO3 / 5% HCl	25 - 2,500

ICP-OES Interference Check Solution A

Prepared: 11/04/19
Expires: 11/18/19
1% HNO3 / 5% HCl Prep: 11/04/19
Prepared By (Initials): PW

Initial Standard Information						Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier Part No.	Conc. (ug/mL)	Lot Number - QA Number	Exp Date	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
Aluminum	Inorganic Ventures	35-APPLTSP-6010ICSA	10,000	N2-MEB670092-39414	07/25/22	500uL	50mL	1% HNO3 / 5% HCl	100
Calcium			10,000						100
Magnesium			10,000						100
Iron			10,000						100
ICP-OES Interference Check Solution AB									
Aluminum	Inorganic Ventures	35-APPLTSP-6010ICSA	10,000	N2-MEB670092-39414	07/25/22	500uL	50mL	1% HNO3 / 5% HCl	100
Calcium			10,000						100
Magnesium			10,000						100
Iron			10,000						100
Special Mix (Interference)	O2SI	160495-01-01	100	10081266-39276	12/13/19	250uL			0.5

ICP-OES Internal Standards

Prepared: 11/05/18
Expires: 12/06/18
1% HNO3 / 5% HCl Prep: 11/05/18
Prepared By (Initials): PW

Initial Standard Information						Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier Part No.	Conc. (mg/L)	Lot Number - QA Number	Exp Date	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (mg/L)
Yttrium	O2SI	060039-04-03	1,000	10083563-39466	01/27/20	4mL	2L	1% HNO3 / 5% HCl	2

Metals Digestion Worksheet

Method Name 3010A Digestion (Field Filter) **Prep Method** M3010F **Set** 191105A **Units** mL

Spikes			
Spiked ID 1	LCSW LOT# 10064561-11-41208 Pipette AP-21		
Spiked ID 2	LCSW LOT# 10064561-12-41210		
Spiked ID 3			
Spiked ID 4			
Spiked By	NM	Date:	11/05/19 8:27:00 AM
Witnessed By	PW	Date:	11/05/19 8:27:00 AM

Starting Temp:	SLOT 18 THERM:MT1 95.2C
Ending Temp:	SLOT 18 95.2
Temperature Type:	Mod Block
Sufficient Vol for Matrix QC:	YES
End Date/Time	11/05/19 12:26

	Sample	Sample Container	Spike Amount	Spike ID	Digested Amount	Final Volume	Start Date/Time	Comments
1	191105A Blk				50mL	50mL	11/05/19 8:27	equip: Modblock2
2	191105A LCS		500uL	1+2	50mL	50mL	11/05/19 8:27	equip: Modblock2
3	191105A LCSD		500uL	1+2	50mL	50mL	11/05/19 8:27	equip: Modblock2
4	BA01446	BA01446M01			50mL	50mL	11/05/19 8:27	equip: Modblock2
5	BA01447	BA01447M01			50mL	50mL	11/05/19 8:27	equip: Modblock2
6	BA01480	BA01480W09			50mL	50mL	11/05/19 8:27	equip: Modblock2
7	BA01524	BA01524W02			50mL	50mL	11/05/19 8:27	equip: Modblock2 3010 LAB FILTER
8	BA01842	BA01842W07			50mL	50mL	11/05/19 8:27	equip: Modblock2 90567
9	BA01843	BA01843W07			50mL	50mL	11/05/19 8:27	equip: Modblock2 90567
10	BA01844	BA01844W07			50mL	50mL	11/05/19 8:27	equip: Modblock2 90567
11	BA01845	BA01845W07			50mL	50mL	11/05/19 8:27	equip: Modblock2 90567
12	BA01846	BA01846W07			50mL	50mL	11/05/19 8:27	equip: Modblock2 90567
13	BA01848	BA01848W07			50mL	50mL	11/05/19 8:27	equip: Modblock2 90567
14	BA01849	BA01849W07			50mL	50mL	11/05/19 8:27	equip: Modblock2 90567
15	BA01850	BA01850W07			50mL	50mL	11/05/19 8:27	equip: Modblock2 90567
16	BA01851	BA01851W07			50mL	50mL	11/05/19 8:27	equip: Modblock2 90567
17	BA01851 MS	BA01851W07	500uL	1+2	50mL	50mL	11/05/19 8:27	equip: Modblock2
18	BA01851 MSD	BA01851W07	500uL	1+2	50mL	50mL	11/05/19 8:27	equip: Modblock2
19	BA02301	BA02301W24			50mL	50mL	11/05/19 8:27	equip: Modblock2

Solvent and Lot#
HNO3 BDH 1119020 15535
1:1 HCL 10-22-19
50mL vesssel 190916

Sample COC Transfer	
Sample prep employee Initials	nm
Analyst's initials	PW
Date	11/6/19
Time	1155
Moved to	metals

Technician's Initials	
Scanned By	nm
Sample Preparation	nm
Digestion	nm
Bring up to volume	
Modified	11/05/19 8:12:50 AM

Reviewed By: PW **Date:** 11/6

6010C/3010A Injection Log

Directory: K:\ICAP PHOEBE\Backup Excel\

RunID	Injected		Sample Name	Misc Info	FileName	Multiplier
1	07 Nov 2019	10:05	CalBlk 191107 I:PB O:PW		191107A200	1.
2	07 Nov 2019	10:14	STD 1 191107 I:PB O:PW		191107A200	1.
3	07 Nov 2019	10:19	STD 2 191107 I:PB O:PW		191107A200	1.
4	07 Nov 2019	10:23	STD 3 191107 I:PB O:PW		191107A200	1.
5	07 Nov 2019	10:27	ICV 191107 I:PB O:PW		191107A200	1.
6	07 Nov 2019	10:32	ICB 191107 I:PB O:PW		191107A200	1.
7	07 Nov 2019	10:37	LLICV 191107 I:PB O:PW		191107A200	1.
9	07 Nov 2019	10:47	LLICVX6 191107 I:PB O:PW		191107A200	1.
11	07 Nov 2019	10:57	ICSA 191107 I:PB O:PW		191107A200	1.
12	07 Nov 2019	11:02	ICSAB 191107 I:PB O:PW		191107A200	1.
92	07 Nov 2019	19:24	CCV2 191107 I:PB O:PW		191107A200	1.
93	07 Nov 2019	19:29	CCB 191107 I:PB O:PW		191107A200	1.
100	07 Nov 2019	20:03	191105A BLK		191107A200	1.
101	07 Nov 2019	20:08	191105A LCS		191107A200	1.
102	07 Nov 2019	20:13	191105A LCSD		191107A200	1.
103	07 Nov 2019	20:17	BA02301W24 DF5		191107A200	5.
106	07 Nov 2019	20:32	CCV1 191107 I:PB O:PW		191107A200	1.
107	07 Nov 2019	20:36	CCB 191107 I:PB O:PW		191107A200	1.

INORGANIC ANALYSIS
Calibration Data

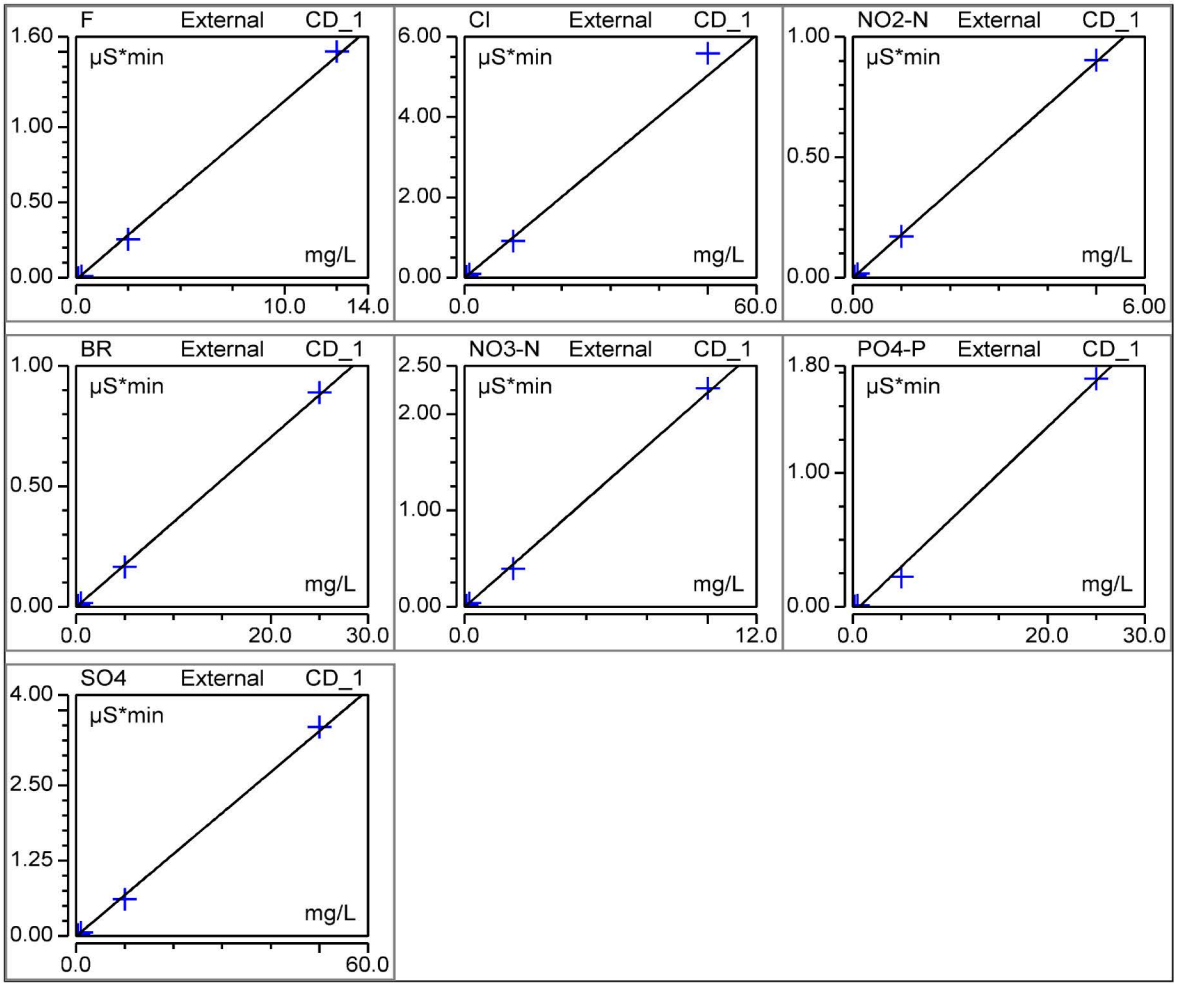
Calibration Batch Report

Sequence:	**191030iCal**	*Injection Volume:*	**25.00**
Instrument Method:	**Anions IM**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**30-Oct-2019 / 18:44**	*Run Time:*	**5.1**

Calibration Summary

Peak Name	Eval.Type	Cal.Type	Points	Offset (C0)	Slope (C1)	Curve (C2)	Coeff.Det. %
F	Area	Lin, WithOffset, 1/A	4.000	-0.014	0.119	0.000	99.7003
Cl	Area	Lin, WithOffset, 1/A²	4.000	-0.007	0.101	0.000	99.0220
NO2-N	Area	Lin, WithOffset, 1/A	4.000	-0.001	0.179	0.000	99.9623
BR	Area	Lin, WithOffset, 1/A	4.000	-0.001	0.035	0.000	99.9272
NO3-N	Area	Lin, WithOffset, 1/A	4.000	-0.005	0.223	0.000	99.7595
PO4-P	Area	Lin, WithOffset	4.000	-0.047	0.069	0.000	99.5917
SO4	Area	Lin, WithOffset, 1/A	4.000	-0.007	0.068	0.000	99.7957

Injection Name	Amount mg/L CD_1 F	Amount mg/L CD_1 Cl	Amount mg/L CD_1 NO2-N	Amount mg/L CD_1 BR	Amount mg/L CD_1 NO3-N	Amount mg/L CD_1 PO4-P	Amount mg/L CD_1 SO4
ICAL1 191030	0.125	0.4074	0.0426	0.2137	0.0909	0.7550	0.4460
ICAL2 191030	0.206	0.9606	0.0968	0.4887	0.1893	0.8434	0.9617
ICAL5 191030	2.259	9.1156	0.9605	4.7141	1.7941	3.8911	9.0418
ICAL8 191030	12.760	55.4700	5.0402	25.2835	10.2057	25.2105	50.9505

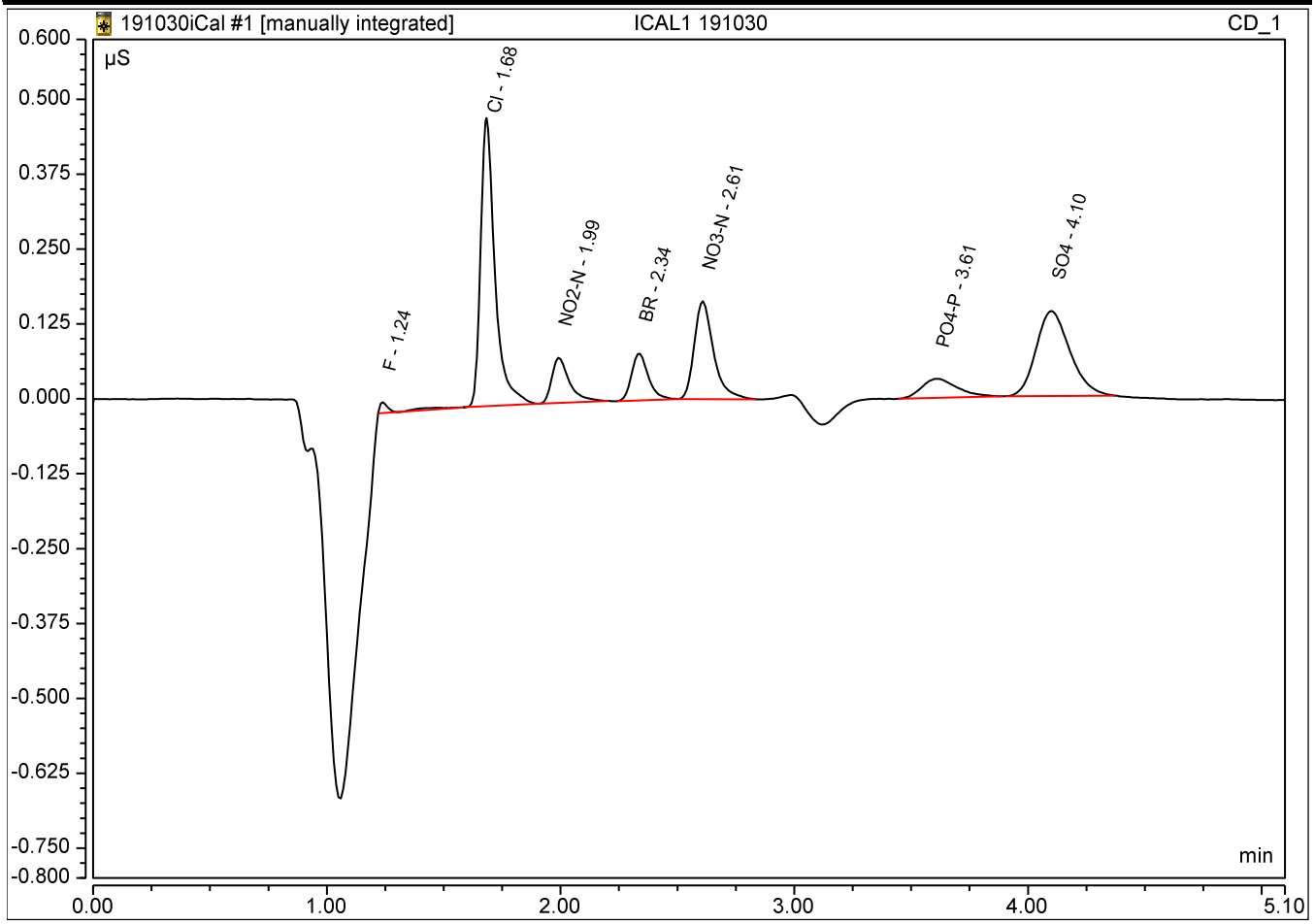


Logged on User: BW
Instrument: Charlie System_1
Sequence: 191030iCal

Peak Integration Report

Sample Name:	**ICAL1 191030**	*Inj. Vol.:*	**25uL**
Injection Type:	**Calibration Standard**	*Dilution Factor:*	**1.00**
Program:	**Anion APM 191030**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**30-Oct-2019 / 18:22**	*Run Time:*	**5.10**

No.	Time (min) min	Peak Name	Peak Type	Area (µS*min) µS*min	Height (µS) µS	Amount mg/L	Spike Level mg/L	Recovery
1	1.24	**F**	M *	0.001	0.018	0.13	0.1	125.3%
2	1.68	**Cl**	bMB*	0.034	0.481	0.41	0.4	101.8%
3	1.99	**NO2-N**	BMB	0.007	0.076	0.04	0.04	106.4%
4	2.34	**BR**	BMB	0.007	0.078	0.21	0.2	106.8%
5	2.61	**NO3-N**	BMB	0.016	0.163	0.09	0.08	113.6%
6	3.61	**PO4-P**	BMB*	0.006	0.032	0.76	0.2	377.5%
7	4.10	**SO4**	BMB	0.024	0.142	0.45	0.4	111.5%

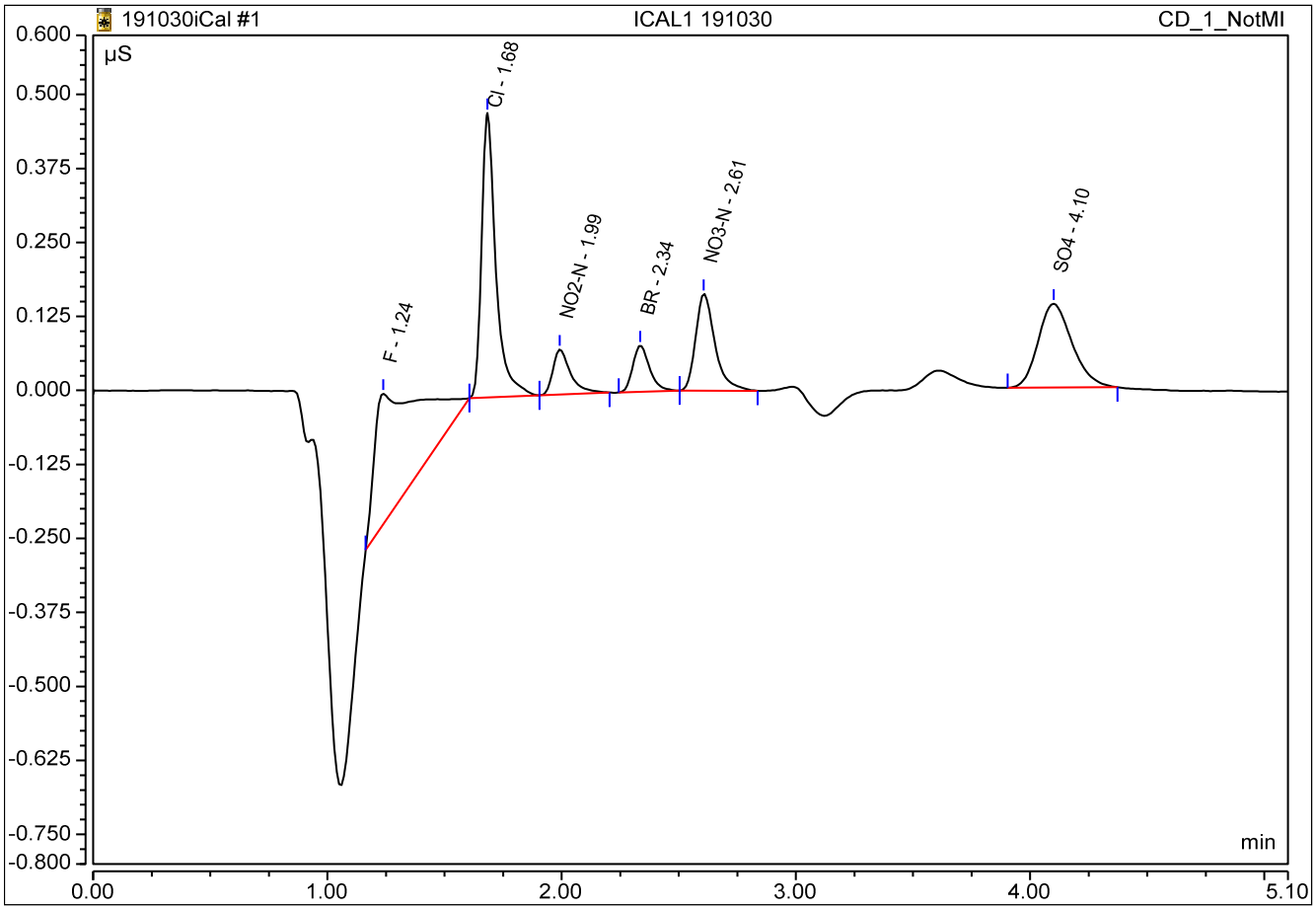


MI1 BW 191031

Not Manipulated Peak Integration Report

Sample Name:	**ICAL1 191030**	*Inj. Vol.:*	**25uL**
Injection Type:	**Calibration Standard**	*Dilution Factor:*	**1.0000**
Program:	**Anion APM 191030**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**30-Oct-2019 / 18:22**	*Run Time:*	**5.10**

No.	Time min	Peak Name	Peak Type	Area µS*min	Height µS	Ammount mg/L
1	1.24	**F**	M *	0.048	0.221	0.0926
2	1.68	**Cl**	bMB*	0.034	0.480	0.4073
3	1.99	**NO2-N**	BMB	0.007	0.076	0.0426
4	2.34	**BR**	BMB	0.007	0.078	0.2137
5	2.61	**NO3-N**	BMB	0.016	0.163	0.0909
6	n.a.	**PO4-P**	BMB*	n.a.	n.a.	n.a.
7	4.10	**SO4**	BMB	0.024	0.142	0.4460

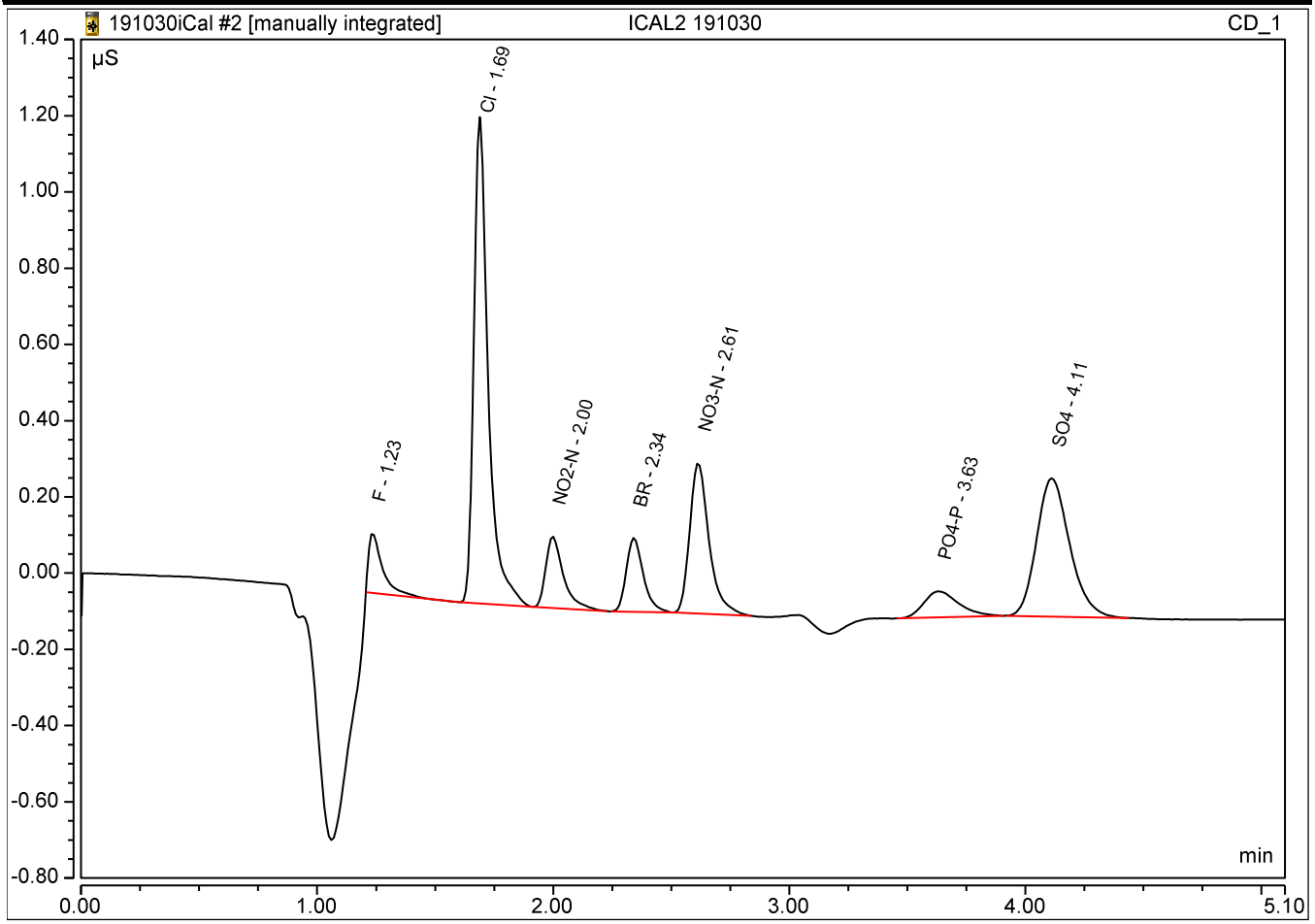


Logged on User: BW
Instrument: Charlie System_1
Sequence: 191030iCal

Peak Integration Report

Sample Name:	**ICAL2 191030**	*Inj. Vol.:*	**25uL**
Injection Type:	**Calibration Standard**	*Dilution Factor:*	**1.00**
Program:	**Anion APM 191030**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**30-Oct-2019 / 18:29**	*Run Time:*	**5.10**

No.	Time (min) min	Peak Name	Peak Type	Area (µS*min) µS*min	Height (µS) µS	Amount mg/L	Spike Level mg/L	Recovery
1	1.23	**F**	Mb*	0.011	0.157	0.21	0.25	82.3%
2	1.69	**Cl**	bMB*	0.090	1.276	0.96	1	96.1%
3	2.00	**NO2-N**	BMB	0.016	0.188	0.10	0.1	96.8%
4	2.34	**BR**	BMB	0.016	0.194	0.49	0.5	97.7%
5	2.61	**NO3-N**	BMB	0.038	0.395	0.19	0.2	94.6%
6	3.63	**PO4-P**	BMB*	0.012	0.068	0.84	0.5	168.7%
7	4.11	**SO4**	BMB	0.059	0.363	0.96	1	96.2%

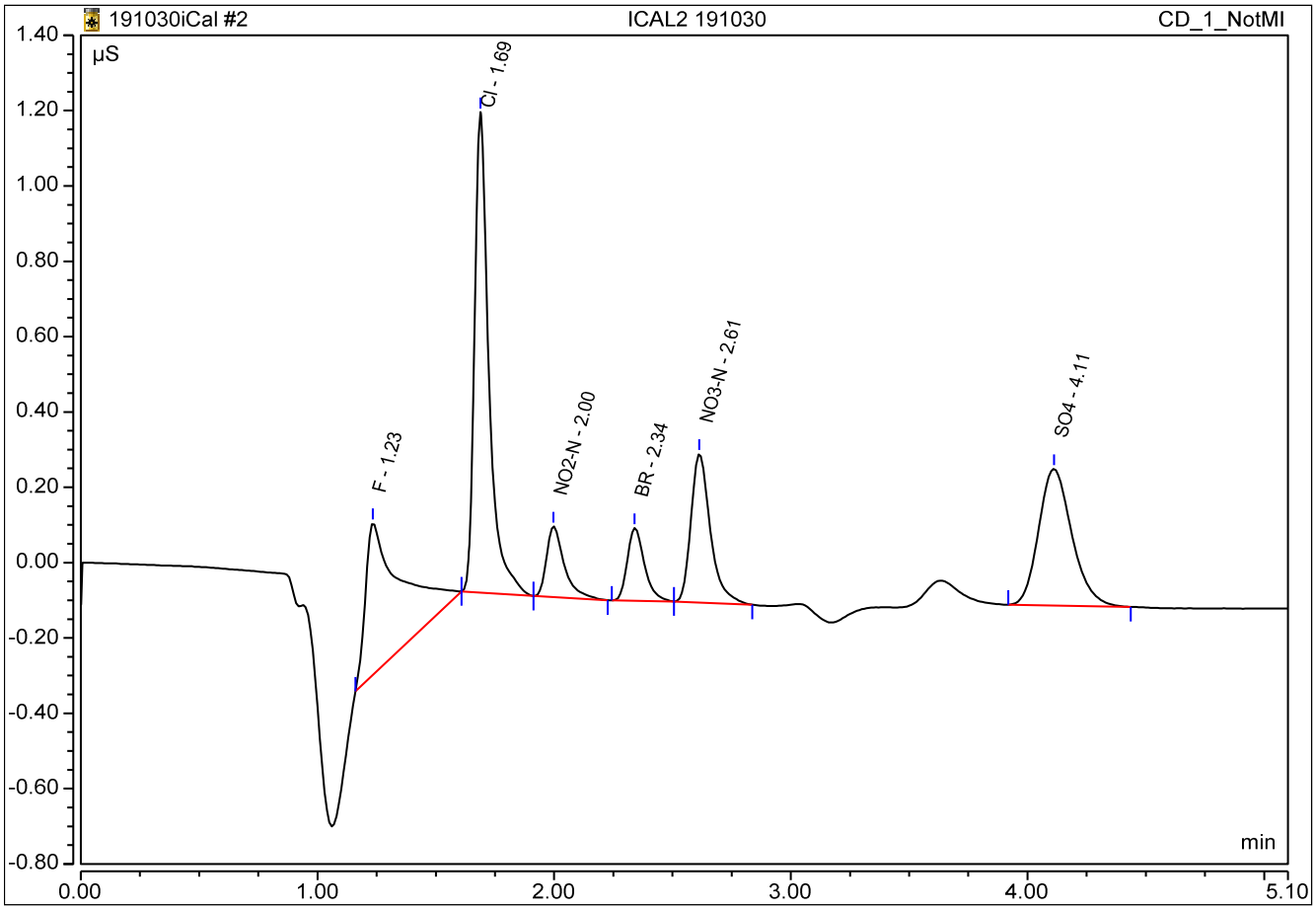


MI1 BW 190931

Not Manipulated Peak Integration Report

Sample Name:	**ICAL2 191030**	*Inj. Vol.:*	**25uL**
Injection Type:	**Calibration Standard**	*Dilution Factor:*	**1.0000**
Program:	**Anion APM 191030**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**30-Oct-2019 / 18:29**	*Run Time:*	**5.10**

No.	Time min	Peak Name	Peak Type	Area µS*min	Height µS	Ammount mg/L
1	1.23	**F**	Mb*	0.069	0.404	0.2711
2	1.69	**Cl**	bMB*	0.090	1.276	0.9610
3	2.00	**NO2-N**	BMB	0.016	0.188	0.0968
4	2.34	**BR**	BMB	0.016	0.194	0.4887
5	2.61	**NO3-N**	BMB	0.038	0.395	0.1893
6	n.a.	**PO4-P**	BMB*	n.a.	n.a.	n.a.
7	4.11	**SO4**	BMB	0.059	0.363	0.9617

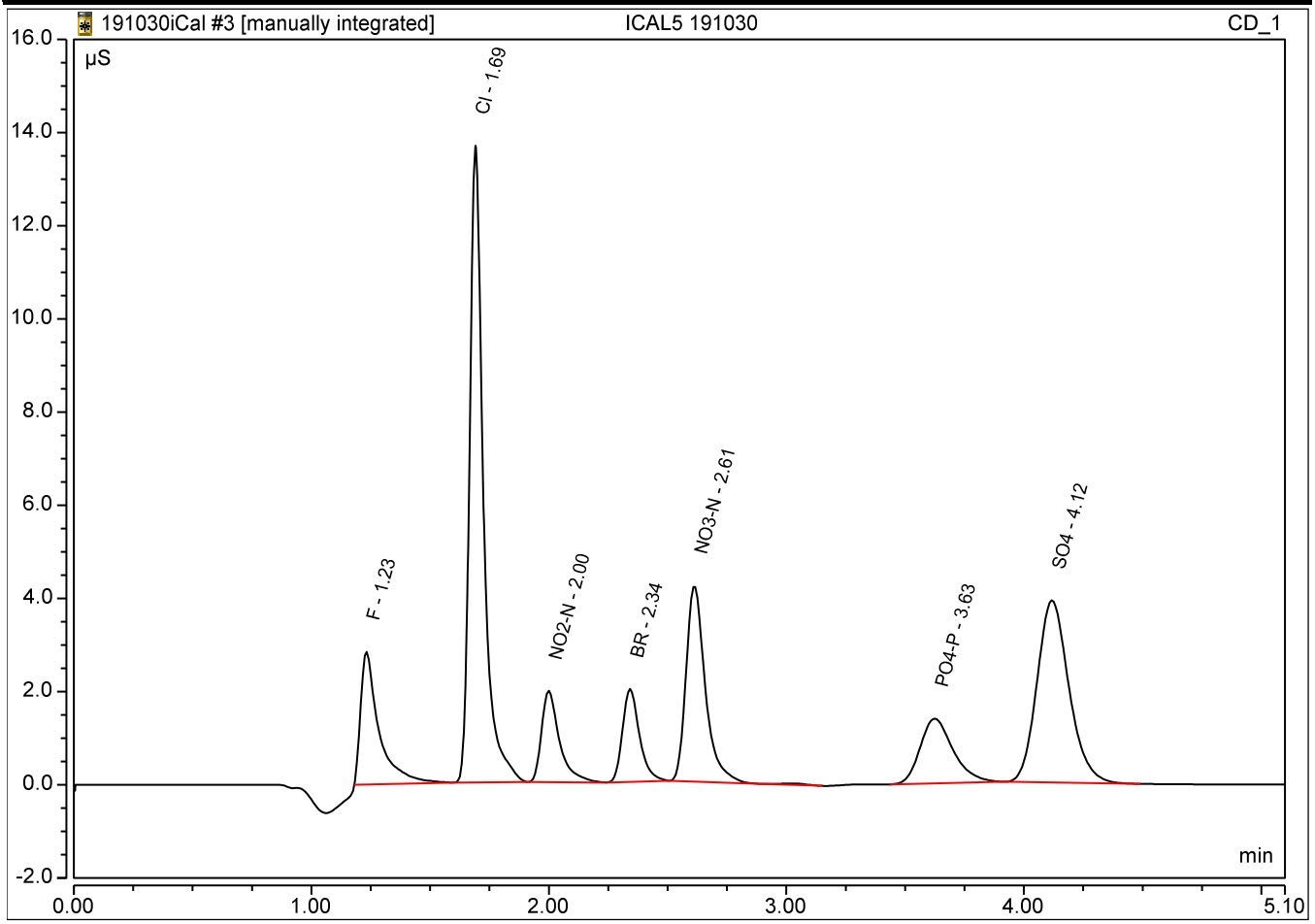


Logged on User: BW
Instrument: Charlie System_1
Sequence: 191030iCal

Peak Integration Report

Sample Name:	**ICAL5 191030**	*Inj. Vol.:*	**25uL**
Injection Type:	**Calibration Standard**	*Dilution Factor:*	**1.00**
Program:	**Anion APM 191030**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**30-Oct-2019 / 18:37**	*Run Time:*	**5.10**

No.	Time (min) min	Peak Name	Peak Type	Area (µS*min) µS*min	Height (µS) µS	Amount mg/L	Spike Level mg/L	Recovery
1	1.23	**F**	MB*	0.255	2.859	2.26	2.5	90.4%
2	1.69	**Cl**	BMB	0.913	13.668	9.12	10	91.2%
3	2.00	**NO2-N**	BMB	0.171	1.960	0.96	1	96.1%
4	2.34	**BR**	BMB	0.165	1.998	4.71	5	94.3%
5	2.61	**NO3-N**	BMB	0.395	4.211	1.79	2	89.7%
7	3.63	**PO4-P**	BMB	0.223	1.389	3.89	5	77.8%
8	4.12	**SO4**	BMB	0.610	3.910	9.04	10	90.4%

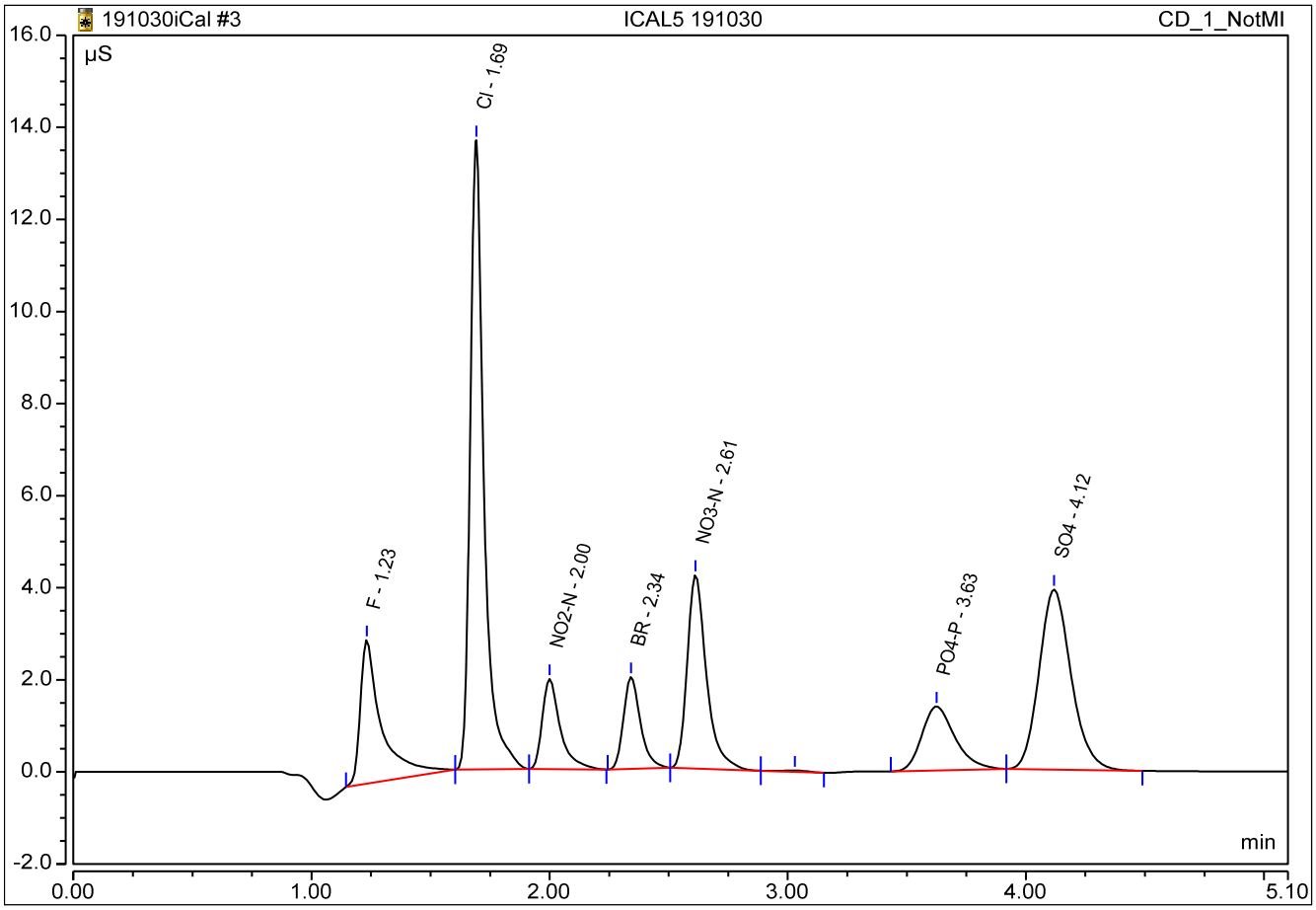


MI1 BW 190931

Not Manipulated Peak Integration Report

Sample Name:	**ICAL5 191030**	*Inj. Vol.:*	**25uL**
Injection Type:	**Calibration Standard**	*Dilution Factor:*	**1.0000**
Program:	**Anion APM 191030**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**30-Oct-2019 / 18:37**	*Run Time:*	**5.10**

No.	Time min	Peak Name	Peak Type	Area µS*min	Height µS	Ammount mg/L
1	1.23	**F**	MB*	0.321	3.121	2.4710
2	1.69	**Cl**	BMB	0.913	13.668	9.1151
3	2.00	**NO2-N**	BMB	0.171	1.960	0.9605
4	2.34	**BR**	BMB	0.165	1.998	4.7141
5	2.61	**NO3-N**	BMB	0.395	4.211	1.7941
7	3.63	**PO4-P**	BMB	0.223	1.389	5.0000
8	4.12	**SO4**	BMB	0.610	3.910	9.0418

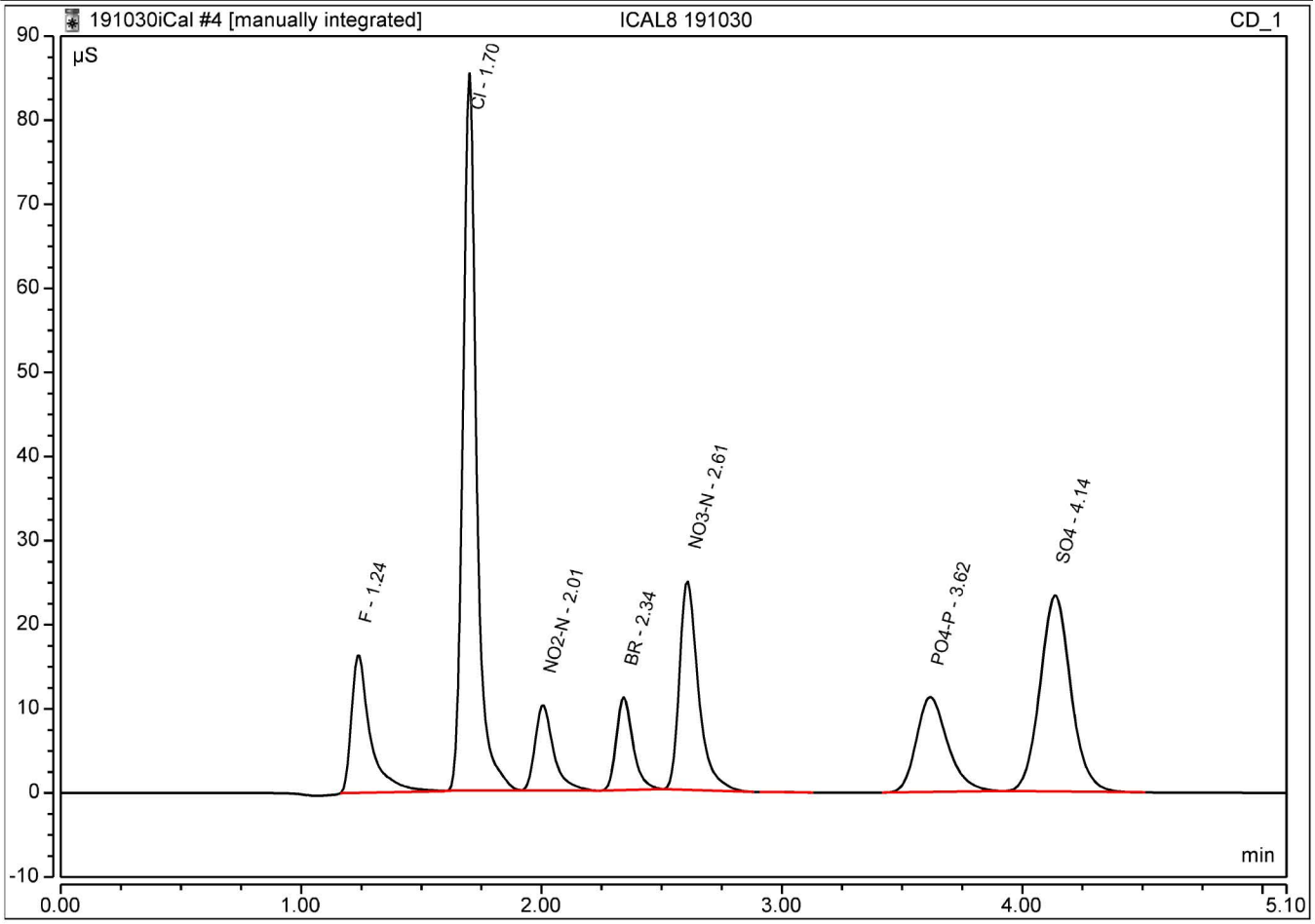


Logged on User: BW
Instrument: Charlie System_1
Sequence: 191030iCal

Peak Integration Report

Sample Name:	**ICAL8 191030**	*Inj. Vol.:*	**25uL**
Injection Type:	**Calibration Standard**	*Dilution Factor:*	**1.00**
Program:	**Anion APM 191030**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**30-Oct-2019 / 18:44**	*Run Time:*	**5.10**

No.	Time (min) min	Peak Name	Peak Type	Area (µS*min) µS*min	Height (µS) µS	Amount mg/L	Spike Level mg/L	Recovery
1	1.24	**F**	BM *	1.503	16.491	12.76	12.5	102.1%
2	1.70	**Cl**	BMB	5.591	85.358	55.47	50	110.9%
3	2.01	**NO2-N**	BMB	0.903	10.178	5.04	5	100.8%
4	2.34	**BR**	BMB	0.890	11.073	25.28	25	101.1%
5	2.61	**NO3-N**	BMB	2.269	24.891	10.21	10	102.1%
7	3.62	**PO4-P**	BMB	1.704	11.286	25.21	25	100.8%
8	4.14	**SO4**	BMB	3.469	23.343	50.95	50	101.9%

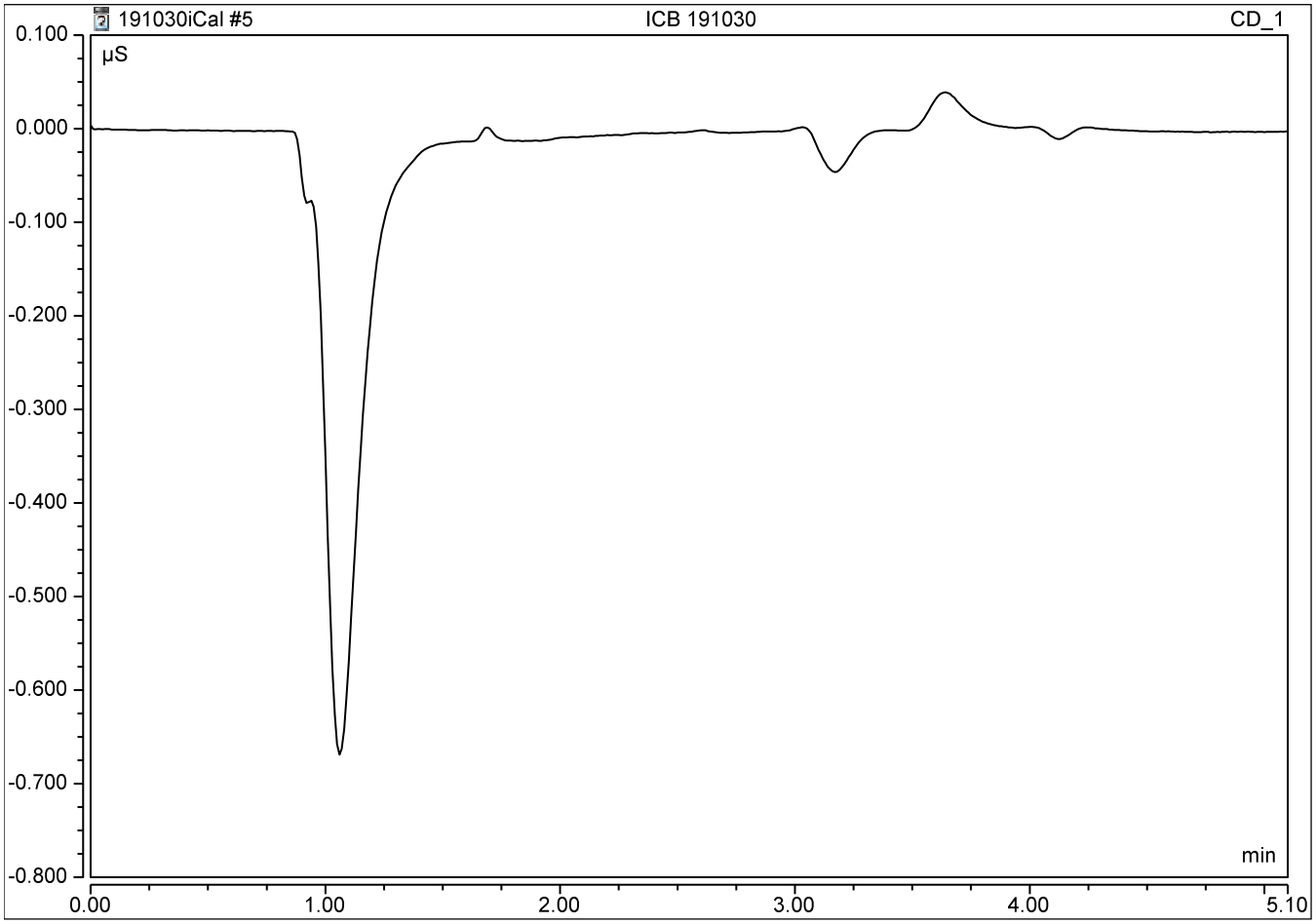


Logged on User: BW
Instrument: Charlie System_1
Sequence: 191030iCal

Peak Integration Report

Sample Name:	**ICB 191030**	*Inj. Vol.:*	**25uL**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.00**
Program:	**Anion APM 191030**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**30-Oct-2019 / 18:52**	*Run Time:*	**5.10**

No.	Time (min) min	Peak Name	Peak Type	Area (µS*min) µS*min	Height (µS) µS	Amount mg/L	Spike Level mg/L	Recovery

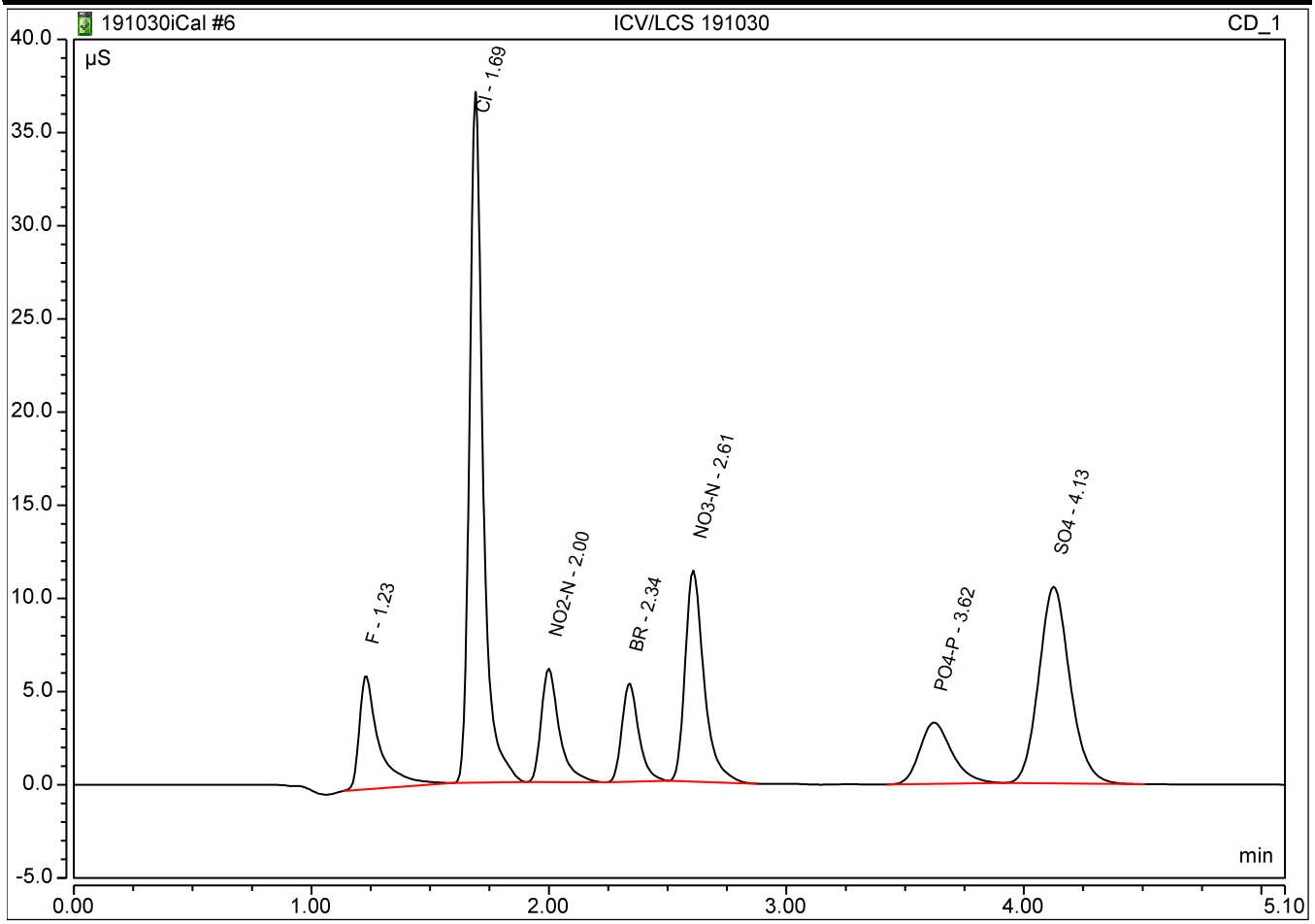


Logged on User: BW
Instrument: Charlie System_1
Sequence: 191030iCal

Peak Integration Report

Sample Name:	**ICV/LCS 191030**	*Inj. Vol.:*	**25uL**
Injection Type:	**Check Standard**	*Dilution Factor:*	**1.00**
Program:	**Anion APM 191030**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**30-Oct-2019 / 18:59**	*Run Time:*	**5.10**

No.	Time (min) min	Peak Name	Peak Type	Area (µS*min) µS*min	Height (µS) µS	Amount mg/L	Spike Level mg/L	Recovery
1	1.23	**F**	BMB	0.589	6.116	5.07	5	101.5%
2	1.69	**Cl**	BMB	2.435	37.074	24.19	25	96.8%
3	2.00	**NO2-N**	BMB	0.539	6.101	3.01	3.04	99.1%
4	2.34	**BR**	BMB	0.435	5.293	12.37	12.5	99.0%
5	2.61	**NO3-N**	BMB	1.049	11.325	4.73	5	94.5%
6	3.62	**PO4-P**	BMB	0.517	3.291	8.12	10	81.2%
7	4.13	**SO4**	BMB	1.608	10.548	23.67	25	94.7%



Algorithm Check
y = Peak Area
x = mg/L S04

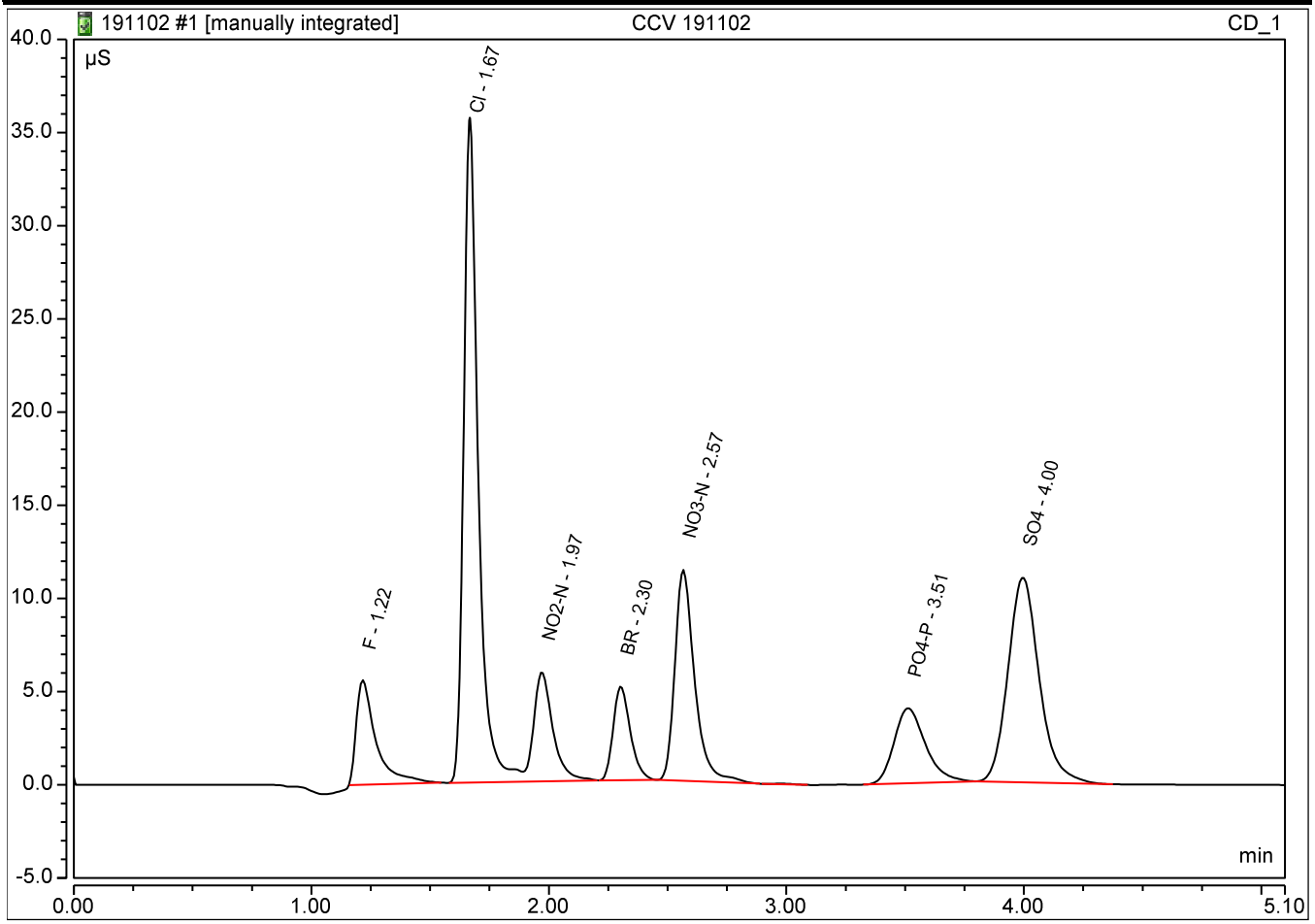
y = 0.0682 x + -0.0066
y = 1.6082 therefor x =

Logged on User: BW
Instrument: Charlie System_1
Sequence: 191102

Peak Integration Report

Sample Name:	**CCV 191102**	*Inj. Vol.:*	**25uL**
Injection Type:	**Check Standard**	*Dilution Factor:*	**1.00**
Program:	**Anion APM 191030**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**02-Nov-2019 / 10:33**	*Run Time:*	**5.10**

No.	Time (min) min	Peak Name	Peak Type	Area (µS*min) µS*min	Height (µS) µS	Amount mg/L	Spike Level mg/L	Recovery
1	1.22	**F**	MB*	0.537	5.603	4.63	5	92.6%
2	1.67	**Cl**	BM *	2.529	35.670	25.13	25	100.5%
3	1.97	**NO2-N**	MB*	0.549	5.865	3.06	3.04	100.8%
4	2.30	**BR**	BMB	0.422	5.038	12.00	12.5	96.0%
5	2.57	**NO3-N**	BMB	1.097	11.325	4.95	5	98.9%
7	3.51	**PO4-P**	BMB	0.619	4.029	9.59	10	95.9%
8	4.00	**SO4**	BMB	1.680	10.999	24.72	25	98.9%

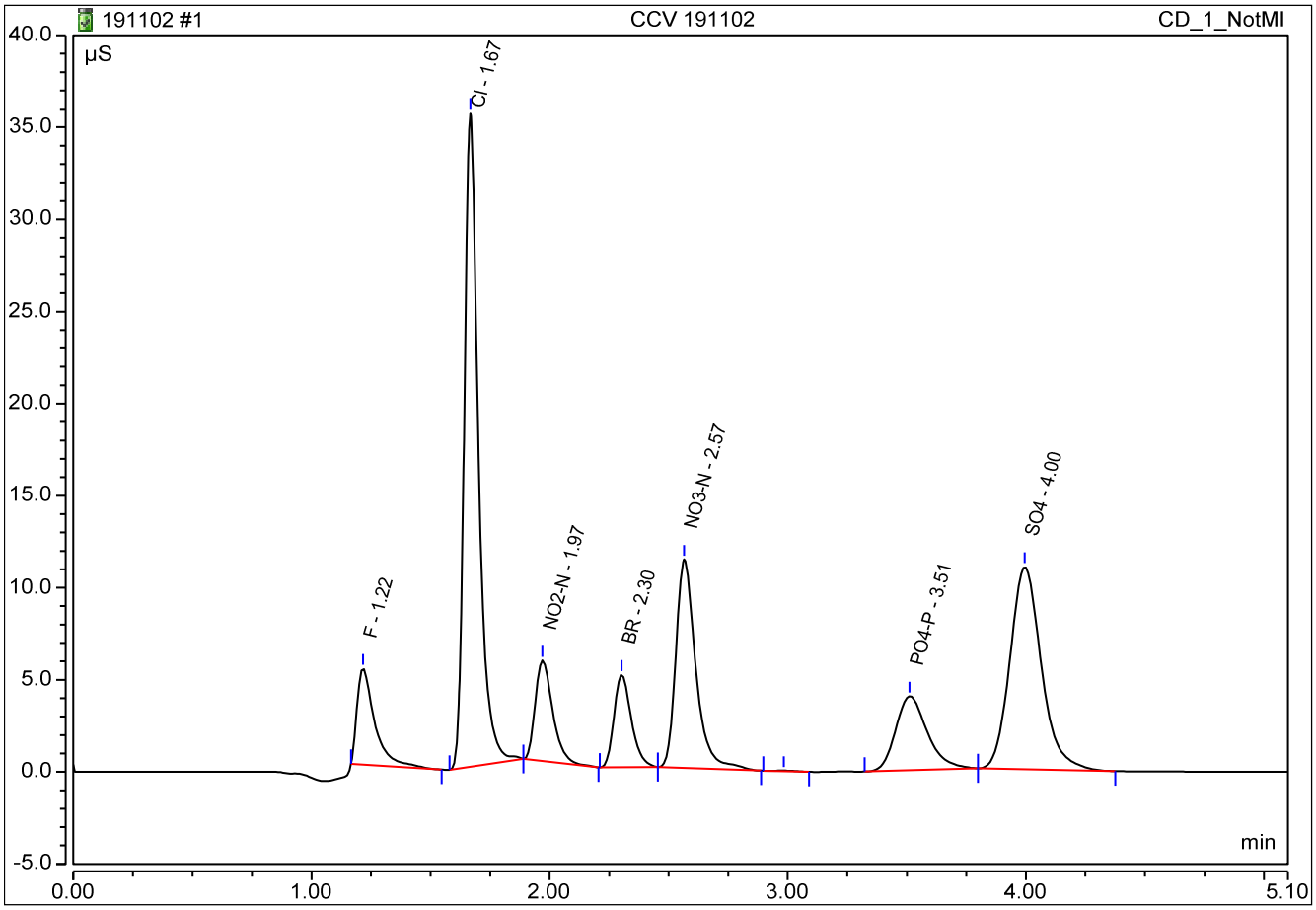


MI1 BW 191104

Not Manipulated Peak Integration Report

Sample Name:	**CCV 191102**	*Inj. Vol.:*	**25uL**
Injection Type:	**Check Standard**	*Dilution Factor:*	**1.0000**
Program:	**Anion APM 191030**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**02-Nov-2019 / 10:33**	*Run Time:*	**5.10**

No.	Time min	Peak Name	Peak Type	Area µS*min	Height µS	Ammount mg/L
1	1.22	**F**	MB*	0.451	5.219	3.6061
2	1.67	**Cl**	BM *	2.448	35.523	24.3175
3	1.97	**NO2-N**	MB*	0.466	5.473	2.6027
4	2.30	**BR**	BMB	0.422	5.038	12.0028
5	2.57	**NO3-N**	BMB	1.097	11.325	4.9452
7	3.51	**PO4-P**	BMB	0.619	4.029	10.3445
8	4.00	**SO4**	BMB	1.680	10.999	24.7210

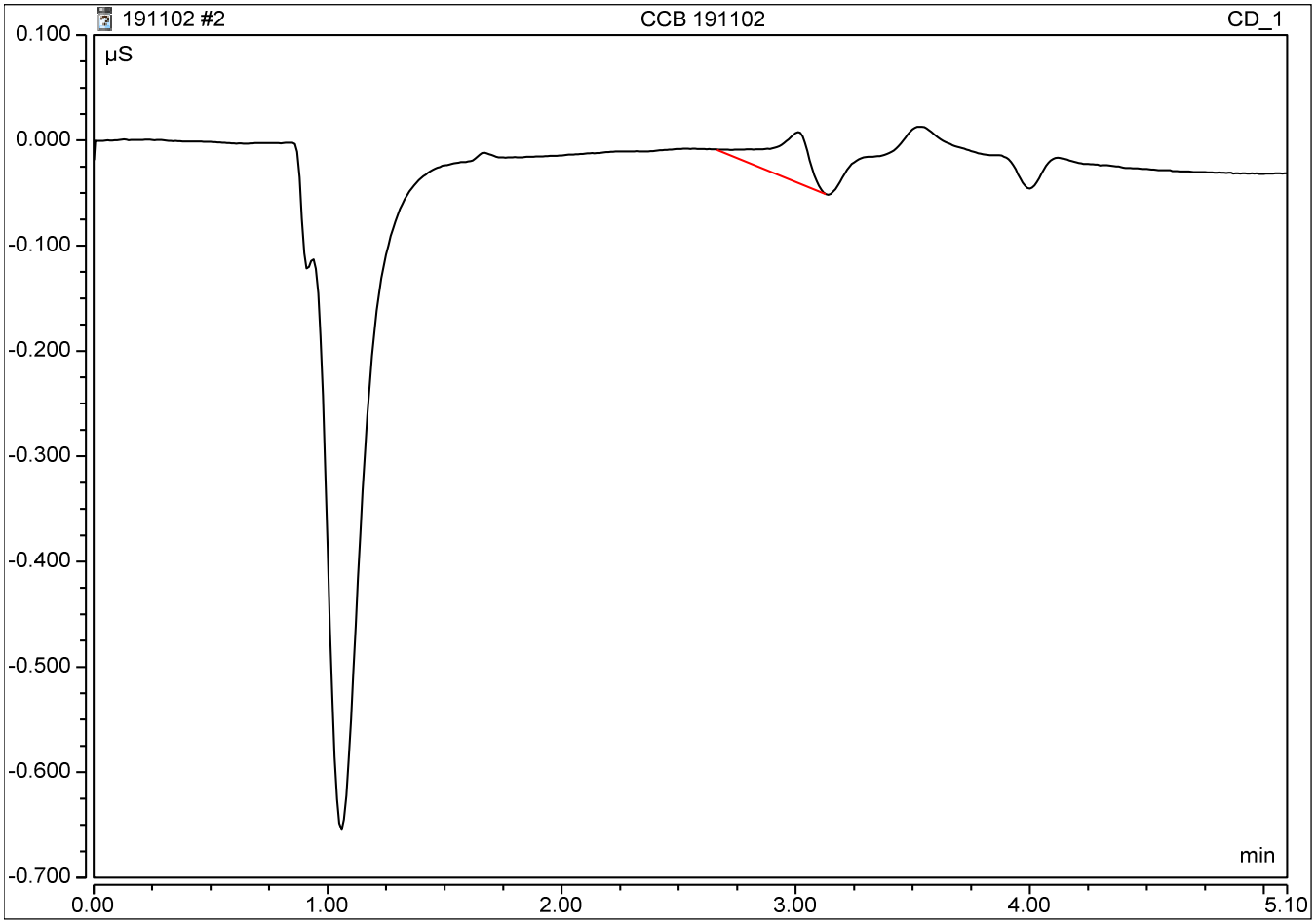


Logged on User: BW
Instrument: Charlie System_1
Sequence: 191102

Peak Integration Report

Sample Name:	**CCB 191102**	*Inj. Vol.:*	**25uL**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.00**
Program:	**Anion APM 191030**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**02-Nov-2019 / 10:40**	*Run Time:*	**5.10**

No.	Time (min) min	Peak Name	Peak Type	Area (µS*min) µS*min	Height (µS) µS	Amount mg/L	Spike Level mg/L	Recovery

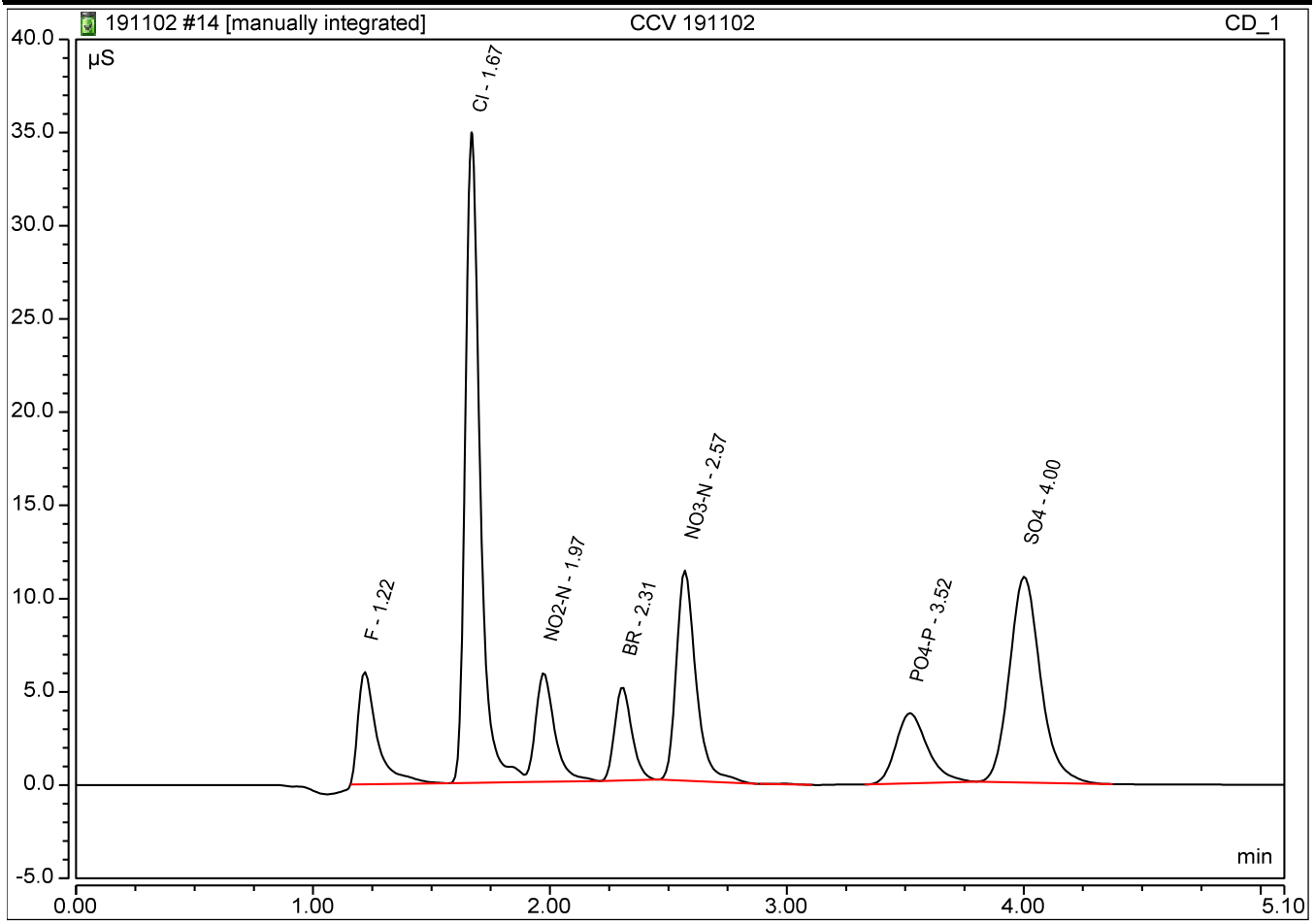


Logged on User: BW
Instrument: Charlie System_1
Sequence: 191102

Peak Integration Report

Sample Name:	**CCV 191102**	*Inj. Vol.:*	**25uL**
Injection Type:	**Check Standard**	*Dilution Factor:*	**1.00**
Program:	**Anion APM 191030**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**02-Nov-2019 / 12:10**	*Run Time:*	**5.10**

No.	Time (min) min	Peak Name	Peak Type	Area (µS*min) µS*min	Height (µS) µS	Amount mg/L	Spike Level mg/L	Recovery
1	1.22	**F**	BMB	0.568	6.030	4.89	5	97.8%
2	1.67	**Cl**	BM *	2.534	34.893	25.18	25	100.7%
3	1.97	**NO2-N**	MB*	0.547	5.848	3.06	3.04	100.5%
4	2.31	**BR**	BMB	0.422	5.020	12.00	12.5	96.0%
5	2.57	**NO3-N**	BMB	1.092	11.276	4.92	5	98.4%
7	3.52	**PO4-P**	BMB	0.582	3.766	9.05	10	90.5%
8	4.00	**SO4**	BMB	1.683	11.045	24.76	25	99.0%

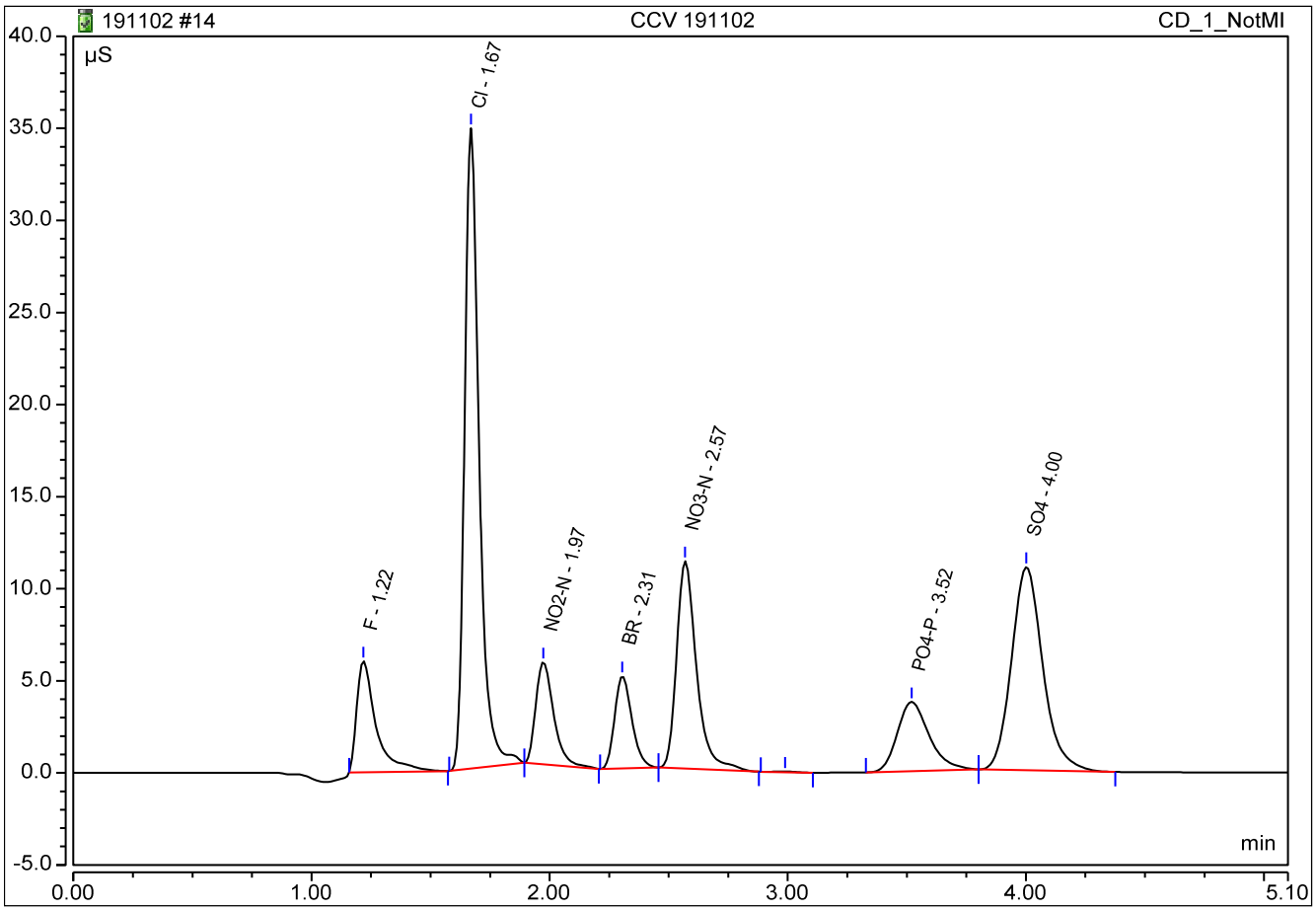


MI1 BW 191104

Not Manipulated Peak Integration Report

Sample Name:	**CCV 191102**	*Inj. Vol.:*	**25uL**
Injection Type:	**Check Standard**	*Dilution Factor:*	**1.0000**
Program:	**Anion APM 191030**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**02-Nov-2019 / 12:10**	*Run Time:*	**5.10**

No.	Time min	Peak Name	Peak Type	Area µS*min	Height µS	Ammount mg/L
1	1.22	**F**	BMB	0.568	6.030	4.6216
2	1.67	**Cl**	BM *	2.473	34.780	24.5682
3	1.97	**NO2-N**	MB*	0.486	5.559	2.7173
4	2.31	**BR**	BMB	0.422	5.020	11.9991
5	2.57	**NO3-N**	BMB	1.092	11.276	4.9218
7	3.52	**PO4-P**	BMB	0.582	3.766	9.8438
8	4.00	**SO4**	BMB	1.683	11.045	24.7607

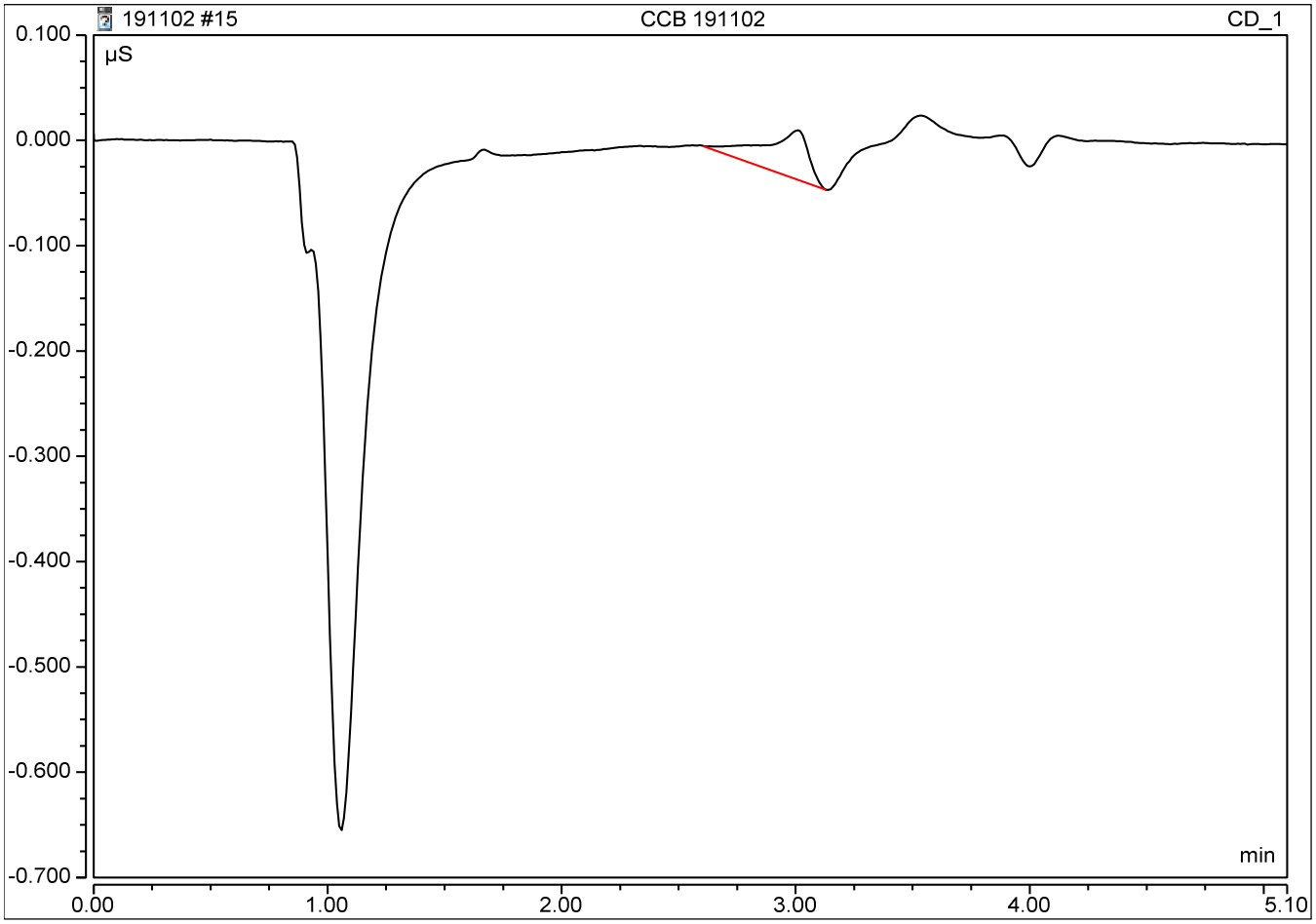


Logged on User: BW
Instrument: Charlie System_1
Sequence: 191102

Peak Integration Report

Sample Name:	**CCB 191102**	*Inj. Vol.:*	**25uL**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.00**
Program:	**Anion APM 191030**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**02-Nov-2019 / 12:17**	*Run Time:*	**5.10**

No.	Time (min) min	Peak Name	Peak Type	Area (µS*min) µS*min	Height (µS) µS	Amount mg/L	Spike Level mg/L	Recovery

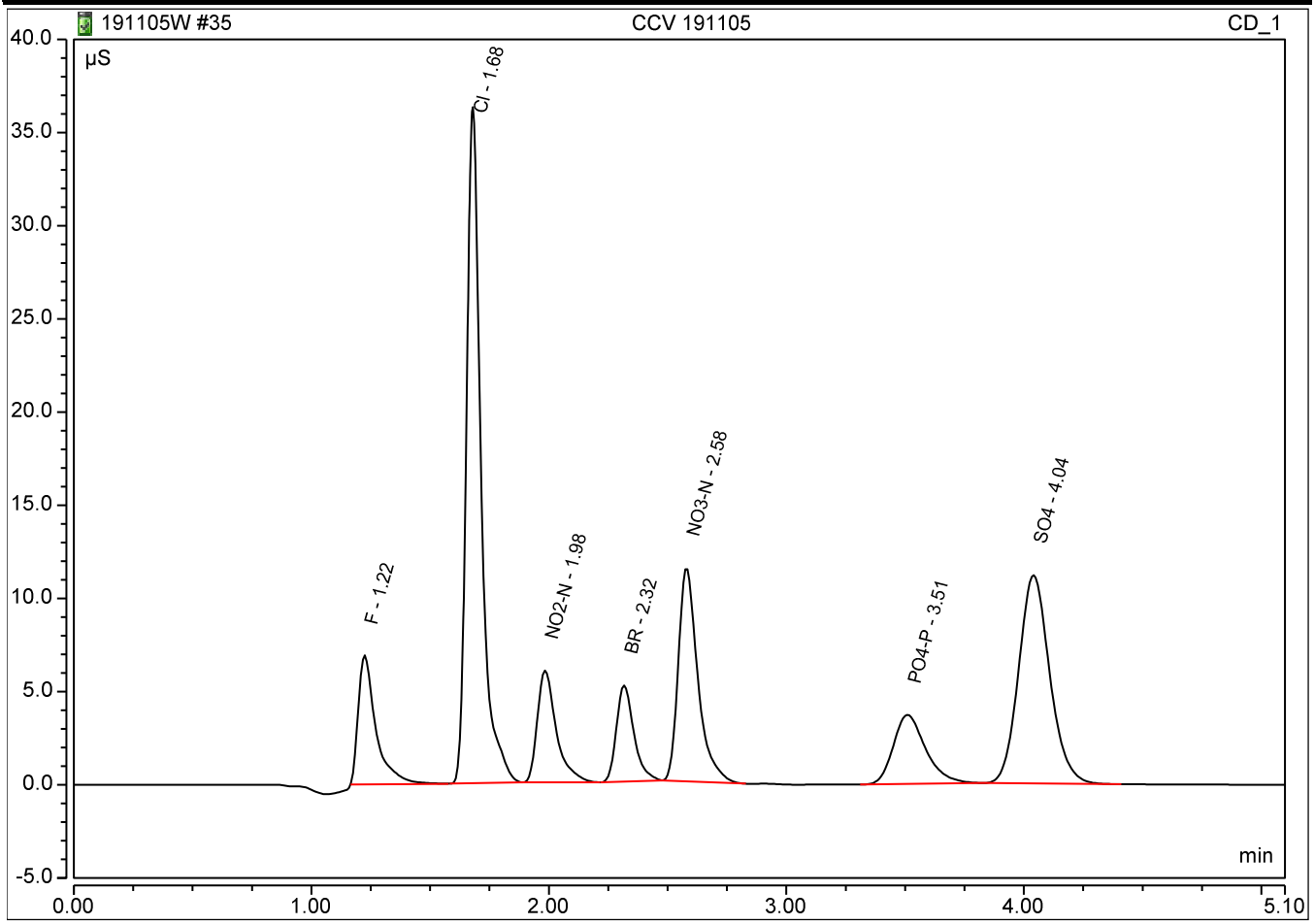


Logged on User: BW
Instrument: Charlie System_1
Sequence: 191105W

Peak Integration Report

Sample Name:	**CCV 191105**	*Inj. Vol.:*	**25uL**
Injection Type:	**Check Standard**	*Dilution Factor:*	**1.00**
Program:	**Anion APM 191030**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**06-Nov-2019 / 00:23**	*Run Time:*	**5.10**

No.	Time (min) min	Peak Name	Peak Type	Area (µS*min) µS*min	Height (µS) µS	Amount mg/L	Spike Level mg/L	Recovery
1	1.22	**F**	BMB	0.598	6.940	5.15	5	103.0%
2	1.68	**Cl**	BMB	2.559	36.280	25.42	25	101.7%
3	1.98	**NO2-N**	BMB	0.557	6.004	3.11	3.04	102.4%
4	2.32	**BR**	BMB	0.441	5.171	12.55	12.5	100.4%
5	2.58	**NO3-N**	BMB	1.094	11.460	4.93	5	98.6%
6	3.51	**PO4-P**	BMB	0.585	3.708	9.09	10	90.9%
7	4.04	**SO4**	BMB	1.696	11.184	24.96	25	99.9%

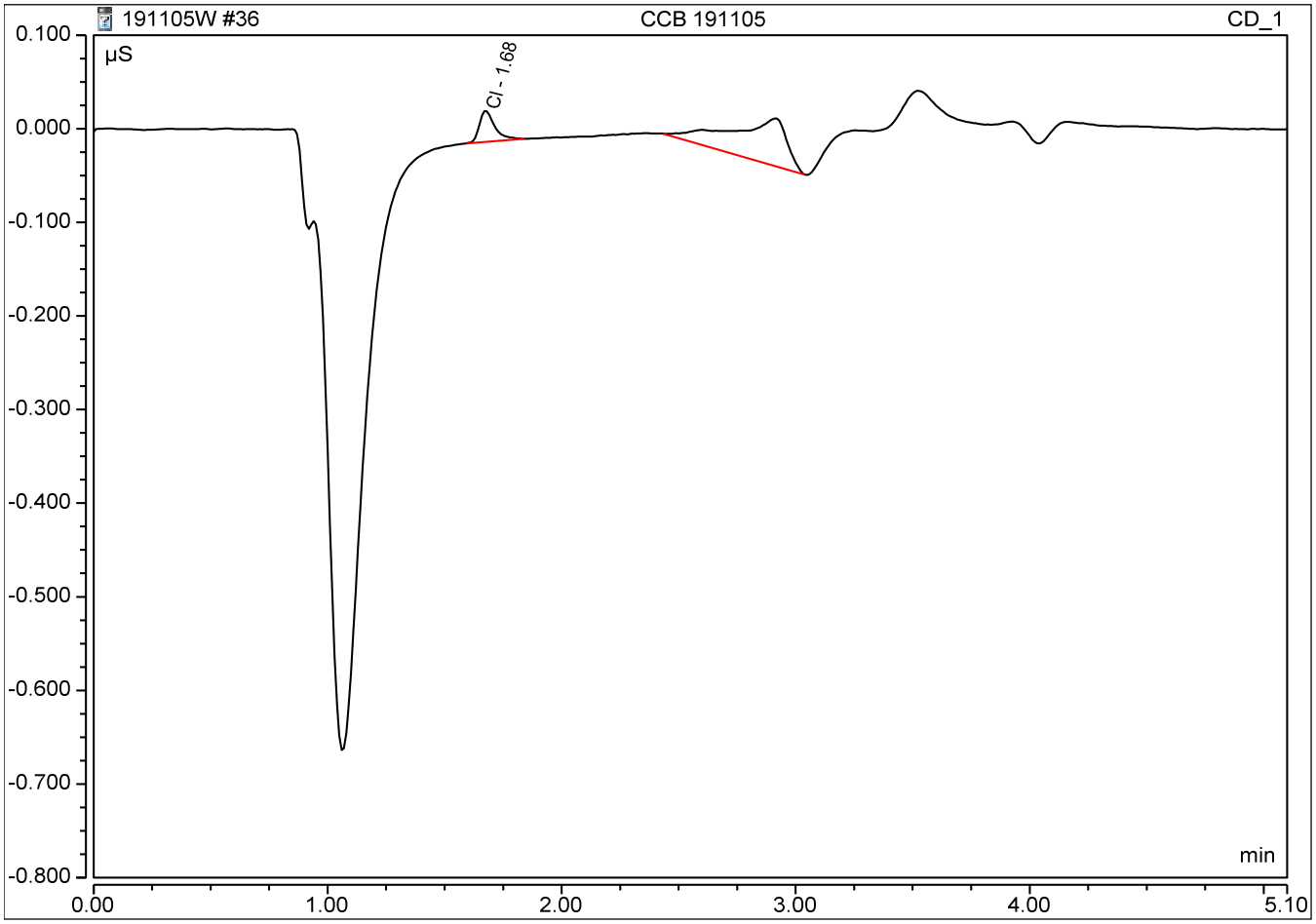


Logged on User: BW
Instrument: Charlie System_1
Sequence: 191105W

Peak Integration Report

Sample Name:	**CCB 191105**	*Inj. Vol.:*	**25uL**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.00**
Program:	**Anion APM 191030**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**06-Nov-2019 / 00:30**	*Run Time:*	**5.10**

No.	Time (min) min	Peak Name	Peak Type	Area (µS*min) µS*min	Height (µS) µS	Amount mg/L	Spike Level mg/L	Recovery
1	1.68	**Cl**	BMB	0.003	0.034	0.10		

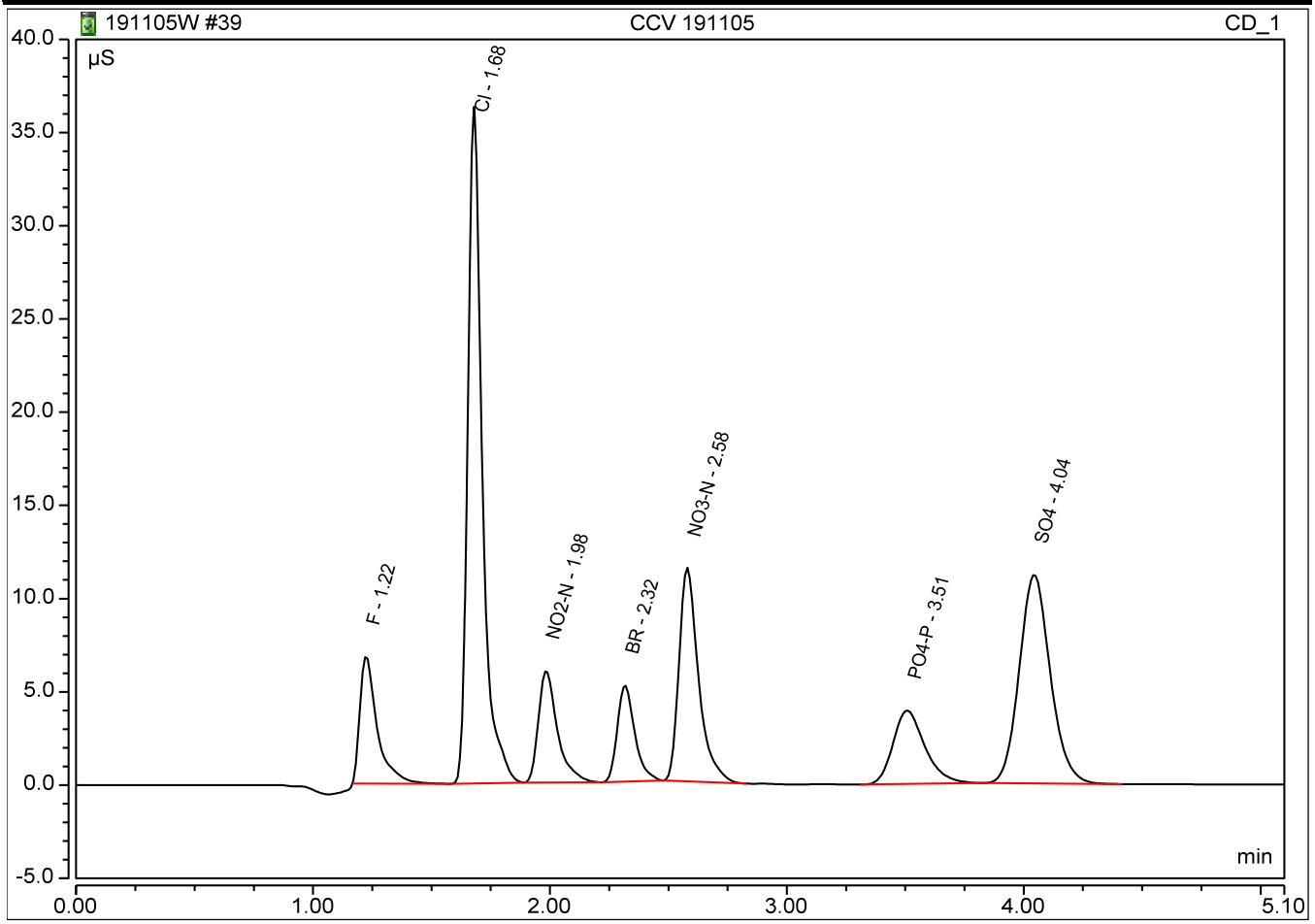


Logged on User: BW
Instrument: Charlie System_1
Sequence: 191105W

Peak Integration Report

Sample Name:	**CCV 191105**	*Inj. Vol.:*	**25uL**
Injection Type:	**Check Standard**	*Dilution Factor:*	**1.00**
Program:	**Anion APM 191030**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**06-Nov-2019 / 00:53**	*Run Time:*	**5.10**

No.	Time (min) min	Peak Name	Peak Type	Area (µS*min) µS*min	Height (µS) µS	Amount mg/L	Spike Level mg/L	Recovery
1	1.22	**F**	BMB	0.582	6.856	5.01	5	100.2%
2	1.68	**Cl**	BMB	2.561	36.295	25.44	25	101.8%
3	1.98	**NO2-N**	BMB	0.559	6.007	3.12	3.04	102.7%
4	2.32	**BR**	BMB	0.442	5.174	12.58	12.5	100.6%
5	2.58	**NO3-N**	BMB	1.095	11.464	4.93	5	98.7%
6	3.51	**PO4-P**	BMB	0.614	3.934	9.51	10	95.1%
7	4.04	**SO4**	BMB	1.699	11.196	25.00	25	100.0%

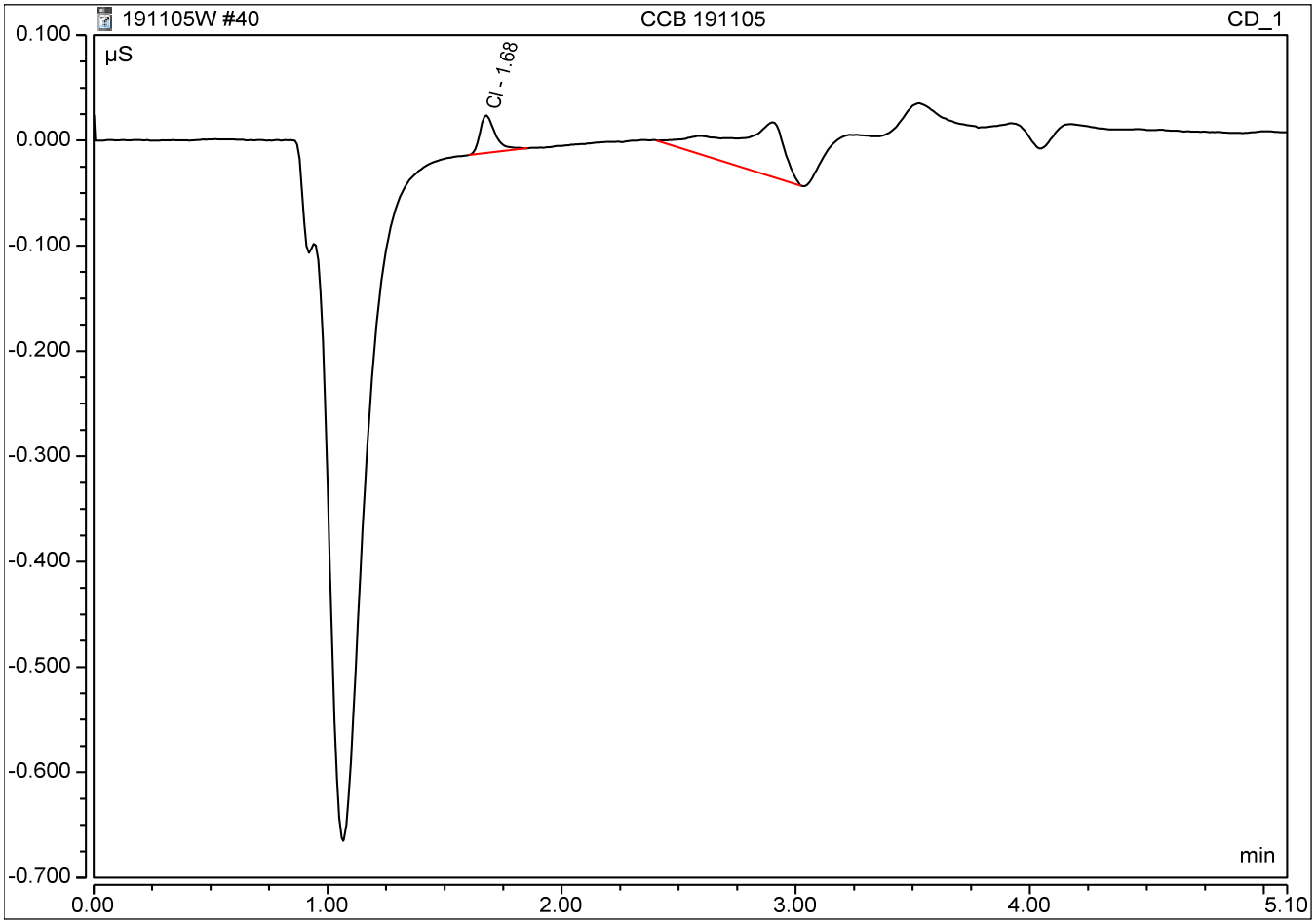


Logged on User: BW
Instrument: Charlie System_1
Sequence: 191105W

Peak Integration Report

Sample Name:	**CCB 191105**	*Inj. Vol.:*	**25uL**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.00**
Program:	**Anion APM 191030**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**06-Nov-2019 / 01:00**	*Run Time:*	**5.10**

No.	Time (min) min	Peak Name	Peak Type	Area (µS*min) µS*min	Height (µS) µS	Amount mg/L	Spike Level mg/L	Recovery
1	1.68	**Cl**	BMB	0.003	0.036	0.10		



A.P.P.L. INC.
2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: A.P.P.L. INC. Contract: AECOM
ARF No: 90625 SDG: 90625
Initial Calibration Source: Inorganic Ventures
Continuing Calibration Source: o2si
Analysis Date: 11/06/19

Analyte	Calibration Verification									M
	True ICV	Found 17:01	%R(1)	True CCV1	Found 17:20	%R(1)	True	Found	%R(1)	
TOXN	3	3.2156	107	3	2.9835	99.5				

(1) Control Limits: 90-110

ILM02.0

A.P.P.L. INC.
3
BLANKS

Lab Name: A.P.P.L. INC. Contract: AECOM

ARF No.: 90625 SDG: 90625

Preparation Blank Matrix (soil/water): water

Preparation Blank Concentration Units (ug/L or mg/kg): mg/L

Analyte	Calibration Blanks										M
	ICB 11/06/19 17:03	C	CCB 11/06/19 17:21	C		C		C		C	
TOXN	.100	U	.100	U							

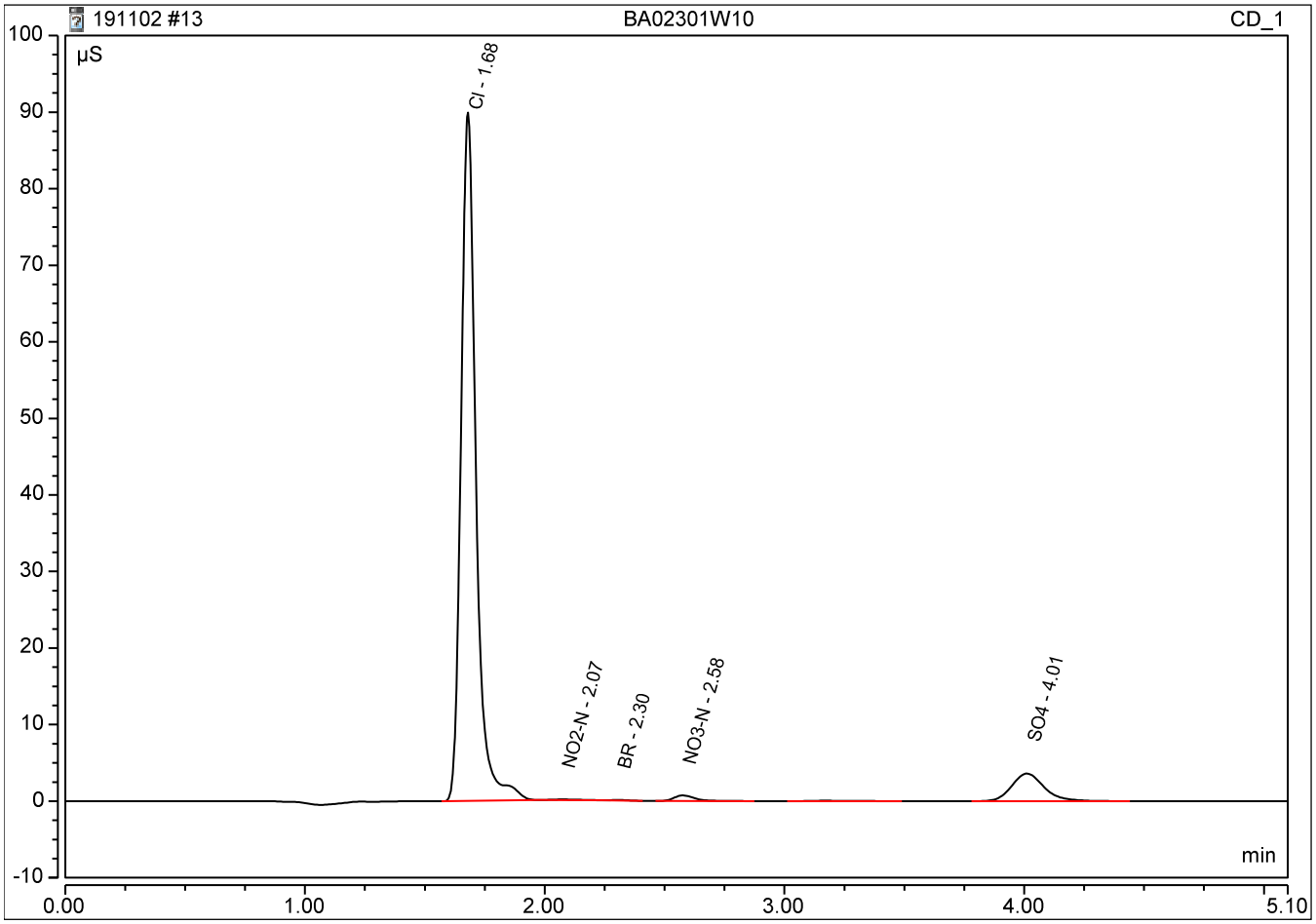
INORGANIC ANALYSIS
Raw Data

Logged on User: BW
Instrument: Charlie System_1
Sequence: 191102

Peak Integration Report

Sample Name:	**BA02301W10**	*Inj. Vol.:*	**25uL**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.00**
Program:	**Anion APM 191030**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**02-Nov-2019 / 12:02**	*Run Time:*	**5.10**

No.	Time (min) min	Peak Name	Peak Type	Area (µS*min) µS*min	Height (µS) µS	Amount mg/L	Spike Level mg/L	Recovery
1	1.68	**Cl**	BMB	6.473	89.919	64.21		
2	2.07	**NO2-N**	BMB	0.013	0.090	0.08		
3	2.30	**BR**	BMB	0.005	0.063	0.16		
4	2.58	**NO3-N**	BMB	0.074	0.733	0.35		
6	4.01	**SO4**	BMB	0.564	3.605	8.37		

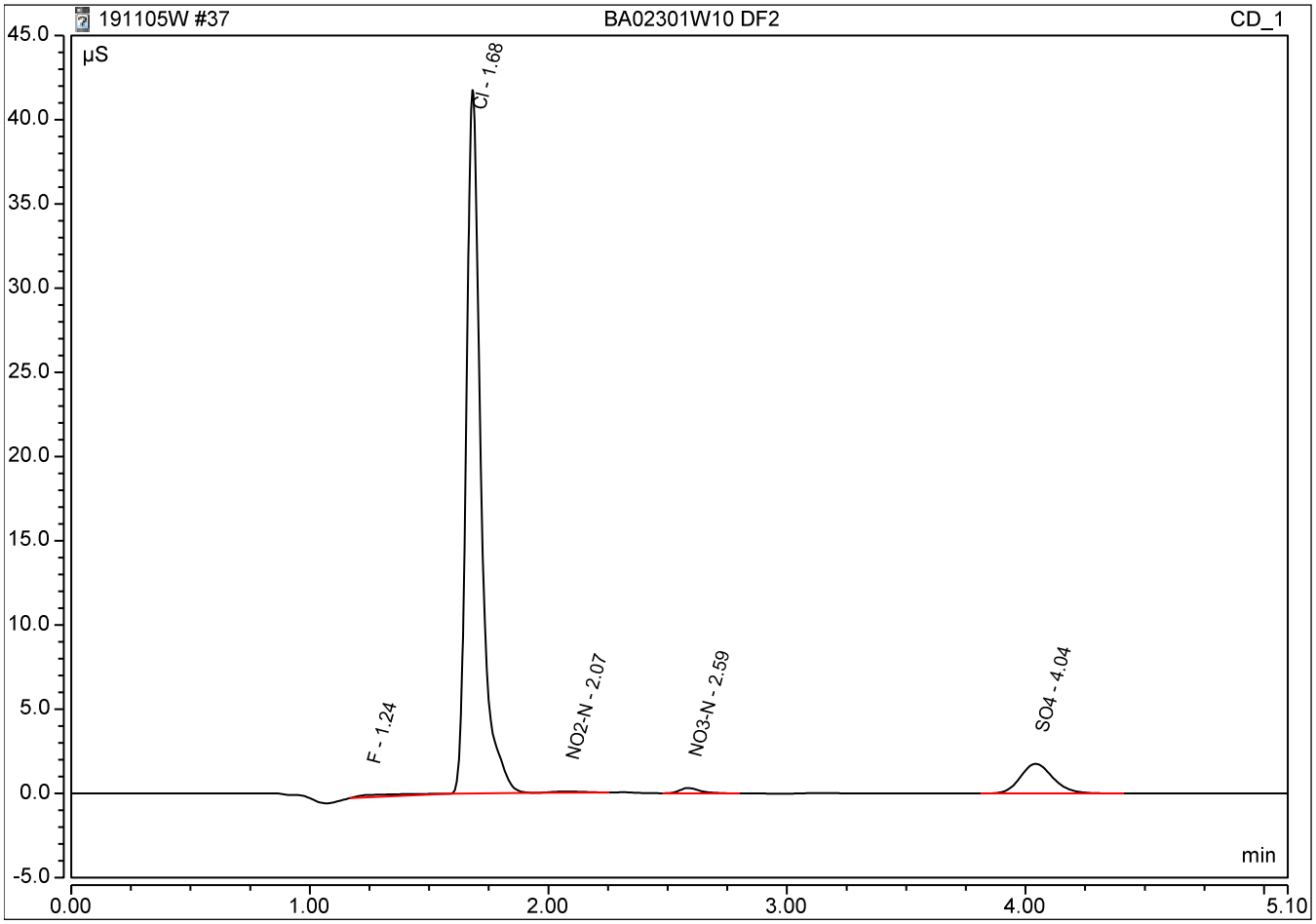


Logged on User: BW
Instrument: Charlie System_1
Sequence: 191105W

Peak Integration Report

Sample Name:	**BA02301W10 DF2**	*Inj. Vol.:*	**25uL**
Injection Type:	**Unknown**	*Dilution Factor:*	**2.00**
Program:	**Anion APM 191030**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**06-Nov-2019 / 00:38**	*Run Time:*	**5.10**

No.	Time (min) min	Peak Name	Peak Type	Area (µS*min) µS*min	Height (µS) µS	Amount mg/L	Spike Level mg/L	Recovery
1	1.24	**F**	BMB	0.035	0.143	0.82		
2	1.68	**Cl**	BMB	2.940	41.768	58.39		
3	2.07	**NO2-N**	BMB	0.011	0.071	0.14		
4	2.59	**NO3-N**	BMB	0.031	0.318	0.32		
5	4.04	**SO4**	BMB	0.279	1.763	8.37		

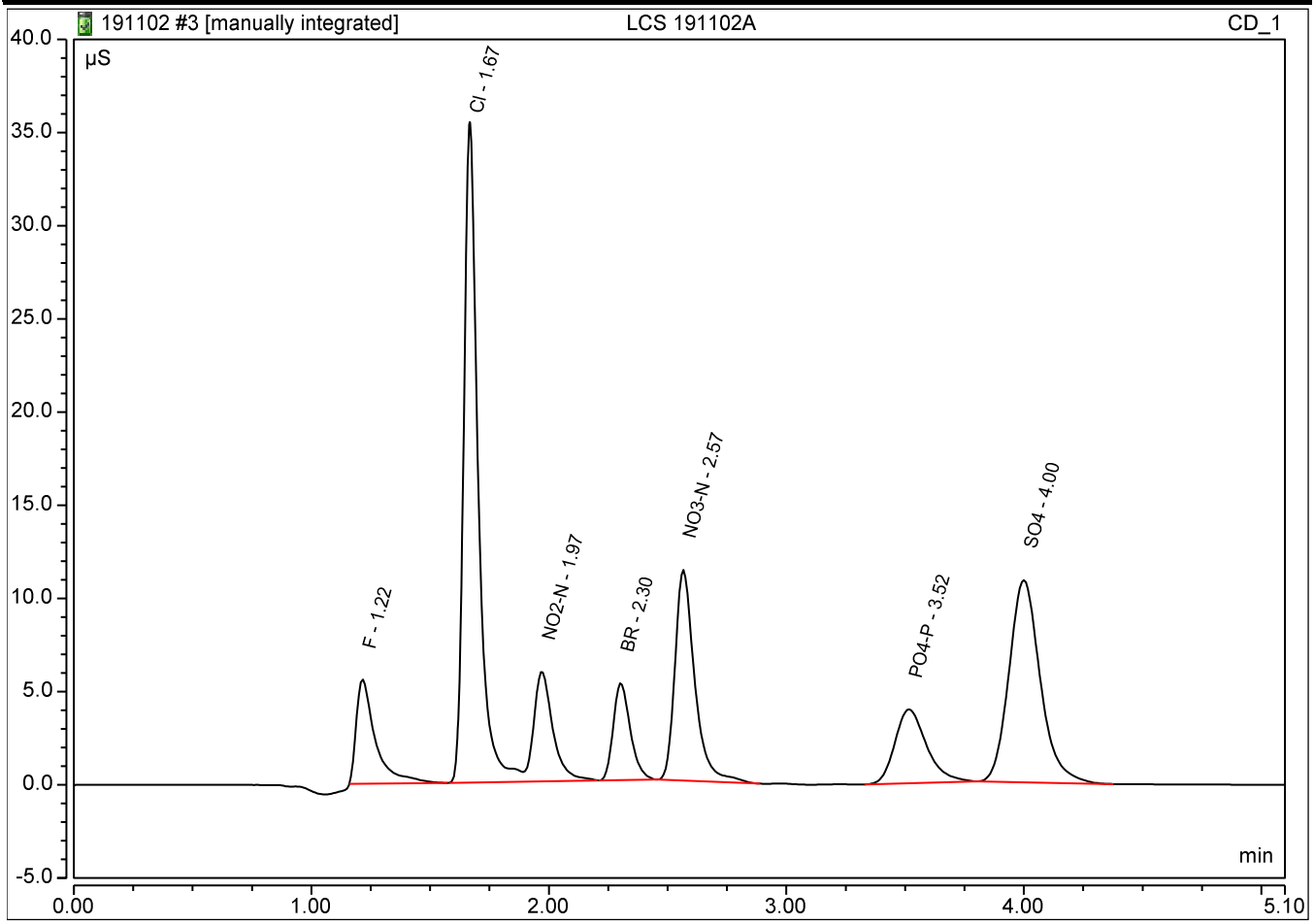


Logged on User: BW
Instrument: Charlie System_1
Sequence: 191102

Peak Integration Report

Sample Name:	**LCS 191102A**	*Inj. Vol.:*	**25uL**
Injection Type:	**Check Standard**	*Dilution Factor:*	**1.00**
Program:	**Anion APM 191030**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**02-Nov-2019 / 10:48**	*Run Time:*	**5.10**

No.	Time (min) min	Peak Name	Peak Type	Area (µS*min) µS*min	Height (µS) µS	Amount mg/L	Spike Level mg/L	Recovery
1	1.22	**F**	BMB	0.523	5.604	4.52	5	90.3%
2	1.67	**Cl**	BM *	2.489	35.442	24.73	25	98.9%
3	1.97	**NO2-N**	MB*	0.547	5.905	3.06	3.04	100.6%
4	2.30	**BR**	BMB	0.434	5.214	12.34	12.5	98.7%
5	2.57	**NO3-N**	BMB	1.093	11.314	4.93	5	98.5%
6	3.52	**PO4-P**	BMB	0.610	3.964	9.45	10	94.5%
7	4.00	**SO4**	BMB	1.657	10.856	24.38	25	97.5%



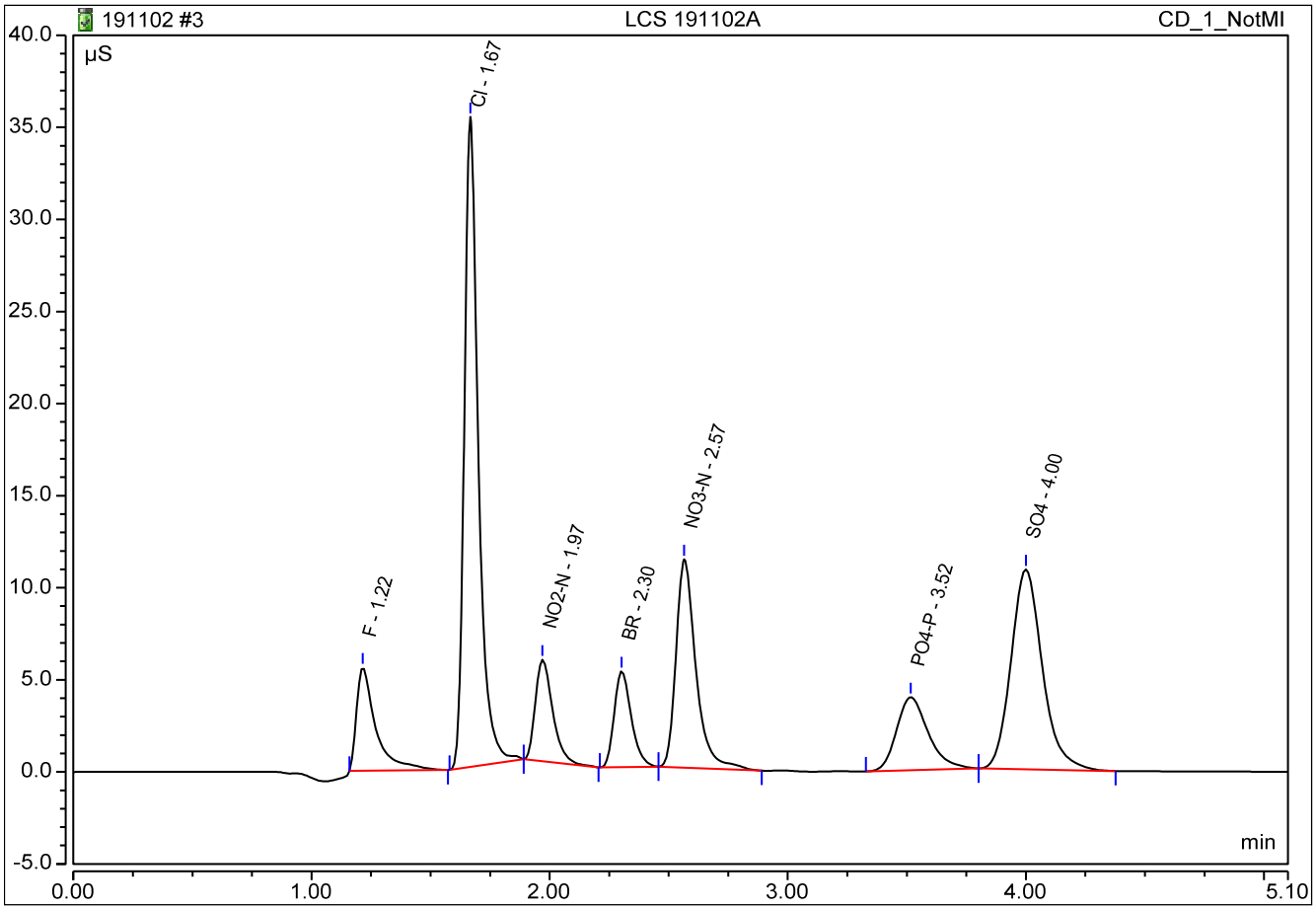
MI1 BW 191104
Algorithm Check
y = Peak Area
x = mg/L S04

y = 0.0682 x + -0.0066
y = 1.6566 therefor x =

Not Manipulated Peak Integration Report

Sample Name:	**LCS 191102A**	*Inj. Vol.:*	**25uL**
Injection Type:	**Check Standard**	*Dilution Factor:*	**1.0000**
Program:	**Anion APM 191030**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**02-Nov-2019 / 10:48**	*Run Time:*	**5.10**

No.	Time min	Peak Name	Peak Type	Area µS*min	Height µS	Ammount mg/L
1	1.22	**F**	BMB	0.523	5.604	4.2328
2	1.67	**Cl**	BM *	2.410	35.300	23.9402
3	1.97	**NO2-N**	MB*	0.467	5.521	2.6100
4	2.30	**BR**	BMB	0.434	5.214	12.3375
5	2.57	**NO3-N**	BMB	1.093	11.314	4.9265
6	3.52	**PO4-P**	BMB	0.610	3.964	10.2174
7	4.00	**SO4**	BMB	1.657	10.856	24.3807

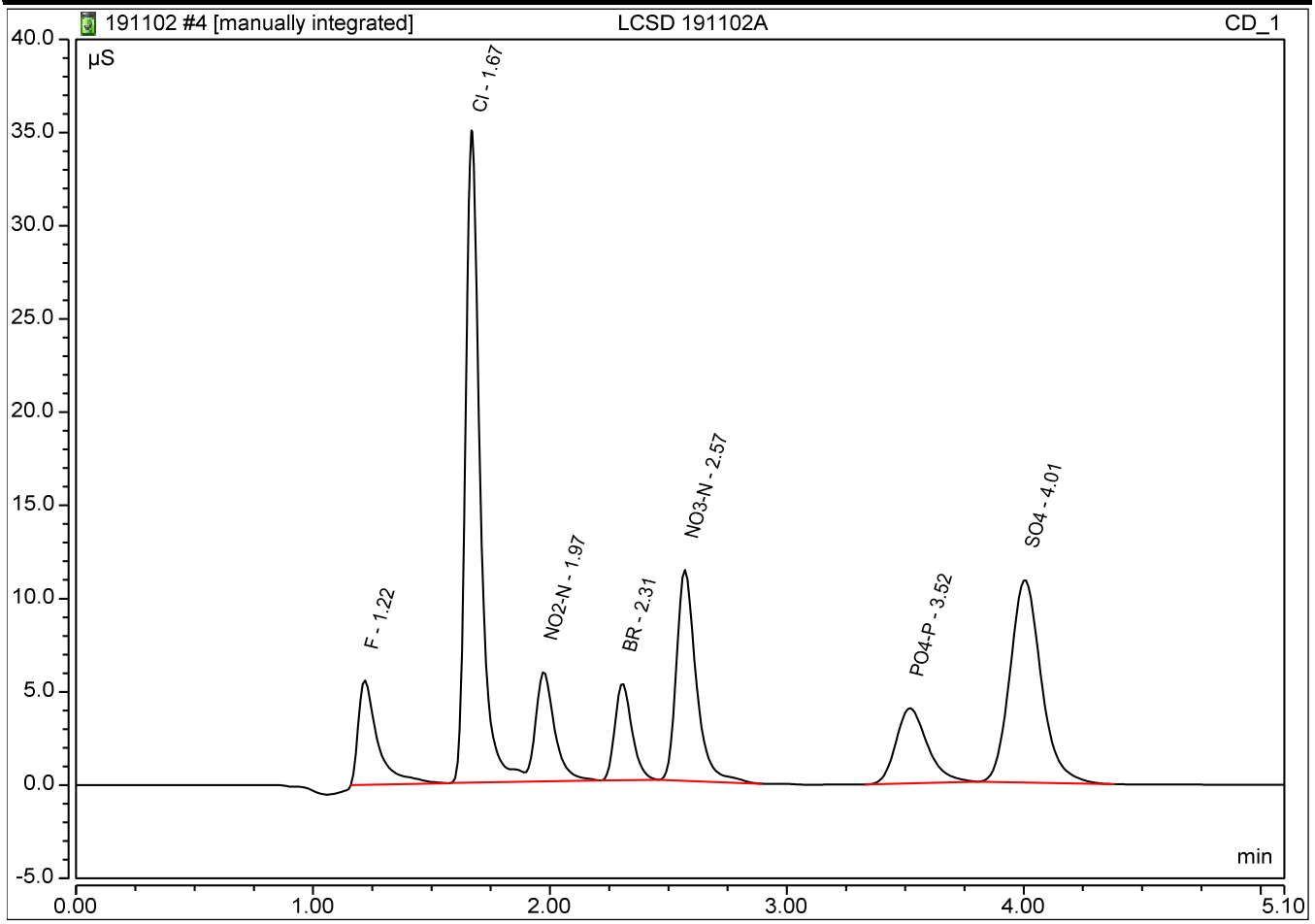


Logged on User: BW
Instrument: Charlie System_1
Sequence: 191102

Peak Integration Report

Sample Name:	**LCSD 191102A**	*Inj. Vol.:*	**25uL**
Injection Type:	**Check Standard**	*Dilution Factor:*	**1.00**
Program:	**Anion APM 191030**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**02-Nov-2019 / 10:55**	*Run Time:*	**5.10**

No.	Time (min) min	Peak Name	Peak Type	Area (µS*min) µS*min	Height (µS) µS	Amount mg/L	Spike Level mg/L	Recovery
1	1.22	**F**	BMB	0.534	5.601	4.60	5	92.1%
2	1.67	**Cl**	BM *	2.492	34.992	24.76	25	99.1%
3	1.97	**NO2-N**	MB*	0.550	5.892	3.07	3.04	101.1%
4	2.31	**BR**	BMB	0.435	5.203	12.39	12.5	99.1%
5	2.57	**NO3-N**	BMB	1.095	11.316	4.94	5	98.7%
6	3.52	**PO4-P**	BMB	0.619	4.032	9.58	10	95.8%
7	4.01	**SO4**	BMB	1.660	10.883	24.43	25	97.7%

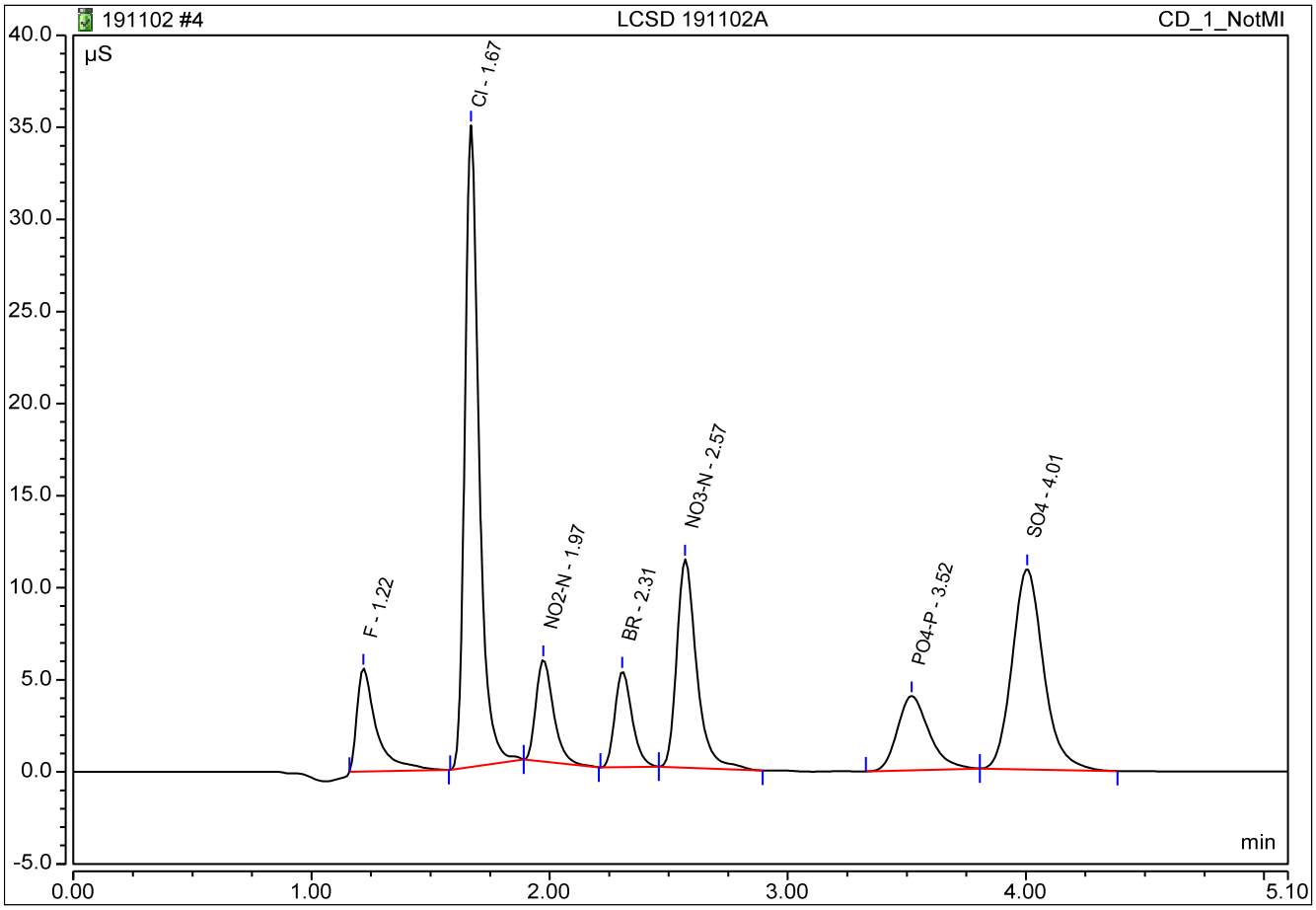


MI1 BW 191104

Not Manipulated Peak Integration Report

Sample Name:	**LCSD 191102A**	*Inj. Vol.:*	**25uL**
Injection Type:	**Check Standard**	*Dilution Factor:*	**1.0000**
Program:	**Anion APM 191030**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**02-Nov-2019 / 10:55**	*Run Time:*	**5.10**

No.	Time min	Peak Name	Peak Type	Area µS*min	Height µS	Ammount mg/L
1	1.22	**F**	BMB	0.534	5.601	4.3249
2	1.67	**Cl**	BM *	2.415	34.849	23.9910
3	1.97	**NO2-N**	MB*	0.471	5.522	2.6342
4	2.31	**BR**	BMB	0.435	5.203	12.3858
5	2.57	**NO3-N**	BMB	1.095	11.316	4.9367
6	3.52	**PO4-P**	BMB	0.619	4.032	10.3414
7	4.01	**SO4**	BMB	1.660	10.883	24.4324

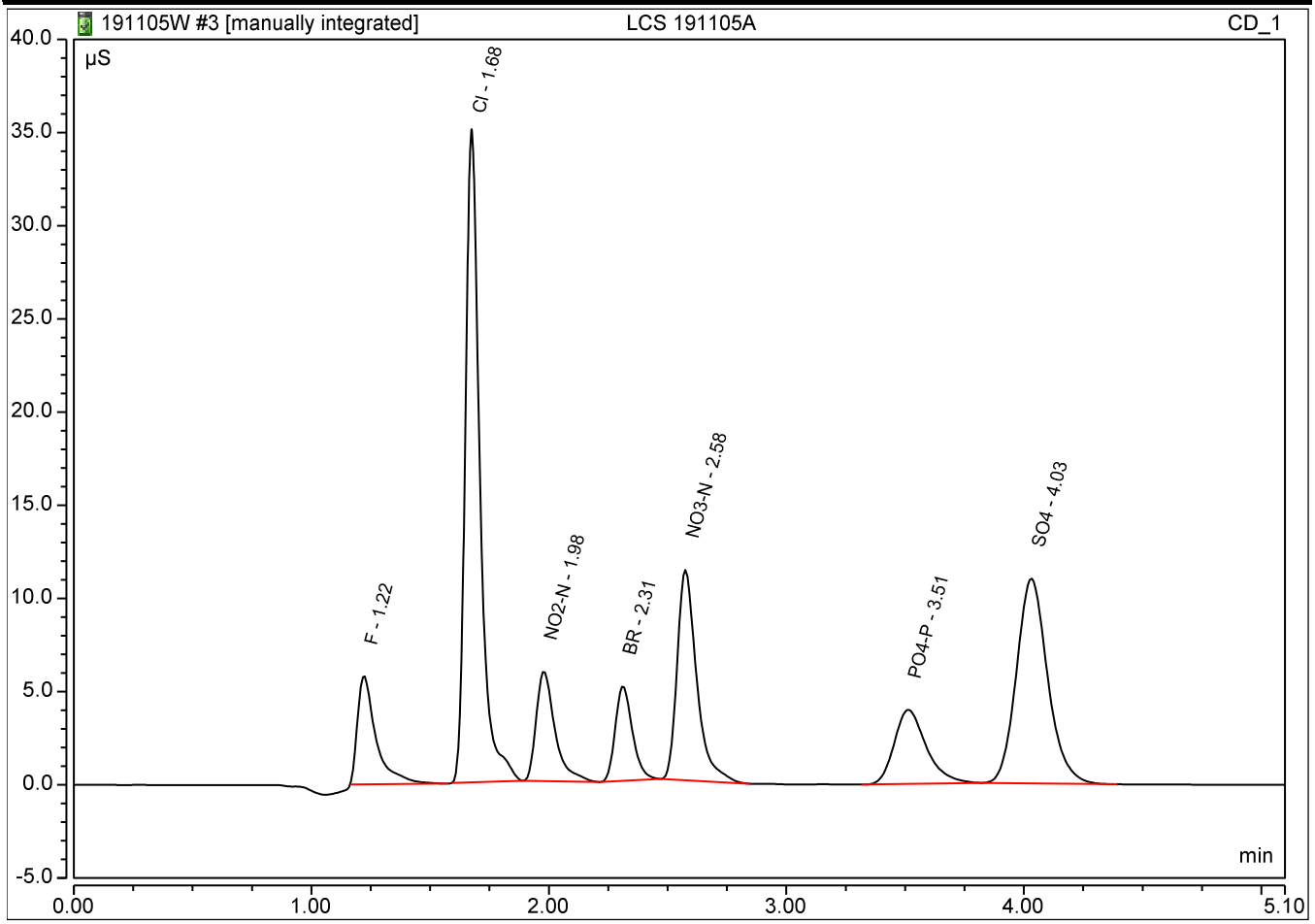


Logged on User: BW
Instrument: Charlie System_1
Sequence: 191105W

Peak Integration Report

Sample Name:	**LCS 191105A**	*Inj. Vol.:*	**25uL**
Injection Type:	**Check Standard**	*Dilution Factor:*	**1.00**
Program:	**Anion APM 191030**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**05-Nov-2019 / 20:23**	*Run Time:*	**5.10**

No.	Time (min) min	Peak Name	Peak Type	Area (µS*min) µS*min	Height (µS) µS	Amount mg/L	Spike Level mg/L	Recovery
1	1.22	**F**	BMB	0.528	5.826	4.55	5	91.1%
2	1.68	**Cl**	BMb*	2.490	35.057	24.74	25	99.0%
3	1.98	**NO2-N**	bMB*	0.542	5.891	3.03	3.04	99.6%
4	2.31	**BR**	BMB	0.427	5.091	12.14	12.5	97.1%
5	2.58	**NO3-N**	BMB	1.081	11.291	4.87	5	97.4%
6	3.51	**PO4-P**	BMB	0.619	3.977	9.59	10	95.9%
7	4.03	**SO4**	BMB	1.675	10.994	24.65	25	98.6%



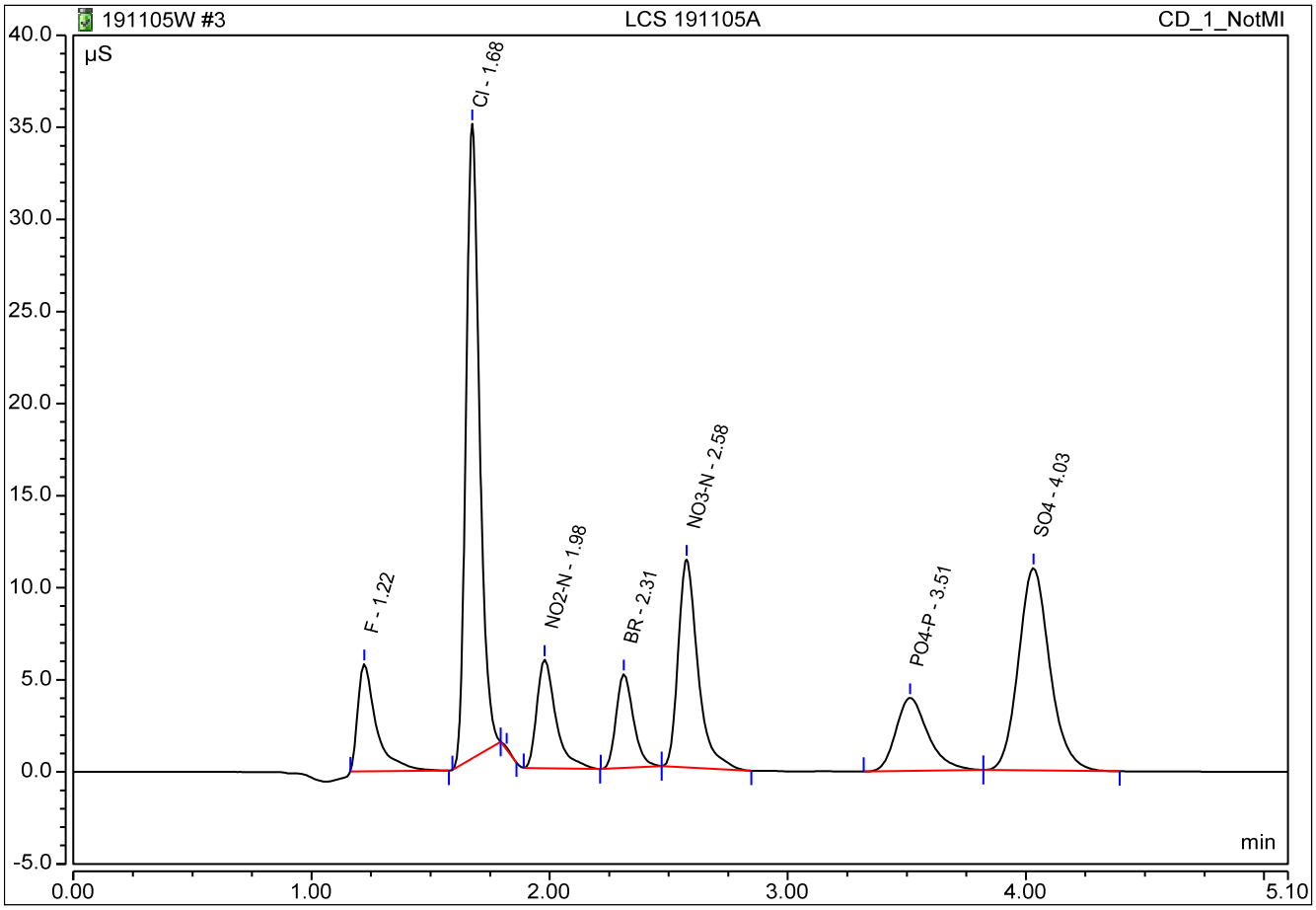
MI4 BW 191114
Algorithm Check
y = Peak Area
x = mg/L S04

y = 0.0682 x + -0.0066
y = 1.6747 therefor x =

Not Manipulated Peak Integration Report

Sample Name:	**LCS 191105A**	*Inj. Vol.:*	**25uL**
Injection Type:	**Check Standard**	*Dilution Factor:*	**1.0000**
Program:	**Anion APM 191030**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**05-Nov-2019 / 20:23**	*Run Time:*	**5.10**

No.	Time min	Peak Name	Peak Type	Area µS*min	Height µS	Ammount mg/L
1	1.22	**F**	BMB	0.528	5.826	4.2733
2	1.68	**Cl**	BMb*	2.278	34.464	22.6377
3	1.98	**NO2-N**	bMB*	0.542	5.891	3.0293
4	2.31	**BR**	BMB	0.427	5.091	12.1412
5	2.58	**NO3-N**	BMB	1.081	11.291	4.8714
6	3.51	**PO4-P**	BMB	0.619	3.977	10.3475
7	4.03	**SO4**	BMB	1.675	10.994	24.6461

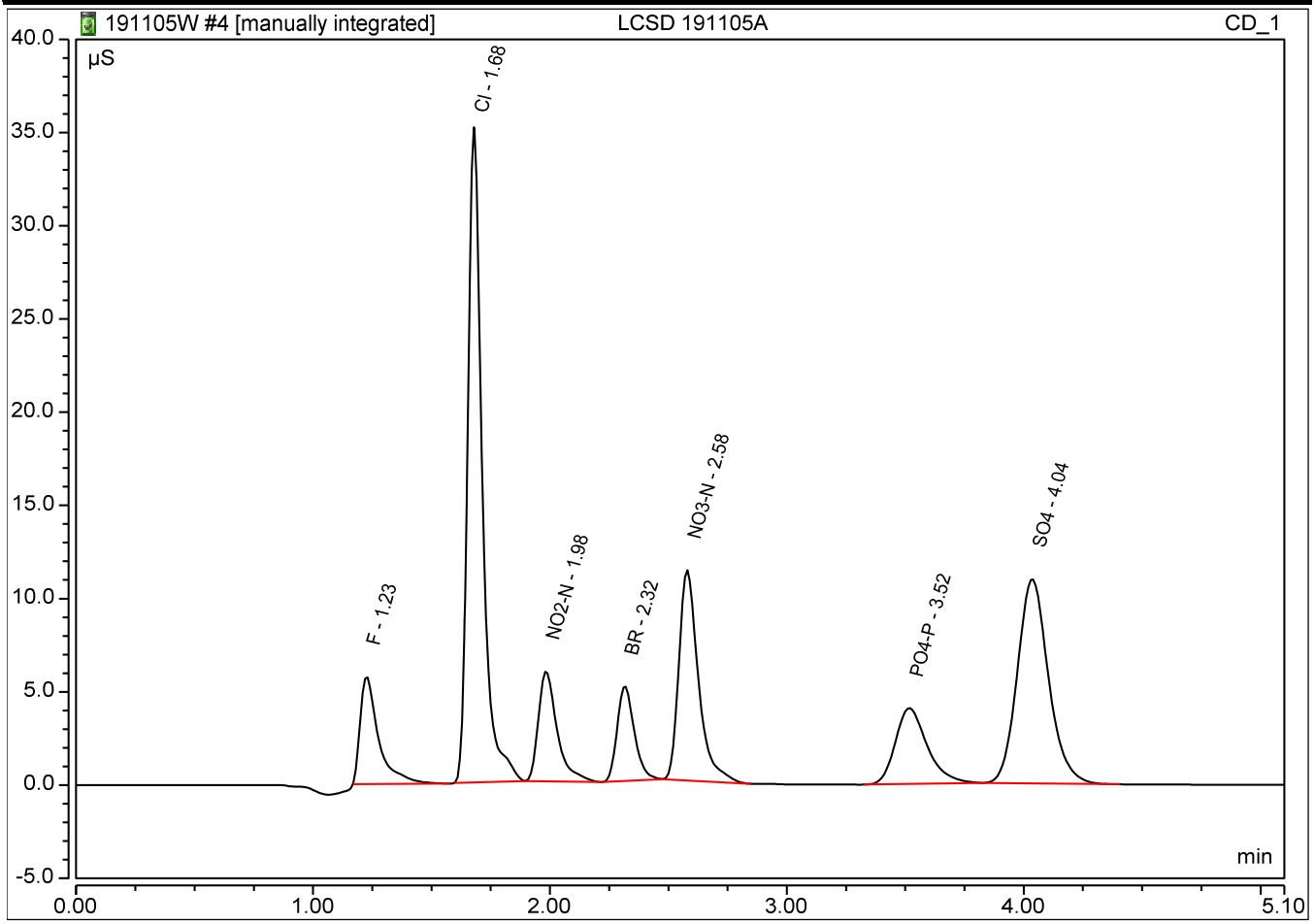


Logged on User: BW
Instrument: Charlie System_1
Sequence: 191105W

Peak Integration Report

Sample Name:	**LCSD 191105A**	*Inj. Vol.:*	**25uL**
Injection Type:	**Check Standard**	*Dilution Factor:*	**1.00**
Program:	**Anion APM 191030**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**05-Nov-2019 / 20:31**	*Run Time:*	**5.10**

No.	Time (min) min	Peak Name	Peak Type	Area (µS*min) µS*min	Height (µS) µS	Amount mg/L	Spike Level mg/L	Recovery
1	1.23	**F**	BMB	0.522	5.786	4.50	5	90.1%
2	1.68	**Cl**	BMb*	2.486	35.141	24.71	25	98.8%
3	1.98	**NO2-N**	bMB*	0.543	5.905	3.03	3.04	99.7%
4	2.32	**BR**	BMB	0.427	5.102	12.14	12.5	97.1%
5	2.58	**NO3-N**	BMB	1.077	11.289	4.86	5	97.1%
6	3.52	**PO4-P**	BMB	0.632	4.067	9.78	10	97.8%
7	4.04	**SO4**	BMB	1.670	10.964	24.58	25	98.3%

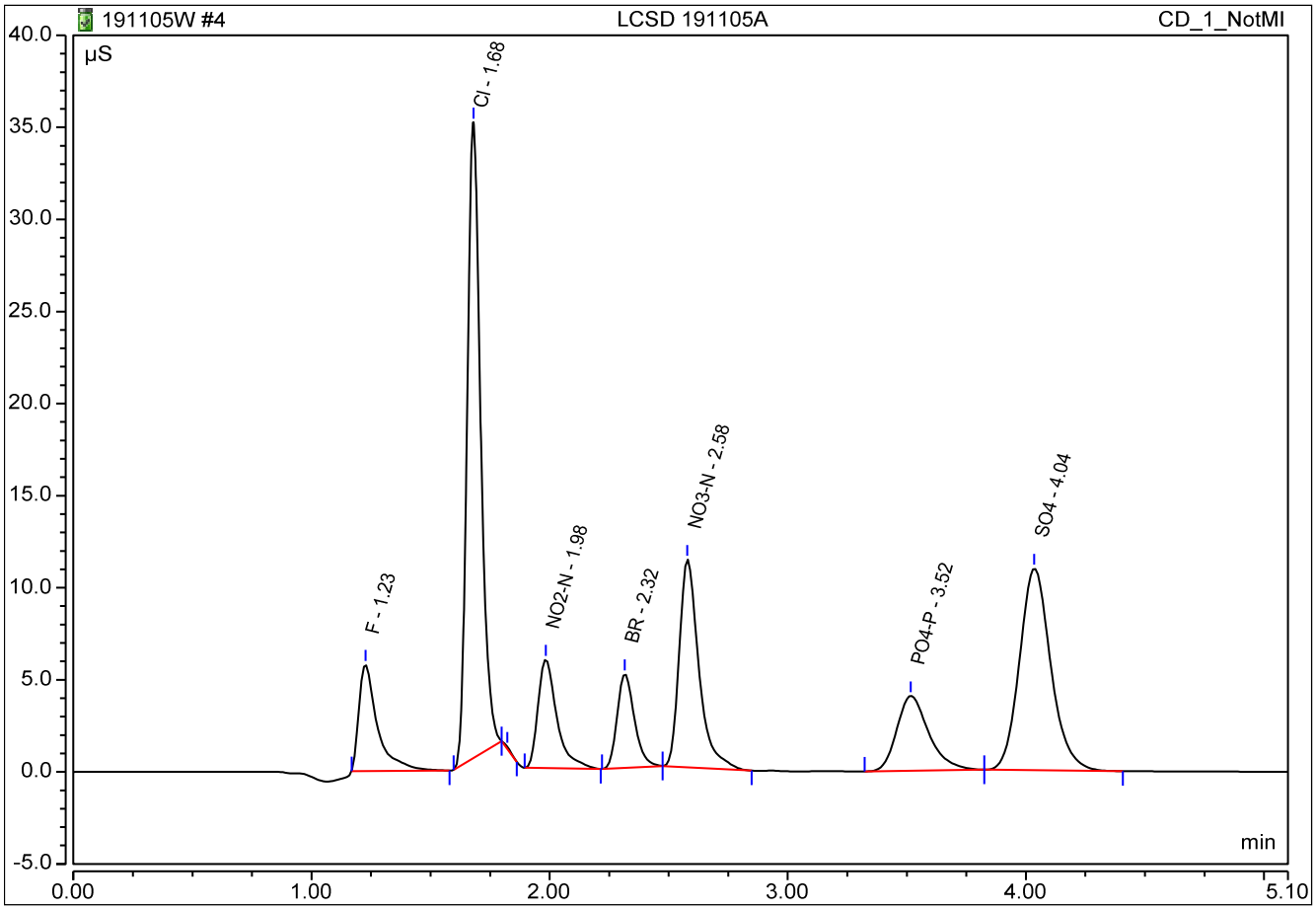


MI4 BW 191114

Not Manipulated Peak Integration Report

Sample Name:	**LCSD 191105A**	*Inj. Vol.:*	**25uL**
Injection Type:	**Check Standard**	*Dilution Factor:*	**1.0000**
Program:	**Anion APM 191030**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**05-Nov-2019 / 20:31**	*Run Time:*	**5.10**

No.	Time min	Peak Name	Peak Type	Area µS*min	Height µS	Ammount mg/L
1	1.23	**F**	BMB	0.522	5.786	4.2199
2	1.68	**Cl**	BMb*	2.270	34.526	22.5615
3	1.98	**NO2-N**	bMB*	0.543	5.905	3.0304
4	2.32	**BR**	BMB	0.427	5.102	12.1421
5	2.58	**NO3-N**	BMB	1.077	11.289	4.8551
6	3.52	**PO4-P**	BMB	0.632	4.067	10.5237
7	4.04	**SO4**	BMB	1.670	10.964	24.5754



Anion Chromatography Working Standard

Prep Date: 10/30/19

Exp Date: 10/30/19

Prep'd By (Initials): BW

Initial Standard Information						Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier Part No.	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date	Aliquot from Stock	Final Volume	Solvent	Final Standard Conc (µg/mL)
Ion Chromatography Standard Fluoride 1000 µg/mL in H2O	o2si	O2SI-062002-01-01	1000	687393-38-40744	10/30/20	312.5 µL	25 mL	Millipore Water	12.5
Ion Chromatography Standard Nitrite 1000 µg/mL in H2O	Inorganic Ventures	ICN021	1000	N2-NOX672889-40759	05/01/20	411 µL	25 mL	Millipore Water	5 as NO2-N
Ion Chromatography Standard Chloride 5000 µg/mL in H2O	o2si	062001-08-03	5000	10084781-1-39578	02/21/20	250 µL	25 mL	Millipore Water	50
Ortho-Phosphate as P Standard	Ultra Scientific	ICC-005A	1000	G34-CP-3323-39057	08/31/23	625 µL	25 mL	Millipore Water	25
Ion Chromatography Standard Nitrate as N 1000 µg/mL in H2O	o2si	062003-01-03	1000	880117-4-39577	02/21/20	250 µL	25 mL	Millipore Water	10
Bromide Standard	Ultra Scientific	ICC-001	1000	CR-5372-39521	12/31/21	625 µL	25 mL	Millipore Water	25
Sulfate Standard	Agilent	ICC-006	1000	CS-0688-41050	03/31/22	1250 µL	25 mL	Millipore Water	50

Anion Chromatography Calibration Curve

Prep Date: 10/30/19

Exp Date: 10/30/19

Prep'd By (Initials): BW

Initial Standard Information						Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. Range (ug/mL)	Reference To APPL Prep Date	Exp. Date	Aliquot from Stock	Final Volume	Solvent	Final Standard Conc. Range (µg/mL)
Anion Chromatography Working Standard	Varies	ICal1	5.0-50.0	Prepared 10/30/19	10/30/19	200 µL	25000 µL	Millipore Water	0.04-0.40
Anion Chromatography Working Standard	Varies	ICal2	5.0-50.0	Prepared 10/30/19	10/30/19	20 µL	1000 µL	Millipore Water	0.1-1.0
Anion Chromatography Working Standard	Varies	ICal5	5.0-50.0	Prepared 10/30/19	10/30/19	200 µL	1000 µL	Millipore Water	1.0-10.0
Anion Chromatography Working Standard	Varies	ICal8	5.0-50.0	Prepared 10/30/19	10/30/19	1000 µL	1000 µL	Millipore Water	5.0-50.0

Anion Chromatography LCS/ICV

Prep Date: See injection Log

Exp Date: 24 hours after prep

Prep'd By (Initials): BW

Initial Standard Information						Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier Part No.	Conc. Range (ug/mL)	Lot Number - QA Number	Exp. Date	Aliquot from Stock	Final Volume	Solvent	Final Standard Conc (µg/mL)
Flouride	Inorganic Ventures	ICF1	993-999	K-F652018-39801	10/23/19	125 µL	25 mL	Millipore Water	5
Nitrite	Inorganic Ventures	ICNO21	993-1001	M2-NOX660562-40468	08/25/21	250 µL	25 mL	Millipore Water	10
Chloride	Inorganic Ventures	ICCL1	995-1001	N2-CL664868-39905	11/26/19	625 µL	25 mL	Millipore Water	25
O-Phosphate as P	Inorganic Ventures	ICPPO41	1001-1009	M2-POX655826-39803	10/23/19	250 µL	25 mL	Millipore Water	10
Nitrate as N	Inorganic Ventures	ICNNO31	997-1005	P2-NOX675324-49391	02/14/23	125 µL	25 mL	Millipore Water	5
Ion Chromatography Standard Bromide, 1000 µg/mL in H2O	CPI International	4400-IC8M	995-1005	161681-8-39539	02/06/20	312.5 µL	25 mL	Millipore Water	12.5
Sulfate	Inorganic Ventures	ICSO41	998-1006	N2-SOX664928-39507	11/27/19	625 µL	25 mL	Millipore Water	25

Anion Chromatography CCV

Prep Date: See injection Log

Exp Date: 24 hours after prep

Prep'd By (Initials): BW

Initial Standard Information						Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier Part No.	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date	Aliquot from Stock	Final Volume	Solvent	Final Standard Conc (µg/mL)
Ion Chromatography Standard Fluoride 1000 µg/mL in H2O	o2si	O2SI-062002-01-01	1000	687393-38-40744	10/30/20	125 µL	25 mL	Millipore Water	5
Ion Chromatography Standard Nitrite 1000 µg/mL in H2O	Inorganic Ventures	ICN021	1000	N2-NOX672889-40759	05/01/20	250 µL	25 mL	Millipore Water	10
Ion Chromatography Standard Chloride 5000 µg/mL in H2O	o2si	062001-08-03	5000	10084781-1-39578	02/21/20	125 µL	25 mL	Millipore Water	25
Ortho-Phosphate as P Standard	Ultra Scientific	ICC-005A	1000	G34-CP-3323-39057	08/31/23	250 µL	25 mL	Millipore Water	10
Ion Chromatography Standard Nitrate as N 1000 µg/mL in H2O	o2si	062003-01-03	1000	880117-4-39577	02/21/20	125 µL	25 mL	Millipore Water	5
Bromide Standard	Ultra Scientific	ICC-001	1000	CR-5372-39521	12/31/21	312.5 µL	25 mL	Millipore Water	12.5
Sulfate Standard	Agilent	ICC-006	1000	CS-0688-41050	03/31/22	625 µL	25 mL	Millipore Water	25

Method 300 and 9056 Injection Log

No.	Position	Injection Description	Inject Time		Type	Comment
1	GE1	ICAL1 191030	30/Oct/2019	18:22	Calibration Standard	
2	GE2	ICAL2 191030	30/Oct/2019	18:29	Calibration Standard	
3	GE3	ICAL5 191030	30/Oct/2019	18:37	Calibration Standard	
4	GE4	ICAL8 191030	30/Oct/2019	18:44	Calibration Standard	
5	R1	ICB 191030	30/Oct/2019	18:52	Unknown	
6	R3	ICV/LCS 191030	30/Oct/2019	18:59	Check Standard	
7	R3	LCSD 191030A	30/Oct/2019	19:07	Check Standard	
8	BA1	BA01825W07	30/Oct/2019	19:14	Unknown	filtered
9	BA2	BA02090	30/Oct/2019	19:22	Unknown	
10	BA3	BA02160	30/Oct/2019	19:29	Unknown	
11	BA4	BA02049W12	30/Oct/2019	19:37	Unknown	filtered
12	BA5	BA02050W07	30/Oct/2019	19:44	Unknown	filtered
13	BA6	BA02053W08	30/Oct/2019	19:52	Unknown	filtered
14	BA7	BA02054W08	30/Oct/2019	19:59	Unknown	filtered
15	BA8	BA01390W01 DF20	30/Oct/2019	20:07	Unknown	NDF20 Cl
16	BB1	BA01390W01 DF5	30/Oct/2019	20:14	Unknown	NDF5 SO4
17	BB2	BA01391W01 DF5	30/Oct/2019	20:22	Unknown	NDF5 Cl SO4
18	BB3	BA01391W01 DF2	30/Oct/2019	20:29	Unknown	NDF2 NO3-N
19	BB4	BA01392W01 DF20	30/Oct/2019	20:37	Unknown	NDF20 Cl
20	R2	CCV 191030	30/Oct/2019	20:44	Check Standard	
21	R1	CCB 191030	30/Oct/2019	20:52	Unknown	
22	BB5	BA01393W01 DF10	30/Oct/2019	20:59	Unknown	NDF10 Cl SO4 NO3-N
23	BB6	BA01459W01 DF10	30/Oct/2019	21:07	Unknown	NDF10 Cl
24	BB7	BA01459W01 DF5	30/Oct/2019	21:14	Unknown	NDF5 SO4
25	BB8	BA01460W01 DF10	30/Oct/2019	21:22	Unknown	NDF10 Cl
26	BC1	BA01460W01 DF5	30/Oct/2019	21:29	Unknown	NDF5 SO4
27	BC2	BA01461W01 DF50	30/Oct/2019	21:37	Unknown	NDF50 Cl
28	BC3	BA01461W01 DF5	30/Oct/2019	21:44	Unknown	NDF5 SO4
29	BC4	BA01875 DF2	30/Oct/2019	21:52	Unknown	SO4 NO3 NO2 Cl filtered; NDF2 SC
30	BC5	BA01876 DF2	30/Oct/2019	21:59	Unknown	SO4 NO3 NO2 Cl filtered; NDF2 SC
31	R2	CCV 191030	30/Oct/2019	22:06	Check Standard	
32	R1	CCB 191030	30/Oct/2019	22:14	Unknown	
33	BC2	Stop	n.a.		Unknown	

Method 300 and 9056 Injection Log

No.	Position	Injection Description	Inject Time		Type	Comment
1	R2	CCV 191102	02/Nov/2019	10:33	Check Standard	
2	R1	CCB 191102	02/Nov/2019	10:40	Unknown	
3	R3	LCS 191102A	02/Nov/2019	10:48	Check Standard	
4	R3	LCSD 191102A	02/Nov/2019	10:55	Check Standard	
5	BD1	BA01826W07 DF2	02/Nov/2019	11:03	Unknown	DF2 Cl
6	BD2	BA01872W20 DF2	02/Nov/2019	11:10	Unknown	DF2 Cl
7	BD3	BA01872W20 MS DF2	02/Nov/2019	11:18	Unknown	DF2 Cl
8	BD4	BA01872W20 MSD DF2	02/Nov/2019	11:25	Unknown	DF2 Cl
9	BD5	BA01876W07 DF10	02/Nov/2019	11:33	Unknown	DF10 Cl
10	BD6	BA01876W07 DF10	02/Nov/2019	11:40	Unknown	DF10 Cl
11	BD7	BA01877W07 DF2	02/Nov/2019	11:48	Unknown	DF2 Cl
12	BD8	BA02160W07 DF2	02/Nov/2019	11:55	Unknown	DF2 Cl
13	BE1	BA02301W10	02/Nov/2019	12:02	Unknown	
14	R2	CCV 191102	02/Nov/2019	12:10	Check Standard	
15	R1	CCB 191102	02/Nov/2019	12:17	Unknown	
16	R2	Stop	02/Nov/2019	12:23	Unknown	

Method 300 and 9056 Injection Log

No.	Position	Injection Description	Inject Time		Type	Comment
1	R2	CCV 191105	05/Nov/2019	20:08	Check Standard	
2	R1	CCB 191105	05/Nov/2019	20:16	Unknown	
3	R3	LCS 191105A	05/Nov/2019	20:23	Check Standard	
4	R3	LCSD 191105A	05/Nov/2019	20:31	Check Standard	
5	RD1	BA02459W07	05/Nov/2019	20:38	Unknown	
6	RD2	BA02460W07	05/Nov/2019	20:46	Unknown	
7	RD3	BA02461W06	05/Nov/2019	20:53	Unknown	
8	RD4	BA02462W06	05/Nov/2019	21:01	Unknown	filtered
9	RD6	BA02466W12	05/Nov/2019	21:08	Unknown	
10	RA1	BA01785W04 DF2	05/Nov/2019	21:16	Unknown	NO3 filtered
11	RA2	BA01785W04 DF5	05/Nov/2019	21:23	Unknown	SO4 filtered
12	RA3	BA01785W04 DF10	05/Nov/2019	21:31	Unknown	Cl filtered
13	RA4	BA01786W03 DF5	05/Nov/2019	21:38	Unknown	SO4
14	RA5	BA01786W03 DF20	05/Nov/2019	21:46	Unknown	Cl
15	RA6	BA01787W04 DF2	05/Nov/2019	21:53	Unknown	NO3 SO4
16	RA7	BA01788W04 DF2	05/Nov/2019	22:01	Unknown	Cl SO4 filtered
17	RA8	BA01789W04 DF2	05/Nov/2019	22:08	Unknown	SO4 filtered
18	RB1	BA01789W04 DF5	05/Nov/2019	22:16	Unknown	Cl filtered
19	R2	CCV 191105	05/Nov/2019	22:23	Check Standard	
20	R1	CCB 191105	05/Nov/2019	22:31	Unknown	
21	RB2	BA01829W05 DF2	05/Nov/2019	22:38	Unknown	Cl
22	RB3	BA01833W10 DF2	05/Nov/2019	22:46	Unknown	Cl
23	RB4	BA01824W07 DF10	05/Nov/2019	22:53	Unknown	Cl
24	RB5	BA01825W07 DF2	05/Nov/2019	23:01	Unknown	Cl
25	RB6	BA02062W06 DF50	05/Nov/2019	23:08	Unknown	SO4
26	RB7	BA01875W07 DF10	05/Nov/2019	23:16	Unknown	Cl
27	RB8	BA02187W01 MS	05/Nov/2019	23:23	Unknown	NO3
28	RC1	BA02187W01 DF2	05/Nov/2019	23:31	Unknown	NO3
29	RC2	BA02188W01 MS	05/Nov/2019	23:38	Unknown	NO3
30	RC3	BA02188W01 DF2	05/Nov/2019	23:45	Unknown	NO3
31	RC4	BA02189W01 MS	05/Nov/2019	23:53	Unknown	NO3
32	RC5	BA02189W01 DF2	06/Nov/2019	00:00	Unknown	NO3
33	RC6	BA02192W01 MS	06/Nov/2019	00:08	Unknown	NO3
34	RC7	BA02192W01 DF2	06/Nov/2019	00:15	Unknown	NO3
35	R2	CCV 191105	06/Nov/2019	00:23	Check Standard	
36	R1	CCB 191105	06/Nov/2019	00:30	Unknown	
37	RC8	BA02301W10 DF2	06/Nov/2019	00:38	Unknown	Cl
38	RD5	BA02216W07 DF5	06/Nov/2019	00:45	Unknown	Cl
39	R2	CCV 191105	06/Nov/2019	00:53	Check Standard	
40	R1	CCB 191105	06/Nov/2019	01:00	Unknown	
41	R2	Stop	06/Nov/2019	01:05	Unknown	

AQ2 Report

Serial Number:	190170
Software Version:	2.1.0
Report Requested By:	Eve V
Date & Time:	2019-11-07 09:19:30
Tray Number:	1
Tray Name:	191106A NO2 NO3 TOXN

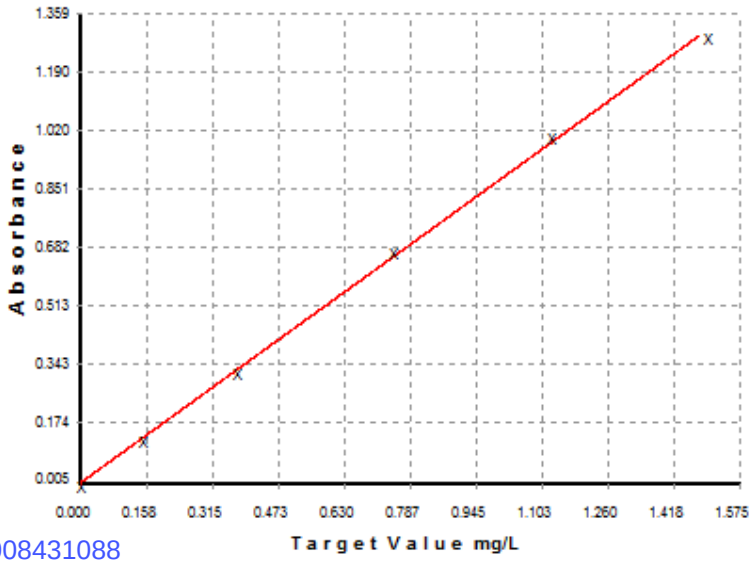
Nitrite-N

Calibration Chart

Type	Absorbance	Calc mg/L	Target mg/L	% Error
S1	0.0050	-0.0027	0.0000	
S90	0.1349	0.1468	0.1500	-2.13
S91	0.3256	0.3661	0.3750	-2.37
S92	0.6720	0.7646	0.7500	1.95
S93	1.0023	1.1447	1.1250	1.75
S94	1.2942	1.4805	1.5000	-1.30
S0	0.0153	0.0092	0.0000	

Polynomial Order:	1
Correlation Coefficient:	0.9997
Carryover(%):	0.8
Calibration equation:	y = bx + a
y =:	Concentration mg/L
x =:	Measured absorbance
a =:	-8.431088E-003
b =:	1.150461E+000
Date & Time:	2019-11-06 16:11:13

Calibration Graph



Algorithm check
y = 1.15061(0.636002)-0.008431088
y = 0.723
EV 11/07/19

Reagents

Name	Batch	Prepared By	Expiry Date
Sulfa-NEDD		Joel	
NO2 Buffer		Joel	

Cup	Type	ID	Result	Units	QC Pro	Raw Data	Auto Dil.	Man Dil.	User	Time/Date
	S1	Standard 1	0.0050			0.004995			Ev	2019-11-06 16:03:50
	S90	Standard 90	0.1349			0.134927			Ev	2019-11-06 16:05:03
	S91	Standard 91	0.3256			0.325551			Ev	2019-11-06 16:06:16
	S92	Standard 92	0.6720			0.671957			Ev	2019-11-06 16:07:30
	S93	Standard 93	1.0023			1.002322			Ev	2019-11-06 16:08:44
	S94	Standard 94	1.2942			1.294164			Ev	2019-11-06 16:09:58
	S0	Standard 0	0.0153			0.015341			Ev	2019-11-06 16:11:13
	CCV	CCV .75	0.7528	mg/L		0.661640			Ev	2019-11-06 16:12:27
	CCB	CCB	0.0042	mg/L		0.010953			Ev	2019-11-06 16:13:41
3	U1	✓ICV NO2	0.7233	mg/L		0.636002			Ev	2019-11-06 16:14:54
4	U2	ICV NO3 TOXN	0.0043	mg/L		0.011104			Ev	2019-11-06 16:16:09
5	U3	ICB NO2 NO3 TOXN	-0.0031	mg/L		0.004616			Ev	2019-11-06 16:16:48
14	U12	1ppm NO2	0.9999	mg/L		0.876442			Ev	2019-11-06 16:18:57
16	U14	1901106A BLK S	0.0597	mg/L		0.012521		x 10.000	Ev	2019-11-06 16:21:10
17	U15	1901106A LCS S	7.3656	mg/L		0.647560		x 10.000	Ev	2019-11-06 16:23:28
18	U16	BA02318S01	0.3650	mg/L		0.039052		x 10.000	Ev	2019-11-06 16:25:45
19	U17	BA02319S01	40.3098	mg/L		3.511121		x 10.000	Ev	2019-11-06 16:28:03
	CCV	CCV .75	0.8102	mg/L		0.711574			Ev	2019-11-06 16:30:20

CCB	CCB	0.0058	mg/L	0.012328	Ev	2019-11-06 16:32:32

TOXN

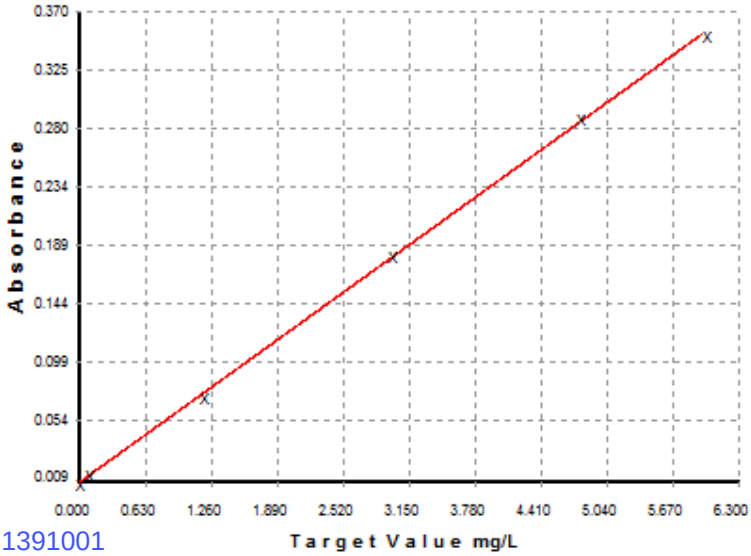
Calibration Chart

Type	Absorbance	Calc mg/L	Target mg/L	% Error
S1	0.0086	0.0100	0.0000	
S90	0.0145	0.1111	0.1000	11.09
S91	0.0745	1.1501	1.2000	-4.16
S92	0.1823	3.0169	3.0000	0.56
S93	0.2884	4.8529	4.8000	1.10
S94	0.3523	5.9590	6.0000	-0.68
S0	0.0100	0.0346	0.0000	

Polynomial Order: 1
Correlation Coefficient: 0.9999
Carryover(%): 0.4
Calibration equation: y = bx + a
y =: Concentration mg/L
x =: Measured absorbance
a =: -1.391001E-001
b =: 1.730908E+001
Date & Time: 2019-11-06 16:54:27

Algorithm check
y = 17.30908(0.193810)-0.1391001
y = 3.22
EV 11/07/19

Calibration Graph



Reagents

Name	Batch	Prepared By	Expiry Date
NO3 W Buffer		Joel	
Sulfa-NEDD		Joel	

Cup	Type	ID	Result	Units	QC Pro	Raw Data	Auto Dil.	Man Dil.	User	Time/Date
	S1	Standard 1	0.0086			0.008612			Ev	2019-11-06 16:41:18
	S90	Standard 90	0.0145			0.014454			Ev	2019-11-06 16:43:30
	S91	Standard 91	0.0745			0.074481			Ev	2019-11-06 16:45:41
	S92	Standard 92	0.1823			0.182334			Ev	2019-11-06 16:47:53
	S93	Standard 93	0.2884			0.288405			Ev	2019-11-06 16:50:04
	S94	Standard 94	0.3523			0.352306			Ev	2019-11-06 16:52:16
	S0	Standard 0	0.0100			0.010034			Ev	2019-11-06 16:54:27
	CCV	CCV	3.1575	mg/L		0.190456			Ev	2019-11-06 16:56:39
	CCB	CCB	0.0036	mg/L		0.008243			Ev	2019-11-06 16:58:51
4	U2	✓ICV NO3 TOXN	3.2156	mg/L		0.193810			Ev	2019-11-06 17:01:02
5	U3	ICB NO2 NO3 TOXN	0.0022	mg/L		0.008162			Ev	2019-11-06 17:03:14
6	U4	191106A BLK TOXN	-0.0176	mg/L		0.007017			Ev	2019-11-06 17:05:27
7	U5	191106A LCS TOXN	3.1863	mg/L		0.192119			Ev	2019-11-06 17:07:39
8	U6	191106A LCSD TOXN	2.9460	mg/L		0.178238			Ev	2019-11-06 17:09:51
9	U7	BA02301W12	0.3736	mg/L		0.029621			Ev	2019-11-06 17:12:03
10	U8	BA02301W12 MS	4.0247	mg/L		0.240559			Ev	2019-11-06 17:14:15
11	U9	BA02301W12 MSD	3.9497	mg/L		0.236225			Ev	2019-11-06 17:16:27
12	U10	BA02466W15	0.4104	mg/L		0.031747			Ev	2019-11-06 17:18:40
13	U11	BA02525W15	0.4059	mg/L		0.031488			Ev	2019-11-06 17:19:18
	CCV	CCV	2.9835	mg/L		0.180403			Ev	2019-11-06 17:20:22
	CCB	CCB	0.0178	mg/L		0.009063			Ev	2019-11-06 17:21:19
15	U13	1ppm NO3	1.0068	mg/L		0.066202			Ev	2019-11-06 17:22:15
16	U14	1901106A BLK S	0.6762	mg/L		0.011943		x 10.000	Ev	2019-11-06 17:23:11
17	U15	1901106A LCS S	34.6363	mg/L		0.208141		x 10.000	Ev	2019-11-06 17:24:07
18	U16	BA02318S01	97.7210	mg/L		0.572601		x 10.000	Ev	2019-11-06 17:25:03
	CCV	CCV	3.0212	mg/L		0.182578			Ev	2019-11-06 17:25:59
	CCB	CCB	0.0017	mg/L		0.008134			Ev	2019-11-06 17:26:56

Nitrite-N

Cup	Type	ID	Result	Units	QC Pro	Raw Data	Auto Dil.	Man Dil.	User	Time/Date
	CCV	CCV .75	0.7706	mg/L		0.677146				2019-11-06 17:40:58
	CCB	CCB	0.0034	mg/L		0.010281				2019-11-06 17:43:16

19	U17	BA02319S01	155.9956	mg/L	3.397178	x 4.000	x 10.000	Ev	2019-11-06 17:45:29
	CCV	CCV .75	0.7842	mg/L	0.688953				2019-11-06 17:47:43
	CCB	CCB	0.0045	mg/L	0.011269				2019-11-06 17:48:51

TOXN

Cup	Type	ID	Result	Units	QC Pro	Raw Data	Auto Dil.	Man Dil.	User	Time/Date
	CCV	CCV	3.1694	mg/L		0.191141				2019-11-06 17:52:06
	CCB	CCB	0.0102	mg/L		0.008626				2019-11-06 17:53:02
18	U16	BA02318S01	93.2150	mg/L		0.061890	x 10.000	x 10.000	Ev	2019-11-06 17:53:59
	CCV	CCV	3.0540	mg/L		0.184478				2019-11-06 17:54:55
	CCB	CCB	0.0000	mg/L		0.008039				2019-11-06 17:55:51

Nitrite-N

Cup	Type	ID	Result	Units	QC Pro	Raw Data	Auto Dil.	Man Dil.	User	Time/Date
	CCV	CCV .75	0.7738	mg/L		0.679891				2019-11-06 18:06:21
	CCB	CCB	0.0038	mg/L		0.010624				2019-11-06 18:07:17
19	U17	BA02319S01	251.7005	mg/L		1.429414	x 15.385	x 10.000	Ev	2019-11-06 18:08:14
	CCV	CCV .75	0.7924	mg/L		0.696075				2019-11-06 18:09:11
	CCB	CCB	0.0040	mg/L		0.010830				2019-11-06 18:10:07

TOTAL ORGANIC CARBON

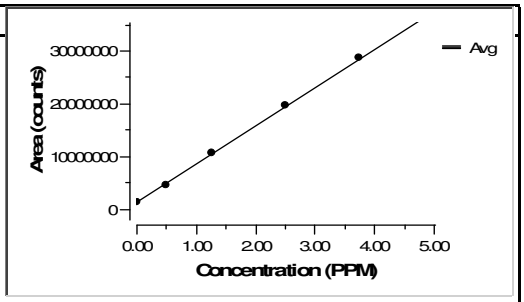
Method: WetChem | Units mg/L | Instrument: Tic Toc

Analyte: DOC | QCG: 191105A

Analyist: AR | Final Volume: 40mL

Date	Time	Appl ID	[TOC]	Raw	% Recovery
10/31/19	19:20	QC blank	0.00	1130.000	
10/31/19	19:56	Ical 1	0.50	7935.000	
10/31/19	20:28	Ical 2	2.00	24866.000	
10/31/19	21:02	Ical 3	5.00	59510.000	
10/31/19	21:35	Ical 4	10.00	118117.000	
10/31/19	22:08	Ical 5	20.00	235471.000	
11/01/19	10:03	ICB	0.08	883.000	
11/01/19	10:39	ICV	10.40	121613.000	104.0%

r^2= 0.9987



Date	Time	Appl ID	DF	Raw Result	SubSample Amount	Filter Blank Subtract	Calc Conc	Result	Range (mg/L)	QC True	% Recovery
2019-11-05	03:44 PM	CCV	1	63408	40mL	0.010	5.287	5.28	0.13	5.00	105.5%
2019-11-05	04:20 PM	CCB	1	1709	40mL	0.010	0.01	0.00	0.01		
2019-11-05	04:56 PM	191105A LCS	1	60895	40mL	0.010	5.072	5.06	0.08		
2019-11-05	05:31 PM	191105A LCSD	1	60928	40mL	0.010	5.074	5.06	0.02		
2019-11-05	06:07 PM	BA01736W14	1	60233	40mL	0.010	5.147	5.14	2.88		
2019-11-05	06:41 PM	BA01736W14 DUP	1	69335	40mL	0.010	5.926	5.92	0.16		
2019-11-05	07:14 PM	BA01736W14 MS	1	120114	40mL	0.010	10.268	10.26	2.84		
2019-11-05	07:48 PM	BA01736W14 MSD	1	122952	40mL	0.010	10.511	10.50	1.63		
2019-11-05	08:21 PM	BA01737W09	1	15408	40mL	0.010	1.314	1.30	0.01		
2019-11-05	08:54 PM	BA01738W09	1	9921	40mL	0.010	0.844	0.83	0.01		
2019-11-05	09:27 PM	BA01739W09	1	20767	40mL	0.010	1.772	1.76	0.03		
2019-11-05	10:00 PM	BA01740W13	1	112932	40mL	0.010	9.654	9.64	0.16		
2019-11-05	11:08 PM	BA01784W18	1	6306	40mL	0.010	0.535	0.53	0.21		
2019-11-05	11:41 PM	BA01747W09	1	116542	40mL	0.010	9.963	9.95	0.04		
2019-11-06	12:15 AM	BA01748W09	1	46602	40mL	0.010	3.981	3.97	0.04		
2019-11-06	12:48 AM	BA01749W13	1	67409	40mL	0.010	5.761	5.75	0.01		
2019-11-06	01:21 AM	CCV	1	62631	40mL	0.010	5.22	5.21	0.24	5.00	104.2%
2019-11-06	01:57 AM	CCB	1	2052	40mL	0.010	0.039	0.03	0.01		
2019-11-06	02:33 AM	BA01750W09	1	12342	40mL	0.010	1.051	1.04	0.01		
2019-11-06	03:06 AM	BA01751W09	1	12675	40mL	0.010	1.08	1.07	0.01		
2019-11-06	04:13 AM	BA01753W13	1	76200	40mL	0.010	6.513	6.50	0.14		
2019-11-06	04:47 AM	BA01831W18	1	4158	40mL	0.010	0.351	0.34	0.05		
2019-11-06	05:20 AM	BA01833W18 DUP	1	4389	40mL	0.010	0.371	0.36	0.02		
2019-11-06	05:53 AM	BA01833W18	1	4799	40mL	0.010	0.406	0.40	0.01		
2019-11-06	06:26 AM	BA02301W17	1	39760	40mL	0.010	3.396	3.39	0.04		
2019-11-06	06:59 AM	CCV	1	61255	40mL	0.010	5.103	5.09	0.25	5.00	101.9%
2019-11-06	07:36 AM	CCB	1	1897	40mL	0.010	0.026	0.02	0.01		

TOTAL ORGANIC CARBON

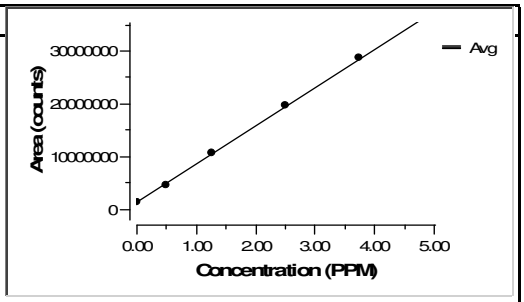
Method: WetChem | Units mg/L | Instrument: Tic Toc

Analyte: TOC | QCG: 191109B

Analyist: AR | Final Volume: 40mL

Date	Time	Appl ID	[TOC]	Raw	% Recovery
10/31/19	19:20	QC blank	0.00	1130.000	
10/31/19	19:56	Ical 1	0.50	7935.000	
10/31/19	20:28	Ical 2	2.00	24866.000	
10/31/19	21:02	Ical 3	5.00	59510.000	
10/31/19	21:35	Ical 4	10.00	118117.000	
10/31/19	22:08	Ical 5	20.00	235471.000	
11/01/19	10:03	ICB	0.08	883.000	
11/01/19	10:39	ICV	10.40	121613.000	104.0%

r^2= 0.9987



Date	Time	Appl ID	DF	Raw Result	SubSample Amount	Filter Blank Subtract	Calc Conc	Result	Range (mg/L)	QC True	% Recovery
2019-11-10	05:57 PM	CCV (using only 2 reps)	1	30693	40mL	0.000	5.092	5.09	5.02	5.00	101.8%
2019-11-10	06:33 PM	CCB	1	3132	40mL	0.000	0.132	0.13	0.03		
2019-11-10	07:09 PM	191107B LCS	1	61937	40mL	0.000	5.161	5.16	0.00	5.00	103.2%
2019-11-10	07:45 PM	191107B LCSD	1	61458	40mL	0.000	5.12	5.12	0.11	5.00	102.4%
2019-11-10	08:22 PM	BA01829W13	1	3442	40mL	0.000	0.29	0.29	0.00		
2019-11-10	08:55 PM	BA01831W18	1	3097	40mL	0.000	0.261	0.26	0.00		
2019-11-10	09:28 PM	BA01833W18	1	3748	40mL	0.000	0.316	0.32	0.01		
2019-11-10	10:01 PM	BA01943W05	1	11113	40mL	0.000	0.946	0.95	0.03		
2019-11-10	10:34 PM	BA01944W05	1	9966	40mL	0.000	0.848	0.85	0.02		
2019-11-10	11:07 PM	BA01945W05	1	80872	40mL	0.000	6.912	6.91	0.28		
2019-11-10	11:41 PM	BA01946W05	1	133487	40mL	0.000	11.412	11.41	0.22		
2019-11-11	12:15 AM	BA02090W11	1	5880	40mL	0.000	0.499	0.50	0.20		
2019-11-11	12:49 AM	BA02160W05	1	59396	40mL	0.000	5.075	5.08	0.62		
2019-11-11	01:23 AM	BA02160W05 DUP	1	62368	40mL	0.000	5.33	5.33	0.06		
2019-11-11	01:57 AM	BA02160W06 MS	1	107404	40mL	0.000	9.181	9.18	0.10		
2019-11-11	02:32 AM	BA02160W06 MSD	1	96261	40mL	0.000	8.229	8.23	3.77		
2019-11-11	03:06 AM	BA02214W15	1	3797	40mL	0.000	0.321	0.32	0.01		
2019-11-11	03:39 AM	CCV	1	60889	40mL	0.000	5.071	5.07	0.05	5.00	101.4%
2019-11-11	04:15 AM	CCB	1	2581	40mL	0.000	0.084	0.08	0.01		
2019-11-11	04:51 AM	BA02216W08	1	9510	40mL	0.000	0.809	0.81	0.01		
2019-11-11	05:24 AM	BA02216W08 DUP	1	9608	40mL	0.000	0.818	0.82	0.01		
2019-11-11	05:58 AM	BA02301W19	1	158152	40mL	0.000	13.521	13.52	0.09		
2019-11-11	06:32 AM	BA02053W10	1	72253	40mL	0.000	6.175	6.18	0.02		
2019-11-11	07:06 AM	BA02054W10	1	42094	40mL	0.000	3.596	3.60	0.01		
2019-11-11	07:40 AM	BA02401W01	1	16638	40mL	0.000	1.419	1.42	0.01		
2019-11-11	08:13 AM	BA02402W01	1	14218	40mL	0.000	1.212	1.21	0.01		
2019-11-11	08:46 AM	BA02403W01	1	10362	40mL	0.000	0.882	0.88	0.00		
2019-11-11	09:19 AM	BA02404W01	1	21221	40mL	0.000	1.811	1.81	0.05		
2019-11-11	09:52 AM	BA02405W01	1	5819	40mL	0.000	0.493	0.49	0.01		
2019-11-11	10:25 AM	BA02406W01	1	14849	40mL	0.000	1.266	1.27	0.02		
2019-11-11	10:59 AM	CCV	1	62637	40mL	0.000	5.221	5.22	0.02	5.00	104.4%
2019-11-11	11:35 AM	CCB	1	2582	40mL	0.000	0.085	0.09	0.00		

Silica

Rev 2, 04/05/19 controlled copy

Method SM4500SiD | Units mg/L | Instrument: Genisis Spectrometer

Analyte Silica | QCG: 191106A | Wavelength: 410 nm

Analyist FJR | Final Volume: 25mL | Units: mg/L

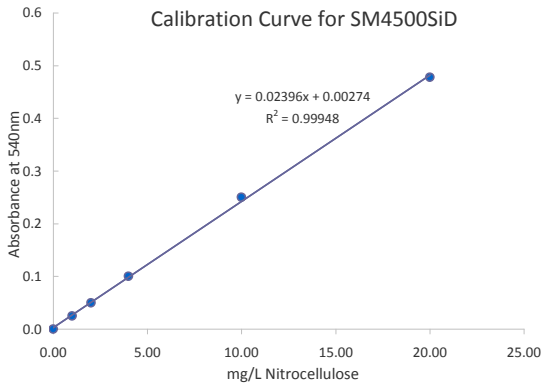
Date	Time	Appl ID	[SiO2]	Absorbance	% Recovery
11/06/19	21:16	ICB	0.00	0.000	
11/06/19	21:16	Ical 1	1.00	0.025	92.9%
11/06/19	21:17	Ical 2	2.00	0.050	98.6%
11/06/19	21:17	Ical 3	4.00	0.100	95.2%
11/06/19	21:18	Ical 4	10.00	0.250	103.2%
11/06/19	21:18	Ical 5	20.00	0.478	99.2%
11/06/19	21:19	ICV	4.00	0.097	98.3%
11/06/19	21:20	ICB	0.00	0.001	

Slope	0.023960729
Intercept	0.002742174
Coefficient of Determination	0.999482494

Algortithm Check:	Appl ID	Absorbance	Result
	191106A 4 LCS	0.094	3.81

Result = (Absorbance-Raw Blk-Intercept)/ Slope

Test:	11/06/19	FJR	3.810



	Date	Time	Appl ID	DF	Raw Result	Sample Amount	Raw BLK	Calc Conc	Result	QC True	% Recovery
id	11/06/19	21:16	ICB	1	0.000	25.0mL		-0.11	-0.11		
id	11/06/19	21:16	Ical 1	1	0.025	25.0mL		0.93	0.93	1.00	92.9%
id	11/06/19	21:17	Ical 2	1	0.050	25.0mL		1.97	1.97	2.00	98.6%
id	11/06/19	21:17	Ical 3	1	0.094	25.0mL		3.81	3.81	4.00	95.2%
id	11/06/19	21:18	Ical 4	1	0.250	25.0mL		10.32	10.32	10.00	103.2%
id	11/06/19	21:18	Ical 5	1	0.478	25.0mL		19.83	19.83	20.00	99.2%
id	11/06/19	21:19	ICV	1	0.097	25.0mL		3.93	3.93	4.00	98.3%
id	11/06/19	21:20	ICB	1	0.001	25.0mL		-0.07	-0.07		
	11/06/19	21:20	191106A CCV1 4	1	0.245	25mL		10.11	10.11	10.00	101.1%
	11/06/19	21:21	191106A CCB	1	0.002	25mL		-0.03	-0.03		
	11/06/19	21:22	191106A BLK	1	0.001	25mL		-0.07	-0.07		
	11/06/19	21:22	191106A 4 LCS	1	0.094	25mL		3.81	3.81	4.00	95.2%
	11/06/19	21:23	191106A 4 LCSD	1	0.095	25mL		3.85	3.85	4.00	96.3%
	11/06/19	21:23	BA02090W09 Total DF	5	0.238	25mL		9.82	49.09		
	11/06/19	21:24	BA02214W14 Total DF	5	0.218	25mL		8.98	44.92		
	11/06/19	21:25	BA02301W09 Total DF	5	0.224	25mL		9.23	46.17		
	11/06/19	21:25	BA02466W14 Total DF	5	0.211	25mL		8.69	43.46		
	11/06/19	21:26	BA02525W14 Total DF	5	0.216	25mL		8.90	44.50		
	11/06/19	21:27	BA02525W14 MS Total	5	0.297	25mL		12.28	61.40		
	11/06/19	21:27	BA02525W14 MSD Tot	5	0.298	25mL		12.32	61.61		
	11/06/19	21:28	BA02090w08 Dissolved	5	0.219	25mL		9.03	45.13		
	11/06/19	21:28	BA02214W12 Dissolve	5	0.193	25mL		7.94	39.70		
	11/06/19	21:29	BA02301w08 Dissolved	5	0.207	25mL		8.52	42.62		
	11/06/19	21:29	BA02466W13 Dissolved	5	0.193	25mL		7.94	39.70		
	11/06/19	21:30	BA02525w12 Dissolved	5	0.201	25mL		8.27	41.37		
	11/06/19	21:30	BA02525w12 MS Dissolv	5	0.286	25mL		11.82	59.11		
	11/06/19	21:31	BA02525w12 MSD Diss	5	0.287	25mL		11.86	59.32		
	11/06/19	21:31	191106A CCV1 3	1	0.096	25mL		3.89	3.89	4.00	97.3%
	11/06/19	21:32	191106A CCB	1	-0.001	25mL		-0.16	-0.16		

Metrohm 814/809 Titrando Data

Sample ID	Analysis Date/Time	Method	Titration Volume (to 8.3)	Titration Volume (total)	OH	CO3	HCO3	Total Alk	Unit	Sample Vol	N	Batch	Initials
BA02301W10	2019-11-06 19:42:28 UTC-8	Alkalinity	0.000	1.276	0.00	0.00	53.08	53.08	mg/L	25 mL	0.0208	191106A	CD
191106A LCSD	2019-11-06 19:31:15 UTC-8	Alkalinity	0.200	5.998	0.00	16.64	232.88	249.52	mg/L	25 mL	0.0208	191106A	CD
191106A LCS	2019-11-06 19:22:23 UTC-8	Alkalinity	0.288	5.890	0.00	23.96	221.06	245.02	mg/L	25 mL	0.0208	191106A	CD
191106A BLK	2019-11-06 19:19:58 UTC-8	Alkalinity	0.000	0.026	0.00	0.00	1.08	1.08	mg/L	25 mL	0.0208	191106A	CD

Ferrous Iron — Rev 2, 04-05-19

Method SM3500Fe | Units mg/L | Instrument: Genisis Spectrometer
Analyte Fe2+ | QCG: 191104 | Wavelength: 510 nm
Analyist fjr | Final Volume: 50mL | Units: mg/L

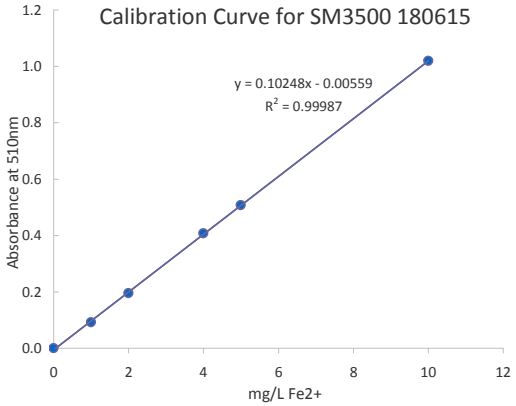
Date	Time	Appl ID	[Fe2+]	Absorbance	% Recovery
06/28/19	12:48	ICB	0.00	0.000	
06/28/19	12:49	Ical 1	1.00	0.092	95.2%
06/28/19	12:50	Ical 2	2.00	0.195	97.9%
06/28/19	12:51	Ical 3	4.00	0.408	100.9%
06/28/19	12:51	Ical 4	5.00	0.507	100.0%
06/28/19	12:52	Ical 5	10.00	1.019	100.0%
06/28/19	13:08	ICV	3.00	0.326	107.9%
06/28/19	12:53	ICB	0.00	0.002	

Slope	0.102479592
Intercept	-0.005591837
Coefficient of Determination	0.999872044

Algortithm Check:	Appl ID	Absorbance	Result
	ICV/LCS 191104A	0.292	2.90

Result = (Absorbance-Raw Blk-Intercept)/ Slope

Test:	FJR	11/04/19	2.90



Date	Time	Appl ID	DF	Raw Result	SubSample Amount	Raw BLK	Calc Conc	Result	QC True	% Recovery
11/04/19	22:26	CCV 4.0 191104	1	0.404	25mL		4.00	4.00	4.00	99.9%
11/04/19	22:27	CCB 191104	1	0.000	25mL		0.05	0.05		
11/04/19	22:27	ICV/LCS 191104A	1	0.292	25mL		2.90	2.90	3.00	96.8%
11/04/19	22:27	ICV/LCSD 191104A	1	0.294	25mL		2.92	2.92	3.00	97.4%
11/04/19	22:28	BA02301W11	1	0.003	25mL		0.08	0.08		
11/04/19	22:28	BA02301W11 MS	1	0.303	25mL		3.01	3.01		
11/04/19	22:28	BA02301W11 MSD	1	0.305	25mL		3.03	3.03		
11/04/19	22:30	CCV 4.0 191104	1	0.403	25mL		3.99	3.99	4.00	99.7%
11/04/19	22:30	CCB 191104	1	-0.001	25mL		0.04	0.04		

Standard Prep

	Ferrous Iron Standards		Prep'd By (Initials)		FJR		
Prep Date	06/28/18						
Exp Date	06/28/19						
Stock Label	Supplier	Batch Number	Exp Date	Aliquot from Stock	Final Volume	Solvent	Ferrous Iron Concentration
Ferrous Ammonium Sulfate	J.T.Baker	0000184592	08/21/20	0.351	250mL	5ml H2SO4 (0000167828) Diluted with water	200ug/L
Ferrous Sulfate	Mallinckrodt	Lot 5056 KDRX	NA	0.250	250mL	5ml H2SO4 (0000167828) Diluted with water	200ug/L
Ferrous Iron CCV/LCS/MS/ICV			Prep'd By (Initials)		FJR		
Prep Date	See Injection Log						
Exp Date	24 Hours						
Initial Standard Information	Supplier	Batch Number	Exp Date	Final Standard Information			
Ferrous Iron CCV	J.T.Baker	0000184592	06/14/19	500uL	25mL	Deionized water	4mg/L
Ferrous Iron ICV/LCS	Mallinckrodt	Lot 5056 KDRX	06/14/19	375uL	25mL	Deionized water	3mg/L
	Ferrous Iron Calibration Curve		Prep'd By (Initials)		FJR		
Prep Date	06/28/18						
Exp Date	06/28/19						
Final Standard Information							
Point Label	Supplier	Batch Number	Exp Date	Aliquot from Stock (mL)	Final Volume	Solvent	Ferrous Iron Concentration
CCB	J.T.Baker	0000184592	06/14/19	0	25mL	Deionized water	0mg/L
Ical 1	J.T.Baker	0000184592	06/14/19	0.125	25mL	Deionized water	1mg/L
Ical 2	J.T.Baker	0000184592	06/14/19	0.25	25mL	Deionized water	2mg/L
Ical 3	J.T.Baker	0000184592	06/14/19	0.5	25mL	Deionized water	4mg/L
Ical 4	J.T.Baker	0000184592	06/14/19	0.625	25mL	Deionized water	5mg/L
Ical 5	J.T.Baker	0000184592	06/14/19	1.25	25mL	Deionized water	10mg/L
ICV	Mallinckrodt	Lot 5056 KDRX	06/14/19	0.375	25mL	Deionized water	3mg/L

Reagent Prep

Reagent	Chemical Lot #	Chemical	Chemical Expiration Date	Amount	Date Prep
Colorizer	0747C107	1,10-phenanthroline	na	1.00g 1L DI	10/24/19
		10% HCL conc	na	enough to dissolve	01/15/19
Buffer	Z28B018	Ammonia Acetate	na	248.2G	09/26/19
	2018071399	Glacial Acetic Acid	06/27/20	700mL	

Nitrite

High Point @ 1.5 mg/L
0.2463 mL NO2 Inorganic Ventures lot N2-NOX672889-40759 exp: 05/01/20
50 mL DI Water

CCV @ 0.75 mg/L
0.1232 mL NO2 Inorganic Ventures lot N2-NOX672889-40759 exp: 05/01/20
50 mL DI Water

ICV/LCS @ 0.73 mg/L
0.120 mL NO2 Inorganic Ventures lot M2-NOX660562-40468 exp: 08/25/21
50 mL DI Water

1 mg/L NO2
400 uL of High point and 200 uL of DI made directly into a sample cup

Prep 11/06/19
Exp 11/13/19
EV

Nitrate/TOXN

High Point @ 6 mg/L
0.300 mL NO3 O2Si lot 880117-4-39577 exp: 2/21/20
50 mL DI Water

CCV @ 3.0 mg/L
0.150 mL NO3 O2Si lot 880117-4-39577 exp: 2/21/20
50 mL DI Water

ICV/LCS @ 3.0 mg/L
0.150 mL NO3 Inorganic Ventures lot P2-NOX675324-49391 exp: 02/14/23
50 mL DI Water

1 mg/L NO3
100 uL of High point and 500 uLof DI made directly into a sample cup

MS @ 0.73 mg/L NO2 and 2.5 mg/L NO3
0.120 mL NO2 Inorganic Ventures lot M2-NOX660562-40468 exp: 08/25/21and
0.125 mL NO3 Inorganic Ventures lot P2-NOX675324-49391 exp: 02/14/23
Final volume 50 mL of sample

Prep 11/06/19
Exp 11/13/19
EV

Tiamo Alkalinity Standard Prep

Prep Date:

Exp Date:

Prep'd By (Initials): AR

Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Unit	Conc	Lot Number - QA Number	Prep/Opened	Exp. Date	Aliquot from Stock	Final Volume	Solvent	Final Standard Conc
Sulfuric Acid (H2SO4)	J.T.Baker	NA	NA	167828	NA	NA	PURCHASED	NA	NA	NA
0.10N Sulfuric Acid (H2SO4)	J.T.Baker	Normality	0.1N	167828	05/24/19	05/24/20	3ml	1L	DI	0.10N
0.02N Sulfuric Acid (H2SO4)	J.T.Baker	Normality	0.02N	167828	05/24/19	05/24/20	200mL	1L	DI	0.02N
Inorganic Spike(NaHCO3)	BDH	NA	NA	1575C510	10/18/18	08/14/20	PURCHASED	NA	NA	NA
Inorganic Spike Solution	BDH	Milligrams/Liters	250mg/L	1575C510	09/17/19	03/17/20	3.5g	500mL	DI	250mg/L
Standarizing Solution(NaCO3)	J.T.Baker	Normality	1N	178494	07/25/17	07/25/19	PURCHASED	NA	NA	NA

Name of Final Standard TOC Calibration Curve — **Prep'd By (Initials)** AR

Prep Date 06/11/19

Exp Date 07/09/19

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from contianer Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
Total Organic Carbon (TOC) Standard	Agilent	IQC-1 06-5	1000 mg/L	CS-5157-40233	11/30/20	20 uL	40 mL	DI Water	0.5 ppm
Total Organic Carbon (TOC) Standard	Agilent	IQC-1 06-5	1000 mg/L	CS-5157-40233	11/30/20	50 uL	40 mL	DI Water	1.25 ppm
Total Organic Carbon (TOC) Standard	Agilent	IQC-1 06-5	1000 mg/L	CS-5157-40233	11/30/20	100 uL	40 mL	DI Water	2.5 ppm
Total Organic Carbon (TOC) Standard	Agilent	IQC-1 06-5	1000 mg/L	CS-5157-40233	11/30/20	150 uL	40 mL	DI Water	3.75 ppm
Total Organic Carbon (TOC) Standard	Agilent	IQC-1 06-5	1000 mg/L	CS-5157-40233	11/30/20	200 uL	40 mL	DI Water	5 ppm

Name of Final Standard ICV (TOC) — **Prep'd By (Initials)** AR

Prep Date 06/11/19

Exp Date 07/09/19

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from contianer Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
1000 PPM ICV TOC Intermediate	APPL Inc.	Prep: 2/11/19	1000 mg/L	Prep: 2/11/19	07/09/19	100 uL	40mL	DI Water	2.5 ppm

Name of Final Standard CCV (TOC) — **Prep'd By (Initials)** AR

Prep Date See Data

Exp Date 1 year

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from contianer Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
Total Organic Carbon (TOC) Standard	Agilent	IQC-1 06-5	1000 mg/L	CS-5157-40233	11/30/20	100 uL	40 mL	DI Water	2.5 ppm

Name of Final Standard TOC_LCS/LCSD — **Prep'd By (Initials)** AR

Prep Date See Data

Exp Date 1 year

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from contianer Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
Total Organic Carbon (TOC) Standard	ULTRA Scientific	IQC-106-5	1000 mg/L	CR-0328-37639	02/28/19	100 uL	40 mL	DI Water	2.5 ppm

Name of Final Standard TOC_MS/MSD — **Prep'd By (Initials)** AR

Prep Date See Data

Exp Date 1 year

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from contianer Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
Total Organic Carbon (TOC) Standard	ULTRA Scientific	IQC-106-5	1000 mg/L	CR-0328-37639	02/28/19	100 uL	40 mL	sample	2.5 ppm

EPA 353.2 Injection Log

Directory: I:\EVE\Export\2019\

RunID	Injected		Sample Name	Misc Info	FileName	Multiplier
1	06 Nov 2019	16:41	Standard 1 TOXN/NO3		191107A NO	1.
2	06 Nov 2019	16:43	Standard 90 TOXN/NO3		191107A NO	1.
3	06 Nov 2019	16:45	Standard 91 TOXN/NO3		191107A NO	1.
4	06 Nov 2019	16:47	Standard 92 TOXN/NO3		191107A NO	1.
5	06 Nov 2019	16:50	Standard 93 TOXN/NO3		191107A NO	1.
6	06 Nov 2019	16:52	Standard 94 TOXN/NO3		191107A NO	1.
7	06 Nov 2019	16:54	Standard 0 TOXN/NO3		191107A NO	1.
10	06 Nov 2019	17:01	ICV NO3 TOXN		191107A NO	1.
11	06 Nov 2019	17:03	ICB NO2 NO3 TOXN		191107A NO	1.
12	06 Nov 2019	17:05	191106A BLK TOXN		191107A NO	1.
13	06 Nov 2019	17:07	191106A LCS TOXN		191107A NO	1.
14	06 Nov 2019	17:09	191106A LCSD TOXN		191107A NO	1.
15	06 Nov 2019	17:12	BA02301W12 TOXN/NO3		191107A NO	1.
20	06 Nov 2019	17:20	CCV TOXN/NO3		191107A NO	1.
21	06 Nov 2019	17:21	CCB TOXN/NO3		191107A NO	1.

908 North Temperance Ave. ∇ Clovis, CA 93611 ∇ Phone 559-275-2175 ∇ Fax 559-275-4422

Certification Number: CA1312
NELAP Certification number: CA00046
DoD-ELAP Certificate number: 4064.01

Data Validatable Report

December 5, 2019

AECOM
1001 Bishop Street, Suite 1600
Honolulu, Hawaii 96813

Attn: Margie Pascua

Title: Report of Data: Case 90648

Project: 60571032 CV18F0126 Red Hill Fuel Storage. HI

Contract #: Prime contract # for DoD: NAVY CLEAN N62742-17-F-1800, CV18F0126
Subcontract: 18S-22209-HI27

Dear Ms. Pascua:

Two water samples were received November 05, 2019. Written results for the requested analyses are being provided on this December 5, 2019.

Results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

If you have any questions or require further information, please contact your APPL Project Manager, Libby Cheeseborough, libby@applinc.com, at your convenience. Thank you for choosing APPL, Inc.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. These test results meet all requirements of NELAC and DoD QSM. Release of the hard copy has been authorized by the Laboratory Manager or her designee, as verified by the following signature.

Paula McCartney

Paula McCartney, Laboratory Director
APPL, Inc.

PM/lac
Enclosure
cc: File

Data Validation Package
for
60481245 CIV 0053 Red Hill Fuel Storage
APPL SDG 90648
TABLE OF CONTENTS

LABORATORY NAME: *APPL, Inc.*

CASE NARRATIVE

Case Narrative

ARF: 90648

Project: 60571032 CV18F0126 Red Hill Fuel Storage. HI

Sample Receipt Information:

Two water samples were received November 05, 2019, at 1.9°C. The sample group was assigned Analytical Request Form (ARF) number 90648.

Sample Preparation and Analysis Information:

For the EPA 8011 analysis, the samples were extracted according to APPL SOP method MWE012.

For the EPA 8015B analysis, the sample was extracted according to EPA method 3520C. The sample extract was silica gel cleaned according to APPL's SOP CLN004 and placed on hold.

For the EPA 8270D SIM analysis, the sample was extracted according to EPA method 3520C.

For the EPA 8270D Phenol analysis, the sample was extracted according to EPA method 3520C.

For the APPL SOP ANA2MEE analysis, the sample was extracted according to EPA method 3535.

For the EPA 8260B analysis, the samples were purged according to EPA method 5030B.

For the RSK-175 analysis, the samples were allowed to equilibrate for 10 minutes at 40°C and a portion of the headspace was analyzed.

For the EPA 6010C analysis, the sample was digested according to EPA method 3010A.

For the EPA 9060A, 300.0, 353.2, SM 2320B, SM 4500-SiD and SM 3500FeB analyses, the sample was prepared according to the methods.

Only the portion of the injection log relative to these samples is included. A full sequence log is available upon request. Measurement uncertainty can be reported upon request.

Analytical Exceptions, Deviations and Abnormalities.

EPA 8015B:. Manual integrations were performed in accordance with APPL's SOP. Chromatograms of before and after manual integration are enclosed.
In the 191111A LCS, Oil recovered above the upper control limit. Corrective action: None, Oil was not detected in the associated samples.

EPA 8270D Phenol: One surrogate recovered above the upper control limit in the blank and LCS. Phenol recovered above the upper control limit in the LCSD. Corrective action: None, phenol was not detected in the associated samples.

EPA 8260B: The surrogate 1,2-Dichloroethane-d4 recovered above the upper control limit in one sample and the 191107BM-BLK. No target compound was detected.

SDG	Received	Client ID	APPL ID	Collected DateTime	Matrix	Method	Method Description
90648	11/5/2019	ERH954	BA02465	11/4/2019 7:45:00 AM	WATER	8011	EPA 8011
90648	11/5/2019	ERH954	BA02465	11/4/2019 7:45:00 AM	WATER	EPA 8260B	EPA 8260B BTEX & 1,2-DCA WATER
90648	11/5/2019	ERH954	BA02465	11/4/2019 7:45:00 AM	WATER	EPA 8260-GAS	EPA 8260 with GAS
90648	11/5/2019	ERH954	BA02465	11/4/2019 7:45:00 AM	WATER	EPA 8260B	EPA 8260B GRO WATER
90648	11/5/2019	ERH954	BA02465	11/4/2019 7:45:00 AM	WATER	RSK 175	METHANE BY RSK 175
90648	11/5/2019	ERH954	BA02465	11/4/2019 7:45:00 AM	WATER	RSK 175	MEE BY RSK 175
90648	11/5/2019	ERH955	BA02466	11/4/2019 9:00:00 AM	WATER	SM 2320B	Wetlab 2320B - Water
90648	11/5/2019	ERH955	BA02466	11/4/2019 9:00:00 AM	WATER	EPA 300.0	Wetlab 300.0 - Water
90648	11/5/2019	ERH955	BA02466	11/4/2019 9:00:00 AM	WATER	EPA 300.0	Wetlab 300.0 - Water
90648	11/5/2019	ERH955	BA02466	11/4/2019 9:00:00 AM	WATER	SM3500FeB	Ferrous Iron
90648	11/5/2019	ERH955	BA02466	11/4/2019 9:00:00 AM	WATER	EPA 353.2	EPA 353.2 - WATER
90648	11/5/2019	ERH955	BA02466	11/4/2019 9:00:00 AM	WATER	6010C/3010A	EPA 6010C TOTAL
90648	11/5/2019	ERH955	BA02466	11/4/2019 9:00:00 AM	WATER	8011	EPA 8011
90648	11/5/2019	ERH955	BA02466	11/4/2019 9:00:00 AM	WATER	EPA 8260B	EPA 8260B BTEX & 1,2-DCA WATER
90648	11/5/2019	ERH955	BA02466	11/4/2019 9:00:00 AM	WATER	EPA 8270D	EPA 8270D WATER
90648	11/5/2019	ERH955	BA02466	11/4/2019 9:00:00 AM	WATER	EPA 8270D	EPA 8270D MODIFIED WATER
90648	11/5/2019	ERH955	BA02466	11/4/2019 9:00:00 AM	WATER	EPA 8015B-eLL	EPA 8015B TPH LIQ-LIQ
90648	11/5/2019	ERH955	BA02466	11/4/2019 9:00:00 AM	WATER	SW846 9060A	9060A DOC
90648	11/5/2019	ERH955	BA02466	11/4/2019 9:00:00 AM	WATER	EPA 8260-GAS	EPA 8260 with GAS
90648	11/5/2019	ERH955	BA02466	11/4/2019 9:00:00 AM	WATER	EPA 8260B	EPA 8260B GRO WATER
90648	11/5/2019	ERH955	BA02466	11/4/2019 9:00:00 AM	WATER	RSK 175	METHANE BY RSK 175
90648	11/5/2019	ERH955	BA02466	11/4/2019 9:00:00 AM	WATER	RSK 175	MEE BY RSK 175
90648	11/5/2019	ERH955	BA02466	11/4/2019 9:00:00 AM	WATER	8270D-SIM	EPA 8270D SIM LIQ-LIQ
90648	11/5/2019	ERH955	BA02466	11/4/2019 9:00:00 AM	WATER	SM 4500-Si D	Silica W
90648	11/5/2019	ERH955	BA02466	11/4/2019 9:00:00 AM	WATER	SM 4500-Si D	SILICA W - DISSOLVED
90648	11/5/2019	ERH955	BA02466	11/4/2019 9:00:00 AM	WATER	SW846 9060A	9060A TOC

APPL Inc.
Abbreviations and Flags

FLAG	DESCRIPTION
#	Recovery or RPD outside control limits
*	Recovery or RPD outside control limits
B	Analyte detected in associated method blank
C1	Reason for correction: wrote incorrect response
C2	Reason for correction: calculated incorrectly
C3	Reason for correction: needs to be rechecked
C4	Reason for correction: data not usable
DO	Diluted out
E	Exceeds linear range
F	Estimated value
G1	Includes a wide range of hydrocarbons which does not match our gasoline standard
G10	Includes a match to hydrocarbon profiles within the range of mineral spirits
G11	Includes a match to hydrocarbon profiles within the range of JP-4
G12	Pattern does not match the gasoline standard; the carbon range for this sample is consistent with JP8
G13	Closely resembles the hydrocarbon profile of aviation gasoline
G14	Analyte concentration may be biased due to carry over
G2	Closely resembles the boiling point hydrocarbon profile consistent with weathered gasoline
G3	Includes higher boiling hydrocarbons
G4	Includes dominant peak(s) not indicative of petroleum hydrocarbons
G5	Is mainly dominant peak(s) not indicative of petroleum hydrocarbons
G6	Contains recognizable contaminant peak(s) which has been removed from quantitation
G7	Is mainly a match to hydrocarbons within the range of gasoline
G8	Closely resembles the boiling point hydrocarbon profile consistent with weathered gasoline
G9	Includes hydrocarbons within the range of kerosene
J	Estimated value
M	Matrix effect
MI1	Manual integration: integration does not follow baseline
MI2	Manual integration: non-target peak interference
MI3	Manual integration: to split a peak that was integrated as one peak by the computer.
MI4	Manual integration: to integrate a split peak
MI5	Manual integration: the whole peak or part of the peak was not integrated
MI6	Manual integration: computer integrated wrong peak
MI7	Manual integration: other – (See case narrative)
MDL	Method detection limit
ND	Not detected
NT	Non-target
Q	Acceptance criteria not met
T1 I	Includes wide range of hydrocarbons not indicative of diesel
T1 M	Is mainly wide range of hydrocarbons not necessarily indicative of diesel
T2 I	Includes lower boiling hydrocarbons, e.g. mineral spirits, kerosene, stoddard solvent, white gas
T2 M	Is mainly lower boiling hydrocarbons, e.g. mineral spirits, kerosene, stoddard solvent, white gas
T3 I	Includes higher boiling hydrocarbons, e.g. asphaltene, waste oil, motor oil, or weathered diesel fuel
T3 M	Is mainly higher boiling hydrocarbons, e.g. asphaltene, waste oil, motor oil, or weathered diesel fuel
T4 I	Includes dominant peak(s) not indicative of hydrocarbons
T4 M	Is mainly dominant peak(s) not indicative of hydrocarbons
T5	Contains recognizable contaminant peak(s) which has been removed from quantitation
T6	Is mainly a match to hydrocarbons within range of diesel fuel
T7	Closely resembles the boiling point hydrocarbon profile consistent with diesel fuel
T8	Includes a match to hydrocarbon profiles within range of diesel and kerosene fuel
T9 I	Includes non-diesel hydrocarbons within boiling point range of diesel fuel
T9 M	Is mainly non-diesel hydrocarbons within boiling point range of diesel fuel
U	Not detected
Y	Percent difference between primary and confirmation column > 40%

SAMPLE RECORDS MANAGEMENT

CHAIN OF CUSTODY,

ARF, CRF, AND

CLIENT COMMUNICATION

APPL - Analysis Request Form 90648

Client: AECOM
Address: 1001 Bishop Street, Suite 1600
Honolulu, HI 96813
Attn: Margie Pascua
Phone: 808-356-5373 Fax: 808-523-8950
Job: 60571032 CV18F0126 Red Hill Fuel Storage
PO #: 18S-22209-HI27 PO# 102604
Chain of Custody (Y/N): Y # 118
RAD Screen (Y/N): Y pH (Y/N): Y
Turn Around Type: 1 WEEK

Received by: AAR
Date Received: 11/05/19 Time: 10:00
Delivered by: FEDEX
Shuttle Custody Seals (Y/N): Y Time Zone: -10
Chest Temp(s): 1.9°C
Color: VFRG/A-Grn/FS-BlRed
Samples Chilled until Placed in Refrig/Freezer: Y
Project Manager: Libby Cheesebor
QC Report Type: DVP4DOD/EQUIS/HI
Due Date:

Comments:
PM: login and F1s to Margie.Pascua@aecom.com
AN: 7 day TAT for Form 1s; 21 day TAT for PKG STYLE 1; DOD v5.1; DOD Forms: LOD database
Wetlab: Nitrate by EPA 300 and 353.2
8270 SIM: 1-methylnaphthalene, 2-methylnaphthalene & naphthalene only.
TPH D & O both with and w/o SGC, reverse surrogate for the SGC; analyze SGC if detections
RSK: Methane only; 8011: EDB only; $87DC53W5: report phenol ONLY
FR: 2 labeled CDs to Margie AFTER validation; email ftp info to Margie, Stella, trommelfanger@lab-data
EDD: AECOM EQuIS EDD 2.5.3 Red Hill 87DMEE->3535A to Margie.Pascua@aecom.com & jecklund@lab-data.com

Sample Distribution:
GC: 2-$8011, 1-$87DC53W5, 1-$87DMEEW5, 1-$DOC53W5LIQ, 1-$SIM53LIQ51
Extractions: 2- MWE012, 1- LIQ003, 1- LIQ005, 1-MWE2MEE
VOA: 2-$86BTOTXDCAW, 2-$GASBL, 2-$GRO86BW, 2-$RSKMETH
Metals: 1-$61CDOD5W(Ca,Mg,Mn,K,Na)
Wetlab: 1-$232W(HCO3,CO3,ALK), 1-$300W(BR,CL,F,SO4), 1-$35FE, 1-$35OF(NO3), 1-$DOCW53, 1-$SIO2, 1-$SIO2D, 1-$TOCW53
Other: 1- M3010

Charges:

Invoice To:
ACCOUNTS PAYABLE
1001 Bishop Street, Ste 1600
USAPImaging@aecom.com
mary.basano@aecom.com

	Client ID	APPL ID	Sampled	Analyses Requested
1.	ERH954	BA02465W LCSD	11/04/19 07:45	$8011, $86BTOTXDCAW, $GASBL, $GRO86BW, $RSKMETH
2.	ERH955	BA02466W LCSD	11/04/19 09:00	$232W(HCO3,CO3,ALK), $300W(BR,CL,F,SO4), $35FE, $35OF(NO3), $61CDOD5W(Ca,Mg,Mn,K,Na), $8011, $86BTOTXDCAW, $87DC53W5, $87DMEEW5, $DOC53W5LIQ, $DOCW53, $GASBL, $GRO86BW, $RSKMETH, $SIM53LIQ51, $SIO2, $SIO2D, $TOCW53

Note: All times, excluding sample collection times, are Pacific Time Zone unless noted otherwise. Collection times are in: -10 UTC
Page 1 Client Code: AECOM-REDHILL *Printed 11/06/19 8:53:09 AM* Computer: APPL-LC **# 90648**

APPL Sample Receipt Form

ARF# **90648**

Sample	Container Type	Count	p
BA02465	[13] VOAs - HCL	4	NA
	[15] VOAs - NP	3	NA
BA02466	[3] PL 250mL	3	NA
	[6] PL 500mL - HNO3	1	1.7
	[10] PL 250mL - H2SO4	1	1.7
	[13] VOAs - HCL	4	NA
	[15] VOAs - NP	3	NA
	[17] Amber Liter	4	NA
	[32] Clear VOA - H2SO4	4	NA
	[38] 250mL brn poly, HCl prsvd	1	1.7
	[40] 500mL Amber, unprsrvd	3	NA

Sample	Container Type	Count	p

90648

APPL LABS

APPL, Inc.
908 N Temperance Ave
Clovis, CA 93611
www.applinc.com

Phone: (559) 275-2175
Fax: (559) 275-4422
coc@applinc.com

CHAIN OF CUSTODY RECORD

C.O.C. 118

Report to: PLEASE PRINT	Invoice to: PLEASE PRINT
Company Name: AECOM Phone: 808-356-5373	Company Name: AECOM Phone: 808-529-7249
Address: 1001 Bishop St, Suite 1600 Honolulu, HI 96813 Fax: 808-523-8950	Address: 1001 Bishop St, Suite 1600 Honolulu, HI 96813 Fax: 808-523-8950
Attn: Margie Pascua	Attn: Mary Basano
Email: margie.pascua@aecom.com	Email: mary.basano@aecom.com; usapimaging@aecom.com

Project Name/Number: CV18F0126 / 60571032
Purchase Order Number: 102604
Sampler (Print): MH, GM, SM
Sampler (Signature): MP for MH, GM, SM

Date Shipped:
Carrier: FedEx
Waybill No.:
Comments:

Sample Identification	Location	Date Collected	Time Collected	Time Zone	No. of Containers	Matrix: Aq	Matrix: Sed.	Matrix: Soil	8260C BTEX, TPH-g	8260C DCA 8011 EDB	8015C TPH-d/o	3630/8015C TPH-d/o w/ SGT	8270DSIM PAHs short list	8270D Phenol, PCP w/ b/a	8270D 2-(2-methoxy ethoxy)-ethanol	RSK175M Methane	SM3500-Fe Ferrous Iron	353.2 Nitrate-Nitrite N	SM2320B Alkalinity 300.0 Nitrate,Sulfate,Chloride	300.0 Bromide/Fluoride 6010 Total Ca,Mg,Mn,K,Na SM4500 Total & Dissolved Silica	9060A TOC	9060 DOC
ERH954	Trip Blank	11/04/19	07:45	HST	7	X			X	X						X						
ERH955	RHMW15-01	11/04/19	09:00	HST	24	X			X	X	X	X*	X	X	X	X	X	X	X	X	X	X

EB 11/04/19

*Analyze TPH w/SGT only if TPH-d/o detected.

TPH-d/o & PAHs need liquid-liquid extraction.

Shuttle Temperature: R1 @ 10.4 1.5/1.9

Turnaround Requested: Check one
☐ Standard 2-3 wk ☒ One week ☐ 3 days ☐ 24/48 Hrs. ☐ Other:

Sample Disposal:
☐ Return to client ☒ Disposal by Lab (30-day retention)

Relinquished by sampler: AECOM Estelle BONNY	Date 11/04/19	Time 1350	Received by:	Relinquished by:	Date	Time	Received by:
Relinquished by:	Date	Time	Received by:	Relinquished by:	Date 11-5-19	Time 1000	Received at lab by:

See page 2 for Container Preservative and Sampling Information

COOLER RECEIPT FORM **ARF: 90648**

1) Project: 60571032 CV18F0126 Red Hill Fuel Storage Date Received: 11/05/19

2) Coolers: Number of Coolers: 1

3) YES Were custody seals present and intact?
How many? 2 Name/Date on seal? SEE BELOW

4) YES Was there a shipping slip? Carrier name: FEDEX

5) Type of packing in cooler: X bubble wrap __ popcorn __ foam X plastic bags __ other
X wet ice __ dry ice __ no ice __ gel ice

6) YES Were cooler temperatures acceptable?

7) Serial number of certified NIST thermometer use R1 @ +0.4°C

8) Cooler temp(s): In °C. Thermometer Temp / Corrected Temp

1: 1.5°C/ 1.9°C	2:	3:	4:	5:	6:
7:	8:	9:	10:	11:	12:

Chain of custody:

9) YES Was a chain of custody received?

10) YES Were the custody papers complete/signed in the appropriate places?

Sample Labels:

11) YES Were all sample labels complete (sample ID, date/time of sampling, etc.)?

12) YES Did all container labels agree with custody papers?

Sample Containers:

13) YES Were all containers sealed in separate bags?

14) YES Did all containers arrive in good condition:(unbroken, no leakage, no cracked/broken lids)?

15) YES Were correct containers and preservatives used for the tests indicated?

16) YES Was a sufficient amount of sample sent for tests indicated?

17) No Were bubbles present in volatile samples?
If yes, the following were received with air bubbles:
Larger than a pea:
Smaller than a pea:

Preservation Hold time:

18) Yes Was a sufficient amount of holding time remaining to analyze the samples?

19) Yes Was the pH taken of all non-VOA preserved samples and written on the sample container?

20) Yes Was the pH of acid preserved non-VOA samples < 2?

21) NA Was the pH of sodium hydroxide preserved samples for Cyanide > 12 and Sulfide >9?

22) NO Were unpreserved VOA Vials received?

23) NA Are unpreserved VOA vials noted in the ADD TEST FIELD on the ARF?
pH strip lot number: 90B2031
Lab notified if pH was not adequate:

Notes/Deficiencies:

AECOM (808) 521-3051
EB Date 11/04

Personnel receiving samples: ZG Second reviewer: MP
Personnel labeling samples: ZG
Project manager notified: ZG Date/Time of notification 11/05/19
Name of client notified: Date/Time of notification

Revision: 22, November 5, 2013

SAMPLE RESULTS

EPA 8011

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua
Project: 60571032 CV18F0126 Red Hill Fuel Storage
Sample ID: ERH954
Sample Collection Date: 11/04/19

ARF: 90648
APPL ID: BA02465
QCG: #8011-191111A-247068

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
8011	EDB	0.019 U	0.02	0.019	0.010	ug/L	11/11/19	11/12/19
8011	SURROGATE: 1,3-DIBROMOPROPANE	106	70-132			%	11/11/19	11/12/19

Quant Method: 8011106A.M
Run #: 1025157
Instrument: Herbie
Sequence: 191025
Dilution Factor: 1
Initials: GAG

Printed: 12/05/19 4:05:01 PM
APPL-F1-SC-NoMC-REG MDLs-DOD

EPA 8011

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

Sample ID: ERH955

Sample Collection Date: 11/04/19

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

ARF: 90648

APPL ID: BA02466

QCG: #8011-191111A-247068

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
8011	EDB	0.019 U	0.02	0.019	0.010	ug/L	11/11/19	11/12/19
8011	SURROGATE: 1,3-DIBROMOPROPANE	105	70-132			%	11/11/19	11/12/19

Quant Method: 8011106A.M
Run #: 1025158
Instrument: Herbie
Sequence: 191025
Dilution Factor: 1
Initials: GAG

Printed: 12/05/19 4:05:01 PM
APPL-F1-SC-NoMC-REG MDLs-DOD

EPA 8015B TPH LIQ-LIQ

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 90648

Sample ID: ERH955

APPL ID: BA02466

Sample Collection Date: 11/04/19

QCG: #DOC53-191111A-247690

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8015B-eL	DIESEL (C10-C24)	25.00 U	40.0	25.00	13.07	ug/L	11/11/19	11/21/19
EPA 8015B-eL	OIL (C24-C40)	40.00 U	40.0	40.00	5.54	ug/L	11/11/19	11/21/19
EPA 8015B-eL	SURROGATE: OCTACOSANE (S)	106	60-142			%	11/11/19	11/21/19
EPA 8015B-eL	SURROGATE: ORTHO-TERPHENYL (S)	108	56-125			%	11/11/19	11/21/19

Quant Method: DOC1114.M
Run #: 1121027
Instrument: Apollo
Sequence: 191121
Dilution Factor: 1
Initials: LPO

Printed: 11/30/19 6:11:51 AM

APPL-F1-SC-NoMC-REG MDLs-DOD

EPA 8270D SIM LIQ-LIQ

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua
Project: 60571032 CV18F0126 Red Hill Fuel Storage
Sample ID: ERH955
Sample Collection Date: 11/04/19

ARF: 90648
APPL ID: BA02466
QCG: #SIM53-191111A-247241

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
8270D-SIM	1-METHYLNAPHTHALENE	0.10 U	0.2	0.10	0.04	ug/L	11/11/19	11/15/19
8270D-SIM	2-METHYLNAPHTHALENE	0.10 U	0.2	0.10	0.04	ug/L	11/11/19	11/15/19
8270D-SIM	NAPHTHALENE	0.10 U	0.2	0.10	0.04	ug/L	11/11/19	11/15/19
8270D-SIM	SURROGATE: 2-METHYLNAPHTHALEN	82.2	39-114			%	11/11/19	11/15/19
8270D-SIM	SURROGATE: FLUORANTHENE-D10 (S	97.8	58-120			%	11/11/19	11/15/19

Quant Method: L1028.M
Run #: 1115L007
Instrument: Linus
Sequence: L191115
Dilution Factor: 1
Initials: MA

Printed: 11/18/19 11:05:22 AM
APPL-F1-SC-NoMC-REG MDLs-DOD

EPA 8270D WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

Attn: Margie Pascua
Project: 60571032 CV18F0126 Red Hill Fuel Storage
Sample ID: ERH955
Sample Collection Date: 11/04/19

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

ARF: 90648
APPL ID: BA02466
QCG: #87DC5-191111A-247901

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8270D	PHENOL	4.00 U	5.0	4.00	1.00	ug/L	11/11/19	11/27/19
EPA 8270D	SURROGATE: 2,4,6-TRIBROMOPHENO	91.4	43-140			%	11/11/19	11/27/19
EPA 8270D	SURROGATE: 2-FLUORBIPHENYL (S)	85.3	44-119			%	11/11/19	11/27/19
EPA 8270D	SURROGATE: 2-FLUOROPHENOL (S)	96.1	19-119			%	11/11/19	11/27/19
EPA 8270D	SURROGATE: NITROBENZENE-D5 (S)	107	44-120			%	11/11/19	11/27/19
EPA 8270D	SURROGATE: PHENOL-D6 (S)	109	10-115			%	11/11/19	11/27/19
EPA 8270D	SURROGATE: TERPHENYL-D14 (S)	101	50-134			%	11/11/19	11/27/19

Quant Method: Not detected.M
Run #: 1121Y167
Instrument: Yoda
Sequence: Y191121
Dilution Factor: 1
Initials: MA

Printed: 12/04/19 1:45:11 PM
APPL-F1-SC-NoMC-REG MDLs-DOD

EPA 8270D MODIFIED WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 90648

Sample ID: ERH955

APPL ID: BA02466

Sample Collection Date: 11/04/19

QCG: #87DME-191111A-247177

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8270D	2-(2-METHOXYETHOXY)-ETHANOL	80.0 U	100	80.0	40.0	ug/L	11/11/19	11/13/19

Quant Method:	YMEE1030.M
Run #:	1030L068
Instrument:	Linus
Sequence:	L191030M
Dilution Factor:	1
Initials:	MA

Printed: 11/15/19 1:06:27 PM

APPL-F1-SC-NoMC-REG MDLs-DOD

EPA 8260B BTEX & 1,2-DCA WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

Attn: Margie Pascua
Project: 60571032 CV18F0126 Red Hill Fuel Storage
Sample ID: ERH954
Sample Collection Date: 11/04/19

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

ARF: 90648
APPL ID: BA02465
QCG: #86BTO-191107BM-247033

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8260B	1,2-DICHLOROETHANE	0.30 U	1.0	0.30	0.14	ug/L	11/08/19	11/08/19
EPA 8260B	BENZENE	0.30 U	1.0	0.30	0.15	ug/L	11/08/19	11/08/19
EPA 8260B	ETHYLBENZENE	0.50 U	1.0	0.50	0.23	ug/L	11/08/19	11/08/19
EPA 8260B	TOLUENE	0.30 U	1.0	0.30	0.15	ug/L	11/08/19	11/08/19
EPA 8260B	XYLENES (TOTAL)	0.30 U	2.0	0.30	0.15	ug/L	11/08/19	11/08/19
EPA 8260B	SURROGATE: 1,2-DICHLOROETHANE-	101	81-118			%	11/08/19	11/08/19
EPA 8260B	SURROGATE: 4-BROMOFLUOROBENZ	105	85-114			%	11/08/19	11/08/19
EPA 8260B	SURROGATE: DIBROMOFLUOROMETH	94.0	80-119			%	11/08/19	11/08/19
EPA 8260B	SURROGATE: TOLUENE-D8 (S)	107	89-112			%	11/08/19	11/08/19

Quant Method: M1106.M
Run #: 1107M38
Instrument: Max
Sequence: M191107
Dilution Factor: 1
Initials: DPO

Printed: 11/12/19 3:03:49 PM
APPL-F1-SC-NoMC-REG MDLs-DOD

EPA 8260B BTEX & 1,2-DCA WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 90648

Sample ID: ERH955

APPL ID: BA02466

Sample Collection Date: 11/04/19

QCG: #86BTO-191107BM-247033

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8260B	1,2-DICHLOROETHANE	0.30 U	1.0	0.30	0.14	ug/L	11/08/19	11/08/19
EPA 8260B	BENZENE	0.30 U	1.0	0.30	0.15	ug/L	11/08/19	11/08/19
EPA 8260B	ETHYLBENZENE	0.50 U	1.0	0.50	0.23	ug/L	11/08/19	11/08/19
EPA 8260B	TOLUENE	0.30 U	1.0	0.30	0.15	ug/L	11/08/19	11/08/19
EPA 8260B	XYLENES (TOTAL)	0.30 U	2.0	0.30	0.15	ug/L	11/08/19	11/08/19
EPA 8260B	SURROGATE: 1,2-DICHLOROETHANE-	123 #	81-118			%	11/08/19	11/08/19
EPA 8260B	SURROGATE: 4-BROMOFLUOROBENZ	107	85-114			%	11/08/19	11/08/19
EPA 8260B	SURROGATE: DIBROMOFLUOROMETH	115	80-119			%	11/08/19	11/08/19
EPA 8260B	SURROGATE: TOLUENE-D8 (S)	107	89-112			%	11/08/19	11/08/19

= Recovery (or RPD) is outside QC limits.

Quant Method: M1106.M
Run #: 1107M37
Instrument: Max
Sequence: M191107
Dilution Factor: 1
Initials: DPO

Printed: 11/12/19 3:03:49 PM
APPL-F1-SC-NoMC-REG MDLs-DOD

EPA 8260B GRO WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

Sample ID: ERH954

Sample Collection Date: 11/04/19

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

ARF: 90648

APPL ID: BA02465

QCG: #GRO86-191107BM-247030

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8260B	GASOLINE RANGE ORGANICS	18.0 U	20	18.0	8.6	ug/L	11/08/19	11/08/19
EPA 8260B	SURROGATE: 4-BROMOFLUOROBENZ	105	85-114			%	11/08/19	11/08/19

Quant Method:	MGAS1107.M
Run #:	1107M38
Instrument:	Max
Sequence:	M191107
Dilution Factor:	1
Initials:	DPO

Printed: 11/12/19 2:46:46 PM
APPL-F1-SC-NoMC-REG MDLs-DOD

EPA 8260B GRO WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

Sample ID: ERH955

Sample Collection Date: 11/04/19

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

ARF: 90648

APPL ID: BA02466

QCG: #GRO86-191107BM-247030

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8260B	GASOLINE RANGE ORGANICS	18.0 U	20	18.0	8.6	ug/L	11/08/19	11/08/19
EPA 8260B	SURROGATE: 4-BROMOFLUOROBENZ	107	85-114			%	11/08/19	11/08/19

Quant Method: MGAS1107.M
Run #: 1107M37
Instrument: Max
Sequence: M191107
Dilution Factor: 1
Initials: DPO

Printed: 11/12/19 2:46:47 PM
APPL-F1-SC-NoMC-REG MDLs-DOD

MEE

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

Attn: Margie Pascua
Project: 60571032 CV18F0126 Red Hill Fuel Storage
Sample ID: ERH954
Sample Collection Date: 11/04/19

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

ARF: 90648
APPL ID: BA02465
QCG: #RSKWR-191121A-247503

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
RSK 175	METHANE	1.00 U	5.0	1.00	0.25	ug/L	11/21/19	11/21/19

Quant Method:	RSK1002.M
Run #:	1121R05
Instrument:	Rocky
Sequence:	191002
Dilution Factor:	1
Initials:	GAG

Printed: 12/05/19 3:04:02 PM
APPL-F1-SC-NoMC-REG MDLs-DOD

MEE

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

Sample ID: ERH955

Sample Collection Date: 11/04/19

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

ARF: 90648

APPL ID: BA02466

QCG: #RSKWR-191121A-247503

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
RSK 175	METHANE	1.00 U	5.0	1.00	0.25	ug/L	11/21/19	11/21/19

Quant Method:	RSK1002.M
Run #:	1121R06
Instrument:	Rocky
Sequence:	191002
Dilution Factor:	1
Initials:	GAG

Printed: 12/05/19 3:04:02 PM

APPL-F1-SC-NoMC-REG MDLs-DOD

Metals Analysis

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua
Project: 60571032 CV18F0126 Red Hill Fuel Storage
Sample ID: ERH955
Sample Collection Date: 11/04/19

ARF: 90648
APPL ID: BA02466

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
6010C/3010A	CALCIUM (CA)	17200	1000	75.0	27.5	ug/L	1	11/08/19	11/19/19
6010C/3010A	MAGNESIUM (MG)	16100	500	30.0	12.9	ug/L	1	11/08/19	11/19/19
6010C/3010A	MANGANESE (MN)	4.00 U	10.0	4.00	1.23	ug/L	1	11/08/19	11/19/19
6010C/3010A	POTASSIUM (K)	2130 J	3000	500.0	220.0	ug/L	1	11/08/19	11/19/19
6010C/3010A	SODIUM (NA)	38600	5000	500.0	111.1	ug/L	1	11/08/19	11/19/19

J = Estimated value.

Printed: 12/05/19 5:17:45 PM
APPL-F1-SC-NoMC-REG MDLs

Wet Lab Analysis

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

Sample ID: ERH955

APPL ID: BA02466

Sample Collection Date: 11/04/19

ARF: 90648

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
EPA 300.0	CHLORIDE	92.4	2.0	0.40	0.16	mg/L	2	11/28/19	11/28/19
EPA 300.0	BROMIDE	0.22 J	0.5	0.16	0.05	mg/L	1	11/05/19	11/05/19
EPA 300.0	FLUORIDE	0.09 U	0.1	0.09	0.08	mg/L	1	11/05/19	11/05/19
EPA 300.0	NITRATE	1.6	0.5	0.18	0.04	mg/L	1	11/05/19	11/05/19
EPA 300.0	SULFATE	11.5	1.0	0.20	0.09	mg/L	1	11/05/19	11/05/19

J = Estimated value.

Printed: 12/05/19 4:57:49 PM

APPL-F1-SC-NoMC-REG MDLs

Wet Lab Analysis

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

Sample ID: ERH955

APPL ID: BA02466

Sample Collection Date: 11/04/19

ARF: 90648

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
EPA 353.2	NITRATE-NITRITE-N	0.41	0.10	0.090	0.028	mg/L	1	11/06/19	11/06/19
SM 2320B	BICARBONATE AS CACO3	44.1	2.0	1.70	0.85	mg/L	1	11/06/19	11/06/19
SM 2320B	CARBONATE AS CACO3	7.8	2.0	1.70	0.85	mg/L	1	11/06/19	11/06/19
SM 2320B	TOTAL ALKALINITY AS CACO	51.9	2.0	1.70	0.85	mg/L	1	11/06/19	11/06/19
SM 4500-Si D	SILICA W	43.5	5.0	4.00	2.65	mg/L	5	11/06/19	11/06/19
SM 4500-Si D	DISSOLVED SILICA	39.7	5.0	4.00	2.65	mg/L	5	11/06/19	11/06/19
SM3500FeB	FERROUS IRON	0.32 U	1.0	0.32	0.16	mg/L	1	11/05/19	11/05/19
SW846 9060A	DISSOLVED ORGANIC CARB	0.55 J	0.93	0.350	0.130	mg/L	1	11/14/19	11/14/19
SW846 9060A	TOTAL ORGANIC CARBON	1.3	0.93	0.350	0.130	mg/L	1	11/15/19	11/15/19

J = Estimated value.

Printed: 12/05/19 5:31:45 PM

APPL-F1-SC-NoMC-REG MDLs

QC FORMS

8011

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 90648

Case No: 90648 Date Analyzed: 11/12/19

Matrix: WATER Instrument: Herbie

APPL ID.	Client Sample No.	SURROGATE: 1,3-DIBROMOPROPANE (S)					
		Limits	Result	Qualifier	Limits	Result	Qualifier
191111A-BLK	Blank	70-132	107				
191111A-LCS	Lab Control Spike	70-132	100				
191111A-LCSD	Lab Control SpikeD	70-132	101				
BA02465	ERH954	70-132	106				
BA02466	ERH955	70-132	105				

Comments: Batch: #8011-191111A

8011

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 90648

Case No: 90648 Date Analyzed: 11/12/19

Matrix: WATER Instrument: Herbie

Blank ID: 191111A-BLK Time Analyzed: 2209

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191111A-BLK	Blank	1025154	11/12/19 2209
191111A-LCS	Lab Control Spike	1025155	11/12/19 2230
191111A-LCSD	Lab Control SpikeD	1025156	11/12/19 2250
BA02465	ERH954	1025157	11/12/19 2310
BA02466	ERH955	1025158	11/12/19 2330

Comments: Batch: #8011-191111A

Method Blank
EPA 8011

Blank Name/QCG: **191111W-02465 - 247068**
Batch ID: #8011-191111A

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	EDB	0.019 U	0.02	0.019	0.010	ug/L	11/11/19	11/12/19
BLANK	SURROGATE: 1,3-DIBROMOPRO	107	70-132			%	11/11/19	11/12/19

Quant Method:8011106A.M
Run #:1025154
Instrument:Herbie
Sequence:191025
Initials:GAG

GC SC-Blank-REG MDLs-DOD
Printed: 12/05/19 4:05:01 PM

8011

Form 4

LCS Summary

Lab Name: APPL, Inc. SDG No: 90648

Case No: 90648 Date Analyzed: 11/12/19

Matrix: WATER Instrument: Herbie

LCS ID: 191111A-LCS Time Analyzed: 2230

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191111A-BLK	Blank	1025154	11/12/19 2209
191111A-LCS	Lab Control Spike	1025155	11/12/19 2230
191111A-LCSD	Lab Control SpikeD	1025156	11/12/19 2250
BA02465	ERH954	1025157	11/12/19 2310
BA02466	ERH955	1025158	11/12/19 2330

Comments: Batch: #8011-191111A

Printed: 12/05/19 4:05:23 PM
Form 4, LCS Summary

Laboratory Control Spike Recoveries

EPA 8011

APPL ID: **191111W-02465 LCS - 247068**
Batch ID: #8011-191111A

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Lvl ug/L	SPK Result ug/L	DUP Result ug/L	SPK % Recovery	DUP % Recovery	Recovery Limits	RPD %	RPD Limits
EDB	0.250	0.251	0.247	100	98.8	60-140	1.6	25
SURROGATE: 1,3-DIBROMOPROPANE (	0.250	0.251	0.252	100	101	70-132		

Comments: _____

Primary	SPK	DUP
Quant Method :	8011106A.M	8011106A.M
Extraction Date :	11/11/19	11/11/19
Analysis Date :	11/12/19	11/12/19
Instrument :	Herbie	Herbie
Run :	1025155	1025156
Initials :	GAG	

EPA 8015B-eLL

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 90648

Case No: 90648 Date Analyzed: 11/21/19

Matrix: WATER Instrument: Apollo

APPL ID.	Client Sample No.	SURROGATE: OCTACOSANE (S)			SURROGATE: ORTHO-TERPHENYL (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
191111A-BLK	Blank	60-142	94.9		56-125	100	
191111A-LCS	Lab Control Spike	60-142	84.3		56-125	107	
191111A-LCSD	Lab Control SpikeD	60-142	84.0		56-125	106	
BA02466	ERH955	60-142	106		56-125	108	

Comments: Batch: #DOC53-191111A

EPA 8015B-eL

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 90648

Case No: 90648 Date Analyzed: 11/21/19

Matrix: WATER Instrument: Apollo

Blank ID: 191111A-BLK Time Analyzed: 1653

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191111A-BLK	Blank	1121024	11/21/19 1653
191111A-LCS	Lab Control Spike	1121025	11/21/19 1713
191111A-LCSD	Lab Control SpikeD	1121026	11/21/19 1733
BA02466	ERH955	1121027	11/21/19 1753

Comments: Batch: #DOC53-191111A

Printed: 11/30/19 6:12:16 AM
Form 4, Blank Summary

Method Blank
EPA 8015B TPH LIQ-LIQ

Blank Name/QCG: **191111W-02466 - 247690**
Batch ID: #DOC53-191111A

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	DIESEL (C10-C24)	25.00 U	40.0	25.00	13.07	ug/L	11/11/19	11/21/19
BLANK	OIL (C24-C40)	40.00 U	40.0	40.00	5.54	ug/L	11/11/19	11/21/19
BLANK	SURROGATE: OCTACOSANE (S)	94.9	60-142			%	11/11/19	11/21/19
BLANK	SURROGATE: ORTHO-TERPHEN	100	56-125			%	11/11/19	11/21/19

Quant Method: DOC1114.M
Run #: 1121024
Instrument: Apollo
Sequence: 191121
Initials: LPO

GC SC-Blank-REG MDLs-DOD
Printed: 11/30/19 6:11:50 AM

EPA 8015B-eL

Form 4

LCS Summary

Lab Name: APPL, Inc. SDG No: 90648

Case No: 90648 Date Analyzed: 11/21/19

Matrix: WATER Instrument: Apollo

LCS ID: 191111A-LCS Time Analyzed: 1713

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191111A-BLK	Blank	1121024	11/21/19 1653
191111A-LCS	Lab Control Spike	1121025	11/21/19 1713
191111A-LCSD	Lab Control SpikeD	1121026	11/21/19 1733
BA02466	ERH955	1121027	11/21/19 1753

Comments: Batch: #DOC53-191111A

Printed: 11/30/19 6:12:16 AM
Form 4, LCS Summary

Laboratory Control Spike Recoveries

EPA 8015B TPH LIQ-LIQ

APPL ID: **191111W-02466 LCS - 247690**
Batch ID: #DOC53-191111A

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Lvl ug/L	SPK Result ug/L	DUP Result ug/L	SPK % Recovery	DUP % Recovery	Recovery Limits	RPD %	RPD Limits
DIESEL (C10-C24)	1000	1170	1080	117	108	36-132	8.0	30
OIL (C24-C40)	1000	1200	1220	120 #	122 #	41-113	1.7	30
SURROGATE: OCTACOSANE (S)	75.0	63.2	63.0	84.3	84.0	60-142		
SURROGATE: ORTHO-TERPHENYL (S)	75.0	80.6	79.3	107	106	56-125		

= Recovery is outside QC limits.

Comments:

Primary	SPK	DUP
Quant Method :	DOC1114.M	DOC1114.M
Extraction Date :	11/11/19	11/11/19
Analysis Date :	11/21/19	11/21/19
Instrument :	Apollo	Apollo
Run :	1121025	1121026
Initials :	LPO	

8270D-SIM

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 90648

Case No: 90648 Date Analyzed: 11/15/19

Matrix: WATER Instrument: Linus

APPL ID.	Client Sample No.	SURROGATE: 2-METHYLNAPHTHALENE-D10 (S)			SURROGATE: FLUORANTHENE-D10 (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
191111A-BLK	Blank	39-114	80.0		58-120	94.5	
191111A-LCS	Lab Control Spike	39-114	85.1		58-120	95.4	
191111A-LCSD	Lab Control SpikeD	39-114	88.8		58-120	101	
BA02466	ERH955	39-114	82.2		58-120	97.8	

Comments: Batch: #SIM53-191111A

8270D-SIM

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 90648

Case No: 90648 Date Analyzed: 11/15/19

Matrix: WATER Instrument: Linus

Blank ID: 191111A-BLK Time Analyzed: 1657

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191111A-BLK	Blank	1115L004	11/15/19 1657
191111A-LCS	Lab Control Spike	1115L005	11/15/19 1719
191111A-LCSD	Lab Control SpikeD	1115L006	11/15/19 1741
BA02466	ERH955	1115L007	11/15/19 1803

Comments: Batch: #SIM53-191111A

Printed: 11/18/19 11:05:27 AM
Form 4, Blank Summary

Method Blank
EPA 8270D SIM LIQ-LIQ

Blank Name/QCG: **191111W-02466 - 247241**
Batch ID: #SIM53-191111A

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	1-METHYLNAPHTHALENE	0.10 U	0.2	0.10	0.04	ug/L	11/11/19	11/15/19
BLANK	2-METHYLNAPHTHALENE	0.10 U	0.2	0.10	0.04	ug/L	11/11/19	11/15/19
BLANK	NAPHTHALENE	0.10 U	0.2	0.10	0.04	ug/L	11/11/19	11/15/19
BLANK	SURROGATE: 2-METHYLNAPHT	80.0	39-114			%	11/11/19	11/15/19
BLANK	SURROGATE: FLUORANTHENE-	94.5	58-120			%	11/11/19	11/15/19

Quant Method:L1028.M
Run #:1115L004
Instrument:Linus
Sequence:L191115
Initials:MA

GC SC-Blank-REG MDLs-DOD
Printed: 11/18/19 11:05:20 AM

8270D-SIM

Form 4

LCS Summary

Lab Name: APPL, Inc. SDG No: 90648

Case No: 90648 Date Analyzed: 11/15/19

Matrix: WATER Instrument: Linus

LCS ID: 191111A-LCS Time Analyzed: 1719

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191111A-BLK	Blank	1115L004	11/15/19 1657
191111A-LCS	Lab Control Spike	1115L005	11/15/19 1719
191111A-LCSD	Lab Control SpikeD	1115L006	11/15/19 1741
BA02466	ERH955	1115L007	11/15/19 1803

Comments: Batch: #SIM53-191111A

Printed: 11/18/19 11:05:28 AM
Form 4, LCS Summary

Laboratory Control Spike Recoveries

EPA 8270D SIM LIQ-LIQ

APPL ID: **191111W-02466 LCS - 247241**
Batch ID: #SIM53-191111A

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Lvl ug/L	SPK Result ug/L	DUP Result ug/L	SPK % Recovery	DUP % Recovery	Recovery Limits	RPD %	RPD Limits
1-METHYLNAPHTHALENE	6.25	6.03	6.30	96.5	101	41-115	4.4	20
2-METHYLNAPHTHALENE	6.25	6.14	6.36	98.2	102	39-114	3.5	20
NAPHTHALENE	6.25	6.18	6.44	98.9	103	43-114	4.1	20
SURROGATE: 2-METHYLNAPHTHALEN	6.25	5.32	5.55	85.1	88.8	39-114		
SURROGATE: FLUORANTHENE-D10 (S)	6.25	5.96	6.34	95.4	101	58-120		

Comments: _____

Primary	SPK	DUP
Quant Method :	L1028.M	L1028.M
Extraction Date :	11/11/19	11/11/19
Analysis Date :	11/15/19	11/15/19
Instrument :	Linus	Linus
Run :	1115L005	1115L006
Initials :	MA	

Printed: 11/18/19 11:05:24 AM
APPL Standard LCSD

Form 5
Tune Summary

Lab Name: APPL Inc.
Case No:
Matrix: Water
ID: 1028L002.D

SDG No:
Date Analyzed: 10/28/19
Instrument: Linus
Time Analyzed: 10:20

	Client Sample No.	APPL ID.	File ID.	Date Analyzed
1		5 SIM 10/28/19(2)	1028L004.D	10/28/19 12:26
2		0.1 SIM 10/28/19	1028L005.D	10/28/19 12:51
3		0.2 SIM 10/28/19	1028L006.D	10/28/19 13:13
4		0.5 SIM 10/28/19	1028L007.D	10/28/19 13:35
5		1 SIM 10/28/19	1028L008.D	10/28/19 13:57
6		20 SIM 10/28/19	1028L009.D	10/28/19 14:19
7		50 SIM 10/28/19	1028L010.D	10/28/19 14:42
8		100 SIM 10/28/19	1028L011.D	10/28/19 15:04
9		SS SIM 10/28/19	1028L012.D	10/28/19 15:55
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				

m/e		
51	9.95 - 80.1% of mass 198	44.0
68	0 - 2.05% of mass 69	0.0
70	0 - 2% of mass 69	0.3
127	10 - 80% of mass 198	66.3
197	0 - 2% of mass 198	0.0
198	100 - 100% of mass 198	100.0
199	5 - 9% of mass 198	6.8
275	10 - 60% of mass 198	23.0
365	1 - 100% of mass 198	3.1
441	0.01 - 24% of mass 442	15.5
442	50 - 500% of mass 198	95.8
443	15 - 24% of mass 442	19.6

Form 5
Tune Summary

Lab Name: APPL Inc.
Case No: 90648
Matrix: Water
ID: 1115L002.D

SDG No: 90648
Date Analyzed: 11/15/19
Instrument: Linus
Time Analyzed: 15:42

	Client Sample No.	APPL ID.	File ID.	Date Analyzed
1		5ug/mL SIM 10/28/19	1115L003.D	11/15/19 16:26
2	Blank	191111A BLK 1/800	1115L004.D	11/15/19 16:57
3	Lab Control Spike	191111A LCS-2 1/800	1115L005.D	11/15/19 17:19
4	Lab Control SpikeD	191111A LCSD-2 1/800	1115L006.D	11/15/19 17:41
5	ERH955	BA02466W21 1/800	1115L007.D	11/15/19 18:03
6		5ug/mL SIM 10/28/19	1115L028.D	11/16/19 1:44
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				

m/e		
51	9.95 - 80.1% of mass 198	53.1
68	0 - 2.05% of mass 69	0.0
70	0 - 2% of mass 69	0.5
127	10 - 80% of mass 198	64.8
197	0 - 2% of mass 198	0.0
198	100 - 100% of mass 198	100.0
199	5 - 9% of mass 198	6.6
275	10 - 60% of mass 198	21.8
365	1 - 100% of mass 198	3.3
441	0.01 - 24% of mass 442	17.9
442	50 - 500% of mass 198	73.6
443	15 - 24% of mass 442	20.2

8A
INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: APPL Inc. Contract:

Lab Code: SDG No.:

Lab File ID (Standard): 1115L003.D Date Analyzed: 11/15/19

Instrument ID: Linus Time Analyzed: 16:26

GC Column: ID: Heated Purge: (Y/N)

		Napthalene-D8(IS)		Acenaphthene-D10(IS)		Phenanthrene-D10(IS)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	47408	4.26	19373	6.27	34698	7.98
	UPPER LIMIT	94816	4.43	38746	6.44	69396	8.15
	LOWER LIMIT	23704	4.09	9687	6.10	17349	7.81
	SAMPLE NO.						
01	191111A BLK 1/800	43082	4.27	17760	6.27	32390	7.98
02	191111A LCS-2 1/800	41644	4.27	17380	6.27	31866	7.98
03	191111A LCSD-2 1/800	37842	4.27	15467	6.27	28725	7.98
04	BA02466W21 1/800	44021	4.27	18059	6.27	32580	7.98
05	5ug/mL SIM 10/28/19 (1	46505	4.27	17348	6.27	32880	7.98
06							
07							
08							
09							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = -50% of internal standard area.
RT UPPER LIMIT = +0.17 minutes of internal standard RT
RT LOWER LIMIT = -0.17 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

8A
INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: APPL Inc. Contract:

Lab Code: SDG No.:

Lab File ID (Standard): 1115L003.D Date Analyzed: 11/15/19

Instrument ID: Linus Time Analyzed: 16:26

GC Column: ID: Heated Purge: (Y/N)

		Chrysene-D12(IS)		Perylene-D12(IS)			
		AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	41639	11.10	42127	13.53		
	UPPER LIMIT	83278	11.27	84254	13.70		
	LOWER LIMIT	20820	10.93	21064	13.36		
	SAMPLE NO.						
01	191111A BLK 1/800	37756	11.10	38374	13.53		
02	191111A LCS-2 1/800	37644	11.10	37962	13.53		
03	191111A LCSD-2 1/800	34085	11.10	32663	13.53		
04	BA02466W21 1/800	38398	11.10	40480	13.53		
05	5ug/mL SIM 10/28/19 (1	40911	11.10	40547	13.53		
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AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = -50% of internal standard area.
RT UPPER LIMIT = +0.17 minutes of internal standard RT
RT LOWER LIMIT = -0.17 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

EPA 8270D

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 90648

Case No: 90648 Date Analyzed: 11/27/19

Matrix: WATER Instrument: Yoda

APPL ID.	Client Sample No.	SURROGATE: 2,4,6-TRIBROMOPHENOL (S)			SURROGATE: 2-FLUORBIPHENYL (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
191111A-BLK	Blank	43-140	96.2		44-119	88.1	
191111A-LCS	Lab Control Spike	43-140	99.2		44-119	90.4	
191111A-LCSD	Lab Control SpikeD	43-140	90.0		44-119	81.6	
BA02466	ERH955	43-140	91.4		44-119	85.3	

Comments: Batch: #87DC5-191111A

EPA 8270D

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 90648

Case No: 90648 Date Analyzed: 11/27/19

Matrix: WATER Instrument: Yoda

APPL ID.	Client Sample No.	SURROGATE: 2-FLUOROPHENOL (S)			SURROGATE: NITROBENZENE-D5 (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
191111A-BLK	Blank	19-119	116		44-120	116	
191111A-LCS	Lab Control Spike	19-119	112		44-120	115	
191111A-LCSD	Lab Control SpikeD	19-119	94.0		44-120	102	
BA02466	ERH955	19-119	96.1		44-120	107	

Comments: Batch: #87DC5-191111A

EPA 8270D

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 90648

Case No: 90648 Date Analyzed: 11/27/19

Matrix: WATER Instrument: Yoda

APPL ID.	Client Sample No.	SURROGATE: PHENOL-D6 (S)			SURROGATE: TERPHENYL-D14 (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
191111A-BLK	Blank	10-115	127	#	50-134	109	
191111A-LCS	Lab Control Spike	10-115	128	*	50-134	90.4	
191111A-LCSD	Lab Control SpikeD	10-115	109		50-134	84.0	
BA02466	ERH955	10-115	109		50-134	101	

Comments: Batch: #87DC5-191111A

* = Recovery outside of Control Limits on QC Sample.

= Recovery outside of Control Limits on Sample.

Printed: 12/04/19 1:45:40 PM

Form 2 & 8, Surrogate Recovery Summary

EPA 8270D

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 90648

Case No: 90648 Date Analyzed: 11/27/19

Matrix: WATER Instrument: Yoda

Blank ID: 191111A-BLK Time Analyzed: 0129

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191111A-BLK	Blank	1121Y164	11/27/19 0129
191111A-LCS	Lab Control Spike	1121Y165	11/27/19 0157
191111A-LCSD	Lab Control SpikeD	1121Y166	11/27/19 0225
BA02466	ERH955	1121Y167	11/27/19 0253

Comments: Batch: #87DC5-191111A

Printed: 12/04/19 1:45:41 PM
Form 4, Blank Summary

Method Blank
EPA 8270D WATER

Blank Name/QCG: **191111W-02466 - 247901**
Batch ID: #87DC5-191111A

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	PHENOL	4.00 U	5.0	4.00	1.00	ug/L	11/11/19	11/27/19
BLANK	SURROGATE: 2,4,6-TRIBROMOP	96.2	43-140			%	11/11/19	11/27/19
BLANK	SURROGATE: 2-FLUORBIPHENY	88.1	44-119			%	11/11/19	11/27/19
BLANK	SURROGATE: 2-FLUOROPHENO	116	19-119			%	11/11/19	11/27/19
BLANK	SURROGATE: NITROBENZENE-	116	44-120			%	11/11/19	11/27/19
BLANK	SURROGATE: PHENOL-D6 (S)	127 #	10-115			%	11/11/19	11/27/19
BLANK	SURROGATE: TERPHENYL-D14 (	109	50-134			%	11/11/19	11/27/19

= Recovery (or RPD) is outside QC limits.

Quant Method: Not detected.
Run #: 1121Y164
Instrument: Yoda
Sequence: Y191121
Initials: MA

GC SC-Blank-REG MDLs-DOD
Printed: 12/04/19 1:45:10 PM

EPA 8270D

Form 4

LCS Summary

Lab Name: APPL, Inc. SDG No: 90648

Case No: 90648 Date Analyzed: 11/27/19

Matrix: WATER Instrument: Yoda

LCS ID: 191111A-LCS Time Analyzed: 0157

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191111A-BLK	Blank	1121Y164	11/27/19 0129
191111A-LCS	Lab Control Spike	1121Y165	11/27/19 0157
191111A-LCSD	Lab Control SpikeD	1121Y166	11/27/19 0225
BA02466	ERH955	1121Y167	11/27/19 0253

Comments: Batch: #87DC5-191111A

Printed: 12/04/19 1:45:42 PM
Form 4, LCS Summary

Laboratory Control Spike Recoveries

EPA 8270D WATER

APPL ID: **191111W-02466 LCS - 247901**
Batch ID: #87DC5-191111A

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Lvl ug/L	SPK Result ug/L	DUP Result ug/L	SPK % Recovery	DUP % Recovery	Recovery Limits	RPD %	RPD Limits
PHENOL	62.5	76.8	66.2	123 #	106	10-115	14.8	20
SURROGATE: 2,4,6-TRIBROMOPHENOL	250	248	225	99.2	90.0	43-140		
SURROGATE: 2-FLUORBIPHENYL (S)	125	113	102	90.4	81.6	44-119		
SURROGATE: 2-FLUOROPHENOL (S)	250	281	235	112	94.0	19-119		
SURROGATE: NITROBENZENE-D5 (S)	125	144	127	115	102	44-120		
SURROGATE: PHENOL-D6 (S)	250	321	272	128 #	109	10-115		
SURROGATE: TERPHENYL-D14 (S)	125	113	105	90.4	84.0	50-134		

= Recovery is outside QC limits.

Comments:

Primary	SPK	DUP
Quant Method :	Not detected.M	Not detected.M
Extraction Date :	11/11/19	11/11/19
Analysis Date :	11/27/19	11/27/19
Instrument :	Yoda	Yoda
Run :	1121Y165	1121Y166
Initials :	MA	

Printed: 12/04/19 1:45:19 PM
APPL Standard LCSD

Form 5
Tune Summary

Lab Name: APPL Inc.
Case No:
Matrix: Soil
ID: 1121Y002.D

SDG No:
Date Analyzed: 11/21/19
Instrument: Yoda
Time Analyzed: 13:52

	Client Sample No.	APPL ID.	File ID.	Date Analyzed
1		4ug/ml 8270 11/21/19	1121Y003.D	11/21/19 14:07
2		5ug/ml 8270 11/21/19	1121Y004.D	11/21/19 14:35
3		10ug/ml 8270 11/21/1	1121Y005.D	11/21/19 15:37
4		20ug/ml 8270 11/21/1	1121Y006.D	11/21/19 16:05
5		40ug/ml 8270 11/21/1	1121Y007.D	11/21/19 16:33
6		50ug/ml 8270 11/21/1	1121Y008.D	11/21/19 17:01
7		60ug/ml 8270 11/21/1	1121Y009.D	11/21/19 17:30
8		80ug/ml 8270 11/21/1	1121Y010.D	11/21/19 17:58
9		100ug/ml 8270 11/21/	1121Y011.D	11/21/19 18:26
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				

m/e		
51	9.95 - 80.04% of mass 198	27.9
68	0 - 2% of mass 69	0.0
70	0 - 2% of mass 69	0.7
127	10 - 80% of mass 198	43.6
197	0 - 2% of mass 198	0.0
198	100 - 100% of mass 198	100.0
199	5 - 9% of mass 198	6.9
275	10 - 60% of mass 198	32.2
365	1 - 100% of mass 198	3.9
441	0.01 - 24% of mass 442	16.6
442	50 - 500% of mass 198	139.4
443	15 - 24% of mass 442	19.7

Form 5
Tune Summary

Lab Name: APPL Inc.
Case No:
Matrix: Soil
ID: 1121Y030.D

SDG No:
Date Analyzed: 11/22/19
Instrument: Yoda
Time Analyzed: 13:23

	Client Sample No.	APPL ID.	File ID.	Date Analyzed
1		SS 8270 11/22/19	1121Y031.D	11/22/19 13:38
2				
3				
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19				
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21				
22				

m/e		
51	9.95 - 80.04% of mass 198	26.5
68	0 - 2% of mass 69	0.0
70	0 - 2% of mass 69	0.4
127	10 - 80% of mass 198	41.9
197	0 - 2% of mass 198	0.0
198	100 - 100% of mass 198	100.0
199	5 - 9% of mass 198	6.7
275	10 - 60% of mass 198	33.3
365	1 - 100% of mass 198	4.2
441	0.01 - 24% of mass 442	16.3
442	50 - 500% of mass 198	154.9
443	15 - 24% of mass 442	19.0

Form 5
Tune Summary

Lab Name: APPL Inc.
Case No: 90648
Matrix: Water
ID: 1121Y148.D

SDG No: 90648
Date Analyzed: 11/26/19
Instrument: Yoda
Time Analyzed: 18:16

	Client Sample No.	APPL ID.	File ID.	Date Analyzed
1		50ug/ml 8270 11/21/1	1121Y154.D	11/26/19 20:50
2	Blank	191111A BLK 1/800	1121Y164.D	11/27/19 1:29
3	Lab Control Spike	191111A LCS-1 1/800	1121Y165.D	11/27/19 1:57
4	Lab Control SpikeD	191111A LCSD-1 1/800	1121Y166.D	11/27/19 2:25
5	ERH955	BA02466W21 1/800	1121Y167.D	11/27/19 2:53
6		50ug/ml 8270 11/21/1	1121Y172.D	11/27/19 5:11
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15				
16				
17				
18				
19				
20				
21				
22				

m/e		
51	9.95 - 80.04% of mass 198	30.7
68	0 - 2% of mass 69	0.0
70	0 - 2% of mass 69	0.2
127	10 - 80% of mass 198	45.8
197	0 - 2% of mass 198	0.0
198	100 - 100% of mass 198	100.0
199	5 - 9% of mass 198	7.0
275	10 - 60% of mass 198	30.9
365	1 - 100% of mass 198	3.6
441	0.01 - 24% of mass 442	16.2
442	50 - 500% of mass 198	125.7
443	15 - 24% of mass 442	19.6

8A
INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: APPL Inc. Contract: _____

Lab Code: _____ SDG No.: _____

Lab File ID (Standard): 1121Y154.D Date Analyzed: 11/26/19

Instrument ID: Yoda Time Analyzed: 20:50

GC Column: _____ ID: Heated Purge: (Y/N) _____

		1,4-dichlorobenzene-D4(IS)		Napthalene-D8(IS)		Acenaphthene-D10(IS)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	179473	5.47	719514	6.91	453439	8.93
	UPPER LIMIT	358946	5.64	1439028	7.08	906878	9.10
	LOWER LIMIT	89737	5.30	359757	6.74	226720	8.76
	SAMPLE NO.						
01	191111A BLK 1/800	133788	5.47	594780	6.91	454257	8.93
02	191111A LCS-1 1/800	134054	5.47	567906	6.91	425107	8.93
03	191111A LCSD-1 1/800	154723	5.47	625632	6.91	456389	8.93
04	BA02466W21 1/800	147714	5.47	607020	6.91	446494	8.92
05	50ug/ml 8270 11/21/19 (	184992	5.47	734252	6.91	456477	8.93
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14							
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16							
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22							

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = -50% of internal standard area.
RT UPPER LIMIT = +0.17 minutes of internal standard RT
RT LOWER LIMIT = -0.17 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

8A
INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: APPL Inc. Contract: _____

Lab Code: _____ SDG No.: _____

Lab File ID (Standard): 1121Y154.D Date Analyzed: 11/26/19

Instrument ID: Yoda Time Analyzed: 20:50

GC Column: _____ ID: Heated Purge: (Y/N) _____

		Phenanthrene-D10(IS)		Chrysene-D12(IS)		Perylene-D12(IS)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	869953	10.67	1038490	13.76	946185	15.62
	UPPER LIMIT	1739906	10.84	2076980	13.93	1892370	15.79
	LOWER LIMIT	434977	10.50	519245	13.59	473093	15.45
	SAMPLE NO.						
01	191111A BLK 1/800	942208	10.66	873632	13.75	931720	15.61
02	191111A LCS-1 1/800	864030	10.67	985653	13.75	912241	15.62
03	191111A LCSD-1 1/800	901564	10.67	1040400	13.75	954594	15.62
04	BA02466W21 1/800	906314	10.66	869186	13.74	919954	15.62
05	50ug/ml 8270 11/21/19 (	870891	10.67	1025140	13.76	935612	15.62
06							
07							
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19							
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21							
22							

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = -50% of internal standard area.
RT UPPER LIMIT = +0.17 minutes of internal standard RT
RT LOWER LIMIT = -0.17 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

EPA 8270D

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 90648

Case No: 90648 Date Analyzed: 11/13/19

Matrix: WATER Instrument: Linus

Blank ID: 191111A-BLK Time Analyzed: 1621

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191111A-BLK	Blank	1030L065	11/13/19 1621
BA02466	ERH955	1030L068	11/13/19 1717
191111A-LCS	Lab Control Spike	1030L077	11/14/19 1009
191111A-LCSD	Lab Control SpikeD	1030L078	11/14/19 1027

Comments: Batch: #87DME-191111A

Printed: 11/15/19 1:06:32 PM
Form 4, Blank Summary

Method Blank
EPA 8270D MODIFIED WATER

Blank Name/QCG: **191111W-02466 - 247177**
Batch ID: #87DME-191111A

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	2-(2-METHOXYETHOXY)-ETHAN	80.0 U	100	80.0	40.0	ug/L	11/11/19	11/13/19

Quant Method:YMEE1030.M
Run #:1030L065
Instrument:Linus
Sequence:L191030M
Initials:MA

GC SC-Blank-REG MDLs-DOD
Printed: 11/15/19 1:06:26 PM

EPA 8270D

Form 4

LCS Summary

Lab Name: APPL, Inc. SDG No: 90648

Case No: 90648 Date Analyzed: 11/14/19

Matrix: WATER Instrument: Linus

LCS ID: 191111A-LCS Time Analyzed: 1009

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191111A-BLK	Blank	1030L065	11/13/19 1621
BA02466	ERH955	1030L068	11/13/19 1717
191111A-LCS	Lab Control Spike	1030L077	11/14/19 1009
191111A-LCSD	Lab Control SpikeD	1030L078	11/14/19 1027

Comments: Batch: #87DME-191111A

Printed: 11/15/19 1:06:33 PM
Form 4, LCS Summary

Laboratory Control Spike Recoveries
EPA 8270D MODIFIED WATER

APPL ID: **191111W-02466 LCS - 247177**
Batch ID: #87DME-191111A

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Lvl ug/L	SPK Result ug/L	DUP Result ug/L	SPK % Recovery	DUP % Recovery	Recovery Limits	RPD %	RPD Limits
2-(2-METHOXYETHOXY)-ETHANOL	80.0	87.4	90.4	109	113	30-130	3.4	20

Comments: _____

Primary	SPK	DUP
Quant Method :	YMEE1030.M	YMEE1030.M
Extraction Date :	11/11/19	11/11/19
Analysis Date :	11/14/19	11/14/19
Instrument :	Linus	Linus
Run :	1030L077	1030L078
Initials :	MA	

Printed: 11/15/19 1:06:29 PM
APPL Standard LCSD

Form 5
Tune Summary

Lab Name: APPL Inc.
Case No:
Matrix: Water
ID: 1030L002.D

SDG No:
Date Analyzed: 10/31/19
Instrument: Linus
Time Analyzed: 9:39

	Client Sample No.	APPL ID.	File ID.	Date Analyzed
1		50 2MEE 4/30/19	1030L004.D	10/31/19 11:50
2		100 2MEE 4/30/19	1030L005.D	10/31/19 12:10
3		200 2MEE 4/30/19	1030L006.D	10/31/19 12:29
4		500 2MEE 4/30/19	1030L008.D	10/31/19 13:07
5		600 2MEE 4/30/19	1030L009.D	10/31/19 13:25
6		800 2MEE 4/30/19	1030L010.D	10/31/19 13:43
7		1000 2MEE 4/30/19	1030L011.D	10/31/19 14:02
8				
9				
10				
11				
12				
14				
15				
16				
17				
18				
19				
20				
21				
22				

m/e		
51	9.95 - 80.04% of mass 198	47.5
68	0 - 2.04% of mass 69	0.0
70	0 - 2.04% of mass 69	0.6
127	10 - 80% of mass 198	64.9
197	0 - 2% of mass 198	0.0
198	100 - 100% of mass 198.1	100.0
199	5 - 9% of mass 198	6.2
275	10 - 60% of mass 198	21.7
365	1 - 100% of mass 198	3.2
441	0.01 - 24% of mass 442	14.5
442	50 - 500% of mass 198.1	95.4
443	15 - 24% of mass 442	18.6

Form 5

Form 5
Tune Summary

Lab Name: APPL Inc.
Case No:
Matrix: Water
ID: 1030L014.D

SDG No:
Date Analyzed: 11/01/19
Instrument: Linus
Time Analyzed: 15:17

	Client Sample No.	APPL ID.	File ID.	Date Analyzed
1		SS 2MEE 11/1/19	1030L016.D	11/01/19 17:11
2				
3				
4				
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9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				

m/e		
51	9.95 - 80.04% of mass 198	50.2
68	0 - 2.04% of mass 69	0.0
70	0 - 2.04% of mass 69	0.7
127	10 - 80% of mass 198	65.2
197	0 - 2% of mass 198	0.0
198	100 - 100% of mass 198	100.0
199	5 - 9% of mass 198	7.0
275	10 - 60% of mass 198	22.3
365	1 - 100% of mass 198	3.1
441	0.01 - 24% of mass 442	18.5
442	50 - 500% of mass 198	81.1
443	15 - 24% of mass 442	19.7

Form 5
Tune Summary

Lab Name: APPL Inc.
Case No: 90648
Matrix: Water
ID: 1030L062.D

SDG No: 90648
Date Analyzed: 11/13/19
Instrument: Linus
Time Analyzed: 14:33

	Client Sample No.	APPL ID.	File ID.	Date Analyzed
1		500 2MEE 4/30/19	1030L063.D	11/13/19 15:30
2	Blank	191111A BLK 2/500	1030L065.D	11/13/19 16:21
3	ERH955	BA02466W18 2/500	1030L068.D	11/13/19 17:17
4		500 2MEE 4/30/19	1030L074.D	11/13/19 19:07
5				
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8				
9				
10				
11				
12				
13				
14				
15				
16				
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19				
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21				
22				

m/e		
51	9.95 - 80.04% of mass 198	45.9
68	0 - 2.04% of mass 69	0.0
70	0 - 2.04% of mass 69	0.7
127	10 - 80% of mass 198	61.9
197	0 - 2% of mass 198	0.0
198	100 - 100% of mass 198	100.0
199	5 - 9% of mass 198	6.6
275	10 - 60% of mass 198	22.0
365	1 - 100% of mass 198	3.1
441	0.01 - 24% of mass 442	16.9
442	50 - 500% of mass 198	82.0
443	15 - 24% of mass 442	19.1

Form 5
Tune Summary

Lab Name: APPL Inc.
Case No:
Matrix: Water
ID: 1030L075.D

SDG No:
Date Analyzed: 11/14/19
Instrument: Linus
Time Analyzed: 9:32

	Client Sample No.	APPL ID.	File ID.	Date Analyzed
1		500 2MEE 4/30/19	1030L076.D	11/14/19 9:48
2	Lab Control Spike	191111A LCS-1 2/500	1030L077.D	11/14/19 10:09
3	Lab Control SpikeD	191111A LCSD-1 2/500	1030L078.D	11/14/19 10:27
4		500 2MEE 4/30/19	1030L079.D	11/14/19 10:46
5				
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13				
14				
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16				
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18				
19				
20				
21				
22				

m/e		
51	9.95 - 80.04% of mass 198	56.2
68	0 - 2.04% of mass 69	0.0
70	0 - 2.04% of mass 69	0.5
127	10 - 80% of mass 198	66.8
197	0 - 2% of mass 198	0.0
198	100 - 100% of mass 198	100.0
199	5 - 9% of mass 198	6.8
275	10 - 60% of mass 198	22.3
365	1 - 100% of mass 198	3.0
441	0.01 - 24% of mass 442	16.1
442	50 - 500% of mass 198	78.3
443	15 - 24% of mass 442	19.2

8A
INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: APPL Inc. Contract: _____

Lab Code: _____ SDG No.: _____

Lab File ID (Standard): 1030L063.D Date Analyzed: 11/13/19

Instrument ID: Linus Time Analyzed: 15:30

GC Column: _____ ID: Heated Purge: (Y/N) _____

		1,4-dichlorobenzene-D4(IS)		Napthalene-D8(IS)		Acenaphthene-D10(IS)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	842982	3.67	4206280	4.62	2023920	6.01
	UPPER LIMIT	1685964	3.84	8412560	4.79	4047840	6.18
	LOWER LIMIT	421491	3.50	2103140	4.45	1011960	5.84
	SAMPLE NO.						
01	191111A BLK 2/500	670685	3.66	2651750	4.62	1349830	6.01
02	BA02466W18 2/500	712208	3.66	2726270	4.61	1409920	6.01
03	500 2MEE 4/30/19	851144	3.66	4152420	4.61	2141060	6.01
04							
05							
06							
07							
08							
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10							
11							
12							
13							
14							
15							
16							
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18							
19							
20							
21							
22							

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = -50% of internal standard area.
RT UPPER LIMIT = +0.17 minutes of internal standard RT
RT LOWER LIMIT = -0.17 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

8A
INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: APPL Inc. Contract: _____

Lab Code: _____ SDG No.: _____

Lab File ID (Standard): 1030L063.D Date Analyzed: 11/13/19

Instrument ID: Linus Time Analyzed: 15:30

GC Column: _____ ID: Heated Purge: (Y/N) _____

		Phenanthrene-D10(IS)		Chrysene-D12(IS)		Perylene-D12(IS)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	3817620	7.22	3523260	9.41	3518020	10.62
	UPPER LIMIT	7635240	7.39	7046520	9.58	7036040	10.79
	LOWER LIMIT	1908810	7.05	1761630	9.24	1759010	10.45
	SAMPLE NO.						
01	191111A BLK 2/500	2568680	7.22	1874030	9.39	1925340	10.58
02	BA02466W18 2/500	2702660	7.22	1923850	9.39	1948070	10.57
03	500 2MEE 4/30/19	3885960	7.22	3430660	9.38	3542620	10.56
04							
05							
06							
07							
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11							
12							
13							
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22							

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = -50% of internal standard area.
RT UPPER LIMIT = +0.17 minutes of internal standard RT
RT LOWER LIMIT = -0.17 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

8A
INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: APPL Inc. Contract: _____

Lab Code: _____ SDG No.: _____

Lab File ID (Standard): 1030L076.D Date Analyzed: 11/14/19

Instrument ID: Linus Time Analyzed: 9:48

GC Column: _____ ID: Heated Purge: (Y/N) _____

		1,4-dichlorobenzene-D4(IS)		Napthalene-D8(IS)		Acenaphthene-D10(IS)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	613947	3.66	3527580	4.61	1898690	6.01
	UPPER LIMIT	1227894	3.83	7055160	4.78	3797380	6.18
	LOWER LIMIT	306974	3.49	1763790	4.44	949345	5.84
	SAMPLE NO.						
01	191111A LCS-1 2/500	585581	3.66	2515560	4.61	1292550	6.01
02	191111A LCSD-1 2/500	553463	3.66	2363890	4.61	1415380	6.01
03	500 2MEE 4/30/19	594041	3.66	3382470	4.61	1914430	6.01
04							
05							
06							
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AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = -50% of internal standard area.
RT UPPER LIMIT = +0.17 minutes of internal standard RT
RT LOWER LIMIT = -0.17 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

8A
INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: APPL Inc. Contract:

Lab Code: SDG No.:

Lab File ID (Standard): 1030L076.D Date Analyzed: 11/14/19

Instrument ID: Linus Time Analyzed: 9:48

GC Column: ID: Heated Purge: (Y/N)

		Phenanthrene-D10(IS)		Chrysene-D12(IS)		Perylene-D12(IS)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	3181700	7.21	2583690	9.39	2808490	10.60
	UPPER LIMIT	6363400	7.38	5167380	9.56	5616980	10.77
	LOWER LIMIT	1590850	7.04	1291845	9.22	1404245	10.43
	SAMPLE NO.						
01	191111A LCS-1 2/500	2266880	7.21	1700280	9.39	1846710	10.59
02	191111A LCSD-1 2/500	2408570	7.21	1766990	9.38	2006250	10.57
03	500 2MEE 4/30/19	3204830	7.22	2739210	9.40	2639200	10.60
04							
05							
06							
07							
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22							

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = -50% of internal standard area.
RT UPPER LIMIT = +0.17 minutes of internal standard RT
RT LOWER LIMIT = -0.17 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

EPA 8260B

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 90648

Case No: 90648 Date Analyzed: 11/08/19

Matrix: WATER Instrument: Max

APPL ID.	Client Sample No.	SURROGATE: 1,2-DICHLOROETHANE-D4 (S)			SURROGATE: 4-BROMOFLUOROBENZENE (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
191107BM-LCS	Lab Control Spike	81-118	118		85-114	112	
191107BM-LCSD	Lab Control SpikeD	81-118	109		85-114	106	
191107BM-BLK	Blank	81-118	119	#	85-114	107	
BA02466	ERH955	81-118	123	#	85-114	107	
BA02465	ERH954	81-118	101		85-114	105	

Comments: Batch: #86BTO-191107BM

= Recovery outside of Control Limits on Sample.

EPA 8260B

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 90648

Case No: 90648 Date Analyzed: 11/08/19

Matrix: WATER Instrument: Max

APPL ID.	Client Sample No.	SURROGATE: DIBROMOFLUOROMETHANE (S)			SURROGATE: TOLUENE-D8 (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
191107BM-LCS	Lab Control Spike	80-119	114		89-112	111	
191107BM-LCSD	Lab Control SpikeD	80-119	108		89-112	107	
191107BM-BLK	Blank	80-119	91.2		89-112	107	
BA02466	ERH955	80-119	115		89-112	107	
BA02465	ERH954	80-119	94.0		89-112	107	

Comments: Batch: #86BTO-191107BM

EPA 8260B

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 90648

Case No: 90648 Date Analyzed: 11/08/19

Matrix: WATER Instrument: Max

Blank ID: 191107BM-BLK Time Analyzed: 0722

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191107BM-LCS	Lab Control Spike	1107M30	11/08/19 0458
191107BM-LCSD	Lab Control SpikeD	1107M31	11/08/19 0527
191107BM-BLK	Blank	1107M35	11/08/19 0722
BA02466	ERH955	1107M37	11/08/19 0819
BA02465	ERH954	1107M38	11/08/19 0848

Comments: Batch: #86BTO-191107BM

Printed: 11/12/19 3:03:51 PM
Form 4, Blank Summary

Method Blank

EPA 8260B BTEX & 1,2-DCA WATER

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Blank Name/QCG: **191107W-02465 - 247033**
Batch ID: #86BTO-191107BM

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	1,2-DICHLOROETHANE	0.30 U	1.0	0.30	0.14	ug/L	11/08/19	11/08/19
BLANK	BENZENE	0.30 U	1.0	0.30	0.15	ug/L	11/08/19	11/08/19
BLANK	ETHYLBENZENE	0.50 U	1.0	0.50	0.23	ug/L	11/08/19	11/08/19
BLANK	TOLUENE	0.30 U	1.0	0.30	0.15	ug/L	11/08/19	11/08/19
BLANK	XYLENES (TOTAL)	0.30 U	2.0	0.30	0.15	ug/L	11/08/19	11/08/19
BLANK	SURROGATE: 1,2-DICHLOROET	119 #	81-118			%	11/08/19	11/08/19
BLANK	SURROGATE: 4-BROMOFLUORO	107	85-114			%	11/08/19	11/08/19
BLANK	SURROGATE: DIBROMOFLUOR	91.2	80-119			%	11/08/19	11/08/19
BLANK	SURROGATE: TOLUENE-D8 (S)	107	89-112			%	11/08/19	11/08/19

= Recovery (or RPD) is outside QC limits.

Quant Method:M1106.M
Run #:1107M35
Instrument:Max
Sequence:M191107
Initials:DPO

GC SC-Blank-REG MDLs-DOD
Printed: 11/12/19 3:03:56 PM

EPA 8260B

Form 4

LCS Summary

Lab Name: APPL, Inc. SDG No: 90648

Case No: 90648 Date Analyzed: 11/08/19

Matrix: WATER Instrument: Max

LCS ID: 191107BM-LCS Time Analyzed: 0458

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191107BM-LCS	Lab Control Spike	1107M30	11/08/19 0458
191107BM-LCSD	Lab Control SpikeD	1107M31	11/08/19 0527
191107BM-BLK	Blank	1107M35	11/08/19 0722
BA02466	ERH955	1107M37	11/08/19 0819
BA02465	ERH954	1107M38	11/08/19 0848

Comments: Batch: #86BTO-191107BM

Printed: 11/12/19 3:03:50 PM

Form 4, LCS Summary

Laboratory Control Spike Recoveries
EPA 8260B BTEX & 1,2-DCA WATER

APPL ID: **191108W-02465 LCS - 247033**
Batch ID: #86BTO-191107BM

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Lvl ug/L	SPK Result ug/L	DUP Result ug/L	SPK % Recovery	DUP % Recovery	Recovery Limits	RPD %	RPD Limits
1,2-DICHLOROETHANE	10.00	10.4	10.4	104	104	73-128	0.0	20
BENZENE	10.00	10.5	10.4	105	104	79-120	0.96	20
ETHYLBENZENE	10.00	10.7	10.7	107	107	79-121	0.0	20
TOLUENE	10.00	9.65	10.1	96.5	101	80-121	4.6	20
XYLENES (TOTAL)	30.0	32.1	32.6	107	109	79-121	1.5	20
SURROGATE: 1,2-DICHLOROETHANE-D	25.0	29.6	27.2	118	109	81-118		
SURROGATE: 4-BROMOFLUOROBENZE	25.0	28.1	26.5	112	106	85-114		
SURROGATE: DIBROMOFLUOROMETH	25.0	28.5	27.1	114	108	80-119		
SURROGATE: TOLUENE-D8 (S)	25.0	27.8	26.8	111	107	89-112		

Comments:

Primary	SPK	DUP
Quant Method :	M1106.M	M1106.M
Extraction Date :	11/08/19	11/08/19
Analysis Date :	11/08/19	11/08/19
Instrument :	Max	Max
Run :	1107M30	1107M31
Initials :	DPO	

Printed: 11/12/19 3:03:53 PM
APPL Standard LCSD

Form 5
Tune Summary

Lab Name: APPL Inc.
Case No: 90648
Matrix: Water
ID: 1106M03.D

SDG No: 90648
Date Analyzed: 11/06/19
Instrument: Max
Time Analyzed: 9:06

	Client Sample No.	APPL ID.	File ID.	Date Analyzed
1		0.3ug/L VOC STD 11/0	1106M06.D	11/06/19 10:45
2		0.5ug/L VOC STD 11/0	1106M07.D	11/06/19 11:13
3		1.0ug/L VOC STD 11/0	1106M08.D	11/06/19 11:42
4		2.0ug/L VOC STD 11/0	1106M09.D	11/06/19 12:11
5		5.0ug/L VOC STD 11/0	1106M10.D	11/06/19 12:40
6		10ug/L VOC STD 11/06	1106M11.D	11/06/19 13:08
7		20ug/L VOC STD 11/06	1106M12.D	11/06/19 13:37
8		40ug/L VOC STD 11/06	1106M13.D	11/06/19 14:06
9		100ug/L VOC STD 11/0	1106M14.D	11/06/19 14:35
10		(SS)10ug/L VOC STD 1	1106M16.D	11/06/19 15:33
11				
12				
13				
14				
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16				
17				
18				
19				
20				
21				
22				

m/e		
50	15.0 - 40.0% of mass 95	15.4
75	30.0 - 60.0% of mas 95	45.7
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	5.6
173	Less than 2.0% of mass 174	1.0
174	50.0 - 200.0% of mass 95	134.2
175	5.0 - 9.0% of mass 174	7.2
176	95.0 - 101.0% of mass 174	97.9
177	5.0 - 9.0% of mass 176	6.3

Form 5
Tune Summary

Lab Name: APPL Inc.
Case No: 90648
Matrix: Water
ID: 1107M28.D

SDG No: 90648
Date Analyzed: 11/08/19
Instrument: Max
Time Analyzed: 4:01

	Client Sample No.	APPL ID.	File ID.	Date Analyzed
1		191107B CCV 10ug/L	1107M29.D	11/08/19 4:30
2	Lab Control Spike	191107B LCS 10ug/L	1107M30.D	11/08/19 4:58
3	Lab Control SpikeD	191107B LCSD 10ug/L	1107M31.D	11/08/19 5:27
4	Blank	191107B Blk	1107M35.D	11/08/19 7:22
5	ERH955	BA02466W01	1107M37.D	11/08/19 8:19
6	ERH954	BA02465W01	1107M38.D	11/08/19 8:48
7		Ending CCV 10ug/L 11	1107M42.D	11/08/19 10:44
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19				
20				
21				
22				

m/e		
50	15.0 - 40.0% of mass 95	15.6
75	30.0 - 60.0% of mas 95	46.5
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.6
173	Less than 2.0% of mass 174	0.0
174	50.0 - 200.0% of mass 95	125.6
175	5.0 - 9.0% of mass 174	7.9
176	95.0 - 101.0% of mass 174	99.3
177	5.0 - 9.0% of mass 176	6.5

8A
INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: APPL Inc. Contract: _____

Lab Code: _____ SDG No.: _____

Lab File ID (Standard): 1106M11.D Date Analyzed: 6 Nov 19 13:08

Instrument ID: Max Time Analyzed: 6 Nov 19 13:08

GC Column: _____ ID: Heated Purge: (Y/N) _____

		Fluorobenzene (IS)		Chlorobenzene-D5 (IS)		1,4-Dichlorobenzene-D (IS)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	1472900	5.73	1197770	8.97	729197	11.30
	UPPER LIMIT	2945800	5.90	2395540	9.14	1458394	11.47
	LOWER LIMIT	736450	5.56	598885	8.80	364599	11.13
	SAMPLE NO.						
01	(SS)10ug/L VOC STD 1	1430110	5.73	1166430	8.97	706816	11.30
02							
03							
04							
05							
06							
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12							
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22							

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = -50% of internal standard area.
RT UPPER LIMIT = +0.17 minutes of internal standard RT
RT LOWER LIMIT = -0.17 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

8A
INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: APPL Inc. Contract: _____

Lab Code: _____ SDG No.: _____

Lab File ID (Standard): 1107M29.D Date Analyzed: 8 Nov 19 4:30

Instrument ID: Max Time Analyzed: 8 Nov 19 4:30

GC Column: _____ ID: Heated Purge: (Y/N) _____

		Fluorobenzene (IS)		Chlorobenzene-D5 (IS)		1,4-Dichlorobenzene-D (IS)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	1290670	5.72	1031930	8.97	665296	11.30
	UPPER LIMIT	2581340	5.89	2063860	9.14	1330592	11.47
	LOWER LIMIT	645335	5.55	515965	8.80	332648	11.13
	SAMPLE NO.						
01	191107B LCS 10ug/L	1345750	5.73	1073890	8.97	684131	11.30
02	191107B LCSD 10ug/L	1321430	5.72	1062190	8.97	671732	11.30
03	191107B Blk	1349100	5.72	1091130	8.98	672344	11.30
04	BA02466W01	1327070	5.72	1088940	8.97	693070	11.30
05	BA02465W01	1357240	5.72	1087010	8.97	689415	11.30
06	Ending CCV 10ug/L 11/7	1358060	5.73	1100050	8.97	706713	11.30
07							
08							
09							
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20							
21							
22							

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = -50% of internal standard area.
RT UPPER LIMIT = +0.17 minutes of internal standard RT
RT LOWER LIMIT = -0.17 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

EPA 8260B

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 90648

Case No: 90648 Date Analyzed: 11/08/19

Matrix: WATER Instrument: Max

APPL ID.	Client Sample No.	SURROGATE: 4-BROMOFLUOROBENZENE (S)					
		Limits	Result	Qualifier	Limits	Result	Qualifier
191107BM-LCS	Lab Control Spike	85-114	104				
191107BM-LCSD	Lab Control SpikeD	85-114	107				
191107BM-BLK	Blank	85-114	107				
BA02466	ERH955	85-114	107				
BA02465	ERH954	85-114	105				

Comments: Batch: #GRO86-191107BM

EPA 8260B

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 90648

Case No: 90648 Date Analyzed: 11/08/19

Matrix: WATER Instrument: Max

Blank ID: 191107BM-BLK Time Analyzed: 0722

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191107BM-LCS	Lab Control Spike	1107M33	11/08/19 0625
191107BM-LCSD	Lab Control SpikeD	1107M34	11/08/19 0653
191107BM-BLK	Blank	1107M35	11/08/19 0722
BA02466	ERH955	1107M37	11/08/19 0819
BA02465	ERH954	1107M38	11/08/19 0848

Comments: Batch: #GRO86-191107BM

Printed: 11/12/19 2:46:49 PM
Form 4, Blank Summary

Method Blank

EPA 8260B GRO WATER

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Blank Name/QCG: **191107W-02465 - 247030**
Batch ID: #GRO86-191107BM

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	GASOLINE RANGE ORGANICS	18.0 U	20	18.0	8.6	ug/L	11/08/19	11/08/19
BLANK	SURROGATE: 4-BROMOFLUORO	107	85-114			%	11/08/19	11/08/19

Quant Method: MGAS1107.M
Run #: 1107M35
Instrument: Max
Sequence: M191107
Initials: DPO

GC SC-Blank-REG MDLs-DOD
Printed: 11/12/19 2:46:54 PM

EPA 8260B

Form 4

LCS Summary

Lab Name: APPL, Inc. SDG No: 90648

Case No: 90648 Date Analyzed: 11/08/19

Matrix: WATER Instrument: Max

LCS ID: 191107BM-LCS Time Analyzed: 0625

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191107BM-LCS	Lab Control Spike	1107M33	11/08/19 0625
191107BM-LCSD	Lab Control SpikeD	1107M34	11/08/19 0653
191107BM-BLK	Blank	1107M35	11/08/19 0722
BA02466	ERH955	1107M37	11/08/19 0819
BA02465	ERH954	1107M38	11/08/19 0848

Comments: Batch: #GRO86-191107BM

Laboratory Control Spike Recoveries
EPA 8260B GRO WATER

APPL ID: **191108W-02465 LCS - 247030**
Batch ID: #GRO86-191107BM

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Lvl ug/L	SPK Result ug/L	DUP Result ug/L	SPK % Recovery	DUP % Recovery	Recovery Limits	RPD %	RPD Limits
GASOLINE RANGE ORGANICS	300	290	257	96.7	85.7	78-122	12.1	20
SURROGATE: 4-BROMOFLUOROBENZE	25.0	25.9	26.8	104	107	85-114		

Comments: _____

Primary	SPK	DUP
Quant Method :	MGAS1107.M	MGAS1107.M
Extraction Date :	11/08/19	11/08/19
Analysis Date :	11/08/19	11/08/19
Instrument :	Max	Max
Run :	1107M33	1107M34
Initials :	DPO	

RSK 175

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 90648

Case No: 90648 Date Analyzed: 11/21/19

Matrix: WATER Instrument: Rocky

Blank ID: 191121A-BLK Time Analyzed: 1642

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191121A-LCS	Lab Control Spike	1121R03	11/21/19 1638
191121A-BLK	Blank	1121R04	11/21/19 1642
BA02465	ERH954	1121R05	11/21/19 1645
BA02466	ERH955	1121R06	11/21/19 1654
191121A-LCSD	Lab Control SpikeD	1121R07	11/21/19 1657

Comments: Batch: #RSKWR-191121A

Method Blank

MEE

Blank Name/QCG: **191121W-02465 - 247503**

Batch ID: #RSKWR-191121A

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	METHANE	1.00 U	5.0	1.00	0.25	ug/L	11/21/19	11/21/19

Quant Method:RSK1002.M
Run #:1121R04
Instrument:Rocky
Sequence:191002
Initials:GAG

GC SC-Blank-REG MDLs-DOD
Printed: 12/05/19 3:04:02 PM

RSK 175

Form 4

LCS Summary

Lab Name: APPL, Inc. SDG No: 90648

Case No: 90648 Date Analyzed: 11/21/19

Matrix: WATER Instrument: Rocky

LCS ID: 191121A-LCS Time Analyzed: 1638

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191121A-LCS	Lab Control Spike	1121R03	11/21/19 1638
191121A-BLK	Blank	1121R04	11/21/19 1642
BA02465	ERH954	1121R05	11/21/19 1645
BA02466	ERH955	1121R06	11/21/19 1654
191121A-LCSD	Lab Control SpikeD	1121R07	11/21/19 1657

Comments: Batch: #RSKWR-191121A

Laboratory Control Spike Recoveries

MEE

APPL ID: **191121W-02465 LCS - 247503**
Batch ID: #RSKWR-191121A

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Lvl ug/L	SPK Result ug/L	DUP Result ug/L	SPK % Recovery	DUP % Recovery	Recovery Limits	RPD %	RPD Limits
METHANE	83.4	82.9	82.6	99.4	99.0	72-125	0.36	30

Comments:

Primary	SPK	DUP
Quant Method :	RSK1002.M	RSK1002.M
Extraction Date :	11/21/19	11/21/19
Analysis Date :	11/21/19	11/21/19
Instrument :	Rocky	Rocky
Run :	1121R03	1121R07
Initials :	GAG	

Printed: 12/05/19 3:04:08 PM
APPL Standard LCSD

METALS BLANK

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Method	Analyte	Result	LOQ	LOD	DL	Units	Prep Date	Analysis Date	QC Group
6010C	CALCIUM (CA)	40.0 J	1000	75.0	27.5	ug/L	11/08/19	11/19/19	#61CDO-A191108-BA02466
6010C	MAGNESIUM (MG)	20.3 J	500	30.0	12.9	ug/L	11/08/19	11/19/19	#61CDO-A191108-BA02466
6010C	MANGANESE (MN)	4.00 U	10.0	4.00	1.23	ug/L	11/08/19	11/19/19	#61CDO-A191108-BA02466
6010C	POTASSIUM (K)	500.0 U	3000	500.0	220.0	ug/L	11/08/19	11/19/19	#61CDO-A191108-BA02466
6010C	SODIUM (NA)	500.0 U	5000	500.0	111.1	ug/L	11/08/19	11/19/19	#61CDO-A191108-BA02466

J = Estimated value.

Metals SC-Blank-REG MDLs
Printed: 12/05/19 5:17:20 PM

Laboratory Control Spike Recoveries

METALS

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Method	Compound Name	Spike Lvl ug/L	SPK Res ug/L	DUP Res ug/L	SPK % Recov	DUP % Recov	RPD	RPD Max	QC Limits	Extract Date-Spk	Analysis Date-Spk	Extract Date-Dup	Analysis Date-Dup	QC Group
EPA 6010C	CALCIUM (CA)	25000	25800	25500	103	102	1.2	20	87-113	11/08/19	11/19/19	11/08/19	11/19/19	#61CDO-A191108-BA0246
EPA 6010C	MAGNESIUM (MG)	25000	25600	25500	102	102	0.4	20	85-113	11/08/19	11/19/19	11/08/19	11/19/19	#61CDO-A191108-BA0246
EPA 6010C	MANGANESE (MN)	250	258	255	103	102	1.2	20	90-114	11/08/19	11/19/19	11/08/19	11/19/19	#61CDO-A191108-BA0246
EPA 6010C	POTASSIUM (K)	5000	4960	5040	99.2	101	1.6	20	86-114	11/08/19	11/19/19	11/08/19	11/19/19	#61CDO-A191108-BA0246
EPA 6010C	SODIUM (NA)	25000	25400	25400	102	102	0.0	20	87-115	11/08/19	11/19/19	11/08/19	11/19/19	#61CDO-A191108-BA0246

Comments:

6010C/3010A

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 90648

Case No: 90648 Date Analyzed: 11/19/19

Matrix: WATER Instrument: Phoebe

Blank ID: A191108-BLK Time Analyzed: 1006

APPL ID.	Client Sample No.	File ID.	Date Analyzed
A191108-LCSD	Lab Control SpikeD	191119A	11/19/19 1015
A191108-LCS	Lab Control Spike	191119A	11/19/19 1010
A191108-BLK	Blank	191119A	11/19/19 1006
BA02466	ERH955	191119A	11/19/19 1020

Comments: Batch: #61CDO-A191108

6010C/3010A

Form 4

LCS Summary

Lab Name: APPL, Inc. SDG No: 90648

Case No: 90648 Date Analyzed: 11/19/19

Matrix: WATER Instrument: Phoebe

LCS ID: A191108-LCS Time Analyzed: 1010

APPL ID.	Client Sample No.	File ID.	Date Analyzed
A191108-LCSD	Lab Control SpikeD	191119A	11/19/19 1015
A191108-LCS	Lab Control Spike	191119A	11/19/19 1010
A191108-BLK	Blank	191119A	11/19/19 1006
BA02466	ERH955	191119A	11/19/19 1020

Comments: Batch: #61CDO-A191108

EPA 300.0

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 90648

Case No: 90648 Date Analyzed: 11/05/19

Matrix: WATER Instrument: Charlie

Blank ID: 191105Wd-BLK Time Analyzed: 2016

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191105Wd-BLK	Blank	2	11/05/19 2016
191105Wd-LCS	Lab Control Spike	3	11/05/19 2023
191105Wd-LCSD	Lab Control SpikeD	4	11/05/19 2031
BA02466	ERH955	9	11/05/19 2108

Comments: Batch: #300W-191105Wd

Printed: 12/05/19 4:58:11 PM
Form 4, Blank Summary

EPA 300.0

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 90648

Case No: 90648 Date Analyzed: 11/28/19

Matrix: WATER Instrument: Charlie

Blank ID: 191128Wda-BLK Time Analyzed: 1502

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191128Wda-BLK	Blank	2	11/28/19 1502
191128Wda-LCS	Lab Control Spike	3	11/28/19 1510
191128Wda-LCSD	Lab Control SpikeD	4	11/28/19 1517
BA02466	ERH955	7	11/28/19 1533

Comments: Batch: #300WD-191128W

WETLAB BLANK

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Method	Analyte	Result	LOQ	LOD	DL	Units	Prep Date	Analysis Date	QC Group
EPA 300.0	BROMIDE	0.16 U	0.5	0.16	0.05	mg/L	11/05/19	11/05/19	#300W-191105Wd-BA02466
EPA 300.0	FLUORIDE	0.09 U	0.1	0.09	0.08	mg/L	11/05/19	11/05/19	#300W-191105Wd-BA02466
EPA 300.0	NITRATE	0.18 U	0.5	0.18	0.04	mg/L	11/05/19	11/05/19	#300W-191105Wd-BA02466
EPA 300.0	SULFATE	0.20 U	1.0	0.20	0.09	mg/L	11/05/19	11/05/19	#300W-191105Wd-BA02466
EPA 300.0	CHLORIDE	0.20 U	1.0	0.20	0.08	mg/L	11/28/19	11/28/19	00WD-191128Wda-BA02466

Wetlab SC-Blank-REG MDLs
Printed: 12/05/19 4:57:48 PM

EPA 300.0

Form 4

LCS Summary

Lab Name: APPL, Inc. SDG No: 90648

Case No: 90648 Date Analyzed: 11/05/19

Matrix: WATER Instrument: Charlie

LCS ID: 191105Wd-LCS Time Analyzed: 2023

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191105Wd-BLK	Blank	2	11/05/19 2016
191105Wd-LCS	Lab Control Spike	3	11/05/19 2023
191105Wd-LCSD	Lab Control SpikeD	4	11/05/19 2031
BA02466	ERH955	9	11/05/19 2108

Comments: Batch: #300W-191105Wd

Printed: 12/05/19 4:58:11 PM
Form 4, LCS Summary

EPA 300.0

Form 4

LCS Summary

Lab Name: APPL, Inc.
Case No: 90648
Matrix: WATER
LCS ID: 191128Wda-LCS

SDG No: 90648
Date Analyzed: 11/28/19
Instrument: Charlie
Time Analyzed: 1510

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191128Wda-BLK	Blank	2	11/28/19 1502
191128Wda-LCS	Lab Control Spike	3	11/28/19 1510
191128Wda-LCSD	Lab Control SpikeD	4	11/28/19 1517
BA02466	ERH955	7	11/28/19 1533

Comments: Batch: #300WD-191128W

Printed: 12/05/19 4:58:11 PM
Form 4, LCS Summary

Laboratory Control Spike Recoveries

WETLAB

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Method	Compound Name	Spike Lvl mg/L	SPK Res mg/L	DUP Res mg/L	SPK % Recov	DUP % Recov	RPD	RPD Max	QC Limits	Extract Date-Spk	Analysis Date-Spk	Extract Date-Dup	Analysis Date-Dup	QC Group
EPA 300.0	CHLORIDE	25.0	25.3	25.4	101	102	0.39	20	90-110	11/28/19	11/28/19	11/28/19	11/28/19	#300WD-191128Wda-BA0
EPA 300.0	BROMIDE	12.5	12.1	12.1	96.8	96.8	0.0	20	90-110	11/05/19	11/05/19	11/05/19	11/05/19	#300W-191105Wd-BA0246
EPA 300.0	FLUORIDE	5.00	4.55	4.50	91.0	90.0	1.1	20	90-110	11/05/19	11/05/19	11/05/19	11/05/19	#300W-191105Wd-BA0246
EPA 300.0	NITRATE	22.1	21.6	21.5	97.7	97.3	0.46	20	90-110	11/05/19	11/05/19	11/05/19	11/05/19	#300W-191105Wd-BA0246
EPA 300.0	SULFATE	25.0	24.6	24.6	98.4	98.4	0.0	20	90-110	11/05/19	11/05/19	11/05/19	11/05/19	#300W-191105Wd-BA0246

Comments:

Printed: 12/05/19 4:57:57 PM
APPL Standard LCSD

EPA 353.2

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 90648

Case No: 90648 Date Analyzed: 11/06/19

Matrix: WATER Instrument: EVE

Blank ID: 191106A-BLK Time Analyzed: 1705

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191106A-BLK	Blank	12	11/06/19 1705
191106A-LCS	Lab Control Spike	13	11/06/19 1707
191106A-LCSD	Lab Control SpikeD	14	11/06/19 1709
BA02466	ERH955	18	11/06/19 1718

Comments: Batch: #35OF-191106A

Printed: 12/05/19 5:32:09 PM
Form 4, Blank Summary

SM 2320B

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 90648

Case No: 90648 Date Analyzed: 11/06/19

Matrix: WATER Instrument: Tiamo

Blank ID: 191106A-BLK Time Analyzed: 1919

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191106A-BLK	Blank	1	11/06/19 1919
191106A-LCS	Lab Control Spike	2	11/06/19 1922
191106A-LCSD	Lab Control SpikeD	3	11/06/19 1931
BA02466	ERH955	7	11/06/19 2040

Comments: Batch: #232W-191106A

Printed: 12/05/19 5:32:09 PM
Form 4, Blank Summary

SM 4500-Si D

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 90648

Case No: 90648 Date Analyzed: 11/06/19

Matrix: WATER Instrument: Manual Spec

Blank ID: 191106A-BLK Time Analyzed: 2122

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191106A-BLK	Blank	57	11/06/19 2122
191106A-LCS	Lab Control Spike	58	11/06/19 2122
191106A-LCSD	Lab Control SpikeD	60	11/06/19 2123
BA02466	ERH955	63	11/06/19 2125

Comments: Batch: #SIO2-191106A

Printed: 12/05/19 5:32:09 PM
Form 4, Blank Summary

SM 4500-Si D

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 90648

Case No: 90648 Date Analyzed: 11/06/19

Matrix: WATER Instrument: Manual Spec

Blank ID: 191106A-BLK Time Analyzed: 2122

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191106A-BLK	Blank	57	11/06/19 2122
191106A-LCS	Lab Control Spike	58	11/06/19 2122
191106A-LCSD	Lab Control SpikeD	60	11/06/19 2123
BA02466	ERH955	69	11/06/19 2129

Comments: Batch: #SIO2D-191106A

Printed: 12/05/19 5:32:09 PM
Form 4, Blank Summary

SM3500FeB

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 90648

Case No: 90648 Date Analyzed: 11/05/19

Matrix: WATER Instrument: Manual Spec

Blank ID: A191105-BLK Time Analyzed: 2143

APPL ID.	Client Sample No.	File ID.	Date Analyzed
A191105-BLK	Blank	32	11/05/19 2143
A191105-LCSD	Lab Control SpikeD	34	11/05/19 2144
BA02466	ERH955	35	11/05/19 2144
A191105-LCS	Lab Control Spike	36	11/05/19 2144

Comments: Batch: #35FE-A191105

Printed: 12/05/19 5:32:09 PM
Form 4, Blank Summary

SW846 9060A

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 90648

Case No: 90648 Date Analyzed: 11/14/19

Matrix: WATER Instrument: TICTOC

Blank ID: 191111A-BLK Time Analyzed: 1740

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191111A-BLK	Blank	29	11/14/19 1740
191111A-LCS	Lab Control Spike	30	11/14/19 1816
191111A-LCSD	Lab Control SpikeD	31	11/14/19 1852
BA02466	ERH955	35	11/14/19 2111

Comments: Batch: #DOCW5-191111A

Printed: 12/05/19 5:32:09 PM
Form 4, Blank Summary

SW846 9060A

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 90648

Case No: 90648 Date Analyzed: 11/15/19

Matrix: WATER Instrument: TICTOC

Blank ID: 191111B-BLK Time Analyzed: 0113

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191111B-BLK	Blank	27	11/15/19 0113
191111B-LCS	Lab Control Spike	28	11/15/19 0150
191111B-LCSD	Lab Control SpikeD	29	11/15/19 0227
BA02466	ERH955	30	11/15/19 0303

Comments: Batch: #TOCW5-191111B

Printed: 12/05/19 5:32:09 PM
Form 4, Blank Summary

WETLAB BLANK

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Method	Analyte	Result	LOQ	LOD	DL	Units	Prep Date	Analysis Date	QC Group
SM 2320B	BICARBONATE AS	1.1 J	2.0	1.70	0.85	mg/L	11/06/19	11/06/19	#232W-191106A-BA02508
SM 2320B	CARBONATE AS C	1.70 U	2.0	1.70	0.85	mg/L	11/06/19	11/06/19	#232W-191106A-BA02508
SM 2320B	TOTAL ALKALINITY	1.1 J	2.0	1.70	0.85	mg/L	11/06/19	11/06/19	#232W-191106A-BA02508
SM3500Fe	FERROUS IRON	0.32 U	1.0	0.32	0.16	mg/L	11/05/19	11/05/19	#35FE-A191105-BA02466
EPA 353.2	NITRATE-NITRITE-	0.090 U	0.10	0.090	0.028	mg/L	11/06/19	11/06/19	#35OF-191106A-BA02301
SW846 90	DISSOLVED ORGA	0.350 U	0.93	0.350	0.130	mg/L	11/14/19	11/14/19	#DOCW5-191111A-BA02466
SM 4500-S	SILICA W	0.80 U	1.0	0.80	0.53	mg/L	11/06/19	11/06/19	#SIO2-191106A-BA02525
SM 4500-S	DISSOLVED SILICA	0.80 U	1.0	0.80	0.53	mg/L	11/06/19	11/06/19	#SIO2D-191106A-BA02525
SW846 90	TOTAL ORGANIC C	0.350 U	0.93	0.350	0.130	mg/L	11/15/19	11/15/19	#TOCW5-191111B-BA02466

Wetlab SC-Blank-REG MDLs
Printed: 12/05/19 5:31:45 PM

EPA 353.2

Form 4

LCS Summary

Lab Name: APPL, Inc. SDG No: 90648

Case No: 90648 Date Analyzed: 11/06/19

Matrix: WATER Instrument: EVE

LCS ID: 191106A-LCS Time Analyzed: 1707

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191106A-BLK	Blank	12	11/06/19 1705
191106A-LCS	Lab Control Spike	13	11/06/19 1707
191106A-LCSD	Lab Control SpikeD	14	11/06/19 1709
BA02466	ERH955	18	11/06/19 1718

Comments: Batch: #35OF-191106A

Printed: 12/05/19 5:32:09 PM
Form 4, LCS Summary

SM 2320B

Form 4

LCS Summary

Lab Name: APPL, Inc. SDG No: 90648

Case No: 90648 Date Analyzed: 11/06/19

Matrix: WATER Instrument: Tiamo

LCS ID: 191106A-LCS Time Analyzed: 1922

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191106A-BLK	Blank	1	11/06/19 1919
191106A-LCS	Lab Control Spike	2	11/06/19 1922
191106A-LCSD	Lab Control SpikeD	3	11/06/19 1931
BA02466	ERH955	7	11/06/19 2040

Comments: Batch: #232W-191106A

Printed: 12/05/19 5:32:09 PM
Form 4, LCS Summary

SM 4500-Si D

Form 4

LCS Summary

Lab Name: APPL, Inc. SDG No: 90648

Case No: 90648 Date Analyzed: 11/06/19

Matrix: WATER Instrument: Manual Spec

LCS ID: 191106A-LCS Time Analyzed: 2122

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191106A-BLK	Blank	57	11/06/19 2122
191106A-LCS	Lab Control Spike	58	11/06/19 2122
191106A-LCSD	Lab Control SpikeD	60	11/06/19 2123
BA02466	ERH955	63	11/06/19 2125

Comments: Batch: #SIO2-191106A

Printed: 12/05/19 5:32:09 PM
Form 4, LCS Summary

SM 4500-Si D

Form 4

LCS Summary

Lab Name: APPL, Inc. SDG No: 90648

Case No: 90648 Date Analyzed: 11/06/19

Matrix: WATER Instrument: Manual Spec

LCS ID: 191106A-LCS Time Analyzed: 2122

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191106A-BLK	Blank	57	11/06/19 2122
191106A-LCS	Lab Control Spike	58	11/06/19 2122
191106A-LCSD	Lab Control SpikeD	60	11/06/19 2123
BA02466	ERH955	69	11/06/19 2129

Comments: Batch: #SIO2D-191106A

Printed: 12/05/19 5:32:09 PM
Form 4, LCS Summary

SM3500FeB

Form 4

LCS Summary

Lab Name: APPL, Inc. SDG No: 90648

Case No: 90648 Date Analyzed: 11/05/19

Matrix: WATER Instrument: Manual Spec

LCS ID: A191105-LCS Time Analyzed: 2144

APPL ID.	Client Sample No.	File ID.	Date Analyzed
A191105-BLK	Blank	32	11/05/19 2143
A191105-LCSD	Lab Control SpikeD	34	11/05/19 2144
BA02466	ERH955	35	11/05/19 2144
A191105-LCS	Lab Control Spike	36	11/05/19 2144

Comments: Batch: #35FE-A191105

Printed: 12/05/19 5:32:09 PM
Form 4, LCS Summary

SW846 9060A

Form 4

LCS Summary

Lab Name: APPL, Inc. SDG No: 90648

Case No: 90648 Date Analyzed: 11/14/19

Matrix: WATER Instrument: TICTOC

LCS ID: 191111A-LCS Time Analyzed: 1816

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191111A-BLK	Blank	29	11/14/19 1740
191111A-LCS	Lab Control Spike	30	11/14/19 1816
191111A-LCSD	Lab Control SpikeD	31	11/14/19 1852
BA02466	ERH955	35	11/14/19 2111

Comments: Batch: #DOCW5-191111A

Printed: 12/05/19 5:32:09 PM
Form 4, LCS Summary

SW846 9060A

Form 4

LCS Summary

Lab Name: APPL, Inc. SDG No: 90648

Case No: 90648 Date Analyzed: 11/15/19

Matrix: WATER Instrument: TICTOC

LCS ID: 191111B-LCS Time Analyzed: 0150

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191111B-BLK	Blank	27	11/15/19 0113
191111B-LCS	Lab Control Spike	28	11/15/19 0150
191111B-LCSD	Lab Control SpikeD	29	11/15/19 0227
BA02466	ERH955	30	11/15/19 0303

Comments: Batch: #TOCW5-191111B

Printed: 12/05/19 5:32:09 PM
Form 4, LCS Summary

Laboratory Control Spike Recoveries

WETLAB

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Method	Compound Name	Spike Lvl mg/L	SPK Res mg/L	DUP Res mg/L	SPK % Recov	DUP % Recov	RPD	RPD Max	QC Limits	Extract Date-Spk	Analysis Date-Spk	Extract Date-Dup	Analysis Date-Dup	QC Group
EPA 353.2	NITRATE-NITRITE-N	3.00	3.19	2.95	106	98.3	7.8	20	90-110	11/06/19	11/06/19	11/06/19	11/06/19	#35OF-191106A-BA02301
SM 2320B	BICARBONATE AS CACO3	229.5	221	233	96.3	102	5.3	20	90-110	11/06/19	11/06/19	11/06/19	11/06/19	#232W-191106A-BA02508
SM 2320B	TOTAL ALKALINITY AS CA	250	245	250	98.0	100	2.0	20	90-110	11/06/19	11/06/19	11/06/19	11/06/19	#232W-191106A-BA02508
SM 4500-Si	SILICA W	4.00	3.81	3.85	95.3	96.3	1.0	20	80-120	11/06/19	11/06/19	11/06/19	11/06/19	#SIO2-191106A-BA02525
SM 4500-Si	DISSOLVED SILICA	4.00	3.81	3.85	95.3	96.3	1.0	20	80-120	11/06/19	11/06/19	11/06/19	11/06/19	#SIO2D-191106A-BA02525
SM3500Fe	FERROUS IRON	3.00	3.00	3.03	100	101	1.00	20	80-120	11/05/19	11/05/19	11/05/19	11/05/19	#35FE-A191105-BA02466
SW846 90	DISSOLVED ORGANIC CA	5.00	5.25	5.33	105	107	1.5	20	90-110	11/14/19	11/14/19	11/14/19	11/14/19	#DOCW5-191111A-BA024
SW846 90	TOTAL ORGANIC CARBO	5.00	5.18	5.16	104	103	0.39	20	80-120	11/15/19	11/15/19	11/15/19	11/15/19	#TOCW5-191111B-BA024

Comments: _____

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Printed: 12/05/19 5:31:55 PM
APPL Standard LCSD

Matrix Spike Recoveries

WETLAB

APPL ID: **191105W-02466 MS - 246830**

Sample ID: BA02466

Client ID: ERH955

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Method	Compound Name	Spike Lvl mg/L	Matrix Res mg/L	SPK Res mg/L	DUP Res mg/L	SPK % Recovery	DUP % Recovery	RPD	RPD Max	Recovery Limits	Extract Date-Spk	Analysis Date-Spk	Extract Date-Dup	Analysis Date-Dup	QC Group	QC Sample
SM3500Fe	FERROUS IRON	3.00	0.10	2.99	3.01	96.3	97.0	0.67	20	80-120	11/05/19	11/05/19	11/05/19	11/05/19	246830	BA02466

Comments: _____

ORGANICS
Calibration Data

DBCP/EDB/1,2,3-TCP Analysis by
504 8011

Form 6
Initial Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Initial Cal. Date: 11/08/19
Matrix: Water Instrument: Herbie Initials:

			1025122.D	1025123.D	1025124.D	1025125.D	1025126.D	1025127.D									
		Compound	1	2	3	4	5	6					Avg	%RSD	Type	r^2	Q
1	TM	EDB	884525	804465	739004	692297	694324	679871					749081	11	TM		
2	TML	1,2,3-TCP	430975	262120	240364	218305	208006	202514					260381	33	TM	0.999	
3	S	1,3-DIBROMOPROPANE(S)		1033715	901976	824027	801433	770343					866299	12	S		
4	TM	DBCP	3286575	2895745	2909434	2762260	2691157	2691364					2872756	7.8	TM		
5		Signal #2											0	0			
6																	
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35																	

1.82706

DBCP/EDB/1,2,3-TCP Analysis by
504 8011

Form 6
Initial Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Initial Cal. Date: 11/08/19
Matrix: Water Instrument: Herbie Initials:

			1025122 D	1025123 D	1025124.D	1025125.D	1025126.D	1025127.D									
		Compound	1	2	3	4	5	6					Avg	%RSD	Type	r^2	Q
36	TM	EDB #2	3885200	3439110	3226410	3017715	2931621	2953985					3242340	11	TM		
37	TM	1,2,3-TCP #2	680875	640785	619024	559442	550172	525478					595963	10	TM		
38	S	1,3-DIBROMOPROPANE(S) #2	2491825	2354260	2198168	2062581	1972708	1929604					2168191	10	S		
39	TM	DBCP #2	10635375	9133015	9102064	9256497	9091623	9154474					9395508	6.5	TM		
40																	
41																	
42																	
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1.092579

Quantitation Report (Not Reviewed)

Signal #1 : G:\HERBIE\DATA\191025\1025122.D\ECD1A.CH Vial: 20
Signal #2 : G:\HERBIE\DATA\191025\1025122.D\ECD2B.CH
Acq On : 11-08-19 16:07:44 Operator: MA,SS
Sample : 8011 1 11/06/19 Inst : Herbie
Misc : water Multiplr: 1.00
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Nov 12 14:22 2019 Quant Results File: 8011106A.RES

Quant Method : G:\HERBIE\DATA\190814\8011106A.M (RTE Integrator)
Title : 504.1 OR 8011
Last Update : Tue Nov 12 13:30:16 2019
Response via : Initial Calibration
DataAcq Meth : DOHS504.M

Volume Inj. : 2µL
Signal #1 Phase : DB-35MS Signal #2 Phase: DB-XLB
Signal #1 Info : 0.25 Signal #2 Info : 0.50

Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
System Monitoring Compounds						
3) S 1,3-DIBROMOPROPA	10.02	11.03	54908	99673	0.032	0.023 #
Spiked Amount 0.350			Recovery =		9.14%	6.57%
Target Compounds						
1) TM EDB	5.79	7.21	35381	155408	0.024	0.024
2) TM 1,2,3-TCP	9.22	10.44	17239	27235	0.005	0.023 #
4) TM DBCP	13.35	14.08	131463	425415	0.023	0.023

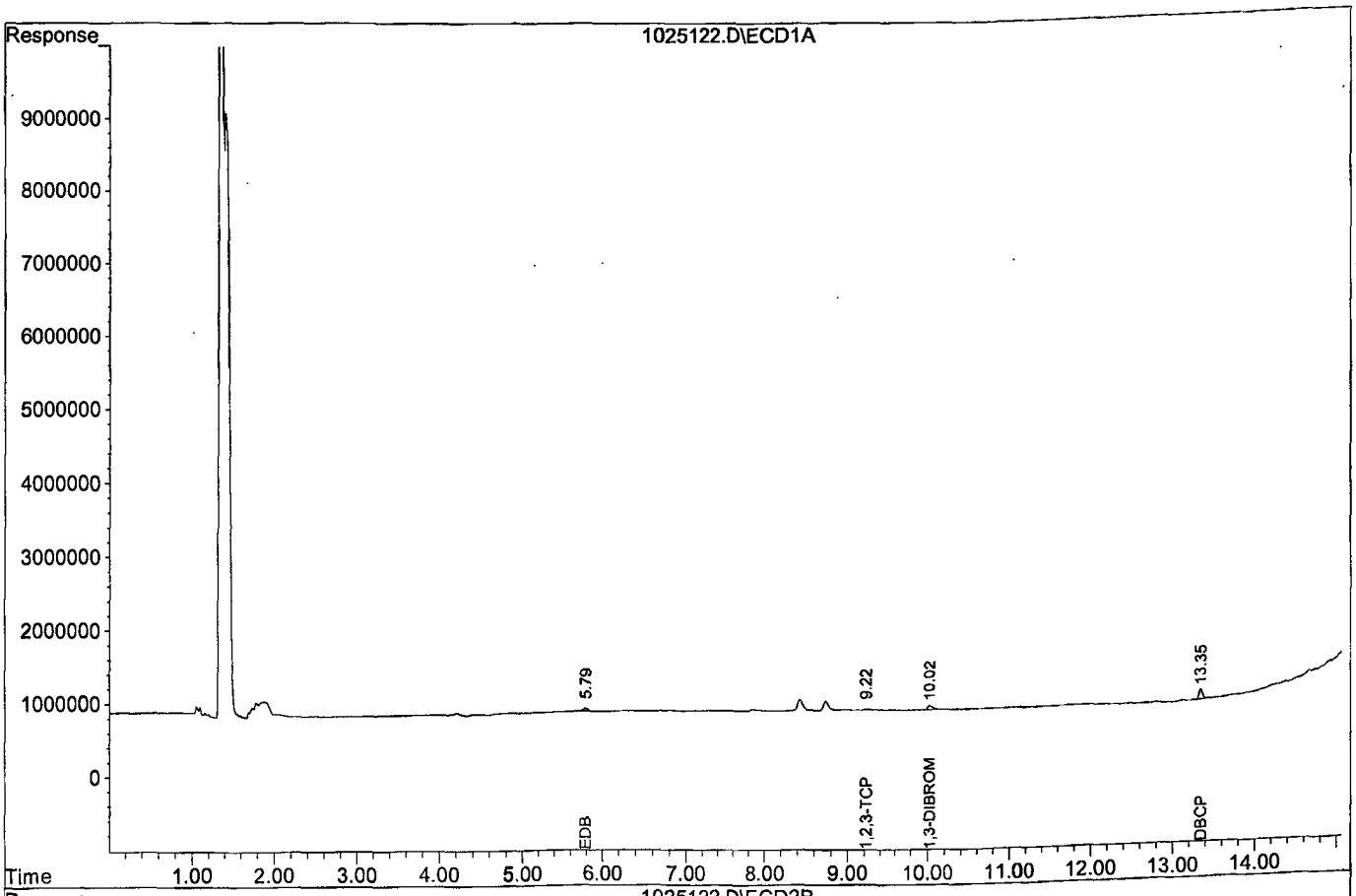
Target Compounds

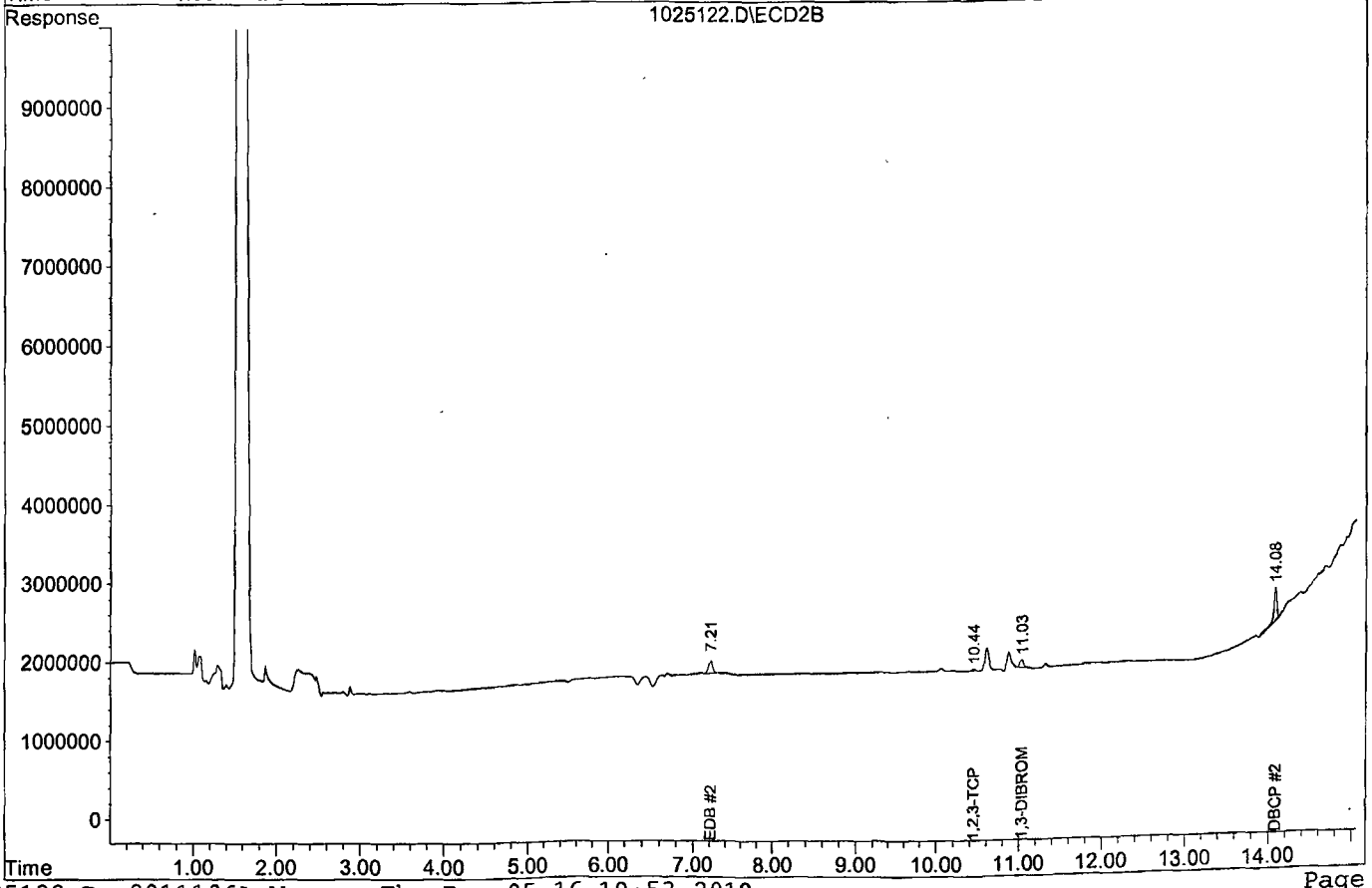
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (Not Reviewed)

Data File : G:\HERBIE\DATA\191025\1025122.D
Acq On : 11-08-19 16:07:44
Sample : 8011 1 11/06/19
Misc : water
Quant Method : G:\HERBIE\DATA\190814\8011106A.M

Vial: 20
Operator: MA,SS
Inst : Herbie
Multiplr: 1.00





Quantitation Report (Not Reviewed)

Signal #1 : G:\HERBIE\DATA\191025\1025123.D\ECD1A.CH Vial: 21
Signal #2 : G:\HERBIE\DATA\191025\1025123.D\ECD2B.CH
Acq On : 11-08-19 16:28:04 Operator: MA,SS
Sample : 8011 2 11/06/19 Inst : Herbie
Misc : water Multiplr: 1.00
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Nov 12 14:22 2019 Quant Results File: 8011106A.RES

Quant Method : G:\HERBIE\DATA\190814\8011106A.M (RTE Integrator)
Title : 504.1 OR 8011
Last Update : Tue Nov 12 13:30:16 2019
Response via : Initial Calibration
DataAcq Meth : DOHS504.M

Volume Inj. : 2µL
Signal #1 Phase : DB-35MS Signal #2 Phase: DB-XLB
Signal #1 Info : 0.25 Signal #2 Info : 0.50

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
	System Monitoring Compounds						
3) S	1,3-DIBROMOPROPA	10.02	11.03	206743	470852	0.119	0.109
Spiked Amount	0.350			Recovery	=	34.00%	31.14%
	Target Compounds						
1) TM	EDB	5.79	7.21	160893	687822	0.107	0.106
2) TM	1,2,3-TCP	9.25	10.44	52424	128157	0.094	0.108
4) TM	DBCP	13.34	14.08	579149	1826603	0.101	0.097

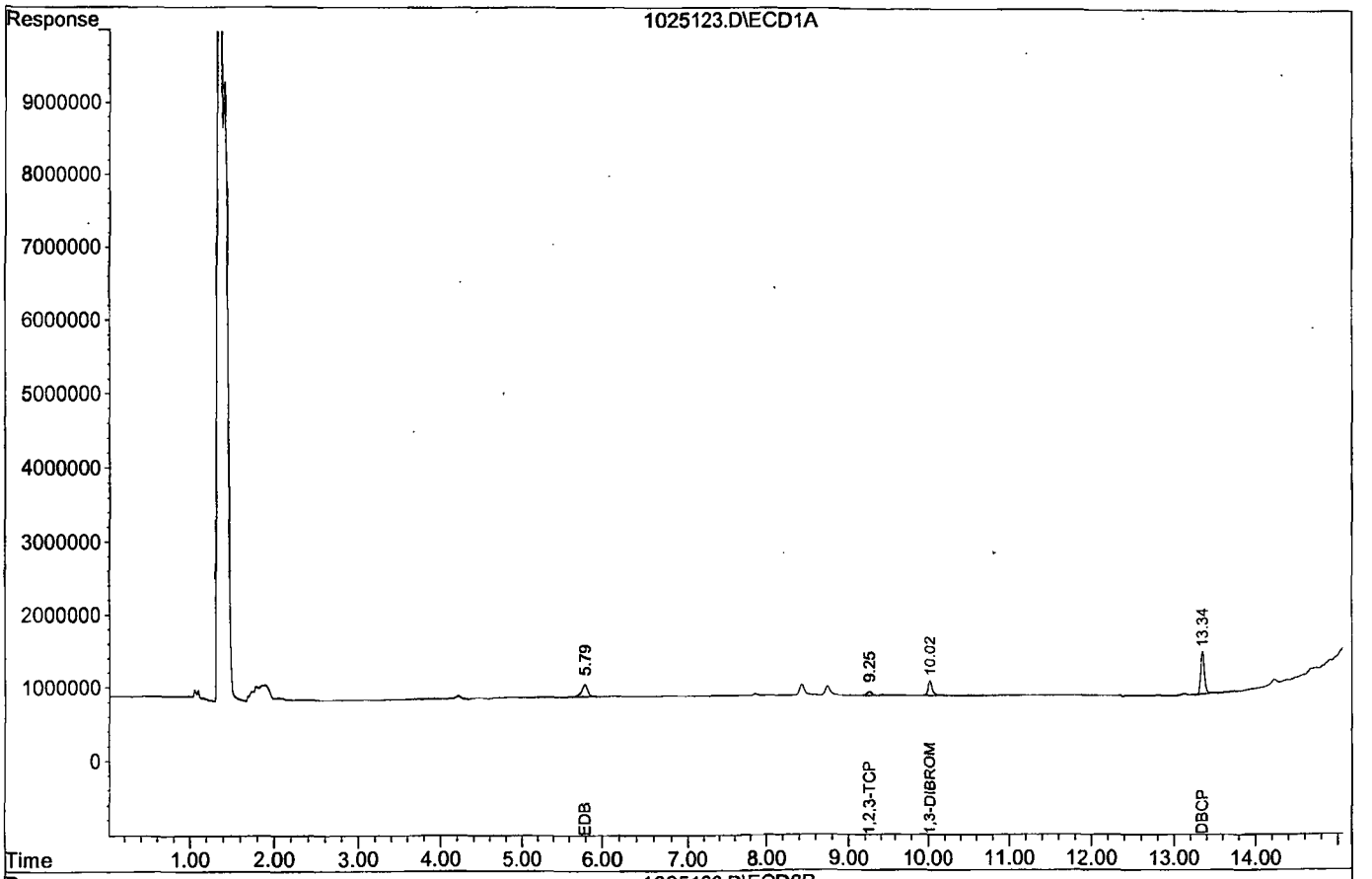
Target Compounds

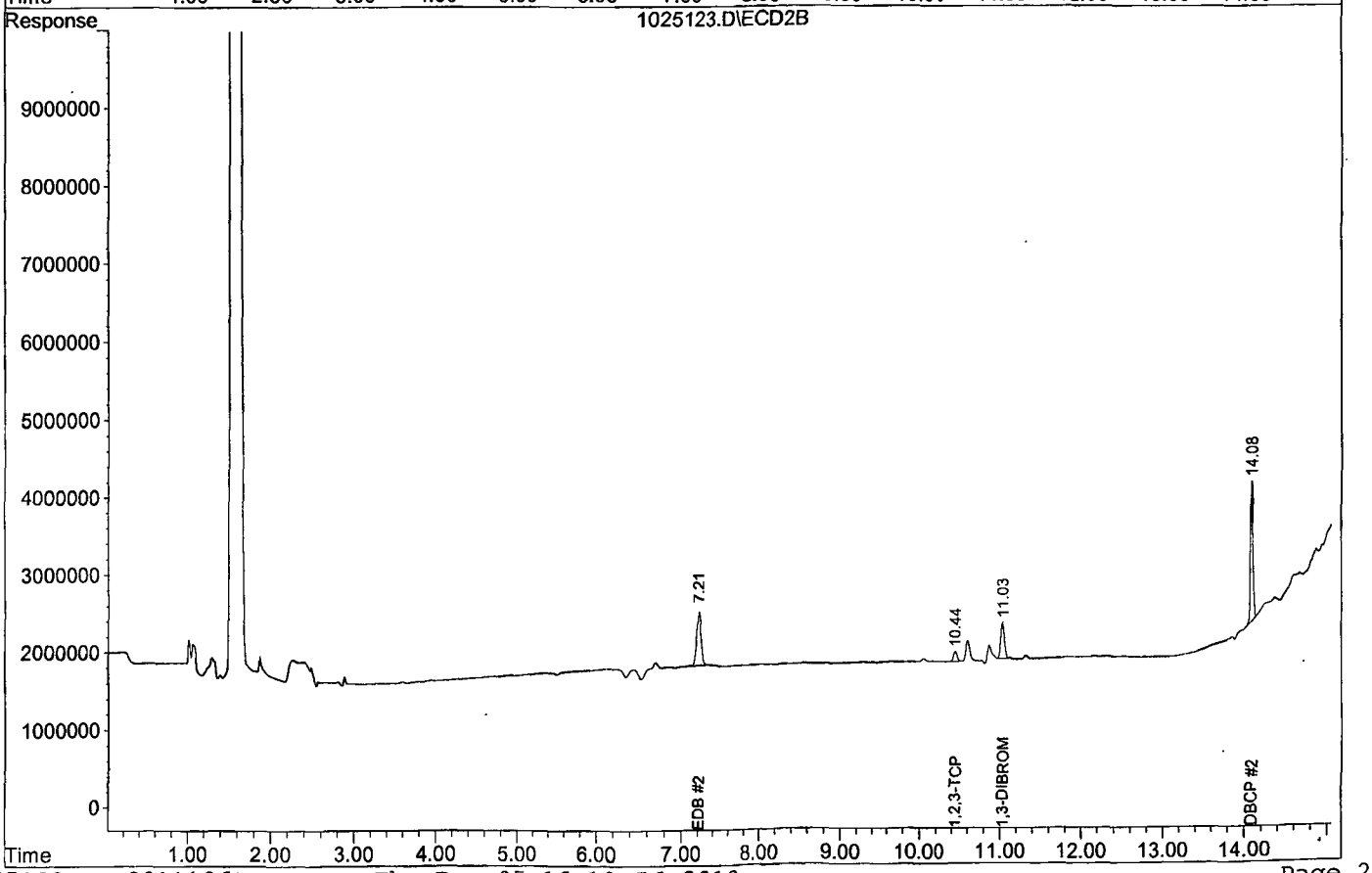
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (Not Reviewed)

Data File : G:\HERBIE\DATA\191025\1025123.D
Acq On : 11-08-19 16:28:04
Sample : 8011 2 11/06/19
Misc : water
Quant Method : G:\HERBIE\DATA\190814\8011106A.M

Vial: 21
Operator: MA,SS
Inst : Herbie
Multiplr: 1.00





Quantitation Report (Not Reviewed)

Signal #1 : G:\HERBIE\DATA\191025\1025124.D\ECD1A.CH Vial: 22
Signal #2 : G:\HERBIE\DATA\191025\1025124.D\ECD2B.CH
Acq On : 11-08-19 16:48:46 Operator: MA,SS
Sample : 8011 3 11/06/19 Inst : Herbie
Misc : water Multiplr: 1.00
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Nov 12 14:22 2019 Quant Results File: 8011106A.RES

Quant Method : G:\HERBIE\DATA\190814\8011106A.M (RTE Integrator)
Title : 504.1 OR 8011
Last Update : Tue Nov 12 13:30:16 2019
Response via : Initial Calibration
DataAcq Meth : DOHS504.M

Volume Inj. : 2µL
Signal #1 Phase : DB-35MS Signal #2 Phase: DB-XLB
Signal #1 Info : 0.25 Signal #2 Info : 0.50

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
	System Monitoring Compounds						
3) S	1,3-DIBROMOPROPA	10.02	11.03	450988	1099084	0.260	0.253
Spiked Amount	0.350			Recovery	=	74.29%	72.29%
	Target Compounds						
1) TM	EDB	5.79	7.21	369502	1613205	0.247	0.249
2) TM	1,2,3-TCP	9.25	10.44	120182	309512	0.266	0.260
4) TM	DBCP	13.34	14.09	1454717	4551032	0.253	0.242

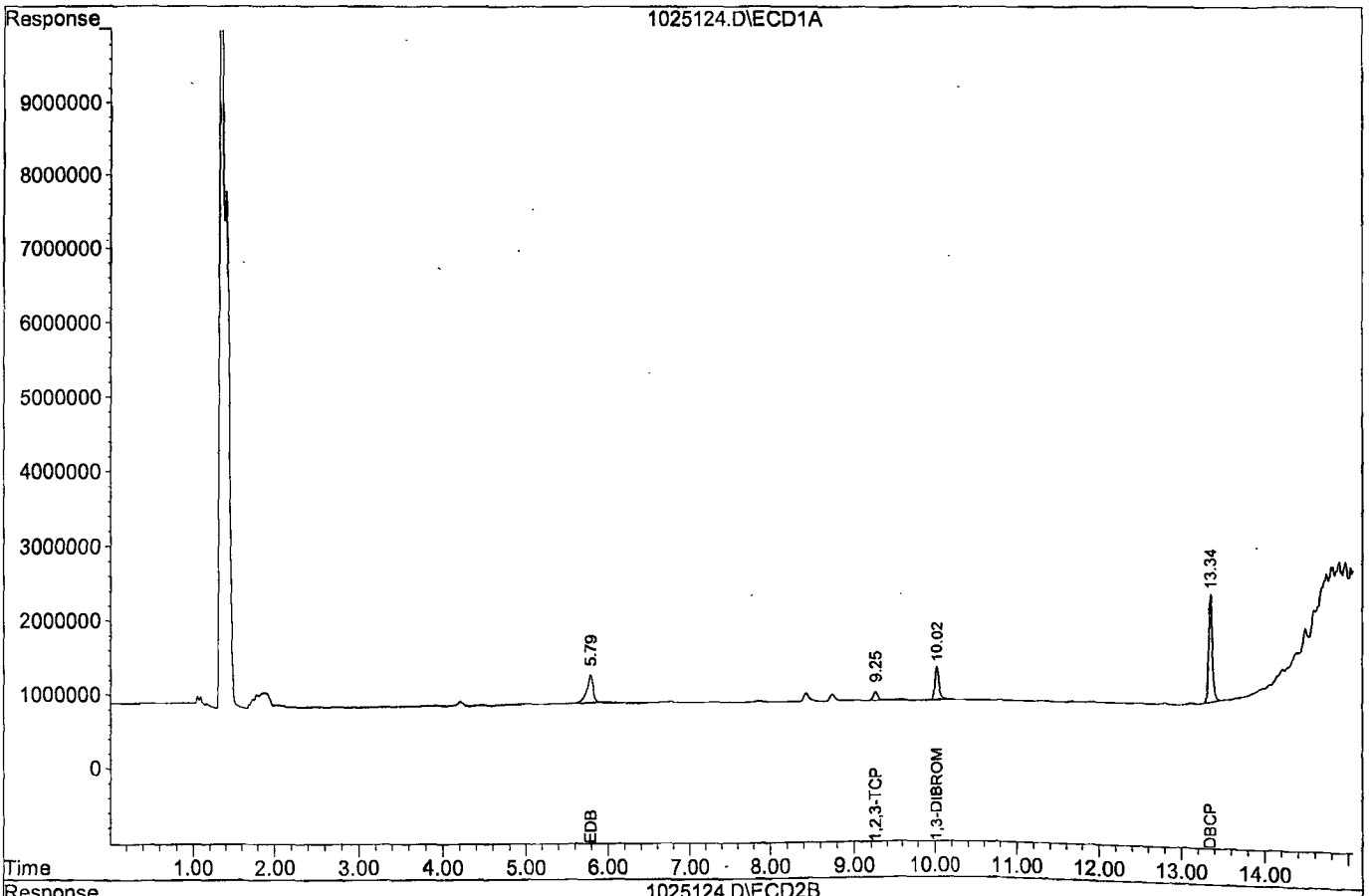
Target Compounds

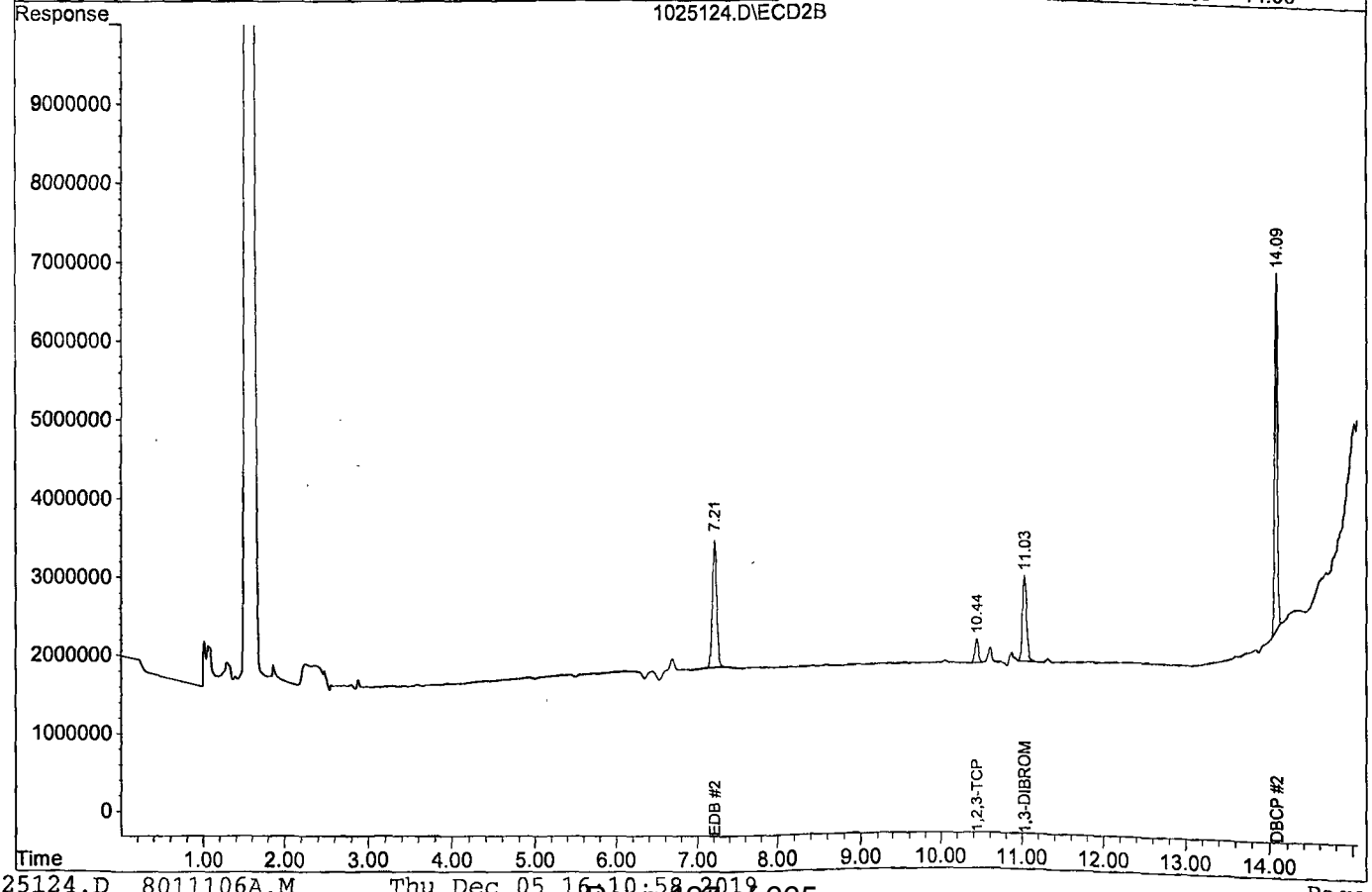
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (Not Reviewed)

Data File : G:\HERBIE\DATA\191025\1025124.D
Acq On : 11-08-19 16:48:46
Sample : 8011 3 11/06/19
Misc : water
Quant Method : G:\HERBIE\DATA\190814\8011106A.M

Vial: 22
Operator: MA,SS
Inst : Herbie
Multiplr: 1.00





Quantitation Report (Not Reviewed)

Signal #1 : G:\HERBIE\DATA\191025\1025125.D\ECD1A.CH Vial: 23
Signal #2 : G:\HERBIE\DATA\191025\1025125.D\ECD2B.CH
Acq On : 11-08-19 17:09:07 Operator: MA,SS
Sample : 8011 4 11/06/19 Inst : Herbie
Misc : water Multiplr: 1.00
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Nov 12 14:22 2019 Quant Results File: 8011106A.RES

Quant Method : G:\HERBIE\DATA\190814\8011106A.M (RTE Integrator)
Title : 504.1 OR 8011
Last Update : Tue Nov 12 13:30:16 2019
Response via : Initial Calibration
DataAcq Meth : DOHS504.M

Volume Inj. : 2µL
Signal #1 Phase : DB-35MS Signal #2 Phase: DB-XLB
Signal #1 Info : 0.25 Signal #2 Info : 0.50

Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
System Monitoring Compounds						
3) S 1,3-DIBROMOPROPA	10.02	11.03	824027	2062581	0.476	0.476
Spiked Amount 0.350			Recovery =		136.00%	136.00%
Target Compounds						
1) TM EDB	5.79	7.21	692297	3017715	0.462	0.465
2) TM 1,2,3-TCP	9.25	10.44	218305	559442	0.515	0.469
4) TM DBCP	13.34	14.08	2762260	9256497	0.481	0.493

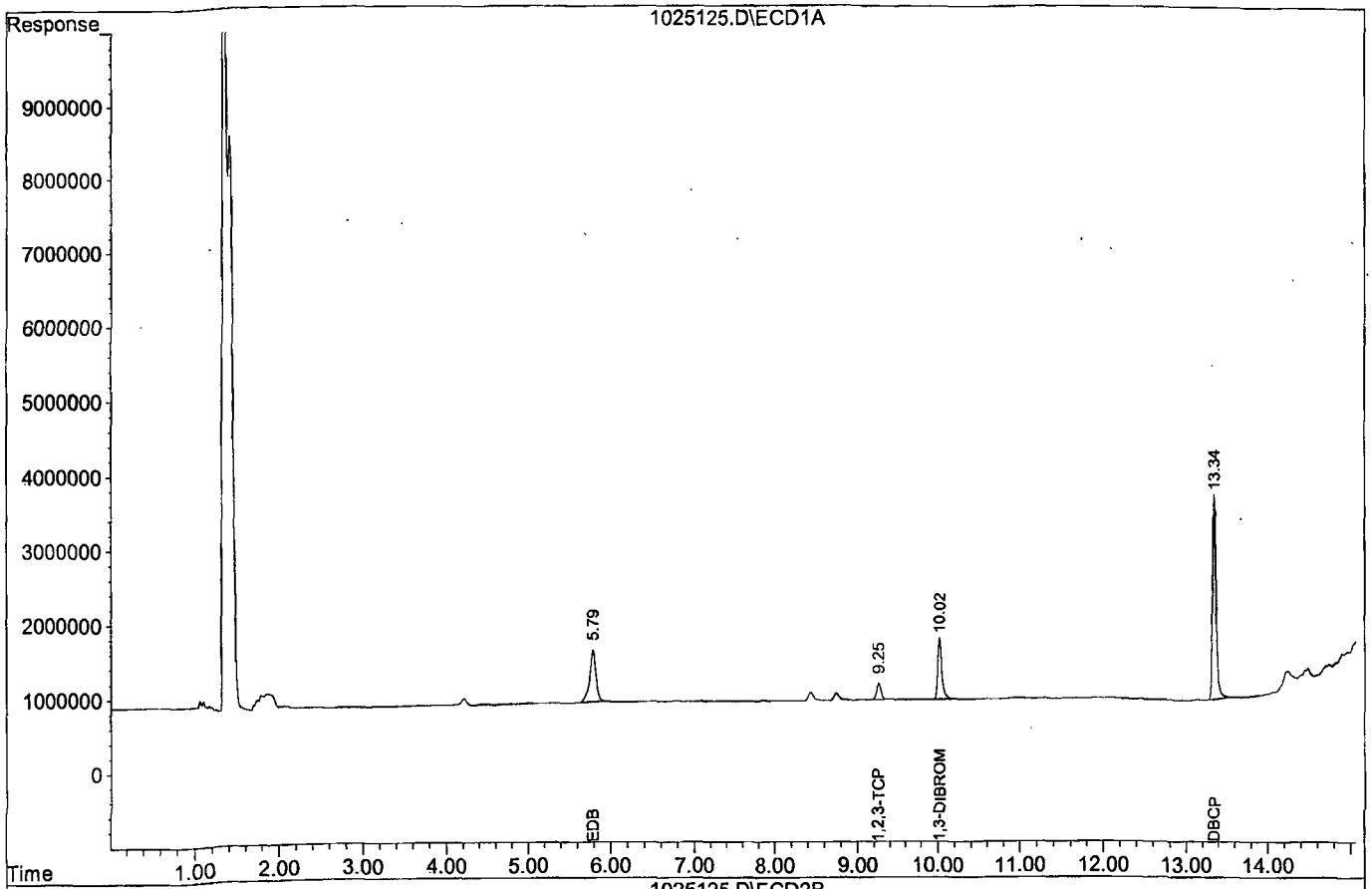
Target Compounds

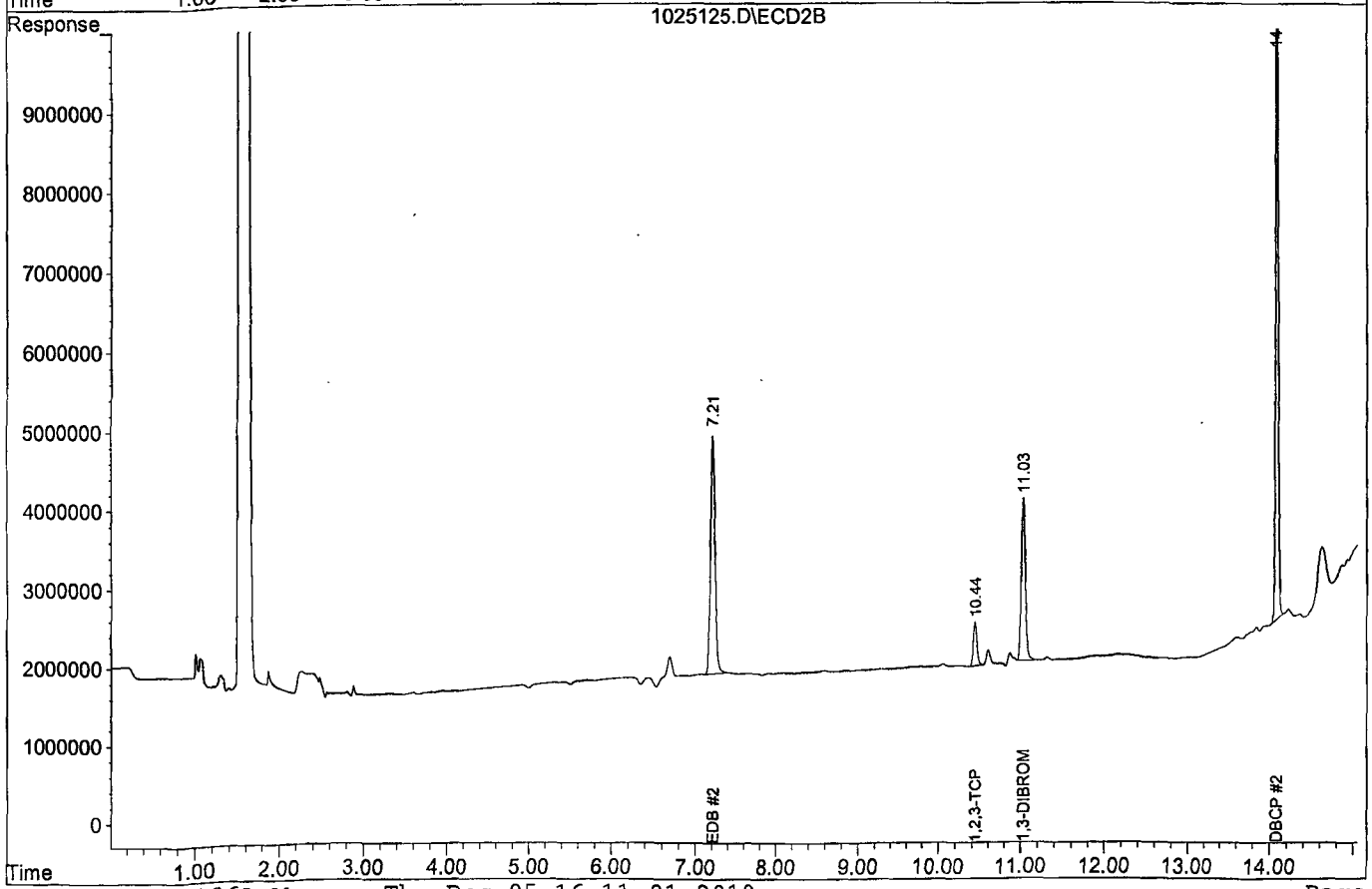
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (Not Reviewed)

Data File : G:\HERBIE\DATA\191025\1025125.D
Acq On : 11-08-19 17:09:07
Sample : 8011 4 11/06/19
Misc : water
Quant Method : G:\HERBIE\DATA\190814\8011106A.M

Vial: 23
Operator: MA,SS
Inst : Herbie
Multiplr: 1.00





Quantitation Report (Not Reviewed)

Signal #1 : G:\HERBIE\DATA\191025\1025126.D\ECD1A.CH Vial: 24
Signal #2 : G:\HERBIE\DATA\191025\1025126.D\ECD2B.CH
Acq On : 11-08-19 17:29:40 Operator: MA,SS
Sample : 8011 5 11/06/19 Inst : Herbie
Misc : water Multiplr: 1.00
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Nov 12 14:22 2019 Quant Results File: 8011106A.RES

Quant Method : G:\HERBIE\DATA\190814\8011106A.M (RTE Integrator)
Title : 504.1 OR 8011
Last Update : Tue Nov 12 13:30:16 2019
Response via : Initial Calibration
DataAcq Meth : DOHS504.M

Volume Inj. : 2µL
Signal #1 Phase : DB-35MS Signal #2 Phase: DB-XLB
Signal #1 Info : 0.25 Signal #2 Info : 0.50

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
	System Monitoring Compounds						
3) S	1,3-DIBROMOPROPA	10.01	11.03	1202149	2959062	0.694	0.682
Spiked Amount	0.350			Recovery	=	198.29%	194.86%
	Target Compounds						
1) TM	EDB	5.79	7.21	1041486	4397431	0.695	0.678
2) TM	1,2,3-TCP	9.25	10.44	312009	825258	0.752	0.692
4) TM	DBCP	13.34	14.09	4036736	13637434	0.703	0.726

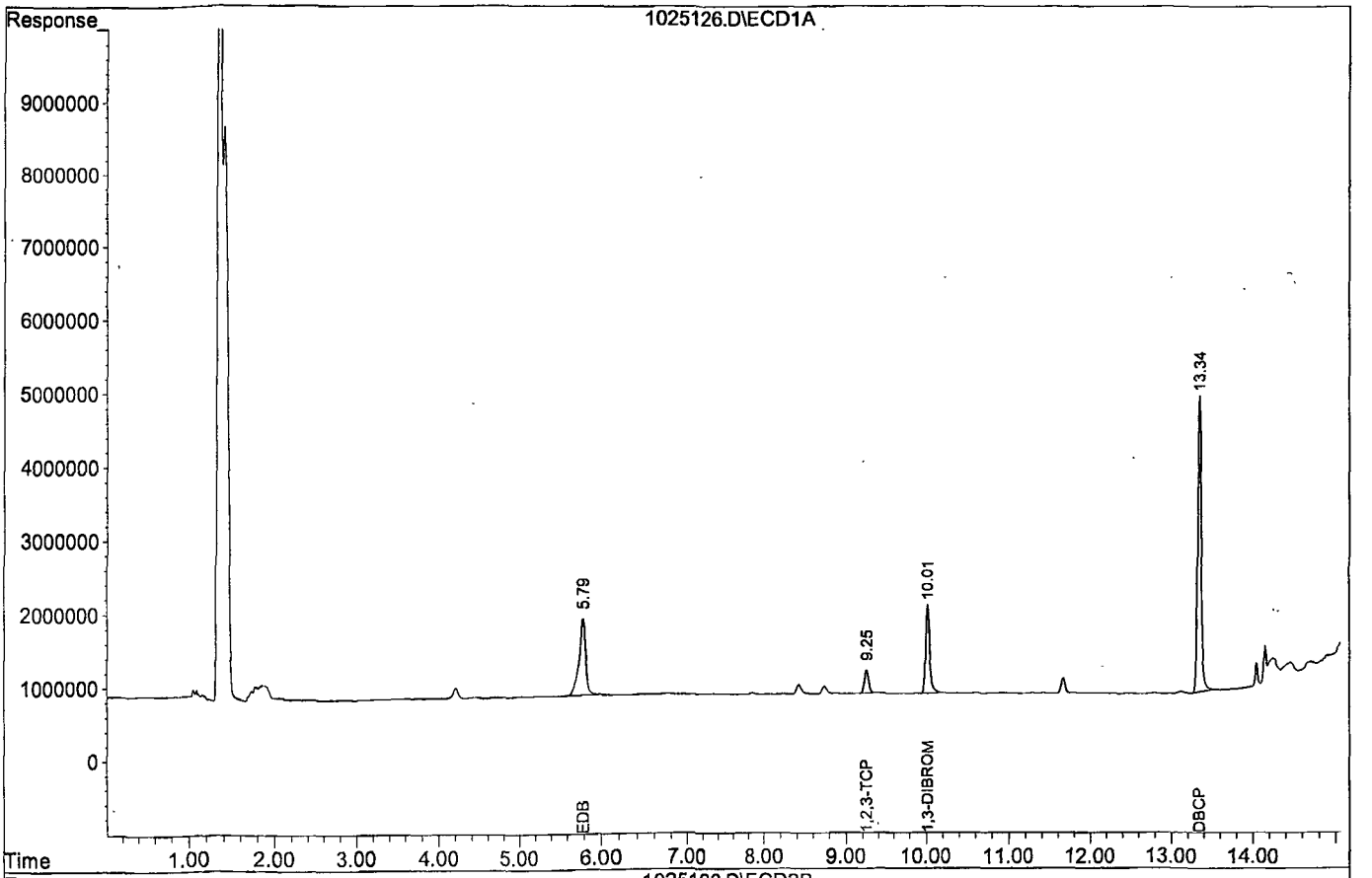
Target Compounds

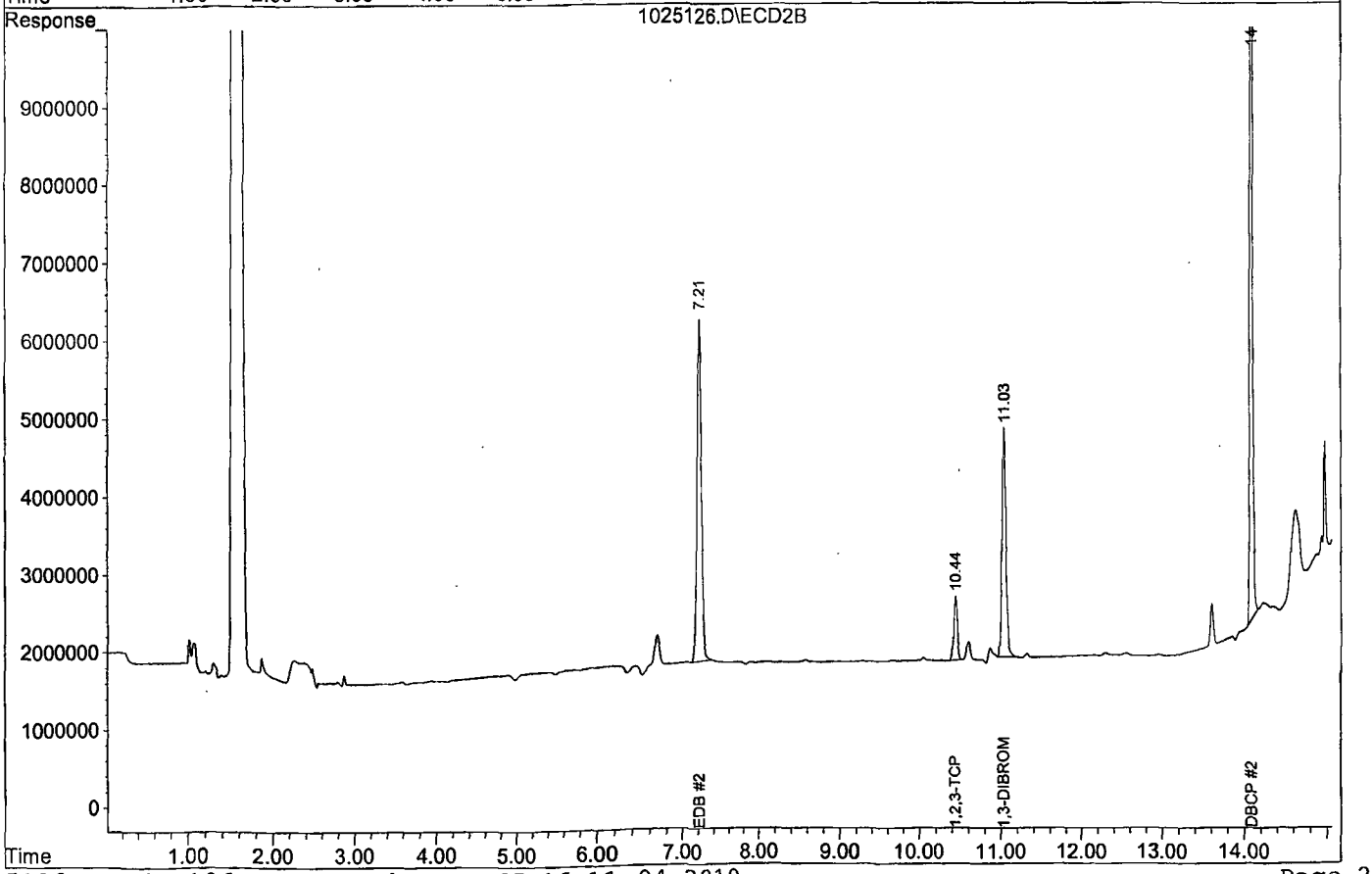
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (Not Reviewed)

Data File : G:\HERBIE\DATA\191025\1025126.D
Acq On : 11-08-19 17:29:40
Sample : 8011 5 11/06/19
Misc : water
Quant Method : G:\HERBIE\DATA\190814\8011106A.M

Vial: 24
Operator: MA,SS
Inst : Herbie
Multiplr: 1.00





Quantitation Report (Not Reviewed)

Signal #1 : G:\HERBIE\DATA\191025\1025127.D\ECD1A.CH Vial: 25
Signal #2 : G:\HERBIE\DATA\191025\1025127.D\ECD2B.CH
Acq On : 11-08-19 17:50:18 Operator: MA,SS
Sample : 8011 6 11/06/19 Inst : Herbie
Misc : water Multiplr: 1.00
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Nov 12 14:22 2019 Quant Results File: 8011106A.RES

Quant Method : G:\HERBIE\DATA\190814\8011106A.M (RTE Integrator)
Title : 504.1 OR 8011
Last Update : Tue Nov 12 13:30:16 2019
Response via : Initial Calibration
DataAcq Meth : DOHS504.M

Volume Inj. : 2µL
Signal #1 Phase : DB-35MS Signal #2 Phase: DB-XLB
Signal #1 Info : 0.25 Signal #2 Info : 0.50

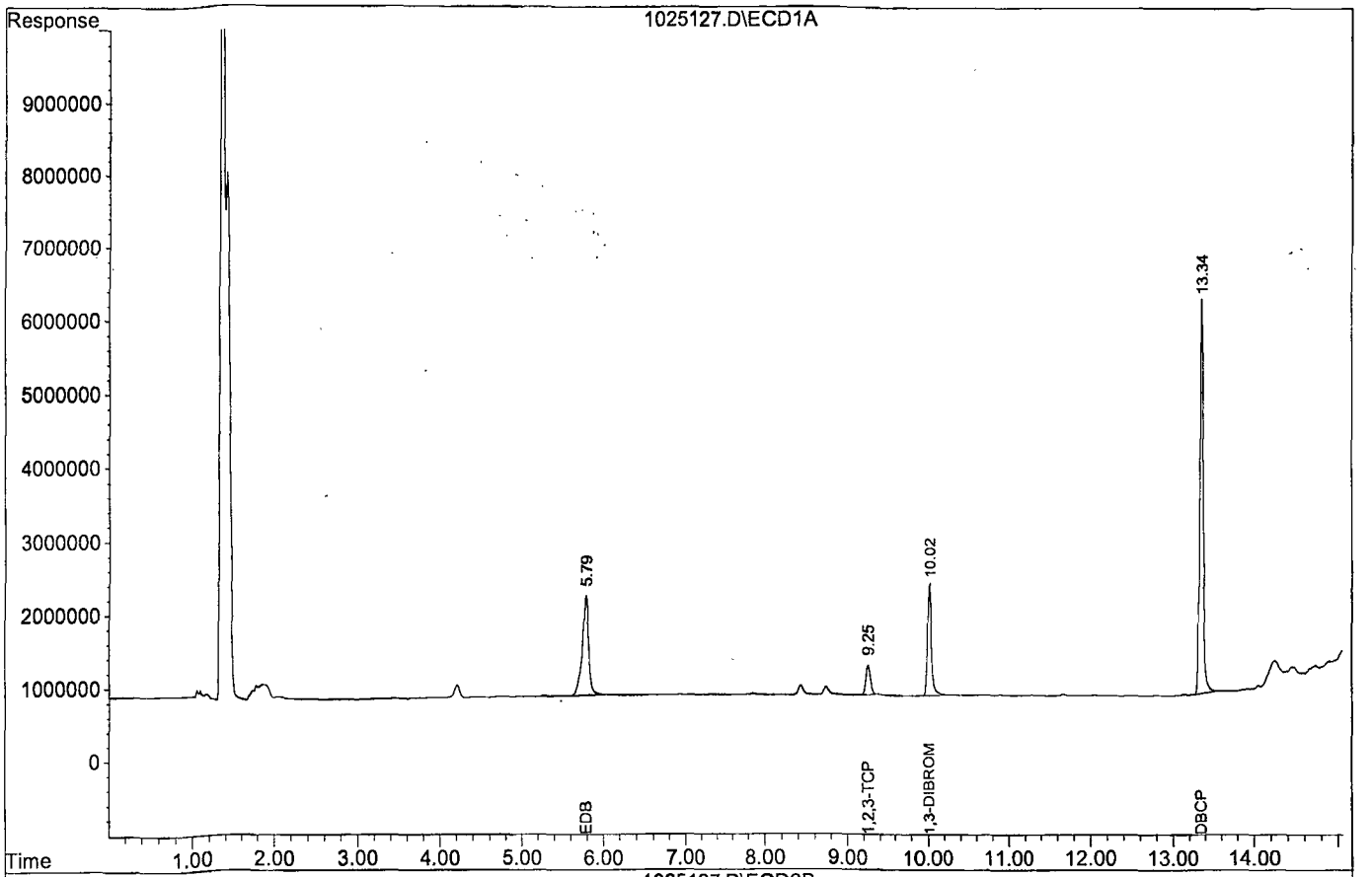
Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
System Monitoring Compounds						
3) S 1,3-DIBROMOPROPA	10.02	11.03	1540685	3859208	0.889	0.890
Spiked Amount 0.350			Recovery =		254.00%	254.29%
Target Compounds						
1) TM EDB	5.79	7.21	1359742	5907969	0.908	0.911
2) TM 1,2,3-TCP	9.25	10.44	405028	1050955	0.988	0.882
4) TM DBCP	13.34	14.08	5382727	18308947	0.937	0.974
Target Compounds						

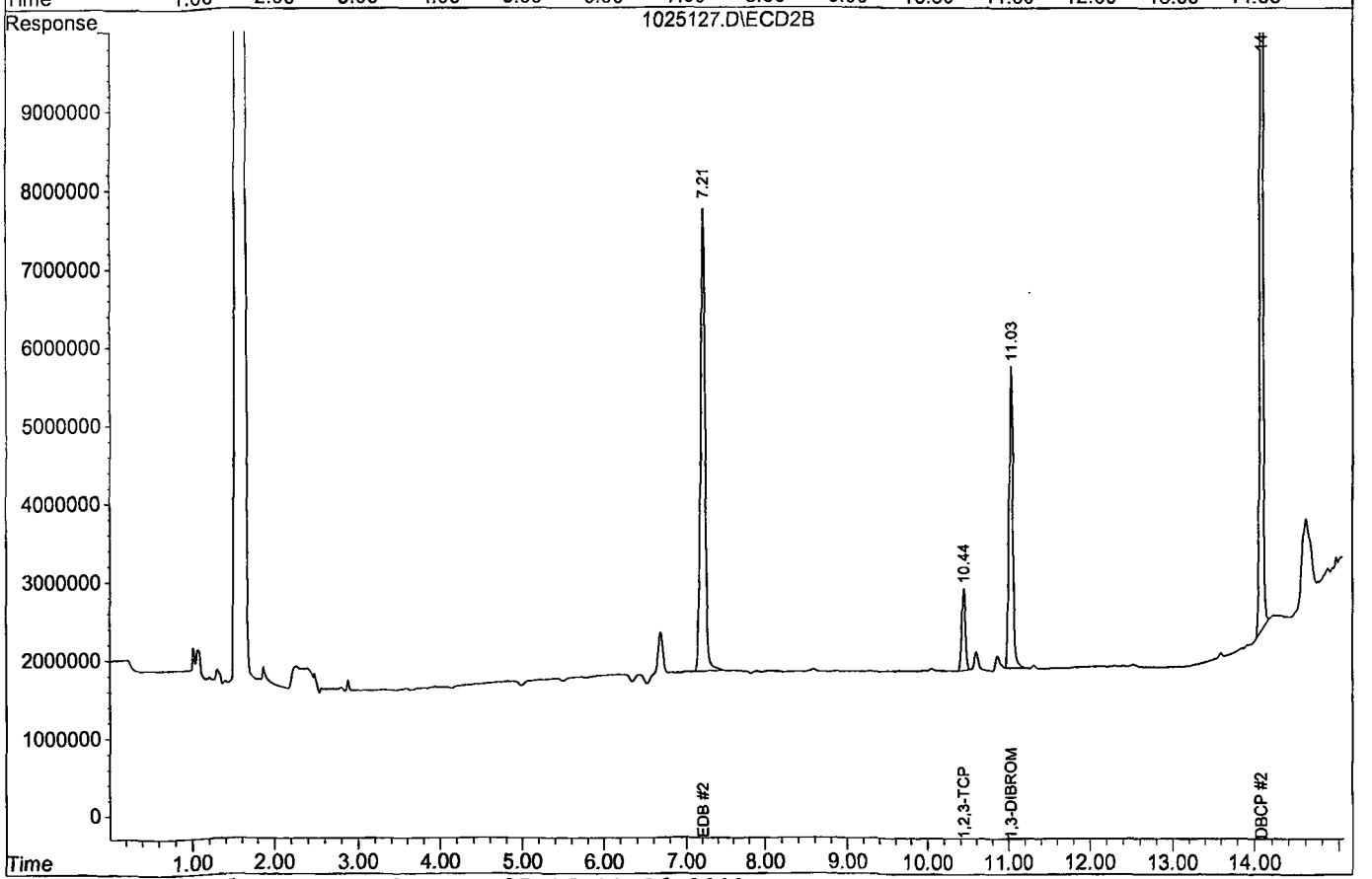
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (Not Reviewed)

Data File : G:\HERBIE\DATA\191025\1025127.D
Acq On : 11-08-19 17:50:18
Sample : 8011 6 11/06/19
Misc : water
Quant Method : G:\HERBIE\DATA\190814\8011106A.M

Vial: 25
Operator: MA,SS
Inst : Herbie
Multiplr: 1.00





DBCP/EDB/1,2,3-TCP Analysis by
504 8011

Form 7

Second Source Calibration

Lab Name: APPL, Inc.
Case No:
Matrix: Water

SDG No:
Date Analyzed: 11/08/19
Instrument: Herbie
Initial Cal. Date: 11/08/19
Data File: 1025128.D

		Compound	MEAN	CCRF	%D	%Drift	
1	TM	EDB	749081	757325	1.1	TM	
2	TML	1,2,3-TCP	260381	248020	4.7	TML	13
3	TM	DBCP	2872760	2982060	3.8	TM	
4							
5							
6							
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39							
40							
		Average			3.2		

DBCP/EDB/1,2,3-TCP Analysis by
504 8011

Form 7

Second Source Calibration

Lab Name: APPL, Inc.
Case No:
Matrix: Water

SDG No:
Date Analyzed: 11/08/19
Instrument: Herbie
Cal. Date: 11/08/19
Data File: 1025128.D

		Compound	MEAN	CCRF	%D		%Drift
41	TM	EDB	3242340	3336070	2.9	TM	
42	TM	1,2,3-TCP	595963	605250	1.6	TM	
43	TM	DBCP	9395510	9282470	1.2	TM	
44							
45							
46							
47							
48							
49							
50							
51							
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74							
75							
76							
77							
78							
79							
80							
		Average			1.9		

Quantitation Report (Not Reviewed)

Signal #1 : G:\HERBIE\DATA\191025\1025128.D\ECD1A.CH Vial: 26
Signal #2 : G:\HERBIE\DATA\191025\1025128.D\ECD2B.CH
Acq On : 11-08-19 18:10:46 Operator: MA,SS
Sample : 8011 SS 11/06/19 Inst : Herbie
Misc : water Multiplr: 1.00
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Nov 12 14:22 2019 Quant Results File: 8011106A.RES

Quant Method : G:\HERBIE\DATA\190814\8011106A.M (RTE Integrator)
Title : 504.1 OR 8011
Last Update : Tue Nov 12 13:30:16 2019
Response via : Initial Calibration
DataAcq Meth : DOHS504.M

Volume Inj. : 2µL
Signal #1 Phase : DB-35MS Signal #2 Phase: DB-XLB
Signal #1 Info : 0.25 Signal #2 Info : 0.50

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
	System Monitoring Compounds						
3) S	1,3-DIBROMOPROPA	10.02	11.03	645848	1574249	0.373	0.363
Spiked Amount	0.350			Recovery	=	106.57%	103.71%
	Target Compounds						
1) TM	EDB	5.79	7.21	151465	667214	0.101	0.103
2) TM	1,2,3-TCP	9.24	10.44	49604	121050	0.087	0.102
4) TM	DBCP	13.34	14.08	596411	1856493	0.104	0.099

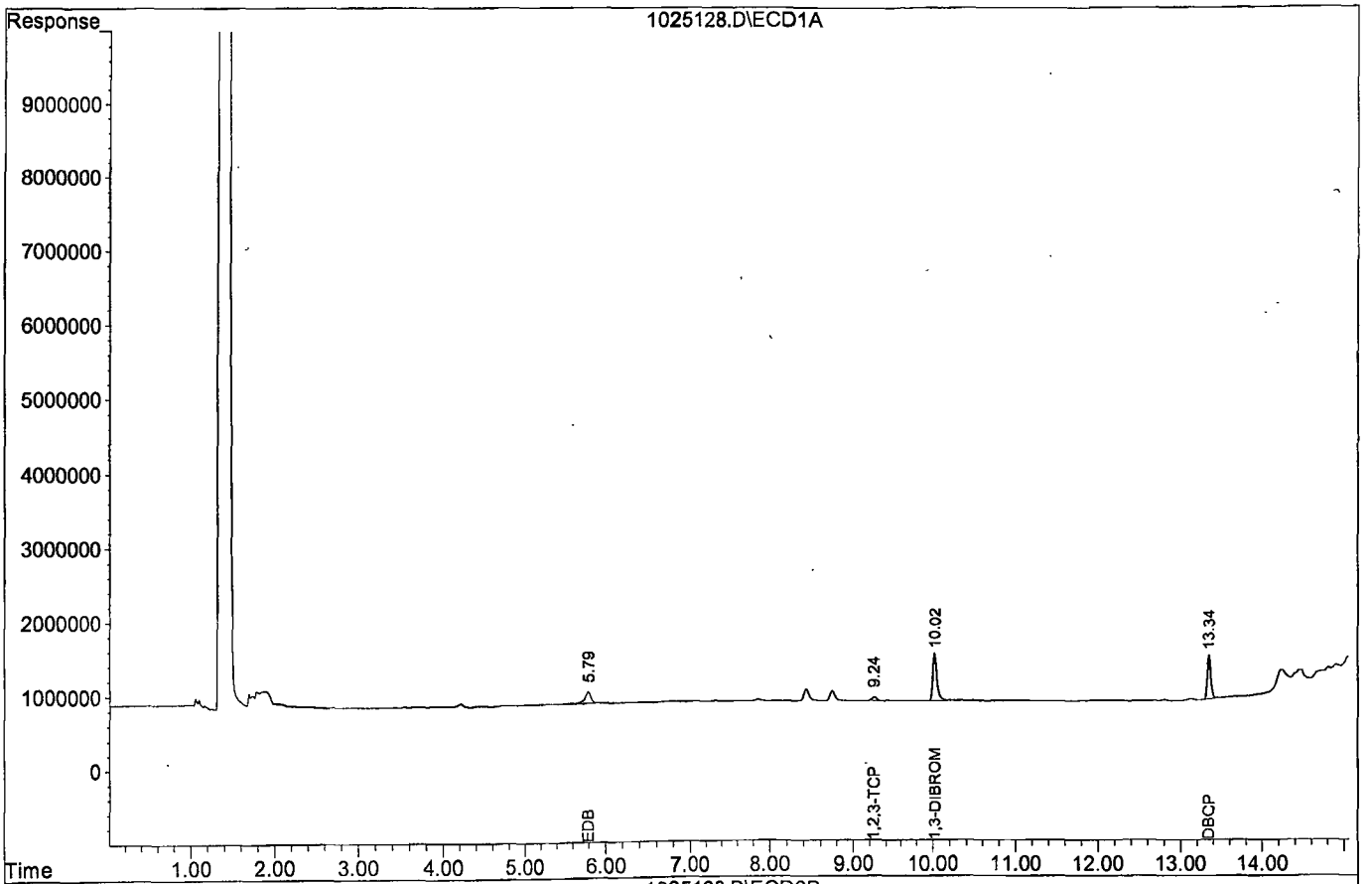
Target Compounds

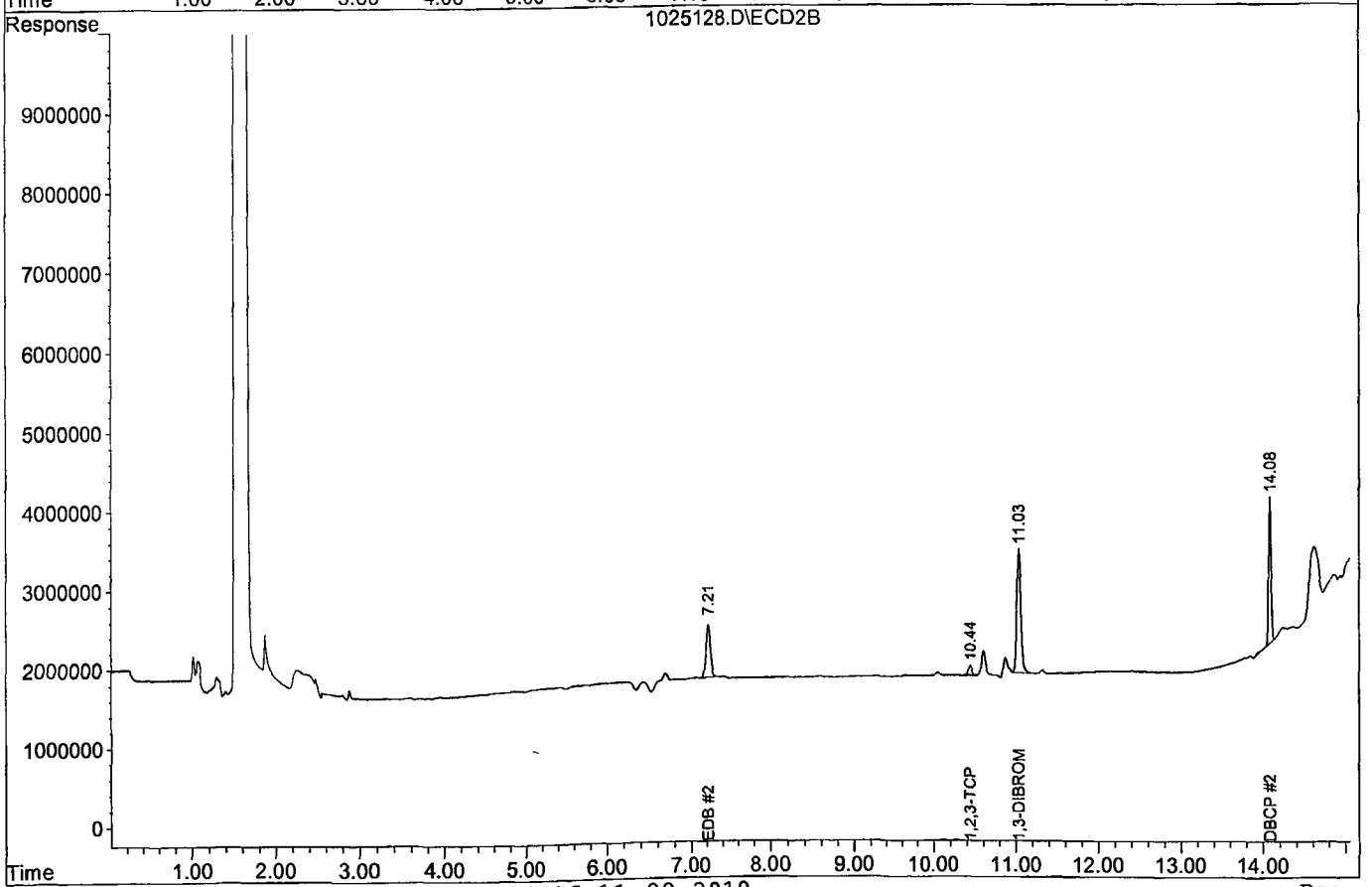
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (Not Reviewed)

Data File : G:\HERBIE\DATA\191025\1025128.D
Acq On : 11-08-19 18:10:46
Sample : 8011 SS 11/06/19
Misc : water
Quant Method : G:\HERBIE\DATA\190814\8011106A.M

Vial: 26
Operator: MA,SS
Inst : Herbie
Multiplr: 1.00





DBCP/EDB/1,2,3-TCP Analysis by
504 8011

Form 7

Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix: Water

SDG No:
Date Analyzed: 11/12/19
Instrument: Herbie
Initial Cal. Date: 11/08/19
Data File: 1025153.D

		Compound	MEAN	CCRF	%D		%Drift
1	TM	EDB	749081	712606	4.9	TM	
2	TML	1,2,3-TCP	260381	249210	4.3	TML	11
3	S	1,3-DIBROMOPROPANE(S)	866299	957806	11	S	
4	TM	DBCP	2872760	3060590	6.5	TM	
5							
6							
7							
8							
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33							
34							
35							
36							
37							
38							
39							
40							
		Average			6.7		

DBCP/EDB/1,2,3-TCP Analysis by
504 8011

Form 7

Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix: Water

SDG No:
Date Analyzed: 11/12/19
Instrument: Herbie
Cal. Date: 11/08/19
Data File: 1025153.D

		Compound	MEAN	CCRF	%D		%Drift
41	TM	EDB	3242340	3251130	0.27	TM	
42	TM	1,2,3-TCP	595963	636896	6.9	TM	
43	S	1,3-DIBROMOPROPANE(S)	2168190	2279170	5.1	S	
44	TM	DBCP	9395510	9852730	4.9	TM	
45							
46							
47							
48							
49							
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78							
79							
80							
		Average			4.3		

Quantitation Report (Not Reviewed)

Data File : G:\HERBIE\DATA\191025\1025153.D\ECD1A.CH Vial: 53
Acq On : 11-12-19 21:49:51 Operator: MA,SS
Sample : 8011 4 11/06/19 Inst : Herbie
Misc : water Multiplr: 1.00
IntFile : rteint.p

Data File : G:\HERBIE\DATA\191025\1025153.D\ECD2B.CH Vial: 53
Acq On : 11-12-19 21:49:50 Operator: MA,SS
Sample : 8011 4 11/06/19 Inst : Herbie
Misc : water Multiplr: 1.00
IntFile : rteint2.p
Quant Time: Nov 13 9:23 2019 Quant Results File: 8011106A.RES

Quant Method : G:\HERBIE\DATA\190814\8011106A.M (RTE Integrator)
Title : 504.1 OR 8011
Last Update : Tue Nov 12 13:30:16 2019
Response via : Initial Calibration
DataAcq Meth : DOHS504.M

Volume Inj. : 2µL
Signal #1 Phase : DB-35MS Signal #2 Phase: DB-XLB
Signal #1 Info : 0.25 Signal #2 Info : 0.50

Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
System Monitoring Compounds						
3) S 1,3-DIBROMOPROPA	10.02	11.03	478903	1139585	0.276	0.263
Spiked Amount 0.350			Recovery =		78.86%	75.14%
Target Compounds						
1) TM EDB	5.79	7.21	356303	1625567	0.238	0.251
2) TM 1,2,3-TCP	9.25	10.44	124605	318448	0.277	0.267
4) TM DBCP	13.34	14.08	1530294	4926363	0.266	0.262

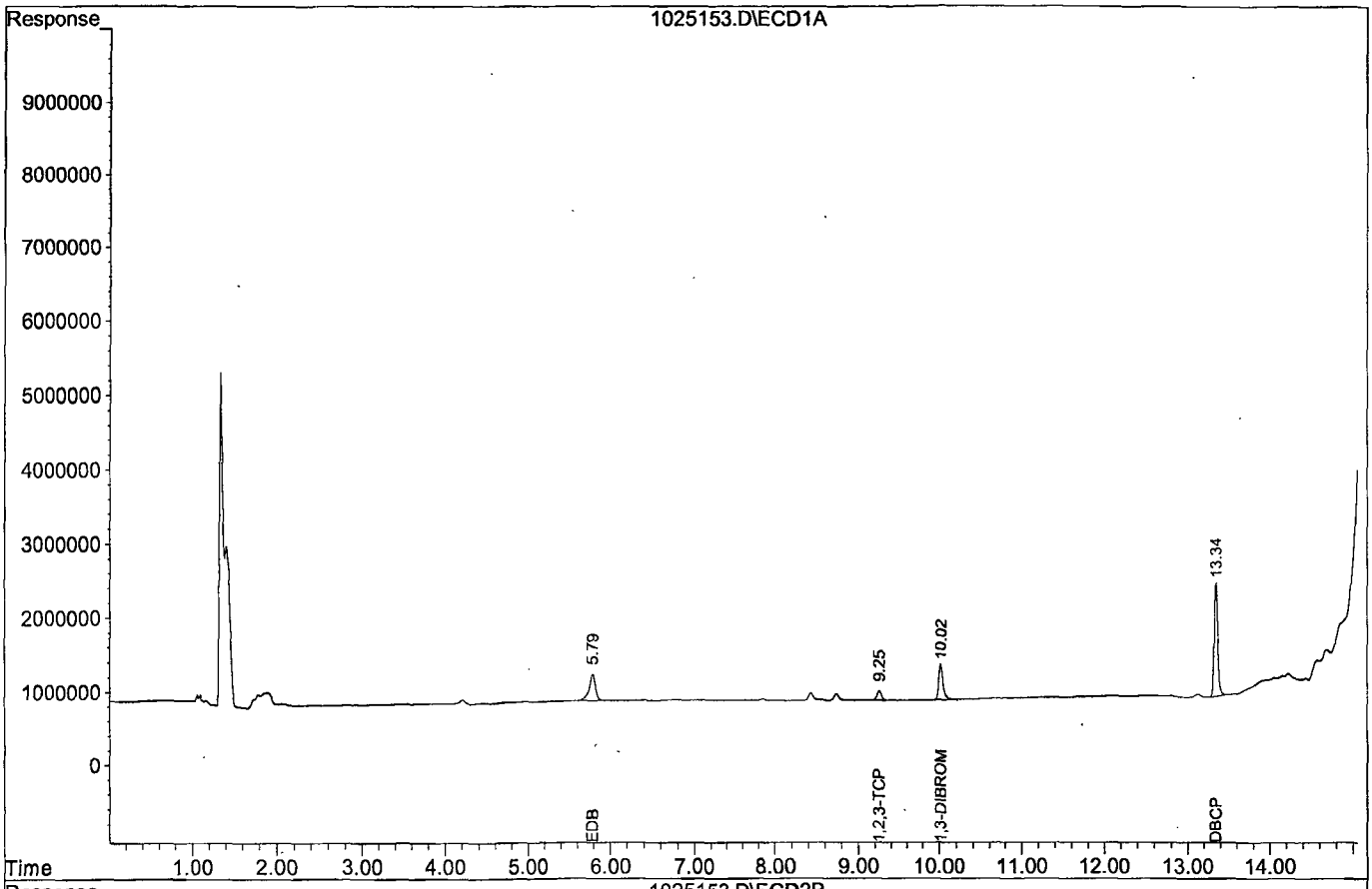
Target Compounds

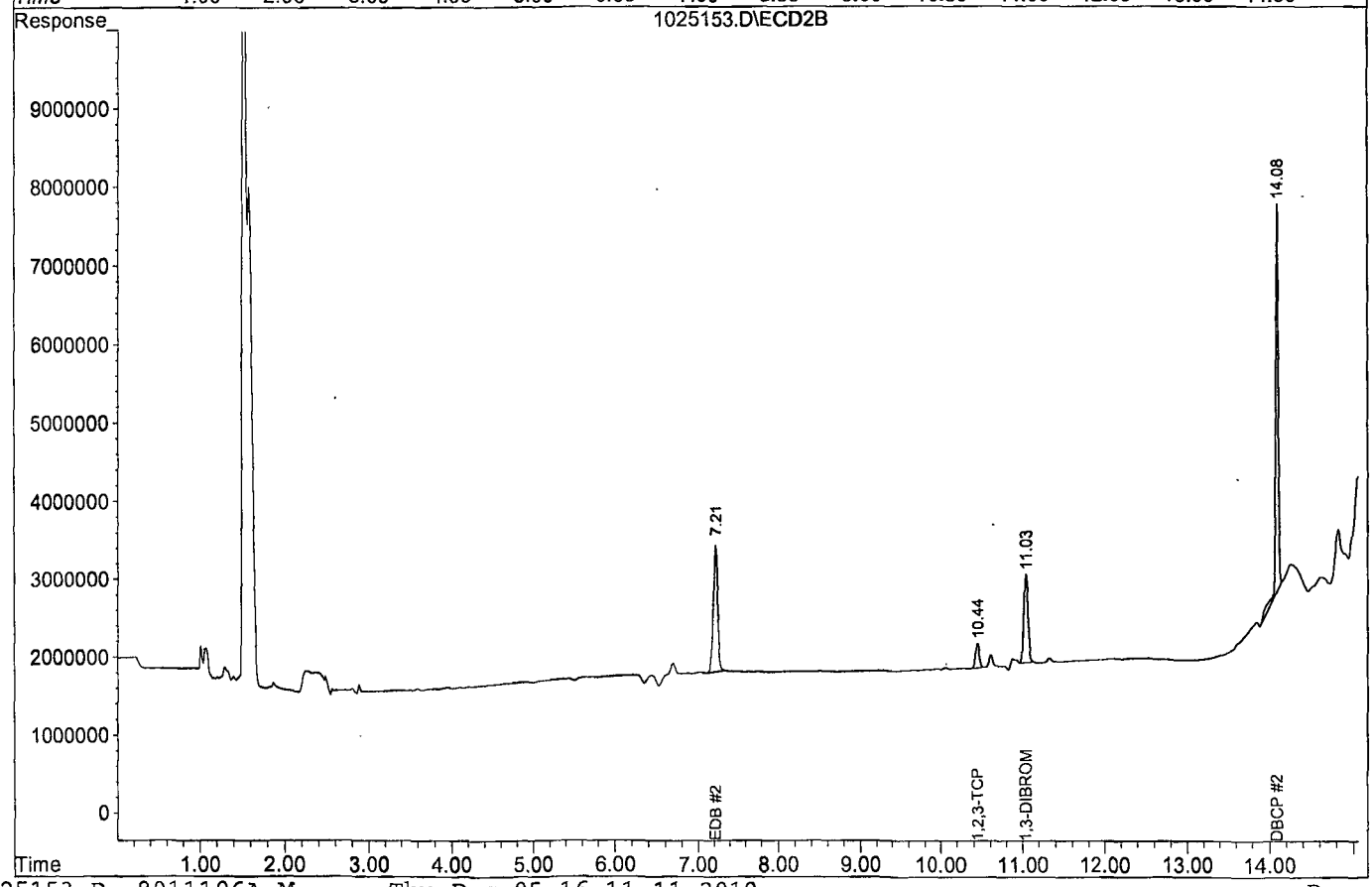
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (Not Reviewed)

Data File : G:\HERBIE\DATA\191025\1025153.D
Acq On : 11-12-19 21:49:51
Sample : 8011 4 11/06/19
Misc : water
Quant Method : G:\HERBIE\DATA\190814\8011106A.M

Vial: 53
Operator: MA,SS
Inst : Herbie
Multiplr: 1.00





DBCP/EDB/1,2,3-TCP Analysis by
504 8011

Form 7

Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix: Water

SDG No:
Date Analyzed: 11/13/19
Instrument: Herbie
Initial Cal. Date: 11/08/19
Data File: 1025169.D

		Compound	MEAN	CCRF	%D		%Drift
1	TM	EDB	749081	707002	5.6	TM	
2	TML	1,2,3-TCP	260381	249514	4.2	TML	11
3	S	1,3-DIBROMOPROPANE(S)	866299	947448	9.4	S	
4	TM	DBCP	2872760	3139920	9.3	TM	
5							
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33							
34							
35							
36							
37							
38							
39							
40							
		Average			7.1		

DBCP/EDB/1,2,3-TCP Analysis by
504 8011

Form 7

Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix: Water

SDG No:
Date Analyzed: 11/13/19
Instrument: Herbie
Cal. Date: 11/08/19
Data File: 1025169.D

		Compound	MEAN	CCRF	%D		%Drift
41	TM	EDB	3242340	3272910	0.94	TM	
42	TM	1,2,3-TCP	595963	646568	8.5	TM	
43	S	1,3-DIBROMOPROPANE(S)	2168190	2326090	7.3	S	
44	TM	DBCP	9395510	10161900	8.2	TM	
45							
46							
47							
48							
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79							
80							
		Average			6.2		

Quantitation Report (Not Reviewed)

Signal #1 : G:\HERBIE\DATA\191025\1025169.D\ECD1A.CH Vial: 69
Signal #2 : G:\HERBIE\DATA\191025\1025169.D\ECD2B.CH
Acq On : 11-13-19 3:10:49 Operator: MA,SS
Sample : 8011 4 11/06/19 Inst : Herbie
Misc : water Multiplr: 1.00
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Nov 13 9:26 2019 Quant Results File: 8011106A.RES

Quant Method : G:\HERBIE\DATA\190814\8011106A.M (RTE Integrator)
Title : 504.1 OR 8011
Last Update : Tue Nov 12 13:30:16 2019
Response via : Initial Calibration
DataAcq Meth : DOHS504.M

Volume Inj. : 2µL
Signal #1 Phase : DB-35MS Signal #2 Phase: DB-XLB
Signal #1 Info : 0.25 Signal #2 Info : 0.50

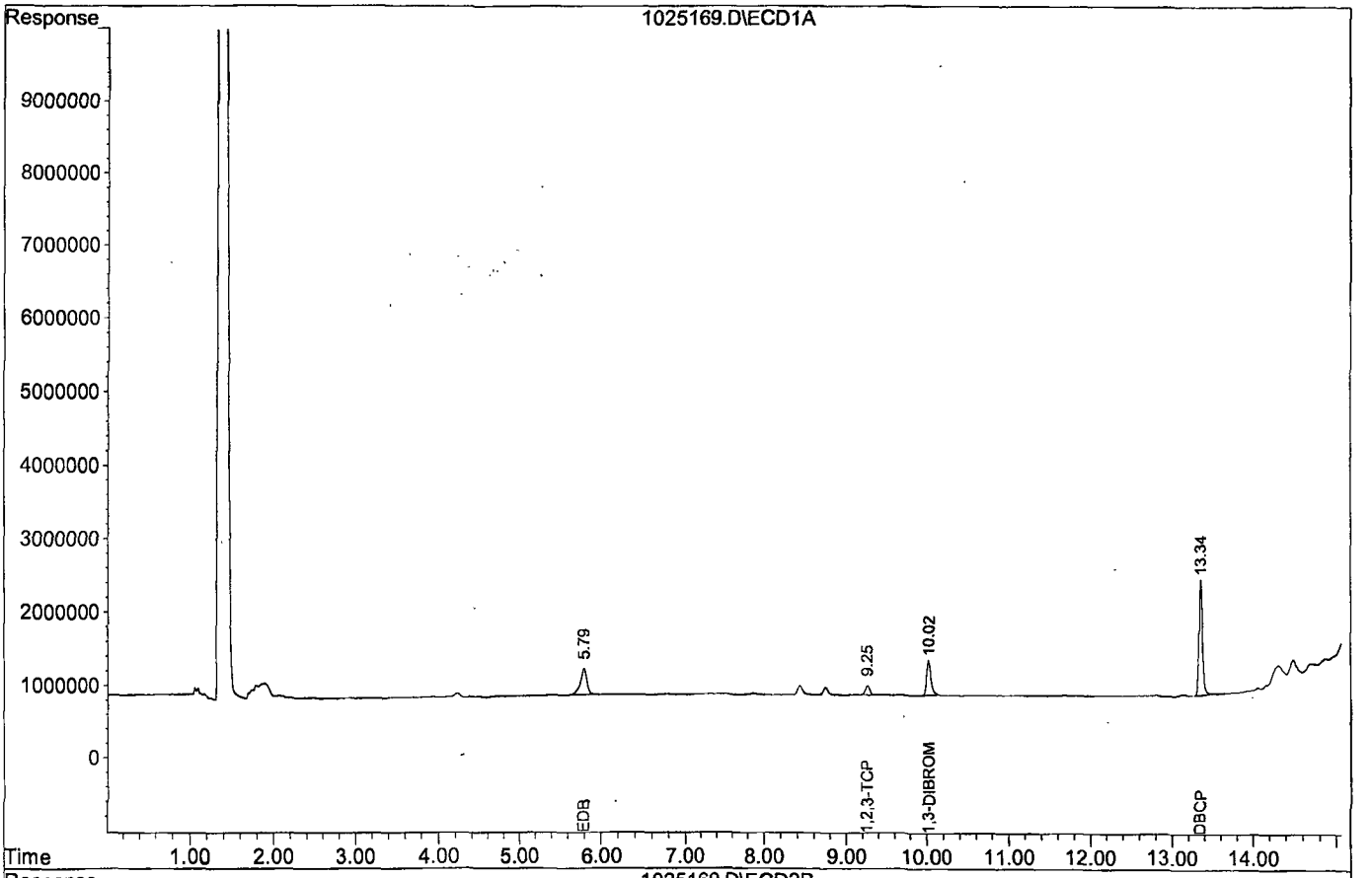
	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
	System Monitoring Compounds						
3) S	1,3-DIBROMOPROPA	10.02	11.03	473724	1163047	0.273	0.268
Spiked Amount	0.350			Recovery	=	78.00%	76.57%
	Target Compounds						
1) TM	EDB	5.79	7.21	353501	1636457	0.236	0.252
2) TM	1,2,3-TCP	9.25	10.44	124757	323284	0.278	0.271
4) TM	DBCP	13.34	14.08	1569959	5080932	0.273	0.270

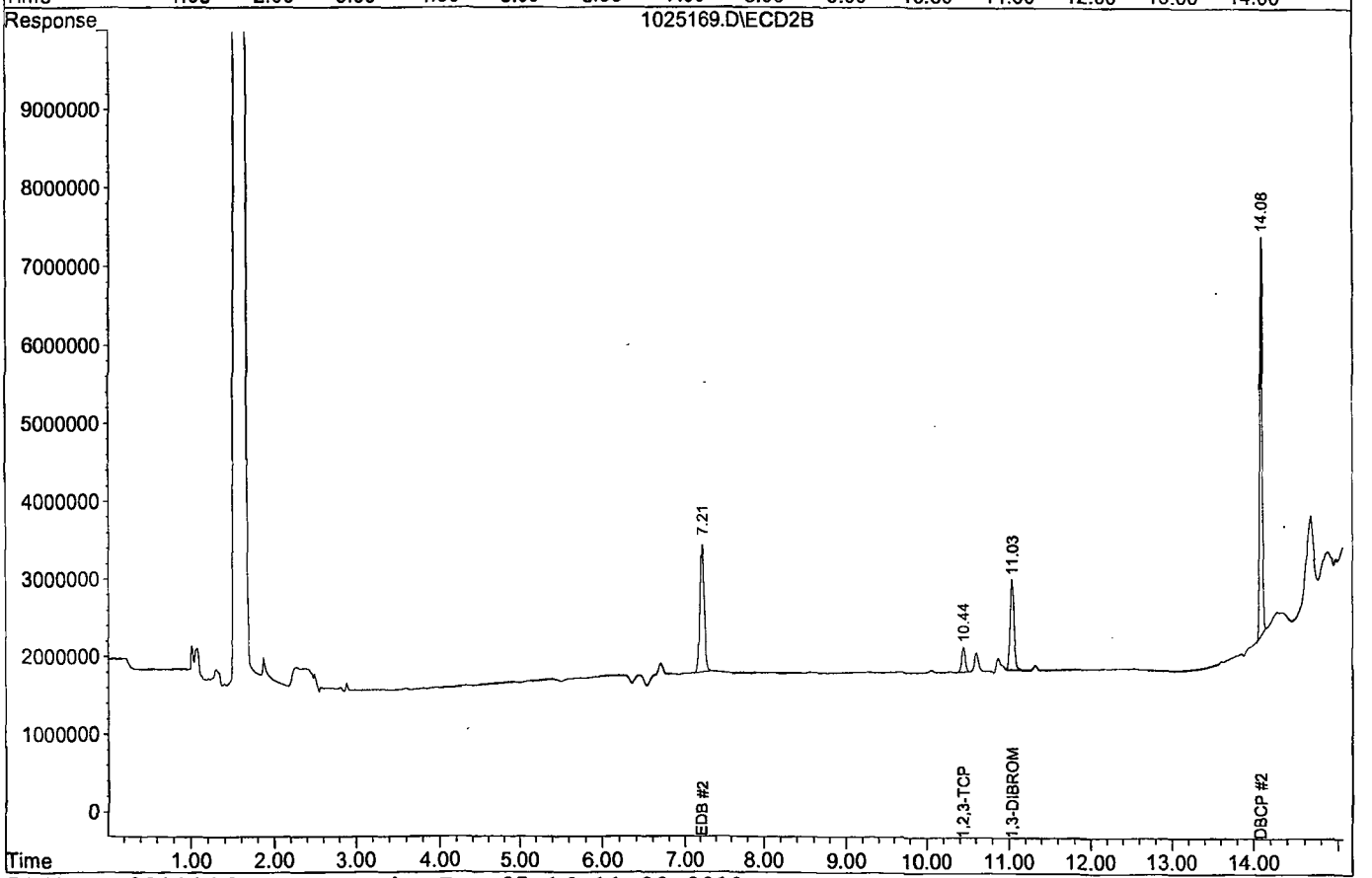
Target Compounds

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (Not Reviewed)

Data File : G:\HERBIE\DATA\191025\1025169.D Vial: 69
Acq On : 11-13-19 3:10:49 Operator: MA,SS
Sample : 8011 4 11/06/19 Inst : Herbie
Misc : water Multiplr: 1.00
Quant Method : G:\HERBIE\DATA\190814\8011106A.M





ORGANICS
Raw Data

Quantitation Report (QT Reviewed)

Signal #1 : G:\HERBIE\DATA\191025\1025157.D\ECD1A.CH Vial: 57
Signal #2 : G:\HERBIE\DATA\191025\1025157.D\ECD2B.CH
Acq On : 11-12-19 23:10:19 Operator: MA,SS
Sample : BA02465W06 2/35.32G Inst : Herbie
Misc : water Multiplr: 0.99
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Nov 13 9:38 2019 Quant Results File: 8011106A.RES

Quant Method : G:\HERBIE\DATA\190814\8011106A.M (RTE Integrator)
Title : 504.1 OR 8011
Last Update : Tue Nov 12 13:30:16 2019
Response via : Initial Calibration
DataAcq Meth : DOHS504.M

Volume Inj. : 2µL
Signal #1 Phase : DB-35MS Signal #2 Phase: DB-XLB
Signal #1 Info : 0.25 Signal #2 Info : 0.50

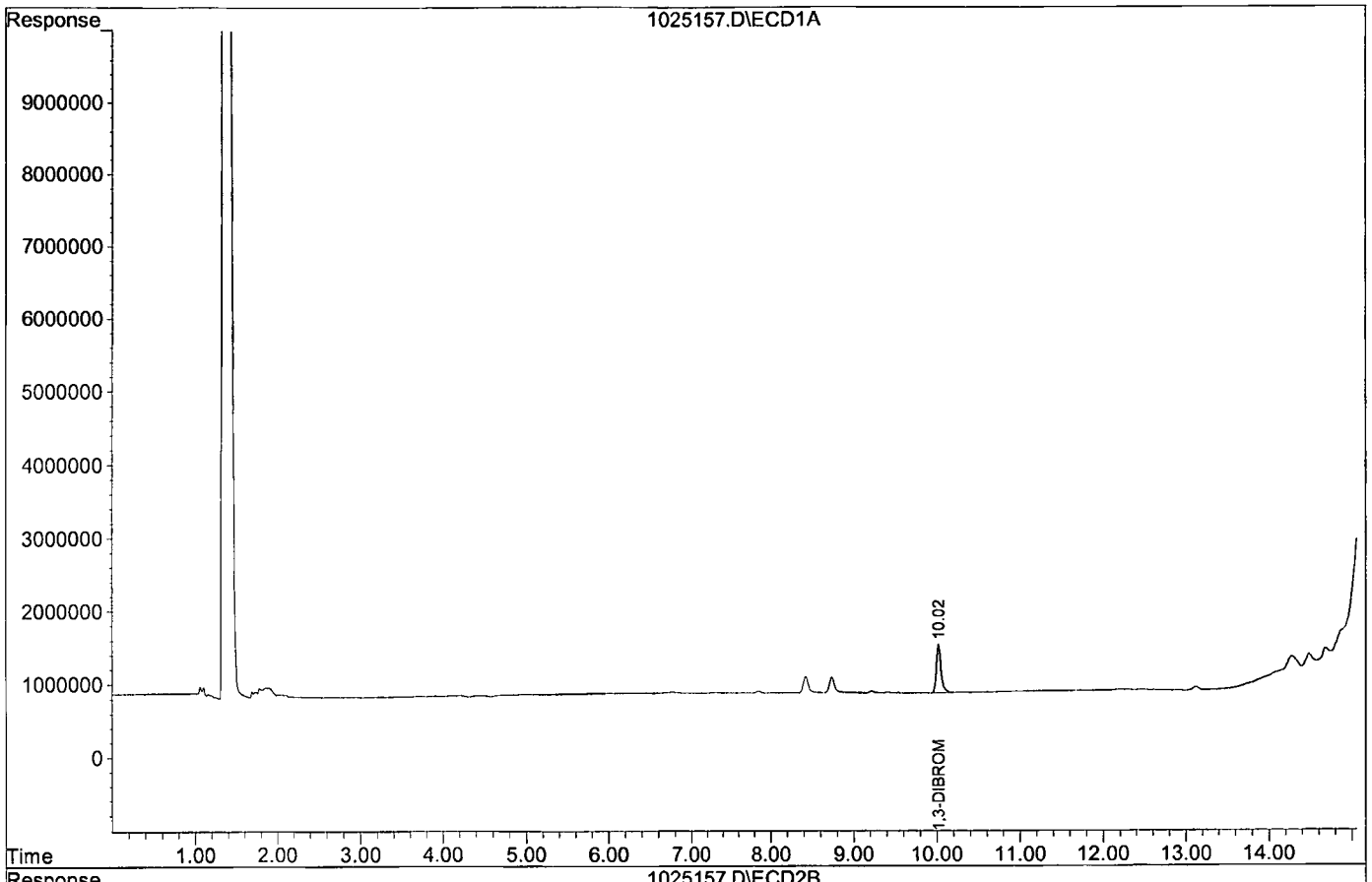
	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
	System Monitoring Compounds						
3) S	1,3-DIBROMOPROPA	10.02	11.03	665378	1609184	0.381	0.368
Spiked Amount	0.347			Recovery	=	109.85%	106.10%
	Target Compounds						
	Target Compounds						
1) TM	EDB	0.00	0.00	0	0	N.D. d	N.D. d
2) TM	1,2,3-TCP	0.00	0.00	0	0	N.D. d	N.D. d
4) TM	DBCP	0.00	0.00	0	0	N.D. d	N.D. d

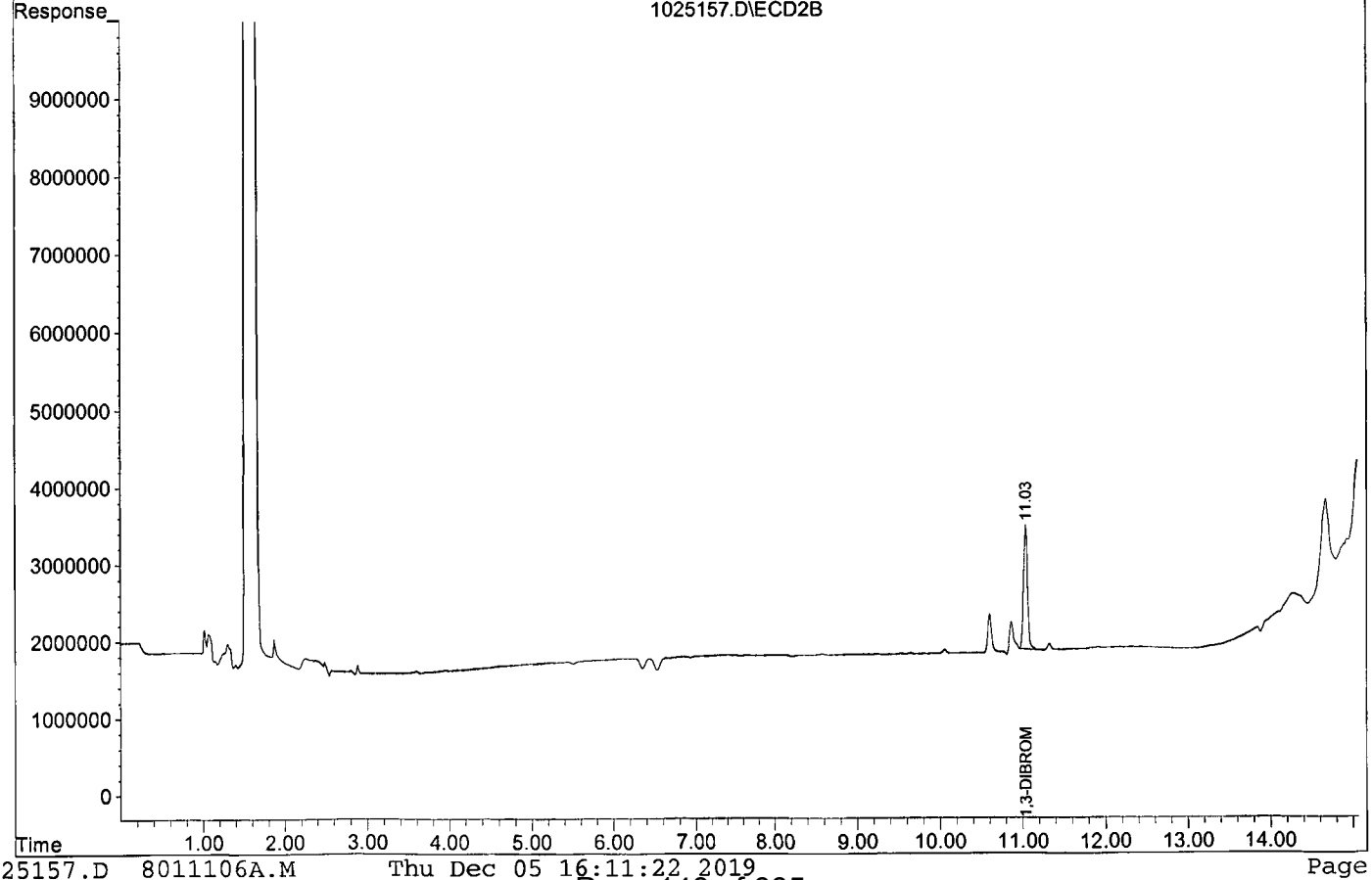
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : G:\HERBIE\DATA\191025\1025157.D
Acq On : 11-12-19 23:10:19
Sample : BA02465W06 2/35.32G
Misc : water
Quant Method : G:\HERBIE\DATA\190814\8011106A.M

Vial: 57
Operator: MA,SS
Inst : Herbie
Multiplr: 0.99





Quantitation Report (QT Reviewed)

Signal #1 : G:\HERBIE\DATA\191025\1025158.D\ECD1A.CH Vial: 58
Signal #2 : G:\HERBIE\DATA\191025\1025158.D\ECD2B.CH
Acq On : 11-12-19 23:30:21 Operator: MA,SS
Sample : BA02466W07 2/35.16G Inst : Herbie
Misc : water Multiplr: 1.00
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Nov 13 9:39 2019 Quant Results File: 8011106A.RES

Quant Method : G:\HERBIE\DATA\190814\8011106A.M (RTE Integrator)
Title : 504.1 OR 8011
Last Update : Tue Nov 12 13:30:16 2019
Response via : Initial Calibration
DataAcq Meth : DOHS504.M

Volume Inj. : 2µL
Signal #1 Phase : DB-35MS Signal #2 Phase: DB-XLB
Signal #1 Info : 0.25 Signal #2 Info : 0.50

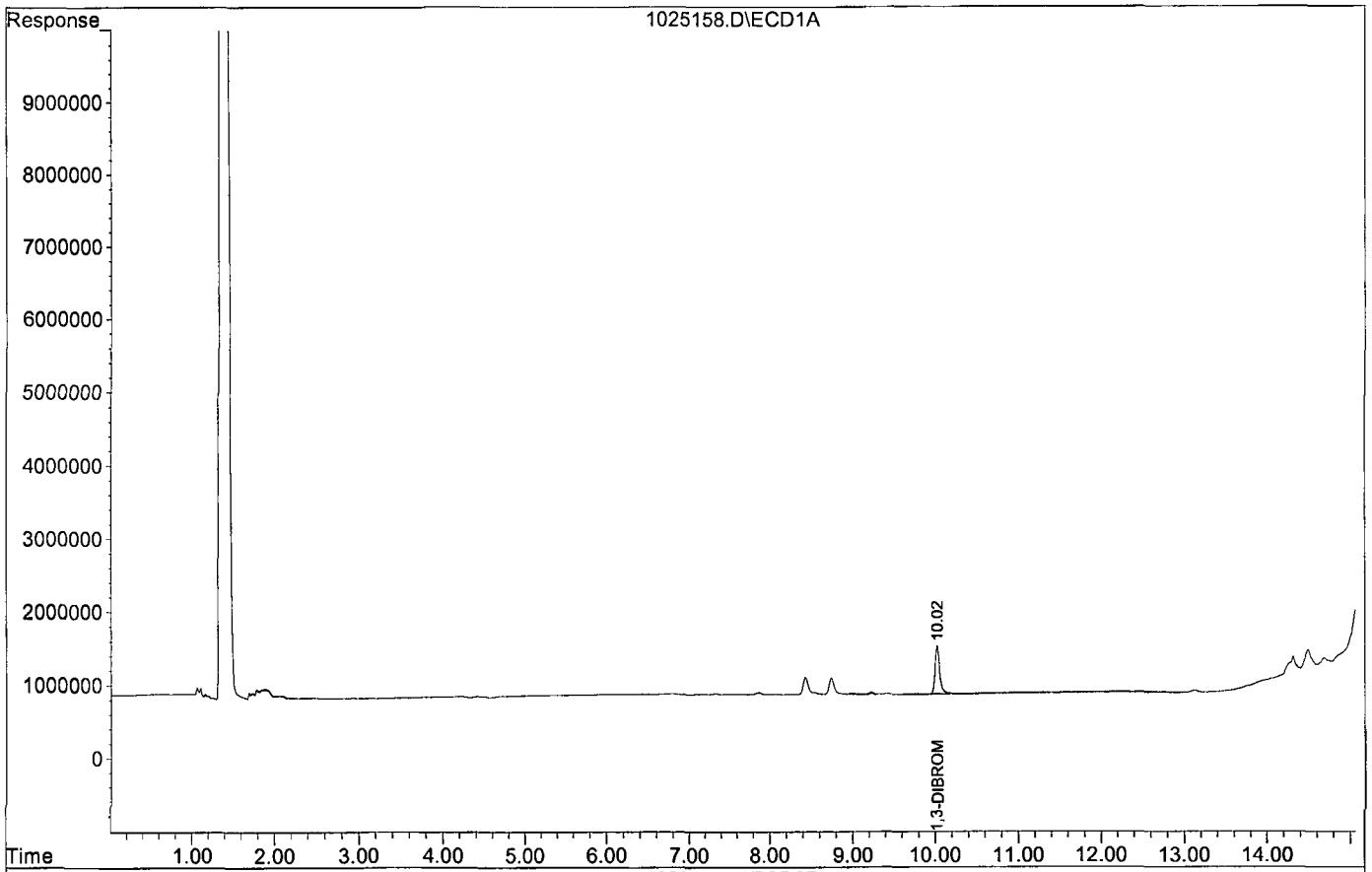
	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
	System Monitoring Compounds						
3) S	1,3-DIBROMOPROPA	10.02	11.03	656834	1591903	0.377	0.365
Spiked Amount	0.348			Recovery	=	108.21%	104.76%
	Target Compounds						
	Target Compounds						
1) TM	EDB	0.00	0.00	0	0	N.D. d	N.D. d
2) TM	1,2,3-TCP	0.00	0.00	0	0	N.D. d	N.D. d
4) TM	DBCP	0.00	0.00	0	0	N.D. d	N.D. d

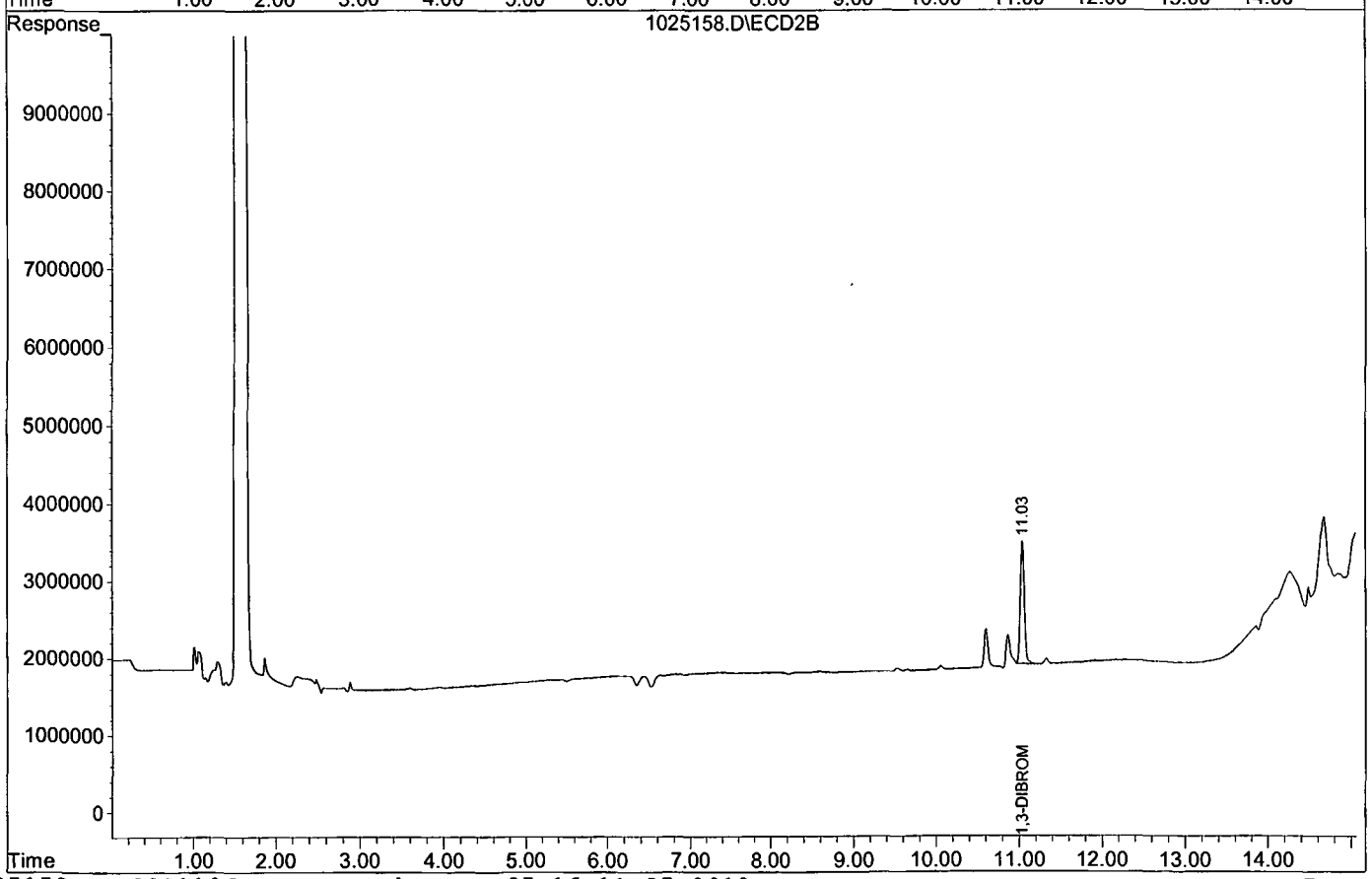
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : G:\HERBIE\DATA\191025\1025158.D
Acq On : 11-12-19 23:30:21
Sample : BA02466W07 2/35.16G
Misc : water
Quant Method : G:\HERBIE\DATA\190814\8011106A.M

Vial: 58
Operator: MA,SS
Inst : Herbie
Multiplr: 1.00





Quantitation Report (QT Reviewed)

Signal #1 : G:\HERBIE\DATA\191025\1025154.D\ECD1A.CH Vial: 54
Signal #2 : G:\HERBIE\DATA\191025\1025154.D\ECD2B.CH
Acq On : 11-12-19 22:09:58 Operator: MA,SS
Sample : 191111A BLK 2/35.20G Inst : Herbie
Misc : water Multiplr: 0.99
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Nov 13 9:34 2019 Quant Results File: 8011106A.RES

Quant Method : G:\HERBIE\DATA\190814\8011106A.M (RTE Integrator)
Title : 504.1 OR 8011
Last Update : Tue Nov 12 13:30:16 2019
Response via : Initial Calibration
DataAcq Meth : DOHS504.M

Volume Inj. : 2µL
Signal #1 Phase : DB-35MS Signal #2 Phase: DB-XLB
Signal #1 Info : 0.25 Signal #2 Info : 0.50

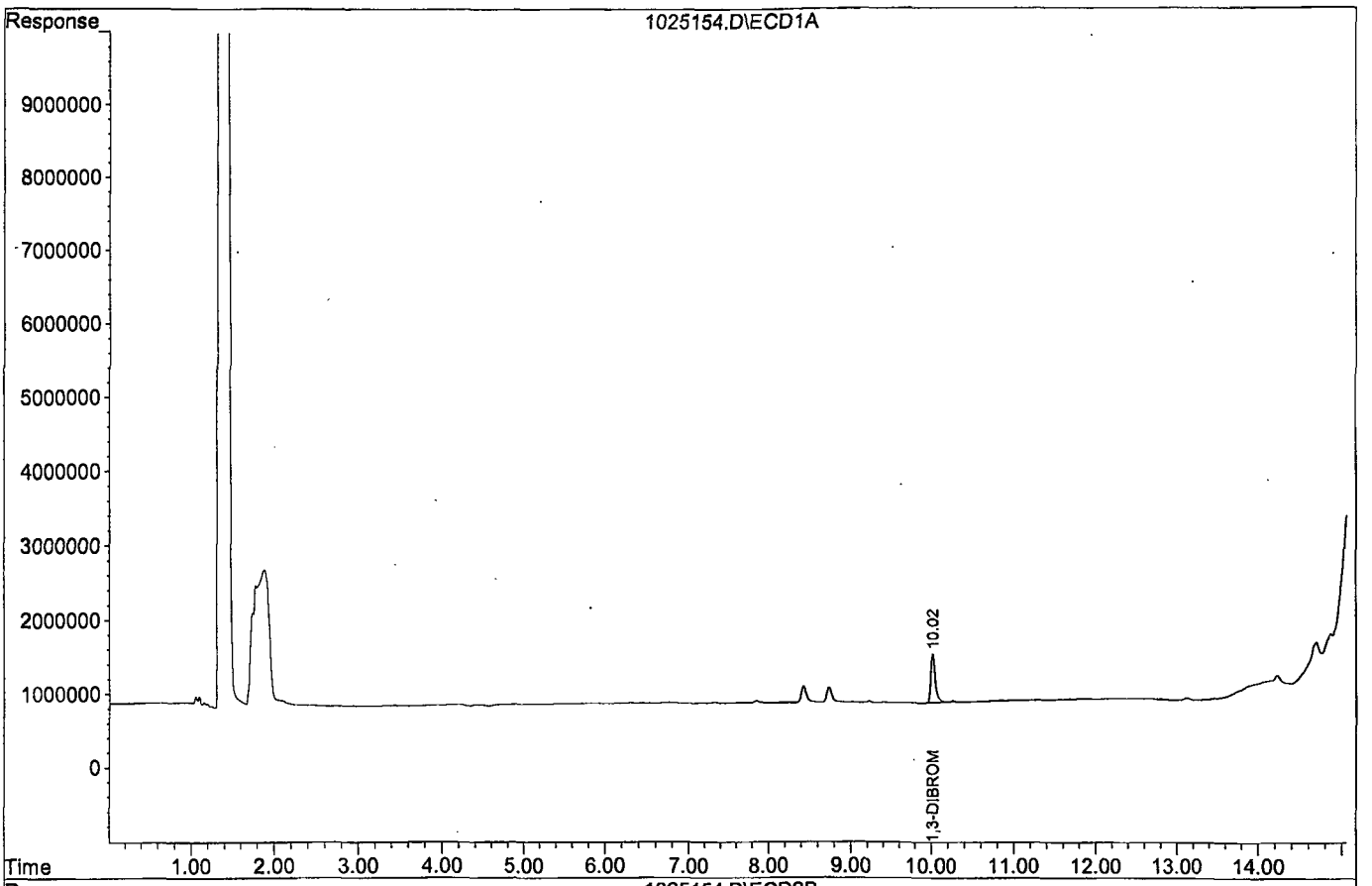
	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
	System Monitoring Compounds						
3) S	1,3-DIBROMOPROPA	10.02	11.03	657606	1621621	0.377	0.372
Spiked Amount	0.348			Recovery	=	108.33%	106.89%
	Target Compounds						
	Target Compounds						
1) TM	EDB	0.00	0.00	0	0	N.D. d	N.D. d
2) TM	1,2,3-TCP	0.00	0.00	0	0	N.D. d	N.D. d
4) TM	DBCP	0.00	0.00	0	0	N.D. d	N.D. d

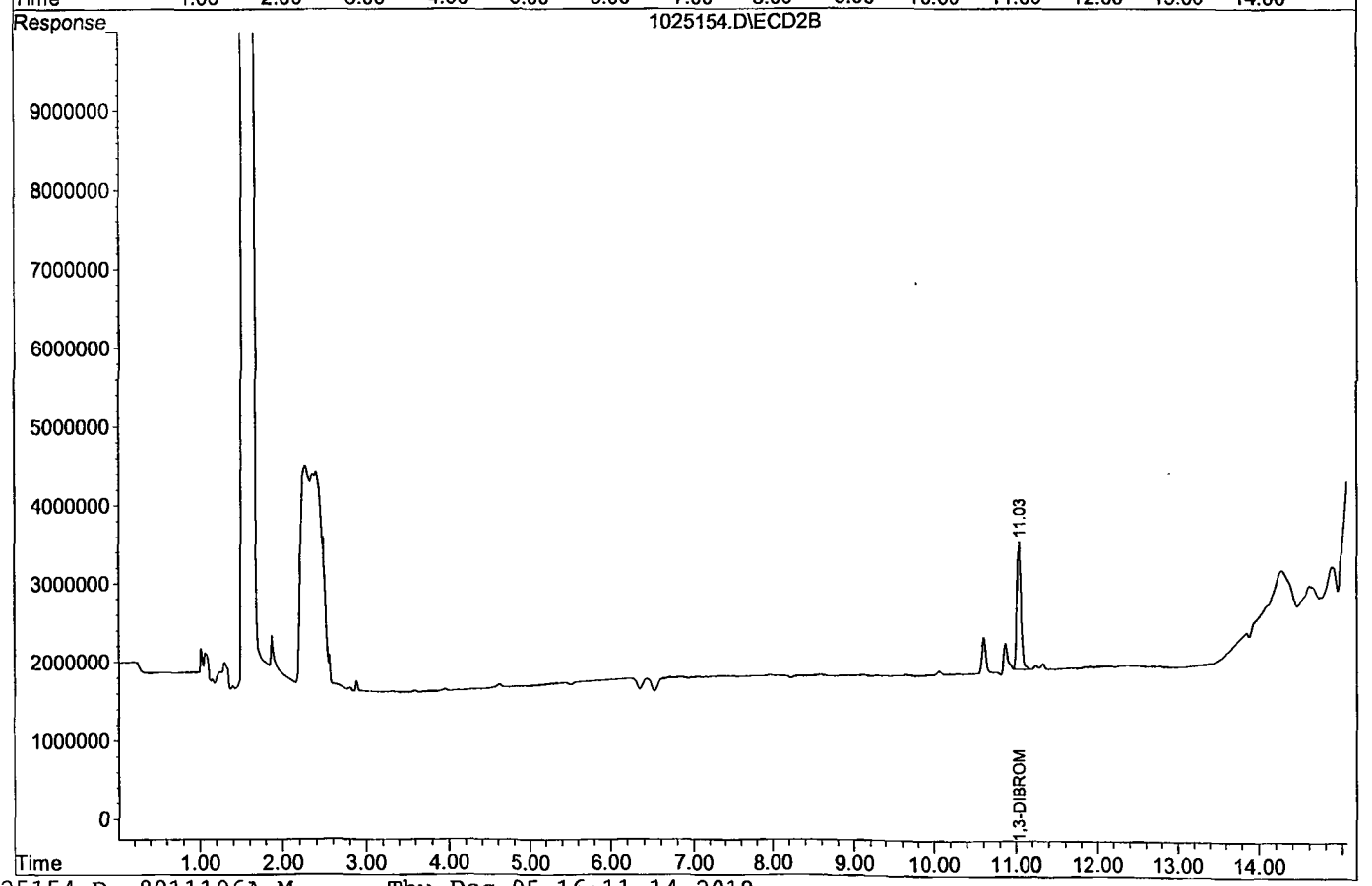
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : G:\HERBIE\DATA\191025\1025154.D
Acq On : 11-12-19 22:09:58
Sample : 191111A BLK 2/35.20G
Misc : water
Quant Method : G:\HERBIE\DATA\190814\8011106A.M

Vial: 54
Operator: MA,SS
Inst : Herbie
Multiplr: 0.99





Quantitation Report (Not Reviewed)

Signal #1 : G:\HERBIE\DATA\191025\1025155.D\ECD1A.CH Vial: 55
Signal #2 : G:\HERBIE\DATA\191025\1025155.D\ECD2B.CH
Acq On : 11-12-19 22:30:04 Operator: MA,SS
Sample : 191111A LCS-1 2/35.18G Inst : Herbie
Misc : water Multiplr: 0.99
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Nov 13 9:33 2019 Quant Results File: 8011106A.RES

Quant Method : G:\HERBIE\DATA\190814\8011106A.M (RTE Integrator)
Title : 504.1 OR 8011
Last Update : Tue Nov 12 13:30:16 2019
Response via : Initial Calibration
DataAcq Meth : DOHS504.M

Volume Inj. : 2µL
Signal #1 Phase : DB-35MS Signal #2 Phase: DB-XLB
Signal #1 Info : 0.25 Signal #2 Info : 0.50

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
	System Monitoring Compounds						
3) S	1,3-DIBROMOPROPA	10.02	11.03	455041	1094942	0.261	0.251
Spiked Amount	0.348			Recovery	=	74.95%	72.08%
	Target Compounds						
1) TM	EDB	5.79	7.21	348751	1635019	0.232	0.251
2) TM	1,2,3-TCP	9.25	10.44	126619	324997	0.281	0.271
4) TM	DBCP	13.34	14.08	1559272	4909189	0.270	0.260

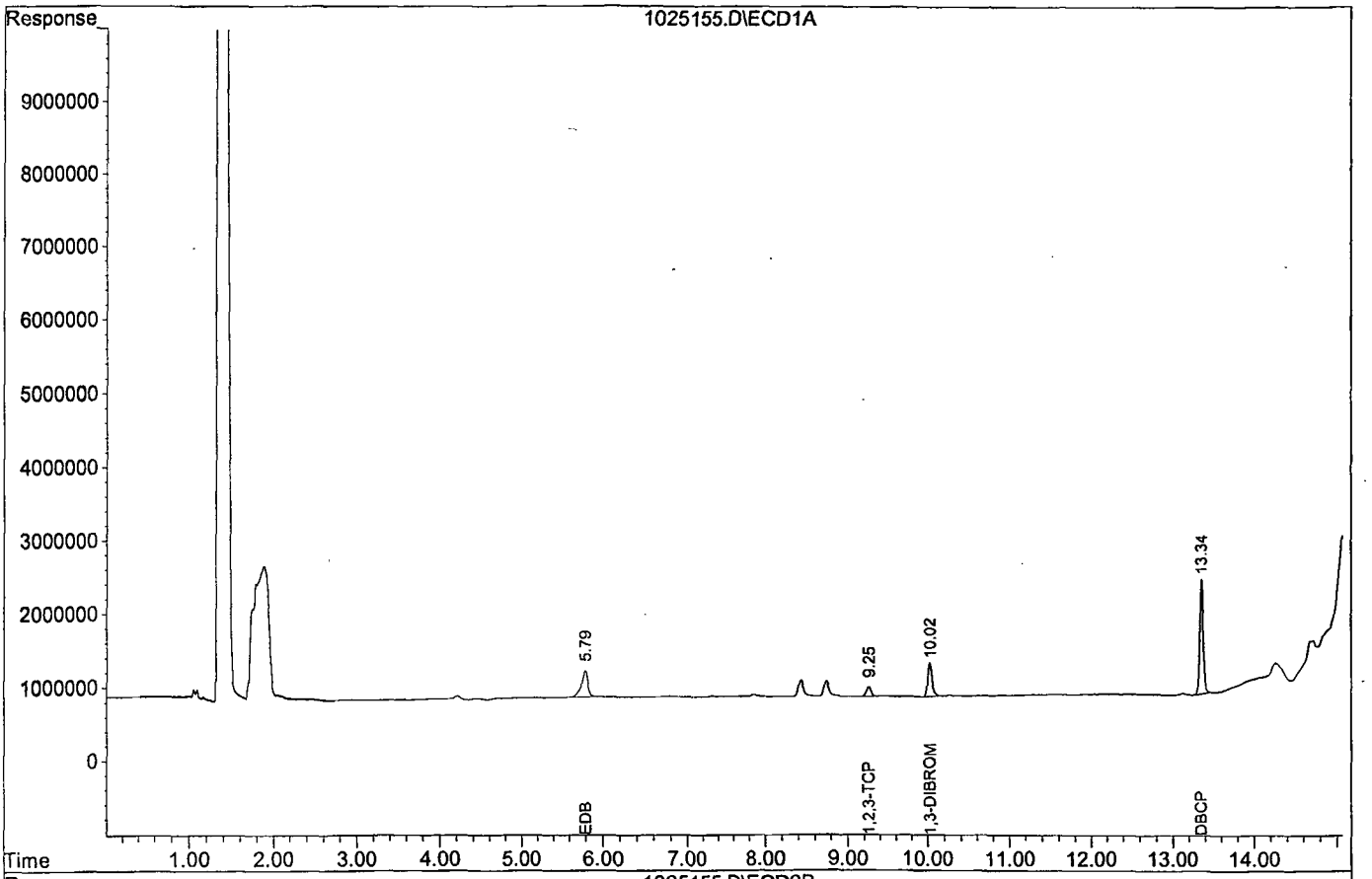
Target Compounds

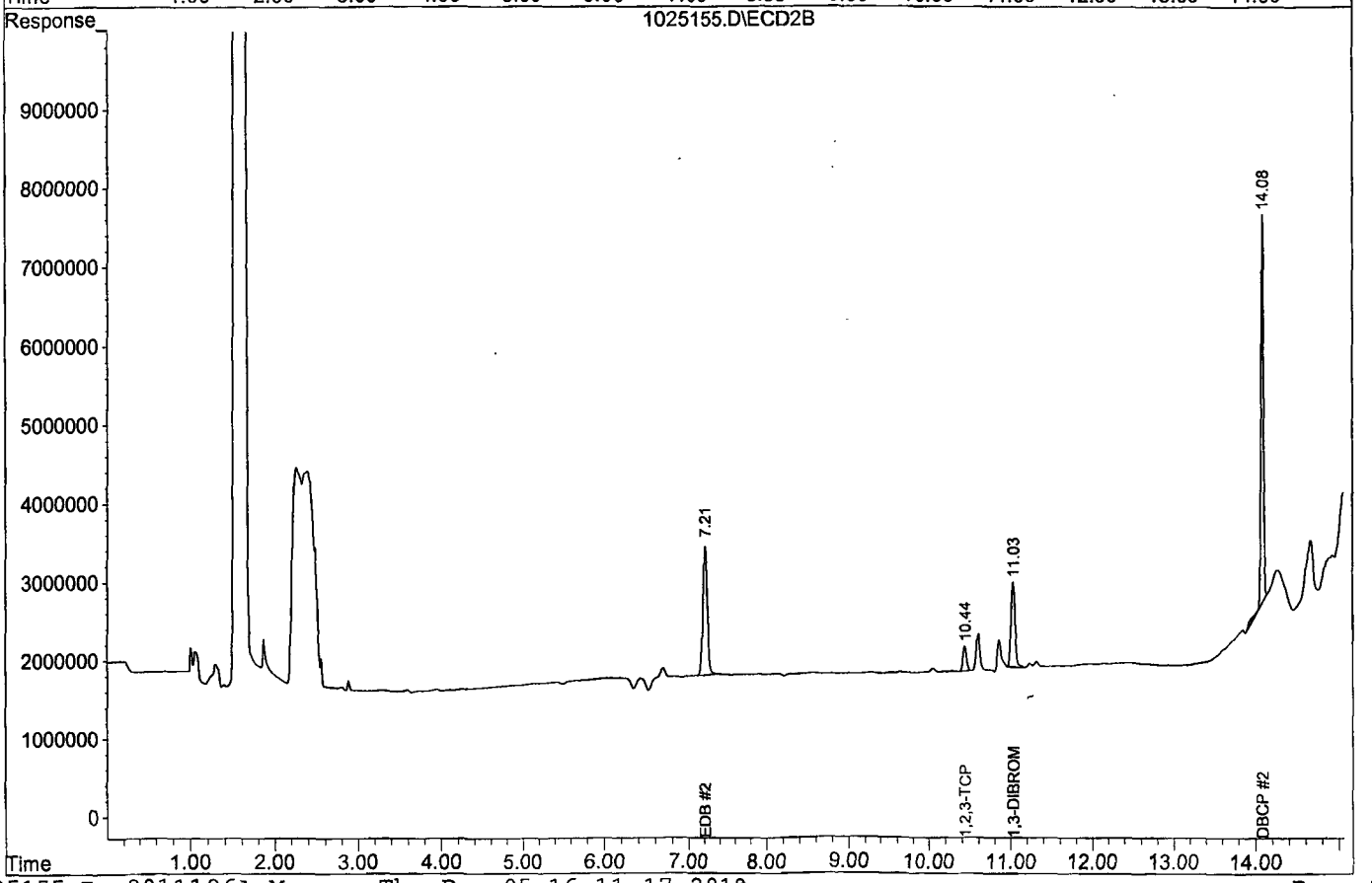
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (Not Reviewed)

Data File : G:\HERBIE\DATA\191025\1025155.D
Acq On : 11-12-19 22:30:04
Sample : 191111A LCS-1 2/35.18G
Misc : water
Quant Method : G:\HERBIE\DATA\190814\8011106A.M

Vial: 55
Operator: MA,SS
Inst : Herbie
Multiplr: 0.99





Quantitation Report (Not Reviewed)

Signal #1 : G:\HERBIE\DATA\191025\1025156.D\ECD1A.CH Vial: 56
Signal #2 : G:\HERBIE\DATA\191025\1025156.D\ECD2B.CH
Acq On : 11-12-19 22:50:16 Operator: MA,SS
Sample : 191111A LCSD-1 2/35.24G Inst : Herbie
Misc : water Multiplr: 0.99
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Nov 13 9:33 2019 Quant Results File: 8011106A.RES

Quant Method : G:\HERBIE\DATA\190814\8011106A.M (RTE Integrator)
Title : 504.1 OR 8011
Last Update : Tue Nov 12 13:30:16 2019
Response via : Initial Calibration
DataAcq Meth : DOHS504.M

Volume Inj. : 2µL
Signal #1 Phase : DB-35MS Signal #2 Phase: DB-XLB
Signal #1 Info : 0.25 Signal #2 Info : 0.50

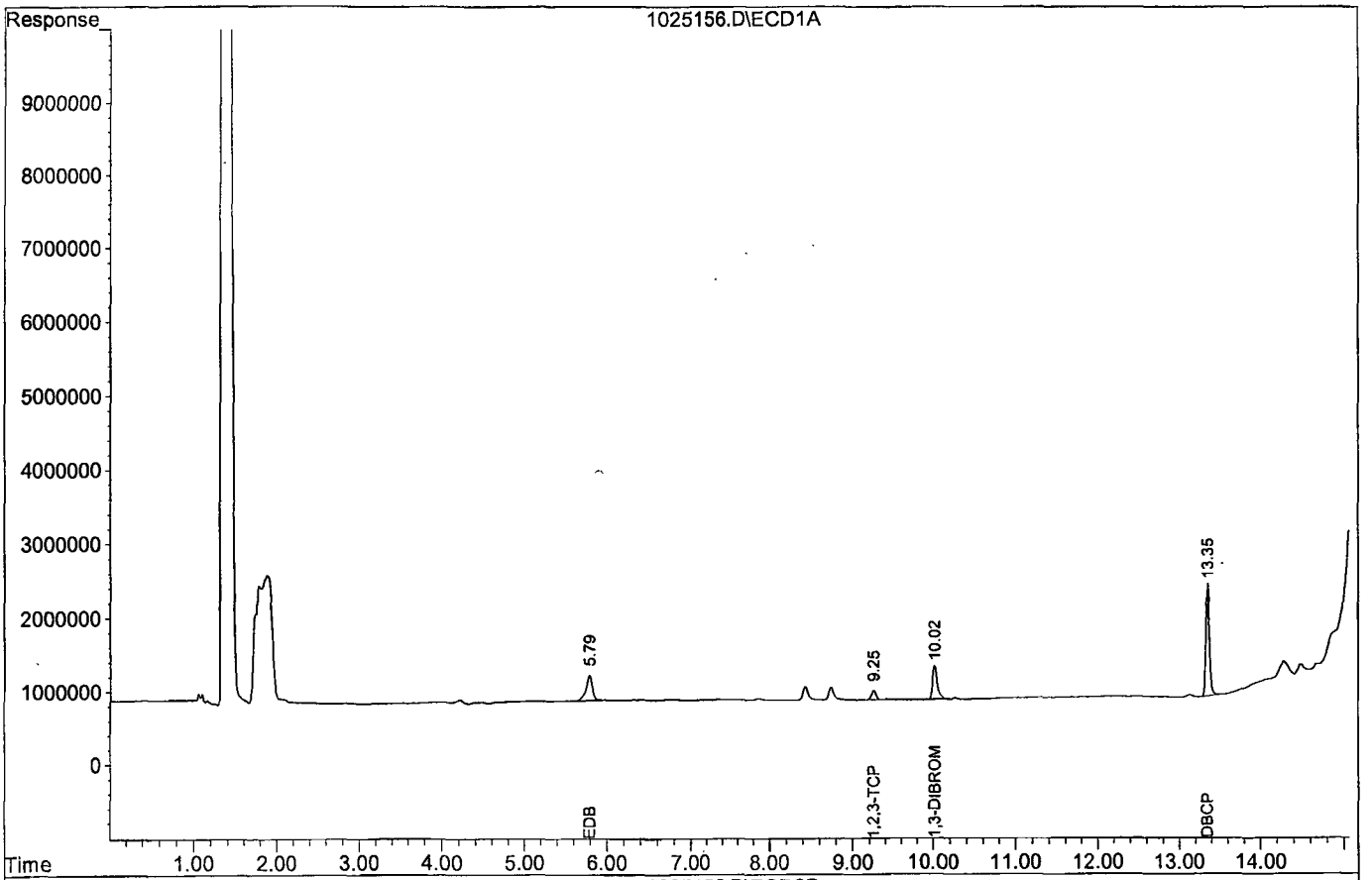
	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
	System Monitoring Compounds						
3)	S 1,3-DIBROMOPROPA	10.02	11.03	462809	1101122	0.265	0.252
	Spiked Amount 0.348			Recovery =		76.23%	72.49%
	Target Compounds						
1)	TM EDB	5.79	7.21	344631	1610878	0.228	0.247
2)	TM 1,2,3-TCP	9.25	10.44	128978	323683	0.286	0.270
4)	TM DBCP	13.35	14.09	1527252	4874043	0.264	0.258

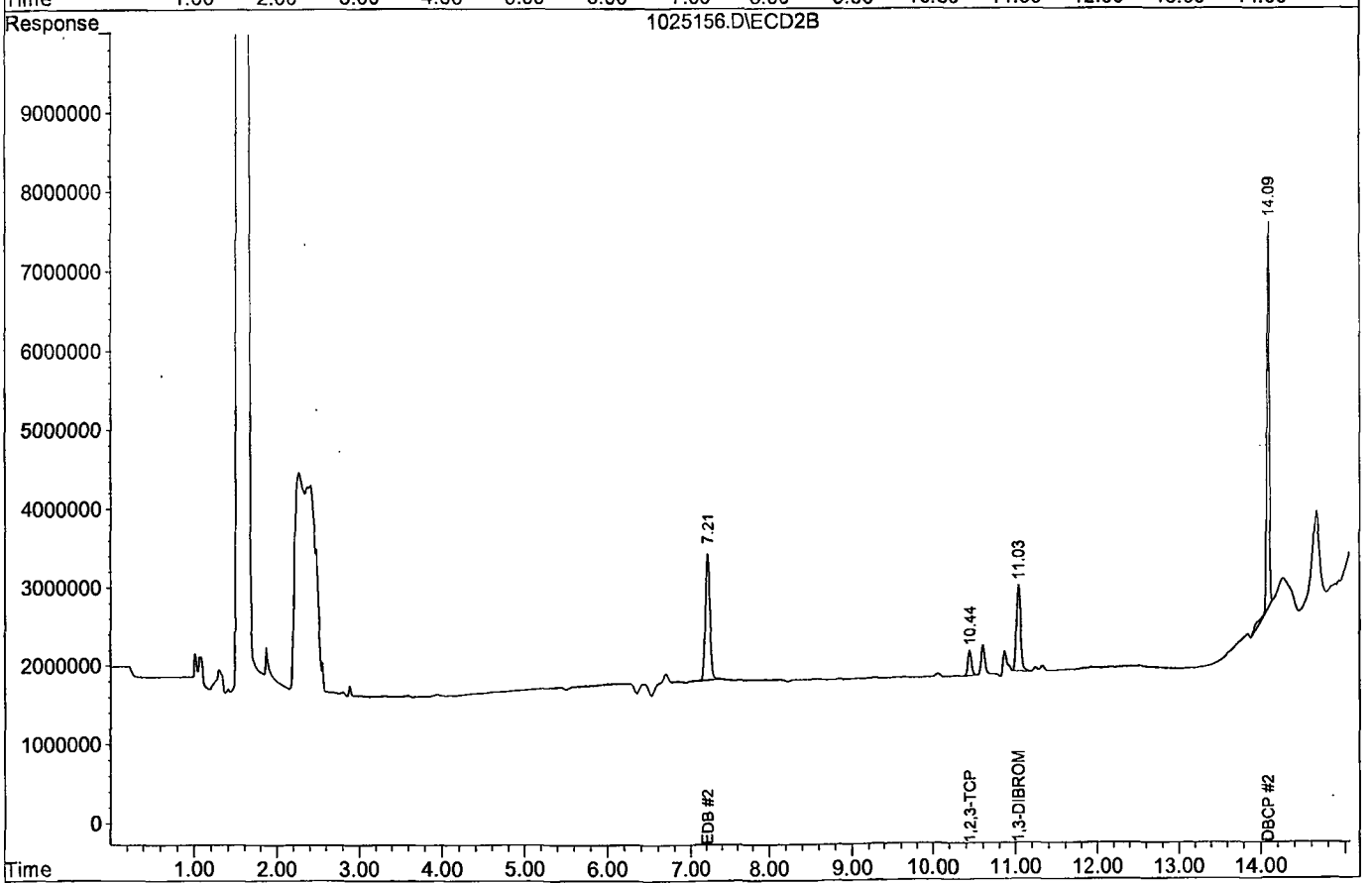
Target Compounds

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (Not Reviewed)

Data File : G:\HERBIE\DATA\191025\1025156.D Vial: 56
Acq On : 11-12-19 22:50:16 Operator: MA,SS
Sample : 191111A LCSD-1 2/35.24G Inst : Herbie
Misc : water Multiplr: 0.99
Quant Method : G:\HERBIE\DATA\190814\8011106A.M





Name of Final Standard 504/8011 Spike **Prep'd By (Initials)** GA

Prep Date 10/31/19

Exp Date 01/06/20

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from container Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
504/8011 Stock	APPL	504/8011 Stock	0.35 ug/mL	09/09/19	01/06/20	1000 uL	10 mL	Methanol #208858	0.035 ug/mL

Name of Final Standard 504/8011 SS SPK **Prep'd By (Initials)** GA

Prep Date 08/07/19

Exp Date 12/07/19

Initial Standard Information						Final Standard Information			
(from container Label)	Supplier	APPL Mix Name)	Conc.(range)	to APPL prep date)	Exp Date	Stock	Volume	(or APPL Prep Date)	Conc (range)
504/8011 SS Stock	APPL	504/8011 SS Stock	0.35 ug/mL	01/22/19	01/06/20	1 mL	10 mL	Methanol #042317C	0.035 ug/mL

Name of Final Standard 504/8011 Surrogate **Prep'd By (Initials)** GA

Prep Date 09/04/19

Exp Date 01/06/19

Initial Standard Information						Final Standard Information			
(from container Label)	Supplier	APPL Mix Name)	Conc.(range)	to APPL prep date)	Exp Date	Stock	Volume	(or APPL Prep Date)	Conc (range)
1,3 DBP	APPL	1,3 DBP Stock	100 ug/mL	05/07/19	01/06/20	35 uL	10 mL	Methanol #208858	0.35ug/ml

_MWE012

Organic Extraction Worksheet

Method	EPA Method 8011 DBCP/EDB	Extraction Set	191111A	Extraction Method	MWE012	Units	mL

Spiked ID 1	504.1 M. SPIKE 10/31/19 EXP 01/06/20		Surrogate ID 1	504.1 Surrogate 09/04/19 EXP 01/06/20	
Spiked ID 2	504.1 SS 08/07/19 EXP 12/17/19		Surrogate ID 2		
Spiked ID 3			Surrogate ID 3		
Spiked ID 4			Surrogate ID 4		
Spiked ID 5			Surrogate ID 5		
Spiked ID 6			Sufficient Vol for Matrix QC:		
Spiked ID 7			Ext. Start Time:	11/11/19 14:35	
Spiked ID 8			Ext. End Time:	11/12/19 9:30	
			GC Requires Extract By:		

pH1			Water Bath Temp 1 °C	
pH2			Water Bath Temp 2 °C	
pH3			Water Bath Temp 3 °C	

Spiked By: DL **Date** 11/11/19 **Witnessed By:** YL **Date** 11/11/19

	Sample	Sample Container	Spike Amount	Spike ID	Surrogate Amount	Surrogate ID	Extract Amount	Final Volume	pH	Extract Date/Time	Comments
1	191111A Blk				0.035	1 equip	35.20g	2	7	11/11/19 14:35	
2	191111A LCS-1		0.250	NA	NA	NA equip	35.18g	2	7	11/11/19 14:35	
3	191111A LCSD-1		0.250	NA	NA	NA equip	35.24g	2	7	11/11/19 14:35	
4	BA02465	BA02465W06			0.035	1 equip	35.32g	2	7	11/11/19 14:35	90648
5	BA02466	BA02466W07			0.035	1 equip	35.16g	2	7	11/11/19 14:35	90648
6	BA02524	BA02524W05			0.035	1 equip	35.21g	2	7	11/11/19 14:35	90657
7	BA02525	BA02525W06			0.035	1 equip	35.19g	2	7	11/11/19 14:35	90657
8	BA02649	BA02649W01			0.035	1 equip	35.47g	2	7	11/11/19 14:35	90642 PT
9	BA02712	BA02712W05			0.035	1 equip	35.04g	2	7	11/11/19 14:35	90700
10	BA02713	BA02713W06			0.035	1 equip	35.44g	2	7	11/11/19 14:35	90700
11	BA02714	BA02714W06			0.035	1 equip	35.51g	2	7	11/11/19 14:35	90700
12	BA02715	BA02715W14			0.035	1 equip	35.23g	2	7	11/11/19 14:35	90700
13	BA02716	BA02716W07			0.035	1 equip	35.06g	2	7	11/11/19 14:35	90700
14	M STD 1		0.020	NA	NA	NA equip	35.21g	2	7	11/11/19 14:35	
15	SS		0.100		0.035	1 equip	35.15g	2	7	11/11/19 14:35	

GA 11/22/19

Solvent and Lot#	
ph strip	HC863463
Sod. Thiosulfate	1016C241
NaCL	19A035211
GC2 Hexane (2mLs)	DT947

Extraction COC Transfer	
Extraction lab employee Initials	DL
GC analyst's initials	GA
Date	11/22/19
Time	13:30
Refrigerator	Hobart

	Technician's Initials
Scanned By	DL
Sample Preparation	DL
Extraction	DL
Concentration	DL

Modified	11/11/19 4:48:53 PM

Reviewed By: GA **Date** 11/22/19

Injection Log

Directory: G:\HERBIE\DATA\191025\

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	20	1025122.D	1	8011 1 11/06/19	water	11-08-19 16:07:44
2	21	1025123.D	1	8011 2 11/06/19	water	11-08-19 16:28:04
3	22	1025124.D	1	8011 3 11/06/19	water	11-08-19 16:48:46
4	23	1025125.D	1	8011 4 11/06/19	water	11-08-19 17:09:07
5	24	1025126.D	1	8011 5 11/06/19	water	11-08-19 17:29:40
6	25	1025127.D	1	8011 6 11/06/19	water	11-08-19 17:50:18
7	26	1025128.D	1	8011 SS 11/06/19	water	11-08-19 18:10:46
8	53	1025153.D	1	8011 4 11/06/19	water	11-12-19 21:49:51
9	54	1025154.D	0.994318	191111A BLK 2/35.20G	water	11-12-19 22:09:58
10	55	1025155.D	0.99488	191111A LCS-1 2/35.18G	water	11-12-19 22:30:04
11	56	1025156.D	0.99319	191111A LCSD-1 2/35.24G	water	11-12-19 22:50:16
12	57	1025157.D	0.99094	BA02465W06 2/35.32G	water	11-12-19 23:10:19
13	58	1025158.D	0.99545	BA02466W07 2/35.16G	water	11-12-19 23:30:21
16	69	1025169.D	1	8011 4 11/06/19	water	11-13-19 3:10:49

ORGANICS
Calibration Data

TPH Extractables
DOC1114

Form 6
Initial Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Initial Cal. Date: 11/14/19
Matrix: Water Instrument: Apollo
Initials:

1114003.D 1114004.D 1114005.D 1114006 D 1114007.D 1114008.D

		Compound	1	2	3	4	5	6					Avg	%RSD	Type	r^2	Q
1	HATM	Diesel (C10-C24)	2027964	1336430	1489661	1454530	1384113	1359697					1508733	17	HATM		
2	HBTM	Motor Oil (C24-C40)	776455	819947	771703	744158	810038	798760					786843	3.6	HBTM		
3	SAL	Ortho-Terphenyl(S)	2345827	1504455	1492939	1513819	1376726	1360942					1599118	23	SA	0.997	
4	SA	Octacosane(S)	1517911	1093917	1010508	997320	1111697	1064489					1132640	17	SA		
5																	
6																	
7																	
8																	
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35																	

1.749733

Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\191114\1114003.D Vial: 3
Acq On : 11-14-19 19:39:49 Operator: BT
Sample : Diesel Motor Oil - 1 11/14/19 Inst : Apollo
Misc : water Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 15 9:20 2019 Quant Results File: DOC1114.RES

Method : G:\APOLLO\DATA\191114\DOC1114.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Nov 15 09:19:04 2019
Response via : Multiple Level Calibration

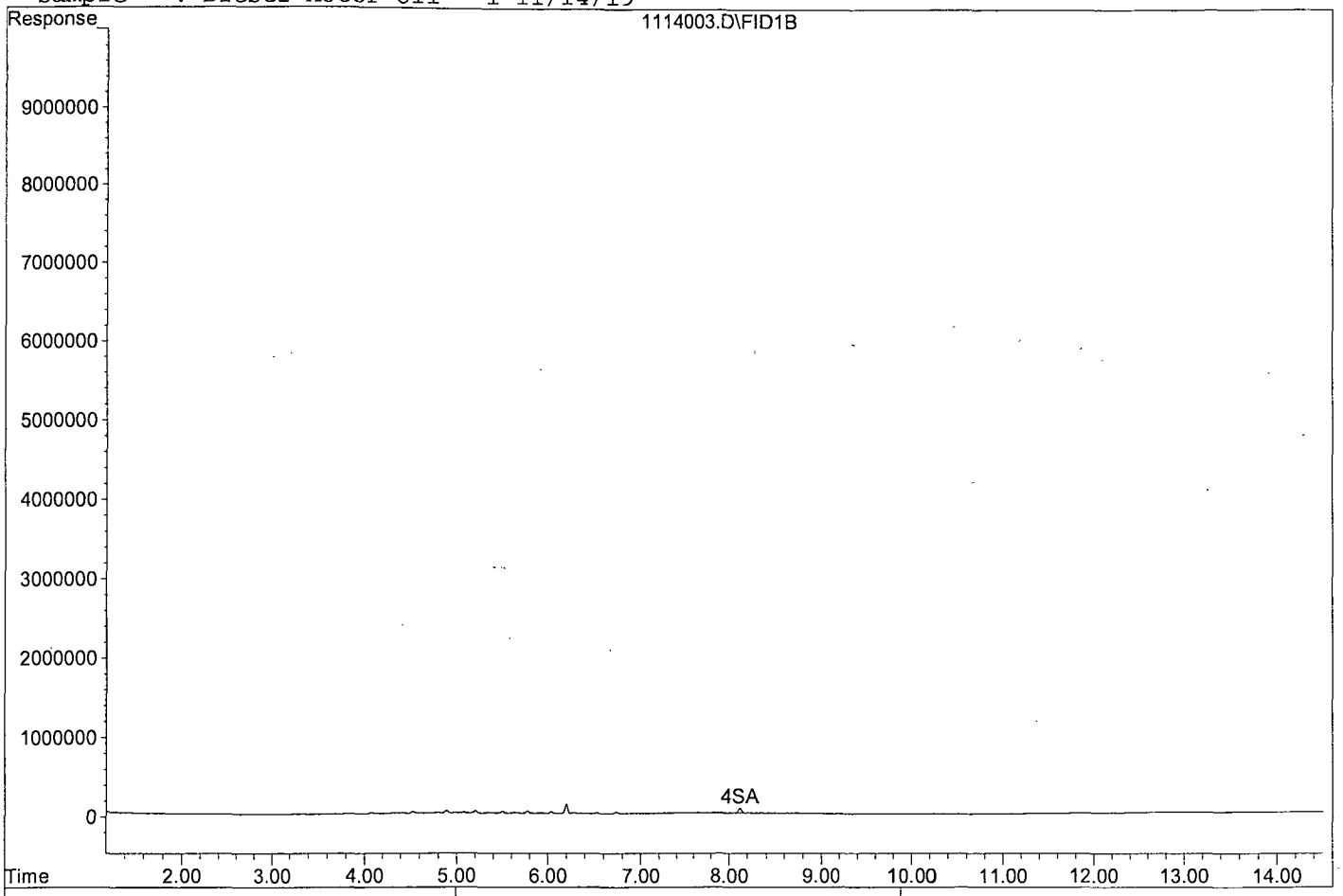
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

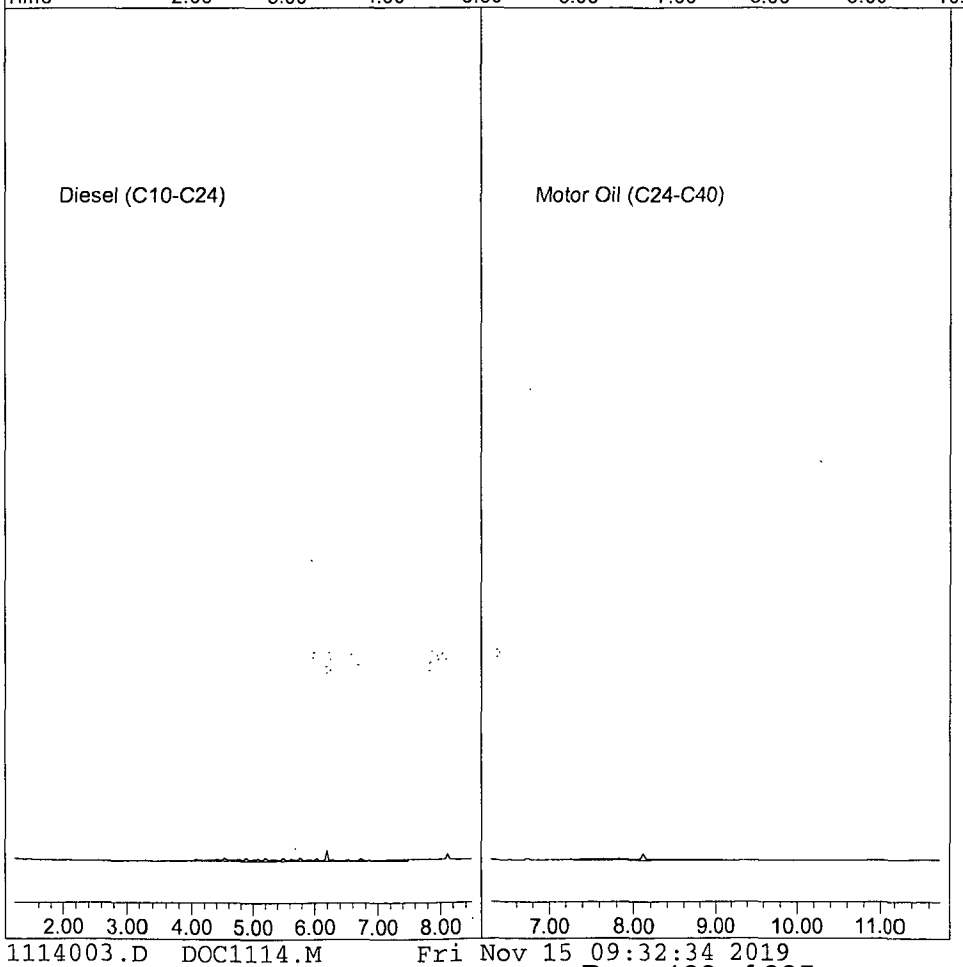
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) SA Ortho-Terphenyl(S)	6.20	2345827	N.D. ppb
Surrogate Spike 30.000	Recovery =		0.00%
4) SA Octacosane(S)	8.11	1517911	0.670 ppb
Surrogate Spike 30.000	Recovery =		2.23%
Target Compounds			
1) HATM Diesel (C10-C24)	4.42	40559274	13.446 ppb
2) HBTM Motor Oil (C24-C40)	9.01	15529092	9.868 ppb

Target Compounds

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: G:\APOLLO\DATA\191114\1114003.D
Sample : Diesel Motor Oil - 1 11/14/19



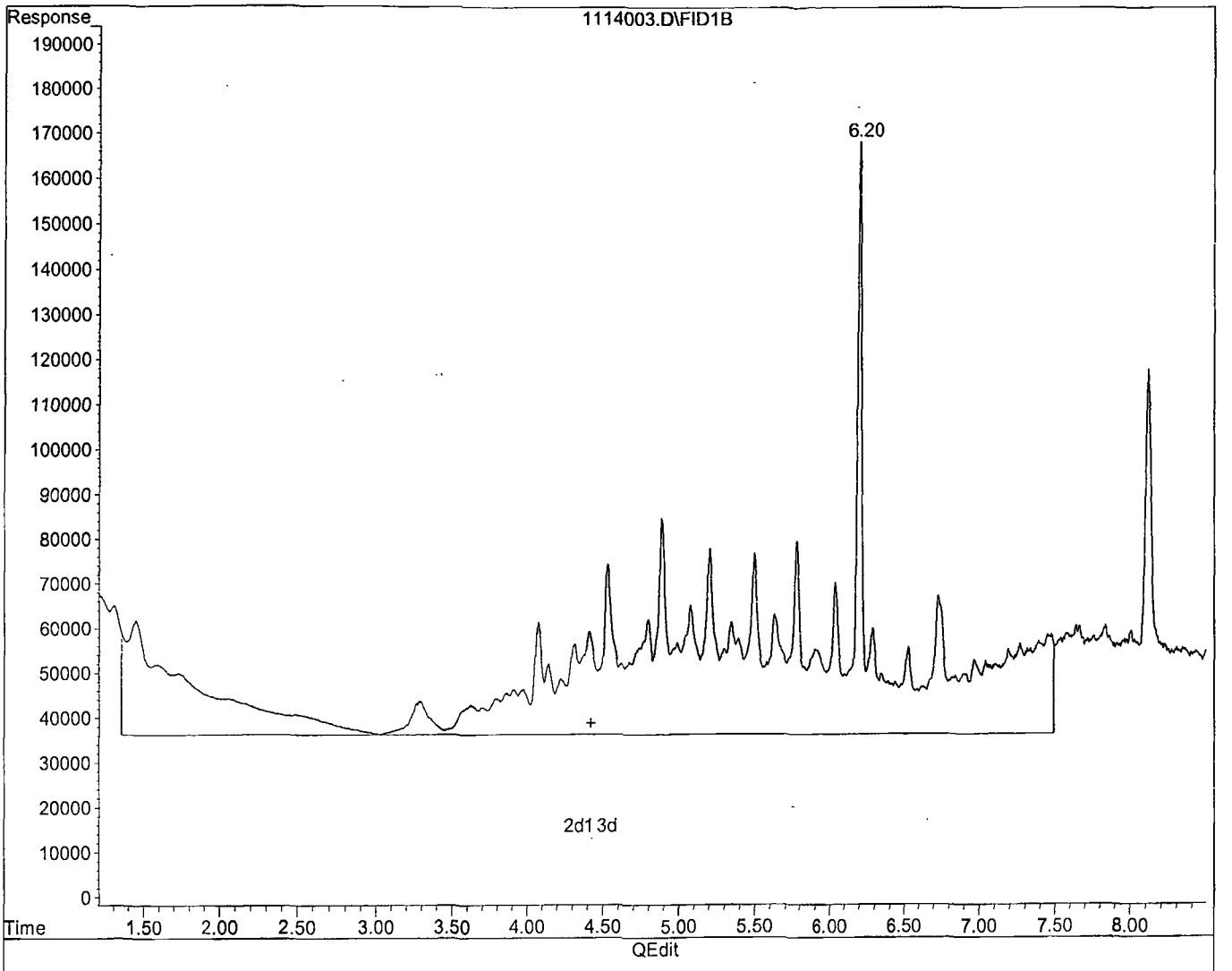


1114003.D DOC1114.M Fri Nov 15 09:32:34 2019

Quantitation Report

Data File : G:\APOLLO\DATA\191114\1114003.D Vial: 3
Acq On : 11-14-19 19:39:49 Operator: BT
Sample : Diesel Motor Oil - 1 11/14/19 Inst : Apollo
Misc : water Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 15 9:19 2019 Quant Results File: DOC1114.RES

Method : G:\APOLLO\DATA\191114\DOC1114.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Nov 15 09:19:04 2019
Response via : Multiple Level Calibration



(1) Diesel (C10-C24) (HATM)

4.42min 16.132ppb m

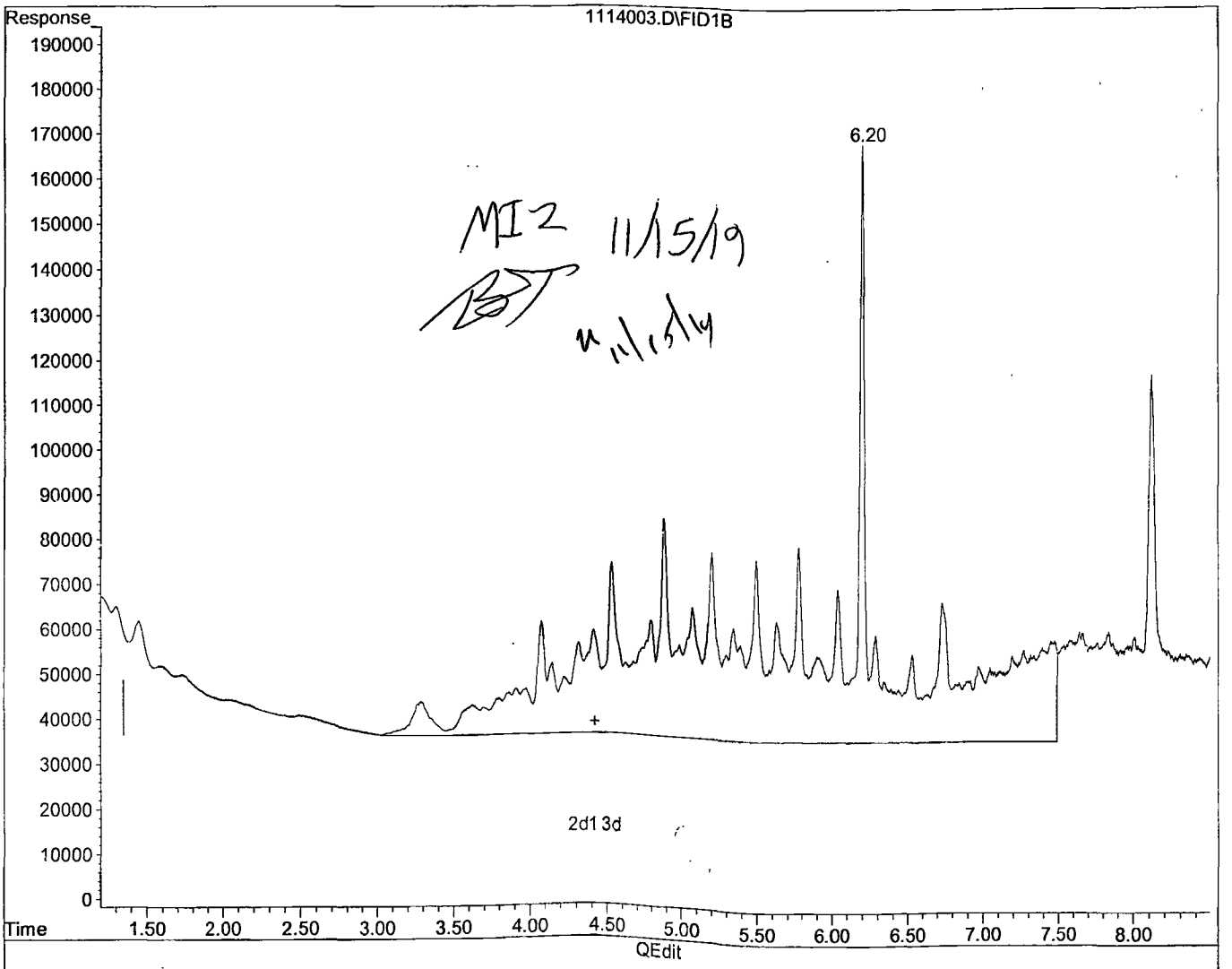
response 48662424

(+) = Expected Retention Time
1114003.D DOC1114.M Fri Nov 15 09:20:13 2019

Quantitation Report

Data File : G:\APOLLO\DATA\191114\1114003.D Vial: 3
Acq On : 11-14-19 19:39:49 Operator: BT
Sample : Diesel Motor Oil - 1 11/14/19 Inst : Apollo
Misc : water Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 15 9:19 2019 Quant Results File: DOC1114.RES

Method : G:\APOLLO\DATA\191114\DOC1114.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Nov 15 09:19:04 2019
Response via : Multiple Level Calibration



(1) Diesel (C10-C24) (HATM)

4.42min 13.446ppb m

response 40559274

(+) = Expected Retention Time

1114003.D DOC1114.M Fri Nov 15 09:20:47 2019

Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\191114\1114004.D Vial: 4
Acq On : 11-14-19 19:59:46 Operator: BT
Sample : Diesel Motor Oil - 2 11/14/19 Inst : Apollo
Misc : water Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 15 9:21 2019 Quant Results File: DOC1114.RES

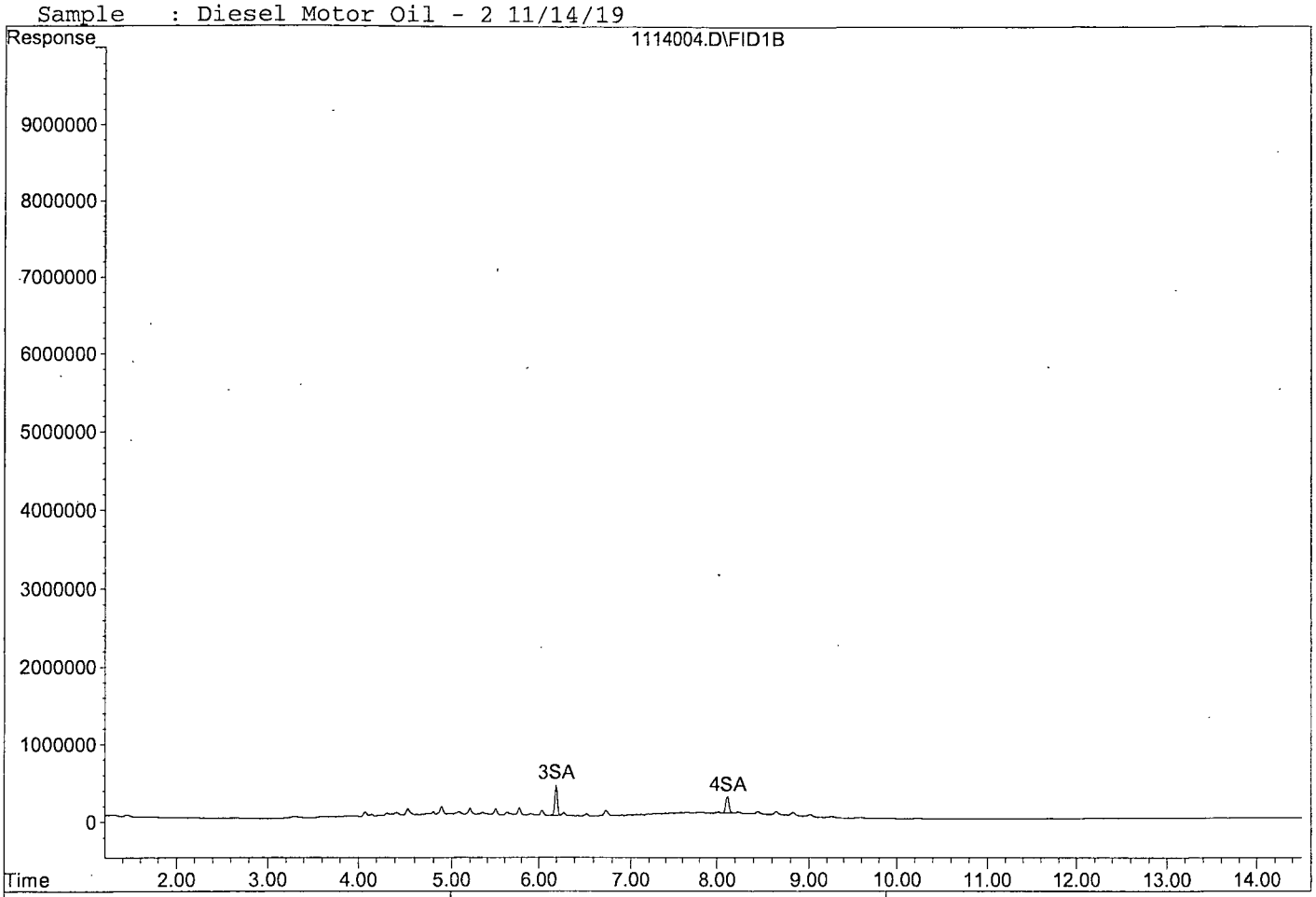
Method : G:\APOLLO\DATA\191114\DOC1114.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Nov 15 09:19:04 2019
Response via : Multiple Level Calibration

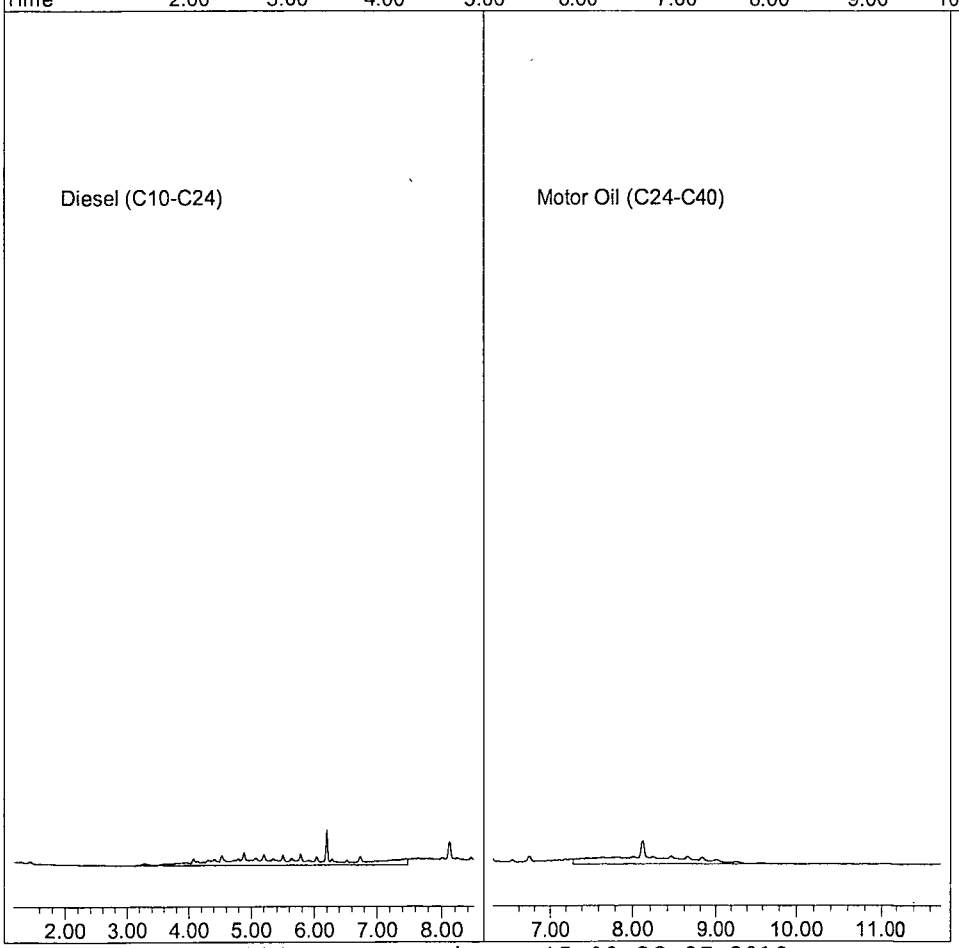
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) SA Ortho-Terphenyl(S)	6.20	7522274	1.503 ppb
Surrogate Spike 30.000		Recovery =	5.01%
4) SA Octacosane(S)	8.12	5469585	2.415 ppb
Surrogate Spike 30.000		Recovery =	8.05%
Target Compounds			
1) HATM Diesel (C10-C24)	4.42	133643009	44.304 ppb
2) HBTM Motor Oil (C24-C40)	9.01	81994744	52.104 ppb
Target Compounds			

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: G:\APOLLO\DATA\191114\1114004.D
Sample : Diesel Motor Oil - 2 11/14/19



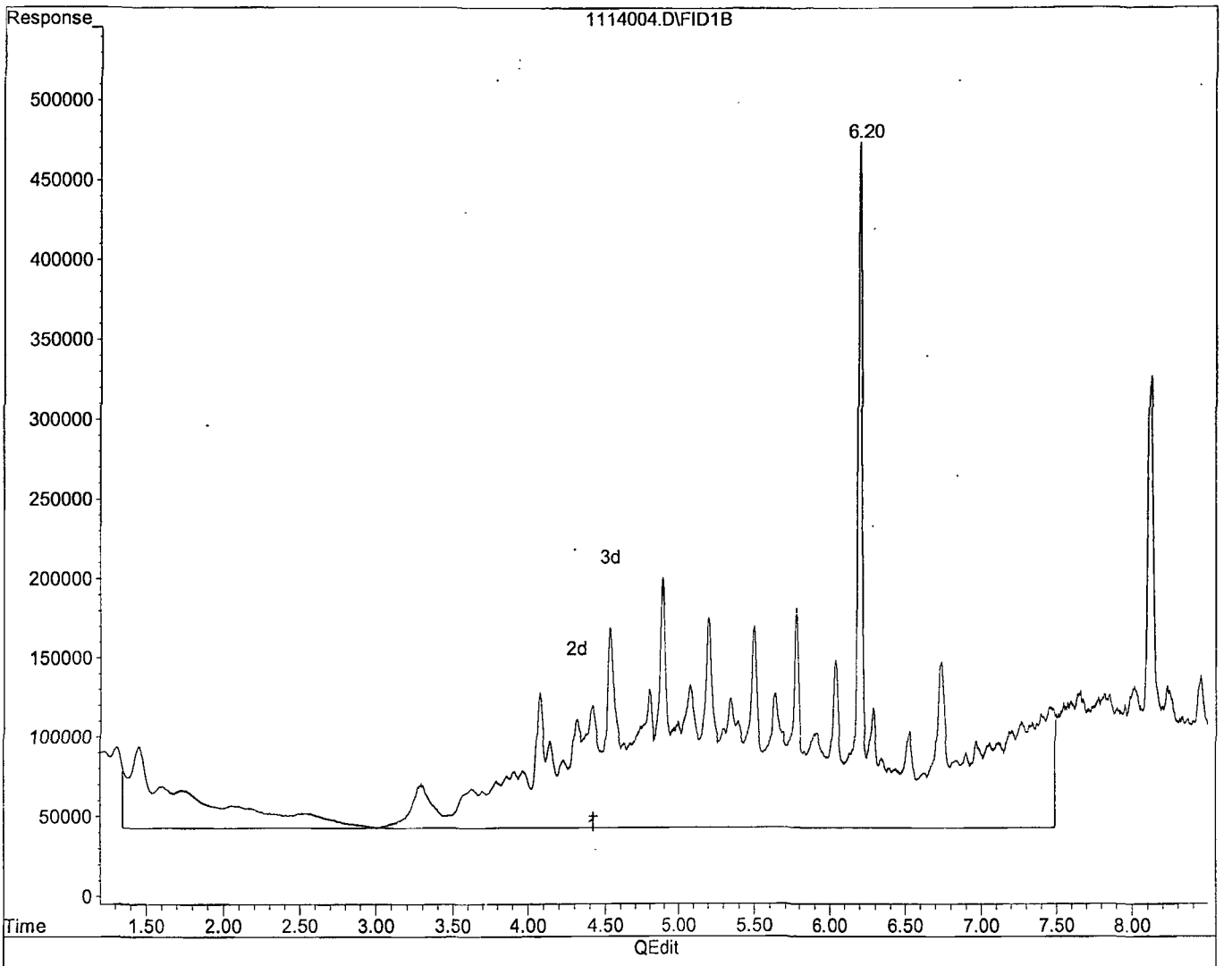


1114004.D DOC1114.M Fri Nov 15 09:32:37 2019

Quantitation Report

Data File : G:\APOLLO\DATA\191114\1114004.D Vial: 4
Acq On : 11-14-19 19:59:46 Operator: BT
Sample : Diesel Motor Oil - 2 11/14/19 Inst : Apollo
Misc : water Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 15 9:19 2019 Quant Results File: DOC1114.RES

Method : G:\APOLLO\DATA\191114\DOC1114.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Nov 15 09:19:04 2019
Response via : Multiple Level Calibration



(1) Diesel (C10-C24) (HATM)

4.42min 48.922ppb m

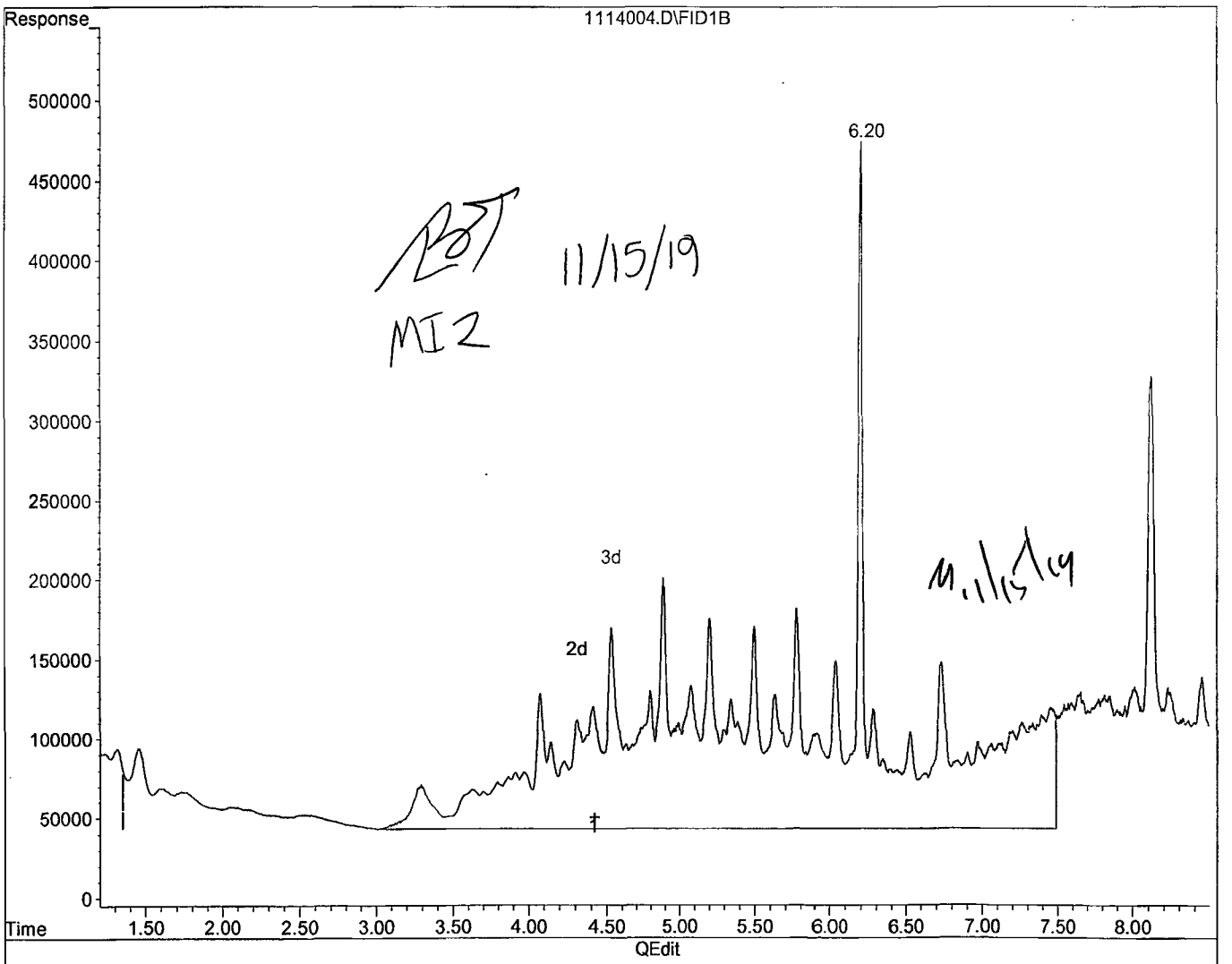
response 147576006

(+) = Expected Retention Time
1114004.D DOC1114.M Fri Nov 15 09:21:02 2019

Quantitation Report

Data File : G:\APOLLO\DATA\191114\1114004.D Vial: 4
Acq On : 11-14-19 19:59:46 Operator: BT
Sample : Diesel Motor Oil - 2 11/14/19 Inst : Apollo
Misc : water Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 15 9:19 2019 Quant Results File: DOC1114.RES

Method : G:\APOLLO\DATA\191114\DOC1114.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Nov 15 09:19:04 2019
Response via : Multiple Level Calibration



(1) Diesel (C10-C24) (HATM)

4.42min 44.304ppb m

response 133643009

(+) = Expected Retention Time

1114004.D DOC1114.M Fri Nov 15 09:21:28 2019

Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\191114\1114005.D Vial: 5
Acq On : 11-14-19 20:19:39 Operator: BT
Sample : Diesel Motor Oil - 3 11/14/19 Inst : Apollo
Misc : water Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 15 9:19 2019 Quant Results File: DOC1114.RES

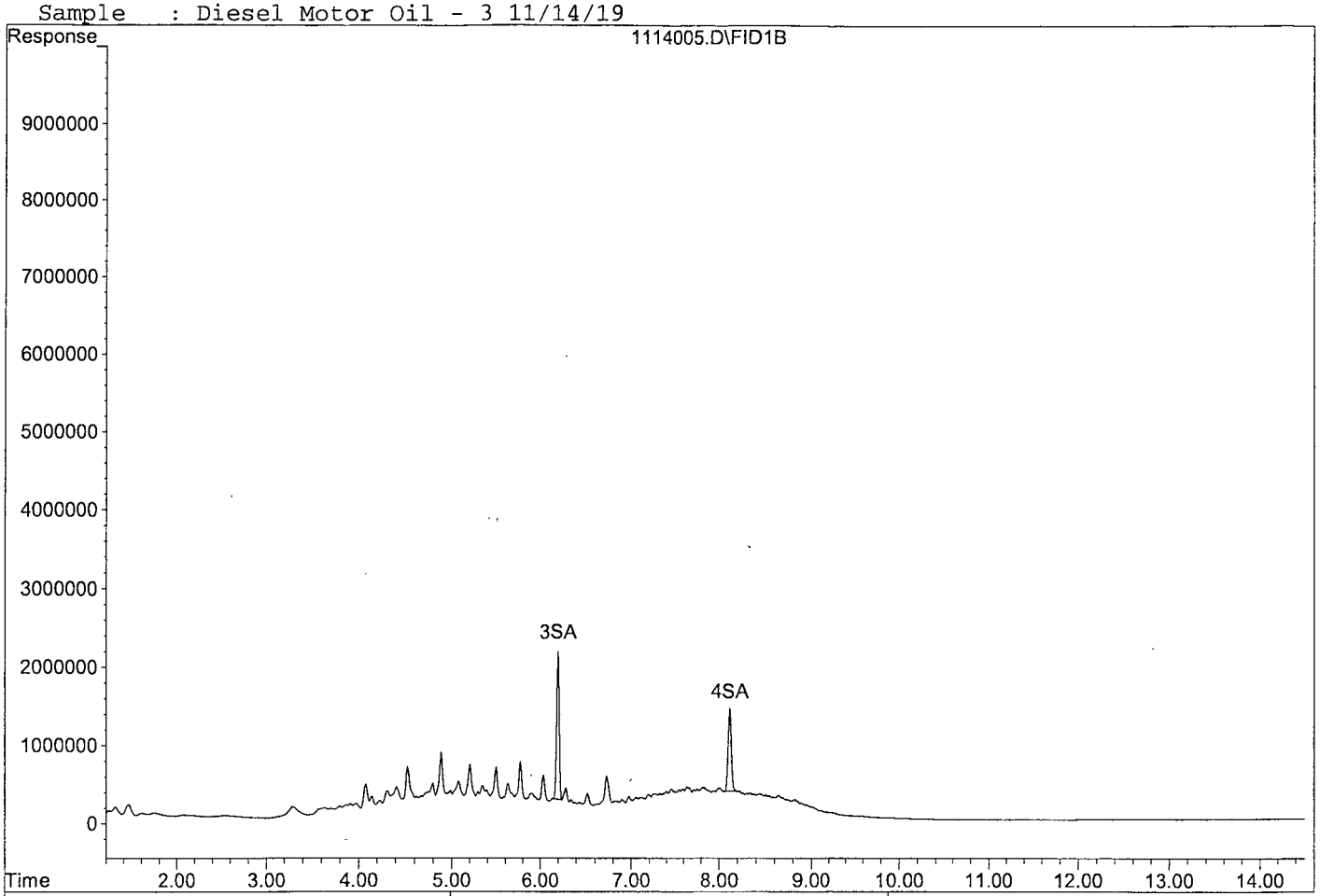
Method : G:\APOLLO\DATA\191114\DOC1114.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Nov 15 09:19:04 2019
Response via : Multiple Level Calibration

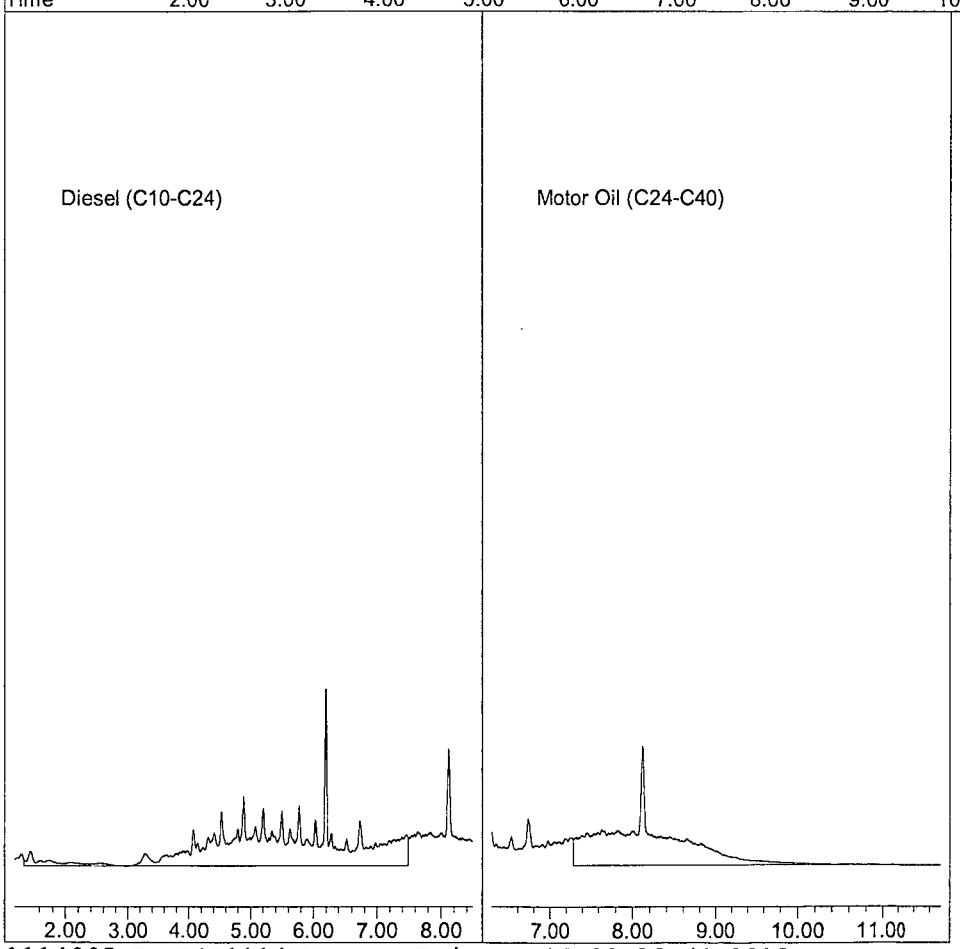
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) SA Ortho-Terphenyl(S)	6.20	37323483	12.416 ppb
Surrogate Spike 30.000	Recovery =		41.39%
4) SA Octacosane(S)	8.12	25262712	11.152 ppb
Surrogate Spike 30.000	Recovery =		37.17%
Target Compounds			
1) HATM Diesel (C10-C24)	4.42	744830742	246.917 ppb
2) HBTM Motor Oil (C24-C40)	9.01	385851504	245.190 ppb
Target Compounds			

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: G:\APOLLO\DATA\191114\1114005.D
Sample : Diesel Motor Oil - 3 11/14/19





Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\191114\1114006.D Vial: 6
Acq On : 11-14-19 20:39:34 Operator: BT
Sample : Diesel Motor Oil - 4 11/14/19 Inst : Apollo
Misc : water Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 15 9:19 2019 Quant Results File: DOC1114.RES

Method : G:\APOLLO\DATA\191114\DOC1114.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Nov 15 09:19:04 2019
Response via : Multiple Level Calibration

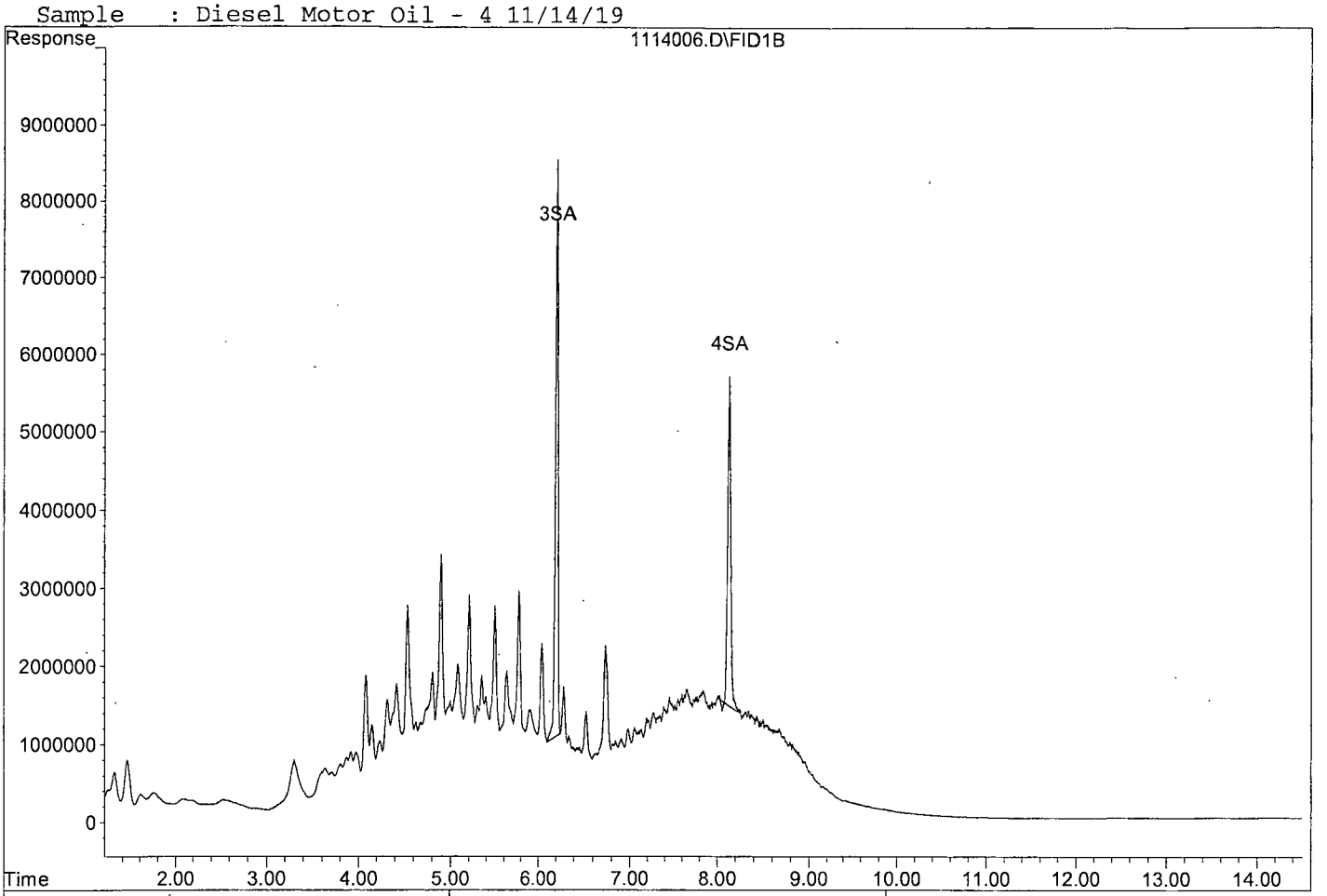
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

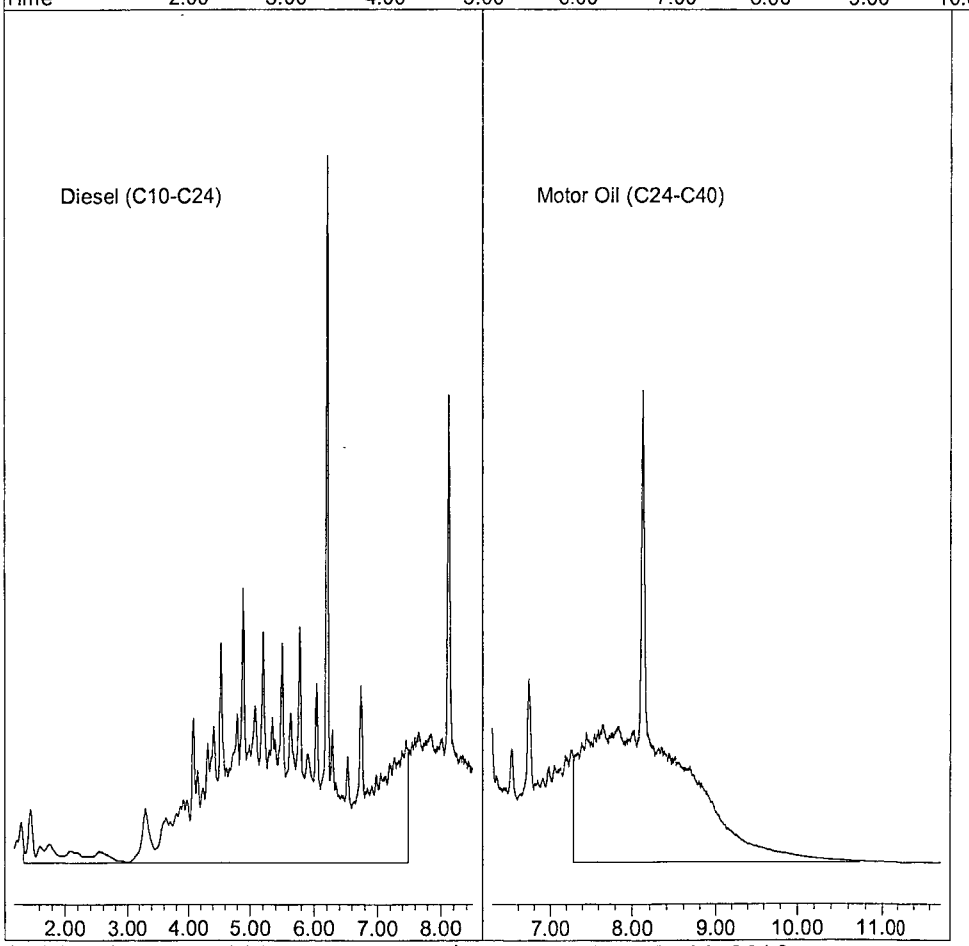
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) SA Ortho-Terphenyl(S)	6.21	151381863	54.183 ppb
Surrogate Spike 30.000	Recovery =		180.61%
4) SA Octacosane(S)	8.12	99731952	44.026 ppb
Surrogate Spike 30.000	Recovery =		146.75%
Target Compounds			
1) HATM Diesel (C10-C24)	4.42	2909060509	964.374 ppb
2) HBTM Motor Oil (C24-C40)	9.01	1488315692	945.751 ppb

Target Compounds

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: G:\APOLLO\DATA\191114\1114006.D
Sample : Diesel Motor Oil - 4 11/14/19





Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\191114\1114007.D Vial: 7
Acq On : 11-14-19 20:59:26 Operator: BT
Sample : Diesel Motor Oil - 5 11/14/19 Inst : Apollo
Misc : water Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 15 9:19 2019 Quant Results File: DOC1114.RES

Method : G:\APOLLO\DATA\191114\DOC1114.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Nov 15 09:19:04 2019
Response via : Multiple Level Calibration

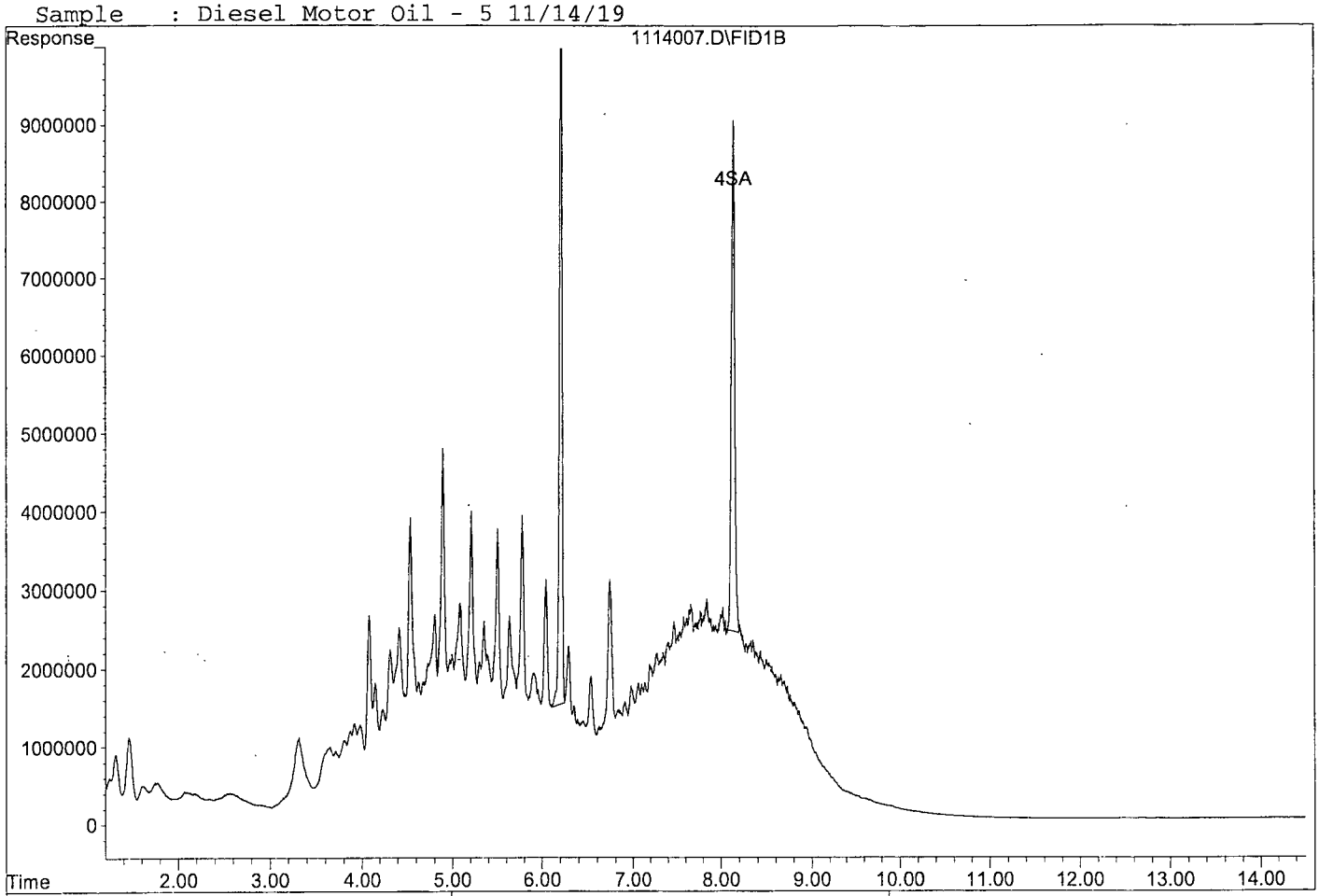
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

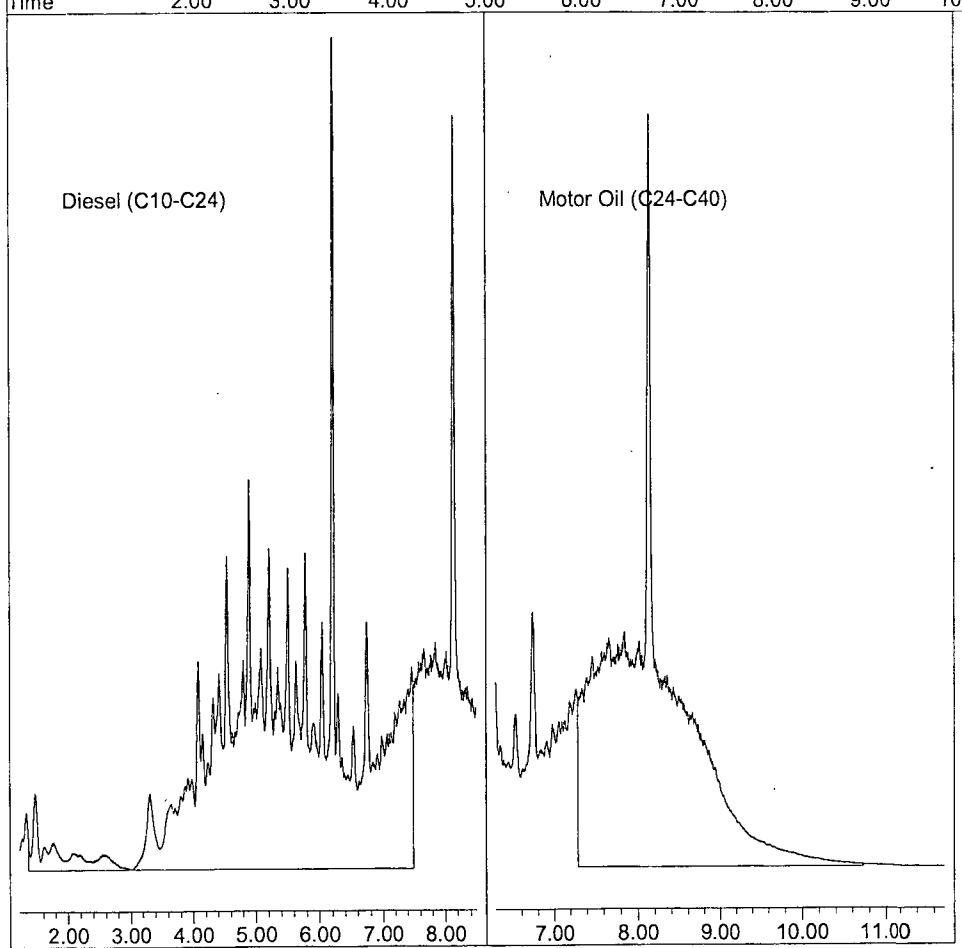
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) SA Ortho-Terphenyl(S)	6.21	206508954	74.370 ppb
Surrogate Spike 30.000	Recovery =		247.90%
4) SA Octacosane(S)	8.13	166754564	73.613 ppb
Surrogate Spike 30.000	Recovery =		245.38%
Target Compounds			
1) HATM Diesel (C10-C24)	4.42	4152339086	1376.529 ppb
2) HBTM Motor Oil (C24-C40)	9.01	2430112740	1544.216 ppb

Target Compounds

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: G:\APOLLO\DATA\191114\1114007.D
Sample : Diesel Motor Oil - 5 11/14/19





1114007.D DOC1114.M Fri Nov 15 09:32:47 2019

Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\191114\1114008.D Vial: 8
Acq On : 11-14-19 21:19:19 Operator: BT
Sample : Diesel Motor Oil - 6 11/14/19 Inst : Apollo
Misc : water Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 15 9:19 2019 Quant Results File: DOC1114.RES

Method : G:\APOLLO\DATA\191114\DOC1114.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Nov 15 09:19:04 2019
Response via : Multiple Level Calibration

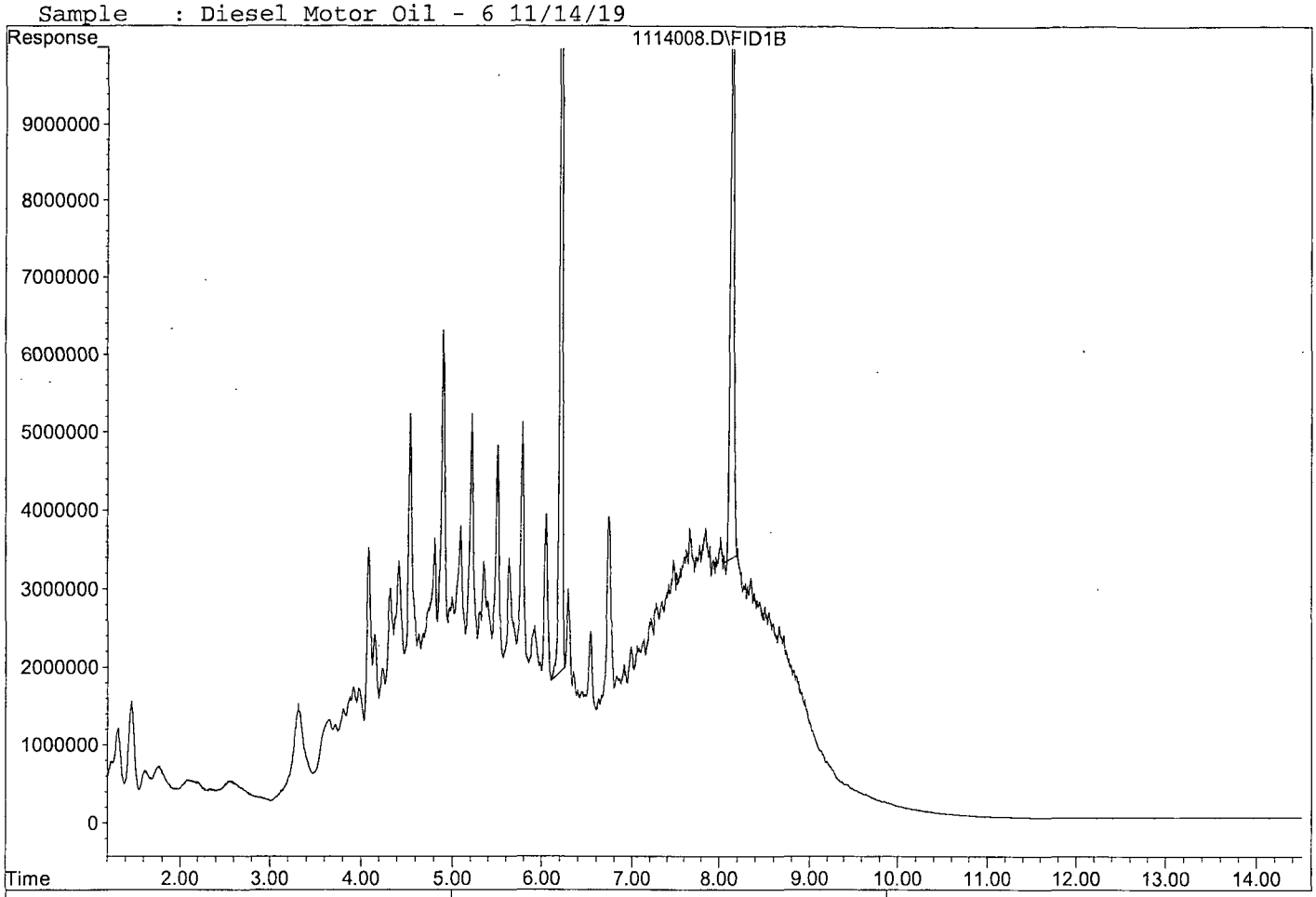
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

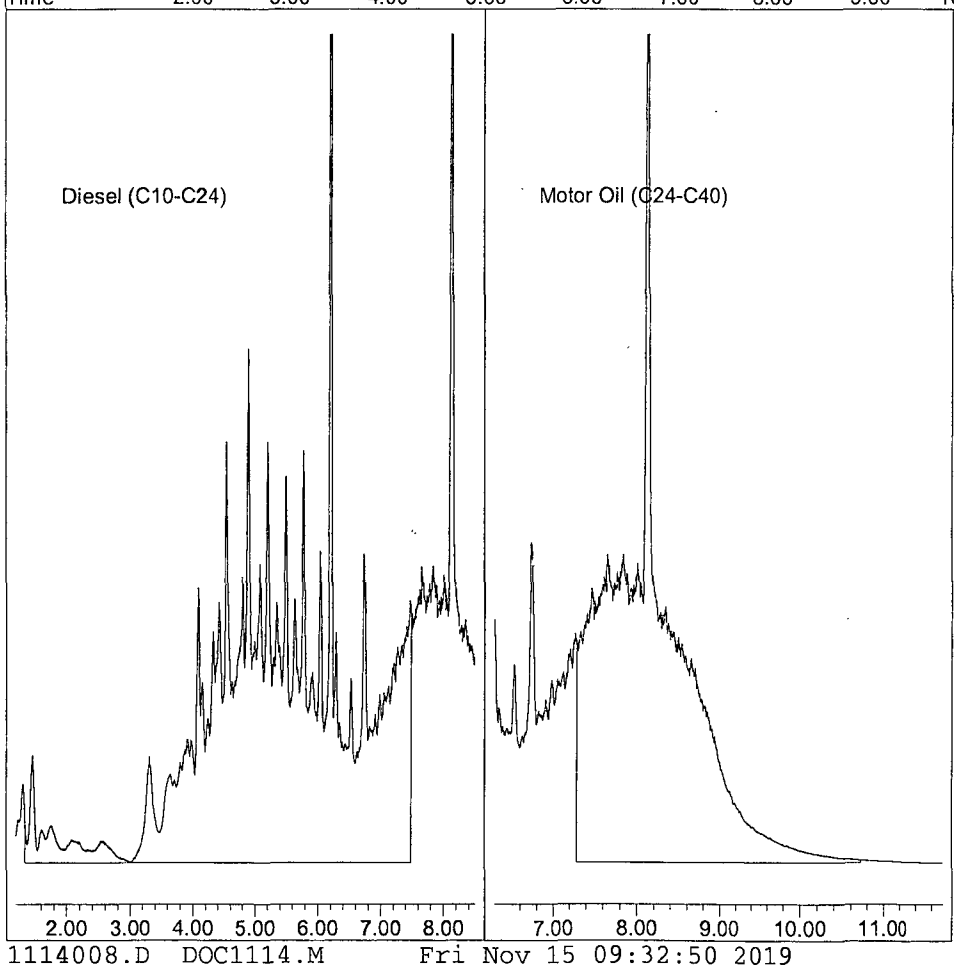
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) SA Ortho-Terphenyl(S)	6.21	272188350	98.421 ppb
Surrogate Spike 30.000		Recovery =	328.07%
4) SA Octacosane(S)	8.14	212897820	93.983 ppb
Surrogate Spike 30.000		Recovery =	313.28%
Target Compounds			
1) HATM Diesel (C10-C24)	4.42	5438788689	1802.996 ppb
2) HBTM Motor Oil (C24-C40)	9.01	3195039251	2030.289 ppb

Target Compounds

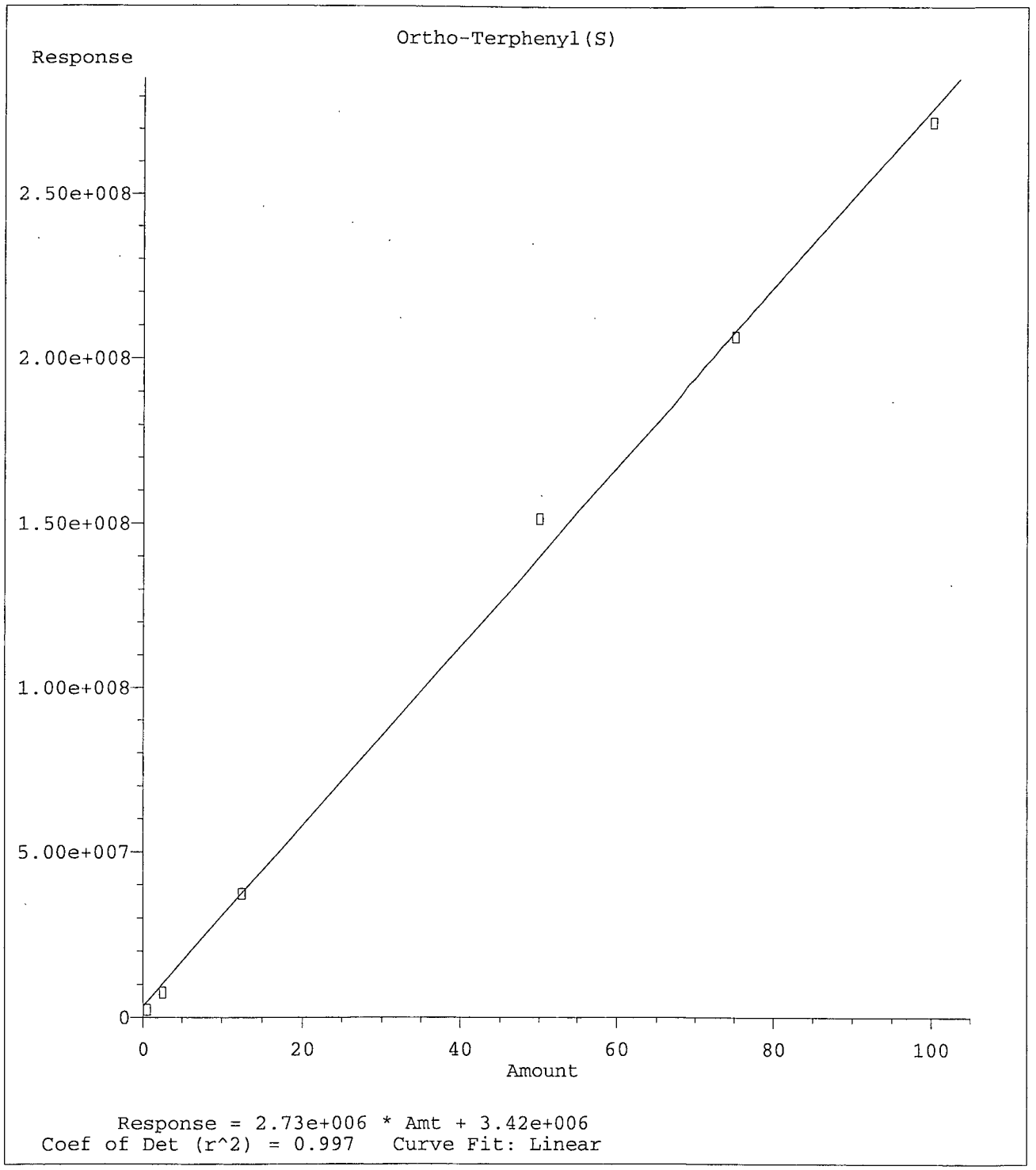
(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: G:\APOLLO\DATA\191114\1114008.D
Sample : Diesel Motor Oil - 6 11/14/19





1114008.D DOC1114.M Fri Nov 15 09:32:50 2019 Page 2



Method Name: G:\APOLLO\DATA\191114\DOC1114.M
Calibration Table Last Updated: Fri Nov 15 09:19:04 2019

TPH Extractables
DOC1114

Form 7

Second Source Calibration

Lab Name: APPL, Inc.
Case No:
Matrix: Water

SDG No:
Date Analyzed: 11/14/19
Instrument: Apollo
Initial Cal. Date: 11/14/19
Data File: 1114009.D

		Compound	MEAN	CCRF	%D		%Drift
1	HATM	Diesel (C10-C24)	1508730	1766620	17	HATM	
2	HBTM	Motor Oil (C24-C40)	786843	841695	7.0	HBTM	
3							
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39							
40							
		Average			12.0		

Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\191114\1114009.D Vial: 9
Acq On : 11-14-19 21:39:10 Operator: BT
Sample : Diesel Motor Oil Second Source 1/15/19 Inst : Apollo
Misc : water Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 15 9:29 2019 Quant Results File: DOC1114.RES

Method : G:\APOLLO\DATA\191114\DOC1114.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Nov 15 09:19:04 2019
Response via : Multiple Level Calibration

Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

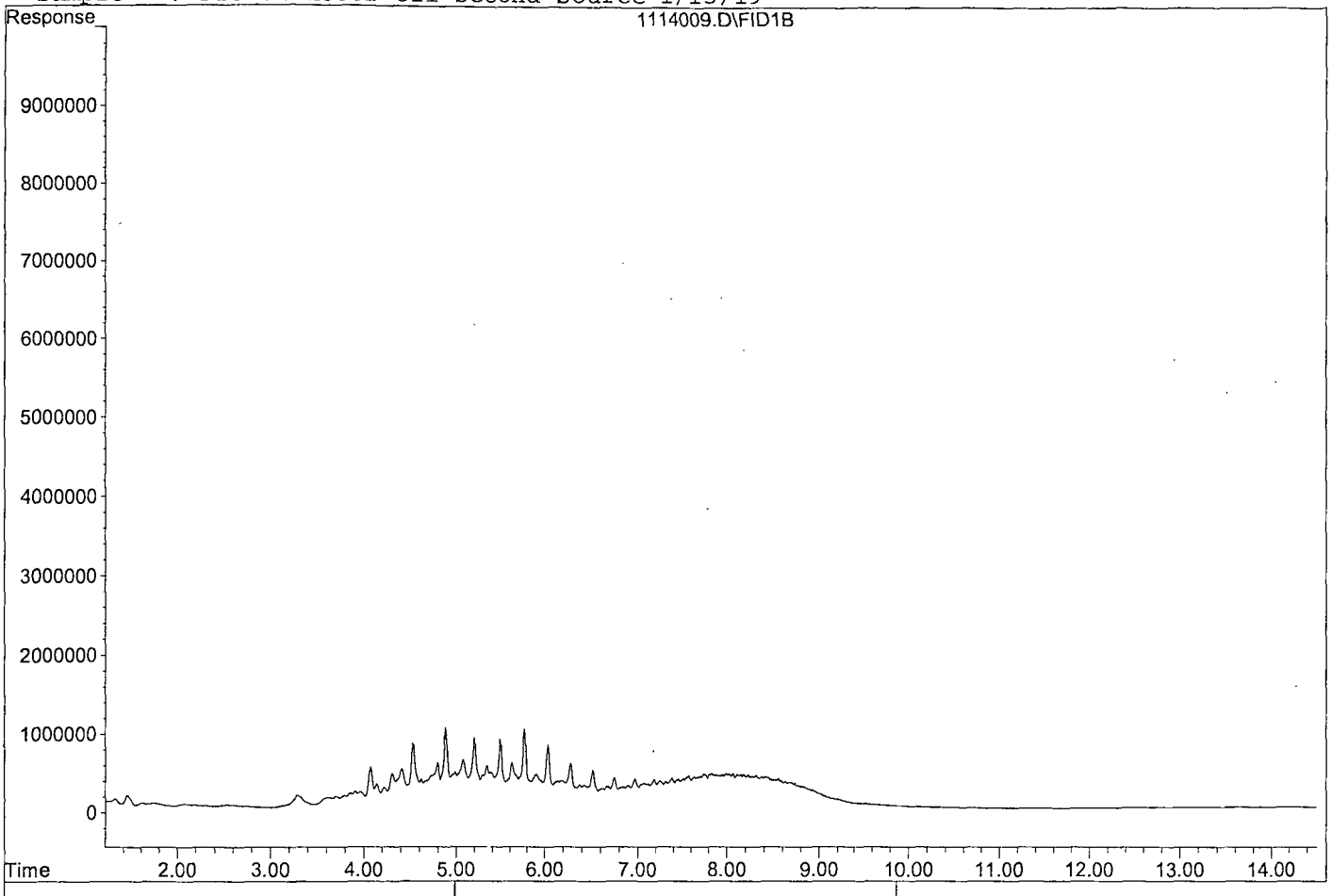
Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds					
3) SA Ortho-Terphenyl(S)	0.00	0	N.D.	ppb	d
Surrogate Spike 30.000	Recovery	=	0.00%		
4) SA Octacosane(S)	0.00	0	N.D.	ppb	d
Surrogate Spike 30.000	Recovery	=	0.00%		
Target Compounds					
1) HATM Diesel (C10-C24)	4.42	883311718	292.733	ppb	
2) HBTM Motor Oil (C24-C40)	9.01	420847463	267.428	ppb	

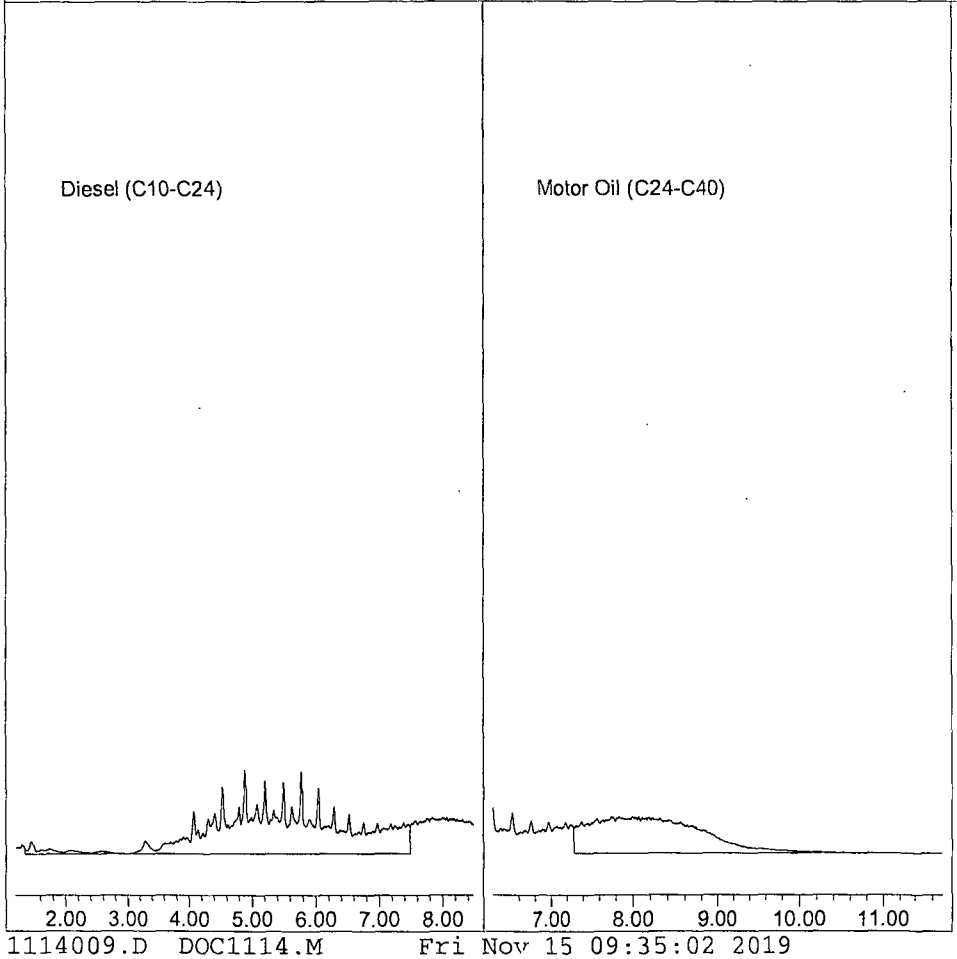
Target Compounds

(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File: G:\APOLLO\DATA\191114\1114009.D
Sample : Diesel Motor Oil Second Source 1/15/19





TPH Extractables
DOC1114

Form 7

Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix: Water

SDG No:
Date Analyzed: 11/21/19
Instrument: Apollo
Initial Cal. Date: 11/14/19
Data File: 1121016.D

		Compound	MEAN	CCRF	%D	%Drift	
1	HATM	Diesel (C10-C24)	1508730	1442120	4.4	HATM	
2	HBTM	Motor Oil (C24-C40)	786843	711145	9.6	HBTM	
3	SAL	Ortho-Terphenyl(S)	1599120	1490340	6.8	SAL	0.86
4	SA	Octacosane(S)	1132640	1013280	11	SA	
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		Average			8.0		

Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\191121\1121016.D Vial: 16
Acq On : 11-21-19 14:12:55 Operator: BT
Sample : Diesel Motor Oil CCV 11/14/19 Inst : Apollo
Misc : water Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 21 17:20 2019 Quant Results File: DOC1114.RES

Method : G:\APOLLO\DATA\191114\DOC1114.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Nov 15 09:19:04 2019
Response via : Multiple Level Calibration

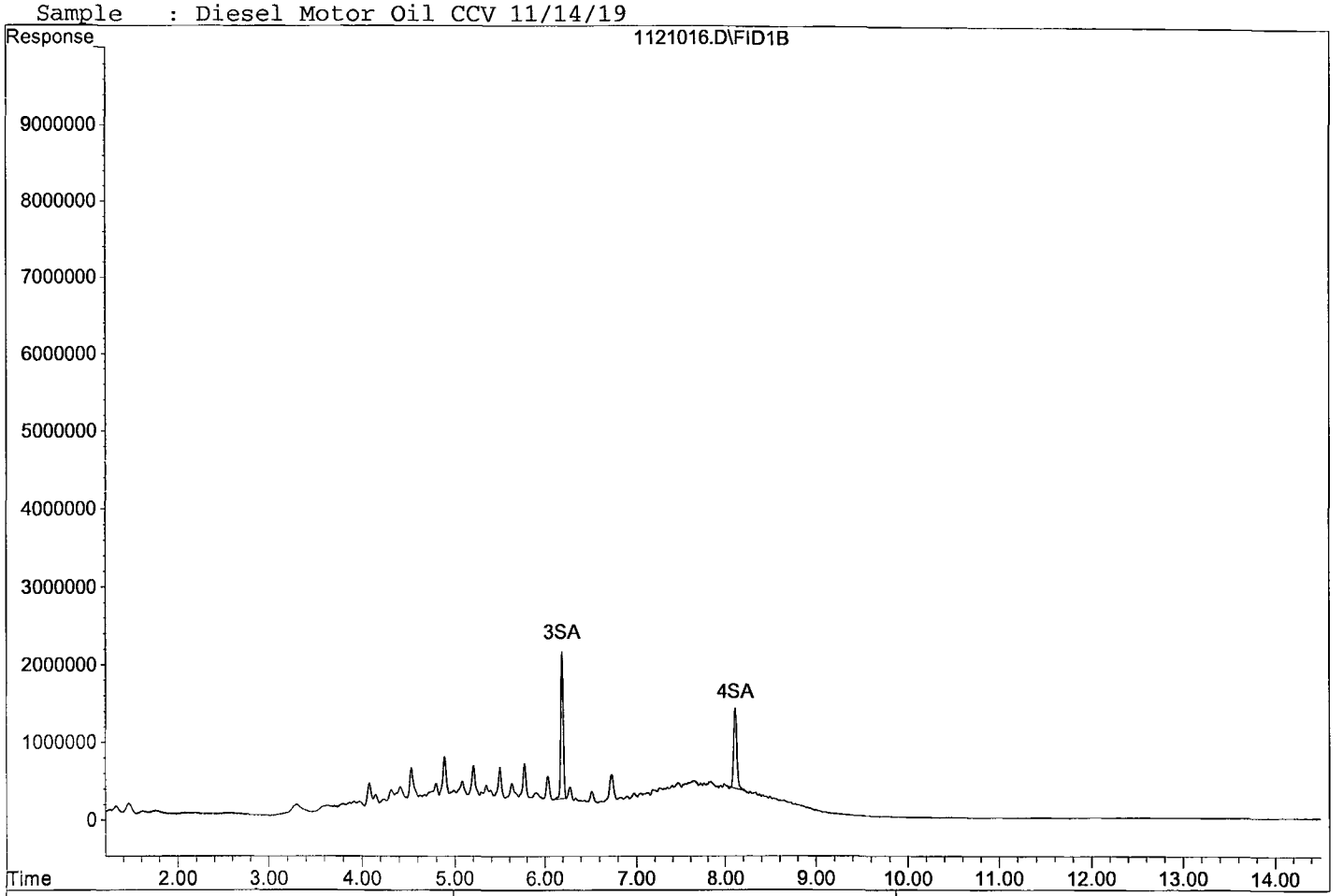
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

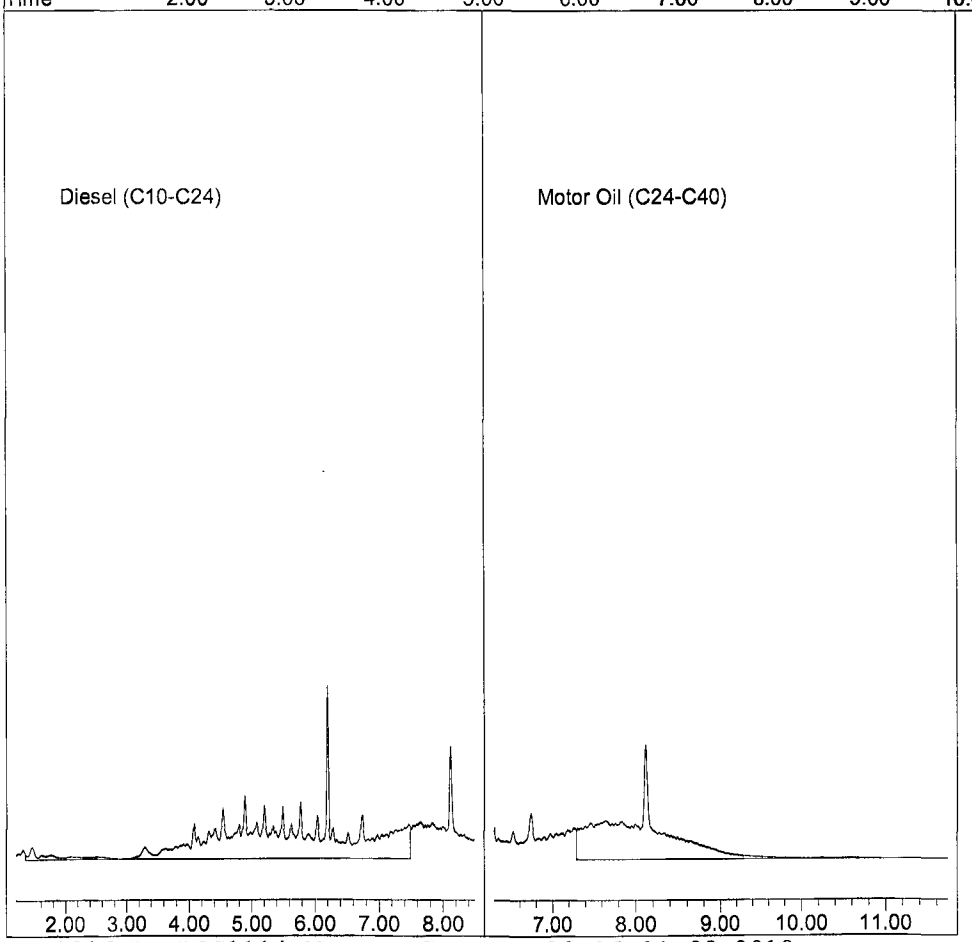
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) SA Ortho-Terphenyl(S)	6.20	37258476	12.392 ppb
Surrogate Spike 30.000	Recovery =		41.31%
4) SA Octacosane(S)	8.12	25331931	11.183 ppb
Surrogate Spike 30.000	Recovery =		37.28%
Target Compounds			
1) HATM Diesel (C10-C24)	4.42	721058398	238.962 ppb
2) HBTM Motor Oil (C24-C40)	9.01	355572350	225.949 ppb

Target Compounds

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: G:\APOLLO\DATA\191121\1121016.D
Sample : Diesel Motor Oil CCV 11/14/19





TPH Extractables
DOC1114

Form 7

Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix: Water

SDG No:
Date Analyzed: 11/21/19
Instrument: Apollo
Initial Cal. Date: 11/14/19
Data File: 1121032.D

		Compound	MEAN	CCRF	%D		%Drift
1	HATM	Diesel (C10-C24)	1508730	1474930	2.2	HATM	
2	HBTM	Motor Oil (C24-C40)	786843	720400	8.4	HBTM	
3	SAL	Ortho-Terphenyl(S)	1599120	1504260	5.9	SAL	0.16
4	SA	Octacosane(S)	1132640	1018580	10	SA	
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39							
40							
		Average			6.6		

Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\191121\1121032.D Vial: 32
Acq On : 11-21-19 19:32:24 Operator: BT
Sample : Diesel Motor Oil CCV 11/14/19 Inst : Apollo
Misc : water Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 22 6:41 2019 Quant Results File: DOC1114.RES

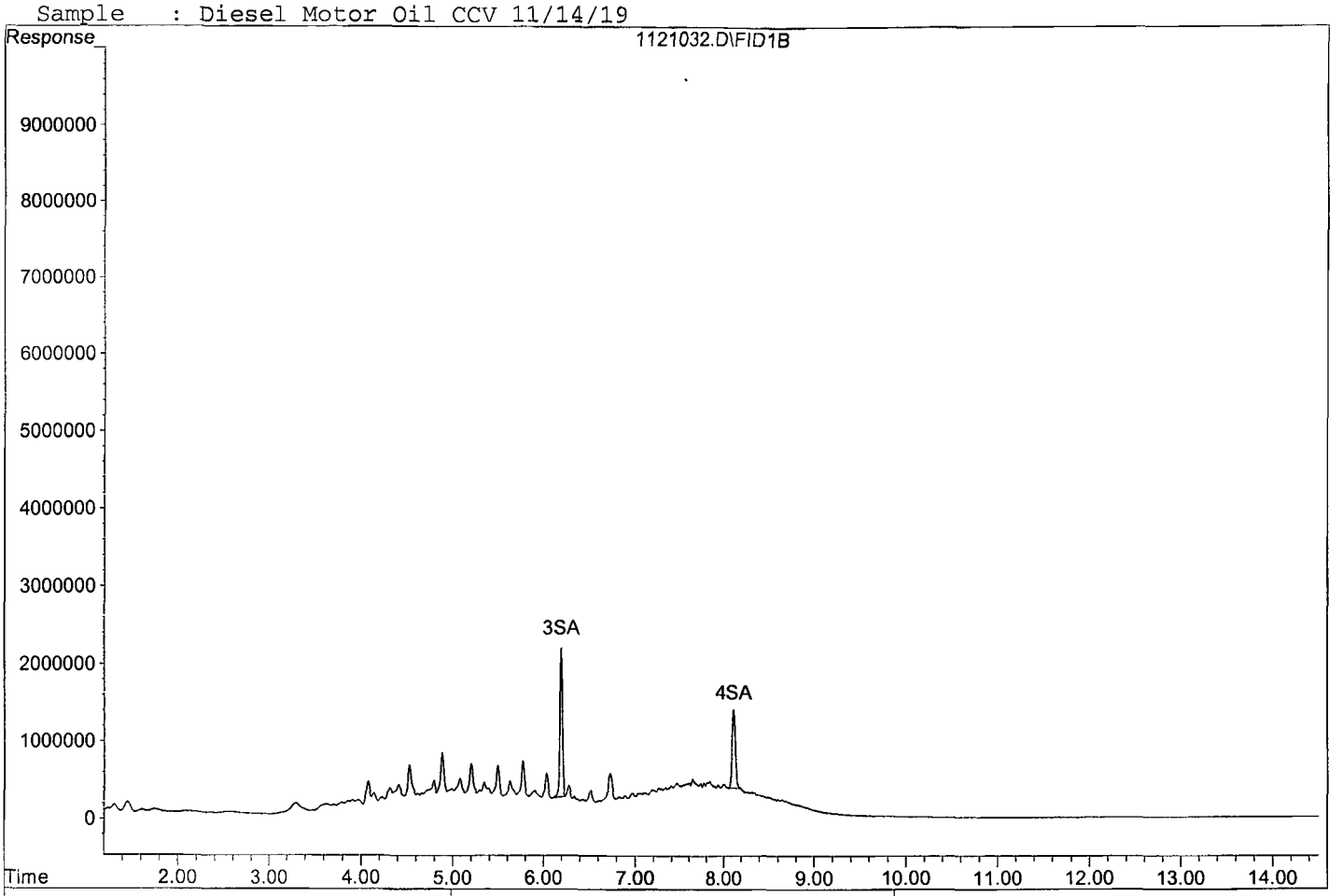
Method : G:\APOLLO\DATA\191114\DOC1114.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Nov 15 09:19:04 2019
Response via : Multiple Level Calibration

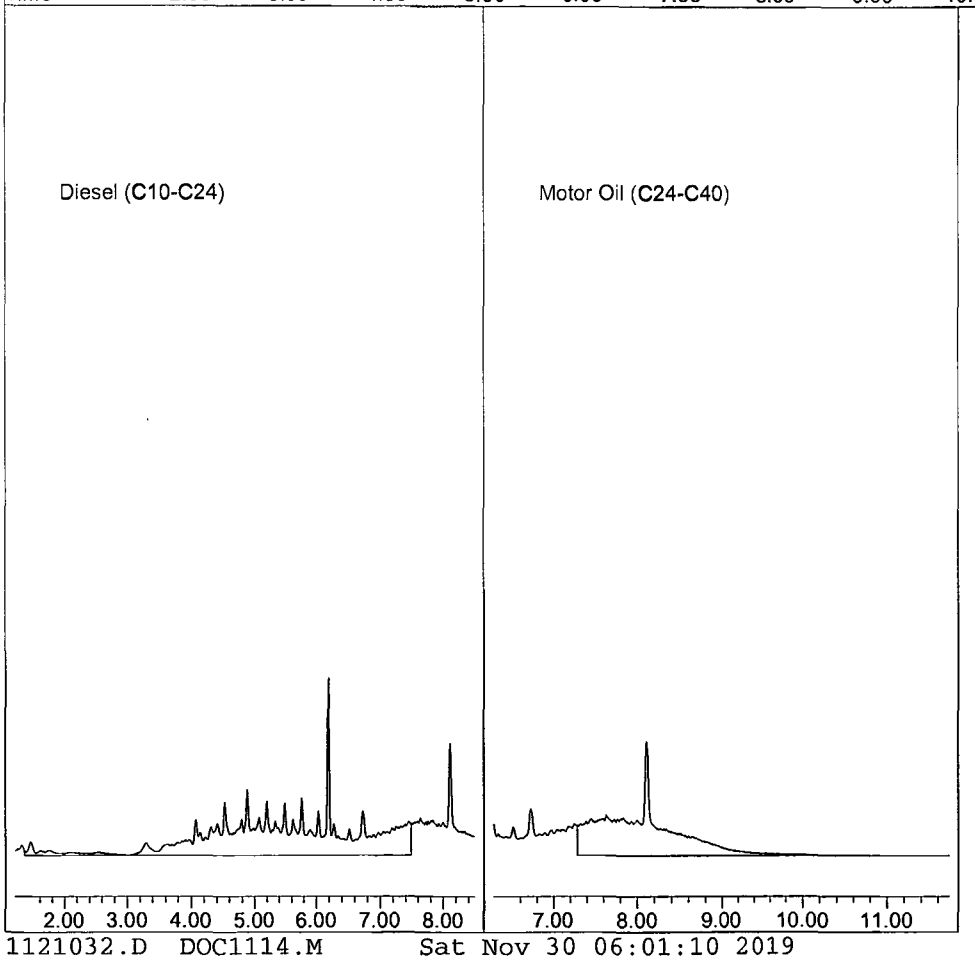
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) SA Ortho-Terphenyl(S)	6.20	37606466	12.519 ppb
Surrogate Spike 30.000	Recovery =		41.73%
4) SA Octacosane(S)	8.11	25464379	11.241 ppb
Surrogate Spike 30.000	Recovery =		37.47%
Target Compounds			
1) HATM Diesel (C10-C24)	4.42	737462941	244.398 ppb
2) HBTM Motor Oil (C24-C40)	9.01	360200103	228.889 ppb
Target Compounds			

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: G:\APOLLO\DATA\191121\1121032.D
Sample : Diesel Motor Oil CCV 11/14/19





1121032.D DOC1114.M Sat Nov 30 06:01:10 2019 Page 2

ORGANICS
Raw Data

Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\191121\1121027.D Vial: 27
Acq On : 11-21-19 17:53:41 Operator: BT
Sample : BA02466W19 2/800 Inst : Apollo
Misc : water Multiplr: 2.50
IntFile : events.e
Quant Time: Nov 30 5:58 2019 Quant Results File: DOC1114.RES

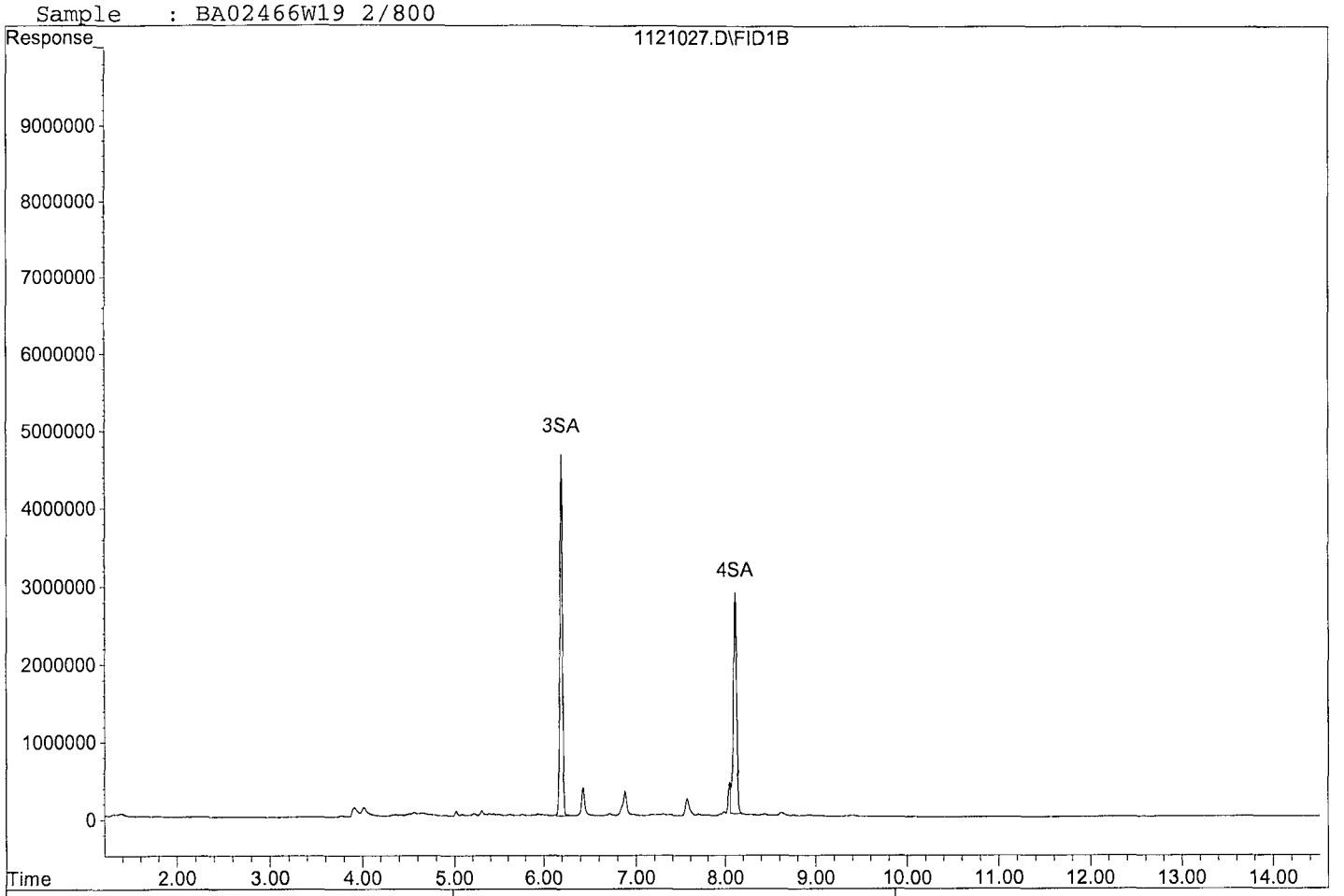
Method : G:\APOLLO\DATA\191114\DOC1114.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Nov 15 09:19:04 2019
Response via : Multiple Level Calibration

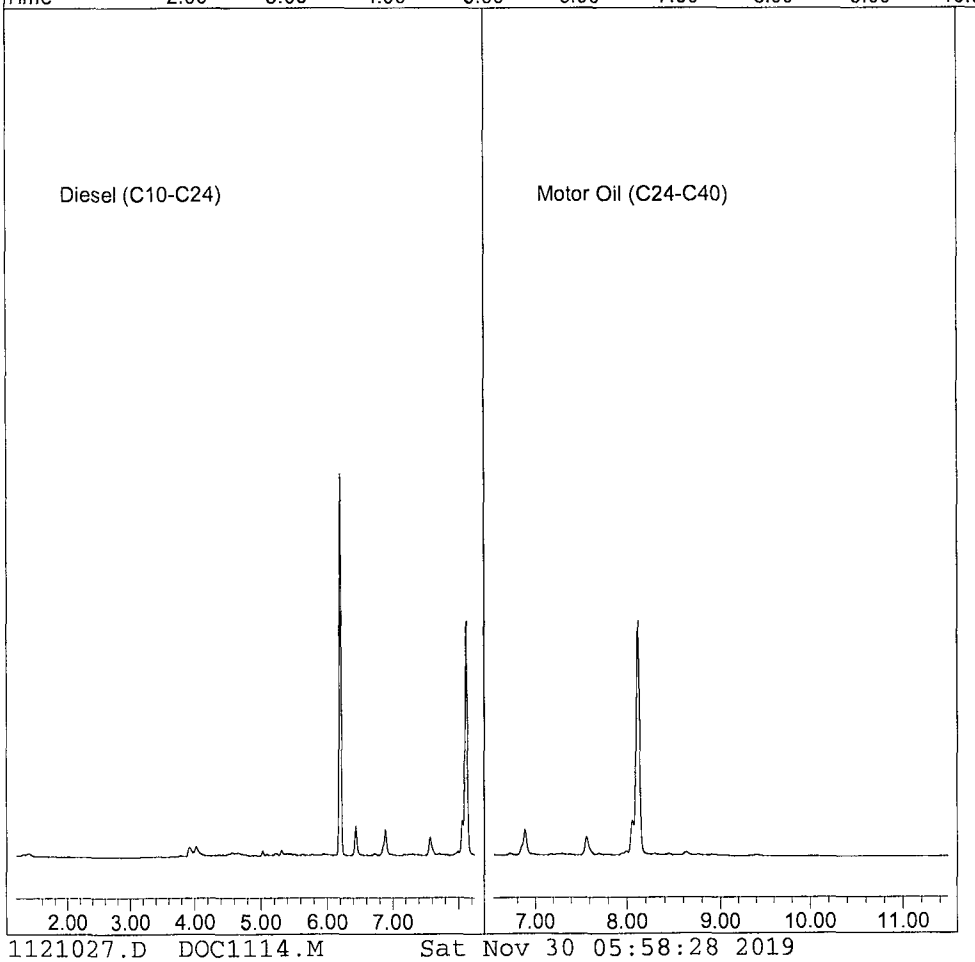
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds					
3) SA Ortho-Terphenyl(S)	6.20	91847720	80.955	ppb	
Surrogate Spike 75.000	Recovery =		107.94%		
4) SA Octacosane(S)	8.12	71777924	79.215	ppb	m
Surrogate Spike 75.000	Recovery =		105.62%		
Target Compounds					
Target Compounds					
1) HATM Diesel (C10-C24)	0.00	0	N.D.	ppb	
2) HBTM Motor Oil (C24-C40)	0.00	0	N.D.	ppb	

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: G:\APOLLO\DATA\191121\1121027.D
Sample : BA02466W19 2/800



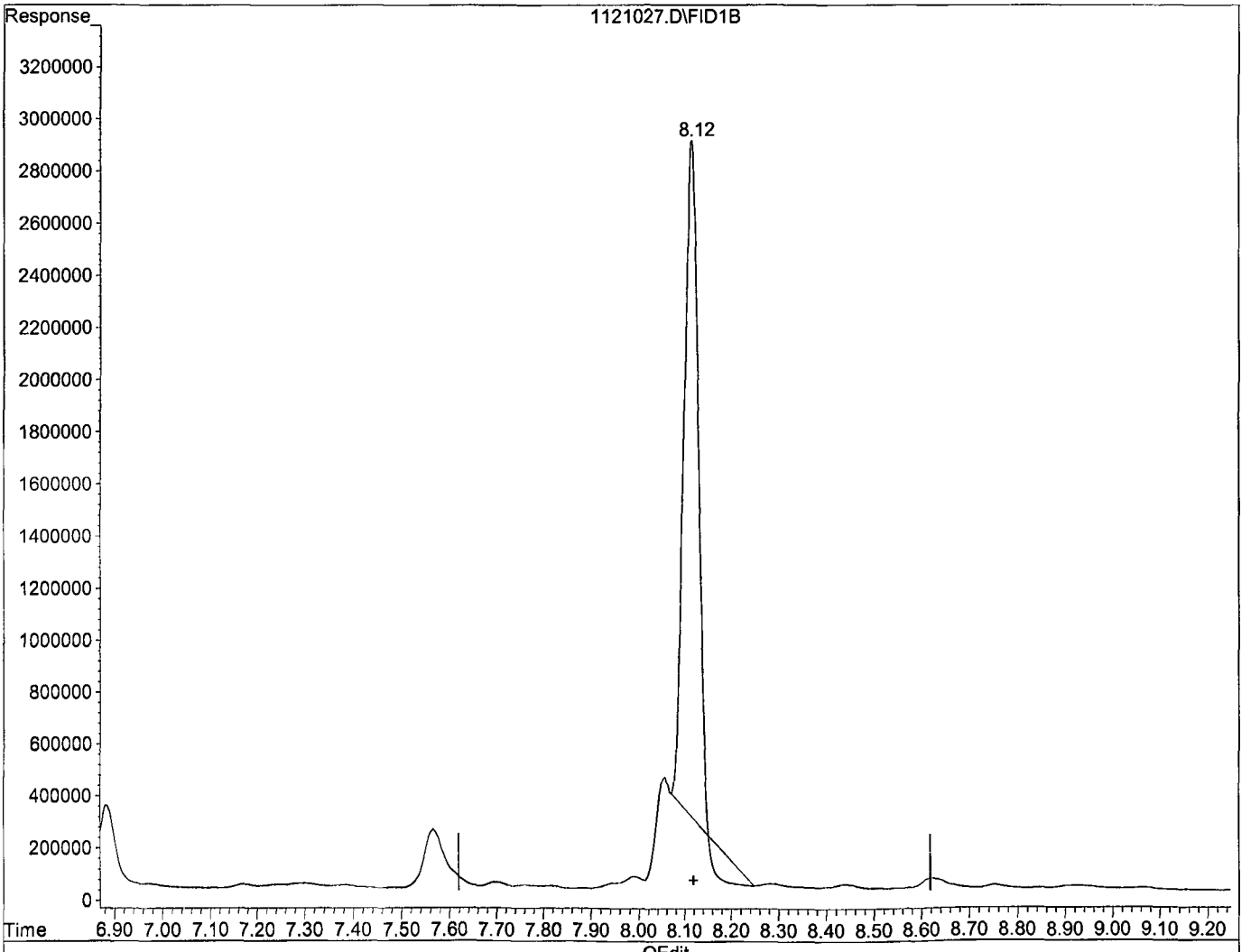


1121027.D DOC1114.M Sat Nov 30 05:58:28 2019 Page 2

Quantitation Report

Data File : G:\APOLLO\DATA\191121\1121027.D Vial: 27
Acq On : 11-21-19 17:53:41 Operator: BT
Sample : BA02466W19 2/800 Inst : Apollo
Misc : water Multiplr: 2.50
IntFile : events.e
Quant Time: Nov 30 5:55 2019 Quant Results File: DOC1114.RES

Method : G:\APOLLO\DATA\191114\DOC1114.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Nov 15 09:19:04 2019
Response via : Multiple Level Calibration



(4) Octacosane(S) (SA)

8.12min 58.860ppb

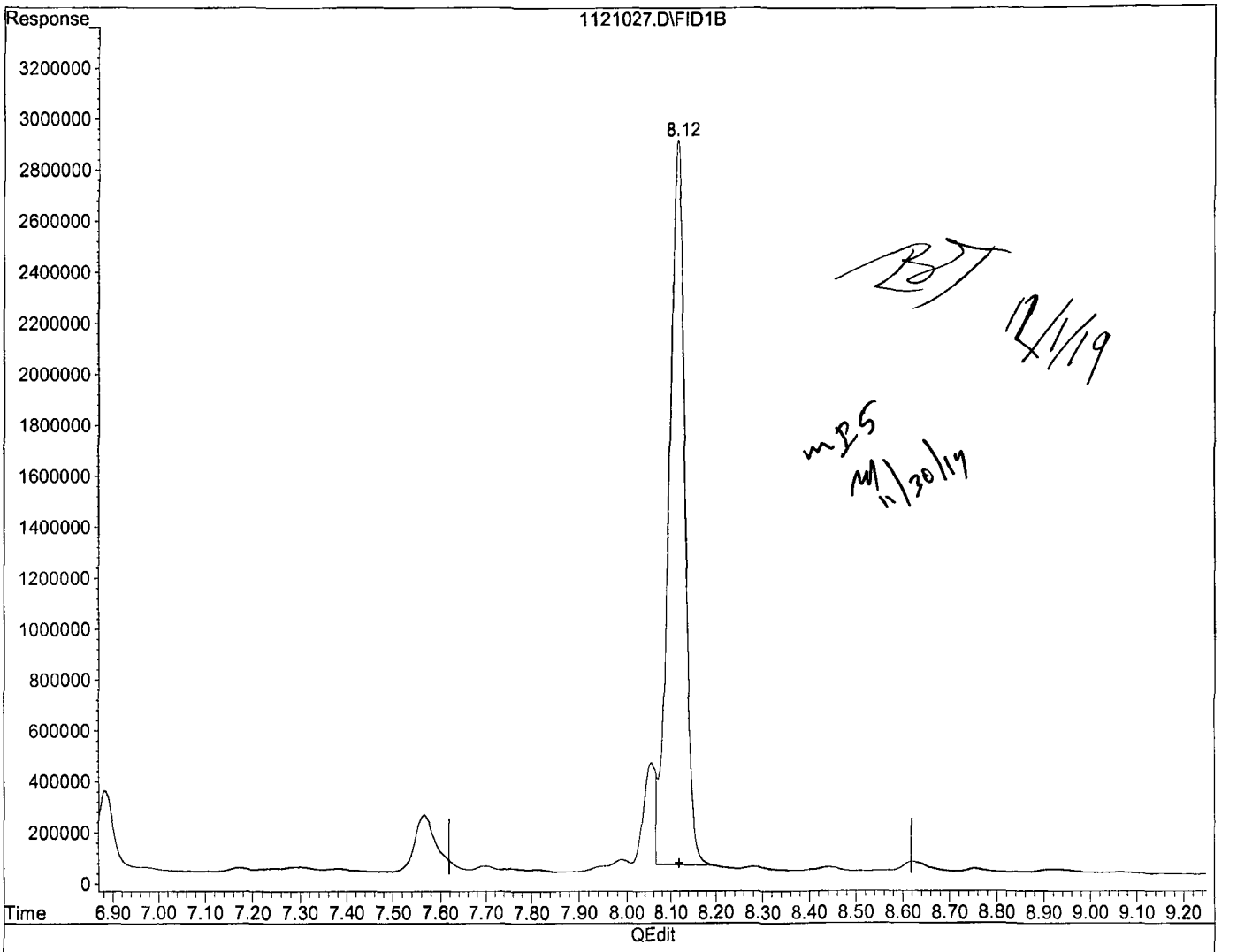
response 53333837

(+) = Expected Retention Time

Quantitation Report

Data File : G:\APOLLO\DATA\191121\1121027.D Vial: 27
Acq On : 11-21-19 17:53:41 Operator: BT
Sample : BA02466W19 2/800 Inst : Apollo
Misc : water Multiplr: 2.50
IntFile : events.e
Quant Time: Nov 30 5:55 2019 Quant Results File: DOC1114.RES

Method : G:\APOLLO\DATA\191114\DOC1114.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Nov 15 09:19:04 2019
Response via : Multiple Level Calibration



(4) Octacosane(S) (SA)

8.12min 79.215ppb m

response 71777924

(+) = Expected Retention Time
1121027.D DOC1114.M Sat Nov 30 05:58:19 2019

Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\191121\1121024.D Vial: 24
Acq On : 11-21-19 16:53:36 Operator: BT
Sample : 191111A BLK 2/800 Inst : Apollo
Misc : water Multiplr: 2.50
IntFile : events.e
Quant Time: Nov 30 5:56 2019 Quant Results File: DOC1114.RES

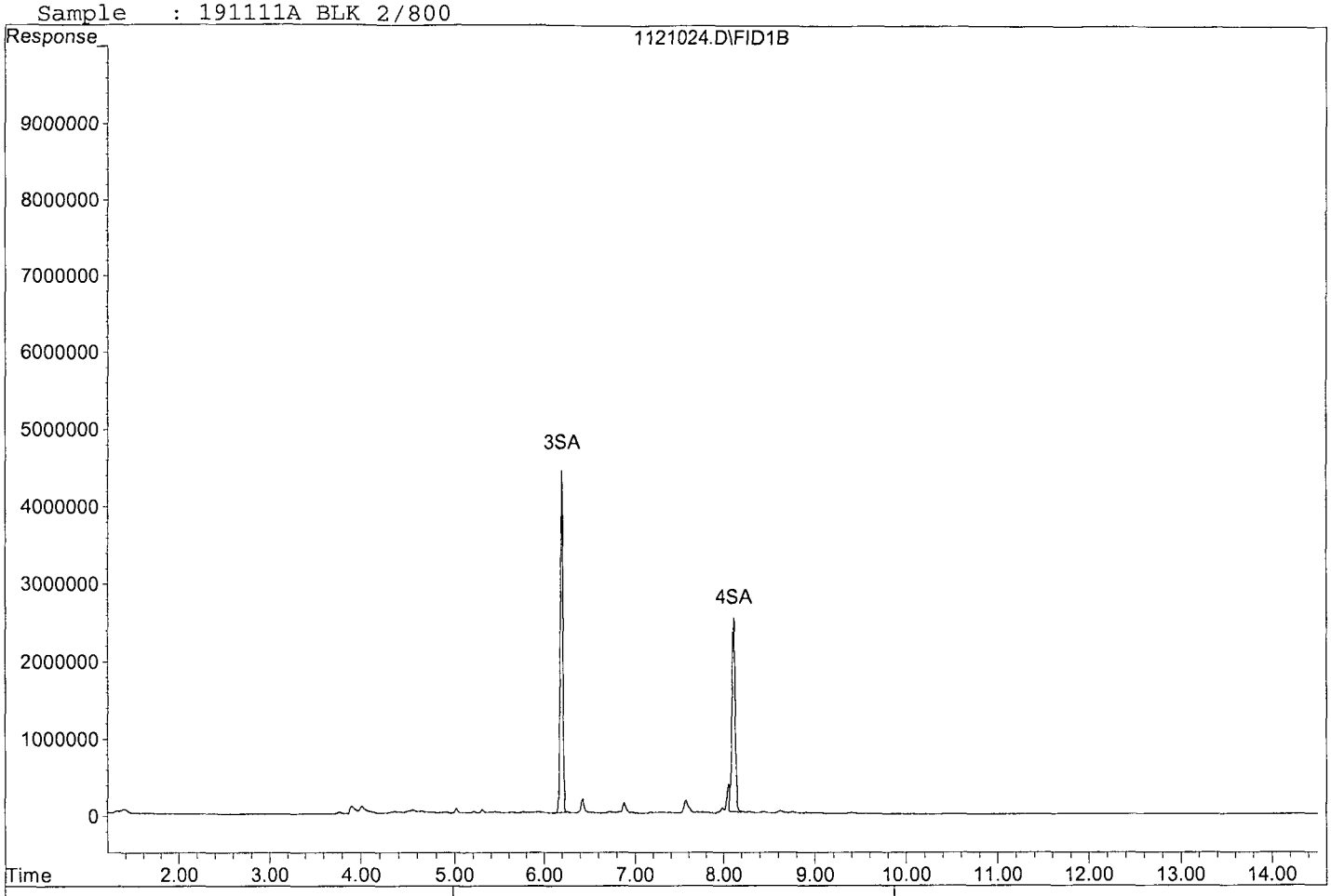
Method : G:\APOLLO\DATA\191114\DOC1114.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Nov 15 09:19:04 2019
Response via : Multiple Level Calibration

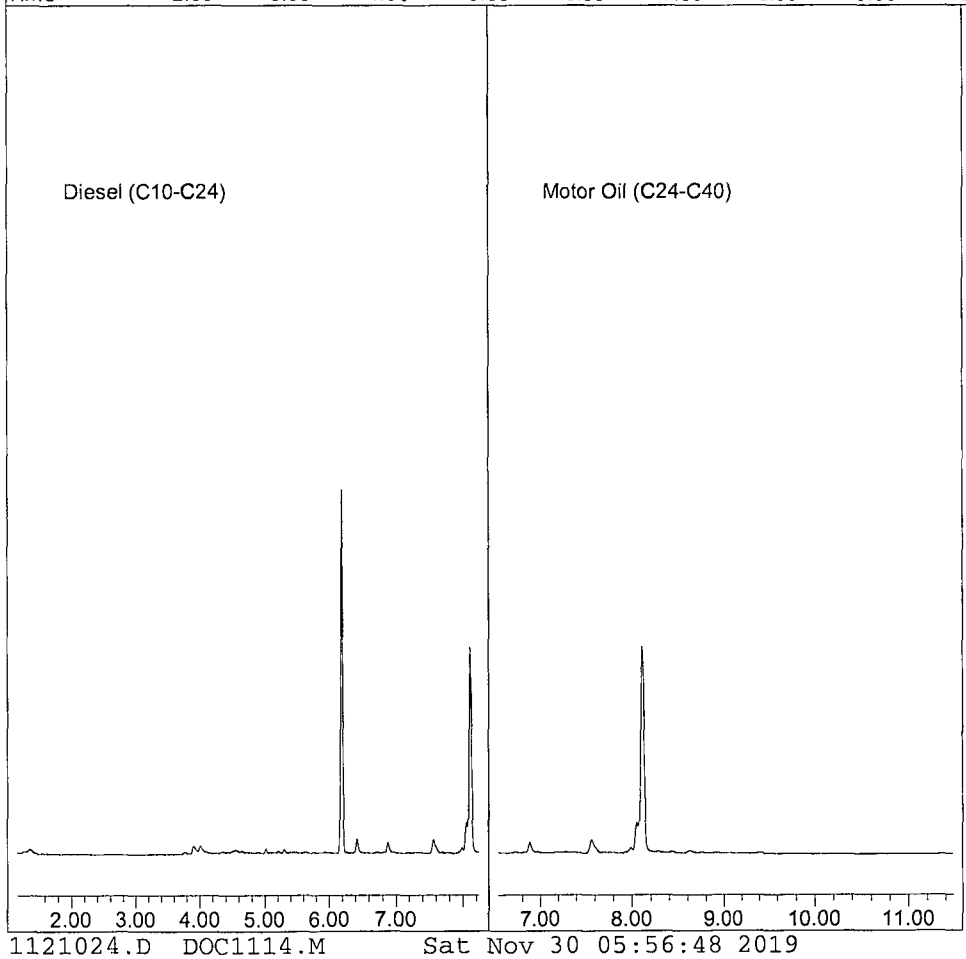
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds					
3) SA Ortho-Terphenyl(S)	6.20	85585588	75.222	ppb	
Surrogate Spike 75.000	Recovery =		100.30%		
4) SA Octacosane(S)	8.11	64507936	71.192	ppb	m
Surrogate Spike 75.000	Recovery =		94.92%		
Target Compounds					
Target Compounds					
1) HATM Diesel (C10-C24)	0.00	0	N.D.	ppb	
2) HBTM Motor Oil (C24-C40)	0.00	0	N.D.	ppb	

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: G:\APOLLO\DATA\191121\1121024.D
Sample : 191111A BLK 2/800



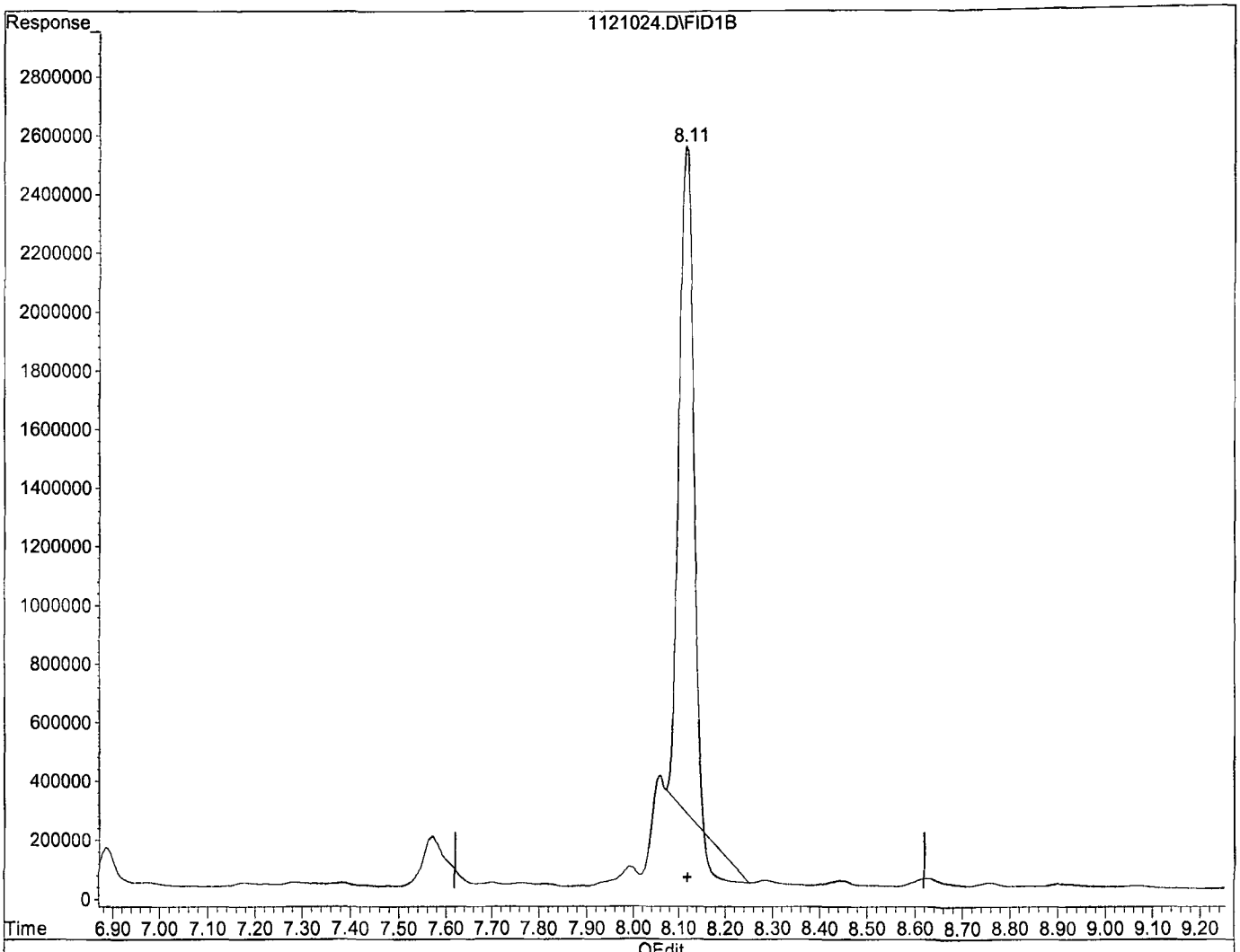


1121024.D DOC1114.M Sat Nov 30 05:56:48 2019 Page 2

Quantitation Report

Data File : G:\APOLLO\DATA\191121\1121024.D Vial: 24
Acq On : 11-21-19 16:53:36 Operator: BT
Sample : 191111A BLK 2/800 Inst : Apollo
Misc : water Multiplr: 2.50
IntFile : events.e
Quant Time: Nov 30 5:55 2019 Quant Results File: DOC1114.RES

Method : G:\APOLLO\DATA\191114\DOC1114.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Nov 15 09:19:04 2019
Response via : Multiple Level Calibration



(4) Octacosane(S) (SA)

8.12min 52.360ppb

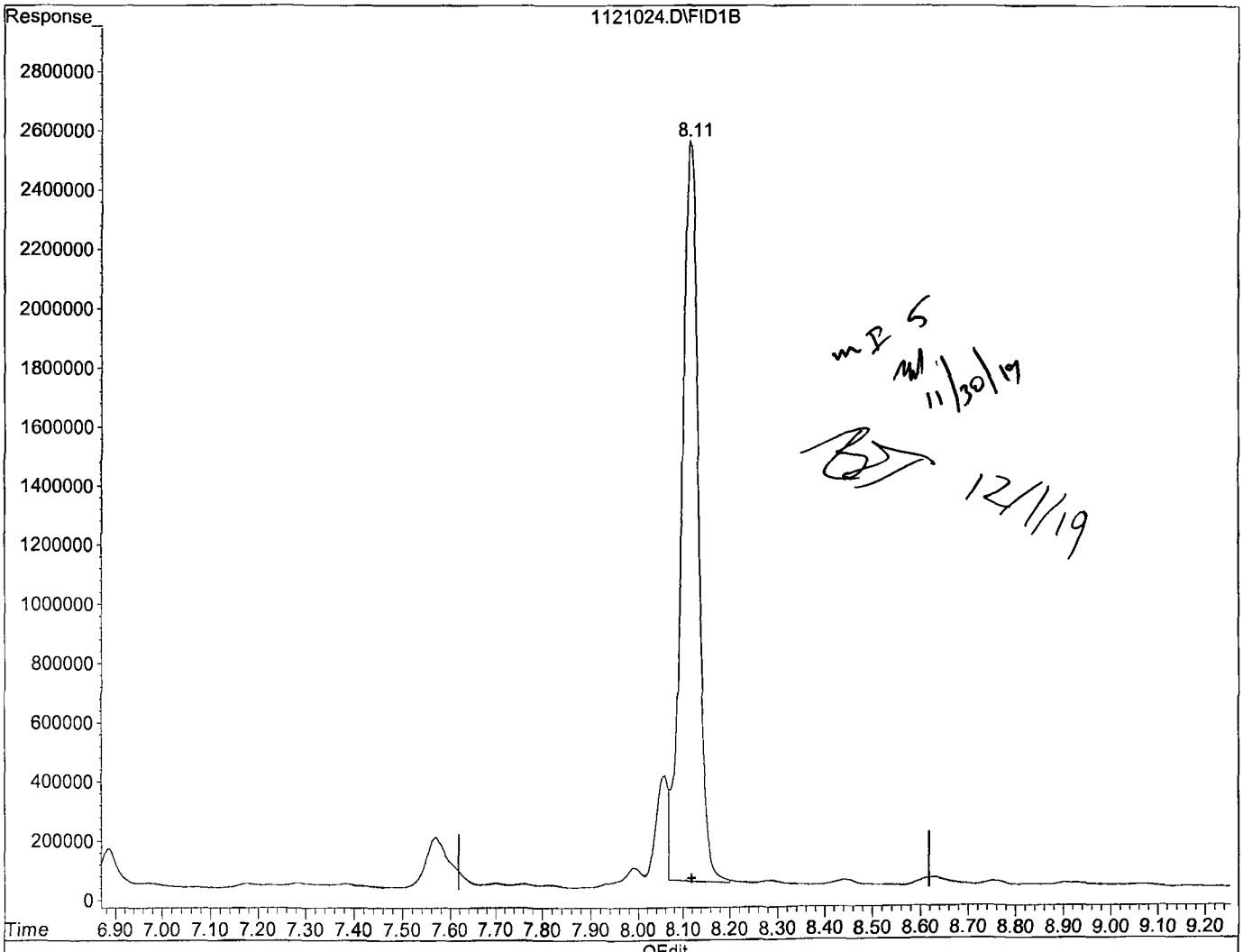
response 47444220

(+) = Expected Retention Time
1121024.D DOC1114.M Sat Nov 30 05:56:31 2019

Quantitation Report

Data File : G:\APOLLO\DATA\191121\1121024.D Vial: 24
Acq On : 11-21-19 16:53:36 Operator: BT
Sample : 191111A BLK 2/800 Inst : Apollo
Misc : water Multiplr: 2.50
IntFile : events.e
Quant Time: Nov 30 5:55 2019 Quant Results File: DOC1114.RES

Method : G:\APOLLO\DATA\191114\DOC1114.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Nov 15 09:19:04 2019
Response via : Multiple Level Calibration



mB 5 11/30/19

12/1/19

(4) Octacosane(S) (SA)

8.11min 71.192ppb m

response 64507936

(+) = Expected Retention Time
1121024.D DOC1114.M Sat Nov 30 05:56:39 2019

Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\191121\1121025.D Vial: 25
Acq On : 11-21-19 17:13:39 Operator: BT
Sample : 191111A LCS-1 2/800 Inst : Apollo
Misc : water Multiplr: 2.50
IntFile : events.e
Quant Time: Nov 30 5:55 2019 Quant Results File: DOC1114.RES

Method : G:\APOLLO\DATA\191114\DOC1114.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Nov 15 09:19:04 2019
Response via : Multiple Level Calibration

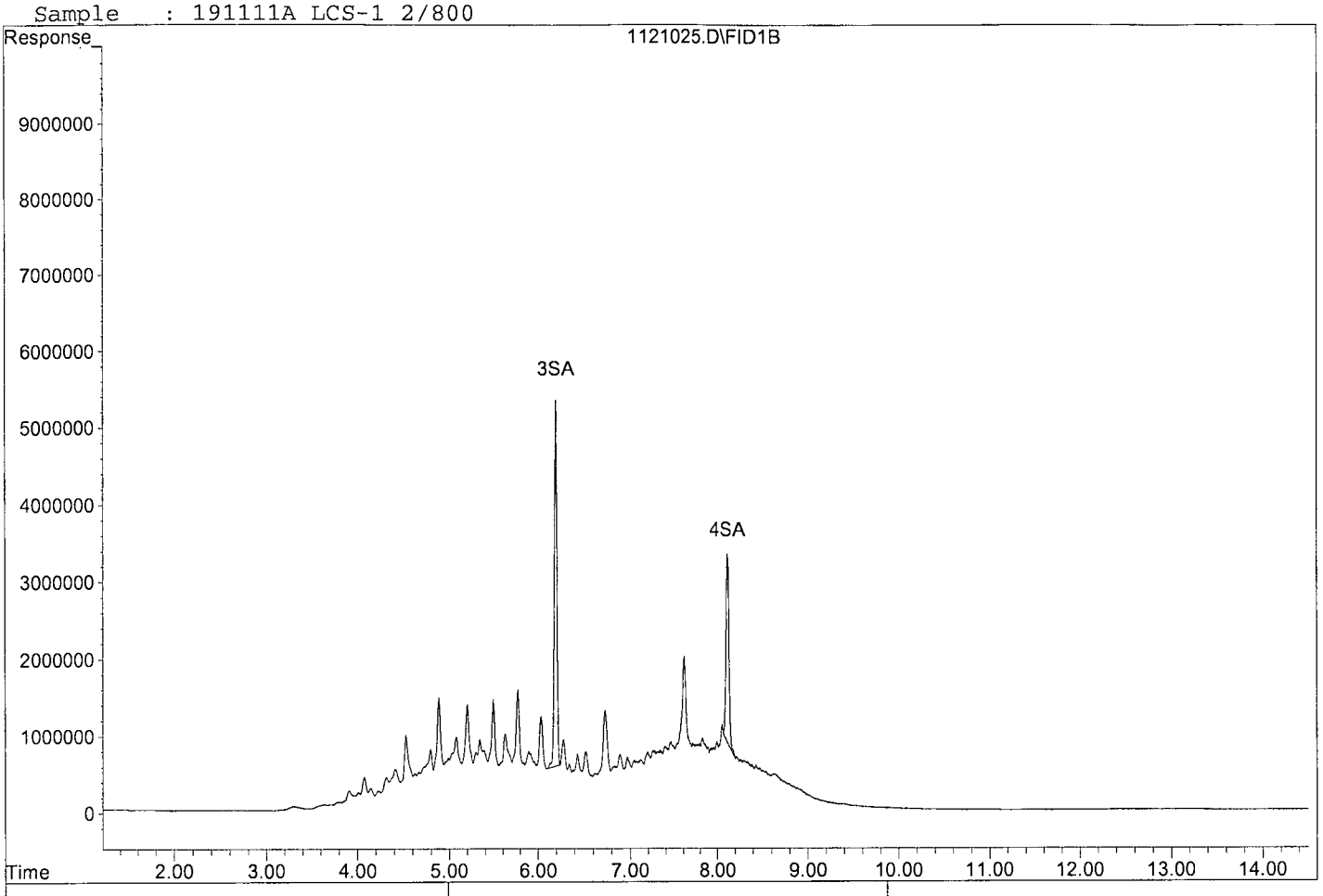
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

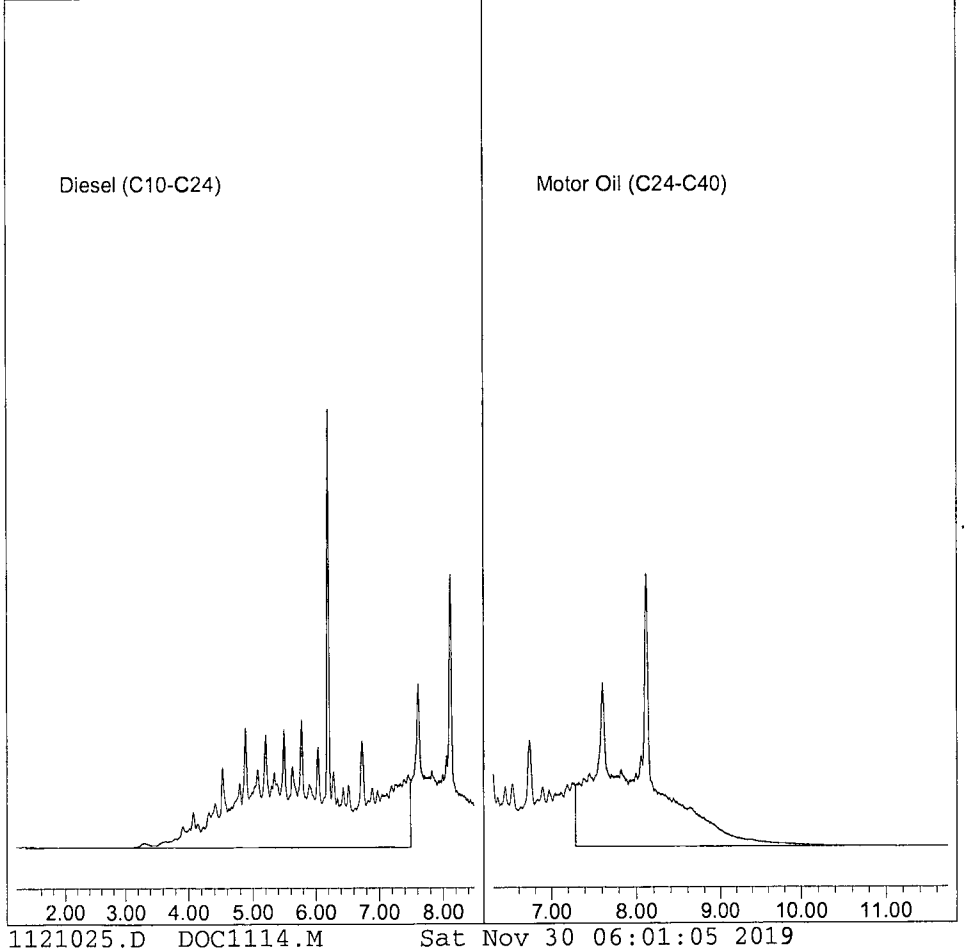
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) SA Ortho-Terphenyl(S)	6.20	91429484	80.572 ppb
Surrogate Spike 75.000	Recovery =		107.43%
4) SA Octacosane(S)	8.12	57229955	63.160 ppb
Surrogate Spike 75.000	Recovery =		84.21%
Target Compounds			
1) HATM Diesel (C10-C24)	4.42	1406338271	1165.165 ppb
2) HBTM Motor Oil (C24-C40)	9.01	757547982	1203.461 ppb

Target Compounds

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: G:\APOLLO\DATA\191121\1121025.D
Sample : 191111A LCS-1 2/800





1121025.D DOC1114.M Sat Nov 30 06:01:05 2019

Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\191121\1121026.D Vial: 26
Acq On : 11-21-19 17:33:41 Operator: BT
Sample : 191111A LCSD-1 2/800 Inst : Apollo
Misc : water Multiplr: 2.50
IntFile : events.e
Quant Time: Nov 30 5:55 2019 Quant Results File: DOC1114.RES

Method : G:\APOLLO\DATA\191114\DOC1114.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Nov 15 09:19:04 2019
Response via : Multiple Level Calibration

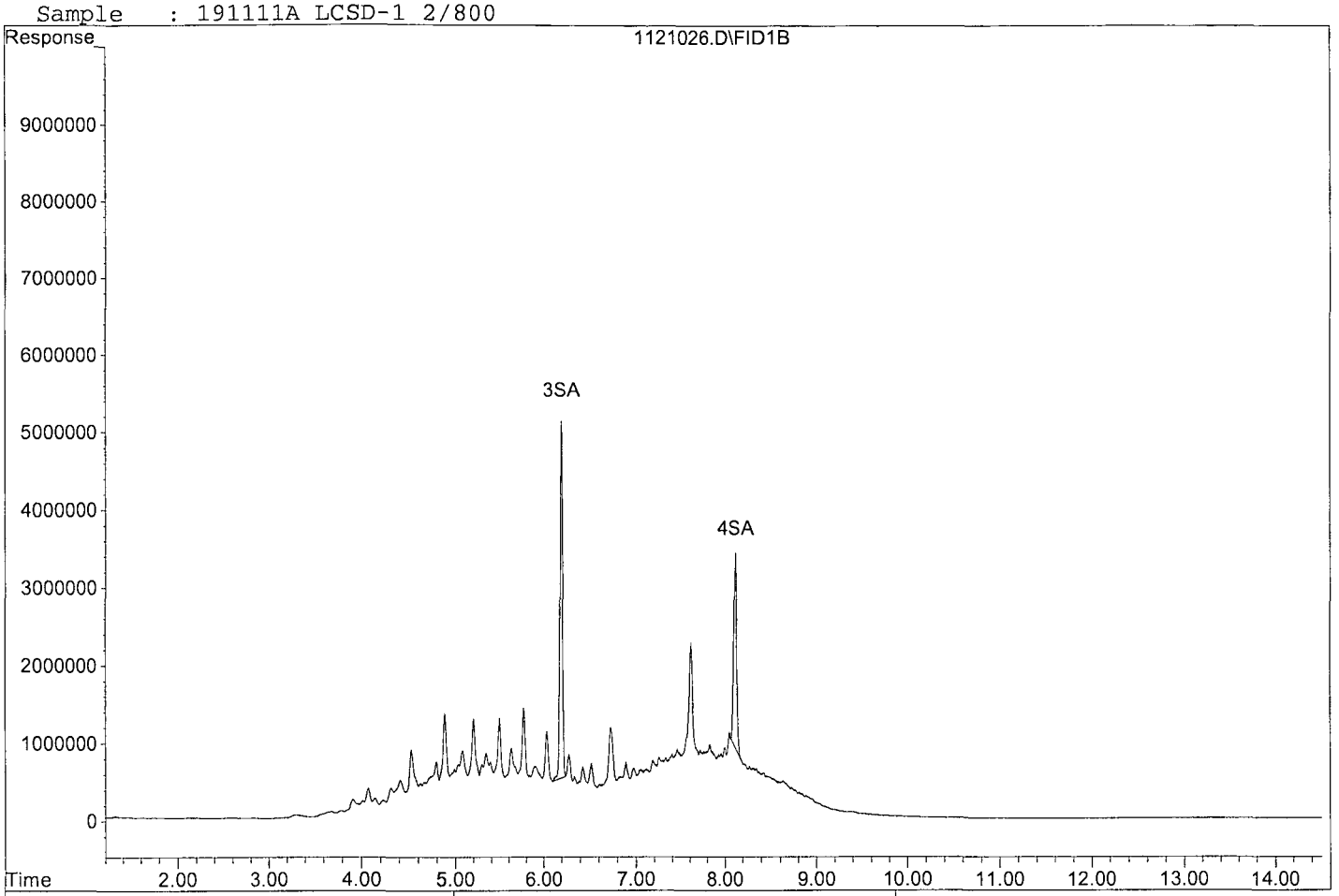
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

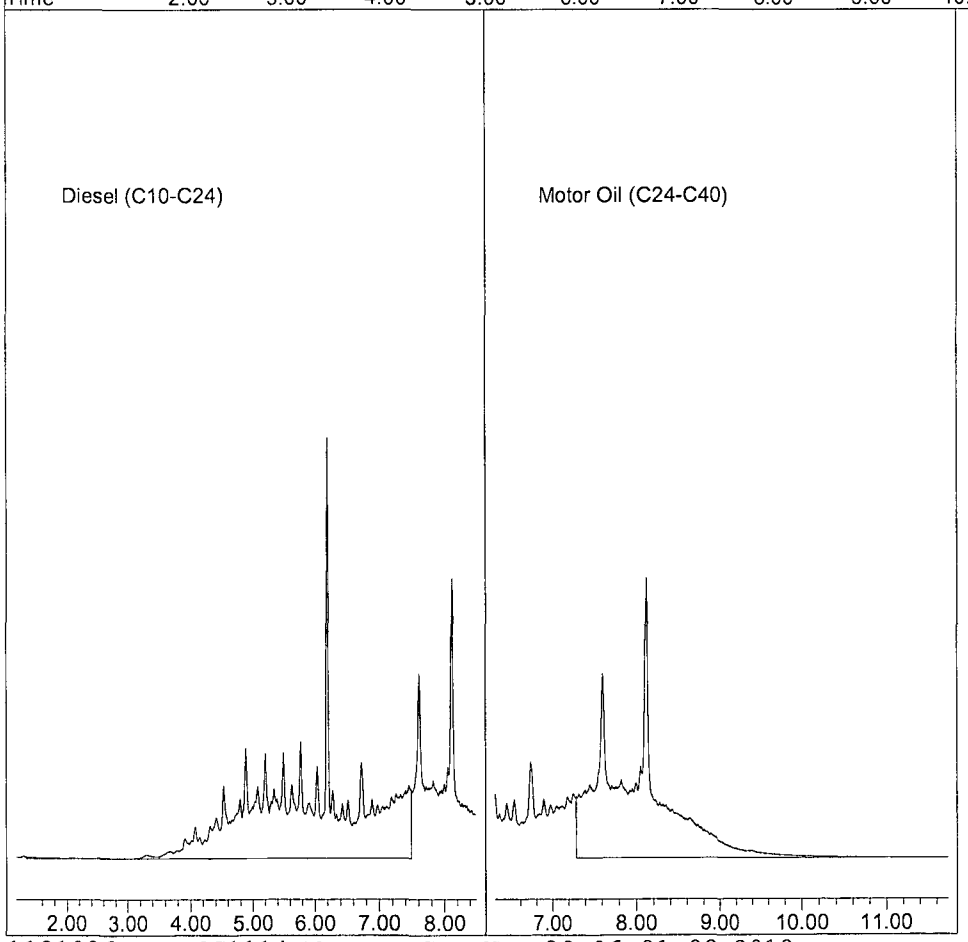
Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
3) SA Ortho-Terphenyl(S)	6.20	89998500	79.262	ppb
Surrogate Spike 75.000	Recovery =		105.68%	
4) SA Octacosane(S)	8.12	57072322	62.986	ppb
Surrogate Spike 75.000	Recovery =		83.98%	
Target Compounds				
1) HATM Diesel (C10-C24)	4.42	1301312135	1078.150	ppb
2) HBTM Motor Oil (C24-C40)	9.01	770152086	1223.484	ppb

Target Compounds

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: G:\APOLLO\DATA\191121\1121026.D
Sample : 191111A LCSD-1 2/800





1121026.D DOC1114.M Sat Nov 30 06:01:08 2019 Page 2

Diesel / Motor Oil Calibration Curve

Prepared: 11/14/19

Expires: 05/13/20

Prepared By (Initials): BT

Methylene Chloride Lot No. 58059

Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference to APPL Prep Date	Exp. Date	Exp. Date (Manufacturer)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
Diesel / Motor Oil Calibration STD	APPL	Diesel / Motor Oil - 1	2,000	Prepared 11/14/19	09/11/20	N/A	5uL	1mL	MC	10
Diesel / Motor Oil Calibration STD	APPL	Diesel / Motor Oil -2	2,000	Prepared 11/14/19	09/11/20	N/A	25uL	1mL	MC	50
Diesel / Motor Oil Calibration STD	APPL	Diesel / Motor Oil - 3	2,000	Prepared 11/14/19	09/11/20	N/A	125uL	1mL	MC	250
Diesel / Motor Oil Calibration STD	APPL	Diesel / Motor Oil - 4	2,000	Prepared 11/14/19	09/11/20	N/A	500uL	1mL	MC	1000
Diesel / Motor Oil Calibration STD	APPL	Diesel / Motor Oil - 5	2,000	Prepared 11/14/19	09/11/20	N/A	750uL	1mL	MC	1500
Diesel / Motor Oil Calibration STD	APPL	Diesel / Motor Oil - 6	2,000	Prepared 11/14/19	09/11/20	N/A	100uL	100uL	N/A	2,000

Diesel / Motor Oil Calibration Standard

Prepared: 11/14/19 **Prepared By (Initials): BT**

Expires: 09/11/20

Methylene Chloride Lot No. 58059

Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier Part No.	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr.)	Exp. Date (Manufacturer)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
Diesel Fuel #2	Restek	31258	50,000	**A0149066-41325**	**09/24/20**	**06/03/26**	400uL	10mL	MC	2000
Motor Oil	Restek	31464	50,000	**A0147736-41330**	**09/11/20**	**05/31/26**	400uL			2000
THC Surrogate	Phenova	ALO-130161	600	**CL13256-49449**	**11/13/20**	**11/28/24**	1666uL			100

Diesel / Motor Oil Second Source (SS)

Prepared: 01/15/19

Expires: 01/15/20

Prepared By (Initials): DP

Methylene Chloride Lot No. 56278

Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier Part No.	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr.)	Exp. Date (Manufacturer)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
Diesel Fuel #2	O2SI	G34-011598-03	50,000	**G34-319187-38958**	**08/02/19**	**09/29/21**	50uL	10mL	MC	250
Motor Oil Second Source	O2SI	116390-02-SS	50,000	**301142-37652**	**07/13/19**	**03/05/22**	50uL			

Organic Extraction Worksheet

Method	Continuous Liq/Liq TPH-Diesel/MO 3520C	Extraction Set	191111A	Extraction Method	LIQ005	Units	mL

Spiked ID 1	Diesel Spike 10/28/19 10/28/20		Surrogate ID 1	THC Surrogate 10/29/19 10/29/20	
Spiked ID 2	Motor Oil Spike 10/30/19 10/30/20		Surrogate ID 2		
Spiked ID 3			Surrogate ID 3		
Spiked ID 4			Surrogate ID 4		
Spiked ID 5			Surrogate ID 5		
Spiked ID 6			Sufficient Vol for Matrix QC:		
Spiked ID 7			Ext. Start Time:	11/11/19 14:25	
Spiked ID 8			Ext. End Time:	11/20/19 16:25	
			GC Requires Extract By:		

pH1			Water Bath Temp 1 °C	37/36.5 °C
pH2			Water Bath Temp 2 °C	36/39.5
pH3			Water Bath Temp 3 °C	38/37.4 °C

Spiked By: DL **Date** 11/11/19 **Witnessed By:** YL **Date** 11/11/19

	Sample	Sample Container	Spike Amount	Spike ID	Surrogate Amount	Surrogate ID	Extract Amount	Final Volume	pH	Extract Date/Time	Comments
1	191111A Blk				0.100	1 equip	800	2	2Y	11/11/19 14:25	
2	191111A LCS-1		0.020	1,2	0.100	1 equip	800	2	2Y	11/11/19 14:25	
3	191111A LCSD-1		0.020	1,2	0.100	1 equip	800	2	2Y	11/11/19 14:25	
4	BA02466	BA02466W19			0.100	1 equip	800	2	2Y	11/11/19 14:25	90648
5	BA02525	BA02525W20			0.100	1 equip	800	2	2Y	11/11/19 14:25	90657
6	BA02713	BA02713W20			0.100	1 equip	800	2	2Y	11/11/19 14:25	90700
7	BA02715	BA02715W33			0.100	1 equip	800	2	2Y	11/11/19 14:25	90700
8	BA02716	BA02716W11			0.100	1 equip	800	2	2Y	11/11/19 14:25	90700

Solvent and Lot#	
1+1 HCL	*6-15-19
PH Strips	*HC863463
Dicholormethane (DCM)	*59130
Filter Paper	*400171
B. Sodium Sulfate	*2019020631
Silica Gel (*)	*

Extraction COC Transfer	
Extraction lab employee Initials	
GC analyst's initials	
Date	
Time	
Refrigerator	

	Technician's Initials
Scanned By	DL
Sample Preparation	DL
Extraction	DL
Concentration	YL

Modified	11/11/19 1:21:51 PM

Reviewed By: **Date**

Injection Log

Directory: G:\APOLLO\DATA\191114\

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	3	1114003.D	1	Diesel Motor Oil - 1 11/14/19	water	11-14-19 19:39:49
2	4	1114004.D	1	Diesel Motor Oil - 2 11/14/19	water	11-14-19 19:59:46
3	5	1114005.D	1	Diesel Motor Oil - 3 11/14/19	water	11-14-19 20:19:39
4	6	1114006.D	1	Diesel Motor Oil - 4 11/14/19	water	11-14-19 20:39:34
5	7	1114007.D	1	Diesel Motor Oil - 5 11/14/19	water	11-14-19 20:59:26
6	8	1114008.D	1	Diesel Motor Oil - 6 11/14/19	water	11-14-19 21:19:19
7	9	1114009.D	1	Diesel Motor Oil Second Source 1/15/19	water	11-14-19 21:39:10
8	16	1121016.D	1	Diesel Motor Oil CCV 11/14/19	water	11-21-19 14:12:55
9	24	1121024.D	2.5	191111A BLK 2/800	water	11-21-19 16:53:36
10	25	1121025.D	2.5	191111A LCS-1 2/800	water	11-21-19 17:13:39
11	26	1121026.D	2.5	191111A LCSD-1 2/800	water	11-21-19 17:33:41
12	27	1121027.D	2.5	BA02466W19 2/800	water	11-21-19 17:53:41
13	32	1121032.D	1	Diesel Motor Oil CCV 11/14/19	water	11-21-19 19:32:24

ORGANICS
Calibration Data

PAH by GCMS SIM
EPA 8270 SIM

Form 6
Initial Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Initial Cal. Date: 10/28/19
Matrix: Instrument: Linus
Initials: MA LP

			1028L005.D	1028L006.D	1028L007.D	1028L008.D	1028L004.D	1028L009.D	1028L010.D	1028L011.D								
		Compound	0.1	0.2	0.5	1	5	20	50	100			Avg	%RSD	Type	r^2	Q	MRF
1	I	Napthalene-D8(IS)																
2	S	Surrogate Recovery (NBZ)	0.6154	0.4960	0.4602	0.4714	0.4325	0.4265	0.4474	0.4616			0.48	13	S			
3	TM	Naphthalene	1.353	1.324	1.228	1.322	1.154	1.233	1.170	1.137			1.2	6.8	TM			0.700
4	S	2-Methylnaphthalene-D10 (2M	1.381	1.311	1.233	1.321	1.228	1.192	1.177	1.148			1.2	6.5	S			
5	TM	2-Methylnaphthalene	0.7871	0.7676	0.7353	0.7876	0.7127	0.7463	0.6996	0.6884			0.74	5.2	TM			0.400
6	TM	1-Methylnaphthalene	0.8729	0.8587	0.7207	0.7851	0.7016	0.7332	0.6925	0.6878			0.76	9.8	TM			
7	I	Acenaphthene-D10(IS)																
8	S	Surrogate Recovery (FBP)	2.084	2.067	1.863	2.099	1.844	1.830	1.715	1.653			1.9	9.1	S			
9	TM	Acenaphthylene	5.495	5.363	5.078	5.658	5.251	5.751	5.010	4.930			5.3	5.7	TM			0.900
10	*TM	Acenaphthene	1.708	1.625	1.517	1.618	1.412	1.529	1.338	1.439			1.5	8.1	*TM			0.900
11	TM	Fluorene	1.748	1.717	1.628	1.812	1.633	1.776	1.673	1.592			1.7	4.6	TM			0.900
12	I	Phenanthrene-D10(IS)																
13	TM	Phenanthrene	1.669	1.541	1.498	1.635	1.381	1.470	1.355	1.265			1.5	9.4	TM			0.700
14	TM	Anthracene	1.260	1.193	1.201	1.358	1.291	1.363	1.276	1.260			1.3	4.9	TM			0.700
15	S	Fluoranthene-D10 (FRT)	1.894	1.787	1.721	1.903	1.860	1.907	1.799	1.683			1.8	4.7	S			
16	*TM	Fluoranthene	2.125	1.989	1.963	2.216	2.039	2.159	1.845	1.771			2.0	7.6	*TM			0.600
17	I	Chrysene-D12(IS)																
18	TM	Pyrene	1.917	1.787	1.752	1.917	1.747	1.808	1.714	1.669			1.8	5.0	TM			0.600
19	S	Surrogate Recovery (TPH)	1.035	0.9626	0.9160	0.9919	0.9371	0.9175	0.9804	0.9502			0.96	4.2	S			
20	TM	Benz (a) anthracene	1.534	1.359	1.345	1.415	1.416	1.448	1.430	1.415			1.4	4.0	TM			0.800
21	TM	Chrysene	1.877	1.680	1.536	1.668	1.444	1.534	1.433	1.409			1.6	10	TM			0.700
22	TM	Indeno (1,2,3-cd) pyrene	1.476	1.215	1.084	1.244	1.392	1.511	1.583	1.595			1.4	14	TM			0.500
23	I	Perylene-D12(IS)																
24	TM	Benzo (b) fluoranthene	1.329	1.058	1.106	1.231	1.301	1.421	1.375	1.322			1.3	10	TM			0.700
25	TM	Benzo (k) fluoranthene	1.285	1.483	1.360	1.569	1.476	1.628	1.346	1.365			1.4	8.3	TM			0.700
26	*TM	Benzo (a) pyrene	1.142	0.9908	0.9637	1.073	1.246	1.377	1.283	1.260			1.2	13	*TM			0.700
27	TM	Dibenz (a,h) anthracene	1.207	1.035	0.9842	1.085	1.167	1.279	1.208	1.243			1.2	9.1	TM			0.400
28	TM	Benzo (g,h,i) perylene	1.405	1.180	1.137	1.241	1.225	1.358	1.281	1.283			1.3	7.0	TM			0.500
29																		
30																		
31																		
32																		
33																		
34																		
35																		

Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L191028\1028L004.D Vial: 4
Acq On : 28 Oct 19 12:26 Operator: MA
Sample : 5 SIM 10/28/19(2) Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 30 10:37 2019 Quant Results File: L1028.RES

Quant Method : M:\LINUS\DATA\L191028\L1028.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 30 10:36:52 2019
Response via : Initial Calibration
DataAcq Meth : SIM_2

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Napthalene-D8(IS)	4.27	136	42509	2.50000 ppb		0.00
7) Acenaphthene-D10(IS)	6.27	164	17630	2.50000 ppb		0.00
12) Phenanthrene-D10(IS)	7.99	188	30825	2.50000 ppb		0.00
17) Chrysene-D12(IS)	11.11	240	35746	2.50000 ppb		0.00
23) Perylene-D12(IS)	13.53	264	35057	2.50000 ppb		0.00
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	3.49	82	18387	2.26999 ppb		0.00
Spiked Amount 5.000			Recovery	= 45.400%		
4) 2-Methylnaphthalene-D10 (2	5.05	152	52219	2.45912 ppb		0.00
Spiked Amount 5.000			Recovery	= 49.180%		
8) Surrogate Recovery (FBP)	5.52	172	32516	2.43389 ppb		0.00
Spiked Amount 5.000			Recovery	= 48.680%		
15) Fluoranthene-D10 (FRT)	9.37	212	57325	2.55457 ppb		0.00
Spiked Amount 5.000			Recovery	= 51.100%		
19) Surrogate Recovery (TPH)	9.86	244	33496	2.43703 ppb		0.00
Spiked Amount 5.000			Recovery	= 48.740%		
Target Compounds						Qvalue
3) Naphthalene	4.30	128	98104	4.65241 ppb		100
5) 2-Methylnaphthalene	5.08	142	60590	4.81172 ppb		100
6) 1-Methylnaphthalene	5.19	142	59650	4.63689 ppb		100
9) Acenaphthylene	6.11	152	185151	4.93782 ppb		100
10) Acenaphthene	6.30	154	49783	4.63497 ppb		100
11) Fluorene	6.90	166	57596	4.81102 ppb		100
13) Phenanthrene	8.01	178	85147	4.67624 ppb		100
14) Anthracene	8.08	178	79570	5.06096 ppb		100
16) Fluoranthene	9.39	202	125700	5.02216 ppb		100
18) Pyrene	9.64	202	124886	4.88571 ppb		100
20) Benz (a) anthracene	11.09	228	101233	4.98555 ppb		100
21) Chrysene	11.14	228	103205	4.58223 ppb		100
22) Indeno (1,2,3-cd) pyrene	15.00	276	99497	5.01530 ppb	#	100
24) Benzo (b) fluoranthene	12.90	252	91200	5.12901 ppb		100
25) Benzo (k) fluoranthene	12.95	252	103463	5.12718 ppb		100
26) Benzo (a) pyrene	13.43	252	87360	5.33556 ppb		100
27) Dibenz (a,h) anthracene	15.05	278	81789	5.06796 ppb		100
28) Benzo (g,h,i) perylene	15.38	276	85903	4.84757 ppb		100

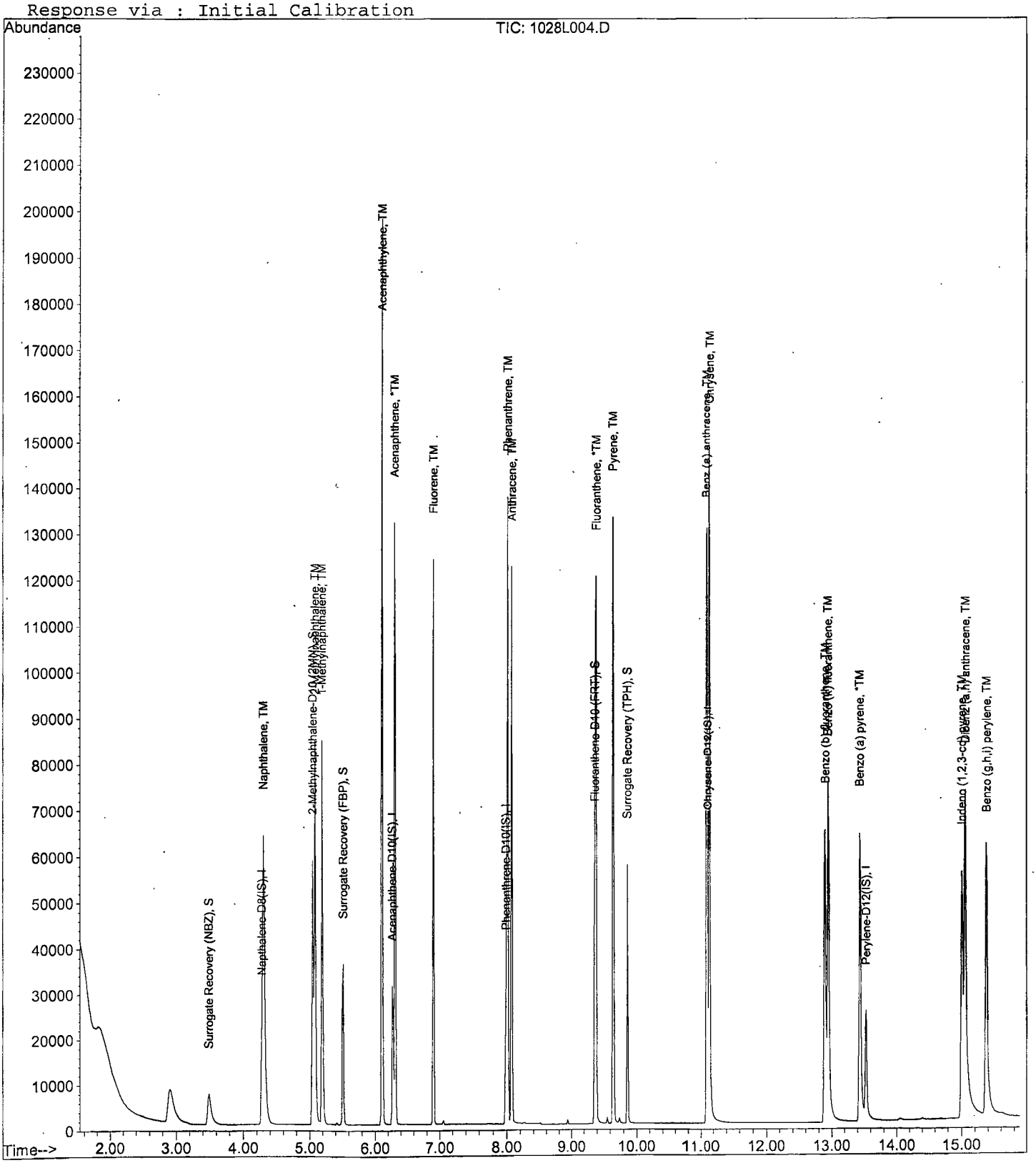
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L191028\1028L004.D Vial: 4
Acq On : 28 Oct 19 12:26 Operator: MA
Sample : 5 SIM 10/28/19(2) Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 30 10:37 2019 Quant Results File: L1028.RES

Method : M:\LINUS\DATA\L191028\L1028.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 30 10:39:31 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L191028\1028L005.D Vial: 5
Acq On : 28 Oct 19 12:51 Operator: MA
Sample : 0.1 SIM 10/28/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 30 10:34 2019 Quant Results File: L1028.RES

Quant Method : M:\LINUS\DATA\L191028\L1028.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 30 10:34:31 2019
Response via : Initial Calibration
DataAcq Meth : SIM_2

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Napthalene-D8(IS)	4.27	136	39324	2.50000 ppb		0.00
7) Acenaphthene-D10(IS)	6.27	164	16174	2.50000 ppb		0.00
12) Phenanthrene-D10(IS)	7.99	188	28360	2.50000 ppb		0.00
17) Chrysene-D12(IS)	11.10	240	31560	2.50000 ppb		-0.01
23) Perylene-D12(IS)	13.52	264	31724	2.50000 ppb		-0.01
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	3.49	82	484	0.06459 ppb		0.00
Spiked Amount 5.000			Recovery =	1.300%		
4) 2-Methylnaphthalene-D10 (2	5.05	152	1086	0.05528 ppb		0.00
Spiked Amount 5.000			Recovery =	1.100%		
8) Surrogate Recovery (FBP)	5.52	172	674	0.05499 ppb		0.00
Spiked Amount 5.000			Recovery =	1.100%		
15) Fluoranthene-D10 (FRT)	9.36	212	1074	0.05202 ppb		-0.01
Spiked Amount 5.000			Recovery =	1.040%		
19) Surrogate Recovery (TPH)	9.86	244	653	0.05381 ppb		0.00
Spiked Amount 5.000			Recovery =	1.080%		
Target Compounds						Qvalue
3) Naphthalene	4.30	128	2128	0.10909 ppb		99
5) 2-Methylnaphthalene	5.08	142	1238	0.10628 ppb		99
6) 1-Methylnaphthalene	5.19	142	1373	0.11537 ppb		95
9) Acenaphthylene	6.11	152	3555	0.10334 ppb		99
10) Acenaphthene	6.30	154	1105	0.11214 ppb		95
11) Fluorene	6.90	166	1131	0.10298 ppb		98
13) Phenanthrene	8.02	178	1893	0.11300 ppb		98
14) Anthracene	8.08	178	1429	0.09879 ppb		99
16) Fluoranthene	9.38	202	2411	0.10470 ppb	#	85
18) Pyrene	9.64	202	2420	0.10723 ppb		94
20) Benz (a) anthracene	11.09	228	1936	0.10799 ppb		99
21) Chrysene	11.14	228	2369	0.11913 ppb		96
22) Indeno (1,2,3-cd) pyrene	15.00	276	1863	0.10636 ppb	#	93
24) Benzo (b) fluoranthene	12.89	252	1687	0.10484 ppb		98
25) Benzo (k) fluoranthene	12.95	252	1630	0.08926 ppb		96
26) Benzo (a) pyrene	13.43	252	1449	0.09780 ppb		96
27) Dibenz (a,h) anthracene	15.04	278	1531	0.10483 ppb	#	91
28) Benzo (g,h,i) perylene	15.37	276	1783	0.11119 ppb		99

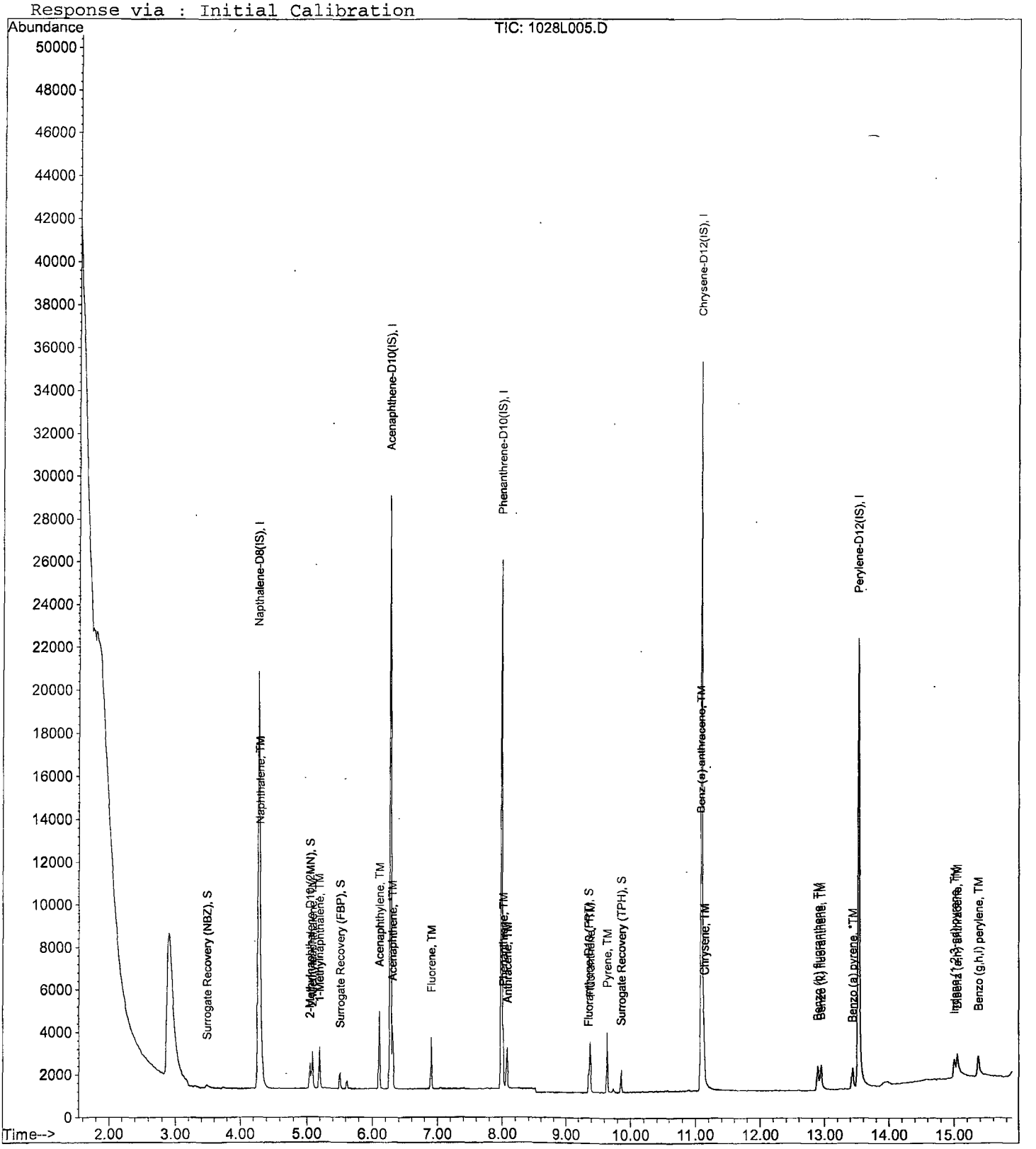
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L191028\1028L005.D Vial: 5
Acq On : 28 Oct 19 12:51 Operator: MA
Sample : 0.1 SIM 10/28/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 30 10:34 2019 Quant Results File: L1028.RES

Method : M:\LINUS\DATA\L191028\L1028.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 30 10:39:31 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L191028\1028L006.D Vial: 6
Acq On : 28 Oct 19 13:13 Operator: MA
Sample : 0.2 SIM 10/28/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 30 10:34 2019 Quant Results File: L1028.RES

Quant Method : M:\LINUS\DATA\L191028\L1028.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 30 10:34:31 2019
Response via : Initial Calibration
DataAcq Meth : SIM_2

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Napthalene-D8(IS)	4.27	136	38562	2.50000 ppb		0.00
7) Acenaphthene-D10(IS)	6.27	164	15986	2.50000 ppb		0.00
12) Phenanthrene-D10(IS)	7.99	188	28375	2.50000 ppb		0.00
17) Chrysene-D12(IS)	11.10	240	31295	2.50000 ppb		-0.01
23) Perylene-D12(IS)	13.52	264	30972	2.50000 ppb		-0.01
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	3.49	82	765	0.10411 ppb		0.00
Spiked Amount 5.000			Recovery	= 2.080%		
4) 2-Methylnaphthalene-D10 (2	5.05	152	2022	0.10497 ppb		0.00
Spiked Amount 5.000			Recovery	= 2.100%		
8) Surrogate Recovery (FBP)	5.52	172	1322	0.10913 ppb		0.00
Spiked Amount 5.000			Recovery	= 2.180%		
15) Fluoranthene-D10 (FRT)	9.36	212	2028	0.09818 ppb		-0.01
Spiked Amount 5.000			Recovery	= 1.960%		
19) Surrogate Recovery (TPH)	9.86	244	1205	0.10014 ppb		0.00
Spiked Amount 5.000			Recovery	= 2.000%		
Target Compounds						Qvalue
3) Naphthalene	4.30	128	4084	0.21350 ppb		99
5) 2-Methylnaphthalene	5.08	142	2368	0.20730 ppb		97
6) 1-Methylnaphthalene	5.19	142	2649	0.22700 ppb		98
9) Acenaphthylene	6.11	152	6859	0.20174 ppb		99
10) Acenaphthene	6.30	154	2078	0.21337 ppb		99
11) Fluorene	6.90	166	2196	0.20230 ppb		97
13) Phenanthrene	8.01	178	3498	0.20870 ppb		99
14) Anthracene	8.08	178	2709	0.18718 ppb		100
16) Fluoranthene	9.38	202	4516	0.19601 ppb	#	82
18) Pyrene	9.64	202	4473	0.19988 ppb		94
20) Benz (a) anthracene	11.09	228	3402	0.19137 ppb		98
21) Chrysene	11.14	228	4205	0.21325 ppb		96
22) Indeno (1,2,3-cd) pyrene	15.00	276	3043	0.17520 ppb	#	80
24) Benzo (b) fluoranthene	12.89	252	2622	0.16691 ppb	#	95
25) Benzo (k) fluoranthene	12.95	252	3675	0.20614 ppb		97
26) Benzo (a) pyrene	13.43	252	2455	0.16972 ppb	#	93
27) Dibenz (a,h) anthracene	15.04	278	2564	0.17983 ppb		95
28) Benzo (g,h,i) perylene	15.37	276	2923	0.18670 ppb		93

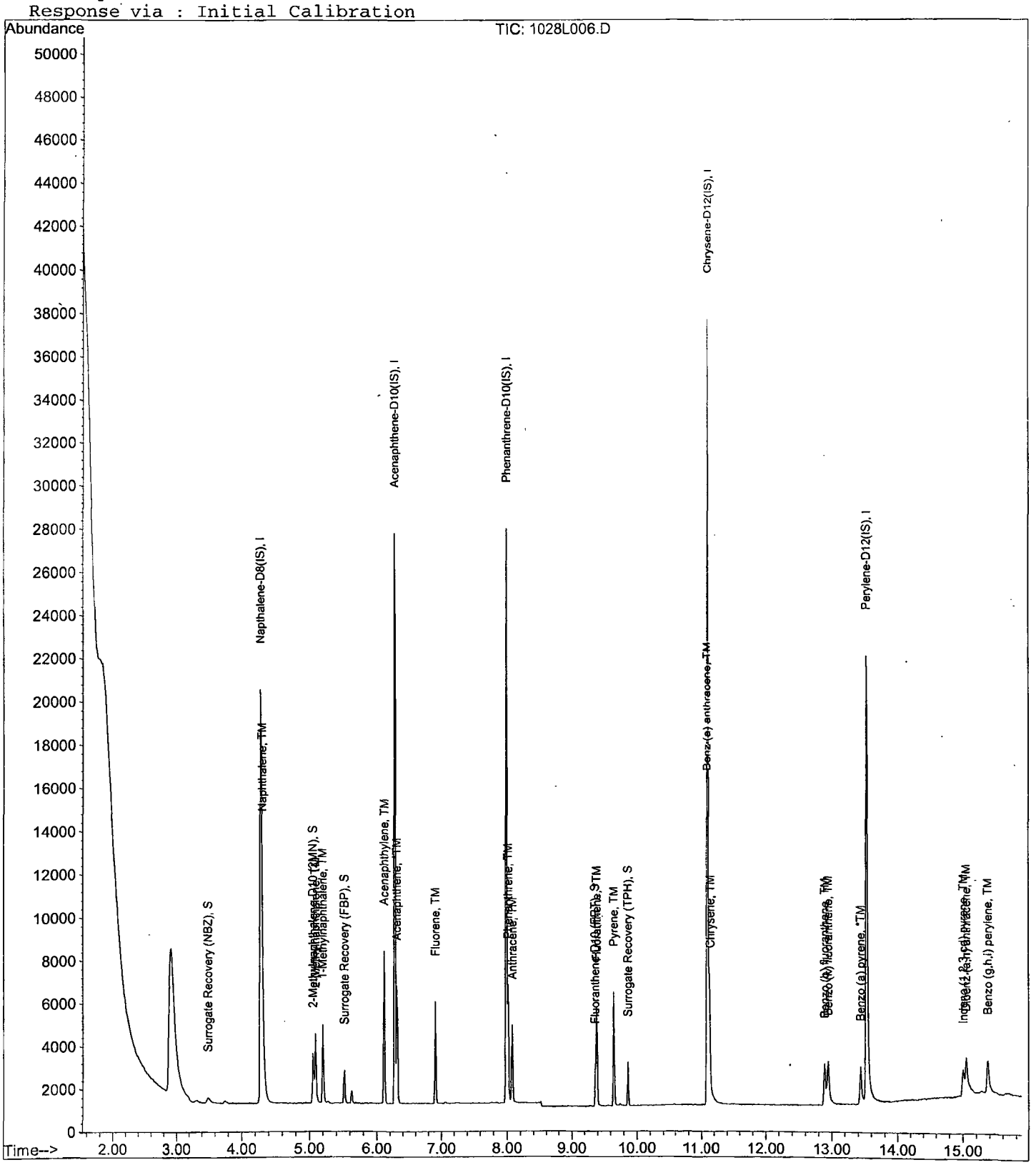
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L191028\1028L006.D Vial: 6
Acq On : 28 Oct 19 13:13 Operator: MA
Sample : 0.2 SIM 10/28/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 30 10:34 2019 Quant Results File: L1028.RES

Method : M:\LINUS\DATA\L191028\L1028.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 30 10:39:31 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L191028\1028L007.D Vial: 7
Acq On : 28 Oct 19 13:35 Operator: MA
Sample : 0.5 SIM 10/28/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 30 10:35 2019 Quant Results File: L1028.RES

Quant Method : M:\LINUS\DATA\L191028\L1028.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 30 10:34:31 2019
Response via : Initial Calibration
DataAcq Meth : SIM_2

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Napthalene-D8(IS)	4.27	136	37004	2.50000 ppb		0.00
7) Acenaphthene-D10(IS)	6.28	164	15527	2.50000 ppb		0.01
12) Phenanthrene-D10(IS)	7.99	188	27459	2.50000 ppb		0.00
17) Chrysene-D12(IS)	11.11	240	30862	2.50000 ppb		0.00
23) Perylene-D12(IS)	13.53	264	29964	2.50000 ppb		0.00
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	3.49	82	1703	0.24152 ppb		0.00
Spiked Amount 5.000			Recovery	= 4.840%		
4) 2-Methylnaphthalene-D10 (2	5.05	152	4562	0.24680 ppb		0.00
Spiked Amount 5.000			Recovery	= 4.940%		
8) Surrogate Recovery (FBP)	5.52	172	2893	0.24588 ppb		0.00
Spiked Amount 5.000			Recovery	= 4.920%		
15) Fluoranthene-D10 (FRT)	9.37	212	4727	0.23647 ppb		0.00
Spiked Amount 5.000			Recovery	= 4.720%		
19) Surrogate Recovery (TPH)	9.86	244	2827	0.23823 ppb		0.00
Spiked Amount 5.000			Recovery	= 4.760%		
Target Compounds						Qvalue
3) Naphthalene	4.30	128	9091	0.49526 ppb		99
5) 2-Methylnaphthalene	5.08	142	5442	0.49647 ppb		100
6) 1-Methylnaphthalene	5.19	142	5334	0.47632 ppb		96
9) Acenaphthylene	6.11	152	15769	0.47751 ppb		100
10) Acenaphthene	6.30	154	4710	0.49791 ppb		98
11) Fluorene	6.90	166	5056	0.47953 ppb		98
13) Phenanthrene	8.02	178	8228	0.50727 ppb		98
14) Anthracene	8.08	178	6595	0.47089 ppb		99
16) Fluoranthene	9.39	202	10783	0.48363 ppb		98
18) Pyrene	9.64	202	10814	0.49001 ppb		96
20) Benz (a) anthracene	11.09	228	8304	0.47368 ppb		99
21) Chrysene	11.14	228	9479	0.48746 ppb		99
22) Indeno (1,2,3-cd) pyrene	15.00	276	6693	0.39076 ppb	#	90
24) Benzo (b) fluoranthene	12.89	252	6629	0.43618 ppb	#	95
25) Benzo (k) fluoranthene	12.95	252	8149	0.47247 ppb		97
26) Benzo (a) pyrene	13.44	252	5775	0.41266 ppb		95
27) Dibenz (a,h) anthracene	15.04	278	5898	0.42758 ppb	#	89
28) Benzo (g,h,i) perylene	15.37	276	6815	0.44994 ppb		95

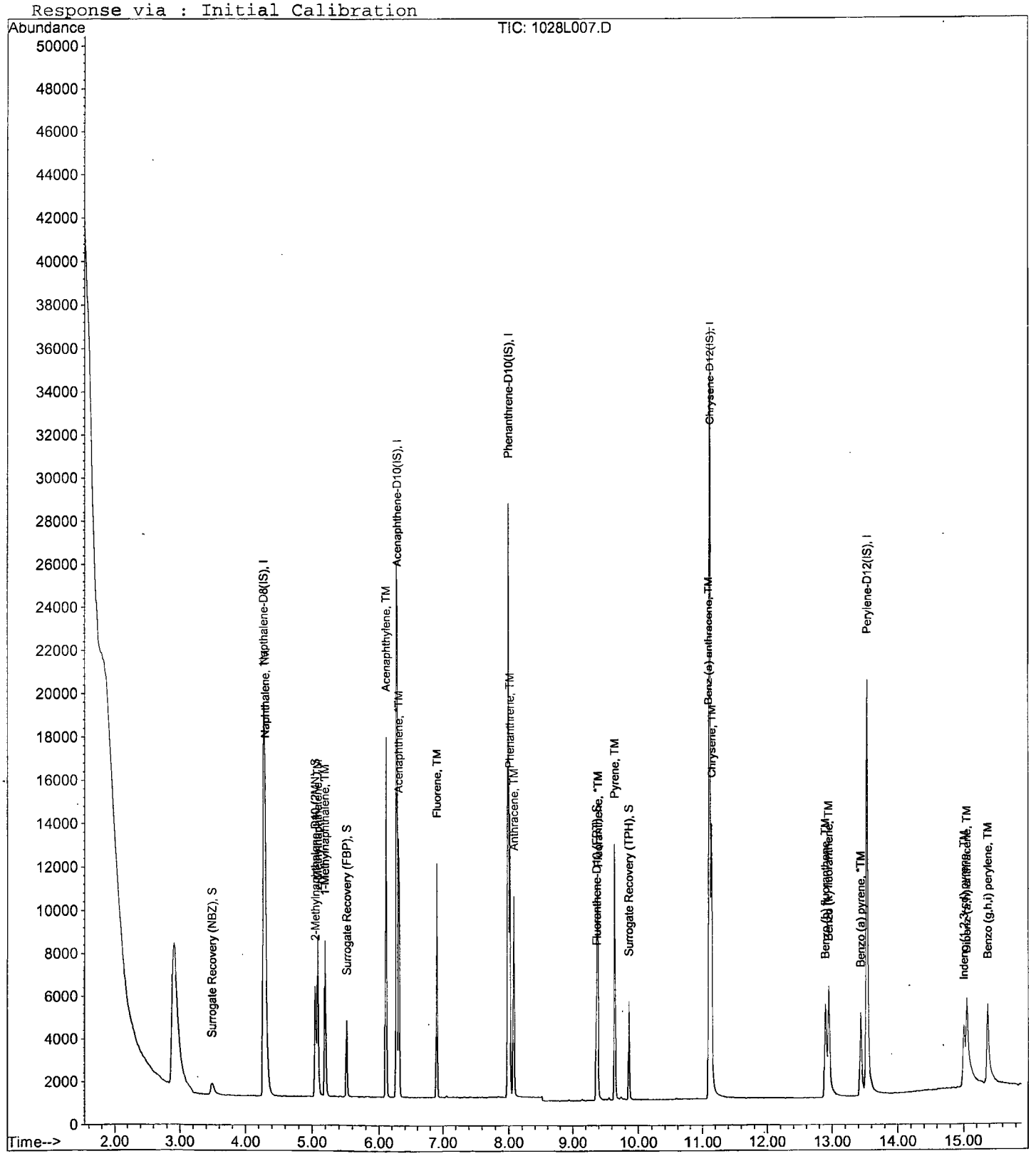
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L191028\1028L007.D Vial: 7
Acq On : 28 Oct 19 13:35 Operator: MA
Sample : 0.5 SIM 10/28/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 30 10:35 2019 Quant Results File: L1028.RES

Method : M:\LINUS\DATA\L191028\L1028.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 30 10:39:31 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L191028\1028L008.D Vial: 8
Acq On : 28 Oct 19 13:57 Operator: MA
Sample : 1 SIM 10/28/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 30 10:35 2019 Quant Results File: L1028.RES

Quant Method : M:\LINUS\DATA\L191028\L1028.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 30 10:34:31 2019
Response via : Initial Calibration
DataAcq Meth : SIM_2

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Napthalene-D8(IS)	4.29	136	32025	2.50000 ppb		0.01
7) Acenaphthene-D10(IS)	6.28	164	13099	2.50000 ppb		0.01
12) Phenanthrene-D10(IS)	7.99	188	23028	2.50000 ppb		0.00
17) Chrysene-D12(IS)	11.11	240	26425	2.50000 ppb		0.00
23) Perylene-D12(IS)	13.53	264	25032	2.50000 ppb		0.00
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	3.49	82	3019	0.49473 ppb		0.00
Spiked Amount 5.000			Recovery = 9.900%			
4) 2-Methylnaphthalene-D10 (2	5.05	152	8459	0.52876 ppb		0.00
Spiked Amount 5.000			Recovery = 10.580%			
8) Surrogate Recovery (FBP)	5.52	172	5500	0.55409 ppb		0.00
Spiked Amount 5.000			Recovery = 11.080%			
15) Fluoranthene-D10 (FRT)	9.37	212	8766	0.52290 ppb		0.00
Spiked Amount 5.000			Recovery = 10.460%			
19) Surrogate Recovery (TPH)	9.86	244	5242	0.51591 ppb		0.00
Spiked Amount 5.000			Recovery = 10.320%			
Target Compounds						Qvalue
3) Naphthalene	4.30	128	16930	1.06571 ppb		100
5) 2-Methylnaphthalene	5.08	142	10089	1.06351 ppb		99
6) 1-Methylnaphthalene	5.19	142	10057	1.03771 ppb		97
9) Acenaphthylene	6.11	152	29648	1.06419 ppb		99
10) Acenaphthene	6.31	154	8477	1.06224 ppb		88
11) Fluorene	6.90	166	9496	1.06758 ppb		97
13) Phenanthrene	8.01	178	15064	1.10743 ppb		100
14) Anthracene	8.08	178	12506	1.06475 ppb		100
16) Fluoranthene	9.39	202	20409	1.09150 ppb		100
18) Pyrene	9.64	202	20263	1.07233 ppb		98
20) Benz (a) anthracene	11.10	228	14953	0.99617 ppb		97
21) Chrysene	11.14	228	17636	1.05923 ppb		99
22) Indeno (1,2,3-cd) pyrene	15.00	276	13150	0.89665 ppb	#	94
24) Benzo (b) fluoranthene	12.90	252	12330	0.97114 ppb		99
25) Benzo (k) fluoranthene	12.95	252	15715	1.09065 ppb		99
26) Benzo (a) pyrene	13.43	252	10748	0.91934 ppb		99
27) Dibenz (a,h) anthracene	15.05	278	10865	0.94286 ppb		98
28) Benzo (g,h,i) perylene	15.37	276	12422	0.98172 ppb	#	89

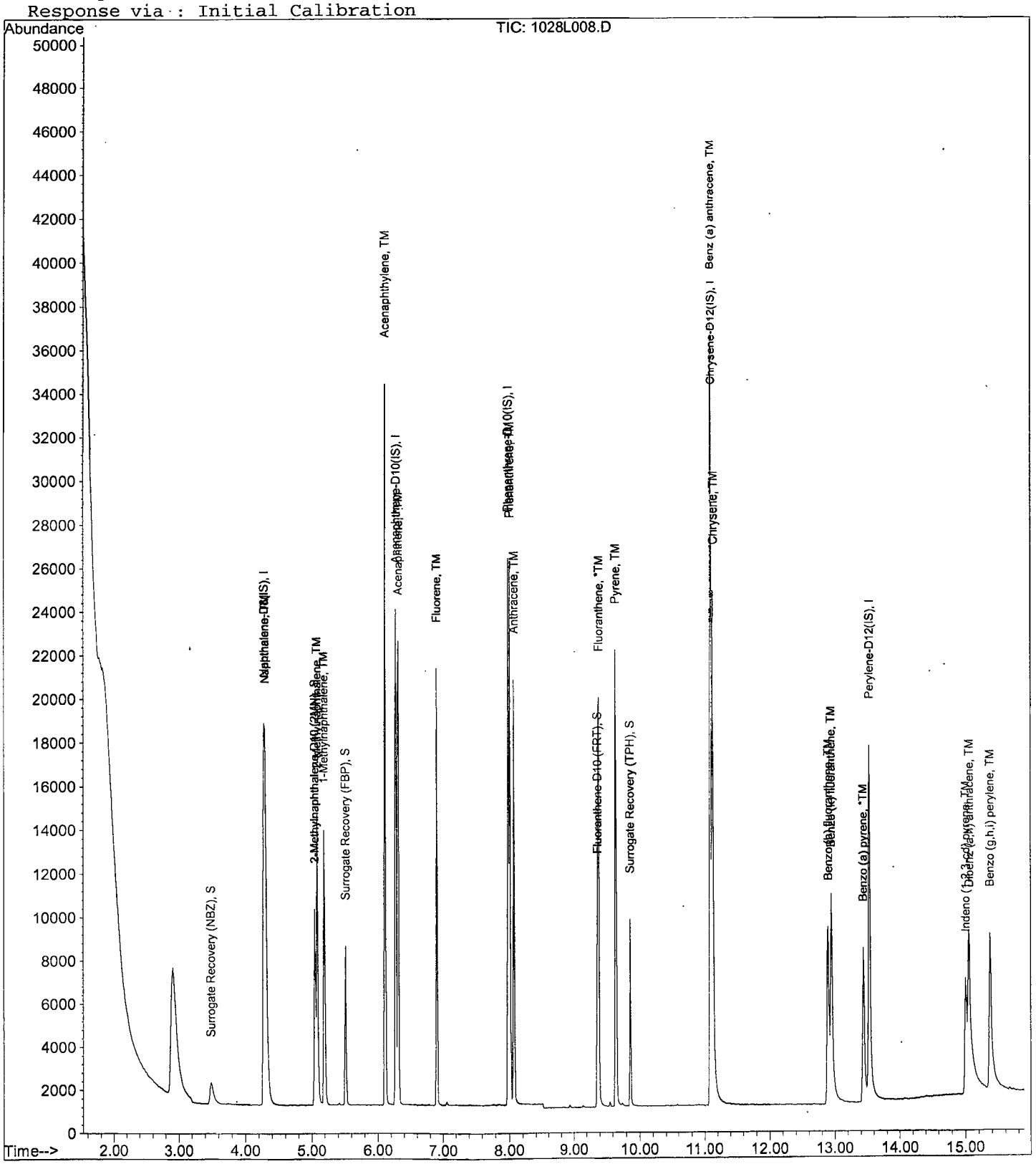
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L191028\1028L008.D Vial: 8
Acq On : 28 Oct 19 13:57 Operator: MA
Sample : 1 SIM 10/28/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 30 10:35 2019 Quant Results File: L1028.RES

Method : M:\LINUS\DATA\L191028\L1028.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 30 10:39:31 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L191028\1028L009.D Vial: 9
Acq On : 28 Oct 19 14:19 Operator: MA
Sample : 20 SIM 10/28/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 30 10:35 2019 Quant Results File: L1028.RES

Quant Method : M:\LINUS\DATA\L191028\L1028.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 30 10:34:31 2019
Response via : Initial Calibration
DataAcq Meth : SIM_2

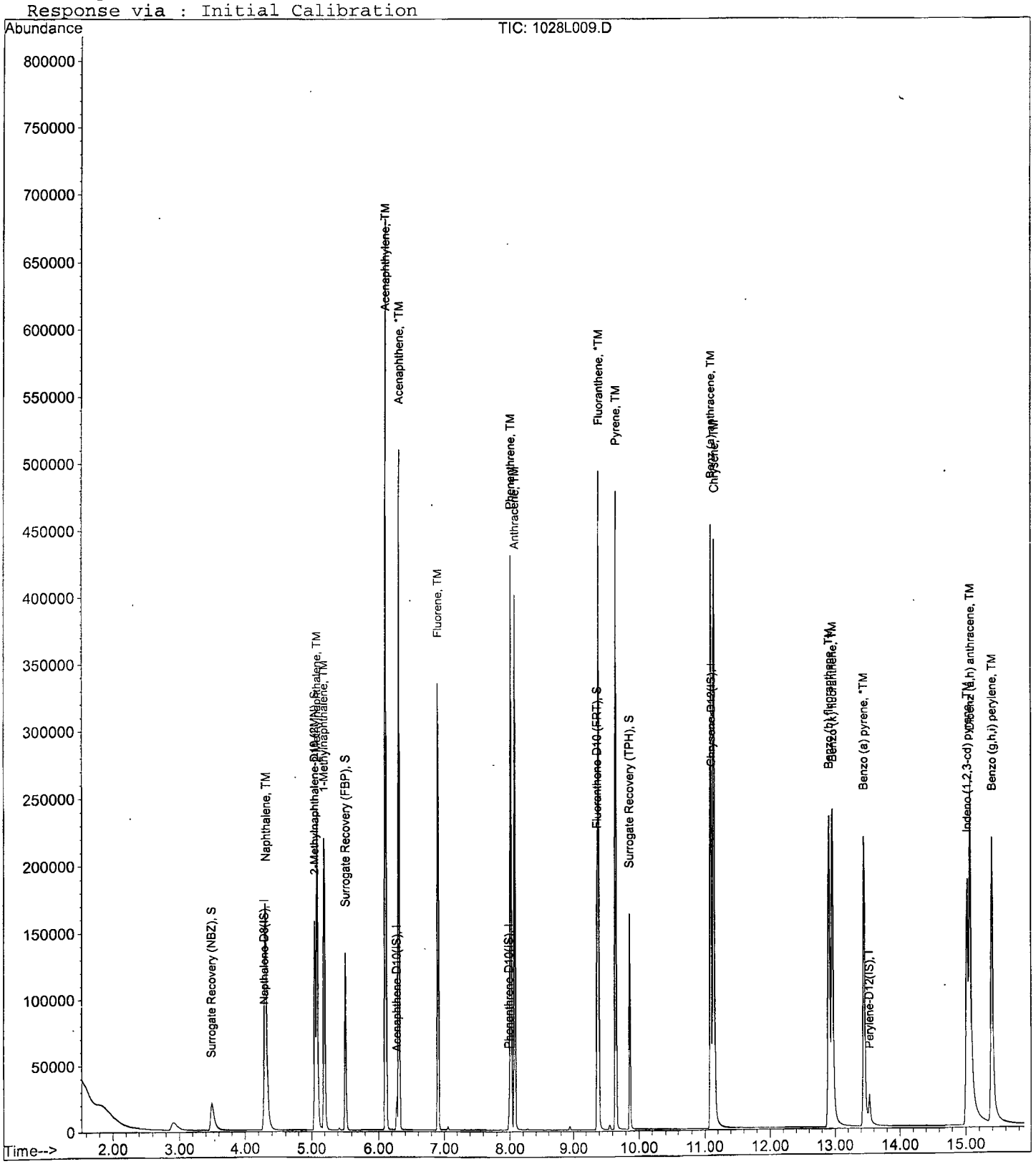
Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Napthalene-D8(IS)	4.29	136	32869	2.50000 ppb		0.01
7) Acenaphthene-D10(IS)	6.28	164	13416	2.50000 ppb		0.01
12) Phenanthrene-D10(IS)	7.99	188	23677	2.50000 ppb		0.00
17) Chrysene-D12(IS)	11.11	240	28661	2.50000 ppb		0.00
23) Perylene-D12(IS)	13.53	264	27623	2.50000 ppb		0.00
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	3.49	82	56078	8.95364 ppb		0.00
Spiked Amount 5.000			Recovery	= 179.080%		
4) 2-Methylnaphthalene-D10 (2	5.05	152	156708	9.54415 ppb		0.00
Spiked Amount 5.000			Recovery	= 190.880%		
8) Surrogate Recovery (FBP)	5.52	172	98204	9.65967 ppb		0.00
Spiked Amount 5.000			Recovery	= 193.200%		
15) Fluoranthene-D10 (FRT)	9.37	212	180565	10.47571 ppb		0.00
Spiked Amount 5.000			Recovery	= 209.520%		
19) Surrogate Recovery (TPH)	9.86	244	105182	9.54434 ppb		0.00
Spiked Amount 5.000			Recovery	= 190.880%		
Target Compounds						Qvalue
3) Naphthalene	4.31	128	324267	19.88786 ppb		99
5) 2-Methylnaphthalene	5.08	142	196246	20.15556 ppb		98
6) 1-Methylnaphthalene	5.19	142	192793	19.38213 ppb		96
9) Acenaphthylene	6.11	152	617256	21.63237 ppb		99
10) Acenaphthene	6.31	154	164055	20.07171 ppb		88
11) Fluorene	6.90	166	190667	20.92904 ppb		96
13) Phenanthrene	8.01	178	278373	19.90356 ppb		99
14) Anthracene	8.08	178	258173	21.37818 ppb		98
16) Fluoranthene	9.39	202	408909	21.26956 ppb	#	88
18) Pyrene	9.65	202	414663	20.23232 ppb	#	88
20) Benz (a) anthracene	11.10	228	331965	20.39010 ppb		99
21) Chrysene	11.15	228	351823	19.48211 ppb		99
22) Indeno (1,2,3-cd) pyrene	15.02	276	346411	21.77783 ppb	#	80
24) Benzo (b) fluoranthene	12.91	252	314014	22.41257 ppb		98
25) Benzo (k) fluoranthene	12.97	252	359815	22.62958 ppb	#	94
26) Benzo (a) pyrene	13.45	252	304231	23.58169 ppb		98
27) Dibenz (a,h) anthracene	15.07	278	282549	22.21959 ppb		96
28) Benzo (g,h,i) perylene	15.39	276	300183	21.49840 ppb	#	87

(#) = qualifier out of range (m) = manual integration

Data File : M:\LINUS\DATA\L191028\1028L009.D Vial: 9
Acq On : 28 Oct 19 14:19 Operator: MA
Sample : 20 SIM 10/28/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 30 10:35 2019 Quant Results File: L1028.RES

Method : M:\LINUS\DATA\L191028\L1028.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 30 10:39:31 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L191028\1028L010.D Vial: 10
Acq On : 28 Oct 19 14:42 Operator: MA
Sample : 50 SIM 10/28/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 30 10:39 2019 Quant Results File: L1028.RES

Quant Method : M:\LINUS\DATA\L191028\L1028.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 30 10:39:03 2019
Response via : Initial Calibration
DataAcq Meth : SIM_2

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Napthalene-D8(IS)	4.29	136	36782	2.50000 ppb		0.01
7) Acenaphthene-D10(IS)	6.28	164	15743	2.50000 ppb		0.01
12) Phenanthrene-D10(IS)	7.99	188	27764	2.50000 ppb		0.00
17) Chrysene-D12(IS)	11.12	240	31502	2.50000 ppb		0.01
23) Perylene-D12(IS)	13.54	264	33834	2.50000 ppb		0.01
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	3.49	82	164569	23.48044 ppb		0.00
Spiked Amount 5.000			Recovery	= 469.600%		
4) 2-Methylnaphthalene-D10 (2	5.05	152	432823	23.55633 ppb		0.00
Spiked Amount 5.000			Recovery	= 471.120%		
8) Surrogate Recovery (FBP)	5.52	172	269987	22.63141 ppb		0.00
Spiked Amount 5.000			Recovery	= 452.620%		
15) Fluoranthene-D10 (FRT)	9.38	212	499535	24.71499 ppb		0.01
Spiked Amount 5.000			Recovery	= 494.300%		
19) Surrogate Recovery (TPH)	9.87	244	308848	25.49780 ppb		0.01
Spiked Amount 5.000			Recovery	= 509.960%		
Target Compounds						Qvalue
3) Naphthalene	4.31	128	860769	47.17621 ppb		99
5) 2-Methylnaphthalene	5.10	142	514626	47.23207 ppb		96
6) 1-Methylnaphthalene	5.20	142	509460	45.76902 ppb		97
9) Acenaphthylene	6.11	152	1577589	47.11599 ppb		99
10) Acenaphthene	6.31	154	421153	43.91071 ppb		92
11) Fluorene	6.92	166	526911	49.28860 ppb		97
13) Phenanthrene	8.03	178	752594	45.88906 ppb		99
14) Anthracene	8.09	178	708446	50.02779 ppb		99
16) Fluoranthene	9.40	202	1024241	45.43376 ppb	#	91
18) Pyrene	9.66	202	1079871	47.93751 ppb	#	84
20) Benz (a) anthracene	11.11	228	900763	50.33740 ppb		98
21) Chrysene	11.16	228	902898	45.48872 ppb		98
22) Indeno (1,2,3-cd) pyrene	15.04	276	997292	57.04250 ppb	#	80
24) Benzo (b) fluoranthene	12.92	252	930609	54.22848 ppb		100
25) Benzo (k) fluoranthene	12.99	252	911111	46.78279 ppb		100
26) Benzo (a) pyrene	13.47	252	868154	54.93963 ppb		97
27) Dibenz (a,h) anthracene	15.09	278	817460	52.48391 ppb		97
28) Benzo (g,h,i) perylene	15.42	276	866669	50.67466 ppb		93

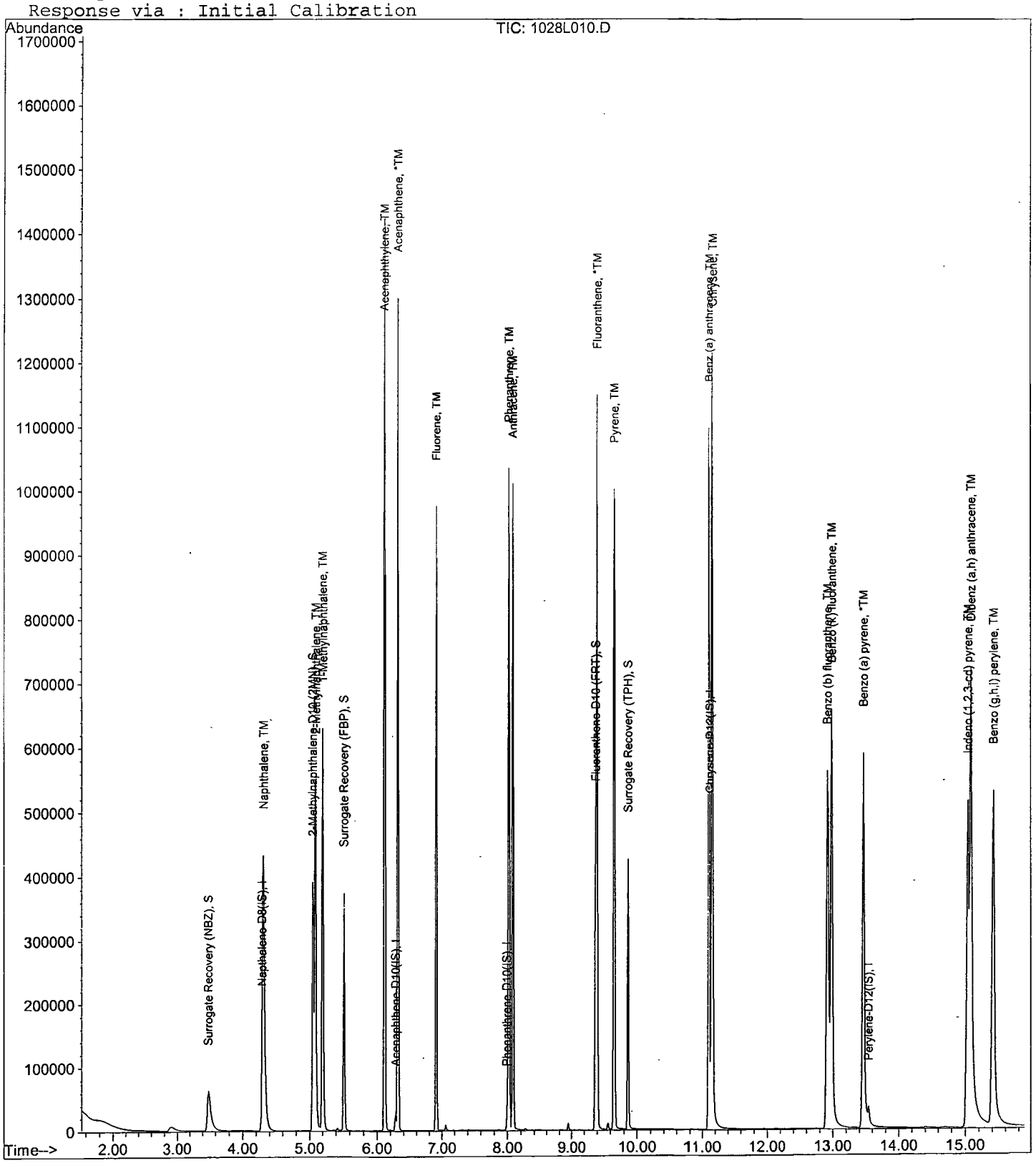
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L191028\1028L010.D Vial: 10
Acq On : 28 Oct 19 14:42 Operator: MA
Sample : 50 SIM 10/28/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 30 10:39 2019 Quant Results File: L1028.RES

Method : M:\LINUS\DATA\L191028\L1028.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 30 10:39:31 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L191028\1028L011.D Vial: 11
Acq On : 28 Oct 19 15:04 Operator: MA
Sample : 100 SIM 10/28/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 30 10:39 2019 Quant Results File: L1028.RES

Quant Method : M:\LINUS\DATA\L191028\L1028.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 30 10:39:03 2019
Response via : Initial Calibration
DataAcq Meth : SIM_2

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Napthalene-D8(IS)	4.29	136	35886	2.50000 ppb		0.01
7) Acenaphthene-D10(IS)	6.28	164	15357	2.50000 ppb		0.01
12) Phenanthrene-D10(IS)	7.99	188	27888	2.50000 ppb		0.00
17) Chrysene-D12(IS)	11.13	240	31266	2.50000 ppb		0.02
23) Perylene-D12(IS)	13.54	264	33574	2.50000 ppb		0.01
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	3.49	82	331274	48.44577 ppb		0.00
Spiked Amount 5.000			Recovery	= 968.920%		
4) 2-Methylnaphthalene-D10 (2	5.06	152	824254	45.97997 ppb		0.01
Spiked Amount 5.000			Recovery	= 919.600%		
8) Surrogate Recovery (FBP)	5.52	172	507607	43.61919 ppb		0.00
Spiked Amount 5.000			Recovery	= 872.380%		
15) Fluoranthene-D10 (FRT)	9.38	212	938946	46.24873 ppb		0.01
Spiked Amount 5.000			Recovery	= 924.980%		
19) Surrogate Recovery (TPH)	9.87	244	594165	49.42319 ppb		0.01
Spiked Amount 5.000			Recovery	= 988.460%		
Target Compounds						Qvalue
3) Naphthalene	4.31	128	1632322	91.69646 ppb		99
5) 2-Methylnaphthalene	5.09	142	988093	92.95084 ppb		96
6) 1-Methylnaphthalene	5.20	142	987228	90.90531 ppb		97
9) Acenaphthylene	6.12	152	3028365	92.71793 ppb		98
10) Acenaphthene	6.33	154	884058	94.49143 ppb		81
11) Fluorene	6.92	166	977828	93.76761 ppb		99
13) Phenanthrene	8.03	178	1410719	85.63545 ppb		98
14) Anthracene	8.10	178	1405385	98.80172 ppb		98
16) Fluoranthene	9.41	202	1975643	87.24682 ppb	#	93
18) Pyrene	9.67	202	2087655	93.37447 ppb	#	79
20) Benz (a) anthracene	11.12	228	1769567	99.63525 ppb		98
21) Chrysene	11.17	228	1761570	89.41920 ppb	#	95
22) Indeno (1,2,3-cd) pyrene	15.08	276	1994441	114.93788 ppb	#	97
24) Benzo (b) fluoranthene	12.95	252	1775337	104.25365 ppb		98
25) Benzo (k) fluoranthene	13.01	252	1833100	94.85304 ppb		98
26) Benzo (a) pyrene	13.49	252	1692412	107.93077 ppb		96
27) Dibenz (a,h) anthracene	15.12	278	1669599	108.02446 ppb		94
28) Benzo (g,h,i) perylene	15.46	276	1722719	101.50847 ppb		96

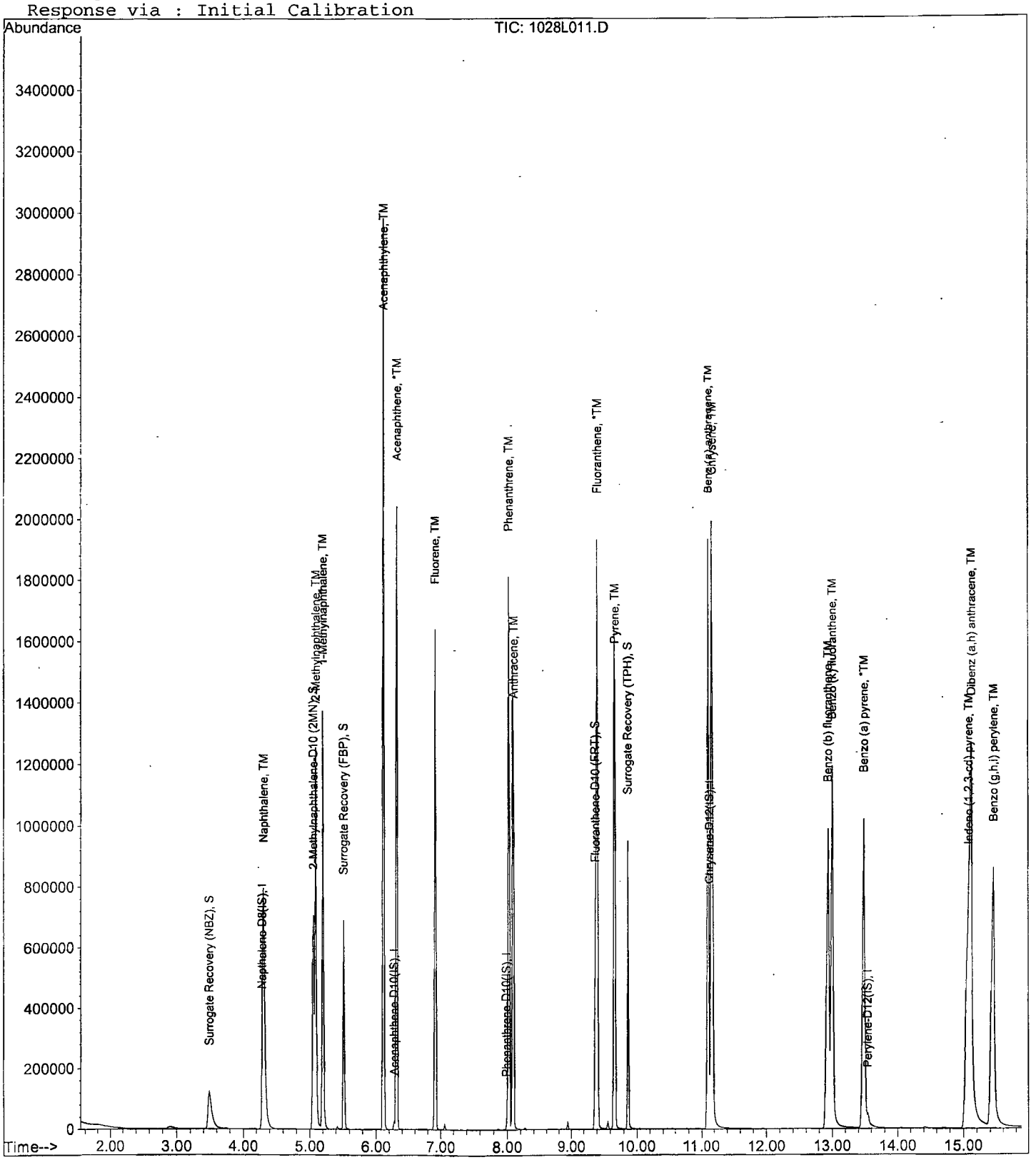
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L191028\1028L011.D Vial: 11
Acq On : 28 Oct 19 15:04 Operator: MA
Sample : 100 SIM 10/28/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 30 10:39 2019 Quant Results File: L1028.RES

Method : M:\LINUS\DATA\L191028\L1028.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 30 10:39:31 2019
Response via : Initial Calibration



PAH by GCMS SIM
EPA 8270 SIM

Form 7

Second Source Calibration

Lab Name: APPL, Inc.
Case No:
Matrix:

SDG No:
Date Analyzed: 10/28/19
Instrument: Linus
Initial Cal. Date: 10/28/19
Data File: 1028L012.D

		Compound	MEAN	CCRF	%D		%Drift
1	TM	Naphthalene	1.240	1.222	1.4	TM	
2	TM	2-Methylnaphthalene	0.7406	0.7386	0.26	TM	
3	TM	1-Methylnaphthalene	0.7566	0.7450	1.5	TM	
4	TM	Acenaphthylene	5.317	5.695	7.1	TM	
5	*TM	Acenaphthene	1.523	1.515	0.52	*TM	
6	TM	Fluorene	1.698	1.746	2.9	TM	
7	TM	Phenanthrene	1.477	1.538	4.1	TM	
8	TM	Anthracene	1.275	1.367	7.2	TM	
9	*TM	Fluoranthene	2.013	2.171	7.8	*TM	
10	TM	Pyrene	1.789	1.816	1.5	TM	
11	TM	Benz (a) anthracene	1.420	1.330	6.4	TM	
12	TM	Chrysene	1.573	1.539	2.2	TM	
13	TM	Indeno (1,2,3-cd) pyrene	1.387	1.255	9.5	TM	
14	TM	Benzo (b) fluoranthene	1.268	1.334	5.2	TM	
15	TM	Benzo (k) fluoranthene	1.439	1.585	10	TM	
16	*TM	Benzo (a) pyrene	1.167	1.265	8.4	*TM	
17	TM	Dibenz (a,h) anthracene	1.151	1.126	2.2	TM	
18	TM	Benzo (g,h,i) perylene	1.264	1.235	2.3	TM	
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
30							
31							
32							
33							
34							
35							
36							
37							
38							
39							
40							
		Average			4.5		

Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L191028\1028L012.D Vial: 12
Acq On : 28 Oct 19 15:55 Operator: MA
Sample : SS SIM 10/28/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 30 10:44 2019 Quant Results File: L1028.RES

Quant Method : M:\LINUS\DATA\L191028\L1028.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 30 10:39:31 2019
Response via : Initial Calibration
DataAcq Meth : SIM_2

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Napthalene-D8(IS)	4.29	136	37041	2.50000	ppb		0.01
7) Acenaphthene-D10(IS)	6.28	164	15072	2.50000	ppb		0.01
12) Phenanthrene-D10(IS)	7.99	188	26057	2.50000	ppb		0.00
17) Chrysene-D12(IS)	11.11	240	32042	2.50000	ppb		0.00
23) Perylene-D12(IS)	13.53	264	29024	2.50000	ppb		0.00
System Monitoring Compounds							
2) Surrogate Recovery (NBZ)	0.00	82	0d	0.00000	ppb		
Spiked Amount 5.000			Recovery	=	0.000%		
4) 2-Methylnaphthalene-D10 (2	0.00	152	0d	0.00000	ppb		
Spiked Amount 5.000			Recovery	=	0.000%		
8) Surrogate Recovery (FBP)	0.00	172	0d	0.00000	ppb		
Spiked Amount 5.000			Recovery	=	0.000%		
15) Fluoranthene-D10 (FRT)	0.00	212	0d	0.00000	ppb		
Spiked Amount 5.000			Recovery	=	0.000%		
19) Surrogate Recovery (TPH)	0.00	244	0d	0.00000	ppb		
Spiked Amount 5.000			Recovery	=	0.000%		
Target Compounds							Qvalue
3) Naphthalene	4.30	128	90550	4.92808	ppb		100
5) 2-Methylnaphthalene	5.08	142	54717	4.98678	ppb		97
6) 1-Methylnaphthalene	5.19	142	55190	4.92351	ppb		97
9) Acenaphthylene	6.11	152	171659	5.35498	ppb		99
10) Acenaphthene	6.31	154	45673	4.97401	ppb		89
11) Fluorene	6.90	166	52636	5.14291	ppb		95
13) Phenanthrene	8.01	178	80127	5.20577	ppb		98
14) Anthracene	8.08	178	71254	5.36132	ppb		99
16) Fluoranthene	9.39	202	113116	5.39024	ppb	#	93
18) Pyrene	9.65	202	116362	5.07511	ppb	#	86
20) Benz (a) anthracene	11.10	228	85204	4.68122	ppb		98
21) Chrysene	11.14	228	98596	4.89203	ppb	#	96
22) Indeno (1,2,3-cd) pyrene	15.01	276	80441	4.52347	ppb		88
24) Benzo (b) fluoranthene	12.90	252	77412	5.25853	ppb		99
25) Benzo (k) fluoranthene	12.96	252	92007	5.50721	ppb		99
26) Benzo (a) pyrene	13.45	252	73458	5.42211	ppb		97
27) Dibenz (a,h) anthracene	15.05	278	65335	4.88992	ppb	#	94
28) Benzo (g,h,i) perylene	15.38	276	71685	4.88610	ppb	#	92

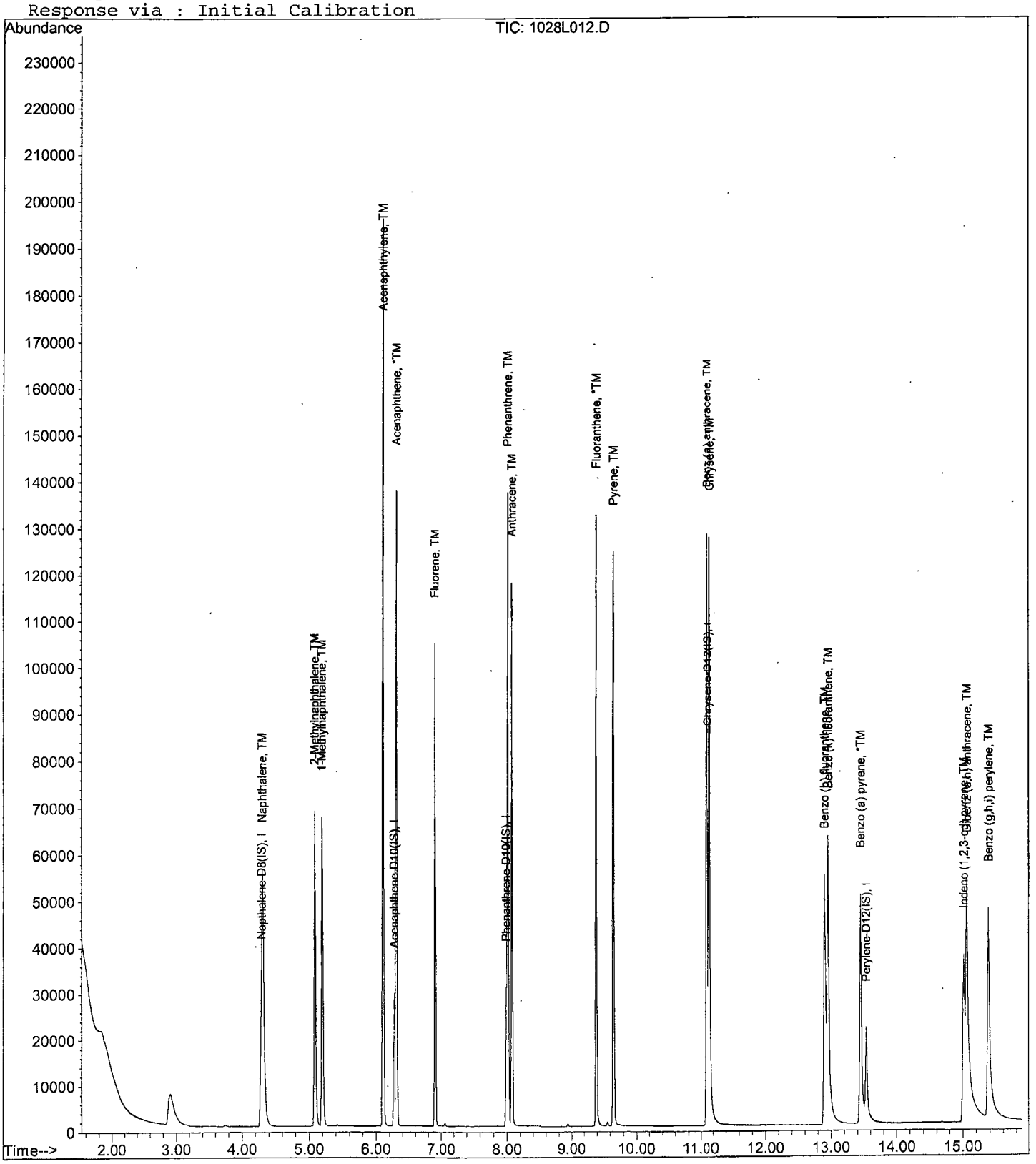
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L191028\1028L012.D Vial: 12
Acq On : 28 Oct 19 15:55 Operator: MA
Sample : SS SIM 10/28/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 30 10:44 2019 Quant Results File: L1028.RES

Method : M:\LINUS\DATA\L191028\L1028.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 30 10:39:31 2019
Response via : Initial Calibration



PAH by GCMS SIM
EPA 8270 SIM

Form 7

Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix:

SDG No:
Date Analyzed: 11/15/19
Instrument: Linus
Initial Cal. Date: 10/28/19
Data File: 1115L003.D

		Compound	MEAN	CCRF	%D		%Drift
1	I	Napthalene-D8(IS)	ISTD			I	
2	S	Surrogate Recovery (NBZ)	0.4764	0.4624	2.9	S	
3	TM	Naphthalene	1.240	1.210	2.4	TM	
4	S	2-Methylnaphthalene-D10 (2MN)	1.249	1.186	5.0	S	
5	TM	2-Methylnaphthalene	0.7406	0.7349	0.76	TM	
6	TM	1-Methylnaphthalene	0.7566	0.7245	4.2	TM	
7	I	Acenaphthene-D10(IS)	ISTD			I	
8	S	Surrogate Recovery (FBP)	1.894	1.825	3.7	S	
9	TM	Acenaphthylene	5.317	5.626	5.8	TM	
10	*TM	Acenaphthene	1.523	1.488	2.3	*TM	
11	TM	Fluorene	1.698	1.737	2.3	TM	
12	I	Phenanthrene-D10(IS)	ISTD			I	
13	TM	Phenanthrene	1.477	1.419	3.9	TM	
14	TM	Anthracene	1.275	1.316	3.2	TM	
15	S	Fluoranthene-D10 (FRT)	1.819	1.911	5.0	S	
16	*TM	Fluoranthene	2.013	2.103	4.4	*TM	
17	I	Chrysene-D12(IS)	ISTD			I	
18	TM	Pyrene	1.789	1.779	0.56	TM	
19	S	Surrogate Recovery (TPH)	0.9613	0.9573	0.41	S	
20	TM	Benz (a) anthracene	1.420	1.375	3.2	TM	
21	TM	Chrysene	1.573	1.502	4.5	TM	
22	TM	Indeno (1,2,3-cd) pyrene	1.387	1.417	2.1	TM	
23	I	Perylene-D12(IS)	ISTD			I	
24	TM	Benzo (b) fluoranthene	1.268	1.310	3.3	TM	
25	TM	Benzo (k) fluoranthene	1.439	1.467	1.9	TM	
26	*TM	Benzo (a) pyrene	1.167	1.219	4.4	*TM	
27	TM	Dibenz (a,h) anthracene	1.151	1.162	0.99	TM	
28	TM	Benzo (g,h,i) perylene	1.264	1.201	5.0	TM	
29							
30							
31							
32							
33							
34							
35							
36							
37							
38							
39							
40							
		Average			3.1		

Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L191115\1115L003.D Vial: 3
Acq On : 15 Nov 19 16:26 Operator: MA
Sample : 5ug/mL SIM 10/28/19 (1) Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Nov 15 16:46 2019 Quant Results File: L1028.RES

Quant Method : M:\LINUS\DATA\L191115\L1028.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 30 10:39:31 2019
Response via : Initial Calibration
DataAcq Meth : SIM_2

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Napthalene-D8(IS)	4.26	136	47408	2.50000 ppb		-0.01
7) Acenaphthene-D10(IS)	6.27	164	19373	2.50000 ppb		0.00
12) Phenanthrene-D10(IS)	7.98	188	34698	2.50000 ppb		-0.01
17) Chrysene-D12(IS)	11.10	240	41639	2.50000 ppb		-0.01
23) Perylene-D12(IS)	13.53	264	42127	2.50000 ppb		0.00
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	3.48	82	21921	2.42662 ppb		-0.01
Spiked Amount 5.000			Recovery	= 48.540%		
4) 2-Methylnaphthalene-D10 (2	5.03	152	56237	2.37467 ppb		-0.01
Spiked Amount 5.000			Recovery	= 47.500%		
8) Surrogate Recovery (FBP)	5.51	172	35348	2.40782 ppb		-0.01
Spiked Amount 5.000			Recovery	= 48.160%		
15) Fluoranthene-D10 (FRT)	9.36	212	66291	2.62542 ppb		-0.01
Spiked Amount 5.000			Recovery	= 52.500%		
19) Surrogate Recovery (TPH)	9.85	244	39861	2.48968 ppb		-0.01
Spiked Amount 5.000			Recovery	= 49.800%		
Target Compounds						Qvalue
3) Naphthalene	4.29	128	114726	4.87845 ppb		100
5) 2-Methylnaphthalene	5.07	142	69683	4.96199 ppb		98
6) 1-Methylnaphthalene	5.18	142	68697	4.78832 ppb		97
9) Acenaphthylene	6.10	152	217978	5.29027 ppb		99
10) Acenaphthene	6.30	154	57649	4.88442 ppb		89
11) Fluorene	6.89	166	67319	5.11726 ppb		94
13) Phenanthrene	8.00	178	98469	4.80425 ppb		98
14) Anthracene	8.06	178	91331	5.16060 ppb		98
16) Fluoranthene	9.38	202	145937	5.22240 ppb	#	89
18) Pyrene	9.64	202	148148	4.97221 ppb		89
20) Benz (a) anthracene	11.09	228	114535	4.84235 ppb		99
21) Chrysene	11.13	228	125073	4.77544 ppb	#	95
22) Indeno (1,2,3-cd) pyrene	15.01	276	117978	5.10523 ppb		83
24) Benzo (b) fluoranthene	12.90	252	110409	5.16723 ppb		95
25) Benzo (k) fluoranthene	12.95	252	123580	5.09631 ppb		98
26) Benzo (a) pyrene	13.43	252	102669	5.22114 ppb		99
27) Dibenz (a,h) anthracene	15.05	278	97921	5.04927 ppb		99
28) Benzo (g,h,i) perylene	15.38	276	101201	4.75242 ppb		93

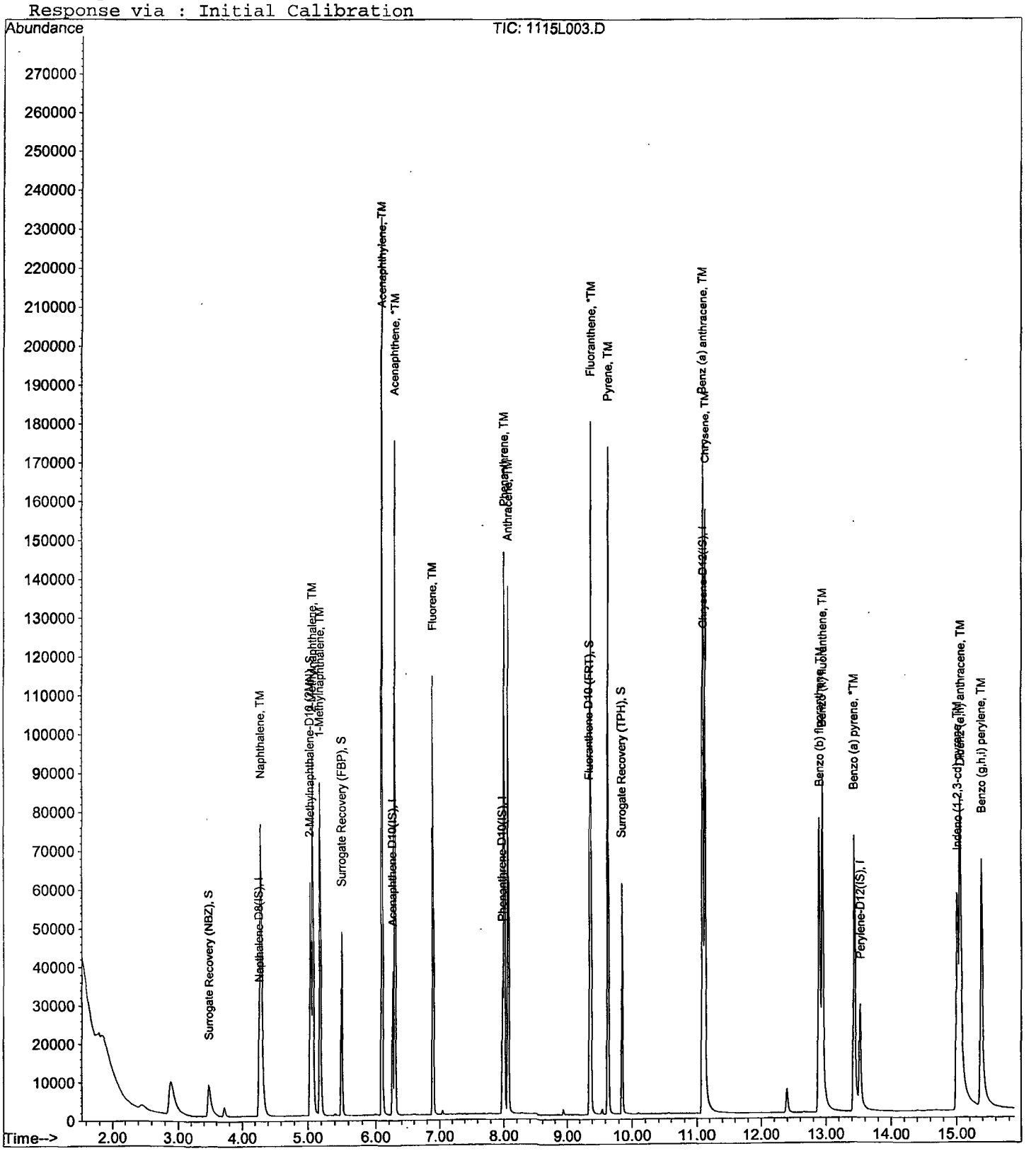
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L191115\1115L003.D Vial: 3
Acq On : 15 Nov 19 16:26 Operator: MA
Sample : 5ug/mL SIM 10/28/19 (1) Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Nov 15 16:46 2019 Quant Results File: L1028.RES

Method : M:\LINUS\DATA\L191115\L1028.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 30 10:39:31 2019
Response via : Initial Calibration



PAH by GCMS SIM
EPA 8270 SIM

Form 7

Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix:

SDG No:
Date Analyzed: 11/16/19
Instrument: Linus
Initial Cal. Date: 10/28/19
Data File: 1115L028.D

		Compound	MEAN	CCRF	%D		%Drift
1	I	Napthalene-D8(IS)	ISTD			I	
2	S	Surrogate Recovery (NBZ)	0.4764	0.4735	0.59	S	
3	TM	Naphthalene	1.240	1.213	2.2	TM	
4	S	2-Methylnaphthalene-D10 (2MN)	1.249	1.167	6.6	S	
5	TM	2-Methylnaphthalene	0.7406	0.7260	2.0	TM	
6	TM	1-Methylnaphthalene	0.7566	0.7210	4.7	TM	
7	I	Acenaphthene-D10(IS)	ISTD			I	
8	S	Surrogate Recovery (FBP)	1.894	2.036	7.4	S	
9	TM	Acenaphthylene	5.317	6.186	16	TM	
10	*TM	Acenaphthene	1.523	1.610	5.7	*TM	
11	TM	Fluorene	1.698	1.846	8.8	TM	
12	I	Phenanthrene-D10(IS)	ISTD			I	
13	TM	Phenanthrene	1.477	1.446	2.1	TM	
14	TM	Anthracene	1.275	1.348	5.7	TM	
15	S	Fluoranthene-D10 (FRT)	1.819	1.992	9.5	S	
16	*TM	Fluoranthene	2.013	2.192	8.9	*TM	
17	I	Chrysene-D12(IS)	ISTD			I	
18	TM	Pyrene	1.789	1.759	1.7	TM	
19	S	Surrogate Recovery (TPH)	0.9613	0.9596	0.17	S	
20	TM	Benz (a) anthracene	1.420	1.378	3.0	TM	
21	TM	Chrysene	1.573	1.488	5.3	TM	
22	TM	Indeno (1,2,3-cd) pyrene	1.387	1.310	5.6	TM	
23	I	Perylene-D12(IS)	ISTD			I	
24	TM	Benzo (b) fluoranthene	1.268	1.285	1.4	TM	
25	TM	Benzo (k) fluoranthene	1.439	1.444	0.36	TM	
26	*TM	Benzo (a) pyrene	1.167	1.217	4.3	*TM	
27	TM	Dibenz (a,h) anthracene	1.151	1.095	4.8	TM	
28	TM	Benzo (g,h,i) perylene	1.264	1.132	10	TM	
29							
30							
31							
32							
33							
34							
35							
36							
37							
38							
39							
40							
		Average			5.1		

Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L191115\1115L028.D Vial: 28
Acq On : 16 Nov 19 1:44 Operator: MA
Sample : 5ug/mL SIM 10/28/19 (1) Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Nov 18 9:27 2019 Quant Results File: L1028.RES

Quant Method : M:\LINUS\DATA\L191115\L1028.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 30 10:39:31 2019
Response via : Initial Calibration
DataAcq Meth : SIM_2

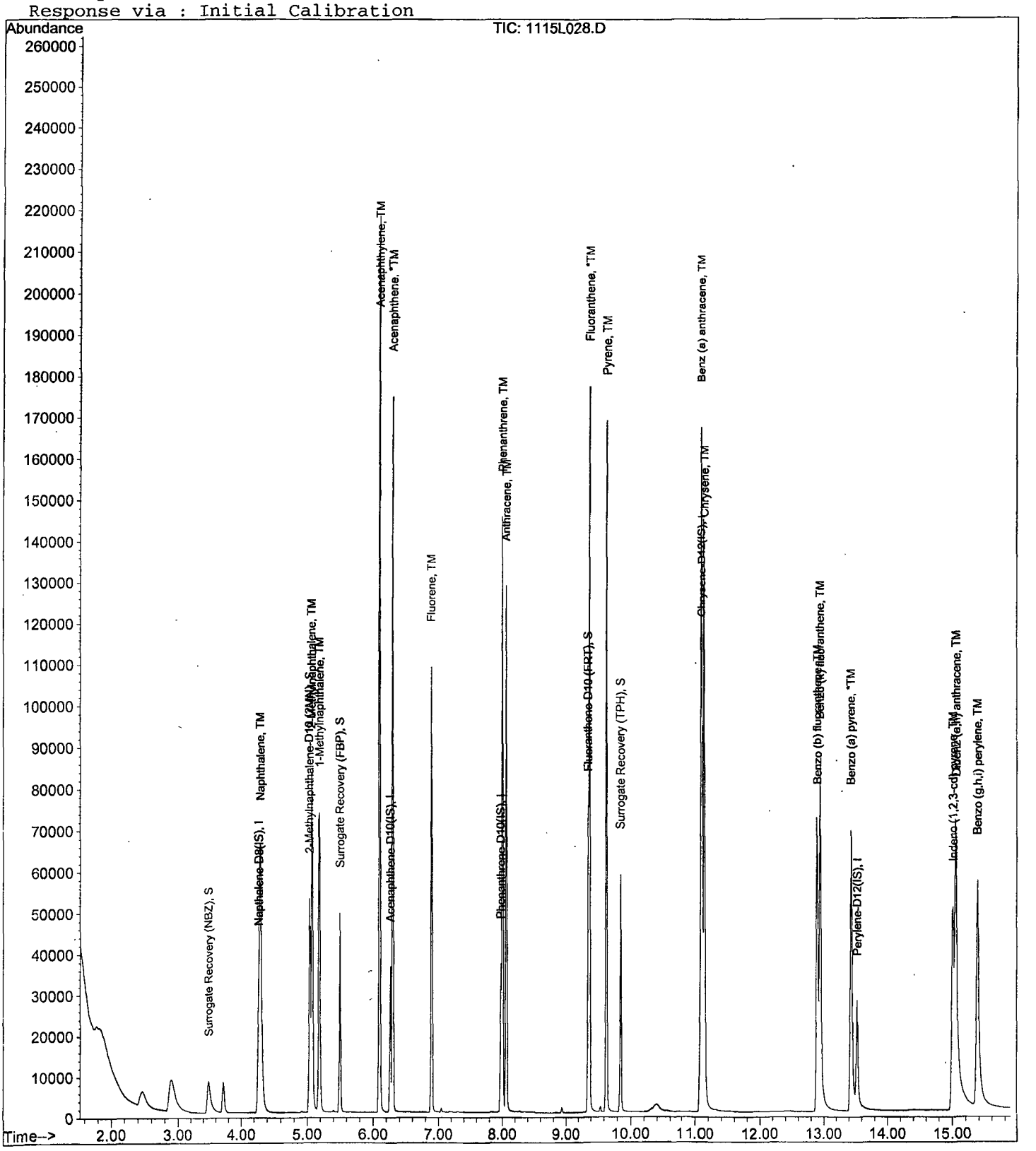
Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Napthalene-D8(IS)	4.27	136	46505	2.50000 ppb		0.00
7) Acenaphthene-D10(IS)	6.27	164	17348	2.50000 ppb		0.00
12) Phenanthrene-D10(IS)	7.98	188	32880	2.50000 ppb		-0.01
17) Chrysene-D12(IS)	11.10	240	40911	2.50000 ppb		-0.01
23) Perylene-D12(IS)	13.53	264	40547	2.50000 ppb		0.00
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	3.49	82	22022	2.48514 ppb		0.00
Spiked Amount 5.000			Recovery	= 49.700%		
4) 2-Methylnaphthalene-D10 (2	5.03	152	54273	2.33624 ppb		-0.01
Spiked Amount 5.000			Recovery	= 46.720%		
8) Surrogate Recovery (FBP)	5.51	172	35313	2.68622 ppb		-0.01
Spiked Amount 5.000			Recovery	= 53.720%		
15) Fluoranthene-D10 (FRT)	9.36	212	65510	2.73794 ppb		-0.01
Spiked Amount 5.000			Recovery	= 54.760%		
19) Surrogate Recovery (TPH)	9.85	244	39259	2.49572 ppb		-0.01
Spiked Amount 5.000			Recovery	= 49.920%		
Target Compounds						Qvalue
3) Naphthalene	4.30	128	112799	4.88965 ppb		99
5) 2-Methylnaphthalene	5.07	142	67528	4.90190 ppb		96
6) 1-Methylnaphthalene	5.19	142	67064	4.76526 ppb		99
9) Acenaphthylene	6.10	152	214639	5.81730 ppb		99
10) Acenaphthene	6.30	154	55856	5.28492 ppb		90
11) Fluorene	6.89	166	64065	5.43836 ppb		93
13) Phenanthrene	8.00	178	95061	4.89442 ppb		98
14) Anthracene	8.06	178	88673	5.28745 ppb		98
16) Fluoranthene	9.38	202	144164	5.44420 ppb	#	88
18) Pyrene	9.64	202	143915	4.91609 ppb		89
20) Benz (a) anthracene	11.09	228	112756	4.85197 ppb		99
21) Chrysene	11.14	228	121786	4.73268 ppb		98
22) Indeno (1,2,3-cd) pyrene	15.01	276	107217	4.72213 ppb	#	85
24) Benzo (b) fluoranthene	12.90	252	104243	5.06876 ppb		95
25) Benzo (k) fluoranthene	12.95	252	117122	5.01820 ppb		97
26) Benzo (a) pyrene	13.43	252	98689	5.21430 ppb		99
27) Dibenz (a,h) anthracene	15.05	278	88810	4.75791 ppb		98
28) Benzo (g,h,i) perylene	15.38	276	91825	4.48016 ppb	#	91

(#) = qualifier out of range (m) = manual integration

Data File : M:\LINUS\DATA\L191115\1115L028.D Vial: 28
Acq On : 16 Nov 19 1:44 Operator: MA
Sample : 5ug/mL SIM 10/28/19 (1) Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Nov 18 9:27 2019 Quant Results File: L1028.RES

Method : M:\LINUS\DATA\L191115\L1028.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 30 10:39:31 2019
Response via : Initial Calibration



ORGANICS
Raw Data

Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L191115\1115L007.D Vial: 7
Acq On : 15 Nov 19 18:03 Operator: MA
Sample : BA02466W21 1/800 Inst : Linus
Misc : Multiplr: 1.25

Quant Time: Nov 18 9:38 2019 Quant Results File: L1028.RES

Quant Method : M:\LINUS\DATA\L191115\L1028.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 30 10:39:31 2019
Response via : Initial Calibration
DataAcq Meth : SIM_2

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Napthalene-D8(IS)	4.27	136	44021	2.50000 ppb	0.00
7) Acenaphthene-D10(IS)	6.27	164	18059	2.50000 ppb	0.00
12) Phenanthrene-D10(IS)	7.98	188	32580	2.50000 ppb	-0.01
17) Chrysene-D12(IS)	11.10	240	38398	2.50000 ppb	-0.01
23) Perylene-D12(IS)	13.53	264	40480	2.50000 ppb	0.00
System Monitoring Compounds					
2) Surrogate Recovery (NBZ)	3.49	82	648593	96.65314 ppb	0.00
Spiked Amount 6.250			Recovery	= 1546.448%	
4) 2-Methylnaphthalene-D10 (2	5.03	152	90405	5.13896 ppb	-0.01
Spiked Amount 6.250			Recovery	= 82.224%	
8) Surrogate Recovery (FBP)	5.51	172	814381	74.38756 ppb	-0.01
Spiked Amount 6.250			Recovery	= 1190.208%	
15) *Fluoranthene-D10 (FRT)*	*9.36*	*212*	*115943*	*6.11296 ppb*	-0.01
Spiked Amount 6.250			Recovery	= 97.808%	
19) Surrogate Recovery (TPH)	9.87	244	1067314	90.36279 ppb	0.01
Spiked Amount 6.250			Recovery	= 1445.808%	

Target Compounds Qvalue

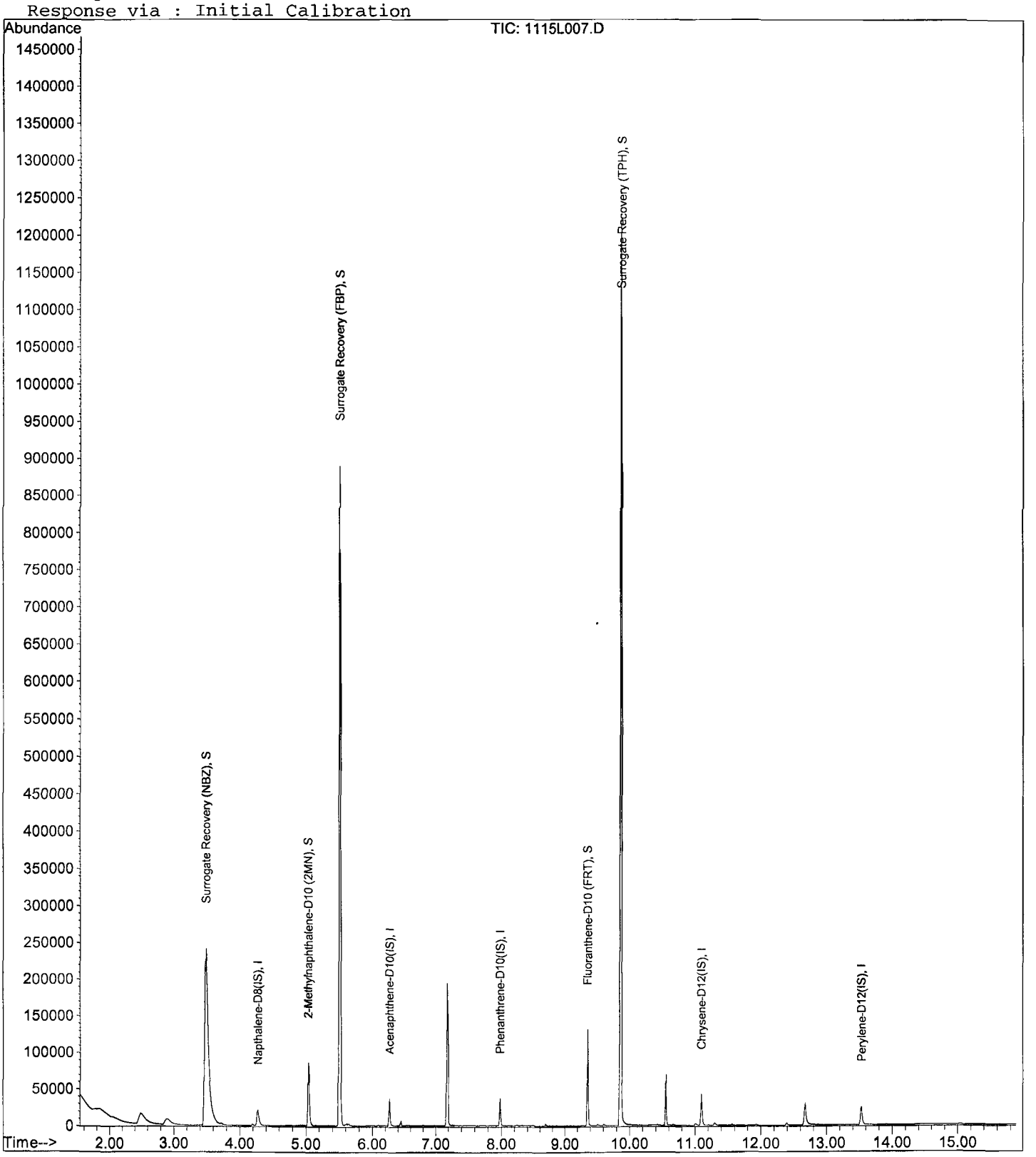
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L191115\1115L007.D Vial: 7
Acq On : 15 Nov 19 18:03 Operator: MA
Sample : BA02466W21 1/800 Inst : Linus
Misc : Multiplr: 1.25

Quant Time: Nov 18 9:38 2019 Quant Results File: L1028.RES

Method : M:\LINUS\DATA\L191115\L1028.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 30 10:39:31 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L191115\1115L004.D Vial: 4
Acq On : 15 Nov 19 16:57 Operator: MA
Sample : 191111A BLK 1/800 Inst : Linus
Misc : Multiplr: 1.25

Quant Time: Nov 15 18:10 2019 Quant Results File: L1028.RES

Quant Method : M:\LINUS\DATA\L191115\L1028.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 30 10:39:31 2019
Response via : Initial Calibration
DataAcq Meth : SIM_2

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Napthalene-D8(IS)	4.27	136	43082	2.50000 ppb	0.00
7) Acenaphthene-D10(IS)	6.27	164	17760	2.50000 ppb	0.00
12) Phenanthrene-D10(IS)	7.98	188	32390	2.50000 ppb	-0.01
17) Chrysene-D12(IS)	11.10	240	37756	2.50000 ppb	-0.01
23) Perylene-D12(IS)	13.53	264	38374	2.50000 ppb	0.00
System Monitoring Compounds					
2) Surrogate Recovery (NBZ)	3.48	82	630385	95.98727 ppb	-0.01
Spiked Amount 6.250			Recovery	= 1535.792%	
4) 2-Methylnaphthalene-D10 (2	5.03	152	86103	5.00109 ppb	-0.01
Spiked Amount 6.250			Recovery	= 80.016%	
8) Surrogate Recovery (FBP)	5.51	172	786352	73.03657 ppb	-0.01
Spiked Amount 6.250			Recovery	= 1168.592%	
15) Fluoranthene-D10 (FRT)	9.36	212	111416	5.90874 ppb	-0.01
Spiked Amount 6.250			Recovery	= 94.544%	
19) Surrogate Recovery (TPH)	9.87	244	1039598	89.51287 ppb	0.01
Spiked Amount 6.250			Recovery	= 1432.208%	

Target Compounds Qvalue

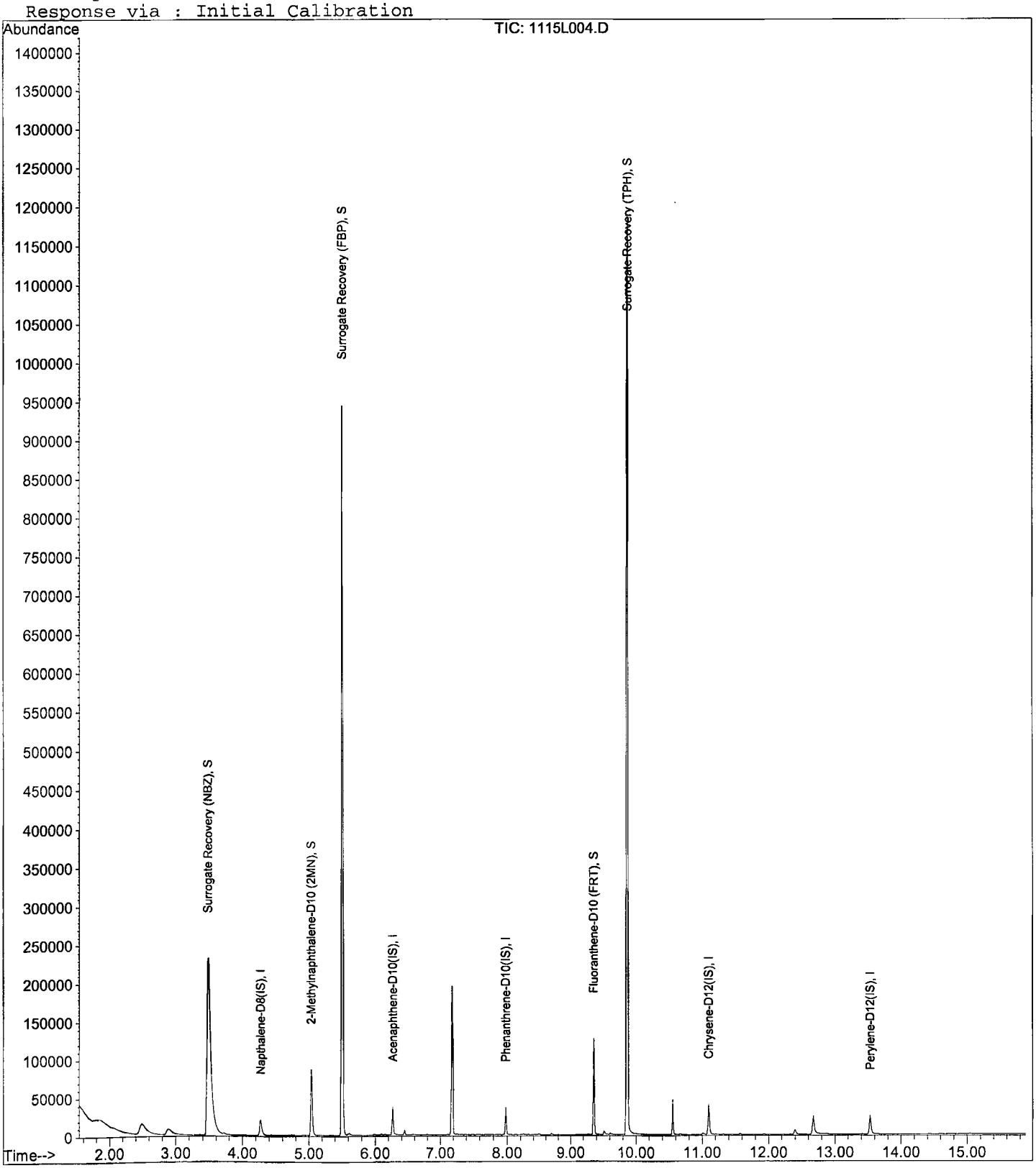
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L191115\1115L004.D Vial: 4
Acq On : 15 Nov 19 16:57 Operator: MA
Sample : 191111A BLK 1/800 Inst : Linus
Misc : Multiplr: 1.25

Quant Time: Nov 15 18:10 2019 Quant Results File: L1028.RES

Method : M:\LINUS\DATA\L191115\L1028.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 30 10:39:31 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L191115\1115L005.D Vial: 5
Acq On : 15 Nov 19 17:19 Operator: MA
Sample : 191111A LCS-2 1/800 Inst : Linus
Misc : Multiplr: 1.25

Quant Time: Nov 15 18:10 2019 Quant Results File: L1028.RES

Quant Method : M:\LINUS\DATA\L191115\L1028.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 30 10:39:31 2019
Response via : Initial Calibration
DataAcq Meth : SIM_2

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Napthalene-D8(IS)	4.27	136	41644	2.50000 ppb		0.00
7) Acenaphthene-D10(IS)	6.27	164	17380	2.50000 ppb		0.00
12) Phenanthrene-D10(IS)	7.98	188	31866	2.50000 ppb		-0.01
17) Chrysene-D12(IS)	11.10	240	37644	2.50000 ppb		-0.01
23) Perylene-D12(IS)	13.53	264	37962	2.50000 ppb		0.00
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	3.50	82	30	0.00473 ppb		0.01
Spiked Amount 6.250			Recovery	= 0.080%		
4) 2-Methylnaphthalene-D10 (2	5.03	152	88463	5.31559 ppb		-0.01
Spiked Amount 6.250			Recovery	= 85.056%		
8) Surrogate Recovery (FBP)	5.51	172	47	0.00446 ppb		-0.01
Spiked Amount 6.250			Recovery	= 0.064%		
15) Fluoranthene-D10 (FRT)	9.36	212	110602	5.96202 ppb		-0.01
Spiked Amount 6.250			Recovery	= 95.392%		
19) Surrogate Recovery (TPH)	9.85	244	463	0.03998 ppb		-0.01
Spiked Amount 6.250			Recovery	= 0.640%		
Target Compounds						Qvalue
3) Naphthalene	4.29	128	102168	6.18222 ppb		100
5) 2-Methylnaphthalene	5.07	142	60563	6.13685 ppb		97
6) 1-Methylnaphthalene	5.18	142	60753	6.02590 ppb		95
9) Acenaphthylene	6.10	152	194763	6.58610 ppb		99
10) Acenaphthene	6.30	154	52462	6.19331 ppb		90
11) Fluorene	6.89	166	64064	6.78533 ppb		96
13) Phenanthrene	8.00	178	94406	6.26921 ppb		98
14) Anthracene	8.06	178	78538	6.04017 ppb		98
16) Fluoranthene	9.38	202	140264	6.83184 ppb	#	90
18) Pyrene	9.64	202	143453	6.65699 ppb		89
20) Benz (a) anthracene	11.09	228	113502	6.63493 ppb		98
21) Chrysene	11.13	228	119425	6.30463 ppb	#	96
22) Indeno (1,2,3-cd) pyrene	15.00	276	116223	6.95378 ppb	#	100
24) Benzo (b) fluoranthene	12.89	252	113670	7.37939 ppb		99
25) Benzo (k) fluoranthene	12.95	252	117614	6.72803 ppb		99
26) Benzo (a) pyrene	13.43	252	90475	6.38228 ppb		99
27) Dibenz (a,h) anthracene	15.04	278	96317	6.88933 ppb	#	91
28) Benzo (g,h,i) perylene	15.38	276	99495	6.48117 ppb		97

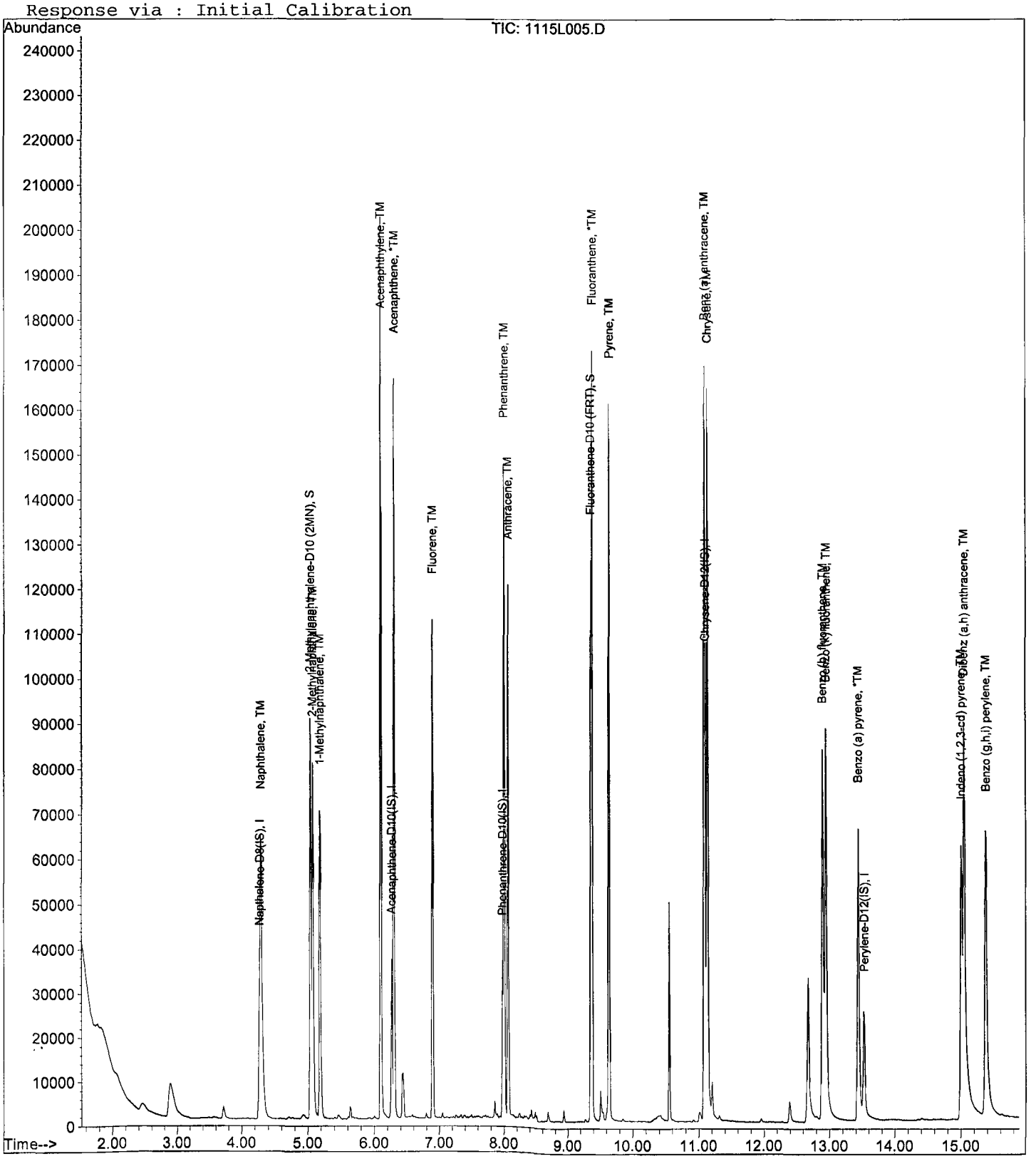
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L191115\1115L005.D Vial: 5
Acq On : 15 Nov 19 17:19 Operator: MA
Sample : 191111A LCS-2 1/800 Inst : Linus
Misc : Multiplr: 1.25

Quant Time: Nov 15 18:10 2019 Quant Results File: L1028.RES

Method : M:\LINUS\DATA\L191115\L1028.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 30 10:39:31 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L191115\1115L006.D Vial: 6
Acq On : 15 Nov 19 17:41 Operator: MA
Sample : 191111A LCSD-2 1/800 Inst : Linus
Misc : Multiplr: 1.25

Quant Time: Nov 15 18:11 2019 Quant Results File: L1028.RES

Quant Method : M:\LINUS\DATA\L191115\L1028.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 30 10:39:31 2019
Response via : Initial Calibration
DataAcq Meth : SIM_2

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Napthalene-D8(IS)	4.27	136	37842	2.50000	ppb		0.00
7) Acenaphthene-D10(IS)	6.27	164	15467	2.50000	ppb		0.00
12) Phenanthrene-D10(IS)	7.98	188	28725	2.50000	ppb		-0.01
17) Chrysene-D12(IS)	11.10	240	34085	2.50000	ppb		-0.01
23) Perylene-D12(IS)	13.53	264	32663	2.50000	ppb		0.00
System Monitoring Compounds							
2) Surrogate Recovery (NBZ)	3.57	82	671	0.11632	ppb		0.08
Spiked Amount 6.250			Recovery	= 1.856%			
4) 2-Methylnaphthalene-D10 (2	5.03	152	83895	5.54759	ppb		-0.01
Spiked Amount 6.250			Recovery	= 88.768%			
8) Surrogate Recovery (FBP)	5.51	172	41	0.00437	ppb		-0.01
Spiked Amount 6.250			Recovery	= 0.064%			
15) Fluoranthene-D10 (FRT)	9.36	212	106094	6.34438	ppb		-0.01
Spiked Amount 6.250			Recovery	= 101.504%			
19) Surrogate Recovery (TPH)	9.85	244	301	0.02871	ppb		-0.01
Spiked Amount 6.250			Recovery	= 0.464%			
Target Compounds							Qvalue
3) Naphthalene	4.30	128	96638	6.43511	ppb		99
5) 2-Methylnaphthalene	5.07	142	57012	6.35745	ppb		97
6) 1-Methylnaphthalene	5.19	142	57753	6.30387	ppb		98
9) Acenaphthylene	6.10	152	177823	6.75700	ppb		99
10) Acenaphthene	6.30	154	49019	6.50259	ppb		91
11) Fluorene	6.89	166	59978	7.13826	ppb		94
13) Phenanthrene	8.00	178	88487	6.51868	ppb		98
14) Anthracene	8.06	178	73234	6.24812	ppb		98
16) Fluoranthene	9.38	202	131679	7.11501	ppb	#	89
18) Pyrene	9.64	202	134229	6.87934	ppb		89
20) Benz (a) anthracene	11.09	228	106398	6.86908	ppb		98
21) Chrysene	11.13	228	113094	6.59380	ppb	#	96
22) Indeno (1,2,3-cd) pyrene	15.00	276	108664	7.18037	ppb	#	98
24) Benzo (b) fluoranthene	12.89	252	105611	7.96850	ppb		97
25) Benzo (k) fluoranthene	12.95	252	112170	7.45760	ppb		98
26) Benzo (a) pyrene	13.43	252	83519	6.84740	ppb		99
27) Dibenz (a,h) anthracene	15.05	278	90544	7.52708	ppb		99
28) Benzo (g,h,i) perylene	15.38	276	93315	7.06474	ppb		95

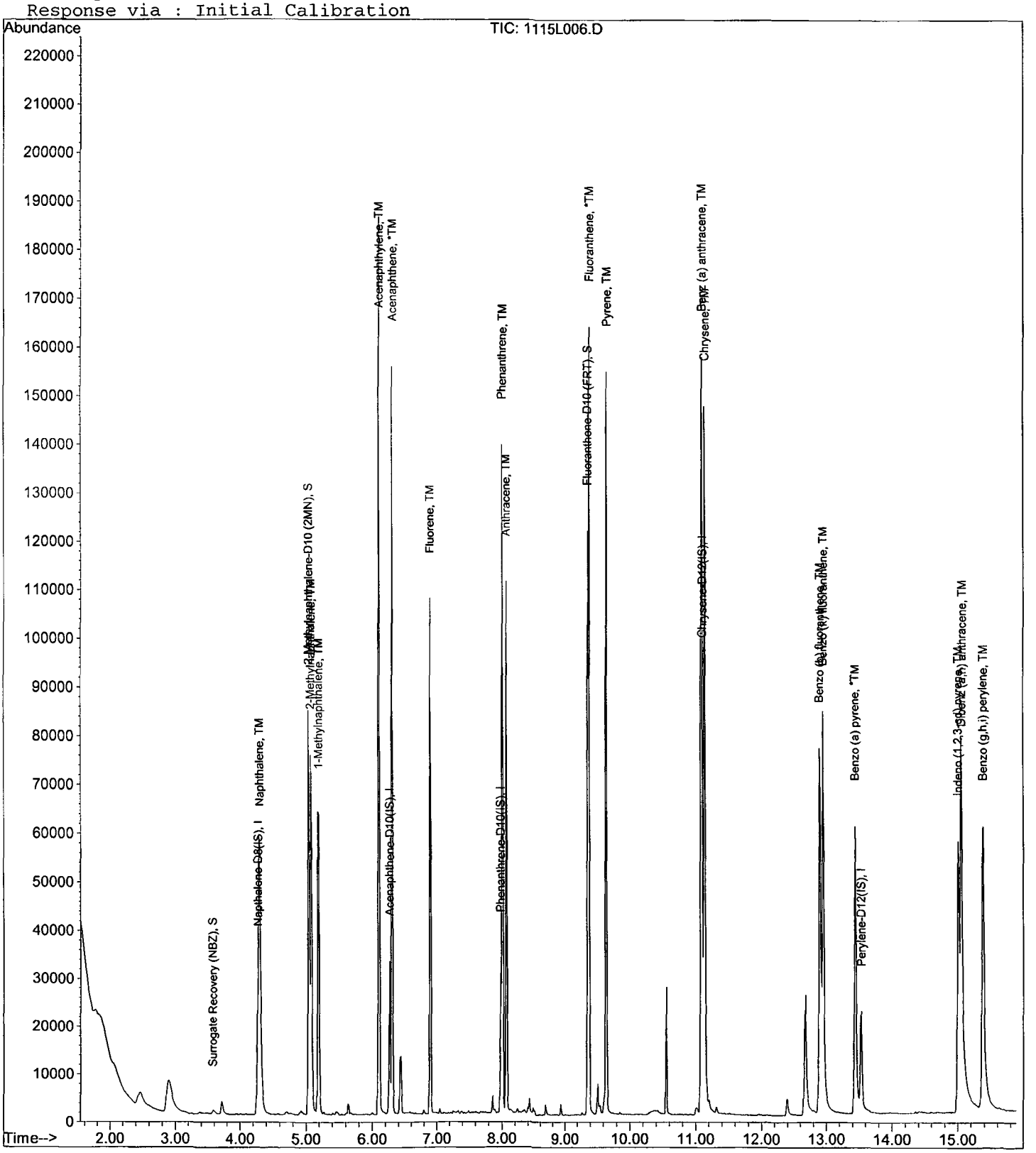
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L191115\1115L006.D Vial: 6
Acq On : 15 Nov 19 17:41 Operator: MA
Sample : 191111A LCSD-2 1/800 Inst : Linus
Misc : Multiplr: 1.25

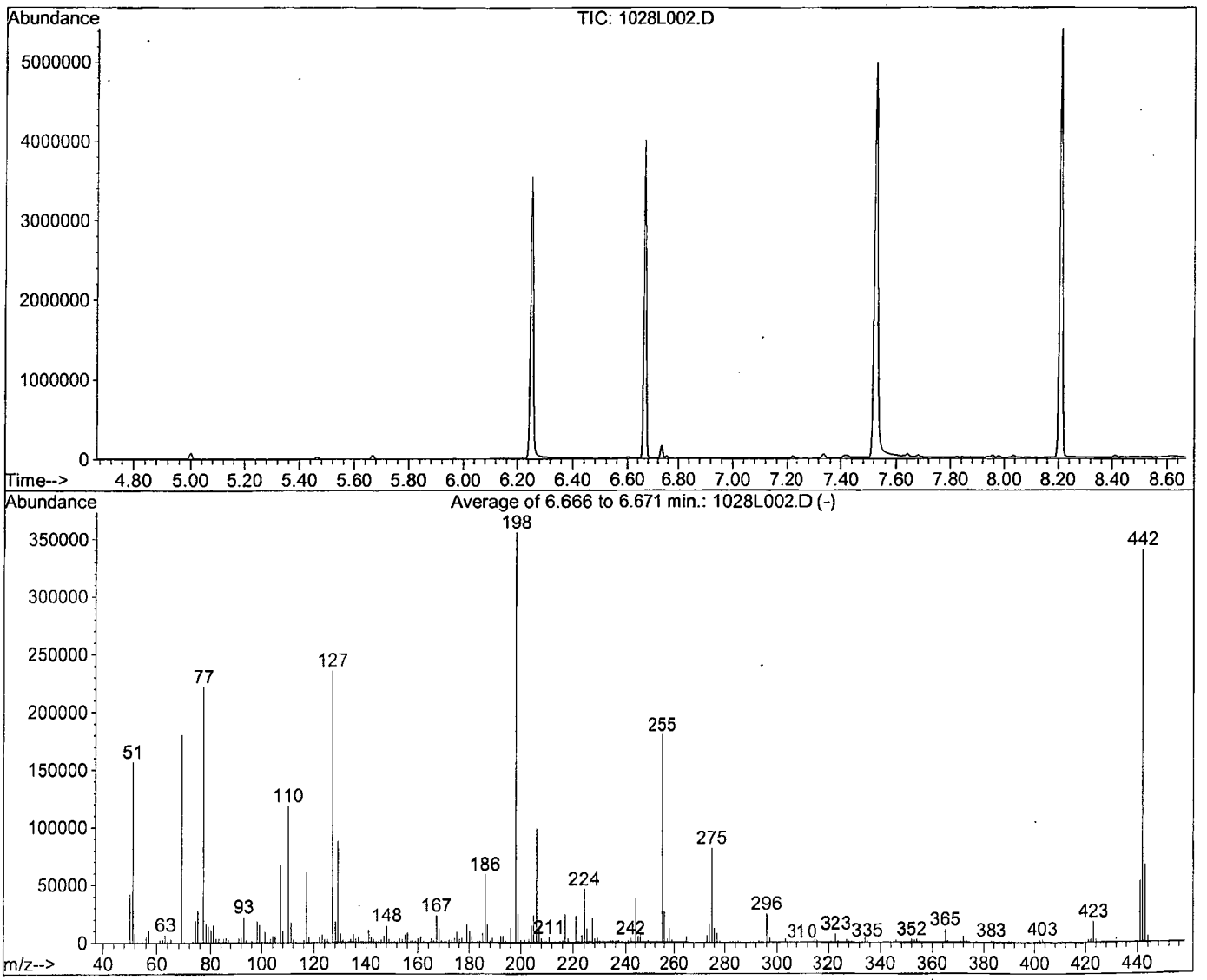
Quant Time: Nov 15 18:11 2019 Quant Results File: L1028.RES

Method : M:\LINUS\DATA\L191115\L1028.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 30 10:39:31 2019
Response via : Initial Calibration



Data File : M:\LINUS\DATA\L191028\1028L002.D Vial: 2
Acq On : 28 Oct 19 10:20 Operator: MA
Sample : SV Tune 07/11/19 Inst : Linus
Misc : Multiplr: 1.00

Method : M:\LINUS\DATA\L191028\L1028.M (RTE Integrator)
Title : EPA 8270



AutoFind: Scans 1639, 1640, 1641; Background Corrected with Scan 1630

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	44.0	156621	PASS
68	69	0.00	2	0.0	0	PASS
70	69	0.00	2	0.3	628	PASS
127	198	10	80	66.3	235925	PASS
197	198	0.00	2	0.0	0	PASS
198	198	100	100	100.0	355968	PASS
199	198	5	9	6.8	24237	PASS
275	198	10	60	23.0	81733	PASS
365	198	1	100	3.1	10977	PASS
441	442	0.01	24	15.5	52947	PASS
442	198	50	500	95.8	340885	PASS
443	442	15	24	19.6	66771	PASS

1028L002.D L1028.M Mon Oct 28 15:58:29 2019

Data File Name:	**1028L002.D**
Data File Path:	**M:\LINUS\DATA\L191028**
Operator:	**MA**
Date Acquired:	**28 Oct 2019 10:20**
Method File:	**DFTPP2.M**
Sample Name:	**SV Tune 07/11/19**
Vial Number:	**2**
Instrument Name:	**Linus**

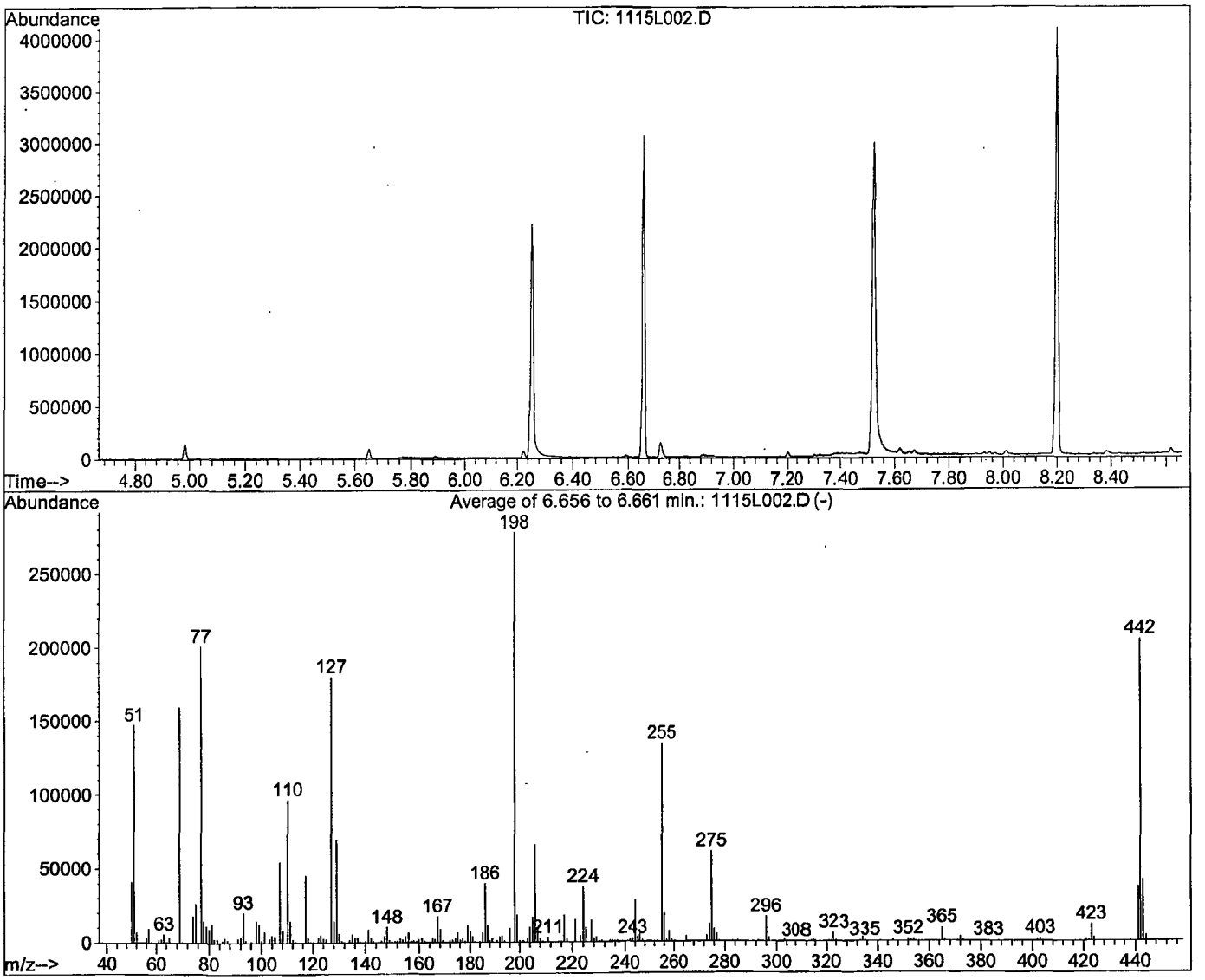
#	Name	Ret Time	Target Response
1)	DDT	8.21	37737600
2)	DDD	7.96	199800
3)	DDE	7.25	192158

Breakdown **1.03**

DFTPP

Data File : M:\LINUS\DATA\L191115\1115L002.D Vial: 2
Acq On : 15 Nov 19 15:42 Operator: MA
Sample : SV Tune 10/01/19 Inst : Linus
Misc : Multiplr: 1.00

Method : M:\LINUS\DATA\L191115\L1028.M (RTE Integrator)
Title : EPA 8270



AutoFind: Scans 1635, 1636, 1637; Background Corrected with Scan 1626

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	53.1	147629	PASS
68	69	0.00	2	0.0	0	PASS
70	69	0.00	2	0.5	824	PASS
127	198	10	80	64.8	180011	PASS
197	198	0.00	2	0.0	0	PASS
198	198	100	100	100.0	277824	PASS
199	198	5	9	6.6	18253	PASS
275	198	10	60	21.8	60688	PASS
365	198	1	100	3.3	9062	PASS
441	442	0.01	24	17.9	36675	PASS
442	198	50	500	73.6	204587	PASS
443	442	15	24	20.2	41280	PASS

Data File Name:	**1115L002.D**
Data File Path:	**M:\LINUS\DATA\L191115**
Operator:	**MA**
Date Acquired:	**15 Nov 2019 15:42**
Method File:	**DFTPP2.M**
Sample Name:	**SV Tune 10/01/19**
Vial Number:	**2**
Instrument Name:	**Linus**

#	Name	Ret Time	Target Response
1)	DDT	8.21	27764900
2)	DDD	7.98	195021
3)	DDE	8.15	0

Breakdown **0.70**

Name of Final Standard	**SIM Surrogate**
Prep Date	**09/03/19**
Exp Date	**03/03/20**

Prep'd By (Initials) **MA**

Initial Standard Information						Final Standard Information			
Standard (from	Supplier	P/N# (or	Conc.(range)	# (or	Exp Date	from	Volume	Solvent +	Standard
Sim Surrogate Deuterated	Restek	33913	2000 ug/mL	**A0145699-40651,41234, 41236**	**1/31/25, 4/20/25**	2500 uL	50 mL	**Acetone #217497**	100 ug/mL

Name of Final Standard	SIM Spike	Prep'd By (Initials)	SJ
Prep Date	11/13/19		
Exp Date	11/13/20		

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from contianer Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
Custom PAH Sim Mix	Phenova	AL0-130490	200 ug/mL	**CL13121- 41100,41223**	**12/31/22**	2 mL	10 mL	**Acetone 0231086**	40 ug/mL

Name of Final Standard	SIM 2S Surrogate	Prep'd By (Initials)	GA
Prep Date	05/17/19		
Exp Date	01/24/20		

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from contianer Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
SIM Surrogate Mix	Restek	33913	2000 ug/mL	A0137718 - 39318	01/24/20	250 uL	5 mL	Acetone #030817A	100 ug/mL
8270 B/N surrog mix	Restek	31086	5000 ug/mL	A0141697 - 40112	04/10/20	100 uL	*	*	*

Name of Final Standard	**PAH SIM 2nd Source Stock (Ampule)**	**Prep'd By (Initials)**	**GA**
Prep Date	**12/28/18**		
Exp Date	**12/28/19**		

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from container Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
Custom PAH SIM Mix	Phenova	AL0-130490	200 ug/mL	**CL13121 - 40082**	**12/28/19**	1 mL	na	**na**	200 ug/mL

Name of Final Standard	**PAH SIM Stock (Ampule)**
Prep Date	**08/10/19**
Exp Date	**08/10/20**

Prep'd By (I **MA**

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from contianer Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
Custom PAH SIM Mix	Phenova	ALO-130490	200 ug/mL	**CL13121-41102**	**08/10/20**	1000 uL	1mL	**NA**	200ug/mL

SIM STOCK	APPL	PAH SIM STOCK	200 ug/mL	**08/10/19**	**08/10/20**	5 uL	200uL	**MC 59130 190 uL**	5.0 ug/mL
SIM 2S SURROGATE	APPL	SIM 2S SURR	100 ug/mL	**05/17/19**	**01/24/20**	5 uL	*	*	2.5ug/mL
SIM Internal Standard	APPL	SIM Internal Standard	125 ug/mL	**10/28/19**	**10/28/20**	4 uL	*	*	2.5ug/mL
SIM STOCK	APPL	PAH SIM STOCK	200 ug/mL	**08/10/19**	**08/10/20**	10 uL	100 uL	**MC 59130 80 uL**	20 ug/mL
SIM 2S SURROGATE	APPL	SIM 2S SURROGATE	100 ug/mL	**05/17/19**	**01/24/20**	10 uL	*	*	10 ug/mL
SIM Internal Standard	APPL	SIM Internal Standard	125 ug/mL	**10/28/19**	**10/28/20**	2 uL	*	*	2.5ug/mL
SIM STOCK	APPL	PAH SIM STOCK	200	**08/10/19**	**08/10/20**	25 uL	100uL	**MC 59130 50 uL**	50 ug/mL
SIM 2S SURROGATE	APPL	SIM 2S SURROGATE	100 ug/mL	**05/17/19**	**01/24/20**	25 uL	*	*	25 ug/mL
SIM Internal Standard	APPL	SIM Internal Standard	125 ug/mL	**10/28/19**	**10/28/20**	2 uL	*	*	2.5ug/mL
SIM STOCK	APPL	PAH SIM STOCK	200 ug/mL	**08/10/19**	**08/10/20**	50 uL	100uL	**na**	100 ug/mL
SIM 2S SURROGATE	APPL	SIM 2S SURROGATE	100 ug/mL	**05/17/19**	**01/24/20**	50 uL	*	*	50 ug/mL
SIM Internal Standard	APPL	SIM Internal Standard	125 ug/mL	**10/28/19**	**10/28/20**	2 uL	*	*	2.5ug/mL

Name of Final Standard **8270 PAH SIM Second Source** **Prep'd By (Initials)** **MA**

Prep Date **10/28/19**

Exp Date **12/28/19**

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from container Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
PAH SIM SS Stock	Phenova	AL0-130490	200 ug/mL	**12/28/18**	**12/28/19**	5 uL	200uL	**MC 59130 195uL**	5 ug/mL
SIM Internal Standard	APPL	SIM Internal Standard	125 ug/mL	**10/28/19**	**10/28/20**	**4** uL	*	*	2.5ug/mL

Name of Final Standard	**8270 SIM PAH Internal Standard**
Prep Date	**10/28/19**
Exp Date	**10/28/20**

Prep'd By (Initials) **MA**

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from contianer Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
SV Internal Standard	Restek	31206	2000 ug/mL	**A0151843-49414**	**07/35/25**	625uL	10mL	**MC 59130**	125 ug/mL

Name of Final Standard	**SIM Curve**
Prep Date	**07/28/19**
Exp Date	**01/24/20**

Prep'd By (Initials) **MA**

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from container Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
1.0 ug/mL SIM	APPL	1.0 ug/mL SIM	1.0 ug/mL	**08/10/19**	**01/24/20**	10 uL	100uL	**MC 59130 90uL**	0.1 ug/mL
SIM Internal Standard	APPL	SIM Internal Standard	125 ug/mL	**10/28/19**	**10/28/20**	2 uL	*	*	2.5ug/mL
1.0 ug/mL SIM	APPL	1.0 ug/mL SIM	1.0 ug/mL	**08/10/19**	**01/24/20**	20 uL	100uL	**MC 59130 80uL**	0.2 ug/mL
SIM Internal Standard	APPL	SIM Internal Standard	125 ug/mL	**10/28/19**	**10/28/20**	2 uL	*	*	2.5ug/mL
5.0 ug/mL SIM	APPL	5.0 ug/mL SIM	5.0 ug/mL	**08/10/19**	**01/24/20**	10 uL	100uL	**MC 59130 90uL**	0.5 ug/mL
SIM Internal Standard	APPL	SIM Internal Standard	125 ug/mL	**10/28/19**	**10/28/20**	2 uL	*	*	2.5ug/mL
5.0 ug/mL SIM	APPL	5.0 ug/mL SIM	5.0 ug/mL	**08/10/19**	**01/24/20**	20 uL	100uL	**MC 59130 80 uL**	1.0 ug/mL
SIM Internal Standard	APPL	SIM Internal Standard	125 ug/mL	**10/28/19**	**10/28/20**	2 uL	*	*	2.5ug/mL

Name of Final Standard	Semivolatile (SV) Tuning Solution
Prep Date	10/01/19
Exp Date	11/30/20

Prep'd By (Initials) JP

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from contianer Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc.(range)
Semivolatile GC/MS Tuning Standard	Ultra Scientific	GCM-150-1	1,000 ug/mL	CR3789-38879	11/30/20	1,250 uL	25 mL	MC #58240	50 ug/mL

Organic Extraction Worksheet

Method	Continuous Liquid/Liquid SVOC 3520C	Extraction Set	191111A	Extraction Method	LIQ003	Units	mL

Spiked ID 1	8270T Spike 11/1/19 ex 11/1/20		Surrogate ID 1	8270 Surrogate 11/6/19 ex 11/6/20	
Spiked ID 2	Sim Spike 9/30/19 ex 9/30/20		Surrogate ID 2	SIM Surrogate 10/25/19 ex 10/25/19	
Spiked ID 3			Surrogate ID 3		
Spiked ID 4			Surrogate ID 4		
Spiked ID 5			Surrogate ID 5		
Spiked ID 6			Sufficient Vol for Matrix QC:	no	
Spiked ID 7			Ext. Start Time:	11/11/19 14:10	
Spiked ID 8			Ext. End Time:	11/15/19 10:45	
			GC Requires Extract By:		

pH1	2	11/12/19 10:00	Water Bath Temp 1 °C	EWB6 75/74.9 °
pH2	14	11/13/19 10:30	Water Bath Temp 2 °C	
pH3			Water Bath Temp 3 °C	

Spiked By: DL **Date** 11/11/19 **Witnessed By:** YL **Date** 11/11/19

	Sample	Sample Container	Spike Amount	Spike ID	Surrogate Amount	Surrogate ID	Extract Amount	Final Volume	pH	Extract Date/Time	Comments
1	191111A Blk				1,0.050	1,2	800	1	2/1	11/11/19 14:10	
						equip	EWB6				
2	191111A LCS-1		1	1	1	1	800	1	2/1	11/11/19 14:10	
						equip	EWB6				
3	191111A LCS-2		0.125	2	0.050	2	800	1	2/1	11/11/19 14:10	
						equip	EWB6				
4	191111A LCSD-1		1	1	1	1	800	1	2/1	11/11/19 14:10	
						equip	EWB6				
5	191111A LCSD-2		0.125	2	0.050	2	800	1	2/1	11/11/19 14:10	
						equip	EWB6				
6	BA02466	BA02466W21			1,0.050	1,2	800	1	2/1	11/11/19 14:10	90648
						equip	EWB6				
7	BA02525	BA02525W23			1,0.050	1,2	800	1	2/1	11/11/19 14:10	90657
						equip	EWB6				
8	BA02713	BA02713W19			1,0.050	1,2	800	1	2/1	11/11/19 14:10	90700
						equip	EWB6				
9	BA02715	BA02715W29			1,0.050	1,2	800	1	2/1	11/11/19 14:10	90700
						equip	EWB6				
10	BA02716	BA02716W12			1,0.050	1,2	800	1	2/1	11/11/19 14:10	90700
						equip	EWB6				

Solvent and Lot#	
PH Strips	HL863463
Dichloromethane (DCM)	59130
1+1 H2SO4	11/1/19
10N NaOH	10/25/19
Filter Paper	400171
B. Na2SO4	2019020631

Extraction COC Transfer	
Extraction lab employee Initials	SS
GC analyst's initials	MA
Date	11/15/19
Time	2:30
Refrigerator	GC_C

	Technician's Initials
Scanned By	DL
Sample Preparation	DL
Extraction	DL
Concentration	DL

Modified	11/18/19 1:27:30 PM

Reviewed By: MA **Date** 11/18/19

Injection Log

Directory: M:\LINUS\DATA\L191028\

Vial	FileName	Multiplier	SampleName	Misc Info	Injected
2	1028L002.D	1	SV Tune 10/01/19		28 Oct 19 10:20
4	1028L004.D	1	5 SIM 10/28/19(2)		28 Oct 19 12:26
5	1028L005.D	1	0.1 SIM 10/28/19		28 Oct 19 12:51
6	1028L006.D	1	0.2 SIM 10/28/19		28 Oct 19 13:13
7	1028L007.D	1	0.5 SIM 10/28/19		28 Oct 19 13:35
8	1028L008.D	1	1 SIM 10/28/19		28 Oct 19 13:57
9	1028L009.D	1	20 SIM 10/28/19		28 Oct 19 14:19
10	1028L010.D	1	50 SIM 10/28/19		28 Oct 19 14:42
11	1028L011.D	1	100 SIM 10/28/19		28 Oct 19 15:04
12	1028L012.D	1	SS SIM 10/28/19		28 Oct 19 15:55
2	1115L002.D	1	SV Tune 10/01/19		15 Nov 19 15:42
3	1115L003.D	1	5ug/mL SIM 10/28/19 (1)		15 Nov 19 16:26
4	1115L004.D	1.25	191111A BLK 1/800		15 Nov 19 16:57
5	1115L005.D	1.25	191111A LCS-2 1/800		15 Nov 19 17:19
6	1115L006.D	1.25	191111A LCSD-2 1/800		15 Nov 19 17:41
7	1115L007.D	1.25	BA02466W21 1/800		15 Nov 19 18:03
28	1115L028.D	1	5ug/mL SIM 10/28/19 (1)		16 Nov 19 1:44

ORGANICS
Calibration Data

Semi-Volatile Analysis by GC-MS
EPA 8270

Form 6
Initial Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Initial Cal. Date: 11/21/19
Matrix: Instrument: Yoda

Initials: MA

			1121Y003.D	1121Y004.D	1121Y005.D	1121Y006.D	1121Y007.D	1121Y008.D	1121Y009.D	1121Y010.D	1121Y011.D							
		Compound	4	5	10	20	40	50	60	80	91		Avg	%RSD	Type	r^2	Q	MRF
1	I	1,4-dichlorobenzene-D4(IS)	ISTD															
2		1,4-Dioxane	0.4131	0.4262	0.6088	0.5154	0.4095	0.4466	0.4353	0.4216	0.5029		0.46	14				
3	TM	n-Nitrosodimethylamine	0.7472	0.7900	0.7145	0.6353	0.6209	0.6613	0.7224	0.7296	0.7209		0.70	7.8	TM			
4	TM	Pyridine	1.503	1.671	1.847	1.602	1.612	1.772	1.882	1.932	1.865		1.7	8.6	TM			
5	S	2-Fluorophenol (S)	1.487	1.348	1.400	1.254	1.237	1.355	1.453	1.534	1.468		1.4	7.4	S			
6	S	Phenol-D6 (S)	1.756	1.549	1.642	1.478	1.476	1.633	1.747	1.861	1.785		1.7	8.4	S			
7	*TM	Phenol	1.749	1.801	1.921	1.714	1.815	1.992	2.160	2.248	2.228		2.0	11	*TM			0.800
8	TM	Aniline			1.047	1.052	1.148	1.169	1.201	1.269	1.211		1.2	7.1	TM			
9	TM	Bis (2-chloroethyl) ether	0.7596	0.7864	0.8586	0.7722	0.7720	0.8416	0.9033	0.9359	0.9016		0.84	8.0	TM			0.700
10	TM	2-Chlorophenol	1.357	1.382	1.497	1.364	1.378	1.499	1.627	1.645	1.601		1.5	8.0	TM			0.800
11	TM	1,3-DCB	1.536	1.641	1.694	1.502	1.551	1.693	1.828	1.878	1.803		1.7	8.1	TM			
12	*TM	1,4-DCB	1.556	1.618	1.733	1.554	1.576	1.738	1.843	1.912	1.838		1.7	8.0	*TM			
13	TM	Benzyl alcohol	0.7592	0.7688	0.8337	0.7639	0.7868	0.8726	0.9274	0.9523	0.9245		0.84	9.2	TM			
14	TM	1,2-DCB	1.441	1.559	1.644	1.456	1.460	1.604	1.710	1.771	1.713		1.6	7.8	TM			
15	TM	2-Methylphenol	1.088	1.109	1.215	1.070	1.076	1.253	1.346	1.314	1.342		1.2	9.8	TM			0.700
16	TM	Bis (2-chloroisopropyl) ether	0.8788	0.9016	0.9685	0.8381	0.8636	0.9380	0.9966	1.034	0.9974		0.94	7.3	TM			
17	TM	Acetophenone	1.946	1.990	2.180	1.908	1.996	2.186	2.386	2.456	2.392		2.2	9.8	TM			0.010
18	TM	3&4-Methylphenol	1.435	1.509	1.633	1.441	1.512	1.696	1.829	1.913	1.862		1.6	11	TM			0.600
19	**TM	n-Nitrosodi-n-propylamine	1.093	1.149	1.236	1.108	1.128	1.259	1.349	1.390	1.363		1.2	9.5	**TM			0.500
20	TM	Hexachloroethane	0.5962	0.6514	0.7001	0.6119	0.6291	0.6831	0.7309	0.7571	0.7360		0.68	8.6	TM			0.300
21	I	Napthalene-D8(IS)	ISTD															
22	S	Nitrobenzene-D5(S)	0.4909	0.4400	0.4480	0.4249	0.4251	0.4425	0.4519	0.4695	0.4641		0.45	4.7	S			
23	TM	Nitrobenzene	0.4203	0.4487	0.4724	0.4405	0.4454	0.4667	0.4790	0.4868	0.4882		0.46	5.1	TM			0.200
24	TM	Isophorone	0.6864	0.7296	0.7374	0.7047	0.7298	0.7674	0.7743	0.7950	0.7997		0.75	5.3	TM			0.400
25	*TM	2-Nitrophenol	0.1792	0.1931	0.2068	0.2007	0.2081	0.2209	0.2244	0.2308	0.2328		0.21	8.6	*TM			0.100
26	TM	2,4-Dimethylphenol	0.2989	0.3139	0.3292	0.3055	0.3201	0.3373	0.3422	0.3500	0.3576		0.33	6.2	TM			0.200
27	TML	Benzoic acid	0.0982	0.1215	0.1867	0.2338	0.2843	0.3119	0.3253	0.3097	0.3131		0.24	36	TML	0.998		
28	TM	Bis (2-chloroethoxy) methane	0.3582	0.3873	0.3992	0.3839	0.3958	0.4153	0.4208	0.4286	0.4365		0.40	6.2	TM			0.300
29	*TM	2,4-Dichlorophenol	0.2978	0.3162	0.3333	0.3182	0.3286	0.3510	0.3576	0.3652	0.3745		0.34	7.6	*TM			0.200
30	TM	1,2,4-Trichlorobenzene	0.3477	0.3741	0.3873	0.3624	0.3854	0.3994	0.4100	0.4254	0.4290		0.39	7.0	TM			
31	TM	3,4-Dimethylphenol	0.4850	0.4923	0.5178	0.4946	0.5265	0.5486	0.5603	0.5755	0.5762		0.53	6.8	TM			
32	TM	Naphthalene	0.9679	1.050	1.070	1.002	1.044	1.102	1.121	1.156	1.183		1.1	6.5	TM			0.700
33	TM	4-Chloroaniline			0.3471	0.3393	0.3746	0.4069	0.3980	0.3986	0.3929		0.38	7.1	TM			0.010
34	TM	2,6-Dichlorophenol	0.2883	0.3109	0.3193	0.3043	0.3167	0.3407	0.3496	0.3553	0.3608		0.33	7.7	TM			
35	TM	Hexachloropropene	0.2899	0.3123	0.3296	0.3193	0.3388	0.3526	0.3667	0.3769	0.3786		0.34	9.0	TM			

Semi-Volatile Analysis by GC-MS
EPA 8270

Form 6
Initial Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Initial Cal. Date: 11/21/19
Matrix: Instrument: Yoda Initials:

		Compound	4	5	10	20	40	50	60	80	91		Avg	%RSD	Type		Q	
36	*TM	Hexachlorobutadiene	0.2483	0.2674	0.2753	0.2570	0.2714	0.2788	0.2882	0.2985	0.3013		0.28	6.4	*TM			0.010
37	TM	Caprolactum	0.1060	0.1109	0.1188	0.1116	0.1158	0.1233	0.1260	0.1284	0.1285		0.12	6.9	TM			0.010
38	*TM	4-Chloro-3-methylphenol	0.3450	0.3598	0.3803	0.3528	0.3721	0.3927	0.4005	0.4114	0.4181		0.38	6.8	*TM			0.200
39	TM	2-Methylnaphthalene	0.6586	0.6946	0.7298	0.6852	0.7108	0.7591	0.7694	0.7921	0.8092		0.73	7.0	TM			0.400
40	TM	1-Methylnaphthalene	0.6864	0.7167	0.7473	0.6960	0.7403	0.7824	0.7954	0.8312	0.8369		0.76	7.3	TM			
41	I	Acenaphthene-D10(IS)	ISTD															
42	**TM	Hexachlorocyclopentadiene			0.4047	0.4452	0.5371	0.5778	0.5356	0.5014	0.5552		0.51	12	**TM			0.050
43	TM	1,2,4,5-Tetrachlorobenzene	0.6252	0.6692	0.6757	0.6442	0.6972	0.7328	0.7295	0.7660	0.7864		0.70	7.8	TM			0.010
44	*TM	2,4,6-Trichlorophenol	0.3803	0.4337	0.4321	0.4274	0.4438	0.4740	0.4637	0.4817	0.4911		0.45	7.7	*TM			0.200
45	TM	2,4,5-Trichlorophenol	0.4406	0.4440	0.4619	0.4489	0.4678	0.5007	0.4912	0.5126	0.5208		0.48	6.4	TM			0.200
46	S	2-Fluorobiphenyl(S)	1.652	1.486	1.453	1.406	1.410	1.509	1.468	1.538	1.539		1.5	5.1	S			
47	TM	1,1'-Biphenyl	1.417	1.439	1.478	1.431	1.492	1.585	1.553	1.631	1.656		1.5	5.9	TM			0.010
48	TM	2-Chloronaphthalene	1.135	1.191	1.236	1.169	1.228	1.300	1.273	1.322	1.343		1.2	5.7	TM			0.800
49	TM	2-Nitroaniline	0.3493	0.3785	0.3935	0.3749	0.3886	0.4159	0.4088	0.4204	0.4192		0.39	6.1	TM			0.010
50	TM	Dimethyl phthalate	1.421	1.459	1.487	1.426	1.501	1.600	1.555	1.609	1.614		1.5	5.1	TM			0.010
51	TM	2,6-DNT	0.2894	0.2971	0.3276	0.3293	0.3389	0.3693	0.3603	0.3705	0.3755		0.34	9.4	TM			0.200
52	TM	Acenaphthylene	1.775	1.825	1.867	1.810	1.887	2.003	1.960	2.039	2.040		1.9	5.3	TM			0.900
53	TM	3-Nitroaniline	0.3368	0.3525	0.3811	0.3775	0.3933	0.4173	0.4102	0.4186	0.4220		0.39	7.8	TM			0.010
54	*TM	Acenaphthene	1.162	1.167	1.230	1.200	1.284	1.375	1.344	1.412	1.459		1.3	8.5	*TM			0.900
55	**TM	2,4-Dinitrophenol				0.1695	0.2095	0.2326	0.2385	0.2537	0.2583		0.23	15	**TM			0.010
56	**TM	4-Nitrophenol	0.0201	0.0218	0.0251	0.0236	0.0259	0.0275	0.0256	0.0271	0.0273		0.02	10	**TM			0.010
57	TM	Dibenzofuran	1.703	1.732	1.754	1.677	1.756	1.875	1.851	1.925	1.953		1.8	5.6	TM			0.800
58	TM	2,4-DNT	0.4206	0.4414	0.4553	0.4644	0.4861	0.5108	0.5051	0.5266	0.5373		0.48	8.3	TM			0.200
59	TM	2,3,4,6-Tetrachlorophenol	0.3407	0.3718	0.3800	0.3806	0.4047	0.4310	0.4264	0.4400	0.4478		0.40	9.0	TM			0.010
60	TM	Diethyl phthalate	1.477	1.526	1.527	1.479	1.516	1.617	1.570	1.621	1.623		1.6	3.8	TM			0.010
61	TM	4-Chlorophenyl phenyl ether	0.7839	0.8192	0.8394	0.8083	0.8621	0.9335	0.9288	0.9951	1.013		0.89	9.4	TM			0.400
62	TM	Fluorene	1.340	1.374	1.424	1.371	1.476	1.601	1.583	1.705	1.729		1.5	9.8	TM			0.900
63	TM	4-Nitroaniline	0.2712	0.2968	0.3093	0.2988	0.3132	0.3343	0.3188	0.3244	0.3253		0.31	6.2	TM			0.010
64	S	2,4,6-Tribromophenol(S)	0.3026	0.2844	0.2722	0.2744	0.2883	0.3138	0.3195	0.3429	0.3559		0.31	9.7	S			
65	I	Phenanthrene-D10(IS)	ISTD															
66	TM	4,6-Dinitro-2-methylphenol			0.1316	0.1466	0.1593	0.1737	0.1764	0.1861	0.1865		0.17	13	TM			0.010
67	TM	Diphenyl amine		0.5641	0.5584	0.5578	0.6050	0.6307	0.6433	0.6780	0.6789		0.61	8.3	TM			
68	*TM	n-Nitrosodiphenylamine		0.5641	0.5584	0.5578	0.6050	0.6307	0.6433	0.6780	0.6789		0.61	8.3	*TM			0.010
69	TM	1,2-Diphenylhydrazine	0.6919	0.7397	0.7428	0.7141	0.7574	0.7929	0.7830	0.8128	0.8106		0.76	5.6	TM			
70	TM	4-Bromophenyl phenyl ether	0.2326	0.2459	0.2506	0.2455	0.2597	0.2772	0.2835	0.2942	0.2998		0.27	9.0	TM			0.100

Semi-Volatile Analysis by GC-MS
EPA 8270

Form 6
Initial Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Initial Cal. Date: 11/21/19
Matrix: Instrument: Yoda Initials:

		Compound	4	5	10	20	40	50	60	80	91		Avg	%RSD	Type		Q	
71	TM	Hexachlorobenzene	0.2473	0.2716	0.2574	0.2566	0.2765	0.2965	0.2962	0.3085	0.3143		0.28	8.7	TM			0.100
72	TM	Atrazine		0.2382	0.2260	0.2098	0.2296	0.2382	0.2397	0.2449	0.2454		0.23	5.1	TM			0.010
73	*TM	Pentachlorophenol			0.1444	0.1557	0.1763	0.1911	0.1903	0.2076	0.2104		0.18	14	*TM			0.050
74	TM	Phenanthrene	1.008	1.049	1.046	1.011	1.056	1.105	1.113	1.171	1.184		1.1	5.9	TM			0.700
75	TM	Anthracene	1.045	1.093	1.101	1.059	1.117	1.168	1.172	1.234	1.241		1.1	6.3	TM			0.700
76	TM	Carbazol	0.9216	0.9673	1.003	0.9601	1.009	1.064	1.071	1.110	1.101		1.0	6.5	TM			0.010
77	TM	Di-n-butylphthalate	1.193	1.246	1.258	1.241	1.312	1.394	1.408	1.456	1.478		1.3	7.9	TM			0.010
78		2-Nitrodiphenylamine	0.2511	0.2717	0.2895	0.3048	0.3243	0.3416	0.3486	0.3566	0.3603		0.32	12				
79	*TM	Fluoranthene	1.196	1.214	1.252	1.210	1.307	1.376	1.389	1.459	1.454		1.3	8.0	*TM			0.600
80	I	Chrysene-D12(IS)	ISTD															
81	TM	Benzidine				0.2277	0.2870	0.3338	0.3091	0.3109	0.3119		0.30	12	TM			
82	TM	Pyrene	1.206	1.248	1.263	1.203	1.189	1.276	1.188	1.182	1.180		1.2	3.1	TM			0.600
83	S	Terphenyl-D14(S)	1.165	1.060	0.9868	0.9558	0.9291	0.9737	0.9485	0.9434	1.038		1.0	7.6	S			
84	TM	Butyl benzylphthalate	0.5532	0.5683	0.5820	0.5395	0.5376	0.5742	0.5448	0.5336	0.5306		0.55	3.4	TM			0.010
85	TM	3,3'-Dichlorobenzidine	0.3670	0.3556	0.3061	0.3163	0.3591	0.4126	0.3916	0.3865	0.3878		0.36	9.7	TM			0.010
86	TM	Benz (a) anthracene	1.298	1.428	1.370	1.289	1.276	1.359	1.302	1.327	1.342		1.3	3.6	TM			0.800
87	TM	Bis (2-ethylhexyl) phthalate	0.8211	0.8729	0.8848	0.8315	0.8196	0.8736	0.8456	0.8374	0.8443		0.85	2.8	TM			0.010
88	TM	Chrysene	1.232	1.177	1.234	1.165	1.158	1.248	1.193	1.137	1.138		1.2	3.6	TM			0.700
89	*TM	Di-n-octylphthalate	1.291	1.381	1.388	1.305	1.300	1.379	1.301	1.309	1.309		1.3	3.1	*TM			0.010
90	I	Perylene-D12(IS)	ISTD															
91	TM	Benzo (b) fluoranthene	1.124	1.138	1.268	1.226	1.210	1.412	1.326	1.337	1.342		1.3	7.8	TM			0.700
92	TM	Benzo (k) fluoranthene	1.085	1.156	1.043	1.031	1.178	1.140	1.189	1.320	1.346		1.2	9.5	TM			0.700
93	*TM	Benzo (a) pyrene	1.031	1.054	1.091	1.052	1.118	1.191	1.159	1.226	1.243		1.1	7.0	*TM			0.700
94	TM	Indeno (1,2,3-cd) pyrene	1.226	1.291	1.300	1.259	1.321	1.402	1.382	1.439	1.448		1.3	6.0	TM			0.500
95	TM	Dibenz (a,h) anthracene	1.076	1.111	1.142	1.090	1.166	1.251	1.222	1.280	1.306		1.2	7.2	TM			0.400
96	TM	Benzo (g,h,i) perylene	1.006	1.037	1.048	1.011	1.049	1.115	1.089	1.123	1.129		1.1	4.5	TM			0.500
97																		
98																		
99																		
100																		
101																		
102																		
103																		
104																		
105																		

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y191121\1121Y003.D Vial: 3
Acq On : 21 Nov 19 14:07 Operator: MA,SS
Sample : 4ug/ml 8270 11/21/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 22 15:55 2019 Quant Results File: Y1121ND.RES

Quant Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 15:42:05 2019
Response via : Initial Calibration
DataAcq Meth : SVOC1011

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.47	152	171877	40.00000 ppb		0.00
21) Napthalene-D8(IS)	6.91	136	699682	40.00000 ppb		0.00
41) Acenaphthene-D10(IS)	8.93	164	435091	40.00000 ppb		0.00
65) Phenanthrene-D10(IS)	10.66	188	880555	40.00000 ppb		0.00
80) Chrysene-D12(IS)	13.75	240	903111	40.00000 ppb		0.00
90) Perylene-D12(IS)	15.62	264	1002643	40.00000 ppb		0.00
System Monitoring Compounds						
5) 2-Fluorophenol (S)	3.90	112	51113	8.54001 ppb		0.00
Spiked Amount 200.000			Recovery	= 4.270%		
6) Phenol-D6 (S)	5.06	99	60351	8.46840 ppb		-0.02
Spiked Amount 200.000			Recovery	= 4.234%		
22) Nitrobenzene-D5(S)	6.09	82	34346	4.35589 ppb		0.00
Spiked Amount 100.000			Recovery	= 4.356%		
46) 2-Fluorobiphenyl(S)	8.14	172	71869	4.41801 ppb		0.00
Spiked Amount 100.000			Recovery	= 4.418%		
64) 2,4,6-Tribromophenol(S)	9.85	330	26335	7.91248 ppb		0.00
Spiked Amount 200.000			Recovery	= 3.956%		
83) Terphenyl-D14(S)	12.52	244	105225	4.66036 ppb		0.00
Spiked Amount 100.000			Recovery	= 4.660%		
Target Compounds						Qvalue
2) 1,4-Dioxane	1.74	58	710	0.35582	#	1
3) n-Nitrosodimethylamine	1.96	42	12843	4.24143 ppb		88
4) Pyridine	1.99	79	25828	3.44888 ppb		97
7) Phenol	5.08	94	30055	3.57098 ppb		83
8) Aniline	5.10	93	15130	3.19391 ppb	#	74
9) Bis (2-chloroethyl) ether	5.17	63	13055	3.63084 ppb		94
10) 2-Chlorophenol	5.24	128	23332	3.66070 ppb		97
11) 1,3-DCB	5.41	146	26394	3.65488 ppb		96
12) 1,4-DCB	5.49	146	26744	3.64508 ppb		99
13) Benzyl alcohol	5.63	108	13049	3.60134 ppb		94
14) 1,2-DCB	5.67	146	24759	3.61216 ppb		99
15) 2-Methylphenol	5.76	107	18692	3.62060 ppb		99
16) Bis (2-chloroisopropyl) et	5.78	45	15104	3.75895 ppb		95
17) Acetophenone	5.93	105	33450	3.60387 ppb		95
18) 3&4-Methylphenol	5.93	107	49324	6.96583 ppb		95
19) n-Nitrosodi-n-propylamine	5.92	70	18786	3.55298 ppb		92
20) Hexachloroethane	6.05	117	10248	3.52118 ppb		89
23) Nitrobenzene	6.11	77	29406	3.64767 ppb		98
24) Isophorone	6.38	82	48023	3.67460 ppb		96
25) 2-Nitrophenol	6.47	139	12539	3.40134 ppb		93
26) 2,4-Dimethylphenol	6.52	122	20911	3.64149 ppb		98
27) Benzoic acid	6.59	105	6870	6.98276 ppb		94
28) Bis (2-chloroethoxy) metha	6.62	93	25066	3.55718 ppb		98
29) 2,4-Dichlorophenol	6.75	162	20834	3.52351 ppb		92
30) 1,2,4-Trichlorobenzene	6.84	180	24329	3.55547 ppb		98
31) 3,4-Dimethylphenol	6.86	107	33935	3.65526 ppb		98
32) Naphthalene	6.94	128	67722	3.59329 ppb		99
33) 4-Chloroaniline	6.99	127	21792	3.39619 ppb		92
34) 2,6-Dichlorophenol	7.00	162	20174	3.52345 ppb		97
35) Hexachloropropene	7.04	213	20281	3.40479 ppb		98
36) Hexachlorobutadiene	7.08	225	17375	3.59566 ppb		96
37) Caprolactum	7.36	55	7420	3.57025 ppb		94

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y191121\1121Y003.D Vial: 3
Acq On : 21 Nov 19 14:07 Operator: MA,SS
Sample : 4ug/ml 8270 11/21/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 22 15:55 2019 Quant Results File: Y1121ND.RES

Quant Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 15:42:05 2019
Response via : Initial Calibration
DataAcq Meth : SVOC1011

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
38)	4-Chloro-3-methylphenol	7.55	107	24140	3.61824 ppb		96
39)	2-Methylnaphthalene	7.73	142	46079	3.58746 ppb		99
40)	1-Methylnaphthalene	7.84	142	48029	3.61675 ppb		98
42)	Hexachlorocyclopentadiene	7.90	237	13066	2.36391 ppb		98
43)	1,2,4,5-Tetrachlorobenzene	7.91	216	27200	3.55745 ppb		99
44)	2,4,6-Trichlorophenol	8.05	196	16547	3.39912 ppb		95
45)	2,4,5-Trichlorophenol	8.10	196	19169	3.69855 ppb		94
47)	1,1'-Biphenyl	8.26	154	61663	3.72896 ppb		98
48)	2-Chloronaphthalene	8.28	162	49376	3.64897 ppb		99
49)	2-Nitroaniline	8.39	65	15196	3.54290 ppb		96
50)	Dimethyl phthalate	8.61	163	61840	3.74213 ppb		99
51)	2,6-DNT	8.67	165	12592	3.40721 ppb		98
52)	Acenaphthylene	8.77	152	77248	3.71436 ppb		99
53)	3-Nitroaniline	8.39	138	14652	3.45457 ppb		92
54)	Acenaphthene	8.97	154	50577	3.59732 ppb		98
55)	2,4-Dinitrophenol	9.00	184	2218	0.89820 ppb		90
56)	4-Nitrophenol	8.67	65	876	3.23673 ppb	#	74
57)	Dibenzofuran	9.17	168	74089	3.77841 ppb		99
58)	2,4-DNT	9.15	165	18301	3.48292 ppb		89
59)	2,3,4,6-Tetrachlorophenol	9.31	232	14824	3.38549 ppb		97
60)	Diethyl phthalate	9.43	149	64247	3.80951 ppb		98
61)	4-Chlorophenyl phenyl ethe	9.56	204	34106	3.53499 ppb		95
62)	Fluorene	9.56	166	58288	3.54590 ppb		99
63)	4-Nitroaniline	8.87	138	11801	3.49716 ppb		98
66)	4,6-Dinitro-2-methylphenol	9.62	198	7216	1.97776 ppb	#	77
67)	Diphenyl amine	9.69	169	94212	6.96393 ppb		99
68)	n-Nitrosodiphenylamine	9.69	169	94212	6.96393 ppb		99
69)	1,2-Diphenylhydrazine	9.75	77	60929	3.63908 ppb		97
70)	4-Bromophenyl phenyl ether	10.13	248	20479	3.50463 ppb		93
71)	Hexachlorobenzene	10.21	284	21775	3.52596 ppb		93
72)	Atrazine	10.32	200	9503	1.84482 ppb		97
73)	Pentachlorophenol	10.45	266	10529	2.62448 ppb		88
74)	Phenanthrene	10.69	178	88775	3.72528 ppb		99
75)	Anthracene	10.74	178	92014	3.67778 ppb		98
76)	Carbazol	10.93	167	81154	3.60423 ppb		100
77)	Di-n-butylphthalate	11.34	149	105020	3.58164 ppb		99
78)	2-Nitrodiphenylamine	11.51	167	11054	1.58658 ppb		92
79)	Fluoranthene	12.08	202	105288	3.63060 ppb	#	97
81)	Benzidine	12.23	184	26925	4.01919 ppb		99
82)	Pyrene	12.34	202	108905	3.96999 ppb		99
84)	Butyl benzylphthalate	13.08	149	49960	4.01214 ppb		91
85)	3,3'-Dichlorobenzidine	13.69	252	33143	4.02465 ppb		99
86)	Benz (a) anthracene	13.73	228	117193	3.89605 ppb		99
87)	Bis (2-ethylhexyl) phthala	13.75	149	74158	3.87394 ppb	#	95
88)	Chrysene	13.77	228	111291	4.15296 ppb		99
89)	Di-n-octylphthalate	14.51	149	116580	3.88466 ppb		94
91)	Benzo (b) fluoranthene	15.05	252	112725	3.55542 ppb		99
92)	Benzo (k) fluoranthene	15.09	252	108771	3.72354 ppb	#	98
93)	Benzo (a) pyrene	15.52	252	103381	3.65175 ppb		97
94)	Indeno (1,2,3-cd) pyrene	17.50	276	122956	3.65819 ppb		96
95)	Dibenz (a,h) anthracene	17.54	278	107866	3.63839 ppb		100
96)	Benzo (g,h,i) perylene	18.07	276	100853	3.76901 ppb		99

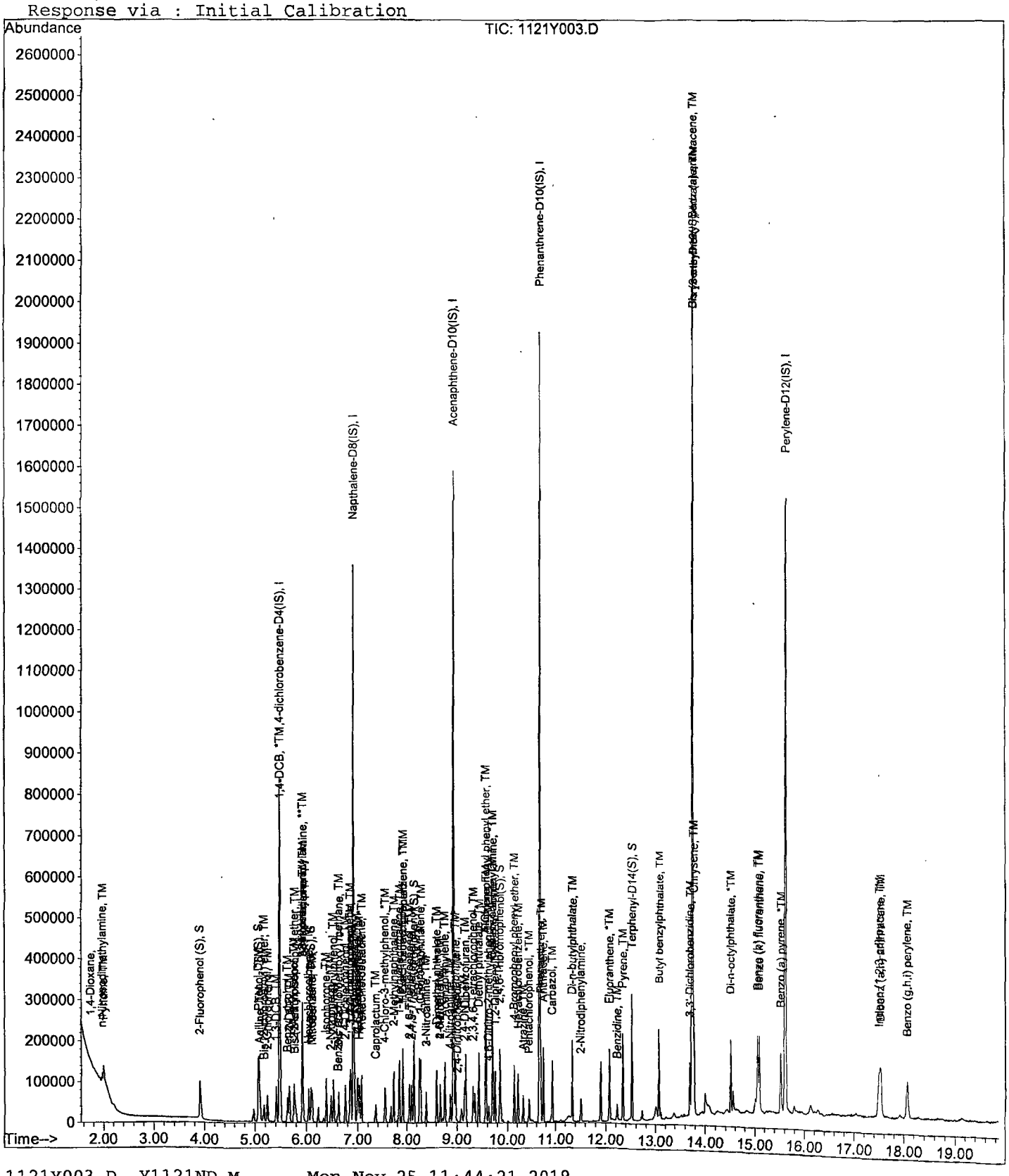
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y191121\1121Y003.D Vial: 3
Acq On : 21 Nov 19 14:07 Operator: MA,SS
Sample : 4ug/ml 8270 11/21/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 22 15:55 2019 Quant Results File: Y1121ND.RES

Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 18:04:15 2019
Response via : Initial Calibration



1121Y003.D Y1121ND.M Mon Nov 25 11:44:21 2019

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y191121\1121Y004.D Vial: 4
Acq On : 21 Nov 19 14:35 Operator: MA,SS
Sample : 5ug/ml 8270 11/21/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 22 17:59 2019 Quant Results File: Y1121ND.RES

Quant Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 16:12:45 2019
Response via : Initial Calibration
DataAcq Meth : SVOC1011

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.48	152	178119	40.00000 ppb	0.00
21) Napthalene-D8(IS)	6.91	136	701942	40.00000 ppb	0.00
41) Acenaphthene-D10(IS)	8.93	164	437841	40.00000 ppb	0.00
65) Phenanthrene-D10(IS)	10.66	188	878554	40.00000 ppb	0.00
80) Chrysene-D12(IS)	13.75	240	894953	40.00000 ppb	0.00
90) Perylene-D12(IS)	15.61	264	1003571	40.00000 ppb	0.00
System Monitoring Compounds					
5) 2-Fluorophenol (S)	3.91	112	60020	9.67677 ppb	0.00
Spiked Amount 200.000			Recovery	= 4.839%	
6) Phenol-D6 (S)	5.07	99	68975	9.33934 ppb	0.00
Spiked Amount 200.000			Recovery	= 4.670%	
22) Nitrobenzene-D5(S)	6.09	82	38608	4.88065 ppb	0.00
Spiked Amount 100.000			Recovery	= 4.881%	
46) 2-Fluorobiphenyl(S)	8.14	172	81328	4.96808 ppb	0.00
Spiked Amount 100.000			Recovery	= 4.968%	
64) 2,4,6-Tribromophenol(S)	9.85	330	31127	9.29352 ppb	0.00
Spiked Amount 200.000			Recovery	= 4.647%	
83) Terphenyl-D14(S)	12.51	244	118567	5.29914 ppb	0.00
Spiked Amount 100.000			Recovery	= 5.299%	
Target Compounds					Qvalue
2) 1,4-Dioxane	1.75	58	949	0.45892 #	1
3) n-Nitrosodimethylamine	1.96	42	17590	5.60557 ppb	78
4) Pyridine	1.99	79	37212	4.79487 ppb	97
7) Phenol	5.08	94	40110	4.59865 ppb	87
8) Aniline	5.10	93	21048	4.28749 ppb #	77
9) Bis (2-chloroethyl) ether	5.17	63	17508	4.69867 ppb	96
10) 2-Chlorophenol	5.24	128	30773	4.65897 ppb	94
11) 1,3-DCB	5.40	146	36544	4.88305 ppb	97
12) 1,4-DCB	5.50	146	36021	4.73744 ppb	96
13) Benzyl alcohol	5.63	108	17118	4.55877 ppb	99
14) 1,2-DCB	5.66	146	34722	4.88817 ppb	99
15) 2-Methylphenol	5.76	107	24694	4.61556 ppb	98
16) Bis (2-chloroisopropyl) et	5.78	45	20074	4.82076 ppb	92
17) Acetophenone	5.92	105	44298	4.60536 ppb	100
18) 3&4-Methylphenol	5.93	107	67207	9.15876 ppb	97
19) n-Nitrosodi-n-propylamine	5.92	70	25583	4.66893 ppb	97
20) Hexachloroethane	6.05	117	14504	4.80888 ppb	98
23) Nitrobenzene	6.11	77	39369	4.86780 ppb	97
24) Isophorone	6.38	82	64013	4.88234 ppb	95
25) 2-Nitrophenol	6.47	139	16944	4.58144 ppb	87
26) 2,4-Dimethylphenol	6.52	122	27539	4.78027 ppb	99
27) Benzoic acid	6.60	105	10661	5.63187 ppb	89
28) Bis (2-chloroethoxy) metha	6.62	93	33987	4.80766 ppb	95
29) 2,4-Dichlorophenol	6.75	162	27742	4.67670 ppb	96
30) 1,2,4-Trichlorobenzene	6.84	180	32824	4.78149 ppb	97
31) 3,4-Dimethylphenol	6.86	107	43196	4.63781 ppb	98
32) Naphthalene	6.94	128	92144	4.87336 ppb	98
33) 4-Chloroaniline	6.99	127	29189	4.53434 ppb	94
34) 2,6-Dichlorophenol	7.00	162	27277	4.74867 ppb	96
35) Hexachloropropene	7.04	213	27403	4.58562 ppb	96
36) Hexachlorobutadiene	7.08	225	23460	4.83929 ppb	98
37) Caprolactum	7.35	55	9733	4.66811 ppb	97

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y191121\1121Y004.D Vial: 4
Acq On : 21 Nov 19 14:35 Operator: MA,SS
Sample : 5ug/ml 8270 11/21/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 22 17:59 2019 Quant Results File: Y1121ND.RES

Quant Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 16:12:45 2019
Response via : Initial Calibration
DataAcq Meth : SVOC1011

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
38)	4-Chloro-3-methylphenol	7.55	107	31574	4.71725	ppb		98
39)	2-Methylnaphthalene	7.73	142	60949	4.72988	ppb		100
40)	1-Methylnaphthalene	7.84	142	62883	4.72006	ppb		100
42)	Hexachlorocyclopentadiene	7.91	237	19448	3.49645	ppb		97
43)	1,2,4,5-Tetrachlorobenzene	7.92	216	36627	4.76031	ppb		96
44)	2,4,6-Trichlorophenol	8.05	196	23738	4.84568	ppb		98
45)	2,4,5-Trichlorophenol	8.10	196	24300	4.65910	ppb		95
47)	1,1'-Biphenyl	8.26	154	78756	4.73271	ppb		97
48)	2-Chloronaphthalene	8.28	162	65185	4.78703	ppb		97
49)	2-Nitroaniline	8.39	65	20713	4.79884	ppb		95
50)	Dimethyl phthalate	8.61	163	79858	4.80211	ppb		99
51)	2,6-DNT	8.68	165	16261	4.37236	ppb	#	77
52)	Acenaphthylene	8.76	152	99907	4.77371	ppb		99
53)	3-Nitroaniline	8.39	138	19292	4.52000	ppb		93
54)	Acenaphthene	8.97	154	63851	4.51292	ppb		98
55)	2,4-Dinitrophenol	9.00	184	3397	1.36701	ppb	#	84
56)	4-Nitrophenol	8.67	65	1191	4.37298	ppb	#	74
57)	Dibenzofuran	9.16	168	94779	4.80321	ppb		98
58)	2,4-DNT	9.15	165	24158	4.56870	ppb		98
59)	2,3,4,6-Tetrachlorophenol	9.31	232	20347	4.61764	ppb		93
60)	Diethyl phthalate	9.42	149	83497	4.91984	ppb		99
61)	4-Chlorophenyl phenyl ethe	9.56	204	44837	4.61804	ppb		93
62)	Fluorene	9.56	166	75174	4.54443	ppb		96
63)	4-Nitroaniline	8.87	138	16245	4.78388	ppb		94
66)	4,6-Dinitro-2-methylphenol	9.62	198	10573	2.90445	ppb	#	74
67)	Diphenyl amine	9.70	169	123899	9.17918	ppb		100
68)	n-Nitrosodiphenylamine	9.70	169	123899	9.17918	ppb		100
69)	1,2-Diphenylhydrazine	9.75	77	81228	4.86252	ppb		97
70)	4-Bromophenyl phenyl ether	10.14	248	27005	4.63197	ppb		89
71)	Hexachlorobenzene	10.21	284	29823	4.84015	ppb		95
72)	Atrazine	10.31	200	13082	2.54540	ppb		93
73)	Pentachlorophenol	10.44	266	13695	3.42141	ppb		96
74)	Phenanthrene	10.69	178	115216	4.84584	ppb		99
75)	Anthracene	10.75	178	120056	4.80954	ppb		98
76)	Carbazol	10.93	167	106227	4.72853	ppb		99
77)	Di-n-butylphthalate	11.34	149	136821	4.67682	ppb		99
78)	2-Nitrodiphenylamine	11.51	167	14920	2.14635	ppb		97
79)	Fluoranthene	12.08	202	133347	4.60862	ppb	#	97
81)	Benzidine	12.23	184	22751	3.42708	ppb		99
82)	Pyrene	12.34	202	139635	5.13662	ppb		99
84)	Butyl benzylphthalate	13.08	149	63571	5.15174	ppb		88
85)	3,3'-Dichlorobenzidine	13.69	252	39776	4.87415	ppb		97
86)	Benz (a) anthracene	13.73	228	159783	5.36036	ppb		100
87)	Bis (2-ethylhexyl) phthala	13.75	149	97649	5.14758	ppb	#	96
88)	Chrysene	13.78	228	131677	4.95848	ppb		100
89)	Di-n-octylphthalate	14.51	149	154516	5.19570	ppb		96
91)	Benzo (b) fluoranthene	15.05	252	142727	4.49753	ppb		99
92)	Benzo (k) fluoranthene	15.09	252	145010	4.95951	ppb		98
93)	Benzo (a) pyrene	15.52	252	132183	4.66482	ppb		96
94)	Indeno (1,2,3-cd) pyrene	17.50	276	161903	4.81249	ppb		99
95)	Dibenz (a,h) anthracene	17.54	278	139369	4.69666	ppb		98
96)	Benzo (g,h,i) perylene	18.06	276	130106	4.85773	ppb		100

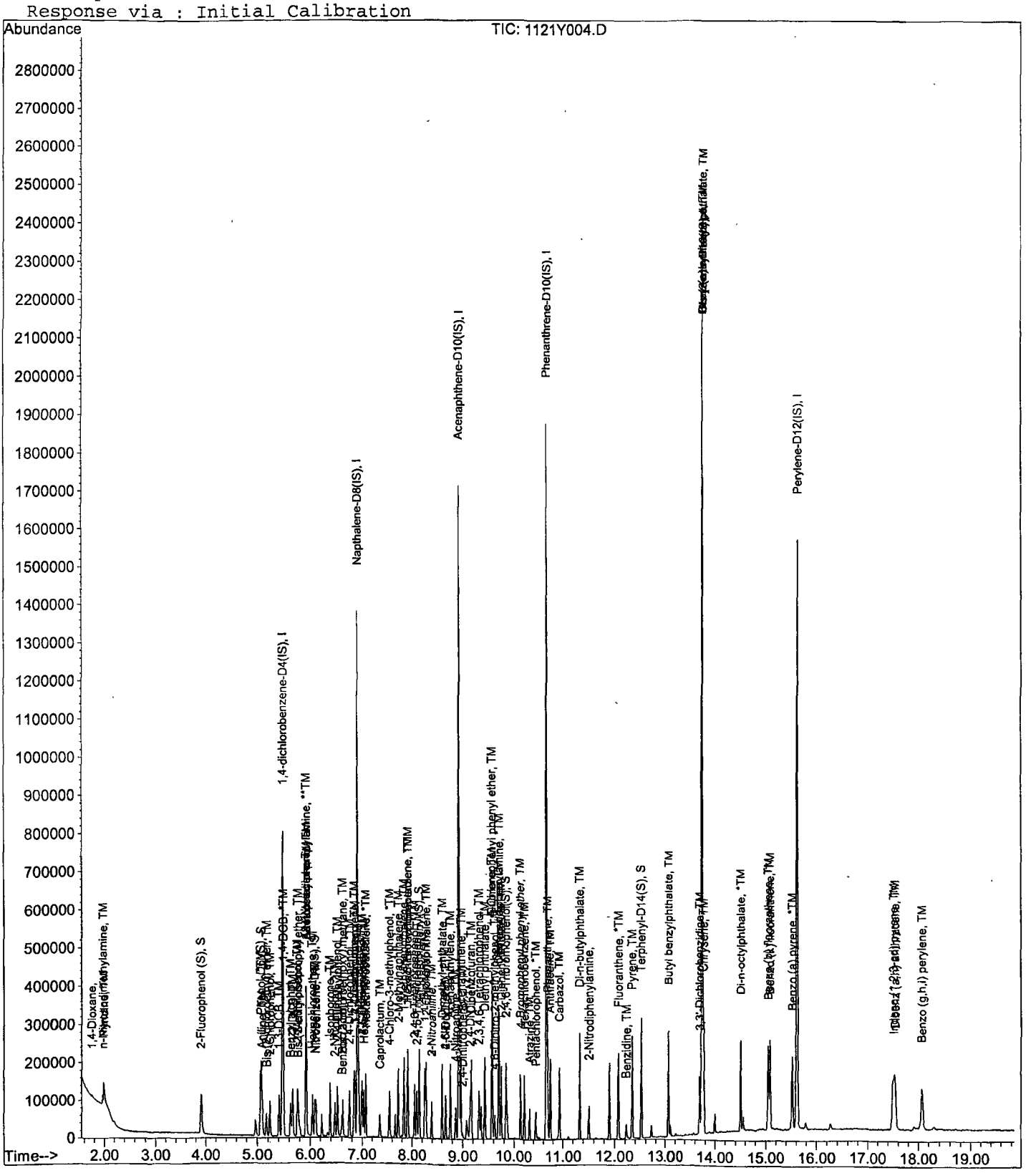
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y191121\1121Y004.D Vial: 4
Acq On : 21 Nov 19 14:35 Operator: MA,SS
Sample : 5ug/ml 8270 11/21/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 22 17:59 2019 Quant Results File: Y1121ND.RES

Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 18:04:15 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y191121\1121Y005.D Vial: 5
Acq On : 21 Nov 19 15:37 Operator: MA,SS
Sample : 10ug/ml 8270 11/21/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 22 15:55 2019 Quant Results File: Y1121ND.RES

Quant Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 15:42:05 2019
Response via : Initial Calibration
DataAcq Meth : SVOC1011

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.47	152	168977	40.00000	ppb		0.00
21) Napthalene-D8(IS)	6.91	136	683114	40.00000	ppb		0.00
41) Acenaphthene-D10(IS)	8.93	164	434378	40.00000	ppb		0.00
65) Phenanthrene-D10(IS)	10.66	188	872989	40.00000	ppb		0.00
80) Chrysene-D12(IS)	13.75	240	893214	40.00000	ppb		0.00
90) Perylene-D12(IS)	15.62	264	988297	40.00000	ppb		0.00
System Monitoring Compounds							
5) 2-Fluorophenol (S)	3.90	112	118316	20.10761	ppb		0.00
Spiked Amount 200.000			Recovery =	10.054%			
6) Phenol-D6 (S)	5.06	99	138757	19.80441	ppb		-0.02
Spiked Amount 200.000			Recovery =	9.902%			
22) Nitrobenzene-D5(S)	6.09	82	76517	9.93955	ppb		0.00
Spiked Amount 100.000			Recovery =	9.940%			
46) 2-Fluorobiphenyl(S)	8.14	172	157762	9.71403	ppb		0.00
Spiked Amount 100.000			Recovery =	9.714%			
64) 2,4,6-Tribromophenol(S)	9.85	330	59109	17.78875	ppb		0.00
Spiked Amount 200.000			Recovery =	8.895%			
83) Terphenyl-D14(S)	12.52	244	220345	9.86711	ppb		0.00
Spiked Amount 100.000			Recovery =	9.867%			
Target Compounds							Qvalue
2) 1,4-Dioxane	1.74	58	2572	1.31107			53
3) n-Nitrosodimethylamine	1.96	42	30183	10.13908	ppb		98
4) Pyridine	1.98	79	78020	10.59700	ppb		97
7) Phenol	5.08	94	81147	9.80693	ppb		92
8) Aniline	5.10	93	44216	9.49410	ppb	#	72
9) Bis (2-chloroethyl) ether	5.17	63	36273	10.26135	ppb		98
10) 2-Chlorophenol	5.24	128	63228	10.09048	ppb		95
11) 1,3-DCB	5.41	146	71562	10.07954	ppb		99
12) 1,4-DCB	5.49	146	73207	10.14901	ppb		96
13) Benzyl alcohol	5.63	108	35220	9.88705	ppb		98
14) 1,2-DCB	5.67	146	69444	10.30527	ppb		96
15) 2-Methylphenol	5.76	107	51325	10.11217	ppb		95
16) Bis (2-chloroisopropyl) et	5.78	45	40914	10.35705	ppb		95
17) Acetophenone	5.93	105	92082	10.09107	ppb		99
18) 3&4-Methylphenol	5.93	107	137956	19.81735	ppb		96
19) n-Nitrosodi-n-propylamine	5.93	70	52205	10.04294	ppb		99
20) Hexachloroethane	6.05	117	29576	10.33662	ppb		87
23) Nitrobenzene	6.11	77	80674	10.24991	ppb		99
24) Isophorone	6.38	82	125937	9.87010	ppb		98
25) 2-Nitrophenol	6.47	139	35318	9.81274	ppb		95
26) 2,4-Dimethylphenol	6.52	122	56214	10.02667	ppb		98
27) Benzoic acid	6.62	105	31882	11.03508	ppb		96
28) Bis (2-chloroethoxy) metha	6.62	93	68176	9.90969	ppb		98
29) 2,4-Dichlorophenol	6.75	162	56920	9.85995	ppb		96
30) 1,2,4-Trichlorobenzene	6.84	180	66134	9.89930	ppb		98
31) 3,4-Dimethylphenol	6.86	107	88422	9.75524	ppb		94
32) Naphthalene	6.94	128	182795	9.93422	ppb		99
33) 4-Chloroaniline	6.99	127	59273	9.46150	ppb	#	93
34) 2,6-Dichlorophenol	7.00	162	54536	9.75589	ppb		97
35) Hexachloropropene	7.04	213	56293	9.67972	ppb		99
36) Hexachlorobutadiene	7.08	225	47021	9.96674	ppb		98
37) Caprolactum	7.36	55	20280	9.99472	ppb		97

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y191121\1121Y005.D Vial: 5
Acq On : 21 Nov 19 15:37 Operator: MA,SS
Sample : 10ug/ml 8270 11/21/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 22 15:55 2019 Quant Results File: Y1121ND.RES

Quant Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 15:42:05 2019
Response via : Initial Calibration
DataAcq Meth : SVOC1011

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
38)	4-Chloro-3-methylphenol	7.55	107	64955	9.97194 ppb		93
39)	2-Methylnaphthalene	7.73	142	124627	9.93812 ppb		98
40)	1-Methylnaphthalene	7.84	142	127619	9.84323 ppb		99
42)	Hexachlorocyclopentadiene	7.91	237	43952	7.96489 ppb		99
43)	1,2,4,5-Tetrachlorobenzene	7.92	216	73379	9.61289 ppb		97
44)	2,4,6-Trichlorophenol	8.05	196	46928	9.65586 ppb		94
45)	2,4,5-Trichlorophenol	8.10	196	50161	9.69416 ppb		97
47)	1,1'-Biphenyl	8.26	154	160463	9.71963 ppb		98
48)	2-Chloronaphthalene	8.28	162	134240	9.93686 ppb		98
49)	2-Nitroaniline	8.39	65	42728	9.97826 ppb		95
50)	Dimethyl phthalate	8.61	163	161526	9.79049 ppb		100
51)	2,6-DNT	8.68	165	35573	9.64134 ppb		76
52)	Acenaphthylene	8.77	152	202717	9.76335 ppb		99
53)	3-Nitroaniline	8.39	138	41383	9.77309 ppb		97
54)	Acenaphthene	8.97	154	133593	9.51748 ppb		99
55)	2,4-Dinitrophenol	9.00	184	13612	5.52138 ppb		97
56)	4-Nitrophenol	8.67	65	2725	10.08512 ppb	#	74
57)	Dibenzofuran	9.16	168	190431	9.72759 ppb		97
58)	2,4-DNT	9.15	165	49448	9.42604 ppb		99
59)	2,3,4,6-Tetrachlorophenol	9.31	232	41263	9.43906 ppb		93
60)	Diethyl phthalate	9.42	149	165836	9.84934 ppb		96
61)	4-Chlorophenyl phenyl ethe	9.56	204	91155	9.46347 ppb		92
62)	Fluorene	9.56	166	154613	9.42120 ppb		99
63)	4-Nitroaniline	8.87	138	33585	9.96907 ppb		96
66)	4,6-Dinitro-2-methylphenol	9.62	198	28721	7.94008 ppb	#	73
67)	Diphenyl amine	9.70	169	243760	18.17433 ppb		100
68)	n-Nitrosodiphenylamine	9.70	169	243760	18.17433 ppb		100
69)	1,2-Diphenylhydrazine	9.75	77	162117	9.76662 ppb		95
70)	4-Bromophenyl phenyl ether	10.14	248	54692	9.44072 ppb		93
71)	Hexachlorobenzene	10.21	284	56169	9.17412 ppb	#	88
72)	Atrazine	10.32	200	24663	4.82934 ppb		95
73)	Pentachlorophenol	10.45	266	31516	7.92382 ppb		96
74)	Phenanthrene	10.69	178	228351	9.66539 ppb		99
75)	Anthracene	10.75	178	240259	9.68633 ppb		99
76)	Carbazol	10.94	167	218795	9.80140 ppb		98
77)	Di-n-butylphthalate	11.34	149	274648	9.44787 ppb		98
78)	2-Nitrodiphenylamine	11.51	167	31586	4.57283 ppb		99
79)	Fluoranthene	12.08	202	273290	9.50542 ppb		98
81)	Benzidine	12.23	184	38752	5.84874 ppb		96
82)	Pyrene	12.34	202	281971	10.39279 ppb		99
84)	Butyl benzylphthalate	13.08	149	129957	10.55210 ppb		81
85)	3,3'-Dichlorobenzidine	13.70	252	68357	8.39277 ppb		99
86)	Benz (a) anthracene	13.73	228	305978	10.28485 ppb		100
87)	Bis (2-ethylhexyl) phthala	13.75	149	197577	10.43558 ppb		98
88)	Chrysene	13.78	228	275483	10.39389 ppb		99
89)	Di-n-octylphthalate	14.51	149	309876	10.44006 ppb		97
91)	Benzo (b) fluoranthene	15.06	252	313332	10.02614 ppb		99
92)	Benzo (k) fluoranthene	15.10	252	257771	8.95233 ppb		100
93)	Benzo (a) pyrene	15.52	252	269584	9.66082 ppb		99
94)	Indeno (1,2,3-cd) pyrene	17.51	276	321122	9.69272 ppb		98
95)	Dibenz (a,h) anthracene	17.55	278	282097	9.65343 ppb		99
96)	Benzo (g,h,i) perylene	18.08	276	259057	9.82182 ppb		98

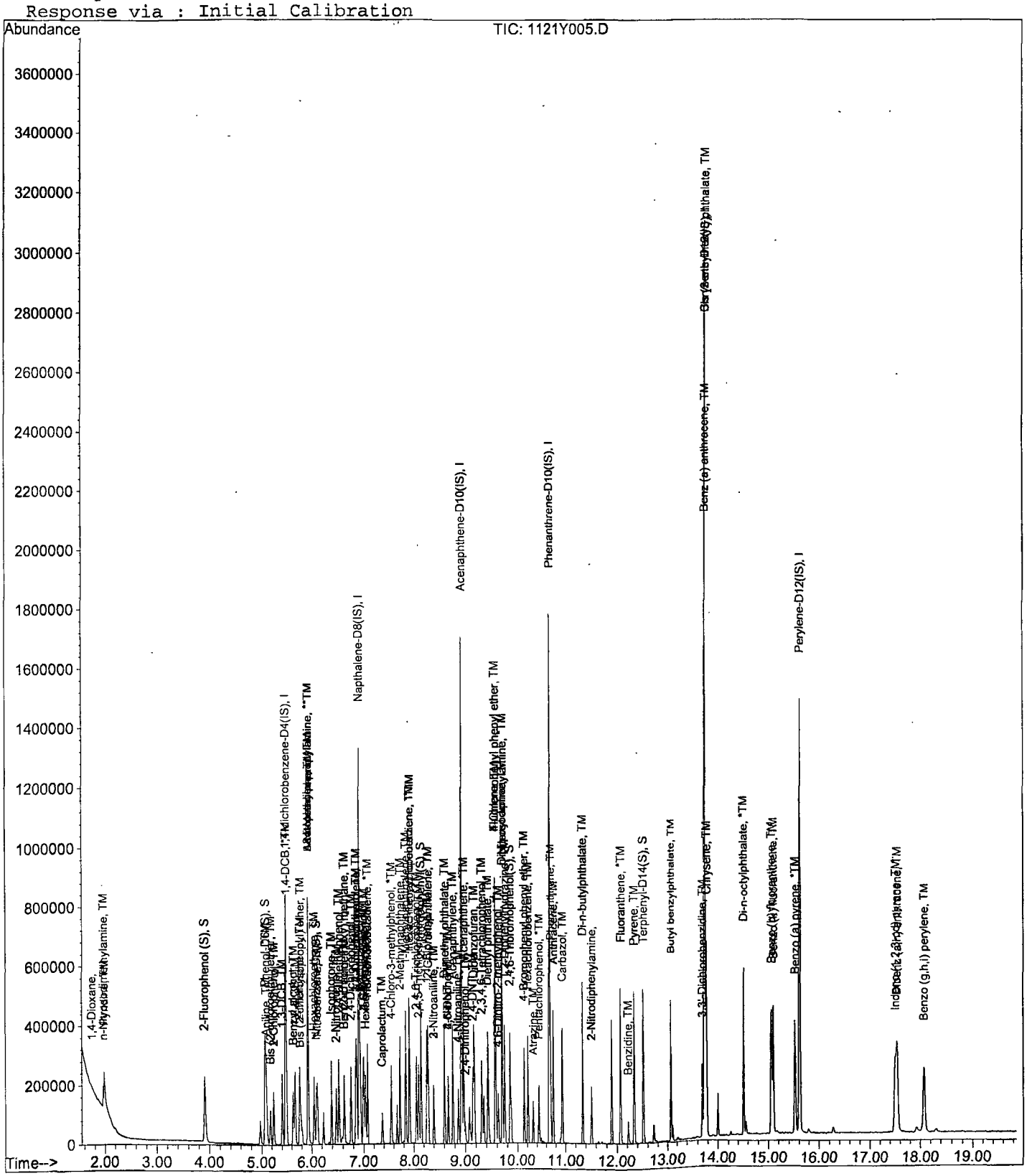
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y191121\1121Y005.D Vial: 5
Acq On : 21 Nov 19 15:37 Operator: MA,SS
Sample : 10ug/ml 8270 11/21/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 22 15:55 2019 Quant Results File: Y1121ND.RES

Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 18:04:15 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y191121\1121Y006.D Vial: 6
Acq On : 21 Nov 19 16:05 Operator: MA,SS
Sample : 20ug/ml 8270 11/21/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 22 15:55 2019 Quant Results File: Y1121ND.RES

Quant Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 15:42:05 2019
Response via : Initial Calibration
DataAcq Meth : SVOC1011

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.48	152	199064	40.00000 ppb		0.00
21) Napthalene-D8(IS)	6.91	136	758291	40.00000 ppb		0.00
41) Acenaphthene-D10(IS)	8.93	164	470271	40.00000 ppb		0.00
65) Phenanthrene-D10(IS)	10.66	188	939739	40.00000 ppb		0.00
80) Chrysene-D12(IS)	13.75	240	1001332	40.00000 ppb		0.00
90) Perylene-D12(IS)	15.61	264	1078368	40.00000 ppb		0.00
System Monitoring Compounds						
5) 2-Fluorophenol (S)	3.91	112	249667	36.01745 ppb		0.00
Spiked Amount 200.000			Recovery =	18.009%		
6) Phenol-D6 (S)	5.07	99	294157	35.63864 ppb		0.00
Spiked Amount 200.000			Recovery =	17.820%		
22) Nitrobenzene-D5(S)	6.09	82	161107	18.85299 ppb		0.00
Spiked Amount 100.000			Recovery =	18.853%		
46) 2-Fluorobiphenyl(S)	8.14	172	330526	18.79846 ppb		0.00
Spiked Amount 100.000			Recovery =	18.798%		
64) 2,4,6-Tribromophenol(S)	9.85	330	129026	35.86647 ppb		0.00
Spiked Amount 200.000			Recovery =	17.933%		
83) Terphenyl-D14(S)	12.51	244	478561	19.11619 ppb		0.00
Spiked Amount 100.000			Recovery =	19.116%		
Target Compounds						Qvalue
2) 1,4-Dioxane	1.74	58	5130	2.21977		94
3) n-Nitrosodimethylamine	1.96	42	63235	18.03137 ppb		94
4) Pyridine	1.98	79	159447	18.38350 ppb		96
7) Phenol	5.08	94	170623	17.50383 ppb		91
8) Aniline	5.10	93	104728	19.08852 ppb	#	76
9) Bis (2-chloroethyl) ether	5.17	63	76855	18.45559 ppb		95
10) 2-Chlorophenol	5.24	128	135758	18.39089 ppb		96
11) 1,3-DCB	5.41	146	149508	17.87547 ppb		100
12) 1,4-DCB	5.50	146	154683	18.20323 ppb		99
13) Benzyl alcohol	5.63	108	76033	18.11817 ppb		97
14) 1,2-DCB	5.67	146	144896	18.25222 ppb		98
15) 2-Methylphenol	5.76	107	106477	17.80762 ppb		97
16) Bis (2-chloroisopropyl) et	5.78	45	83414	17.92413 ppb		92
17) Acetophenone	5.92	105	189886	17.66405 ppb		99
18) 3&4-Methylphenol	5.93	107	286947	34.98981 ppb		99
19) n-Nitrosodi-n-propylamine	5.92	70	110325	18.01596 ppb		98
20) Hexachloroethane	6.05	117	60903	18.06811 ppb		95
23) Nitrobenzene	6.12	77	166997	19.11404 ppb		94
24) Isophorone	6.39	82	267166	18.86283 ppb		100
25) 2-Nitrophenol	6.47	139	76084	19.04342 ppb		90
26) 2,4-Dimethylphenol	6.52	122	115838	18.61318 ppb		99
27) Benzoic acid	6.60	105	88654	18.85200 ppb		98
28) Bis (2-chloroethoxy) metha	6.62	93	145536	19.05708 ppb		99
29) 2,4-Dichlorophenol	6.75	162	120650	18.82758 ppb		96
30) 1,2,4-Trichlorobenzene	6.84	180	137408	18.52887 ppb		97
31) 3,4-Dimethylphenol	6.86	107	187529	18.63818 ppb		98
32) Naphthalene	6.94	128	379858	18.59722 ppb		100
33) 4-Chloroaniline	6.99	127	128659	18.50122 ppb		96
34) 2,6-Dichlorophenol	7.00	162	115378	18.59362 ppb		98
35) Hexachloropropene	7.04	213	121057	18.75235 ppb		99
36) Hexachlorobutadiene	7.08	225	97450	18.60804 ppb		100
37) Caprolactum	7.38	55	42312	18.78553 ppb		97

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y191121\1121Y006.D Vial: 6
Acq On : 21 Nov 19 16:05 Operator: MA,SS
Sample : 20ug/ml 8270 11/21/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 22 15:55 2019 Quant Results File: Y1121ND.RES

Quant Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 15:42:05 2019
Response via : Initial Calibration
DataAcq Meth : SVOC1011

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
38)	4-Chloro-3-methylphenol	7.55	107	133766	18.49994 ppb		96
39)	2-Methylnaphthalene	7.73	142	259800	18.66330 ppb		100
40)	1-Methylnaphthalene	7.84	142	263891	18.33598 ppb		98
42)	Hexachlorocyclopentadiene	7.91	237	104680	17.52202 ppb		100
43)	1,2,4,5-Tetrachlorobenzene	7.92	216	151479	18.32966 ppb		99
44)	2,4,6-Trichlorophenol	8.05	196	100488	19.09822 ppb		99
45)	2,4,5-Trichlorophenol	8.10	196	105541	18.84018 ppb		93
47)	1,1'-Biphenyl	8.26	154	336399	18.82129 ppb		97
48)	2-Chloronaphthalene	8.28	162	274932	18.79801 ppb		98
49)	2-Nitroaniline	8.39	65	88142	19.01274 ppb		97
50)	Dimethyl phthalate	8.61	163	335325	18.77360 ppb		99
51)	2,6-DNT	8.68	165	77433	19.38486 ppb		79
52)	Acenaphthylene	8.76	152	425705	18.93812 ppb		99
53)	3-Nitroaniline	8.39	138	88770	19.36402 ppb		99
54)	Acenaphthene	8.97	154	282238	18.57264 ppb		99
55)	2,4-Dinitrophenol	9.00	184	39846	14.92897 ppb		95
56)	4-Nitrophenol	8.68	65	5546	18.95893 ppb		95
57)	Dibenzofuran	9.16	168	394383	18.60825 ppb		96
58)	2,4-DNT	9.15	165	109203	19.22802 ppb		98
59)	2,3,4,6-Tetrachlorophenol	9.31	232	89499	18.91062 ppb		95
60)	Diethyl phthalate	9.43	149	347798	19.07985 ppb		99
61)	4-Chlorophenyl phenyl ethe	9.56	204	190055	18.22506 ppb		91
62)	Fluorene	9.56	166	322405	18.14603 ppb		98
63)	4-Nitroaniline	8.88	138	70247	19.26001 ppb		80
66)	4,6-Dinitro-2-methylphenol	9.63	198	68893	17.69303 ppb		97
67)	Diphenyl amine	9.70	169	524220	36.30873 ppb		99
68)	n-Nitrosodiphenylamine	9.70	169	524220	36.30873 ppb		99
69)	1,2-Diphenylhydrazine	9.75	77	335520	18.77740 ppb		93
70)	4-Bromophenyl phenyl ether	10.14	248	115339	18.49521 ppb		93
71)	Hexachlorobenzene	10.21	284	120551	18.29110 ppb		91
72)	Atrazine	10.32	200	49292	8.96643 ppb		97
73)	Pentachlorophenol	10.44	266	73146	17.08423 ppb		99
74)	Phenanthrene	10.69	178	475206	18.68529 ppb		100
75)	Anthracene	10.75	178	497372	18.62784 ppb		99
76)	Carbazol	10.94	167	451106	18.77287 ppb		97
77)	Di-n-butylphthalate	11.34	149	583123	18.63456 ppb		99
78)	2-Nitrodiphenylamine	11.51	167	71614	9.63141 ppb		99
79)	Fluoranthene	12.08	202	568406	18.36571 ppb		98
81)	Benzidine	12.23	184	114011	15.34943 ppb		98
82)	Pyrene	12.34	202	602482	19.80839 ppb		99
84)	Butyl benzylphthalate	13.08	149	270124	19.56501 ppb		85
85)	3,3'-Dichlorobenzidine	13.69	252	158377	17.34569 ppb	#	99
86)	Benz (a) anthracene	13.74	228	645189	19.34516 ppb		98
87)	Bis (2-ethylhexyl) phthala	13.75	149	416311	19.61443 ppb	#	97
88)	Chrysene	13.78	228	583044	19.62285 ppb		100
89)	Di-n-octylphthalate	14.51	149	653172	19.62998 ppb		96
91)	Benzo (b) fluoranthene	15.06	252	660853	19.38003 ppb		100
92)	Benzo (k) fluoranthene	15.09	252	555866	17.69263 ppb		99
93)	Benzo (a) pyrene	15.52	252	567068	18.62410 ppb		99
94)	Indeno (1,2,3-cd) pyrene	17.51	276	678920	18.78083 ppb		99
95)	Dibenz (a,h) anthracene	17.55	278	587950	18.43929 ppb		99
96)	Benzo (g,h,i) perylene	18.08	276	545235	18.94528 ppb		98

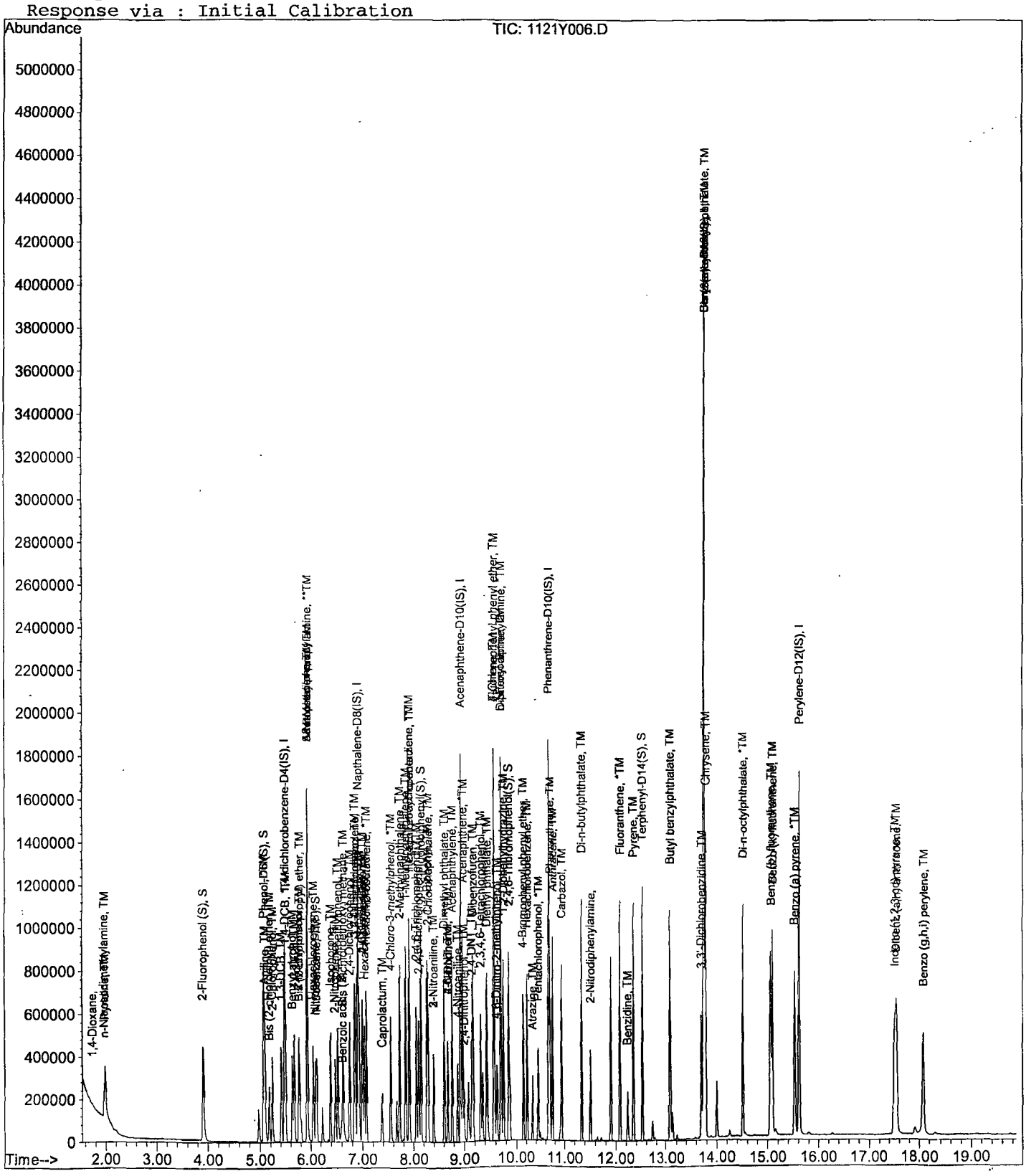
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y191121\1121Y006.D Vial: 6
Acq On : 21 Nov 19 16:05 Operator: MA,SS
Sample : 20ug/ml 8270 11/21/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 22 15:55 2019 Quant Results File: Y1121ND.RES

Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 18:04:15 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y191121\1121Y007.D Vial: 7
Acq On : 21 Nov 19 16:33 Operator: MA,SS
Sample : 40ug/ml 8270 11/21/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 22 15:55 2019 Quant Results File: Y1121ND.RES

Quant Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 15:42:05 2019
Response via : Initial Calibration
DataAcq Meth : SVOC1011

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.48	152	193290	40.00000 ppb	0.00
21) Napthalene-D8(IS)	6.91	136	718227	40.00000 ppb	0.00
41) Acenaphthene-D10(IS)	8.93	164	443843	40.00000 ppb	0.00
65) Phenanthrene-D10(IS)	10.67	188	873650	40.00000 ppb	0.00
80) Chrysene-D12(IS)	13.75	240	1011815	40.00000 ppb	0.00
90) Perylene-D12(IS)	15.61	264	1014443	40.00000 ppb	0.00
System Monitoring Compounds					
5) 2-Fluorophenol (S)	3.91	112	478213	71.04877 ppb	0.00
Spiked Amount 200.000			Recovery =	35.525%	
6) Phenol-D6 (S)	5.07	99	570499	71.18363 ppb	0.00
Spiked Amount 200.000			Recovery =	35.592%	
22) Nitrobenzene-D5(S)	6.10	82	305289	37.71822 ppb	0.00
Spiked Amount 100.000			Recovery =	37.718%	
46) 2-Fluorobiphenyl(S)	8.14	172	625810	37.71186 ppb	0.00
Spiked Amount 100.000			Recovery =	37.712%	
64) 2,4,6-Tribromophenol(S)	9.85	330	255942	75.38271 ppb	0.00
Spiked Amount 200.000			Recovery =	37.692%	
83) Terphenyl-D14(S)	12.52	244	940108	37.16368 ppb	0.00
Spiked Amount 100.000			Recovery =	37.164%	
Target Compounds					Qvalue
2) 1,4-Dioxane	1.74	58	7916	3.52761	59
3) n-Nitrosodimethylamine	1.96	42	120018	35.24528 ppb	96
4) Pyridine	1.98	79	311631	37.00290 ppb	98
7) Phenol	5.09	94	350876	37.07084 ppb	97
8) Aniline	5.10	93	221824	41.63910 ppb	86
9) Bis (2-chloroethyl) ether	5.18	63	149223	36.90413 ppb	95
10) 2-Chlorophenol	5.24	128	266304	37.15338 ppb	95
11) 1,3-DCB	5.41	146	299866	36.92356 ppb	98
12) 1,4-DCB	5.50	146	304720	36.93093 ppb	100
13) Benzyl alcohol	5.64	108	152088	37.32419 ppb	99
14) 1,2-DCB	5.66	146	282123	36.60001 ppb	98
15) 2-Methylphenol	5.77	107	208047	35.83397 ppb	99
16) Bis (2-chloroisopropyl) et	5.79	45	166924	36.94036 ppb	99
17) Acetophenone	5.93	105	385878	36.96841 ppb	91
18) 3&4-Methylphenol	5.93	107	584480	73.39947 ppb	95
19) n-Nitrosodi-n-propylamine	5.93	70	218037	36.66883 ppb	100
20) Hexachloroethane	6.05	117	121590	37.14970 ppb	95
23) Nitrobenzene	6.12	77	319916	38.65930 ppb	98
24) Isophorone	6.39	82	524152	39.07122 ppb	96
25) 2-Nitrophenol	6.48	139	149445	39.49181 ppb	97
26) 2,4-Dimethylphenol	6.53	122	229872	38.99686 ppb	98
27) Benzoic acid	6.64	105	204208	38.00783 ppb	98
28) Bis (2-chloroethoxy) metha	6.63	93	284276	39.30071 ppb	99
29) 2,4-Dichlorophenol	6.75	162	236041	38.88919 ppb	95
30) 1,2,4-Trichlorobenzene	6.84	180	276835	39.41234 ppb	97
31) 3,4-Dimethylphenol	6.86	107	378173	39.68257 ppb	99
32) Naphthalene	6.94	128	750123	38.77336 ppb	100
33) 4-Chloroaniline	6.99	127	269013	40.84206 ppb	97
34) 2,6-Dichlorophenol	7.01	162	227469	38.70236 ppb	99
35) Hexachloropropene	7.04	213	243359	39.80039 ppb	98
36) Hexachlorobutadiene	7.08	225	194922	39.29649 ppb	100
37) Caprolactum	7.40	55	83188	38.99372 ppb	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y191121\1121Y007.D Vial: 7
Acq On : 21 Nov 19 16:33 Operator: MA,SS
Sample : 40ug/ml 8270 11/21/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 22 15:55 2019 Quant Results File: Y1121ND.RES

Quant Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 15:42:05 2019
Response via : Initial Calibration
DataAcq Meth : SVOC1011

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
38)	4-Chloro-3-methylphenol	7.55	107	267287	39.02802	ppb		90
39)	2-Methylnaphthalene	7.73	142	510524	38.72037	ppb		99
40)	1-Methylnaphthalene	7.84	142	531683	39.00376	ppb		100
42)	Hexachlorocyclopentadiene	7.91	237	238400	42.28104	ppb		99
43)	1,2,4,5-Tetrachlorobenzene	7.92	216	309462	39.67603	ppb		98
44)	2,4,6-Trichlorophenol	8.05	196	196965	39.66310	ppb		98
45)	2,4,5-Trichlorophenol	8.10	196	207639	39.27277	ppb	#	91
47)	1,1'-Biphenyl	8.26	154	662128	39.25142	ppb		99
48)	2-Chloronaphthalene	8.29	162	544895	39.47465	ppb		99
49)	2-Nitroaniline	8.40	65	172460	39.41567	ppb		93
50)	Dimethyl phthalate	8.62	163	666101	39.51306	ppb		99
51)	2,6-DNT	8.68	165	150437	39.90341	ppb		96
52)	Acenaphthylene	8.76	152	837454	39.47372	ppb		100
53)	3-Nitroaniline	8.40	138	174570	40.34761	ppb		95
54)	Acenaphthene	8.97	154	569769	39.72608	ppb		98
55)	2,4-Dinitrophenol	9.01	184	93000	36.91875	ppb		94
56)	4-Nitrophenol	8.68	65	11500	41.65342	ppb		100
57)	Dibenzofuran	9.17	168	779361	38.96231	ppb		98
58)	2,4-DNT	9.15	165	215764	40.25297	ppb		89
59)	2,3,4,6-Tetrachlorophenol	9.31	232	179644	40.21787	ppb	#	93
60)	Diethyl phthalate	9.43	149	672653	39.09829	ppb		97
61)	4-Chlorophenyl phenyl ethe	9.56	204	382649	38.87845	ppb		87
62)	Fluorene	9.57	166	655165	39.07053	ppb		99
63)	4-Nitroaniline	8.88	138	138994	40.37790	ppb		93
66)	4,6-Dinitro-2-methylphenol	9.63	198	139175	38.44661	ppb	#	79
67)	Diphenyl amine	9.71	169	1057137	78.75870	ppb		99
68)	n-Nitrosodiphenylamine	9.71	169	1057137	78.75870	ppb		99
69)	1,2-Diphenylhydrazine	9.75	77	661686	39.83262	ppb	#	88
70)	4-Bromophenyl phenyl ether	10.14	248	226910	39.13870	ppb		97
71)	Hexachlorobenzene	10.21	284	241564	39.42494	ppb	#	83
72)	Atrazine	10.32	200	100285	19.62226	ppb		99
73)	Pentachlorophenol	10.44	266	153986	38.68619	ppb		100
74)	Phenanthrene	10.70	178	922442	39.01456	ppb		100
75)	Anthracene	10.75	178	975577	39.30179	ppb		100
76)	Carbazol	10.94	167	881170	39.44405	ppb		99
77)	Di-n-butylphthalate	11.34	149	1146641	39.41451	ppb		98
78)	2-Nitrodiphenylamine	11.51	167	141659	20.49302	ppb		98
79)	Fluoranthene	12.08	202	1141702	39.67999	ppb		99
81)	Benzidine	12.23	184	290367	38.68742	ppb		98
82)	Pyrene	12.35	202	1203115	39.14616	ppb		100
84)	Butyl benzylphthalate	13.09	149	543907	38.98688	ppb		97
85)	3,3'-Dichlorobenzidine	13.70	252	363359	39.38333	ppb		100
86)	Benz (a) anthracene	13.74	228	1291293	38.31661	ppb		99
87)	Bis (2-ethylhexyl) phthala	13.75	149	829295	38.66730	ppb		97
88)	Chrysene	13.78	228	1171969	39.03498	ppb		99
89)	Di-n-octylphthalate	14.51	149	1315078	39.11298	ppb		98
91)	Benzo (b) fluoranthene	15.06	252	1227741	38.27328	ppb		99
92)	Benzo (k) fluoranthene	15.09	252	1195396	40.44580	ppb		99
93)	Benzo (a) pyrene	15.53	252	1134185	39.59711	ppb		99
94)	Indeno (1,2,3-cd) pyrene	17.52	276	1340147	39.40832	ppb		100
95)	Dibenz (a,h) anthracene	17.55	278	1182851	39.43422	ppb		98
96)	Benzo (g,h,i) perylene	18.09	276	1063705	39.28962	ppb		99

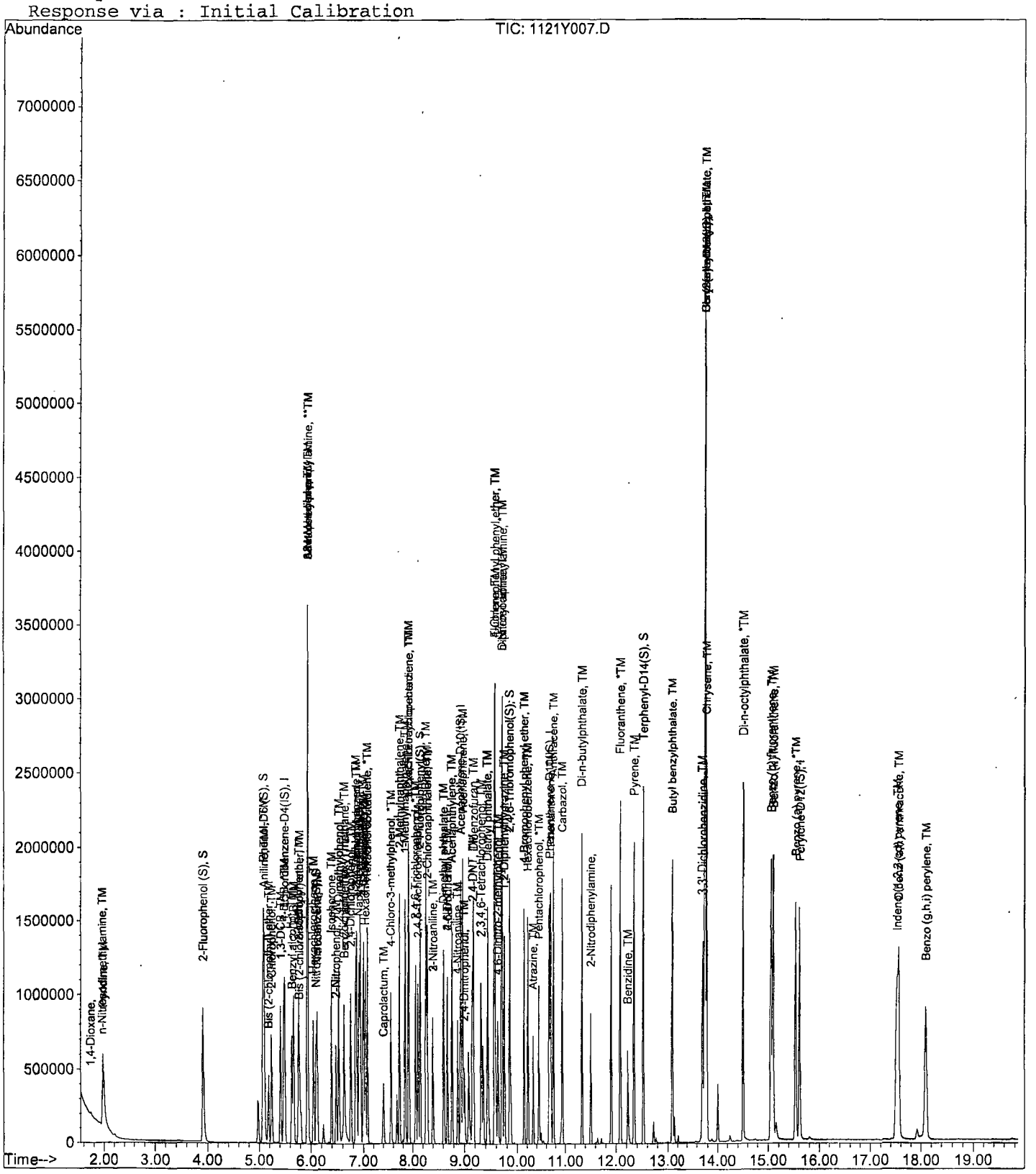
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y191121\1121Y007.D Vial: 7
Acq On : 21 Nov 19 16:33 Operator: MA,SS
Sample : 40ug/ml 8270 11/21/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 22 15:55 2019 Quant Results File: Y1121ND.RES

Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 18:04:15 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y191121\1121Y008.D Vial: 8
Acq On : 21 Nov 19 17:01 Operator: MA,SS
Sample : 50ug/ml 8270 11/21/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 22 15:55 2019 Quant Results File: Y1121ND.RES

Quant Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 15:42:05 2019
Response via : Initial Calibration
DataAcq Meth : SVOC1011

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.48	152	171005	40.00000 ppb	0.00
21) Napthalene-D8(IS)	6.92	136	663771	40.00000 ppb	0.00
41) Acenaphthene-D10(IS)	8.93	164	407738	40.00000 ppb	0.00
65) Phenanthrene-D10(IS)	10.67	188	815726	40.00000 ppb	0.00
80) Chrysene-D12(IS)	13.75	240	934599	40.00000 ppb	0.00
90) Perylene-D12(IS)	15.61	264	938399	40.00000 ppb	0.00
System Monitoring Compounds					
5) 2-Fluorophenol (S)	3.91	112	579236	97.27277 ppb	0.00
Spiked Amount 200.000			Recovery =	48.637%	
6) Phenol-D6 (S)	5.08	99	698019	98.44487 ppb	0.00
Spiked Amount 200.000			Recovery =	49.223%	
22) Nitrobenzene-D5(S)	6.10	82	367148	49.08227 ppb	0.00
Spiked Amount 100.000			Recovery =	49.082%	
46) 2-Fluorobiphenyl(S)	8.15	172	768989	50.44333 ppb	0.00
Spiked Amount 100.000			Recovery =	50.443%	
64) 2,4,6-Tribromophenol(S)	9.86	330	319887	102.55928 ppb	0.00
Spiked Amount 200.000			Recovery =	51.280%	
83) Terphenyl-D14(S)	12.52	244	1137526	48.68309 ppb	0.00
Spiked Amount 100.000			Recovery =	48.683%	
Target Compounds					Qvalue
2) 1,4-Dioxane	1.74	58	9546	4.80835	100
3) n-Nitrosodimethylamine	1.96	42	141360	46.92256 ppb	100
4) Pyridine	1.98	79	378779	50.83719 ppb	100
7) Phenol	5.09	94	425758	50.84429 ppb	100
8) Aniline	5.10	93	249856	53.01309 ppb	100
9) Bis (2-chloroethyl) ether	5.18	63	179891	50.28624 ppb	100
10) 2-Chlorophenol	5.25	128	320461	50.53548 ppb	100
11) 1,3-DCB	5.41	146	361793	50.35436 ppb	100
12) 1,4-DCB	5.50	146	371417	50.88053 ppb	100
13) Benzyl alcohol	5.64	108	186524	51.74052 ppb	100
14) 1,2-DCB	5.66	146	342793	50.26610 ppb	100
15) 2-Methylphenol	5.77	107	267866	52.14968 ppb	100
16) Bis (2-chloroisopropyl) et	5.78	45	200510	50.15555 ppb	100
17) Acetophenone	5.93	105	467300	50.60310 ppb	100
18) 3&4-Methylphenol	5.94	107	725121	102.92818 ppb	100
19) n-Nitrosodi-n-propylamine	5.93	70	269072	51.14886 ppb	100
20) Hexachloroethane	6.04	117	146012	50.42507 ppb	100
23) Nitrobenzene	6.12	77	387198	50.62844 ppb	100
24) Isophorone	6.40	82	636697	51.35420 ppb	100
25) 2-Nitrophenol	6.48	139	183318	52.41725 ppb	100
26) 2,4-Dimethylphenol	6.53	122	279872	51.37437 ppb	100
27) Benzoic acid	6.65	105	258747	50.49164 ppb	100
28) Bis (2-chloroethoxy) metha	6.63	93	344576	51.54525 ppb	100
29) 2,4-Dichlorophenol	6.76	162	291193	51.91177 ppb	100
30) 1,2,4-Trichlorobenzene	6.85	180	331385	51.04903 ppb	100
31) 3,4-Dimethylphenol	6.86	107	455150	51.67819 ppb	100
32) Naphthalene	6.94	128	913992	51.11952 ppb	100
33) 4-Chloroaniline	6.99	127	337587	55.45792 ppb	100
34) 2,6-Dichlorophenol	7.01	162	282687	52.04326 ppb	100
35) Hexachloropropene	7.04	213	292552	51.77099 ppb	100
36) Hexachlorobutadiene	7.07	225	231300	50.45591 ppb	100
37) Caprolactum	7.41	55	102304	51.88838 ppb	100

(#) = qualifier out of range (m) = manual integration

Data File : M:\YODA\DATA\Y191121\1121Y008.D Vial: 8
Acq On : 21 Nov 19 17:01 Operator: MA,SS
Sample : 50ug/ml 8270 11/21/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 22 15:55 2019 Quant Results File: Y1121ND.RES

Quant Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 15:42:05 2019
Response via : Initial Calibration
DataAcq Meth : SVOC1011

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
38)	4-Chloro-3-methylphenol	7.56	107	325787	51.47257	ppb	100
39)	2-Methylnaphthalene	7.72	142	629795	51.68518	ppb	100
40)	1-Methylnaphthalene	7.84	142	649196	51.53153	ppb	100
42)	Hexachlorocyclopentadiene	7.91	237	294464	56.84860	ppb	100
43)	1,2,4,5-Tetrachlorobenzene	7.92	216	373513	52.12844	ppb	100
44)	2,4,6-Trichlorophenol	8.05	196	241595	52.95826	ppb	100
45)	2,4,5-Trichlorophenol	8.11	196	255196	52.54176	ppb	100
47)	1,1'-Biphenyl	8.26	154	808031	52.14223	ppb	100
48)	2-Chloronaphthalene	8.29	162	662366	52.23381	ppb	100
49)	2-Nitroaniline	8.40	65	211988	52.73999	ppb	100
50)	Dimethyl phthalate	8.62	163	815644	52.66831	ppb	100
51)	2,6-DNT	8.68	165	188199	54.34015	ppb	100
52)	Acenaphthylene	8.76	152	1021037	52.38859	ppb	100
53)	3-Nitroaniline	8.40	138	212688	53.51054	ppb	100
54)	Acenaphthene	8.97	154	700903	53.19649	ppb	100
55)	2,4-Dinitrophenol	9.01	184	118563	51.23438	ppb	100
56)	4-Nitrophenol	8.68	65	14018	55.26970	ppb	100
57)	Dibenzofuran	9.17	168	955387	51.99165	ppb	100
58)	2,4-DNT	9.15	165	260352	52.87228	ppb	100
59)	2,3,4,6-Tetrachlorophenol	9.32	232	219669	53.53321	ppb	100
60)	Diethyl phthalate	9.44	149	823957	52.13381	ppb	100
61)	4-Chlorophenyl phenyl ethe	9.57	204	475789	52.62244	ppb	100
62)	Fluorene	9.57	166	815787	52.95702	ppb	100
63)	4-Nitroaniline	8.88	138	170405	53.88627	ppb	100
66)	4,6-Dinitro-2-methylphenol	9.64	198	177142	52.40968	ppb	100
67)	Diphenyl amine	9.71	169	1286170	102.62633	ppb	100
68)	n-Nitrosodiphenylamine	9.71	169	1286170	102.62633	ppb	100
69)	1,2-Diphenylhydrazine	9.76	77	808449	52.12339	ppb	100
70)	4-Bromophenyl phenyl ether	10.14	248	282643	52.21366	ppb	100
71)	Hexachlorobenzene	10.22	284	302354	52.85033	ppb	100
72)	Atrazine	10.32	200	121452	25.45135	ppb	100
73)	Pentachlorophenol	10.44	266	194818	52.41999	ppb	100
74)	Phenanthrene	10.69	178	1126250	51.01708	ppb	100
75)	Anthracene	10.75	178	1190869	51.38164	ppb	100
76)	Carbazol	10.94	167	1084434	51.98980	ppb	100
77)	Di-n-butylphthalate	11.34	149	1421631	52.33699	ppb	100
78)	2-Nitrodiphenylamine	11.51	167	174136	26.98010	ppb	100
79)	Fluoranthene	12.08	202	1403330	52.23623	ppb	100
81)	Benzidine	12.23	184	389926	56.24456	ppb	100
82)	Pyrene	12.35	202	1490379	52.49942	ppb	100
84)	Butyl benzylphthalate	13.09	149	670791	52.05433	ppb	100
85)	3,3'-Dichlorobenzidine	13.70	252	482025	56.56162	ppb	100
86)	Benz (a) anthracene	13.74	228	1587379	50.99396	ppb	100
87)	Bis (2-ethylhexyl) phthala	13.75	149	1020587	51.51820	ppb	100
88)	Chrysene	13.79	228	1457437	52.55371	ppb	100
89)	Di-n-octylphthalate	14.51	149	1611365	51.88467	ppb	100
91)	Benzo (b) fluoranthene	15.07	252	1656567	55.82619	ppb	100
92)	Benzo (k) fluoranthene	15.10	252	1337361	48.91594	ppb	100
93)	Benzo (a) pyrene	15.53	252	1397191	52.73214	ppb	100
94)	Indeno (1,2,3-cd) pyrene	17.53	276	1644836	52.28754	ppb	100
95)	Dibenz (a,h) anthracene	17.56	278	1467340	52.88276	ppb	100
96)	Benzo (g,h,i) perylene	18.10	276	1307740	52.21774	ppb	100

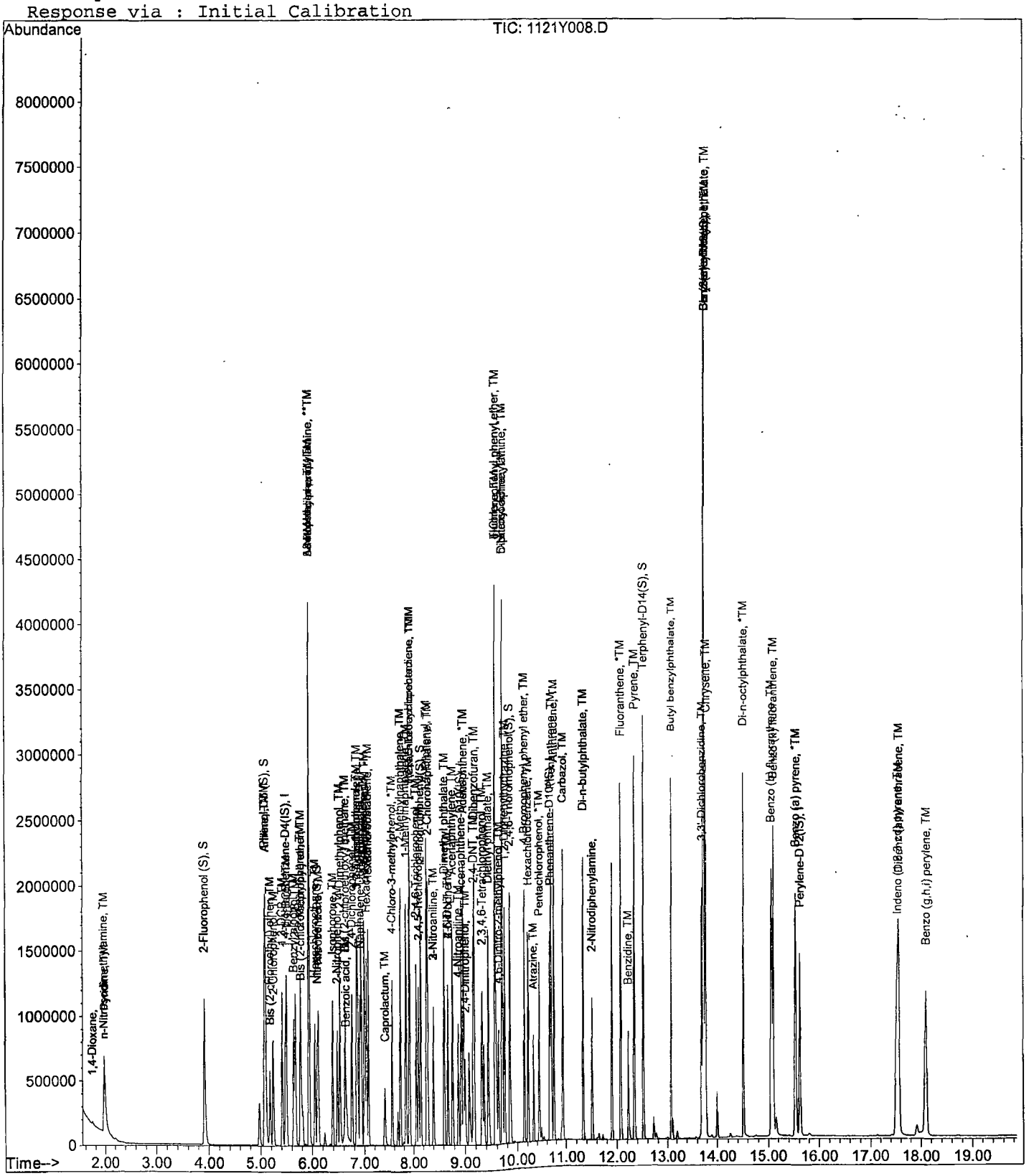
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y191121\1121Y008.D Vial: 8
Acq On : 21 Nov 19 17:01 Operator: MA,SS
Sample : 50ug/ml 8270 11/21/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 22 15:55 2019 Quant Results File: Y1121ND.RES

Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 18:04:15 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y191121\1121Y009.D Vial: 9
Acq On : 21 Nov 19 17:30 Operator: MA,SS
Sample : 60ug/ml 8270 11/21/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 22 15:55 2019 Quant Results File: Y1121ND.RES

Quant Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 15:42:05 2019
Response via : Initial Calibration
DataAcq Meth : SVOC1011

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.48	152	167367	40.00000 ppb		0.00
21) Napthalene-D8(IS)	6.92	136	682970	40.00000 ppb		0.00
41) Acenaphthene-D10(IS)	8.93	164	436434	40.00000 ppb		0.00
65) Phenanthrene-D10(IS)	10.67	188	853269	40.00000 ppb		0.00
80) Chrysene-D12(IS)	13.76	240	1039035	40.00000 ppb		0.00
90) Perylene-D12(IS)	15.61	264	1002354	40.00000 ppb		0.00
System Monitoring Compounds						
5) 2-Fluorophenol (S)	3.91	112	729383	125.14986 ppb		0.00
Spiked Amount 200.000			Recovery =	62.575%		
6) Phenol-D6 (S)	5.08	99	877326	126.42292 ppb		0.00
Spiked Amount 200.000			Recovery =	63.212%		
22) Nitrobenzene-D5(S)	6.10	82	462991	60.15513 ppb		0.00
Spiked Amount 100.000			Recovery =	60.155%		
46) 2-Fluorobiphenyl(S)	8.15	172	960712	58.87615 ppb		0.00
Spiked Amount 100.000			Recovery =	58.876%		
64) 2,4,6-Tribromophenol(S)	9.86	330	418277	125.28670 ppb		0.00
Spiked Amount 200.000			Recovery =	62.644%		
83) Terphenyl-D14(S)	12.52	244	1478351	56.91011 ppb		0.00
Spiked Amount 100.000			Recovery =	56.910%		
Target Compounds						Qvalue
2) 1,4-Dioxane	1.74	58	10929	5.62464		78
3) n-Nitrosodimethylamine	1.96	42	181363	61.50958 ppb		98
4) Pyridine	1.98	79	472362	64.77533 ppb		99
7) Phenol	5.10	94	542251	66.16354 ppb		91
8) Aniline	5.11	93	301632	65.38976 ppb	#	76
9) Bis (2-chloroethyl) ether	5.18	63	226768	64.76800 ppb		100
10) 2-Chlorophenol	5.25	128	408420	65.80625 ppb		99
11) 1,3-DCB	5.41	146	458825	65.24737 ppb		99
12) 1,4-DCB	5.50	146	462750	64.77020 ppb		99
13) Benzyl alcohol	5.64	108	232819	65.98625 ppb		97
14) 1,2-DCB	5.66	146	429263	64.31403 ppb		100
15) 2-Methylphenol	5.77	107	337894	67.21303 ppb		99
16) Bis (2-chloroisopropyl) et	5.78	45	250202	63.94590 ppb		97
17) Acetophenone	5.93	105	599064	66.28169 ppb		92
18) 3&4-Methylphenol	5.94	107	918482	133.20896 ppb		99
19) n-Nitrosodi-n-propylamine	5.93	70	338621	65.76885 ppb		96
20) Hexachloroethane	6.04	117	183498	64.74829 ppb		99
23) Nitrobenzene	6.12	77	490695	62.35765 ppb		99
24) Isophorone	6.40	82	793249	62.18267 ppb		99
25) 2-Nitrophenol	6.48	139	229856	63.87658 ppb		99
26) 2,4-Dimethylphenol	6.53	122	350532	62.53618 ppb		99
27) Benzoic acid	6.67	105	333277	62.42385 ppb		97
28) Bis (2-chloroethoxy) metha	6.63	93	431089	62.67397 ppb		100
29) 2,4-Dichlorophenol	6.76	162	366318	63.46873 ppb		98
30) 1,2,4-Trichlorobenzene	6.85	180	420058	62.88985 ppb		98
31) 3,4-Dimethylphenol	6.87	107	573978	63.33804 ppb		96
32) Naphthalene	6.94	128	1148408	62.42481 ppb		100
33) 4-Chloroaniline	7.00	127	407727	65.09745 ppb		95
34) 2,6-Dichlorophenol	7.01	162	358099	64.07349 ppb		99
35) Hexachloropropene	7.04	213	375716	64.61892 ppb		99
36) Hexachlorobutadiene	7.07	225	295237	62.59272 ppb		99
37) Caprolactum	7.42	55	129071	63.62427 ppb		99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y191121\1121Y009.D Vial: 9
Acq On : 21 Nov 19 17:30 Operator: MA,SS
Sample : 60ug/ml 8270 11/21/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 22 15:55 2019 Quant Results File: Y1121ND.RES

Quant Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 15:42:05 2019
Response via : Initial Calibration
DataAcq Meth : SVOC1011

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
38)	4-Chloro-3-methylphenol	7.56	107	410265	62.99749	ppb		97
39)	2-Methylnaphthalene	7.72	142	788195	62.86619	ppb		99
40)	1-Methylnaphthalene	7.84	142	814831	62.86101	ppb		100
42)	Hexachlorocyclopentadiene	7.91	237	350656	63.24577	ppb		98
43)	1,2,4,5-Tetrachlorobenzene	7.92	216	477589	62.27101	ppb		99
44)	2,4,6-Trichlorophenol	8.06	196	303584	62.17091	ppb		96
45)	2,4,5-Trichlorophenol	8.10	196	321535	61.84743	ppb		99
47)	1,1'-Biphenyl	8.26	154	1016984	61.31099	ppb		100
48)	2-Chloronaphthalene	8.29	162	833303	61.39306	ppb		99
49)	2-Nitroaniline	8.40	65	267591	62.19606	ppb		98
50)	Dimethyl phthalate	8.62	163	1017940	61.40921	ppb		100
51)	2,6-DNT	8.69	165	235838	63.61799	ppb		77
52)	Acenaphthylene	8.77	152	1283418	61.52137	ppb		99
53)	3-Nitroaniline	8.40	138	268555	63.12367	ppb		99
54)	Acenaphthene	8.98	154	879704	62.37697	ppb		99
55)	2,4-Dinitrophenol	9.01	184	156158	63.04333	ppb		98
56)	4-Nitrophenol	8.68	65	16756	61.72115	ppb		100
57)	Dibenzofuran	9.17	168	1211806	61.60982	ppb		100
58)	2,4-DNT	9.15	165	330641	62.73161	ppb		94
59)	2,3,4,6-Tetrachlorophenol	9.32	232	279128	63.55073	ppb		99
60)	Diethyl phthalate	9.44	149	1027987	60.76663	ppb		99
61)	4-Chlorophenyl phenyl ethe	9.57	204	608036	62.82731	ppb		99
62)	Fluorene	9.57	166	1036089	62.83570	ppb		99
63)	4-Nitroaniline	8.88	138	208716	61.66151	ppb		83
66)	4,6-Dinitro-2-methylphenol	9.64	198	225751	63.85252	ppb	#	86
67)	Diphenyl amine	9.71	169	1646816	125.62146	ppb		100
68)	n-Nitrosodiphenylamine	9.71	169	1646816	125.62146	ppb		100
69)	1,2-Diphenylhydrazine	9.76	77	1002105	61.76630	ppb		98
70)	4-Bromophenyl phenyl ether	10.14	248	362845	64.08043	ppb		96
71)	Hexachlorobenzene	10.22	284	379070	63.34462	ppb		98
72)	Atrazine	10.33	200	153425	30.73694	ppb		98
73)	Pentachlorophenol	10.44	266	243544	62.64748	ppb		99
74)	Phenanthrene	10.69	178	1424318	61.68024	ppb		100
75)	Anthracene	10.75	178	1499952	61.86994	ppb		99
76)	Carbazol	10.94	167	1370757	62.82519	ppb		100
77)	Di-n-butylphthalate	11.34	149	1802593	63.44215	ppb		100
78)	2-Nitrodiphenylamine	11.51	167	223110	33.04703	ppb		96
79)	Fluoranthene	12.08	202	1777159	63.24069	ppb		99
81)	Benzidine	12.23	184	481715	62.50052	ppb		100
82)	Pyrene	12.35	202	1851615	58.66831	ppb		100
84)	Butyl benzylphthalate	13.09	149	849128	59.27041	ppb		100
85)	3,3'-Dichlorobenzidine	13.70	252	610343	64.42010	ppb		97
86)	Benz (a) anthracene	13.74	228	2029724	58.65030	ppb		99
87)	Bis (2-ethylhexyl) phthala	13.75	149	1317864	59.83790	ppb		99
88)	Chrysene	13.78	228	1859803	60.32199	ppb		100
89)	Di-n-octylphthalate	14.51	149	2028250	58.74377	ppb		99
91)	Benzo (b) fluoranthene	15.07	252	1993390	62.89088	ppb		100
92)	Benzo (k) fluoranthene	15.10	252	1788270	61.23522	ppb		99
93)	Benzo (a) pyrene	15.54	252	1743187	61.59281	ppb		99
94)	Indeno (1,2,3-cd) pyrene	17.53	276	2077884	61.83912	ppb		99
95)	Dibenz (a,h) anthracene	17.56	278	1837837	62.00929	ppb		99
96)	Benzo (g,h,i) perylene	18.11	276	1637386	61.20884	ppb		100

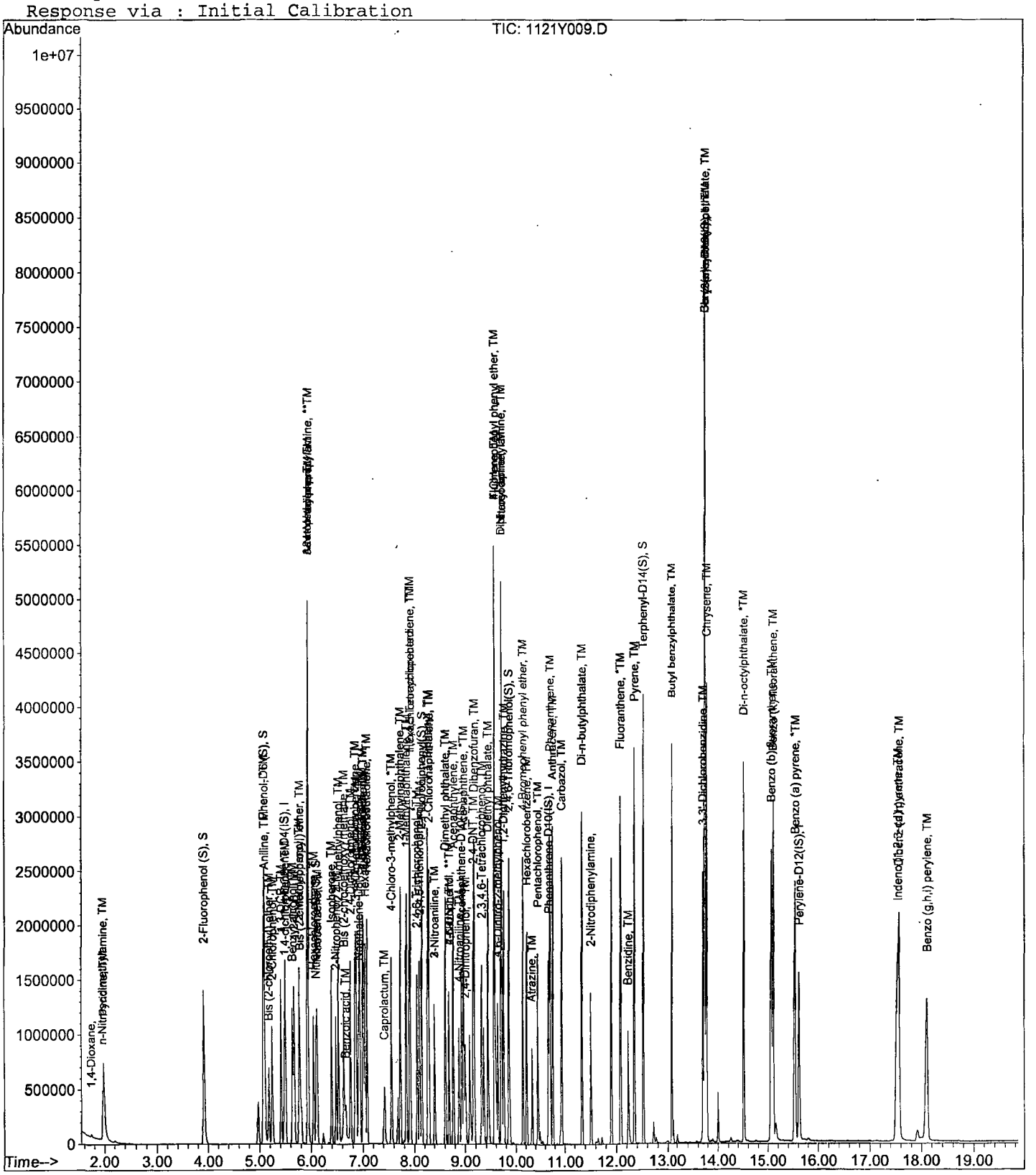
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y191121\1121Y009.D Vial: 9
Acq On : 21 Nov 19 17:30 Operator: MA,SS
Sample : 60ug/ml 8270 11/21/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 22 15:55 2019 Quant Results File: Y1121ND.RES

Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 18:04:15 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y191121\1121Y010.D Vial: 10
Acq On : 21 Nov 19 17:58 Operator: MA,SS
Sample : 80ug/ml 8270 11/21/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 22 15:55 2019 Quant Results File: Y1121ND.RES

Quant Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 15:42:05 2019
Response via : Initial Calibration
DataAcq Meth : SVOC1011

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.48	152	161505	40.00000 ppb		0.00
21) Napthalene-D8(IS)	6.92	136	659343	40.00000 ppb		0.00
41) Acenaphthene-D10(IS)	8.93	164	420757	40.00000 ppb		0.00
65) Phenanthrene-D10(IS)	10.67	188	817022	40.00000 ppb		0.00
80) Chrysene-D12(IS)	13.76	240	1057013	40.00000 ppb		0.00
90) Perylene-D12(IS)	15.62	264	952132	40.00000 ppb		0.00
System Monitoring Compounds						
5) 2-Fluorophenol (S)	3.92	112	990840	176.18224 ppb		0.00
Spiked Amount 200.000			Recovery =	88.091%		
6) Phenol-D6 (S)	5.09	99	1202244	179.53177 ppb		0.00
Spiked Amount 200.000			Recovery =	89.766%		
22) Nitrobenzene-D5(S)	6.11	82	619066	83.31579 ppb		0.00
Spiked Amount 100.000			Recovery =	83.316%		
46) 2-Fluorobiphenyl(S)	8.15	172	1294339	82.27758 ppb		0.00
Spiked Amount 100.000			Recovery =	82.278%		
64) 2,4,6-Tribromophenol(S)	9.86	330	577082	179.29400 ppb		0.00
Spiked Amount 200.000			Recovery =	89.647%		
83) Terphenyl-D14(S)	12.52	244	1994267	75.46491 ppb		0.00
Spiked Amount 100.000			Recovery =	75.465%		
Target Compounds						Qvalue
2) 1,4-Dioxane	1.74	58	13617	7.26239		84
3) n-Nitrosodimethylamine	1.96	42	235667	82.82792 ppb		94
4) Pyridine	1.98	79	624008	88.67653 ppb		98
7) Phenol	5.10	94	726252	91.83105 ppb		93
8) Aniline	5.11	93	409792	92.06184 ppb		96
9) Bis (2-chloroethyl) ether	5.18	63	302296	89.47362 ppb		97
10) 2-Chlorophenol	5.25	128	531400	88.72900 ppb		97
11) 1,3-DCB	5.41	146	606639	89.39847 ppb		98
12) 1,4-DCB	5.50	146	617470	89.56298 ppb		99
13) Benzyl alcohol	5.64	108	307594	90.34346 ppb		97
14) 1,2-DCB	5.67	146	572108	88.82682 ppb		97
15) 2-Methylphenol	5.77	107	424481	87.50142 ppb		98
16) Bis (2-chloroisopropyl) et	5.78	45	333832	88.41659 ppb	#	86
17) Acetophenone	5.94	105	793424	90.97238 ppb		96
18) 3&4-Methylphenol	5.95	107	1235710	185.72194 ppb		100
19) n-Nitrosodi-n-propylamine	5.94	70	449037	90.38001 ppb		99
20) Hexachloroethane	6.05	117	244557	89.42540 ppb		81
23) Nitrobenzene	6.13	77	641878	84.49302 ppb		96
24) Isophorone	6.41	82	1048398	85.12875 ppb		99
25) 2-Nitrophenol	6.48	139	304374	87.61603 ppb		94
26) 2,4-Dimethylphenol	6.54	122	461574	85.29730 ppb		97
27) Benzoic acid	6.68	105	408452	78.92895 ppb		96
28) Bis (2-chloroethoxy) metha	6.63	93	565143	85.10769 ppb		100
29) 2,4-Dichlorophenol	6.76	162	481524	86.41909 ppb		96
30) 1,2,4-Trichlorobenzene	6.85	180	560904	86.98614 ppb		98
31) 3,4-Dimethylphenol	6.87	107	758867	86.74117 ppb		99
32) Naphthalene	6.94	128	1524779	85.85353 ppb		99
33) 4-Chloroaniline	7.00	127	525627	86.92855 ppb		97
34) 2,6-Dichlorophenol	7.01	162	468519	86.83458 ppb		98
35) Hexachloropropene	7.04	213	497069	88.55374 ppb		99
36) Hexachlorobutadiene	7.08	225	393639	86.44530 ppb		99
37) Caprolactum	7.44	55	169346	86.46877 ppb		97

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y191121\1121Y010.D Vial: 10
Acq On : 21 Nov 19 17:58 Operator: MA,SS
Sample : 80ug/ml 8270 11/21/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 22 15:55 2019 Quant Results File: Y1121ND.RES

Quant Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 15:42:05 2019
Response via : Initial Calibration
DataAcq Meth : SVOC1011

Compound	R.T.	QIon	Response	Conc Unit		Qvalue
38) 4-Chloro-3-methylphenol	7.56	107	542466	86.28226 ppb		91
39) 2-Methylnaphthalene	7.73	142	1044506	86.29480 ppb		99
40) 1-Methylnaphthalene	7.84	142	1096138	87.59298 ppb		99
42) Hexachlorocyclopentadiene	7.91	237	421952	78.94061 ppb		98
43) 1,2,4,5-Tetrachlorobenzene	7.93	216	644608	87.17953 ppb		97
44) 2,4,6-Trichlorophenol	8.06	196	405336	86.10151 ppb		97
45) 2,4,5-Trichlorophenol	8.10	196	431346	86.06100 ppb		95
47) 1,1'-Biphenyl	8.27	154	1372352	85.81772 ppb		98
48) 2-Chloronaphthalene	8.29	162	1112347	85.00487 ppb		98
49) 2-Nitroaniline	8.41	65	353796	85.29656 ppb		92
50) Dimethyl phthalate	8.61	163	1354088	84.73161 ppb		99
51) 2,6-DNT	8.69	165	311799	87.24250 ppb		89
52) Acenaphthylene	8.77	152	1715728	85.30874 ppb		100
53) 3-Nitroaniline	8.41	138	352251	85.88127 ppb		94
54) Acenaphthene	8.98	154	1188456	87.40938 ppb		98
55) 2,4-Dinitrophenol	9.01	184	213465	89.38997 ppb		90
56) 4-Nitrophenol	8.69	65	22795	87.09445 ppb		98
57) Dibenzofuran	9.17	168	1619716	85.41674 ppb		99
58) 2,4-DNT	9.16	165	443127	87.20575 ppb		96
59) 2,3,4,6-Tetrachlorophenol	9.32	232	370261	87.44043 ppb		96
60) Diethyl phthalate	9.44	149	1363775	83.61948 ppb		97
61) 4-Chlorophenyl phenyl ethe	9.57	204	837406	89.75166 ppb		98
62) Fluorene	9.57	166	1434471	90.23778 ppb		100
63) 4-Nitroaniline	8.88	138	272975	83.65050 ppb		92
66) 4,6-Dinitro-2-methylphenol	9.65	198	304020	89.80545 ppb		95
67) Diphenyl amine	9.72	169	2215854	176.52740 ppb		99
68) n-Nitrosodiphenylamine	9.72	169	2215854	176.52740 ppb		99
69) 1,2-Diphenylhydrazine	9.76	77	1328140	85.49377 ppb		95
70) 4-Bromophenyl phenyl ether	10.14	248	480779	88.67516 ppb		94
71) Hexachlorobenzene	10.22	284	504135	87.98109 ppb		92
72) Atrazine	10.33	200	200128	41.87209 ppb		100
73) Pentachlorophenol	10.44	266	339237	91.13425 ppb		98
74) Phenanthrene	10.69	178	1913358	86.53416 ppb		100
75) Anthracene	10.76	178	2016161	86.85199 ppb		99
76) Carbazol	10.94	167	1813480	86.80372 ppb		98
77) Di-n-butylphthalate	11.34	149	2379965	87.47883 ppb		99
78) 2-Nitrodiphenylamine	11.51	167	291341	45.06789 ppb		96
79) Fluoranthene	12.09	202	2383800	88.59156 ppb		98
81) Benzidine	12.23	184	657175	83.81550 ppb		100
82) Pyrene	12.35	202	2499582	77.85207 ppb		99
84) Butyl benzylphthalate	13.09	149	1127954	77.39377 ppb		93
85) 3,3'-Dichlorobenzidine	13.71	252	817041	84.76979 ppb		99
86) Benz (a) anthracene	13.74	228	2804468	79.65877 ppb		100
87) Bis (2-ethylhexyl) phthala	13.76	149	1770210	79.00970 ppb	#	90
88) Chrysene	13.78	228	2404541	76.66388 ppb		99
89) Di-n-octylphthalate	14.52	149	2767567	78.79312 ppb		94
91) Benzo (b) fluoranthene	15.07	252	2546511	84.57946 ppb		99
92) Benzo (k) fluoranthene	15.11	252	2513489	90.60854 ppb		100
93) Benzo (a) pyrene	15.54	252	2333955	86.81655 ppb		99
94) Indeno (1,2,3-cd) pyrene	17.53	276	2739905	85.84233 ppb		100
95) Dibenz (a,h) anthracene	17.58	278	2438265	86.60732 ppb		100
96) Benzo (g,h,i) perylene	18.12	276	2139103	84.18191 ppb		100

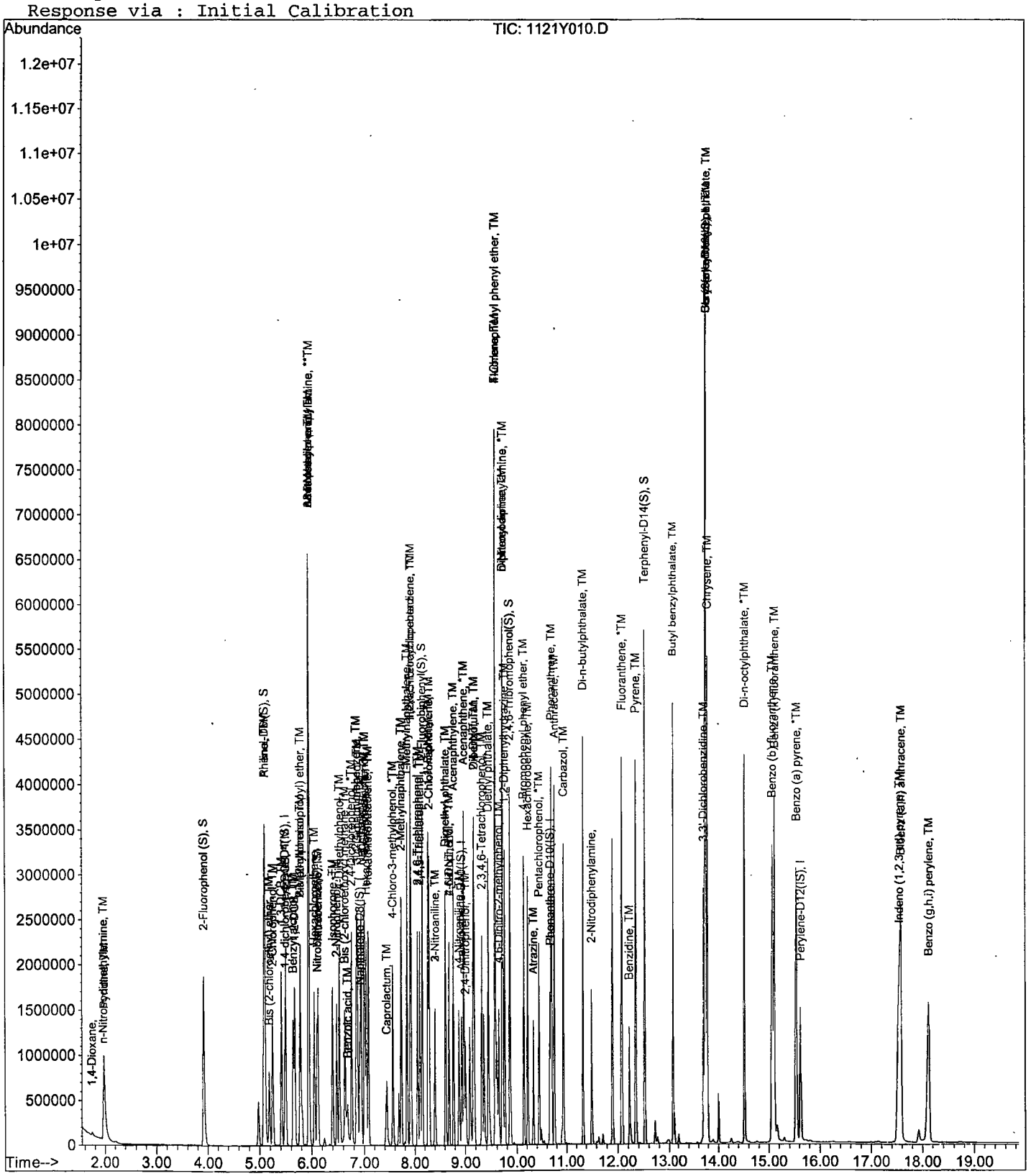
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y191121\1121Y010.D Vial: 10
Acq On : 21 Nov 19 17:58 Operator: MA,SS
Sample : 80ug/ml 8270 11/21/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 22 15:55 2019 Quant Results File: Y1121ND.RES

Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 18:04:15 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y191121\1121Y011.D Vial: 11
Acq On : 21 Nov 19 18:26 Operator: MA,SS
Sample : 100ug/ml 8270 11/21/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 22 15:55 2019 Quant Results File: Y1121ND.RES

Quant Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 15:42:05 2019
Response via : Initial Calibration
DataAcq Meth : SVOC1011

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.48	152	165464	40.00000 ppb		0.00
21) Napthalene-D8(IS)	6.92	136	652211	40.00000 ppb		0.00
41) Acenaphthene-D10(IS)	8.93	164	415860	40.00000 ppb		0.00
65) Phenanthrene-D10(IS)	10.67	188	819523	40.00000 ppb		0.00
80) Chrysene-D12(IS)	13.76	240	1060730	40.00000 ppb		0.00
90) Perylene-D12(IS)	15.62	264	938773	40.00000 ppb		0.00
System Monitoring Compounds						
5) 2-Fluorophenol (S)	3.92	112	1214721	210.82280 ppb		0.01
Spiked Amount 200.000			Recovery	= 105.412%		
6) Phenol-D6 (S)	5.09	99	1477093	215.29750 ppb		0.00
Spiked Amount 200.000			Recovery	= 107.649%		
22) Nitrobenzene-D5(S)	6.11	82	756797	102.96581 ppb		0.01
Spiked Amount 100.000			Recovery	= 102.966%		
46) 2-Fluorobiphenyl(S)	8.15	172	1600159	102.91550 ppb		0.00
Spiked Amount 100.000			Recovery	= 102.916%		
64) 2,4,6-Tribromophenol(S)	9.86	330	739921	232.59361 ppb		0.00
Spiked Amount 200.000			Recovery	= 116.297%		
83) Terphenyl-D14(S)	12.52	244	2504948	94.45739 ppb		0.00
Spiked Amount 100.000			Recovery	= 94.457%		
Target Compounds						Qvalue
2) 1,4-Dioxane	1.74	58	18929	9.85390		95
3) n-Nitrosodimethylamine	1.96	42	271356	93.08932 ppb		93
4) Pyridine	1.98	79	702025	97.37636 ppb		100
7) Phenol	5.10	94	838607	103.50067 ppb		90
8) Aniline	5.11	93	455808	99.94949 ppb		91
9) Bis (2-chloroethyl) ether	5.18	63	339378	98.04574 ppb		96
10) 2-Chlorophenol	5.25	128	602478	98.19009 ppb		96
11) 1,3-DCB	5.41	146	678718	97.62737 ppb		98
12) 1,4-DCB	5.50	146	691769	97.93912 ppb		99
13) Benzyl alcohol	5.65	108	347998	99.76497 ppb		99
14) 1,2-DCB	5.67	146	644684	97.70020 ppb		97
15) 2-Methylphenol	5.78	107	505332	101.67545 ppb		97
16) Bis (2-chloroisopropyl) et	5.79	45	375455	97.06131 ppb	#	85
17) Acetophenone	5.94	105	900554	100.78512 ppb		98
18) 3&4-Methylphenol	5.95	107	1402122	205.69082 ppb		100
19) n-Nitrosodi-n-propylamine	5.94	70	512893	100.76263 ppb		99
20) Hexachloroethane	6.05	117	277059	98.88616 ppb		77
23) Nitrobenzene	6.13	77	724399	96.39831 ppb		97
24) Isophorone	6.41	82	1186602	97.40437 ppb		99
25) 2-Nitrophenol	6.48	139	345383	100.50791 ppb		95
26) 2,4-Dimethylphenol	6.54	122	530631	99.13108 ppb		98
27) Benzoic acid	6.70	105	464552	90.96933 ppb		98
28) Bis (2-chloroethoxy) metha	6.63	93	647653	98.59982 ppb		99
29) 2,4-Dichlorophenol	6.76	162	555679	100.81822 ppb		95
30) 1,2,4-Trichlorobenzene	6.85	180	636557	99.79806 ppb		98
31) 3,4-Dimethylphenol	6.87	107	854975	98.79530 ppb		97
32) Naphthalene	6.95	128	1756038	99.95590 ppb		100
33) 4-Chloroaniline	7.00	127	582992	97.46992 ppb		96
34) 2,6-Dichlorophenol	7.01	162	535409	100.31698 ppb		99
35) Hexachloropropene	7.04	213	561742	101.16969 ppb		99
36) Hexachlorobutadiene	7.08	225	447133	99.26663 ppb		99
37) Caprolactum	7.45	55	190606	98.38846 ppb		98

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y191121\1121Y011.D Vial: 11
Acq On : 21 Nov 19 18:26 Operator: MA,SS
Sample : 100ug/ml 8270 11/21/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 22 15:55 2019 Quant Results File: Y1121ND.RES

Quant Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 15:42:05 2019
Response via : Initial Calibration
DataAcq Meth : SVOC1011

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
38)	4-Chloro-3-methylphenol	7.56	107	620360	99.75072 ppb		90
39)	2-Methylnaphthalene	7.73	142	1200691	100.28321 ppb		99
40)	1-Methylnaphthalene	7.85	142	1241758	100.31464 ppb		100
42)	Hexachlorocyclopentadiene	7.91	237	525248	99.42281 ppb		100
43)	1,2,4,5-Tetrachlorobenzene	7.93	216	743990	101.80524 ppb		97
44)	2,4,6-Trichlorophenol	8.06	196	464648	99.86283 ppb		98
45)	2,4,5-Trichlorophenol	8.11	196	492676	99.45490 ppb		95
47)	1,1'-Biphenyl	8.27	154	1566999	99.14353 ppb		98
48)	2-Chloronaphthalene	8.29	162	1270438	98.22934 ppb		99
49)	2-Nitroaniline	8.41	65	396579	96.73698 ppb		89
50)	Dimethyl phthalate	8.62	163	1527158	96.68670 ppb		100
51)	2,6-DNT	8.69	165	355236	100.56678 ppb		90
52)	Acenaphthylene	8.77	152	1930263	97.10593 ppb		99
53)	3-Nitroaniline	8.41	138	399288	98.49557 ppb		94
54)	Acenaphthene	8.98	154	1379881	102.68352 ppb		99
55)	2,4-Dinitrophenol	9.02	184	244377	103.53964 ppb		93
56)	4-Nitrophenol	8.69	65	25792	99.70573 ppb		97
57)	Dibenzofuran	9.17	168	1847326	98.56707 ppb		100
58)	2,4-DNT	9.16	165	508284	101.20631 ppb		96
59)	2,3,4,6-Tetrachlorophenol	9.32	232	423645	101.22566 ppb		98
60)	Diethyl phthalate	9.44	149	1535193	95.23836 ppb		97
61)	4-Chlorophenyl phenyl ethe	9.57	204	958012	103.88708 ppb		98
62)	Fluorene	9.57	166	1635750	104.11127 ppb		99
63)	4-Nitroaniline	8.89	138	307746	95.41624 ppb		95
66)	4,6-Dinitro-2-methylphenol	9.65	198	347696	102.39361 ppb	#	87
67)	Diphenyl amine	9.72	169	2531599	201.06594 ppb		100
68)	n-Nitrosodiphenylamine	9.72	169	2531599	201.06594 ppb		100
69)	1,2-Diphenylhydrazine	9.76	77	1511310	96.98772 ppb		94
70)	4-Bromophenyl phenyl ether	10.14	248	558947	102.77789 ppb		94
71)	Hexachlorobenzene	10.22	284	585989	101.95407 ppb		94
72)	Atrazine	10.33	200	226263	47.19575 ppb		100
73)	Pentachlorophenol	10.44	266	392286	105.06398 ppb		99
74)	Phenanthrene	10.70	178	2206608	99.49222 ppb		100
75)	Anthracene	10.76	178	2313072	99.33821 ppb		99
76)	Carbazol	10.95	167	2052704	97.95452 ppb		98
77)	Di-n-butylphthalate	11.34	149	2755900	100.98770 ppb		99
78)	2-Nitrodiphenylamine	11.51	167	332160	51.22542 ppb		97
79)	Fluoranthene	12.09	202	2710719	100.43374 ppb		98
81)	Benzidine	12.23	184	752592	95.64854 ppb		100
82)	Pyrene	12.35	202	2846621	88.35027 ppb		100
84)	Butyl benzylphthalate	13.09	149	1280524	87.55436 ppb		93
85)	3,3'-Dichlorobenzidine	13.71	252	935925	96.76400 ppb		99
86)	Benz (a) anthracene	13.74	228	3237968	91.64972 ppb		100
87)	Bis (2-ethylhexyl) phthala	13.75	149	2037331	90.61345 ppb		99
88)	Chrysene	13.79	228	2746558	87.26154 ppb		99
89)	Di-n-octylphthalate	14.52	149	3158477	89.60729 ppb		94
91)	Benzo (b) fluoranthene	15.07	252	2866820	96.57314 ppb		99
92)	Benzo (k) fluoranthene	15.11	252	2873942	105.07677 ppb		100
93)	Benzo (a) pyrene	15.55	252	2654481	100.14430 ppb		98
94)	Indeno (1,2,3-cd) pyrene	17.54	276	3092876	98.27998 ppb		99
95)	Dibenz (a,h) anthracene	17.58	278	2789126	100.47972 ppb		99
96)	Benzo (g,h,i) perylene	18.13	276	2411552	96.25433 ppb		99

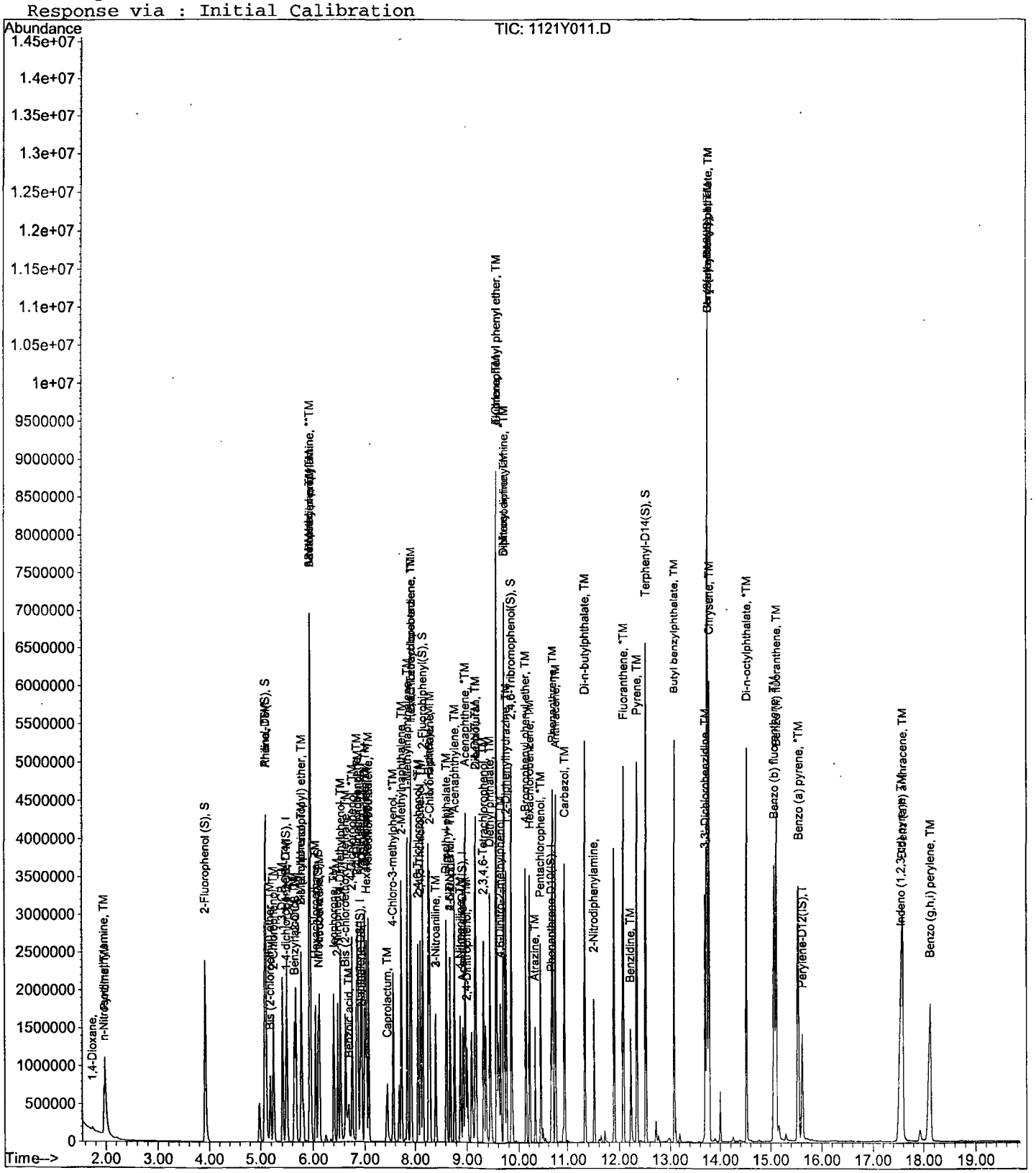
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y191121\1121Y011.D Vial: 11
Acq On : 21 Nov 19 18:26 Operator: MA,SS
Sample : 100ug/ml 8270 11/21/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 22 15:55 2019 Quant Results File: Y1121ND.RES

Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 18:04:15 2019
Response via : Initial Calibration



Semi-Volatile Analysis by GC-MS
EPA 8270

Form 7

Second Source Calibration

Lab Name: APPL, Inc.
Case No:
Matrix:

SDG No:
Date Analyzed: 11/22/19
Instrument: Yoda
Initial Cal. Date: 11/21/19
Data File: 1121Y031.D

		Compound	MEAN	CCRF	%D		%Drift
1		1,4-Dioxane	0.4644	0.4187	9.8		
2	TM	n-Nitrosodimethylamine	0.7047	0.7350	4.3	TM	
3	TM	Pyridine	1.743	1.856	6.5	TM	
4	*TM	Phenol	1.959	2.048	4.5	*TM	
5	TM	Aniline	1.157	1.383	20	TM	
6	TM	Bis (2-chloroethyl) ether	0.8368	0.8714	4.1	TM	
7	TM	2-Chlorophenol	1.483	1.540	3.8	TM	
8	TM	1,3-DCB	1.681	1.730	2.9	TM	
9	*TM	1,4-DCB	1.708	1.750	2.5	*TM	
10	TM	Benzyl alcohol	0.8432	0.9373	11	TM	
11	TM	1,2-DCB	1.595	1.611	1.0	TM	
12	TM	2-Methylphenol	1.201	1.217	1.3	TM	
13	TM	Bis (2-chloroisopropyl) ether	0.9351	0.9909	6.0	TM	
14	TM	Acetophenone	2.160	2.216	2.6	TM	
15	TM	3&4-Methylphenol	1.648	1.689	2.5	TM	
16	**TM	n-Nitrosodi-n-propylamine	1.231	1.296	5.3	**TM	
17	TM	Hexachloroethane	0.6773	0.7009	3.5	TM	
18	TM	Nitrobenzene	0.4609	0.4732	2.7	TM	
19	TM	Isophorone	0.7471	0.7881	5.5	TM	
20	*TM	2-Nitrophenol	0.2108	0.2226	5.6	*TM	
21	TM	2,4-Dimethylphenol	0.3283	0.3485	6.2	TM	
22	TML	Benzoic acid	0.2427	0.3209	32	TML	5.0
23	TM	Bis (2-chloroethoxy) methane	0.4028	0.4376	8.6	TM	
24	*TM	2,4-Dichlorophenol	0.3380	0.3552	5.1	*TM	
25	TM	1,2,4-Trichlorobenzene	0.3912	0.4061	3.8	TM	
26	TM	3,4-Dimethylphenol	0.5307	0.5603	5.6	TM	
27	TM	Naphthalene	1.077	1.149	6.7	TM	
28	TM	4-Chloroaniline	0.3796	0.4520	19	TM	
29	TM	2,6-Dichlorophenol	0.3273	0.3457	5.6	TM	
30	TM	Hexachloropropene	0.3405	0.3575	5.0	TM	
31	*TM	Hexachlorobutadiene	0.2763	0.2845	3.0	*TM	
32	TM	Caprolactum	0.1188	0.1277	7.5	TM	
33	*TM	4-Chloro-3-methylphenol	0.3814	0.4051	6.2	*TM	
34	TM	2-Methylnaphthalene	0.7343	0.7998	8.9	TM	
35	TM	1-Methylnaphthalene	0.7592	0.7910	4.2	TM	
36	**TM	Hexachlorocyclopentadiene	0.5081	0.5178	1.9	**TM	
37	TM	1,2,4,5-Tetrachlorobenzene	0.7029	0.7210	2.6	TM	
38	*TM	2,4,6-Trichlorophenol	0.4475	0.4698	5.0	*TM	
39	TM	2,4,5-Trichlorophenol	0.4765	0.4958	4.1	TM	
40	TM	1,1'-Biphenyl	1.520	1.591	4.7	TM	
		Average			6.3		

Semi-Volatile Analysis by GC-MS
EPA 8270

Form 7

Second Source Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Date Analyzed: 11/22/19
Matrix: 0 Instrument: Yoda
Cal. Date: 11/21/19
Data File: 1121Y031.D

		Compound	MEAN	CCRF	%D		%Drift
41	TM	2-Chloronaphthalene	1.244	1.270	2.1	TM	
42	TM	2-Nitroaniline	0.3943	0.4363	11	TM	
43	TM	Dimethyl phthalate	1.519	1.581	4.0	TM	
44	TM	2,6-DNT	0.3398	0.3503	3.1	TM	
45	TM	Acenaphthylene	1.912	2.013	5.3	TM	
46	TM	3-Nitroaniline	0.3899	0.4282	9.8	TM	
47	*TM	Acenaphthene	1.293	1.374	6.3	*TM	
48	**TM	2,4-Dinitrophenol	0.2270	0.2078	8.5	**TM	
49	**TM	4-Nitrophenol	0.0249	0.0255	2.5	**TM	
50	TM	Dibenzofuran	1.803	1.948	8.0	TM	
51	TM	2,4-DNT	0.4831	0.5081	5.2	TM	
52	TM	2,3,4,6-Tetrachlorophenol	0.4026	0.4217	4.8	TM	
53	TM	Diethyl phthalate	1.550	1.616	4.2	TM	
54	TM	4-Chlorophenyl phenyl ether	0.8870	0.9201	3.7	TM	
55	TM	Fluorene	1.511	1.605	6.2	TM	
56	TM	4-Nitroaniline	0.3102	0.3481	12	TM	
57	TM	4,6-Dinitro-2-methylphenol	0.1657	0.1692	2.1	TM	
58	TM	Diphenyl amine	0.6145	0.6582	7.1	TM	
59	*TM	n-Nitrosodiphenylamine	0.6145	0.6582	7.1	*TM	
60	TM	1,2-Diphenylhydrazine	0.7606	0.7882	3.6	TM	
61	TM	4-Bromophenyl phenyl ether	0.2654	0.2802	5.6	TM	
62	TM	Hexachlorobenzene	0.2805	0.2914	3.9	TM	
63	TM	Atrazine	0.2340	0.2529	8.1	TM	
64	*TM	Pentachlorophenol	0.1822	0.1839	0.90	*TM	
65	TM	Phenanthrene	1.083	1.158	6.9	TM	
66	TM	Anthracene	1.137	1.193	5.0	TM	
67	TM	Carbazol	1.023	1.086	6.1	TM	
68	TM	Di-n-butylphthalate	1.332	1.413	6.1	TM	
69		2-Nitrodiphenylamine	0.3165	0.3476	9.8		
70	*TM	Fluoranthene	1.317	1.408	6.9	*TM	
71	TM	Benzidine	0.2967	0.3285	11	TM	
72	TM	Pyrene	1.215	1.271	4.6	TM	
73	TM	Butyl benzylphthalate	0.5515	0.5707	3.5	TM	
74	TM	3,3'-Dichlorobenzidine	0.3647	0.4360	20	TM	
75	TM	Benz (a) anthracene	1.332	1.397	4.9	TM	
76	TM	Bis (2-ethylhexyl) phthalate	0.8479	0.9274	9.4	TM	
77	TM	Chrysene	1.187	1.239	4.4	TM	
78	*TM	Di-n-octylphthalate	1.329	1.443	8.6	*TM	
79	TM	Benzo (b) fluoranthene	1.265	1.319	4.3	TM	
80	TM	Benzo (k) fluoranthene	1.165	1.283	10	TM	
		Average			6.4		

Semi-Volatile Analysis by GC-MS
EPA 8270

Form 7

Second Source Calibration

Lab Name: APPL, Inc.
Case No:
Matrix: 0

SDG No:
Date Analyzed: 11/22/19
Instrument: Yoda
Cal. Date: 11/21/19
Data File: 1121Y031.D

		Compound	MEAN	CCRF	%D	%Drift	
81	*TM	Benzo (a) pyrene	1.129	1.217	7.8	*TM	
82	TM	Indeno (1,2,3-cd) pyrene	1.341	1.394	3.9	TM	
83	TM	Dibenz (a,h) anthracene	1.183	1.278	8.1	TM	
84	TM	Benzo (g,h,i) perylene	1.068	1.226	15	TM	
85							
86							
87							
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119							
120							
		Average			8.7		

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y191121\1121Y031.D Vial: 31
Acq On : 22 Nov 19 13:38 Operator: MA,SS
Sample : SS 8270 11/22/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 25 11:24 2019 Quant Results File: Y1121ND.RES

Quant Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 18:04:15 2019
Response via : Initial Calibration
DataAcq Meth : SVOC1011

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.47	152	171421	40.00000 ppb	0.00
21) Napthalene-D8(IS)	6.91	136	662584	40.00000 ppb	0.00
41) Acenaphthene-D10(IS)	8.93	164	418442	40.00000 ppb	0.00
65) Phenanthrene-D10(IS)	10.66	188	824762	40.00000 ppb	0.00
80) Chrysene-D12(IS)	13.75	240	956637	40.00000 ppb	0.00
90) Perylene-D12(IS)	15.62	264	963616	40.00000 ppb	0.00
System Monitoring Compounds					
5) 2-Fluorophenol (S)	0.00	112	0	0.00000 ppb	
Spiked Amount 200.000			Recovery =	0.000%	
6) Phenol-D6 (S)	0.00	99	0	0.00000 ppb	
Spiked Amount 200.000			Recovery =	0.000%	
22) Nitrobenzene-D5(S)	6.05	82	44357	5.94050 ppb	-0.05
Spiked Amount 100.000			Recovery =	5.940%	
46) 2-Fluorobiphenyl(S)	8.10	172	717	0.04583 ppb	-0.05
Spiked Amount 100.000			Recovery =	0.046%	
64) 2,4,6-Tribromophenol(S)	0.00	330	0	0.00000 ppb	
Spiked Amount 200.000			Recovery =	0.000%	
83) Terphenyl-D14(S)	12.52	244	529	0.02212 ppb	0.00
Spiked Amount 100.000			Recovery =	0.022%	
Target Compounds					Qvalue
2) 1,4-Dioxane	1.73	58	8972	4.50826	97
3) n-Nitrosodimethylamine	1.94	42	157497	52.15215 ppb	85
4) Pyridine	1.97	79	397706	53.24792 ppb	97
7) Phenol	5.08	94	438769	52.27091 ppb	95
8) Aniline	5.09	93	296448	59.80681 ppb	97
9) Bis (2-chloroethyl) ether	5.17	63	186730	52.07133 ppb	97
10) 2-Chlorophenol	5.24	128	329970	51.90873 ppb	96
11) 1,3-DCB	5.41	146	370675	51.46536 ppb	99
12) 1,4-DCB	5.49	146	374910	51.23440 ppb	98
13) Benzyl alcohol	5.63	108	200832	55.57427 ppb	95
14) 1,2-DCB	5.67	146	345304	50.51143 ppb	97
15) 2-Methylphenol	5.76	107	260765	50.64401 ppb	98
16) Bis (2-chloroisopropyl) et	5.78	45	212330	52.98331 ppb	89
17) Acetophenone	5.93	105	474785	51.28887 ppb	89
18) 3&4-Methylphenol	5.94	107	723826	102.49502 ppb	98
19) n-Nitrosodi-n-propylamine	5.93	70	277635	52.64855 ppb	98
20) Hexachloroethane	6.05	117	150185	51.74034 ppb	85
23) Nitrobenzene	6.12	77	391946	51.34108 ppb	94
24) Isophorone	6.39	82	652688	52.73830 ppb	97
25) 2-Nitrophenol	6.47	139	184402	52.82167 ppb	89
26) 2,4-Dimethylphenol	6.53	122	288651	53.08080 ppb	96
27) Benzoic acid	6.65	105	265773	52.52237 ppb	98
28) Bis (2-chloroethoxy) metha	6.62	93	362438	54.31436 ppb	99
29) 2,4-Dichlorophenol	6.75	162	294151	52.53304 ppb	95
30) 1,2,4-Trichlorobenzene	6.85	180	336307	51.90006 ppb	97
31) 3,4-Dimethylphenol	6.86	107	464030	52.78082 ppb	99
32) Naphthalene	6.94	128	951836	53.33151 ppb	100
33) 4-Chloroaniline	6.99	127	374395	59.53877 ppb	96
34) 2,6-Dichlorophenol	7.00	162	286319	52.80635 ppb	98
35) Hexachloropropene	7.04	213	296131	52.49822 ppb	99
36) Hexachlorobutadiene	7.08	225	235619	51.49013 ppb	99
37) Caprolactum	7.41	55	105792	53.75361 ppb	98

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y191121\1121Y031.D Vial: 31
Acq On : 22 Nov 19 13:38 Operator: MA,SS
Sample : SS 8270 11/22/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 25 11:24 2019 Quant Results File: Y1121ND.RES

Quant Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 18:04:15 2019
Response via : Initial Calibration
DataAcq Meth : SVOC1011

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
38)	4-Chloro-3-methylphenol	7.55	107	335513	53.10419 ppb		90
39)	2-Methylnaphthalene	7.73	142	662441	54.46172 ppb		99
40)	1-Methylnaphthalene	7.84	142	655119	52.09484 ppb		99
42)	Hexachlorocyclopentadiene	7.91	237	270848	50.95175 ppb		98
43)	1,2,4,5-Tetrachlorobenzene	7.92	216	377114	51.28467 ppb		99
44)	2,4,6-Trichlorophenol	8.05	196	245742	52.48934 ppb		97
45)	2,4,5-Trichlorophenol	8.10	196	259336	52.02828 ppb		93
47)	1,1'-Biphenyl	8.27	154	832163	52.32581 ppb		98
48)	2-Chloronaphthalene	8.28	162	664290	51.04548 ppb		97
49)	2-Nitroaniline	8.40	65	228214	55.32443 ppb		91
50)	Dimethyl phthalate	8.61	163	826771	52.02114 ppb		99
51)	2,6-DNT	8.68	165	183246	51.55656 ppb		92
52)	Acenaphthylene	8.77	152	1052996	52.64630 ppb		100
53)	3-Nitroaniline	8.40	138	223977	54.90928 ppb		95
54)	Acenaphthene	8.97	154	718729	53.15403 ppb		98
55)	2,4-Dinitrophenol	9.01	184	108675	45.76019 ppb		96
56)	4-Nitrophenol	8.68	65	13343	51.26258 ppb		96
57)	Dibenzofuran	9.17	168	1018717	54.01990 ppb		97
58)	2,4-DNT	9.16	165	265741	52.58617 ppb		95
59)	2,3,4,6-Tetrachlorophenol	9.31	232	220565	52.37656 ppb		94
60)	Diethyl phthalate	9.43	149	845111	52.10442 ppb		98
61)	4-Chlorophenyl phenyl ethe	9.56	204	481244	51.86421 ppb		92
62)	Fluorene	9.57	166	839435	53.09820 ppb		98
63)	4-Nitroaniline	8.88	138	182054	56.09730 ppb		94
66)	4,6-Dinitro-2-methylphenol	9.63	198	174409	51.03576 ppb	#	72
67)	Diphenyl amine	9.70	169	1357188	107.10657 ppb		100
68)	n-Nitrosodiphenylamine	9.70	169	1357188	107.10657 ppb		100
69)	1,2-Diphenylhydrazine	9.75	77	812596	51.81678 ppb		91
70)	4-Bromophenyl phenyl ether	10.14	248	288847	52.77515 ppb		93
71)	Hexachlorobenzene	10.21	284	300398	51.93315 ppb	#	86
72)	Atrazine	10.33	200	130350	27.01674 ppb		98
73)	Pentachlorophenol	10.45	266	189568	50.44853 ppb		99
74)	Phenanthrene	10.69	178	1193495	53.47084 ppb		100
75)	Anthracene	10.75	178	1230249	52.49920 ppb		100
76)	Carbazol	10.94	167	1119240	53.07059 ppb		99
77)	Di-n-butylphthalate	11.34	149	1456976	53.05055 ppb		98
78)	2-Nitrodiphenylamine	11.51	167	179156	27.45378 ppb		94
79)	Fluoranthene	12.08	202	1451245	53.42793 ppb		99
81)	Benzidine	12.23	184	392760	55.34822 ppb		97
82)	Pyrene	12.35	202	1519982	52.30875 ppb		99
84)	Butyl benzylphthalate	13.08	149	682425	51.73717 ppb		84
85)	3,3'-Dichlorobenzidine	13.70	252	521346	59.76631 ppb		98
86)	Benz (a) anthracene	13.74	228	1670654	52.43277 ppb		99
87)	Bis (2-ethylhexyl) phthala	13.75	149	1108962	54.68968 ppb	#	95
88)	Chrysene	13.78	228	1481718	52.19841 ppb		100
89)	Di-n-octylphthalate	14.51	149	1725602	54.28301 ppb		96
91)	Benzo (b) fluoranthene	15.06	252	1589370	52.15999 ppb		99
92)	Benzo (k) fluoranthene	15.10	252	1545615	55.05372 ppb		99
93)	Benzo (a) pyrene	15.53	252	1465947	53.87924 ppb		99
94)	Indeno (1,2,3-cd) pyrene	17.52	276	1678695	51.96740 ppb		99
95)	Dibenz (a,h) anthracene	17.56	278	1539902	54.04555 ppb		98
96)	Benzo (g,h,i) perylene	18.10	276	1476910	57.42940 ppb		100

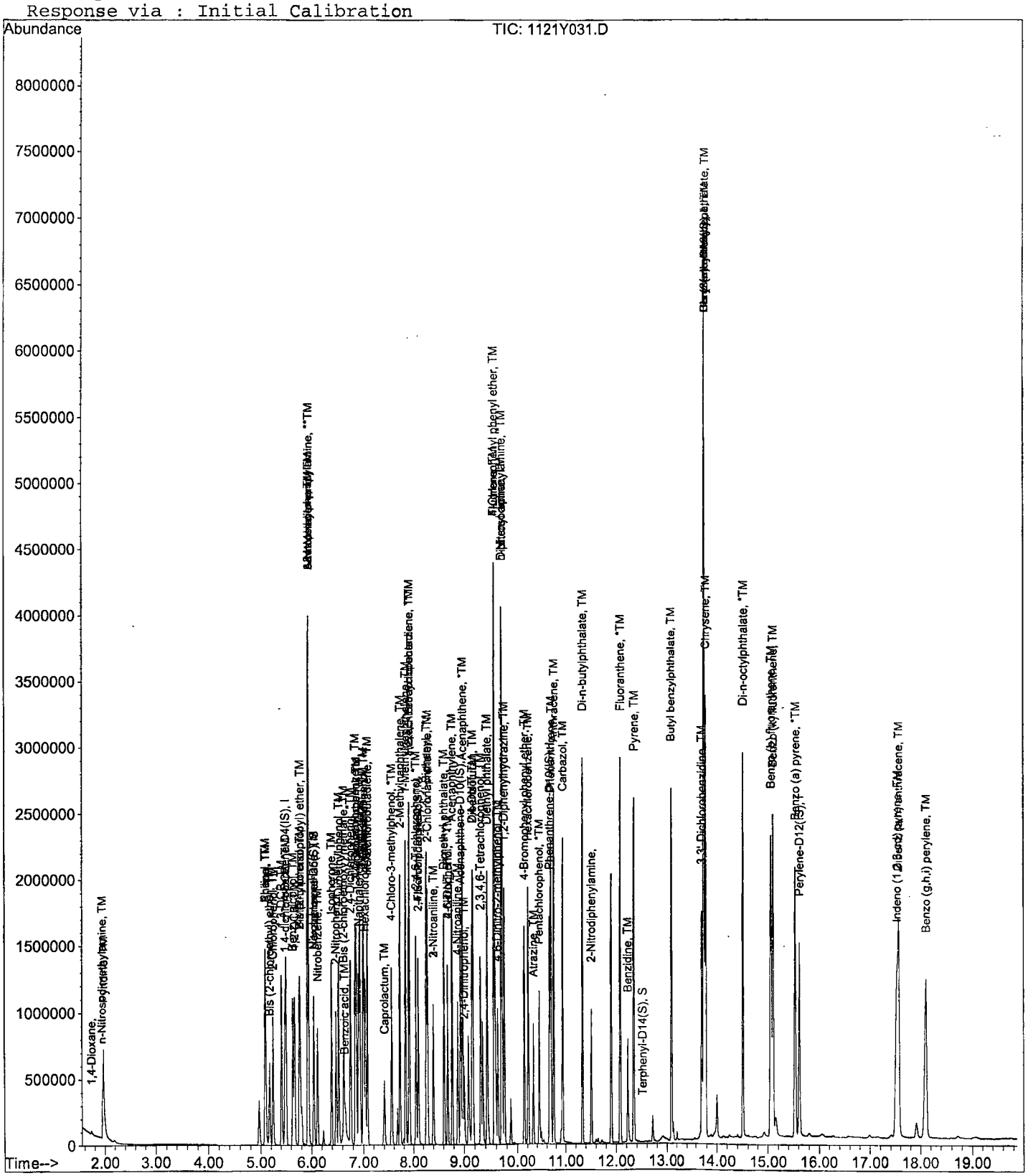
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y191121\1121Y031.D Vial: 31
Acq On : 22 Nov 19 13:38 Operator: MA,SS
Sample : SS 8270 11/22/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 25 11:24 2019 Quant Results File: Y1121ND.RES

Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 18:04:15 2019
Response via : Initial Calibration



Semi-Volatile Analysis by GC-MS
EPA 8270

Form 7

Ending Continuing Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Date Analyzed: 11/26/19
Matrix: Instrument: Yoda
Initial Cal. Date: 11/21/19
Data File: 1121Y154.D

		Compound	MEAN	CCRF	%D		%Drift
1	I	1,4-dichlorobenzene-D4(IS)	ISTD			I	
2		1,4-Dioxane	0.4644	0.4740	2.1		
3	TM	n-Nitrosodimethylamine	0.7047	0.8639	23	TM	
4	TM	Pyridine	1.743	2.050	18	TM	
5	S	2-Fluorophenol (S)	1.393	1.435	3.0	S	
6	S	Phenol-D6 (S)	1.659	1.762	6.2	S	
7	*TM	Phenol	1.959	2.184	11	*TM	
8	TM	Aniline	1.157	1.329	15	TM	
9	TM	Bis (2-chloroethyl) ether	0.8368	0.9543	14	TM	
10	TM	2-Chlorophenol	1.483	1.581	6.6	TM	
11	TM	1,3-DCB	1.681	1.715	2.0	TM	
12	*TM	1,4-DCB	1.708	1.760	3.1	*TM	
13	TM	Benzyl alcohol	0.8432	0.9323	11	TM	
14	TM	1,2-DCB	1.595	1.638	2.7	TM	
15	TM	2-Methylphenol	1.201	1.355	13	TM	
16	TM	Bis (2-chloroisopropyl) ether	0.9351	1.121	20	TM	
17	TM	Acetophenone	2.160	2.372	9.8	TM	
18	TM	3&4-Methylphenol	1.648	1.838	12	TM	
19	**TM	n-Nitrosodi-n-propylamine	1.231	1.442	17	**TM	
20	TM	Hexachloroethane	0.6773	0.7210	6.4	TM	
21	I	Napthalene-D8(IS)	ISTD			I	
22	S	Nitrobenzene-D5(S)	0.4508	0.4694	4.1	S	
23	TM	Nitrobenzene	0.4609	0.4980	8.1	TM	
24	TM	Isophorone	0.7471	0.8098	8.4	TM	
25	*TM	2-Nitrophenol	0.2108	0.2193	4.1	*TM	
26	TM	2,4-Dimethylphenol	0.3283	0.3480	6.0	TM	
27	TML	Benzoic acid	0.2427	0.3340	38	TML	9.0
28	TM	Bis (2-chloroethoxy) methane	0.4028	0.4317	7.2	TM	
29	*TM	2,4-Dichlorophenol	0.3380	0.3497	3.5	*TM	
30	TM	1,2,4-Trichlorobenzene	0.3912	0.3971	1.5	TM	
31	TM	3,4-Dimethylphenol	0.5307	0.5743	8.2	TM	
32	TM	Naphthalene	1.077	1.129	4.8	TM	
33	TM	4-Chloroaniline	0.3796	0.4418	16	TM	
34	TM	2,6-Dichlorophenol	0.3273	0.3346	2.2	TM	
35	TM	Hexachloropropene	0.3405	0.2967	13	TM	
36	*TM	Hexachlorobutadiene	0.2763	0.2758	0.17	*TM	
37	TM	Caprolactum	0.1188	0.1334	12	TM	
38	*TM	4-Chloro-3-methylphenol	0.3814	0.4063	6.5	*TM	
39	TM	2-Methylnaphthalene	0.7343	0.7765	5.8	TM	
40	TM	1-Methylnaphthalene	0.7592	0.7902	4.1	TM	
		Average			9.2		

Semi-Volatile Analysis by GC-MS
EPA 8270

Form 7

Ending Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix: 0

SDG No:
Date Analyzed: 11/26/19
Instrument: Yoda
Cal. Date: 11/21/19
Data File: 1121Y154.D

		Compound	MEAN	CCRF	%D	%Drift	
41	I	Acenaphthene-D10(IS)	ISTD			I	
42	**TM	Hexachlorocyclopentadiene	0.5081	0.3896	23	**TM	
43	TM	1,2,4,5-Tetrachlorobenzene	0.7029	0.6995	0.49	TM	
44	*TM	2,4,6-Trichlorophenol	0.4475	0.4551	1.7	*TM	
45	TM	2,4,5-Trichlorophenol	0.4765	0.4851	1.8	TM	
46	S	2-Fluorobiphenyl(S)	1.496	1.445	3.4	S	
47	TM	1,1'-Biphenyl	1.520	1.603	5.4	TM	
48	TM	2-Chloronaphthalene	1.244	1.292	3.9	TM	
49	TM	2-Nitroaniline	0.3943	0.4473	13	TM	
50	TM	Dimethyl phthalate	1.519	1.591	4.7	TM	
51	TM	2,6-DNT	0.3398	0.3560	4.8	TM	
52	TM	Acenaphthylene	1.912	1.972	3.2	TM	
53	TM	3-Nitroaniline	0.3899	0.4205	7.8	TM	
54	*TM	Acenaphthene	1.293	1.313	1.6	*TM	
55	**TM	2,4-Dinitrophenol	0.2270	0.1474	35	**TM	
56	**TM	4-Nitrophenol	0.0249	0.0292	17	**TM	
57	TM	Dibenzofuran	1.803	1.851	2.7	TM	
58	TM	2,4-DNT	0.4831	0.5120	6.0	TM	
59	TM	2,3,4,6-Tetrachlorophenol	0.4026	0.4054	0.70	TM	
60	TM	Diethyl phthalate	1.550	1.605	3.5	TM	
61	TM	4-Chlorophenyl phenyl ether	0.8870	0.9205	3.8	TM	
62	TM	Fluorene	1.511	1.612	6.7	TM	
63	TM	4-Nitroaniline	0.3102	0.3431	11	TM	
64	S	2,4,6-Tribromophenol(S)	0.3060	0.2897	5.3	S	
65	I	Phenanthrene-D10(IS)	ISTD			I	
66	TM	4,6-Dinitro-2-methylphenol	0.1657	0.1247	25	TM	
67	TM	Diphenyl amine	0.6145	0.6755	9.9	TM	
68	*TM	n-Nitrosodiphenylamine	0.6145	0.6755	9.9	*TM	
69	TM	1,2-Diphenylhydrazine	0.7606	0.8649	14	TM	
70	TM	4-Bromophenyl phenyl ether	0.2654	0.2751	3.6	TM	
71	TM	Hexachlorobenzene	0.2805	0.2811	0.22	TM	
72	TM	Atrazine	0.2340	0.2208	5.6	TM	
73	*TM	Pentachlorophenol	0.1822	0.1782	2.2	*TM	
74	TM	Phenanthrene	1.083	1.145	5.7	TM	
75	TM	Anthracene	1.137	1.205	6.0	TM	
76	TM	Carbazol	1.023	1.096	7.2	TM	
77	TM	Di-n-butylphthalate	1.332	1.457	9.4	TM	
78		2-Nitrodiphenylamine	0.3165	0.3573	13		
79	*TM	Fluoranthene	1.317	1.407	6.8	*TM	
80	I	Chrysene-D12(IS)	ISTD			I	
		Average			7.7		

Semi-Volatile Analysis by GC-MS
EPA 8270

Form 7

Ending Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix: 0

SDG No:
Date Analyzed: 11/26/19
Instrument: Yoda
Cal. Date: 11/21/19
Data File: 1121Y154.D

		Compound	MEAN	CCRF	%D		%Drift
81	TM	Benzidine	0.2967	0.3296	11	TM	
82	TM	Pyrene	1.215	1.222	0.57	TM	
83	S	Terphenyl-D14(S)	1.000	0.9423	5.8	S	
84	TM	Butyl benzylphthalate	0.5515	0.5704	3.4	TM	
85	TM	3,3'-Dichlorobenzidine	0.3647	0.4696	29	TM	
86	TM	Benz (a) anthracene	1.332	1.326	0.46	TM	
87	TM	Bis (2-ethylhexyl) phthalate	0.8479	0.9572	13	TM	
88	TM	Chrysene	1.187	1.161	2.1	TM	
89	*TM	Di-n-octylphthalate	1.329	1.409	6.0	*TM	
90	I	Perylene-D12(IS)	ISTD			I	
91	TM	Benzo (b) fluoranthene	1.265	1.329	5.0	TM	
92	TM	Benzo (k) fluoranthene	1.165	1.261	8.2	TM	
93	*TM	Benzo (a) pyrene	1.129	1.179	4.4	*TM	
94	TM	Indeno (1,2,3-cd) pyrene	1.341	1.356	1.1	TM	
95	TM	Dibenz (a,h) anthracene	1.183	1.195	1.0	TM	
96	TM	Benzo (g,h,i) perylene	1.068	1.073	0.49	TM	
97							
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119							
120							
		Average			6.1		

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y191121\1121Y154.D Vial: 54
Acq On : 26 Nov 19 20:50 Operator: MA,SS
Sample : 50ug/ml 8270 11/21/19 (1) Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 27 7:38 2019 Quant Results File: Y1121ND.RES

Quant Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 18:04:15 2019
Response via : Initial Calibration
DataAcq Meth : SVOC1011

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.47	152	179473	40.00000	ppb		0.00
21) Napthalene-D8(IS)	6.91	136	719514	40.00000	ppb		0.00
41) Acenaphthene-D10(IS)	8.93	164	453439	40.00000	ppb		0.00
65) Phenanthrene-D10(IS)	10.67	188	869953	40.00000	ppb		0.00
80) Chrysene-D12(IS)	13.76	240	1038491	40.00000	ppb		0.00
90) Perylene-D12(IS)	15.62	264	946185	40.00000	ppb		0.00
System Monitoring Compounds							
5) 2-Fluorophenol (S)	3.90	112	643790	103.01244	ppb		0.00
Spiked Amount 200.000			Recovery =	51.506%			
6) Phenol-D6 (S)	5.07	99	790641	106.24656	ppb		0.00
Spiked Amount 200.000			Recovery =	53.124%			
22) Nitrobenzene-D5(S)	6.10	82	422202	52.06943	ppb		0.00
Spiked Amount 100.000			Recovery =	52.069%			
46) 2-Fluorobiphenyl(S)	8.14	172	819046	48.31191	ppb		0.00
Spiked Amount 100.000			Recovery =	48.312%			
64) 2,4,6-Tribromophenol(S)	9.86	330	328385	94.67254	ppb		0.00
Spiked Amount 200.000			Recovery =	47.337%			
83) Terphenyl-D14(S)	12.52	244	1223267	47.11515	ppb		0.00
Spiked Amount 100.000			Recovery =	47.115%			
Target Compounds							Qvalue
2) 1,4-Dioxane	1.72	58	10634	5.10366			75
3) n-Nitrosodimethylamine	1.94	42	193799	61.29377	ppb		100
4) Pyridine	1.96	79	459851	58.80612	ppb		99
7) Phenol	5.09	94	489897	55.74345	ppb		90
8) Aniline	5.10	93	298240	57.46890	ppb		90
9) Bis (2-chloroethyl) ether	5.17	63	214083	57.02058	ppb		91
10) 2-Chlorophenol	5.24	128	354618	53.28336	ppb		96
11) 1,3-DCB	5.40	146	384680	51.01363	ppb		97
12) 1,4-DCB	5.49	146	394790	51.53065	ppb		98
13) Benzyl alcohol	5.64	108	209164	55.28314	ppb		98
14) 1,2-DCB	5.66	146	367467	51.34183	ppb		99
15) 2-Methylphenol	5.77	107	304001	56.39216	ppb		96
16) Bis (2-chloroisopropyl) et	5.78	45	251533	59.94978	ppb	#	73
17) Acetophenone	5.93	105	532131	54.90471	ppb		89
18) 3&4-Methylphenol	5.94	107	824480	111.50995	ppb		99
19) n-Nitrosodi-n-propylamine	5.93	70	323406	58.57674	ppb		96
20) Hexachloroethane	6.04	117	161743	53.22224	ppb		96
23) Nitrobenzene	6.12	77	447941	54.03327	ppb		98
24) Isophorone	6.39	82	728304	54.19197	ppb		94
25) 2-Nitrophenol	6.48	139	197237	52.02793	ppb		98
26) 2,4-Dimethylphenol	6.53	122	313026	53.00862	ppb		99
27) Benzoic acid	6.67	105	300385	54.51101	ppb		97
28) Bis (2-chloroethoxy) metha	6.63	93	388252	53.57921	ppb		99
29) 2,4-Dichlorophenol	6.76	162	314516	51.72573	ppb		99
30) 1,2,4-Trichlorobenzene	6.84	180	357184	50.76047	ppb		97
31) 3,4-Dimethylphenol	6.86	107	516511	54.10175	ppb		99
32) Naphthalene	6.94	128	1015093	52.37563	ppb		100
33) 4-Chloroaniline	6.99	127	397384	58.19449	ppb		98
34) 2,6-Dichlorophenol	7.01	162	300931	51.10985	ppb		99
35) Hexachloropropene	7.04	213	266832	43.56125	ppb		99
36) Hexachlorobutadiene	7.08	225	248033	49.91429	ppb		100
37) Caprolactum	7.42	55	119960	56.12973	ppb		94

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y191121\1121Y154.D Vial: 54
Acq On : 26 Nov 19 20:50 Operator: MA,SS
Sample : 50ug/ml 8270 11/21/19 (1) Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 27 7:38 2019 Quant Results File: Y1121ND.RES

Quant Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 18:04:15 2019
Response via : Initial Calibration
DataAcq Meth : SVOC1011

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
38)	4-Chloro-3-methylphenol	7.56	107	365424	53.26209 ppb		95
39)	2-Methylnaphthalene	7.72	142	698402	52.87511 ppb		100
40)	1-Methylnaphthalene	7.84	142	710656	52.03980 ppb		100
42)	Hexachlorocyclopentadiene	7.91	237	220800	38.33090 ppb		99
43)	1,2,4,5-Tetrachlorobenzene	7.92	216	396483	49.75720 ppb		100
44)	2,4,6-Trichlorophenol	8.05	196	257942	50.84288 ppb		100
45)	2,4,5-Trichlorophenol	8.11	196	274951	50.90359 ppb		95
47)	1,1'-Biphenyl	8.26	154	908359	52.70860 ppb		99
48)	2-Chloronaphthalene	8.29	162	732391	51.93487 ppb		99
49)	2-Nitroaniline	8.40	65	253528	56.71749 ppb		95
50)	Dimethyl phthalate	8.62	163	901594	52.35065 ppb		100
51)	2,6-DNT	8.69	165	201795	52.39336 ppb		82
52)	Acenaphthylene	8.76	152	1117973	51.58089 ppb		99
53)	3-Nitroaniline	8.40	138	238316	53.91528 ppb		99
54)	Acenaphthene	8.97	154	744268	50.79451 ppb		99
55)	2,4-Dinitrophenol	9.01	184	83537	32.46037 ppb		88
56)	4-Nitrophenol	8.68	65	16549	58.67257 ppb		97
57)	Dibenzofuran	9.17	168	1049257	51.34504 ppb		100
58)	2,4-DNT	9.15	165	290218	52.99730 ppb		86
59)	2,3,4,6-Tetrachlorophenol	9.32	232	229755	50.34795 ppb		97
60)	Diethyl phthalate	9.43	149	909668	51.75593 ppb		96
61)	4-Chlorophenyl phenyl ethe	9.56	204	521741	51.88883 ppb	#	84
62)	Fluorene	9.57	166	913843	53.34340 ppb		99
63)	4-Nitroaniline	8.88	138	194469	55.29788 ppb		87
66)	4,6-Dinitro-2-methylphenol	9.64	198	135601	37.61849 ppb	#	85
67)	Diphenyl amine	9.71	169	1469100	109.91585 ppb		100
68)	n-Nitrosodiphenylamine	9.71	169	1469100	109.91585 ppb		100
69)	1,2-Diphenylhydrazine	9.76	77	940567	56.86150 ppb		98
70)	4-Bromophenyl phenyl ether	10.14	248	299176	51.82284 ppb		96
71)	Hexachlorobenzene	10.22	284	305728	50.10899 ppb		96
72)	Atrazine	10.32	200	120041	23.58763 ppb		98
73)	Pentachlorophenol	10.44	266	193784	48.89160 ppb		99
74)	Phenanthrene	10.69	178	1244623	52.86486 ppb		100
75)	Anthracene	10.75	178	1310274	53.00961 ppb		100
76)	Carbazol	10.94	167	1191847	53.57770 ppb		98
77)	Di-n-butylphthalate	11.34	149	1584063	54.68180 ppb		98
78)	2-Nitrodiphenylamine	11.51	167	194295	28.22703 ppb		99
79)	Fluoranthene	12.08	202	1530294	53.41157 ppb		99
81)	Benzidine	12.23	184	427883	55.54512 ppb		99
82)	Pyrene	12.35	202	1586188	50.28460 ppb		99
84)	Butyl benzylphthalate	13.09	149	740503	51.71529 ppb		99
85)	3,3'-Dichlorobenzidine	13.70	252	609564	64.37158 ppb	#	98
86)	Benz (a) anthracene	13.74	228	1721546	49.77134 ppb		100
87)	Bis (2-ethylhexyl) phthala	13.75	149	1242523	56.44658 ppb		99
88)	Chrysene	13.79	228	1507683	48.92673 ppb		100
89)	Di-n-octylphthalate	14.51	149	1828785	52.99445 ppb		96
91)	Benzo (b) fluoranthene	15.07	252	1571322	52.51769 ppb		98
92)	Benzo (k) fluoranthene	15.10	252	1491286	54.09713 ppb		99
93)	Benzo (a) pyrene	15.54	252	1394881	52.21175 ppb		99
94)	Indeno (1,2,3-cd) pyrene	17.54	276	1603749	50.56191 ppb		98
95)	Dibenz (a,h) anthracene	17.57	278	1413122	50.50966 ppb		99
96)	Benzo (g,h,i) perylene	18.12	276	1268799	50.24594 ppb		98

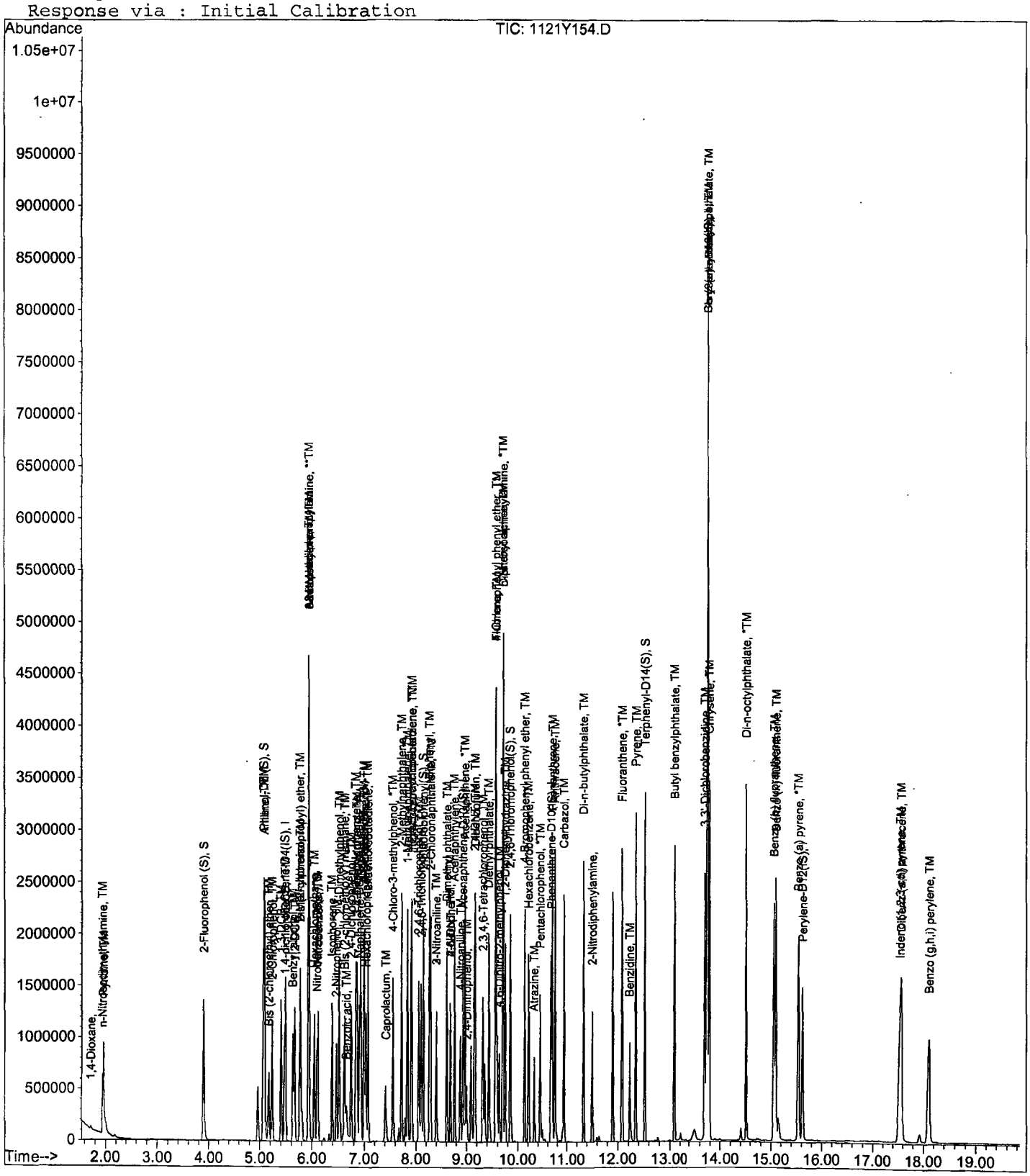
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y191121\1121Y154.D Vial: 54
Acq On : 26 Nov 19 20:50 Operator: MA,SS
Sample : 50ug/ml 8270 11/21/19 (1) Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 27 7:38 2019 Quant Results File: Y1121ND.RES

Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 18:04:15 2019
Response via : Initial Calibration



Semi-Volatile Analysis by GC-MS
EPA 8270

Form 7

Ending Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix:

SDG No:
Date Analyzed: 11/27/19
Instrument: Yoda
Initial Cal. Date: 11/21/19
Data File: 1121Y172.D

		Compound	MEAN	CCRF	%D		%Drift
1	I	1,4-dichlorobenzene-D4(IS)	ISTD			I	
2		1,4-Dioxane	0.4644	0.4417	4.9		
3	TM	n-Nitrosodimethylamine	0.7047	0.8379	19	TM	
4	TM	Pyridine	1.743	1.952	12	TM	
5	S	2-Fluorophenol (S)	1.393	1.379	1.0	S	
6	S	Phenol-D6 (S)	1.659	1.703	2.7	S	
7	*TM	Phenol	1.959	2.067	5.5	*TM	
8	TM	Aniline	1.157	1.091	5.6	TM	
9	TM	Bis (2-chloroethyl) ether	0.8368	0.9041	8.0	TM	
10	TM	2-Chlorophenol	1.483	1.502	1.2	TM	
11	TM	1,3-DCB	1.681	1.676	0.29	TM	
12	*TM	1,4-DCB	1.708	1.702	0.30	*TM	
13	TM	Benzyl alcohol	0.8432	0.8845	4.9	TM	
14	TM	1,2-DCB	1.595	1.559	2.3	TM	
15	TM	2-Methylphenol	1.201	1.294	7.7	TM	
16	TM	Bis (2-chloroisopropyl) ether	0.9351	1.075	15	TM	
17	TM	Acetophenone	2.160	2.289	6.0	TM	
18	TM	3&4-Methylphenol	1.648	1.757	6.6	TM	
19	**TM	n-Nitrosodi-n-propylamine	1.231	1.402	14	**TM	
20	TM	Hexachloroethane	0.6773	0.7003	3.4	TM	
21	I	Napthalene-D8(IS)	ISTD			I	
22	S	Nitrobenzene-D5(S)	0.4508	0.4617	2.4	S	
23	TM	Nitrobenzene	0.4609	0.4820	4.6	TM	
24	TM	Isophorone	0.7471	0.7816	4.6	TM	
25	*TM	2-Nitrophenol	0.2108	0.2130	1.1	*TM	
26	TM	2,4-Dimethylphenol	0.3283	0.3335	1.6	TM	
27	TML	Benzoic acid	0.2427	0.3303	36	TML	7.9
28	TM	Bis (2-chloroethoxy) methane	0.4028	0.4235	5.1	TM	
29	*TM	2,4-Dichlorophenol	0.3380	0.3384	0.10	*TM	
30	TM	1,2,4-Trichlorobenzene	0.3912	0.3808	2.7	TM	
31	TM	3,4-Dimethylphenol	0.5307	0.5599	5.5	TM	
32	TM	Naphthalene	1.077	1.087	0.90	TM	
33	TM	4-Chloroaniline	0.3796	0.3954	4.1	TM	
34	TM	2,6-Dichlorophenol	0.3273	0.3292	0.58	TM	
35	TM	Hexachloropropene	0.3405	0.2996	12	TM	
36	*TM	Hexachlorobutadiene	0.2763	0.2674	3.2	*TM	
37	TM	Caprolactum	0.1188	0.1328	12	TM	
38	*TM	4-Chloro-3-methylphenol	0.3814	0.3947	3.5	*TM	
39	TM	2-Methylnaphthalene	0.7343	0.7458	1.6	TM	
40	TM	1-Methylnaphthalene	0.7592	0.7694	1.3	TM	
		Average			5.9		

Semi-Volatile Analysis by GC-MS
EPA 8270

Form 7

Ending Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix: 0

SDG No:
Date Analyzed: 11/27/19
Instrument: Yoda
Cal. Date: 11/21/19
Data File: 1121Y172.D

		Compound	MEAN	CCRF	%D		%Drift
41	I	Acenaphthene-D10(IS)	ISTD			I	
42	**TM	Hexachlorocyclopentadiene	0.5081	0.3947	22	**TM	
43	TM	1,2,4,5-Tetrachlorobenzene	0.7029	0.6869	2.3	TM	
44	*TM	2,4,6-Trichlorophenol	0.4475	0.4440	0.80	*TM	
45	TM	2,4,5-Trichlorophenol	0.4765	0.4706	1.2	TM	
46	S	2-Fluorobiphenyl(S)	1.496	1.423	4.9	S	
47	TM	1,1'-Biphenyl	1.520	1.561	2.7	TM	
48	TM	2-Chloronaphthalene	1.244	1.262	1.4	TM	
49	TM	2-Nitroaniline	0.3943	0.4340	10	TM	
50	TM	Dimethyl phthalate	1.519	1.541	1.4	TM	
51	TM	2,6-DNT	0.3398	0.3449	1.5	TM	
52	TM	Acenaphthylene	1.912	1.932	1.0	TM	
53	TM	3-Nitroaniline	0.3899	0.4015	3.0	TM	
54	*TM	Acenaphthene	1.293	1.230	4.8	*TM	
55	**TM	2,4-Dinitrophenol	0.2270	0.1679	26	**TM	
56	**TM	4-Nitrophenol	0.0249	0.0294	18	**TM	
57	TM	Dibenzofuran	1.803	1.828	1.4	TM	
58	TM	2,4-DNT	0.4831	0.4959	2.7	TM	
59	TM	2,3,4,6-Tetrachlorophenol	0.4026	0.3916	2.7	TM	
60	TM	Diethyl phthalate	1.550	1.560	0.62	TM	
61	TM	4-Chlorophenyl phenyl ether	0.8870	0.9068	2.2	TM	
62	TM	Fluorene	1.511	1.591	5.3	TM	
63	TM	4-Nitroaniline	0.3102	0.3289	6.0	TM	
64	S	2,4,6-Tribromophenol(S)	0.3060	0.2874	6.1	S	
65	I	Phenanthrene-D10(IS)	ISTD			I	
66	TM	4,6-Dinitro-2-methylphenol	0.1657	0.1350	19	TM	
67	TM	Diphenyl amine	0.6145	0.6626	7.8	TM	
68	*TM	n-Nitrosodiphenylamine	0.6145	0.6626	7.8	*TM	
69	TM	1,2-Diphenylhydrazine	0.7606	0.8556	12	TM	
70	TM	4-Bromophenyl phenyl ether	0.2654	0.2698	1.6	TM	
71	TM	Hexachlorobenzene	0.2805	0.2786	0.69	TM	
72	TM	Atrazine	0.2340	0.2257	3.5	TM	
73	*TM	Pentachlorophenol	0.1822	0.1785	2.1	*TM	
74	TM	Phenanthrene	1.083	1.106	2.1	TM	
75	TM	Anthracene	1.137	1.165	2.5	TM	
76	TM	Carbazol	1.023	1.060	3.7	TM	
77	TM	Di-n-butylphthalate	1.332	1.424	6.9	TM	
78		2-Nitrodiphenylamine	0.3165	0.3451	9.0		
79	*TM	Fluoranthene	1.317	1.373	4.2	*TM	
80	I	Chrysene-D12(IS)	ISTD			I	
		Average			5.7		

Semi-Volatile Analysis by GC-MS
EPA 8270

Form 7

Ending Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix: 0

SDG No:
Date Analyzed: 11/27/19
Instrument: Yoda
Cal. Date: 11/21/19
Data File: 1121Y172.D

		Compound	MEAN	CCRF	%D		%Drift	
81	TM	Benzidine	0.2967	0.0557	81	TM		*
82	TM	Pyrene	1.215	1.214	0.09	TM		
83	S	Terphenyl-D14(S)	1.000	0.9343	6.6	S		
84	TM	Butyl benzylphthalate	0.5515	0.5760	4.4	TM		
85	TM	3,3'-Dichlorobenzidine	0.3647	0.4464	22	TM		
86	TM	Benz (a) anthracene	1.332	1.318	1.1	TM		
87	TM	Bis (2-ethylhexyl) phthalate	0.8479	0.9482	12	TM		
88	TM	Chrysene	1.187	1.170	1.5	TM		
89	*TM	Di-n-octylphthalate	1.329	1.404	5.6	*TM		
90	I	Perylene-D12(IS)	ISTD			I		
91	TM	Benzo (b) fluoranthene	1.265	1.316	4.0	TM		
92	TM	Benzo (k) fluoranthene	1.165	1.232	5.7	TM		
93	*TM	Benzo (a) pyrene	1.129	1.183	4.8	*TM		
94	TM	Indeno (1,2,3-cd) pyrene	1.341	1.357	1.2	TM		
95	TM	Dibenz (a,h) anthracene	1.183	1.204	1.8	TM		
96	TM	Benzo (g,h,i) perylene	1.068	1.065	0.25	TM		
97								
98								
99								
100								
101								
102								
103								
104								
105								
106								
107								
108								
109								
110								
111								
112								
113								
114								
115								
116								
117								
118								
119								
120								
		Average			10.1			

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y191121\1121Y172.D Vial: 72
Acq On : 27 Nov 19 5:11 Operator: MA,SS
Sample : 50ug/ml 8270 11/21/19 (2) Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 27 7:32 2019 Quant Results File: Y1121ND.RES

Quant Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 18:04:15 2019
Response via : Initial Calibration
DataAcq Meth : SVOC1011

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.47	152	184992	40.00000 ppb		0.00
21) Napthalene-D8(IS)	6.91	136	734252	40.00000 ppb		0.00
41) Acenaphthene-D10(IS)	8.93	164	456477	40.00000 ppb		0.00
65) Phenanthrene-D10(IS)	10.67	188	870891	40.00000 ppb		0.00
80) Chrysene-D12(IS)	13.76	240	1025135	40.00000 ppb		0.00
90) Perylene-D12(IS)	15.62	264	935612	40.00000 ppb		0.00
System Monitoring Compounds						
5) 2-Fluorophenol (S)	3.90	112	637612	98.98015 ppb		0.00
Spiked Amount 200.000			Recovery =	49.490%		
6) Phenol-D6 (S)	5.07	99	787677	102.69041 ppb		0.00
Spiked Amount 200.000			Recovery =	51.345%		
22) Nitrobenzene-D5(S)	6.10	82	423758	51.21233 ppb		0.00
Spiked Amount 100.000			Recovery =	51.212%		
46) 2-Fluorobiphenyl(S)	8.14	172	811938	47.57390 ppb		0.00
Spiked Amount 100.000			Recovery =	47.574%		
64) 2,4,6-Tribromophenol(S)	9.86	330	327984	93.92762 ppb		0.00
Spiked Amount 200.000			Recovery =	46.964%		
83) Terphenyl-D14(S)	12.52	244	1197240	46.71348 ppb		0.00
Spiked Amount 100.000			Recovery =	46.713%		
Target Compounds						Qvalue
2) 1,4-Dioxane	1.72	58	10213	4.75537		80
3) n-Nitrosodimethylamine	1.94	42	193764	59.45441 ppb		95
4) Pyridine	1.96	79	451366	55.99901 ppb		99
7) Phenol	5.09	94	478022	52.76952 ppb		91
8) Aniline	5.10	93	252352	47.17587 ppb		91
9) Bis (2-chloroethyl) ether	5.17	63	209067	54.02330 ppb		91
10) 2-Chlorophenol	5.24	128	347270	50.62258 ppb		95
11) 1,3-DCB	5.40	146	387517	49.85670 ppb		98
12) 1,4-DCB	5.49	146	393673	49.85185 ppb		98
13) Benzyl alcohol	5.63	108	204538	52.44764 ppb		85
14) 1,2-DCB	5.66	146	360520	48.86844 ppb		98
15) 2-Methylphenol	5.77	107	299339	53.87077 ppb		95
16) Bis (2-chloroisopropyl) et	5.78	45	248574	57.47706 ppb	#	73
17) Acetophenone	5.92	105	529331	52.98642 ppb		87
18) 3&4-Methylphenol	5.94	107	812630	106.62831 ppb		98
19) n-Nitrosodi-n-propylamine	5.93	70	324178	56.96483 ppb		97
20) Hexachloroethane	6.04	117	161933	51.69508 ppb		91
23) Nitrobenzene	6.12	77	442354	52.28830 ppb		99
24) Isophorone	6.39	82	717342	52.30493 ppb		94
25) 2-Nitrophenol	6.48	139	195512	50.53772 ppb		99
26) 2,4-Dimethylphenol	6.53	122	306094	50.79430 ppb		99
27) Benzoic acid	6.67	105	303196	53.95801 ppb		98
28) Bis (2-chloroethoxy) metha	6.63	93	388659	52.55880 ppb		100
29) 2,4-Dichlorophenol	6.76	162	310575	50.05235 ppb		99
30) 1,2,4-Trichlorobenzene	6.84	180	349522	48.67459 ppb		98
31) 3,4-Dimethylphenol	6.86	107	513912	52.74905 ppb		99
32) Naphthalene	6.94	128	997778	50.44887 ppb		99
33) 4-Chloroaniline	6.99	127	362861	52.07220 ppb		98
34) 2,6-Dichlorophenol	7.01	162	302183	50.29233 ppb		98
35) Hexachloropropene	7.04	213	275007	43.99469 ppb		99
36) Hexachlorobutadiene	7.07	225	245404	48.39396 ppb		100
37) Caprolactum	7.42	55	121852	55.87059 ppb		93

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y191121\1121Y172.D Vial: 72
Acq On : 27 Nov 19 5:11 Operator: MA,SS
Sample : 50ug/ml 8270 11/21/19 (2) Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 27 7:32 2019 Quant Results File: Y1121ND.RES

Quant Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 18:04:15 2019
Response via : Initial Calibration
DataAcq Meth : SVOC1011

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
38)	4-Chloro-3-methylphenol	7.56	107	362279	51.74381	ppb		95
39)	2-Methylnaphthalene	7.72	142	684488	50.78153	ppb		99
40)	1-Methylnaphthalene	7.84	142	706153	50.67213	ppb		99
42)	Hexachlorocyclopentadiene	7.91	237	225216	38.83731	ppb		99
43)	1,2,4,5-Tetrachlorobenzene	7.92	216	391941	48.85984	ppb		100
44)	2,4,6-Trichlorophenol	8.05	196	253330	49.60149	ppb		97
45)	2,4,5-Trichlorophenol	8.10	196	268521	49.38230	ppb		96
47)	1,1'-Biphenyl	8.26	154	890689	51.33931	ppb		99
48)	2-Chloronaphthalene	8.29	162	720008	50.71697	ppb		100
49)	2-Nitroaniline	8.40	65	247641	55.03178	ppb		95
50)	Dimethyl phthalate	8.62	163	879421	50.72334	ppb		99
51)	2,6-DNT	8.69	165	196771	50.74893	ppb		83
52)	Acenaphthylene	8.76	152	1102374	50.52269	ppb		100
53)	3-Nitroaniline	8.40	138	229101	51.48559	ppb		98
54)	Acenaphthene	8.97	154	702020	47.59232	ppb		98
55)	2,4-Dinitrophenol	9.01	184	95794	36.97540	ppb		88
56)	4-Nitrophenol	8.68	65	16756	59.01110	ppb		97
57)	Dibenzofuran	9.17	168	1043326	50.71502	ppb		99
58)	2,4-DNT	9.15	165	282953	51.32674	ppb		84
59)	2,3,4,6-Tetrachlorophenol	9.32	232	223457	48.64192	ppb		98
60)	Diethyl phthalate	9.43	149	890191	50.31070	ppb		96
61)	4-Chlorophenyl phenyl ethe	9.56	204	517414	51.11602	ppb	#	85
62)	Fluorene	9.57	166	907725	52.63363	ppb		100
63)	4-Nitroaniline	8.88	138	187675	53.01082	ppb		86
66)	4,6-Dinitro-2-methylphenol	9.64	198	147009	40.73938	ppb	#	80
67)	Diphenyl amine	9.71	169	1442713	107.82535	ppb		100
68)	n-Nitrosodiphenylamine	9.71	169	1442713	107.82535	ppb		100
69)	1,2-Diphenylhydrazine	9.75	77	931386	56.24582	ppb	#	84
70)	4-Bromophenyl phenyl ether	10.14	248	293678	50.81569	ppb		98
71)	Hexachlorobenzene	10.22	284	303272	49.65292	ppb		97
72)	Atrazine	10.32	200	122867	24.11693	ppb		95
73)	Pentachlorophenol	10.44	266	194283	48.96471	ppb		99
74)	Phenanthrene	10.69	178	1203605	51.06758	ppb		99
75)	Anthracene	10.75	178	1268023	51.24502	ppb		100
76)	Carbazol	10.94	167	1154451	51.84072	ppb		100
77)	Di-n-butylphthalate	11.33	149	1550566	53.46784	ppb	#	98
78)	2-Nitrodiphenylamine	11.51	167	187833	27.25885	ppb		99
79)	Fluoranthene	12.08	202	1494235	52.09684	ppb		99
81)	Benzidine	12.23	184	71385	9.38749	ppb		99
82)	Pyrene	12.35	202	1555591	49.95713	ppb		100
84)	Butyl benzylphthalate	13.09	149	738067	52.21673	ppb		99
85)	3,3'-Dichlorobenzidine	13.70	252	571991	61.19074	ppb	#	97
86)	Benz (a) anthracene	13.74	228	1688421	49.44964	ppb		100
87)	Bis (2-ethylhexyl) phthala	13.75	149	1215094	55.91969	ppb		99
88)	Chrysene	13.79	228	1498662	49.26762	ppb		100
89)	Di-n-octylphthalate	14.51	149	1798749	52.80317	ppb		98
91)	Benzo (b) fluoranthene	15.07	252	1538723	52.00932	ppb		99
92)	Benzo (k) fluoranthene	15.10	252	1440477	52.84451	ppb	#	99
93)	Benzo (a) pyrene	15.54	252	1383860	52.38459	ppb		99
94)	Indeno (1,2,3-cd) pyrene	17.53	276	1586518	50.58391	ppb		98
95)	Dibenz (a,h) anthracene	17.57	278	1407996	50.89516	ppb		99
96)	Benzo (g,h,i) perylene	18.11	276	1245326	49.87369	ppb		98

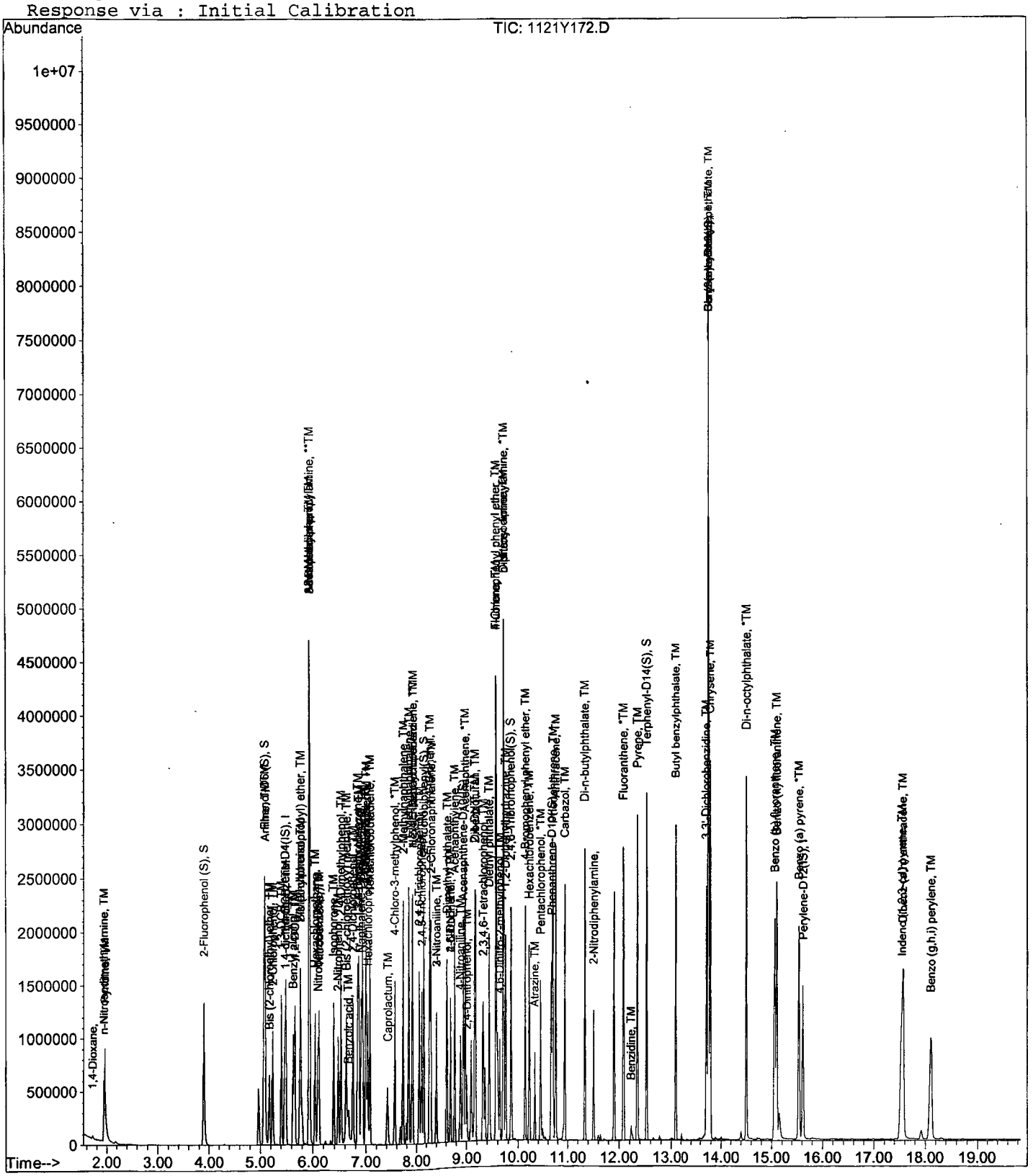
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y191121\1121Y172.D Vial: 72
Acq On : 27 Nov 19 5:11 Operator: MA,SS
Sample : 50ug/ml 8270 11/21/19 (2) Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 27 7:32 2019 Quant Results File: Y1121ND.RES

Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 18:04:15 2019
Response via : Initial Calibration



ORGANICS
Raw Data

Quantitation Report (QT Reviewed)

Data File : M:\YODA\DATA\Y191121\1121Y167.D Vial: 67
Acq On : 27 Nov 19 2:53 Operator: MA,SS
Sample : BA02466W21 1/800 Inst : Yoda
Misc : Multiplr: 1.25

Quant Time: Dec 4 13:35 2019 Quant Results File: Y1121ND.RES

Quant Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 18:04:15 2019
Response via : Initial Calibration
DataAcq Meth : SVOC1011

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.47	152	147714	40.00000 ppb	0.00
21) Napthalene-D8(IS)	6.91	136	607020	40.00000 ppb	0.00
41) Acenaphthene-D10(IS)	8.92	164	446494	40.00000 ppb	0.00
65) Phenanthrene-D10(IS)	10.66	188	906314	40.00000 ppb	0.00
80) Chrysene-D12(IS)	13.74	240	869186	40.00000 ppb	0.00
90) Perylene-D12(IS)	15.62	264	919954	40.00000 ppb	0.00
System Monitoring Compounds					
5) 2-Fluorophenol (S)	3.89	112	988599	240.24429 ppb	-0.02
Spiked Amount 250.000			Recovery = 96.098%		
6) Phenol-D6 (S)	5.07	99	1339130	273.30385 ppb	0.00
Spiked Amount 250.000			Recovery = 109.322%		
22) Nitrobenzene-D5(S)	6.09	82	729860	133.36699 ppb	0.00
Spiked Amount 125.000			Recovery = 106.694%		
46) 2-Fluorobiphenyl(S)	8.15	172	1423473	106.58803 ppb	0.00
Spiked Amount 125.000			Recovery = 85.270%		
64) 2,4,6-Tribromophenol(S)	9.85	330	624123	228.41475 ppb	0.00
Spiked Amount 250.000			Recovery = 91.366%		
83) Terphenyl-D14(S)	12.53	244	2184046	125.63225 ppb	0.00
Spiked Amount 125.000			Recovery = 100.506%		

Target Compounds	Qvalue

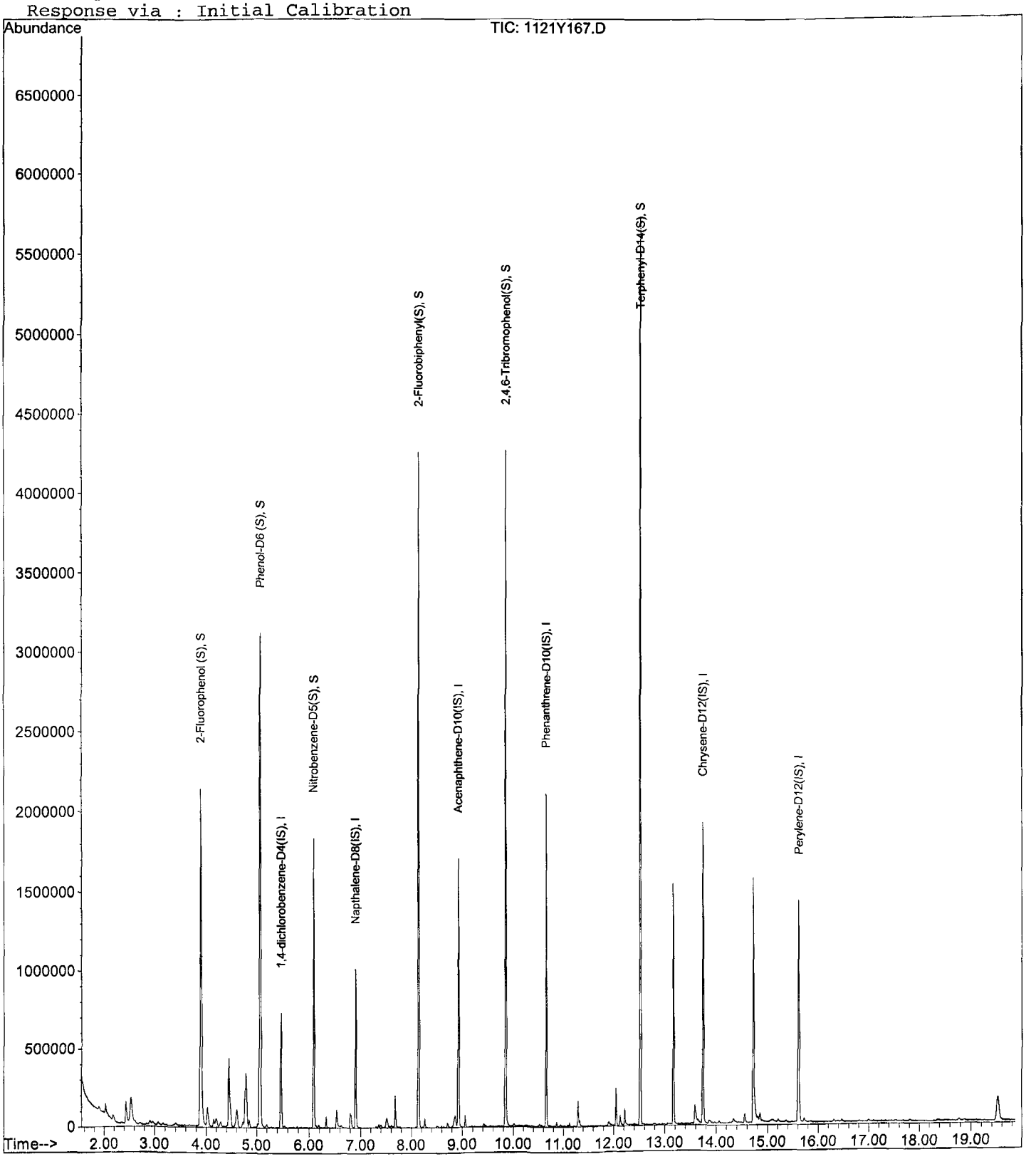
(#) = qualifier out of range (m) = manual integration
1121Y167.D Y1121ND.M Wed Dec 04 14:18:47 2019 Page 1

Quantitation Report

Data File : M:\YODA\DATA\Y191121\1121Y167.D Vial: 67
Acq On : 27 Nov 19 2:53 Operator: MA,SS
Sample : BA02466W21 1/800 Inst : Yoda
Misc : Multiplr: 1.25

Quant Time: Dec 4 13:35 2019 Quant Results File: Y1121ND.RES

Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 18:04:15 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\YODA\DATA\Y191121\1121Y164.D Vial: 64
Acq On : 27 Nov 19 1:29 Operator: MA,SS
Sample : 191111A BLK 1/800 Inst : Yoda
Misc : Multiplr: 1.25

Quant Time: Dec 4 13:34 2019 Quant Results File: Y1121ND.RES

Quant Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 18:04:15 2019
Response via : Initial Calibration
DataAcq Meth : SVOC1011

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.47	152	133788	40.00000 ppb	0.00
21) Napthalene-D8(IS)	6.91	136	594780	40.00000 ppb	0.00
41) Acenaphthene-D10(IS)	8.93	164	454257	40.00000 ppb	0.00
65) Phenanthrene-D10(IS)	10.66	188	942208	40.00000 ppb	0.00
80) Chrysene-D12(IS)	13.75	240	873632	40.00000 ppb	0.00
90) Perylene-D12(IS)	15.61	264	931720	40.00000 ppb	0.00
System Monitoring Compounds					
5) 2-Fluorophenol (S)	3.89	112	1076623	288.86908 ppb	-0.02
Spiked Amount 250.000			Recovery	= 115.548%	
6) Phenol-D6 (S)	5.07	99	1404154	316.40421 ppb	0.00
Spiked Amount 250.000			Recovery	= 126.562%	
22) Nitrobenzene-D5(S)	6.09	82	774607	144.45642 ppb	0.00
Spiked Amount 125.000			Recovery	= 115.565%	
46) 2-Fluorobiphenyl(S)	8.14	172	1495703	110.08257 ppb	0.00
Spiked Amount 125.000			Recovery	= 88.066%	
64) 2,4,6-Tribromophenol(S)	9.85	330	668570	240.49987 ppb	0.00
Spiked Amount 250.000			Recovery	= 96.200%	
83) Terphenyl-D14(S)	12.52	244	2375908	135.97316 ppb	0.00
Spiked Amount 125.000			Recovery	= 108.778%	

Target Compounds Qvalue

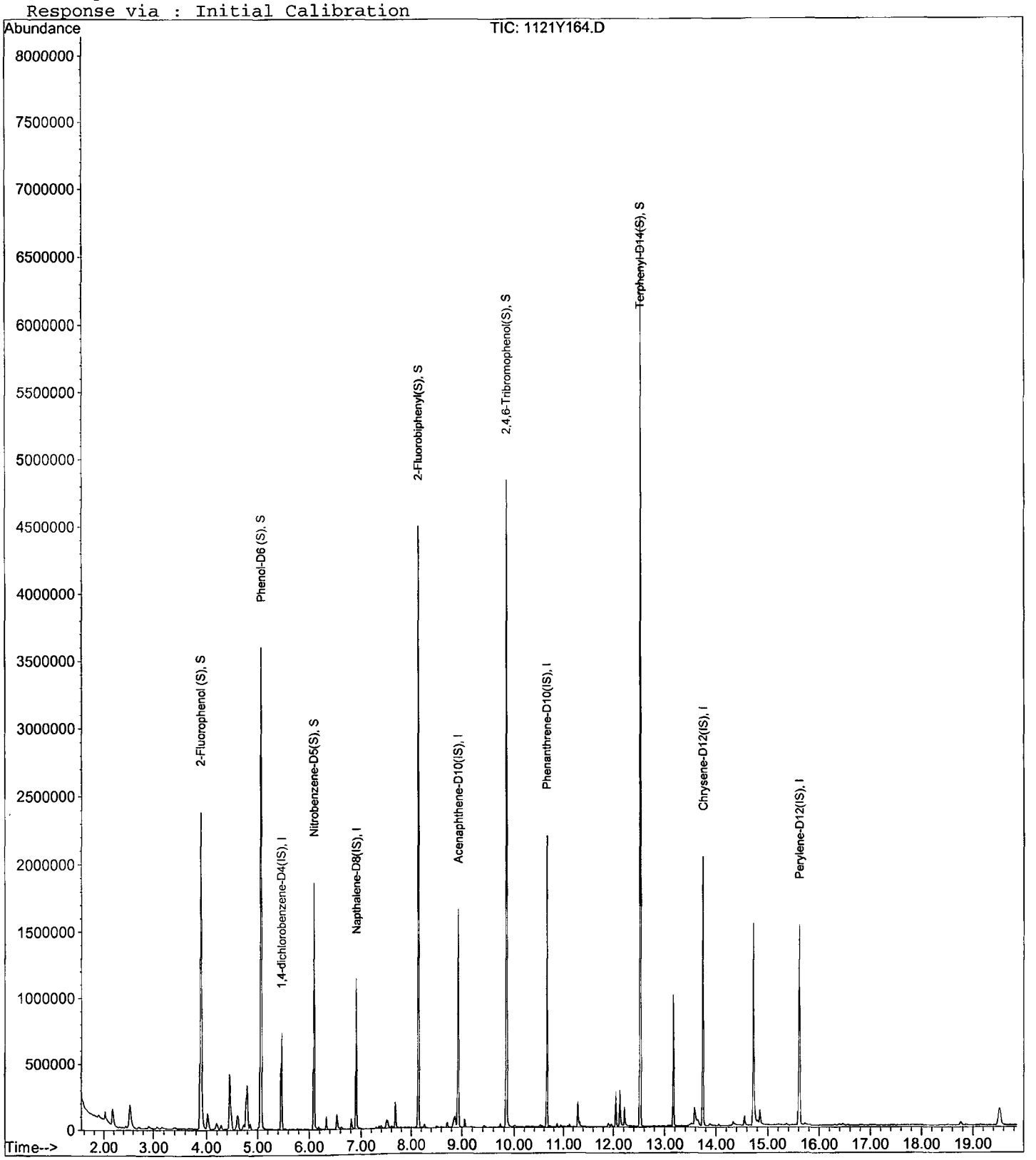
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y191121\1121Y164.D Vial: 64
Acq On : 27 Nov 19 1:29 Operator: MA,SS
Sample : 191111A BLK 1/800 Inst : Yoda
Misc : Multiplr: 1.25

Quant Time: Dec 4 13:34 2019 Quant Results File: Y1121ND.RES

Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 18:04:15 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y191121\1121Y165.D Vial: 65
Acq On : 27 Nov 19 1:57 Operator: MA,SS
Sample : 191111A LCS-1 1/800 Inst : Yoda
Misc : Multiplr: 1.25

Quant Time: Nov 27 8:02 2019 Quant Results File: Y1121ND.RES

Quant Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 18:04:15 2019
Response via : Initial Calibration
DataAcq Meth : SVOC1011

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.47	152	134054	40.00000 ppb		0.00
21) Napthalene-D8(IS)	6.91	136	567906	40.00000 ppb		0.00
41) Acenaphthene-D10(IS)	8.93	164	425107	40.00000 ppb		0.00
65) Phenanthrene-D10(IS)	10.67	188	864030	40.00000 ppb		0.00
80) Chrysene-D12(IS)	13.75	240	985653	40.00000 ppb		0.00
90) Perylene-D12(IS)	15.62	264	912241	40.00000 ppb		0.00
System Monitoring Compounds						
5) 2-Fluorophenol (S)	3.90	112	1050953	281.42203 ppb		0.00
Spiked Amount 250.000			Recovery	= 112.569%		
6) Phenol-D6 (S)	5.08	99	1428770	321.31220 ppb		0.00
Spiked Amount 250.000			Recovery	= 128.525%		
22) Nitrobenzene-D5(S)	6.10	82	735179	143.59140 ppb		0.00
Spiked Amount 125.000			Recovery	= 114.873%		
46) 2-Fluorobiphenyl(S)	8.15	172	1434678	112.83166 ppb		0.00
Spiked Amount 125.000			Recovery	= 90.266%		
64) 2,4,6-Tribromophenol(S)	9.86	330	646094	248.35164 ppb		0.00
Spiked Amount 250.000			Recovery	= 99.341%		
83) Terphenyl-D14(S)	12.52	244	2236504	113.44823 ppb		0.00
Spiked Amount 125.000			Recovery	= 90.758%		
Target Compounds						Qvalue
2) 1,4-Dioxane	1.72	58	10452	8.39486		91
3) n-Nitrosodimethylamine	1.94	42	154693	81.87755 ppb		94
4) Pyridine	1.96	79	285845	61.17378 ppb		97
7) Phenol	5.09	94	403283	76.79419 ppb		86
8) Aniline	5.10	93	185984	59.97523 ppb		94
9) Bis (2-chloroethyl) ether	5.17	63	179375	79.95409 ppb		88
10) 2-Chlorophenol	5.24	128	293515	73.80581 ppb		94
11) 1,3-DCB	5.40	146	270593	60.05270 ppb		97
12) 1,4-DCB	5.49	146	284209	62.08214 ppb		97
13) Benzyl alcohol	5.63	108	176570	78.10017 ppb		88
14) 1,2-DCB	5.66	146	273134	63.86429 ppb		98
15) 2-Methylphenol	5.77	107	240216	74.57187 ppb		97
16) Bis (2-chloroisopropyl) et	5.77	45	212268	84.66551 ppb	#	76
17) Acetophenone	5.93	105	467184	80.66932 ppb		88
18) 3&4-Methylphenol	5.93	107	700619	158.57867 ppb		96
19) n-Nitrosodi-n-propylamine	5.93	70	274187	83.11001 ppb		96
20) Hexachloroethane	6.04	117	96368	53.06765 ppb		92
23) Nitrobenzene	6.12	77	402814	76.95163 ppb		97
24) Isophorone	6.39	82	629529	74.18409 ppb		94
25) 2-Nitrophenol	6.48	139	163810	68.43234 ppb		96
26) 2,4-Dimethylphenol	6.53	122	260706	69.91815 ppb		98
27) Benzoic acid	6.67	105	240807	69.13248 ppb		96
28) Bis (2-chloroethoxy) metha	6.63	93	329950	72.11134 ppb		99
29) 2,4-Dichlorophenol	6.75	162	264815	68.97303 ppb		94
30) 1,2,4-Trichlorobenzene	6.84	180	267728	60.25600 ppb		97
31) 3,4-Dimethylphenol	6.86	107	445009	73.81988 ppb		100
32) Naphthalene	6.94	128	838665	68.53063 ppb		99
33) 4-Chloroaniline	6.99	127	295853	68.61519 ppb		98
34) 2,6-Dichlorophenol	7.01	162	260929	70.18314 ppb		99
35) Hexachloropropene	7.04	213	83993	21.71592 ppb		99
36) Hexachlorobutadiene	7.07	225	155356	49.51266 ppb		97
37) Caprolactum	7.41	55	110178	81.64398 ppb		93

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y191121\1121Y165.D Vial: 65
Acq On : 27 Nov 19 1:57 Operator: MA,SS
Sample : 191111A LCS-1 1/800 Inst : Yoda
Misc : Multiplr: 1.25

Quant Time: Nov 27 8:02 2019 Quant Results File: Y1121ND.RES

Quant Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 18:04:15 2019
Response via : Initial Calibration
DataAcq Meth : SVOC1011

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
38)	4-Chloro-3-methylphenol	7.56	107	319209	73.68330	ppb		95
39)	2-Methylnaphthalene	7.72	142	572024	68.58559	ppb		99
40)	1-Methylnaphthalene	7.84	142	593346	68.81087	ppb		99
42)	Hexachlorocyclopentadiene	7.91	237	29192	6.75685	ppb		95
43)	1,2,4,5-Tetrachlorobenzene	7.92	216	316928	53.03012	ppb		100
44)	2,4,6-Trichlorophenol	8.06	196	221668	58.25614	ppb		96
45)	2,4,5-Trichlorophenol	8.10	196	233905	57.73820	ppb		91
47)	1,1'-Biphenyl	8.26	154	760072	58.80433	ppb		100
48)	2-Chloronaphthalene	8.29	162	609345	57.61159	ppb		99
49)	2-Nitroaniline	8.40	65	214416	63.95565	ppb		93
50)	Dimethyl phthalate	8.61	163	771312	59.71339	ppb		100
51)	2,6-DNT	8.69	165	175913	60.89679	ppb		78
52)	Acenaphthylene	8.76	152	924849	56.89302	ppb		100
53)	3-Nitroaniline	8.40	138	194277	58.60177	ppb		97
54)	Acenaphthene	8.97	154	603594	54.92410	ppb		100
55)	2,4-Dinitrophenol	9.00	184	81992	42.47924	ppb		93
56)	4-Nitrophenol	8.68	65	14791	69.91841	ppb		98
57)	Dibenzofuran	9.17	168	901227	58.80055	ppb		100
58)	2,4-DNT	9.15	165	244589	59.55208	ppb		88
59)	2,3,4,6-Tetrachlorophenol	9.32	232	194897	56.94461	ppb		99
60)	Diethyl phthalate	9.43	149	782662	59.37206	ppb		96
61)	4-Chlorophenyl phenyl ethe	9.56	204	442395	58.66238	ppb	#	83
62)	Fluorene	9.57	166	780968	60.78172	ppb		99
63)	4-Nitroaniline	8.88	138	169527	64.27286	ppb		87
66)	4,6-Dinitro-2-methylphenol	9.64	198	123257	43.03552	ppb	#	86
67)	Diphenyl amine	9.71	169	1179739	111.08921	ppb		100
68)	n-Nitrosodiphenylamine	9.71	169	1179739	111.08921	ppb		100
69)	1,2-Diphenylhydrazine	9.75	77	811381	61.73485	ppb	#	83
70)	4-Bromophenyl phenyl ether	10.14	248	257189	56.06913	ppb		98
71)	Hexachlorobenzene	10.21	284	259583	53.54682	ppb	#	75
72)	Atrazine	10.32	200	87451	21.62701	ppb		97
73)	Pentachlorophenol	10.44	266	172493	54.77279	ppb		99
74)	Phenanthrene	10.69	178	1064662	56.91386	ppb		100
75)	Anthracene	10.75	178	1092341	55.61958	ppb		100
76)	Carbazol	10.94	167	1025742	58.03348	ppb		99
77)	Di-n-butylphthalate	11.33	149	1377356	59.84027	ppb	#	98
79)	Fluoranthene	12.08	202	1298094	57.02215	ppb		100
81)	Benzidine	12.23	184	17782	3.04012	ppb	#	79
82)	Pyrene	12.35	202	1379925	57.61354	ppb		99
84)	Butyl benzylphthalate	13.09	149	645700	59.38977	ppb		99
85)	3,3'-Dichlorobenzidine	13.70	252	332604	46.25845	ppb		100
86)	Benz (a) anthracene	13.74	228	1465052	55.78307	ppb		100
87)	Bis (2-ethylhexyl) phthala	13.75	149	1093760	65.44010	ppb		99
88)	Chrysene	13.78	228	1319744	56.40461	ppb		99
89)	Di-n-octylphthalate	14.51	149	1582702	60.40259	ppb		97
91)	Benzo (b) fluoranthene	15.07	252	1392755	60.35200	ppb		99
92)	Benzo (k) fluoranthene	15.10	252	1201009	56.48537	ppb		98
93)	Benzo (a) pyrene	15.54	252	1172571	56.90452	ppb		98
94)	Indeno (1,2,3-cd) pyrene	17.53	276	1395175	57.02854	ppb		99
95)	Dibenz (a,h) anthracene	17.56	278	1242111	57.56145	ppb		98
96)	Benzo (g,h,i) perylene	18.11	276	1100827	56.52021	ppb		99

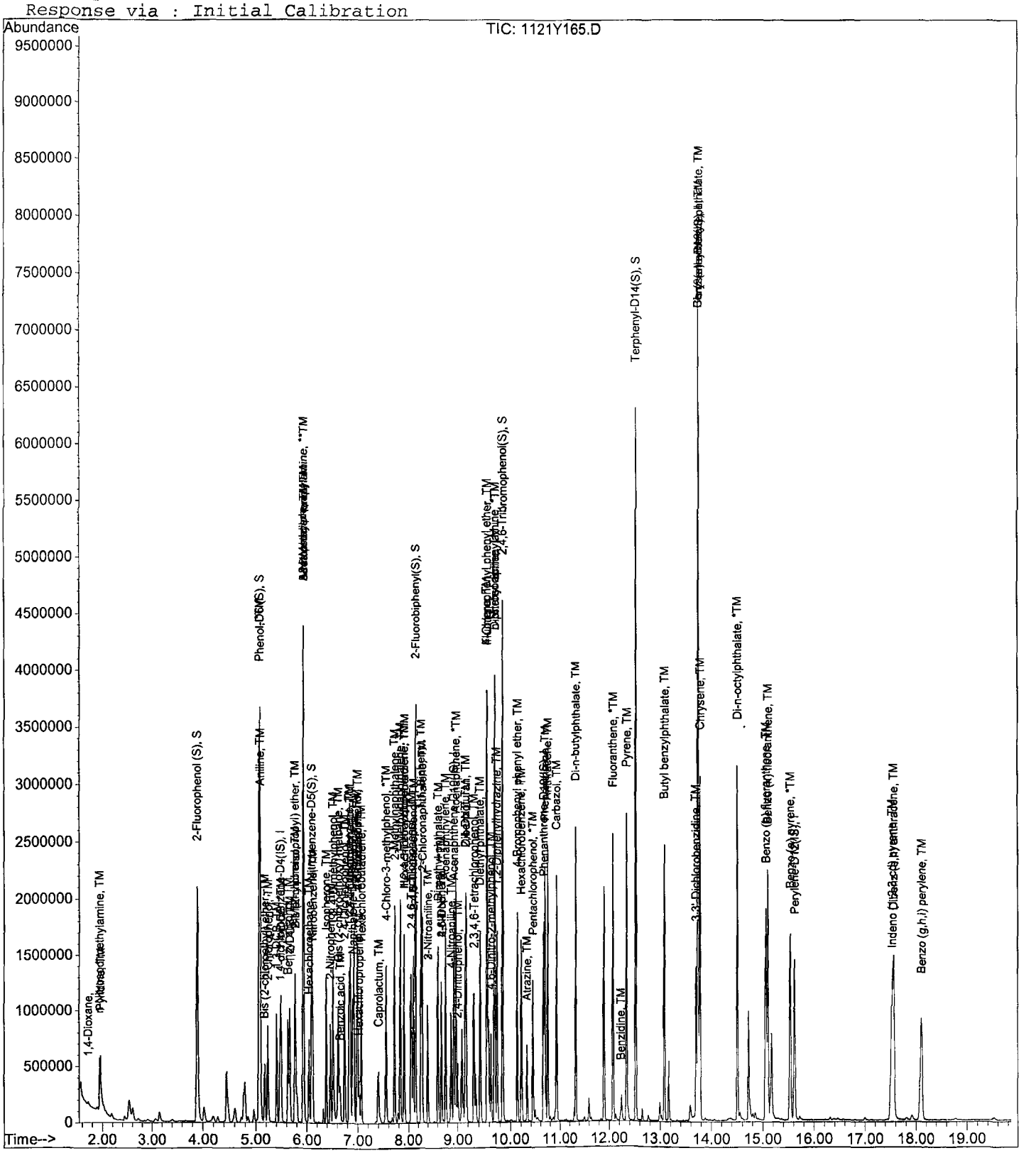
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y191121\1121Y165.D Vial: 65
Acq On : 27 Nov 19 1:57 Operator: MA,SS
Sample : 191111A LCS-1 1/800 Inst : Yoda
Misc : Multiplr: 1.25

Quant Time: Nov 27 8:02 2019 Quant Results File: Y1121ND.RES

Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 18:04:15 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y191121\1121Y166.D Vial: 66
Acq On : 27 Nov 19 2:25 Operator: MA,SS
Sample : 191111A LCSD-1 1/800 Inst : Yoda
Misc : Multiplr: 1.25

Quant Time: Nov 27 8:02 2019 Quant Results File: Y1121ND.RES

Quant Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 18:04:15 2019
Response via : Initial Calibration
DataAcq Meth : SVOC1011

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.47	152	154723	40.00000 ppb		0.00
21) Napthalene-D8(IS)	6.91	136	625632	40.00000 ppb		0.00
41) Acenaphthene-D10(IS)	8.93	164	456389	40.00000 ppb		0.00
65) Phenanthrene-D10(IS)	10.67	188	901564	40.00000 ppb		0.00
80) Chrysene-D12(IS)	13.75	240	1040399	40.00000 ppb		0.00
90) Perylene-D12(IS)	15.62	264	954594	40.00000 ppb		0.00
System Monitoring Compounds						
5) 2-Fluorophenol (S)	3.89	112	1014563	235.38496 ppb		-0.02
Spiked Amount 250.000			Recovery = 94.154%			
6) Phenol-D6 (S)	5.08	99	1398314	272.45482 ppb		0.00
Spiked Amount 250.000			Recovery = 108.982%			
22) Nitrobenzene-D5(S)	6.10	82	717207	127.15615 ppb		0.00
Spiked Amount 125.000			Recovery = 101.725%			
46) 2-Fluorobiphenyl(S)	8.15	172	1393412	102.07495 ppb		0.00
Spiked Amount 125.000			Recovery = 81.660%			
64) 2,4,6-Tribromophenol(S)	9.86	330	629670	225.44854 ppb		0.00
Spiked Amount 250.000			Recovery = 90.180%			
83) Terphenyl-D14(S)	12.52	244	2188906	105.19117 ppb		0.00
Spiked Amount 125.000			Recovery = 84.153%			
Target Compounds						Qvalue
2) 1,4-Dioxane	1.72	58	10221	7.11267		92
3) n-Nitrosodimethylamine	1.94	42	159861	73.30973 ppb		94
4) Pyridine	1.96	79	283143	52.50074 ppb		96
7) Phenol	5.09	94	401186	66.18950 ppb		87
8) Aniline	5.09	93	205568	57.43502 ppb	#	59
9) Bis (2-chloroethyl) ether	5.17	63	179321	69.25240 ppb		88
10) 2-Chlorophenol	5.24	128	288633	62.88269 ppb		97
11) 1,3-DCB	5.40	146	280829	53.99864 ppb		97
12) 1,4-DCB	5.49	146	294270	55.69289 ppb		97
13) Benzyl alcohol	5.63	108	173638	66.54337 ppb		86
14) 1,2-DCB	5.66	146	280424	56.80969 ppb		99
15) 2-Methylphenol	5.77	107	242012	65.09309 ppb		97
16) Bis (2-chloroisopropyl) et	5.78	45	211853	73.21188 ppb	#	81
17) Acetophenone	5.92	105	456852	68.34722 ppb		88
18) 3&4-Methylphenol	5.93	107	692379	135.77870 ppb		95
19) n-Nitrosodi-n-propylamine	5.93	70	273675	71.87312 ppb		97
20) Hexachloroethane	6.04	117	102189	48.75578 ppb		90
23) Nitrobenzene	6.12	77	394373	68.38769 ppb		98
24) Isophorone	6.39	82	617189	66.01927 ppb		95
25) 2-Nitrophenol	6.47	139	166118	62.99342 ppb		85
26) 2,4-Dimethylphenol	6.53	122	264179	64.31240 ppb		99
27) Benzoic acid	6.67	105	269742	70.21460 ppb		98
28) Bis (2-chloroethoxy) metha	6.63	93	315784	62.64740 ppb		98
29) 2,4-Dichlorophenol	6.75	162	261342	61.78790 ppb	#	93
30) 1,2,4-Trichlorobenzene	6.84	180	272138	55.59723 ppb		97
31) 3,4-Dimethylphenol	6.86	107	439261	66.14312 ppb		97
32) Naphthalene	6.94	128	829480	61.52614 ppb		100
33) 4-Chloroaniline	6.99	127	283070	59.59306 ppb		99
34) 2,6-Dichlorophenol	7.00	162	255963	62.49498 ppb		96
35) Hexachloropropene	7.04	213	66217	15.54040 ppb		99
36) Hexachlorobutadiene	7.08	225	158247	45.78057 ppb		99
37) Caprolactum	7.41	55	108491	72.97608 ppb		97

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y191121\1121Y166.D Vial: 66
Acq On : 27 Nov 19 2:25 Operator: MA,SS
Sample : 191111A LCSD-1 1/800 Inst : Yoda
Misc : Multiplr: 1.25

Quant Time: Nov 27 8:02 2019 Quant Results File: Y1121ND.RES

Quant Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 18:04:15 2019
Response via : Initial Calibration
DataAcq Meth : SVOC1011

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
38)	4-Chloro-3-methylphenol	7.56	107	312921	65.56713 ppb		97
39)	2-Methylnaphthalene	7.72	142	563171	61.29379 ppb		98
40)	1-Methylnaphthalene	7.84	142	592605	62.38380 ppb		100
42)	Hexachlorocyclopentadiene	7.91	237	38064	8.20650 ppb		99
43)	1,2,4,5-Tetrachlorobenzene	7.92	216	308156	48.02813 ppb		99
44)	2,4,6-Trichlorophenol	8.05	196	218732	53.54441 ppb		98
45)	2,4,5-Trichlorophenol	8.11	196	227631	52.33813 ppb		93
47)	1,1'-Biphenyl	8.26	154	747351	53.85701 ppb		99
48)	2-Chloronaphthalene	8.29	162	598479	52.70583 ppb		100
49)	2-Nitroaniline	8.40	65	210331	58.43702 ppb		96
50)	Dimethyl phthalate	8.62	163	751558	54.19600 ppb		99
51)	2,6-DNT	8.68	165	169470	54.64525 ppb		90
52)	Acenaphthylene	8.76	152	906385	51.93546 ppb		100
53)	3-Nitroaniline	8.40	138	191930	53.92564 ppb		99
54)	Acenaphthene	8.97	154	596914	50.59329 ppb		99
55)	2,4-Dinitrophenol	9.01	184	84147	40.60756 ppb		94
56)	4-Nitrophenol	8.68	65	13929	61.33057 ppb		98
57)	Dibenzofuran	9.17	168	881610	53.57804 ppb		99
58)	2,4-DNT	9.15	165	236294	53.58902 ppb		88
59)	2,3,4,6-Tetrachlorophenol	9.32	232	194207	52.85370 ppb		98
60)	Diethyl phthalate	9.43	149	774719	54.74131 ppb		96
61)	4-Chlorophenyl phenyl ethe	9.56	204	436665	53.93379 ppb		87
62)	Fluorene	9.57	166	768196	55.68970 ppb		99
63)	4-Nitroaniline	8.88	138	154497	54.55969 ppb		91
66)	4,6-Dinitro-2-methylphenol	9.64	198	128653	43.04946 ppb		96
67)	Diphenyl amine	9.71	169	978564	88.30950 ppb		99
68)	n-Nitrosodiphenylamine	9.71	169	978564	88.30950 ppb		99
69)	1,2-Diphenylhydrazine	9.75	77	746267	54.41668 ppb	#	85
70)	4-Bromophenyl phenyl ether	10.14	248	252537	52.76291 ppb		96
71)	Hexachlorobenzene	10.21	284	257093	50.82530 ppb	#	79
72)	Atrazine	10.32	200	64385	15.25979 ppb		98
73)	Pentachlorophenol	10.44	266	171912	52.31567 ppb		99
74)	Phenanthrene	10.69	178	1042906	53.42982 ppb		99
75)	Anthracene	10.75	178	1061135	51.78123 ppb		99
76)	Carbazol	10.94	167	1001791	54.31877 ppb		100
77)	Di-n-butylphthalate	11.34	149	1357017	56.50214 ppb		98
79)	Fluoranthene	12.08	202	1270090	53.46927 ppb		99
82)	Pyrene	12.35	202	1320170	52.21834 ppb		100
84)	Butyl benzylphthalate	13.09	149	640625	55.82245 ppb		97
85)	3,3'-Dichlorobenzidine	13.70	252	275533	36.30457 ppb		100
86)	Benz (a) anthracene	13.74	228	1432516	51.67411 ppb		99
87)	Bis (2-ethylhexyl) phthala	13.75	149	1034034	58.61123 ppb		99
88)	Chrysene	13.79	228	1267610	51.32568 ppb		100
89)	Di-n-octylphthalate	14.51	149	1528245	55.25525 ppb		99
91)	Benzo (b) fluoranthene	15.07	252	1355640	56.13739 ppb		99
92)	Benzo (k) fluoranthene	15.10	252	1148503	51.61938 ppb		98
93)	Benzo (a) pyrene	15.54	252	1122021	52.03547 ppb		99
94)	Indeno (1,2,3-cd) pyrene	17.53	276	1349780	52.72511 ppb		99
95)	Dibenz (a,h) anthracene	17.56	278	1199603	53.12510 ppb		99
96)	Benzo (g,h,i) perylene	18.11	276	1070082	52.50403 ppb		99

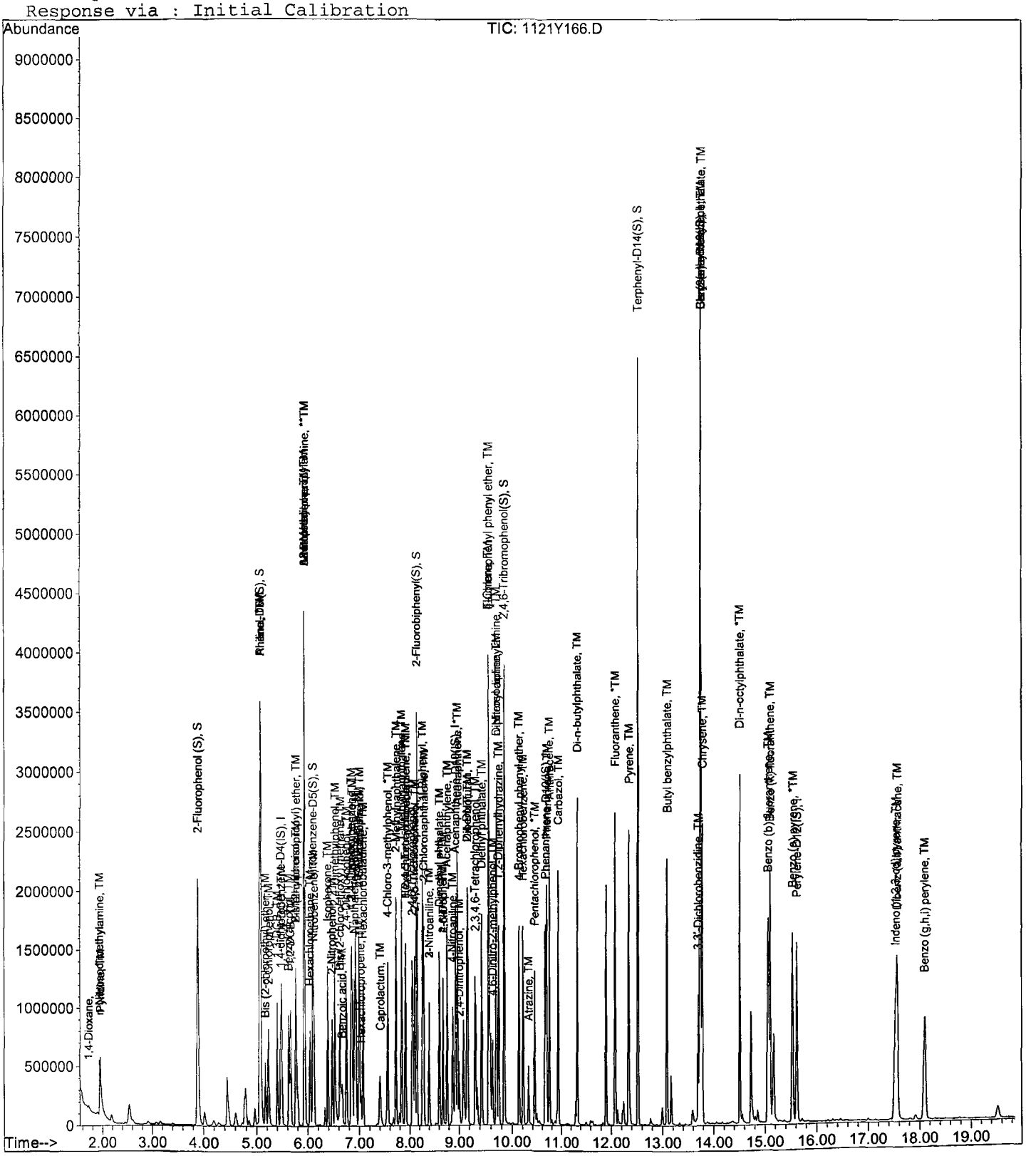
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y191121\1121Y166.D Vial: 66
Acq On : 27 Nov 19 2:25 Operator: MA,SS
Sample : 191111A LCSD-1 1/800 Inst : Yoda
Misc : Multiplr: 1.25

Quant Time: Nov 27 8:02 2019 Quant Results File: Y1121ND.RES

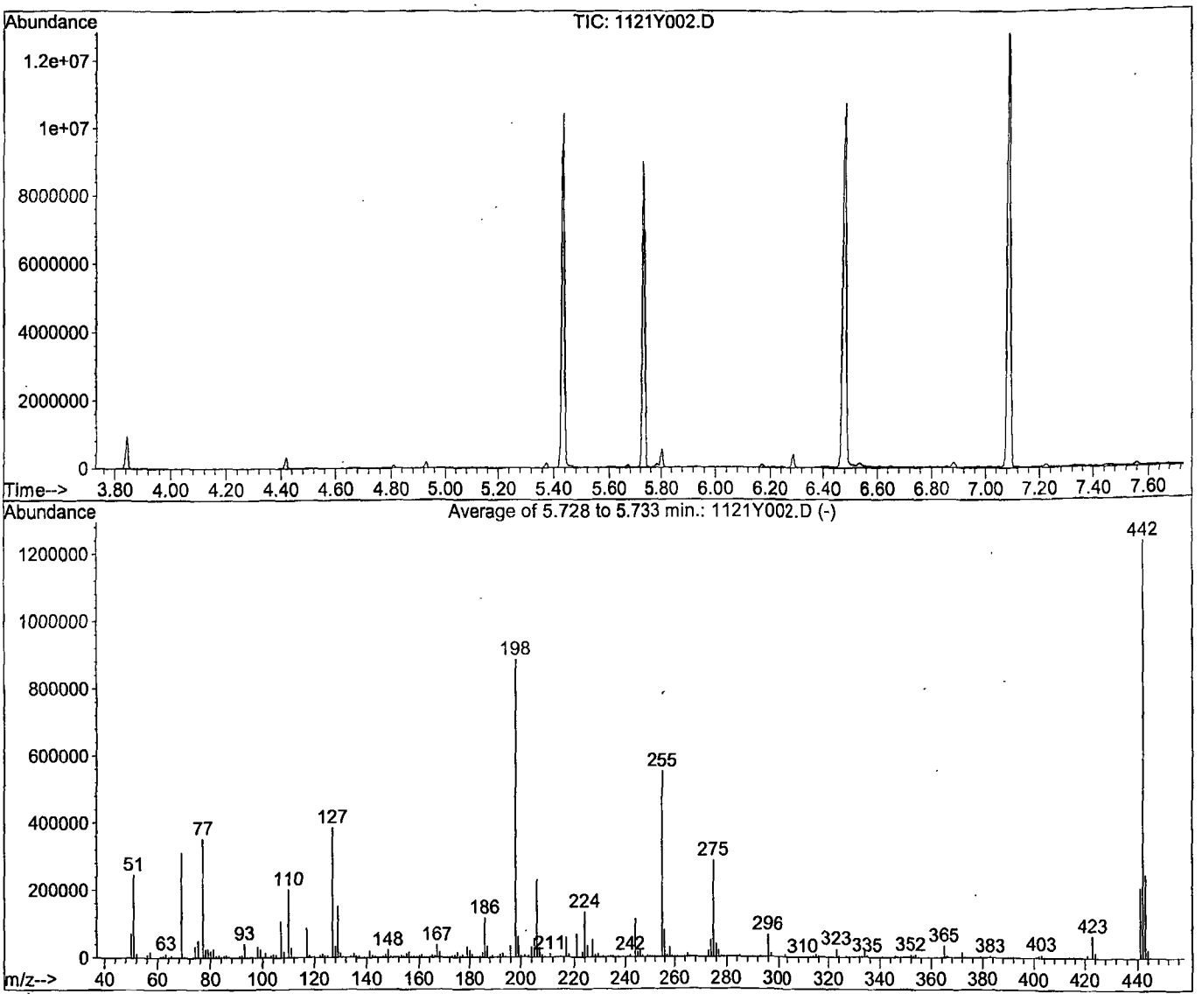
Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 18:04:15 2019
Response via : Initial Calibration



DFTPP

Data File : M:\YODA\DATA\Y191121\1121Y002.D Vial: 2
Acq On : 21 Nov 19 13:52 Operator: MA,SS
Sample : SV TUNE 10/01/19 Inst : Yoda
Misc : Multiplr: 1.00

Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C



Spectrum Information: Average of 5.728 to 5.733 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	27.9	246367	PASS
68	69	0.00	2	0.0	0	PASS
70	69	0.00	2	0.7	2239	PASS
127	198	10	80	43.6	385771	PASS
197	198	0.00	2	0.0	0	PASS
198	198	100	100	100.0	884437	PASS
199	198	5	9	6.9	61053	PASS
275	198	10	60	32.2	284928	PASS
365	198	1	100	3.9	34467	PASS
441	442	0.01	24	16.6	205141	PASS
442	198	50	500	139.4	1232555	PASS
443	442	15	24	19.7	243243	PASS

Data File Name:	**1121Y002.D**
Data File Path:	**M:\YODA\DATA\Y191121**
Operator:	**MA,SS**
Date Acquired:	**21 Nov 2019 13:52**
Method File:	**DFTPP2.M**
Sample Name:	**SV TUNE 10/01/19**
Vial Number:	**2**
Instrument Name:	**Yoda**

#	Name	Ret Time	Target Response
1)	DDT	7.09	103687000
2)	DDD	6.88	1239160
3)	DDE	6.61	214961

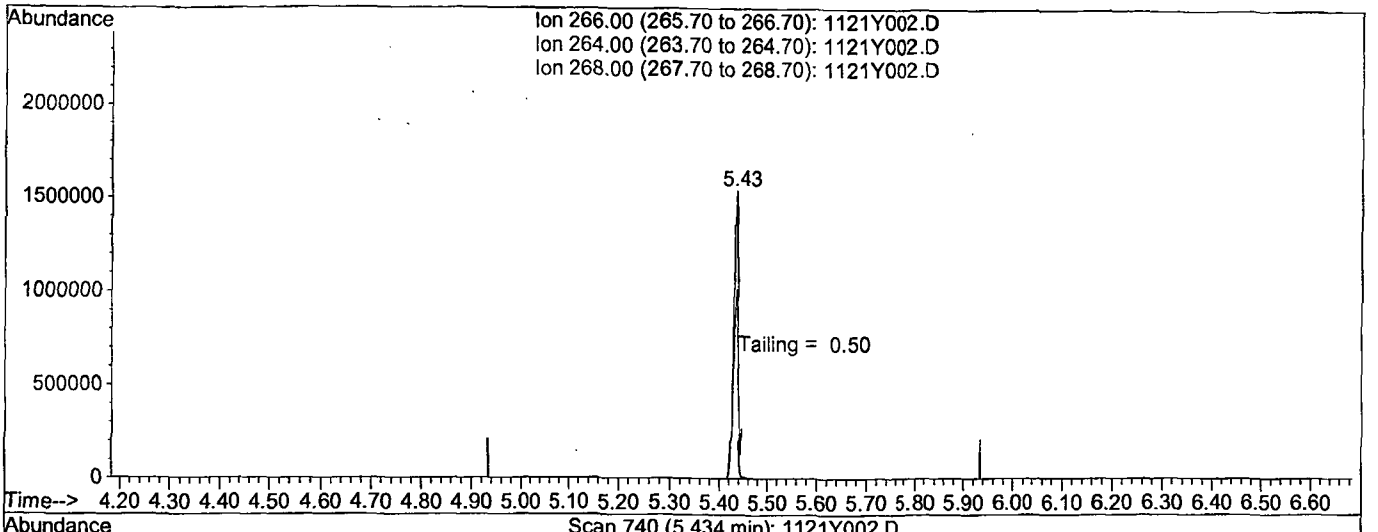
Breakdown **1.38**

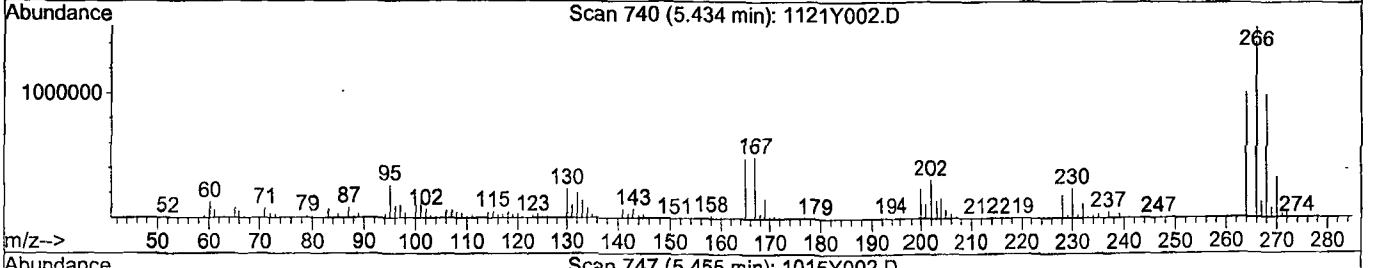
Quantitation Report

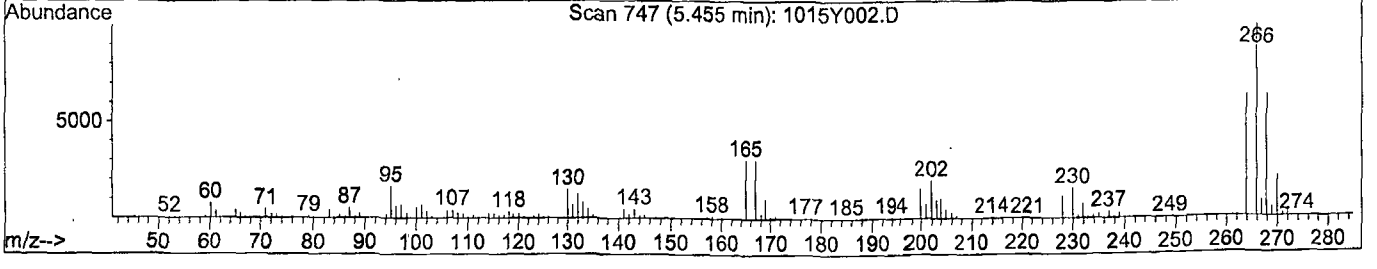
Data File : M:\YODA\DATA\Y191121\1121Y002.D
Acq On : 21 Nov 19 13:52
Sample : SV TUNE 10/01/19
Misc :
Quant Time: Nov 25 11:35 2019

Vial: 2
Operator: MA,SS
Inst : Yoda
Multiplr: 1.00
Quant Results File: temp.res

Method : M:\YODA\DATA\Y191121\DFTPP2.M (Chemstation Integrator)
Title :
Last Update : Mon Nov 25 11:35:23 2019
Response via : Single Level Calibration







TIC: 1121Y002.D

(5) Pentachlorophenol

5.43min 0.0000

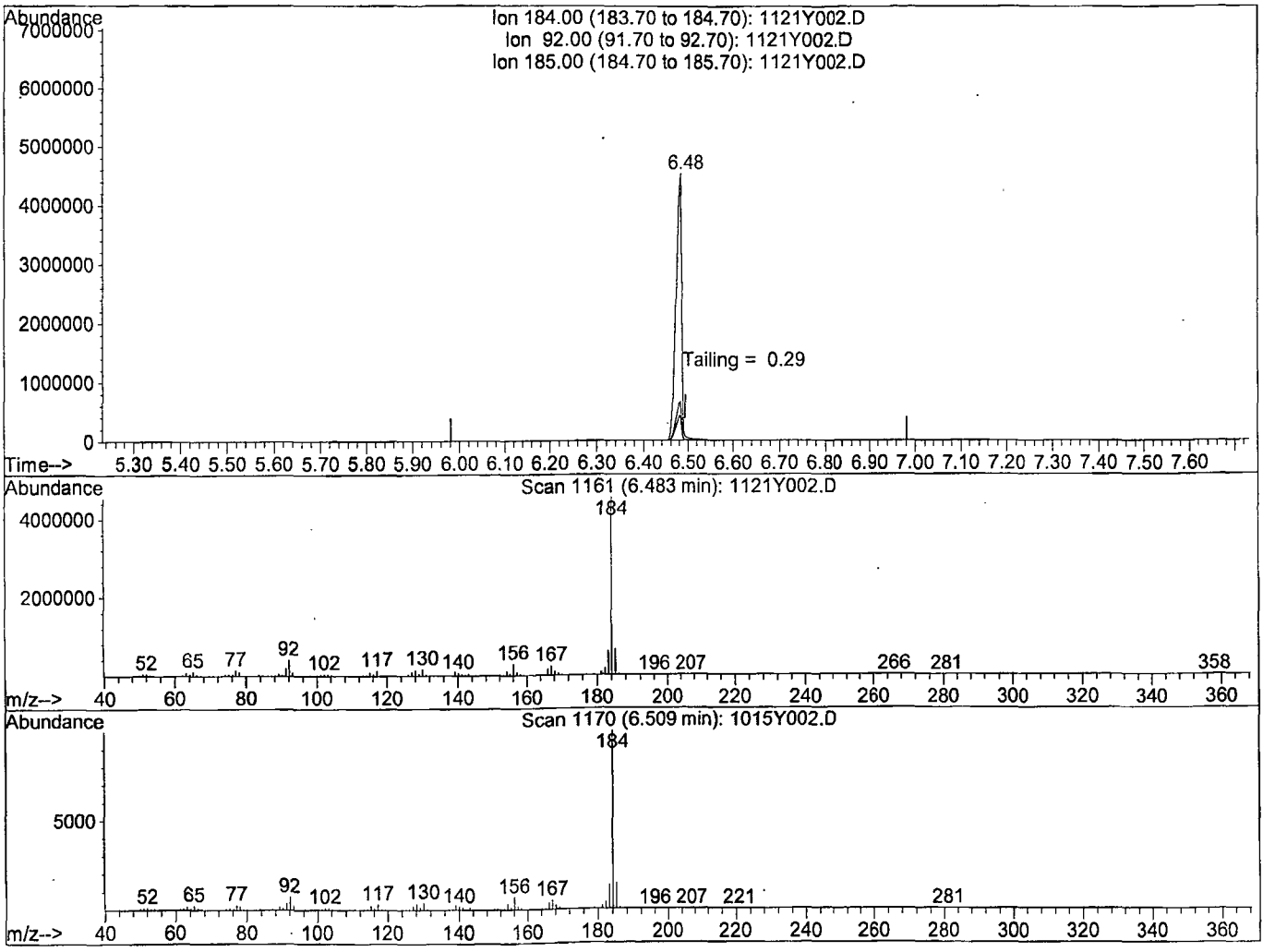
response 10183664

Ion	Exp%	Act%
266.00	100	100
264.00	65.50	63.47
268.00	64.40	63.76
0.00	0.00	0.00

Quantitation Report

Data File : M:\YODA\DATA\Y191121\1121Y002.D Vial: 2
Acq On : 21 Nov 19 13:52 Operator: MA,SS
Sample : SV TUNE 10/01/19 Inst : Yoda
Misc : Multiplr: 1.00
Quant Time: Nov 25 11:35 2019 Quant Results File: temp.res

Method : M:\YODA\DATA\Y191121\DFTPP2.M (Chemstation Integrator)
Title :
Last Update : Mon Nov 25 11:35:23 2019
Response via : Single Level Calibration



TIC: 1121Y002.D

(6) Benzidine

6.48min 0.0000

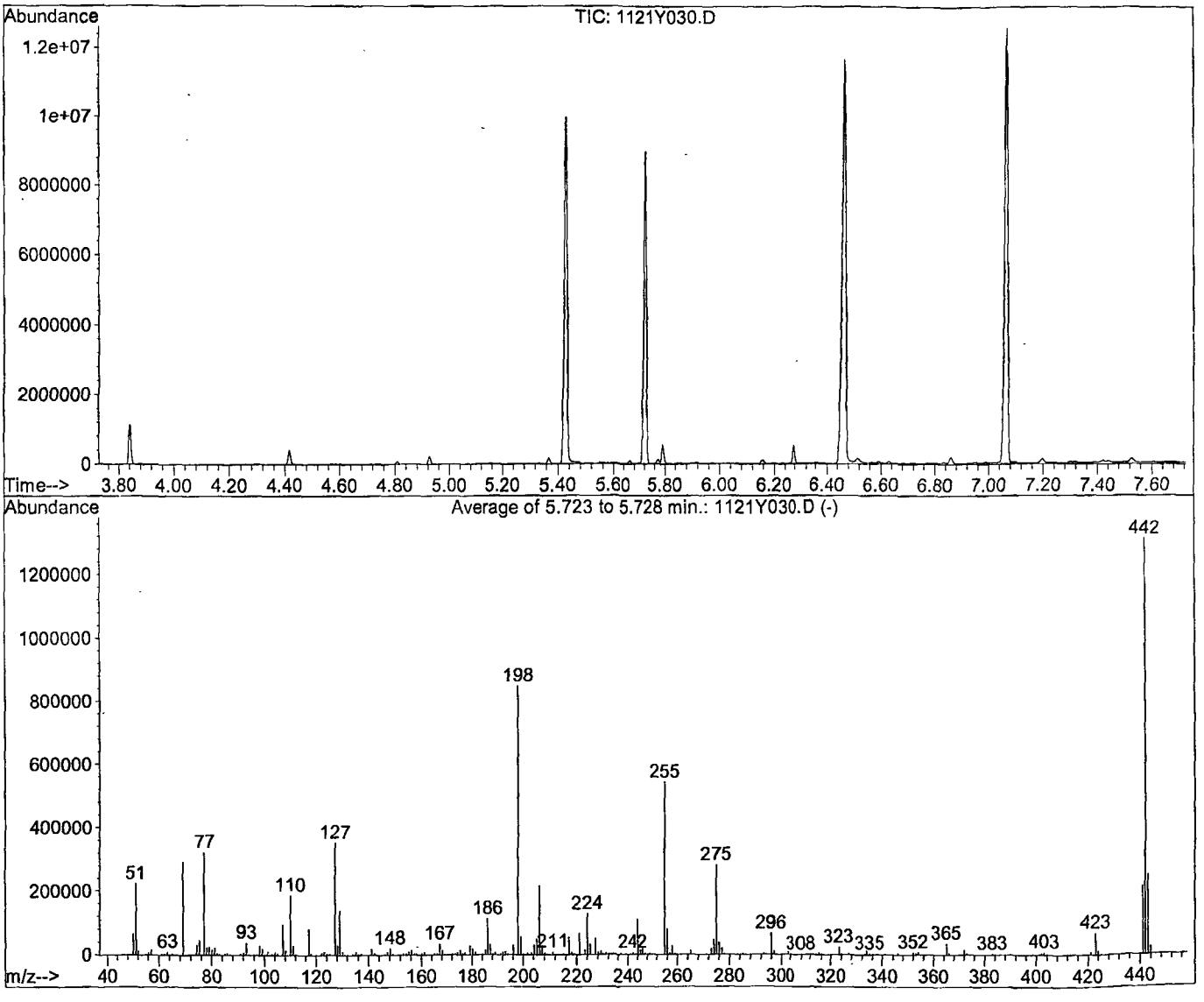
response 41952279

Ion	Exp%	Act%
184.00	100	100
92.00	9.20	8.85
185.00	14.30	14.28
0.00	0.00	0.00

Data File : M:\YODA\DATA\Y191121\1121Y030.D
Acq On : 22 Nov 19 13:23
Sample : SV TUNE 10/01/19
Misc :

Vial: 30
Operator: MA,SS
Inst : Yoda
Multiplr: 1.00

Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C



Spectrum Information: Average of 5.723 to 5.728 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	26.5	224439	PASS
68	69	0.00	2	0.0	0	PASS
70	69	0.00	2	0.4	1281	PASS
127	198	10	80	41.9	354859	PASS
197	198	0.00	2	0.0	0	PASS
198	198	100	100	100.0	847637	PASS
199	198	5	9	6.7	57211	PASS
275	198	10	60	33.3	282091	PASS
365	198	1	100	4.2	35747	PASS
441	442	0.01	24	16.3	213781	PASS
442	198	50	500	154.9	1313109	PASS
443	442	15	24	19.0	249600	PASS

Data File Name:	**1121Y030.D**
Data File Path:	**M:\YODA\DATA\Y191121**
Operator:	**MA,SS**
Date Acquired:	**22 Nov 2019 13:23**
Method File:	**DFTPP2.M**
Sample Name:	**SV TUNE 10/01/19**
Vial Number:	**30**
Instrument Name:	**Yoda**

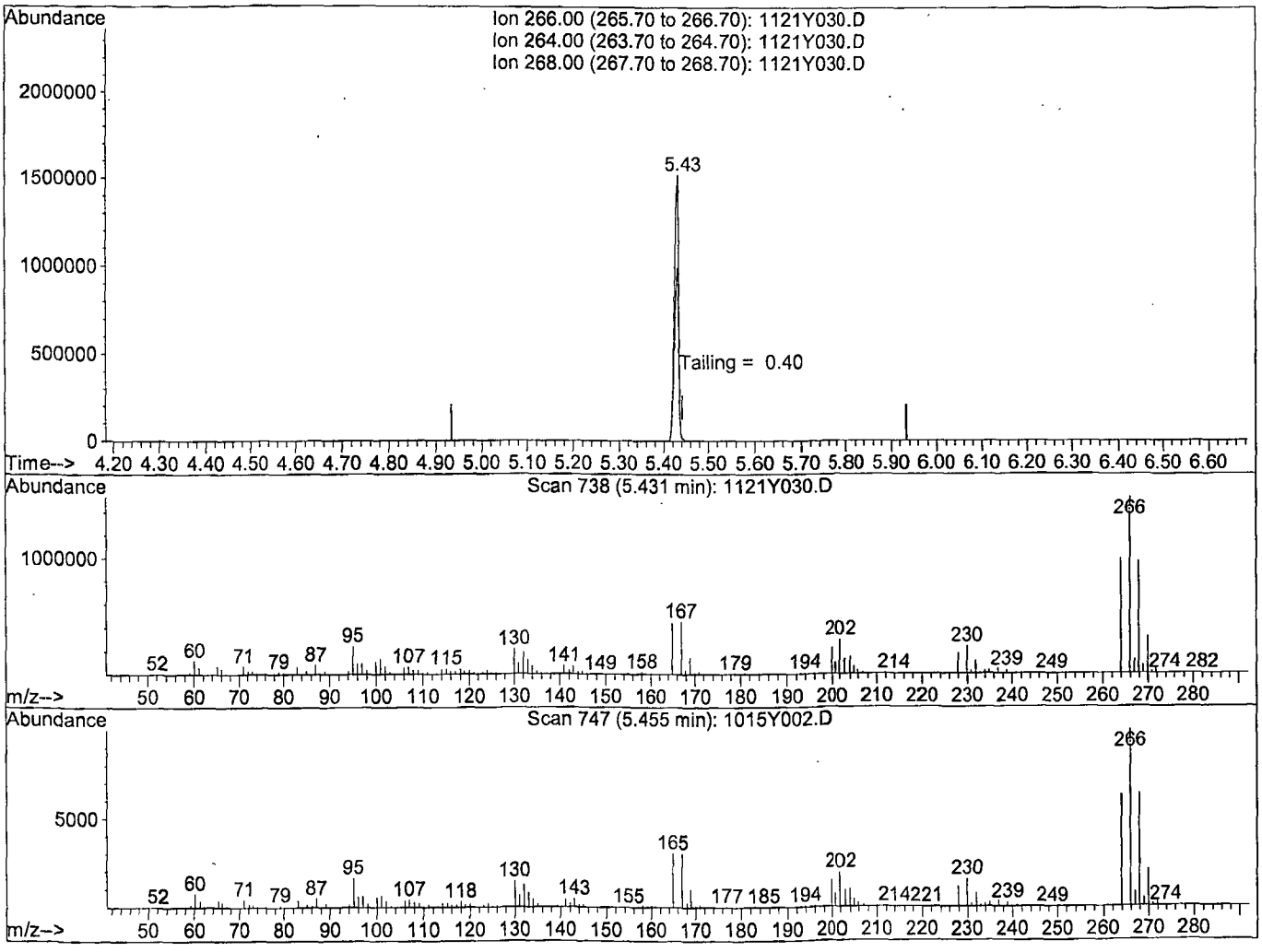
#	Name	Ret Time	Target Response
1)	DDT	7.09	106455000
2)	DDD	6.88	1407220
3)	DDE	6.61	235872

Breakdown **1.52**

Quantitation Report

Data File : M:\YODA\DATA\Y191121\1121Y030.D Vial: 30
Acq On : 22 Nov 19 13:23 Operator: MA,SS
Sample : SV TUNE 10/01/19 Inst : Yoda
Misc : Multiplr: 1.00
Quant Time: Nov 25 11:36 2019 Quant Results File: temp.res

Method : M:\YODA\DATA\Y191121\DFTPP2.M (Chemstation Integrator)
Title :
Last Update : Mon Nov 25 11:35:23 2019
Response via : Single Level Calibration



TIC: 1121Y030.D

(5) Pentachlorophenol

5.43min 0.0000

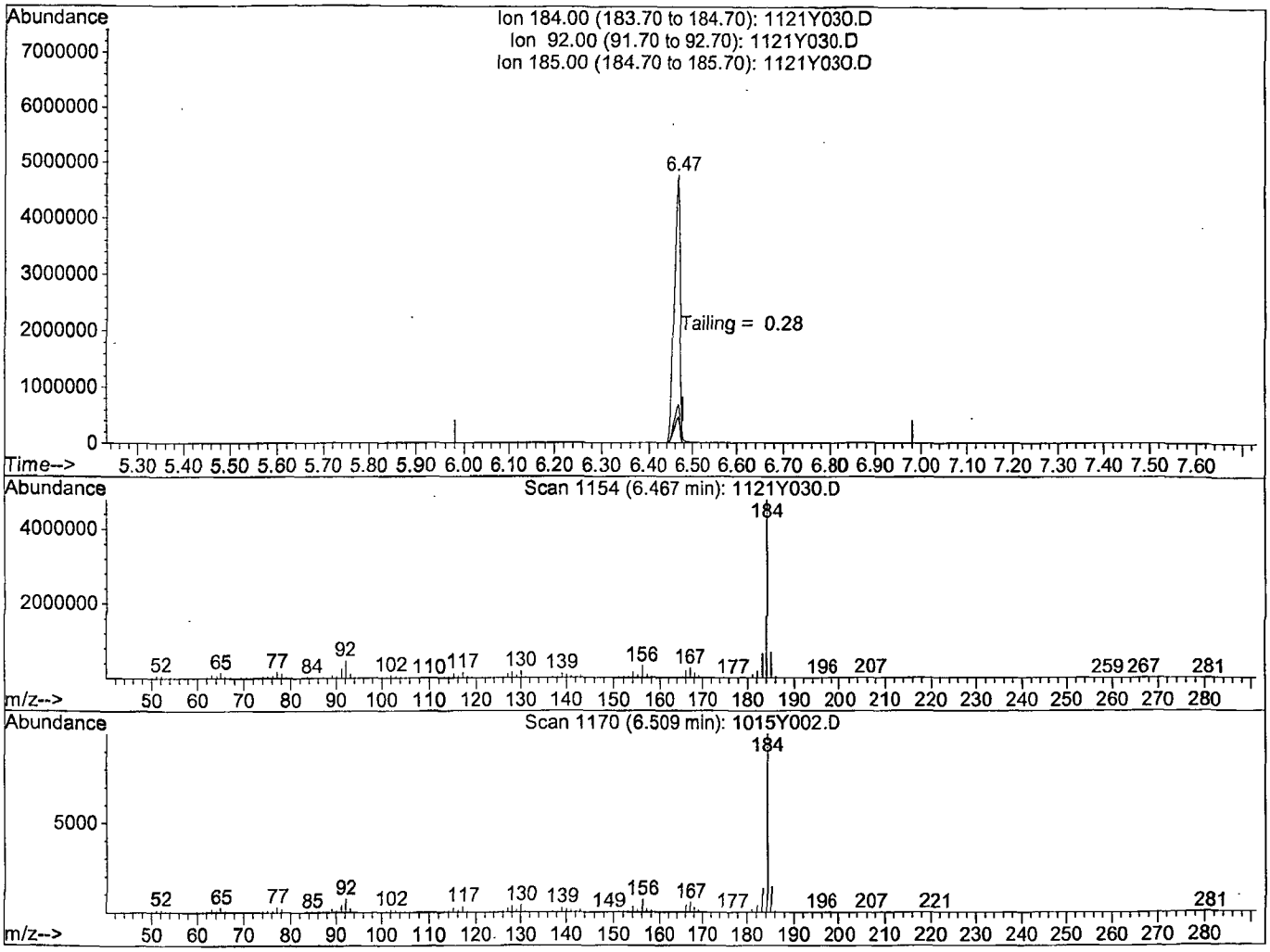
response 10296121

Ion	Exp%	Act%
266.00	100	100
264.00	65.50	63.86
268.00	64.40	63.64
0.00	0.00	0.00

Quantitation Report

Data File : M:\YODA\DATA\Y191121\1121Y030.D Vial: 30
Acq On : 22 Nov 19 13:23 Operator: MA,SS
Sample : SV TUNE 10/01/19 Inst : Yoda
Misc : Multiplr: 1.00
Quant Time: Nov 25 11:36 2019 Quant Results File: temp.res

Method : M:\YODA\DATA\Y191121\DFTPP2.M (Chemstation Integrator)
Title :
Last Update : Mon Nov 25 11:35:23 2019
Response via : Single Level Calibration



TIC: 1121Y030.D

(6) Benzidine

6.47min 0.0000

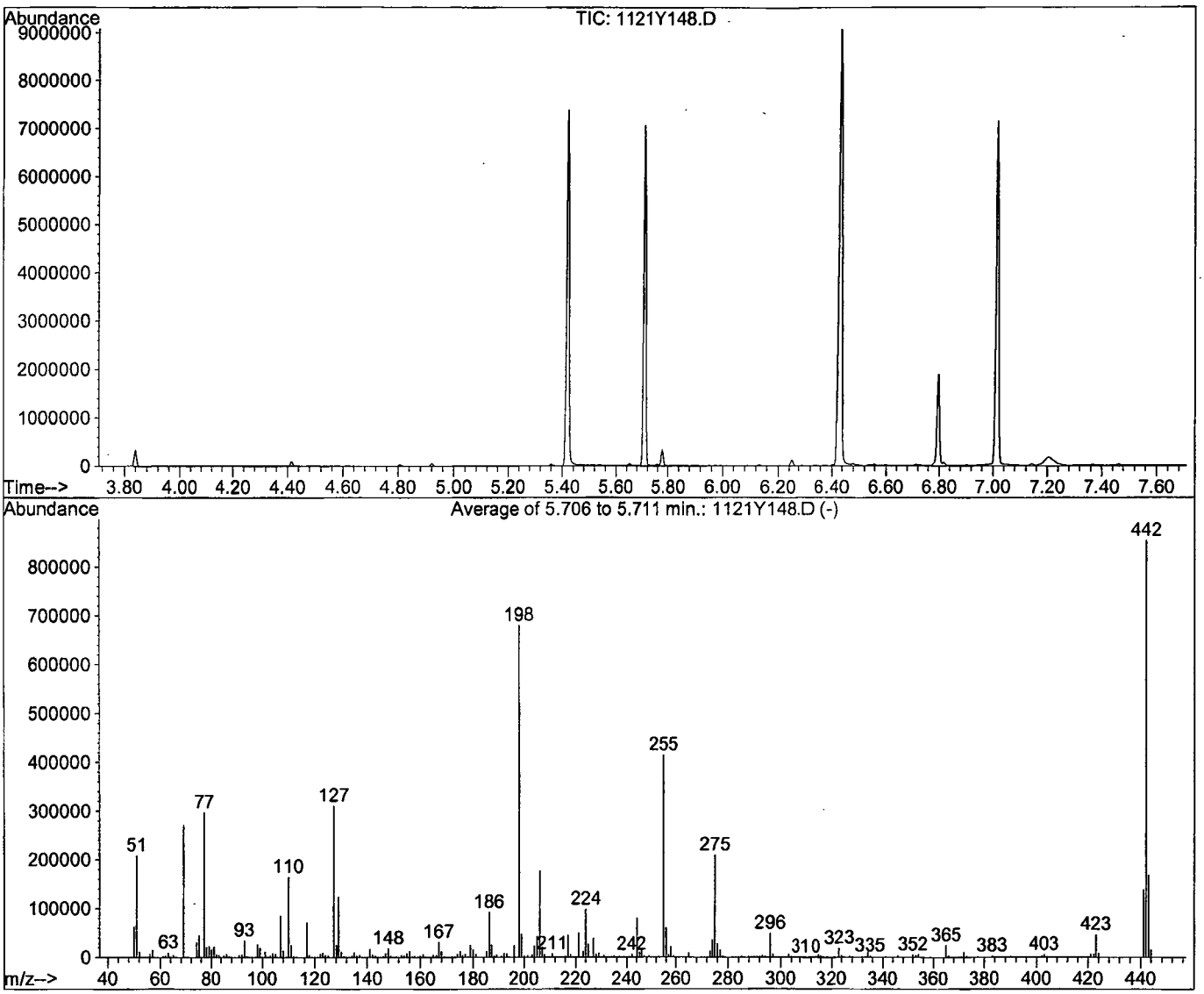
response 43745170

Ion	Exp%	Act%
184.00	100	100
92.00	9.20	9.26
185.00	14.30	14.55
0.00	0.00	0.00

Data File : M:\YODA\DATA\Y191121\1121Y148.D
Acq On : 26 Nov 19 18:16
Sample : SV TUNE 10/01/19
Misc :

Vial: 48
Operator: MA,SS
Inst : Yoda
Multiplr: 1.00

Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C



Spectrum Information: Average of 5.706 to 5.711 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	30.7	208917	PASS
68	69	0.00	2	0.0	0	PASS
70	69	0.00	2	0.2	654	PASS
127	198	10	80	45.8	311232	PASS
197	198	0.00	2	0.0	0	PASS
198	198	100	100	100.0	679979	PASS
199	198	5	9	7.0	47424	PASS
275	198	10	60	30.9	209792	PASS
365	198	1	100	3.6	24760	PASS
441	442	0.01	24	16.2	138283	PASS
442	198	50	500	125.7	854912	PASS
443	442	15	24	19.6	167749	PASS

Data File Name:	**1121Y148.D**
Data File Path:	**M:\YODA\DATA\Y191121**
Operator:	**MA,SS**
Date Acquired:	**26 Nov 2019 18:16**
Method File:	**DFTPP2.M**
Sample Name:	**SV TUNE 10/01/19**
Vial Number:	**48**
Instrument Name:	**Yoda**

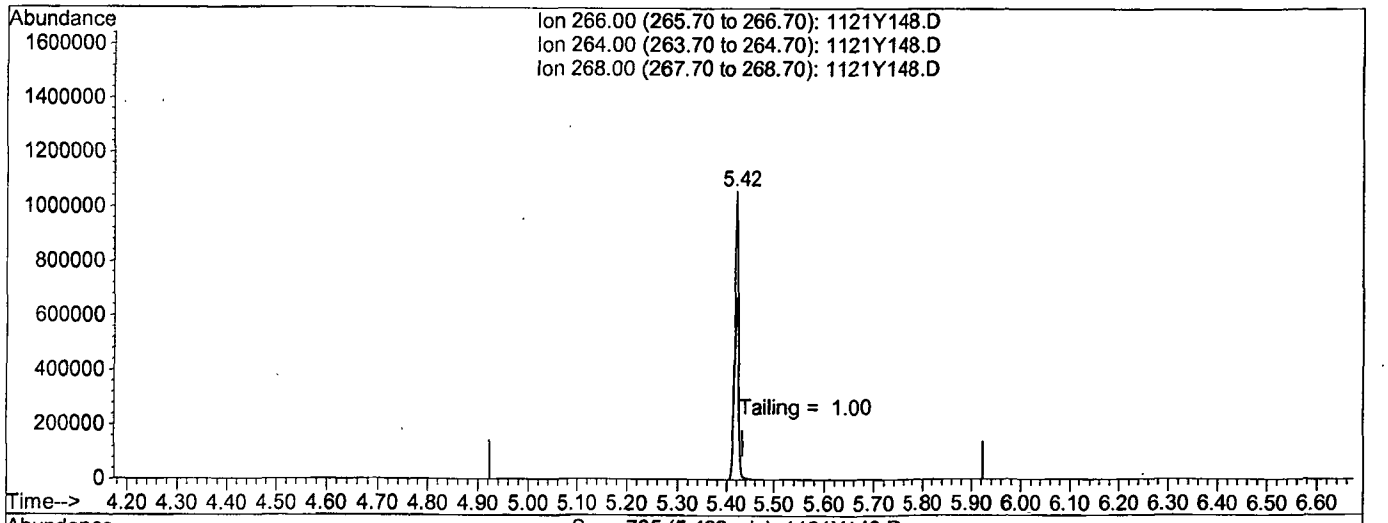
#	Name	Ret Time	Target Response
1)	DDT	7.03	50149300
2)	DDD	6.83	496078
3)	DDE	6.65	0

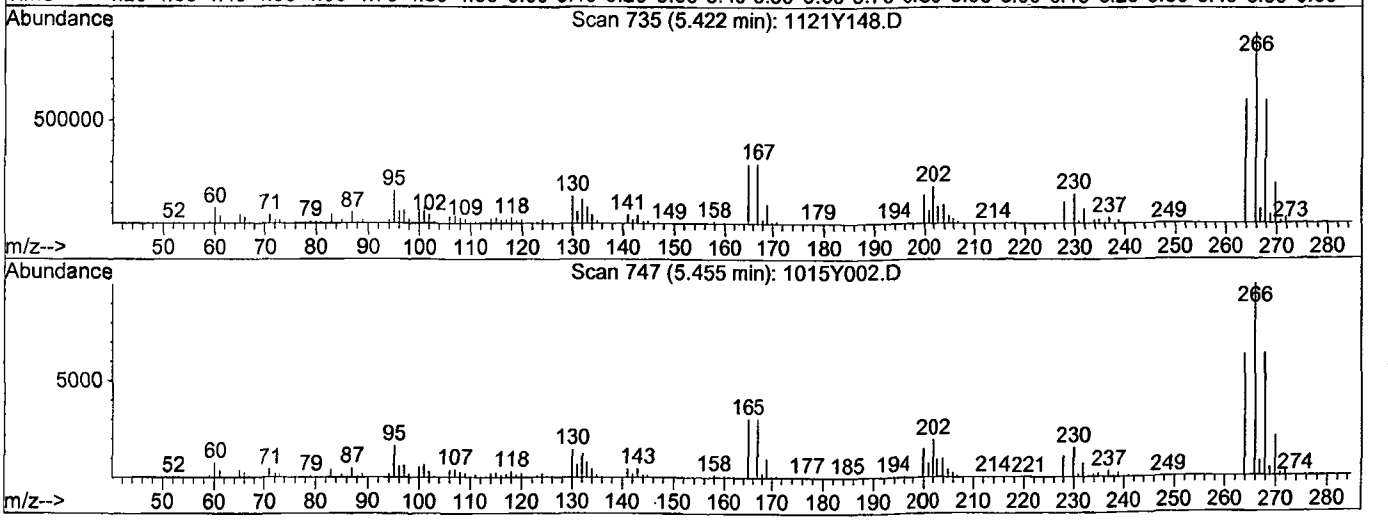
Breakdown **0.98**

Quantitation Report

Data File : M:\YODA\DATA\Y191121\1121Y148.D Vial: 48
Acq On : 26 Nov 19 18:16 Operator: MA,SS
Sample : SV TUNE 10/01/19 Inst : Yoda
Misc : Multiplr: 1.00
Quant Time: Nov 26 17:13 2019 Quant Results File: temp.res

Method : M:\YODA\DATA\Y191121\DFTPP2.M (Chemstation Integrator)
Title :
Last Update : Mon Nov 25 12:03:01 2019
Response via : Single Level Calibration





TIC: 1121Y148.D

(5) Pentachlorophenol

5.42min 0.0000

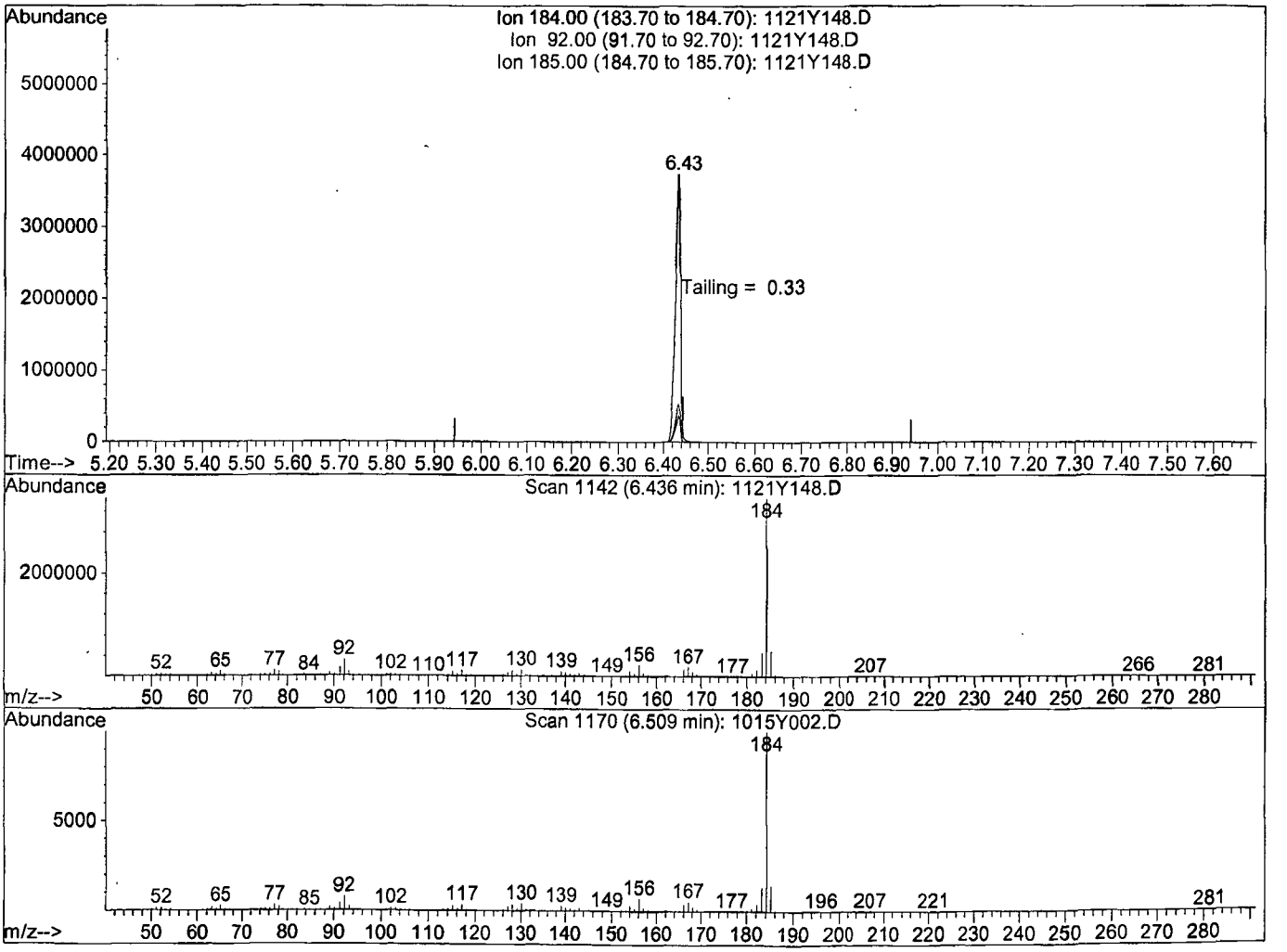
response 6348230

Ion	Exp%	Act%
266.00	100	100
264.00	64.40	64.10
268.00	63.20	63.12
0.00	0.00	0.00

Quantitation Report

Data File : M:\YODA\DATA\Y191121\1121Y148.D Vial: 48
Acq On : 26 Nov 19 18:16 Operator: MA,SS
Sample : SV TUNE 10/01/19 Inst : Yoda
Misc : Multiplr: 1.00
Quant Time: Nov 26 17:13 2019 Quant Results File: temp.res

Method : M:\YODA\DATA\Y191121\DFTPP2.M (Chemstation Integrator)
Title :
Last Update : Mon Nov 25 12:03:01 2019
Response via : Single Level Calibration



TIC: 1121Y148.D

(6) Benzidine

6.44min 0.0000

response 29597434

Ion	Exp%	Act%
184.00	100	100
92.00	9.40	9.28
185.00	14.10	14.36
0.00	0.00	0.00

Name of Final Standard	8270 Full Scan Stock Spike	Prep'd By (Initials)	JP
Prep Date	011/21/2019		
Exp Date	011/21/2020		

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from contianer Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
10001	Absolute	10001	2000	081419 - 49302	08/14/22	1.0 mL	11 mL	NA	181.82 ug/mL
10002	Absolute	10002	2000	090919- 49211	09/09/22	1.0 mL	*	*	181.82 ug/mL
10004	Absolute	10004	2000	071618- 99221	07/16/23	1.0 mL	*	*	181.82 ug/mL
10005	Absolute	10005	2000	032018- 40234	03/20/23	1.0 mL	*	*	181.82 ug/mL
10006	Absolute	10006	2000	030119- 49242	03/01/22	1.0 mL	*	*	181.82 ug/mL
10007	Absolute	10007	2000	080116- 40254	08/01/21	1.0 mL	*	*	181.82 ug/mL
10018	Absolute	10018	2000	051719- 49262	05/17/24	1.0 mL	*	*	181.82 ug/mL
70023	Absolute	70023	1000	012819- 49268	01/28/24	1.0 mL	*	*	90.91ug/mL
82705	Absolute	82705	2000	090919- 49293	09/09/22	1.0 mL	*	*	181.82 ug/mL
94552	Absolute	94552	various	053119- 49284	05/31/21	1.0 mL	*	*	various
72304	Absolute	70023	1000	090519- 49455 - 41159	09/05/24	1.0 mL	*	*	90.91ug/mL

Name of Final Standard	8270 Internal Standard Ampules (2)	Prep'd By (Initials)	JP
Prep Date	11/20/19		
Exp Date	11/20/20		

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from contianer Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
Semivolatile Internal Standard	Restek	31206	2000 ug/mL	**A0151843-49411 A0151843-49412**	**07/31/25**	2 mL	2 mL	NA	2000ug/mL

Name of Final Standard	**8270 SS STOCK**
Prep Date	**11/20/19**
Exp Date	**11/20/20**

Prep'd By (Initials): **JP**

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from contianer Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
10001	Absolute	10001	2000 ug/mL	051019-40534	05/10/21	1.0 mL	20 mL	**Methanol Lot 208858**	100 ug/mL
10002	Absolute	10002	2000 ug/mL	020217-39199	02/02/20	1.0 mL	*	*	100 ug/mL
10004	Absolute	10004	2000 ug/mL	051018-39196	05/10/21	1.0 mL	*	*	100 ug/mL
10005	Absolute	10005	2000 ug/mL	031618-39207	03/16/23	1.0 mL	*	*	100 ug/mL
10006	Absolute	10006	2000 ug/mL	011718-39208	01/17/21	1.0 mL	*	*	100 ug/mL
10007	Absolute	10007	2000 ug/mL	060118-39213	06/01/23	1.0 mL	*	*	100 ug/mL
10018	Absolute	10018	2000 ug/mL	062718-40535	06/27/23	1.0 mL	*	*	100 ug/mL
70023	Absolute	70023	1000 ug/mL	051618-39214	05/16/23	1.0 mL	*	*	50 ug/mL
82705	Absolute	82705	2000 ug/mL	090617-40540	09/06/20	1.0 mL	*	*	100 ug/mL
94552	Absolute	94552	various	013118-40542	01/31/20	1.0 mL	*	*	various
72304	Absolute	72304	1000 ug/mL	110719-49477	11/07/24	1.0 mL	*	*	50 ug/mL

Name of Final Standard	**8270 Full Scan Second Source**
Prep Date	**11/22/19**
Exp Date	**11/22/20**

Prep'd By (Initials): **JP**

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from container Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
8270 SS Stock	APPL	8270 SS Stock	100:50 ug/mL	**11/20/19**	**11/20/20**	100 uL	200uL	**MC DW717 150uL**	50:25 ug/mL
SV Internal Standard	APPL	SV Internal Standard	2000 ug/mL	**11/20/19**	**11/20/19**	4 uL	*	*	*

Name of Final Standard	8270 Full Scan Standard Curve	Prep'd By (Initials)	JP
Prep Date	011/21/2019		
Exp Date	011/21/2020		

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from container Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
8270 Stock	APPL	8270 Stock	182:91 ug/mL	011/21/2019	011/21/2020	4.4 uL	200uL	MC DW717 150uL	4 ug/mL
8270 Surrogate	APPL	8270 Surrogate	200:400 ug/mL	07/10/19	06/24/20	4 uL	*	*	*
SV Internal Standard	APPL	SV Internal Standard	2000 ug/mL	011/20/2019	07/31/25	4 uL	*	*	*
8270 Stock	APPL	8270 Stock	182:91 ug/mL	011/21/2019	011/21/2020	11 uL	400uL	MC DW717 150uL	5 ug/mL
8270 Surrogate	APPL	8270 Surrogate	200:400 ug/mL	07/10/19	06/24/20	10 uL	*	*	*
SV Internal Standard	APPL	SV Internal Standard	2000 ug/mL	011/20/2019	07/31/25	8 uL	*	*	*
8270 Stock	APPL	8270 Stock	182:91 ug/mL	011/21/2019	011/21/2020	11 uL	200uL	MC DW717 150uL	10 ug/mL
8270 Surrogate	APPL	8270 Surrogate	200:400 ug/mL	07/10/19	06/24/20	10 uL	*	*	*
SV Internal Standard	APPL	SV Internal Standard	2000 ug/mL	011/20/2019	07/31/25	4 uL	*	*	*
8270 Stock	APPL	8270 Stock	182:91 ug/mL	011/21/2019	011/21/2020	11 uL	100uL	MC DW717 150uL	20 ug/mL
8270 Surrogate	APPL	8270 Surrogate	200:400 ug/mL	07/10/19	06/24/20	10 uL	*	*	*
SV Internal Standard	APPL	SV Internal Standard	2000 ug/mL	011/20/2019	07/31/25	2 uL	*	*	*
8270 Stock	APPL	8270 Stock	182:91 ug/mL	011/21/2019	011/21/2020	22 uL	100uL	MC DW717 150uL	40 ug/mL
8270 Surrogate	APPL	8270 Surrogate	200:400 ug/mL	07/10/19	06/24/20	20 uL	*	*	*
SV Internal Standard	APPL	SV Internal Standard	2000 ug/mL	011/20/2019	07/31/25	2 uL	*	*	*
8270 Stock	APPL	8270 Stock	182:91 ug/mL	011/21/2019	011/21/2020	55 uL	200 uL	MC DW717 150uL	50 ug/mL
8270 Surrogate	APPL	8270 Surrogate	200:400 ug/mL	07/10/19	06/24/20	50 uL	*	*	*
SV Internal Standard	APPL	SV Internal Standard	2000 ug/mL	011/20/2019	07/31/25	4 uL	*	*	*
8270 Stock	APPL	8270 Stock	182:91 ug/mL	011/21/2019	011/21/2020	33 uL	100uL	MC DW717 150uL	60 ug/mL
8270 Surrogate	APPL	8270 Surrogate	200:400 ug/mL	07/10/19	06/24/20	30 uL	*	*	*
SV Internal Standard	APPL	SV Internal Standard	2000 ug/mL	011/20/2019	07/31/25	2 uL	*	*	*
8270 Stock	APPL	8270 Stock	182:91 ug/mL	011/21/2019	011/21/2020	44 uL	100uL	MC DW717 150uL	80 ug/mL
8270 Surrogate	APPL	8270 Surrogate	200:400 ug/mL	07/10/19	06/24/20	40 uL	*	*	*
SV Internal Standard	APPL	SV Internal Standard	2000 ug/mL	011/20/2019	07/31/25	2 uL	*	*	*
8270 Stock	APPL	8270 Stock	182:91 ug/mL	011/21/2019	011/21/2020	50 uL	100uL	na	91 ug/mL
8270 Surrogate	APPL	8270 Surrogate	200:400 ug/mL	07/10/19	06/24/20	50 uL	*	*	*
SV Internal Standard	APPL	SV Internal Standard	2000 ug/mL	011/20/2019	07/31/25	2 uL	*	*	*

Name of Final Standard	Semivolatile (SV) Tuning Solution	Prep'd By (Initials)	JP
Prep Date	10/01/19		
Exp Date	11/30/20		

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from contianer Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
Semivolatile GC/MS Tuning Standard	Ultra Scientific	GCM-150-1	1,000 ug/mL	CR3789-38879	11/30/20	1,250 uL	25 mL	MC #58240	50 ug/mL

_LIQ003

Organic Extraction Worksheet

Method	Continuous Liquid/Liquid SVOC 3520C	Extraction Set	191111A	Extraction Method	LIQ003	Units	mL

Spiked ID 1	8270T Spike 11/1/19 ex 11/1/20		Surrogate ID 1	8270 Surrogate 11/6/19 ex 11/6/20	
Spiked ID 2	Sim Spike 9/30/19 ex 9/30/20		Surrogate ID 2	SIM Surrogate 10/25/19 ex 10/25/19	
Spiked ID 3			Surrogate ID 3		
Spiked ID 4			Surrogate ID 4		
Spiked ID 5			Surrogate ID 5		
Spiked ID 6			Sufficient Vol for Matrix QC:	no	
Spiked ID 7			Ext. Start Time:	11/11/19 14:10	
Spiked ID 8			Ext. End Time:	11/15/19 10:45	
			GC Requires Extract By:		

pH1	2	11/12/19 10:00	Water Bath Temp 1 °C	EWB6 75/74.9 °
pH2	14	11/13/19 10:30	Water Bath Temp 2 °C	
pH3			Water Bath Temp 3 °C	

Spiked By: DL **Date** 11/11/19 **Witnessed By:** YL **Date** 11/11/19

	Sample	Sample Container	Spike Amount	Spike ID	Surrogate Amount	Surrogate ID	Extract Amount	Final Volume	pH	Extract Date/Time	Comments
1	191111A Blk				1,0.050	1,2	800	1	2/1	11/11/19 14:10	
						equip	EWB6				
2	191111A LCS-1		1	1	1	1	800	1	2/1	11/11/19 14:10	
						equip	EWB6				
3	191111A LCS-2		0.125	2	0.050	2	800	1	2/1	11/11/19 14:10	
						equip	EWB6				
4	191111A LCSD-1		1	1	1	1	800	1	2/1	11/11/19 14:10	
						equip	EWB6				
5	191111A LCSD-2		0.125	2	0.050	2	800	1	2/1	11/11/19 14:10	
						equip	EWB6				
6	BA02466	BA02466W21			1,0.050	1,2	800	1	2/1	11/11/19 14:10	90648
						equip	EWB6				
7	BA02525	BA02525W23			1,0.050	1,2	800	1	2/1	11/11/19 14:10	90657
						equip	EWB6				
8	BA02713	BA02713W19			1,0.050	1,2	800	1	2/1	11/11/19 14:10	90700
						equip	EWB6				
9	BA02715	BA02715W29			1,0.050	1,2	800	1	2/1	11/11/19 14:10	90700
						equip	EWB6				
10	BA02716	BA02716W12			1,0.050	1,2	800	1	2/1	11/11/19 14:10	90700
						equip	EWB6				

Solvent and Lot#	
pH Strips	HL863463
Dichloromethane (DCM)	59130
1+1 H2SO4	11/1/19
10N NaOH	10/25/19
Filter Paper	400171
3. Na2SO4	2019020631

Extraction COC Transfer	
Extraction lab employee Initials	SS
GC analyst's initials	MA
Date	11/15/19
Time	2:30
Refrigerator	GC_C

	Technician's Initials
Scanned By	DL
Sample Preparation	DL
Extraction	DL
Concentration	DL

Modified	11/18/19 1:27:30 PM

Reviewed By: HA **Date** 11/18/19

Injection Log

Directory: M:\YODA\DATA\Y191121\

Vial	FileName	Multiplier	SampleName	Misc Info	Injected
2	1121Y002.D	1	SV TUNE 10/01/19		21 Nov 19 13:52
3	1121Y003.D	1	4ug/ml 8270 11/21/19		21 Nov 19 14:07
4	1121Y004.D	1	5ug/ml 8270 11/21/19		21 Nov 19 14:35
5	1121Y005.D	1	10ug/ml 8270 11/21/19		21 Nov 19 15:37
6	1121Y006.D	1	20ug/ml 8270 11/21/19		21 Nov 19 16:05
7	1121Y007.D	1	40ug/ml 8270 11/21/19		21 Nov 19 16:33
8	1121Y008.D	1	50ug/ml 8270 11/21/19		21 Nov 19 17:01
9	1121Y009.D	1	60ug/ml 8270 11/21/19		21 Nov 19 17:30
10	1121Y010.D	1	80ug/ml 8270 11/21/19		21 Nov 19 17:58
11	1121Y011.D	1	100ug/ml 8270 11/21/19		21 Nov 19 18:26
30	1121Y030.D	1	SV TUNE 10/01/19		22 Nov 19 13:23
31	1121Y031.D	1	SS 8270 11/22/19		22 Nov 19 13:38
48	1121Y148.D	1	SV TUNE 10/01/19		26 Nov 19 18:16
54	1121Y154.D	1	50ug/ml 8270 11/21/19 (1)		26 Nov 19 20:50
64	1121Y164.D	1.25	191111A BLK 1/800		27 Nov 19 1:29
65	1121Y165.D	1.25	191111A LCS-1 1/800		27 Nov 19 1:57
66	1121Y166.D	1.25	191111A LCSD-1 1/800		27 Nov 19 2:25
67	1121Y167.D	1.25	BA02466W21 1/800		27 Nov 19 2:53
72	1121Y172.D	1	50ug/ml 8270 11/21/19 (2)		27 Nov 19 5:11

ORGANICS
Calibration Data

2MEE
EPA 8270

Form 6
Initial Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Initial Cal. Date: 10/31/19
Matrix: Instrument: Linus
Initials: MA/

			1030L004.D	1030L005.D	1030L006.D	1030L007.D	1030L008.D	1030L009 D	1030L010.D	1030L011.D								
		Compound	1	2	3	4	5	6	7	8			Avg	%RSD	Type	r^2	Q	MRF
1	I	1,4-dichlorobenzene-D4(IS)																
2	TM	2-(2-Methoxyethoxy)ethanol	0.1255	0.1270	0.1199	*	0.1601	0.1377	0.1599	0.1385			0.14	12	TM			
3	I	Napthalene-D8(IS)																
4	I	Acenaphthene-D10(IS)																
5	I	Phenanthrene-D10(IS)																
6	I	Chrysene-D12(IS)																
7	I	Perylene-D12(IS)																
8																		
9																		
10																		
11																		
12																		
13		* It was concentrated. Deleted from the ICAL																
14																		
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35																		

Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L191030M\1030L004.D Vial: 4
Acq On : 31 Oct 19 11:50 Operator: MA
Sample : 50 2MEE 4/30/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 31 12:28 2019 Quant Results File: YMEE1030.RES

Quant Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Oct 31 11:46:50 2019
Response via : Initial Calibration
DataAcq Meth : GED

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	3.67	152	924546	40.00000 ppb	0.00
3) Napthalene-D8(IS)	4.62	136	3824592	40.00000 ppb	0.00
4) Acenaphthene-D10(IS)	6.02	164	1847509	40.00000 ppb	0.00
5) Phenanthrene-D10(IS)	7.22	188	3070665	40.00000 ppb	0.00
6) Chrysene-D12(IS)	9.42	240	2379935	40.00000 ppb	0.02
7) Perylene-D12(IS)	10.65	264	2480690	40.00000 ppb	0.06

System Monitoring Compounds

Target Compounds					Qvalue
2) 2-(2-Methoxyethoxy)ethanol	3.19	45	145043m	63.19099 ppb	98

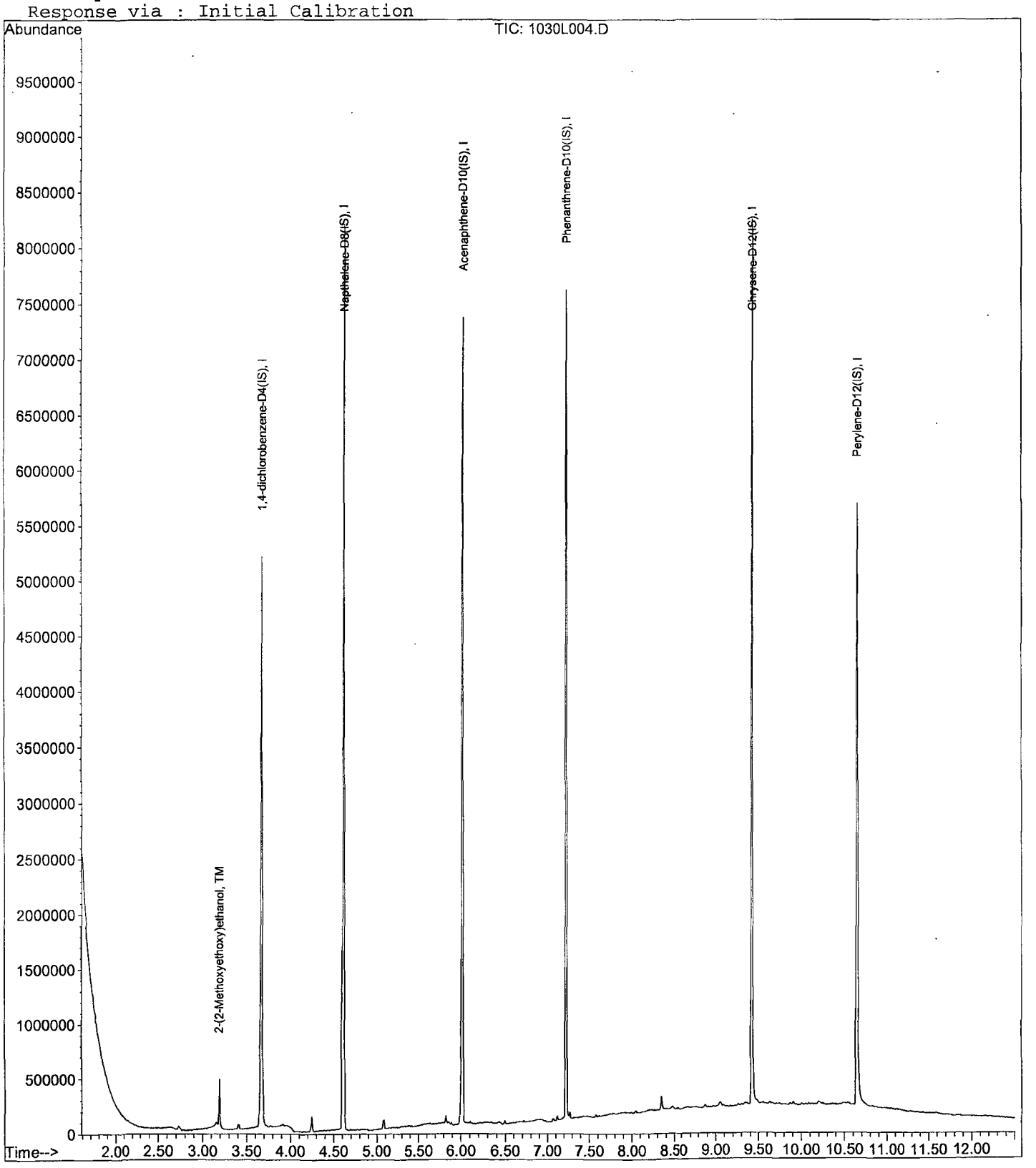
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L191030M\1030L004.D Vial: 4
Acq On : 31 Oct 19 11:50 Operator: MA
Sample : 50 2MEE 4/30/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 31 12:28 2019 Quant Results File: YMEE1030.RES

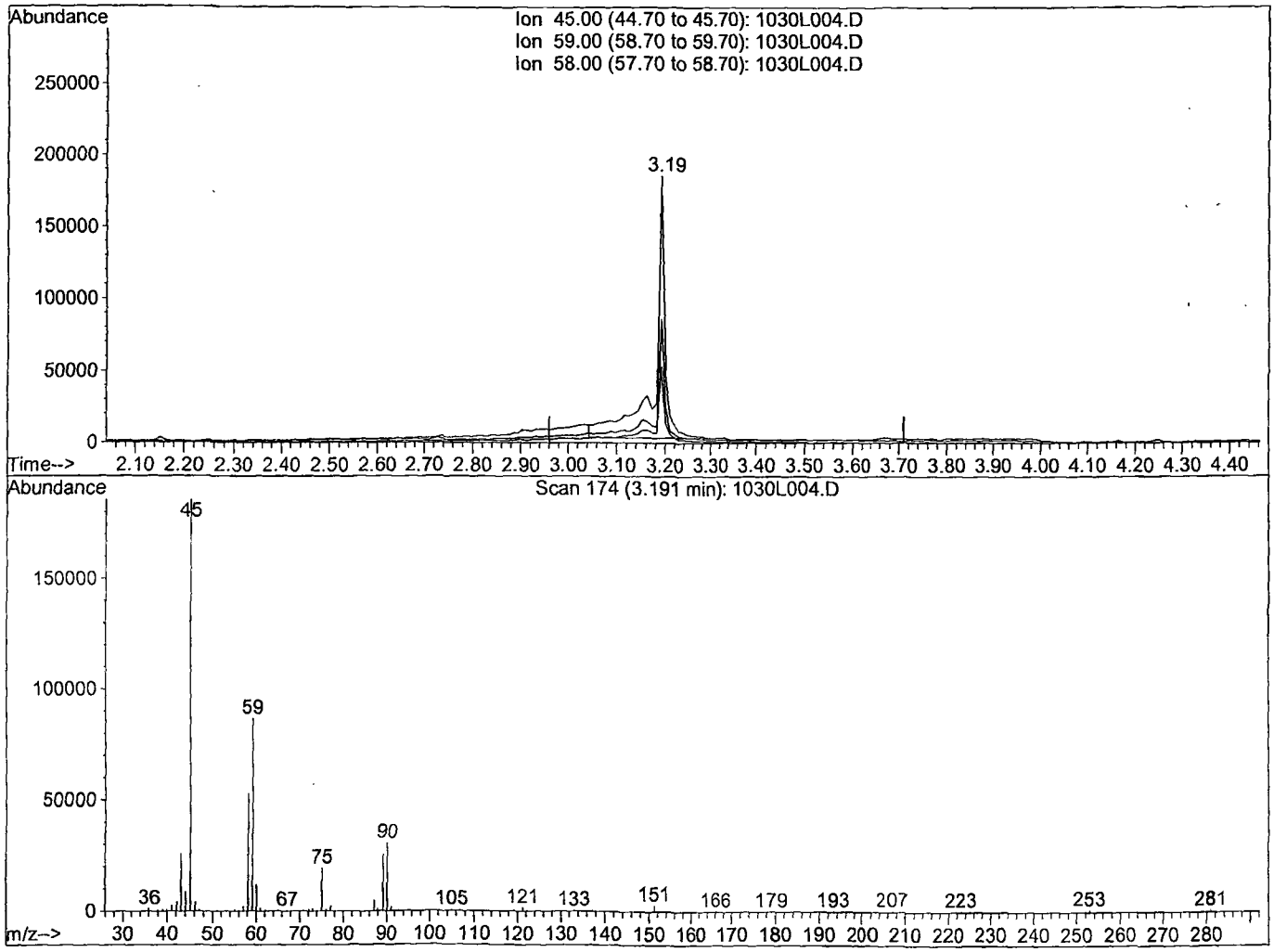
Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Oct 31 14:18:15 2019
Response via : Initial Calibration



Quantitation Report

Data File : M:\LINUS\DATA\L191030M\1030L004.D Vial: 4
Acq On : 31 Oct 19 11:50 Operator: MA
Sample : 50 2MEE 4/30/19 Inst : Linus
Misc : Multiplr: 1.00
Quant Time: Oct 31 12:04 2019 Quant Results File: temp.res

Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Oct 31 11:46:50 2019
Response via : Multiple Level Calibration



TIC: 1030L004.D

(2) 2-(2-Methoxyethoxy)ethanol (TM)

3.19min 99.2279ppb

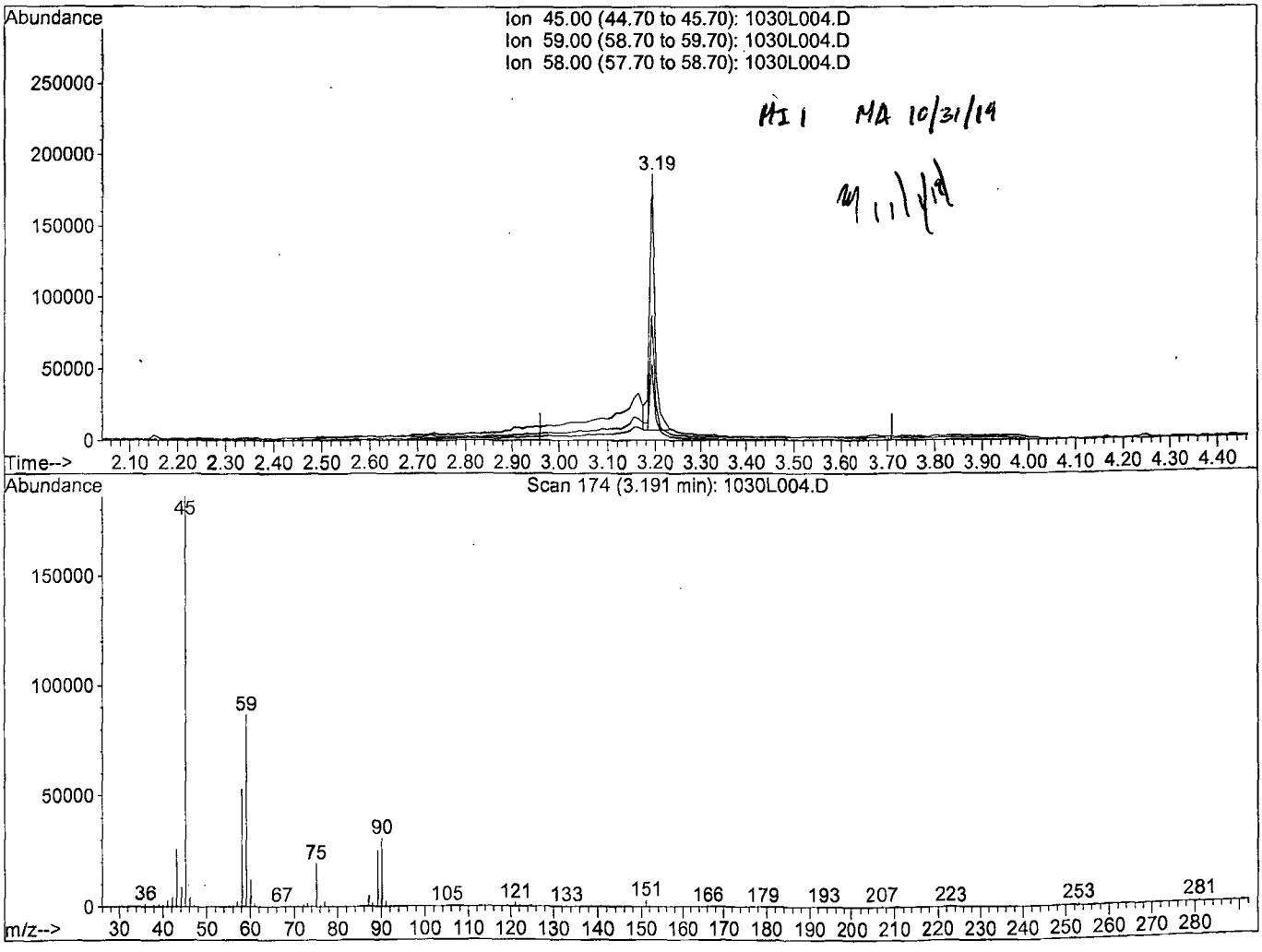
response 284001

Ion	Exp%	Act%
45.00	100	100
59.00	48.10	46.59
58.00	29.40	28.49
0.00	0.00	0.00

Quantitation Report

Data File : M:\LINUS\DATA\L191030M\1030L004.D Vial: 4
Acq On : 31 Oct 19 11:50 Operator: MA
Sample : 50 2MEE 4/30/19 Inst : Linus
Misc : Multiplr: 1.00
Quant Time: Oct 31 12:28 2019 Quant Results File: temp.res

Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Oct 31 11:46:50 2019
Response via : Multiple Level Calibration



TIC: 1030L004.D

(2) 2-(2-Methoxyethoxy)ethanol (TM)

3.19min 63.1910ppb m

response 145043

Ion	Exp%	Act%
45.00	100	100
59.00	48.10	46.59
58.00	29.40	28.49
0.00	0.00	0.00

Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L191030M\1030L005.D Vial: 5
Acq On : 31 Oct 19 12:10 Operator: MA
Sample : 100 2MEE 4/30/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 31 13:29 2019 Quant Results File: YMEE1030.RES

Quant Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Oct 31 13:28:52 2019
Response via : Initial Calibration
DataAcq Meth : GED

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	3.66	152	802143	40.00000	ppb	0.00
3) Napthalene-D8(IS)	4.62	136	3947022	40.00000	ppb	0.00
4) Acenaphthene-D10(IS)	6.02	164	1905798	40.00000	ppb	0.00
5) Phenanthrene-D10(IS)	7.23	188	3352515	40.00000	ppb	0.00
6) Chrysene-D12(IS)	9.39	240	2935825	40.00000	ppb	0.00
7) Perylene-D12(IS)	10.58	264	2243163	40.00000	ppb	-0.02
System Monitoring Compounds						
Target Compounds						Qvalue
2) 2-(2-Methoxyethoxy)ethanol	3.19	45	254665	101.69486	ppb	93

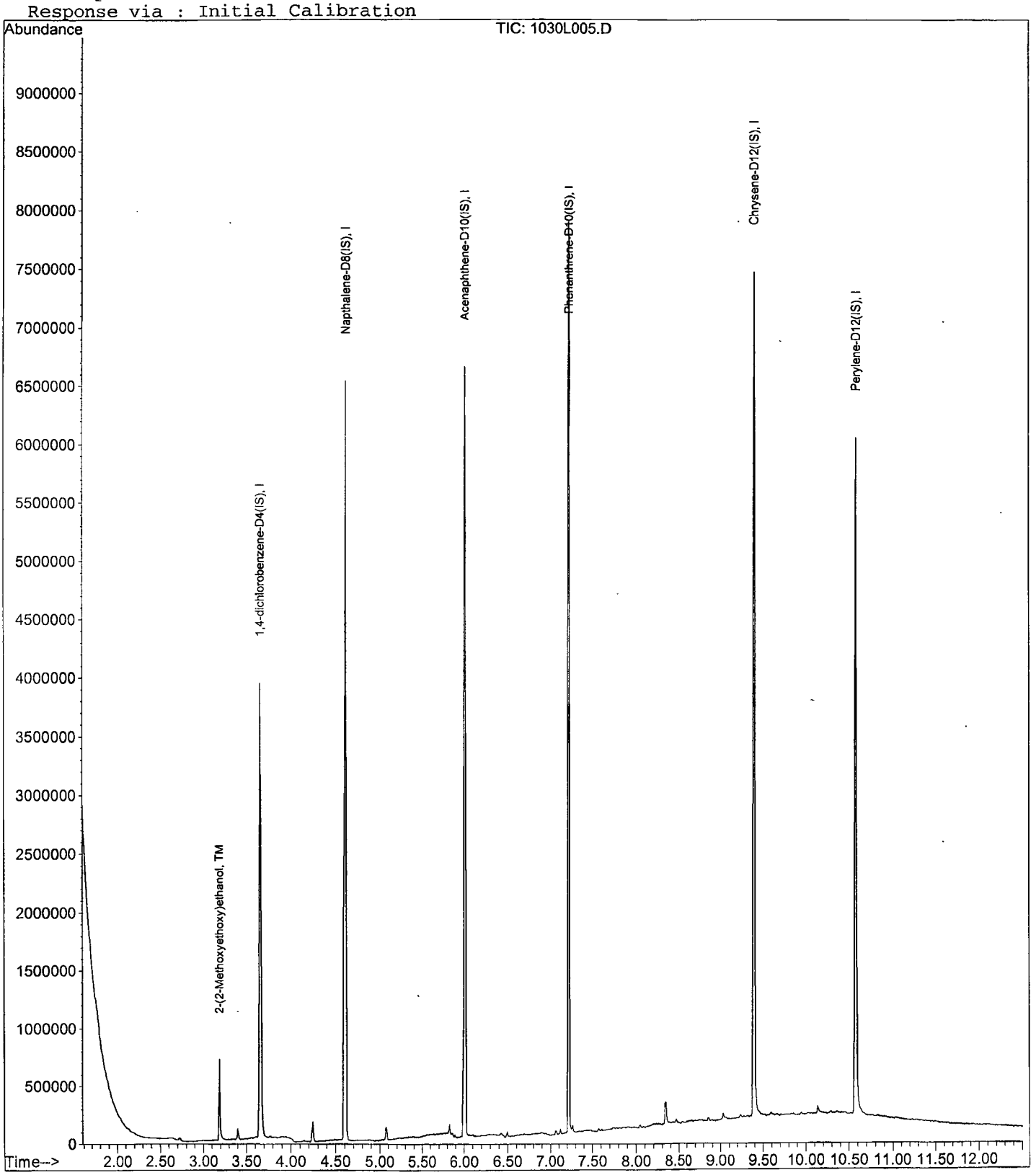
(#) = qualifier out of range (m) = manual integration
1030L005.D YMEE1030.M Thu Oct 31 17:13:20 2019

Quantitation Report

Data File : M:\LINUS\DATA\L191030M\1030L005.D Vial: 5
Acq On : 31 Oct 19 12:10 Operator: MA
Sample : 100 2MEE 4/30/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 31 13:29 2019 Quant Results File: YMEE1030.RES

Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Oct 31 14:18:15 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L191030M\1030L006.D Vial: 6
Acq On : 31 Oct 19 12:29 Operator: MA
Sample : 200 2MEE 4/30/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 31 13:30 2019 Quant Results File: YMEE1030.RES

Quant Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Oct 31 13:28:52 2019
Response via : Initial Calibration
DataAcq Meth : GED

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	3.67	152	867176	40.00000	ppb	0.00
3) Napthalene-D8(IS)	4.62	136	3930052	40.00000	ppb	0.00
4) Acenaphthene-D10(IS)	6.02	164	2009214	40.00000	ppb	0.00
5) Phenanthrene-D10(IS)	7.22	188	3319659	40.00000	ppb	0.00
6) Chrysene-D12(IS)	9.40	240	3235629	40.00000	ppb	0.00
7) Perylene-D12(IS)	10.58	264	2613264	40.00000	ppb	-0.02
System Monitoring Compounds						
Target Compounds						Qvalue
2) 2-(2-Methoxyethoxy)ethanol	3.20	45	519817	166.78709	ppb	99

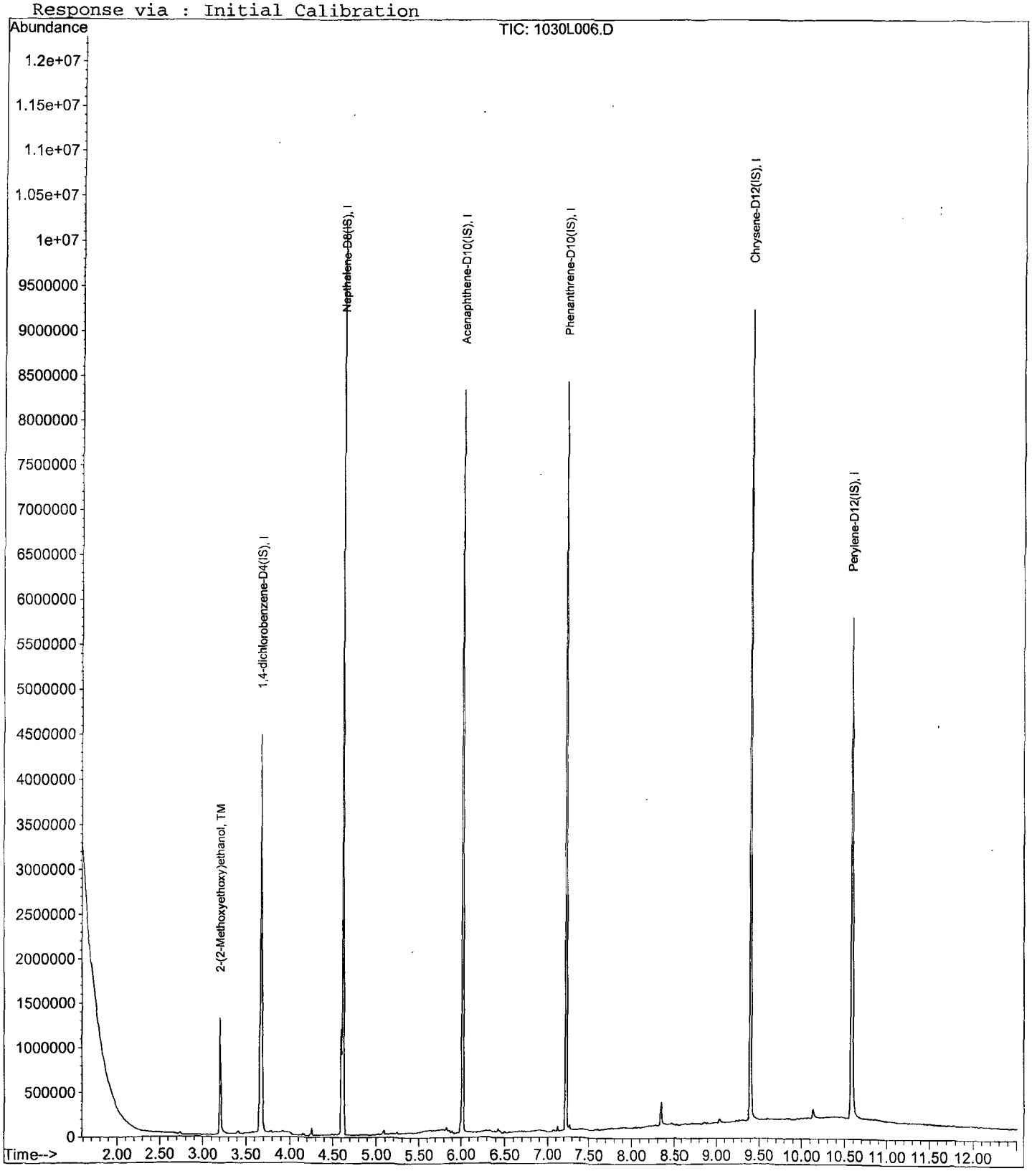
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L191030M\1030L006.D Vial: 6
Acq On : 31 Oct 19 12:29 Operator: MA
Sample : 200 2MEE 4/30/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 31 13:30 2019 Quant Results File: YMEE1030.RES

Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Oct 31 14:18:15 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L191030M\1030L007.D Vial: 7
Acq On : 31 Oct 19 12:49 Operator: MA
Sample : 400 2MEE 4/30/19 not used. It got concen Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 31 13:30 2019 Quant Results File: YMEE1030.RES

Quant Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Oct 31 13:28:52 2019
Response via : Initial Calibration
DataAcq Meth : GED

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	3.67	152	768222	40.00000	ppb	0.00
3) Napthalene-D8(IS)	4.62	136	3846001	40.00000	ppb	0.00
4) Acenaphthene-D10(IS)	6.02	164	2102228	40.00000	ppb	0.00
5) Phenanthrene-D10(IS)	7.23	188	3529522	40.00000	ppb	0.00
6) Chrysene-D12(IS)	9.40	240	2845578	40.00000	ppb	0.00
7) Perylene-D12(IS)	10.60	264	2568289	40.00000	ppb	0.00
System Monitoring Compounds						
Target Compounds						Qvalue
2) 2-(2-Methoxyethoxy)ethanol	3.22	45	1438559	476.21754	ppb	94

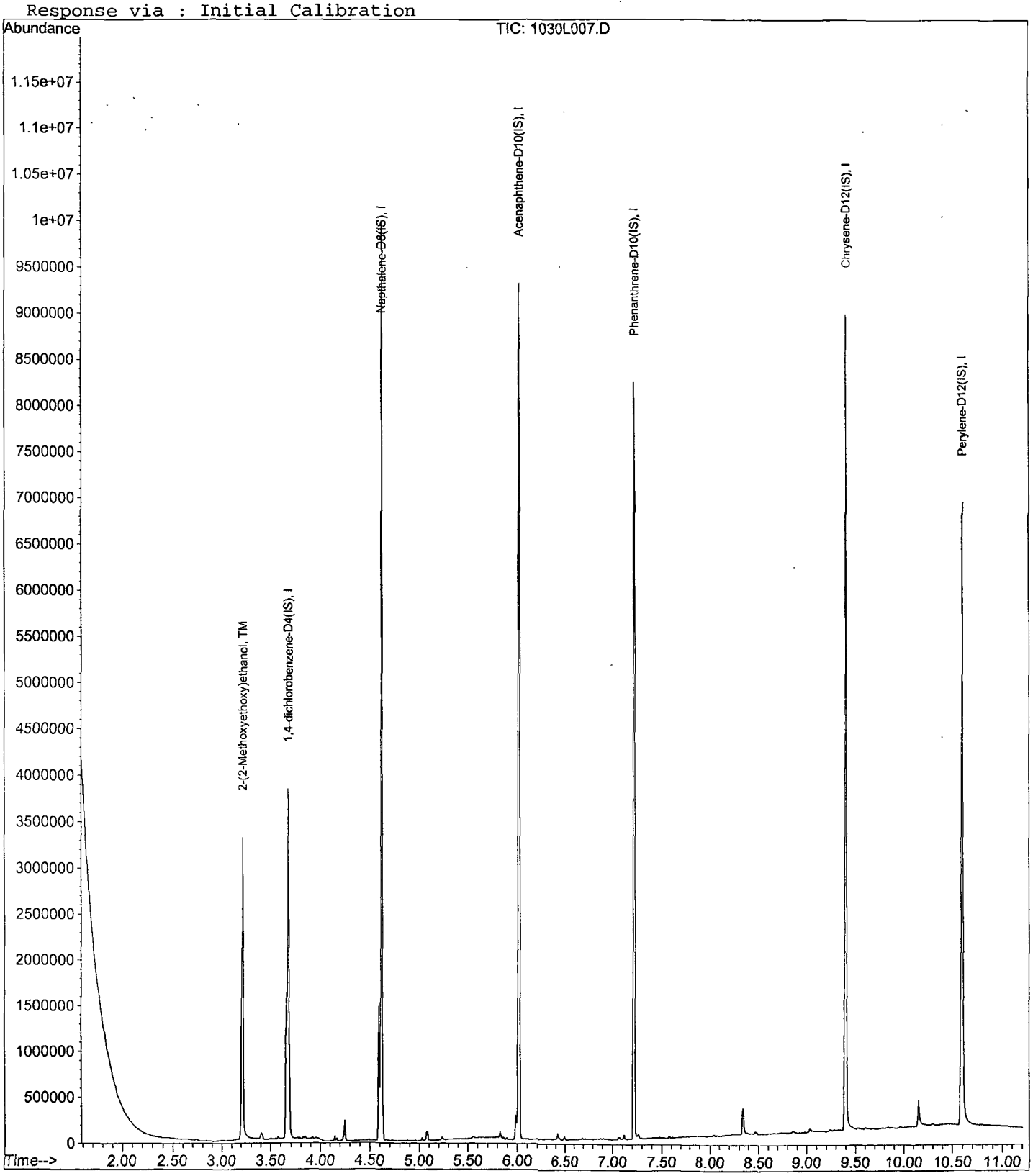
(#) = qualifier out of range (m) = manual integration
1030L007.D YMEE1030.M Thu Oct 31 17:13:29 2019

Quantitation Report

Data File : M:\LINUS\DATA\L191030M\1030L007.D Vial: 7
Acq On : 31 Oct 19 12:49 Operator: MA
Sample : 400 2MEE 4/30/19 not used. It got concen Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 31 13:30 2019 Quant Results File: YMEE1030.RES

Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Oct 31 14:18:15 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L191030M\1030L008.D Vial: 8
Acq On : 31 Oct 19 13:07 Operator: MA
Sample : 500 2MEE 4/30/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 31 14:14 2019 Quant Results File: YMEE1030.RES

Quant Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Oct 31 14:14:39 2019
Response via : Initial Calibration
DataAcq Meth : GED

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	3.67	152	772292	40.00000 ppb	0.00
3) Napthalene-D8(IS)	4.62	136	3394425	40.00000 ppb	0.00
4) Acenaphthene-D10(IS)	6.02	164	1712966	40.00000 ppb	0.00
5) Phenanthrene-D10(IS)	7.22	188	2832000	40.00000 ppb	0.00
6) Chrysene-D12(IS)	9.40	240	2510708	40.00000 ppb	0.00
7) Perylene-D12(IS)	10.60	264	2441015	40.00000 ppb	0.00

System Monitoring Compounds

Target Compounds					Qvalue
2) 2-(2-Methoxyethoxy)ethanol	3.21	45	1545173	578.42618 ppb	100

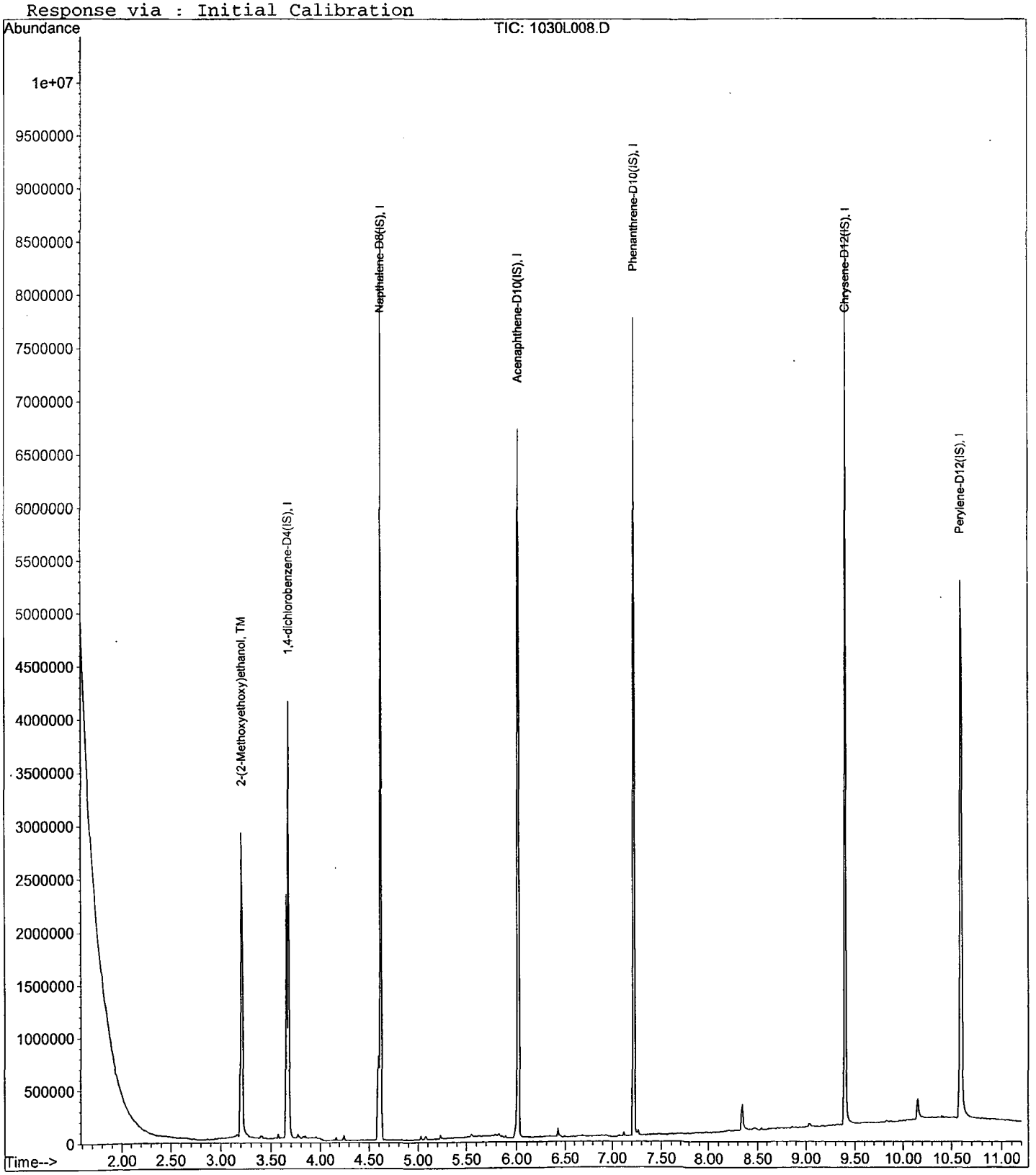
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L191030M\1030L008.D Vial: 8
Acq On : 31 Oct 19 13:07 Operator: MA
Sample : 500 2MEE 4/30/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 31 14:14 2019 Quant Results File: YMEE1030.RES

Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Oct 31 14:18:15 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L191030M\1030L009.D Vial: 9
Acq On : 31 Oct 19 13:25 Operator: MA
Sample : 600 2MEE 4/30/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 31 13:40 2019 Quant Results File: YMEE1030.RES

Quant Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Oct 31 13:28:52 2019
Response via : Initial Calibration
DataAcq Meth : GED

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	3.67	152	918679	40.00000 ppb	0.00
3) Napthalene-D8(IS)	4.62	136	3995417	40.00000 ppb	0.00
4) Acenaphthene-D10(IS)	6.02	164	2035544	40.00000 ppb	0.00
5) Phenanthrene-D10(IS)	7.23	188	3476903	40.00000 ppb	0.00
6) Chrysene-D12(IS)	9.40	240	2887642	40.00000 ppb	0.00
7) Perylene-D12(IS)	10.59	264	2390309	40.00000 ppb	0.00
System Monitoring Compounds					
Target Compounds					Qvalue
2) 2-(2-Methoxyethoxy)ethanol	3.22	45	1897302	517.69156 ppb	98

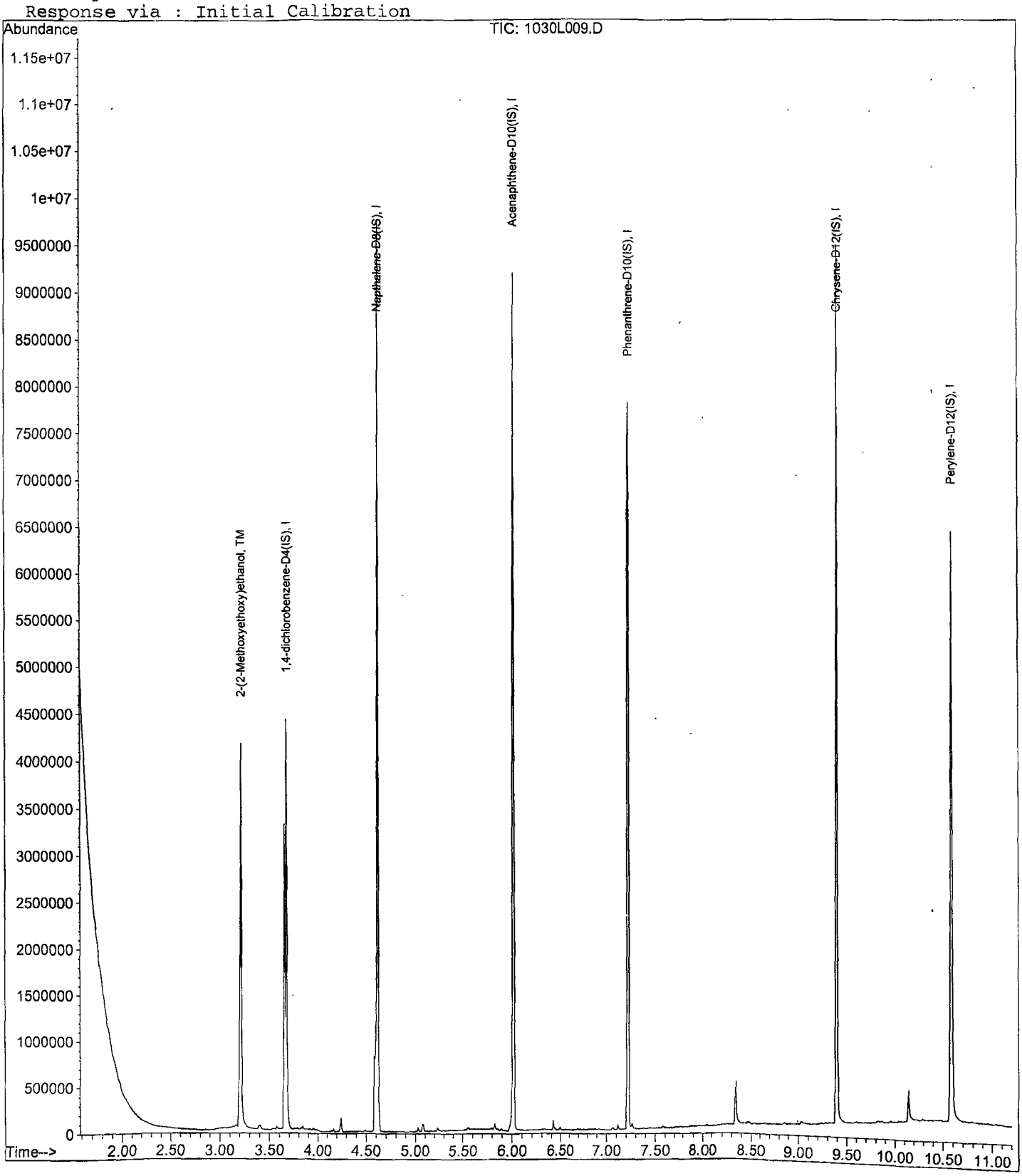
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L191030M\1030L009.D Vial: 9
Acq On : 31 Oct 19 13:25 Operator: MA
Sample : 600 2MEE 4/30/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 31 13:40 2019 Quant Results File: YMEE1030.RES

Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Oct 31 14:18:15 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L191030M\1030L010.D Vial: 10
Acq On : 31 Oct 19 13:43 Operator: MA
Sample : 800 2MEE 4/30/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 31 14:12 2019 Quant Results File: YMEE1030.RES

Quant Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Oct 31 13:28:52 2019
Response via : Initial Calibration
DataAcq Meth : GED

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	3.67	152	781913	40.00000	ppb	0.00
3) Napthalene-D8(IS)	4.62	136	3819124	40.00000	ppb	0.00
4) Acenaphthene-D10(IS)	6.02	164	2060420	40.00000	ppb	0.00
5) Phenanthrene-D10(IS)	7.23	188	3432435	40.00000	ppb	0.00
6) Chrysene-D12(IS)	9.41	240	3218071	40.00000	ppb	0.00
7) Perylene-D12(IS)	10.61	264	2421844	40.00000	ppb	0.00

System Monitoring Compounds

Target Compounds						Qvalue
2) 2-(2-Methoxyethoxy)ethanol	3.23	45	2499934	802.74185	ppb	98

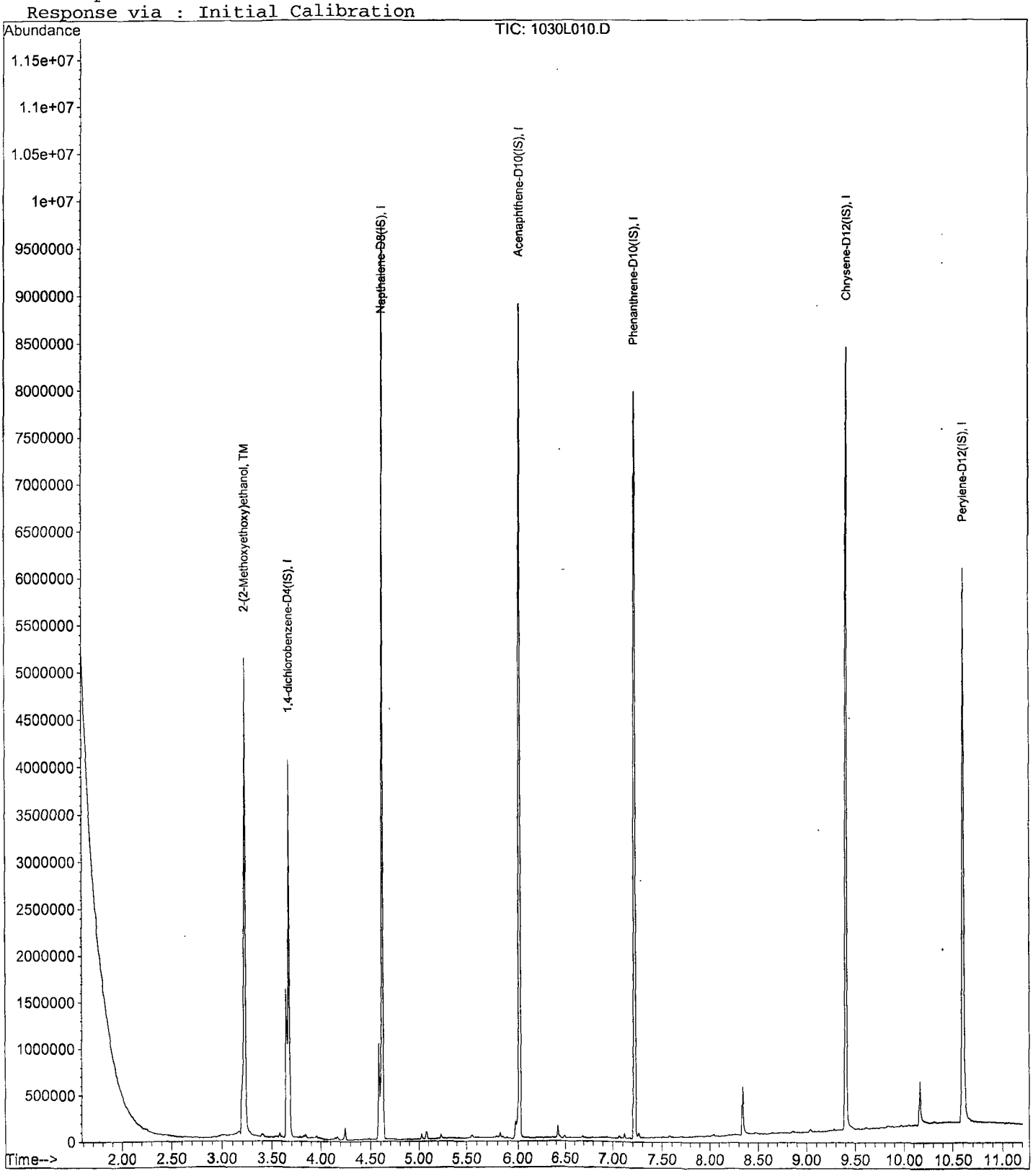
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L191030M\1030L010.D Vial: 10
Acq On : 31 Oct 19 13:43 Operator: MA
Sample : 800 2MEE 4/30/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 31 14:12 2019 Quant Results File: YMEE1030.RES

Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Oct 31 14:18:15 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L191030M\1030L011.D Vial: 11
Acq On : 31 Oct 19 14:02 Operator: MA
Sample : 1000 2MEE 4/30/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 31 14:13 2019 Quant Results File: YMEE1030.RES

Quant Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Oct 31 13:28:52 2019
Response via : Initial Calibration
DataAcq Meth : GED

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	3.67	152	893999	40.00000	ppb	0.00
3) Napthalene-D8(IS)	4.62	136	4002209	40.00000	ppb	0.00
4) Acenaphthene-D10(IS)	6.02	164	2003789	40.00000	ppb	0.00
5) Phenanthrene-D10(IS)	7.22	188	3346119	40.00000	ppb	0.00
6) Chrysene-D12(IS)	9.40	240	2853107	40.00000	ppb	0.00
7) Perylene-D12(IS)	10.60	264	2370540	40.00000	ppb	0.00

System Monitoring Compounds

Target Compounds						Qvalue
2) 2-(2-Methoxyethoxy)ethanol	3.23	45	3096034	880.60620	ppb	98

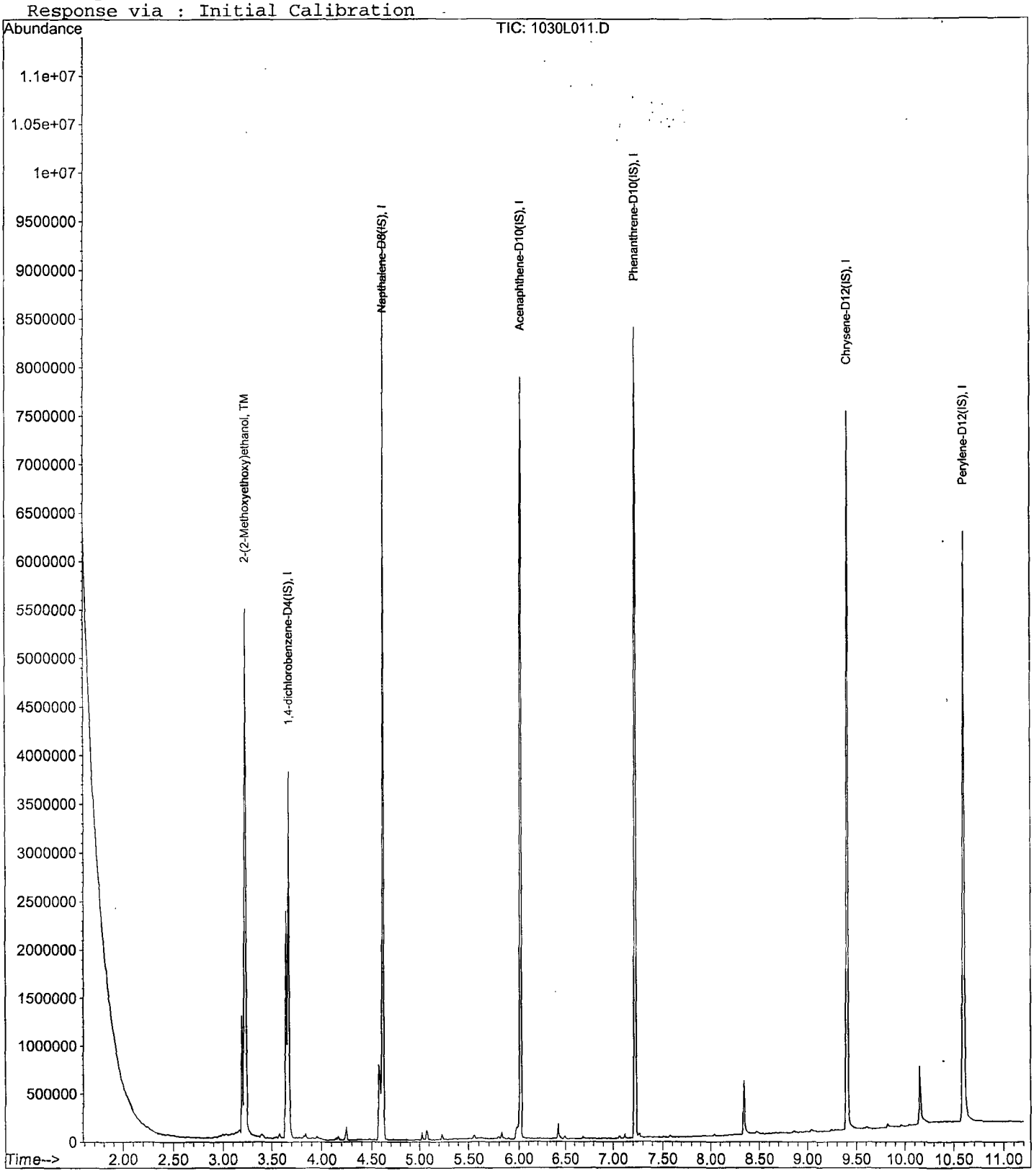
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L191030M\1030L011.D Vial: 11
Acq On : 31 Oct 19 14:02 Operator: MA
Sample : 1000 2MEE 4/30/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 31 14:13 2019 Quant Results File: YMEE1030.RES

Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Oct 31 14:18:15 2019
Response via : Initial Calibration



2MEE
EPA 8270

Form 7

Secon Source Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix:

SDG No:
Date Analyzed: 1 Nov 19 17:11
Instrument: Linus
Initial Cal. Date: 10/31/19
Data File: 1030L016.D

		Compound	MEAN	CCRF	%D		%Drift
1	I	1,4-dichlorobenzene-D4(IS)	ISTD			I	
2	TM	2-(2-Methoxyethoxy)ethanol	0.1384	0.1658	20	TM	
3	I	Napthalene-D8(IS)	ISTD			I	
4	I	Acenaphthene-D10(IS)	ISTD			I	
5	I	Phenanthrene-D10(IS)	ISTD			I	
6	I	Chrysene-D12(IS)	ISTD			I	
7	I	Perylene-D12(IS)	ISTD			I	
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
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25							
26							
27							
28							
29							
30							
31							
32							
33							
34							
35							
36							
37							
38							
39							
40							
		Average			20.0		

Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L191030M\1030L016.D Vial: 16
Acq On : 1 Nov 19 17:11 Operator: MA
Sample : SS 2MEE 11/1/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Nov 1 17:27 2019 Quant Results File: YMEE1030.RES

Quant Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 01 17:06:59 2019
Response via : Initial Calibration
DataAcq Meth : GED

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	3.67	152	966230	40.00000	ppb	0.00
3) Napthalene-D8(IS)	4.62	136	4151555	40.00000	ppb	0.00
4) Acenaphthene-D10(IS)	6.02	164	2209408	40.00000	ppb	0.00
5) Phenanthrene-D10(IS)	7.23	188	4025811	40.00000	ppb	0.00
6) Chrysene-D12(IS)	9.40	240	2795621	40.00000	ppb	0.00
7) Perylene-D12(IS)	10.59	264	3078419	40.00000	ppb	0.00

System Monitoring Compounds

Target Compounds						Qvalue
2) 2-(2-Methoxyethoxy)ethanol	3.20	45	2003024	599.31894	ppb	100

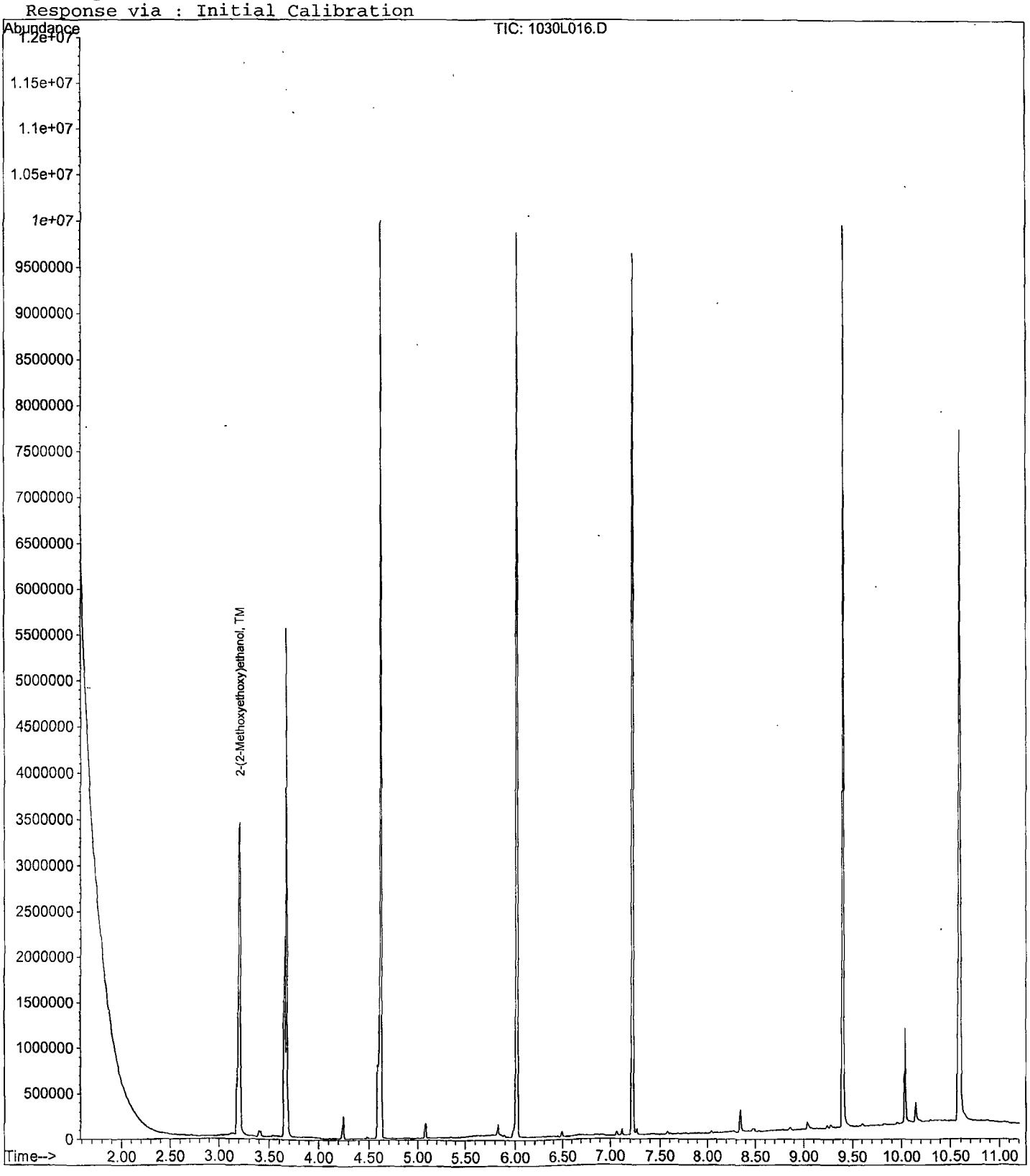
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L191030M\1030L016.D Vial: 16
Acq On : 1 Nov 19 17:11 Operator: MA
Sample : SS 2MEE 11/1/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Nov 1 17:27 2019 Quant Results File: YMEE1030.RES

Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 01 17:44:15 2019
Response via : Initial Calibration



2MEE
EPA 8270

Form 7

Continuing Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Date Analyzed: 11/13/19
Matrix: Instrument: Linus
Initial Cal. Date: 10/31/19
Data File: 1030L063.D

		Compound	MEAN	CCRF	%D		%Drift
1	I	1,4-dichlorobenzene-D4(IS)	ISTD			I	
2	TM	2-(2-Methoxyethoxy)ethanol	0.1384	0.1584	15	TM	
3	I	Napthalene-D8(IS)	ISTD			I	
4	I	Acenaphthene-D10(IS)	ISTD			I	
5	I	Phenanthrene-D10(IS)	ISTD			I	
6	I	Chrysene-D12(IS)	ISTD			I	
7	I	Perylene-D12(IS)	ISTD			I	
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
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23							
24							
25							
26							
27							
28							
29							
30							
31							
32							
33							
34							
35							
36							
37							
38							
39							
40							
		Average			15.0		

Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L191030M\1030L063.D Vial: 63
Acq On : 13 Nov 19 15:30 Operator: MA
Sample : 500 2MEE 4/30/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Nov 13 15:53 2019 Quant Results File: YMEE1030.RES

Quant Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 01 17:44:15 2019
Response via : Initial Calibration
DataAcq Meth : GED

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	3.67	152	842982	40.00000 ppb	0.00
3) Napthalene-D8(IS)	4.62	136	4206280	40.00000 ppb	0.00
4) Acenaphthene-D10(IS)	6.01	164	2023921	40.00000 ppb	0.00
5) Phenanthrene-D10(IS)	7.22	188	3817623	40.00000 ppb	0.00
6) Chrysene-D12(IS)	9.41	240	3523261	40.00000 ppb	0.00
7) Perylene-D12(IS)	10.62	264	3518018	40.00000 ppb	0.02

System Monitoring Compounds

Target Compounds					Qvalue
2) 2-(2-Methoxyethoxy)ethanol	3.20	45	1669328	572.50034 ppb	93

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L191030M\1030L063.D Vial: 63
Acq On : 13 Nov 19 15:30 Operator: MA
Sample : 500 2MEE 4/30/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Nov 13 15:53 2019 Quant Results File: YMEE1030.RES

Quant Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 01 17:44:15 2019
Response via : Initial Calibration
DataAcq Meth : GED

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	3.67	152	842982	40.00000 ppb	0.00
3) Napthalene-D8(IS)	4.62	136	4206280	40.00000 ppb	0.00
4) Acenaphthene-D10(IS)	6.01	164	2023921	40.00000 ppb	0.00
5) Phenanthrene-D10(IS)	7.22	188	3817623	40.00000 ppb	0.00
6) Chrysene-D12(IS)	9.41	240	3523261	40.00000 ppb	0.00
7) Perylene-D12(IS)	10.62	264	3518018	40.00000 ppb	0.02

System Monitoring Compounds

Target Compounds					Qvalue
2) 2-(2-Methoxyethoxy)ethanol	3.20	45	1669328	572.50034 ppb	93

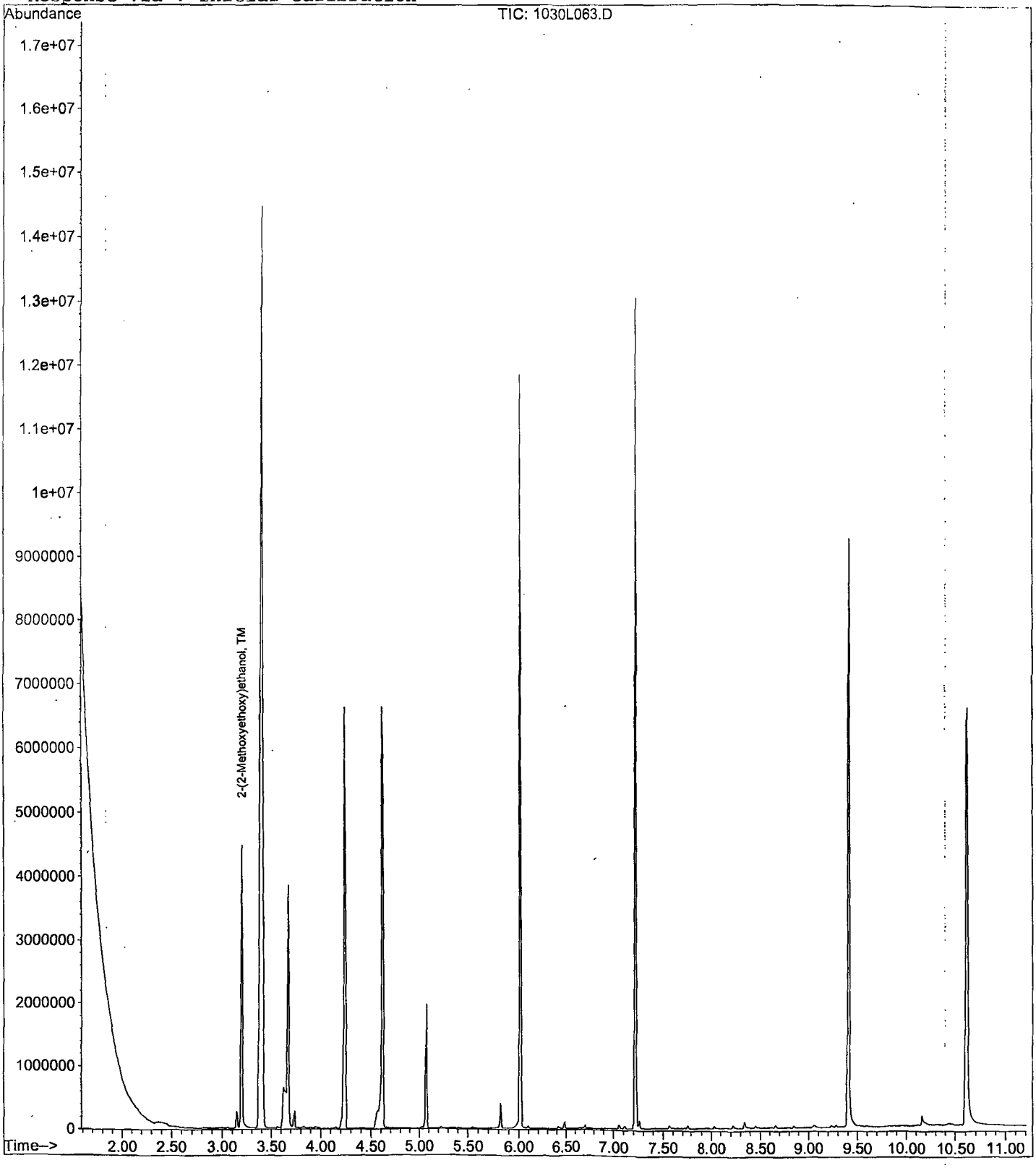
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L191030M\1030L063.D Vial: 63
Acq On : 13 Nov 19 15:30 Operator: MA
Sample : 500 2MEE 4/30/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Nov 13 15:53 2019 Quant Results File: YMEE1030.RES

Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 01 17:44:15 2019
Response via : Initial Calibration



2MEE
EPA 8270

Form 7

Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix:

SDG No:
Date Analyzed: 11/13/19
Instrument: Linus
Initial Cal. Date: 10/31/19
Data File: 1030L074.D

		Compound	MEAN	CCRF	%D		%Drift
1	I	1,4-dichlorobenzene-D4(IS)	ISTD			I	
2	TM	2-(2-Methoxyethoxy)ethanol	0.1384	0.1450	4.8	TM	
3	I	Napthalene-D8(IS)	ISTD			I	
4	I	Acenaphthene-D10(IS)	ISTD			I	
5	I	Phenanthrene-D10(IS)	ISTD			I	
6	I	Chrysene-D12(IS)	ISTD			I	
7	I	Perylene-D12(IS)	ISTD			I	
8							
9							
10							
11							
12							
13							
14							
15							
16							
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36							
37							
38							
39							
40							
		Average			4.8		

Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L191030M\1030L074.D Vial: 74
Acq On : 13 Nov 19 19:07 Operator: MA
Sample : 500 2MEE 4/30/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Nov 14 9:22 2019 Quant Results File: YMEE1030.RES

Quant Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 01 17:44:15 2019
Response via : Initial Calibration
DataAcq Meth : GED

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	3.66	152	851144	40.00000 ppb	0.00
3) Napthalene-D8(IS)	4.61	136	4152415	40.00000 ppb	0.00
4) Acenaphthene-D10(IS)	6.01	164	2141056	40.00000 ppb	0.00
5) Phenanthrene-D10(IS)	7.22	188	3885959	40.00000 ppb	0.00
6) Chrysene-D12(IS)	9.38	240	3430664	40.00000 ppb	-0.02
7) Perylene-D12(IS)	10.56	264	3542620	40.00000 ppb	-0.04

System Monitoring Compounds

Target Compounds					Qvalue
2) 2-(2-Methoxyethoxy)ethanol	3.19	45	1543034	524.11287 ppb	95

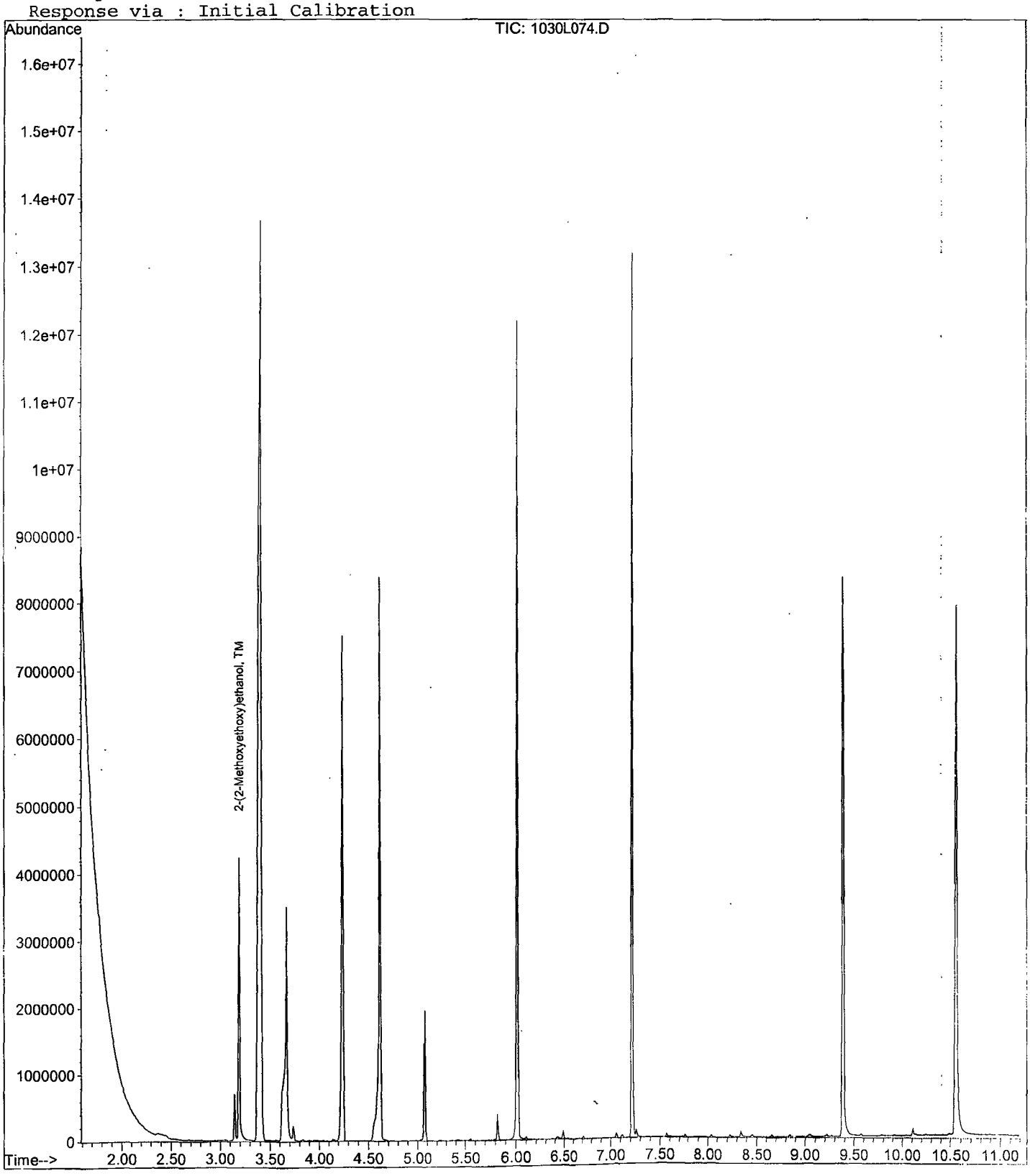
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L191030M\1030L074.D Vial: 74
Acq On : 13 Nov 19 19:07 Operator: MA
Sample : 500 2MEE 4/30/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Nov 14 9:22 2019 Quant Results File: YMEE1030.RES

Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 01 17:44:15 2019
Response via : Initial Calibration



2MEE
EPA 8270

Form 7

Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix:

SDG No:
Date Analyzed: 11/14/19
Instrument: Linus
Initial Cal. Date: 10/31/19
Data File: 1030L076.D

		Compound	MEAN	CCRF	%D		%Drift
1	I	1,4-dichlorobenzene-D4(IS)	ISTD			I	
2	TM	2-(2-Methoxyethoxy)ethanol	0.1384	0.1527	10	TM	
3	I	Napthalene-D8(IS)	ISTD			I	
4	I	Acenaphthene-D10(IS)	ISTD			I	
5	I	Phenanthrene-D10(IS)	ISTD			I	
6	I	Chrysene-D12(IS)	ISTD			I	
7	I	Perylene-D12(IS)	ISTD			I	
8							
9							
10							
11							
12							
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37							
38							
39							
40							
		Average			10.0		

Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L191030M\1030L076.D Vial: 76
Acq On : 14 Nov 19 9:48 Operator: MA
Sample : 500 2MEE 4/30/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Nov 14 10:01 2019 Quant Results File: YMEE1030.RES

Quant Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 01 17:44:15 2019
Response via : Initial Calibration
DataAcq Meth : GED

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	3.66	152	613947	40.00000	ppb	0.00
3) Napthalene-D8(IS)	4.61	136	3527576	40.00000	ppb	0.00
4) Acenaphthene-D10(IS)	6.01	164	1898687	40.00000	ppb	0.00
5) Phenanthrene-D10(IS)	7.21	188	3181704	40.00000	ppb	-0.02
6) Chrysene-D12(IS)	9.39	240	2583688	40.00000	ppb	0.00
7) Perylene-D12(IS)	10.60	264	2808488	40.00000	ppb	0.00

System Monitoring Compounds

Target Compounds						Qvalue
2) 2-(2-Methoxyethoxy)ethanol	3.18	45	1171676	551.73308	ppb	97

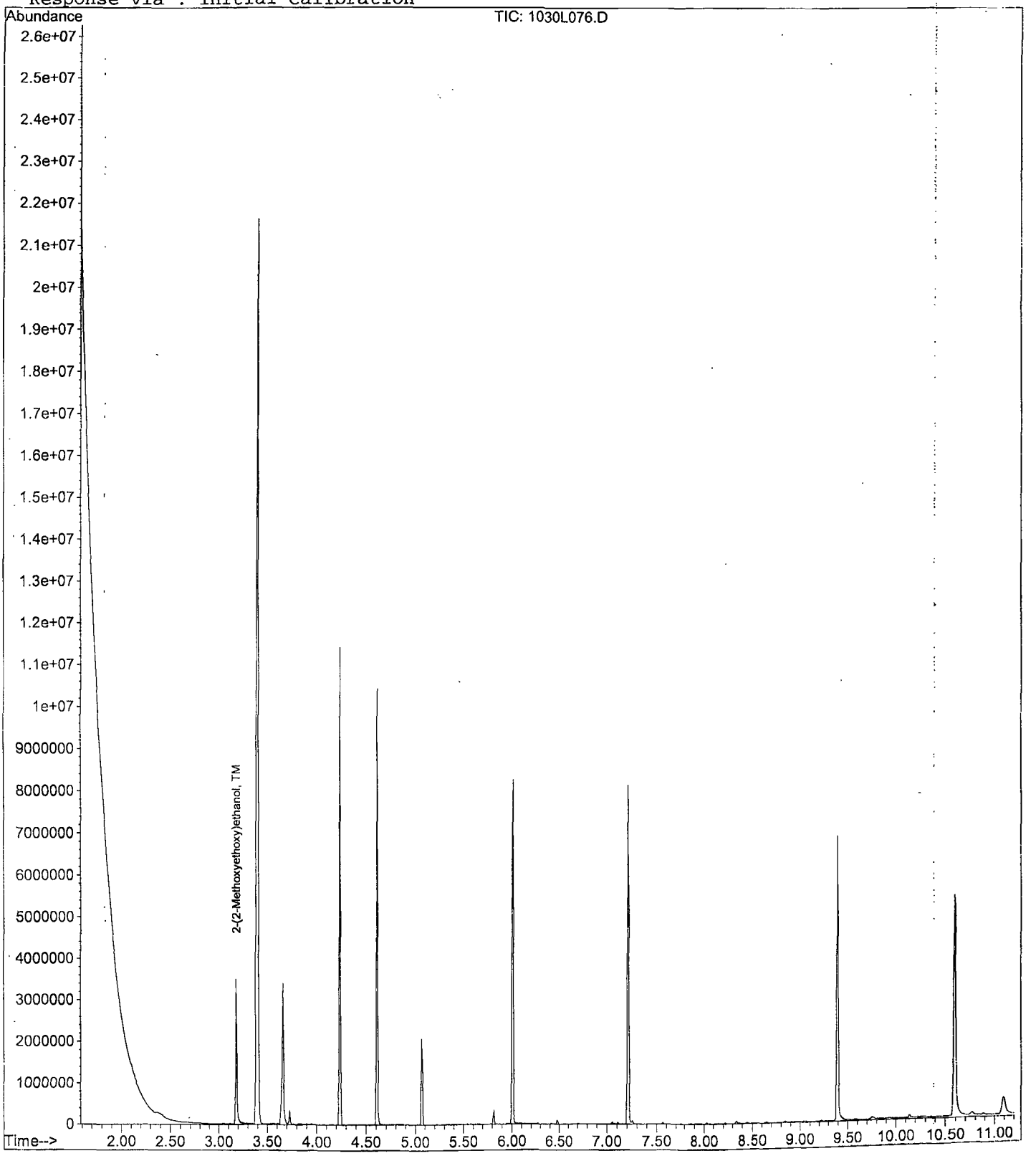
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L191030M\1030L076.D Vial: 76
Acq On : 14 Nov 19 9:48 Operator: MA
Sample : 500 2MEE 4/30/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Nov 14 10:01 2019 Quant Results File: YMEE1030.RES

Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 01 17:44:15 2019
Response via : Initial Calibration



2MEE
EPA 8270

Form 7

Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix:

SDG No:
Date Analyzed: 11/14/19
Instrument: Linus
Initial Cal. Date: 10/31/19
Data File: 1030L079.D

		Compound	MEAN	CCRF	%D	%Drift	
1	I	1,4-dichlorobenzene-D4(IS)	ISTD			I	
2	TM	2-(2-Methoxyethoxy)ethanol	0.1384	0.1493	7.9	TM	
3	I	Napthalene-D8(IS)	ISTD			I	
4	I	Acenaphthene-D10(IS)	ISTD			I	
5	I	Phenanthrene-D10(IS)	ISTD			I	
6	I	Chrysene-D12(IS)	ISTD			I	
7	I	Perylene-D12(IS)	ISTD			I	
8							
9							
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36							
37							
38							
39							
40							
		Average			7.9		

Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L191030M\1030L079.D Vial: 79
Acq On : 14 Nov 19 10:46 Operator: MA
Sample : 500 2MEE 4/30/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Nov 14 10:58 2019 Quant Results File: YMEE1030.RES

Quant Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 01 17:44:15 2019
Response via : Initial Calibration
DataAcq Meth : GED

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	3.66	152	594041	40.00000 ppb	0.00
3) Napthalene-D8(IS)	4.61	136	3382472	40.00000 ppb	0.00
4) Acenaphthene-D10(IS)	6.01	164	1914427	40.00000 ppb	0.00
5) Phenanthrene-D10(IS)	7.22	188	3204828	40.00000 ppb	0.00
6) Chrysene-D12(IS)	9.40	240	2739212	40.00000 ppb	0.00
7) Perylene-D12(IS)	10.60	264	2639198	40.00000 ppb	0.00

System Monitoring Compounds

Target Compounds					Qvalue
2) 2-(2-Methoxyethoxy)ethanol	3.18	45	1108969	539.70365 ppb	97

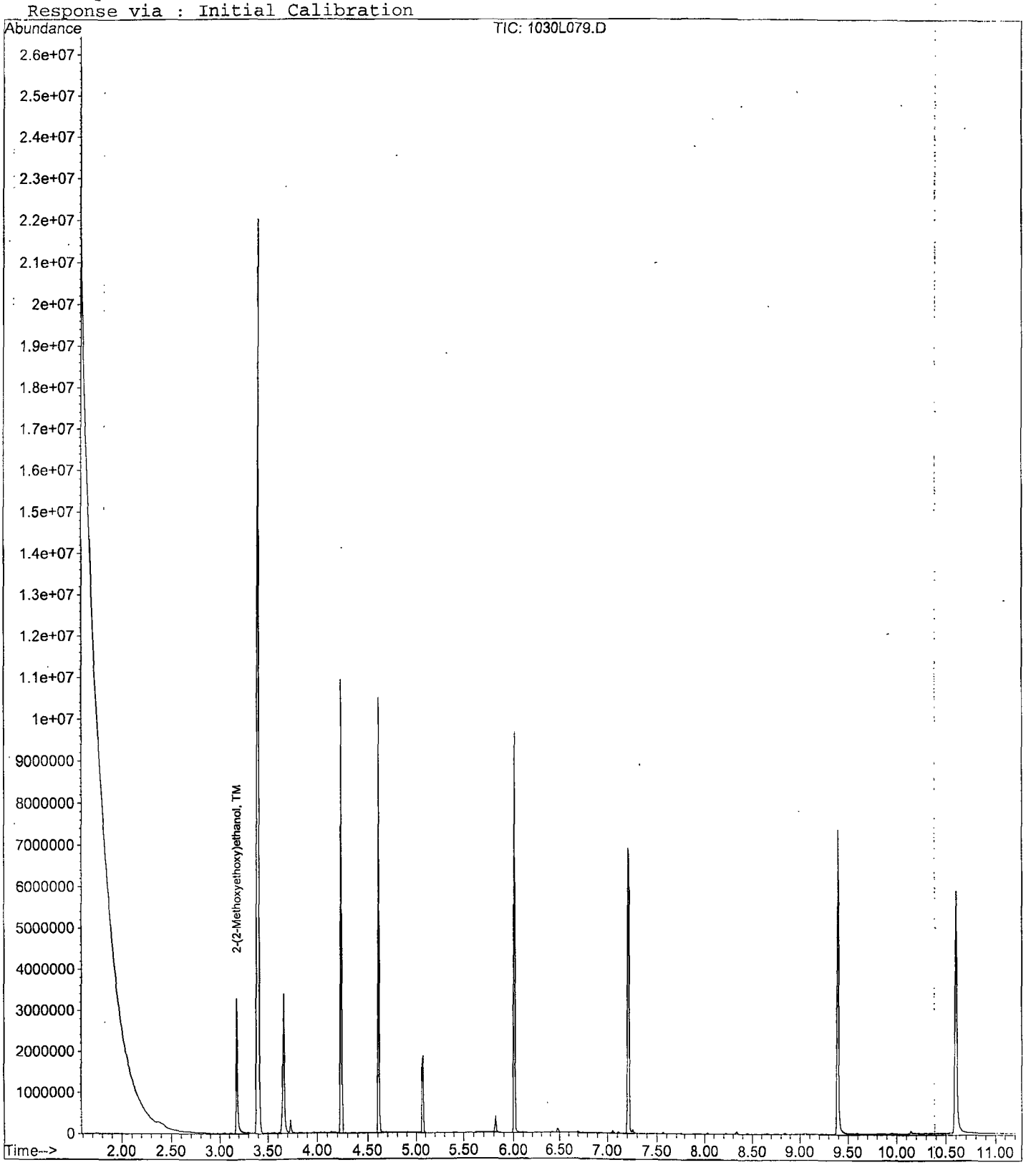
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L191030M\1030L079.D Vial: 79
Acq On : 14 Nov 19 10:46 Operator: MA
Sample : 500 2MEE 4/30/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Nov 14 10:58 2019 Quant Results File: YMEE1030.RES

Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 01 17:44:15 2019
Response via : Initial Calibration



ORGANICS
Raw Data

Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L191030M\1030L068.D Vial: 68
Acq On : 13 Nov 19 17:17 Operator: MA
Sample : BA02466W18 2/500 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Nov 14 9:22 2019 Quant Results File: YMEE1030.RES

Quant Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 01 17:44:15 2019
Response via : Initial Calibration
DataAcq Meth : GED

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	3.66	152	712208	40.00000	ppb	0.00
3) Napthalene-D8(IS)	4.61	136	2726265	40.00000	ppb	0.00
4) Acenaphthene-D10(IS)	6.01	164	1409920	40.00000	ppb	0.00
5) Phenanthrene-D10(IS)	7.22	188	2702655	40.00000	ppb	0.00
6) Chrysene-D12(IS)	9.39	240	1923849	40.00000	ppb	0.00
7) Perylene-D12(IS)	10.57	264	1948072	40.00000	ppb	-0.03

System Monitoring Compounds

Target Compounds Qvalue

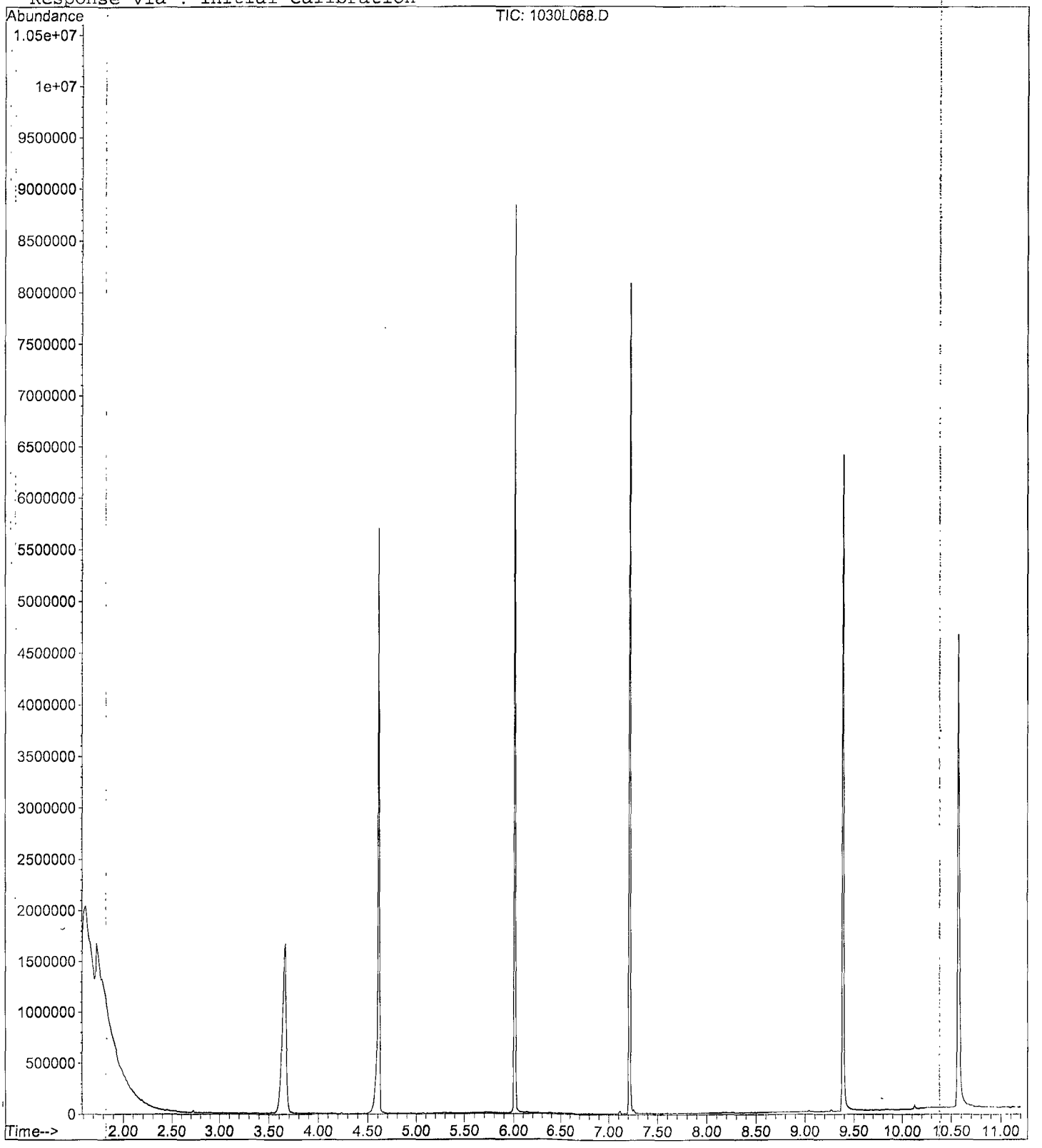
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L191030M\1030L068.D Vial: 68
Acq On : 13 Nov 19 17:17 Operator: MA
Sample : BA02466W18 2/500 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Nov 14 9:22 2019 Quant Results File: YMEE1030.RES

Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 01 17:44:15 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L191030M\1030L065.D Vial: 65
Acq On : 13 Nov 19 16:21 Operator: MA
Sample : 191111A BLK 2/500 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Nov 13 16:38 2019 Quant Results File: YMEE1030.RES

Quant Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 01 17:44:15 2019
Response via : Initial Calibration
DataAcq Meth : GED

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	3.66	152	670685	40.00000	ppb	0.00
3) Napthalene-D8(IS)	4.62	136	2651750	40.00000	ppb	0.00
4) Acenaphthene-D10(IS)	6.01	164	1349831	40.00000	ppb	0.00
5) Phenanthrene-D10(IS)	7.22	188	2568678	40.00000	ppb	0.00
6) Chrysene-D12(IS)	9.39	240	1874027	40.00000	ppb	0.00
7) Perylene-D12(IS)	10.58	264	1925339	40.00000	ppb	-0.02

System Monitoring Compounds

Target Compounds Qvalue

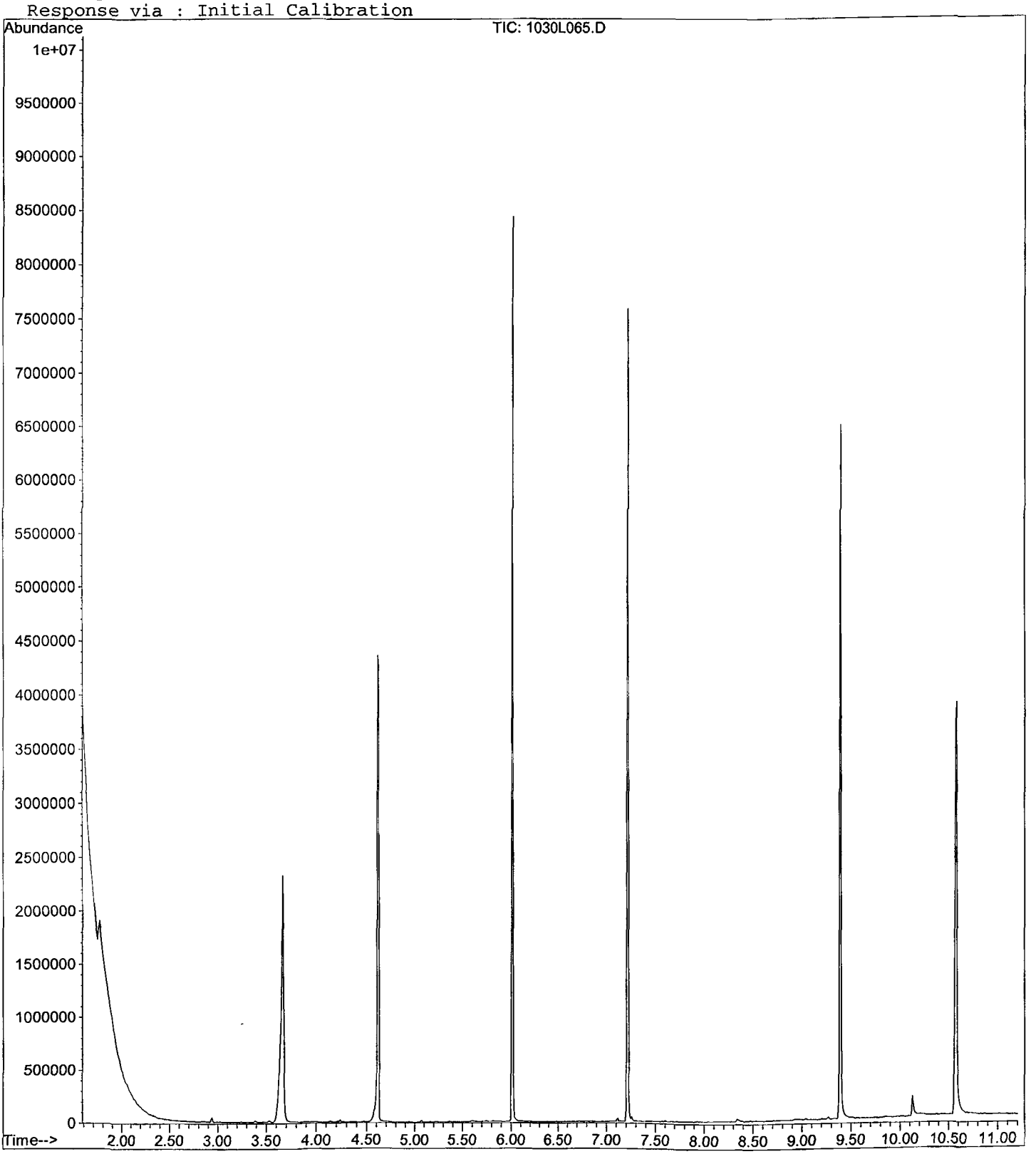
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L191030M\1030L065.D Vial: 65
Acq On : 13 Nov 19 16:21 Operator: MA
Sample : 191111A BLK 2/500 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Nov 13 16:38 2019 Quant Results File: YMEE1030.RES

Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 01 17:44:15 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L191030M\1030L077.D Vial: 77
Acq On : 14 Nov 19 10:09 Operator: MA
Sample : 191111A LCS-1 2/500 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Nov 14 10:21 2019 Quant Results File: YMEE1030.RES

Quant Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 01 17:44:15 2019
Response via : Initial Calibration
DataAcq Meth : GED

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	3.66	152	585581	40.00000	ppb	0.00
3) Napthalene-D8(IS)	4.61	136	2515557	40.00000	ppb	0.00
4) Acenaphthene-D10(IS)	6.01	164	1292546	40.00000	ppb	0.00
5) Phenanthrene-D10(IS)	7.21	188	2266884	40.00000	ppb	-0.02
6) Chrysene-D12(IS)	9.39	240	1700279	40.00000	ppb	0.00
7) Perylene-D12(IS)	10.59	264	1846707	40.00000	ppb	0.00

System Monitoring Compounds

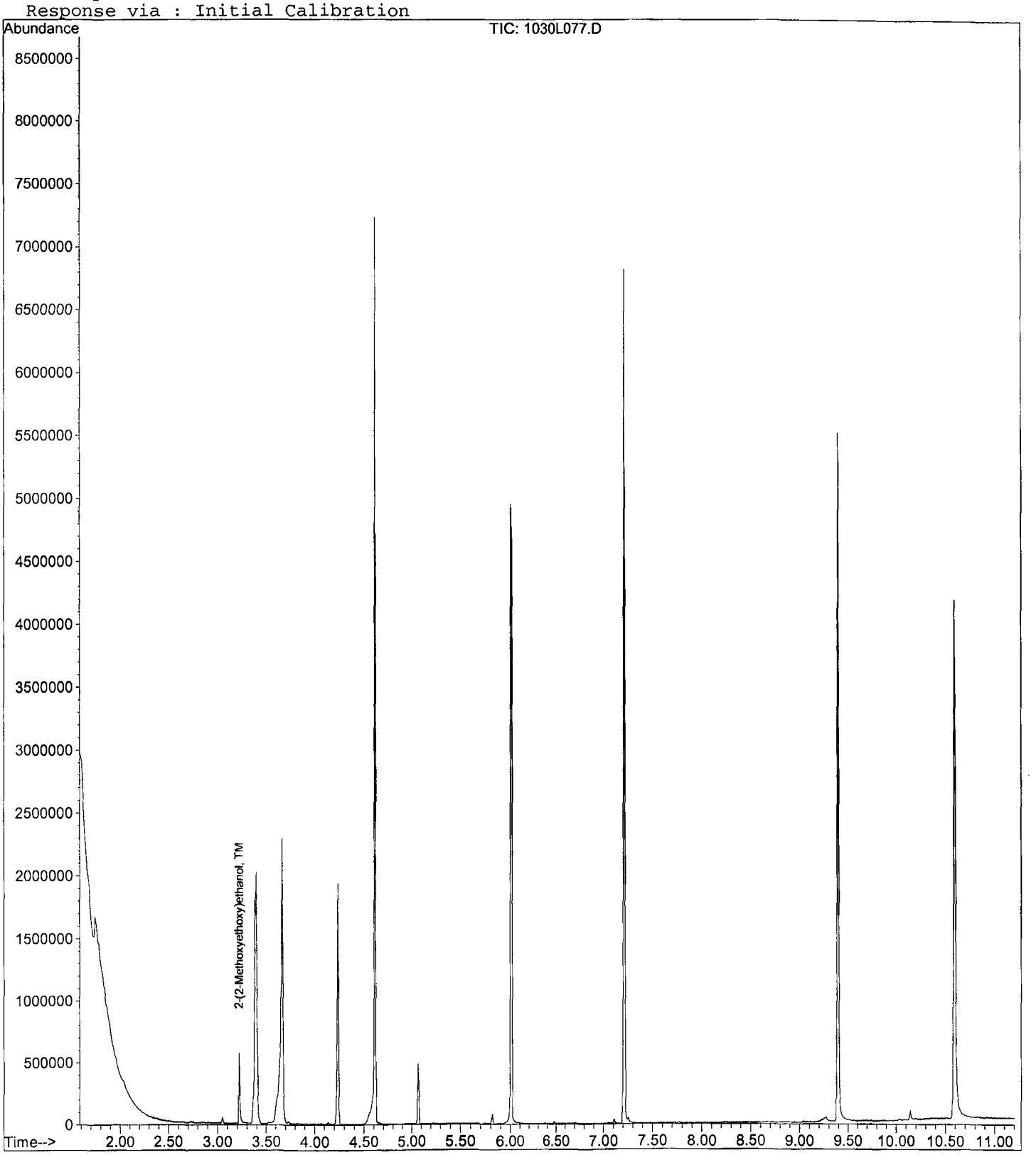
Target Compounds						Qvalue
2) 2-(2-Methoxyethoxy)ethanol	3.22	45	177103	87.43621	ppb	99

(#) = qualifier out of range (m) = manual integration
1030L077.D YMEE1030.M Wed Dec 04 13:04:56 2019 Page 1

Data File : M:\LINUS\DATA\L191030M\1030L077.D Vial: 77
Acq On : 14 Nov 19 10:09 Operator: MA
Sample : 191111A LCS-1 2/500 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Nov 14 10:21 2019 Quant Results File: YMEE1030.RES

Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 01 17:44:15 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L191030M\1030L078.D Vial: 78
Acq On : 14 Nov 19 10:27 Operator: MA
Sample : 191111A LCSD-1 2/500 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Nov 14 10:40 2019 Quant Results File: YMEE1030.RES

Quant Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 01 17:44:15 2019
Response via : Initial Calibration
DataAcq Meth : GED

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	3.66	152	553463	40.00000	ppb	0.00
3) Napthalene-D8(IS)	4.61	136	2363892	40.00000	ppb	0.00
4) Acenaphthene-D10(IS)	6.01	164	1415384	40.00000	ppb	0.00
5) Phenanthrene-D10(IS)	7.21	188	2408568	40.00000	ppb	-0.02
6) Chrysene-D12(IS)	9.38	240	1766989	40.00000	ppb	-0.02
7) Perylene-D12(IS)	10.57	264	2006249	40.00000	ppb	-0.03

System Monitoring Compounds

Target Compounds						Qvalue
2) 2-(2-Methoxyethoxy)ethanol	3.22	45	173084	90.41088	ppb	98

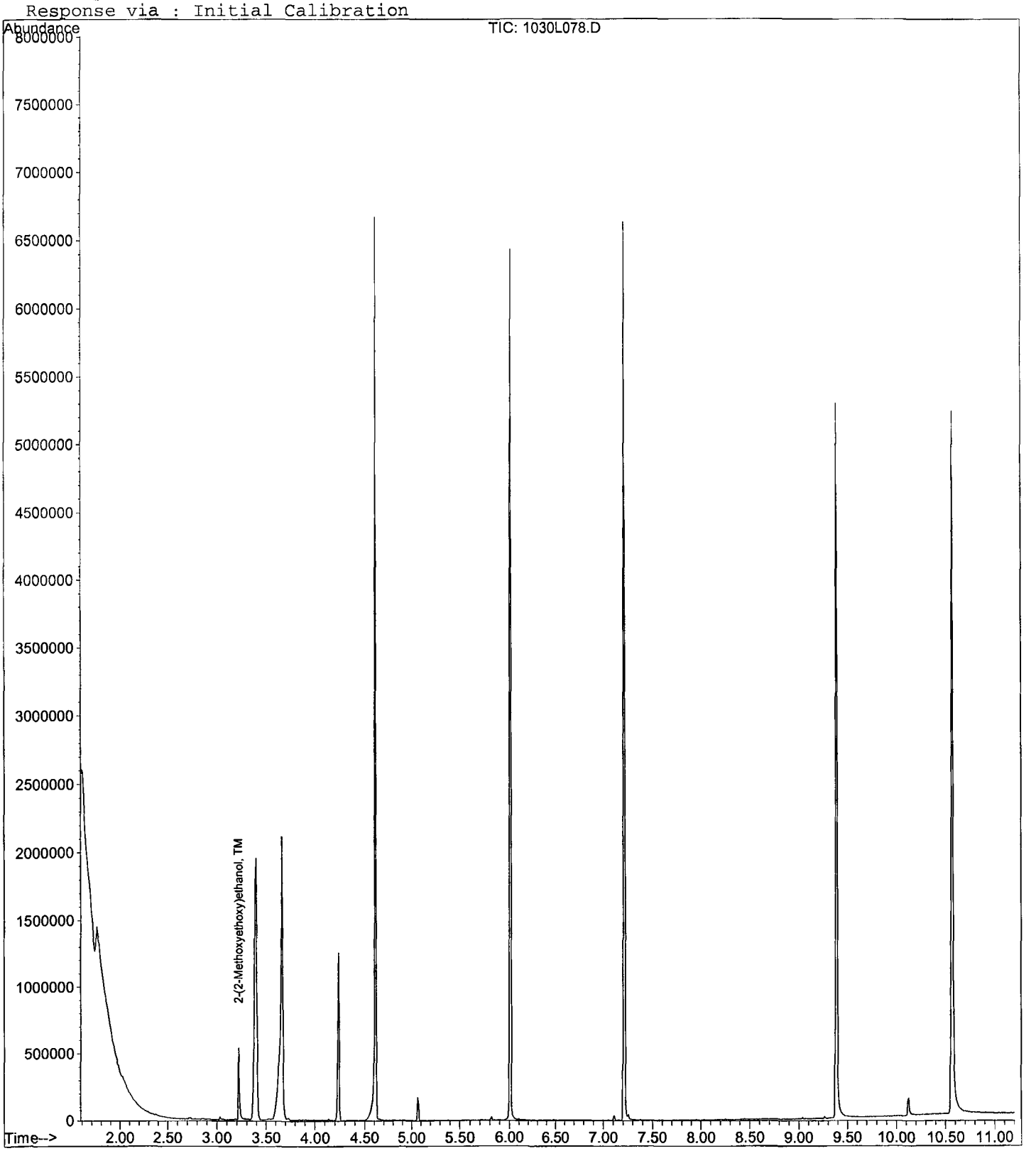
(#) = qualifier out of range (m) = manual integration
1030L078.D YMEE1030.M Wed Dec 04 13:05:00 2019 Page 1

Quantitation Report

Data File : M:\LINUS\DATA\L191030M\1030L078.D Vial: 78
Acq On : 14 Nov 19 10:27 Operator: MA
Sample : 191111A LCSD-1 2/500 Inst : Linus
Misc : Multiplr: 1.00

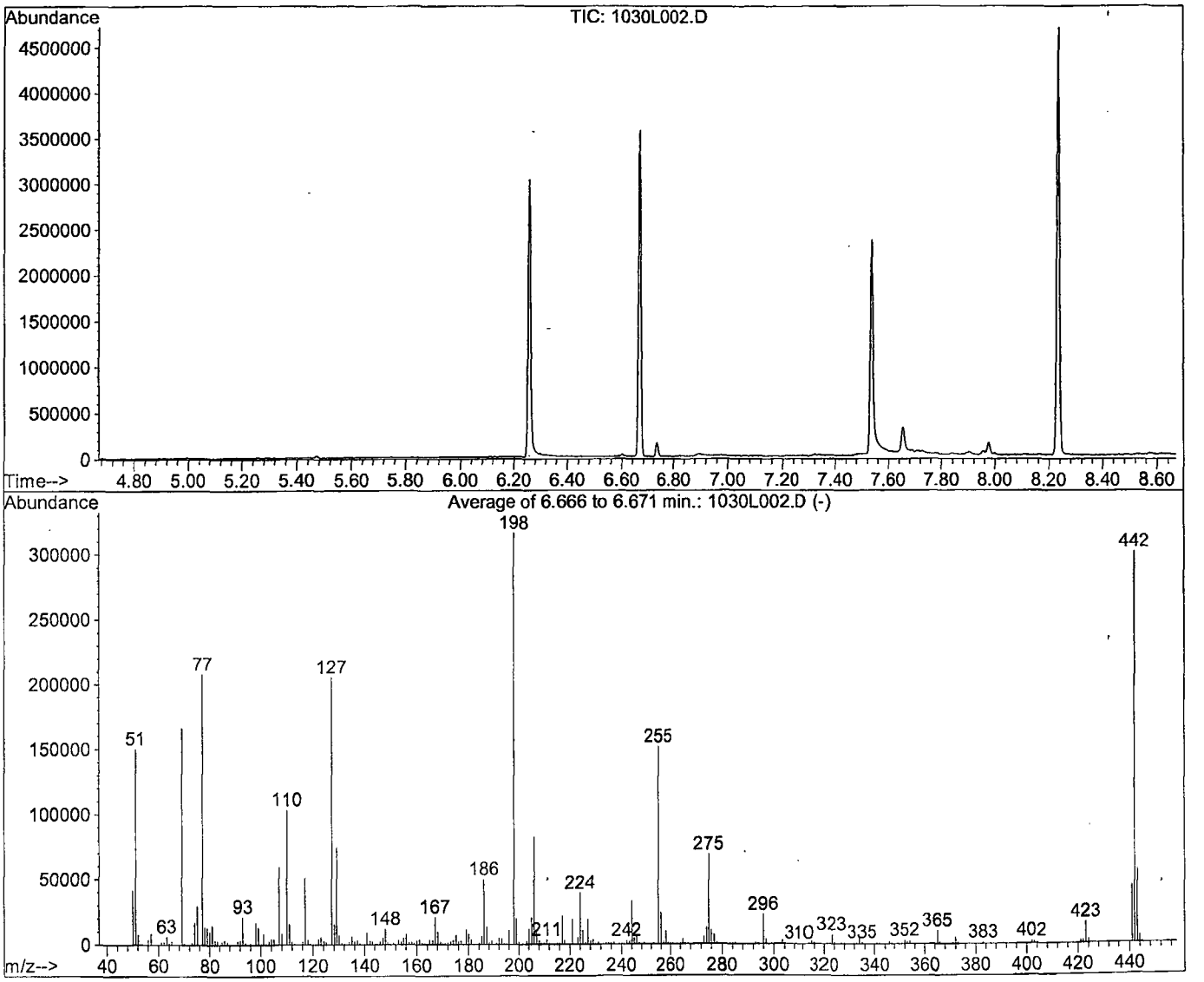
Quant Time: Nov 14 10:40 2019 Quant Results File: YMEE1030.RES

Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 01 17:44:15 2019
Response via : Initial Calibration



Data File : M:\LINUS\DATA\L191030M\1030L002.D Vial: 86
Acq On : 31 Oct 19 9:39 Operator: MA
Sample : SV Tune 10/01/19 Inst : Linus
Misc : Multiplr: 1.00

Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C



AutoFind: Scans 1639, 1640, 1641; Background Corrected with Scan 1629

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	47.5	150243	PASS
68	69	0.00	2	0.0	0	PASS
70	69	0.00	2	0.6	922	PASS
127	198	10	80	64.9	205418	PASS
197	198	0.00	2	0.0	0	PASS
198	198	100	100	100.0	316523	PASS
199	198	5	9	6.2	19776	PASS
275	198	10	60	21.7	68701	PASS
365	198	1	100	3.2	9986	PASS
441	442	0.01	24	14.5	43648	PASS
442	198	50	500	95.4	301909	PASS
443	442	15	24	18.6	56149	PASS

Data File Name:	**1030L002.D**
Data File Path:	**M:\LINUS\DATA\L191030M**
Operator:	**MA**
Date Acquired:	**31 Oct 2019 09:39**
Method File:	**DFTPP2.M**
Sample Name:	**SV Tune 07/11/19**
Vial Number:	**86**
Instrument Name:	**Linus**

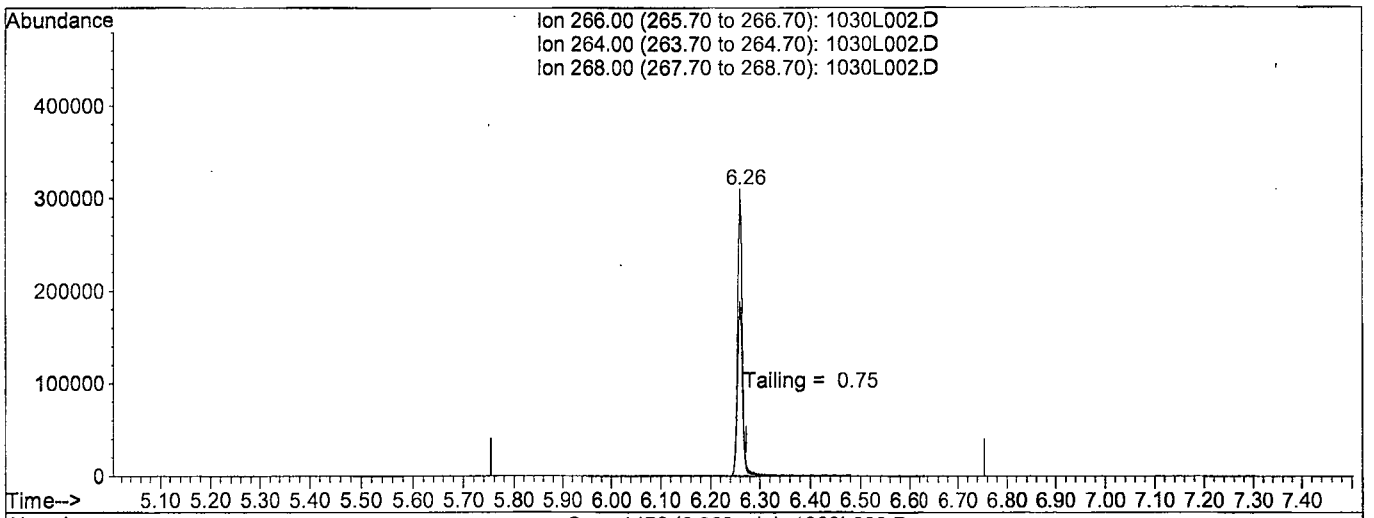
#	Name	Ret Time	Target Response
1)	DDT	8.21	32088400
2)	DDD	7.98	1040940
3)	DDE	8.00	701952

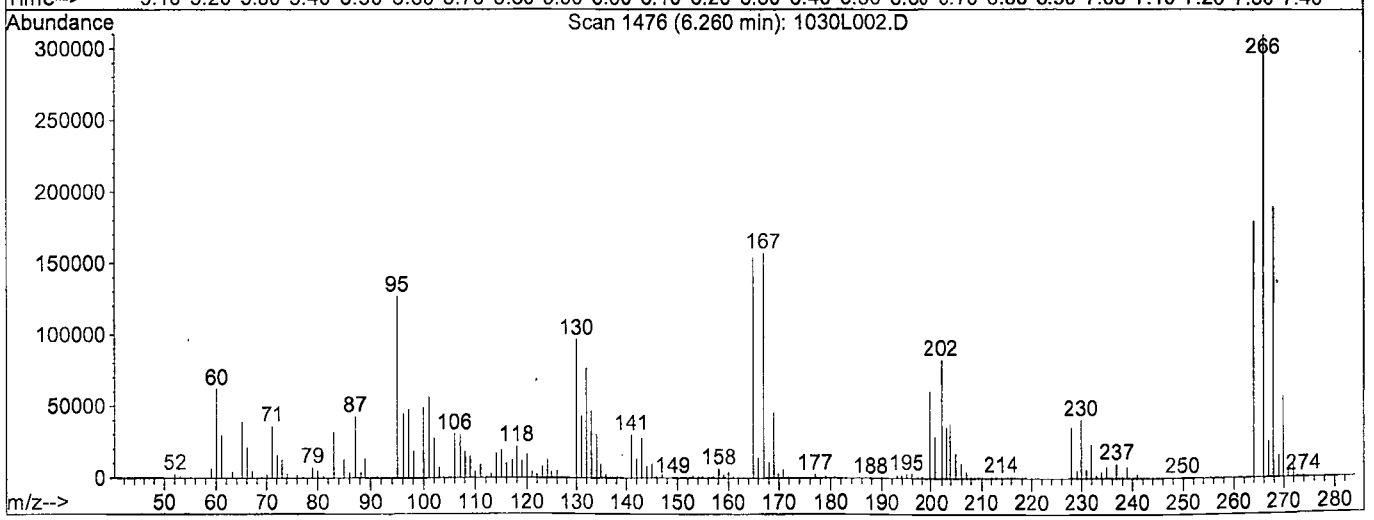
Breakdown **5.15**

Quantitation Report

Data File : M:\LINUS\DATA\L191030M\1030L002.D Vial: 86
Acq On : 31 Oct 19 9:39 Operator: MA
Sample : SV Tune 07/11/19 Inst : Linus
Misc : Multiplr: 1.00
Quant Time: Oct 31 17:15 2019 Quant Results File: temp.res

Method : M:\LINUS\DATA\L191030M\DFTPP2.M (Chemstation Integrator)
Title :
Last Update : Thu Oct 31 09:52:59 2019
Response via : Single Level Calibration





TIC: 1030L002.D

(5) Pentachlorophenol

6.26min 0.0000

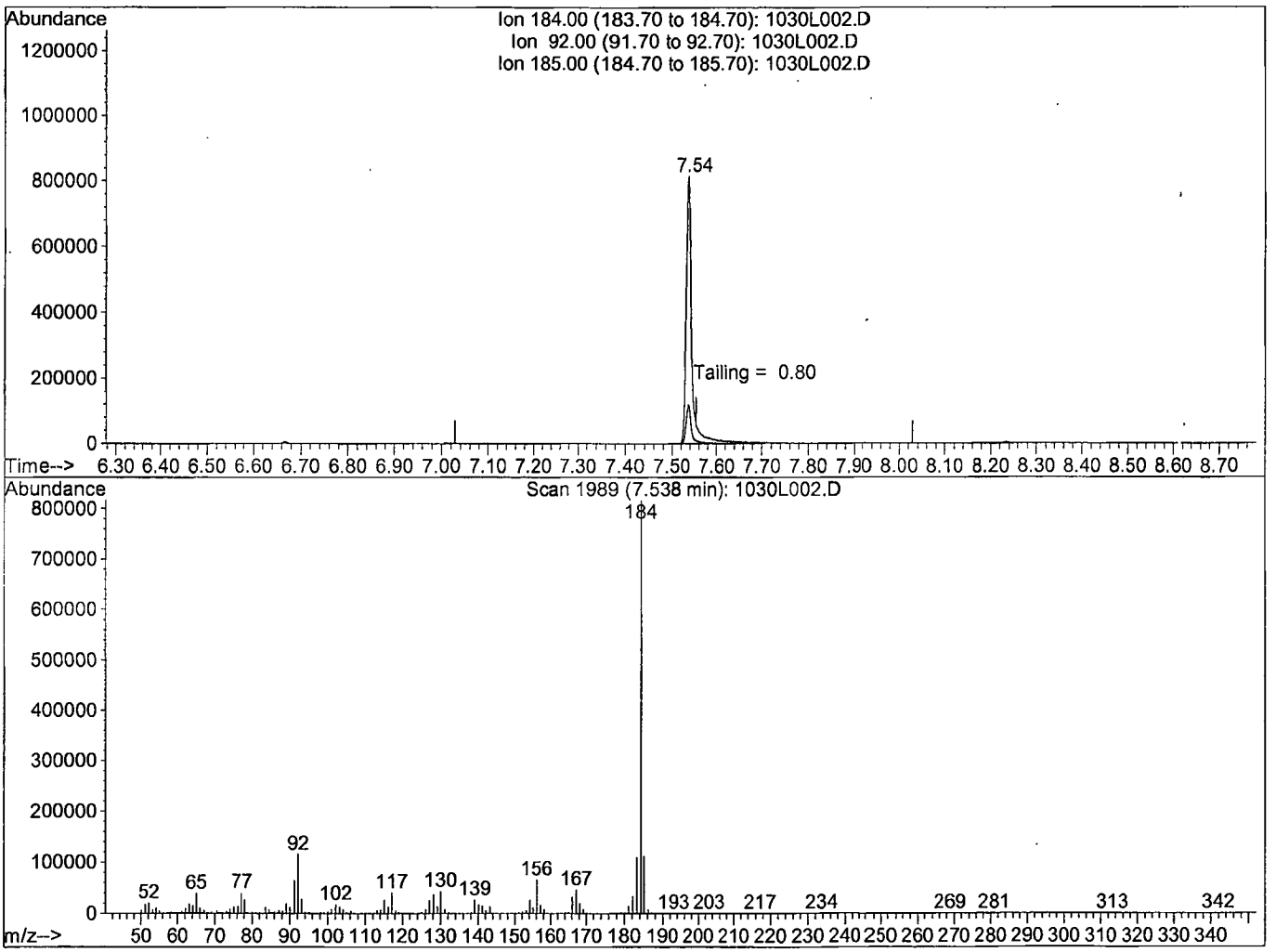
response 2123401

Ion	Exp%	Act%
266.00	100	100
264.00	58.90	57.25
268.00	62.10	64.34
0.00	0.00	0.00

Quantitation Report

Data File : M:\LINUS\DATA\L191030M\1030L002.D Vial: 86
Acq On : 31 Oct 19 9:39 Operator: MA
Sample : SV Tune 07/11/19 Inst : Linus
Misc : Multiplr: 1.00
Quant Time: Oct 31 17:15 2019 Quant Results File: temp.res

Method : M:\LINUS\DATA\L191030M\DFTPP2.M (Chemstation Integrator)
Title :
Last Update : Thu Oct 31 09:52:59 2019
Response via : Single Level Calibration



TIC: 1030L002.D

(6) Benzidine

7.54min 0.0000

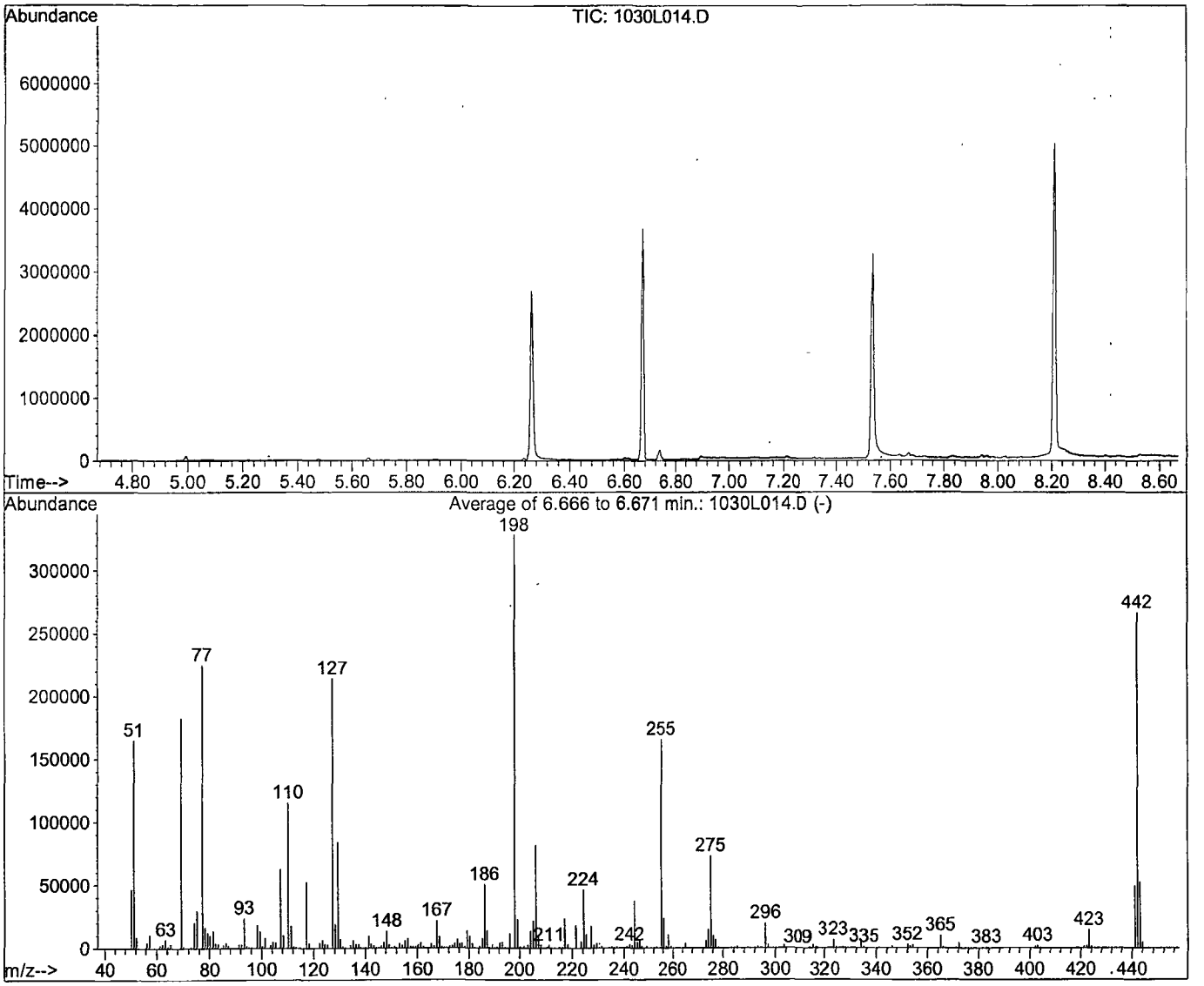
response 6810019

Ion	Exp%	Act%
184.00	100	100
92.00	12.10	14.47
185.00	13.30	14.66
0.00	0.00	0.00

DFTPP

Data File : M:\LINUS\DATA\L191030M\1030L014.D Vial: 14
Acq On : 1 Nov 19 15:17 Operator: MA
Sample : SV Tune 10/01/19 Inst : Linus
Misc : Multiplr: 1.00

Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C



AutoFind: Scans 1639, 1640, 1641; Background Corrected with Scan 1630

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	50.2	164951	PASS
68	69	0.00	2	0.0	0	PASS
70	69	0.00	2	0.7	1364	PASS
127	198	10	80	65.2	214229	PASS
197	198	0.00	2	0.0	0	PASS
198	198	100	100	100.0	328597	PASS
199	198	5	9	7.0	22899	PASS
275	198	10	60	22.3	73325	PASS
365	198	1	100	3.1	10112	PASS
441	442	0.01	24	18.5	49301	PASS
442	198	50	500	81.1	266539	PASS
443	442	15	24	19.7	52437	PASS

Data File Name:	**1030L014.D**
Data File Path:	**M:\LINUS\DATA\L191030M**
Operator:	**MA**
Date Acquired:	**1 Nov 19 15:17**
Method File:	**DFTPP2.M**
Sample Name:	**SV Tune 10/01/19**
Vial Number:	**14**
Instrument Name:	**Linus**

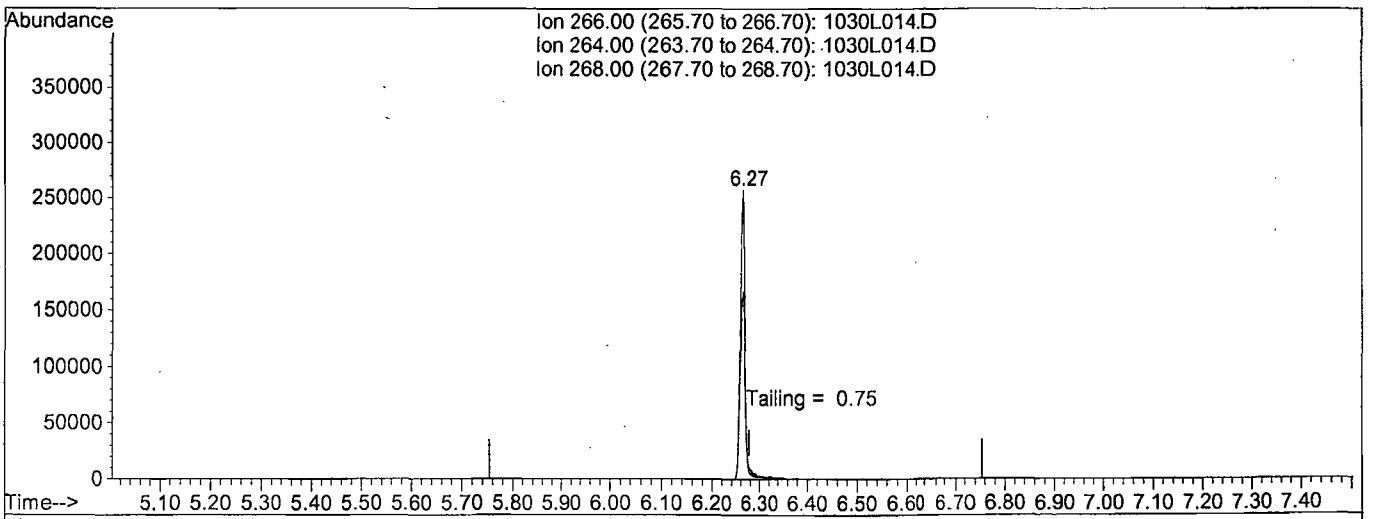
#	Name	Ret Time	Target Response
1)	DDT	8.21	38086400
2)	DDD	7.98	224750
3)	DDE	8.00	113996

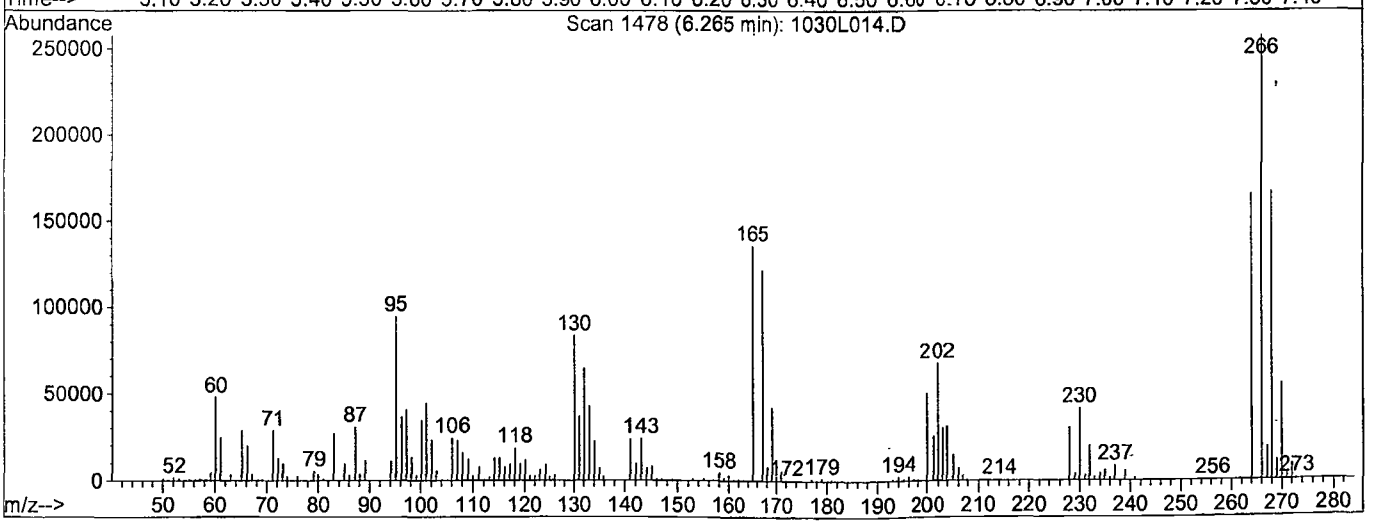
Breakdown **0.88**

Quantitation Report

Data File : M:\LINUS\DATA\L191030M\1030L014.D Vial: 14
Acq On : 1 Nov 19 15:17 Operator: MA
Sample : SV Tune 10/01/19 Inst : Linus
Misc : Multiplr: 1.00
Quant Time: Nov 1 15:30 2019 Quant Results File: temp.res

Method : M:\LINUS\DATA\L191030M\DFTPP2.M (Chemstation Integrator)
Title :
Last Update : Thu Oct 31 09:52:59 2019
Response via : Single Level Calibration





TIC: 1030L014.D

(5) Pentachlorophenol

6.26min 0.0000

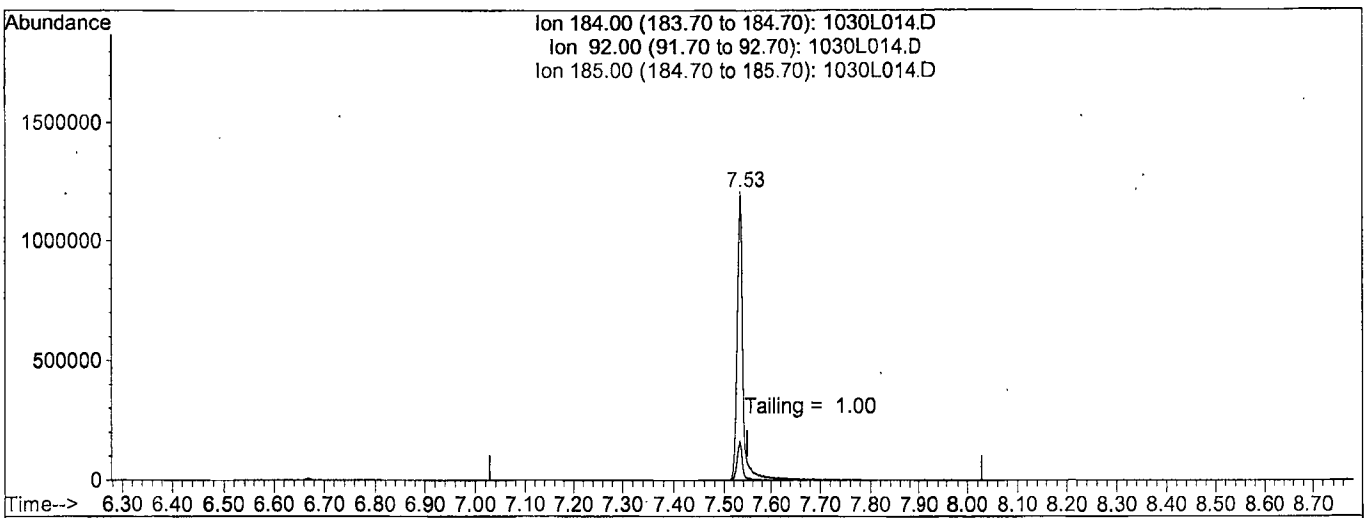
response 1793923

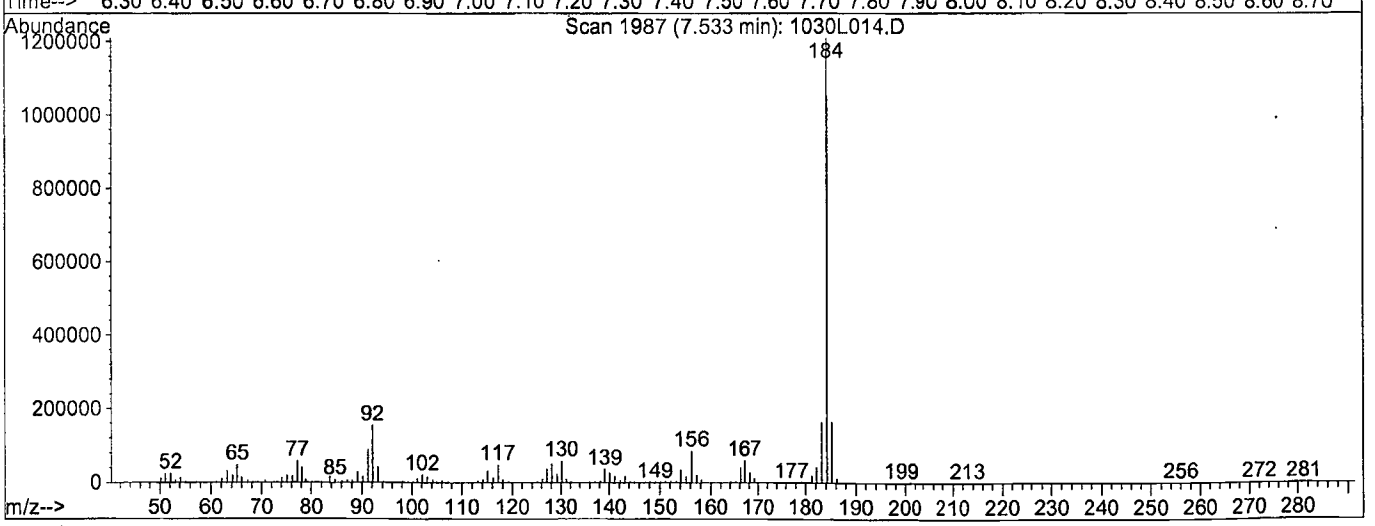
Ion	Exp%	Act%
266.00	100	100
264.00	58.90	65.01
268.00	62.10	61.84
0.00	0.00	0.00

Quantitation Report

Data File : M:\LINUS\DATA\L191030M\1030L014.D Vial: 14
Acq On : 1 Nov 19 15:17 Operator: MA
Sample : SV Tune 10/01/19 Inst : Linus
Misc : Multiplr: 1.00
Quant Time: Nov 1 15:30 2019 Quant Results File: temp.res

Method : M:\LINUS\DATA\L191030M\DFTPP2.M (Chemstation Integrator)
Title :
Last Update : Thu Oct 31 09:52:59 2019
Response via : Single Level Calibration





TIC: 1030L014.D

(6) Benzidine

7.53min 0.0000

response 9749447

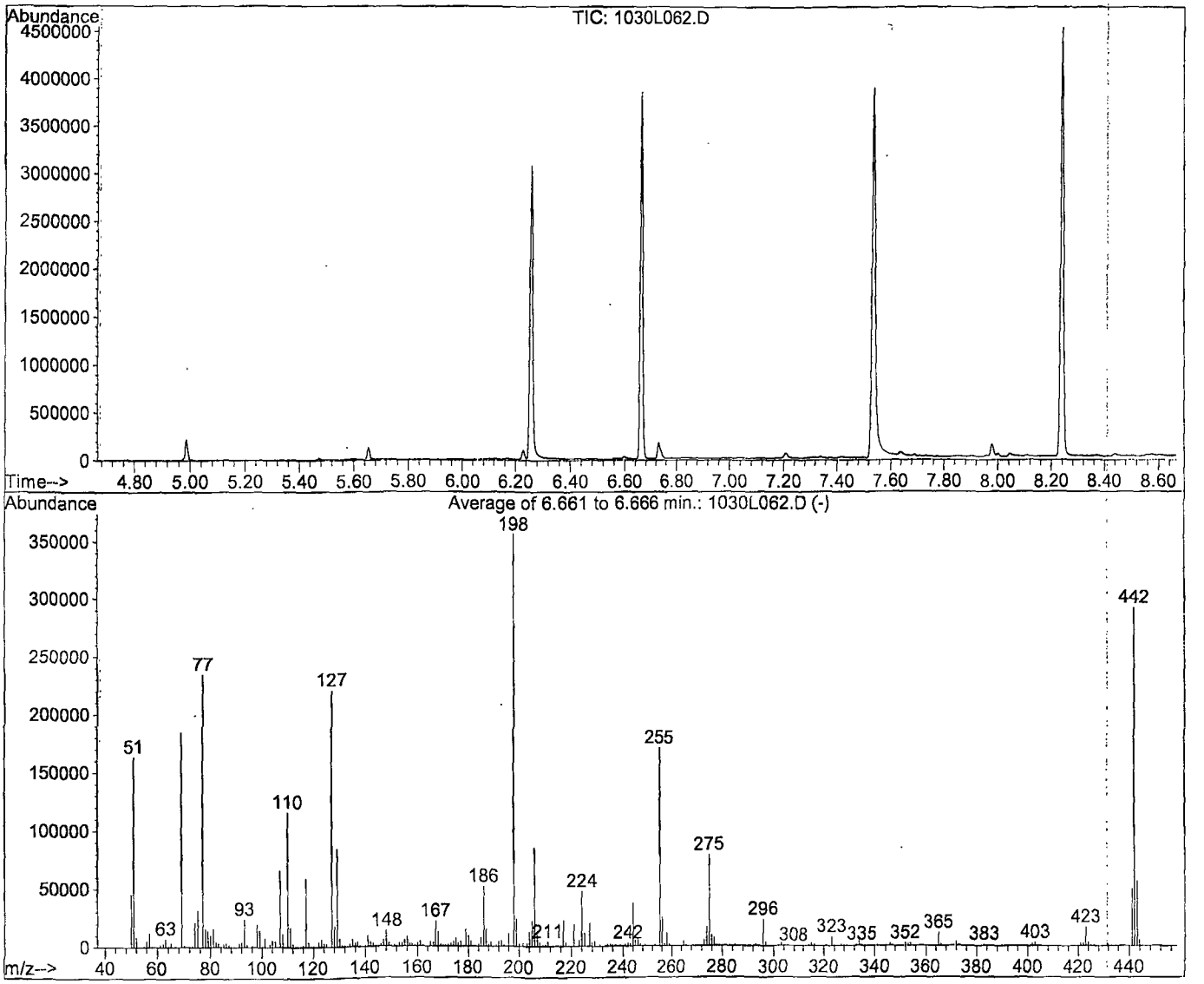
Ion	Exp%	Act%
184.00	100	100
92.00	12.10	13.21
185.00	13.30	13.73
0.00	0.00	0.00

DFTPP

Data File : M:\LINUS\DATA\L191030M\1030L062.D
Acq On : 13 Nov 19 14:33
Sample : SV Tune 10/01/19
Misc :

Vial: 62
Operator: MA
Inst : Linus
Multiplr: 1.00

Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C



AutoFind: Scans 1637, 1638, 1639; Background Corrected with Scan 1628

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	45.9	163337	PASS
68	69	0.00	2	0.0	0	PASS
70	69	0.00	2	0.7	1352	PASS
127	198	10	80	61.9	220608	PASS
197	198	0.00	2	0.0	0	PASS
198	198	100	100	100.0	356203	PASS
199	198	5	9	6.6	23437	PASS
275	198	10	60	22.0	78240	PASS
365	198	1	100	3.1	11207	PASS
441	442	0.01	24	16.9	49360	PASS
442	198	50	500	82.0	292075	PASS
443	442	15	24	19.1	55757	PASS

Data File Name:	**1030L062.D**
Data File Path:	**M:\LINUS\DATA\L191030M**
Operator:	**MA**
Date Acquired:	**13 Nov 2019 14:33**
Method File:	**DFTPP2.M**
Sample Name:	**SV Tune 10/01/19**
Vial Number:	**62**
Instrument Name:	**Linus**

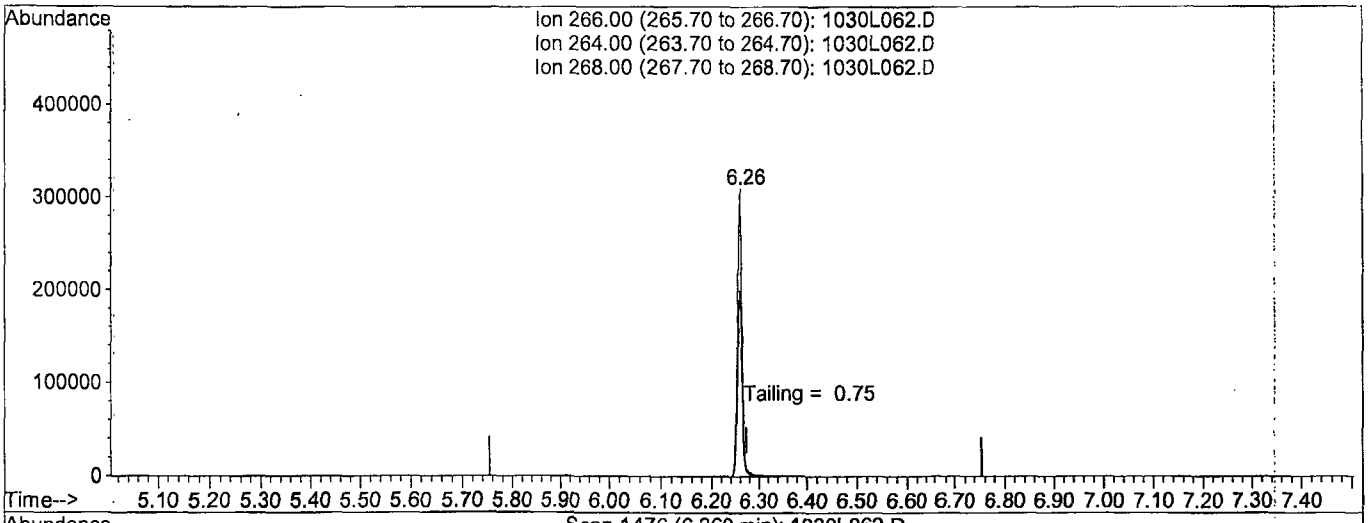
#	Name	Ret Time	Target Response
1)	DDT	8.21	33180100
2)	DDD	7.98	1105850
3)	DDE	8.00	206498

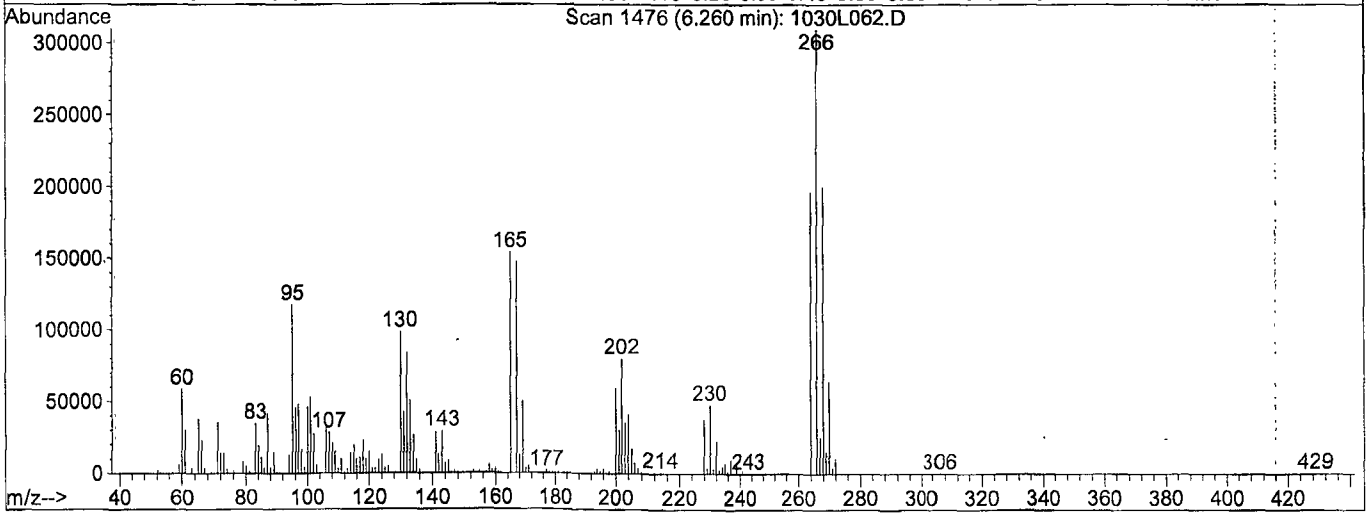
Breakdown **3.80**

Quantitation Report

Data File : M:\LINUS\DATA\L191030M\1030L062.D Vial: 62
Acq On : 13 Nov 19 14:33 Operator: MA
Sample : SV Tune 10/01/19 Inst : Linus
Misc : Multiplr: 1.00
Quant Time: Nov 13 16:09 2019 Quant Results File: temp.res

Method : M:\LINUS\DATA\L191030M\DFTPP2.M (Chemstation Integrator)
Title :
Last Update : Thu Oct 31 09:52:59 2019
Response via : Single Level Calibration





TIC: 1030L062.D

(5) Pentachlorophenol

6.26min 0.0000

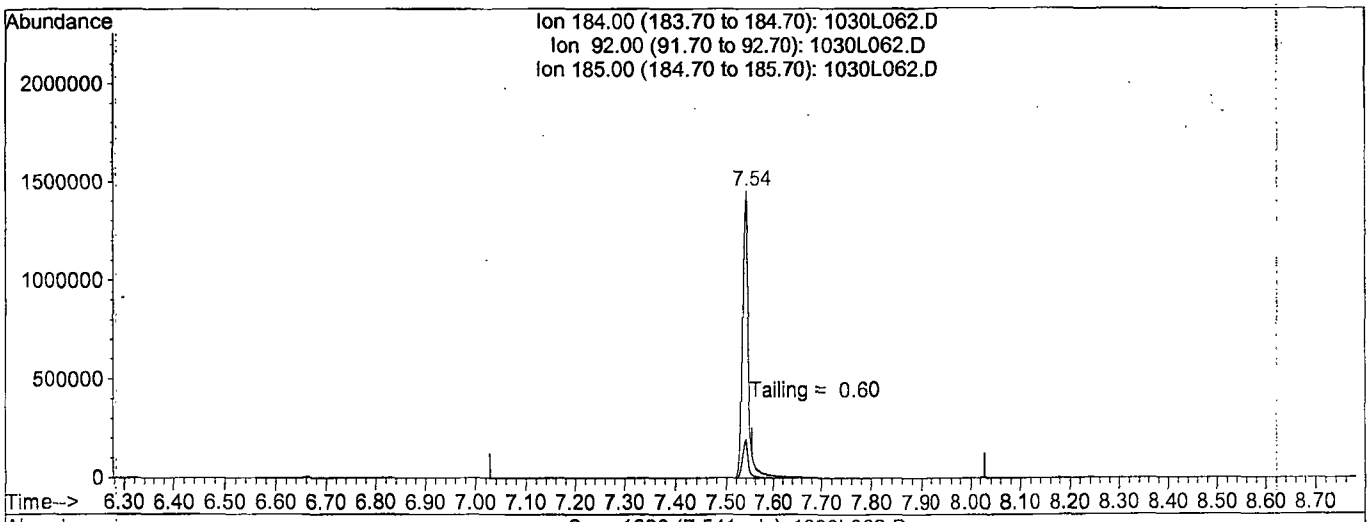
response 2078639

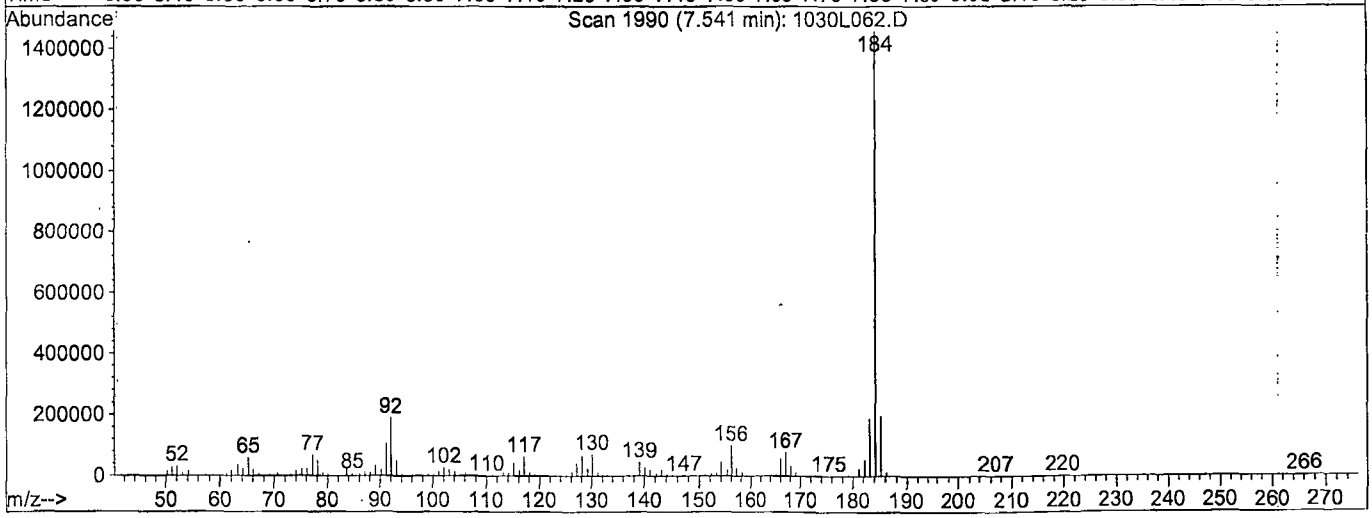
Ion	Exp%	Act%
266.00	100	100
264.00	58.90	66.65
268.00	62.10	65.16
0.00	0.00	0.00

Quantitation Report

Data File : M:\LINUS\DATA\L191030M\1030L062.D Vial: 62
Acq On : 13 Nov 19 14:33 Operator: MA
Sample : SV Tune 10/01/19 Inst : Linus
Misc : Multiplr: 1.00
Quant Time: Nov 13 16:09 2019 Quant Results File: temp.res

Method : M:\LINUS\DATA\L191030M\DFTPP2.M (Chemstation Integrator)
Title :
Last Update : Thu Oct 31 09:52:59 2019
Response via : Single Level Calibration





TIC: 1030L062.D

(6) Benzidine

7.54min 0.0000

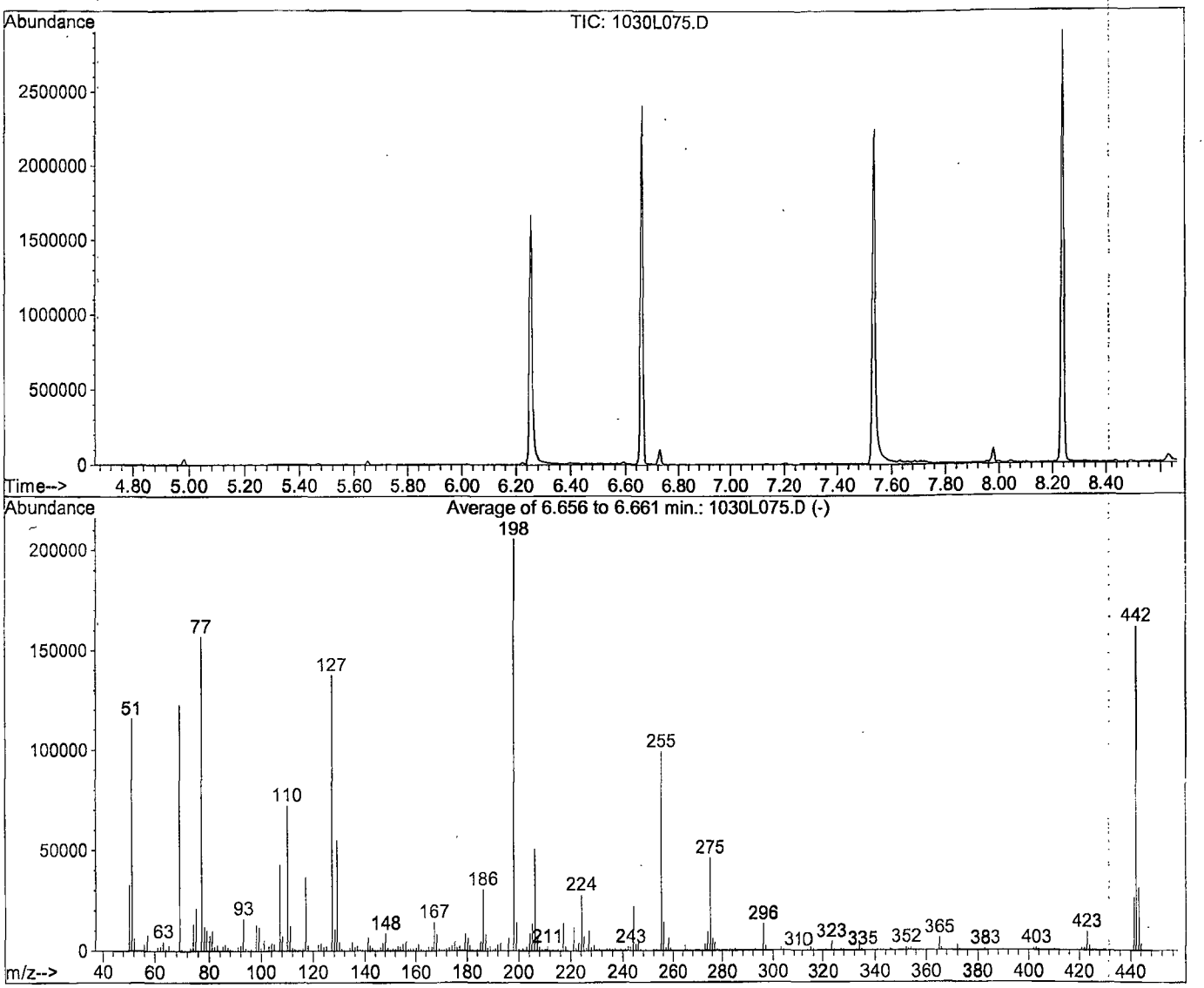
response 12043880

Ion	Exp%	Act%
184.00	100	100
92.00	12.10	13.50
185.00	13.30	13.27
0.00	0.00	0.00

DFTPP

Data File : M:\LINUS\DATA\L191030M\1030L075.D Vial: 75
Acq On : 14 Nov 19 9:32 Operator: MA
Sample : SV Tune 10/01/19 Inst : Linus
Misc : Multiplr: 1.00

Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C



AutoFind: Scans 1635, 1636, 1637; Background Corrected with Scan 1626

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	56.2	115653	PASS
68	69	0.00	2	0.0	0	PASS
70	69	0.00	2	0.5	566	PASS
127	198	10	80	66.8	137496	PASS
197	198	0.00	2	0.0	0	PASS
198	198	100	100	100.0	205717	PASS
199	198	5	9	6.8	14054	PASS
275	198	10	60	22.3	45795	PASS
365	198	1	100	3.0	6257	PASS
441	442	0.01	24	16.1	25981	PASS
442	198	50	500	78.3	161088	PASS
443	442	15	24	19.2	30893	PASS

Data File Name:	**1030L075.D**
Data File Path:	**M:\LINUS\DATA\L191030M**
Operator:	**MA**
Date Acquired:	**14 Nov 2019 09:32**
Method File:	**DFTPP2.M**
Sample Name:	**SV Tune 10/01/19**
Vial Number:	**75**
Instrument Name:	**Linus**

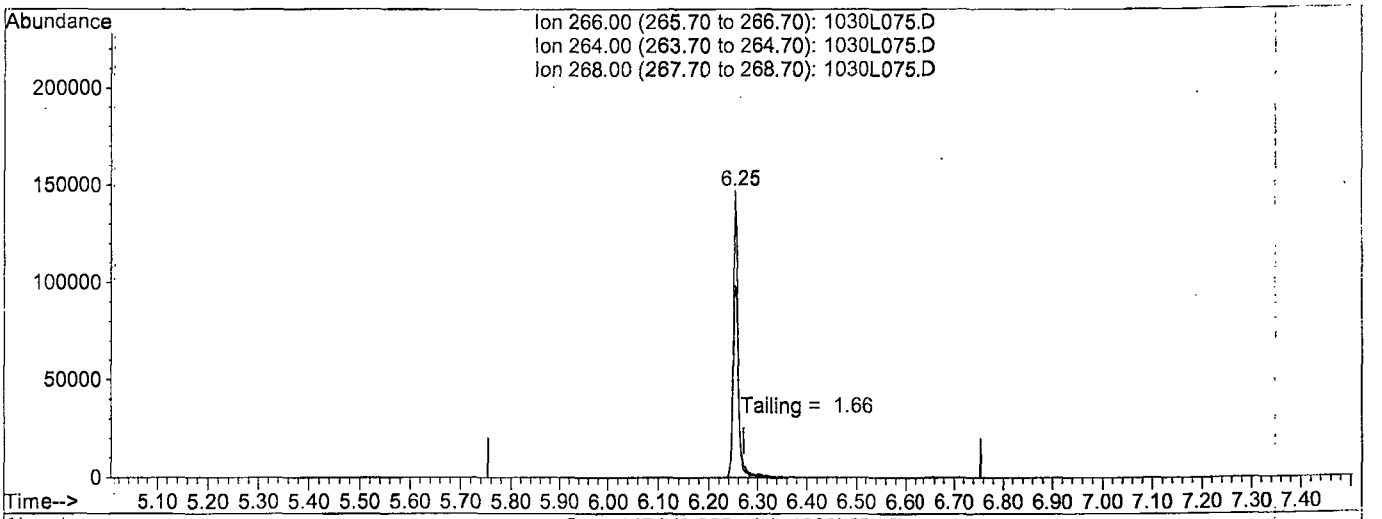
#	Name	Ret Time	Target Response
1)	DDT	8.21	19218300
2)	DDD	7.98	693744
3)	DDE	7.69	64547

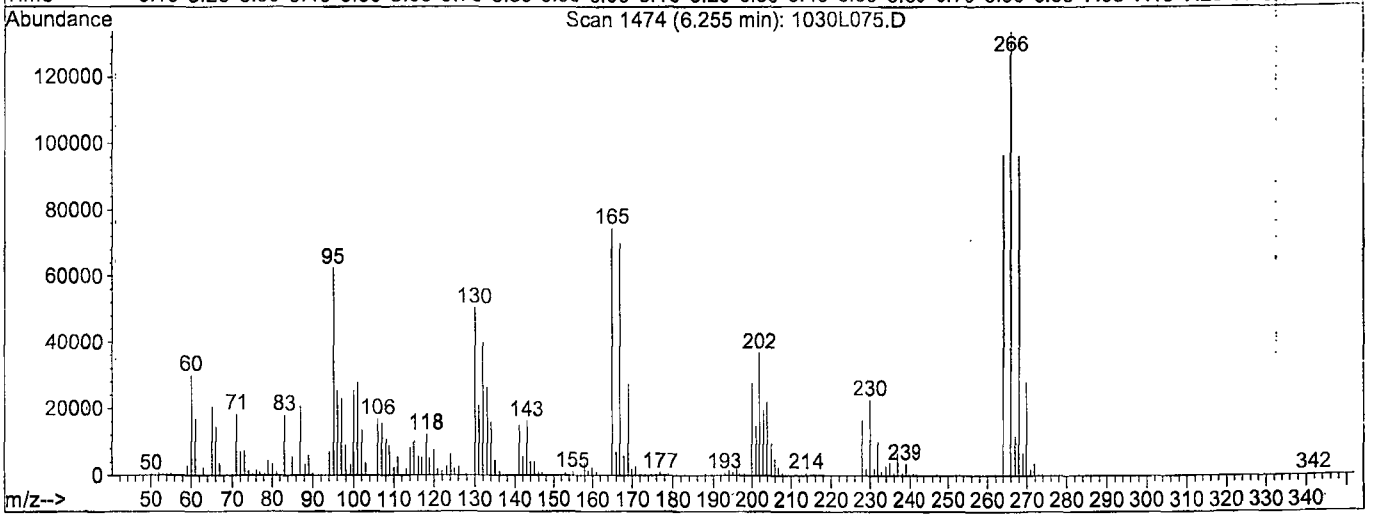
Breakdown **3.80**

Quantitation Report

Data File : M:\LINUS\DATA\L191030M\1030L075.D Vial: 75
Acq On : 14 Nov 19 9:32 Operator: MA
Sample : SV Tune 10/01/19 Inst : Linus
Misc : Multiplr: 1.00
Quant Time: Nov 14 9:48 2019 Quant Results File: temp.res

Method : M:\LINUS\DATA\L191030M\DFTPP2.M (Chemstation Integrator)
Title :
Last Update : Thu Oct 31 09:52:59 2019
Response via : Single Level Calibration





TIC: 1030L075.D

(5) Pentachlorophenol

6.25min 0.0000

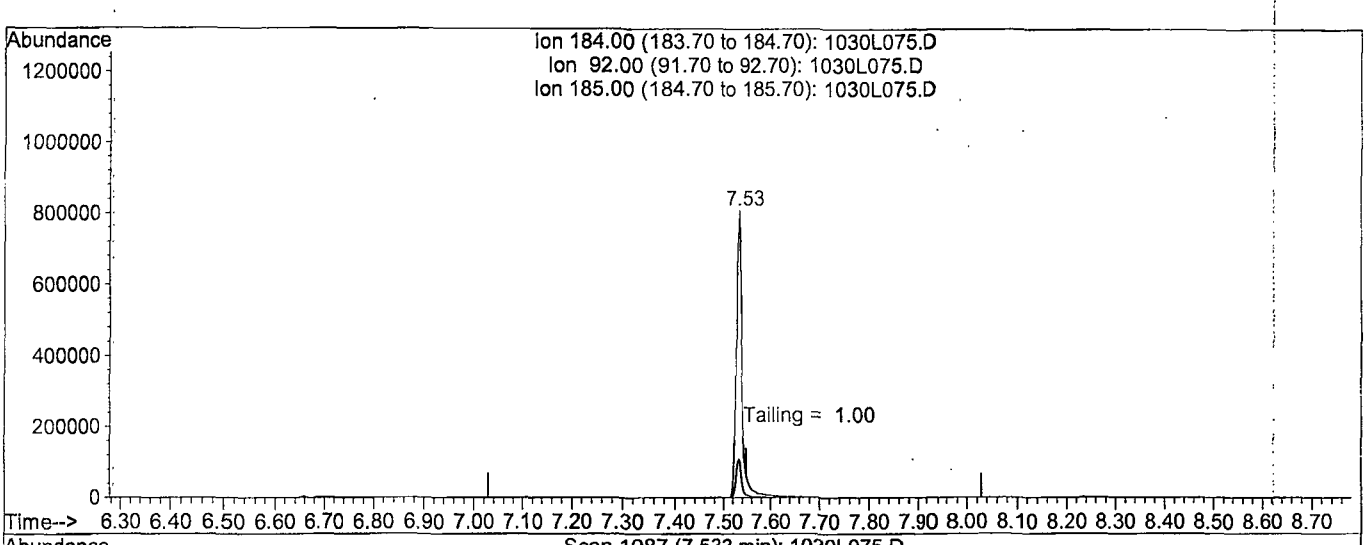
response 1096798

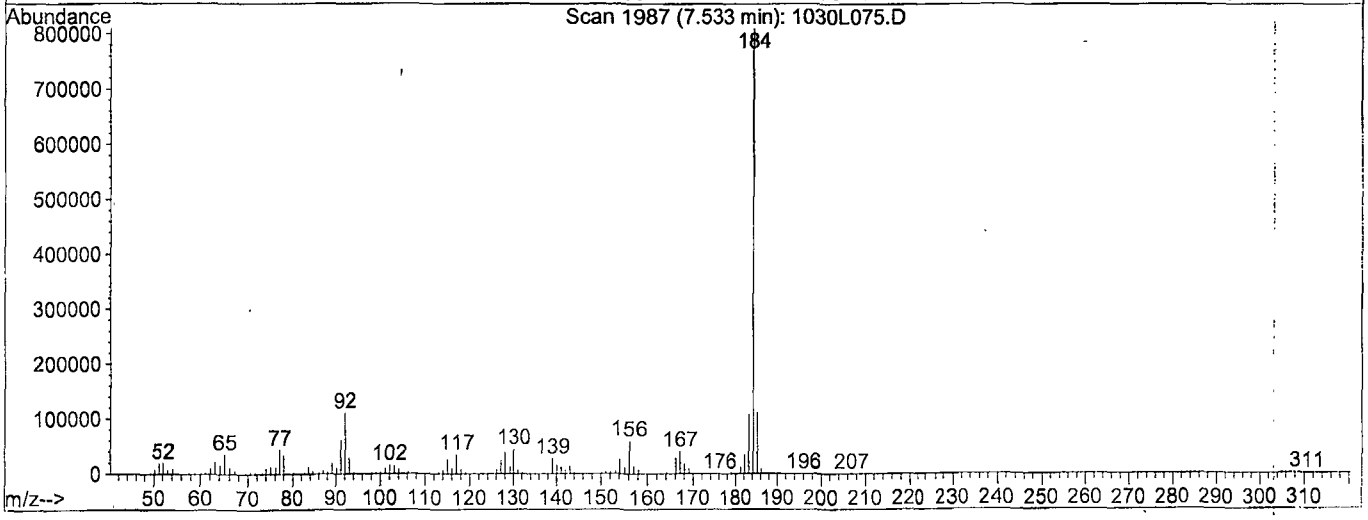
Ion	Exp%	Act%
266.00	100	100
264.00	58.90	68.14
268.00	62.10	65.33
0.00	0.00	0.00

Quantitation Report

Data File : M:\LINUS\DATA\L191030M\1030L075.D Vial: 75
Acq On : 14 Nov 19 9:32 Operator: MA
Sample : SV Tune 10/01/19 Inst : Linus
Misc : Multiplr: 1.00
Quant Time: Nov 14 9:48 2019 Quant Results File: temp.res

Method : M:\LINUS\DATA\L191030M\DFTPP2.M (Chemstation Integrator)
Title :
Last Update : Thu Oct 31 09:52:59 2019
Response via : Single Level Calibration





TIC: 1030L075.D

(6) Benzidine

7.53min 0.0000

response 6656775

Ion	Exp%	Act%
184.00	100	100
92.00	12.10	12.58
185.00	13.30	14.23
0.00	0.00	0.00

Name of Final Standard Diethylene Glycol **Prep'd By (Initials)** GA

Prep Date 01/31/19

Exp Date 01/31/20

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from contianer Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc.(range)
Diethylene glycol methyl ether	AccuStandard	S-72273	2000 ug/mL	218101558-39888 39889	01/31/20	2.0 mL	4 mL	Methanol #042317C	1000 ug/mL

Given to Extraction to do **MEE M STD Stock** (used for ICAL) Final concentration 2000ug/L

Organic Extraction Worksheet

Method	Solid Phase Extraction of 2MEE in Water	Extraction Set	190429A	Extraction Method	MWE2MEE	Units	mL

Spiked ID 1	Diethylene Glycol 1-31-19 EXP 1-31-20		Surrogate ID 1		
Spiked ID 2	2MEE SS 10320ug/mL 8-3-18 exp 8-3-19		Surrogate ID 2		
Spiked ID 3			Surrogate ID 3		
Spiked ID 4			Surrogate ID 4		
Spiked ID 5			Surrogate ID 5		
Spiked ID 6			Sufficient Vol for Matrix QC:	YES	
Spiked ID 7			Ext. Start Time:	04/29/19 10:50	
Spiked ID 8			Ext. End Time:	04/29/19 16:40	
			GC Requires Extract By:	04/30/19 0:00	

M STD AND SS PREPARATION

HA 5/1/19

			Water Bath Temp Criteria	
pH1				
pH2				
pH3				

Spiked By: KY **Date** 04/29/19 **Witnessed By:** DL **Date** 04/29/19

	Sample	Sample Container	Spike Amount	Spike ID	Surrogate Amount	Surrogate ID	Extract Amount	Final Volume	pH	Extract Date/Time	Comments
1	190429A Blk				NA	NA equip	500	2	7	04/29/19 10:50	
2	190429A LCS-1		0.040	1	NA	NA equip	500	2	7	04/29/19 10:50	
3	190429A LCSD-1		0.040	1	NA	NA equip	500	2	7	04/29/19 10:50	
4	AZ89958 MS-1	AZ89958W23	0.040	1	NA	NA equip	510	2	7	04/29/19 10:50	88687
5	AZ89958 MSD-1	AZ89958W22	0.040	1	NA	NA equip	510	2	7	04/29/19 10:50	88687
6	AZ89958	AZ89958W24			NA	NA equip	500	2	7	04/29/19 10:50	88687
7	AZ89959	AZ89959W06			NA	NA equip	480	2	7	04/29/19 10:50	88687
8	AZ89961	AZ89961W22			NA	NA equip	510	2	7	04/29/19 10:50	88687
9	AZ90051 MS-1	AZ90051W21	0.040	1	NA	NA equip	500	2	7	04/29/19 10:50	88701
10	AZ90051 MSD-1	AZ90051W25	0.040	1	NA	NA equip	500	2	7	04/29/19 10:50	88701
11	AZ90051	AZ90051W22			NA	NA equip	500	2	7	04/29/19 10:50	88701
12	AZ90052	AZ90052W05			NA	NA equip	505	2	7	04/29/19 10:50	88701
13	AZ90054	AZ90054W16			NA	NA equip	510	2	7	04/29/19 10:50	88701
14	AZ90056	AZ90056W16			NA	NA equip	510	2	7	04/29/19 10:50	88701
15	AZ90058	AZ90058W17			NA	NA equip	500	2	7	04/29/19 10:50	88701
16	AZ90060	AZ90060W17			NA	NA equip	505	2	7	04/29/19 10:50	88701

Solvent and Lot#	
ENVI-Carb Plus 400MG/1ML	
Reverible Tube Lot:	11225702
PH Strip	HC 863463
Di Water	4-29-19
Dichloromethane	58240
Methanol	58179

Extraction COC Transfer	
Extraction lab employee Initials	KY
GC analyst's initials	
Date	
Time	
Refrigerator	

	Technician's Initials
Scanned By	DL
Sample Preparation	DL
Extraction	DL
Concentration	DL

Modified	04/29/19 2:46:49 PM

Reviewed By: **Date**

_MWE2MEE

Organic Extraction Worksheet

Method	Solid Phase Extraction of 2MEE in Water	Extraction Set	190429A	Extraction Method	MWE2MEE	Units	mL

Spiked ID 1	Diethylene Glycol 1-31-19 EXP 1-31-20		Surrogate ID 1		
Spiked ID 2	2MEE SS 10320ug/mL 8-3-18 exp 8-3-19		Surrogate ID 2		
Spiked ID 3			Surrogate ID 3		
Spiked ID 4			Surrogate ID 4		
Spiked ID 5			Surrogate ID 5		
Spiked ID 6			Sufficient Vol for Matrix QC:	YES	
Spiked ID 7			Ext. Start Time:	04/29/19 10:50	
Spiked ID 8			Ext. End Time:	04/29/19 16:40	
			GC Requires Extract By:	04/30/19 0:00	

pH1			Water Bath Temp Criteria	
pH2				
pH3				

Spiked By: KY **Date** 04/29/19 **Witnessed By:** DL **Date** 04/29/19

	Sample	Sample Container	Spike Amount	Spike ID	Surrogate Amount	Surrogate ID	Extract Amount	Final Volume	pH	Extract Date/Time	Comments
17	AZ90100	AZ90100W17			NA	NA equip	510	2	7	04/29/19 10:50	88714
18	AZ90102	AZ90102W16			NA	NA equip	395	2	7	04/29/19 10:50	88714
19	AZ90103	AZ90103W04			NA	NA equip	250	2	7	04/29/19 10:50	88714
20	AZ90105	AZ90105W16			NA	NA equip	500	2	7	04/29/19 10:50	88714
21	AZ90107	AZ90107W16			NA	NA equip	510	2	7	04/29/19 10:50	88714
22	AZ90109	AZ90109W17			NA	NA equip	505	2	7	04/29/19 10:50	88714
23	AZ90213	AZ90213W15			NA	NA equip	505	2	7	04/29/19 10:50	88736
24	AZ90215	AZ90215W16			NA	NA equip	500	2	7	04/29/19 10:50	88736
25	M STD		1	1	NA	NA equip	500	2	7	04/29/19 10:50	
26	SS		0.097	2	NA	NA equip	500	2	7	04/29/19 10:50	

Solvent and Lot#	
ENVI-Carb Plus 400MG/1ML	
Reverible Tube Lot:	11225702
PH Strip	HC 863463
Di Water	4-29-19
Dichloromethane	58240
Methanol	58179

Extraction COC Transfer	
Extraction lab employee Initials	KY
GC analyst's initials	
Date	
Time	
Refrigerator	

	Technician's Initials
Scanned By	DL
Sample Preparation	DL
Extraction	DL
Concentration	DL

Modified	04/29/19 2:46:49 PM

Reviewed By: Page 397 of 685 Date

Name of Final Standard: MEE Curve
Prep Date: 04/30/19
Exp Date: 10/30/19
Prep'd By (Initials): SS

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from container Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
MEE M STD Stock	APPL		2000 ug/mL	04/29/19	01/31/20	5 uL	200uL	Methanol 195uL Lot# 208858	50 ug/mL
SV Internal Standard	APPL	8270 I.S.	2000 ug/mL	03/12/19	03/12/20	4 uL	"	"	"
MEE M STD Stock	APPL		2000 ug/mL	04/29/19	01/31/20	5 uL	100uL	Methanol 95uL Lot# 208858	100 ug/mL
SV Internal Standard	APPL	8270 I.S.	2000 ug/mL	03/12/19	03/12/20	2 uL	"	"	"
MEE M STD Stock	APPL		2000 ug/mL	04/29/19	01/31/20	10 uL	100uL	Methanol 90uL Lot# 208858	200 ug/mL
SV Internal Standard	APPL	8270 I.S.	2000 ug/mL	03/12/19	03/12/20	2 uL	"	"	"
MEE M STD Stock	APPL		2000 ug/mL	04/29/19	01/31/20	20 uL	100uL	Methanol 80 uL Lot# 208858	400 ug/mL
SV Internal Standard	APPL	8270 I.S.	2000 ug/mL	03/12/19	03/12/20	2 uL	"	"	"
MEE M STD Stock	APPL		2000 ug/mL	04/29/19	01/31/20	50 uL	200 uL	Methanol 150 uL	500 ug/mL
SV Internal Standard	APPL	8270 I.S.	2000 ug/mL	03/12/19	03/12/20	4 uL	"	"	"
MEE M STD Stock	APPL		2000 ug/mL	04/29/19	01/31/20	30 uL	100uL	Methanol 70 uL Lot# 208858	600 ug/mL
SV Internal Standard	APPL	8270 I.S.	2000 ug/mL	03/12/19	03/12/20	2 uL	"	"	"
MEE M STD Stock	APPL		2000 ug/mL	04/29/19	01/31/20	40 uL	100uL	Methanol 60 uL Lot# 208858	800 ug/mL
SV Internal Standard	APPL	8270 I.S.	2000 ug/mL	03/12/19	03/12/20	2 uL	"	"	"
MEE M STD Stock	APPL		2000 ug/mL	04/29/19	01/31/20	50 uL	100uL	Methanol 50uL Lot# 208858	1000 ug/mL
SV Internal Standard	APPL	8270 I.S.	2000 ug/mL	03/12/19	03/12/20	2 uL	"	"	"

Name of Final Standard: MEE Second Source
Prep Date: 04/30/19
Exp Date: 08/03/19
Prep'd By (Initials): SS

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from container Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
MEE SS	APPL		2000 ug/mL	04/29/19	08/03/19	50 uL	200uL	Methanol 150uL Lot# 208858	500 ug/mL
SV Internal Standard	APPL	8270 I.S.	2000 ug/mL	03/12/19	03/12/20	4 uL	"	"	"

Name of Final Standard **2MEE Second Source Stock**

Prep'd By (Initials) JP

Prep Date 10/28/19

Exp Date 10/28/20

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from contianer Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc. (range)
Methoxyethanol-Neat	Chem Service	N-12404-1G	Neat 99.5%	**7079100 - 39417**	**07/31/22**	0.1022g	10 mL	**MC #56258**	10220 ug/mL

Given to Extraction to do **MEE SS** (used for ICAL SS)

0.097ml were spiked in 500ml of water and extracted on 10/28/2019 . Final concentration is 2000ug/L

Name of Final Standard	**MEE Second Source**	**Prep'd By (Initials)**	**MA**
Prep Date	**11/01/19**		
Exp Date	**11/01/20**		

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from container Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
MEE SS	APPL		2000 ug/mL	**10/28/19**	**10/28/20**	**50 uL**	**200uL**	**Methanol 150uL Lot# 208858**	**500 ug/mL**
SV Internal Standard	APPL	8270 I.S.	2000 ug/mL	**10/28/19**	**10/28/20**	**4 uL**			

Organic Extraction Worksheet

Method	Solid Phase Extraction of 2MEE in Water	Extraction Set	191111A	Extraction Method	MWE2MEE	Units	mL

Spiked ID 1	Diethylene Glycol 1-31-19 EXP 1-31-20		Surrogate ID 1		
Spiked ID 2	2MEE SS 10320ug/mL 10/28/19 exp 10/28/20		Surrogate ID 2		
Spiked ID 3			Surrogate ID 3		
Spiked ID 4			Surrogate ID 4		
Spiked ID 5			Surrogate ID 5		
Spiked ID 6			Sufficient Vol for Matrix QC:		
Spiked ID 7			Ext. Start Time:	11/11/19 14:35	
Spiked ID 8			Ext. End Time:	11/12/19 13:15	
			GC Requires Extract By:		

pH1			Water Bath Temp 1 °C	
pH2			Water Bath Temp 2 °C	
pH3			Water Bath Temp 3 °C	

Spiked By: DL **Date** 11/11/19 **Witnessed By:** YL **Date** 11/11/19

	Sample	Sample Container	Spike Amount	Spike ID	Surrogate Amount	Surrogate ID	Extract Amount	Final Volume	pH	Extract Date/Time	Comments
1	191111A Blk				NA	NA equip	500	2	7Y	11/11/19 14:35	
2	191111A LCS-1		0.040	1	NA	NA equip	500	2	7Y	11/11/19 14:35	
3	191111A LCSD-1		0.040	1	NA	NA equip	500	2	7Y	11/11/19 14:35	
4	BA02466	BA02466W18			NA	NA equip	500	2	7Y	11/11/19 14:35	90648
5	BA02525	BA02525W19			NA	NA equip	500	2	7Y	11/11/19 14:35	90657
6	BA02713	BA02713W23			NA	NA equip	500	2	7Y	11/11/19 14:35	90700
7	BA02715	BA02715W28			NA	NA equip	500	2	7Y	11/11/19 14:35	90700
8	BA02716	BA02716W09			NA	NA equip	500	2	7Y	11/11/19 14:35	90700
9	SS		0.097	2	NA	NA equip	500	2	7Y	11/11/19 14:35	

Solvent and Lot#	
ENVI-Carb Plus 400MG/1ML	11694501
Reverible Tube Lot:	11694501
PH Strip	HC863463
Di Water	11/11/19
Dichloromethane	59130
Methanol	59129

Extraction COC Transfer	
Extraction lab employee Initials	SS
GC analyst's initials	MA
Date	11/12/19
Time	4:50
Refrigerator	Hobart

	Technician's Initials
Scanned By	DL
Sample Preparation	DL
Extraction	DL
Concentration	DL

Modified	11/11/19 1:20:31 PM

Reviewed By: MA **Date** 11/19/19

Injection Log

Directory: M:\LINUS\DATA\L191030M\

Vial	FileName	Multiplier	SampleName	Misc Info	Injected
86	1030L002.D	1	SV Tune 10/01/19		31 Oct 19 9:39
4	1030L004.D	1	50 2MEE 4/30/19		31 Oct 19 11:50
5	1030L005.D	1	100 2MEE 4/30/19		31 Oct 19 12:10
6	1030L006.D	1	200 2MEE 4/30/19		31 Oct 19 12:29
8	1030L008.D	1	500 2MEE 4/30/19		31 Oct 19 13:07
9	1030L009.D	1	600 2MEE 4/30/19		31 Oct 19 13:25
10	1030L010.D	1	800 2MEE 4/30/19		31 Oct 19 13:43
11	1030L011.D	1	1000 2MEE 4/30/19		31 Oct 19 14:02
14	1030L014.D	1	SV Tune 10/01/19		1 Nov 19 15:17
16	1030L016.D	1	SS 2MEE 11/1/19		1 Nov 19 17:11
62	1030L062.D	1	SV Tune 10/01/19		13 Nov 19 14:33
63	1030L063.D	1	500 2MEE 4/30/19		13 Nov 19 15:30
65	1030L065.D	1	191111A BLK 2/500		13 Nov 19 16:21
68	1030L068.D	1	BA02466W18 2/500		13 Nov 19 17:17
74	1030L074.D	1	500 2MEE 4/30/19		13 Nov 19 19:07
75	1030L075.D	1	SV Tune 10/01/19		14 Nov 19 9:32
76	1030L076.D	1	500 2MEE 4/30/19		14 Nov 19 9:48
77	1030L077.D	1	191111A LCS-1 2/500		14 Nov 19 10:09
78	1030L078.D	1	191111A LCSD-1 2/500		14 Nov 19 10:27
79	1030L079.D	1	500 2MEE 4/30/19		14 Nov 19 10:46

ORGANICS
Calibration Data

VOLATILE ORGANIC ANALYSIS BY
EPA METHOD 8260B

Form 6
Initial Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Initial Cal. Date: 11/06/19
Matrix: water Instrument: Max Initials: DG

		Compound	1	2	3	4	5	6	7	8	9		Avg	%RSD	Type	r^2	Q	MRF
			1106M06.D	1106M07 D	1106M08.D	1106M09 D	1106M10.D	1106M11.D	1106M12.D	1106M13.D	1106M14.D							
1	I	Fluorobenzene (IS)																
2	TML	Dichlorodifluoromethane		0.0932	0.0638	0.0679	0.0561	0.0594	0.0695	0.0670			0.07	18	TML	0.998		
3	TM	Freon 114			0.0737	0.1038	0.0869	0.0840	0.0923	0.0943	0.0848		0.09	11	TM			
4	TM**	Chloromethane		0.1468	0.1506	0.1380	0.1237	0.1142	0.1318	0.1274	0.1185		0.13	9.9	TM**			
5	TM*	Vinyl chloride		0.1114	0.1128	0.1160	0.1179	0.1098	0.1191	0.1138	0.0970		0.11	6.1	TM*			
6	TML	Chloroethane			0.0309	0.0464	0.0423	0.0465	0.0581				0.04	22	TML	0.990		
7	TM	Dichlorofluoromethane		0.1575	0.1525	0.1728	0.1621	0.1585	0.1755	0.1649	0.1545		0.16	5.1	TM			
8	TML	Trichlorofluoromethane			0.0693	0.1103	0.1177	0.1240	0.1477	0.1530	0.1460		0.12	24	TML	0.999		
9	TML	Acetone		0.1606	0.1009	0.0630	0.0358	0.0290	0.0314	0.0262	0.0236		0.06	83	TML	0.998		
10	TM	Freon-113		0.0820	0.0689	0.0667	0.0728	0.0747	0.0826	0.0843	0.0762		0.08	8.6	TM			
11	TM*	1,1-DCE		0.2071	0.2265	0.1922	0.2089	0.2025	0.2286	0.2256	0.1926		0.21	7.1	TM*			
12	TM	Acetonitrile		0.0072	0.0069	0.0078	0.0073	0.0076	0.0092	0.0092	0.0086		0.01	11	TM			
13	TM	Methyl Acetate													TM			
14	TM	Acrylonitrile		0.0211	0.0285	0.0267	0.0212	0.0239	0.0259	0.0247	0.0246		0.02	10	TM			
15	TML	Methylene chloride		0.2407	0.1630	0.1394	0.1189	0.1047	0.1131	0.1066	0.0969		0.14	35	TML	0.998		
16	TM	Carbon disulfide		0.1876	0.2075	0.2424	0.2330	0.2172	0.2568	0.2490	0.2407		0.23	10	TM			
17	TM	Trans-1,2-DCE		0.0965	0.0992	0.1054	0.1008	0.0973	0.1086	0.1046	0.1005		0.10	4.1	TM			
18	TML	Cis-1,2-DCE		0.1709	0.1324	0.1179	0.1139	0.1019	0.1161	0.1146	0.1102		0.12	18	TML	1.000		
19	TM*L	Chloroform		0.0490	0.0592	0.0460	0.0959	0.1078	0.1496	0.1629	0.1724		0.11	49	TM*L	0.999		
20	TML	Bromochloromethane		0.0088	0.0268	0.0338	0.0399	0.0421	0.0515	0.0496	0.0505		0.04	39	TML	1.000		
21	SL	Dibromofluoromethane(S)	0.1161	0.1088	0.1047	0.1106	0.1575	0.1734	0.2099	0.2172	0.2253		0.16	32	SL	0.997		
22	TM	Cyclohexane		0.0769	0.0742	0.0743	0.0703	0.0636	0.0668	0.0697	0.0639		0.07	7.1	TM			
23	TM	1,1-Dichloropropene		0.1061	0.1448	0.1279	0.1304	0.1207	0.1315	0.1304	0.1224		0.13	8.7	TM			
24	TM	2,2,4-Trimethylpentane		0.1762	0.1893	0.1592	0.1748	0.1667	0.1697	0.1730	0.1616		0.17	5.5	TM			
25	SL	1,2-DCA-D4(S)	0.1291	0.1039	0.0954	0.1031	0.1278	0.1426	0.1716	0.1789	0.1937		0.14	26	SL	0.994		
26	TMQ	1,2-DCA			0.0772	0.0739	0.0977	0.0964	0.1187	0.1281	0.1476		0.11	26	TMQ	1.000		
27	TM	Benzene	0.3730	0.3738	0.3556	0.3934	0.3993	0.3824	0.4034	0.3894	0.3716		0.38	4.0	TM			
28	TML	TCE		0.2747	0.1838	0.1492	0.1211	0.1045	0.1121	0.1086			0.15	41	TML	0.999		
29	TM	*2-Pentanone*		0.0447	0.0405	0.0428	0.0408	0.0421	0.0428	0.0442	0.0400		0.04	4.1	TM			
30	TM	Methyl Cyclohexane		0.1369	0.1404	0.1289	0.1323	0.1223	0.1316	0.1327	0.1224		0.13	4.9	TM			
31	TML	Dibromomethane		0.0334	0.0255	0.0251	0.0294	0.0331	0.0375	0.0362	0.0388		0.03	16	TML	0.999		
32	TM	MIBK (methyl isobutyl ketone)		0.0670	0.0612	0.0601	0.0573	0.0583	0.0639	0.0621	0.0600		0.06	5.1	TM			
33	TM*	*Toluene*	0.4879	0.4869	0.4690	0.4397	0.4434	0.4169	0.4573	0.4428	0.4262		0.45	5.5	TM*			
34	TM	1,1,2-TCA		0.0512	0.0555	0.0630	0.0663	0.0644	0.0671	0.0660	0.0640		0.06	9.2	TM			
35	I	Chlorobenzene-D5 (IS)																

VOLATILE ORGANIC ANALYSIS BY
EPA METHOD 8260B

Form 6
Initial Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Initial Cal. Date: 11/06/19
Matrix: water Instrument: Max Initials: DG

		Compound	1	2	3	4	5	6	7	8	9		Avg	%RSD	Type		Q	MRF
36	S	Toluene-D8(S)	1.371	1.259	1.097	1.070	1.148	1.113	1.150	1.131	1.078		1.2	8.4	S			
37	TM	Tetrachloroethene		0.1400	0.1821	0.1536	0.1551	0.1452	0.1495	0.1459	0.1384		0.15	9.1	TM			
38	TM	1-Chlorohexane		0.1342	0.1550	0.1513	0.1503	0.1474	0.1534	0.1493	0.1456		0.15	4.3	TM			
39	TM	m&p-Xylene	0.2677	0.2836	0.2383	0.2684	0.2521	0.2477	0.2643	0.2583	0.2511		0.26	5.2	TM			
40	TM	o-Xylene	0.2065	0.3211	0.2505	0.2761	0.2637	0.2442	0.2694	0.2550	0.2489		0.26	12	TM			
41	TM	Styrene		0.4045	0.3704	0.3899	0.4146	0.4016	0.4350	0.4227	0.4169		0.41	5.0	TM			
42	S	4-Bromofluorobenzene(S)	0.5341	0.4709	0.3773	0.3953	0.4172	0.4147	0.4368	0.4276	0.4189		0.43	11	S			
43	TM**	Chlorobenzene		0.4289	0.4024	0.3905	0.3814	0.3654	0.3867	0.3727	0.3674		0.39	5.4	TM**			
44	TM*	Ethylbenzene	0.6044	0.5913	0.6171	0.6213	0.6021	0.5765	0.6161	0.5916	0.5804		0.60	2.7	TM*			
45	I	1,4-Dichlorobenzene-D (IS)																
46	TM	Isopropylbenzene		1.122	1.022	1.043	1.037	0.9943	1.027	0.9877	0.9570		1.0	4.8	TM			
47	TM	1,2,3-Trichloropropane		0.0687	0.0772	0.0894	0.0709	0.0696	0.0712	0.0705	0.0673		0.07	9.9	TM			
48	TML	t-1,4-Dichloro-2-Butene			0.0076	0.0088	0.0074	0.0159	0.0150	0.0170	0.0196		0.01	38	TML	0.997		
49	TM	Bromobenzene		0.3921	0.3684	0.3510	0.3374	0.3339	0.3308	0.3153	0.3047		0.34	8.3	TM			
50	TM	n-Propylbenzene		1.120	1.044	1.096	1.072	1.012	1.059	1.043	1.003		1.1	3.8	TM			
51	TM	4-Ethyltoluene		1.022	0.9873	0.9946	0.9657	0.9615	0.9943	0.9643	0.9442		0.98	2.5	TM			
52	TM	2-Chlorotoluene		0.7817	0.7379	0.7007	0.6901	0.6822	0.6841	0.6521	0.6312		0.69	6.8	TM			
53	TM	1,3,5-Trimethylbenzene		0.8967	0.8263	0.7829	0.8522	0.8171	0.8547	0.8200	0.7981		0.83	4.3	TM			
54	TM	4-Chlorotoluene		0.8476	0.8612	0.7912	0.7444	0.7639	0.7869	0.7645	0.7411		0.79	5.7	TM			
55	TM	Tert-Butylbenzene		0.8505	0.7778	0.7715	0.7936	0.7168	0.7612	0.7541	0.7295		0.77	5.4	TM			
56	TM	1,2,4-Trimethylbenzene		0.9424	0.8467	0.8570	0.8618	0.8114	0.8787	0.8439	0.8222		0.86	4.7	TM			
57	TM	Sec-Butylbenzene		0.9880	0.9363	0.9738	0.9548	0.9242	0.9718	0.9635	0.9283		0.96	2.4	TM			
58	TM	p-Isopropyltoluene		0.5874	0.5432	0.5757	0.6058	0.5542	0.6511	0.6252	0.6256		0.60	6.3	TM			
59	TML	Benzyl Chloride		0.2136	0.2208	0.2314	0.2659	0.2868	0.3009	0.3318	0.3549		0.28	19	TML	0.999		
60	TM	1,3-DCB		0.6901	0.5682	0.5851	0.5981	0.5675	0.5987	0.5776	0.5519		0.59	7.2	TM			
61	TM	1,4-DCB		0.3943	0.3910	0.3861	0.3721	0.3763	0.3973	0.3949	0.3894		0.39	2.3	TM			
62	TM	n-Butylbenzene		0.3506	0.3461	0.3483	0.4070	0.3894	0.4425	0.4355	0.4281		0.39	10	TM			
63	TM	1,2-DCB		0.5541	0.5427	0.5805	0.5275	0.5270	0.5804	0.5620	0.5332		0.55	4.0	TM			
64	TM	1,2-Dibromo-3-chloropropane		0.0461	0.0503	0.0513	0.0476	0.0513	0.0585	0.0619	0.0616		0.05	12	TM			
65	TML	1,2,4-Trichlorobenzene		0.2832	0.2612	0.3130	0.3378	0.3326	0.3921	0.3997	0.3933		0.34	15	TML	1.000		
66	TM	Hexachlorobutadiene		0.1868	0.2007	0.1886	0.1967	0.1960	0.2156	0.2074	0.1933		0.20	4.8	TM			
67	TML	Naphthalene		0.0368	0.0258	0.0338	0.0390	0.0449	0.0503	0.0548	0.0529		0.04	24	TML	0.996		
68	TML	1,2,3-Trichlorobenzene		0.1975	0.2039	0.2103	0.2659	0.2738	0.3327	0.3458	0.3327		0.27	23	TML	0.999		
69																		
70																		

Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M191106\1106M06.D Vial: 3
Acq On : 6 Nov 19 10:45 Operator: LP,DG,CMM
Sample : 0.3ug/L VOC STD 11/06/19 Inst : Max
Misc : IS&S 9/24/19 Multiplr: 1.00

Quant Time: Nov 7 14:29 2019 Quant Results File: M1106.RES

Quant Method : M:\MAX\DATA\M191106\M1106.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 07 14:27:44 2019
Response via : Initial Calibration
DataAcq Meth : M8260

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene (IS)	5.73	96	1402469	25.000	ppb		0.00
35) Chlorobenzene-D5 (IS)	8.97	117	1106542	25.000	ppb		0.00
45) 1,4-Dichlorobenzene-D (IS)	11.30	152	604127	25.000	ppb		0.00
System Monitoring Compounds							
21) Dibromofluoromethane(S)	4.89	111	32559	7.368	ppb		0.00
Spiked Amount 25.000			Recovery =	29.472%			
25) 1,2-DCA-D4(S)	5.30	65	36221	8.248	ppb		0.00
Spiked Amount 25.000			Recovery =	32.992%			
36) Toluene-D8(S)	7.51	98	303410	5.922	ppb		0.00
Spiked Amount 25.000			Recovery =	23.688%			
42) 4-Bromofluorobenzene(S)	10.16	95	118198	6.174	ppb		0.00
Spiked Amount 25.000			Recovery =	24.696%			
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.01	85	1416	0.619	ppb		85
3) Freon 114	1.08	85	1548	0.312	ppb		73
4) Chloromethane	1.13	50	3574	0.485	ppb		94
5) Vinyl chloride	1.20	62	2062	0.328	ppb	#	100
6) Chloroethane	1.48	64	725	1.175	ppb	#	41
7) Dichlorofluoromethane	1.63	67	4462	0.490	ppb		85
8) Trichlorofluoromethane	1.67	101	1250	0.647	ppb		82
9) Acetone	2.15	43	3836	-0.893	ppb		92
10) Freon-113	2.09	101	1131	0.265	ppb	#	47
11) 1,1-DCE	2.07	61	3583	0.303	ppb		93
12) Acetonitrile	2.39	41	5453	12.167	ppb	#	78
14) Acrylonitrile	2.80	53	253	0.183	ppb	#	48
16) Carbon disulfide	2.25	76	4122	0.320	ppb	#	85
17) Trans-1,2-DCE	2.82	96	1966	0.345	ppb	#	79
18) Cis-1,2-DCE	4.20	96	4090	0.376	ppb	#	78
19) Chloroform	4.67	83	146	1.937	ppb	#	17
20) Bromochloromethane	4.53	128	498	0.893	ppb	#	26
22) Cyclohexane	4.91	41	1294	0.330	ppb	#	24
23) 1,1-Dichloropropene	5.10	75	2021	0.284	ppb	#	80
24) 2,2,4-Trimethylpentane	5.53	57	1980	0.206	ppb	#	17
26) 1,2-DCA	5.39	62	1186	1.094	ppb	#	10
27) Benzene	5.36	78	6277	0.293	ppb	#	91
28) TCE	6.16	95	6552	0.473	ppb	#	81
29) 2-Pentanone	6.44	43	22665	9.566	ppb		94
30) Methyl Cyclohexane	6.36	83	2573	0.350	ppb		97
31) Dibromomethane	6.54	93	101	0.980	ppb	#	30
32) MIBK (methyl isobutyl ket	7.44	43	1440	0.419	ppb	#	91
33) Toluene	7.58	91	8211	0.324	ppb		90
34) 1,1,2-TCA	8.01	83	941	0.270	ppb		96
37) Tetrachloroethene	8.14	164	2704	0.404	ppb	#	80
38) 1-Chlorohexane	9.03	91	1566	0.239	ppb	#	71
39) m&p-Xylene	9.26	106	7109	0.620	ppb		98
40) o-Xylene	9.66	106	2742	0.239	ppb		77
41) Styrene	9.67	104	5815	0.323	ppb		89
43) Chlorobenzene	9.00	112	5328	0.311	ppb		87
44) Ethylbenzene	9.14	91	8025	0.302	ppb		84
46) Isopropylbenzene	10.03	105	8114	0.328	ppb		97
47) 1,2,3-Trichloropropane	10.37	110	359	0.203	ppb		86
48) t-1,4-Dichloro-2-Butene	10.42	53	208	3.088	ppb	#	34

(#) = qualifier out of range (m) = manual integration

Data File : M:\MAX\DATA\M191106\1106M06.D Vial: 3
Acq On : 6 Nov 19 10:45 Operator: LP,DG,CMM
Sample : 0.3ug/L VOC STD 11/06/19 Inst : Max
Misc : IS&S 9/24/19 Multiplr: 1.00

Quant Time: Nov 7 14:29 2019 Quant Results File: M1106.RES

Quant Method : M:\MAX\DATA\M191106\M1106.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 07 14:27:44 2019
Response via : Initial Calibration
DataAcq Meth : M8260

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
49)	Bromobenzene	10.29	156	2448	0.296	ppb	#	63
50)	n-Propylbenzene	10.44	91	10021	0.393	ppb		96
51)	4-Ethyltoluene	10.55	105	8030	0.339	ppb		99
52)	2-Chlorotoluene	10.50	91	6607	0.393	ppb		95
53)	1,3,5-Trimethylbenzene	10.62	105	6436	0.320	ppb		89
54)	4-Chlorotoluene	10.62	91	5951	0.313	ppb		90
55)	Tert-Butylbenzene	10.94	119	5579	0.300	ppb		92
56)	1,2,4-Trimethylbenzene	10.99	105	7068	0.341	ppb	#	75
57)	Sec-Butylbenzene	11.16	105	7856	0.340	ppb		99
58)	p-Isopropyltoluene	11.31	119	3662	0.254	ppb	#	85
59)	Benzyl Chloride	11.48	91	1440	1.512	ppb	#	60
60)	1,3-DCB	11.23	146	4555	0.318	ppb		92
61)	1,4-DCB	11.33	146	3045	0.325	ppb		92
62)	n-Butylbenzene	11.72	91	2044	0.215	ppb		96
63)	1,2-DCB	11.68	146	4016	0.302	ppb	#	83
64)	1,2-Dibromo-3-chloropropan	12.45	157	435	0.336	ppb	#	38
65)	1,2,4-Trichlorobenzene	13.29	180	2094	0.702	ppb	#	73
66)	Hexachlorobutadiene	13.48	225	1444	0.302	ppb	#	63
67)	Naphthalene	13.50	127	139	0.517	ppb	#	2
68)	1,2,3-Trichlorobenzene	13.75	180	1666	0.773	ppb	#	49

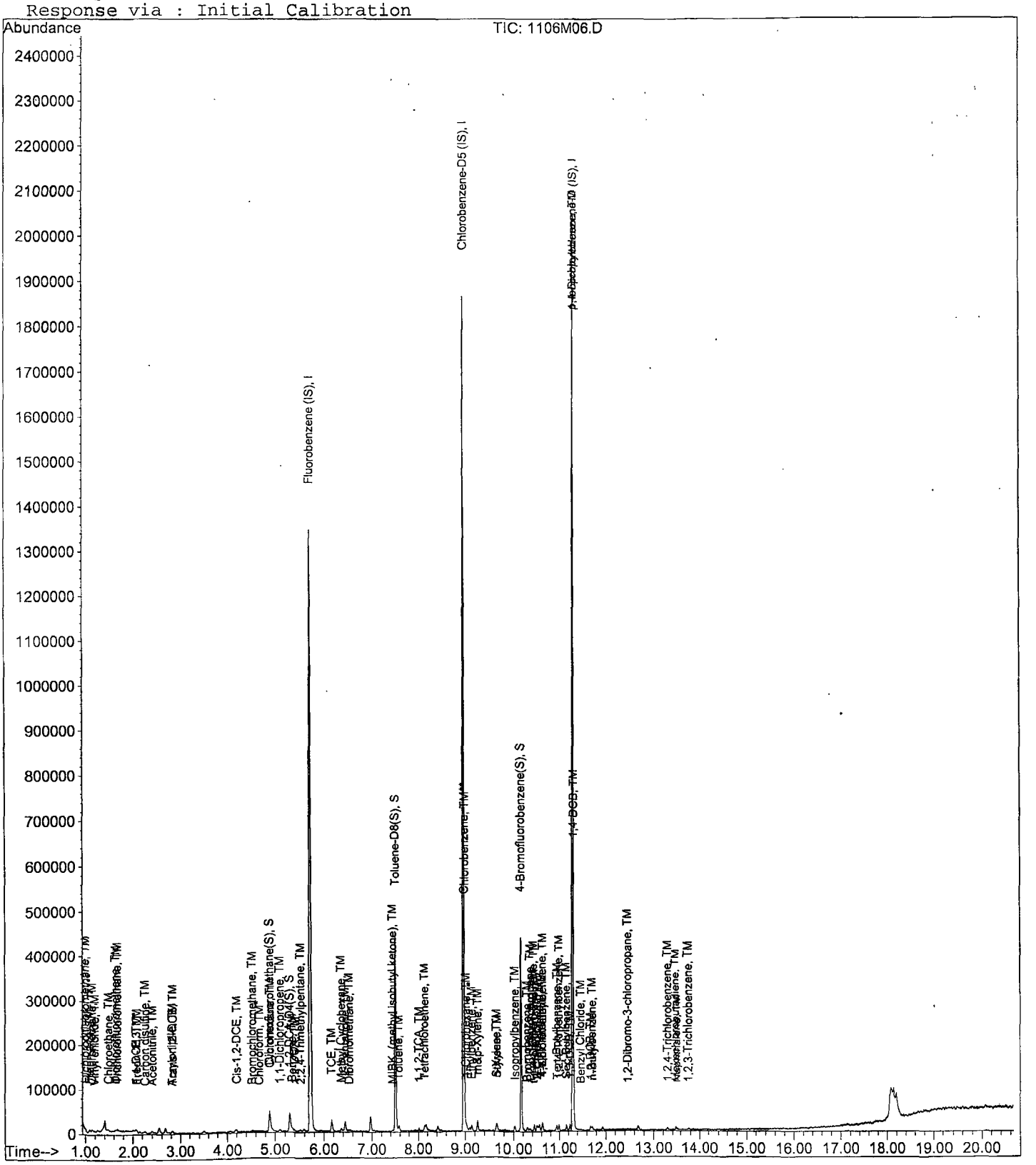
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\MAX\DATA\M191106\1106M06.D Vial: 3
Acq On : 6 Nov 19 10:45 Operator: LP,DG,CMM
Sample : 0.3ug/L VOC STD 11/06/19 Inst : Max
Misc : IS&S 9/24/19 Multiplr: 1.00

Quant Time: Nov 7 14:29 2019 Quant Results File: M1106.RES

Method : M:\MAX\DATA\M191106\M1106.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 07 14:27:44 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M191106\1106M07.D Vial: 4
Acq On : 6 Nov 19 11:13 Operator: LP,DG,CMM
Sample : 0.5ug/L VOC STD 11/06/19 Inst : Max
Misc : IS&S 9/24/19 Multiplr: 1.00

Quant Time: Nov 7 14:29 2019 Quant Results File: M1106.RES

Quant Method : M:\MAX\DATA\M191106\M1106.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 07 14:27:44 2019
Response via : Initial Calibration
DataAcq Meth : M8260

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene (IS)	5.72	96	1423298	25.000	ppb		0.00
35) Chlorobenzene-D5 (IS)	8.98	117	1128694	25.000	ppb		0.00
45) 1,4-Dichlorobenzene-D (IS)	11.30	152	625275	25.000	ppb		0.00
System Monitoring Compounds							
21) Dibromofluoromethane(S)	4.90	111	30962	7.212	ppb		0.01
Spiked Amount 25.000			Recovery	=	28.848%		
25) 1,2-DCA-D4(S)	5.30	65	29566	7.614	ppb		0.00
Spiked Amount 25.000			Recovery	=	30.456%		
36) Toluene-D8(S)	7.51	98	284245	5.439	ppb		0.00
Spiked Amount 25.000			Recovery	=	21.756%		
42) 4-Bromofluorobenzene(S)	10.16	95	106304	5.444	ppb		0.00
Spiked Amount 25.000			Recovery	=	21.776%		
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.01	85	2653	0.934	ppb	#	74
4) Chloromethane	1.14	50	4178	0.559	ppb		91
5) Vinyl chloride	1.19	62	3171	0.496	ppb	#	100
6) Chloroethane	1.50	64	937	1.234	ppb	#	41
7) Dichlorofluoromethane	1.65	67	4482	0.485	ppb		98
8) Trichlorofluoromethane	1.65	101	96	0.507	ppb	#	22
9) Acetone	2.15	43	4572	-0.374	ppb		96
10) Freon-113	2.09	101	2333	0.539	ppb	#	80
11) 1,1-DCE	2.07	61	5895	0.492	ppb		94
12) Acetonitrile	2.41	41	10294	22.632	ppb	#	71
14) Acrylonitrile	2.80	53	600	0.429	ppb	#	54
15) Methylene chloride	2.55	84	6853	-0.242	ppb	#	75
16) Carbon disulfide	2.25	76	5341	0.409	ppb		95
17) Trans-1,2-DCE	2.83	96	2748	0.475	ppb		80
18) Cis-1,2-DCE	4.18	96	4864	0.489	ppb	#	63
19) Chloroform	4.68	83	1394	2.063	ppb	#	17
20) Bromochloromethane	4.52	128	250	0.804	ppb	#	5
22) Cyclohexane	4.93	41	2190	0.550	ppb		84
23) 1,1-Dichloropropene	5.11	75	3020	0.418	ppb		87
24) 2,2,4-Trimethylpentane	5.53	57	5016	0.514	ppb	#	58
26) 1,2-DCA	5.41	62	2121	1.231	ppb	#	91
27) Benzene	5.35	78	10641	0.489	ppb		95
28) TCE	6.16	95	7821	0.665	ppb		82
29) 2-Pentanone	6.44	43	63656	26.472	ppb		95
30) Methyl Cyclohexane	6.37	83	3897	0.523	ppb		88
31) Dibromomethane	6.53	93	952	1.364	ppb	#	56
32) MIBK (methyl isobutyl ket	7.45	43	1907	0.547	ppb		95
33) Toluene	7.58	91	13861	0.538	ppb		91
34) 1,1,2-TCA	8.02	83	1457	0.412	ppb	#	82
37) Tetrachloroethene	8.13	164	3160	0.463	ppb	#	57
38) 1-Chlorohexane	9.04	91	3030	0.453	ppb		92
39) m&p-Xylene	9.26	106	12804	1.095	ppb		85
40) o-Xylene	9.65	106	7248	0.619	ppb	#	58
41) Styrene	9.67	104	9132	0.497	ppb		99
43) Chlorobenzene	9.00	112	9683	0.554	ppb		96
44) Ethylbenzene	9.14	91	13348	0.493	ppb		91
46) Isopropylbenzene	10.03	105	14033	0.548	ppb		90
47) 1,2,3-Trichloropropane	10.35	110	859	0.470	ppb	#	1
48) t-1,4-Dichloro-2-Butene	10.38	53	114	2.884	ppb	#	34

(#) = qualifier out of range (m) = manual integration

Data File : M:\MAX\DATA\M191106\1106M07.D Vial: 4
Acq On : 6 Nov 19 11:13 Operator: LP,DG,CMM
Sample : 0.5ug/L VOC STD 11/06/19 Inst : Max
Misc : IS&S 9/24/19 Multiplr: 1.00

Quant Time: Nov 7 14:29 2019 Quant Results File: M1106.RES

Quant Method : M:\MAX\DATA\M191106\M1106.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 07 14:27:44 2019
Response via : Initial Calibration
DataAcq Meth : M8260

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
49)	Bromobenzene	10.29	156	4904	0.574	ppb		72
50)	n-Propylbenzene	10.44	91	14004	0.530	ppb		95
51)	4-Ethyltoluene	10.55	105	12786	0.522	ppb		96
52)	2-Chlorotoluene	10.50	91	9775	0.562	ppb		87
53)	1,3,5-Trimethylbenzene	10.62	105	11214	0.540	ppb		97
54)	4-Chlorotoluene	10.61	91	10600	0.538	ppb		97
55)	Tert-Butylbenzene	10.94	119	10636	0.553	ppb		89
56)	1,2,4-Trimethylbenzene	10.98	105	11785	0.549	ppb		98
57)	Sec-Butylbenzene	11.16	105	12355	0.517	ppb		95
58)	p-Isopropyltoluene	11.31	119	7346	0.493	ppb	#	86
59)	Benzyl Chloride	11.47	91	2671	1.645	ppb		94
60)	1,3-DCB	11.24	146	8630	0.583	ppb		92
61)	1,4-DCB	11.33	146	4931	0.509	ppb		91
62)	n-Butylbenzene	11.72	91	4384	0.446	ppb		92
63)	1,2-DCB	11.69	146	6929	0.503	ppb		97
64)	1,2-Dibromo-3-chloropropan	12.46	157	577	0.431	ppb	#	72
65)	1,2,4-Trichlorobenzene	13.29	180	3542	0.841	ppb	#	68
66)	Hexachlorobutadiene	13.48	225	2336	0.471	ppb		88
67)	Naphthalene	13.51	127	460	0.757	ppb	#	1
68)	1,2,3-Trichlorobenzene	13.75	180	2470	0.861	ppb	#	75

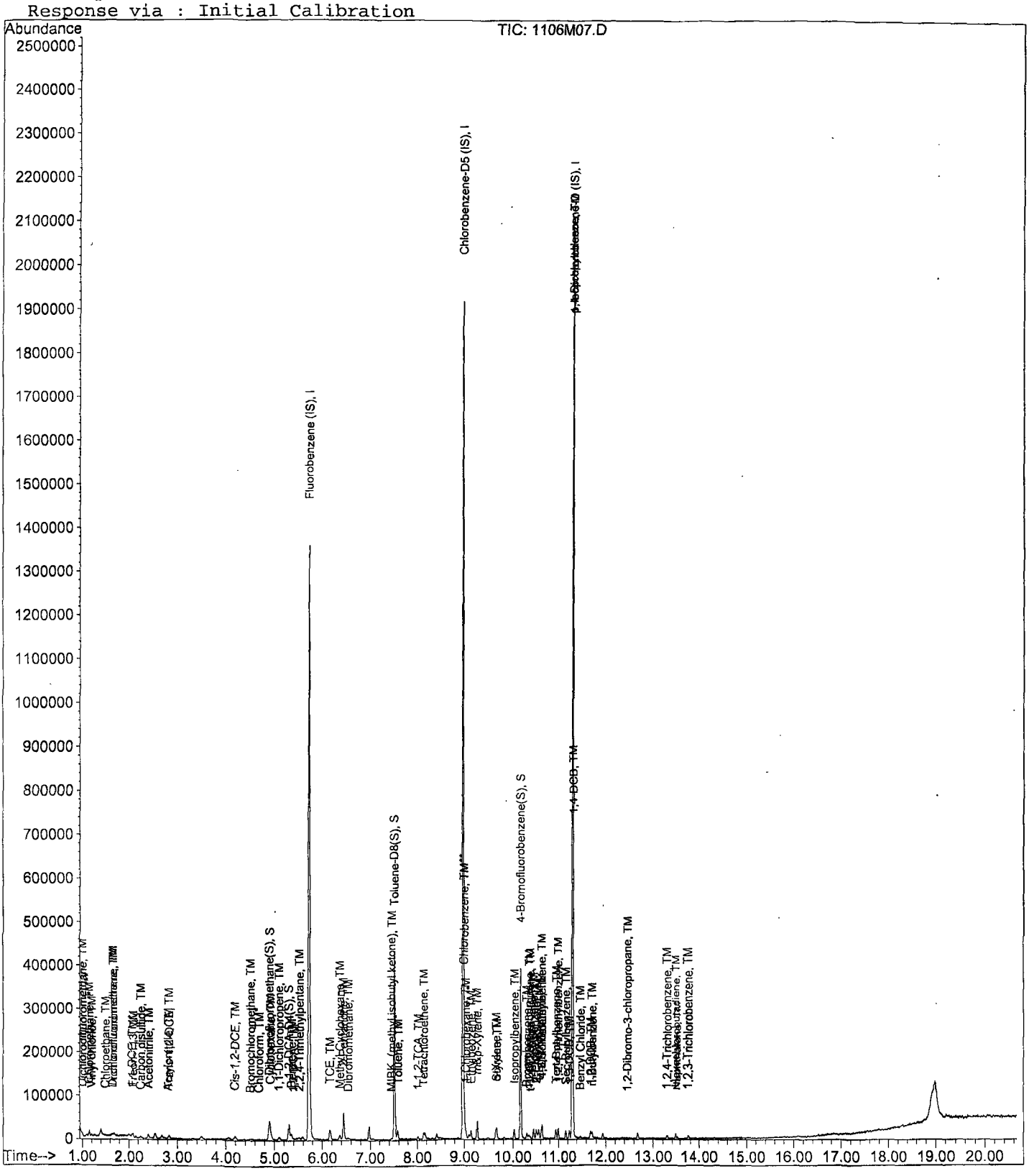
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\MAX\DATA\M191106\1106M07.D Vial: 4
Acq On : 6 Nov 19 11:13 Operator: LP,DG,CMM
Sample : 0.5ug/L VOC STD 11/06/19 Inst : Max
Misc : IS&S 9/24/19 Multiplr: 1.00

Quant Time: Nov 7 14:29 2019 Quant Results File: M1106.RES

Method : M:\MAX\DATA\M191106\M1106.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 07 14:27:44 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M191106\1106M08.D Vial: 5
Acq On : 6 Nov 19 11:42 Operator: LP,DG,CMM
Sample : 1.0ug/L VOC STD 11/06/19 Inst : Max
Misc : IS&S 9/24/19 Multiplr: 1.00

Quant Time: Nov 7 14:29 2019 Quant Results File: M1106.RES

Quant Method : M:\MAX\DATA\M191106\M1106.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 07 14:27:44 2019
Response via : Initial Calibration
DataAcq Meth : M8260

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene (IS)	5.72	96	1487798	25.000	ppb		0.00
35) Chlorobenzene-D5 (IS)	8.97	117	1172875	25.000	ppb		0.00
45) 1,4-Dichlorobenzene-D (IS)	11.30	152	667426	25.000	ppb		0.00
System Monitoring Compounds							
21) Dibromofluoromethane(S)	4.90	111	62320	9.354	ppb		0.01
Spiked Amount 25.000			Recovery =	37.416%			
25) 1,2-DCA-D4(S)	5.30	65	56795	9.797	ppb		0.00
Spiked Amount 25.000			Recovery =	39.188%			
36) Toluene-D8(S)	7.51	98	514751	9.478	ppb		0.00
Spiked Amount 25.000			Recovery =	37.912%			
42) 4-Bromofluorobenzene(S)	10.16	95	177007	8.723	ppb		0.00
Spiked Amount 25.000			Recovery =	34.892%			
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.01	85	3798	1.189	ppb		86
3) Freon 114	1.09	85	4385	0.832	ppb		99
4) Chloromethane	1.14	50	8965	1.147	ppb		97
5) Vinyl chloride	1.21	62	6711	1.005	ppb	#	100
6) Chloroethane	1.49	64	1836	1.478	ppb	#	52
7) Dichlorofluoromethane	1.64	67	9078	0.940	ppb		96
8) Trichlorofluoromethane	1.67	101	4124	0.965	ppb		83
9) Acetone	2.15	43	6005	0.524	ppb		94
10) Freon-113	2.09	101	4102	0.907	ppb	#	84
11) 1,1-DCE	2.07	61	13480	1.076	ppb	#	90
12) Acetonitrile	2.41	41	20555	43.232	ppb		95
14) Acrylonitrile	2.82	53	1695	1.159	ppb	#	69
15) Methylene chloride	2.55	84	9703	0.199	ppb		90
16) Carbon disulfide	2.26	76	12348	0.905	ppb		100
17) Trans-1,2-DCE	2.84	96	5902	0.976	ppb		84
18) Cis-1,2-DCE	4.19	96	7879	0.914	ppb		81
19) Chloroform	4.69	83	3525	2.262	ppb		90
20) Bromochloromethane	4.54	128	1593	1.245	ppb	#	65
22) Cyclohexane	4.93	41	4414	1.060	ppb		86
23) 1,1-Dichloropropene	5.11	75	8616	1.142	ppb	#	85
24) 2,2,4-Trimethylpentane	5.52	57	11264	1.105	ppb	#	67
26) 1,2-DCA	5.41	62	4592	1.569	ppb	#	74
27) Benzene	5.35	78	21162	0.930	ppb		95
28) TCE	6.16	95	10936	1.099	ppb		89
29) 2-Pentanone	6.44	43	120563	47.964	ppb		98
30) Methyl Cyclohexane	6.37	83	8356	1.072	ppb		79
31) Dibromomethane	6.53	93	1516	1.589	ppb		95
32) MIBK (methyl isobutyl ket	7.45	43	3643	0.999	ppb		94
33) Toluene	7.58	91	27914	1.037	ppb		94
34) 1,1,2-TCA	8.01	83	3303	0.893	ppb	#	80
37) Tetrachloroethene	8.14	164	8545	1.204	ppb	#	65
38) 1-Chlorohexane	9.03	91	7270	1.045	ppb		89
39) m&p-Xylene	9.26	106	22357	1.840	ppb		100
40) o-Xylene	9.65	106	11751	0.965	ppb		84
41) Styrene	9.67	104	17378	0.910	ppb		94
43) Chlorobenzene	9.00	112	18880	1.040	ppb		93
44) Ethylbenzene	9.14	91	28949	1.028	ppb		98
46) Isopropylbenzene	10.03	105	27277	0.998	ppb		96
47) 1,2,3-Trichloropropane	10.36	110	2062	1.057	ppb		89

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M191106\1106M08.D Vial: 5
Acq On : 6 Nov 19 11:42 Operator: LP,DG,CMM
Sample : 1.0ug/L VOC STD 11/06/19 Inst : Max
Misc : IS&S 9/24/19 Multiplr: 1.00

Quant Time: Nov 7 14:29 2019 Quant Results File: M1106.RES

Quant Method : M:\MAX\DATA\M191106\M1106.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 07 14:27:44 2019
Response via : Initial Calibration
DataAcq Meth : M8260

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
48)	t-1,4-Dichloro-2-Butene	10.40	53	202	3.035	ppb	#	34
49)	Bromobenzene	10.29	156	9834	1.078	ppb		85
50)	n-Propylbenzene	10.44	91	27872	0.989	ppb		100
51)	4-Ethyltoluene	10.56	105	26359	1.008	ppb		90
52)	2-Chlorotoluene	10.50	91	19700	1.062	ppb		97
53)	1,3,5-Trimethylbenzene	10.62	105	22059	0.994	ppb		95
54)	4-Chlorotoluene	10.61	91	22992	1.093	ppb		96
55)	Tert-Butylbenzene	10.94	119	20765	1.011	ppb		92
56)	1,2,4-Trimethylbenzene	10.99	105	22604	0.987	ppb		85
57)	Sec-Butylbenzene	11.16	105	24997	0.980	ppb		99
58)	p-Isopropyltoluene	11.31	119	14503	0.911	ppb	#	86
59)	Benzyl Chloride	11.48	91	5896	1.965	ppb	#	93
60)	1,3-DCB	11.23	146	15170	0.960	ppb		85
61)	1,4-DCB	11.32	146	10439	1.009	ppb		94
62)	n-Butylbenzene	11.72	91	9239	0.880	ppb		98
63)	1,2-DCB	11.68	146	14488	0.985	ppb		91
64)	1,2-Dibromo-3-chloropropan	12.45	157	1344	0.940	ppb	#	62
65)	1,2,4-Trichlorobenzene	13.29	180	6973	1.142	ppb		93
66)	Hexachlorobutadiene	13.47	225	5358	1.013	ppb		84
67)	Naphthalene	13.51	127	689	0.897	ppb	#	36
68)	1,2,3-Trichlorobenzene	13.76	180	5443	1.174	ppb		96

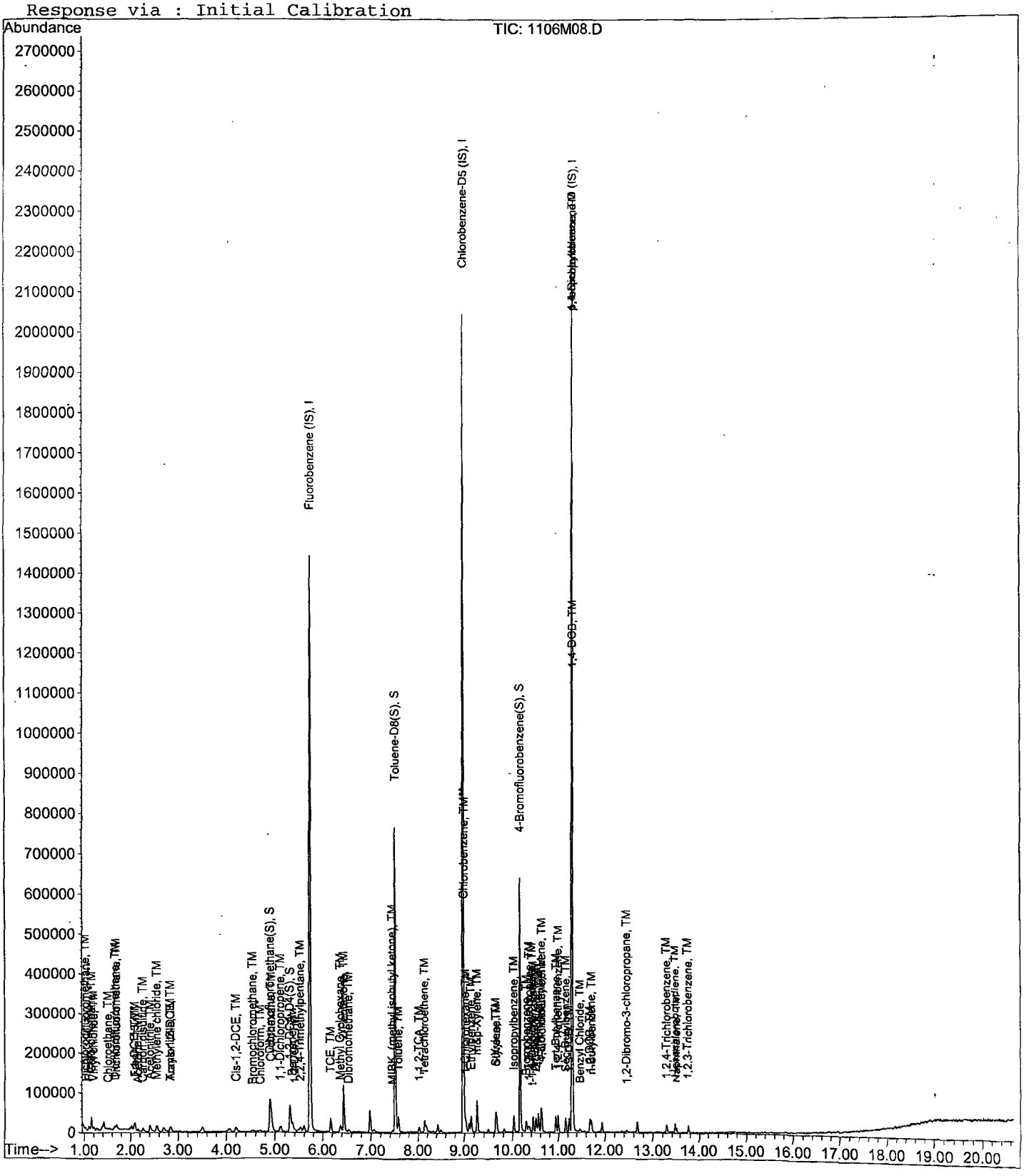
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\MAX\DATA\M191106\1106M08.D Vial: 5
Acq On : 6 Nov 19 11:42 Operator: LP,DG,CMM
Sample : 1.0ug/L VOC STD 11/06/19 Inst : Max
Misc : IS&S 9/24/19 Multiplr: 1.00

Quant Time: Nov 7 14:29 2019 Quant Results File: M1106.RES

Method : M:\MAX\DATA\M191106\M1106.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 07 14:27:44 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M191106\1106M09.D Vial: 6
Acq On : 6 Nov 19 12:11 Operator: LP,DG,CMM
Sample : 2.0ug/L VOC STD 11/06/19 Inst : Max
Misc : IS&S 9/24/19 Multiplr: 1.00

Quant Time: Nov 7 14:29 2019 Quant Results File: M1106.RES

Quant Method : M:\MAX\DATA\M191106\M1106.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 07 14:27:44 2019
Response via : Initial Calibration
DataAcq Meth : M8260

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene (IS)	5.73	96	1433425	25.000	ppb		0.00
35) Chlorobenzene-D5 (IS)	8.97	117	1128770	25.000	ppb		0.00
45) 1,4-Dichlorobenzene-D (IS)	11.30	152	678074	25.000	ppb		0.00
System Monitoring Compounds							
21) Dibromofluoromethane(S)	4.89	111	63393	9.603	ppb		0.00
Spiked Amount 25.000			Recovery =	38.412%			
25) 1,2-DCA-D4(S)	5.30	65	59104	10.181	ppb		0.00
Spiked Amount 25.000			Recovery =	40.724%			
36) Toluene-D8(S)	7.51	98	483232	9.245	ppb		0.00
Spiked Amount 25.000			Recovery =	36.980%			
42) 4-Bromofluorobenzene(S)	10.16	95	178485	9.140	ppb		0.00
Spiked Amount 25.000			Recovery =	36.560%			
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.00	85	7789	2.254	ppb		91
3) Freon 114	1.09	85	11905	2.345	ppb		92
4) Chloromethane	1.13	50	15827	2.101	ppb		96
5) Vinyl chloride	1.19	62	13298	2.067	ppb	#	100
6) Chloroethane	1.48	64	5322	2.528	ppb		84
7) Dichlorofluoromethane	1.63	67	19812	2.129	ppb		95
8) Trichlorofluoromethane	1.68	101	12647	1.989	ppb		95
9) Acetone	2.14	43	7219	1.613	ppb		99
10) Freon-113	2.08	101	7649	1.755	ppb		83
11) 1,1-DCE	2.07	61	22035	1.826	ppb		96
12) Acetonitrile	2.40	41	33649	73.457	ppb		93
14) Acrylonitrile	2.82	53	3067	2.176	ppb	#	87
15) Methylene chloride	2.54	84	15985	1.396	ppb		88
16) Carbon disulfide	2.25	76	27797	2.115	ppb		94
17) Trans-1,2-DCE	2.82	96	12087	2.075	ppb		83
18) Cis-1,2-DCE	4.18	96	13515	1.850	ppb		95
19) Chloroform	4.68	83	5273	2.449	ppb	#	68
20) Bromochloromethane	4.52	128	3874	2.047	ppb		78
22) Cyclohexane	4.93	41	8518	2.123	ppb		77
23) 1,1-Dichloropropene	5.10	75	14670	2.018	ppb		93
24) 2,2,4-Trimethylpentane	5.52	57	18253	1.858	ppb	#	77
26) 1,2-DCA	5.40	62	8479	2.166	ppb	#	88
27) Benzene	5.36	78	45109	2.057	ppb		94
28) TCE	6.16	95	17110	2.172	ppb		86
29) 2-Pentanone	6.44	43	183841	75.913	ppb		98
30) Methyl Cyclohexane	6.36	83	14783	1.969	ppb		97
31) Dibromomethane	6.53	93	2876	2.224	ppb	#	89
32) MIBK (methyl isobutyl ket	7.44	43	6891	1.962	ppb		95
33) Toluene	7.58	91	50420	1.944	ppb		98
34) 1,1,2-TCA	8.01	83	7230	2.028	ppb		94
37) Tetrachloroethene	8.14	164	13869	2.031	ppb		95
38) 1-Chlorohexane	9.03	91	13667	2.041	ppb		90
39) m&p-Xylene	9.26	106	48479	4.145	ppb		99
40) o-Xylene	9.65	106	24933	2.128	ppb		97
41) Styrene	9.67	104	35211	1.916	ppb		92
43) Chlorobenzene	9.00	112	35263	2.018	ppb		96
44) Ethylbenzene	9.14	91	56101	2.071	ppb		99
46) Isopropylbenzene	10.03	105	56602	2.038	ppb		98
47) 1,2,3-Trichloropropane	10.35	110	4849	2.446	ppb		95

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M191106\1106M09.D Vial: 6
Acq On : 6 Nov 19 12:11 Operator: LP,DG,CMM
Sample : 2.0ug/L VOC STD 11/06/19 Inst : Max
Misc : IS&S 9/24/19 Multiplr: 1.00

Quant Time: Nov 7 14:29 2019 Quant Results File: M1106.RES

Quant Method : M:\MAX\DATA\M191106\M1106.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 07 14:27:44 2019
Response via : Initial Calibration
DataAcq Meth : M8260

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
48)	t-1,4-Dichloro-2-Butene	10.39	53	478	3.542	ppb	#	1
49)	Bromobenzene	10.29	156	19043	2.055	ppb		88
50)	n-Propylbenzene	10.44	91	59479	2.076	ppb		94
51)	4-Ethyltoluene	10.56	105	53952	2.031	ppb		95
52)	2-Chlorotoluene	10.50	91	38011	2.016	ppb		91
53)	1,3,5-Trimethylbenzene	10.63	105	42467	1.884	ppb		89
54)	4-Chlorotoluene	10.61	91	42918	2.009	ppb		99
55)	Tert-Butylbenzene	10.94	119	41849	2.005	ppb		96
56)	1,2,4-Trimethylbenzene	10.99	105	46488	1.998	ppb		99
57)	Sec-Butylbenzene	11.15	105	52822	2.039	ppb		95
58)	p-Isopropyltoluene	11.31	119	31229	1.932	ppb		93
59)	Benzyl Chloride	11.47	91	12555	2.644	ppb		93
60)	1,3-DCB	11.23	146	31738	1.976	ppb		91
61)	1,4-DCB	11.32	146	20944	1.992	ppb		99
62)	n-Butylbenzene	11.72	91	18896	1.771	ppb		96
63)	1,2-DCB	11.68	146	31492	2.108	ppb	#	87
64)	1,2-Dibromo-3-chloropropan	12.46	157	2782	1.914	ppb		93
65)	1,2,4-Trichlorobenzene	13.29	180	16980	2.063	ppb		88
66)	Hexachlorobutadiene	13.48	225	10231	1.904	ppb		96
67)	Naphthalene	13.51	127	1834	1.691	ppb		76
68)	1,2,3-Trichlorobenzene	13.76	180	11408	1.818	ppb		91

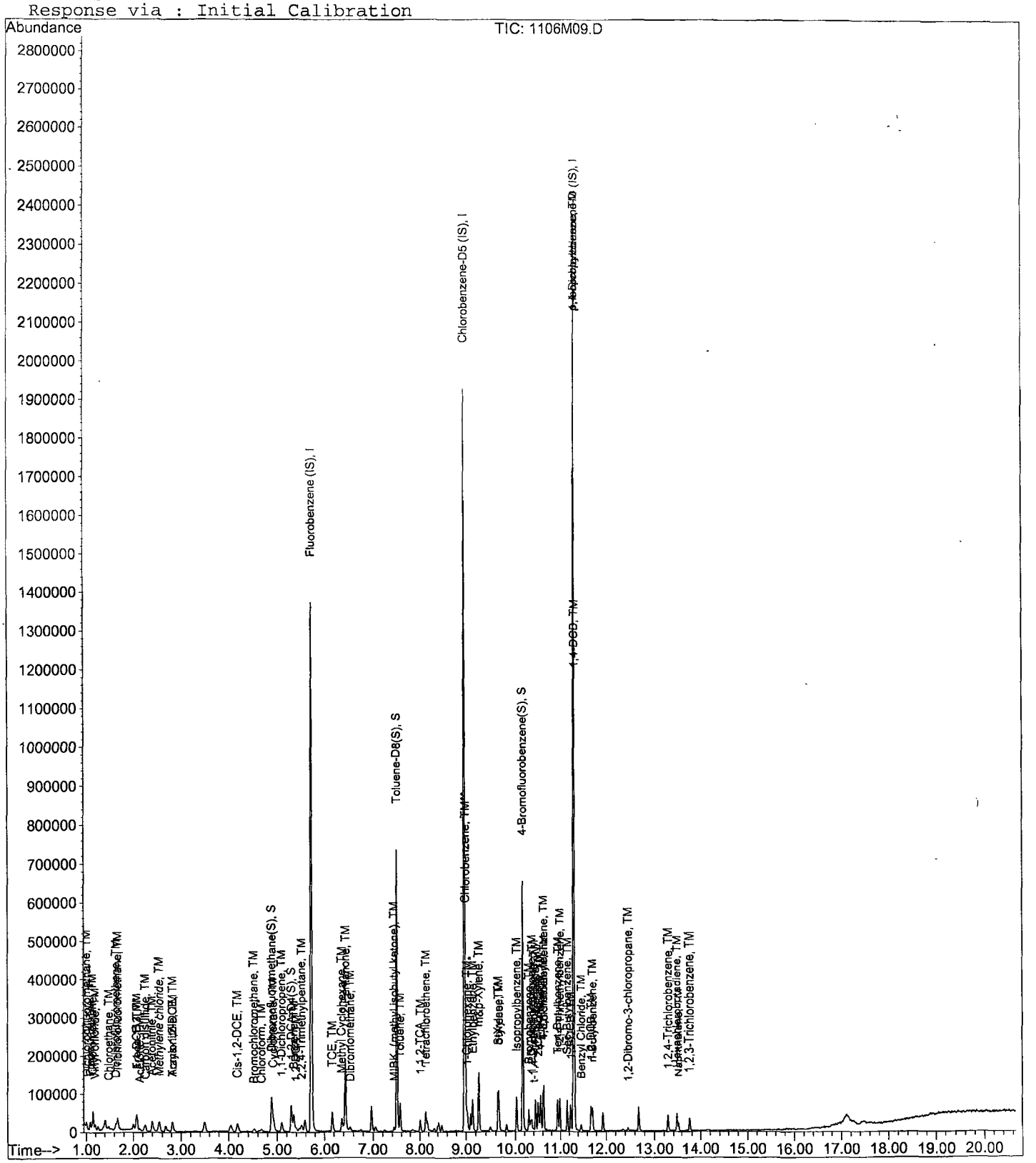
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\MAX\DATA\M191106\1106M09.D Vial: 6
Acq On : 6 Nov 19 12:11 Operator: LP,DG,CMM
Sample : 2.0ug/L VOC STD 11/06/19 Inst : Max
Misc : IS&S 9/24/19 Multiplr: 1.00

Quant Time: Nov 7 14:29 2019 Quant Results File: M1106.RES

Method : M:\MAX\DATA\M191106\M1106.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 07 14:27:44 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M191106\1106M10.D Vial: 7
Acq On : 6 Nov 19 12:40 Operator: LP,DG,CMM
Sample : 5.0ug/L VOC STD 11/06/19 Inst : Max
Misc : IS&S 9/24/19 Multiplr: 1.00

Quant Time: Nov 7 14:29 2019 Quant Results File: M1106.RES

Quant Method : M:\MAX\DATA\M191106\M1106.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 07 14:27:44 2019
Response via : Initial Calibration
DataAcq Meth : M8260

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene (IS)	5.73	96	1472512	25.000	ppb		0.00
35) Chlorobenzene-D5 (IS)	8.97	117	1205195	25.000	ppb		0.00
45) 1,4-Dichlorobenzene-D (IS)	11.30	152	728245	25.000	ppb		0.00
System Monitoring Compounds							
21) Dibromofluoromethane(S)	4.89	111	231874	21.651	ppb		0.00
Spiked Amount 25.000			Recovery =	86.604%			
25) 1,2-DCA-D4(S)	5.30	65	188191	21.045	ppb		0.00
Spiked Amount 25.000			Recovery =	84.180%			
36) Toluene-D8(S)	7.51	98	1383599	24.793	ppb		0.00
Spiked Amount 25.000			Recovery =	99.172%			
42) 4-Bromofluorobenzene(S)	10.16	95	502805	24.114	ppb		0.00
Spiked Amount 25.000			Recovery =	96.456%			
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.01	85	16536	4.396	ppb		92
3) Freon 114	1.09	85	25594	4.908	ppb		85
4) Chloromethane	1.13	50	36444	4.710	ppb	#	87
5) Vinyl chloride	1.19	62	34712	5.251	ppb	#	100
6) Chloroethane	1.48	64	12470	4.542	ppb		91
7) Dichlorofluoromethane	1.64	67	47744	4.995	ppb		90
8) Trichlorofluoromethane	1.67	101	34672	4.479	ppb		86
9) Acetone	2.14	43	10551	3.932	ppb		92
10) Freon-113	2.09	101	21433	4.787	ppb		93
11) 1,1-DCE	2.07	61	61531	4.963	ppb		98
12) Acetonitrile	2.40	41	43276	91.965	ppb		98
14) Acrylonitrile	2.82	53	6254	4.320	ppb	#	73
15) Methylene chloride	2.54	84	35011	4.658	ppb		86
16) Carbon disulfide	2.25	76	68629	5.082	ppb		93
17) Trans-1,2-DCE	2.82	96	29683	4.960	ppb		97
18) Cis-1,2-DCE	4.19	96	33553	4.874	ppb		93
19) Chloroform	4.68	83	28254	4.669	ppb		99
20) Bromochloromethane	4.53	128	11765	4.647	ppb		90
22) Cyclohexane	4.92	41	20711	5.026	ppb		80
23) 1,1-Dichloropropene	5.10	75	38397	5.142	ppb		93
24) 2,2,4-Trimethylpentane	5.52	57	51477	5.102	ppb	#	78
26) 1,2-DCA	5.40	62	28782	5.017	ppb		100
27) Benzene	5.35	78	117593	5.220	ppb		100
28) TCE	6.16	95	35657	5.043	ppb		94
29) 2-Pentanone	6.44	43	240303	96.594	ppb		99
30) Methyl Cyclohexane	6.36	83	38969	5.053	ppb		99
31) Dibromomethane	6.53	93	8661	4.717	ppb		85
32) MIBK (methyl isobutyl ket	7.44	43	16883	4.680	ppb	#	84
33) Toluene	7.58	91	130586	4.902	ppb		98
34) 1,1,2-TCA	8.01	83	19530	5.332	ppb		98
37) Tetrachloroethene	8.13	164	37393	5.129	ppb		92
38) 1-Chlorohexane	9.03	91	36222	5.066	ppb		95
39) m&p-Xylene	9.26	106	121536	9.732	ppb		95
40) o-Xylene	9.65	106	63553	5.081	ppb		87
41) Styrene	9.67	104	99936	5.094	ppb		99
43) Chlorobenzene	9.00	112	91940	4.929	ppb		96
44) Ethylbenzene	9.14	91	145130	5.017	ppb		94
46) Isopropylbenzene	10.03	105	151036	5.064	ppb		97
47) 1,2,3-Trichloropropane	10.35	110	10331	4.852	ppb		88

(#) = qualifier out of range (m) = manual integration

Data File : M:\MAX\DATA\M191106\1106M10.D Vial: 7
Acq On : 6 Nov 19 12:40 Operator: LP,DG,CMM
Sample : 5.0ug/L VOC STD 11/06/19 Inst : Max
Misc : IS&S 9/24/19 Multiplr: 1.00

Quant Time: Nov 7 14:29 2019 Quant Results File: M1106.RES

Quant Method : M:\MAX\DATA\M191106\M1106.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 07 14:27:44 2019
Response via : Initial Calibration
DataAcq Meth : M8260

Compound	R.T.	QIon	Response	Conc Unit		Qvalue
48) t-1,4-Dichloro-2-Butene	10.38	53	1080	4.521 ppb		85
49) Bromobenzene	10.29	156	49144	4.937 ppb		92
50) n-Propylbenzene	10.44	91	156103	5.074 ppb		97
51) 4-Ethyltoluene	10.56	105	140649	4.930 ppb		95
52) 2-Chlorotoluene	10.50	91	100514	4.965 ppb		99
53) 1,3,5-Trimethylbenzene	10.63	105	124119	5.127 ppb		98
54) 4-Chlorotoluene	10.61	91	108422	4.726 ppb		91
55) Tert-Butylbenzene	10.94	119	115580	5.157 ppb		94
56) 1,2,4-Trimethylbenzene	10.99	105	125517	5.022 ppb		97
57) Sec-Butylbenzene	11.16	105	139069	4.999 ppb		97
58) p-Isopropyltoluene	11.31	119	88232	5.082 ppb		95
59) Benzyl Chloride	11.47	91	38734	5.077 ppb		92
60) 1,3-DCB	11.23	146	87114	5.050 ppb		99
61) 1,4-DCB	11.32	146	54200	4.799 ppb		93
62) n-Butylbenzene	11.72	91	59280	5.172 ppb		95
63) 1,2-DCB	11.69	146	76834	4.788 ppb		97
64) 1,2-Dibromo-3-chloropropan	12.45	157	6926	4.437 ppb	#	86
65) 1,2,4-Trichlorobenzene	13.29	180	49203	4.745 ppb		95
66) Hexachlorobutadiene	13.48	225	28653	4.965 ppb		98
67) Naphthalene	13.52	127	5677	4.105 ppb	#	98
68) 1,2,3-Trichlorobenzene	13.76	180	38730	4.518 ppb		90

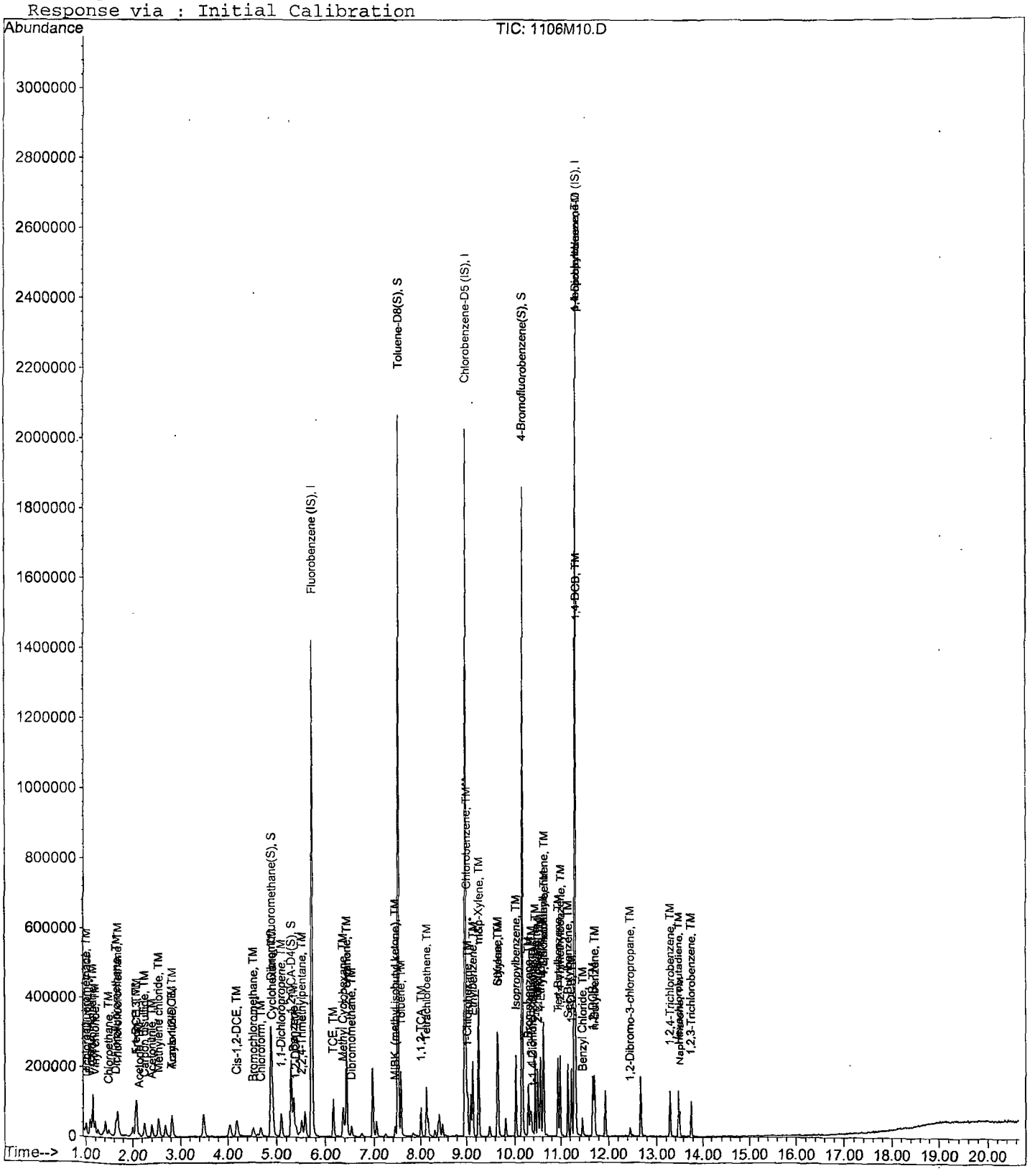
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\MAX\DATA\M191106\1106M10.D Vial: 7
Acq On : 6 Nov 19 12:40 Operator: LP,DG,CMM
Sample : 5.0ug/L VOC STD 11/06/19 Inst : Max
Misc : IS&S 9/24/19 Multiplr: 1.00

Quant Time: Nov 7 14:29 2019 Quant Results File: M1106.RES

Method : M:\MAX\DATA\M191106\M1106.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 07 14:27:44 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M191106\1106M11.D Vial: 8
Acq On : 6 Nov 19 13:08 Operator: LP,DG,CMM
Sample : 10ug/L VOC STD 11/06/19 Inst : Max
Misc : IS&S 9/24/19 Multiplr: 1.00

Quant Time: Nov 7 14:29 2019 Quant Results File: M1106.RES

Quant Method : M:\MAX\DATA\M191106\M1106.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 07 14:27:44 2019
Response via : Initial Calibration
DataAcq Meth : M8260

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene (IS)	5.73	96	1472898	25.000	ppb		0.00
35) Chlorobenzene-D5 (IS)	8.97	117	1197765	25.000	ppb		0.00
45) 1,4-Dichlorobenzene-D (IS)	11.30	152	729197	25.000	ppb		0.00
System Monitoring Compounds							
21) Dibromofluoromethane(S)	4.89	111	255331	23.340	ppb		0.00
Spiked Amount 25.000			Recovery =	93.360%			
25) 1,2-DCA-D4(S)	5.30	65	210027	22.902	ppb		0.00
Spiked Amount 25.000			Recovery =	91.608%			
36) Toluene-D8(S)	7.51	98	1333176	24.037	ppb		0.00
Spiked Amount 25.000			Recovery =	96.148%			
42) 4-Bromofluorobenzene(S)	10.16	95	496680	23.968	ppb		0.00
Spiked Amount 25.000			Recovery =	95.872%			
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.01	85	34980	9.024	ppb		100
3) Freon 114	1.09	85	49480	9.485	ppb		100
4) Chloromethane	1.13	50	67269	8.691	ppb		100
5) Vinyl chloride	1.19	62	64708	9.786	ppb	#	100
6) Chloroethane	1.48	64	27382	8.828	ppb		100
7) Dichlorofluoromethane	1.64	67	93360	9.765	ppb		100
8) Trichlorofluoromethane	1.67	101	73073	8.889	ppb		100
9) Acetone	2.14	43	17074	8.754	ppb		100
10) Freon-113	2.08	101	44017	9.828	ppb		100
11) 1,1-DCE	2.07	61	119290	9.619	ppb		100
12) Acetonitrile	2.40	41	56229	119.460	ppb		100
14) Acrylonitrile	2.81	53	14092	9.731	ppb		100
15) Methylene chloride	2.54	84	61672	9.333	ppb		100
16) Carbon disulfide	2.25	76	127950	9.472	ppb		100
17) Trans-1,2-DCE	2.82	96	57341	9.579	ppb		100
18) Cis-1,2-DCE	4.18	96	60055	8.946	ppb		100
19) Chloroform	4.68	83	63540	8.099	ppb		100
20) Bromochloromethane	4.52	128	24804	9.000	ppb		100
22) Cyclohexane	4.93	41	37494	9.097	ppb		100
23) 1,1-Dichloropropene	5.10	75	71097	9.519	ppb		100
24) 2,2,4-Trimethylpentane	5.52	57	98186	9.728	ppb		100
26) 1,2-DCA	5.39	62	56824	8.928	ppb		100
27) Benzene	5.35	78	225303	10.000	ppb		100
28) TCE	6.16	95	61549	9.153	ppb		100
29) 2-Pentanone	6.43	43	309807	124.499	ppb		100
30) Methyl Cyclohexane	6.36	83	72059	9.341	ppb		100
31) Dibromomethane	6.53	93	19530	9.461	ppb		100
32) MIBK (methyl isobutyl ket	7.44	43	34342	9.517	ppb		100
33) Toluene	7.58	91	245634	9.219	ppb		100
34) 1,1,2-TCA	8.01	83	37917	10.349	ppb		100
37) Tetrachloroethene	8.13	164	69545	9.599	ppb		100
38) 1-Chlorohexane	9.03	91	70602	9.936	ppb		100
39) m&p-Xylene	9.26	106	237322	19.121	ppb		100
40) o-Xylene	9.65	106	117020	9.413	ppb		100
41) Styrene	9.67	104	192397	9.868	ppb		100
43) Chlorobenzene	9.00	112	175088	9.444	ppb		100
44) Ethylbenzene	9.14	91	276207	9.607	ppb		100
46) Isopropylbenzene	10.03	105	290014	9.712	ppb		100
47) 1,2,3-Trichloropropane	10.36	110	20290	9.517	ppb		100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M191106\1106M11.D Vial: 8
Acq On : 6 Nov 19 13:08 Operator: LP,DG,CMM
Sample : 10ug/L VOC STD 11/06/19 Inst : Max
Misc : IS&S 9/24/19 Multiplr: 1.00

Quant Time: Nov 7 14:29 2019 Quant Results File: M1106.RES

Quant Method : M:\MAX\DATA\M191106\M1106.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 07 14:27:44 2019
Response via : Initial Calibration
DataAcq Meth : M8260

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
48)	t-1,4-Dichloro-2-Butene	10.39	53	4647	10.678	ppb	100
49)	Bromobenzene	10.29	156	97380	9.770	ppb	100
50)	n-Propylbenzene	10.44	91	295093	9.580	ppb	100
51)	4-Ethyltoluene	10.55	105	280456	9.819	ppb	100
52)	2-Chlorotoluene	10.50	91	198982	9.816	ppb	100
53)	1,3,5-Trimethylbenzene	10.62	105	238345	9.833	ppb	100
54)	4-Chlorotoluene	10.61	91	222825	9.699	ppb	100
55)	Tert-Butylbenzene	10.94	119	209088	9.317	ppb	100
56)	1,2,4-Trimethylbenzene	10.99	105	236655	9.456	ppb	100
57)	Sec-Butylbenzene	11.16	105	269561	9.676	ppb	100
58)	p-Isopropyltoluene	11.31	119	161658	9.299	ppb	100
59)	Benzyl Chloride	11.47	91	83665	9.395	ppb	100
60)	1,3-DCB	11.23	146	165535	9.584	ppb	100
61)	1,4-DCB	11.32	146	109746	9.705	ppb	100
62)	n-Butylbenzene	11.72	91	113584	9.898	ppb	100
63)	1,2-DCB	11.68	146	153723	9.566	ppb	100
64)	1,2-Dibromo-3-chloropropan	12.45	157	14963	9.574	ppb	100
65)	1,2,4-Trichlorobenzene	13.28	180	97021	8.877	ppb	100
66)	Hexachlorobutadiene	13.47	225	57155	9.890	ppb	100
67)	Naphthalene	13.51	127	13087	8.919	ppb	100
68)	1,2,3-Trichlorobenzene	13.76	180	79871	8.704	ppb	100

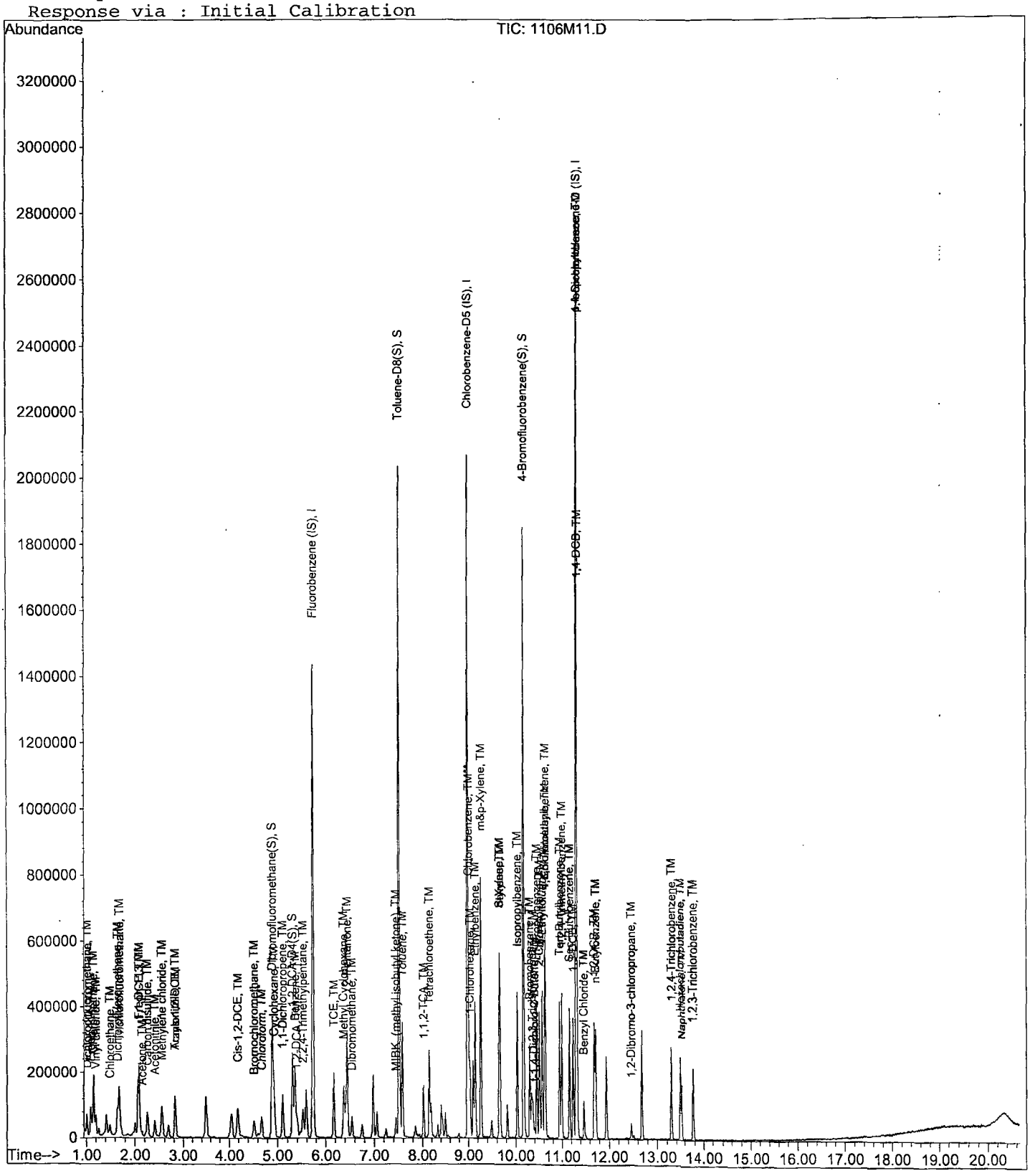
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\MAX\DATA\M191106\1106M11.D Vial: 8
Acq On : 6 Nov 19 13:08 Operator: LP,DG,CMM
Sample : 10ug/L VOC STD 11/06/19 Inst : Max
Misc : IS&S 9/24/19 Multiplr: 1.00

Quant Time: Nov 7 14:29 2019 Quant Results File: M1106.RES

Method : M:\MAX\DATA\M191106\M1106.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 07 14:27:44 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M191106\1106M12.D Vial: 9
Acq On : 6 Nov 19 13:37 Operator: LP,DG,CMM
Sample : 20ug/L VOC STD 11/06/19 Inst : Max
Misc : IS&S 9/24/19 Multiplr: 1.00

Quant Time: Nov 7 14:29 2019 Quant Results File: M1106.RES

Quant Method : M:\MAX\DATA\M191106\M1106.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 07 14:27:44 2019
Response via : Initial Calibration
DataAcq Meth : M8260

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Fluorobenzene (IS)	5.73	96	1340710	25.000 ppb		0.00
35) Chlorobenzene-D5 (IS)	8.97	117	1114510	25.000 ppb		0.00
45) 1,4-Dichlorobenzene-D (IS)	11.30	152	724038	25.000 ppb		0.00
System Monitoring Compounds						
21) Dibromofluoromethane(S)	4.89	111	562950	49.569 ppb		0.00
Spiked Amount 25.000			Recovery	= 198.276%		
25) 1,2-DCA-D4(S)	5.30	65	460191	48.082 ppb		0.00
Spiked Amount 25.000			Recovery	= 192.328%		
36) Toluene-D8(S)	7.51	98	2563898	49.681 ppb		0.00
Spiked Amount 25.000			Recovery	= 198.724%		
42) 4-Bromofluorobenzene(S)	10.16	95	973597	50.493 ppb		0.00
Spiked Amount 25.000			Recovery	= 201.972%		
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.00	85	74589	20.811 ppb		91
3) Freon 114	1.08	85	99035	20.856 ppb		91
4) Chloromethane	1.13	50	141358	20.063 ppb		98
5) Vinyl chloride	1.19	62	127765	21.228 ppb	#	100
6) Chloroethane	1.47	64	62269	20.624 ppb		93
7) Dichlorofluoromethane	1.63	67	188217	21.628 ppb		97
8) Trichlorofluoromethane	1.66	101	158423	20.486 ppb		93
9) Acetone	2.14	43	33668	23.480 ppb		99
10) Freon-113	2.08	101	88598	21.731 ppb		90
11) 1,1-DCE	2.06	61	245199	21.721 ppb		92
12) Acetonitrile	2.40	41	73673	171.953 ppb		94
14) Acrylonitrile	2.81	53	27764	21.063 ppb	#	94
15) Methylene chloride	2.54	84	121263	21.885 ppb		97
16) Carbon disulfide	2.24	76	275404	22.399 ppb		98
17) Trans-1,2-DCE	2.82	96	116453	21.371 ppb		97
18) Cis-1,2-DCE	4.18	96	124478	20.734 ppb		93
19) Chloroform	4.68	83	160434	19.054 ppb		94
20) Bromochloromethane	4.52	128	55261	20.988 ppb		95
22) Cyclohexane	4.93	41	71603	19.085 ppb		85
23) 1,1-Dichloropropene	5.10	75	141044	20.746 ppb		93
24) 2,2,4-Trimethylpentane	5.51	57	182066	19.818 ppb		91
26) 1,2-DCA	5.39	62	127364	20.086 ppb		99
27) Benzene	5.35	78	432722	21.099 ppb		99
28) TCE	6.16	95	120206	20.349 ppb		96
29) 2-Pentanone	6.43	43	344368	152.032 ppb		97
30) Methyl Cyclohexane	6.37	83	141133	20.099 ppb		99
31) Dibromomethane	6.53	93	40231	20.231 ppb		88
32) MIBK (methyl isobutyl ket	7.44	43	68560	20.874 ppb		96
33) Toluene	7.58	91	490522	20.225 ppb		96
34) 1,1,2-TCA	8.01	83	71973	21.582 ppb		99
37) Tetrachloroethene	8.13	164	133272	19.769 ppb		97
38) 1-Chlorohexane	9.03	91	136765	20.686 ppb		92
39) m&p-Xylene	9.26	106	471388	40.817 ppb		96
40) o-Xylene	9.65	106	240194	20.764 ppb		97
41) Styrene	9.67	104	387884	21.380 ppb		100
43) Chlorobenzene	9.00	112	344827	19.990 ppb		97
44) Ethylbenzene	9.14	91	549315	20.534 ppb		97
46) Isopropylbenzene	10.03	105	594917	20.064 ppb		99
47) 1,2,3-Trichloropropane	10.35	110	41222	19.473 ppb		88

(#) = qualifier out of range (m) = manual integration

Data File : M:\MAX\DATA\M191106\1106M12.D Vial: 9
Acq On : 6 Nov 19 13:37 Operator: LP,DG,CMM
Sample : 20ug/L VOC STD 11/06/19 Inst : Max
Misc : IS&S 9/24/19 Multiplr: 1.00

Quant Time: Nov 7 14:29 2019 Quant Results File: M1106.RES

Quant Method : M:\MAX\DATA\M191106\M1106.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 07 14:27:44 2019
Response via : Initial Calibration
DataAcq Meth : M8260

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
48)	t-1,4-Dichloro-2-Butene	10.39	53	8664	17.720	ppb	#	75
49)	Bromobenzene	10.29	156	191615	19.362	ppb		96
50)	n-Propylbenzene	10.44	91	613339	20.053	ppb		100
51)	4-Ethyltoluene	10.55	105	575943	20.307	ppb		96
52)	2-Chlorotoluene	10.50	91	396266	19.687	ppb		100
53)	1,3,5-Trimethylbenzene	10.62	105	495051	20.570	ppb		94
54)	4-Chlorotoluene	10.61	91	455801	19.982	ppb		97
55)	Tert-Butylbenzene	10.94	119	440891	19.787	ppb		97
56)	1,2,4-Trimethylbenzene	10.98	105	508978	20.483	ppb		98
57)	Sec-Butylbenzene	11.15	105	562880	20.350	ppb		99
58)	p-Isopropyltoluene	11.31	119	377151	21.848	ppb		95
59)	Benzyl Chloride	11.47	91	174275	18.234	ppb		95
60)	1,3-DCB	11.23	146	346764	20.220	ppb		97
61)	1,4-DCB	11.32	146	230144	20.497	ppb		99
62)	n-Butylbenzene	11.71	91	256320	22.495	ppb		95
63)	1,2-DCB	11.68	146	336189	21.070	ppb		94
64)	1,2-Dibromo-3-chloropropan	12.45	157	33887	21.836	ppb	#	85
65)	1,2,4-Trichlorobenzene	13.28	180	227097	20.270	ppb		94
66)	Hexachlorobutadiene	13.47	225	124856	21.759	ppb		97
67)	Naphthalene	13.51	127	29152	19.502	ppb		68
68)	1,2,3-Trichlorobenzene	13.75	180	192714	20.339	ppb		97

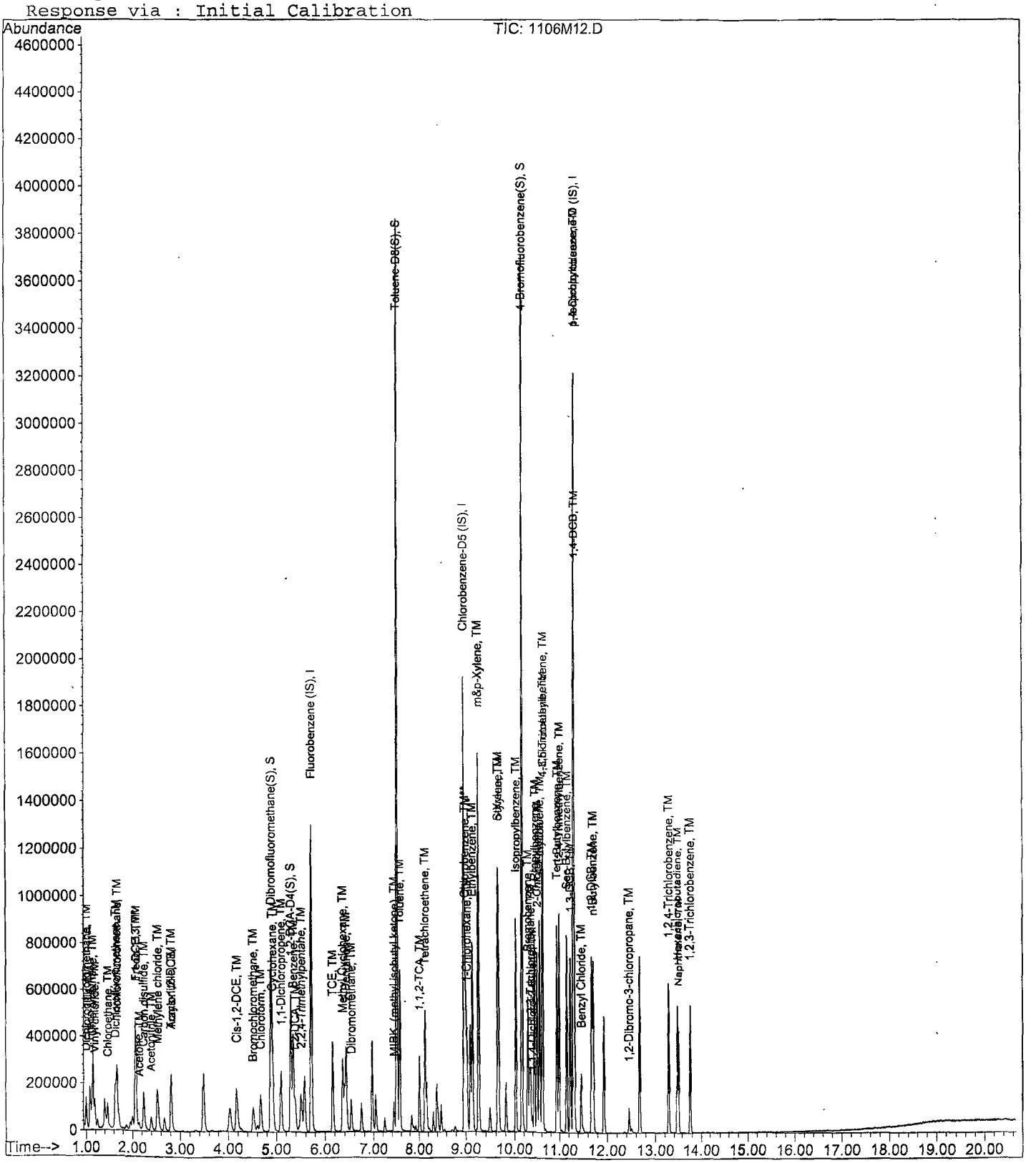
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\MAX\DATA\M191106\1106M12.D Vial: 9
Acq On : 6 Nov 19 13:37 Operator: LP,DG,CMM
Sample : 20ug/L VOC STD 11/06/19 Inst : Max
Misc : IS&S 9/24/19 Multiplr: 1.00

Quant Time: Nov 7 14:29 2019 Quant Results File: M1106.RES

Method : M:\MAX\DATA\M191106\M1106.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 07 14:27:44 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M191106\1106M13.D Vial: 10
Acq On : 6 Nov 19 14:06 Operator: LP,DG,CMM
Sample : 40ug/L VOC STD 11/06/19 Inst : Max
Misc : IS&S 9/24/19 Multiplr: 1.00

Quant Time: Nov 7 14:29 2019 Quant Results File: M1106.RES

Quant Method : M:\MAX\DATA\M191106\M1106.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 07 14:27:44 2019
Response via : Initial Calibration
DataAcq Meth : M8260

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene (IS)	5.72	96	1359962	25.000	ppb		0.00
35) Chlorobenzene-D5 (IS)	8.97	117	1143203	25.000	ppb		0.00
45) 1,4-Dichlorobenzene-D (IS)	11.30	152	738427	25.000	ppb		0.00
System Monitoring Compounds							
21) Dibromofluoromethane(S)	4.89	111	590870	51.121	ppb		0.00
Spiked Amount 25.000			Recovery = 204.484%				
25) 1,2-DCA-D4(S)	5.30	65	486478	49.898	ppb		0.00
Spiked Amount 25.000			Recovery = 199.592%				
36) Toluene-D8(S)	7.51	98	2586805	48.867	ppb		0.00
Spiked Amount 25.000			Recovery = 195.468%				
42) 4-Bromofluorobenzene(S)	10.16	95	977576	49.426	ppb		0.00
Spiked Amount 25.000			Recovery = 197.704%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.00	85	145858	39.891	ppb		97
3) Freon 114	1.08	85	205121	42.586	ppb		82
4) Chloromethane	1.13	50	277218	38.789	ppb		98
5) Vinyl chloride	1.19	62	247712	40.575	ppb	#	100
6) Chloroethane	1.47	64	124872	39.839	ppb		91
7) Dichlorofluoromethane	1.63	67	358798	40.646	ppb		97
8) Trichlorofluoromethane	1.66	101	333009	41.920	ppb		92
9) Acetone	2.14	43	57011	41.788	ppb		96
10) Freon-113	2.08	101	183377	44.342	ppb		96
11) 1,1-DCE	2.07	61	490846	42.866	ppb		95
12) Acetonitrile	2.40	41	87233	200.720	ppb		96
14) Acrylonitrile	2.80	53	53748	40.198	ppb	#	84
15) Methylene chloride	2.54	84	231852	42.567	ppb		97
16) Carbon disulfide	2.24	76	541709	43.434	ppb		97
17) Trans-1,2-DCE	2.82	96	227575	41.173	ppb		100
18) Cis-1,2-DCE	4.18	96	249256	41.207	ppb		88
19) Chloroform	4.68	83	354392	39.230	ppb		99
20) Bromochloromethane	4.52	128	107956	39.756	ppb		89
22) Cyclohexane	4.93	41	151559	39.824	ppb		95
23) 1,1-Dichloropropene	5.10	75	283748	41.145	ppb		94
24) 2,2,4-Trimethylpentane	5.52	57	376489	40.401	ppb		97
26) 1,2-DCA	5.39	62	278758	40.262	ppb		100
27) Benzene	5.35	78	847229	40.725	ppb		99
28) TCE	6.16	95	236310	40.019	ppb		91
29) 2-Pentanone	6.43	43	421061	183.259	ppb		98
30) Methyl Cyclohexane	6.36	83	288668	40.529	ppb		97
31) Dibromomethane	6.53	93	78757	38.176	ppb		92
32) MIBK (methyl isobutyl ket	7.44	43	135205	40.582	ppb		98
33) Toluene	7.57	91	963475	39.163	ppb		98
34) 1,1,2-TCA	8.01	83	143572	42.442	ppb		99
37) Tetrachloroethene	8.13	164	266781	38.581	ppb		98
38) 1-Chlorohexane	9.03	91	273052	40.262	ppb		91
39) m&p-Xylene	9.26	106	944907	79.766	ppb		100
40) o-Xylene	9.65	106	466367	39.305	ppb		97
41) Styrene	9.67	104	773244	41.551	ppb		98
43) Chlorobenzene	9.00	112	681657	38.524	ppb		96
44) Ethylbenzene	9.14	91	1082144	39.436	ppb		99
46) Isopropylbenzene	10.03	105	1166908	38.588	ppb		100
47) 1,2,3-Trichloropropane	10.35	110	83286	38.578	ppb		90

(#) = qualifier out of range (m) = manual integration

Data File : M:\MAX\DATA\M191106\1106M13.D Vial: 10
Acq On : 6 Nov 19 14:06 Operator: LP,DG,CMM
Sample : 40ug/L VOC STD 11/06/19 Inst : Max
Misc : IS&S 9/24/19 Multiplr: 1.00

Quant Time: Nov 7 14:29 2019 Quant Results File: M1106.RES

Quant Method : M:\MAX\DATA\M191106\M1106.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 07 14:27:44 2019
Response via : Initial Calibration
DataAcq Meth : M8260

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
48)	t-1,4-Dichloro-2-Butene	10.39	53	20088	36.905 ppb	#	66
49)	Bromobenzene	10.29	156	372495	36.906 ppb		99
50)	n-Propylbenzene	10.44	91	1232027	39.496 ppb		99
51)	4-Ethyltoluene	10.55	105	1139291	39.387 ppb		97
52)	2-Chlorotoluene	10.50	91	770395	37.529 ppb		100
53)	1,3,5-Trimethylbenzene	10.62	105	968853	39.472 ppb		96
54)	4-Chlorotoluene	10.61	91	903285	38.828 ppb		97
55)	Tert-Butylbenzene	10.94	119	890906	39.205 ppb		94
56)	1,2,4-Trimethylbenzene	10.98	105	997089	39.344 ppb		99
57)	Sec-Butylbenzene	11.15	105	1138326	40.352 ppb		100
58)	p-Isopropyltoluene	11.31	119	738688	41.959 ppb		96
59)	Benzyl Chloride	11.47	91	392050	38.597 ppb		96
60)	1,3-DCB	11.23	146	682394	39.016 ppb		96
61)	1,4-DCB	11.32	146	466609	40.748 ppb		97
62)	n-Butylbenzene	11.71	91	514594	44.281 ppb		95
63)	1,2-DCB	11.68	146	663974	40.803 ppb		97
64)	1,2-Dibromo-3-chloropropan	12.45	157	73184	46.240 ppb		90
65)	1,2,4-Trichlorobenzene	13.28	180	472224	40.826 ppb		97
66)	Hexachlorobutadiene	13.48	225	245051	41.874 ppb		97
67)	Naphthalene	13.51	127	64704	41.963 ppb		75
68)	1,2,3-Trichlorobenzene	13.75	180	408576	41.667 ppb		96

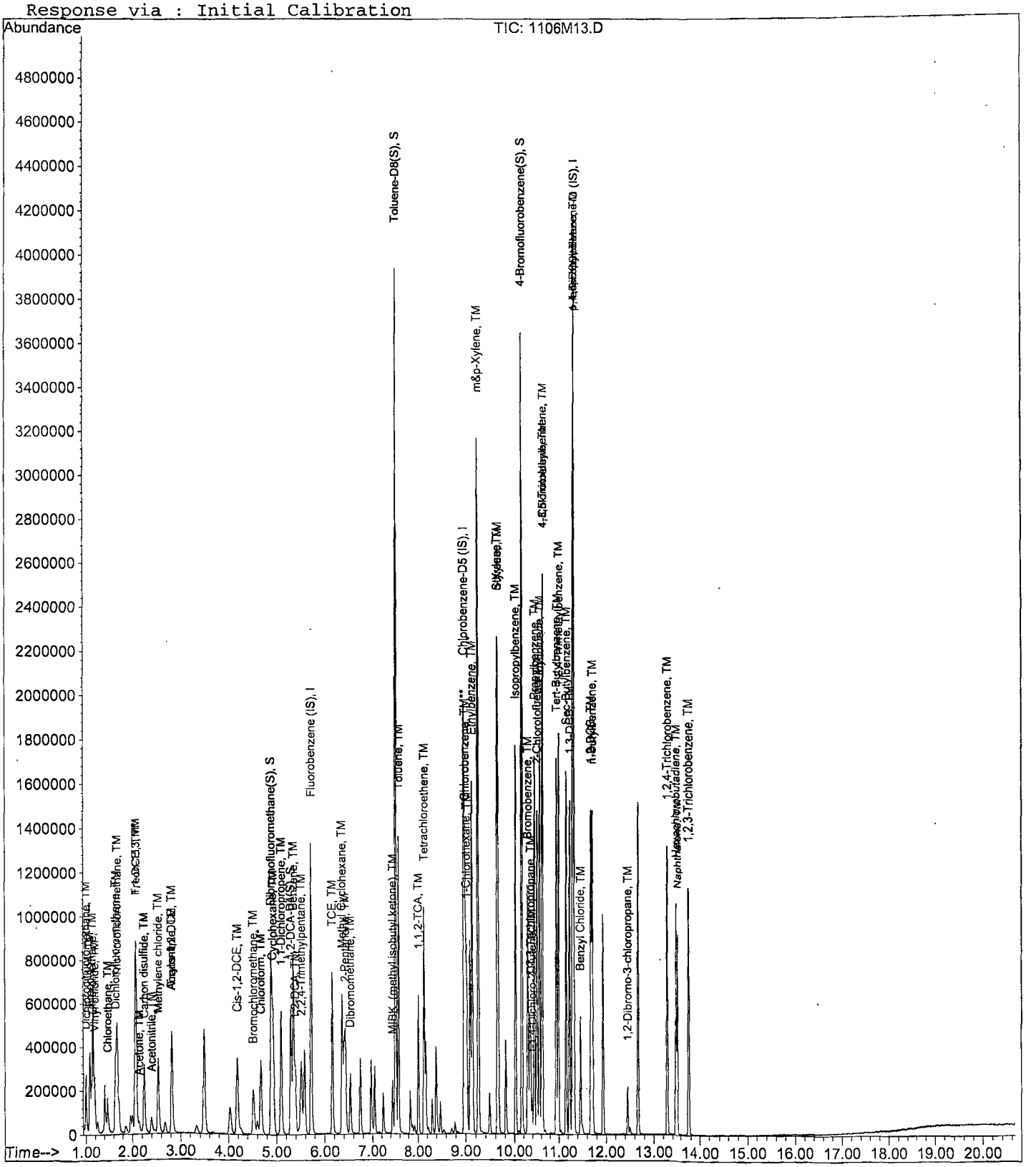
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\MAX\DATA\M191106\1106M13.D Vial: 10
Acq On : 6 Nov 19 14:06 Operator: LP,DG,CMM
Sample : 40ug/L VOC STD 11/06/19 Inst : Max
Misc : IS&S 9/24/19 Multiplr: 1.00

Quant Time: Nov 7 14:29 2019 Quant Results File: M1106.RES

Method : M:\MAX\DATA\M191106\M1106.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 07 14:27:44 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M191106\1106M14.D Vial: 11
Acq On : 6 Nov 19 14:35 Operator: LP,DG,CMM
Sample : 100ug/L VOC STD 11/06/19 Inst : Max
Misc : IS&S 9/24/19 Multiplr: 1.00

Quant Time: Nov 7 14:29 2019 Quant Results File: M1106.RES

Quant Method : M:\MAX\DATA\M191106\M1106.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 07 14:27:44 2019
Response via : Initial Calibration
DataAcq Meth : M8260

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Fluorobenzene (IS)	5.73	96	1491318	25.000 ppb		0.00
35) Chlorobenzene-D5 (IS)	8.97	117	1242508	25.000 ppb		0.00
45) 1,4-Dichlorobenzene-D (IS)	11.30	152	820397	25.000 ppb		0.00
System Monitoring Compounds						
21) Dibromofluoromethane(S)	4.89	111	1344078	100.783 ppb		0.00
Spiked Amount 25.000			Recovery = 403.132%			
25) 1,2-DCA-D4(S)	5.30	65	1155380	102.232 ppb		0.00
Spiked Amount 25.000			Recovery = 408.928%			
36) Toluene-D8(S)	7.51	98	5359123	93.147 ppb		0.00
Spiked Amount 25.000			Recovery = 372.588%			
42) 4-Bromofluorobenzene(S)	10.16	95	2081844	96.846 ppb		0.00
Spiked Amount 25.000			Recovery = 387.384%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.00	85	383923	95.408 ppb		95
3) Freon 114	1.08	85	505925	95.786 ppb		86
4) Chloromethane	1.13	50	706690	90.173 ppb		100
5) Vinyl chloride	1.19	62	578838	86.462 ppb	#	100
6) Chloroethane	1.47	64	314096	90.146 ppb		100
7) Dichlorofluoromethane	1.63	67	921390	95.185 ppb		97
8) Trichlorofluoromethane	1.65	101	870769	99.273 ppb		89
9) Acetone	2.15	43	140556	98.784 ppb		98
10) Freon-113	2.08	101	454702	100.266 ppb		97
11) 1,1-DCE	2.06	61	1149162	91.517 ppb		93
12) Acetonitrile	2.41	41	103130	216.397 ppb		95
14) Acrylonitrile	2.81	53	146679	100.038 ppb	#	89
15) Methylene chloride	2.54	84	578232	98.704 ppb		98
16) Carbon disulfide	2.24	76	1435887	104.989 ppb		97
17) Trans-1,2-DCE	2.82	96	599362	98.885 ppb		99
18) Cis-1,2-DCE	4.18	96	657253	99.486 ppb		93
19) Chloroform	4.68	83	1028653	100.674 ppb		100
20) Bromochloromethane	4.52	128	301108	100.013 ppb		87
22) Cyclohexane	4.93	41	381330	91.373 ppb		91
23) 1,1-Dichloropropene	5.10	75	730306	96.571 ppb		95
24) 2,2,4-Trimethylpentane	5.52	57	963807	94.317 ppb		97
26) 1,2-DCA	5.39	62	880645	99.972 ppb		100
27) Benzene	5.35	78	2216680	97.168 ppb		98
28) TCE	6.16	95	605682	94.366 ppb		96
29) 2-Pentanone	6.43	43	477188	189.395 ppb		100
30) Methyl Cyclohexane	6.37	83	729954	93.458 ppb		99
31) Dibromomethane	6.53	93	231441	100.737 ppb		87
32) MIBK (methyl isobutyl ket	7.44	43	357872	97.954 ppb		99
33) Toluene	7.58	91	2542439	94.242 ppb		96
34) 1,1,2-TCA	8.01	83	381730	102.905 ppb		95
37) Tetrachloroethene	8.13	164	687923	91.533 ppb		98
38) 1-Chlorohexane	9.03	91	723741	98.188 ppb		95
39) m&p-Xylene	9.26	106	2495692	193.839 ppb		98
40) o-Xylene	9.65	106	1236855	95.909 ppb		98
41) Styrene	9.67	104	2071849	102.434 ppb		100
43) Chlorobenzene	9.00	112	1826038	94.951 ppb		96
44) Ethylbenzene	9.14	91	2884835	96.728 ppb		96
46) Isopropylbenzene	10.03	105	3140631	93.480 ppb		97
47) 1,2,3-Trichloropropane	10.36	110	220731	92.026 ppb		90

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M191106\1106M14.D Vial: 11
Acq On : 6 Nov 19 14:35 Operator: LP,DG,CMM
Sample : 100ug/L VOC STD 11/06/19 Inst : Max
Misc : IS&S 9/24/19 Multiplr: 1.00

Quant Time: Nov 7 14:29 2019 Quant Results File: M1106.RES

Quant Method : M:\MAX\DATA\M191106\M1106.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 07 14:27:44 2019
Response via : Initial Calibration
DataAcq Meth : M8260

Compound	R.T.	QIon	Response	Conc Unit		Qvalue
48) t-1,4-Dichloro-2-Butene	10.39	53	64472	101.599 ppb	#	69
49) Bromobenzene	10.29	156	1000026	89.181 ppb		99
50) n-Propylbenzene	10.44	91	3292310	94.998 ppb		100
51) 4-Ethyltoluene	10.56	105	3098319	96.412 ppb		98
52) 2-Chlorotoluene	10.50	91	2071207	90.816 ppb		100
53) 1,3,5-Trimethylbenzene	10.63	105	2619041	96.041 ppb		99
54) 4-Chlorotoluene	10.61	91	2431827	94.089 ppb		99
55) Tert-Butylbenzene	10.94	119	2393774	94.814 ppb		95
56) 1,2,4-Trimethylbenzene	10.99	105	2698205	95.830 ppb		100
57) Sec-Butylbenzene	11.16	105	3046250	97.196 ppb		100
58) p-Isopropyltoluene	11.31	119	2052857	104.955 ppb		94
59) Benzyl Chloride	11.47	91	1164551	100.943 ppb		97
60) 1,3-DCB	11.23	146	1810945	93.196 ppb		97
61) 1,4-DCB	11.32	146	1277952	100.450 ppb		97
62) n-Butylbenzene	11.72	91	1404738	108.801 ppb		95
63) 1,2-DCB	11.68	146	1749587	96.774 ppb		97
64) 1,2-Dibromo-3-chloropropan	12.45	157	202147	114.962 ppb		90
65) 1,2,4-Trichlorobenzene	13.28	180	1290759	99.736 ppb		99
66) Hexachlorobutadiene	13.48	225	634202	97.545 ppb		96
67) Naphthalene	13.51	127	173440	100.667 ppb		68
68) 1,2,3-Trichlorobenzene	13.76	180	1091787	99.419 ppb		97

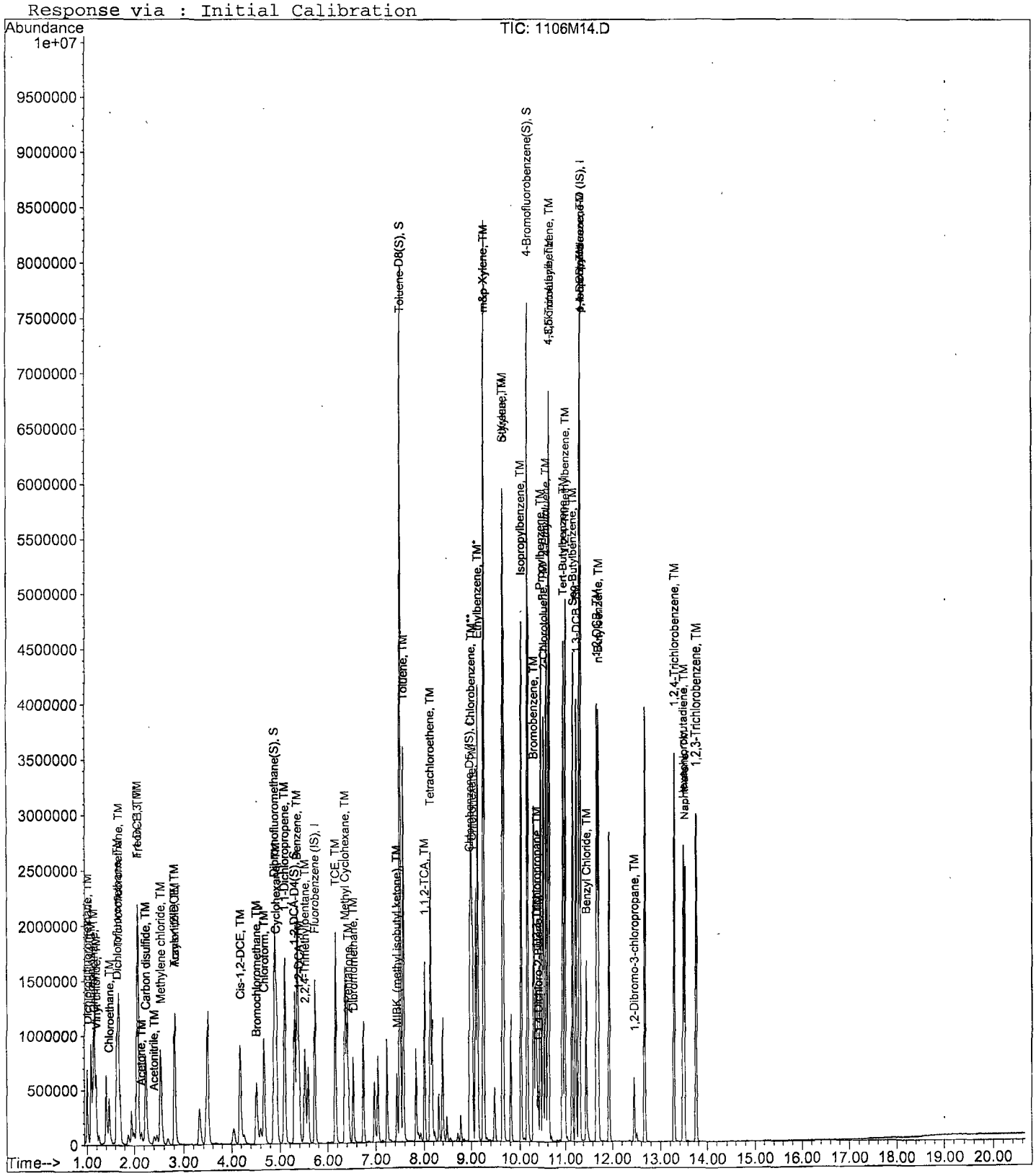
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\MAX\DATA\M191106\1106M14.D Vial: 11
Acq On : 6 Nov 19 14:35 Operator: LP,DG,CMM
Sample : 100ug/L VOC STD 11/06/19 Inst : Max
Misc : IS&S 9/24/19 Multiplr: 1.00

Quant Time: Nov 7 14:29 2019 Quant Results File: M1106.RES

Method : M:\MAX\DATA\M191106\M1106.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 07 14:27:44 2019
Response via : Initial Calibration



VOLATILE ORGANIC ANALYSIS BY
EPA METHOD 8260B

Form 7

Second Source Calibration

Lab Name: APPL, Inc.
Case No:
Matrix: water

SDG No:
Date Analyzed: 6 Nov 19 15:33
Instrument: Max
Initial Cal. Date: 11/06/19
Data File: 1106M16.D

		Compound	MEAN	CCRF	%D		%Drift	
1	TML	Dichlorodifluoromethane	0.0681	0.0751	10	TML	14	
2	TM	Freon 114	0.0885	0.0958	8.2	TM		
3	TM**	Chloromethane	0.1314	0.1438	9.5	TM**		
4	TM*	Vinyl chloride	0.1122	0.1405	25	TM*		*
5	TML	Chloroethane	0.0448	0.0656	46	TML	21	*
6	TM	Dichlorofluoromethane	0.1623	0.1783	9.9	TM		
7	TML	Trichlorofluoromethane	0.1240	0.1540	24	TML	9.2	
8	TML	Acetone	0.0588	0.0177	70	TML	62	*NT
9	TM	Freon-113	0.0760	0.0907	19	TM		
10	TM*	1,1-DCE	0.2105	0.2136	1.5	TM*		
11	TM	Acetonitrile	0.0080	0.0068	15	TM		
12	TM	Methyl Acetate	0.0000	0.0017	0.00	TM		
13	TM	Acrylonitrile	0.0246	0.0254	3.1	TM		
14	TML	Methylene chloride	0.1354	0.1087	20	TML	2.6	
15	TM	Carbon disulfide	0.2293	0.2836	24	TM		*NT
16	TM	Trans-1,2-DCE	0.1016	0.1084	6.7	TM		
17	TML	Cis-1,2-DCE	0.1222	0.1186	3.0	TML	4.5	
18	TM*L	Chloroform	0.1054	0.1230	17	TM*L	10	
19	TML	Bromochloromethane	0.0379	0.0448	18	TML	4.7	
20	TM	Cyclohexane	0.0700	0.0725	3.7	TM		
21	TM	1,1-Dichloropropene	0.1268	0.1337	5.5	TM		
22	TM	2,2,4-Trimethylpentane	0.1713	0.1859	8.5	TM		
23	TMQ	1,2-DCA	0.1057	0.0854	19	TMQ	20	
24	TM	Benzene	0.3824	0.3933	2.8	TM		
25	TML	TCE	0.1506	0.1129	25	TML	0.60	
26	TM	2-Pentanone	0.0422	0.0365	14	TM		
27	TM	Methyl Cyclohexane	0.1309	0.1421	8.6	TM		
28	TML	Dibromomethane	0.0324	0.0248	23	TML	27	*NT
29	TM	MIBK (methyl isobutyl ketone)	0.0612	0.0640	4.5	TM		
30	TM*	Toluene	0.4522	0.4567	0.99	TM*		
31	TM	1,1,2-TCA	0.0622	0.0633	1.8	TM		
32	TM	Tetrachloroethene	0.1512	0.1619	7.0	TM		
33	TM	1-Chlorohexane	0.1483	0.1613	8.8	TM		
34	TM	m&p-Xylene	0.2591	0.2728	5.3	TM		
35	TM	o-Xylene	0.2595	0.2629	1.3	TM		
36	TM	Styrene	0.4070	0.4649	14	TM		
37	TM**	Chlorobenzene	0.3869	0.3937	1.7	TM**		
38	TM*	Ethylbenzene	0.6001	0.6246	4.1	TM*		
39	TM	Isopropylbenzene	1.024	1.074	4.9	TM		
40	TM	1,2,3-Trichloropropane	0.0731	0.0712	2.6	TM		
		Average			12.4			

VOLATILE ORGANIC ANALYSIS BY
EPA METHOD 8260B

Form 7

Second Source Calibration

Lab Name: APPL, Inc.
Case No:
Matrix: water

SDG No:
Date Analyzed: 6 Nov 19 15:33
Instrument: Max
Cal. Date: 11/06/19
Data File: 1106M16.D

		Compound	MEAN	CCRF	%D	%Drift		
41	TML	t-1,4-Dichloro-2-Butene	0.0130	0.0079	39	TML	34	*NT
42	TM	Bromobenzene	0.3417	0.3675	7.5	TM		
43	TM	n-Propylbenzene	1.056	1.125	6.5	TM		
44	TM	4-Ethyltoluene	0.9793	1.110	13	TM		
45	TM	2-Chlorotoluene	0.6950	0.7112	2.3	TM		
46	TM	1,3,5-Trimethylbenzene	0.8310	0.8901	7.1	TM		
47	TM	4-Chlorotoluene	0.7876	0.8413	6.8	TM		
48	TM	Tert-Butylbenzene	0.7694	0.8114	5.5	TM		
49	TM	1,2,4-Trimethylbenzene	0.8580	0.8910	3.9	TM		
50	TM	Sec-Butylbenzene	0.9551	0.9993	4.6	TM		
51	TM	p-Isopropyltoluene	0.5960	0.6560	10	TM		
52	TML	Benzyl Chloride	0.2758	0.2672	3.1	TML	12	
53	TM	1,3-DCB	0.5921	0.6224	5.1	TM		
54	TM	1,4-DCB	0.3877	0.4226	9.0	TM		
55	TM	n-Butylbenzene	0.3934	0.4545	16	TM		
56	TM	1,2-DCB	0.5509	0.6003	9.0	TM		
57	TM	1,2-Dibromo-3-chloropropane	0.0536	0.0564	5.2	TM		
58	TML	1,2,4-Trichlorobenzene	0.3391	0.4079	20	TML	7.8	
59	TM	Hexachlorobutadiene	0.1981	0.2270	15	TM		
60	TML	Naphthalene	0.0423	0.0429	1.4	TML	15	
61	TML	1,2,3-Trichlorobenzene	0.2703	0.3364	24	TML	5.6	
62								
63								
64								
65								
66								
67								
68								
69								
70								
71								
72								
73								
74								
75								
76								
77								
78								
79								
80								
		Average			10.2			

Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M191106\1106M16.D Vial: 13
Acq On : 6 Nov 19 15:33 Operator: LP,DG,CMM
Sample : (SS)10ug/L VOC STD 11/06/19 Inst : Max
Misc : IS&S 9/24/19 Multiplr: 1.00

Quant Time: Nov 7 14:29 2019 Quant Results File: M1106.RES

Quant Method : M:\MAX\DATA\M191106\M1106.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 07 14:27:44 2019
Response via : Initial Calibration
DataAcq Meth : M8260

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Fluorobenzene (IS)	5.73	96	1430108	25.000 ppb		0.00
35) Chlorobenzene-D5 (IS)	8.97	117	1166431	25.000 ppb		0.00
45) 1,4-Dichlorobenzene-D (IS)	11.30	152	706816	25.000 ppb		0.00
System Monitoring Compounds						
21) Dibromofluoromethane(S)	4.89	111	252751	23.700 ppb		0.00
Spiked Amount 25.000			Recovery = 94.800%			
25) 1,2-DCA-D4(S)	5.30	65	181544	20.938 ppb		0.00
Spiked Amount 25.000			Recovery = 83.752%			
36) Toluene-D8(S)	7.51	98	1379839	25.547 ppb		0.00
Spiked Amount 25.000			Recovery = 102.188%			
42) 4-Bromofluorobenzene(S)	10.16	95	517002	25.619 ppb		0.00
Spiked Amount 25.000			Recovery = 102.476%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.01	85	42984	11.356 ppb		92
3) Freon 114	1.09	85	54795	10.818 ppb		83
4) Chloromethane	1.13	50	82280	10.948 ppb		97
5) Vinyl chloride	1.19	62	80349	12.516 ppb	#	100
6) Chloroethane	1.48	64	37521	12.066 ppb		90
7) Dichlorofluoromethane	1.64	67	101975	10.986 ppb		95
8) Trichlorofluoromethane	1.67	101	88107	10.918 ppb		89
9) Acetone	2.15	43	10114	3.831 ppb		87
10) Freon-113	2.09	101	51907	11.936 ppb		95
11) 1,1-DCE	2.07	61	122171	10.146 ppb		94
12) Acetonitrile	2.40	41	48713	106.589 ppb		99
14) Acrylonitrile	2.81	53	14502	10.314 ppb		95
15) Methylene chloride	2.54	84	62154	9.744 ppb		90
16) Carbon disulfide	2.25	76	162227	12.369 ppb		99
17) Trans-1,2-DCE	2.82	96	62023	10.671 ppb		100
18) Cis-1,2-DCE	4.18	96	67839	10.454 ppb		89
19) Chloroform	4.68	83	70344	8.964 ppb		99
20) Bromochloromethane	4.52	128	25630	9.532 ppb		86
22) Cyclohexane	4.92	41	41497	10.369 ppb		93
23) 1,1-Dichloropropene	5.10	75	76488	10.547 ppb		97
24) 2,2,4-Trimethylpentane	5.52	57	106361	10.854 ppb		91
26) 1,2-DCA	5.40	62	48873	8.029 ppb		95
27) Benzene	5.35	78	224978	10.284 ppb		98
28) TCE	6.16	95	64574	9.940 ppb		92
29) 2-Pentanone	6.43	43	260697	107.898 ppb		95
30) Methyl Cyclohexane	6.36	83	81314	10.856 ppb		94
31) Dibromomethane	6.54	93	14175	7.308 ppb		79
32) MIBK (methyl isobutyl ket	7.44	43	36619	10.452 ppb		94
33) Toluene	7.58	91	261255	10.099 ppb		93
34) 1,1,2-TCA	8.01	83	36217	10.181 ppb		97
37) Tetrachloroethene	8.13	164	75521	10.704 ppb		96
38) 1-Chlorohexane	9.03	91	75262	10.877 ppb		97
39) m&p-Xylene	9.26	106	254573	21.062 ppb		96
40) o-Xylene	9.65	106	122646	10.131 ppb		99
41) Styrene	9.67	104	216923	11.424 ppb		96
43) Chlorobenzene	9.00	112	183697	10.175 ppb		96
44) Ethylbenzene	9.14	91	291444	10.409 ppb		99
46) Isopropylbenzene	10.03	105	303681	10.491 ppb		100
47) 1,2,3-Trichloropropane	10.36	110	20136	9.744 ppb		91

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M191106\1106M16.D Vial: 13
Acq On : 6 Nov 19 15:33 Operator: LP,DG,CMM
Sample : (SS)10ug/L VOC STD 11/06/19 Inst : Max
Misc : IS&S 9/24/19 Multiplr: 1.00

Quant Time: Nov 7 14:29 2019 Quant Results File: M1106.RES

Quant Method : M:\MAX\DATA\M191106\M1106.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 07 14:27:44 2019
Response via : Initial Calibration
DataAcq Meth : M8260

Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
48) t-1,4-Dichloro-2-Butene	10.39	53	2241	6.646	ppb		96
49) Bromobenzene	10.29	156	103902	10.755	ppb		93
50) n-Propylbenzene	10.44	91	318102	10.654	ppb		96
51) 4-Ethyltoluene	10.55	105	313761	11.332	ppb		100
52) 2-Chlorotoluene	10.50	91	201070	10.233	ppb		96
53) 1,3,5-Trimethylbenzene	10.62	105	251660	10.711	ppb		93
54) 4-Chlorotoluene	10.61	91	237846	10.681	ppb		100
55) Tert-Butylbenzene	10.94	119	229405	10.547	ppb		96
56) 1,2,4-Trimethylbenzene	10.98	105	251921	10.385	ppb		97
57) Sec-Butylbenzene	11.16	105	282531	10.463	ppb		97
58) p-Isopropyltoluene	11.31	119	185470	11.006	ppb		97
59) Benzyl Chloride	11.47	91	75536	8.843	ppb		95
60) 1,3-DCB	11.23	146	175982	10.512	ppb		97
61) 1,4-DCB	11.32	146	119480	10.901	ppb		98
62) n-Butylbenzene	11.71	91	128511	11.553	ppb		97
63) 1,2-DCB	11.68	146	169716	10.896	ppb		97
64) 1,2-Dibromo-3-chloropropan	12.46	157	15943	10.524	ppb	#	84
65) 1,2,4-Trichlorobenzene	13.28	180	115317	10.775	ppb		95
66) Hexachlorobutadiene	13.47	225	64176	11.457	ppb		92
67) Naphthalene	13.51	127	12116	8.537	ppb	#	82
68) 1,2,3-Trichlorobenzene	13.76	180	95114	10.563	ppb		95

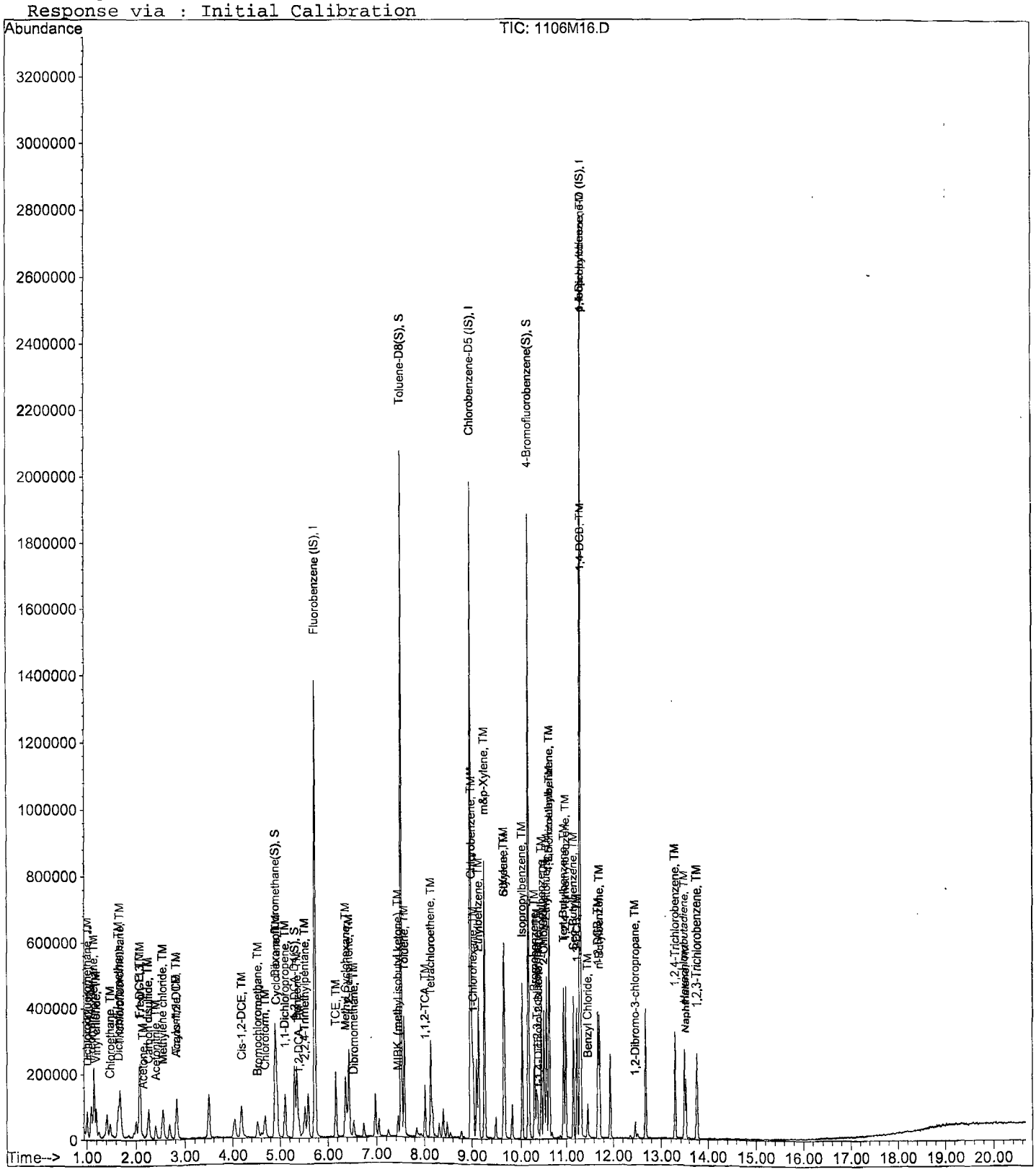
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\MAX\DATA\M191106\1106M16.D Vial: 13
Acq On : 6 Nov 19 15:33 Operator: LP,DG,CMM
Sample : (SS)10ug/L VOC STD 11/06/19 Inst : Max
Misc : IS&S 9/24/19 Multiplr: 1.00

Quant Time: Nov 7 14:29 2019 Quant Results File: M1106.RES

Method : M:\MAX\DATA\M191106\M1106.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 07 14:27:44 2019
Response via : Initial Calibration



VOLATILE ORGANIC ANALYSIS BY
EPA METHOD 8260B

Form 7

Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix:

SDG No:
Date Analyzed: 8 Nov 19 4:30
Instrument: Max
Initial Cal. Date: 11/06/19
Data File: 1107M29.D

		Compound	MEAN	CCRF	%D		%Drift	
1	I	Fluorobenzene (IS)	ISTD			I		
2	TML	Dichlorodifluoromethane	0.0681	0.0563	17	TML	14	
3	TM	Freon 114	0.0885	0.0907	2.4	TM		
4	TM**	Chloromethane	0.1314	0.1187	9.7	TM**		
5	TM*	Vinyl chloride	0.1122	0.1215	8.2	TM*		
6	TML	Chloroethane	0.0448	0.0499	11	TML	5.9	
7	TM	Dichlorofluoromethane	0.1623	0.1807	11	TM		
8	TML	Trichlorofluoromethane	0.1240	0.1356	9.3	TML	3.3	
9	TML	Acetone	0.0588	0.0242	59	TML	33	*
10	TM	Freon-113	0.0760	0.0775	1.9	TM		
11	TM*	1,1-DCE	0.2105	0.2311	9.8	TM*		
12	TM	Acetonitrile	0.0080	0.0090	12	TM		
13	TM	Methyl Acetate	0.0000	0.0020	0.00	TM		
14	TM	Acrylonitrile	0.0246	0.0257	4.4	TM		
15	TML	Methylene chloride	0.1354	0.0984	27	TML	13	
16	TM	Carbon disulfide	0.2293	0.2326	1.5	TM		
17	TM	Trans-1,2-DCE	0.1016	0.1075	5.8	TM		
18	TML	Cis-1,2-DCE	0.1222	0.1225	0.21	TML	8.1	
19	TM*L	Chloroform	0.1054	0.1494	42	TM*L	4.8	
20	TML	Bromochloromethane	0.0379	0.0386	1.8	TML	17	
21	SL	Dibromofluoromethane(S)	0.1582	0.2136	35	SL	10	
22	TM	Cyclohexane	0.0700	0.0706	0.92	TM		
23	TM	1,1-Dichloropropene	0.1268	0.1392	9.8	TM		
24	TM	2,2,4-Trimethylpentane	0.1713	0.1800	5.1	TM		
25	SL	1,2-DCA-D4(S)	0.1385	0.1889	36	SL	15	
26	TMQ	1,2-DCA	0.1057	0.1165	10	TMQ	5.5	
27	TM	Benzene	0.3824	0.4154	8.6	TM		
28	TML	TCE	0.1506	0.1164	23	TML	2.7	
29	TM	2-Pentanone	0.0422	0.0440	4.2	TM		
30	TM	Methyl Cyclohexane	0.1309	0.1304	0.40	TM		
31	TML	Dibromomethane	0.0324	0.0357	10	TML	1.1	
32	TM	MIBK (methyl isobutyl ketone)	0.0612	0.0597	2.5	TM		
33	TM*	Toluene	0.4522	0.4812	6.4	TM*		
34	TM	1,1,2-TCA	0.0622	0.0630	1.3	TM		
35	I	Chlorobenzene-D5 (IS)	ISTD			I		
36	S	Toluene-D8(S)	1.158	1.315	14	S		
37	TM	Tetrachloroethene	0.1512	0.1672	11	TM		
38	TM	1-Chlorohexane	0.1483	0.1543	4.0	TM		
39	TM	m&p-Xylene	0.2591	0.2844	9.8	TM		
40	TM	o-Xylene	0.2595	0.2912	12	TM		
		Average			11.5			

VOLATILE ORGANIC ANALYSIS BY
EPA METHOD 8260B

Form 7

Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix: 0

SDG No:
Date Analyzed: 8 Nov 19 4:30
Instrument: Max
Cal. Date: 11/06/19
Data File: 1107M29.D

		Compound	MEAN	CCRF	%D		%Drift
41	TM	Styrene	0.4070	0.4753	17	TM	
42	S	4-Bromofluorobenzene(S)	0.4325	0.4855	12	S	
43	TM**	Chlorobenzene	0.3869	0.4150	7.3	TM**	
44	TM*	Ethylbenzene	0.6001	0.6669	11	TM*	
45	I	1,4-Dichlorobenzene-D (IS)	ISTD			I	
46	TM	Isopropylbenzene	1.024	1.113	8.7	TM	
47	TM	1,2,3-Trichloropropane	0.0731	0.0797	9.0	TM	
48	TML	t-1,4-Dichloro-2-Butene	0.0130	0.0071	45	TML	38 *
49	TM	Bromobenzene	0.3417	0.3692	8.0	TM	
50	TM	n-Propylbenzene	1.056	1.119	6.0	TM	
51	TM	4-Ethyltoluene	0.9793	1.082	10	TM	
52	TM	2-Chlorotoluene	0.6950	0.7176	3.3	TM	
53	TM	1,3,5-Trimethylbenzene	0.8310	0.9198	11	TM	
54	TM	4-Chlorotoluene	0.7876	0.8692	10	TM	
55	TM	Tert-Butylbenzene	0.7694	0.8379	8.9	TM	
56	TM	1,2,4-Trimethylbenzene	0.8580	0.9400	9.6	TM	
57	TM	Sec-Butylbenzene	0.9551	1.042	9.1	TM	
58	TM	p-Isopropyltoluene	0.5960	0.6669	12	TM	
59	TML	Benzyl Chloride	0.2758	0.2251	18	TML	23 *
60	TM	1,3-DCB	0.5921	0.6264	5.8	TM	
61	TM	1,4-DCB	0.3877	0.4044	4.3	TM	
62	TM	n-Butylbenzene	0.3934	0.4470	14	TM	
63	TM	1,2-DCB	0.5509	0.6058	10.0	TM	
64	TM	1,2-Dibromo-3-chloropropane	0.0536	0.0583	8.7	TM	
65	TML	1,2,4-Trichlorobenzene	0.3391	0.3688	8.7	TML	2.1
66	TM	Hexachlorobutadiene	0.1981	0.2239	13	TM	
67	TML	Naphthalene	0.0423	0.0390	7.8	TML	22 *
68	TML	1,2,3-Trichlorobenzene	0.2703	0.2913	7.7	TML	7.8
69							
70							
71							
72							
73							
74							
75							
76							
77							
78							
79							
80							
		Average			11.0		

Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M191107\1107M29.D Vial: 29
Acq On : 8 Nov 19 4:30 Operator: LP,DG,CMM
Sample : 191107B CCV 10ug/L Inst : Max
Misc : IS&S 9/24/19 Multiplr: 1.00

Quant Time: Nov 8 13:06 2019 Quant Results File: M1106.RES

Quant Method : M:\MAX\DATA\M191106\M1106.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 07 14:27:44 2019
Response via : Initial Calibration
DataAcq Meth : M8260

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Fluorobenzene (IS)	5.72	96	1290666	25.0000 ppb		0.00
35) Chlorobenzene-D5 (IS)	8.97	117	1031927	25.0000 ppb		0.00
45) 1,4-Dichlorobenzene-D (IS)	11.30	152	665296	25.0000 ppb		0.00
System Monitoring Compounds						
21) Dibromofluoromethane(S)	4.90	111	275697	27.6232 ppb		0.01
Spiked Amount 25.000			Recovery = 110.492%			
25) 1,2-DCA-D4(S)	5.30	65	243769	28.7091 ppb		0.00
Spiked Amount 25.000			Recovery = 114.836%			
36) Toluene-D8(S)	7.51	98	1356917	28.3973 ppb		0.00
Spiked Amount 25.000			Recovery = 113.588%			
42) 4-Bromofluorobenzene(S)	10.16	95	500954	28.0596 ppb		0.00
Spiked Amount 25.000			Recovery = 112.240%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.01	85	29043	8.5634 ppb		87
3) Freon 114	1.09	85	46830	10.2446 ppb		86
4) Chloromethane	1.13	50	61257	9.0315 ppb		98
5) Vinyl chloride	1.19	62	62715	10.8242 ppb	#	100
6) Chloroethane	1.48	64	25777	9.4132 ppb		90
7) Dichlorofluoromethane	1.64	67	93276	11.1340 ppb		98
8) Trichlorofluoromethane	1.67	101	69998	9.6708 ppb		80
9) Acetone	2.14	43	12497	6.6738 ppb		94
10) Freon-113	2.09	101	39992	10.1896 ppb		96
11) 1,1-DCE	2.07	61	119309	10.9787 ppb		97
12) Acetonitrile	2.39	41	57799	140.1337 ppb		94
14) Acrylonitrile	2.81	53	13253	10.4441 ppb	#	83
15) Methylene chloride	2.54	84	50807	8.6858 ppb		91
16) Carbon disulfide	2.25	76	120101	10.1467 ppb		100
17) Trans-1,2-DCE	2.83	96	55513	10.5826 ppb		98
18) Cis-1,2-DCE	4.18	96	63230	10.8060 ppb		95
19) Chloroform	4.69	83	77107	10.4755 ppb		98
20) Bromochloromethane	4.52	128	19905	8.3024 ppb	#	71
22) Cyclohexane	4.93	41	36452	10.0924 ppb		99
23) 1,1-Dichloropropene	5.10	75	71860	10.9796 ppb		91
24) 2,2,4-Trimethylpentane	5.52	57	92931	10.5079 ppb	#	87
26) 1,2-DCA	5.40	62	60149	10.5531 ppb		99
27) Benzene	5.35	78	214455	10.8620 ppb		100
28) TCE	6.16	95	60070	10.2650 ppb		96
29) 2-Pentanone	6.43	43	283927	130.2090 ppb		96
30) Methyl Cyclohexane	6.36	83	67328	9.9603 ppb		97
31) Dibromomethane	6.54	93	18419	10.1116 ppb		92
32) MIBK (methyl isobutyl ket	7.44	43	30835	9.7520 ppb		98
33) Toluene	7.58	91	248414	10.6397 ppb		99
34) 1,1,2-TCA	8.01	83	32508	10.1258 ppb		96
37) Tetrachloroethene	8.13	164	69006	11.0555 ppb		98
38) 1-Chlorohexane	9.03	91	63688	10.4036 ppb		94
39) m&p-Xylene	9.26	106	234785	21.9569 ppb		100
40) o-Xylene	9.65	106	120200	11.2227 ppb		97
41) Styrene	9.66	104	196186	11.6789 ppb		100
43) Chlorobenzene	9.00	112	171308	10.7255 ppb		98
44) Ethylbenzene	9.14	91	275291	11.1140 ppb		98
46) Isopropylbenzene	10.03	105	296290	10.8750 ppb		97
47) 1,2,3-Trichloropropane	10.35	110	21198	10.8981 ppb		93

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M191107\1107M29.D Vial: 29
Acq On : 8 Nov 19 4:30 Operator: LP,DG,CMM
Sample : 191107B CCV 10ug/L Inst : Max
Misc : IS&S 9/24/19 Multiplr: 1.00

Quant Time: Nov 8 13:06 2019 Quant Results File: M1106.RES

Quant Method : M:\MAX\DATA\M191106\M1106.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 07 14:27:44 2019
Response via : Initial Calibration
DataAcq Meth : M8260

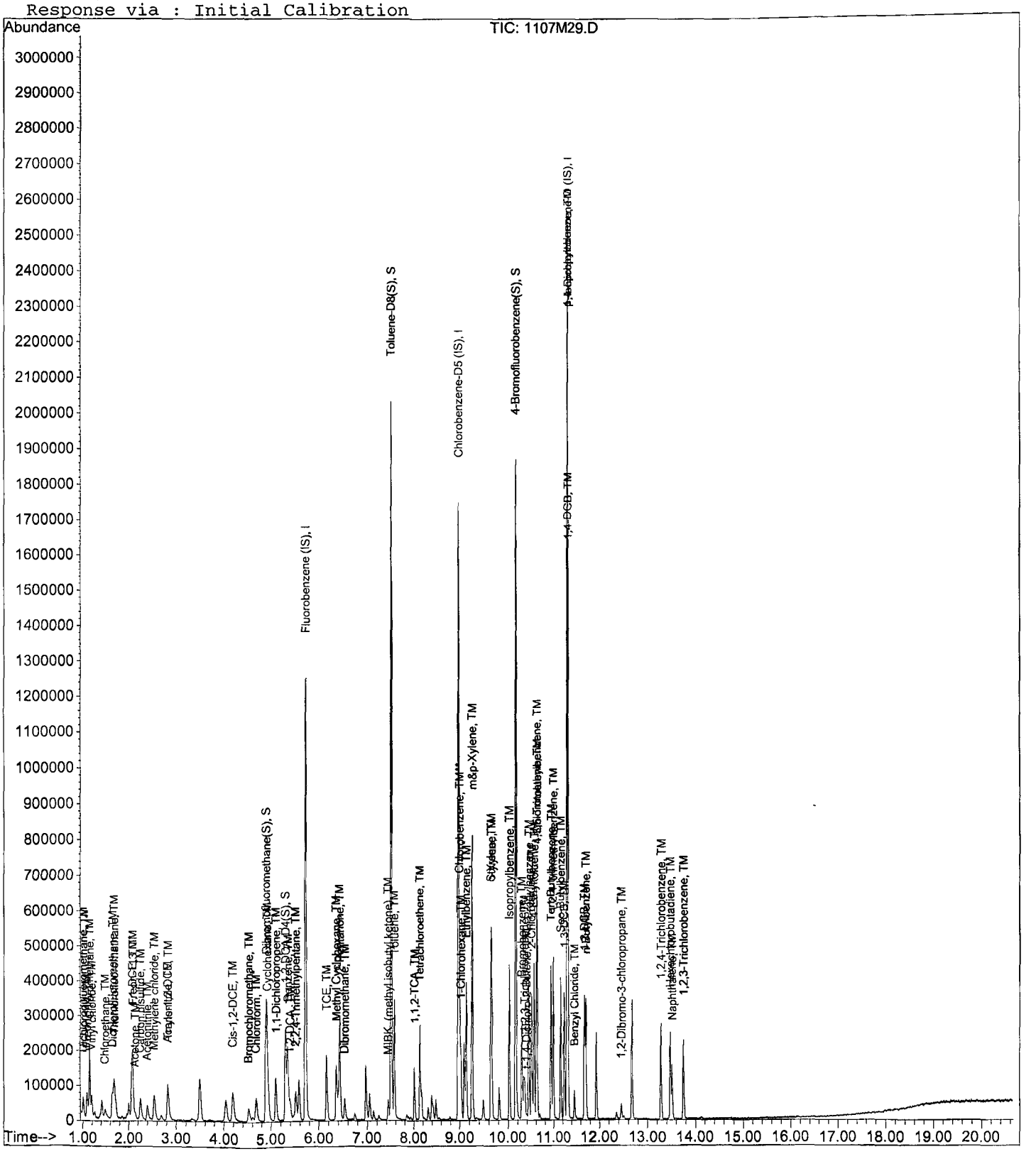
Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
48) t-1,4-Dichloro-2-Butene	10.39	53	1896	6.2422	ppb	#	48
49) Bromobenzene	10.29	156	98243	10.8037	ppb		86
50) n-Propylbenzene	10.44	91	297794	10.5960	ppb		96
51) 4-Ethyltoluene	10.55	105	287814	11.0440	ppb		98
52) 2-Chlorotoluene	10.50	91	190972	10.3256	ppb		98
53) 1,3,5-Trimethylbenzene	10.62	105	244769	11.0683	ppb		94
54) 4-Chlorotoluene	10.61	91	231321	11.0365	ppb		97
55) Tert-Butylbenzene	10.94	119	222991	10.8914	ppb		97
56) 1,2,4-Trimethylbenzene	10.98	105	250157	10.9559	ppb		99
57) Sec-Butylbenzene	11.15	105	277397	10.9142	ppb		100
58) p-Isopropyltoluene	11.31	119	177472	11.1888	ppb		95
59) Benzyl Chloride	11.47	91	59908	7.6632	ppb		93
60) 1,3-DCB	11.23	146	166701	10.5789	ppb		93
61) 1,4-DCB	11.32	146	107621	10.4314	ppb		98
62) n-Butylbenzene	11.71	91	118944	11.3603	ppb		94
63) 1,2-DCB	11.68	146	161219	10.9964	ppb		97
64) 1,2-Dibromo-3-chloropropan	12.46	157	15502	10.8714	ppb		88
65) 1,2,4-Trichlorobenzene	13.28	180	98138	9.7888	ppb		97
66) Hexachlorobutadiene	13.47	225	59597	11.3034	ppb		96
67) Naphthalene	13.51	127	10370	7.7999	ppb		78
68) 1,2,3-Trichlorobenzene	13.76	180	77515	9.2224	ppb		99

(#) = qualifier out of range (m) = manual integration

Data File : M:\MAX\DATA\M191107\1107M29.D Vial: 29
Acq On : 8 Nov 19 4:30 Operator: LP,DG,CMM
Sample : 191107B CCV 10ug/L Inst : Max
Misc : IS&S 9/24/19 Multiplr: 1.00

Quant Time: Nov 8 13:06 2019 Quant Results File: M1106.RES

Method : M:\MAX\DATA\M191106\M1106.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 07 14:27:44 2019
Response via : Initial Calibration



VOLATILE ORGANIC ANALYSIS BY
EPA METHOD 8260B

Form 7

Ending Continuing Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Date Analyzed: 8 Nov 19 10:44
Matrix: Instrument: Max
Initial Cal. Date: 11/06/19
Data File: 1107M42.D

		Compound	MEAN	CCRF	%D		%Drift
1	I	Fluorobenzene (IS)	ISTD			I	
2	TML	Dichlorodifluoromethane	0.0681	0.0501	26	TML	23
3	TM	Freon 114	0.0885	0.0880	0.62	TM	
4	TM**	Chloromethane	0.1314	0.1233	6.1	TM**	
5	TM*	Vinyl chloride	0.1122	0.1107	1.4	TM*	
6	TML	Chloroethane	0.0448	0.0486	8.4	TML	8.1
7	TM	Dichlorofluoromethane	0.1623	0.1678	3.4	TM	
8	TML	Trichlorofluoromethane	0.1240	0.1371	11	TML	2.3
9	TML	Acetone	0.0588	0.0284	52	TML	15
10	TM	Freon-113	0.0760	0.0767	0.88	TM	
11	TM*	1,1-DCE	0.2105	0.2148	2.1	TM*	
12	TM	Acetonitrile	0.0080	0.0082	3.0	TM	
13	TM	Methyl Acetate	0.0000	0.0020	0.00	TM	
14	TM	Acrylonitrile	0.0246	0.0246	0.05	TM	
15	TML	Methylene chloride	0.1354	0.1007	26	TML	11
16	TM	Carbon disulfide	0.2293	0.2294	0.06	TM	
17	TM	Trans-1,2-DCE	0.1016	0.0998	1.8	TM	
18	TML	Cis-1,2-DCE	0.1222	0.1188	2.8	TML	4.7
19	TM*L	Chloroform	0.1054	0.1367	30	TM*L	2.5
20	TML	Bromochloromethane	0.0379	0.0421	11	TML	10
21	SL	Dibromofluoromethane(S)	0.1582	0.2005	27	SL	4.9
22	TM	Cyclohexane	0.0700	0.0689	1.5	TM	
23	TM	1,1-Dichloropropene	0.1268	0.1304	2.9	TM	
24	TM	2,2,4-Trimethylpentane	0.1713	0.1629	4.9	TM	
25	SL	1,2-DCA-D4(S)	0.1385	0.1704	23	SL	5.6
26	TMQ	1,2-DCA	0.1057	0.1087	2.9	TMQ	0.74
27	TM	Benzene	0.3824	0.4009	4.8	TM	
28	TML	TCE	0.1506	0.1115	26	TML	1.8
29	TM	2-Pentanone	0.0422	0.0420	0.49	TM	
30	TM	Methyl Cyclohexane	0.1309	0.1273	2.8	TM	
31	TML	Dibromomethane	0.0324	0.0323	0.27	TML	7.6
32	TM	MIBK (methyl isobutyl ketone)	0.0612	0.0612	0.03	TM	
33	TM*	Toluene	0.4522	0.4463	1.3	TM*	
34	TM	1,1,2-TCA	0.0622	0.0648	4.2	TM	
35	I	Chlorobenzene-D5 (IS)	ISTD			I	
36	S	Toluene-D8(S)	1.158	1.201	3.8	S	
37	TM	Tetrachloroethene	0.1512	0.1545	2.2	TM	
38	TM	1-Chlorohexane	0.1483	0.1478	0.36	TM	
39	TM	m&p-Xylene	0.2591	0.2702	4.3	TM	
40	TM	o-Xylene	0.2595	0.2651	2.2	TM	
		Average			7.9		

VOLATILE ORGANIC ANALYSIS BY
EPA METHOD 8260B

Form 7

Ending Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix: 0

SDG No:
Date Analyzed: 8 Nov 19 10:44
Instrument: Max
Cal. Date: 11/06/19
Data File: 1107M42.D

		Compound	MEAN	CCRF	%D	%Drift	
41	TM	Styrene	0.4070	0.4237	4.1	TM	
42	S	4-Bromofluorobenzene(S)	0.4325	0.4456	3.0	S	
43	TM**	Chlorobenzene	0.3869	0.3982	2.9	TM**	
44	TM*	Ethylbenzene	0.6001	0.6159	2.6	TM*	
45	I	1,4-Dichlorobenzene-D (IS)	ISTD			I	
46	TM	Isopropylbenzene	1.024	1.019	0.46	TM	
47	TM	1,2,3-Trichloropropane	0.0731	0.0701	4.1	TM	
48	TML	t-1,4-Dichloro-2-Butene	0.0130	0.0075	43	TML	36
49	TM	Bromobenzene	0.3417	0.3333	2.5	TM	
50	TM	n-Propylbenzene	1.056	1.055	0.09	TM	
51	TM	4-Ethyltoluene	0.9793	1.005	2.6	TM	
52	TM	2-Chlorotoluene	0.6950	0.6812	2.0	TM	
53	TM	1,3,5-Trimethylbenzene	0.8310	0.8878	6.8	TM	
54	TM	4-Chlorotoluene	0.7876	0.7876	0.00	TM	
55	TM	Tert-Butylbenzene	0.7694	0.7871	2.3	TM	
56	TM	1,2,4-Trimethylbenzene	0.8580	0.8855	3.2	TM	
57	TM	Sec-Butylbenzene	0.9551	0.9610	0.62	TM	
58	TM	p-Isopropyltoluene	0.5960	0.6057	1.6	TM	
59	TML	Benzyl Chloride	0.2758	0.1757	36	TML	37
60	TM	1,3-DCB	0.5921	0.5804	2.0	TM	
61	TM	1,4-DCB	0.3877	0.3834	1.1	TM	
62	TM	n-Butylbenzene	0.3934	0.4110	4.5	TM	
63	TM	1,2-DCB	0.5509	0.5533	0.43	TM	
64	TM	1,2-Dibromo-3-chloropropane	0.0536	0.0516	3.6	TM	
65	TML	1,2,4-Trichlorobenzene	0.3391	0.3413	0.66	TML	9.0
66	TM	Hexachlorobutadiene	0.1981	0.1994	0.66	TM	
67	TML	Naphthalene	0.0423	0.0354	16	TML	29
68	TML	1,2,3-Trichlorobenzene	0.2703	0.2779	2.8	TML	12
69							
70							
71							
72							
73							
74							
75							
76							
77							
78							
79							
80							
		Average			5.5		

Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M191107\1107M42.D Vial: 42
Acq On : 8 Nov 19 10:44 Operator: LP,DG,CMM
Sample : Ending CCV 10ug/L 11/7/19 Inst : Max
Misc : IS&S 9/24/19 Multiplr: 1.00

Quant Time: Nov 8 13:08 2019 Quant Results File: M1106.RES

Quant Method : M:\MAX\DATA\M191106\M1106.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 07 14:27:44 2019
Response via : Initial Calibration
DataAcq Meth : M8260

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Fluorobenzene (IS)	5.73	96	1358064	25.0000 ppb		0.00
35) Chlorobenzene-D5 (IS)	8.97	117	1100052	25.0000 ppb		0.00
45) 1,4-Dichlorobenzene-D (IS)	11.30	152	706713	25.0000 ppb		0.00
System Monitoring Compounds						
21) Dibromofluoromethane(S)	4.89	111	272325	26.2312 ppb		0.00
Spiked Amount 25.000			Recovery = 104.924%			
25) 1,2-DCA-D4(S)	5.30	65	231448	26.3943 ppb		0.00
Spiked Amount 25.000			Recovery = 105.576%			
36) Toluene-D8(S)	7.51	98	1321215	25.9378 ppb		0.00
Spiked Amount 25.000			Recovery = 103.752%			
42) 4-Bromofluorobenzene(S)	10.16	95	490191	25.7563 ppb		0.00
Spiked Amount 25.000			Recovery = 103.024%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.01	85	27220	7.6544 ppb		93
3) Freon 114	1.09	85	47800	9.9378 ppb		89
4) Chloromethane	1.13	50	66994	9.3872 ppb		95
5) Vinyl chloride	1.19	62	60129	9.8629 ppb	#	100
6) Chloroethane	1.48	64	26392	9.1852 ppb		100
7) Dichlorofluoromethane	1.64	67	91127	10.3377 ppb		93
8) Trichlorofluoromethane	1.67	101	74487	9.7746 ppb		91
9) Acetone	2.14	43	15425	8.4988 ppb		96
10) Freon-113	2.09	101	41659	10.0876 ppb		91
11) 1,1-DCE	2.07	61	116697	10.2054 ppb		94
12) Acetonitrile	2.40	41	55854	128.6975 ppb		92
14) Acrylonitrile	2.81	53	13359	10.0051 ppb	#	87
15) Methylene chloride	2.54	84	54726	8.9267 ppb		96
16) Carbon disulfide	2.25	76	124626	10.0065 ppb		96
17) Trans-1,2-DCE	2.82	96	54198	9.8191 ppb		97
18) Cis-1,2-DCE	4.19	96	64538	10.4736 ppb		84
19) Chloroform	4.68	83	74283	9.7533 ppb		91
20) Bromochloromethane	4.53	128	22868	8.9989 ppb		89
22) Cyclohexane	4.93	41	37417	9.8454 ppb		96
23) 1,1-Dichloropropene	5.10	75	70854	10.2886 ppb		89
24) 2,2,4-Trimethylpentane	5.51	57	88474	9.5074 ppb		96
26) 1,2-DCA	5.40	62	59073	9.9257 ppb		92
27) Benzene	5.35	78	217803	10.4841 ppb		98
28) TCE	6.16	95	60594	9.8150 ppb		97
29) 2-Pentanone	6.44	43	285405	124.3912 ppb		98
30) Methyl Cyclohexane	6.37	83	69130	9.7193 ppb		97
31) Dibromomethane	6.54	93	17543	9.2413 ppb		86
32) MIBK (methyl isobutyl ket	7.44	43	33259	9.9966 ppb		96
33) Toluene	7.58	91	242425	9.8678 ppb		93
34) 1,1,2-TCA	8.01	83	35189	10.4169 ppb		93
37) Tetrachloroethene	8.13	164	67971	10.2153 ppb		98
38) 1-Chlorohexane	9.03	91	65023	9.9639 ppb		90
39) m&p-Xylene	9.26	106	237780	20.8599 ppb		99
40) o-Xylene	9.65	106	116641	10.2160 ppb		99
41) Styrene	9.66	104	186447	10.4118 ppb		94
43) Chlorobenzene	9.00	112	175212	10.2905 ppb		93
44) Ethylbenzene	9.14	91	271020	10.2640 ppb		98
46) Isopropylbenzene	10.03	105	288072	9.9537 ppb		100
47) 1,2,3-Trichloropropane	10.35	110	19820	9.5925 ppb		95

(#) = qualifier out of range (m) = manual integration

Data File : M:\MAX\DATA\M191107\1107M42.D Vial: 42
Acq On : 8 Nov 19 10:44 Operator: LP,DG,CMM
Sample : Ending CCV 10ug/L 11/7/19 Inst : Max
Misc : IS&S 9/24/19 Multiplr: 1.00

Quant Time: Nov 8 13:08 2019 Quant Results File: M1106.RES

Quant Method : M:\MAX\DATA\M191106\M1106.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 07 14:27:44 2019
Response via : Initial Calibration
DataAcq Meth : M8260

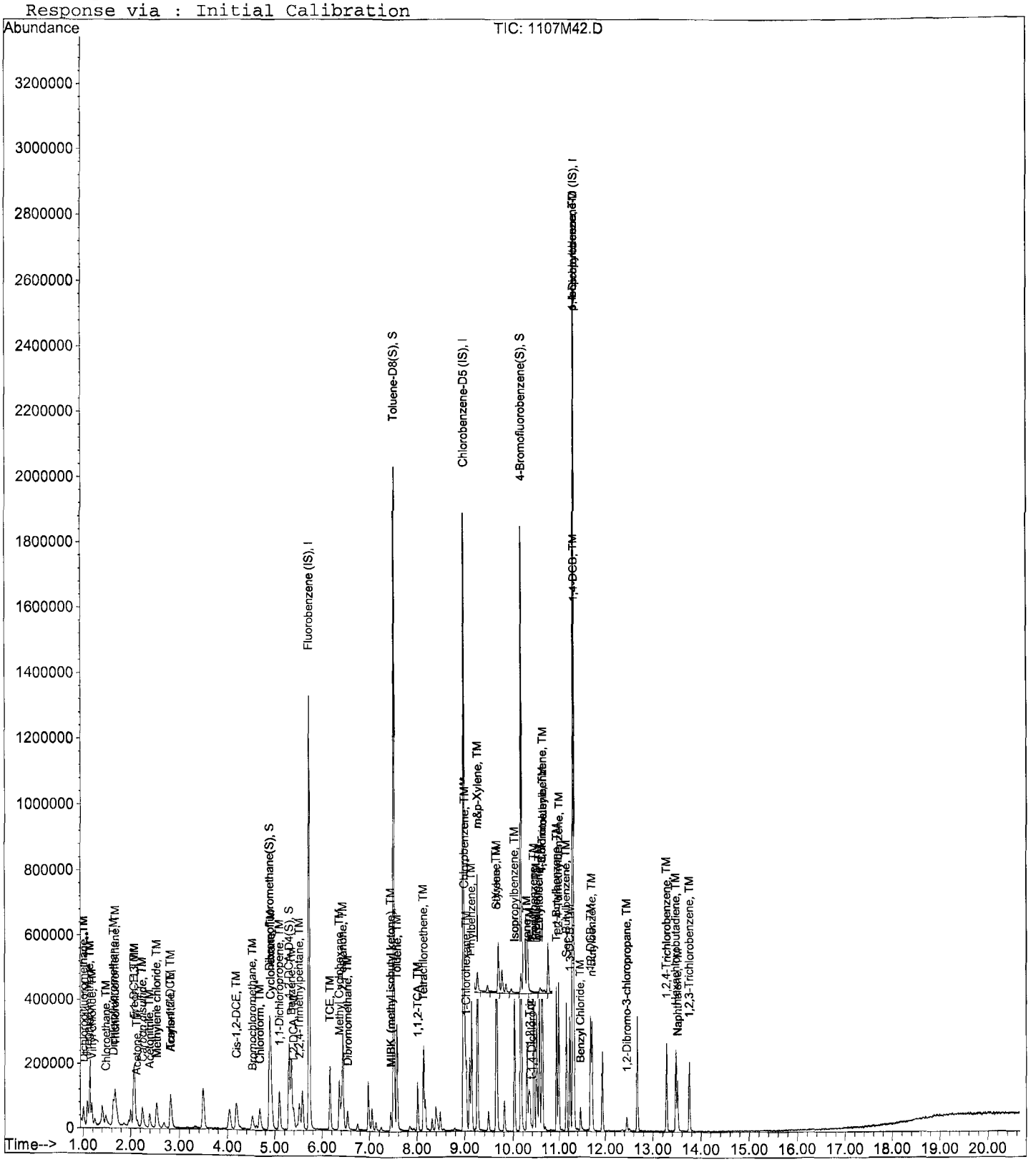
	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
48)	t-1,4-Dichloro-2-Butene	10.39	53	2115	6.4221 ppb		96
49)	Bromobenzene	10.29	156	94210	9.7531 ppb		98
50)	n-Propylbenzene	10.44	91	298273	9.9910 ppb		98
51)	4-Ethyltoluene	10.55	105	284166	10.2650 ppb		99
52)	2-Chlorotoluene	10.50	91	192561	9.8013 ppb		98
53)	1,3,5-Trimethylbenzene	10.62	105	250964	10.6834 ppb		97
54)	4-Chlorotoluene	10.61	91	222655	10.0004 ppb		97
55)	Tert-Butylbenzene	10.94	119	222499	10.2305 ppb		97
56)	1,2,4-Trimethylbenzene	10.99	105	250330	10.3209 ppb		97
57)	Sec-Butylbenzene	11.16	105	271665	10.0623 ppb		98
58)	p-Isopropyltoluene	11.31	119	171217	10.1618 ppb		96
59)	Benzyl Chloride	11.47	91	49658	6.2753 ppb		96
60)	1,3-DCB	11.23	146	164065	9.8014 ppb		97
61)	1,4-DCB	11.32	146	108376	9.8889 ppb		97
62)	n-Butylbenzene	11.71	91	116176	10.4456 ppb		96
63)	1,2-DCB	11.68	146	156411	10.0432 ppb		99
64)	1,2-Dibromo-3-chloropropan	12.45	157	14595	9.6355 ppb		90
65)	1,2,4-Trichlorobenzene	13.28	180	96493	9.0966 ppb		96
66)	Hexachlorobutadiene	13.48	225	56379	10.0664 ppb		90
67)	Naphthalene	13.51	127	9994	7.1143 ppb	#	60
68)	1,2,3-Trichlorobenzene	13.76	180	78551	8.8241 ppb		95

(#) = qualifier out of range (m) = manual integration

Data File : M:\MAX\DATA\M191107\1107M42.D Vial: 42
Acq On : 8 Nov 19 10:44 Operator: LP,DG,CMM
Sample : Ending CCV 10ug/L 11/7/19 Inst : Max
Misc : IS&S 9/24/19 Multiplr: 1.00

Quant Time: Nov 8 13:08 2019 Quant Results File: M1106.RES

Method : M:\MAX\DATA\M191106\M1106.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 07 14:27:44 2019
Response via : Initial Calibration



ORGANICS
Raw Data

Quantitation Report (QT Reviewed)

Data File : M:\MAX\DATA\M191107\1107M38.D Vial: 38
Acq On : 8 Nov 19 8:48 Operator: LP,DG,CMM
Sample : BA02465W01 Inst : Max
Misc : IS&S 9/24/19 Multiplr: 1.00

Quant Time: Nov 12 14:55 2019 Quant Results File: M1106.RES

Quant Method : M:\MAX\DATA\M191106\M1106.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 07 14:27:44 2019
Response via : Initial Calibration
DataAcq Meth : M8260

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene (IS)	5.72	96	1357244	25.0000 ppb	0.00
35) Chlorobenzene-D5 (IS)	8.97	117	1087009	25.0000 ppb	0.00
45) 1,4-Dichlorobenzene-D (IS)	11.30	152	689415	25.0000 ppb	0.00
System Monitoring Compounds					
21) Dibromofluoromethane(S)	4.89	111	237244	23.4943 ppb	0.00
Spiked Amount 25.000			Recovery = 93.976%		
25) 1,2-DCA-D4(S)	5.30	65	220263	25.3730 ppb	0.00
Spiked Amount 25.000			Recovery = 101.492%		
36) Toluene-D8(S)	7.51	98	1348337	26.7879 ppb	0.00
Spiked Amount 25.000			Recovery = 107.152%		
42) 4-Bromofluorobenzene(S)	10.16	95	493481	26.2403 ppb	0.00
Spiked Amount 25.000			Recovery = 104.960%		
Target Compounds					Qvalue
9) Acetone	2.14	43	96019	73.1834 ppb	92

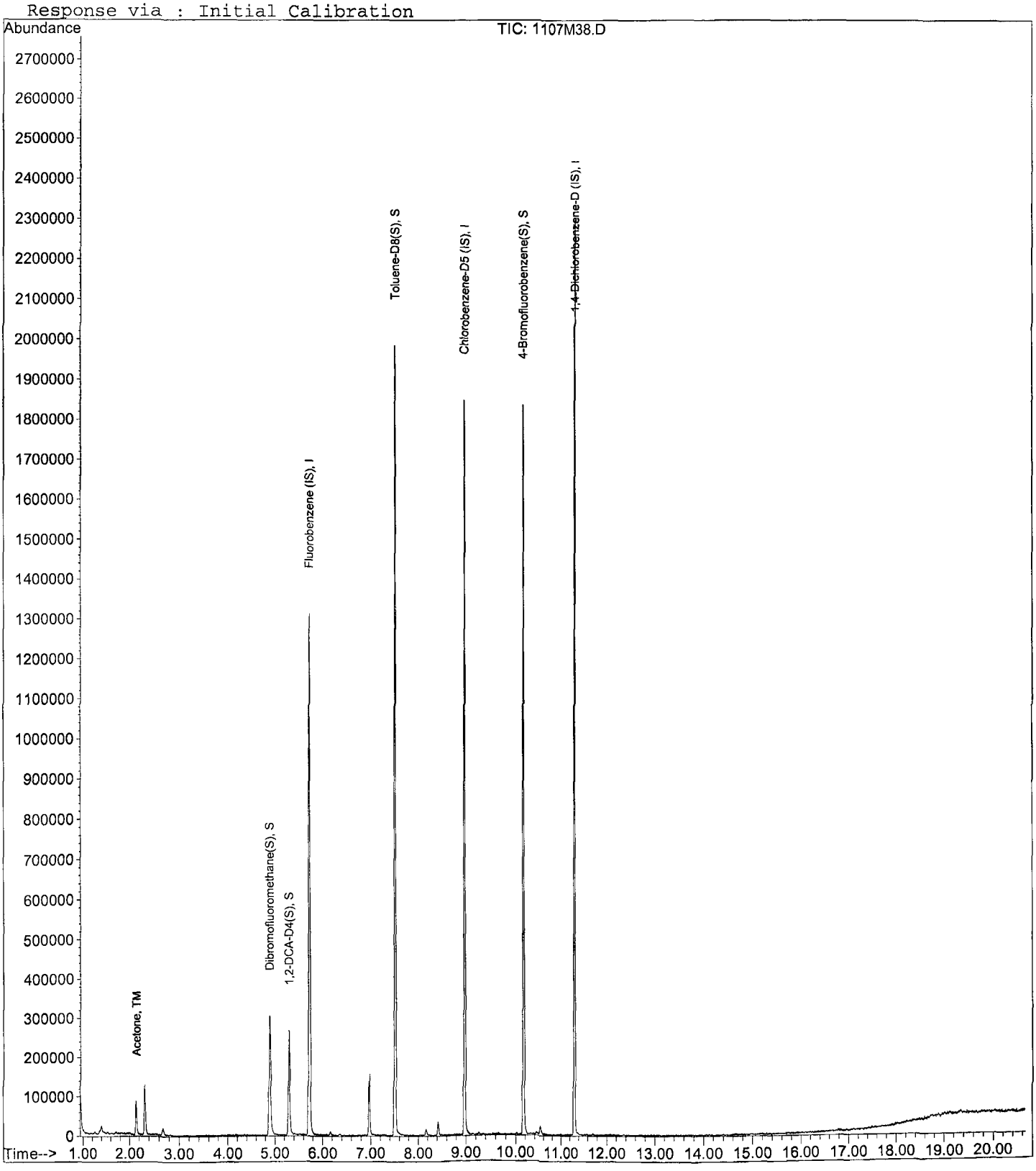
(#) = qualifier out of range (m) = manual integration

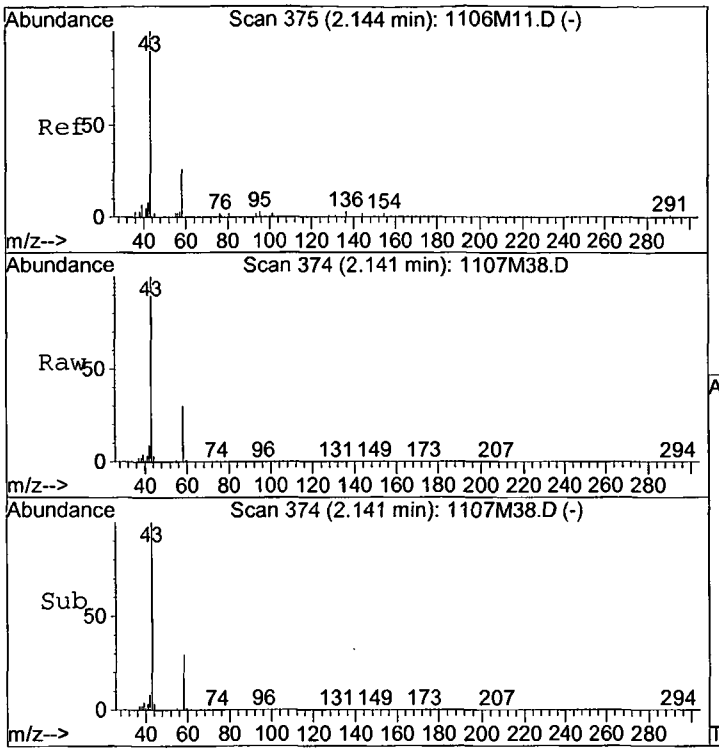
Quantitation Report

Data File : M:\MAX\DATA\M191107\1107M38.D Vial: 38
Acq On : 8 Nov 19 8:48 Operator: LP,DG,CMM
Sample : BA02465W01 Inst : Max
Misc : IS&S 9/24/19 Multiplr: 1.00

Quant Time: Nov 12 14:55 2019 Quant Results File: M1106.RES

Method : M:\MAX\DATA\M191106\M1106.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 07 14:27:44 2019
Response via : Initial Calibration

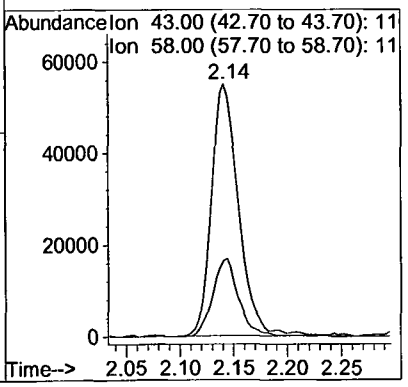




#9
Acetone
Concen: 73.1834 ppb
RT: 2.14 min Scan# 374
Delta R.T. -0.00 min
Lab File: 1107M38.D
Acq: 8 Nov 19 8:48

Tgt Ion: 43 Resp: 96019

Ion	Ratio	Lower	Upper
43	100		
58	30.1	18.3	34.1



Quantitation Report (QT Reviewed)

Data File : M:\MAX\DATA\M191107\1107M37.D Vial: 37
Acq On : 8 Nov 19 8:19 Operator: LP,DG,CMM
Sample : BA02466W01 Inst : Max
Misc : IS&S 9/24/19 Multiplr: 1.00

Quant Time: Nov 12 14:55 2019 Quant Results File: M1106.RES

Quant Method : M:\MAX\DATA\M191106\M1106.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 07 14:27:44 2019
Response via : Initial Calibration
DataAcq Meth : M8260

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene (IS)	5.72	96	1327071	25.0000 ppb	0.00
35) Chlorobenzene-D5 (IS)	8.97	117	1088938	25.0000 ppb	0.00
45) 1,4-Dichlorobenzene-D (IS)	11.30	152	693070	25.0000 ppb	0.00
System Monitoring Compounds					
21) Dibromofluoromethane(S)	4.89	111	296372	28.6573 ppb	0.00
Spiked Amount 25.000			Recovery = 114.628%		
25) 1,2-DCA-D4(S)	5.30	65	270928	30.6272 ppb	0.00
Spiked Amount 25.000			Recovery = 122.508%		
36) Toluene-D8(S)	7.51	98	1354049	26.8537 ppb	0.00
Spiked Amount 25.000			Recovery = 107.416%		
42) 4-Bromofluorobenzene(S)	10.16	95	504993	26.8049 ppb	0.00
Spiked Amount 25.000			Recovery = 107.220%		
Target Compounds					Qvalue
9) Acetone	2.14	43	556959	453.2531 ppb	94

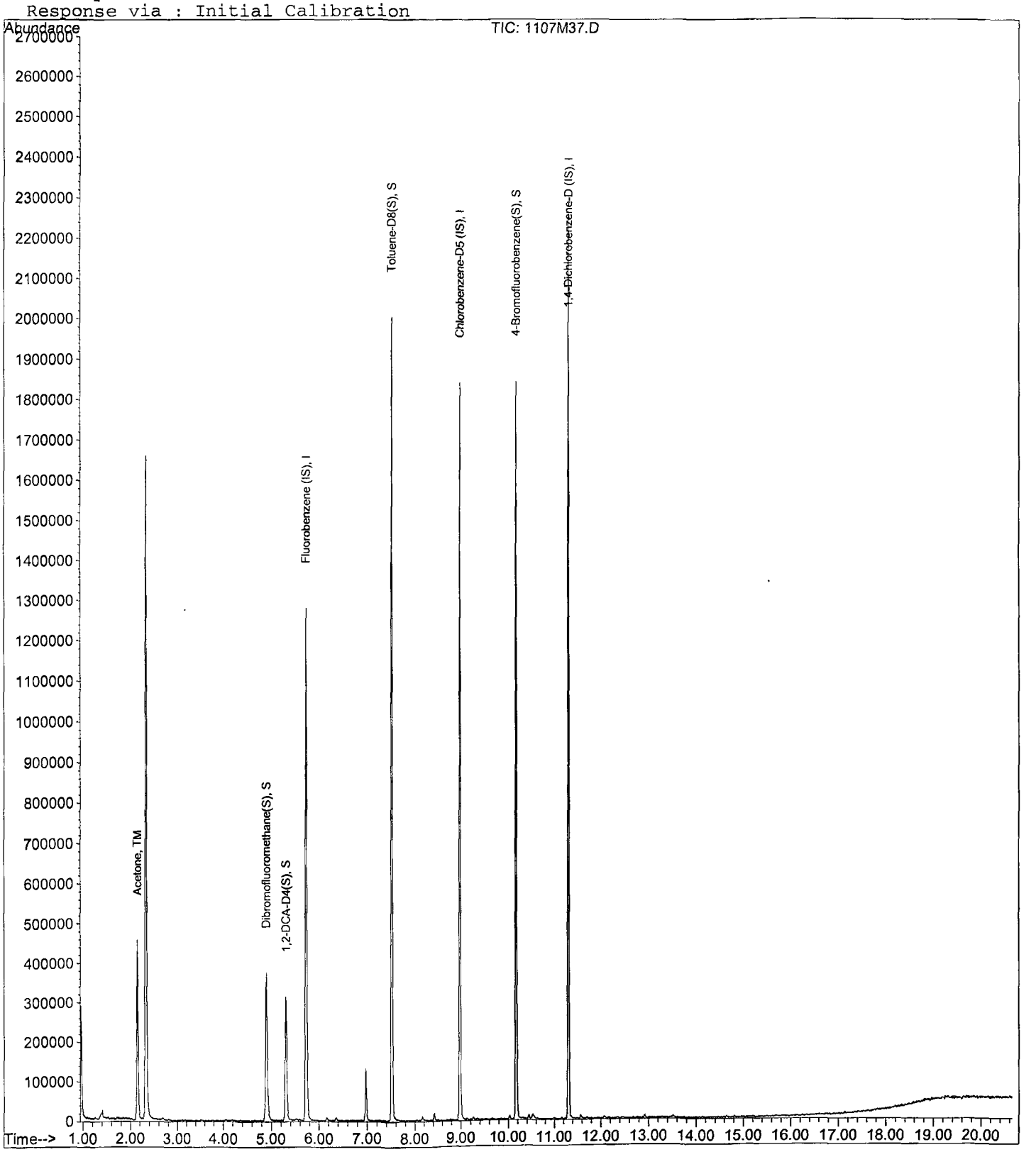
(#) = qualifier out of range (m) = manual integration

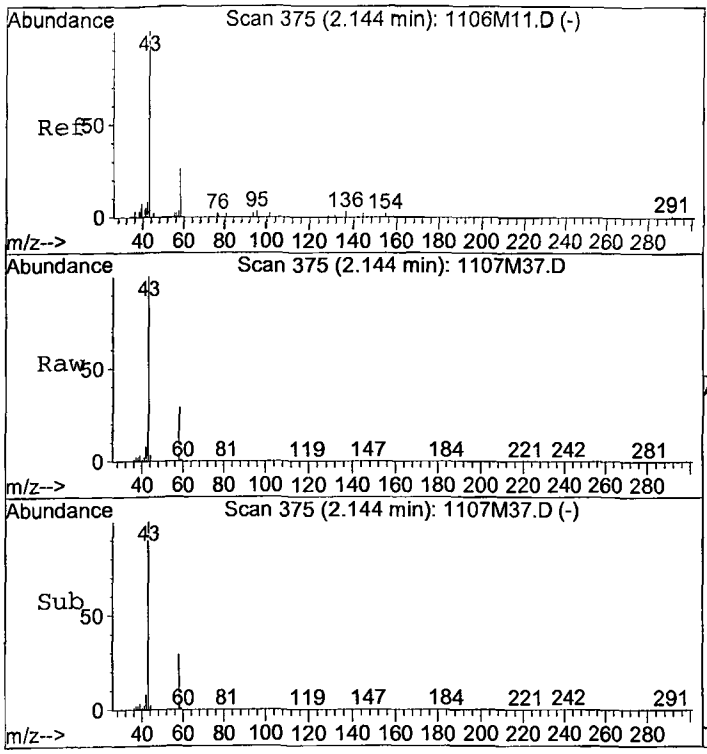
Quantitation Report

Data File : M:\MAX\DATA\M191107\1107M37.D Vial: 37
Acq On : 8 Nov 19 8:19 Operator: LP,DG,CMM
Sample : BA02466W01 Inst : Max
Misc : IS&S 9/24/19 Multiplr: 1.00

Quant Time: Nov 12 14:55 2019 Quant Results File: M1106.RES

Method : M:\MAX\DATA\M191106\M1106.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 07 14:27:44 2019
Response via : Initial Calibration

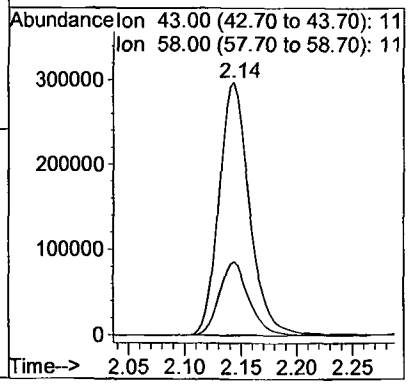




#9
Acetone
Concen: 453.2531 ppb
RT: 2.14 min Scan# 375
Delta R.T. 0.00 min
Lab File: 1107M37.D
Acq: 8 Nov 19 8:19

Tgt Ion: 43 Resp: 556959

Ion	Ratio	Lower	Upper
43	100		
58	29.1	18.3	34.1



Quantitation Report (QT Reviewed)

Data File : M:\MAX\DATA\M191107\1107M35.D Vial: 35
Acq On : 8 Nov 19 7:22 Operator: LP,DG,CMM
Sample : 191107B Blk Inst : Max
Misc : IS&S 9/24/19 Multiplr: 1.00

Quant Time: Nov 12 14:54 2019 Quant Results File: M1106.RES

Quant Method : M:\MAX\DATA\M191106\M1106.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 07 14:27:44 2019
Response via : Initial Calibration
DataAcq Meth : M8260

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene (IS)	5.72	96	1349098	25.0000 ppb	0.00
35) Chlorobenzene-D5 (IS)	8.98	117	1091129	25.0000 ppb	0.00
45) 1,4-Dichlorobenzene-D (IS)	11.30	152	672344	25.0000 ppb	0.00
System Monitoring Compounds					
21) Dibromofluoromethane(S)	4.90	111	226953	22.7950 ppb	0.02
Spiked Amount 25.000			Recovery = 91.180%		
25) 1,2-DCA-D4(S)	5.31	65	266645	29.8105 ppb	0.00
Spiked Amount 25.000			Recovery = 119.240%		
36) Toluene-D8(S)	7.51	98	1356763	26.8535 ppb	0.00
Spiked Amount 25.000			Recovery = 107.412%		
42) 4-Bromofluorobenzene(S)	10.16	95	504791	26.7404 ppb	0.00
Spiked Amount 25.000			Recovery = 106.960%		

Target Compounds Qvalue

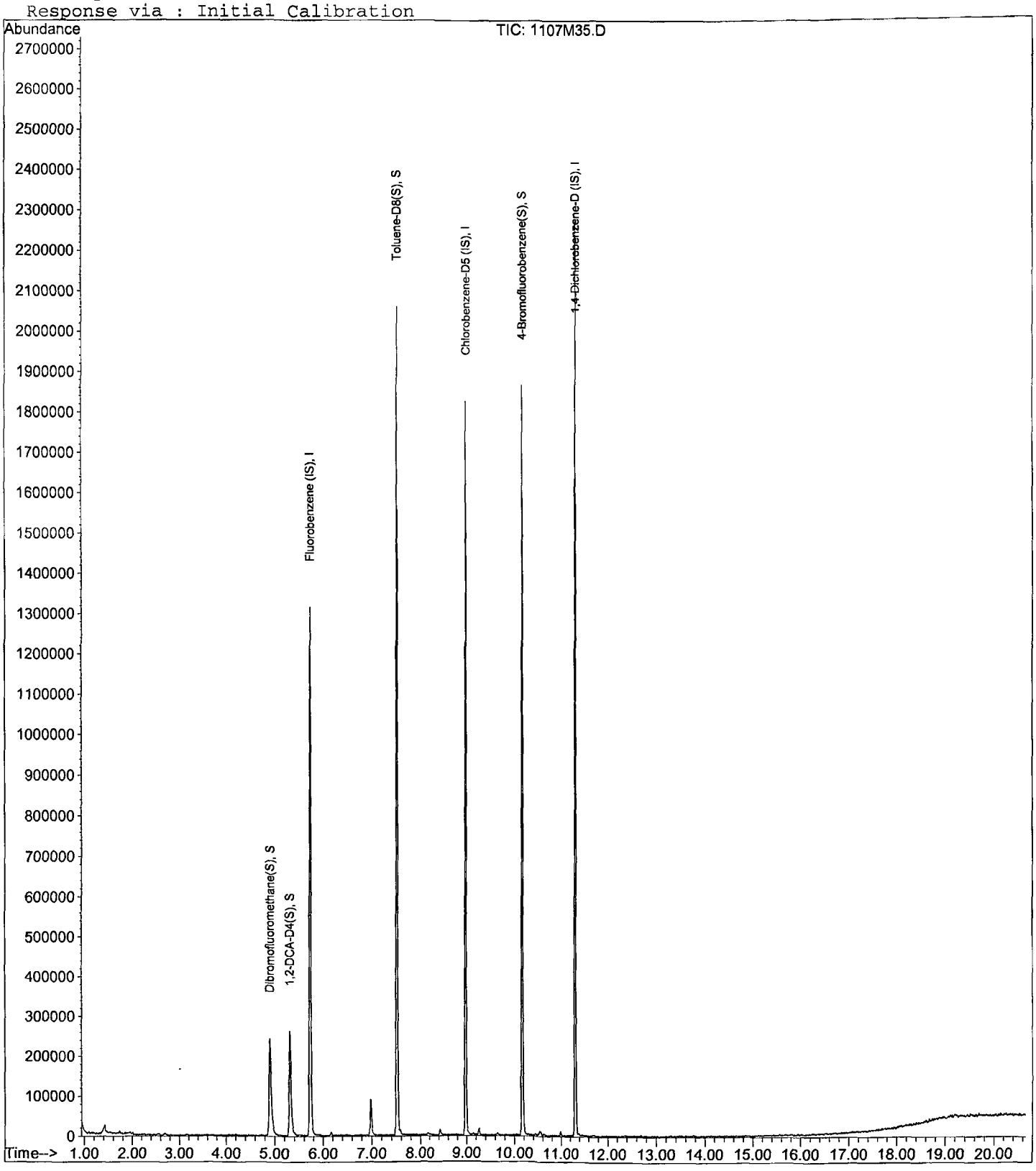
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\MAX\DATA\M191107\1107M35.D Vial: 35
Acq On : 8 Nov 19 7:22 Operator: LP,DG,CMM
Sample : 191107B Blk Inst : Max
Misc : IS&S 9/24/19 Multiplr: 1.00

Quant Time: Nov 12 14:54 2019 Quant Results File: M1106.RES

Method : M:\MAX\DATA\M191106\M1106.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 07 14:27:44 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M191107\1107M30.D Vial: 30
Acq On : 8 Nov 19 4:58 Operator: LP,DG,CMM
Sample : 191107B LCS 10ug/L Inst : Max
Misc : IS&S 9/24/19 Multiplr: 1.00

Quant Time: Nov 8 13:06 2019 Quant Results File: M1106.RES

Quant Method : M:\MAX\DATA\M191106\M1106.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 07 14:27:44 2019
Response via : Initial Calibration
DataAcq Meth : M8260

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Fluorobenzene (IS)	5.73	96	1345753	25.0000 ppb		0.00
35) Chlorobenzene-D5 (IS)	8.97	117	1073885	25.0000 ppb		0.00
45) 1,4-Dichlorobenzene-D (IS)	11.30	152	684131	25.0000 ppb		0.00
System Monitoring Compounds						
21) Dibromofluoromethane(S)	4.90	111	299156	28.5475 ppb		0.01
Spiked Amount 25.000			Recovery = 114.192%			
25) 1,2-DCA-D4(S)	5.30	65	263619	29.5899 ppb		0.00
Spiked Amount 25.000			Recovery = 118.360%			
36) Toluene-D8(S)	7.51	98	1382538	27.8030 ppb		0.00
Spiked Amount 25.000			Recovery = 111.212%			
42) 4-Bromofluorobenzene(S)	10.16	95	522595	28.1280 ppb		0.00
Spiked Amount 25.000			Recovery = 112.512%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.01	85	26168	7.4332 ppb		96
3) Freon 114	1.09	85	48027	10.0764 ppb		82
4) Chloromethane	1.13	50	61499	8.6960 ppb		100
5) Vinyl chloride	1.20	62	63131	10.4500 ppb	#	100
6) Chloroethane	1.48	64	24577	8.6894 ppb		96
7) Dichlorofluoromethane	1.64	67	89503	10.2463 ppb		92
8) Trichlorofluoromethane	1.68	101	78449	10.3576 ppb		98
9) Acetone	2.15	43	14206	7.6253 ppb		97
10) Freon-113	2.09	101	43664	10.6698 ppb		92
11) 1,1-DCE	2.07	61	117004	10.3259 ppb		90
12) Acetonitrile	2.39	41	55380	128.7726 ppb		99
14) Acrylonitrile	2.82	53	13692	10.3483 ppb	#	61
15) Methylene chloride	2.54	84	54507	8.9799 ppb		93
16) Carbon disulfide	2.25	76	125829	10.1955 ppb		94
17) Trans-1,2-DCE	2.83	96	55017	10.0587 ppb		95
18) Cis-1,2-DCE	4.19	96	62985	10.3108 ppb		86
19) Chloroform	4.69	83	81994	10.6453 ppb		94
20) Bromochloromethane	4.53	128	19488	7.8395 ppb	#	69
22) Cyclohexane	4.94	41	36718	9.7499 ppb		92
23) 1,1-Dichloropropene	5.10	75	69802	10.2286 ppb		92
24) 2,2,4-Trimethylpentane	5.52	57	89861	9.7448 ppb		94
26) 1,2-DCA	5.40	62	61836	10.4211 ppb		98
27) Benzene	5.35	78	216783	10.5305 ppb		97
28) TCE	6.16	95	62193	10.1884 ppb		94
29) 2-Pentanone	6.43	43	285525	125.5819 ppb		99
30) Methyl Cyclohexane	6.37	83	67588	9.5895 ppb		97
31) Dibromomethane	6.54	93	19622	10.3108 ppb		97
32) MIBK (methyl isobutyl ket	7.45	43	32566	9.8779 ppb		99
33) Toluene	7.57	91	234982	9.6524 ppb		99
34) 1,1,2-TCA	8.01	83	38168	11.4021 ppb		85
37) Tetrachloroethene	8.13	164	70958	10.9240 ppb		90
38) 1-Chlorohexane	9.03	91	66329	10.4117 ppb		91
39) m&p-Xylene	9.26	106	237576	21.3498 ppb		98
40) o-Xylene	9.65	106	120222	10.7862 ppb		98
41) Styrene	9.67	104	193284	11.0566 ppb		98
43) Chlorobenzene	9.00	112	171061	10.2915 ppb		98
44) Ethylbenzene	9.14	91	275994	10.7071 ppb		97
46) Isopropylbenzene	10.03	105	287132	10.2487 ppb		100
47) 1,2,3-Trichloropropane	10.36	110	21607	10.8026 ppb		93

(#) = qualifier out of range (m) = manual integration

Data File : M:\MAX\DATA\M191107\1107M30.D Vial: 30
Acq On : 8 Nov 19 4:58 Operator: LP,DG,CMM
Sample : 191107B LCS 10ug/L Inst : Max
Misc : IS&S 9/24/19 Multiplr: 1.00

Quant Time: Nov 8 13:06 2019 Quant Results File: M1106.RES

Quant Method : M:\MAX\DATA\M191106\M1106.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 07 14:27:44 2019
Response via : Initial Calibration
DataAcq Meth : M8260

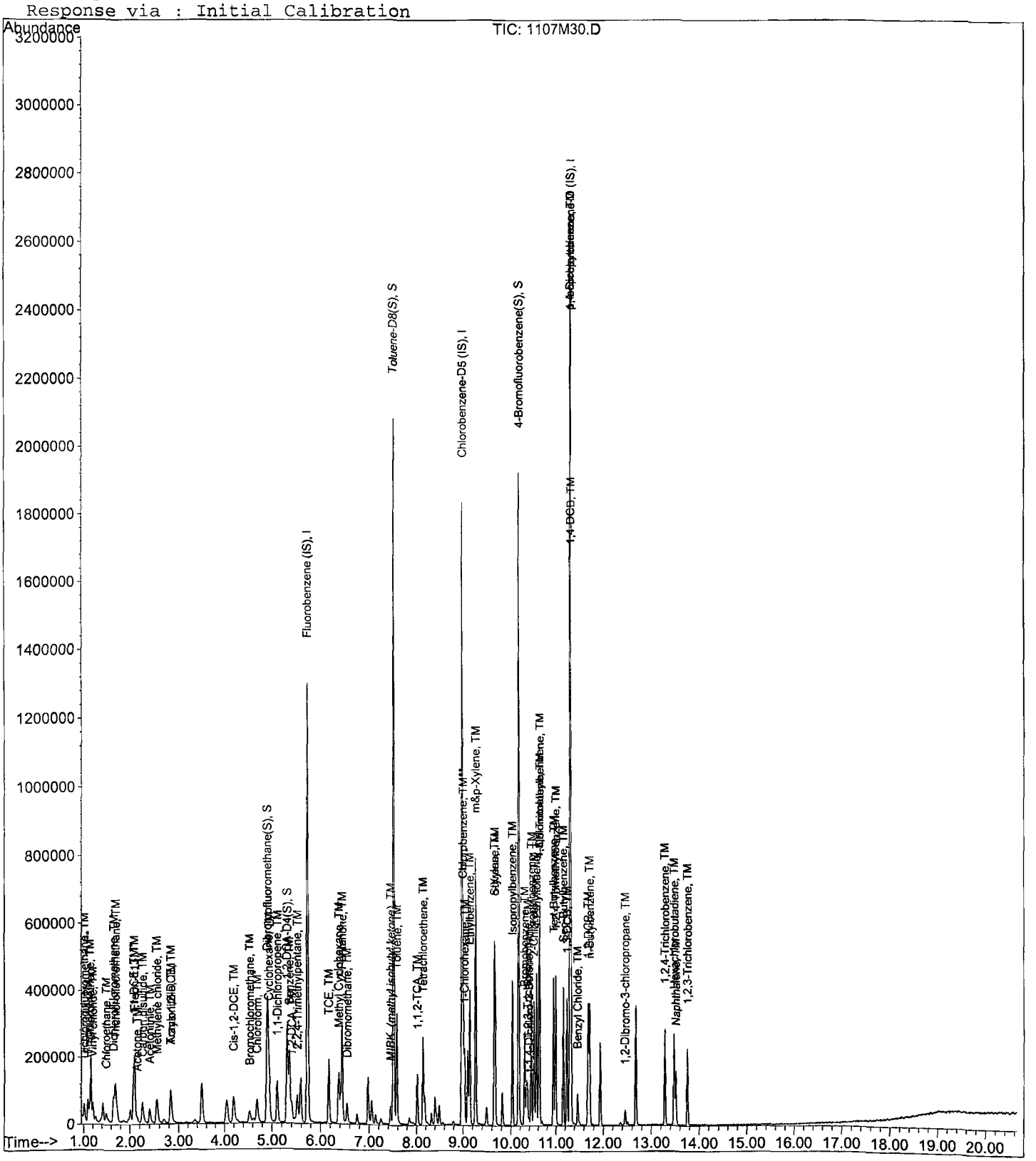
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
48)	t-1,4-Dichloro-2-Butene	10.39	53	2297	6.8814	ppb	#	26
49)	Bromobenzene	10.29	156	93726	10.0232	ppb		99
50)	n-Propylbenzene	10.44	91	302661	10.4726	ppb		99
51)	4-Ethyltoluene	10.55	105	288453	10.7638	ppb		99
52)	2-Chlorotoluene	10.50	91	197545	10.3869	ppb		99
53)	1,3,5-Trimethylbenzene	10.62	105	246002	10.8178	ppb		99
54)	4-Chlorotoluene	10.61	91	227057	10.5348	ppb		97
55)	Tert-Butylbenzene	10.94	119	226242	10.7460	ppb		94
56)	1,2,4-Trimethylbenzene	10.98	105	251547	10.7134	ppb		100
57)	Sec-Butylbenzene	11.15	105	287105	10.9852	ppb		98
58)	p-Isopropyltoluene	11.31	119	183338	11.2404	ppb		95
59)	Benzyl Chloride	11.47	91	68787	8.3999	ppb		98
60)	1,3-DCB	11.23	146	170319	10.5109	ppb		99
61)	1,4-DCB	11.32	146	114928	10.8329	ppb		96
62)	n-Butylbenzene	11.72	91	127616	11.8529	ppb		98
63)	1,2-DCB	11.68	146	167042	11.0799	ppb		96
64)	1,2-Dibromo-3-chloropropan	12.46	157	14607	9.9617	ppb	#	81
65)	1,2,4-Trichlorobenzene	13.28	180	104319	10.1026	ppb		97
66)	Hexachlorobutadiene	13.48	225	62491	11.5260	ppb		97
67)	Naphthalene	13.51	127	11339	8.2681	ppb		83
68)	1,2,3-Trichlorobenzene	13.76	180	82529	9.5285	ppb		95

(#) = qualifier out of range (m) = manual integration

Data File : M:\MAX\DATA\M191107\1107M30.D Vial: 30
Acq On : 8 Nov 19 4:58 Operator: LP,DG,CMM
Sample : 191107B LCS 10ug/L Inst : Max
Misc : IS&S 9/24/19 Multiplr: 1.00

Quant Time: Nov 8 13:06 2019 Quant Results File: M1106.RES

Method : M:\MAX\DATA\M191106\M1106.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 07 14:27:44 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M191107\1107M31.D Vial: 31
Acq On : 8 Nov 19 5:27 Operator: LP,DG,CMM
Sample : 191107B LCSD 10ug/L Inst : Max
Misc : IS&S 9/24/19 Multiplr: 1.00

Quant Time: Nov 8 13:06 2019 Quant Results File: M1106.RES

Quant Method : M:\MAX\DATA\M191106\M1106.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 07 14:27:44 2019
Response via : Initial Calibration
DataAcq Meth : M8260

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene (IS)	5.72	96	1321429	25.0000	ppb		0.00
35) Chlorobenzene-D5 (IS)	8.97	117	1062187	25.0000	ppb		0.00
45) 1,4-Dichlorobenzene-D (IS)	11.30	152	671732	25.0000	ppb		0.00
System Monitoring Compounds							
21) Dibromofluoromethane(S)	4.89	111	275239	27.0573	ppb		0.00
Spiked Amount 25.000			Recovery = 108.228%				
25) 1,2-DCA-D4(S)	5.30	65	233352	27.1680	ppb		0.00
Spiked Amount 25.000			Recovery = 108.672%				
36) Toluene-D8(S)	7.51	98	1316826	26.7732	ppb		0.00
Spiked Amount 25.000			Recovery = 107.092%				
42) 4-Bromofluorobenzene(S)	10.16	95	487813	26.5451	ppb		0.00
Spiked Amount 25.000			Recovery = 106.180%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.00	85	28168	8.1250	ppb		100
3) Freon 114	1.09	85	48192	10.2971	ppb		99
4) Chloromethane	1.13	50	69937	10.0712	ppb		100
5) Vinyl chloride	1.19	62	62693	10.5685	ppb	#	100
6) Chloroethane	1.48	64	26156	9.3377	ppb		97
7) Dichlorofluoromethane	1.64	67	94022	10.9618	ppb		94
8) Trichlorofluoromethane	1.67	101	77060	10.3613	ppb		97
9) Acetone	2.14	43	12750	6.6368	ppb		100
10) Freon-113	2.09	101	41843	10.4130	ppb		97
11) 1,1-DCE	2.07	61	115305	10.3632	ppb		98
12) Acetonitrile	2.40	41	57614	136.4332	ppb		89
14) Acrylonitrile	2.81	53	11766	9.0564	ppb	#	82
15) Methylene chloride	2.54	84	55217	9.3114	ppb		98
16) Carbon disulfide	2.25	76	127934	10.5569	ppb		98
17) Trans-1,2-DCE	2.82	96	53835	10.0238	ppb		94
18) Cis-1,2-DCE	4.19	96	64277	10.7271	ppb		78
19) Chloroform	4.68	83	81678	10.7716	ppb		92
20) Bromochloromethane	4.52	128	21996	8.9040	ppb		85
22) Cyclohexane	4.93	41	37714	10.1987	ppb		85
23) 1,1-Dichloropropene	5.10	75	71840	10.7210	ppb		93
24) 2,2,4-Trimethylpentane	5.52	57	91744	10.1322	ppb	#	87
26) 1,2-DCA	5.40	62	60286	10.3551	ppb		99
27) Benzene	5.35	78	209843	10.3810	ppb		96
28) TCE	6.16	95	62102	10.3712	ppb		97
29) 2-Pentanone	6.43	43	282889	126.7128	ppb		98
30) Methyl Cyclohexane	6.36	83	71176	10.2844	ppb		97
31) Dibromomethane	6.54	93	17744	9.5694	ppb		94
32) MIBK (methyl isobutyl ket	7.44	43	36521	11.2814	ppb		96
33) Toluene	7.57	91	242011	10.1241	ppb		97
34) 1,1,2-TCA	8.01	83	36198	11.0126	ppb		88
37) Tetrachloroethene	8.13	164	70177	10.9228	ppb		98
38) 1-Chlorohexane	9.03	91	66967	10.6276	ppb		90
39) m&p-Xylene	9.26	106	242273	22.0117	ppb		96
40) o-Xylene	9.65	106	117219	10.6326	ppb		99
41) Styrene	9.67	104	190152	10.9973	ppb		96
43) Chlorobenzene	9.00	112	171531	10.4335	ppb		97
44) Ethylbenzene	9.14	91	273872	10.7418	ppb		100
46) Isopropylbenzene	10.03	105	295469	10.7409	ppb		99
47) 1,2,3-Trichloropropane	10.35	110	19411	9.8838	ppb		89

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M191107\1107M31.D Vial: 31
Acq On : 8 Nov 19 5:27 Operator: LP,DG,CMM
Sample : 191107B LCSD 10ug/L Inst : Max
Misc : IS&S 9/24/19 Multiplr: 1.00

Quant Time: Nov 8 13:06 2019 Quant Results File: M1106.RES

Quant Method : M:\MAX\DATA\M191106\M1106.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 07 14:27:44 2019
Response via : Initial Calibration
DataAcq Meth : M8260

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
48)	t-1,4-Dichloro-2-Butene	10.39	53	3377	8.9837	ppb	#	52
49)	Bromobenzene	10.29	156	93915	10.2288	ppb		98
50)	n-Propylbenzene	10.44	91	303787	10.7056	ppb		99
51)	4-Ethyltoluene	10.55	105	283807	10.7859	ppb		98
52)	2-Chlorotoluene	10.50	91	194356	10.4079	ppb		100
53)	1,3,5-Trimethylbenzene	10.62	105	246753	11.0511	ppb		98
54)	4-Chlorotoluene	10.61	91	229648	10.8517	ppb		98
55)	Tert-Butylbenzene	10.94	119	224458	10.8580	ppb		96
56)	1,2,4-Trimethylbenzene	10.98	105	244499	10.6055	ppb		98
57)	Sec-Butylbenzene	11.15	105	273765	10.6681	ppb		98
58)	p-Isopropyltoluene	11.31	119	182016	11.3653	ppb		96
59)	Benzyl Chloride	11.47	91	63851	8.0145	ppb		97
60)	1,3-DCB	11.23	146	168219	10.5729	ppb		94
61)	1,4-DCB	11.32	146	109576	10.5191	ppb		97
62)	n-Butylbenzene	11.72	91	119648	11.3180	ppb		97
63)	1,2-DCB	11.68	146	161961	10.9411	ppb		97
64)	1,2-Dibromo-3-chloropropan	12.46	157	15220	10.5713	ppb		87
65)	1,2,4-Trichlorobenzene	13.28	180	100858	9.9551	ppb		98
66)	Hexachlorobutadiene	13.48	225	56529	10.6188	ppb		97
67)	Naphthalene	13.51	127	10820	8.0467	ppb		79
68)	1,2,3-Trichlorobenzene	13.76	180	80242	9.4410	ppb		96

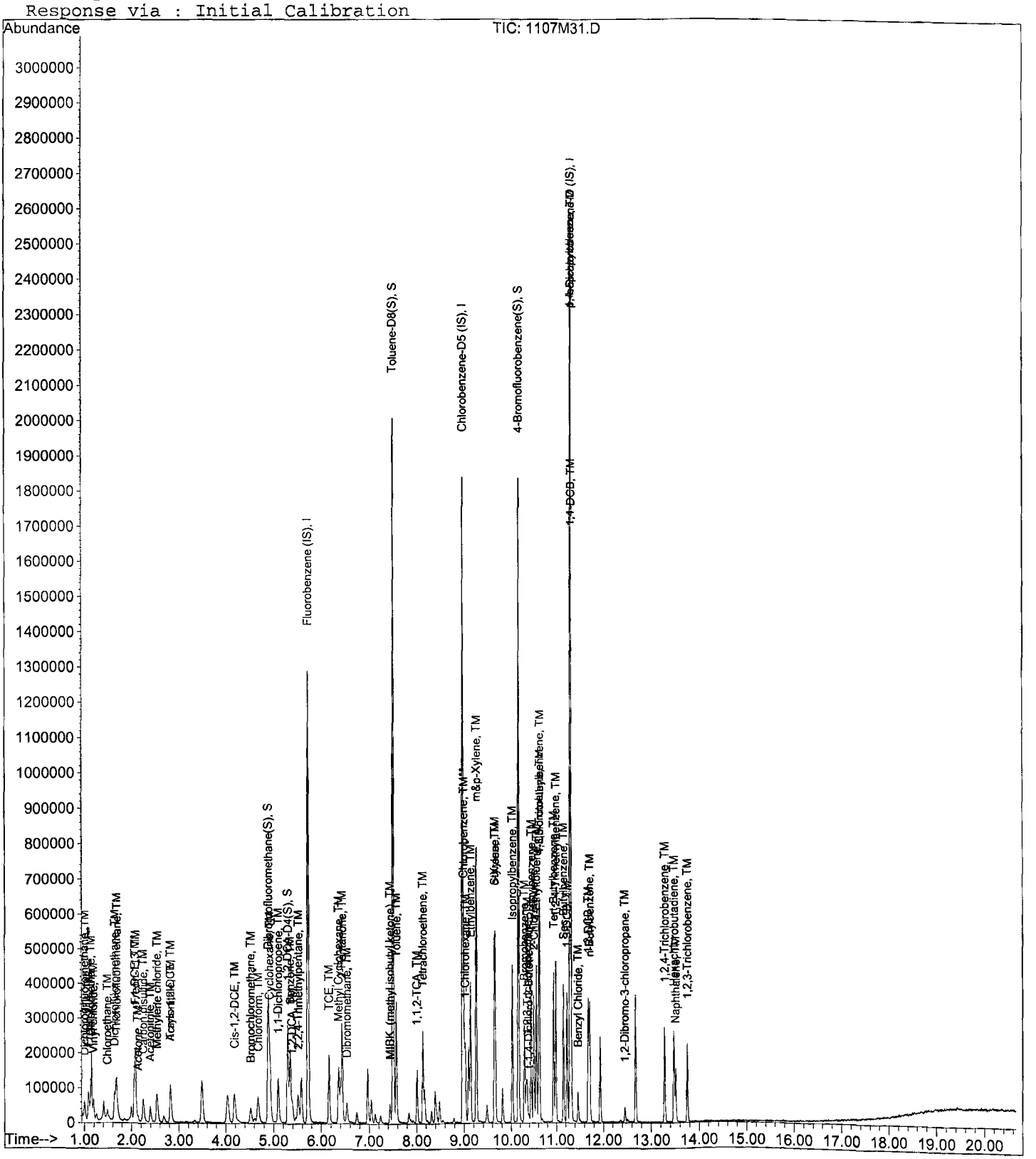
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\MAX\DATA\M191107\1107M31.D Vial: 31
Acq On : 8 Nov 19 5:27 Operator: LP,DG,CMM
Sample : 191107B LCSD 10ug/L Inst : Max
Misc : IS&S 9/24/19 Multiplr: 1.00

Quant Time: Nov 8 13:06 2019 Quant Results File: M1106.RES

Method : M:\MAX\DATA\M191106\M1106.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 07 14:27:44 2019
Response via : Initial Calibration

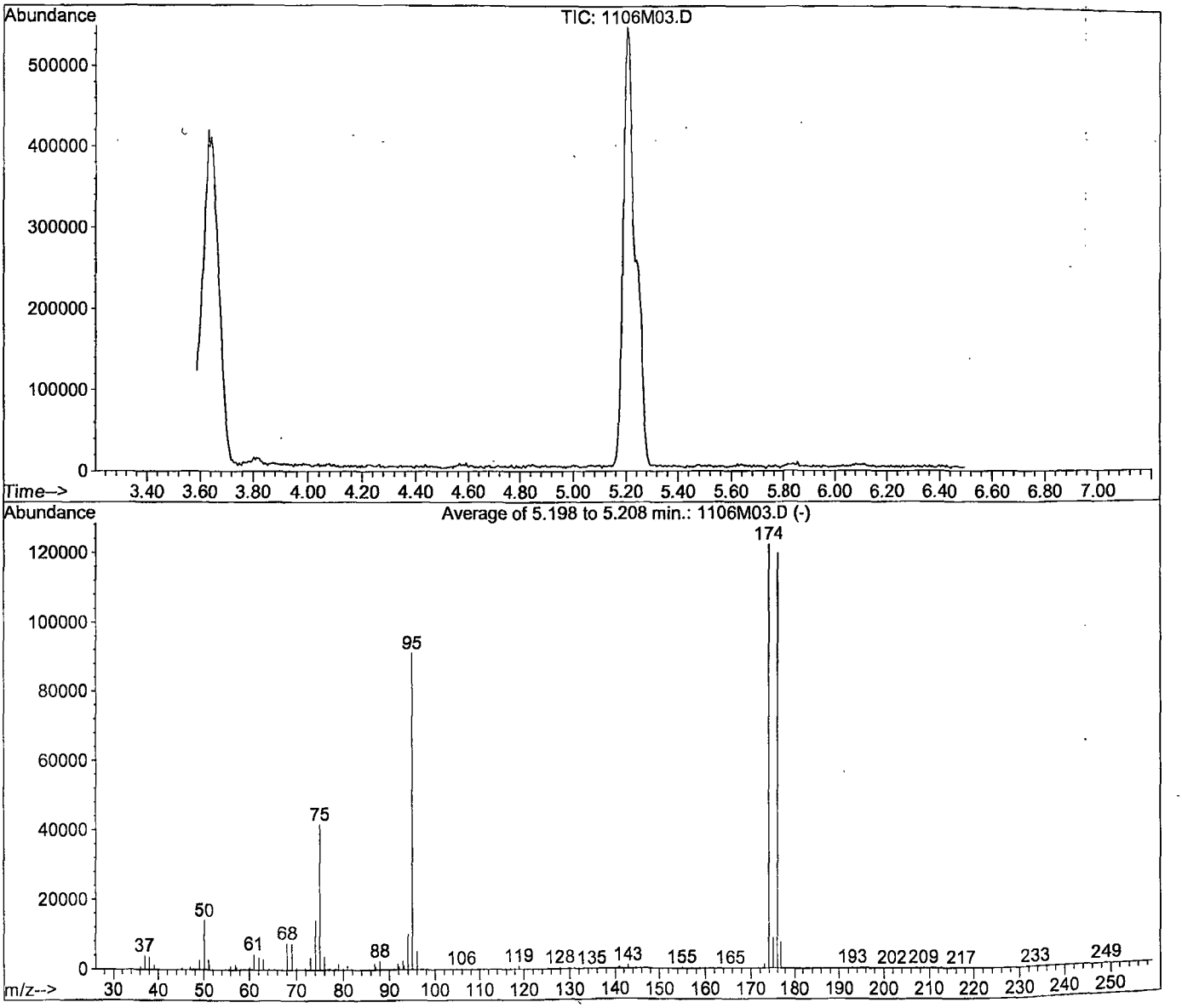


BFB

Data File : M:\MAX\DATA\M191106\1106M03.D
Acq On : 6 Nov 19 9:06
Sample : 25ug/L BFB STD 10/10/19
Misc : IS&S 9/24/19

Vial: 1
Operator: LP,DG,CMM
Inst : Max
Multiplr: 1.00

Method : M:\MAX\DATA\M191106\M1106.M (RTE Integrator)
Title : METHOD 8260B



AutoFind: Scans 322, 323, 324; Background Corrected with Scan 309

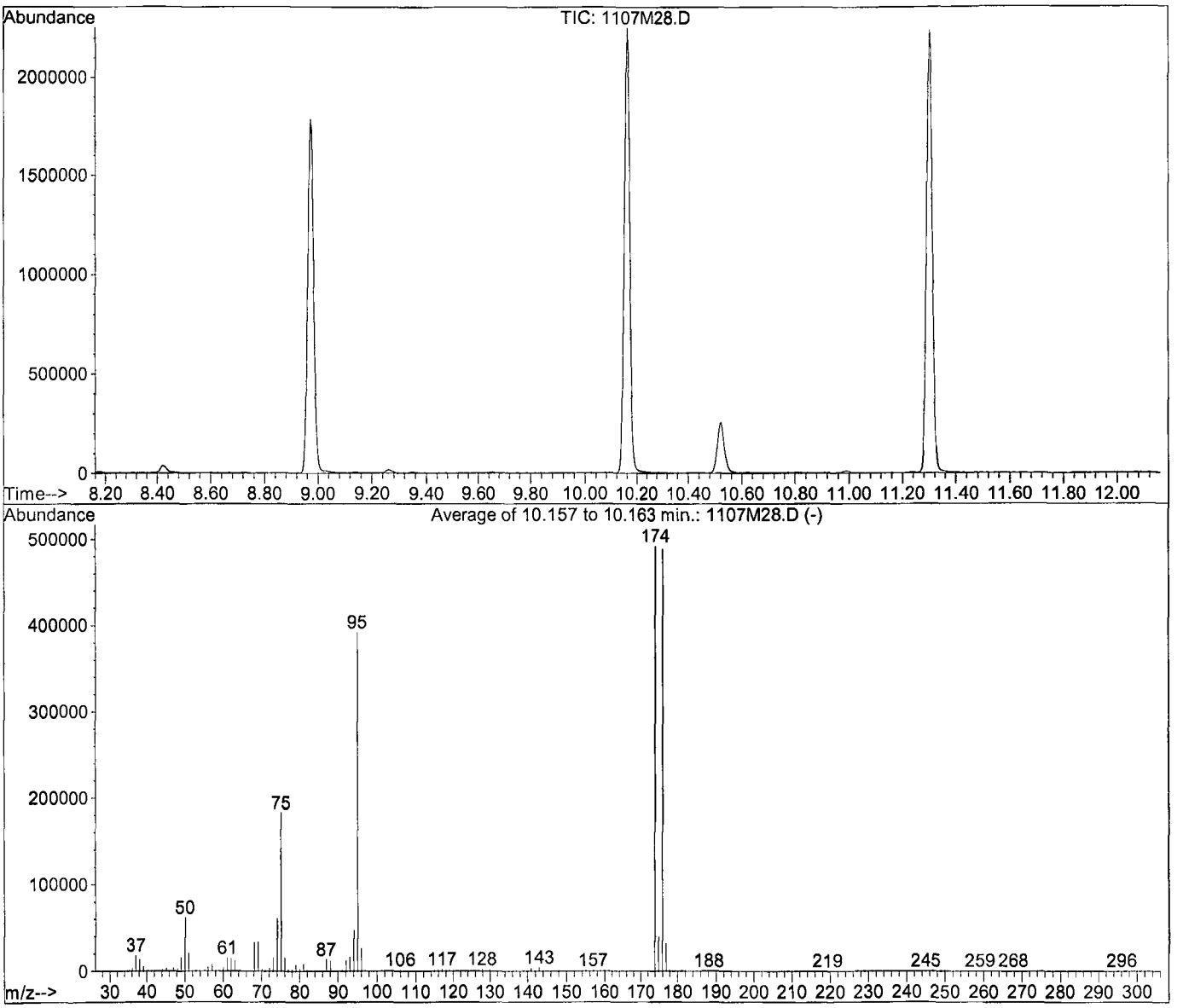
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	15.4	14077	PASS
75	95	30	60	45.7	41691	PASS
95	95	100	100	100.0	91158	PASS
96	95	5	9	5.6	5114	PASS
173	174	0.00	2	1.0	1203	PASS
174	95	50	200	134.2	122368	PASS
175	174	5	9	7.2	8838	PASS
176	174	95	100	97.9	119747	PASS
177	176	5	9	6.3	7518	PASS

1106M03.D M1106.M Thu Nov 07 15:15:42 2019

Data File : M:\MAX\DATA\M191107\1107M28.D
Acq On : 8 Nov 19 4:01
Sample : 25ug/L BFB STD 10/10/19
Misc : IS&S 9/24/19

Vial: 28
Operator: LP,DG,CMM
Inst : Max
Multiplr: 1.00

Method : M:\MAX\DATA\M191106\M1106.M (RTE Integrator)
Title : METHOD 8260B



AutoFind: Scans 2872, 2873, 2874; Background Corrected with Scan 2856

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	15.6	61136	PASS
75	95	30	60	46.5	182229	PASS
95	95	100	100	100.0	391765	PASS
96	95	5	9	6.6	25744	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	200	125.6	492096	PASS
175	174	5	9	7.9	39053	PASS
176	174	95	100	99.3	488555	PASS
177	176	5	9	6.5	31743	PASS

1107M28.D M1106.M Thu Dec 05 08:43:39 2019

Max 8260 Standard Prep

Max 8260 Water Calibration Curve

Prepared By (Initials): CH

0.3ug/L

Prepared: 11/06/19

Expires: 12/06/19

Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)
VOA STD. 9	O2SI	0.3ug/L	5	Prepared 11/04/19	01/03/20	N/A	3uL	50mL	P&T Water	0.3
VOA STD. 10	O2SI		5	Prepared 11/04/19	01/03/20	N/A	3uL			0.3
VOA STD. 12	O2SI		5	Prepared 11/04/19	01/03/20	N/A	3uL			0.3
VOA STD. TBA	Various		250	Prepared 11/04/19	10/30/19	N/A	2uL			10

0.5ug/L

Prepared: 11/06/19

Expires: 12/06/19

Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)
VOA STD. 9	O2SI	0.5ug/L	5	Prepared 11/04/19	01/03/20	N/A	5uL	50mL	P&T Water	0.5
VOA STD. 10	O2SI		5	Prepared 11/04/19	01/03/20	N/A	5uL			0.5
VOA STD. 12	O2SI		5	Prepared 11/04/19	01/03/20	N/A	5uL			0.5
VOA STD. TBA	Various		250	Prepared 11/04/19	10/30/19	N/A	5uL			25

1.0ug/L

Prepared: 11/06/19

Expires: 12/06/19

Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)
VOA STD. 9	O2SI	1.0ug/L	5	Prepared 11/04/19	01/03/20	N/A	10uL	50mL	P&T Water	1
VOA STD. 10	O2SI		5	Prepared 11/04/19	01/03/20	N/A	10uL			1
VOA STD. 12	O2SI		5	Prepared 11/04/19	01/03/20	N/A	10uL			1
VOA STD. TBA	Various		250	Prepared 11/04/19	10/30/19	N/A	10uL			50

2.0ug/L

Prepared: 11/06/19

Expires: 12/06/19

Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)
VOA STD. 9	O2SI	2.0ug/L	5	Prepared 11/04/19	01/03/20	N/A	20uL	50mL	P&T Water	2
VOA STD. 10	O2SI		5	Prepared 11/04/19	01/03/20	N/A	20uL			2
VOA STD. 12	O2SI		5	Prepared 11/04/19	01/03/20	N/A	20uL			2
VOA STD. TBA	Various		250	Prepared 11/04/19	10/30/19	N/A	15uL			75

5ug/L

Prepared: 11/06/19

Expires: 12/06/19

Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)
VOA STD. 7	Various	5ug/L	50	Prepared 11/04/19	01/03/20	N/A	5uL	50mL	P&T Water	5
VOA STD. 8	Phenova		50	Prepared 11/04/19	10/30/19	N/A	5uL			5
VOA STD. 1	O2SI		50	Prepared 11/04/19	01/03/20	N/A	5uL			5
VOA STD. 2	O2SI		50	Prepared 11/04/19	01/03/20	N/A	5uL			5
VOA STD. TBA	Various		250	Prepared 11/04/19	10/30/19	N/A	20uL			100

10ug/L

Prepared: 11/06/19

Expires: 12/06/19

Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)
VOA STD. 7	Various	10ug/L	50	Prepared 11/04/19	01/03/20	N/A	10uL	50mL	P&T Water	10
VOA STD. 8	Phenova		50	Prepared 11/04/19	10/30/19	N/A	10uL			10
VOA STD. 1	O2SI		50	Prepared 11/04/19	01/03/20	N/A	10uL			10
VOA STD. 2	O2SI		50	Prepared 11/04/19	01/03/20	N/A	10uL			10
VOA STD. TBA	Various		250	Prepared 11/04/19	10/30/19	N/A	25uL			125

20ug/L

Prepared: 11/06/19

Expires: 12/06/19

Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)
VOA STD. 7	Various	20ug/L	50	Prepared 11/04/19	01/03/20	N/A	20uL	50mL	P&T Water	20
VOA STD. 8	Phenova		50	Prepared 11/04/19	10/30/19	N/A	20uL			20
VOA STD. 1	O2SI		50	Prepared 11/04/19	01/03/20	N/A	20uL			20
VOA STD. 2	O2SI		50	Prepared 11/04/19	01/03/20	N/A	20uL			20
VOA STD. TBA	Various		250	Prepared 11/04/19	10/30/19	N/A	30uL			150

40ug/L

Prepared: 11/06/19

Expires: 12/06/19

Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)
VOA STD. 7	Various	40ug/L	50	Prepared 11/04/19	01/03/20	N/A	40uL	50mL	P&T Water	40
VOA STD. 8	Phenova		50	Prepared 11/04/19	10/30/19	N/A	40uL			40
VOA STD. 1	O2SI		50	Prepared 11/04/19	01/03/20	N/A	40uL			40
VOA STD. 2	O2SI		50	Prepared 11/04/19	01/03/20	N/A	40uL			40
VOA STD. TBA	Various		250	Prepared 11/04/19	10/30/19	N/A	35uL			175

100ug/L

Prepared: 11/06/19

Expires: 12/06/19

Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)
VOA STD. 7	Various	100ug/L	50	Prepared 11/04/19	01/03/20	N/A	100uL	50mL	P&T Water	100
VOA STD. 8	Phenova		50	Prepared 11/04/19	10/30/19	N/A	100uL			100
VOA STD. 1	O2SI		50	Prepared 11/04/19	01/03/20	N/A	100uL			100
VOA STD. 2	O2SI		50	Prepared 11/04/19	01/03/20	N/A	100uL			100
VOA STD. TBA	Various		250	Prepared 11/04/19	10/30/19	N/A	40uL			200

Max 8260 Water Second Source (SS)

Prepared: 11/06/19

Prepared By (Initials): CH

Expires: 12/06/19

Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)
VOA STD. 4	Phenova	8260 Water SS	50	Prepared 11/04/19	01/03/20	N/A	10uL	50mL	P&T Water	10
VOA STD. 5	O2SI	8260 Water SS	50	Prepared 11/04/19	01/03/20	N/A	10uL			10
VOA STD. 6	Various	8260 Water SS	50	Prepared 11/04/19	10/16/19	N/A	10uL			10
Voa STD. TBA	Various	8260 Water SS	250	Prepared 11/04/19	09/18/19	N/A	25uL			250

8260 Water Continuing Calibrations (CCV)/ Lab Control Spikes (LCS)

Prepared: 11/06/19

Prepared By (Initials): CH

Expires: 11/07/19

Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)
VOA STD. 7	Various	CCV/ LCS	50	Prepared 11/04/19	01/03/20	N/A	10uL	50mL	P&T Water	10
VOA STD. 8	Phenova	CCV/ LCS	50	Prepared 11/04/19	10/30/19	N/A	10uL			10
VOA STD. 1	O2SI	CCV/ LCS	50	Prepared 11/04/19	01/03/20	N/A	10uL			10
VOA STD. 2	O2SI	CCV/ LCS	50	Prepared 11/04/19	01/03/20	N/A	10uL			10
VOA STD. TBA	Various	CCV/ LCS	250	Prepared 11/04/19	10/30/19	N/A	25uL			125

LCS (X4 Ketones)

Prepared: 11/06/19

Prepared By (Initials): CH

Expires: 11/07/19

Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)
VOA STD. 7	Various	LCS X4 Ketones	50	Prepared 11/04/19	01/03/20	N/A	10uL	50mL	P&T Water	10
VOA STD. 8	Phenova	LCS X4 Ketones	50	Prepared 11/04/19	10/30/19	N/A	10uL			10
VOA STD. 1	O2SI	LCS X4 Ketones	50	Prepared 11/04/19	01/03/20	N/A	10uL			10
VOA STD. 2	O2SI	LCS X4 Ketones	50	Prepared 11/04/19	01/03/20	N/A	40uL			40
VOA STD. TBA	Various	LCS X4 Ketones	250	Prepared 11/04/19	10/30/19	N/A	25uL			125

Primary and Secondary Working Standards

Primary Standards

VOA STD 7

Prepared: 11/04/19 A
Expires: 01/03/20
Prepared By (Initials): CH
Methanol Lot No. DW117-US-0095

Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
VOA Gasses STD	Phenova	ALO-101206	2,000	**CL13712-49316**	**10/16/20**	**06/30/24**	100uL	4mL	Methanol	50
Hexachloroethane	Absolute	70199	1,000	**091818-41284**	**10/16/20**	**09/18/23**	200uL			50
Benzyl Chloride	Accusta	M-8010-01	2,000	**061919-41289**	**10/16/20**	**06/19/20**	200uL			50

VOA STD 8

Prepared: 11/04/19 B
Expires: 10/30/19
Prepared By (Initials): CH
Methanol Lot No. DW117-US-0095

Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
VOA Additions STD	Phenova	ALO-130175	2,000	**CL12622-40992**	**10/16/20**	**06/30/20**	100uL	4mL	Methanol	50
502.2 Cal. Std.	Phenova	ALO-101200	2,000	**CL13742-41024**	**10/16/20**	**06/30/24**	100uL			50
Vinyl Acetate	Phenova	ALO-101228	2,000	**CL14220-49394**	**10/16/20**	**10/30/19**	100uL			50

VOA STD TBA

Prepared: 11/04/19 C
Expires: 10/30/19
Prepared By (Initials): CH
Methanol Lot No. DW117-US-0095

Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
Custom VOC Mix	Phenova	ALO-130176	2,000	**CL12734-49377**	**10/16/20**	**08/31/20**	500uL	4mL	Methanol	250
Acrolein	Phenova	ALO-130549	10,000	**CL14311-49395**	**10/16/20**	**10/30/19**	100uL			250

VOA STD 1

Prepared: 11/04/19 D
Expires: 01/03/20
Prepared By (Initials): CH
Methanol Lot No. DW117-US-0095

Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
2-CEVE	Absolute	82408	2,000	**071018-41299**	**10/16/20**	**07/10/21**	50	2mL	Methanol	50

VOA STD 2

Prepared: 11/04/19 E
Expires: 01/03/20
Prepared By (Initials): CH
Methanol Lot No. DW117-US-0095

Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
Ketones Std.	Phenova	ALO-109211	2,000	**CL13994-41247**	**10/16/20**	**08/31/29**	100	4mL	Methanol	50

VOA STD 9

Prepared: 11/04/19 F
Expires: 01/03/20
Prepared By (Initials): CH
Methanol Lot No. DW117-US-0095

Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
VOA STD. 7		VOA STD. 9	50	Prepared 11/04/19	**10/16/20**	N/A	200uL	2mL	Methanol	5
VOA STD. 8			50	Prepared 11/04/19	**10/16/20**	N/A	200uL			5

VOA STD. 10

Prepared: 11/04/19 G
Expires: 01/03/20
Prepared By (Initials): CH
Methanol Lot No. DW117-US-0095

Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
VOA STD. 1		VOA STD. 10	50	Prepared 11/04/19	**10/16/20**	N/A	200uL	2mL	Methanol	5

VOA STD. 12

Prepared: 11/04/19 H
Expires: 01/03/20
Prepared By (Initials): CH
Methanol Lot No. DW117-US-0095

Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
VOA STD. 2		VOA STD. 12	50	Prepared 11/04/19	**10/16/20**	N/A	200uL	2mL	Methanol	5

Second Source (SS) Standards

VOA STD. 3

Prepared: 11/04/19 I
Expires: 01/03/20
Methanol Lot No. DW117-US-0095

Prepared By (Initials): CH

Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
Ketones Standard	Phenova	ALO-101211	2,000	**CL12730-41075**	**10/16/20**	**08/31/28**	50uL	2mL	Methanol	50

VOA STD. 5

Prepared: 11/04/19 J
Expires: 01/03/20
Methanol Lot No. DW117-US-0095

Prepared By (Initials): CH

Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
8260 Gases (SS)	Phenova	ALO-101206	2,000	**CL14057-41319**	**10/16/20**	**08/31/24**	50uL	2mL	Methanol	50
2-CEVE (SS)	Absolute	82408	2,000	**061419-41292**	**10/16/20**	**06/14/22**	50uL			50

VOA STD. 6

Prepared: 11/04/19 K
Expires: 10/16/19
Methanol Lot No. DW117-US-0095

Prepared By (Initials): CH

Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
502.2 Calibration STD. (54-compounds)	Phenova	ALO-101200	2,000	**CL12490-40920**	**10/16/20**	**05/31/23**	50uL	2mL	Methanol	50
Vinyl Acetate	Phenova	ALO-101228	2,000	**CL14220-49312**	**10/03/20**	**10/16/19**	50uL			50
Hexachloroethane	Accustan	AS-E0011	1,000	**219061767-41120**	**10/16/20**	**06/28/29**	100uL			50
Benzyl Chloride	Accustan	M-8010-01	200	**219041664-40959**	**10/16/20**	**05/22/21**	500uL			50

VOA STD. TBA

Prepared: 11/04/19 L
Expires: 09/18/19
Methanol Lot No. DW117-US-0095

Prepared By (Initials): CH

Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
Custom VOA Mix (4-3)	Phenova	ALO-130176	2,000	**CL12228-41063**	**10/16/20**	**01/31/20**	250uL	2mL	Methanol	250
Acrolein	Phenova	ALO-101224	10,000	**CL14224-49313**	**08/29/20**	**09/16/19**	50uL			250

VOA STD. 0

Prepared: 11/04/19 M
Expires: 01/03/20
Methanol Lot No. DW117-US-0095

Prepared By (Initials): CH

Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
VOA Addition STD.	Phenova	ALO-130175	2,000	**CL12744-41387**	**10/16/20**	**08/31/20**	50uL	2mL	Methanol	50

Injection Log

Directory: M:\MAX\DATA\M191106\

Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1106M03.D	1	25ug/L BFB STD 10/10/19	IS&S 9/24/19	6 Nov 19 9:06
3	1106M06.D	1	0.3ug/L VOC STD 11/06/19	IS&S 9/24/19	6 Nov 19 10:45
4	1106M07.D	1	0.5ug/L VOC STD 11/06/19	IS&S 9/24/19	6 Nov 19 11:13
5	1106M08.D	1	1.0ug/L VOC STD 11/06/19	IS&S 9/24/19	6 Nov 19 11:42
6	1106M09.D	1	2.0ug/L VOC STD 11/06/19	IS&S 9/24/19	6 Nov 19 12:11
7	1106M10.D	1	5.0ug/L VOC STD 11/06/19	IS&S 9/24/19	6 Nov 19 12:40
8	1106M11.D	1	10ug/L VOC STD 11/06/19	IS&S 9/24/19	6 Nov 19 13:08
9	1106M12.D	1	20ug/L VOC STD 11/06/19	IS&S 9/24/19	6 Nov 19 13:37
10	1106M13.D	1	40ug/L VOC STD 11/06/19	IS&S 9/24/19	6 Nov 19 14:06
11	1106M14.D	1	100ug/L VOC STD 11/06/19	IS&S 9/24/19	6 Nov 19 14:35
13	1106M16.D	1	(SS)10ug/L VOC STD 11/06/19	IS&S 9/24/19	6 Nov 19 15:33
28	1107M28.D	1	25ug/L BFB STD 10/10/19	IS&S 9/24/19	8 Nov 19 4:01
29	1107M29.D	1	191107B CCV 10ug/L	IS&S 9/24/19	8 Nov 19 4:30
30	1107M30.D	1	191107B LCS 10ug/L	IS&S 9/24/19	8 Nov 19 4:58
31	1107M31.D	1	191107B LCSD 10ug/L	IS&S 9/24/19	8 Nov 19 5:27
35	1107M35.D	1	191107B Blk	IS&S 9/24/19	8 Nov 19 7:22
37	1107M37.D	1	BA02466W01	IS&S 9/24/19	8 Nov 19 8:19
38	1107M38.D	1	BA02465W01	IS&S 9/24/19	8 Nov 19 8:48
42	1107M42.D	1	Ending CCV 10ug/L 11/7/19	IS&S 9/24/19	8 Nov 19 10:44

ORGANICS
Calibration Data

VOLATILE ORGANIC ANALYSIS BY
EPA METHOD 8260B

Form 6
Initial Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Initial Cal. Date: 11/06/19
Matrix: Instrument: Max Initials: DP

			1106M06.D	1106M07.D	1106M08.D	1106M09.D	1106M10.D	1106M11.D	1106M12.D	1106M13.D	1106M14.D							
		Compound	1	2	3	4	5	6	7	8	9		Avg	%RSD	Type	r^2	Q	MRF
1	I	Fluorobenzene (IS)																
2	SL	Dibromofluoromethane(S)	0.1161	0.1088	0.1047	0.1106	0.1575	0.1734	0.2099	0.2172	0.2253		0.16	32	SL	0.997		
3	SL	1,2-DCA-D4(S)	0.1291	0.1039	0.0954	0.1031	0.1278	0.1426	0.1716	0.1789	0.1937		0.14	26	SL	0.994		
4	I	Chlorobenzene-D5 (IS)																
5	S	Toluene-D8(S)	1.371	1.259	1.097	1.070	1.148	1.113	1.150	1.131	1.078		1.2	8.4	S			
6	S	4-Bromofluorobenzene(S)	0.5341	0.4709	0.3773	0.3953	0.4172	0.4147	0.4368	0.4276	0.4189		0.43	11	S			
7	I	1,4-Dichlorobenzene-D (IS)																
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9																		
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Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M191106\1106M06.D Vial: 3
Acq On : 6 Nov 19 10:45 Operator: LP,DG,CMM
Sample : 0.3ug/L VOC STD 11/06/19 Inst : Max
Misc : IS&S 9/24/19 Multiplr: 1.00

Quant Time: Nov 8 10:59 2019 Quant Results File: MSUR1106.RES

Quant Method : M:\MAX\DATA\M191106\MSUR1106.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 07 14:27:44 2019
Response via : Initial Calibration
DataAcq Meth : M8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	5.73	96	1402469	25.00	ppb	0.00
4) Chlorobenzene-D5 (IS)	8.97	117	1106542	25.00	ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	11.30	152	604127	25.00	ppb	0.00
System Monitoring Compounds						
2) Dibromofluoromethane(S)	4.89	111	32559	7.37	ppb	0.00
Spiked Amount 25.000			Recovery =	29.472%		
3) 1,2-DCA-D4(S)	5.30	65	36221	8.25	ppb	0.00
Spiked Amount 25.000			Recovery =	32.992%		
5) Toluene-D8(S)	7.51	98	303410	5.92	ppb	0.00
Spiked Amount 25.000			Recovery =	23.688%		
6) 4-Bromofluorobenzene(S)	10.16	95	118198	6.17	ppb	0.00
Spiked Amount 25.000			Recovery =	24.696%		

Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration

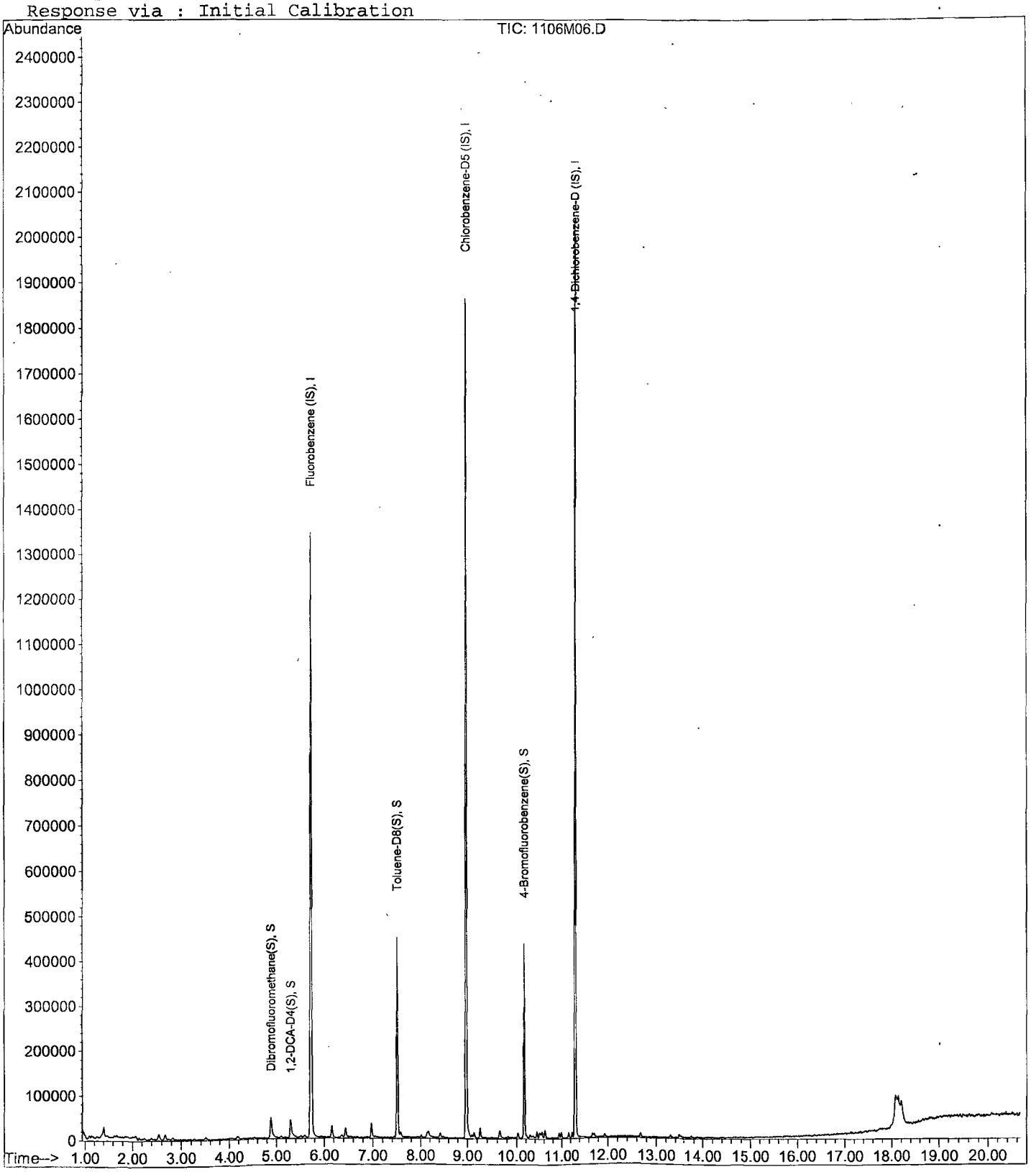
Quantitation Report

Data File : M:\MAX\DATA\M191106\1106M06.D
Acq On : 6 Nov 19 10:45
Sample : 0.3ug/L VOC STD 11/06/19
Misc : IS&S 9/24/19

Vial: 3
Operator: LP,DG,CMM
Inst : Max
Multiplr: 1.00

Quant Time: Nov 8 10:59 2019 Quant Results File: MSUR1106.RES

Method : M:\MAX\DATA\M191106\MSUR1106.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 07 14:27:44 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M191106\1106M07.D Vial: 4
Acq On : 6 Nov 19 11:13 Operator: LP,DG,CMM
Sample : 0.5ug/L VOC STD 11/06/19 Inst : Max
Misc : IS&S 9/24/19 Multiplr: 1.00

Quant Time: Nov 8 10:59 2019 Quant Results File: MSUR1106.RES

Quant Method : M:\MAX\DATA\M191106\MSUR1106.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 07 14:27:44 2019
Response via : Initial Calibration
DataAcq Meth : M8260

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene (IS)	5.72	96	1423298	25.00 ppb	0.00
4) Chlorobenzene-D5 (IS)	8.98	117	1128694	25.00 ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	11.30	152	625275	25.00 ppb	0.00
System Monitoring Compounds					
2) Dibromofluoromethane(S)	4.90	111	30962	7.21 ppb	0.01
Spiked Amount 25.000			Recovery	= 28.848%	
3) 1,2-DCA-D4(S)	5.30	65	29566	7.61 ppb	0.00
Spiked Amount 25.000			Recovery	= 30.456%	
5) Toluene-D8(S)	7.51	98	284245	5.44 ppb	0.00
Spiked Amount 25.000			Recovery	= 21.756%	
6) 4-Bromofluorobenzene(S)	10.16	95	106304	5.44 ppb	0.00
Spiked Amount 25.000			Recovery	= 21.776%	

Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration

Quantitation Report

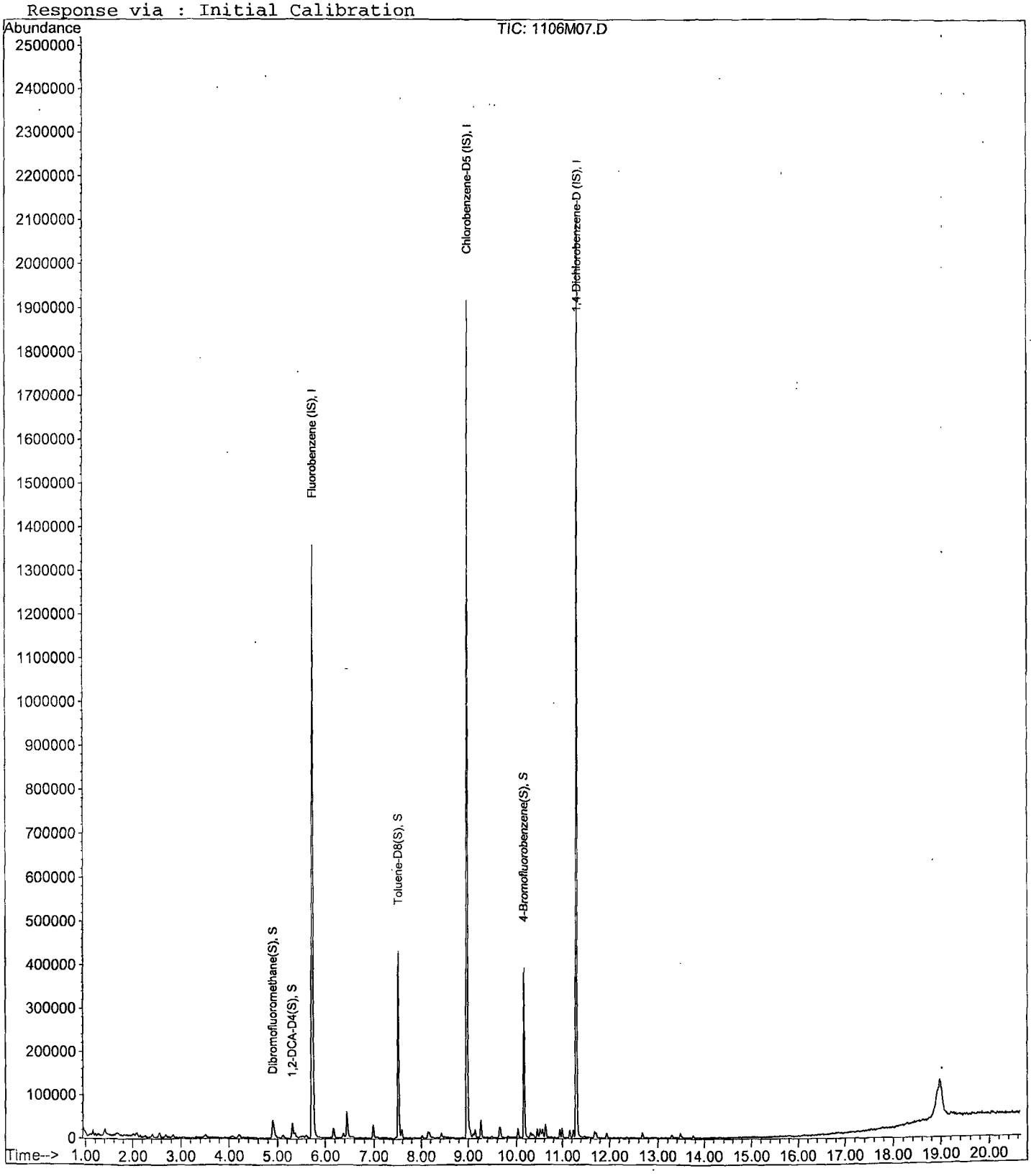
Data File : M:\MAX\DATA\M191106\1106M07.D
Acq On : 6 Nov 19 11:13
Sample : 0.5ug/L VOC STD 11/06/19
Misc : IS&S 9/24/19

Vial: 4
Operator: LP,DG,CMM
Inst : Max
Multiplr: 1.00

Quant Time: Nov 8 10:59 2019

Quant Results File: MSUR1106.RES

Method : M:\MAX\DATA\M191106\MSUR1106.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 07 14:27:44 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M191106\1106M08.D Vial: 5
Acq On : 6 Nov 19 11:42 Operator: LP,DG,CMM
Sample : 1.0ug/L VOC STD 11/06/19 Inst : Max
Misc : IS&S 9/24/19 Multiplr: 1.00

Quant Time: Nov 8 10:59 2019 Quant Results File: MSUR1106.RES

Quant Method : M:\MAX\DATA\M191106\MSUR1106.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 07 14:27:44 2019
Response via : Initial Calibration
DataAcq Meth : M8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	5.72	96	1487798	25.00	ppb	0.00
4) Chlorobenzene-D5 (IS)	8.97	117	1172875	25.00	ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	11.30	152	667426	25.00	ppb	0.00
System Monitoring Compounds						
2) Dibromofluoromethane(S)	4.90	111	62320	9.35	ppb	0.01
Spiked Amount 25.000			Recovery =	37.416%		
3) 1,2-DCA-D4(S)	5.30	65	56795	9.80	ppb	0.00
Spiked Amount 25.000			Recovery =	39.188%		
5) Toluene-D8(S)	7.51	98	514751	9.48	ppb	0.00
Spiked Amount 25.000			Recovery =	37.912%		
6) 4-Bromofluorobenzene(S)	10.16	95	177007	8.72	ppb	0.00
Spiked Amount 25.000			Recovery =	34.892%		

Target Compounds Qvalue

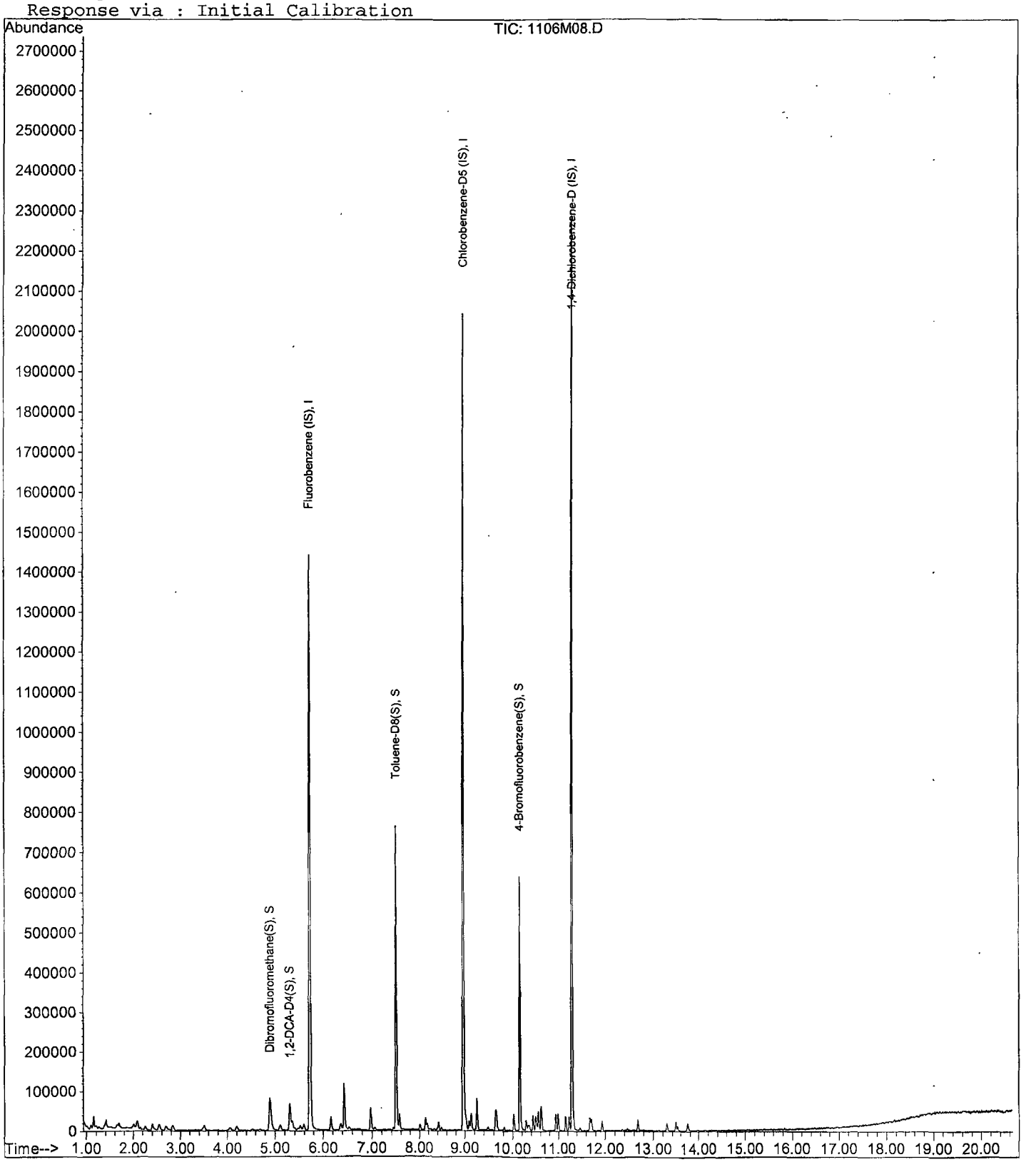
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\MAX\DATA\M191106\1106M08.D Vial: 5
Acq On : 6 Nov 19 11:42 Operator: LP,DG,CMM
Sample : 1.0ug/L VOC STD 11/06/19 Inst : Max
Misc : IS&S 9/24/19 Multiplr: 1.00

Quant Time: Nov 8 10:59 2019 Quant Results File: MSUR1106.RES

Method : M:\MAX\DATA\M191106\MSUR1106.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 07 14:27:44 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M191106\1106M09.D Vial: 6
Acq On : 6 Nov 19 12:11 Operator: LP,DG,CMM
Sample : 2.0ug/L VOC STD 11/06/19 Inst : Max
Misc : IS&S 9/24/19 Multiplr: 1.00

Quant Time: Nov 8 10:59 2019 Quant Results File: MSUR1106.RES

Quant Method : M:\MAX\DATA\M191106\MSUR1106.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 07 14:27:44 2019
Response via : Initial Calibration
DataAcq Meth : M8260

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene (IS)	5.73	96	1433425	25.00 ppb	0.00
4) Chlorobenzene-D5 (IS)	8.97	117	1128770	25.00 ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	11.30	152	678074	25.00 ppb	0.00
System Monitoring Compounds					
2) Dibromofluoromethane(S)	4.89	111	63393	9.60 ppb	0.00
Spiked Amount 25.000			Recovery =	38.412%	
3) 1,2-DCA-D4(S)	5.30	65	59104	10.18 ppb	0.00
Spiked Amount 25.000			Recovery =	40.724%	
5) Toluene-D8(S)	7.51	98	483232	9.25 ppb	0.00
Spiked Amount 25.000			Recovery =	36.980%	
6) 4-Bromofluorobenzene(S)	10.16	95	178485	9.14 ppb	0.00
Spiked Amount 25.000			Recovery =	36.560%	

Target Compounds Qvalue

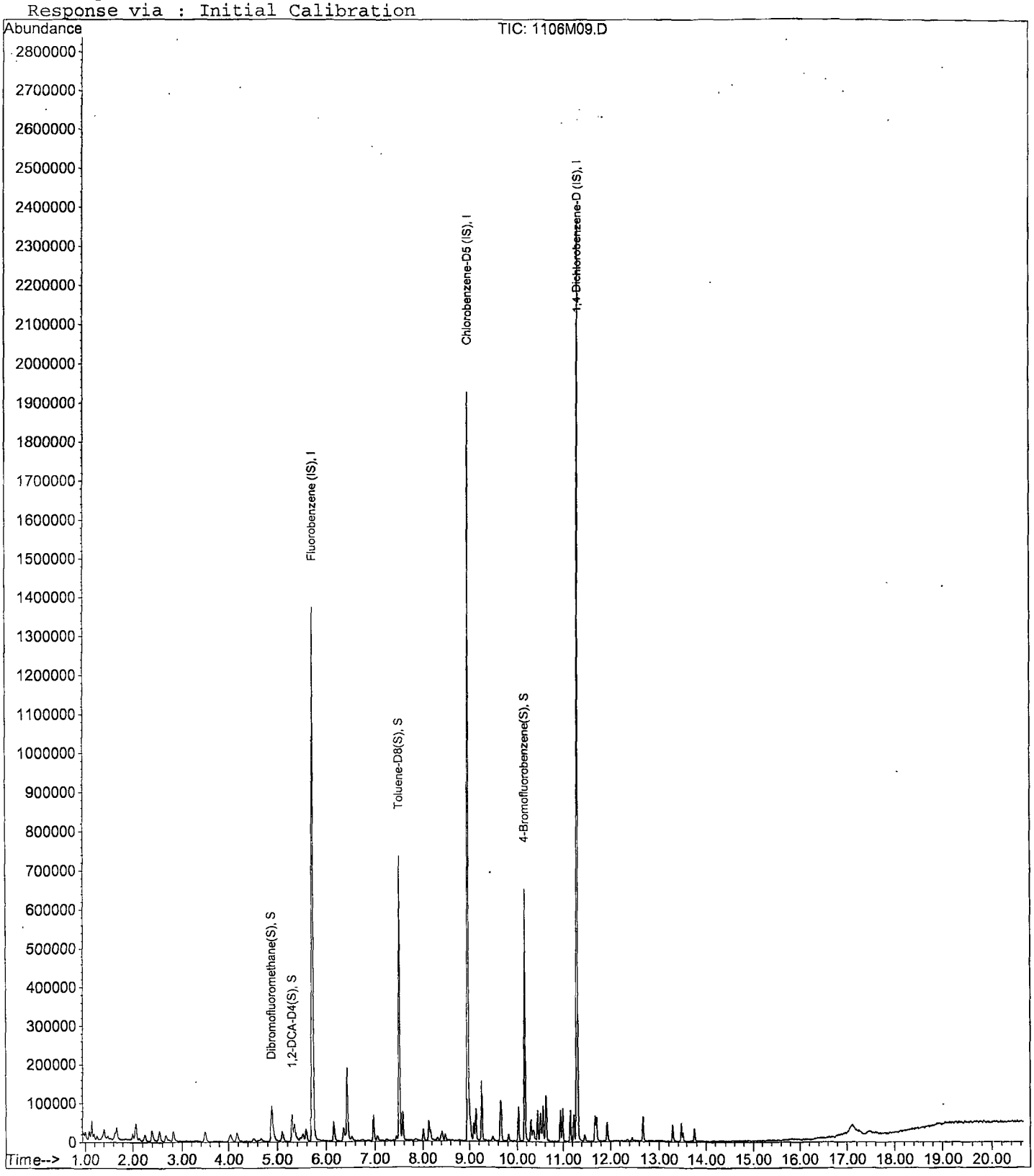
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\MAX\DATA\M191106\1106M09.D Vial: 6
Acq On : 6 Nov 19 12:11 Operator: LP,DG,CMM
Sample : 2.0ug/L VOC STD 11/06/19 Inst : Max
Misc : IS&S 9/24/19 Multiplr: 1.00

Quant Time: Nov 8 10:59 2019 Quant Results File: MSUR1106.RES

Method : M:\MAX\DATA\M191106\MSUR1106.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 07 14:27:44 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M191106\1106M10.D Vial: 7
Acq On : 6 Nov 19 12:40 Operator: LP,DG,CMM
Sample : 5.0ug/L VOC STD 11/06/19 Inst : Max
Misc : IS&S 9/24/19 Multiplr: 1.00

Quant Time: Nov 8 10:59 2019 Quant Results File: MSUR1106.RES

Quant Method : M:\MAX\DATA\M191106\MSUR1106.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 07 14:27:44 2019
Response via : Initial Calibration
DataAcq Meth : M8260

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene (IS)	5.73	96	1472512	25.00 ppb	0.00
4) Chlorobenzene-D5 (IS)	8.97	117	1205195	25.00 ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	11.30	152	728245	25.00 ppb	0.00
System Monitoring Compounds					
2) Dibromofluoromethane(S)	4.89	111	231874	21.65 ppb	0.00
Spiked Amount 25.000			Recovery =	86.604%	
3) 1,2-DCA-D4(S)	5.30	65	188191	21.05 ppb	0.00
Spiked Amount 25.000			Recovery =	84.180%	
5) Toluene-D8(S)	7.51	98	1383599	24.79 ppb	0.00
Spiked Amount 25.000			Recovery =	99.172%	
6) 4-Bromofluorobenzene(S)	10.16	95	502805	24.11 ppb	0.00
Spiked Amount 25.000			Recovery =	96.456%	

Target Compounds Qvalue

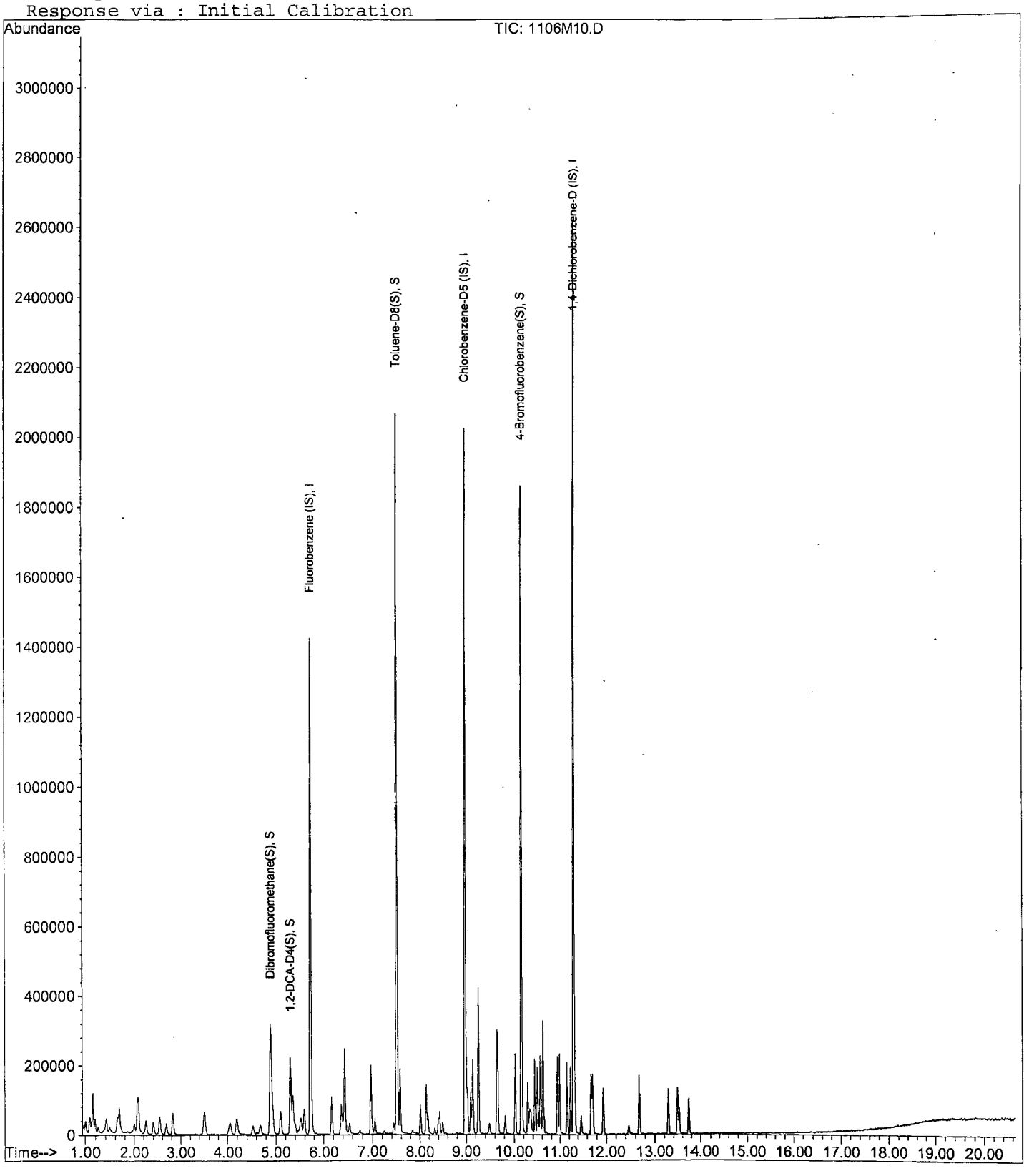
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\MAX\DATA\M191106\1106M10.D Vial: 7
Acq On : 6 Nov 19 12:40 Operator: LP,DG,CMM
Sample : 5.0ug/L VOC STD 11/06/19 Inst : Max
Misc : IS&S 9/24/19 Multiplr: 1.00

Quant Time: Nov 8 10:59 2019 Quant Results File: MSUR1106.RES

Method : M:\MAX\DATA\M191106\MSUR1106.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 07 14:27:44 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M191106\1106M11.D Vial: 8
Acq On : 6 Nov 19 13:08 Operator: LP,DG,CMM
Sample : 10ug/L VOC STD 11/06/19 Inst : Max
Misc : IS&S 9/24/19 Multiplr: 1.00

Quant Time: Nov 8 10:59 2019 Quant Results File: MSUR1106.RES

Quant Method : M:\MAX\DATA\M191106\MSUR1106.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 07 14:27:44 2019
Response via : Initial Calibration
DataAcq Meth : M8260

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene (IS)	5.73	96	1472898	25.00 ppb	0.00
4) Chlorobenzene-D5 (IS)	8.97	117	1197765	25.00 ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	11.30	152	729197	25.00 ppb	0.00
System Monitoring Compounds					
2) Dibromofluoromethane(S)	4.89	111	255331	23.34 ppb	0.00
Spiked Amount 25.000			Recovery =	93.360%	
3) 1,2-DCA-D4(S)	5.30	65	210027	22.90 ppb	0.00
Spiked Amount 25.000			Recovery =	91.608%	
5) Toluene-D8(S)	7.51	98	1333176	24.04 ppb	0.00
Spiked Amount 25.000			Recovery =	96.148%	
6) 4-Bromofluorobenzene(S)	10.16	95	496680	23.97 ppb	0.00
Spiked Amount 25.000			Recovery =	95.872%	

Target Compounds Qvalue

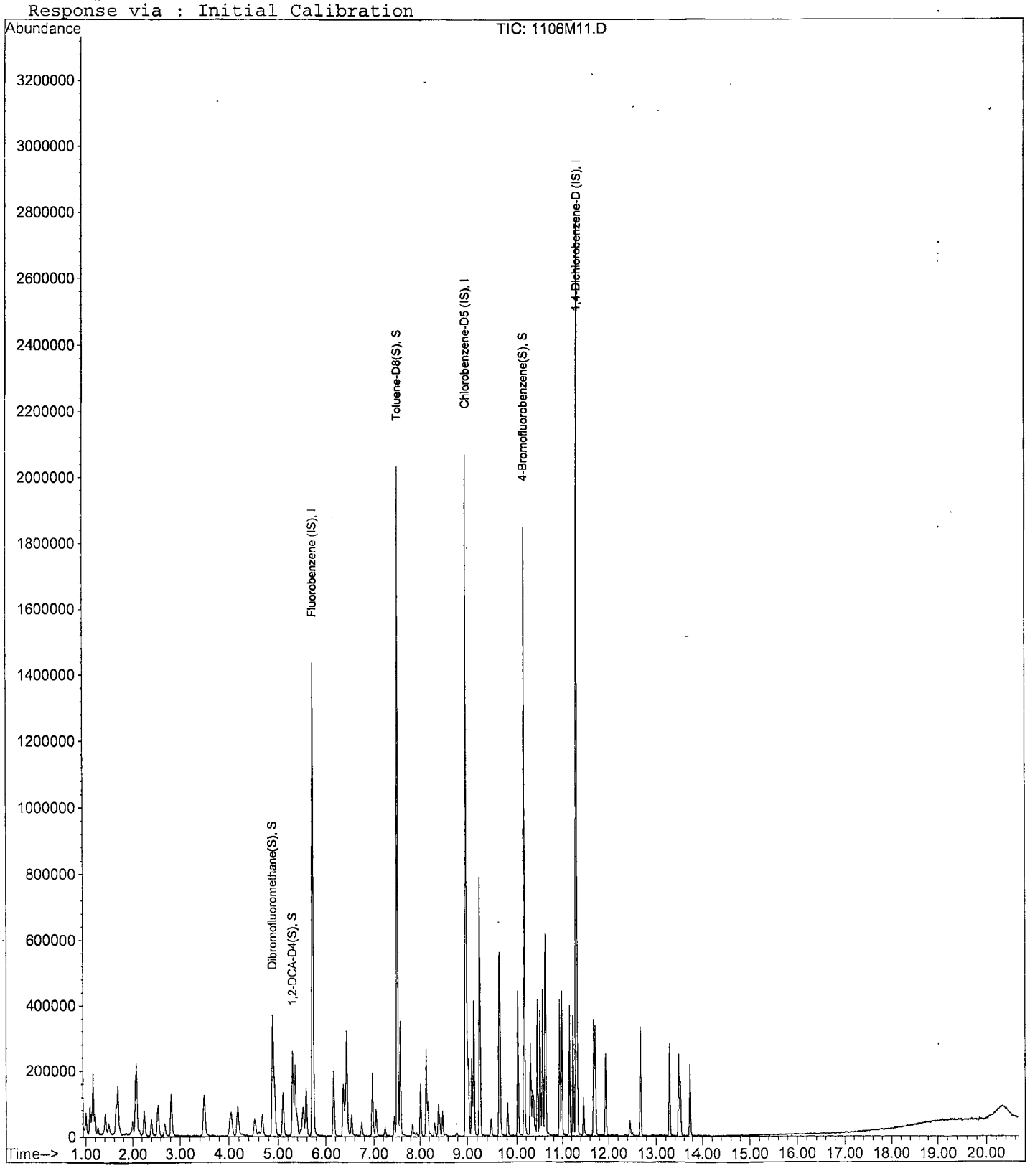
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\MAX\DATA\M191106\1106M11.D Vial: 8
Acq On : 6 Nov 19 13:08 Operator: LP,DG,CMM
Sample : 10ug/L VOC STD 11/06/19 Inst : Max
Misc : IS&S 9/24/19 Multiplr: 1.00

Quant Time: Nov 8 10:59 2019 Quant Results File: MSUR1106.RES

Method : M:\MAX\DATA\M191106\MSUR1106.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 07 14:27:44 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M191106\1106M12.D Vial: 9
Acq On : 6 Nov 19 13:37 Operator: LP,DG,CMM
Sample : 20ug/L VOC STD 11/06/19 Inst : Max
Misc : IS&S 9/24/19 Multiplr: 1.00

Quant Time: Nov 8 10:59 2019 Quant Results File: MSUR1106.RES

Quant Method : M:\MAX\DATA\M191106\MSUR1106.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 07 14:27:44 2019
Response via : Initial Calibration
DataAcq Meth : M8260

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene (IS)	5.73	96	1340710	25.00 ppb	0.00
4) Chlorobenzene-D5 (IS)	8.97	117	1114510	25.00 ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	11.30	152	724038	25.00 ppb	0.00
System Monitoring Compounds					
2) Dibromofluoromethane(S)	4.89	111	562950	49.57 ppb	0.00
Spiked Amount 25.000			Recovery =	198.276%	
3) 1,2-DCA-D4(S)	5.30	65	460191	48.08 ppb	0.00
Spiked Amount 25.000			Recovery =	192.328%	
5) Toluene-D8(S)	7.51	98	2563898	49.68 ppb	0.00
Spiked Amount 25.000			Recovery =	198.724%	
6) 4-Bromofluorobenzene(S)	10.16	95	973597	50.49 ppb	0.00
Spiked Amount 25.000			Recovery =	201.972%	

Target Compounds Qvalue

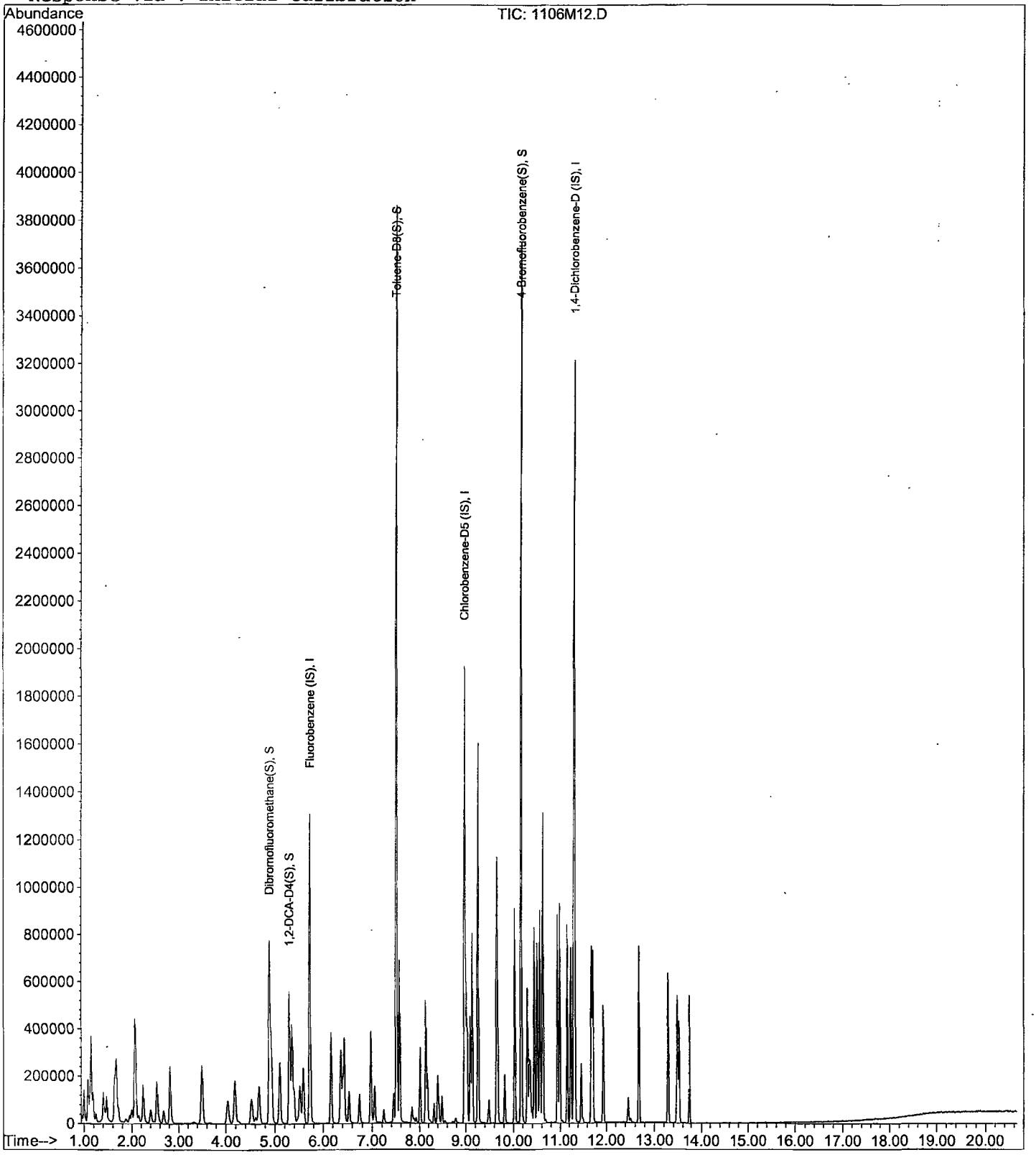
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\MAX\DATA\M191106\1106M12.D Vial: 9
Acq On : 6 Nov 19 13:37 Operator: LP,DG,CMM
Sample : 20ug/L VOC STD 11/06/19 Inst : Max
Misc : IS&S 9/24/19 Multiplr: 1.00

Quant Time: Nov 8 10:59 2019 Quant Results File: MSUR1106.RES

Method : M:\MAX\DATA\M191106\MSUR1106.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 07 14:27:44 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M191106\1106M13.D Vial: 10
Acq On : 6 Nov 19 14:06 Operator: LP,DG,CMM
Sample : 40ug/L VOC STD 11/06/19 Inst : Max
Misc : IS&S 9/24/19 Multiplr: 1.00

Quant Time: Nov 8 10:59 2019 Quant Results File: MSUR1106.RES

Quant Method : M:\MAX\DATA\M191106\MSUR1106.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 07 14:27:44 2019
Response via : Initial Calibration
DataAcq Meth : M8260

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene (IS)	5.72	96	1359962	25.00 ppb	0.00
4) Chlorobenzene-D5 (IS)	8.97	117	1143203	25.00 ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	11.30	152	738427	25.00 ppb	0.00
System Monitoring Compounds					
2) Dibromofluoromethane(S)	4.89	111	590870	51.12 ppb	0.00
Spiked Amount 25.000			Recovery	= 204.484%	
3) 1,2-DCA-D4(S)	5.30	65	486478	49.90 ppb	0.00
Spiked Amount 25.000			Recovery	= 199.592%	
5) Toluene-D8(S)	7.51	98	2586805	48.87 ppb	0.00
Spiked Amount 25.000			Recovery	= 195.468%	
6) 4-Bromofluorobenzene(S)	10.16	95	977576	49.43 ppb	0.00
Spiked Amount 25.000			Recovery	= 197.704%	

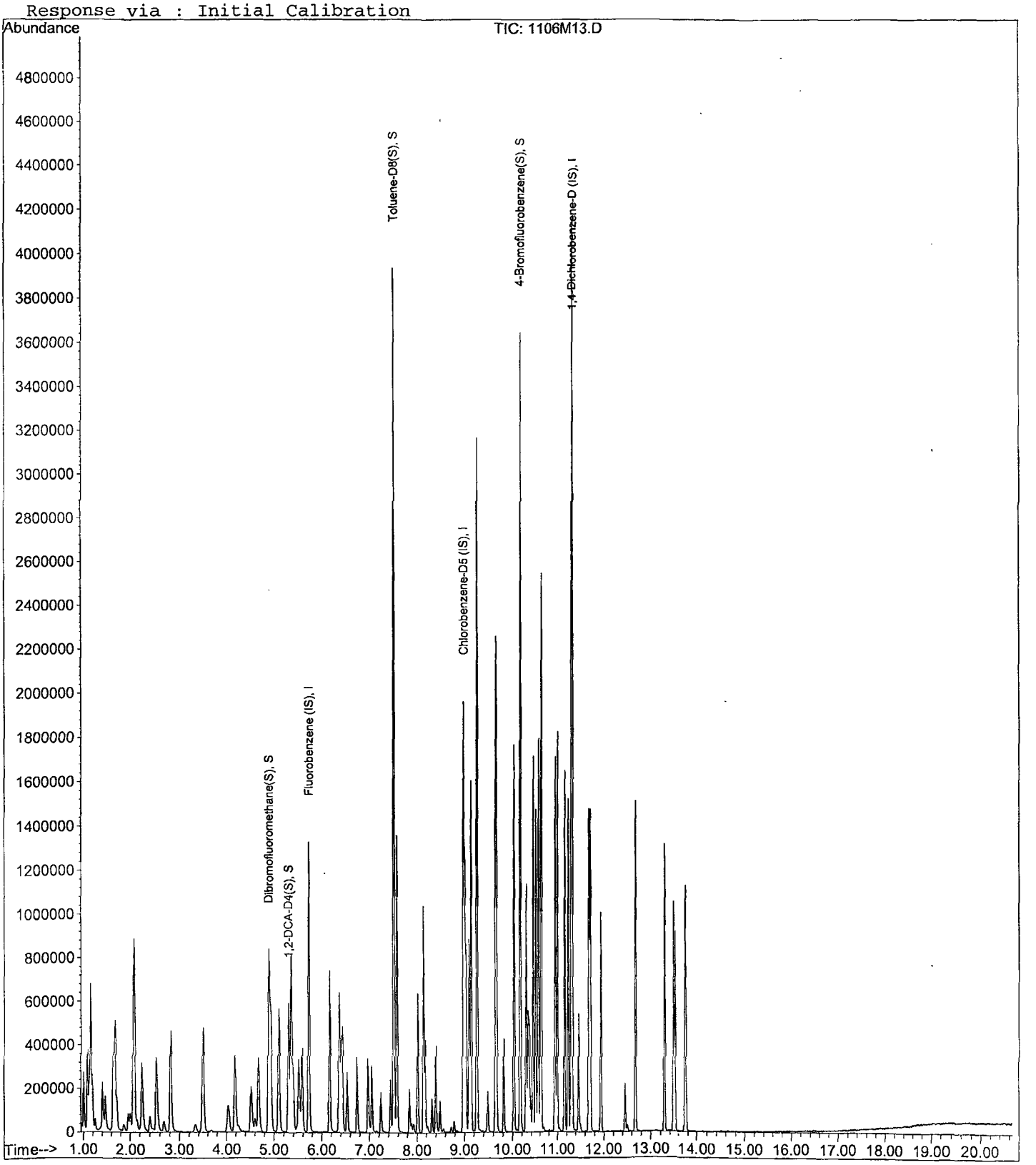
Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration

Data File : M:\MAX\DATA\M191106\1106M13.D Vial: 10
Acq On : 6 Nov 19 14:06 Operator: LP,DG,CMM
Sample : 40ug/L VOC STD 11/06/19 Inst : Max
Misc : IS&S 9/24/19 Multiplr: 1.00

Quant Time: Nov 8 10:59 2019 Quant Results File: MSUR1106.RES

Method : M:\MAX\DATA\M191106\MSUR1106.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 07 14:27:44 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M191106\1106M14.D Vial: 11
Acq On : 6 Nov 19 14:35 Operator: LP,DG,CMM
Sample : 100ug/L VOC STD 11/06/19 Inst : Max
Misc : IS&S 9/24/19 Multiplr: 1.00

Quant Time: Nov 8 10:59 2019 Quant Results File: MSUR1106.RES

Quant Method : M:\MAX\DATA\M191106\MSUR1106.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 07 14:27:44 2019
Response via : Initial Calibration
DataAcq Meth : M8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	5.73	96	1491318	25.00	ppb	0.00
4) Chlorobenzene-D5 (IS)	8.97	117	1242508	25.00	ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	11.30	152	820397	25.00	ppb	0.00
System Monitoring Compounds						
2) Dibromofluoromethane(S)	4.89	111	1344078	100.78	ppb	0.00
Spiked Amount 25.000			Recovery = 403.132%			
3) 1,2-DCA-D4(S)	5.30	65	1155380	102.23	ppb	0.00
Spiked Amount 25.000			Recovery = 408.928%			
5) Toluene-D8(S)	7.51	98	5359123	93.15	ppb	0.00
Spiked Amount 25.000			Recovery = 372.588%			
6) 4-Bromofluorobenzene(S)	10.16	95	2081844	96.85	ppb	0.00
Spiked Amount 25.000			Recovery = 387.384%			

Target Compounds Qvalue

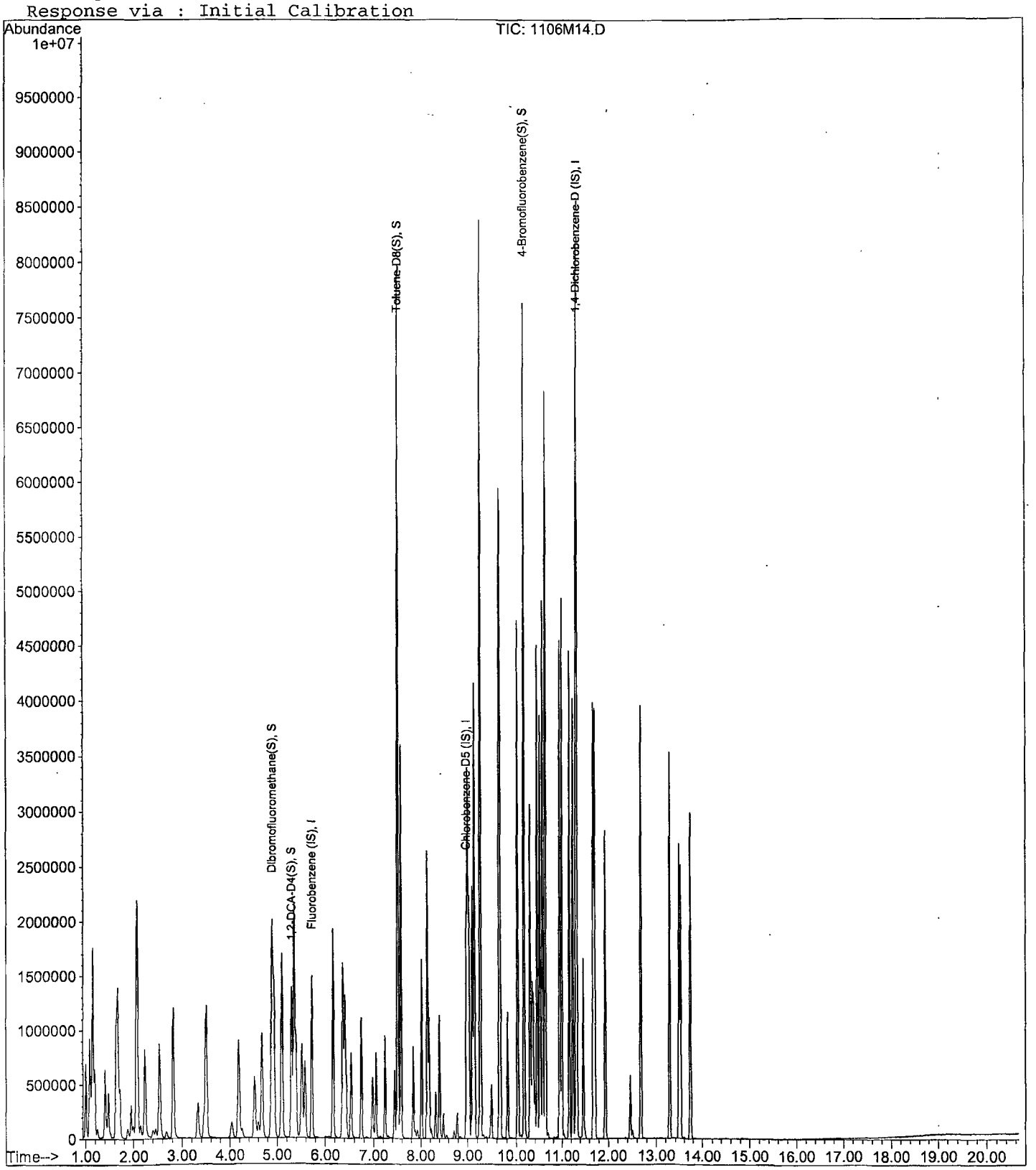
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\MAX\DATA\M191106\1106M14.D Vial: 11
Acq On : 6 Nov 19 14:35 Operator: LP,DG,CMM
Sample : 100ug/L VOC STD 11/06/19 Inst : Max
Misc : IS&S 9/24/19 Multiplr: 1.00

Quant Time: Nov 8 10:59 2019 Quant Results File: MSUR1106.RES

Method : M:\MAX\DATA\M191106\MSUR1106.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 07 14:27:44 2019
Response via : Initial Calibration



VOLATILE ORGANIC ANALYSIS
VOLATILE ORGANIC COMPOUNDS

Form 6
Initial Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Initial Cal. Date: 11/08/19
Matrix: water Instrument: Max
Initials: DG

		Compound	1107M19.D	1107M20.D	1107M21.D	1107M22.D	1107M23.D	1107M24.D	1107M25.D				Avg	%RSD	Type	r^2	Q	MRF
1	I	Fluorobenzene (IS)																
2	TMHBL	Gasoline C6-C10	17.5	7.378	3.948	1.647	1.043	0.9296	0.8326				4.8	128	TMHBL	0.999		
3	TMHB	Chlorobenzene-D5 (IS)																
4	TMHB	1,4-Dichlorobenzene (IS)																
5																		
6																		
7																		
8																		
9																		
10																		
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Quantitation Report (QT Reviewed)

Data File : M:\MAX\DATA\M191107\1107M19.D
Acq On : 7 Nov 19 23:42
Sample : 20ug/L Gas 11/7/19
Misc : IS&S 9/24/19

Vial: 19
Operator: LP,DG,CMM
Inst : Max
Multiplr: 1.00

Quant Time: Nov 8 12:47 2019 Quant Results File: MGAS1107.RES

Quant Method : M:\MAX\DATA\M191107\MGAS1107.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Nov 08 12:47:04 2019
Response via : Initial Calibration
DataAcq Meth : M8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	5.72	TIC	1286698	25.000	ppb	0.00
3) Chlorobenzene-D5 (IS)	8.97	TIC	1031870m	25.000	ppb	0.00
4) 1,4-Dichlorobenzene (IS)	11.30	TIC	1138720m	25.000	ppb	0.00

System Monitoring Compounds

Target Compounds						Qvalue
2) Gasoline C6-C10	11.30	TIC	17998583m	15.546	ppb	100

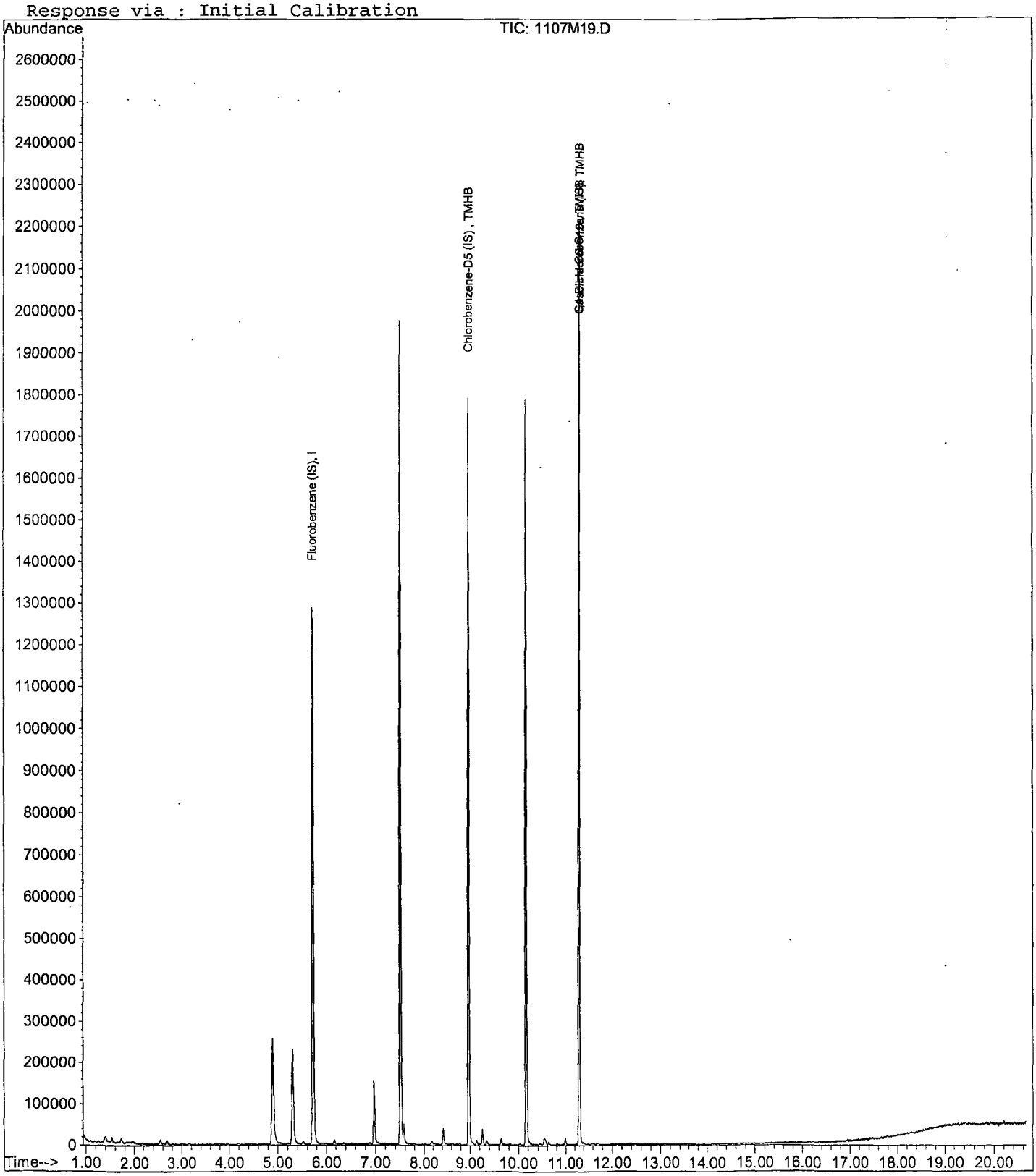
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\MAX\DATA\M191107\1107M19.D Vial: 19
Acq On : 7 Nov 19 23:42 Operator: LP,DG,CMM
Sample : 20ug/L Gas 11/7/19 Inst : Max
Misc : IS&S 9/24/19 Multiplr: 1.00

Quant Time: Nov 8 12:47 2019 Quant Results File: MGAS1107.RES

Method : M:\MAX\DATA\M191107\MGAS1107.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Nov 08 12:47:04 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\MAX\DATA\M191107\1107M20.D Vial: 20
Acq On : 8 Nov 19 00:11 Operator: LP,DG,CMM
Sample : 50ug/L Gas 11/7/19 Inst : Max
Misc : IS&S 9/24/19 Multiplr: 1.00

Quant Time: Nov 8 12:43 2019 Quant Results File: MGAS1107.RES

Quant Method : M:\MAX\DATA\M191107\MGAS1107.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Nov 08 10:38:50 2019
Response via : Initial Calibration
DataAcq Meth : M8260

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene (IS)	5.72	TIC	1251981	25.000 ppb	0.00
3) Chlorobenzene-D5 (IS)	8.97	TIC	1048953m	25.000 ppb	0.00
4) 1,4-Dichlorobenzene (IS)	11.30	TIC	1127573m	25.000 ppb	0.00
System Monitoring Compounds					
Target Compounds					Qvalue
2) Gasoline C6-C10	11.30	TIC	18475157m	44.219 ppb	100

(#) = qualifier out of range (m) = manual integration

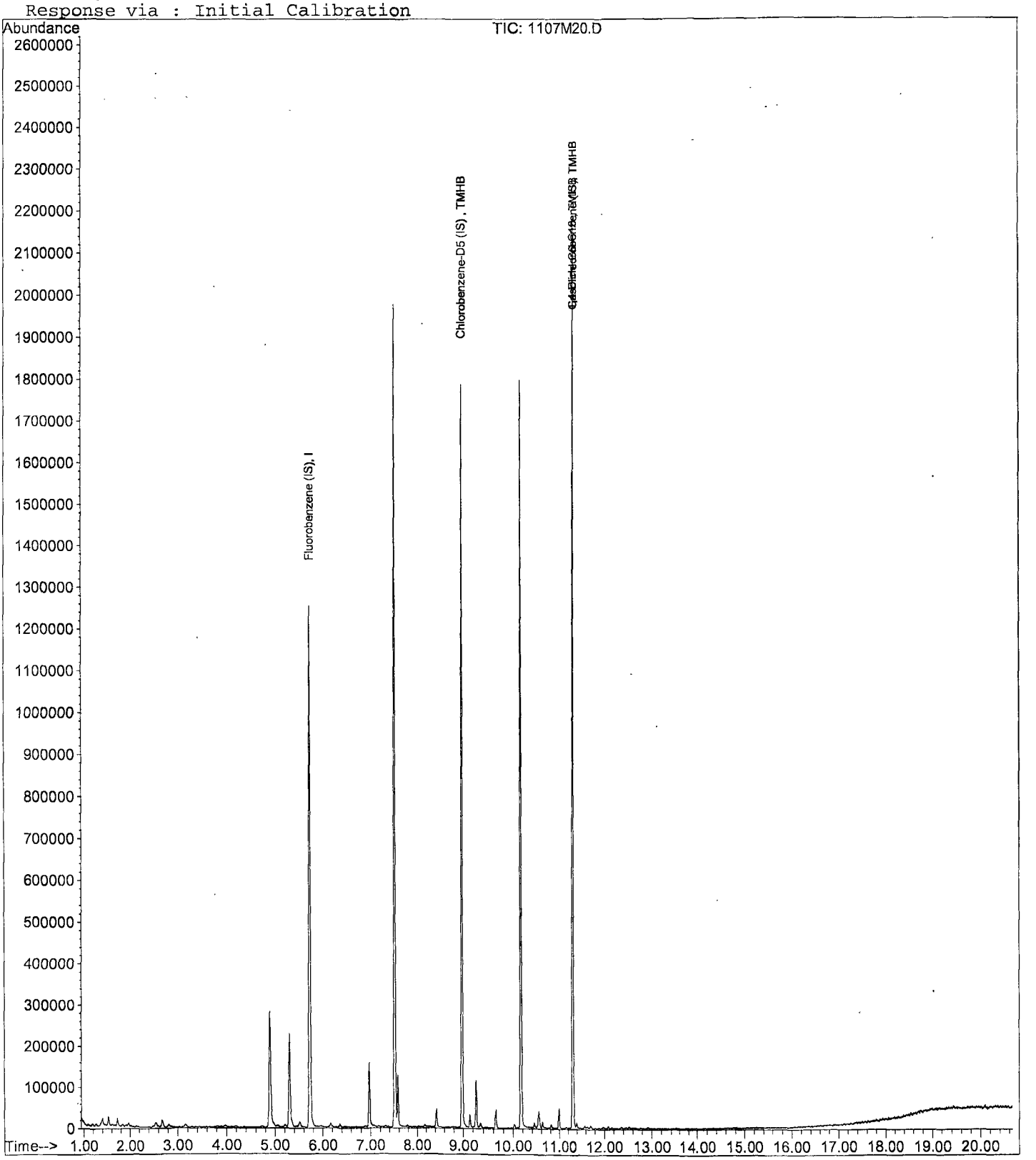
Quantitation Report

Data File : M:\MAX\DATA\M191107\1107M20.D
Acq On : 8 Nov 19 00:11
Sample : 50ug/L Gas 11/7/19
Misc : IS&S 9/24/19

Vial: 20
Operator: LP,DG,CMM
Inst : Max
Multiplr: 1.00

Quant Time: Nov 8 12:43 2019 Quant Results File: MGAS1107.RES

Method : M:\MAX\DATA\M191107\MGAS1107.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Nov 08 12:47:04 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\MAX\DATA\M191107\1107M21.D Vial: 21
Acq On : 8 Nov 19 00:40 Operator: LP,DG,CMM
Sample : 100ug/L Gas 11/7/19 Inst : Max
Misc : IS&S 9/24/19 Multiplr: 1.00

Quant Time: Nov 8 12:43 2019 Quant Results File: MGAS1107.RES

Quant Method : M:\MAX\DATA\M191107\MGAS1107.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Nov 08 10:38:50 2019
Response via : Initial Calibration
DataAcq Meth : M8260

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene (IS)	5.73	TIC	1262653	25.000 ppb	0.00
3) Chlorobenzene-D5 (IS)	8.97	TIC	1124851m	25.000 ppb	0.00
4) 1,4-Dichlorobenzene (IS)	11.30	TIC	1182072m	25.000 ppb	0.00
System Monitoring Compounds					
Target Compounds					Qvalue
2) Gasoline C6-C10	11.30	TIC	19942220m	96.934 ppb	100

(#) = qualifier out of range (m) = manual integration

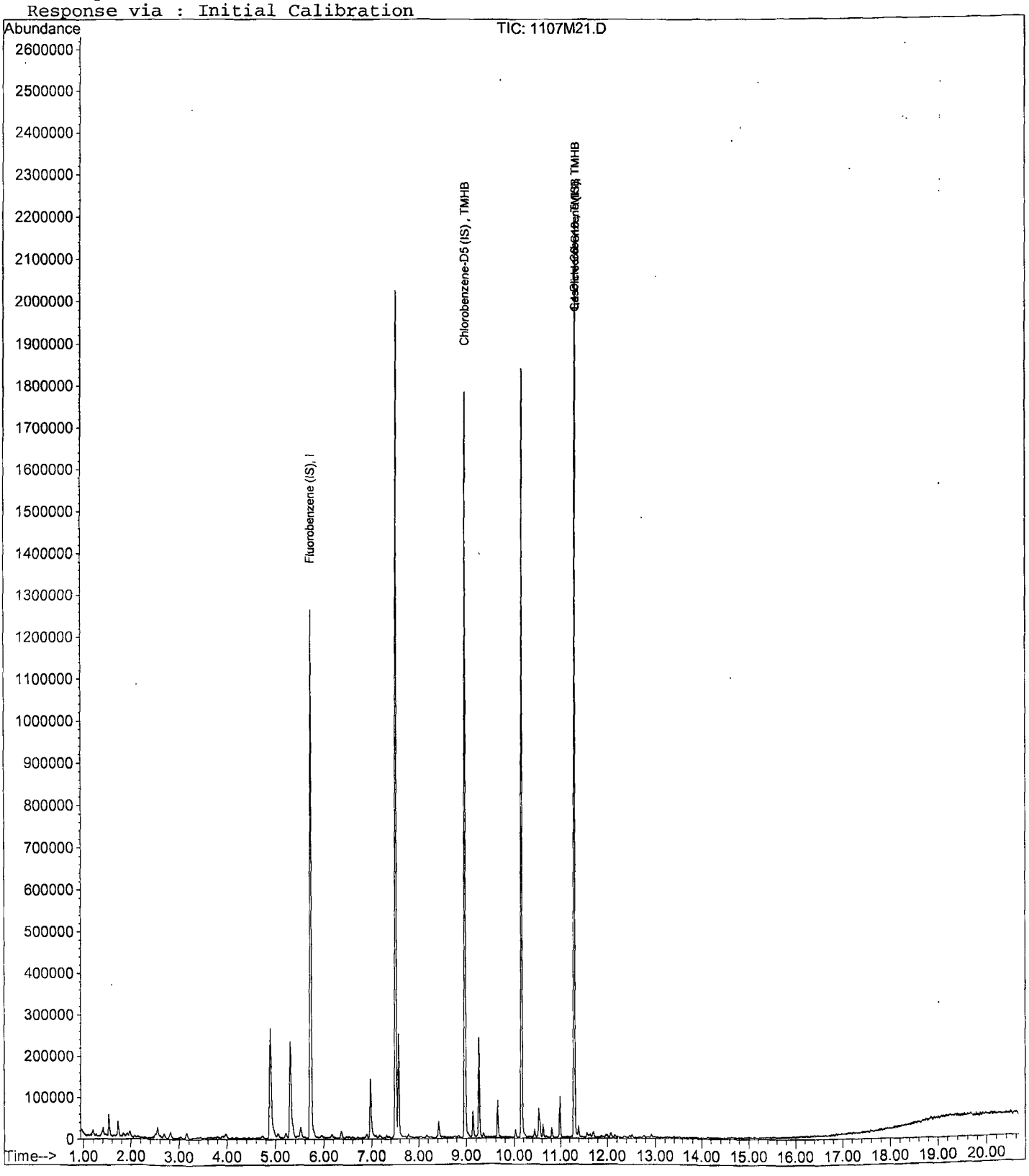
Quantitation Report

Data File : M:\MAX\DATA\M191107\1107M21.D
Acq On : 8 Nov 19 00:40
Sample : 100ug/L Gas 11/7/19
Misc : IS&S 9/24/19

Vial: 21
Operator: LP,DG,CMM
Inst : Max
Multiplr: 1.00

Quant Time: Nov 8 12:43 2019 Quant Results File: MGAS1107.RES

Method : M:\MAX\DATA\M191107\MGAS1107.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Nov 08 12:47:04 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\MAX\DATA\M191107\1107M22.D Vial: 22
Acq On : 8 Nov 19 1:09 Operator: LP,DG,CMM
Sample : 300ug/L Gas 11/7/19 Inst : Max
Misc : IS&S 9/24/19 Multiplr: 1.00

Quant Time: Nov 8 12:44 2019 Quant Results File: MGAS1107.RES

Quant Method : M:\MAX\DATA\M191107\MGAS1107.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Nov 08 10:38:50 2019
Response via : Initial Calibration
DataAcq Meth : M8260

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene (IS)	5.72	TIC	1241499	25.000 ppb	0.00
3) Chlorobenzene-D5 (IS)	8.97	TIC	1288412m	25.000 ppb	0.00
4) 1,4-Dichlorobenzene (IS)	11.30	TIC	1249543m	25.000 ppb	0.00

System Monitoring Compounds

Target Compounds					Qvalue
2) Gasoline C6-C10	11.30	TIC	24540952m	298.880 ppb	100

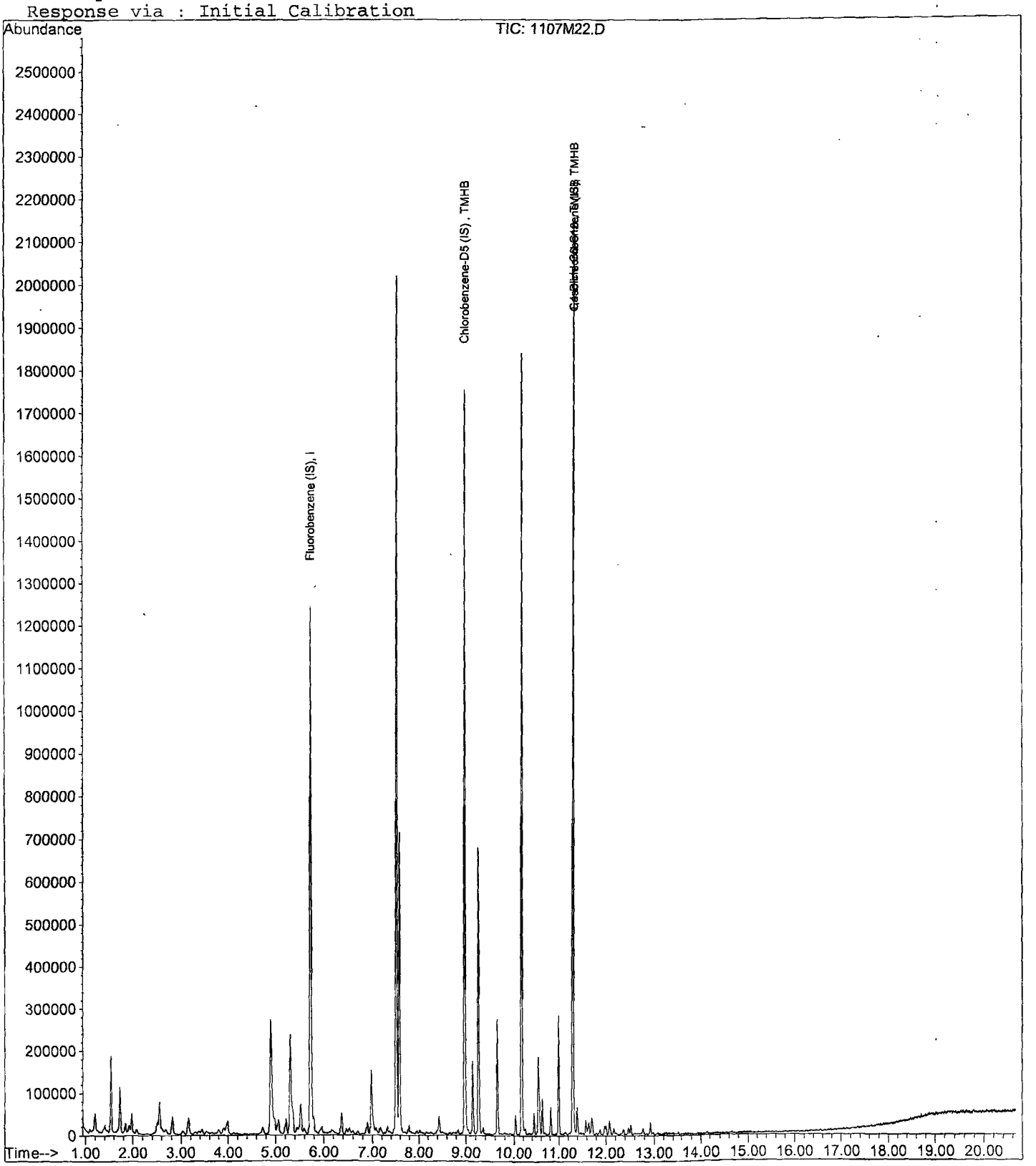
(#) = qualifier out of range (m) = manual integration

Data File : M:\MAX\DATA\M191107\1107M22.D
Acq On : 8 Nov 19 1:09
Sample : 300ug/L Gas 11/7/19
Misc : IS&S 9/24/19

Vial: 22
Operator: LP,DG,CMM
Inst : Max
Multiplr: 1.00

Quant Time: Nov 8 12:44 2019 Quant Results File: MGAS1107.RES

Method : M:\MAX\DATA\M191107\MGAS1107.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Nov 08 12:47:04 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\MAX\DATA\M191107\1107M23.D Vial: 23
Acq On : 8 Nov 19 1:37 Operator: LP,DG,CMM
Sample : 600ug/L Gas 11/7/19 Inst : Max
Misc : IS&S 9/24/19 Multiplr: 1.00

Quant Time: Nov 8 12:44 2019 Quant Results File: MGAS1107.RES

Quant Method : M:\MAX\DATA\M191107\MGAS1107.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Nov 08 10:38:50 2019
Response via : Initial Calibration
DataAcq Meth : M8260

Internal Standards	R.T.	Qion	Response	Conc Units	Dev(Min)
1) Fluorobenzene (IS)	5.72	TIC	1242187	25.000 ppb	0.00
3) Chlorobenzene-D5 (IS)	8.97	TIC	1588413m	25.000 ppb	0.00
4) 1,4-Dichlorobenzene (IS)	11.30	TIC	1334287m	25.000 ppb	0.00

System Monitoring Compounds

Target Compounds					Qvalue
2) Gasoline C6-C10	11.30	TIC	31097912m	566.610 ppb	100

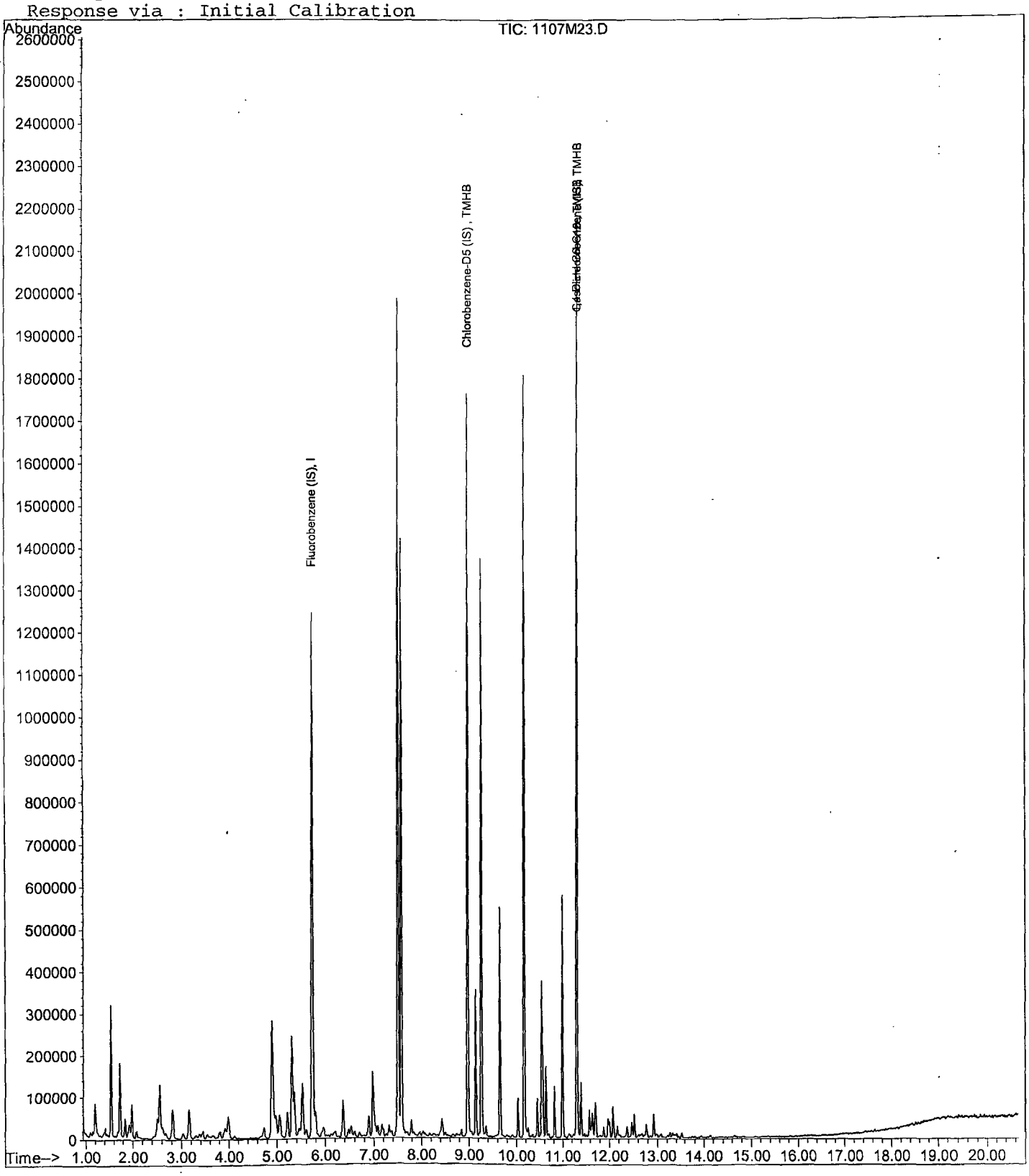
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\MAX\DATA\M191107\1107M23.D Vial: 23
Acq On : 8 Nov 19 1:37 Operator: LP,DG,CMM
Sample : 600ug/L Gas 11/7/19 Inst : Max
Misc : IS&S 9/24/19 Multiplr: 1.00

Quant Time: Nov 8 12:44 2019 Quant Results File: MGAS1107.RES

Method : M:\MAX\DATA\M191107\MGAS1107.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Nov 08 12:47:04 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\MAX\DATA\M191107\1107M24.D Vial: 24
Acq On : 8 Nov 19 2:06 Operator: LP,DG,CMM
Sample : 800ug/L Gas 11/7/19 Inst : Max
Misc : IS&S 9/24/19 Multiplr: 1.00

Quant Time: Nov 8 12:45 2019 Quant Results File: MGAS1107.RES

Quant Method : M:\MAX\DATA\M191107\MGAS1107.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Nov 08 10:38:50 2019
Response via : Initial Calibration
DataAcq Meth : M8260

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene (IS)	5.73	TIC	1229071	25.000 ppb	0.00
3) Chlorobenzene-D5 (IS)	8.97	TIC	1787453m	25.000 ppb	0.00
4) 1,4-Dichlorobenzene (IS)	11.30	TIC	1371444m	25.000 ppb	0.00

System Monitoring Compounds

Target Compounds					Qvalue
2) Gasoline C6-C10	11.30	TIC	36561363m	806.119 ppb	100

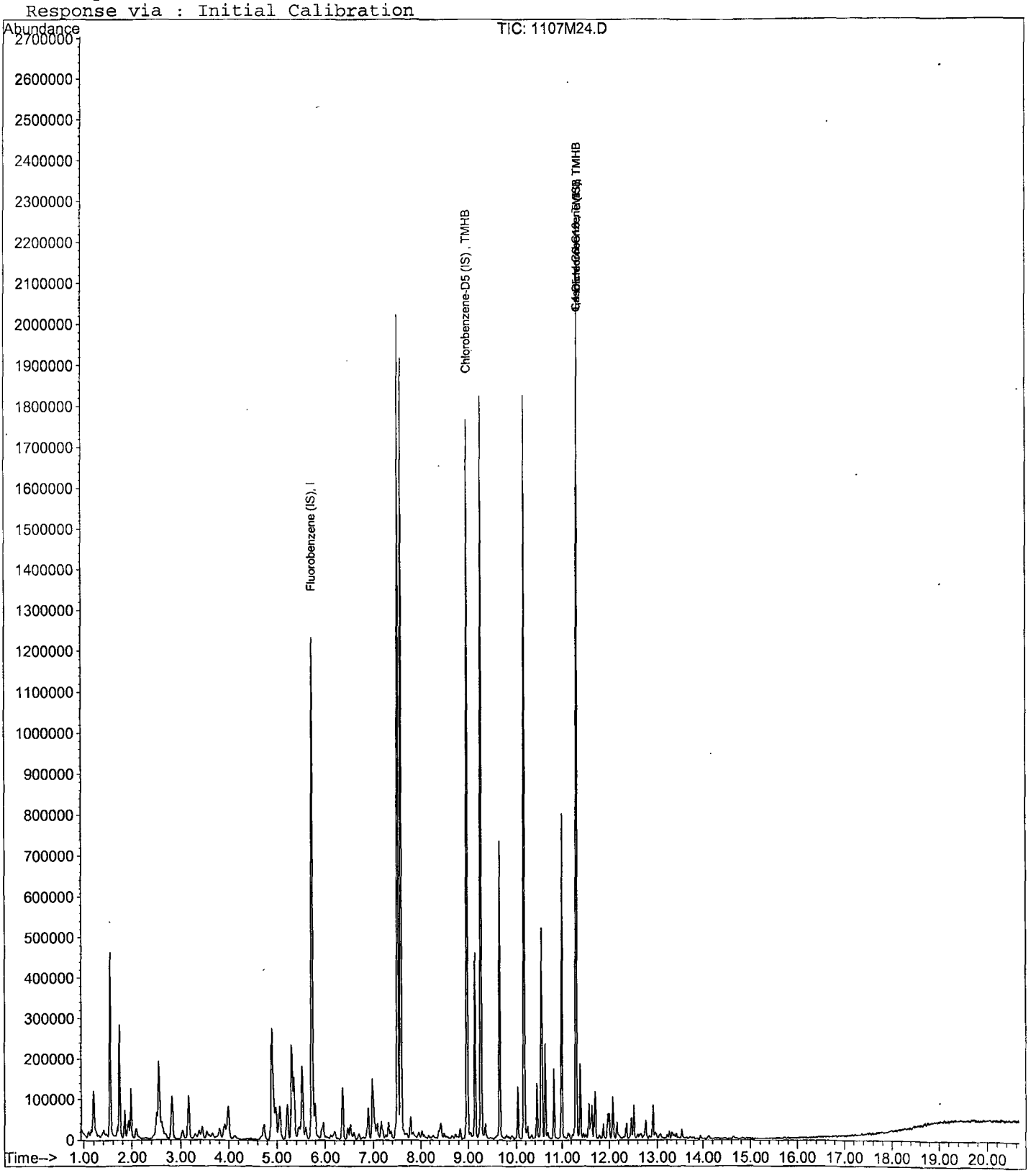
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\MAX\DATA\M191107\1107M24.D Vial: 24
Acq On : 8 Nov 19 2:06 Operator: LP,DG,CMM
Sample : 800ug/L Gas 11/7/19 Inst : Max
Misc : IS&S 9/24/19 Multiplr: 1.00

Quant Time: Nov 8 12:45 2019 Quant Results File: MGAS1107.RES

Method : M:\MAX\DATA\M191107\MGAS1107.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Nov 08 12:47:04 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\MAX\DATA\M191107\1107M25.D Vial: 25
Acq On : 8 Nov 19 2:35 Operator: LP,DG,CMM
Sample : 1000ug/L Gas 11/7/19 Inst : Max
Misc : IS&S 9/24/19 Multiplr: 1.00

Quant Time: Nov 8 12:45 2019 Quant Results File: MGAS1107.RES

Quant Method : M:\MAX\DATA\M191107\MGAS1107.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Nov 08 10:38:50 2019
Response via : Initial Calibration
DataAcq Meth : M8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	5.72	TIC	1206988	25.000	ppb	0.00
3) Chlorobenzene-D5 (IS)	8.97	TIC	1944667m	25.000	ppb	0.00
4) 1,4-Dichlorobenzene (IS)	11.30	TIC	1498057m	25.000	ppb	0.00
System Monitoring Compounds						
Target Compounds						Qvalue
2) Gasoline C6-C10	7.57	TIC	40196818m	986.869	ppb	100

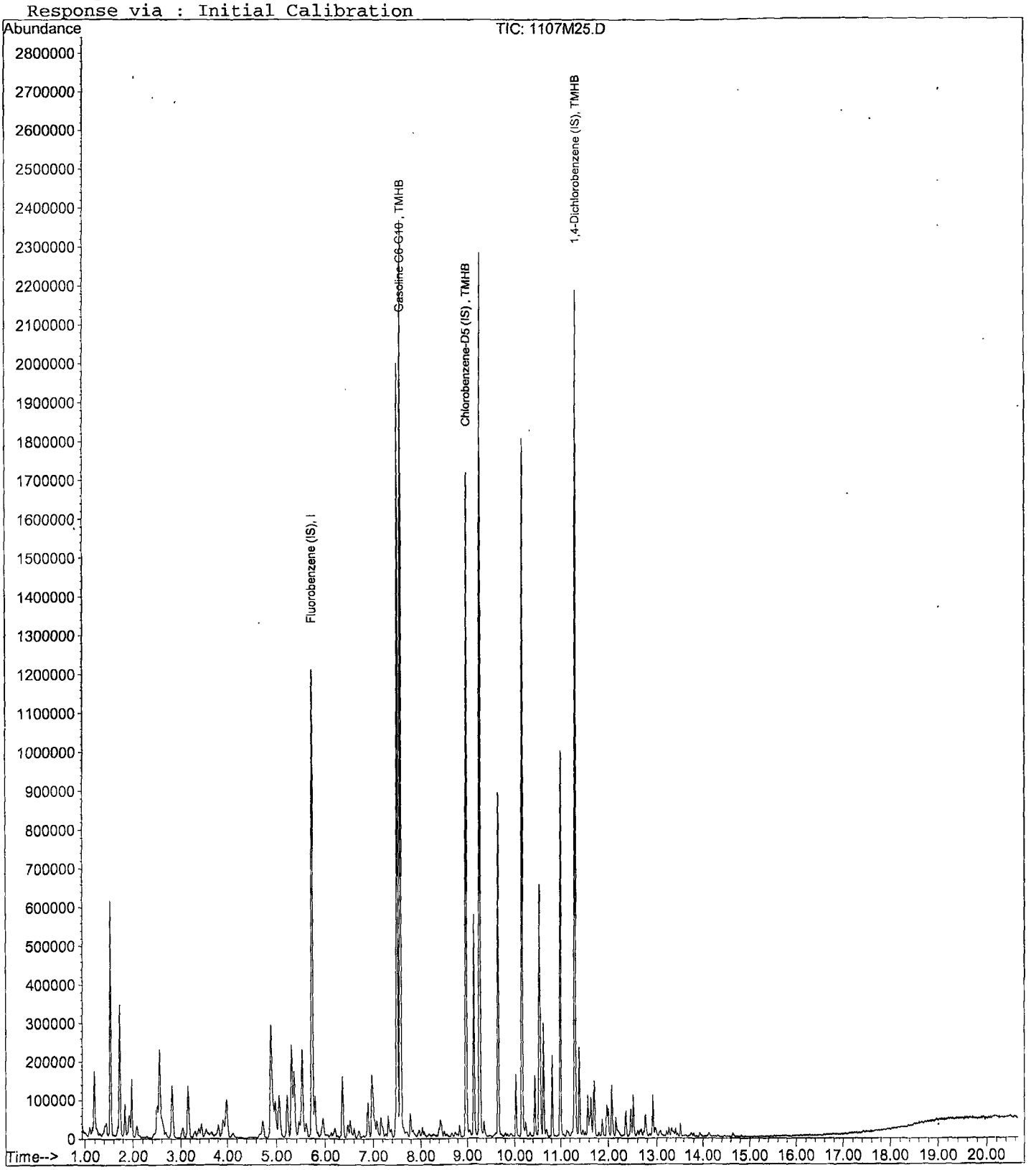
(#) = qualifier out of range (m) = manual integration

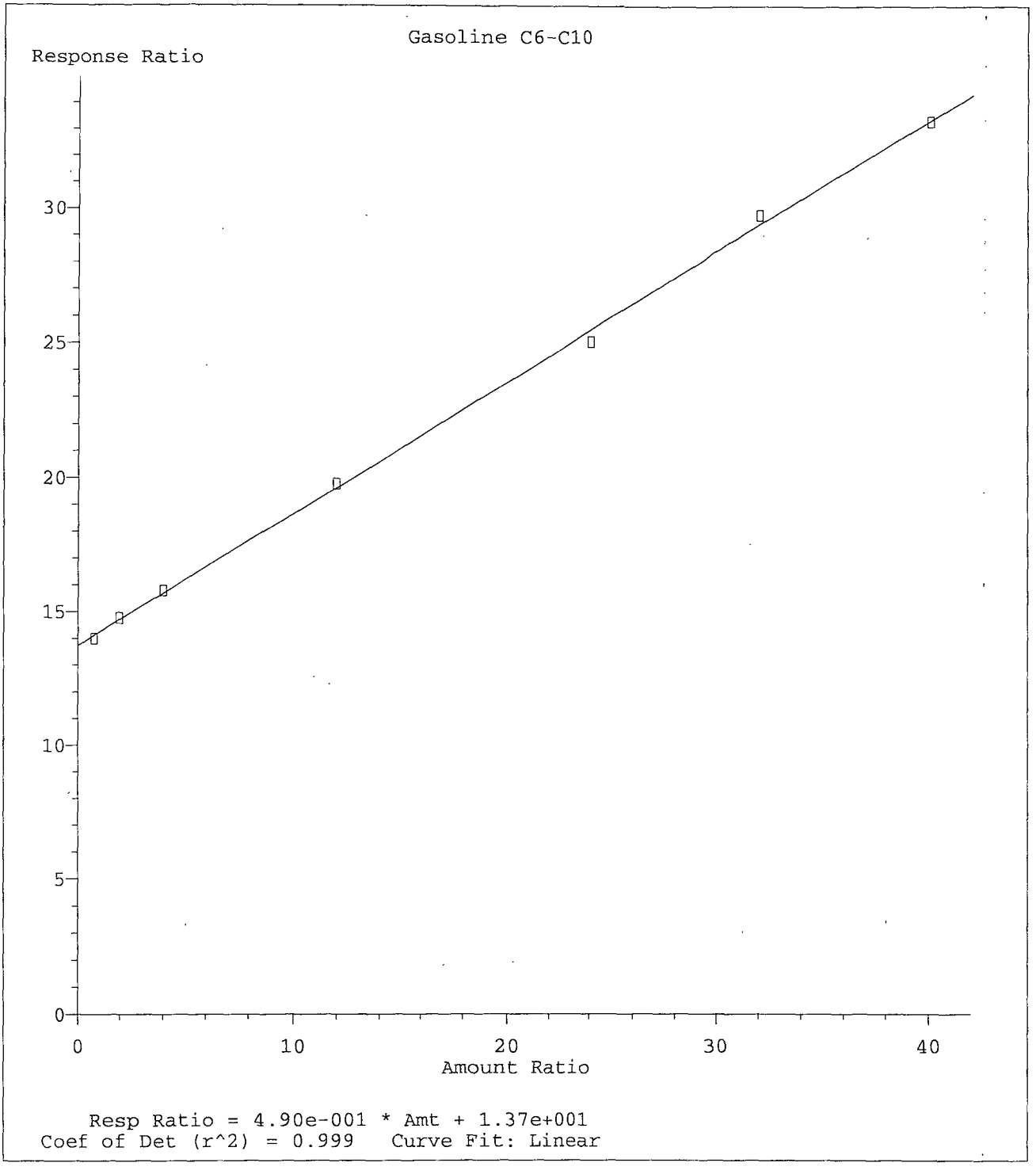
Quantitation Report

Data File : M:\MAX\DATA\M191107\1107M25.D Vial: 25
Acq On : 8 Nov 19 2:35 Operator: LP,DG,CMM
Sample : 1000ug/L Gas 11/7/19 Inst : Max
Misc : IS&S 9/24/19 Multiplr: 1.00

Quant Time: Nov 8 12:45 2019 Quant Results File: MGAS1107.RES

Method : M:\MAX\DATA\M191107\MGAS1107.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Nov 08 12:47:04 2019
Response via : Initial Calibration





Method Name: M:\MAX\DATA\M191107\MGAS1107.M
Calibration Table Last Updated: Fri Nov 08 12:47:04 2019

VOLATILE ORGANIC ANALYSIS
VOLATILE ORGANIC COMPOUNDS

Form 7

Second Source Calibration

Lab Name: APPL, Inc.
Case No:
Matrix:

SDG No:
Date Analyzed: 8 Nov 19 3:32
Instrument: Max
Initial Cal. Date: 11/06/19
Data File: 1107M27.D

		Compound	MEAN	CCRF	%D		%Drift
1	TMHB	Gasoline C6-C10	4.752	1.617	66	TMHBL	3.6
2							
3							
4							
5							
6							
7							
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40							
		Average			66.0		

Quantitation Report (QT Reviewed)

Data File : M:\MAX\DATA\M191107\1107M27.D Vial: 27
Acq On : 8 Nov 19 3:32 Operator: LP,DG,CMM
Sample : (SS) 300ug/L Gas 11/7/19 Inst : Max
Misc : IS&S 9/24/19 Multiplr: 1.00

Quant Time: Nov 8 12:49 2019 Quant Results File: MGAS1107.RES

Quant Method : M:\MAX\DATA\M191107\MGAS1107.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Nov 08 12:47:04 2019
Response via : Initial Calibration
DataAcq Meth : M8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	5.73	TIC	1307038	25.000	ppb	0.00
3) Chlorobenzene-D5 (IS)	8.97	TIC	1382709m	25.000	ppb	0.00
4) 1,4-Dichlorobenzene (IS)	11.30	TIC	1289449m	25.000	ppb	0.00

System Monitoring Compounds

Target Compounds						Qvalue
2) Gasoline C6-C10	11.30	TIC	25359403m	289.284	ppb	100

(#) = qualifier out of range (m) = manual integration

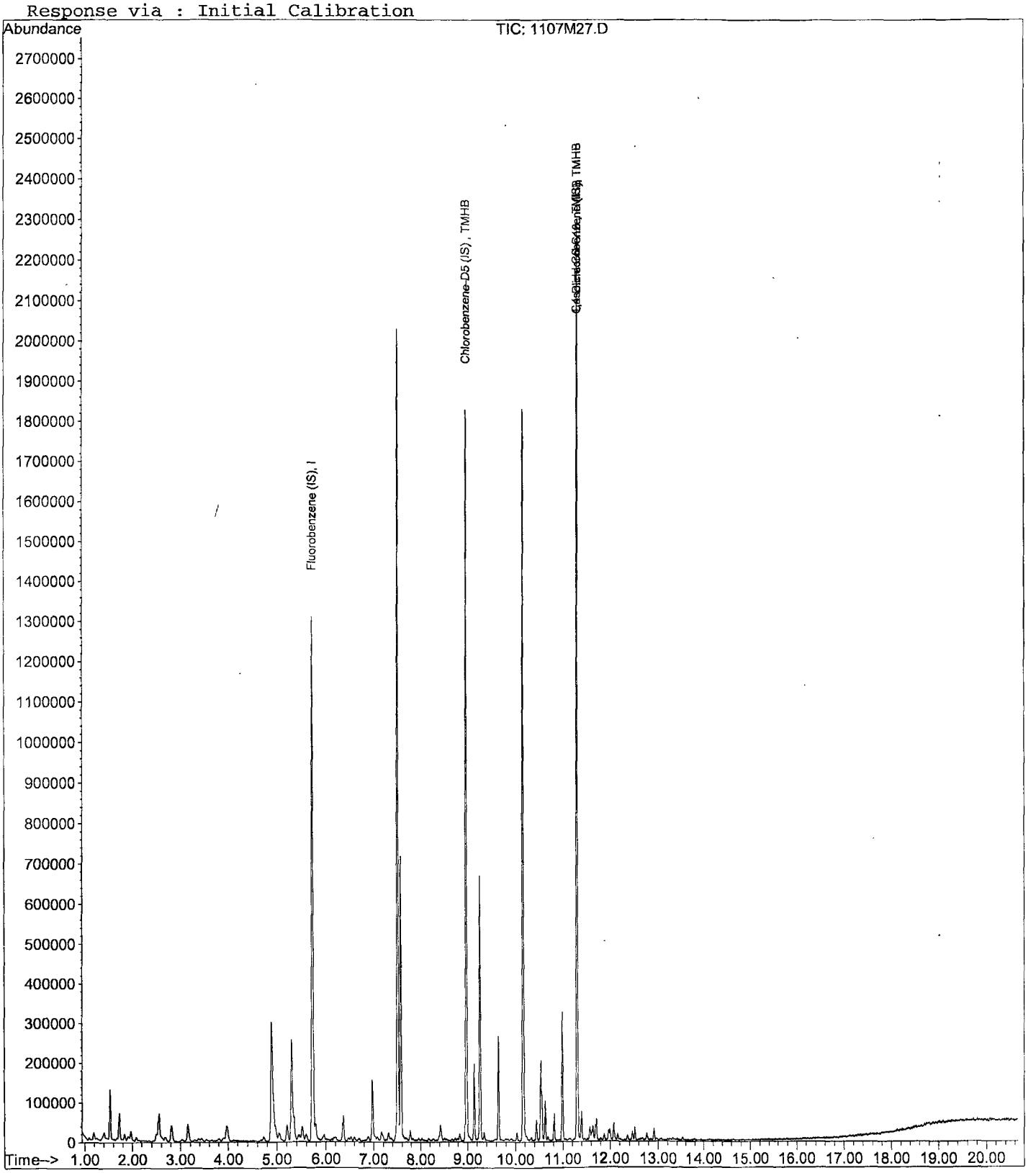
Quantitation Report

Data File : M:\MAX\DATA\M191107\1107M27.D
Acq On : 8 Nov 19 3:32
Sample : (SS) 300ug/L Gas 11/7/19
Misc : IS&S 9/24/19

Vial: 27
Operator: LP,DG,CMM
Inst : Max
Multiplr: 1.00

Quant Time: Nov 8 12:49 2019 Quant Results File: MGAS1107.RES

Method : M:\MAX\DATA\M191107\MGAS1107.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Nov 08 12:47:04 2019
Response via : Initial Calibration



VOLATILE ORGANIC ANALYSIS
VOLATILE ORGANIC COMPOUNDS

Form 7

Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix:

SDG No:
Date Analyzed: 8 Nov 19 5:56
Instrument: Max
Initial Cal. Date: 11/06/19
Data File: 1107M32.D

		Compound	MEAN	CCRF	%D	%Drift	
1	I	Fluorobenzene (IS)	ISTD			I	
2	TMHB	Gasoline C6-C10	4.752	1.645	65	TMHBL	2.2
3	TMHB	Chlorobenzene-D5 (IS)	ISTD			TMHB	
4	TMHB	1,4-Dichlorobenzene (IS)	ISTD			TMHB	
5							
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39							
40							
		Average			65.0		

VOLATILE ORGANIC ANALYSIS BY
EPA METHOD 8260B

Form 7

Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix:

SDG No:
Date Analyzed: 8 Nov 19 5:56
Instrument: Max
Initial Cal. Date: 11/06/19
Data File: 1107M32.D

		Compound	MEAN	CCRF	%D	%Drift	
1	I	Fluorobenzene (IS)	ISTD			I	
2	SL	Dibromofluoromethane(S)	0.1582	0.1918	21	SL	1.2
3	SL	1,2-DCA-D4(S)	0.1385	0.1842	33	SL	12
4	I	Chlorobenzene-D5 (IS)	ISTD			I	
5	S	Toluene-D8(S)	1.158	1.277	10	S	
6	S	4-Bromofluorobenzene(S)	0.4325	0.4749	9.8	S	
7	I	1,4-Dichlorobenzene-D (IS)	ISTD			I	
8							
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		Average			18.5		

Quantitation Report (QT Reviewed)

Data File : M:\MAX\DATA\M191107\1107M32.D Vial: 32
Acq On : 8 Nov 19 5:56 Operator: LP,DG,CMM
Sample : 191107B CCV 300ug/L Inst : Max
Misc : IS&S 9/24/19 Multiplr: 1.00

Quant Time: Nov 8 12:50 2019 Quant Results File: MGAS1107.RES

Quant Method : M:\MAX\DATA\M191107\MGAS1107.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Nov 08 12:47:04 2019
Response via : Initial Calibration
DataAcq Meth : M8260

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene (IS)	5.73	TIC	1284527	25.000 ppb	0.00
3) Chlorobenzene-D5 (IS)	8.97	TIC	1349591m	25.000 ppb	0.00
4) 1,4-Dichlorobenzene (IS)	11.30	TIC	1325871m	25.000 ppb	0.00
System Monitoring Compounds					
Target Compounds					Qvalue
2) Gasoline C6-C10	11.30	TIC	25360115m	306.646 ppb	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M191107\1107M32.D Vial: 32
Acq On : 8 Nov 19 5:56 Operator: LP,DG,CMM
Sample : 191107B CCV 300ug/L Inst : Max
Misc : IS&S 9/24/19 Multiplr: 1.00

Quant Time: Nov 8 13:03 2019 Quant Results File: MSUR1106.RES

Quant Method : M:\MAX\DATA\M191107\MSUR1106.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 07 14:27:44 2019
Response via : Initial Calibration
DataAcq Meth : M8260

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene (IS)	5.73	96	1308732	25.0000 ppb	0.00
4) Chlorobenzene-D5 (IS)	8.97	117	1073210	25.0000 ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	11.30	152	680550	25.0000 ppb	0.00
System Monitoring Compounds					
2) Dibromofluoromethane(S)	4.90	111	251053	25.3061 ppb	0.01
Spiked Amount 25.000			Recovery	= 101.224%	
3) 1,2-DCA-D4(S)	5.30	65	241033	28.1196 ppb	0.00
Spiked Amount 25.000			Recovery	= 112.480%	
5) Toluene-D8(S)	7.51	98	1370396	27.5762 ppb	0.00
Spiked Amount 25.000			Recovery	= 110.304%	
6) 4-Bromofluorobenzene(S)	10.16	95	509674	27.4498 ppb	0.00
Spiked Amount 25.000			Recovery	= 109.800%	

Target Compounds Qvalue

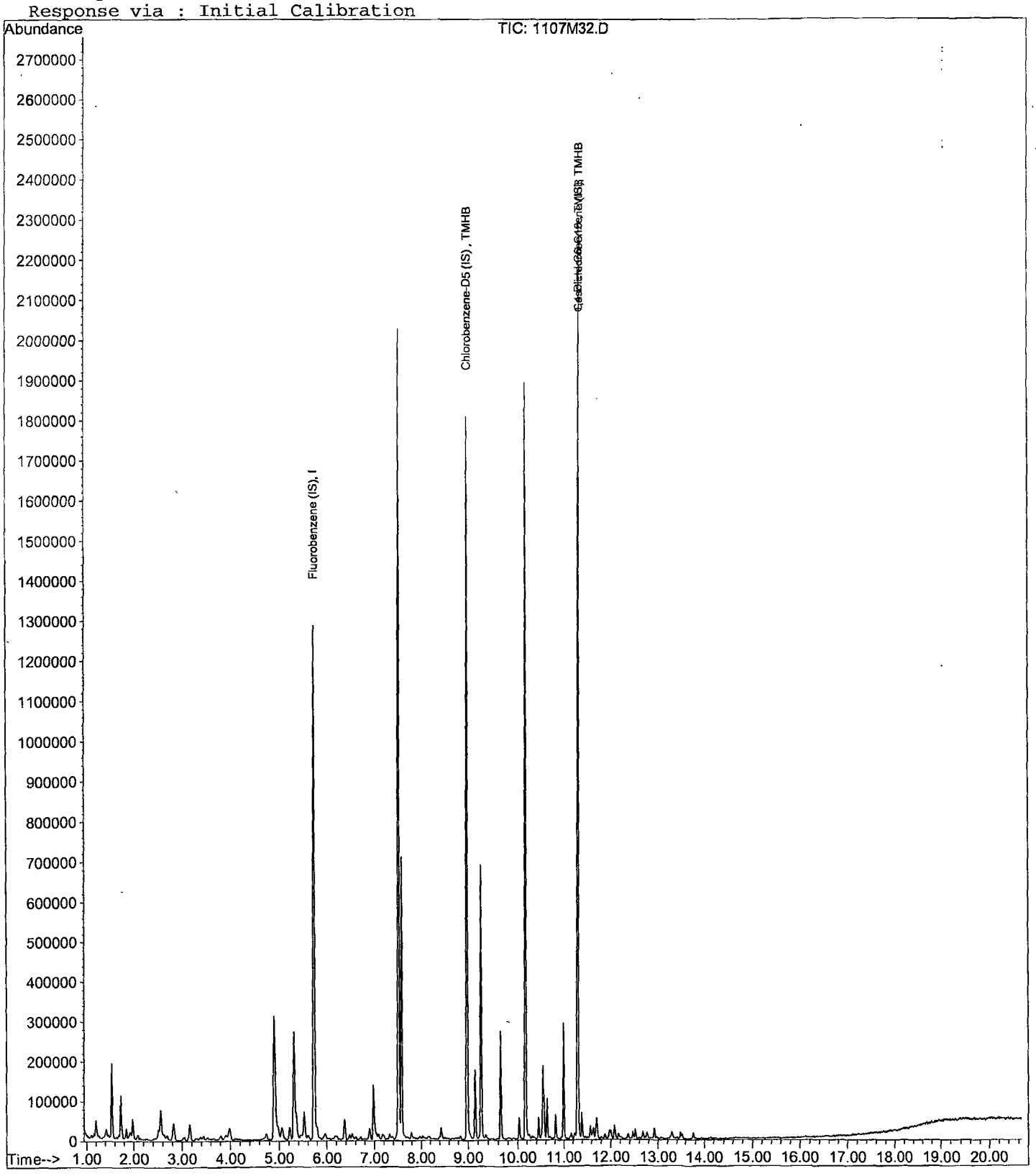
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\MAX\DATA\M191107\1107M32.D Vial: 32
Acq On : 8 Nov 19 5:56 Operator: LP,DG,CMM
Sample : 191107B CCV 300ug/L Inst : Max
Misc : IS&S 9/24/19 Multiplr: 1.00

Quant Time: Nov 8 12:50 2019 Quant Results File: MGAS1107.RES

Method : M:\MAX\DATA\M191107\MGAS1107.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Nov 08 12:47:04 2019
Response via : Initial Calibration



VOLATILE ORGANIC ANALYSIS
VOLATILE ORGANIC COMPOUNDS

Form 7

Ending Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix:

SDG No:
Date Analyzed: 8 Nov 19 10:15
Instrument: Max
Initial Cal. Date: 11/06/19
Data File: 1107M41.D

		Compound	MEAN	CCRF	%D	%Drift	
1	I	Fluorobenzene (IS)	ISTD			I	
2	TMHB	Gasoline C6-C10	4.752	1.547	67	TMHBL	18
3	TMHB	Chlorobenzene-D5 (IS)	ISTD			TMHB	
4	TMHB	1,4-Dichlorobenzene (IS)	ISTD			TMHB	
5							
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40							
		Average			67.0		

VOLATILE ORGANIC ANALYSIS BY
EPA METHOD 8260B

Form 7

Ending Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix:

SDG No:
Date Analyzed: 8 Nov 19 10:15
Instrument: Max
Initial Cal. Date: 11/06/19
Data File: 1107M41.D

		Compound	MEAN	CCRF	%D		%Drift
1	I	Fluorobenzene (IS)	ISTD			I	
2	SL	Dibromofluoromethane(S)	0.1582	0.1745	10	SL	6.1
3	SL	1,2-DCA-D4(S)	0.1385	0.1552	12	SL	2.1
4	I	Chlorobenzene-D5 (IS)	ISTD			I	
5	S	Toluene-D8(S)	1.158	1.217	5.1	S	
6	S	4-Bromofluorobenzene(S)	0.4325	0.4547	5.1	S	
7	I	1,4-Dichlorobenzene-D (IS)	ISTD			I	
8							
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40							
		Average			8.1		

Quantitation Report (QT Reviewed)

Data File : M:\MAX\DATA\M191107\1107M41.D Vial: 41
Acq On : 8 Nov 19 10:15 Operator: LP,DG,CMM
Sample : Ending CCV 300ug/L 11/7/19 Inst : Max
Misc : IS&S 9/24/19 Multiplr: 1.00

Quant Time: Nov 8 13:09 2019 Quant Results File: MGAS1107.RES

Quant Method : M:\MAX\DATA\M191107\MGAS1107.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Nov 08 12:47:04 2019
Response via : Initial Calibration
DataAcq Meth : M8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	5.72	TIC	1278329	25.000	ppb	0.00
3) Chlorobenzene-D5 (IS)	8.97	TIC	1284452m	25.000	ppb	0.00
4) 1,4-Dichlorobenzene (IS)	11.30	TIC	1241537m	25.000	ppb	0.00

System Monitoring Compounds

Target Compounds						Qvalue
2) Gasoline C6-C10	11.30	TIC	23729037m	246.481	ppb	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M191107\1107M41.D Vial: 41
Acq On : 8 Nov 19 10:15 Operator: LP,DG,CMM
Sample : Ending CCV 300ug/L 11/7/19 Inst : Max
Misc : IS&S 9/24/19 Multiplr: 1.00

Quant Time: Nov 12 14:40 2019 Quant Results File: MSUR1106.RES

Quant Method : M:\MAX\DATA\M191107\MSUR1106.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 07 14:27:44 2019
Response via : Initial Calibration
DataAcq Meth : M8260

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene (IS)	5.72	96	1312637	25.0000 ppb	0.00
4) Chlorobenzene-D5 (IS)	8.97	117	1084434	25.0000 ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	11.30	152	703472	25.0000 ppb	0.00
System Monitoring Compounds					
2) Dibromofluoromethane(S)	4.90	111	229076	23.4642 ppb	0.00
Spiked Amount 25.000			Recovery =	93.856%	
3) 1,2-DCA-D4(S)	5.30	65	203745	24.4859 ppb	0.00
Spiked Amount 25.000			Recovery =	97.944%	
5) Toluene-D8(S)	7.51	98	1319818	26.2835 ppb	0.00
Spiked Amount 25.000			Recovery =	105.136%	
6) 4-Bromofluorobenzene(S)	10.16	95	493066	26.2805 ppb	0.00
Spiked Amount 25.000			Recovery =	105.124%	

Target Compounds Qvalue

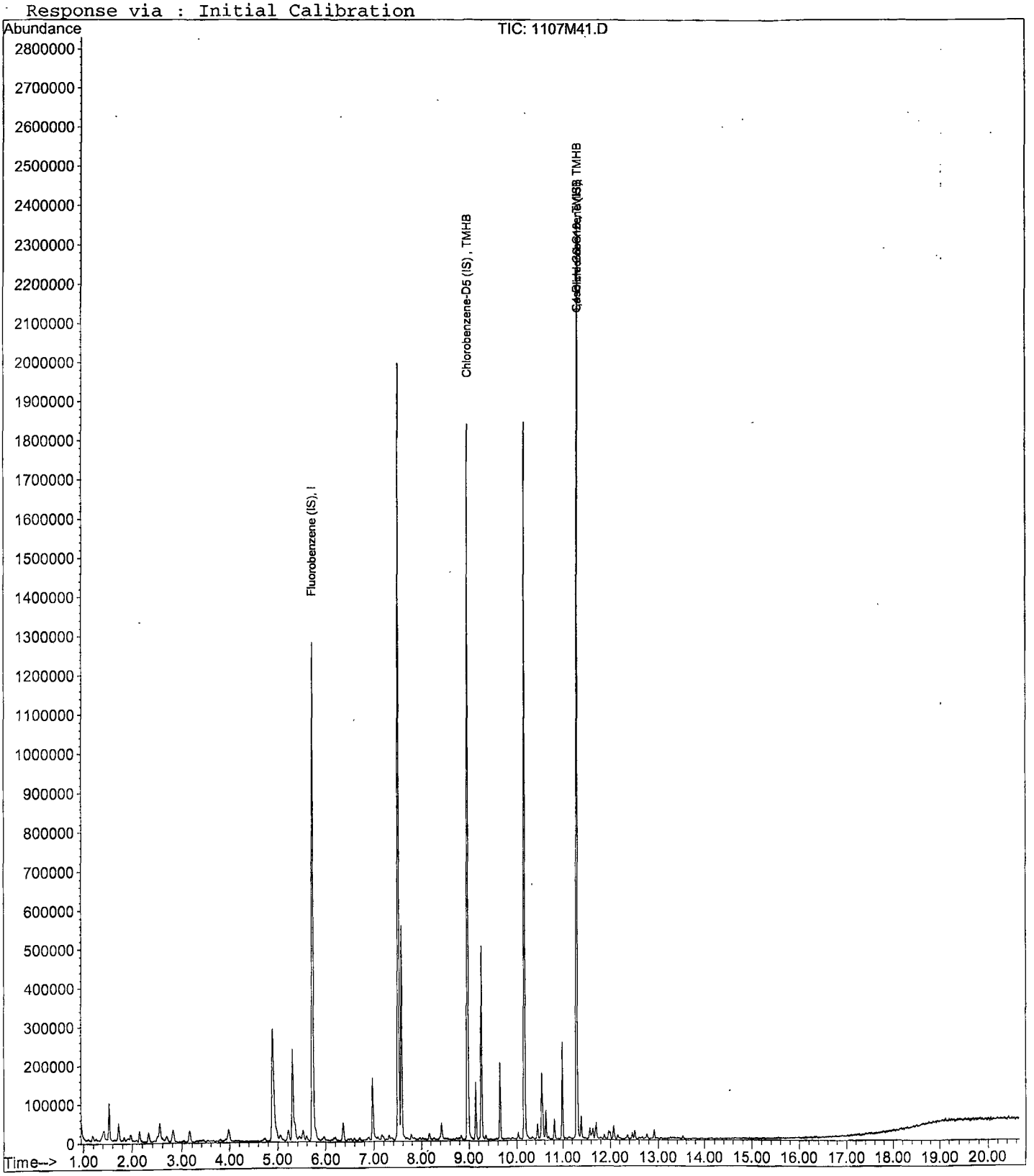
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\MAX\DATA\M191107\1107M41.D Vial: 41
Acq On : 8 Nov 19 10:15 Operator: LP,DG,CMM
Sample : Ending CCV 300ug/L 11/7/19 Inst : Max
Misc : IS&S 9/24/19 Multiplr: 1.00

Quant Time: Nov 8 13:09 2019 Quant Results File: MGAS1107.RES

Method : M:\MAX\DATA\M191107\MGAS1107.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Nov 08 12:47:04 2019
Response via : Initial Calibration



ORGANICS
Raw Data

Quantitation Report (QT Reviewed)

Data File : M:\MAX\DATA\M191107\1107M38.D Vial: 38
Acq On : 8 Nov 19 8:48 Operator: LP,DG,CMM
Sample : BA02465W01 Inst : Max
Misc : IS&S 9/24/19 Multiplr: 1.00

Quant Time: Dec 5 13:24 2019 Quant Results File: MGAS1107.RES

Quant Method : M:\MAX\DATA\M191107\MGAS1107.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Nov 08 12:47:04 2019
Response via : Initial Calibration
DataAcq Meth : M8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	5.72	TIC	1309501	25.000	ppb	0.00
3) Chlorobenzene-D5 (IS)	8.97	TIC	1074318m	25.000	ppb	0.00
4) 1,4-Dichlorobenzene (IS)	11.30	TIC	1193784m	25.000	ppb	0.00

System Monitoring Compounds

Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration
1107M38.D MGAS1107.M Thu Dec 05 13:24:25 2019 Page 1

Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M191107\1107M38.D Vial: 38
Acq On : 8 Nov 19 8:48 Operator: LP,DG,CMM
Sample : BA02465W01 Inst : Max
Misc : IS&S 9/24/19 Multiplr: 1.00

Quant Time: Nov 8 13:03 2019 Quant Results File: MSUR1106.RES

Quant Method : M:\MAX\DATA\M191107\MSUR1106.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 07 14:27:44 2019
Response via : Initial Calibration
DataAcq Meth : M8260

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene (IS)	5.72	96	1357244	25.0000 ppb	0.00
4) Chlorobenzene-D5 (IS)	8.97	117	1087009	25.0000 ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	11.30	152	689415	25.0000 ppb	0.00
System Monitoring Compounds					
2) Dibromofluoromethane(S)	4.89	111	237244	23.4943 ppb	0.00
Spiked Amount 25.000			Recovery = 93.976%		
3) 1,2-DCA-D4(S)	5.30	65	220263	25.3730 ppb	0.00
Spiked Amount 25.000			Recovery = 101.492%		
5) Toluene-D8(S)	7.51	98	1348337	26.7879 ppb	0.00
Spiked Amount 25.000			Recovery = 107.152%		
6) 4-Bromofluorobenzene(S)	10.16	95	493481	26.2403 ppb	0.00
Spiked Amount 25.000			Recovery = 104.960%		

Target Compounds Qvalue

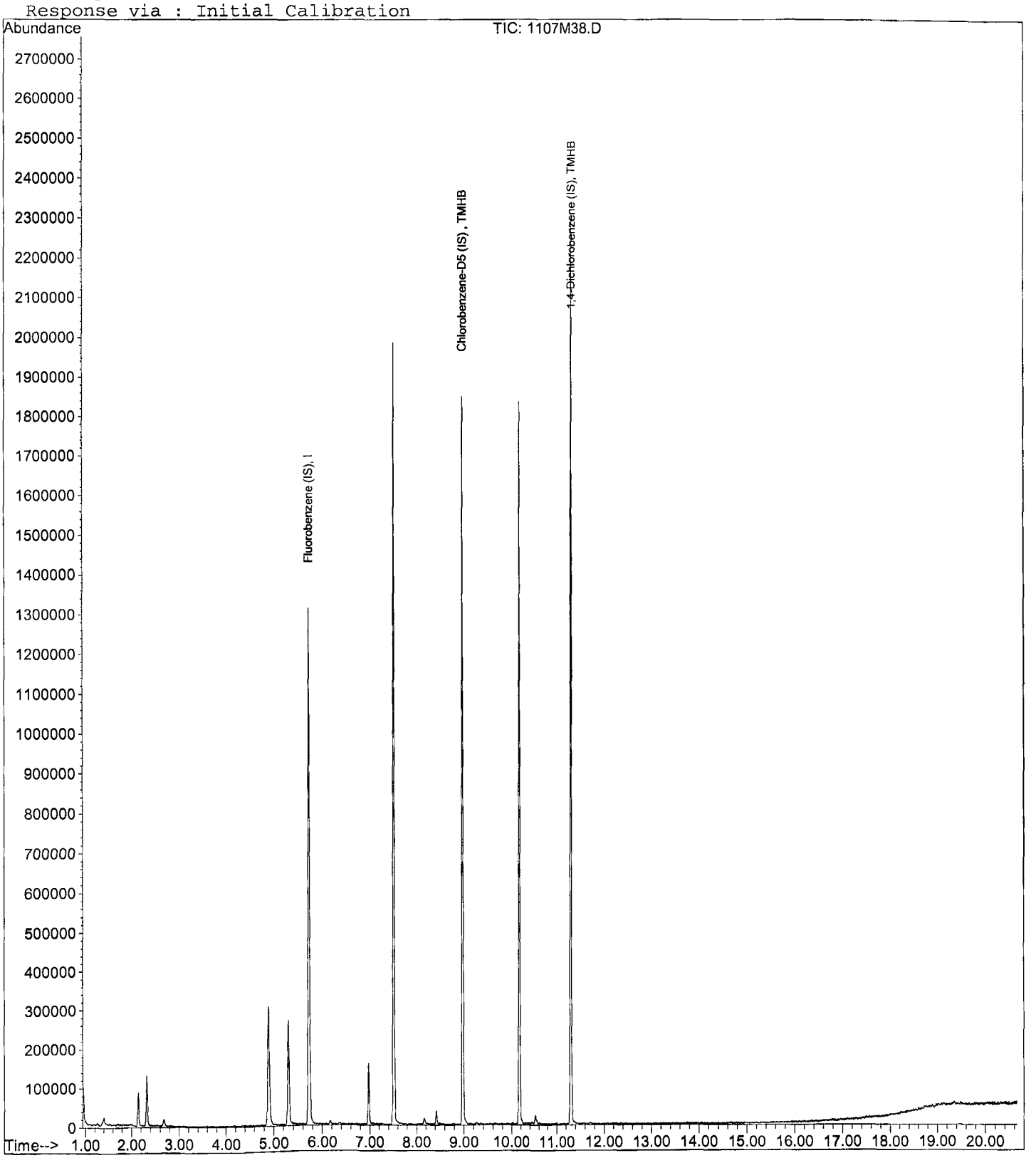
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\MAX\DATA\M191107\1107M38.D Vial: 38
Acq On : 8 Nov 19 8:48 Operator: LP,DG,CMM
Sample : BA02465W01 Inst : Max
Misc : IS&S 9/24/19 Multiplr: 1.00

Quant Time: Dec 5 13:24 2019 Quant Results File: MGAS1107.RES

Method : M:\MAX\DATA\M191107\MGAS1107.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Nov 08 12:47:04 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\MAX\DATA\M191107\1107M37.D
Acq On : 8 Nov 19 8:19
Sample : BA02466W01
Misc : IS&S 9/24/19

Vial: 37
Operator: LP,DG,CMM
Inst : Max
Multiplr: 1.00

Quant Time: Dec 5 13:24 2019 Quant Results File: MGAS1107.RES

Quant Method : M:\MAX\DATA\M191107\MGAS1107.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Nov 08 12:47:04 2019
Response via : Initial Calibration
DataAcq Meth : M8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	5.73	TIC	1276519	25.000	ppb	0.00
3) Chlorobenzene-D5 (IS)	8.97	TIC	1048273m	25.000	ppb	0.00
4) 1,4-Dichlorobenzene (IS)	11.30	TIC	1198562m	25.000	ppb	0.00

System Monitoring Compounds

Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M191107\1107M37.D Vial: 37
Acq On : 8 Nov 19 8:19 Operator: LP,DG,CMM
Sample : BA02466W01 Inst : Max
Misc : IS&S 9/24/19 Multiplr: 1.00

Quant Time: Nov 8 13:03 2019 Quant Results File: MSUR1106.RES

Quant Method : M:\MAX\DATA\M191107\MSUR1106.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 07 14:27:44 2019
Response via : Initial Calibration
DataAcq Meth : M8260

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene (IS)	5.72	96	1327071	25.0000 ppb	0.00
4) Chlorobenzene-D5 (IS)	8.97	117	1088938	25.0000 ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	11.30	152	693070	25.0000 ppb	0.00
System Monitoring Compounds					
2) Dibromofluoromethane(S)	4.89	111	296372	28.6573 ppb	0.00
Spiked Amount 25.000			Recovery = 114.628%		
3) 1,2-DCA-D4(S)	5.30	65	270928	30.6272 ppb	0.00
Spiked Amount 25.000			Recovery = 122.508%		
5) Toluene-D8(S)	7.51	98	1354049	26.8537 ppb	0.00
Spiked Amount 25.000			Recovery = 107.416%		
6) 4-Bromofluorobenzene(S)	10.16	95	504993	26.8049 ppb	0.00
Spiked Amount 25.000			Recovery = 107.220%		

Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration

Quantitation Report

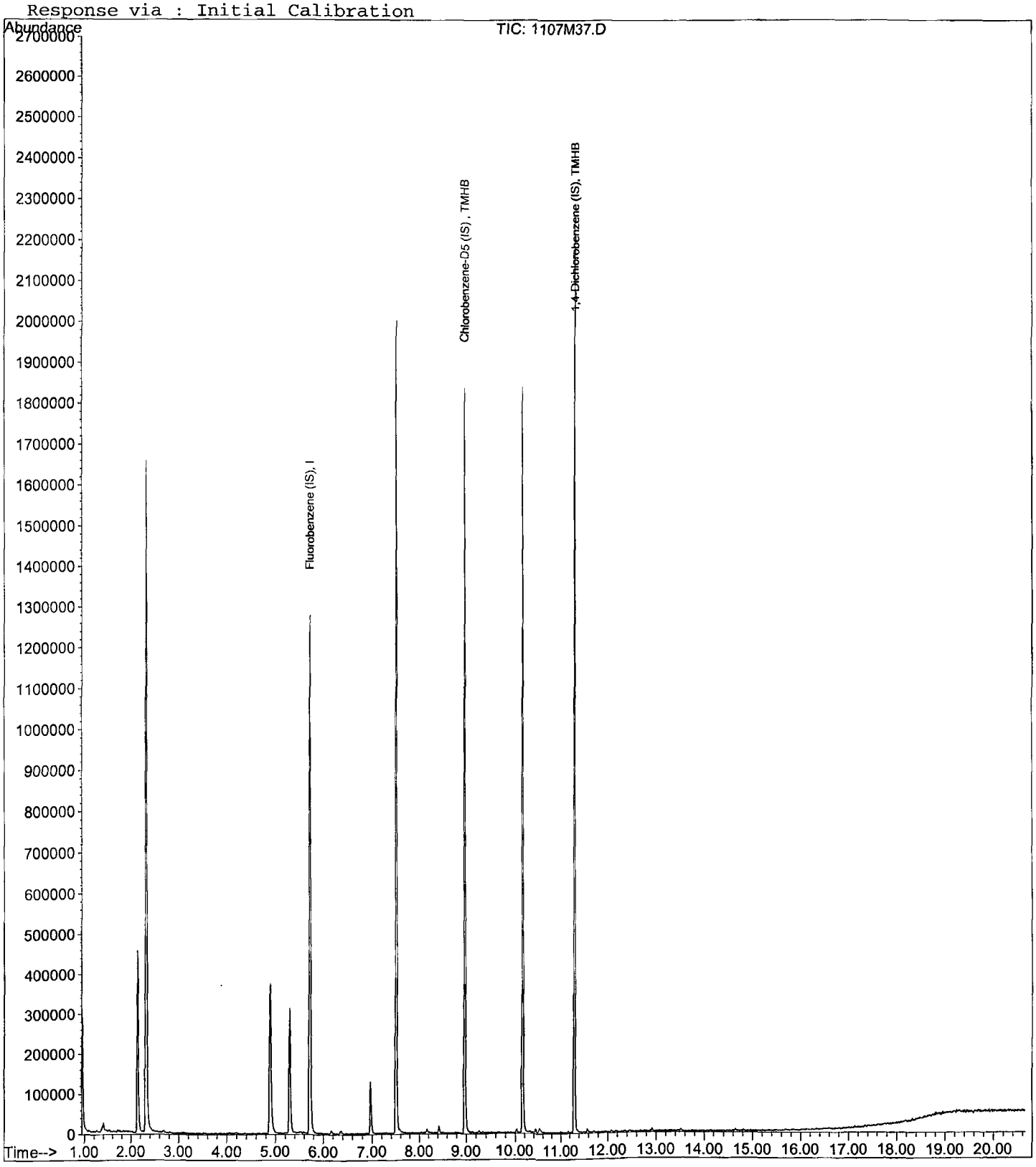
Data File : M:\MAX\DATA\M191107\1107M37.D
Acq On : 8 Nov 19 8:19
Sample : BA02466W01
Misc : IS&S 9/24/19

Vial: 37
Operator: LP,DG,CMM
Inst : Max
Multiplr: 1.00

Quant Time: Dec 5 13:24 2019

Quant Results File: MGAS1107.RES

Method : M:\MAX\DATA\M191107\MGAS1107.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Nov 08 12:47:04 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\MAX\DATA\M191107\1107M35.D Vial: 35
Acq On : 8 Nov 19 7:22 Operator: LP,DG,CMM
Sample : 191107B Blk Inst : Max
Misc : IS&S 9/24/19 Multiplr: 1.00

Quant Time: Nov 8 12:57 2019 Quant Results File: MGAS1107.RES

Quant Method : M:\MAX\DATA\M191107\MGAS1107.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Nov 08 12:47:04 2019
Response via : Initial Calibration
DataAcq Meth : M8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	5.72	TIC	1312443	25.000	ppb	0.00
3) Chlorobenzene-D5 (IS)	8.97	TIC	1089364m	25.000	ppb	0.00
4) 1,4-Dichlorobenzene (IS)	11.30	TIC	1149314m	25.000	ppb	0.00

System Monitoring Compounds

Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M191107\1107M35.D Vial: 35
Acq On : 8 Nov 19 7:22 Operator: LP,DG,CMM
Sample : 191107B Blk Inst : Max
Misc : IS&S 9/24/19 Multiplr: 1.00

Quant Time: Nov 8 13:03 2019 Quant Results File: MSUR1106.RES

Quant Method : M:\MAX\DATA\M191107\MSUR1106.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 07 14:27:44 2019
Response via : Initial Calibration
DataAcq Meth : M8260

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene (IS)	5.72	96	1349098	25.0000 ppb	0.00
4) Chlorobenzene-D5 (IS)	8.98	117	1091129	25.0000 ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	11.30	152	672344	25.0000 ppb	0.00
System Monitoring Compounds					
2) Dibromofluoromethane(S)	4.90	111	226953	22.7950 ppb	0.02
Spiked Amount 25.000			Recovery =	91.180%	
3) 1,2-DCA-D4(S)	5.31	65	266645	29.8105 ppb	0.00
Spiked Amount 25.000			Recovery =	119.240%	
5) Toluene-D8(S)	7.51	98	1356763	26.8535 ppb	0.00
Spiked Amount 25.000			Recovery =	107.412%	
6) 4-Bromofluorobenzene(S)	10.16	95	504791	26.7404 ppb	0.00
Spiked Amount 25.000			Recovery =	106.960%	

Target Compounds Qvalue

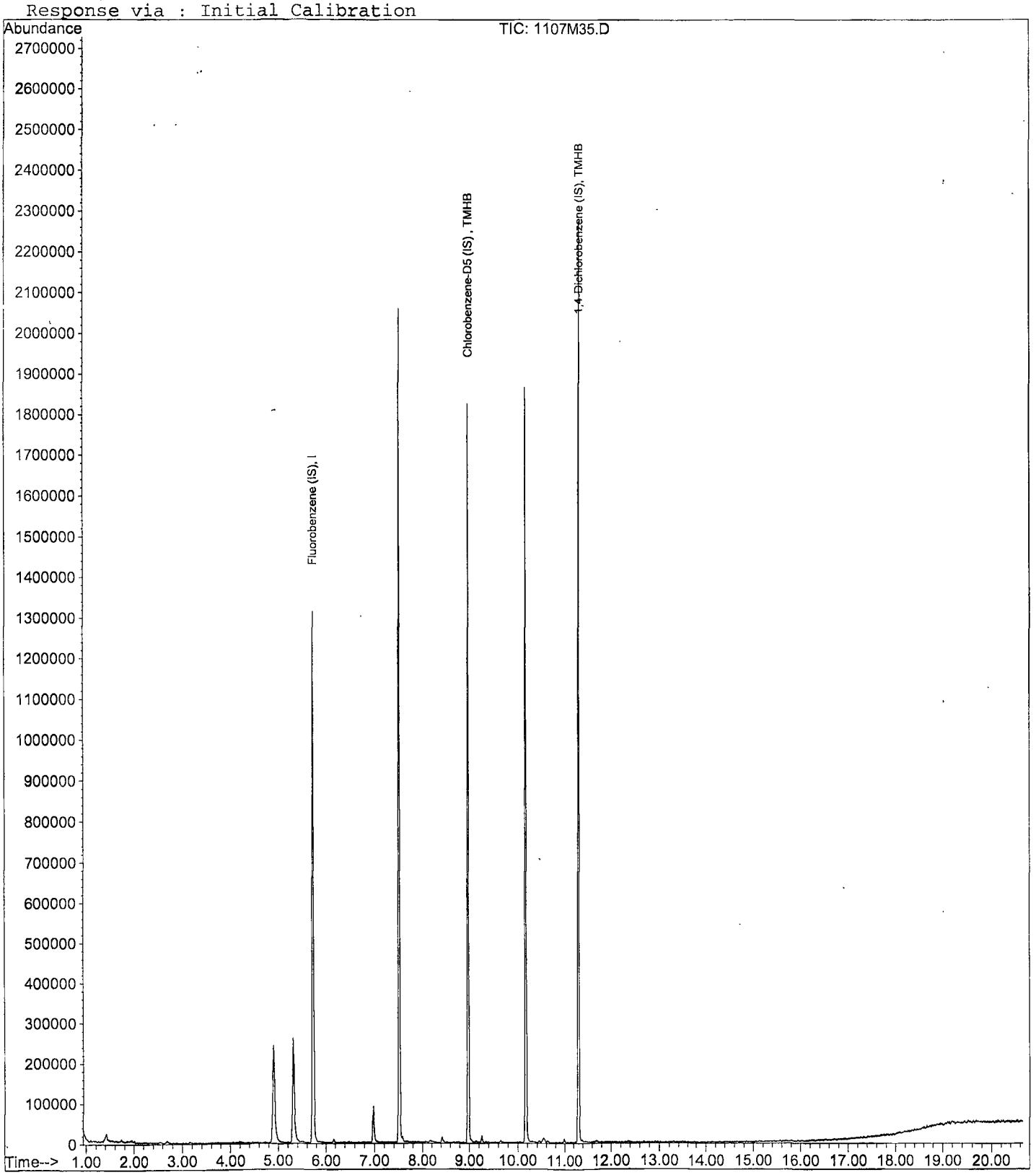
(#) = qualifier out of range (m) = manual integration
1107M35.D MSUR1106.M Thu Dec 05 08:26:55 2019 Page 1

Quantitation Report

Data File : M:\MAX\DATA\M191107\1107M35.D Vial: 35
Acq On : 8 Nov 19 7:22 Operator: LP,DG,CMM
Sample : 191107B Blk Inst : Max
Misc : IS&S 9/24/19 Multiplr: 1.00

Quant Time: Nov 8 12:57 2019 Quant Results File: MGAS1107.RES

Method : M:\MAX\DATA\M191107\MGAS1107.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Nov 08 12:47:04 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\MAX\DATA\M191107\1107M33.D Vial: 33
Acq On : 8 Nov 19 6:25 Operator: LP,DG,CMM
Sample : 191107B LCS 300ug/L Inst : Max
Misc : IS&S 9/24/19 Multiplr: 1.00

Quant Time: Nov 8 12:50 2019 Quant Results File: MGAS1107.RES

Quant Method : M:\MAX\DATA\M191107\MGAS1107.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Nov 08 12:47:04 2019
Response via : Initial Calibration
DataAcq Meth : M8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	5.73	TIC	1295555	25.000	ppb	0.00
3) Chlorobenzene-D5 (IS)	8.97	TIC	1351499m	25.000	ppb	0.00
4) 1,4-Dichlorobenzene (IS)	11.30	TIC	1250274m	25.000	ppb	0.00

System Monitoring Compounds

Target Compounds						Qvalue
2) Gasoline C6-C10	11.30	TIC	25153660m	289.955	ppb	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M191107\1107M33.D Vial: 33
Acq On : 8 Nov 19 6:25 Operator: LP,DG,CMM
Sample : 191107B LCS 300ug/L Inst : Max
Misc : IS&S 9/24/19 Multiplr: 1.00

Quant Time: Nov 8 13:03 2019 Quant Results File: MSUR1106.RES

Quant Method : M:\MAX\DATA\M191107\MSUR1106.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 07 14:27:44 2019
Response via : Initial Calibration
DataAcq Meth : M8260

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene (IS)	5.73	96	1330196	25.0000 ppb	0.00
4) Chlorobenzene-D5 (IS)	8.97	117	1091588	25.0000 ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	11.30	152	679992	25.0000 ppb	0.00
System Monitoring Compounds					
2) Dibromofluoromethane(S)	4.89	111	242232	24.2713 ppb	0.00
Spiked Amount 25.000			Recovery = 97.084%		
3) 1,2-DCA-D4(S)	5.30	65	216161	25.4001 ppb	0.00
Spiked Amount 25.000			Recovery = 101.600%		
5) Toluene-D8(S)	7.51	98	1339076	26.4923 ppb	0.00
Spiked Amount 25.000			Recovery = 105.968%		
6) 4-Bromofluorobenzene(S)	10.16	95	489770	25.9338 ppb	0.00
Spiked Amount 25.000			Recovery = 103.736%		

Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration

Quantitation Report

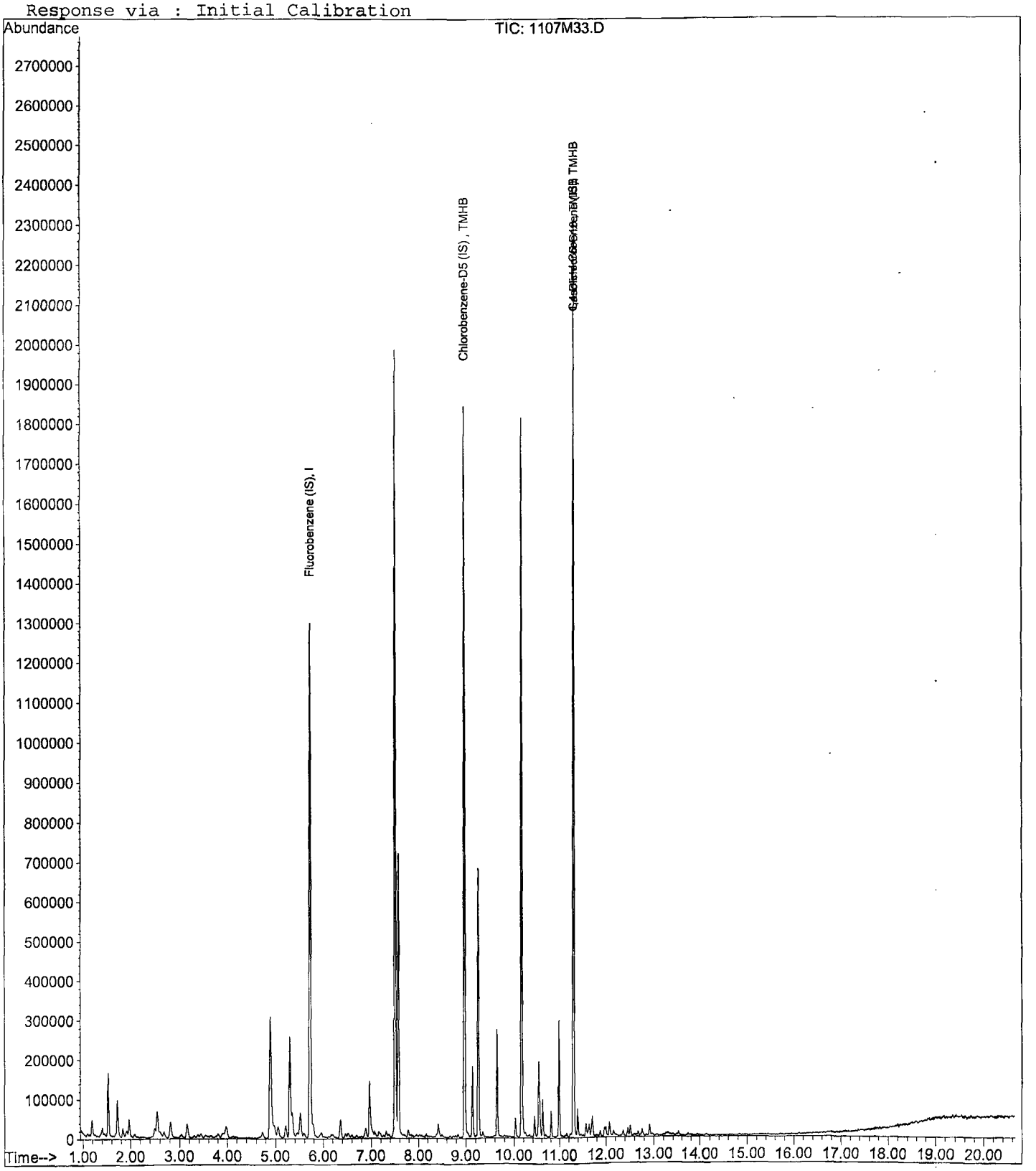
Data File : M:\MAX\DATA\M191107\1107M33.D
Acq On : 8 Nov 19 6:25
Sample : 191107B LCS 300ug/L
Misc : IS&S 9/24/19

Vial: 33
Operator: LP,DG,CMM
Inst : Max
Multiplr: 1.00

Quant Time: Nov 8 12:50 2019

Quant Results File: MGAS1107.RES

Method : M:\MAX\DATA\M191107\MGAS1107.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Nov 08 12:47:04 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\MAX\DATA\M191107\1107M34.D Vial: 34
Acq On : 8 Nov 19 6:53 Operator: LP,DG,CMM
Sample : 191107B LCSD 300ug/L Inst : Max
Misc : IS&S 9/24/19 Multiplr: 1.00

Quant Time: Nov 8 12:50 2019 Quant Results File: MGAS1107.RES

Quant Method : M:\MAX\DATA\M191107\MGAS1107.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Nov 08 12:47:04 2019
Response via : Initial Calibration
DataAcq Meth : M8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	5.72	TIC	1340912	25.000	ppb	0.00
3) Chlorobenzene-D5 (IS)	8.97	TIC	1307069m	25.000	ppb	0.00
4) 1,4-Dichlorobenzene (IS)	11.30	TIC	1243702m	25.000	ppb	0.00

System Monitoring Compounds

Target Compounds						Qvalue
2) Gasoline C6-C10	11.30	TIC	25177291m	257.375	ppb	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M191107\1107M34.D Vial: 34
Acq On : 8 Nov 19 6:53 Operator: LP,DG,CMM
Sample : 191107B LCSD 300ug/L Inst : Max
Misc : IS&S 9/24/19 Multiplr: 1.00

Quant Time: Nov 8 13:03 2019 Quant Results File: MSUR1106.RES

Quant Method : M:\MAX\DATA\M191107\MSUR1106.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 07 14:27:44 2019
Response via : Initial Calibration
DataAcq Meth : M8260

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene (IS)	5.72	96	1368600	25.0000 ppb	0.00
4) Chlorobenzene-D5 (IS)	8.97	117	1068901	25.0000 ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	11.30	152	676796	25.0000 ppb	0.00
System Monitoring Compounds					
2) Dibromofluoromethane(S)	4.89	111	237542	23.3631 ppb	0.00
Spiked Amount 25.000			Recovery =	93.452%	
3) 1,2-DCA-D4(S)	5.30	65	203301	23.6487 ppb	0.00
Spiked Amount 25.000			Recovery =	94.596%	
5) Toluene-D8(S)	7.51	98	1343590	27.1458 ppb	0.00
Spiked Amount 25.000			Recovery =	108.584%	
6) 4-Bromofluorobenzene(S)	10.16	95	495025	26.7683 ppb	0.00
Spiked Amount 25.000			Recovery =	107.072%	

Target Compounds Qvalue

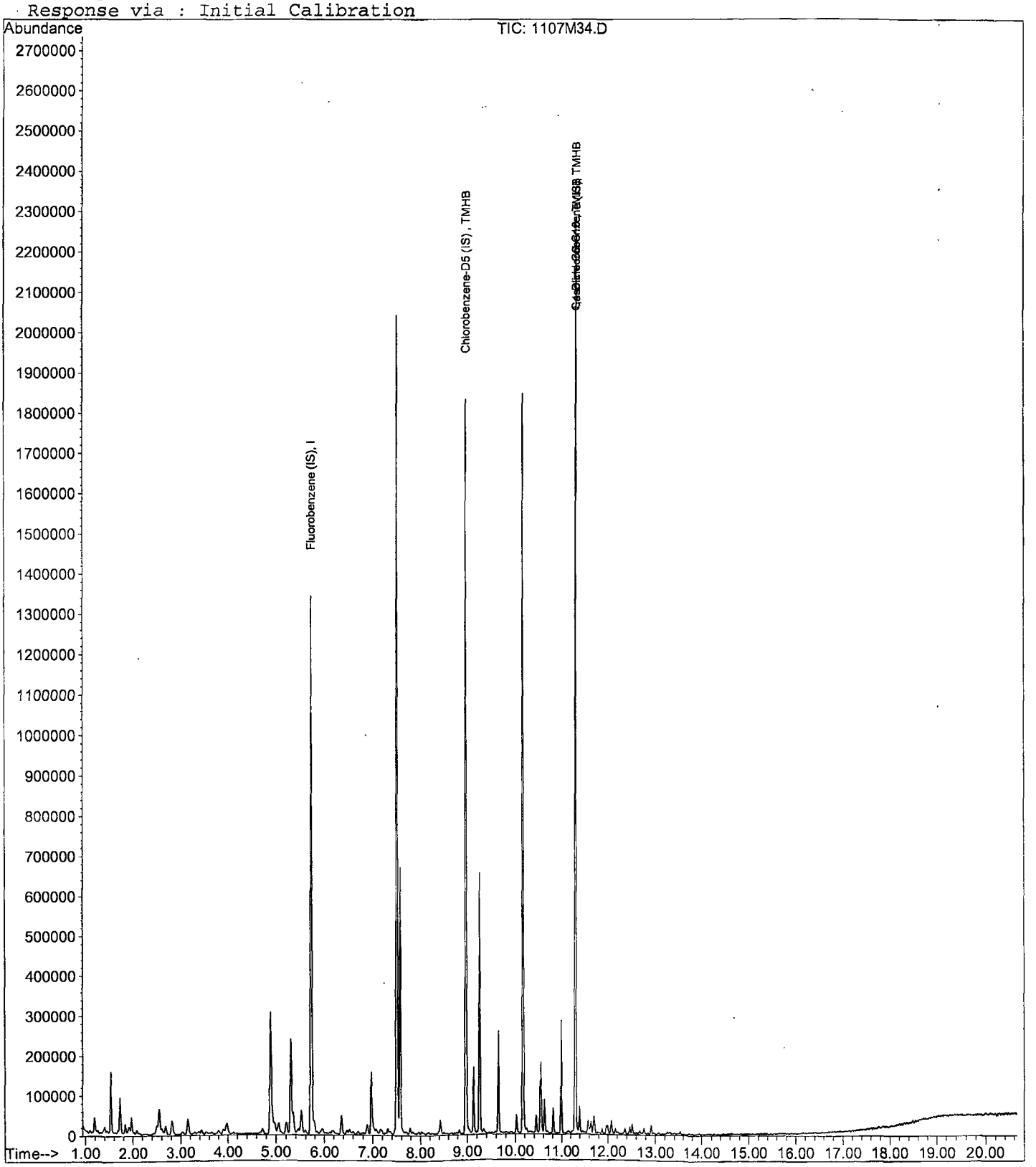
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\MAX\DATA\M191107\1107M34.D Vial: 34
Acq On : 8 Nov 19 6:53 Operator: LP,DG,CMM
Sample : 191107B LCSD 300ug/L Inst : Max
Misc : IS&S 9/24/19 Multiplr: 1.00

Quant Time: Nov 8 12:50 2019 Quant Results File: MGAS1107.RES

Method : M:\MAX\DATA\M191107\MGAS1107.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Nov 08 12:47:04 2019
Response via : Initial Calibration



Max 8260 Standard Prep

Max 8260 Water Calibration Curve

0.3ug/L

Prepared: 11/06/19

Expires: 12/06/19

Prepared By (Initials): CH

Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)
VOA STD. 9	O2SI	0.3ug/L	5	Prepared 11/04/19	01/03/20	N/A	3uL	50mL	P&T Water	0.3
VOA STD. 10	O2SI		5	Prepared 11/04/19	01/03/20	N/A	3uL			0.3
VOA STD. 12	O2SI		5	Prepared 11/04/19	01/03/20	N/A	3uL			0.3
VOA STD. TBA	Various		250	Prepared 11/04/19	10/30/19	N/A	2uL			10

0.5ug/L

Prepared: 11/06/19

Expires: 12/06/19

Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)
VOA STD. 9	O2SI	0.5ug/L	5	Prepared 11/04/19	01/03/20	N/A	5uL	50mL	P&T Water	0.5
VOA STD. 10	O2SI		5	Prepared 11/04/19	01/03/20	N/A	5uL			0.5
VOA STD. 12	O2SI		5	Prepared 11/04/19	01/03/20	N/A	5uL			0.5
VOA STD. TBA	Various		250	Prepared 11/04/19	10/30/19	N/A	5uL			25

1.0ug/L

Prepared: 11/06/19

Expires: 12/06/19

Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)
VOA STD. 9	O2SI	1.0ug/L	5	Prepared 11/04/19	01/03/20	N/A	10uL	50mL	P&T Water	1
VOA STD. 10	O2SI		5	Prepared 11/04/19	01/03/20	N/A	10uL			1
VOA STD. 12	O2SI		5	Prepared 11/04/19	01/03/20	N/A	10uL			1
VOA STD. TBA	Various		250	Prepared 11/04/19	10/30/19	N/A	10uL			50

2.0ug/L

Prepared: 11/06/19

Expires: 12/06/19

Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)
VOA STD. 9	O2SI	2.0ug/L	5	Prepared 11/04/19	01/03/20	N/A	20uL	50mL	P&T Water	2
VOA STD. 10	O2SI		5	Prepared 11/04/19	01/03/20	N/A	20uL			2
VOA STD. 12	O2SI		5	Prepared 11/04/19	01/03/20	N/A	20uL			2
VOA STD. TBA	Various		250	Prepared 11/04/19	10/30/19	N/A	15uL			75

5ug/L

Prepared: 11/06/19

Expires: 12/06/19

Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)
VOA STD. 7	Various	5ug/L	50	Prepared 11/04/19	01/03/20	N/A	5uL	50mL	P&T Water	5
VOA STD. 8	Phenova		50	Prepared 11/04/19	10/30/19	N/A	5uL			5
VOA STD. 1	O2SI		50	Prepared 11/04/19	01/03/20	N/A	5uL			5
VOA STD. 2	O2SI		50	Prepared 11/04/19	01/03/20	N/A	5uL			5
VOA STD. TBA	Various		250	Prepared 11/04/19	10/30/19	N/A	20uL			100

10ug/L

Prepared: 11/06/19

Expires: 12/06/19

Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)
VOA STD. 7	Various	10ug/L	50	Prepared 11/04/19	01/03/20	N/A	10uL	50mL	P&T Water	10
VOA STD. 8	Phenova		50	Prepared 11/04/19	10/30/19	N/A	10uL			10
VOA STD. 1	O2SI		50	Prepared 11/04/19	01/03/20	N/A	10uL			10
VOA STD. 2	O2SI		50	Prepared 11/04/19	01/03/20	N/A	10uL			10
VOA STD. TBA	Various		250	Prepared 11/04/19	10/30/19	N/A	25uL			125

20ug/L

Prepared: 11/06/19

Expires: 12/06/19

Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)
VOA STD. 7	Various	20ug/L	50	Prepared 11/04/19	01/03/20	N/A	20uL	50mL	P&T Water	20
VOA STD. 8	Phenova		50	Prepared 11/04/19	10/30/19	N/A	20uL			20
VOA STD. 1	O2SI		50	Prepared 11/04/19	01/03/20	N/A	20uL			20
VOA STD. 2	O2SI		50	Prepared 11/04/19	01/03/20	N/A	20uL			20
VOA STD. TBA	Various		250	Prepared 11/04/19	10/30/19	N/A	30uL			150

40ug/L

Prepared: 11/06/19

Expires: 12/06/19

Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)
VOA STD. 7	Various	40ug/L	50	Prepared 11/04/19	01/03/20	N/A	40uL	50mL	P&T Water	40
VOA STD. 8	Phenova		50	Prepared 11/04/19	10/30/19	N/A	40uL			40
VOA STD. 1	O2SI		50	Prepared 11/04/19	01/03/20	N/A	40uL			40
VOA STD. 2	O2SI		50	Prepared 11/04/19	01/03/20	N/A	40uL			40
VOA STD. TBA	Various		250	Prepared 11/04/19	10/30/19	N/A	35uL			175

100ug/L

Prepared: 11/06/19

Expires: 12/06/19

Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)
VOA STD. 7	Various	100ug/L	50	Prepared 11/04/19	01/03/20	N/A	100uL	50mL	P&T Water	100
VOA STD. 8	Phenova		50	Prepared 11/04/19	10/30/19	N/A	100uL			100
VOA STD. 1	O2SI		50	Prepared 11/04/19	01/03/20	N/A	100uL			100
VOA STD. 2	O2SI		50	Prepared 11/04/19	01/03/20	N/A	100uL			100
VOA STD. TBA	Various		250	Prepared 11/04/19	10/30/19	N/A	40uL			200

Max 8260 Water Second Source (SS)

Prepared: 11/06/19

Prepared By (Initials): CH

Expires: 12/06/19

Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)
VOA STD. 4	Phenova	8260 Water SS	50	Prepared 11/04/19	01/03/20	N/A	10uL	50mL	P&T Water	10
VOA STD. 5	O2SI	8260 Water SS	50	Prepared 11/04/19	01/03/20	N/A	10uL			10
VOA STD. 6	Various	8260 Water SS	50	Prepared 11/04/19	10/16/19	N/A	10uL			10
Voa STD. TBA	Various	8260 Water SS	250	Prepared 11/04/19	09/18/19	N/A	25uL			250

8260 Water Continuing Calibrations (CCV)/ Lab Control Spikes (LCS)

Prepared: 11/06/19

Prepared By (Initials): CH

Expires: 11/07/19

Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)
VOA STD. 7	Various	CCV/ LCS	50	Prepared 11/04/19	01/03/20	N/A	10uL	50mL	P&T Water	10
VOA STD. 8	Phenova	CCV/ LCS	50	Prepared 11/04/19	10/30/19	N/A	10uL			10
VOA STD. 1	O2SI	CCV/ LCS	50	Prepared 11/04/19	01/03/20	N/A	10uL			10
VOA STD. 2	O2SI	CCV/ LCS	50	Prepared 11/04/19	01/03/20	N/A	10uL			10
VOA STD. TBA	Various	CCV/ LCS	250	Prepared 11/04/19	10/30/19	N/A	25uL			125

LCS (X4 Ketones)

Prepared: 11/06/19

Prepared By (Initials): CH

Expires: 11/07/19

Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)
VOA STD. 7	Various	LCS X4 Ketones	50	Prepared 11/04/19	01/03/20	N/A	10uL	50mL	P&T Water	10
VOA STD. 8	Phenova	LCS X4 Ketones	50	Prepared 11/04/19	10/30/19	N/A	10uL			10
VOA STD. 1	O2SI	LCS X4 Ketones	50	Prepared 11/04/19	01/03/20	N/A	10uL			10
VOA STD. 2	O2SI	LCS X4 Ketones	50	Prepared 11/04/19	01/03/20	N/A	40uL			40
VOA STD. TBA	Various	LCS X4 Ketones	250	Prepared 11/04/19	10/30/19	N/A	25uL			125

Max Gas Standard Prep

Gas Primary Working Standard

Prepared: 07/16/19 — **Prepared By (Initials): DG**

Expires: 07/15/20

Methanol Lot No. 58019-00962

Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
50,000ug/mL Gas STD	Restek	30205	50,000	A0132443-39859	10/26/20	12/31/24	80uL	2mL	Methanol	2,000

Gas Second Source (SS) Working Standard

Prepared: 10/28/19 — **Prepared By (Initials): DG**

Expires: 07/16/20

Methanol Lot No. 58019-00962

Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
Gasoline (5,000ppm)	O2SI	020246-06	5,000	CL11750-40999	07/16/20	02/28/27	800uL	2mL	Methanol	2,000

Max Gas Calibration Curve

Prepared: 11/07/19 — **Prepared By (Initials): CH**

Expires: 01/06/20

Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)
VOA Gasses Standards	Phenova	20ug/L	2,000	Prepared 07/16/19	07/15/20	N/A	1uL	100mL	P&T Water	20
VOA Gasses Standards	Phenova	50ug/L	2,000	Prepared 07/16/19	07/15/20	N/A	2.5uL	100mL	P&T Water	50
VOA Gasses Standards	Phenova	100ug/L	2,000	Prepared 07/16/19	07/15/20	N/A	5uL	100mL	P&T Water	100
VOA Gasses Standards	Phenova	300ug/L	2,000	Prepared 07/16/19	07/15/20	N/A	15uL	100mL	P&T Water	300
VOA Gasses Standards	Phenova	600ug/L	2,000	Prepared 07/16/19	07/15/20	N/A	30uL	100mL	P&T Water	600
VOA Gasses Standards	Phenova	800ug/L	2,000	Prepared 07/16/19	07/15/20	N/A	40uL	100mL	P&T Water	800
VOA Gasses Standards	Phenova	1,000ug/L	2,000	Prepared 07/16/19	07/15/20	N/A	50uL	100mL	P&T Water	1,000

Max Gas Second Source

Prepared: 11/07/19 — **Prepared By (Initials): CH**

Expires: 01/06/20

Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)
50,000ug/mL Gas STD	Phenova	SS 300ug/L	2,000	Prepared 10/28/19	07/16/20	N/A	15uL	100mL	P&T Water	300

Max Gas Continuing Calibrations/Lab Control Spikes

Prepared: 11/07/19 — **Prepared By (Initials): CH**

Expires: 11/08/19

Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
VOA Gasses Standards	Phenova	300ug/L	2,000	Prepared 07/16/19	07/15/20	N/A	15uL	100mL	P&T Water	300

Injection Log

Directory: M:\MAX\DATA\M191106\

Vial	FileName	Multiplier	SampleName	Misc Info	Injected
3	1106M06.D	1	0.3ug/L VOC STD 11/06/19	IS&S 9/24/19	6 Nov 19 10:45
4	1106M07.D	1	0.5ug/L VOC STD 11/06/19	IS&S 9/24/19	6 Nov 19 11:13
5	1106M08.D	1	1.0ug/L VOC STD 11/06/19	IS&S 9/24/19	6 Nov 19 11:42
6	1106M09.D	1	2.0ug/L VOC STD 11/06/19	IS&S 9/24/19	6 Nov 19 12:11
7	1106M10.D	1	5.0ug/L VOC STD 11/06/19	IS&S 9/24/19	6 Nov 19 12:40
8	1106M11.D	1	10ug/L VOC STD 11/06/19	IS&S 9/24/19	6 Nov 19 13:08
9	1106M12.D	1	20ug/L VOC STD 11/06/19	IS&S 9/24/19	6 Nov 19 13:37
10	1106M13.D	1	40ug/L VOC STD 11/06/19	IS&S 9/24/19	6 Nov 19 14:06
11	1106M14.D	1	100ug/L VOC STD 11/06/19	IS&S 9/24/19	6 Nov 19 14:35
19	1107M19.D	1	20ug/L Gas 11/7/19	IS&S 9/24/19	7 Nov 19 23:42
20	1107M20.D	1	50ug/L Gas 11/7/19	IS&S 9/24/19	8 Nov 19 00:11
21	1107M21.D	1	100ug/L Gas 11/7/19	IS&S 9/24/19	8 Nov 19 00:40
22	1107M22.D	1	300ug/L Gas 11/7/19	IS&S 9/24/19	8 Nov 19 1:09
23	1107M23.D	1	600ug/L Gas 11/7/19	IS&S 9/24/19	8 Nov 19 1:37
24	1107M24.D	1	800ug/L Gas 11/7/19	IS&S 9/24/19	8 Nov 19 2:06
25	1107M25.D	1	1000ug/L Gas 11/7/19	IS&S 9/24/19	8 Nov 19 2:35
27	1107M27.D	1	(SS) 300ug/L Gas 11/7/19	IS&S 9/24/19	8 Nov 19 3:32
32	1107M32.D	1	191107B CCV 300ug/L	IS&S 9/24/19	8 Nov 19 5:56
33	1107M33.D	1	191107B LCS 300ug/L	IS&S 9/24/19	8 Nov 19 6:25
34	1107M34.D	1	191107B LCSD 300ug/L	IS&S 9/24/19	8 Nov 19 6:53
35	1107M35.D	1	191107B Blk	IS&S 9/24/19	8 Nov 19 7:22
37	1107M37.D	1	BA02466W01	IS&S 9/24/19	8 Nov 19 8:19
38	1107M38.D	1	BA02465W01	IS&S 9/24/19	8 Nov 19 8:48
41	1107M41.D	1	Ending CCV 300ug/L 11/7/19	IS&S 9/24/19	8 Nov 19 10:15

ORGANICS
Calibration Data

RSK 175
RSK 175

Form 6
Initial Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Initial Cal. Date: 10/02/19
Matrix: Instrument: 7890 Initials:

			1002R02.D	1002R03.D	1002R04.D	1002R05.D	1002R06.D	1002R07.D	1002R08.D								
		Compound	1	2	3	4	5	6	7				Avg	%RSD	Type	r^2	Q
1	ATM	Methane	63820	40452	36215	45202	48427	44031	45774				46274	19	ATM		
2	ATM	Ethane	42546	31037	26553	34655	37738	32771	32974				34039	15	ATM		
3	ATM	Ethene	32900	24299	20841	27689	29847	25551	26297				26775	15	ATM		
4																	
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35																	

1.377886

Quantitation Report (Not Reviewed)

Data File : G:\ROCKY\DATA\191002RS\1002R02.D Vial: 2
Acq On : 2 Oct 19 17:45 Operator: GA
Sample : RSK STD 1 10/2/19 Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 2 18:11 2019 Quant Results File: RSK1002.RES

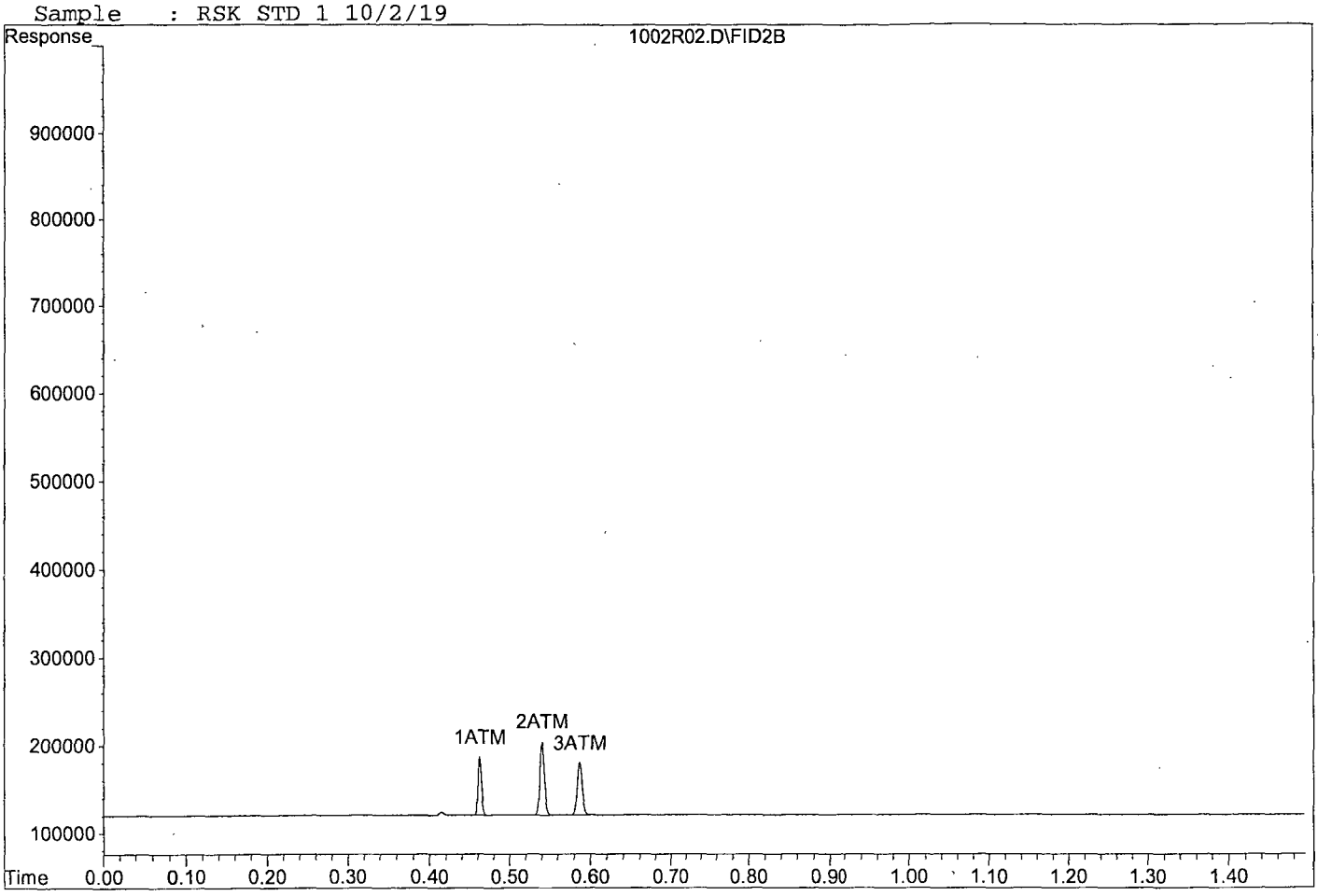
Method : G:\ROCKY\DATA\190929RS\RSK1002.M (Chemstation Integrator)
Title : RSK 175
Last Update : Wed Oct 02 18:14:49 2019
Response via : Multiple Level Calibration

Volume Inj. : 0.500 mL
Signal Phase : CARBOPACK
Signal Info :

Compound	R.T.	Response	Conc Units
Target Compounds			
1) ATM Methane	0.46	66373	8.306 ppb
2) ATM Ethane	0.54	83177	6.216 ppb
3) ATM Ethene	0.59	60042	5.640 ppb

Target Compounds

Data File: G:\ROCKY\DATA\191002RS\1002R02.D
Sample : RSK STD 1 10/2/19



Quantitation Report (Not Reviewed)

Data File : G:\ROCKY\DATA\191002RS\1002R03.D Vial: 3
Acq On : 2 Oct 19 17:50 Operator: GA
Sample : RSK STD 2 10/2/19 Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 2 18:11 2019 Quant Results File: RSK1002.RES

Method : G:\ROCKY\DATA\190929RS\RSK1002.M (Chemstation Integrator)
Title : RSK 175
Last Update : Wed Oct 02 18:14:49 2019
Response via : Multiple Level Calibration

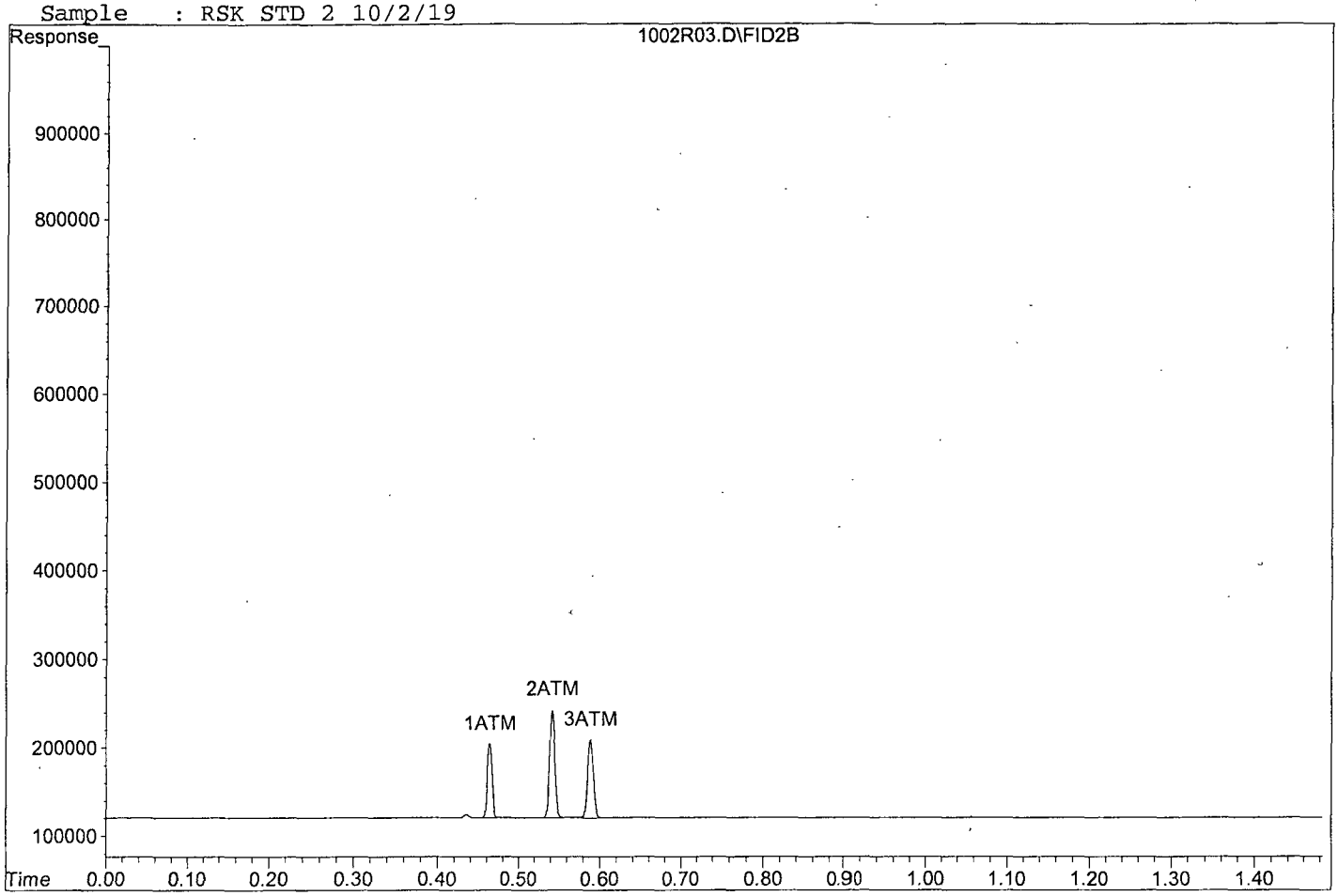
Volume Inj. : 0.500 mL
Signal Phase : CARBOPACK
Signal Info :

Compound	R.T.	Response	Conc Units
Target Compounds			
1) ATM Methane	0.46	84140	9.332 ppb
2) ATM Ethane	0.54	121200	9.058 ppb
3) ATM Ethene	0.59	88693	8.332 ppb

Target Compounds

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: G:\ROCKY\DATA\191002RS\1002R03.D
Sample : RSK STD 2 10/2/19



Quantitation Report (Not Reviewed)

Data File : G:\ROCKY\DATA\191002RS\1002R04.D Vial: 4
Acq On : 2 Oct 19 17:52 Operator: GA
Sample : RSK STD 3 10/2/19 Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 2 18:11 2019 Quant Results File: RSK1002.RES

Method : G:\ROCKY\DATA\190929RS\RSK1002.M (Chemstation Integrator)
Title : RSK 175
Last Update : Wed Oct 02 18:14:49 2019
Response via : Multiple Level Calibration

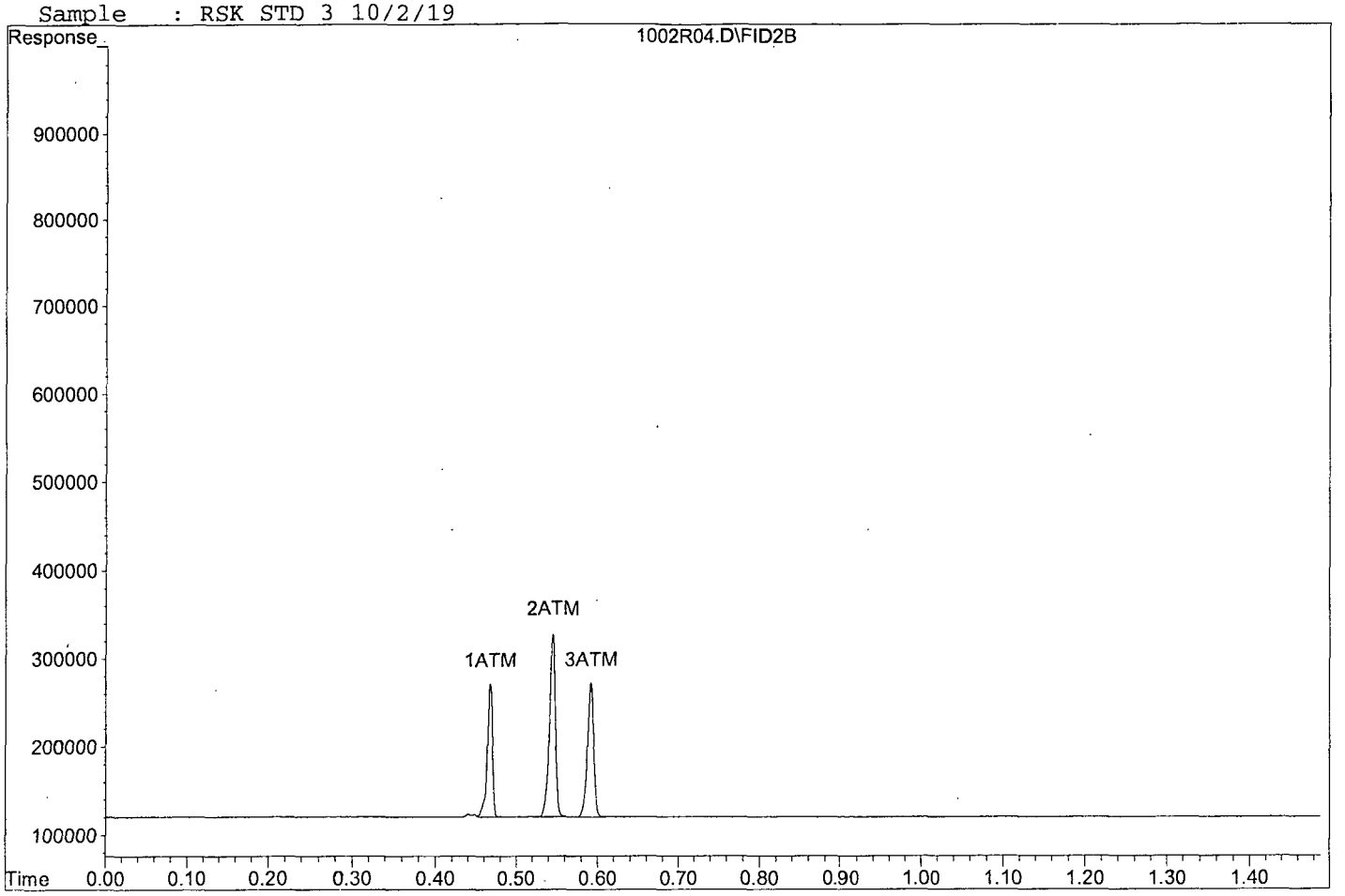
Volume Inj. : 0.500 mL
Signal Phase : CARBOPACK
Signal Info :

Compound	R.T.	Response	Conc Units
Target Compounds			
1) ATM Methane	0.47	151018	13.195 ppb
2) ATM Ethane	0.55	207113	15.479 ppb
3) ATM Ethene	0.59	152138	14.292 ppb

Target Compounds

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: G:\ROCKY\DATA\191002RS\1002R04.D
Sample : RSK STD 3 10/2/19



Quantitation Report (Not Reviewed)

Data File : G:\ROCKY\DATA\191002RS\1002R05.D Vial: 5
Acq On : 2 Oct 19 17:57 Operator: GA
Sample : RSK STD 4 10/2/19 Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 2 18:11 2019 Quant Results File: RSK1002.RES

Method : G:\ROCKY\DATA\190929RS\RSK1002.M (Chemstation Integrator)
Title : RSK 175
Last Update : Wed Oct 02 18:14:49 2019
Response via : Multiple Level Calibration

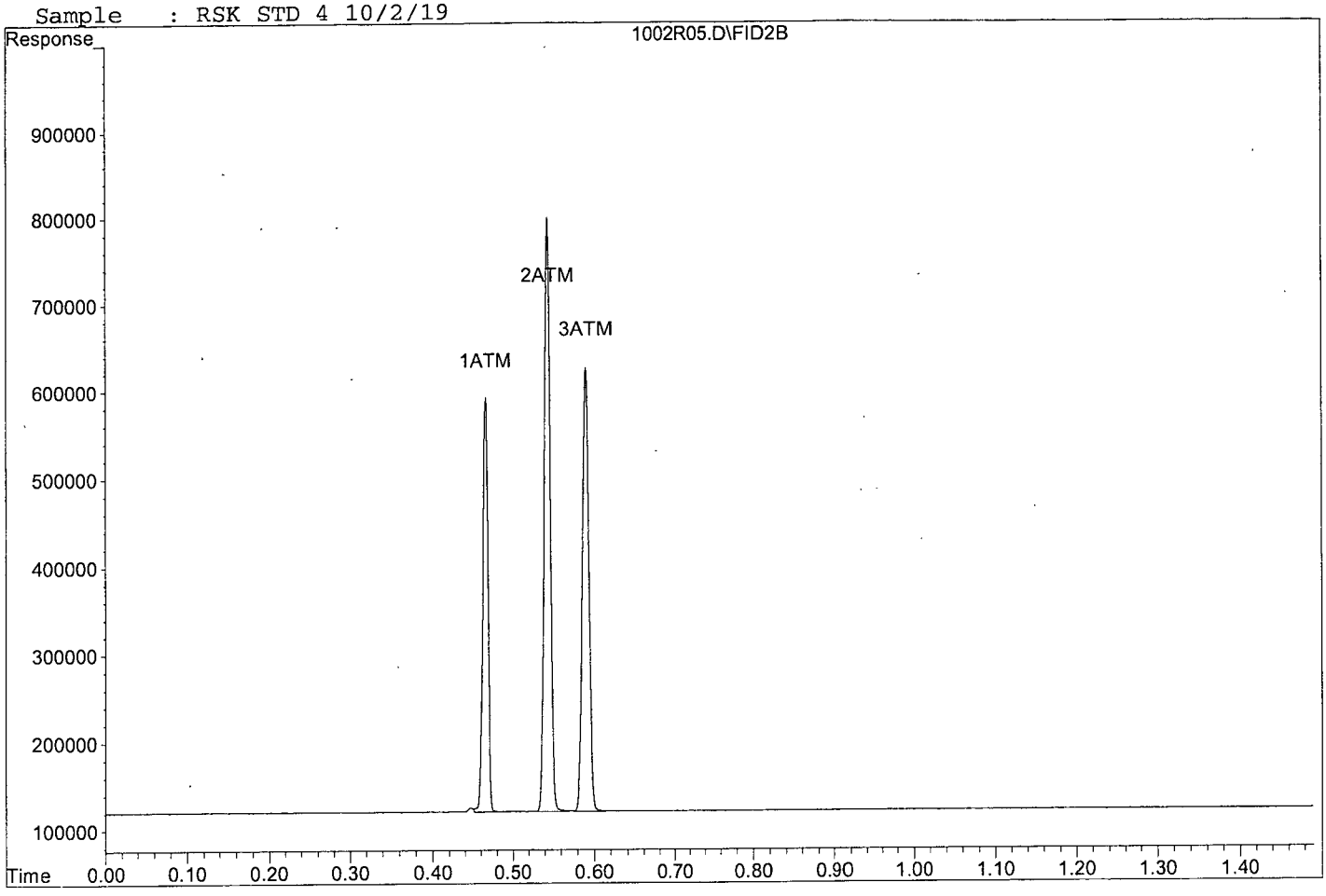
Volume Inj. : 0.500 mL
Signal Phase : CARBOPACK
Signal Info :

Compound	R.T.	Response	Conc Units
Target Compounds			
1) ATM Methane	0.47	471234	31.689 ppb
2) ATM Ethane	0.54	677330	50.623 ppb
3) ATM Ethene	0.59	504779	47.419 ppb

Target Compounds

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: G:\ROCKY\DATA\191002RS\1002R05.D
Sample : RSK STD 4 10/2/19



Quantitation Report (Not Reviewed)

Data File : G:\ROCKY\DATA\191002RS\1002R06.D Vial: 6
Acq On : 2 Oct 19 17:59 Operator: GA
Sample : RSK STD 5 10/2/19 Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 2 18:11 2019 Quant Results File: RSK1002.RES

Method : G:\ROCKY\DATA\190929RS\RSK1002.M (Chemstation Integrator)
Title : RSK 175
Last Update : Wed Oct 02 18:14:49 2019
Response via : Multiple Level Calibration

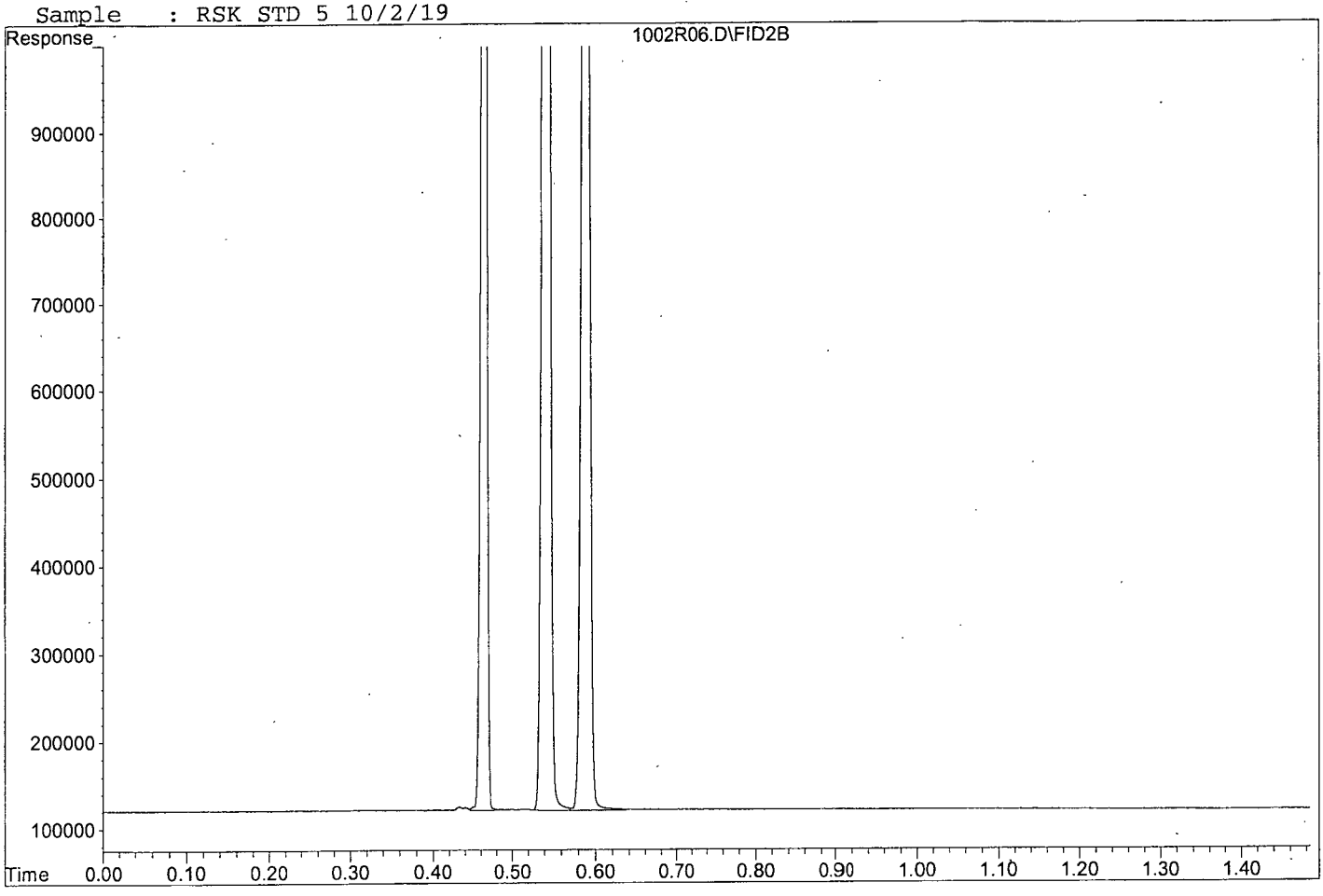
Volume Inj. : 0.500 mL
Signal Phase : CARBOPACK
Signal Info :

Compound	R.T.	Response	Conc Units
Target Compounds			
1) ATM Methane	0.46	2019402	121.105 ppb
2) ATM Ethane	0.54	2950189	220.492 ppb
3) ATM Ethene	0.59	2176445	204.454 ppb

Target Compounds

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: G:\ROCKY\DATA\191002RS\1002R06.D
Sample : RSK STD 5 10/2/19



Quantitation Report (Not Reviewed)

Data File : G:\ROCKY\DATA\191002RS\1002R07.D Vial: 7
Acq On : 2 Oct 19 18:05 Operator: GA
Sample : RSK STD 6 10/2/19 Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 2 18:11 2019 Quant Results File: RSK1002.RES

Method : G:\ROCKY\DATA\190929RS\RSK1002.M (Chemstation Integrator)
Title : RSK 175
Last Update : Wed Oct 02 18:14:49 2019
Response via : Multiple Level Calibration

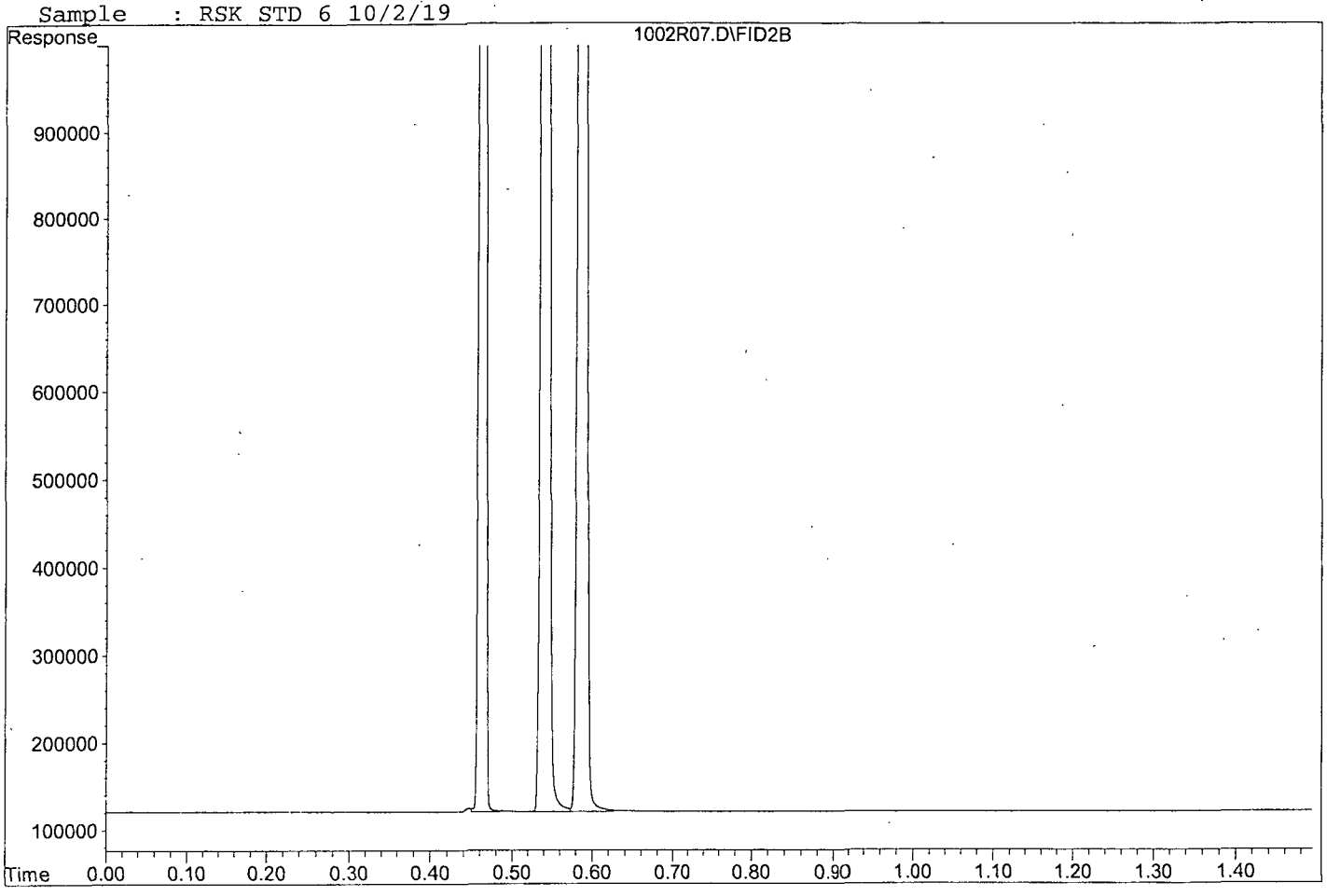
Volume Inj. : 0.500 mL
Signal Phase : CARBOPACK
Signal Info :

Compound	R.T.	Response	Conc Units
Target Compounds			
1) ATM Methane	0.46	4590194	269.583 ppb
2) ATM Ethane	0.54	6405030	478.702 ppb
3) ATM Ethene	0.59	4657966	437.567 ppb

Target Compounds

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: G:\ROCKY\DATA\191002RS\1002R07.D
Sample : RSK STD 6 10/2/19



Quantitation Report (Not Reviewed)

Data File : G:\ROCKY\DATA\191002RS\1002R08.D Vial: 8
Acq On : 2 Oct 19 18:07 Operator: GA
Sample : RSK STD 7 10/2/19 Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 2 18:11 2019 Quant Results File: RSK1002.RES

Method : G:\ROCKY\DATA\190929RS\RSK1002.M (Chemstation Integrator)
Title : RSK 175
Last Update : Wed Oct 02 18:14:49 2019
Response via : Multiple Level Calibration

Volume Inj. : 0.500 mL
Signal Phase : CARBOPACK
Signal Info :

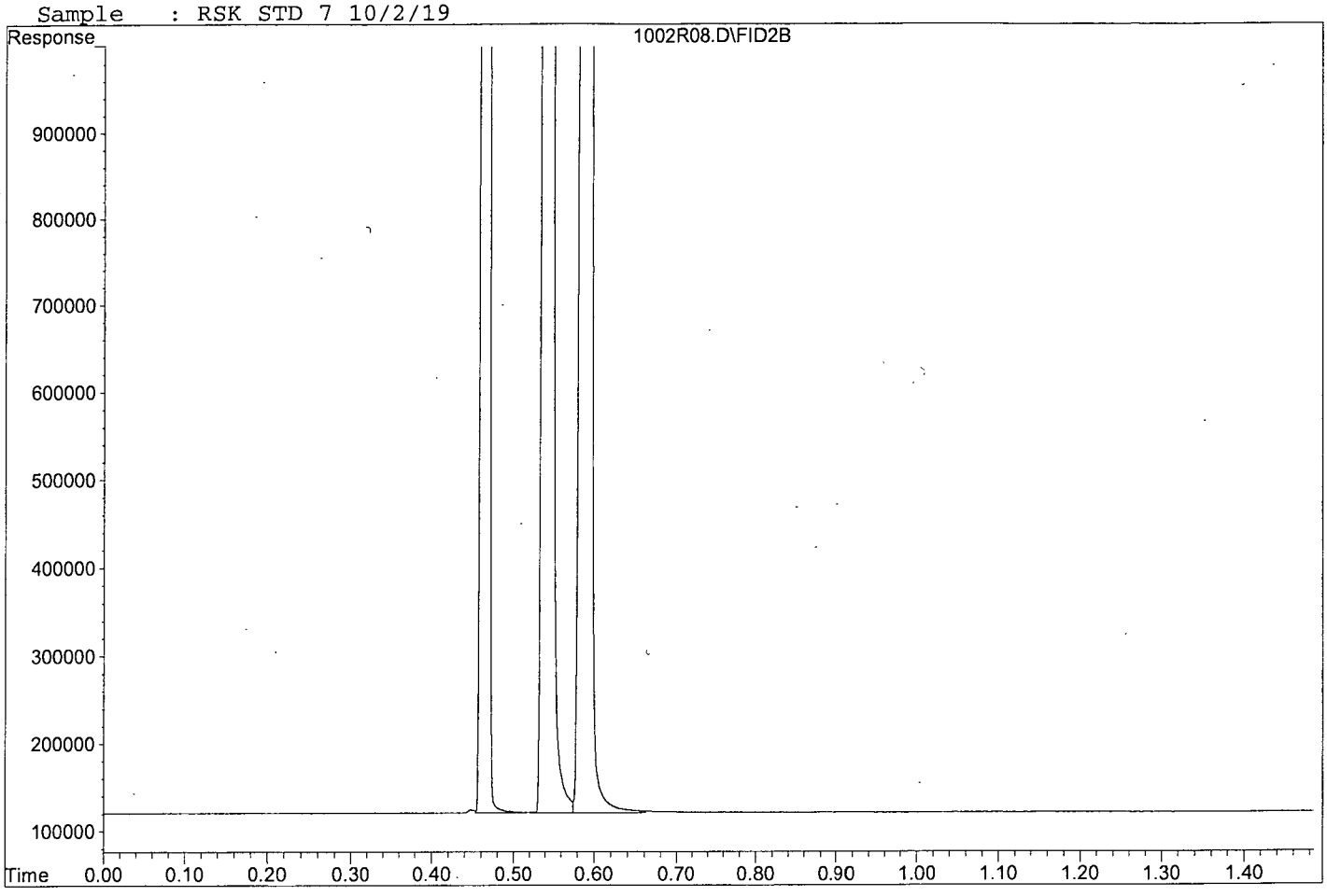
Compound	R.T.	Response	Conc	Units
Target Compounds				
1) ATM Methane	0.46	19087907	1106.909	ppb
2) ATM Ethane	0.54	25777712	1926.584	ppb
3) ATM Ethene	0.59	19176068	1801.389	ppb

Target Compounds

(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File: G:\ROCKY\DATA\191002RS\1002R08.D
Sample : RSK STD 7 10/2/19



Form 7

Second Source Calibration

Lab Name: APPL, Inc.
Case No:
Matrix:

SDG No:
Date Analyzed: 2 Oct 19 18:24
Instrument: 7890
Initial Cal. Date: 10/02/19
Data File: 1002R10.D

		Compound	MEAN	CCRF	%D		%Drift
1	ATM	Methane	46275	50203	8.5	ATM	
2	ATM	Ethane	34039	37011	8.7	ATM	
3	ATM	Ethene	26775	28699	7.2	ATM	
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40							
		Average			8.1		

Quantitation Report (Not Reviewed)

Data File : G:\ROCKY\DATA\191002RS\1002R10.D Vial: 10
Acq On : 2 Oct 19 18:24 Operator: GA
Sample : SS RSK STD 5 10/2/19 Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 2 18:27 2019 Quant Results File: RSK1002.RES

Method : G:\ROCKY\DATA\190929RS\RSK1002.M (Chemstation Integrator)
Title : RSK 175
Last Update : Wed Oct 02 18:14:49 2019
Response via : Multiple Level Calibration

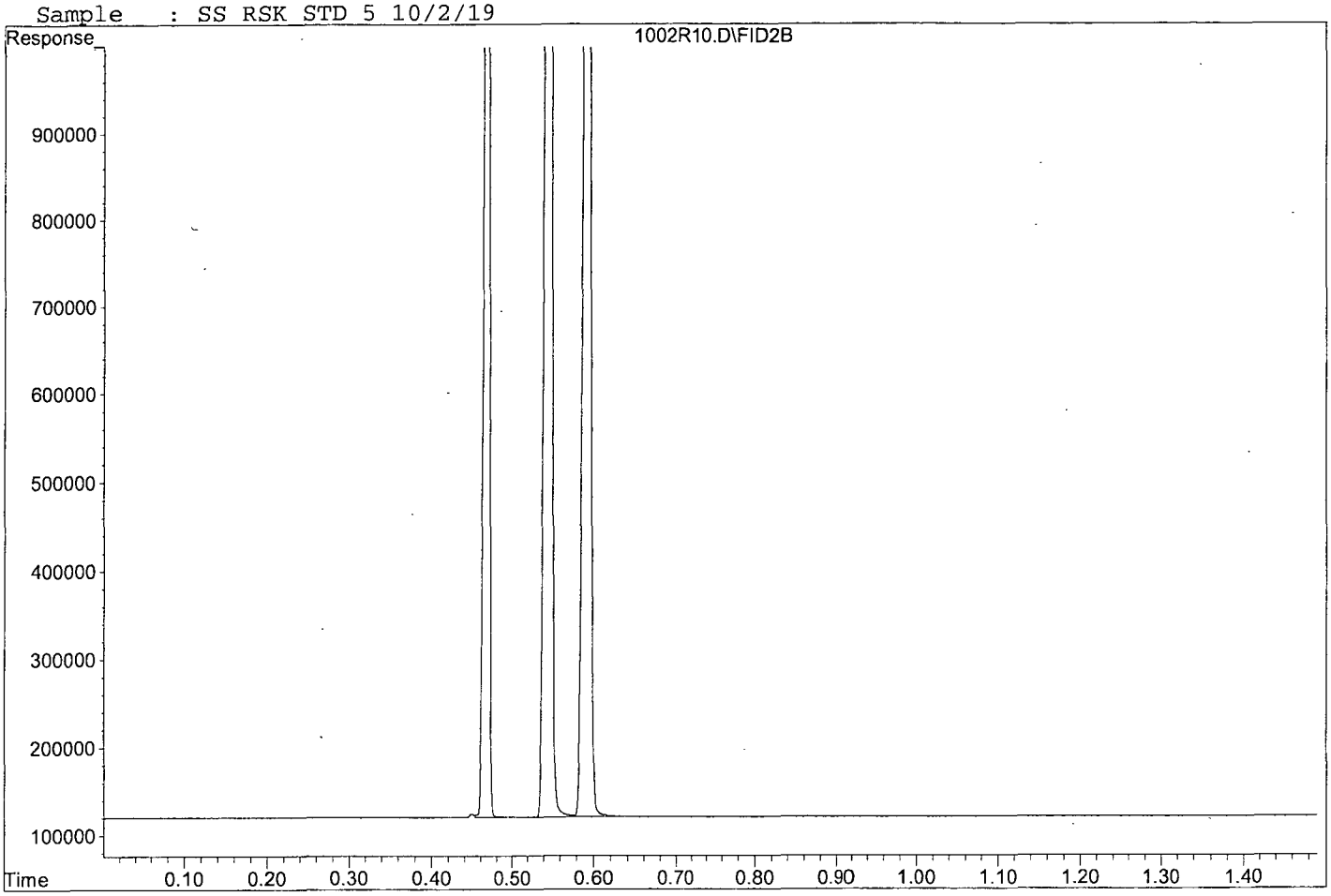
Volume Inj. : 0.500 mL
Signal Phase : CARBOPACK
Signal Info :

Compound	R.T.	Response	Conc Units
Target Compounds			
1) ATM Methane	0.47	2093456	90.480 ppb
2) ATM Ethane	0.54	2893356	170.002 ppb
3) ATM Ethene	0.59	2092707	156.318 ppb

Target Compounds

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: G:\ROCKY\DATA\191002RS\1002R10.D
Sample : SS RSK STD 5 10/2/19



Form 7

Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix:

SDG No:
Date Analyzed: 11/21/19
Instrument: 7890
Initial Cal. Date: 10/02/19
Data File: 1121R03.D

		Compound	MEAN	CCRF	%D		%Drift
1	ATM	Methane	46275	45983	0.63	ATM	
2	ATM	Ethane	34039	30679	9.9	ATM	
3	ATM	Ethene	26775	23539	12	ATM	
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40							
		Average			7.5		

Quantitation Report (Not Reviewed)

Data File : G:\ROCKY\DATA\191002RS\1121R03.D Vial: 3
Acq On : 21 Nov 19 16:38 Operator: GA
Sample : 191121A LCS/CCV RSK STD 5 Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Nov 21 16:40 2019 Quant Results File: RSK1002.RES

Method : G:\ROCKY\DATA\190929RS\RSK1002.M (Chemstation Integrator)
Title : RSK 175
Last Update : Thu Nov 21 16:35:55 2019
Response via : Multiple Level Calibration

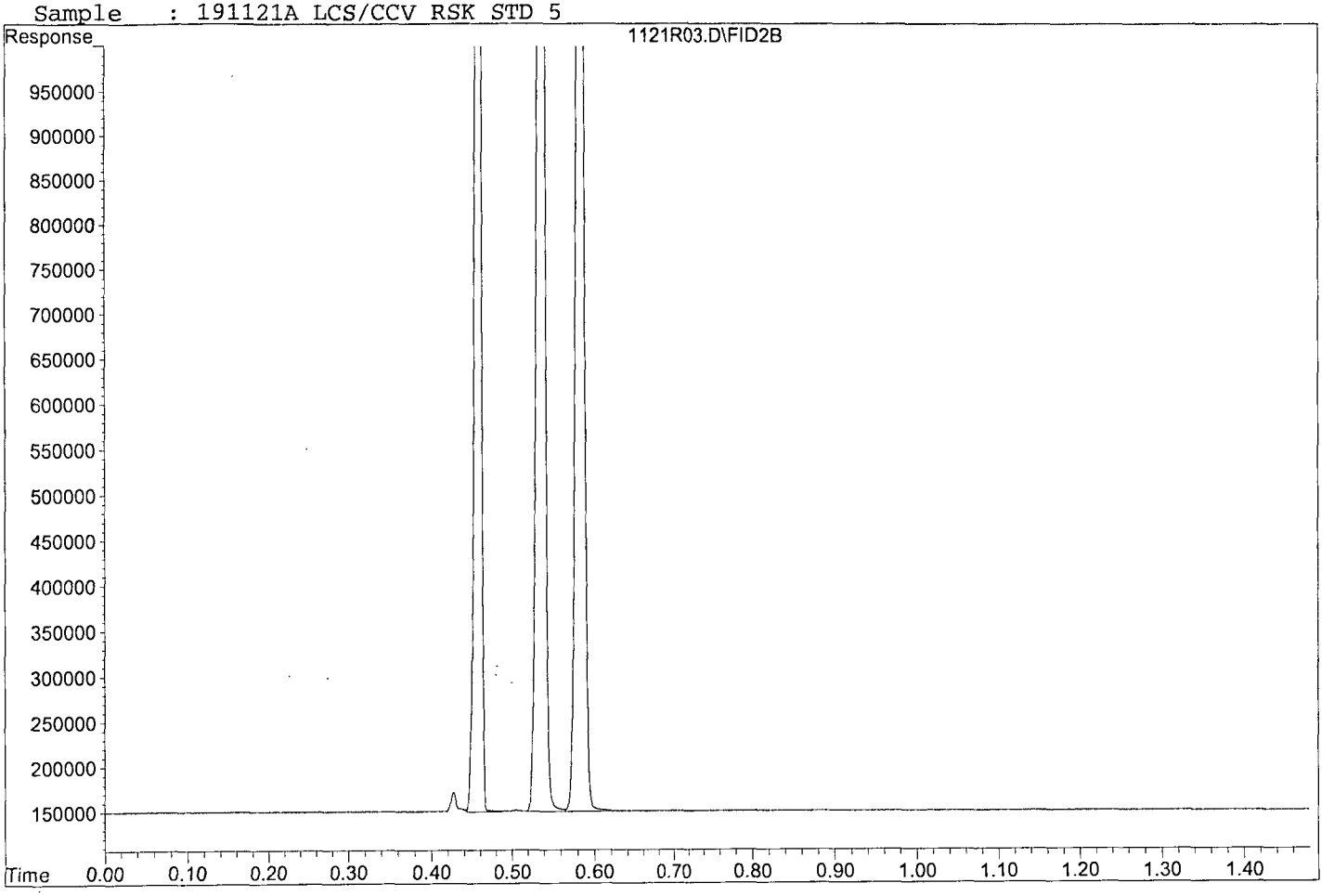
Volume Inj. : 0.500 mL
Signal Phase : CARBOPACK
Signal Info :

Compound	R.T.	Response	Conc Units
Target Compounds			
1) ATM Methane	0.46	1917485	82.874 ppb
2) ATM Ethane	0.54	2398337	140.916 ppb
3) ATM Ethene	0.58	1716491	128.216 ppb

Target Compounds

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: G:\ROCKY\DATA\191002RS\1121R03.D
Sample : 191121A LCS/CCV RSK STD 5



Form 7

Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix:

SDG No:
Date Analyzed: 11/21/19
Instrument: 7890
Initial Cal. Date: 10/02/19
Data File: 1121R07.D

		Compound	MEAN	CCRF	%D		%Drift
1	ATM	Methane	46275	45858	0.90	ATM	
2	ATM	Ethane	34039	29819	12	ATM	
3	ATM	Ethene	26775	23063	14	ATM	
4							
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40							
		Average			9.0		

Quantitation Report (Not Reviewed)

Data File : G:\ROCKY\DATA\191002RS\1121R07.D Vial: 7
Acq On : 21 Nov 19 16:57 Operator: GA
Sample : ENDING CCV/LCSD RSK STD 5 11/21/19 Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Nov 21 17:03 2019 Quant Results File: RSK1002.RES

Method : G:\ROCKY\DATA\190929RS\RSK1002.M (Chemstation Integrator)
Title : RSK 175
Last Update : Thu Nov 21 16:35:55 2019
Response via : Multiple Level Calibration

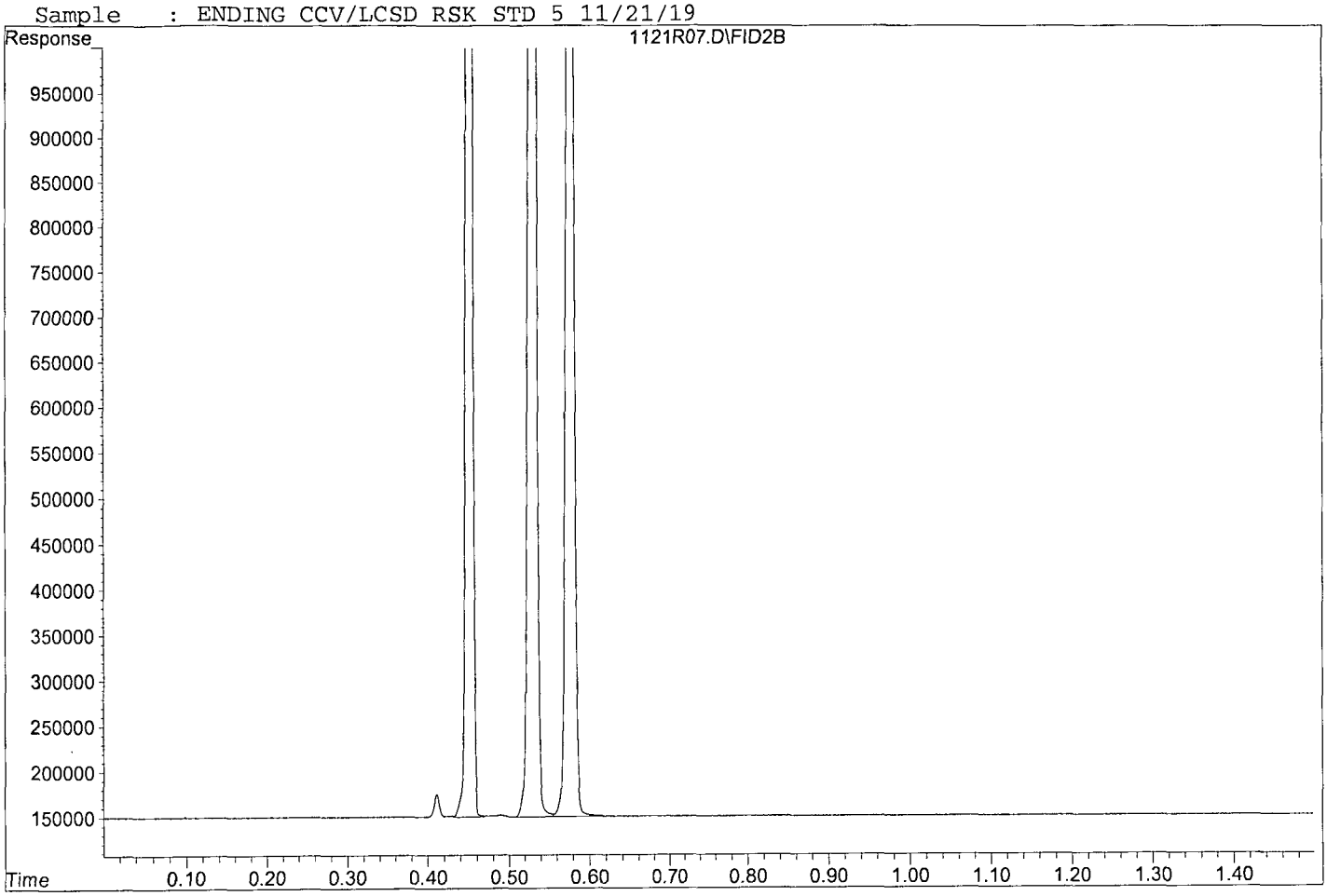
Volume Inj. : 0.500 mL
Signal Phase : CARBOPACK
Signal Info :

Compound	R.T.	Response	Conc	Units
Target Compounds				
1) ATM Methane	0.45	1912256	82.648	ppb
2) ATM Ethane	0.53	2331087	136.965	ppb
3) ATM Ethene	0.58	1681784	125.623	ppb

Target Compounds

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: G:\ROCKY\DATA\191002RS\1121R07.D
Sample : ENDING CCV/LCSD RSK STD 5 11/21/19



ORGANICS
Raw Data

Quantitation Report (QT Reviewed)

Data File : G:\ROCKY\DATA\191002RS\1121R05.D Vial: 5
Acq On : 21 Nov 19 16:45 Operator: GA
Sample : BA02465W03 Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Nov 21 16:52 2019 Quant Results File: RSK1002.RES

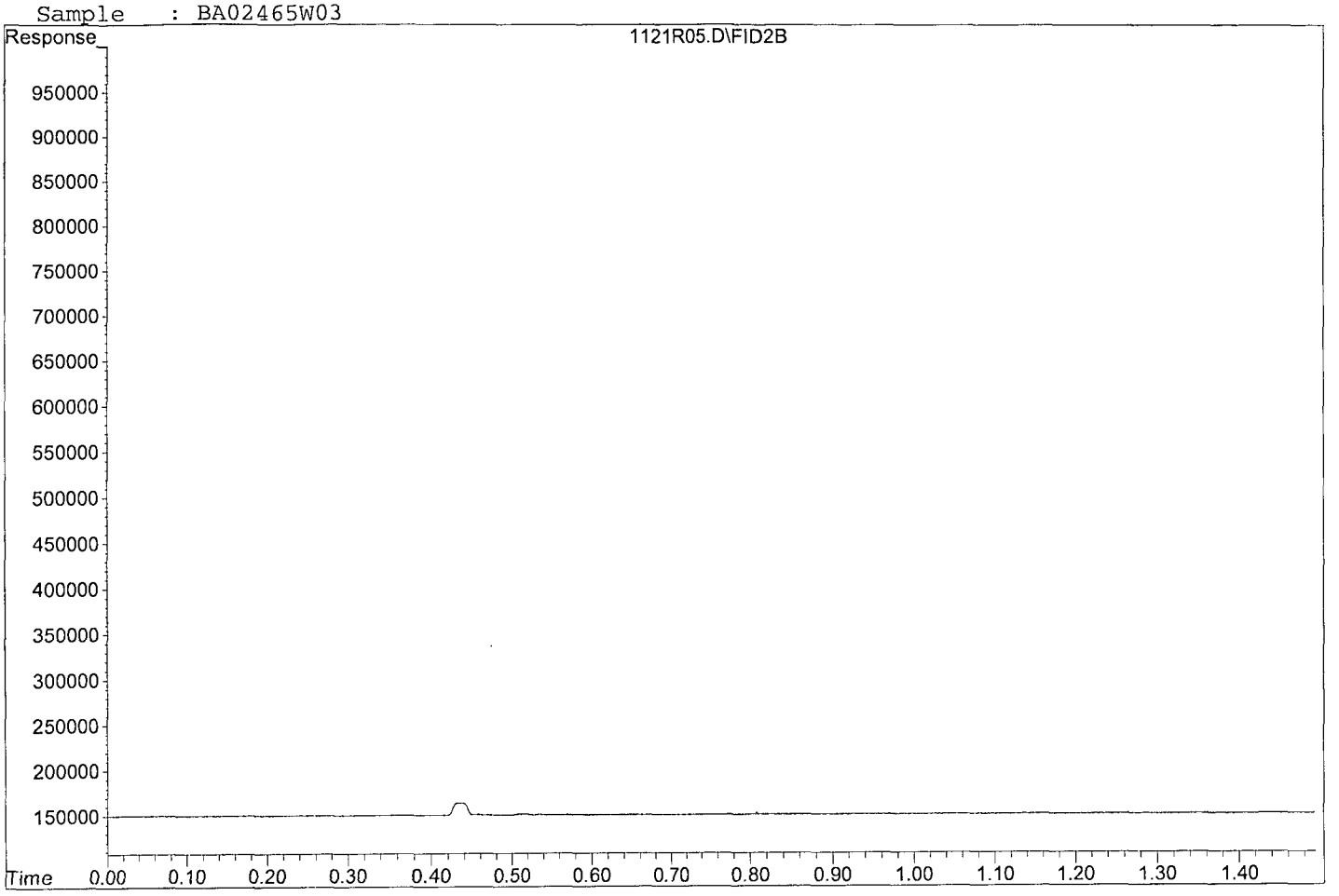
Method : G:\ROCKY\DATA\190929RS\RSK1002.M (Chemstation Integrator)
Title : RSK 175
Last Update : Thu Nov 21 16:35:55 2019
Response via : Multiple Level Calibration

Volume Inj. : 0.500 mL
Signal Phase : CARBOPACK
Signal Info :

Compound	R.T.	Response	Conc	Units	
Target Compounds					
Target Compounds					
1) ATM Methane	0.00	0	N.D.	ppb	d
2) ATM Ethane	0.00	0	N.D.	ppb	d
3) ATM Ethene	0.00	0	N.D.	ppb	d

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: G:\ROCKY\DATA\191002RS\1121R05.D
Sample : BA02465W03



Quantitation Report (QT Reviewed)

Data File : G:\ROCKY\DATA\191002RS\1121R06.D Vial: 6
Acq On : 21 Nov 19 16:54 Operator: GA
Sample : BA02466W04 Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Nov 21 16:56 2019 Quant Results File: RSK1002.RES

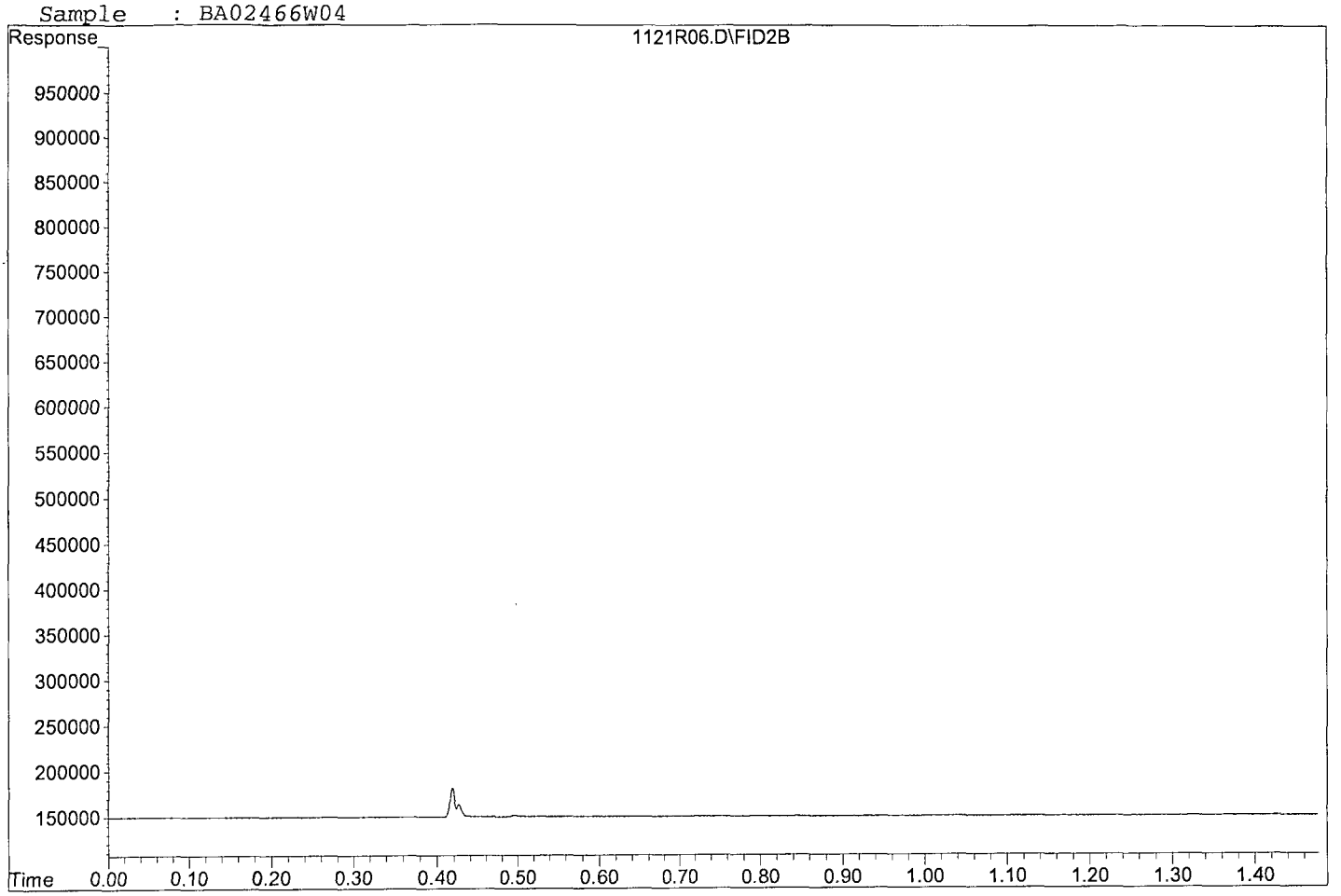
Method : G:\ROCKY\DATA\190929RS\RSK1002.M (Chemstation Integrator)
Title : RSK 175
Last Update : Thu Nov 21 16:35:55 2019
Response via : Multiple Level Calibration

Volume Inj. : 0.500 mL
Signal Phase : CARBOPACK
Signal Info :

Compound	R.T.	Response	Conc	Units	
Target Compounds					
Target Compounds					
1) ATM Methane	0.00	0	N.D.	ppb	d
2) ATM Ethane	0.00	0	N.D.	ppb	d
3) ATM Ethene	0.00	0	N.D.	ppb	d

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: G:\ROCKY\DATA\191002RS\1121R06.D
Sample : BA02466W04



Quantitation Report (QT Reviewed)

Data File : G:\ROCKY\DATA\191002RS\1121R04.D Vial: 4
Acq On : 21 Nov 19 16:42 Operator: GA
Sample : 191121A BLK Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Nov 21 16:44 2019 Quant Results File: RSK1002.RES

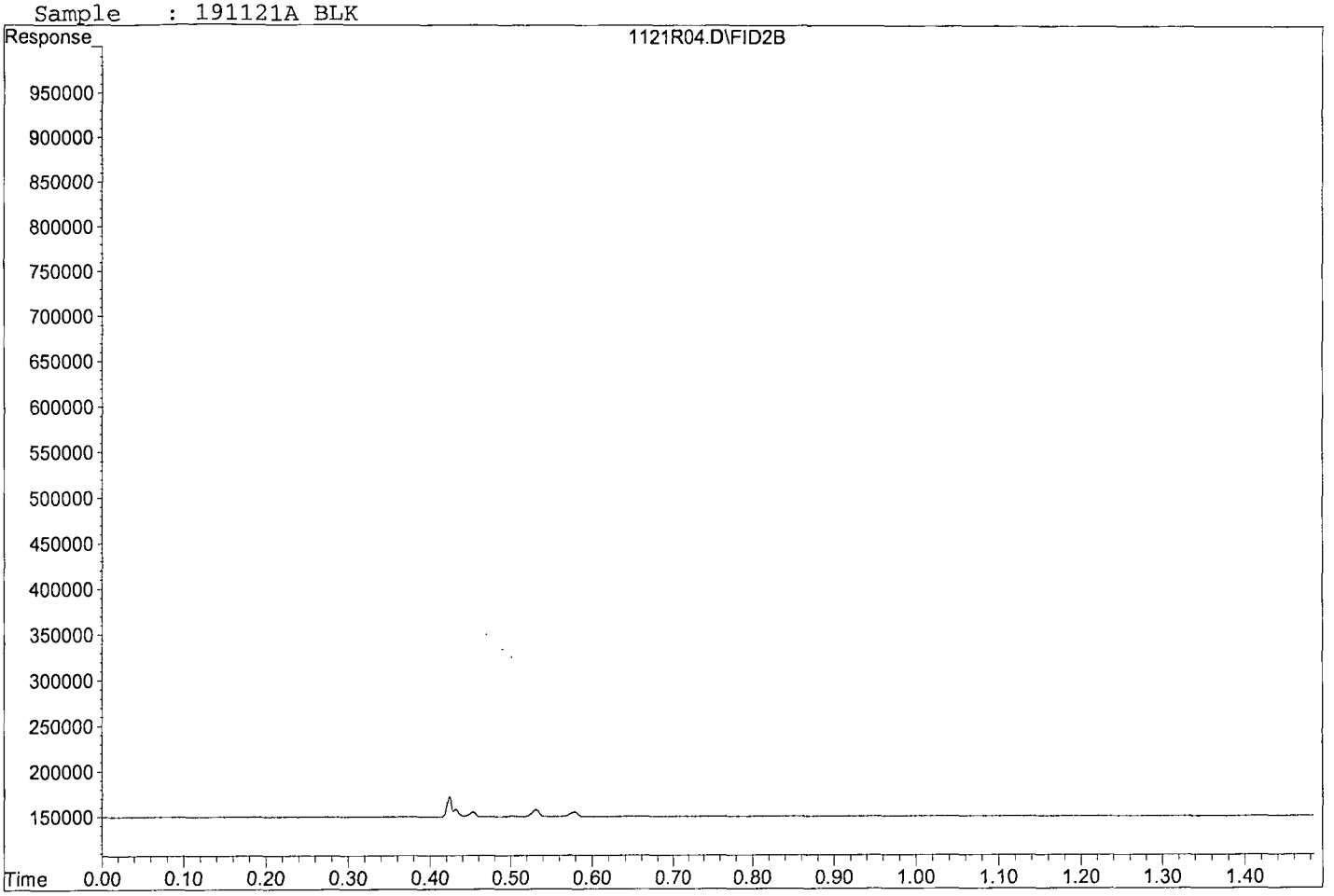
Method : G:\ROCKY\DATA\190929RS\RSK1002.M (Chemstation Integrator)
Title : RSK 175
Last Update : Thu Nov 21 16:35:55 2019
Response via : Multiple Level Calibration

Volume Inj. : 0.500 mL
Signal Phase : CARBOPACK
Signal Info :

Compound	R.T.	Response	Conc	Units	
Target Compounds					
Target Compounds					
1) ATM Methane	0.00	0	N.D.	ppb	d
2) ATM Ethane	0.00	0	N.D.	ppb	d
3) ATM Ethene	0.00	0	N.D.	ppb	d

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: G:\ROCKY\DATA\191002RS\1121R04.D
Sample : 191121A BLK



Quantitation Report (Not Reviewed)

Data File : G:\ROCKY\DATA\191002RS\1121R03.D Vial: 3
Acq On : 21 Nov 19 16:38 Operator: GA
Sample : 191121A LCS/CCV RSK STD 5 Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Nov 21 16:40 2019 Quant Results File: RSK1002.RES

Method : G:\ROCKY\DATA\190929RS\RSK1002.M (Chemstation Integrator)
Title : RSK 175
Last Update : Thu Nov 21 16:35:55 2019
Response via : Multiple Level Calibration

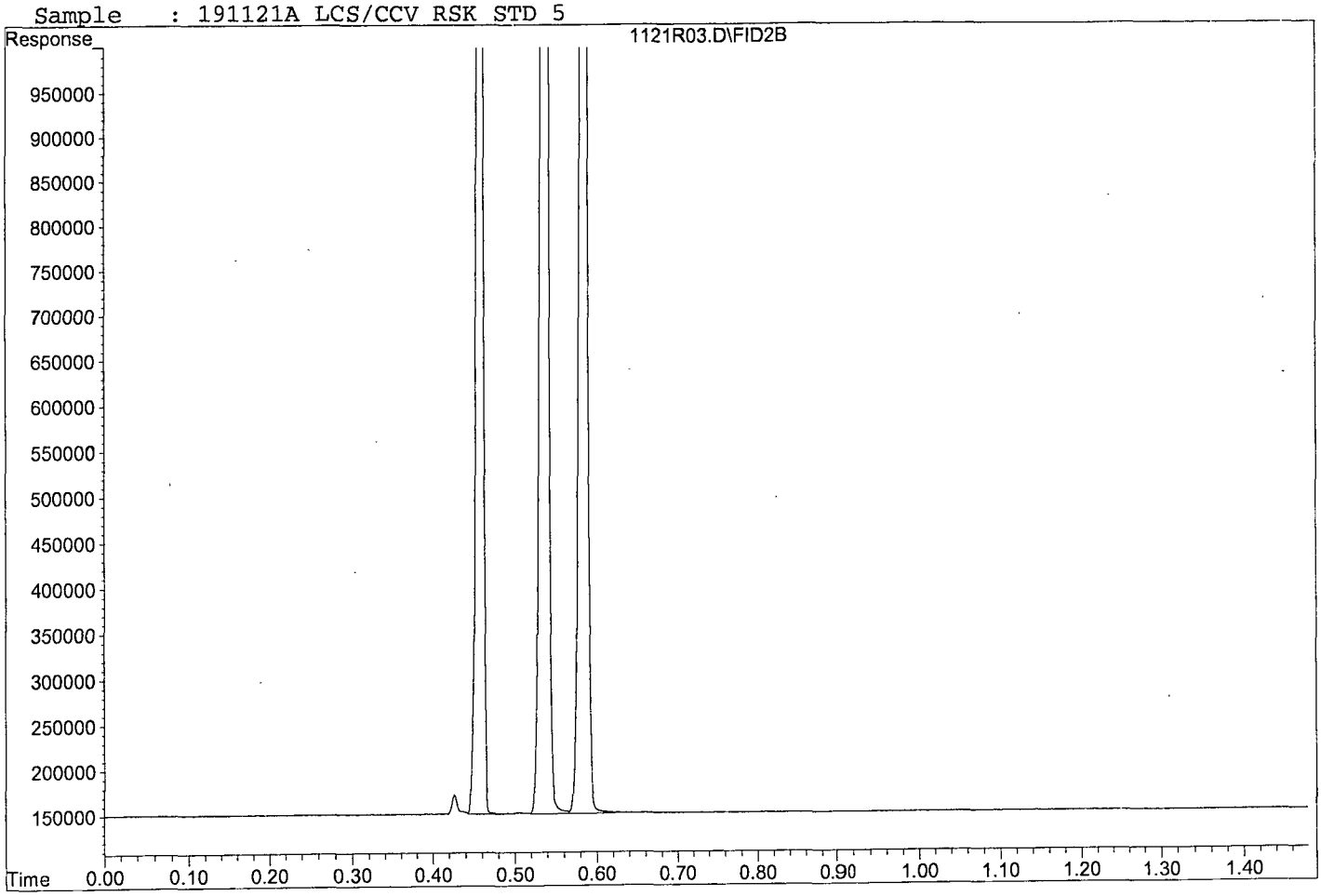
Volume Inj. : 0.500 mL
Signal Phase : CARBOPACK
Signal Info :

Compound	R.T.	Response	Conc Units
Target Compounds			
1) ATM Methane	0.46	1917485	82.874 ppb
2) ATM Ethane	0.54	2398337	140.916 ppb
3) ATM Ethene	0.58	1716491	128.216 ppb

Target Compounds

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: G:\ROCKY\DATA\191002RS\1121R03.D
Sample : 191121A LCS/CCV RSK STD 5



Quantitation Report (Not Reviewed)

Data File : G:\ROCKY\DATA\191002RS\1121R07.D Vial: 7
Acq On : 21 Nov 19 16:57 Operator: GA
Sample : ENDING CCV/LCSD RSK STD 5 11/21/19 Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Nov 21 17:03 2019 Quant Results File: RSK1002.RES

Method : G:\ROCKY\DATA\190929RS\RSK1002.M (Chemstation Integrator)
Title : RSK 175
Last Update : Thu Nov 21 16:35:55 2019
Response via : Multiple Level Calibration

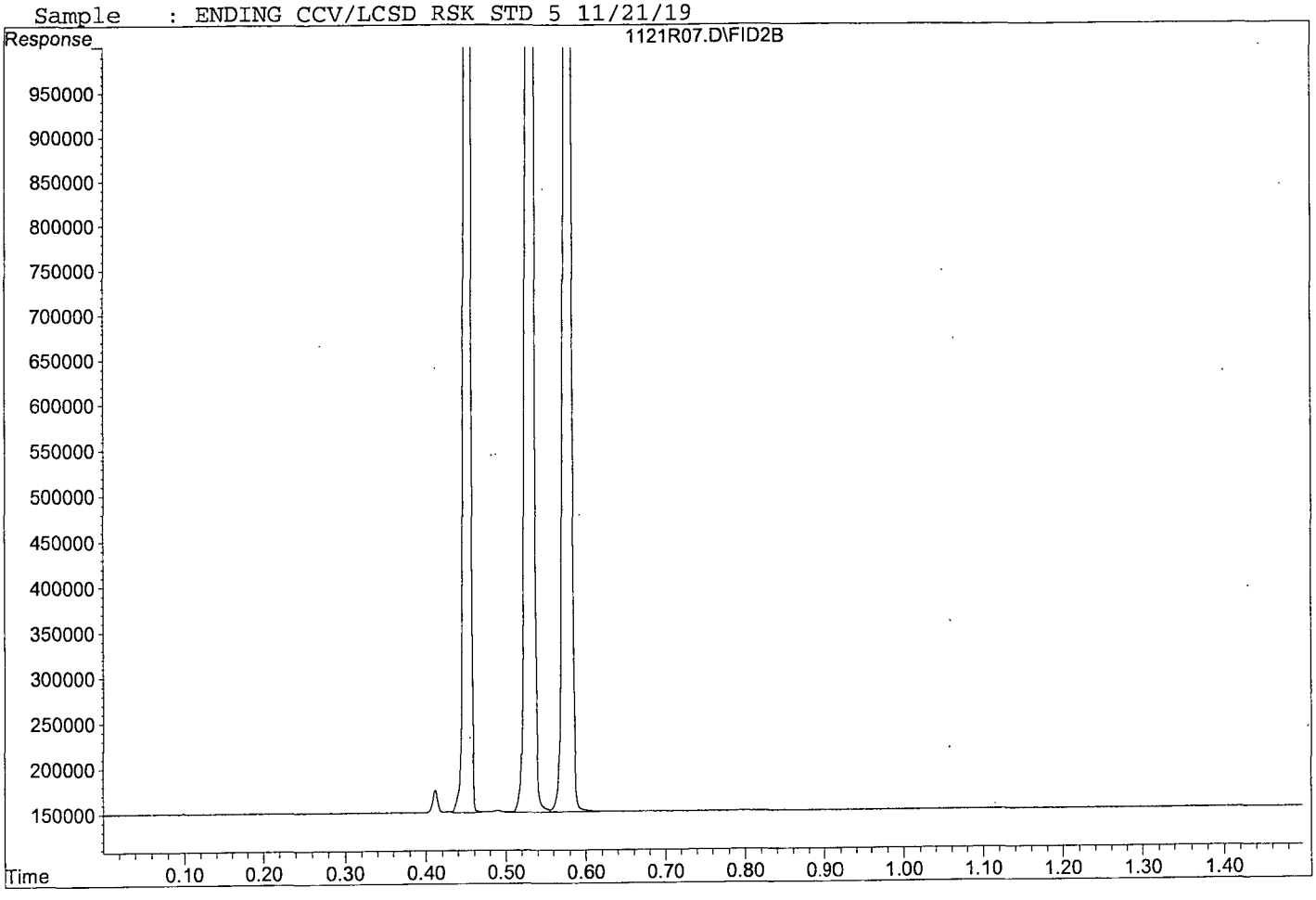
Volume Inj. : 0.500 mL
Signal Phase : CARBOPACK
Signal Info :

Compound	R.T.	Response	Conc Units
Target Compounds			
1) ATM Methane	0.45	1912256	82.648 ppb
2) ATM Ethane	0.53	2331087	136.965 ppb
3) ATM Ethene	0.58	1681784	125.623 ppb

Target Compounds

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: G:\ROCKY\DATA\191002RS\1121R07.D
Sample : ENDING CCV/LCSD RSK STD 5 11/21/19



Primary Stock Source

10,000ppmV **Manufacture Expiration:** 09/21/21

RSK Gas Mix (Scott Specialty Gas) CAT#X04NI97CP140001 LOT#160-401558175-1

1% Gas Concentration Moles = 10,000ppmV Methane, Ethane, Ethene

RSK Calibration Curve (prepared in 1.0 L Tedlar Bags at room temp) **01/02/19** **10/02/19**

Analyte	Conc Std 1 (1/2 = LOD) (ug/L)	Conc Std 2 (LOQ Chk) (ug/L)	Conc Std 3 (ug/L)	Conc Std 4 (ug/L)	Conc Std 5 (ug/L)	Conc Std 6 (ug/L)	Conc Std 7 (ug/L)
Methane (MW 16.04)	2.08	4.16	8.34	20.85	83.40	208.5	834.0
Ethane (MW 30.07)	3.91	7.81	15.6	39.09	156.35	390.9	1563.5
Ethene (MW 28.05)	3.65	7.30	14.6	36.46	145.84	364.6	1458.4
Stock Source	160-401558175-1	160-401558175-1	160-401558175-1	160-401558175-1	160-401558175-1	160-401558175-1	160-401558175-1
Stock Conc (ppmv)	10,000 ppmV	10,000 ppmV	10,000 ppmV	10,000 ppmV	10,000 ppmV	10,000 ppmV	10,000 ppmV
Stock Aliquot (mL)	0.010	0.020	0.040	0.100	0.400	1.00	4.00
Final Volume P&T Water	32 mL	32 mL	32 mL	32 mL	32 mL	32 mL	32 mL

Second Source Stock Standard 10,000ppmV **Manufacturer Exp date 9-21-2021**

RSK Gas Mix (Scott Specialty Gas) Cat.# 23452, Lot # 160-401303032-1-39774

1% Gas Concentration Moles = 10,000ppmV Methane, Ethane, Ethene

Second Source **Expires 10/03/19** **10/02/19**

2.0mL of SS from tank into 980 mL Nitrogen

final conc: 13.3ug/L Methane, 25.0 ug/L Ethane, and 23.3 ug/L Ethene

CCV/LCS/LCSD **GA 11/21/19**

Spike 0.400mL of 10,000ppmV into 32mL DI water, with 8mL Nitrogen headspace

final conc: 83.40ug/L Methane, 156.35ug/L Ethane, and 145.84ug/L Ethene

Injection Log

Directory: G:\ROCKY\DATA\191002RS\

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	2	1002R02.D	1	RSK STD 1 10/2/19		2 Oct 19 17:45
2	3	1002R03.D	1	RSK STD 2 10/2/19		2 Oct 19 17:50
3	4	1002R04.D	1	RSK STD 3 10/2/19		2 Oct 19 17:52
4	5	1002R05.D	1	RSK STD 4 10/2/19		2 Oct 19 17:57
5	6	1002R06.D	1	RSK STD 5 10/2/19		2 Oct 19 17:59
6	7	1002R07.D	1	RSK STD 6 10/2/19		2 Oct 19 18:05
7	8	1002R08.D	1	RSK STD 7 10/2/19		2 Oct 19 18:07
8	10	1002R10.D	1	SS RSK STD 5 10/2/19		2 Oct 19 18:24
9	3	1121R03.D	1	191121A LCS/CCV RSK STD 5		21 Nov 19 16:38
10	4	1121R04.D	1	191121A BLK		21 Nov 19 16:42
11	5	1121R05.D	1	BA02465W03		21 Nov 19 16:45
12	6	1121R06.D	1	BA02466W04		21 Nov 19 16:54
13	7	1121R07.D	1	ENDING CCV/LCSD RSK STD 5 11/21/19		21 Nov 19 16:57

METALS

Calibration Data

A.P.P.L. INC.
2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: A.P.P.L. INC. Contract: AECOM
ARF No: 90648 SDG: 90648

Analysis Date: 11/19/19 Concentration Units: ug/L

Analyte	Initial Calibration			Continuing Calibration						M
	True	Found 9:19	%R(1)	True CCV2	Found 10:30	%R(1)	True	Found	%R(1)	
Calcium (Ca)	12500	12300	98.4	18750	18710	99.8				P
Potassium (K)	12500	12050	96.4	7500	7294	97.3				P
Magnesium (Mg)	12500	12620	101	18750	19220	103				P
Manganese (Mn)	500	494.9	99.0	375.5	375.4	100				P
Sodium (Na)	12500	12230	97.8	9375	9216	98.3				P

(1) Control Limits: Metals 90-110

A.P.P.L. INC.
3
BLANKS

Lab Name: A.P.P.L. INC. Contract: AECOM

ARF No.: 90648 SDG: 90648

Preparation Blank Matrix (soil/water): water

Preparation Blank Concentration Units (ug/L or mg/kg): ug/L

Analysis Date: 11/19/19

Analyte	Initial Calibration Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Preparation Blank	C	M
	09:32		10:34						10:06		
Calcium (Ca)	1000.00	U	1000.00	U					40.00	J	P
Potassium (K)	3000.00	U	3000.00	U					3000.00	U	P
Magnesium (Mg)	500.00	U	500.00	U					20.30	J	P
Manganese (Mn)	10.00	U	10.00	U					10.00	U	P
Sodium (Na)	5000.00	U	5000.00	U					5000.00	U	P

A.P.P.L. INC.
4
ICP INTERFERENCE CHECK SAMPLE

Lab Name: A.P.P.L. INC. Contract: AECOM
ARF No.: 90648 SDG: 90648
ICP ID Number: Phoebe ICS Source: Environmental Express

Analysis Date: 11/19/19 Concentration Units: ug/L

Analyte	True		Initial Found		
	Sol A	Sol AB	Sol A 9:56	Sol AB 10:01	%R(1)
Aluminum (Al)	100000	100000	97930	106100	106
Calcium (Ca)	100000	100000	97510	103600	104
Iron (Fe)	100000	100000	93500	99190	99.2
Potassium (K)			-80.35	-120.3	
Magnesium (Mg)	100000	100000	97960	104700	105
Manganese (Mn)		250	-1.842	254.7	102
Sodium (Na)			104	112.2	

(1) Control Limits: Metals 80-120

Low Level ICV

Sample Name	Acq Date Time	Run Sequence	Analyte	Actual Conc (ug/L)	Spiked Conc (ug/L)	Control Limits	% Recovery	QC Flag
LLICV10	11/19/19 9:52 AM	191119A	Silver	5.419	5	80-120%	108	
LLICVX2	11/19/19 9:42 AM	191119A	Aluminum	95.1	100	80-120%	95	
LLICVX2	11/19/19 9:42 AM	191119A	Arsenic	4.04	4	80-120%	101	
LLICVX6	11/19/19 9:47 AM	191119A	Boron	153.90	150	80-120%	103	
LLICV	11/19/19 9:37 AM	191119A	Barium	1.774	1.5	80-120%	118	
LLICV	11/19/19 9:37 AM	191119A	Beryllium	1.047	1	80-120%	105	
LLICVX2	11/19/19 9:42 AM	191119A	Calcium	111.70	100	80-120%	112	
LLICVX2	11/19/19 9:42 AM	191119A	Cadmium	0.48	0.5	80-120%	95	
LLICV	11/19/19 9:37 AM	191119A	Cobalt	2.878	2.5	80-120%	115	
LLICV	11/19/19 9:37 AM	191119A	Chromium	0.46	0.5	80-120%	92	
LLICVX6	11/19/19 9:47 AM	191119A	Copper	17.55	15	80-120%	117	
LLICV	11/19/19 9:37 AM	191119A	Iron	28.90	25	80-120%	116	
LLICV	11/19/19 9:37 AM	191119A	Potassium	419.8	500	80-120%	84	
LLICVX2	11/19/19 9:42 AM	191119A	Magnesium	50.80	50	80-120%	102	
LLICVX6	11/19/19 9:47 AM	191119A	Manganese	6.39	6	80-120%	107	
LLICVX2	11/19/19 9:42 AM	191119A	Molybdenum	2.04	2	80-120%	102	
LLICV	11/19/19 9:37 AM	191119A	Sodium	439.4	500	80-120%	88	
LLICVX6	11/19/19 9:47 AM	191119A	Nickel	6.043	6	80-120%	101	
LLICV	11/19/19 9:37 AM	191119A	Phosphorus	13.09	12.5	80-120%	105	
LLICVX6	11/19/19 9:47 AM	191119A	Lead	9.67	9	80-120%	107	
LLICVX2	11/19/19 9:42 AM	191119A	Antimony	4.00	4	80-120%	100	
LLICV	11/19/19 9:37 AM	191119A	Selenium	2.17	2	80-120%	108	
LLICV	11/19/19 9:37 AM	191119A	Tin	3.217	3	80-120%	107	
LLICV	11/19/19 9:37 AM	191119A	Strontium	1.015	1	80-120%	102	
LLICV	11/19/19 9:37 AM	191119A	Titanium	2.42	2.5	80-120%	97	
LLICVX2	11/19/19 9:42 AM	191119A	Thallium	4.31	4	80-120%	108	
LLICVX6	11/19/19 9:47 AM	191119A	Vanadium	2.64	3	80-120%	88	
LLICV	11/19/19 9:37 AM	191119A	Zinc	27.16	25	80-120%	109	

Reprocessing Begun
Logged In Analyst: chemist_metals Technique: ICP Continuous

Results Data Set (original): 191119A2007
Results Library (original): C:\PE\chemist\RESULTS\Results.mdb
Results Data Set (reprocessed): 191119A2007R1
Results Library (reprocessed): C:\PE\chemist\RESULTS\Results.mdb

Sequence No.: 1 Autosampler Location: 1
Sample ID: CalBlk 191119 I:PB O:PW Date Collected: 11/19/19 9:00:44 AM
Analyst: Data Type: Reprocessed on 11/20/19 10:03:49 AM
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:

Mean Data: CalBlk 191119 I:PB O:PW

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Y 371.029	1286663.9	16613.11	1.29%	100.0	%
Y 371.029 Radial	1235338.2	16771.37	1.36%	100.0	%
Ag 338.289†	-129.4	39.09	30.22%	[0.00]	ug/L
Al 308.215†	39.0	8.93	22.90%	[0.00]	ug/L
As 188.979†	-56.9	2.12	3.73%	[0.00]	ug/L
B†	-198.5	6.10	3.07%	[0.00]	ug/L
Ba 233.527†	60.6	5.32	8.78%	[0.00]	ug/L
Be 313.107†	-1.6	14.02	896.26%	[0.00]	ug/L
Ca 315.887†	-119.6	10.59	8.85%	[0.00]	ug/L
Cd 214.440†	-237.7	14.67	6.17%	[0.00]	ug/L
Co 228.616†	62.9	8.82	14.01%	[0.00]	ug/L
Cr 267.716†	227.6	16.53	7.26%	[0.00]	ug/L
Cu 327.393†	-809.1	75.05	9.28%	[0.00]	ug/L
Fe 273.955†	-69.7	1.57	2.25%	[0.00]	ug/L
K 766.490†	1029.7	22.59	2.19%	[0.00]	ug/L
Mg 285.213†	-22.3	3.83	17.14%	[0.00]	ug/L
Mn 257.610†	-77.8	7.57	9.74%	[0.00]	ug/L
Mo 202.031†	61.1	8.69	14.21%	[0.00]	ug/L
Na 589.592†	399.7	10.95	2.74%	[0.00]	ug/L
Ni 231.604†	41.2	10.79	26.17%	[0.00]	ug/L
P 213.617†	-73.9	5.40	7.30%	[0.00]	ug/L
Pb 220.353†	37.0	19.77	53.37%	[0.00]	ug/L
Sb 206.836†	-20.6	0.55	2.67%	[0.00]	ug/L
Se 196.026†	1.4	6.02	444.63%	[0.00]	ug/L
Sn 189.927†	8.7	4.15	47.78%	[0.00]	ug/L
Sr 421.552†	39.7	15.25	38.44%	[0.00]	ug/L
Ti 337.279†	-112.1	4.54	4.05%	[0.00]	ug/L
Tl 190.801†	-96.2	3.59	3.73%	[0.00]	ug/L
V 292.402†	-285.1	56.80	19.92%	[0.00]	ug/L
Zn 206.200†	-405.5	9.24	2.28%	[0.00]	ug/L

Sequence No.: 2
Sample ID: STD 1 191119 I:PB O:PW
Analyst:
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:

Autosampler Location: 2
Date Collected: 11/19/19 9:06:24 AM
Data Type: Reprocessed on 11/20/19 10:04:22 AM
Initial Sample Vol:
Sample Prep Vol:

Mean Data: STD 1 191119 I:PB O:PW

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Y 371.029	1273621.3	5908.51	0.46%	98.99	%
Y 371.029 Radial	1221929.0	6314.07	0.52%	98.91	%
Ag 338.289†	113.1	44.00	38.92%	[0.5]	ug/L
Al 308.215†	12.1	0.78	6.45%	[50]	ug/L
As 188.979†	5.9	3.12	53.20%	[2]	ug/L
B†	962.5	7.59	0.79%	[25]	ug/L
Ba 233.527†	177.2	5.22	2.94%	[1.5]	ug/L
Be 313.107†	71.1	3.13	4.40%	[1]	ug/L
Ca 315.887†	88.3	6.23	7.05%	[50]	ug/L
Cd 214.440†	43.4	12.09	27.86%	[0.25]	ug/L
Co 228.616†	129.9	5.25	4.04%	[2.5]	ug/L
Cr 267.716†	49.9	18.48	37.03%	[0.5]	ug/L
Cu 327.393†	362.0	149.14	41.20%	[2.5]	ug/L
Fe 273.955†	446.1	15.25	3.42%	[25]	ug/L
K 766.490†	898.0	30.79	3.43%	[500]	ug/L
Mg 285.213†	60.1	5.46	9.09%	[25]	ug/L
Mn 257.610†	1.8	2.23	122.62%	[1]	ug/L
Mo 202.031†	39.9	3.61	9.04%	[1]	ug/L
Na 589.592†	1423.3	106.15	7.46%	[500]	ug/L
Ni 231.604†	35.5	6.92	19.50%	[1]	ug/L
P 213.617†	37.6	4.11	10.91%	[12.5]	ug/L
Pb 220.353†	11.9	26.11	219.97%	[1.5]	ug/L
Sb 206.836†	5.6	1.77	31.57%	[2]	ug/L
Se 196.026†	0.1	2.10	>999.9%	[2]	ug/L
Sn 189.927†	19.6	2.20	11.23%	[3]	ug/L
Sr 421.552†	167.8	72.78	43.38%	[1]	ug/L
Ti 337.279†	18.2	6.03	33.07%	[2.5]	ug/L
Tl 190.801†	10.2	1.75	17.23%	[2]	ug/L
V 292.402†	64.5	41.53	64.40%	[0.5]	ug/L
Zn 206.200†	1182.7	12.89	1.09%	[25]	ug/L

Sequence No.: 3
Sample ID: STD 2 191119 I:PB O:PW
Analyst:
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:

Autosampler Location: 3
Date Collected: 11/19/19 9:11:09 AM
Data Type: Reprocessed on 11/20/19 10:04:23 AM
Initial Sample Vol:
Sample Prep Vol:

Mean Data: STD 2 191119 I:PB O:PW

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Y 371.029	1213922.2	8733.52	0.72%	94.35	%
Y 371.029 Radial	1161811.2	8624.72	0.74%	94.05	%
Ag 338.289†	18992.8	54.40	0.29%	[250]	ug/L
Al 308.215†	2612.9	8.46	0.32%	[10000]	ug/L
As 188.979†	1579.3	16.74	1.06%	[500]	ug/L
B†	18888.8	37.84	0.20%	[500]	ug/L
Ba 233.527†	54552.3	128.07	0.23%	[500]	ug/L
Be 313.107†	32193.9	621.49	1.93%	[500]	ug/L
Ca 315.887†	32325.0	126.39	0.39%	[25000]	ug/L
Cd 214.440†	67308.8	373.37	0.55%	[500]	ug/L
Co 228.616†	23494.1	48.70	0.21%	[500]	ug/L
Cr 267.716†	37822.5	81.69	0.22%	[500]	ug/L
Cu 327.393†	42659.3	120.29	0.28%	[500]	ug/L
Fe 273.955†	154937.5	397.91	0.26%	[10000]	ug/L
K 766.490†	18541.6	376.90	2.03%	[10000]	ug/L
Mg 285.213†	51475.0	777.75	1.51%	[25000]	ug/L
Mn 257.610†	2868.0	12.04	0.42%	[500]	ug/L
Mo 202.031†	13183.2	107.80	0.82%	[500]	ug/L
Na 589.592†	37277.4	491.82	1.32%	[12500]	ug/L
Ni 231.604†	19073.9	86.44	0.45%	[500]	ug/L
P 213.617†	8526.1	86.00	1.01%	[2500]	ug/L
Pb 220.353†	5035.8	40.15	0.80%	[500]	ug/L
Sb 206.836†	1940.6	10.22	0.53%	[500]	ug/L
Se 196.026†	1336.6	4.48	0.33%	[500]	ug/L
Sn 189.927†	4467.1	39.93	0.89%	[500]	ug/L
Sr 421.552†	66509.4	961.26	1.45%	[500]	ug/L
Ti 337.279†	3398.0	15.42	0.45%	[500]	ug/L
Tl 190.801†	2108.3	6.48	0.31%	[500]	ug/L
V 292.402†	69067.3	103.29	0.15%	[500]	ug/L
Zn 206.200†	22183.4	187.26	0.84%	[500]	ug/L

Sequence No.: 4
Sample ID: STD 3 191119 I:PB O:PW
Analyst:
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:

Autosampler Location: 4
Date Collected: 11/19/19 9:15:49 AM
Data Type: Reprocessed on 11/20/19 10:04:24 AM
Initial Sample Vol:
Sample Prep Vol:

Mean Data: STD 3 191119 I:PB O:PW

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Y 371.029	1197623.1	10928.39	0.91%	93.08	%
Y 371.029 Radial	1146046.5	10987.67	0.96%	92.77	%
Ag 338.289†	38191.5	60.42	0.16%	[500]	ug/L
Al 308.215†	5178.7	99.32	1.92%	[20000]	ug/L
As 188.979†	3169.4	36.31	1.15%	[1000]	ug/L
B†	38640.1	286.56	0.74%	[1000]	ug/L
Ba 233.527†	108934.5	151.06	0.14%	[1000]	ug/L
Be 313.107†	64076.0	525.86	0.82%	[1000]	ug/L
Ca 315.887†	64373.7	1544.19	2.40%	[50000]	ug/L
Cd 214.440†	132992.3	124.09	0.09%	[1000]	ug/L
Co 228.616†	46719.7	52.23	0.11%	[1000]	ug/L
Cr 267.716†	75287.0	98.77	0.13%	[1000]	ug/L
Cu 327.393†	86502.7	373.26	0.43%	[1000]	ug/L
Fe 273.955†	309347.3	342.76	0.11%	[20000]	ug/L
K 766.490†	37503.3	356.86	0.95%	[20000]	ug/L
Mg 285.213†	101987.5	811.68	0.80%	[50000]	ug/L
Mn 257.610†	5711.2	155.22	2.72%	[1000]	ug/L
Mo 202.031†	26095.5	292.93	1.12%	[1000]	ug/L
Na 589.592†	74501.3	699.45	0.94%	[25000]	ug/L
Ni 231.604†	37589.3	175.23	0.47%	[1000]	ug/L
P 213.617†	17036.6	184.63	1.08%	[5000]	ug/L
Pb 220.353†	9844.4	120.40	1.22%	[1000]	ug/L
Sb 206.836†	3865.6	41.01	1.06%	[1000]	ug/L
Se 196.026†	2662.8	36.41	1.37%	[1000]	ug/L
Sn 189.927†	8810.4	81.50	0.93%	[1000]	ug/L
Sr 421.552†	133316.0	1359.45	1.02%	[1000]	ug/L
Ti 337.279†	6788.2	172.36	2.54%	[1000]	ug/L
Tl 190.801†	4136.9	52.81	1.28%	[1000]	ug/L
V 292.402†	138931.8	196.32	0.14%	[1000]	ug/L
Zn 206.200†	43754.3	60.88	0.14%	[1000]	ug/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 338.289	3	Lin Thru 0	0.0	76.30	0.00000	0.999996	
Al 308.215	3	Lin Thru 0	0.0	0.2594	0.00000	0.999993	
As 188.979	3	Lin Thru 0	0.0	3.167	0.00000	0.999999	
B	3	Lin Thru 0	0.0	38.47	0.00000	0.999960	
Ba 233.527	3	Lin Thru 0	0.0	109.0	0.00000	1.000000	
Be 313.107	3	Lin Thru 0	0.0	64.14	0.00000	0.999998	
Ca 315.887	3	Lin Thru 0	0.0	1.289	0.00000	0.999998	
Cd 214.440	3	Lin Thru 0	0.0	133.3	0.00000	0.999988	
Co 228.616	3	Lin Thru 0	0.0	46.77	0.00000	0.999997	
Cr 267.716	3	Lin Thru 0	0.0	75.36	0.00000	0.999998	
Cu 327.393	3	Lin Thru 0	0.0	86.27	0.00000	0.999984	
Fe 273.955	3	Lin Thru 0	0.0	15.47	0.00000	1.000000	
K 766.490	3	Lin Thru 0	0.0	1.871	0.00000	0.999990	
Mg 285.213	3	Lin Thru 0	0.0	2.044	0.00000	0.999993	
Mn 257.610	3	Lin Thru 0	0.0	5.716	0.00000	0.999998	
Mo 202.031	3	Lin Thru 0	0.0	26.15	0.00000	0.999991	
Na 589.592	3	Lin Thru 0	0.0	2.980	0.00000	1.000000	
Ni 231.604	3	Lin Thru 0	0.0	37.70	0.00000	0.999982	
P 213.617	3	Lin Thru 0	0.0	3.408	0.00000	1.000000	
Pb 220.353	3	Lin Thru 0	0.0	9.890	0.00000	0.999958	
Sb 206.836	3	Lin Thru 0	0.0	3.869	0.00000	0.999999	
Se 196.026	3	Lin Thru 0	0.0	2.665	0.00000	0.999997	
Sn 189.927	3	Lin Thru 0	0.0	8.835	0.00000	0.999984	
Sr 421.552	3	Lin Thru 0	0.0	133.3	0.00000	1.000000	

Ti 337.279	3	Lin Thru 0	0.0	6.790	0.00000	1.000000
Tl 190.801	3	Lin Thru 0	0.0	4.153	0.00000	0.999970
V 292.402	3	Lin Thru 0	0.0	138.8	0.00000	0.999997
Zn 206.200	3	Lin Thru 0	0.0	43.88	0.00000	0.999983

Sequence No.: 5
Sample ID: ICV 191119 I:PB O:PW
Analyst:
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:

Autosampler Location: 5
Date Collected: 11/19/19 9:19:42 AM
Data Type: Reprocessed on 11/20/19 10:04:26 AM
Initial Sample Vol:
Sample Prep Vol:

Mean Data: ICV 191119 I:PB O:PW

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	1233813.1	95.89	%	0.439				0.46%
Y 371.029 Radial	1182511.9	95.72	%	0.479				0.50%
Ag 338.289†	19147.2	253.1	ug/L	0.59	253.1	ug/L	0.59	0.23%
QC value within limits for Ag 338.289 Recovery = 101.24%								
Al 308.215†	3217.8	12410	ug/L	90.5	12410	ug/L	90.5	0.73%
QC value within limits for Al 308.215 Recovery = 99.29%								
As 188.979†	1570.8	498.9	ug/L	6.26	498.9	ug/L	6.26	1.25%
QC value within limits for As 188.979 Recovery = 99.77%								
B†	19518.7	507.4	ug/L	2.95	507.4	ug/L	2.95	0.58%
QC value within limits for B Recovery = 101.48%								
Ba 233.527†	55252.7	506.3	ug/L	0.53	506.3	ug/L	0.53	0.10%
QC value within limits for Ba 233.527 Recovery = 101.26%								
Be 313.107†	31254.6	488.8	ug/L	4.92	488.8	ug/L	4.92	1.01%
QC value within limits for Be 313.107 Recovery = 97.76%								
Ca 315.887†	15850.3	12300	ug/L	69.1	12300	ug/L	69.1	0.56%
QC value within limits for Ca 315.887 Recovery = 98.37%								
Cd 214.440†	67247.5	504.4	ug/L	2.15	504.4	ug/L	2.15	0.43%
QC value within limits for Cd 214.440 Recovery = 100.87%								
Co 228.616†	23795.6	506.9	ug/L	1.43	506.9	ug/L	1.43	0.28%
QC value within limits for Co 228.616 Recovery = 101.38%								
Cr 267.716†	37556.0	497.6	ug/L	2.07	497.6	ug/L	2.07	0.42%
QC value within limits for Cr 267.716 Recovery = 99.52%								
Cu 327.393†	43331.4	503.2	ug/L	1.81	503.2	ug/L	1.81	0.36%
QC value within limits for Cu 327.393 Recovery = 100.64%								
Fe 273.955†	192473.2	12400	ug/L	19.2	12400	ug/L	19.2	0.15%
QC value within limits for Fe 273.955 Recovery = 99.17%								
K 766.490†	22556.2	12050	ug/L	176.5	12050	ug/L	176.5	1.47%
QC value within limits for K 766.490 Recovery = 96.36%								
Mg 285.213†	25755.4	12620	ug/L	47.3	12620	ug/L	47.3	0.37%
QC value within limits for Mg 285.213 Recovery = 100.92%								
Mn 257.610†	2825.4	494.9	ug/L	2.02	494.9	ug/L	2.02	0.41%
QC value within limits for Mn 257.610 Recovery = 98.98%								
Mo 202.031†	12805.7	489.9	ug/L	5.47	489.9	ug/L	5.47	1.12%
QC value within limits for Mo 202.031 Recovery = 97.98%								
Na 589.592†	36430.1	12230	ug/L	112.3	12230	ug/L	112.3	0.92%
QC value within limits for Na 589.592 Recovery = 97.86%								
Ni 231.604†	19165.5	504.8	ug/L	3.11	504.8	ug/L	3.11	0.62%
QC value within limits for Ni 231.604 Recovery = 100.95%								
P 213.617†	8330.6	2444	ug/L	30.1	2444	ug/L	30.1	1.23%
QC value within limits for P 213.617 Recovery = 97.78%								
Pb 220.353†	4999.7	508.0	ug/L	5.50	508.0	ug/L	5.50	1.08%
QC value within limits for Pb 220.353 Recovery = 101.61%								
Sb 206.836†	1862.3	481.4	ug/L	5.43	481.4	ug/L	5.43	1.13%
QC value within limits for Sb 206.836 Recovery = 96.27%								
Se 196.026†	1324.0	502.2	ug/L	4.48	502.2	ug/L	4.48	0.89%
QC value within limits for Se 196.026 Recovery = 100.45%								
Sn 189.927†	2175.5	249.8	ug/L	2.45	249.8	ug/L	2.45	0.98%
QC value within limits for Sn 189.927 Recovery = 99.91%								
Sr 421.552†	65266.9	489.7	ug/L	5.31	489.7	ug/L	5.31	1.09%
QC value within limits for Sr 421.552 Recovery = 97.93%								
Ti 337.279†	3328.0	489.9	ug/L	1.97	489.9	ug/L	1.97	0.40%
QC value within limits for Ti 337.279 Recovery = 97.97%								
Tl 190.801†	2048.1	505.4	ug/L	6.07	505.4	ug/L	6.07	1.20%
QC value within limits for Tl 190.801 Recovery = 101.08%								
V 292.402†	68099.9	498.3	ug/L	1.56	498.3	ug/L	1.56	0.31%
QC value within limits for V 292.402 Recovery = 99.66%								
Zn 206.200†	22260.6	509.7	ug/L	2.35	509.7	ug/L	2.35	0.46%
QC value within limits for Zn 206.200 Recovery = 101.93%								

All analyte(s) passed QC.

Sequence No.: 6
Sample ID: ICB 191119 I:PB O:PW
Analyst:
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 11/19/19 9:32:38 AM
Data Type: Reprocessed on 11/20/19 10:04:32 AM

Initial Sample Vol:
Sample Prep Vol:

Mean Data: ICB 191119 I:PB O:PW

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	1278719.0	99.38	%	0.153				0.15%
Y 371.029 Radial	1226966.5	99.32	%	0.153				0.15%
Ag 338.289†	16.6	0.210	ug/L	0.3549	0.210	ug/L	0.3549	169.06%
QC value within limits for Ag 338.289 Recovery = Not calculated								
Al 308.215†	2.4	9.270	ug/L	25.2298	9.270	ug/L	25.2298	272.17%
QC value within limits for Al 308.215 Recovery = Not calculated								
As 188.979†	-2.2	-0.693	ug/L	2.6324	-0.693	ug/L	2.6324	380.01%
QC value within limits for As 188.979 Recovery = Not calculated								
B†	314.8	8.183	ug/L	0.1532	8.183	ug/L	0.1532	1.87%
QC value within limits for B Recovery = Not calculated								
Ba 233.527†	16.0	0.145	ug/L	0.1324	0.145	ug/L	0.1324	91.30%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	8.0	0.124	ug/L	0.1217	0.124	ug/L	0.1217	98.21%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 315.887†	-6.2	-4.822	ug/L	5.4434	-4.822	ug/L	5.4434	112.90%
QC value within limits for Ca 315.887 Recovery = Not calculated								
Cd 214.440†	1.1	0.009	ug/L	0.0806	0.009	ug/L	0.0806	907.08%
QC value within limits for Cd 214.440 Recovery = Not calculated								
Co 228.616†	9.3	0.200	ug/L	0.4191	0.200	ug/L	0.4191	210.01%
QC value within limits for Co 228.616 Recovery = Not calculated								
Cr 267.716†	18.9	0.249	ug/L	0.1673	0.249	ug/L	0.1673	67.20%
QC value within limits for Cr 267.716 Recovery = Not calculated								
Cu 327.393†	160.8	1.861	ug/L	1.9440	1.861	ug/L	1.9440	104.45%
QC value within limits for Cu 327.393 Recovery = Not calculated								
Fe 273.955†	1.8	0.174	ug/L	0.0993	0.174	ug/L	0.0993	57.15%
QC value within limits for Fe 273.955 Recovery = Not calculated								
K 766.490†	-140.5	-75.09	ug/L	59.872	-75.09	ug/L	59.872	79.73%
QC value within limits for K 766.490 Recovery = Not calculated								
Mg 285.213†	2.9	1.422	ug/L	3.3414	1.422	ug/L	3.3414	235.02%
QC value within limits for Mg 285.213 Recovery = Not calculated								
Mn 257.610†	1.2	0.210	ug/L	1.1115	0.210	ug/L	1.1115	529.71%
QC value within limits for Mn 257.610 Recovery = Not calculated								
Mo 202.031†	11.9	0.454	ug/L	0.1046	0.454	ug/L	0.1046	23.05%
QC value within limits for Mo 202.031 Recovery = Not calculated								
Na 589.592†	-128.2	-42.99	ug/L	48.261	-42.99	ug/L	48.261	112.26%
QC value within limits for Na 589.592 Recovery = Not calculated								
Ni 231.604†	-1.8	-0.048	ug/L	0.1346	-0.048	ug/L	0.1346	278.35%
QC value within limits for Ni 231.604 Recovery = Not calculated								
P 213.617†	-3.4	-1.004	ug/L	1.9110	-1.004	ug/L	1.9110	190.26%
QC value within limits for P 213.617 Recovery = Not calculated								
Pb 220.353†	-8.6	-0.867	ug/L	2.0257	-0.867	ug/L	2.0257	233.66%
QC value within limits for Pb 220.353 Recovery = Not calculated								
Sb 206.836†	4.5	1.176	ug/L	1.0776	1.176	ug/L	1.0776	91.66%
QC value within limits for Sb 206.836 Recovery = Not calculated								
Se 196.026†	-1.6	-0.603	ug/L	1.4269	-0.603	ug/L	1.4269	236.65%
QC value within limits for Se 196.026 Recovery = Not calculated								
Sn 189.927†	-3.1	-0.354	ug/L	0.7231	-0.354	ug/L	0.7231	204.39%
QC value within limits for Sn 189.927 Recovery = Not calculated								
Sr 421.552†	-40.2	-0.302	ug/L	0.4117	-0.302	ug/L	0.4117	136.47%
QC value within limits for Sr 421.552 Recovery = Not calculated								
Ti 337.279†	-1.9	-0.284	ug/L	1.5138	-0.284	ug/L	1.5138	533.19%
QC value within limits for Ti 337.279 Recovery = Not calculated								
Tl 190.801†	-0.9	-0.218	ug/L	0.6967	-0.218	ug/L	0.6967	319.52%
QC value within limits for Tl 190.801 Recovery = Not calculated								
V 292.402†	-99.3	-0.707	ug/L	0.4882	-0.707	ug/L	0.4882	69.04%
QC value within limits for V 292.402 Recovery = Not calculated								
Zn 206.200†	-3.1	-0.082	ug/L	0.1913	-0.082	ug/L	0.1913	233.45%
QC value within limits for Zn 206.200 Recovery = Not calculated								

All analyte(s) passed QC.

Sequence No.: 7
Sample ID: LLICV 191119 I:PB O:PW
Analyst:
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:

Autosampler Location: 2
Date Collected: 11/19/19 9:37:19 AM
Data Type: Reprocessed on 11/20/19 10:04:33 AM
Initial Sample Vol:
Sample Prep Vol:

Mean Data: LLICV 191119 I:PB O:PW

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	1289094.7	100.2	%	1.62				1.62%
Y 371.029 Radial	1237591.4	100.2	%	1.70				1.69%
Ag 338.289†	121.5	1.621	ug/L	0.3539	1.621	ug/L	0.3539	21.84%
QC value greater than the upper limit for Ag 338.289 Recovery = 324.14%								
Al 308.215†	17.4	66.99	ug/L	30.155	66.99	ug/L	30.155	45.01%
QC value greater than the upper limit for Al 308.215 Recovery = 133.99%								
As 188.979†	1.8	0.583	ug/L	1.5591	0.583	ug/L	1.5591	267.55%
QC value less than the lower limit for As 188.979 Recovery = 29.14%								
B†	1214.2	31.56	ug/L	0.570	31.56	ug/L	0.570	1.81%
QC value greater than the upper limit for B Recovery = 126.26%								
Ba 233.527†	194.1	1.774	ug/L	0.0748	1.774	ug/L	0.0748	4.21%
QC value within limits for Ba 233.527 Recovery = 118.29%								
Be 313.107†	66.7	1.047	ug/L	0.1840	1.047	ug/L	0.1840	17.57%
QC value within limits for Be 313.107 Recovery = 104.71%								
Ca 315.887†	88.8	68.84	ug/L	5.209	68.84	ug/L	5.209	7.57%
QC value greater than the upper limit for Ca 315.887 Recovery = 137.69%								
Cd 214.440†	43.3	0.325	ug/L	0.1057	0.325	ug/L	0.1057	32.54%
QC value greater than the upper limit for Cd 214.440 Recovery = 129.98%								
Co 228.616†	135.1	2.878	ug/L	0.3663	2.878	ug/L	0.3663	12.73%
QC value within limits for Co 228.616 Recovery = 115.11%								
Cr 267.716†	35.3	0.458	ug/L	0.2075	0.458	ug/L	0.2075	45.34%
QC value within limits for Cr 267.716 Recovery = 91.52%								
Cu 327.393†	407.4	4.703	ug/L	0.5618	4.703	ug/L	0.5618	11.94%
QC value greater than the upper limit for Cu 327.393 Recovery = 188.14%								
Fe 273.955†	446.8	28.90	ug/L	0.427	28.90	ug/L	0.427	1.48%
QC value within limits for Fe 273.955 Recovery = 115.62%								
K 766.490†	785.4	419.8	ug/L	92.82	419.8	ug/L	92.82	22.11%
QC value within limits for K 766.490 Recovery = 83.95%								
Mg 285.213†	65.6	32.01	ug/L	1.965	32.01	ug/L	1.965	6.14%
QC value greater than the upper limit for Mg 285.213 Recovery = 128.04%								
Mn 257.610†	3.3	0.579	ug/L	1.5566	0.579	ug/L	1.5566	268.80%
QC value less than the lower limit for Mn 257.610 Recovery = 57.91%								
Mo 202.031†	34.0	1.293	ug/L	0.1737	1.293	ug/L	0.1737	13.44%
QC value greater than the upper limit for Mo 202.031 Recovery = 129.26%								
Na 589.592†	1310.0	439.4	ug/L	26.93	439.4	ug/L	26.93	6.13%
QC value within limits for Na 589.592 Recovery = 87.88%								
Ni 231.604†	30.5	0.775	ug/L	0.2477	0.775	ug/L	0.2477	31.94%
QC value less than the lower limit for Ni 231.604 Recovery = 77.55%								
P 213.617†	44.6	13.09	ug/L	2.622	13.09	ug/L	2.622	20.03%
QC value within limits for P 213.617 Recovery = 104.75%								
Pb 220.353†	20.6	2.081	ug/L	0.5874	2.081	ug/L	0.5874	28.23%
QC value greater than the upper limit for Pb 220.353 Recovery = 138.72%								
Sb 206.836†	11.4	2.934	ug/L	1.0789	2.934	ug/L	1.0789	36.77%
QC value greater than the upper limit for Sb 206.836 Recovery = 146.69%								
Se 196.026†	5.8	2.169	ug/L	4.1077	2.169	ug/L	4.1077	189.36%
QC value within limits for Se 196.026 Recovery = 108.46%								
Sn 189.927†	28.3	3.217	ug/L	0.8927	3.217	ug/L	0.8927	27.74%
QC value within limits for Sn 189.927 Recovery = 107.25%								
Sr 421.552†	135.3	1.015	ug/L	0.5279	1.015	ug/L	0.5279	52.03%
QC value within limits for Sr 421.552 Recovery = 101.45%								
Ti 337.279†	16.4	2.418	ug/L	0.2430	2.418	ug/L	0.2430	10.05%
QC value within limits for Ti 337.279 Recovery = 96.73%								
Tl 190.801†	11.1	2.679	ug/L	1.2589	2.679	ug/L	1.2589	46.99%
QC value greater than the upper limit for Tl 190.801 Recovery = 133.96%								
V 292.402†	-20.6	-0.135	ug/L	0.5083	-0.135	ug/L	0.5083	376.84%
QC value less than the lower limit for V 292.402 Recovery = -26.98%								
Zn 206.200†	1193.8	27.16	ug/L	0.231	27.16	ug/L	0.231	0.85%
QC value within limits for Zn 206.200 Recovery = 108.65%								

QC Failed. Continue with analysis.

Sequence No.: 8
Sample ID: LLICVX2 191119 I:PB O:PW
Analyst:
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:

Autosampler Location: 10
Date Collected: 11/19/19 9:42:11 AM
Data Type: Reprocessed on 11/20/19 10:04:34 AM

Initial Sample Vol:
Sample Prep Vol:

Mean Data: LLICVX2 191119 I:PB O:PW

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	1285051.4	99.87	%	1.601				1.60%
Y 371.029 Radial	1233275.3	99.83	%	1.695				1.70%
Ag 338.289†	86.7	1.201	ug/L	1.6289	1.201	ug/L	1.6289	135.58%
QC value greater than the upper limit for Ag 338.289 Recovery = 120.15%								
Al 308.215†	24.7	95.14	ug/L	18.774	95.14	ug/L	18.774	19.73%
QC value within limits for Al 308.215 Recovery = 95.14%								
As 188.979†	12.6	4.037	ug/L	0.9756	4.037	ug/L	0.9756	24.17%
QC value within limits for As 188.979 Recovery = 100.93%								
B†	2315.3	60.19	ug/L	7.200	60.19	ug/L	7.200	11.96%
QC value greater than the upper limit for B Recovery = 120.38%								
Ba 233.527†	377.7	3.457	ug/L	0.1223	3.457	ug/L	0.1223	3.54%
QC value within limits for Ba 233.527 Recovery = 115.23%								
Be 313.107†	127.9	2.010	ug/L	0.1239	2.010	ug/L	0.1239	6.16%
QC value within limits for Be 313.107 Recovery = 100.48%								
Ca 315.887†	144.1	111.7	ug/L	3.24	111.7	ug/L	3.24	2.90%
QC value within limits for Ca 315.887 Recovery = 111.75%								
Cd 214.440†	64.2	0.476	ug/L	0.1274	0.476	ug/L	0.1274	26.78%
QC value within limits for Cd 214.440 Recovery = 95.12%								
Co 228.616†	253.1	5.375	ug/L	0.1106	5.375	ug/L	0.1106	2.06%
QC value within limits for Co 228.616 Recovery = 107.49%								
Cr 267.716†	70.8	0.906	ug/L	0.1736	0.906	ug/L	0.1736	19.16%
QC value within limits for Cr 267.716 Recovery = 90.63%								
Cu 327.393†	544.6	6.261	ug/L	1.0559	6.261	ug/L	1.0559	16.86%
QC value greater than the upper limit for Cu 327.393 Recovery = 125.22%								
Fe 273.955†	872.5	56.40	ug/L	0.934	56.40	ug/L	0.934	1.66%
QC value within limits for Fe 273.955 Recovery = 112.80%								
K 766.490†	1747.4	933.9	ug/L	50.62	933.9	ug/L	50.62	5.42%
QC value within limits for K 766.490 Recovery = 93.39%								
Mg 285.213†	104.1	50.80	ug/L	2.428	50.80	ug/L	2.428	4.78%
QC value within limits for Mg 285.213 Recovery = 101.60%								
Mn 257.610†	16.9	2.963	ug/L	0.1911	2.963	ug/L	0.1911	6.45%
QC value greater than the upper limit for Mn 257.610 Recovery = 148.14%								
Mo 202.031†	53.6	2.036	ug/L	0.2118	2.036	ug/L	0.2118	10.40%
QC value within limits for Mo 202.031 Recovery = 101.81%								
Na 589.592†	2924.6	981.0	ug/L	29.18	981.0	ug/L	29.18	2.97%
QC value within limits for Na 589.592 Recovery = 98.10%								
Ni 231.604†	447.7	11.75	ug/L	16.380	11.75	ug/L	16.380	139.36%
QC value greater than the upper limit for Ni 231.604 Recovery = 587.69%								
P 213.617†	83.3	24.43	ug/L	0.189	24.43	ug/L	0.189	0.77%
QC value within limits for P 213.617 Recovery = 97.73%								
Pb 220.353†	65.1	6.576	ug/L	6.4307	6.576	ug/L	6.4307	97.79%
QC value greater than the upper limit for Pb 220.353 Recovery = 219.20%								
Sb 206.836†	15.5	4.000	ug/L	0.6067	4.000	ug/L	0.6067	15.17%
QC value within limits for Sb 206.836 Recovery = 99.99%								
Se 196.026†	-1.0	-0.374	ug/L	3.4717	-0.374	ug/L	3.4717	927.28%
QC value less than the lower limit for Se 196.026 Recovery = -9.36%								
Sn 189.927†	53.8	6.125	ug/L	0.3750	6.125	ug/L	0.3750	6.12%
QC value within limits for Sn 189.927 Recovery = 102.09%								
Sr 421.552†	260.7	1.955	ug/L	0.5192	1.955	ug/L	0.5192	26.56%
QC value within limits for Sr 421.552 Recovery = 97.74%								
Ti 337.279†	37.4	5.499	ug/L	1.2895	5.499	ug/L	1.2895	23.45%
QC value within limits for Ti 337.279 Recovery = 109.98%								
Tl 190.801†	17.6	4.305	ug/L	2.1877	4.305	ug/L	2.1877	50.81%
QC value within limits for Tl 190.801 Recovery = 107.64%								
V 292.402†	56.6	0.425	ug/L	0.4771	0.425	ug/L	0.4771	112.15%
QC value less than the lower limit for V 292.402 Recovery = 42.54%								
Zn 206.200†	5693.2	129.7	ug/L	124.50	129.7	ug/L	124.50	95.99%
Saturated within auto integration window (code 4)								
QC value greater than the upper limit for Zn 206.200 Recovery = 259.39%								

Sequence No.: 9 Autosampler Location: 11
Sample ID: LLICVX6 191119 I:PB O:PW Date Collected: 11/19/19 9:47:09 AM
Analyst: Data Type: Reprocessed on 11/20/19 10:04:35 AM
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:

Mean Data: LLICVX6 191119 I:PB O:PW

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	1284075.5	99.80	%	0.852				0.85%
Y 371.029 Radial	1232783.8	99.79	%	0.912				0.91%
Ag 338.289†	319.1	4.362	ug/L	0.5343	4.362	ug/L	0.5343	12.25%
QC value greater than the upper limit for Ag 338.289 Recovery = 145.41%								
Al 308.215†	89.9	346.0	ug/L	23.71	346.0	ug/L	23.71	6.85%
QC value within limits for Al 308.215 Recovery = 115.34%								
As 188.979†	38.3	12.23	ug/L	1.141	12.23	ug/L	1.141	9.33%
QC value within limits for As 188.979 Recovery = 101.92%								
B†	5922.0	153.9	ug/L	0.81	153.9	ug/L	0.81	0.53%
QC value within limits for B Recovery = 102.63%								
Ba 233.527†	1059.2	9.689	ug/L	0.1690	9.689	ug/L	0.1690	1.74%
QC value within limits for Ba 233.527 Recovery = 107.66%								
Be 313.107†	392.1	6.159	ug/L	0.1458	6.159	ug/L	0.1458	2.37%
QC value within limits for Be 313.107 Recovery = 102.64%								
Ca 315.887†	388.7	301.4	ug/L	7.42	301.4	ug/L	7.42	2.46%
QC value within limits for Ca 315.887 Recovery = 100.46%								
Cd 214.440†	211.0	1.579	ug/L	0.0849	1.579	ug/L	0.0849	5.38%
QC value within limits for Cd 214.440 Recovery = 105.29%								
Co 228.616†	781.6	16.64	ug/L	0.219	16.64	ug/L	0.219	1.32%
QC value within limits for Co 228.616 Recovery = 110.96%								
Cr 267.716†	240.5	3.138	ug/L	0.3050	3.138	ug/L	0.3050	9.72%
QC value within limits for Cr 267.716 Recovery = 104.58%								
Cu 327.393†	1523.3	17.55	ug/L	0.593	17.55	ug/L	0.593	3.38%
QC value within limits for Cu 327.393 Recovery = 117.03%								
Fe 273.955†	2450.9	158.3	ug/L	1.67	158.3	ug/L	1.67	1.06%
QC value within limits for Fe 273.955 Recovery = 105.51%								
K 766.490†	5318.3	2843	ug/L	119.8	2843	ug/L	119.8	4.22%
QC value within limits for K 766.490 Recovery = 94.75%								
Mg 285.213†	306.6	149.5	ug/L	2.93	149.5	ug/L	2.93	1.96%
QC value within limits for Mg 285.213 Recovery = 99.69%								
Mn 257.610†	36.4	6.390	ug/L	0.8634	6.390	ug/L	0.8634	13.51%
QC value within limits for Mn 257.610 Recovery = 106.49%								
Mo 202.031†	158.7	6.018	ug/L	0.2707	6.018	ug/L	0.2707	4.50%
QC value within limits for Mo 202.031 Recovery = 100.31%								
Na 589.592†	8717.6	2924	ug/L	14.2	2924	ug/L	14.2	0.49%
QC value within limits for Na 589.592 Recovery = 97.47%								
Ni 231.604†	235.2	6.043	ug/L	0.6576	6.043	ug/L	0.6576	10.88%
QC value within limits for Ni 231.604 Recovery = 100.72%								
P 213.617†	245.6	72.06	ug/L	0.458	72.06	ug/L	0.458	0.64%
QC value within limits for P 213.617 Recovery = 96.08%								
Pb 220.353†	95.6	9.674	ug/L	0.4208	9.674	ug/L	0.4208	4.35%
QC value within limits for Pb 220.353 Recovery = 107.49%								
Sb 206.836†	44.1	11.40	ug/L	1.095	11.40	ug/L	1.095	9.60%
QC value within limits for Sb 206.836 Recovery = 95.04%								
Se 196.026†	39.0	14.67	ug/L	0.868	14.67	ug/L	0.868	5.91%
QC value greater than the upper limit for Se 196.026 Recovery = 122.27%								
Sn 189.927†	156.5	17.82	ug/L	0.256	17.82	ug/L	0.256	1.44%
QC value within limits for Sn 189.927 Recovery = 99.03%								
Sr 421.552†	809.5	6.071	ug/L	0.5652	6.071	ug/L	0.5652	9.31%
QC value within limits for Sr 421.552 Recovery = 101.19%								
Ti 337.279†	104.3	15.35	ug/L	0.308	15.35	ug/L	0.308	2.01%
QC value within limits for Ti 337.279 Recovery = 102.37%								
Tl 190.801†	55.0	13.43	ug/L	0.728	13.43	ug/L	0.728	5.42%
QC value within limits for Tl 190.801 Recovery = 111.89%								
V 292.402†	357.5	2.641	ug/L	0.6154	2.641	ug/L	0.6154	23.30%
QC value within limits for V 292.402 Recovery = 88.03%								
Zn 206.200†	7056.0	160.6	ug/L	0.48	160.6	ug/L	0.48	0.30%
QC value within limits for Zn 206.200 Recovery = 107.05%								

QC Failed. Continue with analysis.

Sequence No.: 11
Sample ID: ICSA 191119 I:PB O:PW
Analyst:
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 11/19/19 9:56:48 AM
Data Type: Reprocessed on 11/20/19 10:04:38 AM
Initial Sample Vol:
Sample Prep Vol:

Mean Data: ICSA 191119 I:PB O:PW

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	1215611.2	94.48	%	0.541				0.57%
Y 371.029 Radial	1162273.9	94.09	%	0.577				0.61%
Ag 338.289†	15.5	-0.375	ug/L	0.6677	-0.375	ug/L	0.6677	178.18%
QC value within limits for Ag 338.289 Recovery = Not calculated								
Al 308.215†	25409.1	97930	ug/L	1308.2	97930	ug/L	1308.2	1.34%
QC value within limits for Al 308.215 Recovery = 97.93%								
As 188.979†	-45.2	-0.388	ug/L	2.7590	-0.388	ug/L	2.7590	710.59%
QC value within limits for As 188.979 Recovery = Not calculated								
B†	-1670.0	-43.41	ug/L	0.837	-43.41	ug/L	0.837	1.93%
QC value within limits for B Recovery = Not calculated								
Ba 233.527†	1207.5	2.361	ug/L	0.0960	2.361	ug/L	0.0960	4.07%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	11.7	0.690	ug/L	0.0304	0.690	ug/L	0.0304	4.40%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 315.887†	125668.0	97510	ug/L	1194.0	97510	ug/L	1194.0	1.22%
QC value within limits for Ca 315.887 Recovery = 97.51%								
Cd 214.440†	510.7	0.581	ug/L	0.1402	0.581	ug/L	0.1402	24.13%
QC value within limits for Cd 214.440 Recovery = Not calculated								
Co 228.616†	337.6	0.638	ug/L	0.1994	0.638	ug/L	0.1994	31.25%
QC value within limits for Co 228.616 Recovery = Not calculated								
Cr 267.716†	-3.0	1.354	ug/L	0.1197	1.354	ug/L	0.1197	8.84%
QC value within limits for Cr 267.716 Recovery = Not calculated								
Cu 327.393†	-510.7	-0.067	ug/L	0.8214	-0.067	ug/L	0.8214	>999.9%
QC value within limits for Cu 327.393 Recovery = Not calculated								
Fe 273.955†	1446955.5	93500	ug/L	324.4	93500	ug/L	324.4	0.35%
QC value within limits for Fe 273.955 Recovery = 93.50%								
K 766.490†	-16.4	-80.35	ug/L	31.387	-80.35	ug/L	31.387	39.06%
QC value within limits for K 766.490 Recovery = Not calculated								
Mg 285.213†	199960.4	97960	ug/L	1284.6	97960	ug/L	1284.6	1.31%
QC value within limits for Mg 285.213 Recovery = 97.96%								
Mn 257.610†	-37.9	-1.842	ug/L	0.4285	-1.842	ug/L	0.4285	23.26%
QC value within limits for Mn 257.610 Recovery = Not calculated								
Mo 202.031†	-157.0	-1.709	ug/L	0.3358	-1.709	ug/L	0.3358	19.65%
QC value within limits for Mo 202.031 Recovery = Not calculated								
Na 589.592†	4.6	104.0	ug/L	7.28	104.0	ug/L	7.28	7.00%
QC value within limits for Na 589.592 Recovery = Not calculated								
Ni 231.604†	55.2	-0.952	ug/L	0.2343	-0.952	ug/L	0.2343	24.61%
QC value within limits for Ni 231.604 Recovery = Not calculated								
P 213.617†	-57.3	-16.81	ug/L	0.805	-16.81	ug/L	0.805	4.79%
QC value within limits for P 213.617 Recovery = Not calculated								
Pb 220.353†	-125.4	-0.122	ug/L	2.3633	-0.122	ug/L	2.3633	>999.9%
QC value within limits for Pb 220.353 Recovery = Not calculated								
Sb 206.836†	-10.0	-2.576	ug/L	0.4548	-2.576	ug/L	0.4548	17.65%
QC value within limits for Sb 206.836 Recovery = Not calculated								
Se 196.026†	-118.8	-3.580	ug/L	1.4005	-3.580	ug/L	1.4005	39.12%
QC value within limits for Se 196.026 Recovery = Not calculated								
Sn 189.927†	-47.3	-1.719	ug/L	0.4986	-1.719	ug/L	0.4986	29.01%
QC value within limits for Sn 189.927 Recovery = Not calculated								
Sr 421.552†	104.3	-0.227	ug/L	0.3107	-0.227	ug/L	0.3107	136.70%
QC value within limits for Sr 421.552 Recovery = Not calculated								
Ti 337.279†	0.5	-1.914	ug/L	1.5413	-1.914	ug/L	1.5413	80.51%
QC value within limits for Ti 337.279 Recovery = Not calculated								
Tl 190.801†	-21.0	1.717	ug/L	1.7200	1.717	ug/L	1.7200	100.16%
QC value within limits for Tl 190.801 Recovery = Not calculated								
V 292.402†	2875.1	0.920	ug/L	0.2791	0.920	ug/L	0.2791	30.34%
QC value within limits for V 292.402 Recovery = Not calculated								
Zn 206.200†	268.9	2.508	ug/L	1.8010	2.508	ug/L	1.8010	71.81%
QC value within limits for Zn 206.200 Recovery = Not calculated								

All analyte(s) passed QC.

Sequence No.: 12
Sample ID: ICSAB 191119 I:PB O:PWV
Analyst:
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 11/19/19 10:01:34 AM
Data Type: Reprocessed on 11/20/19 10:04:39 AM
Initial Sample Vol:
Sample Prep Vol:

Mean Data: ICSAB 191119 I:PB O:PWV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	1192801.1	92.70	%	0.181				0.19%
Y 371.029 Radial	1139714.2	92.26	%	0.181				0.20%
Ag 338.289†	41407.9	539.7	ug/L	2.07	539.7	ug/L	2.07	0.38%
QC value within limits for Ag 338.289 Recovery = 107.95%								
Al 308.215†	27515.3	106100	ug/L	590.6	106100	ug/L	590.6	0.56%
QC value within limits for Al 308.215 Recovery = 106.05%								
As 188.979†	754.1	251.6	ug/L	0.29	251.6	ug/L	0.29	0.12%
QC value within limits for As 188.979 Recovery = 100.66%								
B†	-1809.3	-47.03	ug/L	0.658	-47.03	ug/L	0.658	1.40%
QC value within limits for B Recovery = Not calculated								
Ba 233.527†	30198.8	267.9	ug/L	0.89	267.9	ug/L	0.89	0.33%
QC value within limits for Ba 233.527 Recovery = 107.16%								
Be 313.107†	16787.2	262.3	ug/L	1.69	262.3	ug/L	1.69	0.65%
QC value within limits for Be 313.107 Recovery = 104.92%								
Ca 315.887†	133496.8	103600	ug/L	803.2	103600	ug/L	803.2	0.78%
QC value within limits for Ca 315.887 Recovery = 103.59%								
Cd 214.440†	67554.9	503.4	ug/L	0.79	503.4	ug/L	0.79	0.16%
QC value within limits for Cd 214.440 Recovery = 100.69%								
Co 228.616†	12326.9	256.5	ug/L	0.88	256.5	ug/L	0.88	0.34%
QC value within limits for Co 228.616 Recovery = 102.59%								
Cr 267.716†	19867.1	264.6	ug/L	0.87	264.6	ug/L	0.87	0.33%
QC value within limits for Cr 267.716 Recovery = 105.84%								
Cu 327.393†	22542.0	266.1	ug/L	1.43	266.1	ug/L	1.43	0.54%
QC value within limits for Cu 327.393 Recovery = 106.44%								
Fe 273.955†	1535456.4	99190	ug/L	392.5	99190	ug/L	392.5	0.40%
QC value within limits for Fe 273.955 Recovery = 99.19%								
K 766.490†	-79.7	-120.3	ug/L	26.89	-120.3	ug/L	26.89	22.35%
QC value within limits for K 766.490 Recovery = Not calculated								
Mg 285.213†	213652.9	104700	ug/L	1069.6	104700	ug/L	1069.6	1.02%
QC value within limits for Mg 285.213 Recovery = 104.67%								
Mn 257.610†	1425.6	254.7	ug/L	1.20	254.7	ug/L	1.20	0.47%
QC value within limits for Mn 257.610 Recovery = 101.86%								
Mo 202.031†	6305.7	245.6	ug/L	0.39	245.6	ug/L	0.39	0.16%
QC value within limits for Mo 202.031 Recovery = 98.24%								
Na 589.592†	7.2	112.2	ug/L	15.47	112.2	ug/L	15.47	13.79%
QC value within limits for Na 589.592 Recovery = Not calculated								
Ni 231.604†	19054.2	501.3	ug/L	1.51	501.3	ug/L	1.51	0.30%
QC value within limits for Ni 231.604 Recovery = 100.26%								
P 213.617†	-83.4	-24.48	ug/L	1.026	-24.48	ug/L	1.026	4.19%
QC value within limits for P 213.617 Recovery = Not calculated								
Pb 220.353†	4841.9	503.7	ug/L	1.04	503.7	ug/L	1.04	0.21%
QC value within limits for Pb 220.353 Recovery = 100.74%								
Sb 206.836†	989.3	255.7	ug/L	1.11	255.7	ug/L	1.11	0.43%
QC value within limits for Sb 206.836 Recovery = 102.29%								
Se 196.026†	558.6	253.2	ug/L	1.23	253.2	ug/L	1.23	0.49%
QC value within limits for Se 196.026 Recovery = 101.29%								
Sn 189.927†	-44.6	-1.197	ug/L	0.7012	-1.197	ug/L	0.7012	58.58%
QC value within limits for Sn 189.927 Recovery = Not calculated								
Sr 421.552†	136.7	-0.048	ug/L	0.1201	-0.048	ug/L	0.1201	251.22%
QC value within limits for Sr 421.552 Recovery = Not calculated								
Ti 337.279†	-8.9	-3.421	ug/L	0.7932	-3.421	ug/L	0.7932	23.19%
QC value within limits for Ti 337.279 Recovery = Not calculated								
Tl 190.801†	1005.3	252.5	ug/L	2.55	252.5	ug/L	2.55	1.01%
QC value within limits for Tl 190.801 Recovery = 101.01%								
V 292.402†	38902.7	264.7	ug/L	0.86	264.7	ug/L	0.86	0.33%
QC value within limits for V 292.402 Recovery = 105.88%								
Zn 206.200†	23013.6	519.1	ug/L	2.77	519.1	ug/L	2.77	0.53%
QC value within limits for Zn 206.200 Recovery = 103.82%								

All analyte(s) passed QC.

Sequence No.: 18
Sample ID: CCV2 191119 I:PB O:PW
Analyst:
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 11/19/19 10:30:00 AM
Data Type: Reprocessed on 11/20/19 10:04:45 AM

Initial Sample Vol:
Sample Prep Vol:

Mean Data: CCV2 191119 I:PB O:PW

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	1247793.9	96.98	%	0.442				0.46%
Y 371.029 Radial	1195917.0	96.81	%	0.481				0.50%
Ag 338.289†	14259.9	188.5	ug/L	1.06	188.5	ug/L	1.06	0.56%
QC value within limits for Ag 338.289 Recovery = 100.53%								
Al 308.215†	1945.2	7501	ug/L	29.5	7501	ug/L	29.5	0.39%
QC value within limits for Al 308.215 Recovery = 100.02%								
As 188.979†	1196.7	379.6	ug/L	1.76	379.6	ug/L	1.76	0.46%
QC value within limits for As 188.979 Recovery = 101.22%								
B†	14519.7	377.5	ug/L	0.33	377.5	ug/L	0.33	0.09%
QC value within limits for B Recovery = 100.65%								
Ba 233.527†	41024.1	376.0	ug/L	0.74	376.0	ug/L	0.74	0.20%
QC value within limits for Ba 233.527 Recovery = 100.28%								
Be 313.107†	24566.9	384.2	ug/L	7.54	384.2	ug/L	7.54	1.96%
QC value within limits for Be 313.107 Recovery = 102.44%								
Ca 315.887†	24108.3	18710	ug/L	130.6	18710	ug/L	130.6	0.70%
QC value within limits for Ca 315.887 Recovery = 99.77%								
Cd 214.440†	50680.6	380.2	ug/L	1.19	380.2	ug/L	1.19	0.31%
QC value within limits for Cd 214.440 Recovery = 101.37%								
Co 228.616†	17765.8	378.5	ug/L	1.20	378.5	ug/L	1.20	0.32%
QC value within limits for Co 228.616 Recovery = 100.93%								
Cr 267.716†	28331.2	375.3	ug/L	1.29	375.3	ug/L	1.29	0.34%
QC value within limits for Cr 267.716 Recovery = 100.07%								
Cu 327.393†	32307.3	374.7	ug/L	1.05	374.7	ug/L	1.05	0.28%
QC value within limits for Cu 327.393 Recovery = 99.93%								
Fe 273.955†	116864.9	7518	ug/L	19.3	7518	ug/L	19.3	0.26%
QC value within limits for Fe 273.955 Recovery = 100.24%								
K 766.490†	13665.5	7294	ug/L	57.6	7294	ug/L	57.6	0.79%
QC value within limits for K 766.490 Recovery = 97.25%								
Mg 285.213†	39260.3	19220	ug/L	169.0	19220	ug/L	169.0	0.88%
QC value within limits for Mg 285.213 Recovery = 102.50%								
Mn 257.610†	2146.6	375.4	ug/L	3.21	375.4	ug/L	3.21	0.85%
QC value within limits for Mn 257.610 Recovery = 100.12%								
Mo 202.031†	9834.6	376.1	ug/L	1.49	376.1	ug/L	1.49	0.40%
QC value within limits for Mo 202.031 Recovery = 100.30%								
Na 589.592†	27436.8	9216	ug/L	136.1	9216	ug/L	136.1	1.48%
QC value within limits for Na 589.592 Recovery = 98.31%								
Ni 231.604†	14405.1	379.3	ug/L	0.99	379.3	ug/L	0.99	0.26%
QC value within limits for Ni 231.604 Recovery = 101.15%								
P 213.617†	6438.3	1889	ug/L	6.0	1889	ug/L	6.0	0.32%
QC value within limits for P 213.617 Recovery = 100.76%								
Pb 220.353†	3799.1	385.6	ug/L	1.58	385.6	ug/L	1.58	0.41%
QC value within limits for Pb 220.353 Recovery = 102.82%								
Sb 206.836†	1467.9	379.4	ug/L	1.54	379.4	ug/L	1.54	0.41%
QC value within limits for Sb 206.836 Recovery = 101.18%								
Se 196.026†	1011.9	382.9	ug/L	2.28	382.9	ug/L	2.28	0.60%
QC value within limits for Se 196.026 Recovery = 102.12%								
Sn 189.927†	3349.3	382.1	ug/L	1.90	382.1	ug/L	1.90	0.50%
QC value within limits for Sn 189.927 Recovery = 101.90%								
Sr 421.552†	48631.3	364.8	ug/L	3.55	364.8	ug/L	3.55	0.97%
QC value within limits for Sr 421.552 Recovery = 97.27%								
Ti 337.279†	2546.7	374.7	ug/L	4.10	374.7	ug/L	4.10	1.09%
QC value within limits for Ti 337.279 Recovery = 99.93%								
Tl 190.801†	1593.1	392.8	ug/L	2.48	392.8	ug/L	2.48	0.63%
QC value within limits for Tl 190.801 Recovery = 104.75%								
V 292.402†	51712.6	378.8	ug/L	0.40	378.8	ug/L	0.40	0.11%
QC value within limits for V 292.402 Recovery = 101.02%								
Zn 206.200†	16732.8	382.9	ug/L	1.09	382.9	ug/L	1.09	0.29%
QC value within limits for Zn 206.200 Recovery = 102.10%								

All analyte(s) passed QC.

Sequence No.: 19
Sample ID: CCB 191119 I:PB O:PW
Analyst:
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 11/19/19 10:34:40 AM
Data Type: Reprocessed on 11/20/19 10:04:47 AM
Initial Sample Vol:
Sample Prep Vol:

Mean Data: CCB 191119 I:PB O:PW

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	1296184.8	100.7	%	1.04				1.03%
Y 371.029 Radial	1244220.5	100.7	%	1.12				1.12%
Ag 338.289†	1.0	0.016	ug/L	0.4953	0.016	ug/L	0.4953	>999.9%
QC value within limits for Ag 338.289 Recovery = Not calculated								
Al 308.215†	2.5	9.432	ug/L	25.0625	9.432	ug/L	25.0625	265.71%
QC value within limits for Al 308.215 Recovery = Not calculated								
As 188.979†	5.1	1.594	ug/L	1.3599	1.594	ug/L	1.3599	85.31%
QC value within limits for As 188.979 Recovery = Not calculated								
B†	243.7	6.335	ug/L	0.2191	6.335	ug/L	0.2191	3.46%
QC value within limits for B Recovery = Not calculated								
Ba 233.527†	9.8	0.088	ug/L	0.0724	0.088	ug/L	0.0724	81.99%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-0.8	-0.012	ug/L	0.1132	-0.012	ug/L	0.1132	928.79%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 315.887†	-6.8	-5.295	ug/L	4.9318	-5.295	ug/L	4.9318	93.13%
QC value within limits for Ca 315.887 Recovery = Not calculated								
Cd 214.440†	2.7	0.021	ug/L	0.0927	0.021	ug/L	0.0927	452.05%
QC value within limits for Cd 214.440 Recovery = Not calculated								
Co 228.616†	5.0	0.107	ug/L	0.1535	0.107	ug/L	0.1535	142.98%
QC value within limits for Co 228.616 Recovery = Not calculated								
Cr 267.716†	-4.9	-0.067	ug/L	0.1740	-0.067	ug/L	0.1740	257.89%
QC value within limits for Cr 267.716 Recovery = Not calculated								
Cu 327.393†	120.2	1.390	ug/L	0.7718	1.390	ug/L	0.7718	55.51%
QC value within limits for Cu 327.393 Recovery = Not calculated								
Fe 273.955†	9.4	0.635	ug/L	0.5992	0.635	ug/L	0.5992	94.30%
QC value within limits for Fe 273.955 Recovery = Not calculated								
K 766.490†	-75.8	-40.53	ug/L	102.444	-40.53	ug/L	102.444	252.74%
QC value within limits for K 766.490 Recovery = Not calculated								
Mg 285.213†	3.8	1.874	ug/L	1.6673	1.874	ug/L	1.6673	88.96%
QC value within limits for Mg 285.213 Recovery = Not calculated								
Mn 257.610†	-0.3	-0.059	ug/L	0.7482	-0.059	ug/L	0.7482	>999.9%
QC value within limits for Mn 257.610 Recovery = Not calculated								
Mo 202.031†	15.3	0.586	ug/L	0.2197	0.586	ug/L	0.2197	37.53%
QC value within limits for Mo 202.031 Recovery = Not calculated								
Na 589.592†	-44.1	-14.78	ug/L	25.090	-14.78	ug/L	25.090	169.75%
QC value within limits for Na 589.592 Recovery = Not calculated								
Ni 231.604†	-2.0	-0.057	ug/L	0.5239	-0.057	ug/L	0.5239	925.17%
QC value within limits for Ni 231.604 Recovery = Not calculated								
P 213.617†	2.1	0.622	ug/L	1.8943	0.622	ug/L	1.8943	304.57%
QC value within limits for P 213.617 Recovery = Not calculated								
Pb 220.353†	0.4	0.045	ug/L	1.4836	0.045	ug/L	1.4836	>999.9%
QC value within limits for Pb 220.353 Recovery = Not calculated								
Sb 206.836†	0.4	0.111	ug/L	1.1694	0.111	ug/L	1.1694	>999.9%
QC value within limits for Sb 206.836 Recovery = Not calculated								
Se 196.026†	-1.7	-0.637	ug/L	3.8500	-0.637	ug/L	3.8500	604.01%
QC value within limits for Se 196.026 Recovery = Not calculated								
Sn 189.927†	-2.5	-0.278	ug/L	0.4012	-0.278	ug/L	0.4012	144.07%
QC value within limits for Sn 189.927 Recovery = Not calculated								
Sr 421.552†	-29.6	-0.222	ug/L	0.0742	-0.222	ug/L	0.0742	33.40%
QC value within limits for Sr 421.552 Recovery = Not calculated								
Ti 337.279†	0.5	0.077	ug/L	0.1966	0.077	ug/L	0.1966	255.38%
QC value within limits for Ti 337.279 Recovery = Not calculated								
Tl 190.801†	9.2	2.209	ug/L	0.8516	2.209	ug/L	0.8516	38.56%
QC value within limits for Tl 190.801 Recovery = Not calculated								
V 292.402†	-39.5	-0.278	ug/L	0.4243	-0.278	ug/L	0.4243	152.85%
QC value within limits for V 292.402 Recovery = Not calculated								
Zn 206.200†	6.7	0.142	ug/L	0.0541	0.142	ug/L	0.0541	38.00%
QC value within limits for Zn 206.200 Recovery = Not calculated								

All analyte(s) passed QC.

METALS

Raw Data

Sequence No.: 16
Sample ID: BA02466W24 DF5
Analyst: PW
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution: 5X

Autosampler Location: 41
Date Collected: 11/19/19 10:20:20 AM
Data Type: Reprocessed on 11/20/19 10:04:43 AM

Initial Sample Vol:
Sample Prep Vol:

Mean Data: BA02466W24 DF5

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	1286230.7	99.97	%	0.580				0.58%
Y 371.029 Radial	1235498.6	100.0	%	0.61				0.61%
Ag 338.289†	90.9	1.148	ug/L	0.5871	5.741	ug/L	2.9354	51.13%
Al 308.215†	11.2	42.21	ug/L	29.938	211.0	ug/L	149.69	70.93%
As 188.979†	0.2	0.032	ug/L	2.0579	0.159	ug/L	10.2893	>999.9%
B†	436.7	11.35	ug/L	0.305	56.76	ug/L	1.524	2.68%
Ba 233.527†	154.9	1.410	ug/L	0.1490	7.050	ug/L	0.7449	10.57%
Be 313.107†	9.1	0.146	ug/L	0.1190	0.729	ug/L	0.5951	81.67%
Ca 315.887†	4432.0	3439	ug/L	89.2	17200	ug/L	445.8	2.59%
Cd 214.440†	-46.2	-0.354	ug/L	0.0584	-1.770	ug/L	0.2922	16.51%
Co 228.616†	3.8	0.052	ug/L	0.1453	0.260	ug/L	0.7266	279.40%
Cr 267.716†	85.6	1.103	ug/L	0.0677	5.515	ug/L	0.3384	6.14%
Cu 327.393†	171.9	1.826	ug/L	1.5153	9.128	ug/L	7.5767	83.01%
Fe 273.955†	101.1	5.603	ug/L	0.2809	28.02	ug/L	1.405	5.01%
K 766.490†	796.9	425.5	ug/L	31.60	2127	ug/L	158.0	7.43%
Mg 285.213†	6577.9	3217	ug/L	73.0	16090	ug/L	365.1	2.27%
Mn 257.610†	0.4	-0.057	ug/L	0.5989	-0.283	ug/L	2.9946	>999.9%
Mo 202.031†	10.0	0.259	ug/L	0.0588	1.295	ug/L	0.2940	22.71%
Na 589.592†	23016.9	7724	ug/L	111.6	38620	ug/L	557.8	1.44%
Ni 231.604†	41.7	1.078	ug/L	0.4829	5.389	ug/L	2.4147	44.81%
P 213.617†	32.5	9.543	ug/L	1.0888	47.71	ug/L	5.444	11.41%
Pb 220.353†	15.7	1.518	ug/L	2.3396	7.588	ug/L	11.6981	154.17%
Sb 206.836†	1.8	0.455	ug/L	1.3781	2.275	ug/L	6.8904	302.89%
Se 196.026†	1.4	0.429	ug/L	0.5551	2.147	ug/L	2.7756	129.27%
Sn 189.927†	-6.2	-0.575	ug/L	0.4820	-2.874	ug/L	2.4100	83.85%
Sr 421.552†	3155.5	23.64	ug/L	0.520	118.2	ug/L	2.60	2.20%
Ti 337.279†	2.3	0.295	ug/L	1.8797	1.476	ug/L	9.3985	636.57%
Tl 190.801†	3.4	0.921	ug/L	1.4374	4.605	ug/L	7.1870	156.07%
V 292.402†	330.2	2.403	ug/L	0.2078	12.02	ug/L	1.039	8.65%
Zn 206.200†	291.9	6.566	ug/L	1.8457	32.83	ug/L	9.228	28.11%

Sequence No.: 13
Sample ID: 191108A BLK
Analyst: PW
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:

Autosampler Location: 38
Date Collected: 11/19/19 10:06:13 AM
Data Type: Reprocessed on 11/20/19 10:04:40 AM
Initial Sample Vol:
Sample Prep Vol:

Mean Data: 191108A BLK

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	1319580.2	102.6	%	0.30				0.29%
Y 371.029 Radial	1268003.3	102.6	%	0.33				0.32%
Ag 338.289†	88.0	1.176	ug/L	0.4688	1.176	ug/L	0.4688	39.88%
Al 308.215†	3.1	12.01	ug/L	25.004	12.01	ug/L	25.004	208.24%
As 188.979†	-3.3	-1.024	ug/L	0.8459	-1.024	ug/L	0.8459	82.58%
B†	97.2	2.526	ug/L	0.1134	2.526	ug/L	0.1134	4.49%
Ba 233.527†	2.5	0.022	ug/L	0.0774	0.022	ug/L	0.0774	359.12%
Be 313.107†	8.5	0.138	ug/L	0.0929	0.138	ug/L	0.0929	67.51%
Ca 315.887†	51.6	40.02	ug/L	5.049	40.02	ug/L	5.049	12.62%
Cd 214.440†	20.7	0.156	ug/L	0.1655	0.156	ug/L	0.1655	106.13%
Co 228.616†	6.7	0.141	ug/L	0.2241	0.141	ug/L	0.2241	159.44%
Cr 267.716†	9.9	0.127	ug/L	0.1197	0.127	ug/L	0.1197	93.88%
Cu 327.393†	197.1	2.286	ug/L	0.1924	2.286	ug/L	0.1924	8.42%
Fe 273.955†	114.2	7.414	ug/L	0.2201	7.414	ug/L	0.2201	2.97%
K 766.490†	-103.3	-55.21	ug/L	47.301	-55.21	ug/L	47.301	85.68%
Mg 285.213†	41.6	20.34	ug/L	3.117	20.34	ug/L	3.117	15.32%
Mn 257.610†	4.4	0.761	ug/L	0.4799	0.761	ug/L	0.4799	63.03%
Mo 202.031†	21.2	0.811	ug/L	0.1969	0.811	ug/L	0.1969	24.28%
Na 589.592†	158.8	53.31	ug/L	9.178	53.31	ug/L	9.178	17.22%
Ni 231.604†	-11.3	-0.303	ug/L	0.4917	-0.303	ug/L	0.4917	162.28%
P 213.617†	0.1	0.040	ug/L	1.4731	0.040	ug/L	1.4731	>999.9%
Pb 220.353†	-9.0	-0.907	ug/L	0.3141	-0.907	ug/L	0.3141	34.65%
Sb 206.836†	7.1	1.840	ug/L	0.5863	1.840	ug/L	0.5863	31.87%
Se 196.026†	-2.1	-0.780	ug/L	1.6014	-0.780	ug/L	1.6014	205.35%
Sn 189.927†	3.8	0.442	ug/L	0.6843	0.442	ug/L	0.6843	154.88%
Sr 421.552†	-4.0	-0.031	ug/L	0.3680	-0.031	ug/L	0.3680	>999.9%
Ti 337.279†	11.7	1.729	ug/L	0.8563	1.729	ug/L	0.8563	49.53%
Tl 190.801†	-0.9	-0.200	ug/L	1.8038	-0.200	ug/L	1.8038	902.11%
V 292.402†	-44.9	-0.314	ug/L	0.1536	-0.314	ug/L	0.1536	48.87%
Zn 206.200†	46.7	1.055	ug/L	0.1091	1.055	ug/L	0.1091	10.34%

Sequence No.: 14
Sample ID: 191108A LCS
Analyst: PW
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:

Autosampler Location: 39
Date Collected: 11/19/19 10:10:59 AM
Data Type: Reprocessed on 11/20/19 10:04:41 AM
Initial Sample Vol:
Sample Prep Vol:

Mean Data: 191108A LCS

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	1263703.8	98.22	%	1.217				1.24%
Y 371.029 Radial	1212518.9	98.15	%	1.298				1.32%
Ag 338.289†	7546.1	99.82	ug/L	0.796	99.82	ug/L	0.796	0.80%
Al 308.215†	541.0	2085	ug/L	65.2	2085	ug/L	65.2	3.13%
As 188.979†	811.3	256.5	ug/L	2.16	256.5	ug/L	2.16	0.84%
B†	9803.6	254.9	ug/L	0.12	254.9	ug/L	0.12	0.05%
Ba 233.527†	28605.7	262.5	ug/L	0.39	262.5	ug/L	0.39	0.15%
Be 313.107†	3264.4	51.67	ug/L	1.124	51.67	ug/L	1.124	2.17%
Ca 315.887†	33186.7	25750	ug/L	410.3	25750	ug/L	410.3	1.59%
Cd 214.440†	6889.4	51.81	ug/L	0.466	51.81	ug/L	0.466	0.90%
Co 228.616†	12644.7	269.6	ug/L	3.02	269.6	ug/L	3.02	1.12%
Cr 267.716†	19922.0	263.7	ug/L	0.98	263.7	ug/L	0.98	0.37%
Cu 327.393†	22642.8	261.3	ug/L	0.28	261.3	ug/L	0.28	0.11%
Fe 273.955†	16585.5	1045	ug/L	2.2	1045	ug/L	2.2	0.21%
K 766.490†	9302.3	4964	ug/L	164.9	4964	ug/L	164.9	3.32%
Mg 285.213†	52230.0	25550	ug/L	712.5	25550	ug/L	712.5	2.79%
Mn 257.610†	1477.2	257.5	ug/L	2.62	257.5	ug/L	2.62	1.02%
Mo 202.031†	6920.5	264.1	ug/L	2.86	264.1	ug/L	2.86	1.08%
Na 589.592†	75547.9	25360	ug/L	684.0	25360	ug/L	684.0	2.70%
Ni 231.604†	10013.3	263.5	ug/L	3.05	263.5	ug/L	3.05	1.16%
P 213.617†	7058.2	2071	ug/L	21.2	2071	ug/L	21.2	1.02%
Pb 220.353†	2582.9	261.3	ug/L	3.48	261.3	ug/L	3.48	1.33%
Sb 206.836†	964.6	249.3	ug/L	2.25	249.3	ug/L	2.25	0.90%
Se 196.026†	659.0	247.4	ug/L	4.66	247.4	ug/L	4.66	1.88%
Sn 189.927†	2287.1	261.4	ug/L	3.03	261.4	ug/L	3.03	1.16%
Sr 421.552†	33107.8	248.2	ug/L	6.83	248.2	ug/L	6.83	2.75%
Ti 337.279†	1769.9	260.3	ug/L	4.79	260.3	ug/L	4.79	1.84%
Tl 190.801†	1042.5	257.3	ug/L	1.63	257.3	ug/L	1.63	0.63%
V 292.402†	36303.9	266.9	ug/L	1.00	266.9	ug/L	1.00	0.37%
Zn 206.200†	22650.0	515.6	ug/L	1.26	515.6	ug/L	1.26	0.24%

Sequence No.: 15
Sample ID: 191108A LCSD
Analyst: PW
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:

Autosampler Location: 40
Date Collected: 11/19/19 10:15:38 AM
Data Type: Reprocessed on 11/20/19 10:04:42 AM
Initial Sample Vol:
Sample Prep Vol:

Mean Data: 191108A LCSD

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	1255973.3	97.61	%	1.223				1.25%
Y 371.029 Radial	1204174.9	97.48	%	1.296				1.33%
Ag 338.289†	7478.6	98.92	ug/L	0.120	98.92	ug/L	0.120	0.12%
Al 308.215†	536.2	2066	ug/L	9.7	2066	ug/L	9.7	0.47%
As 188.979†	800.8	253.2	ug/L	5.02	253.2	ug/L	5.02	1.98%
B†	9753.3	253.5	ug/L	2.12	253.5	ug/L	2.12	0.84%
Ba 233.527†	28332.2	260.0	ug/L	1.16	260.0	ug/L	1.16	0.44%
Be 313.107†	3241.1	51.30	ug/L	0.957	51.30	ug/L	0.957	1.86%
Ca 315.887†	32863.0	25500	ug/L	322.5	25500	ug/L	322.5	1.26%
Cd 214.440†	6840.7	51.45	ug/L	0.729	51.45	ug/L	0.729	1.42%
Co 228.616†	12532.8	267.2	ug/L	4.19	267.2	ug/L	4.19	1.57%
Cr 267.716†	19766.4	261.6	ug/L	0.68	261.6	ug/L	0.68	0.26%
Cu 327.393†	22202.8	256.2	ug/L	1.52	256.2	ug/L	1.52	0.59%
Fe 273.955†	16351.9	1030	ug/L	5.4	1030	ug/L	5.4	0.53%
K 766.490†	9451.4	5044	ug/L	151.9	5044	ug/L	151.9	3.01%
Mg 285.213†	52170.4	25520	ug/L	526.1	25520	ug/L	526.1	2.06%
Mn 257.610†	1463.0	255.1	ug/L	3.46	255.1	ug/L	3.46	1.36%
Mo 202.031†	6869.3	262.2	ug/L	4.34	262.2	ug/L	4.34	1.66%
Na 589.592†	75713.1	25410	ug/L	544.0	25410	ug/L	544.0	2.14%
Ni 231.604†	9919.6	261.0	ug/L	4.30	261.0	ug/L	4.30	1.65%
P 213.617†	6980.7	2048	ug/L	35.0	2048	ug/L	35.0	1.71%
Pb 220.353†	2575.3	260.5	ug/L	3.06	260.5	ug/L	3.06	1.18%
Sb 206.836†	950.5	245.7	ug/L	5.91	245.7	ug/L	5.91	2.41%
Se 196.026†	643.2	241.4	ug/L	2.36	241.4	ug/L	2.36	0.98%
Sn 189.927†	2281.3	260.7	ug/L	3.97	260.7	ug/L	3.97	1.52%
Sr 421.552†	33069.5	247.9	ug/L	5.78	247.9	ug/L	5.78	2.33%
Ti 337.279†	1757.2	258.4	ug/L	2.63	258.4	ug/L	2.63	1.02%
Tl 190.801†	1037.3	256.0	ug/L	1.75	256.0	ug/L	1.75	0.68%
V 292.402†	35846.2	263.5	ug/L	1.56	263.5	ug/L	1.56	0.59%
Zn 206.200†	22542.9	513.2	ug/L	3.78	513.2	ug/L	3.78	0.74%

ICP-OES Calibration Standard Prep

Prepared: 11/19/19
Expires: 11/26/19
1% HNO3 / 5% HCl Prep: 11/19/19
Prepared By (Initials): PW

Calibration Standard 3

Initial Standard Information						Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier Part No.	Conc. Range (ug/mL)	Lot Number - QA Number/ APPL Prep Date	Exp Date	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. Range (ug/L)
Solution A	Texas Scientific	HP1810-250	200 - 5,000	m2meb662248-38391	10/11/20	500uL	100mL	1% HNO3 / 5% HCl	1000 - 25,000
Solution B	Texas Scientific	HP1810-250	4000 - 10,000	m2meb662249-38389	10/11/20	500uL			2000 - 50,000
Solution C	Texas Scientific	HP1810-250	100 - 200	m2meb662250-38394	10/11/20	500uL			500 - 1000
Calibration Standard 2									
ICP-OES Calib Standard 3	Texas Scientific	Standard 2/CCV1	0.5 - 50	Prepared 11/19/19	11/26/19	25mL	50mL	1% HNO3 / 5% HCl	250 - 25,000
Calibration Standard 1									
200.7 LDL	O2SI	160634-01-01	0.05 - 100	10080366-3-41267	02/07/21	250uL	50mL	1% HNO3 / 5% HCl	0.25 - 200

ICP-OES ICV (SS)

Prepared: 11/18/19
Expires: 08/09/19
1% HNO3 / 5% HCl Prep: 11/15/19
Prepared By (Initials): PW

ICP-OES ICV 1

Initial Standard Information						Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier Part No.	Conc. Range (ug/mL)	Lot Number - QA Number	Exp Date	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. Range (ug/mL)
QCS ICV Soln A	CPI	4400-070615RH01	50 - 500	10062445-11-49481	05/14/21	250uL	50mL	1% HNO3 / 5% HCl	0.25 - 2.5
QCS ICV Soln B	CPI	4400-070615RH01	2,500	10062445-12-49482	05/14/21	250uL			12.5

ICP-OES ICV Ba

Initial Standard Information						Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier Part No.	Conc. Range (ug/mL)	Lot Number - QA Number	Exp Date	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. Range (ug/mL)
Custom 23 Element Mix #314	O2SI	161314-01-03	5 - 25,00	1064561-8-38870	08/09/19	1mL	50mL	1% HNO3 / 5% HCl	0.1 - 50
Custom 23 Element Mix #315	O2SI	161314-01-03	10 - 25	1064561-7-38869	08/09/19	1mL			0.2 - 0.5

ICP-OES CCV2

Initial Standard Information						Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier Part No.	Conc. Range (ug/mL)	APPL Prep Date	Exp Date	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. Range (ug/mL)
ICP-OES Calib Standard 3	Texas Scientific	CCV2	0.5 - 50	Prepared 11/19/19	11/26/19	15mL	40mL	1% HNO3 / 5% HCl	0.15 - 15

ICP-OES Low Levels (LLICV)

Prepared: 11/15/19
Expires: 11/29/19
1% HNO3 / 5% HCl Prep: 11/15/19
Prepared By (Initials): PW

LLICV

Initial Standard Information						Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier Part No.	Conc. Range ug/mL	Lot Number - QA Number	Exp Date	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. Range (ug/L)
200.7 LDL	O2SI	160634-01-01	0.05 - 100	10080366-3-41267	02/07/21	250uL	50mL	1% HNO3 / 5% HCl	0.25 - 200
LLICVX2									
200.7 LDL	O2SI	160634-01-01	0.05 - 100	10080366-3-41267	02/07/21	500uL	50mL	1% HNO3 / 5% HCl	0.50 - 400
LLICVX6									
200.7 LDL	O2SI	160634-01-01	0.05 - 100	10080366-3-41267	02/07/21	1.5mL	50mL	1% HNO3 / 5% HCl	1.5 - 1,200
LLICVX10									
200.7 LDL	O2SI	160634-01-01	0.05 - 100	10080366-3-41267	02/07/21	2.5mL	50mL	1% HNO3 / 5% HCl	2.5 - 2,000
LLICV 10									
ICP-OES Calib Standard 3	Texas Scientific	HP1810-250	0.5 - 50	10080366-3-41267	11/26/19	500uL	50mL	1% HNO3 / 5% HCl	5 - 500
LLICV 50									
ICP-OES Calib Standard 3	Texas Scientific	HP1810-250	0.5 - 50	10080366-3-41267	11/26/19	2.5mL	50mL	1% HNO3 / 5% HCl	25 - 2,500

ICP-OES Interference Check Solution A

Prepared: 11/13/19
Expires: 11/27/19
1% HNO3 / 5% HCl Prep: 11/12/19
Prepared By (Initials): PW

Initial Standard Information						Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier Part No.	Conc. (ug/mL)	Lot Number - QA Number	Exp Date	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
Aluminum	Inorganic Ventures	35-APPLTSP-6010ICSA	10,000	N2-MEB670092-39414	07/25/22	500uL	50mL	1% HNO3 / 5% HCl	100
Calcium			10,000						100
Magnesium			10,000						100
Iron			10,000						100
ICP-OES Interference Check Solution AB									
Aluminum	Inorganic Ventures	35-APPLTSP-6010ICSA	10,000	N2-MEB670092-39414	07/25/22	500uL	50mL	1% HNO3 / 5% HCl	100
Calcium			10,000						100
Magnesium			10,000						100
Iron			10,000						100
Special Mix (Interference)	O2SI	160495-01-01	100	10081266-39276	12/13/19	250uL			0.5

ICP-OES Internal Standards

Prepared: 11/14/18
Expires: 12/15/18
1% HNO3 / 5% HCl Prep: 11/14/18
Prepared By (Initials): PW

Initial Standard Information						Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier Part No.	Conc. (mg/L)	Lot Number - QA Number	Exp Date	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc (mg/L)
Yttrium	O2SI	060039-04-03	1,000	10083563-39466	01/27/20	4mL	2L	1% HNO3 / 5% HCl	2

Metals Digestion Worksheet

Method Name 3010A Digestion **Prep Method** M3010 **Set** 191108A **Units** mL

Spikes	
Spiked ID 1	LCSW LOT# 10064561-11-41208 Pipette AP-21
Spiked ID 2	LCSW LOT# 10064561-12-41210
Spiked ID 3	
Spiked ID 4	I
Spiked By	NM Date: 11/08/19 7:50:00 AM
Witnessed By	EV Date: 11/21/19 11/8/19 7:50

Starting Temp:	SLOT 21 THERM:MT1 95.2C
Ending Temp:	SLOT 21 93.2C
Temperature Type:	Mod Block
Sufficient Vol for Matrix QC:	YES
End Date/Time	11/08/19 12:07

	Sample	Sample Container	Spike Amount	Spike ID	Digested Amount	Final Volume	Start Date/Time	Comments
1	191108A Blk				50mL	50mL	11/08/19 7:50	equip: Modblock2
2	191108A LCS		500uL	1+2	50mL	50mL	11/08/19 7:50	equip: Modblock2
3	191108A LCSD		500uL	1+2	50mL	50mL	11/08/19 7:50	equip: Modblock2
4	BA01939	BA01939W14			50mL	50mL	11/08/19 7:50	equip: Modblock2
5	BA01939 MS	BA01939W14	500uL	1+2	50mL	50mL	11/08/19 7:50	equip: Modblock2
6	BA01939 MSD	BA01939W14	500uL	1+2	50mL	50mL	11/08/19 7:50	equip: Modblock2
7	BA01940	BA01940W13			50mL	50mL	11/08/19 7:50	equip: Modblock2
8	BA01940 MS	BA01940W13	500uL	1+2	50mL	50mL	11/08/19 7:50	equip: Modblock2
9	BA01940 MSD	BA01940W13	500uL	1+2	50mL	50mL	11/08/19 7:50	equip: Modblock2
10	BA01941	BA01941W07			50mL	50mL	11/08/19 7:50	equip: Modblock2
11	BA01988	BA01988W18			50mL	50mL	11/08/19 7:50	equip: Modblock2 90564
12	BA01988 DUP	BA01988W18			50mL	50mL	11/08/19 7:50	equip: Modblock2
13	BA01988 FF	BA01988W17			50mL	50mL	11/08/19 7:50	equip: Modblock2
14	BA01988 FF DUP	BA01988W17			50mL	50mL	11/08/19 7:50	equip: Modblock2
15	BA01988 FF MS	BA01988W17	500uL	1+2	50mL	50mL	11/08/19 7:50	equip: Modblock2
16	BA01988 MS	BA01988W18	500uL	1+2	50mL	50mL	11/08/19 7:50	equip: Modblock2
17	BA01989	BA01989W09			50mL	50mL	11/08/19 7:50	equip: Modblock2 90564
18	BA01989 FF	BA01989W08			50mL	50mL	11/08/19 7:50	equip: Modblock2
19	BA01990	BA01990W17			50mL	50mL	11/08/19 7:50	equip: Modblock2 90564
20	BA01990 DUP	BA01990W17			50mL	50mL	11/08/19 7:50	equip: Modblock2
21	BA01990 FF	BA01990W18			50mL	50mL	11/08/19 7:50	equip: Modblock2
22	BA01990 FF DUP	BA01990W18			50mL	50mL	11/08/19 7:50	equip: Modblock2
23	BA01990 FF MS	BA01990W18	500uL	1+2	50mL	50mL	11/08/19 7:50	equip: Modblock2

Solvent and Lot#
HNO3 BDH 1119060 18569
1:1 HCL 10-22-19
50mL vessel 190916

Sample COC Transfer	
Sample prep employee Initials	nm
Analyst's initials	PW
Date	11/21/19
Time	1050
Moved to	METALS

Technician's Initials	
Scanned By	nm
Sample Preparation	nm
Digestion	nm
Bring up to volume	
Modified	11/08/19 7:19:27 AM

Reviewed By: PW **Date:** 11/21/19

Metals Digestion Worksheet

Method Name 3010A Digestion **Prep Method** M3010 **Set** 191108A **Units** mL

Spikes	
Spiked ID 1	LCSW LOT# 10064561-11-41208 Pipette AP-21
Spiked ID 2	LCSW LOT# 10064561-12-41210
Spiked ID 3	
Spiked ID 4	I
Spiked By	NM Date: 11/08/19 7:50:00 AM
Witnessed By	EV Date: 11/21/19 11/8/19 7:50

Starting Temp:	SLOT 21 THERM:MT1 95.2C
Ending Temp:	SLOT 21 93.2C
Temperature Type:	Mod Block
Sufficient Vol for Matrix QC:	YES
End Date/Time	11/08/19 12:07

	Sample	Sample Container	Spike Amount	Spike ID	Digested Amount	Final Volume	Start Date/Time	Comments
24	BA01990 MS	BA01990W17	500uL	1+2	50mL	50mL	11/08/19 7:50	equip: Modblock2
25	BA01992	BA01992W09			50mL	50mL	11/08/19 7:50	equip: Modblock2 90564
26	BA01992 FF	BA01992W08			50mL	50mL	11/08/19 7:50	equip: Modblock2
27	BA01993	BA01993W09			50mL	50mL	11/08/19 7:50	equip: Modblock2 90564
28	BA01993 FF	BA01993W08			50mL	50mL	11/08/19 7:50	equip: Modblock2
29	BA01995	BA01995W09			50mL	50mL	11/08/19 7:50	equip: Modblock2 90564
30	BA01995 FF	BA01995W08			50mL	50mL	11/08/19 7:50	equip: Modblock2
31	BA01996	BA01996W08			50mL	50mL	11/08/19 7:50	equip: Modblock2 90564
32	BA01996 FF	BA01996W09			50mL	50mL	11/08/19 7:50	equip: Modblock2
33	BA02466	BA02466W24			50mL	50mL	11/08/19 7:50	equip: Modblock2 90648
34	BA02525	BA02525W24			50mL	50mL	11/08/19 7:50	equip: Modblock2 90657

Solvent and Lot#
HNO3 BDH 1119060 18569
1:1 HCL 10-22-19
50mL vessel 190916

Sample COC Transfer	
Sample prep employee Initials	nm
Analyst's initials	EV PW
Date	11/21/19
Time	1050
Moved to	METALS

Technician's Initials	
Scanned By	nm
Sample Preparation	nm
Digestion	nm
Bring up to volume	
Modified	11/08/19 7:19:27 AM

Reviewed By: PW **Date:** 11/21/19

6010C/3010A Injection Log

Directory: K:\ICAP PHOEBE\Backup Excel\

RunID	Injected		Sample Name	Misc Info	FileName	Multiplier
1	19 Nov 2019	09:00	CalBlk 191119 I:PB O:PW		191119A200	1.
2	19 Nov 2019	09:06	STD 1 191119 I:PB O:PW		191119A200	1.
3	19 Nov 2019	09:11	STD 2 191119 I:PB O:PW		191119A200	1.
4	19 Nov 2019	09:15	STD 3 191119 I:PB O:PW		191119A200	1.
5	19 Nov 2019	09:19	ICV 191119 I:PB O:PW		191119A200	1.
6	19 Nov 2019	09:32	ICB 191119 I:PB O:PW		191119A200	1.
7	19 Nov 2019	09:37	LLICV 191119 I:PB O:PW		191119A200	1.
8	19 Nov 2019	09:42	LLICVX2 191119 I:PB O:PW		191119A200	1.
9	19 Nov 2019	09:47	LLICVX6 191119 I:PB O:PW		191119A200	1.
11	19 Nov 2019	09:56	ICSA 191119 I:PB O:PW		191119A200	1.
12	19 Nov 2019	10:01	ICSAB 191119 I:PB O:PWV		191119A200	1.
13	19 Nov 2019	10:06	191108A BLK		191119A200	1.
14	19 Nov 2019	10:10	191108A LCS		191119A200	1.
15	19 Nov 2019	10:15	191108A LCSD		191119A200	1.
16	19 Nov 2019	10:20	BA02466W24 DF5		191119A200	5.
18	19 Nov 2019	10:30	CCV2 191119 I:PB O:PW		191119A200	1.
19	19 Nov 2019	10:34	CCB 191119 I:PB O:PW		191119A200	1.

INORGANIC ANALYSIS
Calibration Data

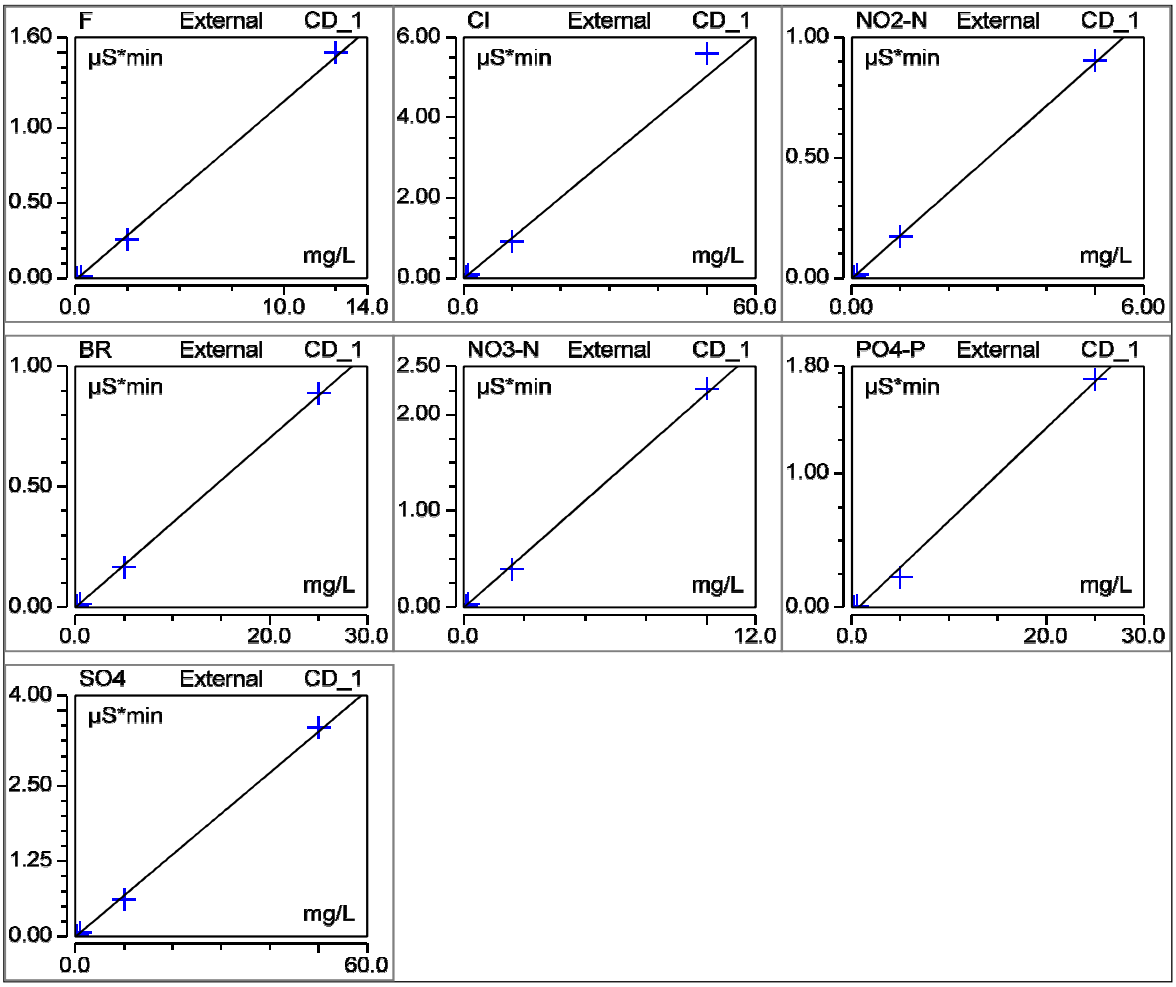
Calibration Batch Report

Sequence:	**191030iCal**	*Injection Volume:*	**25.00**
Instrument Method:	**Anions IM**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**30-Oct-2019 / 18:44**	*Run Time:*	**5.1**

Calibration Summary

Peak Name	Eval.Type	Cal.Type	Points	Offset (C0)	Slope (C1)	Curve (C2)	Coeff.Det. %
F	Area	Lin, WithOffset, 1/A	4.000	-0.014	0.119	0.000	99.7003
Cl	Area	Lin, WithOffset, 1/A²	4.000	-0.007	0.101	0.000	99.0220
NO2-N	Area	Lin, WithOffset, 1/A	4.000	-0.001	0.179	0.000	99.9623
BR	Area	Lin, WithOffset, 1/A	4.000	-0.001	0.035	0.000	99.9272
NO3-N	Area	Lin, WithOffset, 1/A	4.000	-0.005	0.223	0.000	99.7595
PO4-P	Area	Lin, WithOffset	4.000	-0.047	0.069	0.000	99.5917
SO4	Area	Lin, WithOffset, 1/A	4.000	-0.007	0.068	0.000	99.7957

Injection Name	Amount mg/L CD_1 F	Amount mg/L CD_1 Cl	Amount mg/L CD_1 NO2-N	Amount mg/L CD_1 BR	Amount mg/L CD_1 NO3-N	Amount mg/L CD_1 PO4-P	Amount mg/L CD_1 SO4
ICAL1 191030	0.125	0.4074	0.0426	0.2137	0.0909	0.7550	0.4460
ICAL2 191030	0.206	0.9606	0.0968	0.4887	0.1893	0.8434	0.9617
ICAL5 191030	2.259	9.1156	0.9605	4.7141	1.7941	3.8911	9.0418
ICAL8 191030	12.760	55.4700	5.0402	25.2835	10.2057	25.2105	50.9505

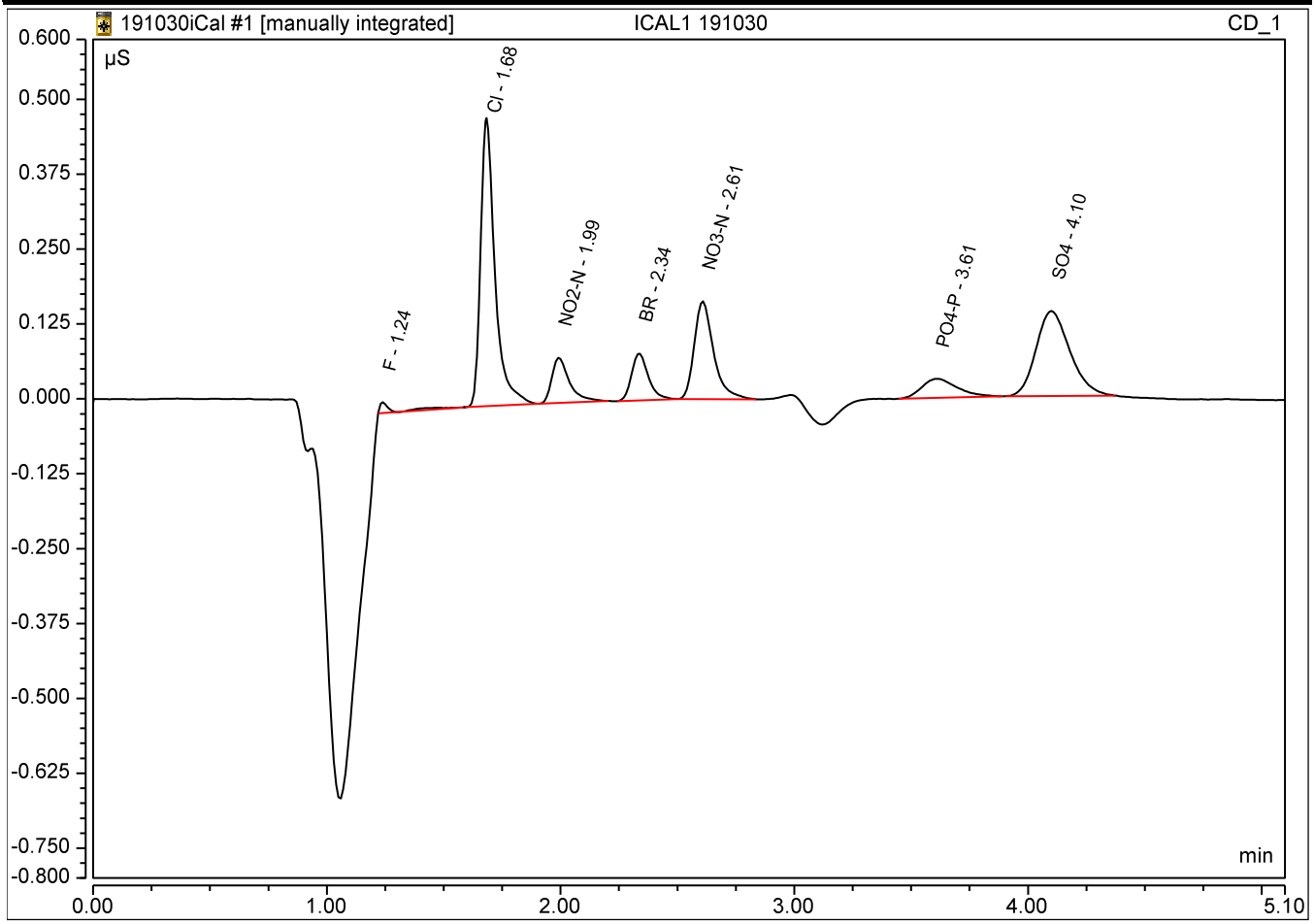


Logged on User: BW
Instrument: Charlie System_1
Sequence: 191030iCal

Peak Integration Report

Sample Name:	**ICAL1 191030**	*Inj. Vol.:*	**25uL**
Injection Type:	**Calibration Standard**	*Dilution Factor:*	**1.00**
Program:	**Anion APM 191030**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**30-Oct-2019 / 18:22**	*Run Time:*	**5.10**

No.	Time (min) min	Peak Name	Peak Type	Area (µS*min) µS*min	Height (µS) µS	Amount mg/L	Spike Level mg/L	Recovery
1	1.24	**F**	M *	0.001	0.018	0.13	0.1	125.3%
2	1.68	**Cl**	bMB*	0.034	0.481	0.41	0.4	101.8%
3	1.99	**NO2-N**	BMB	0.007	0.076	0.04	0.04	106.4%
4	2.34	**BR**	BMB	0.007	0.078	0.21	0.2	106.8%
5	2.61	**NO3-N**	BMB	0.016	0.163	0.09	0.08	113.6%
6	3.61	**PO4-P**	BMB*	0.006	0.032	0.76	0.2	377.5%
7	4.10	**SO4**	BMB	0.024	0.142	0.45	0.4	111.5%

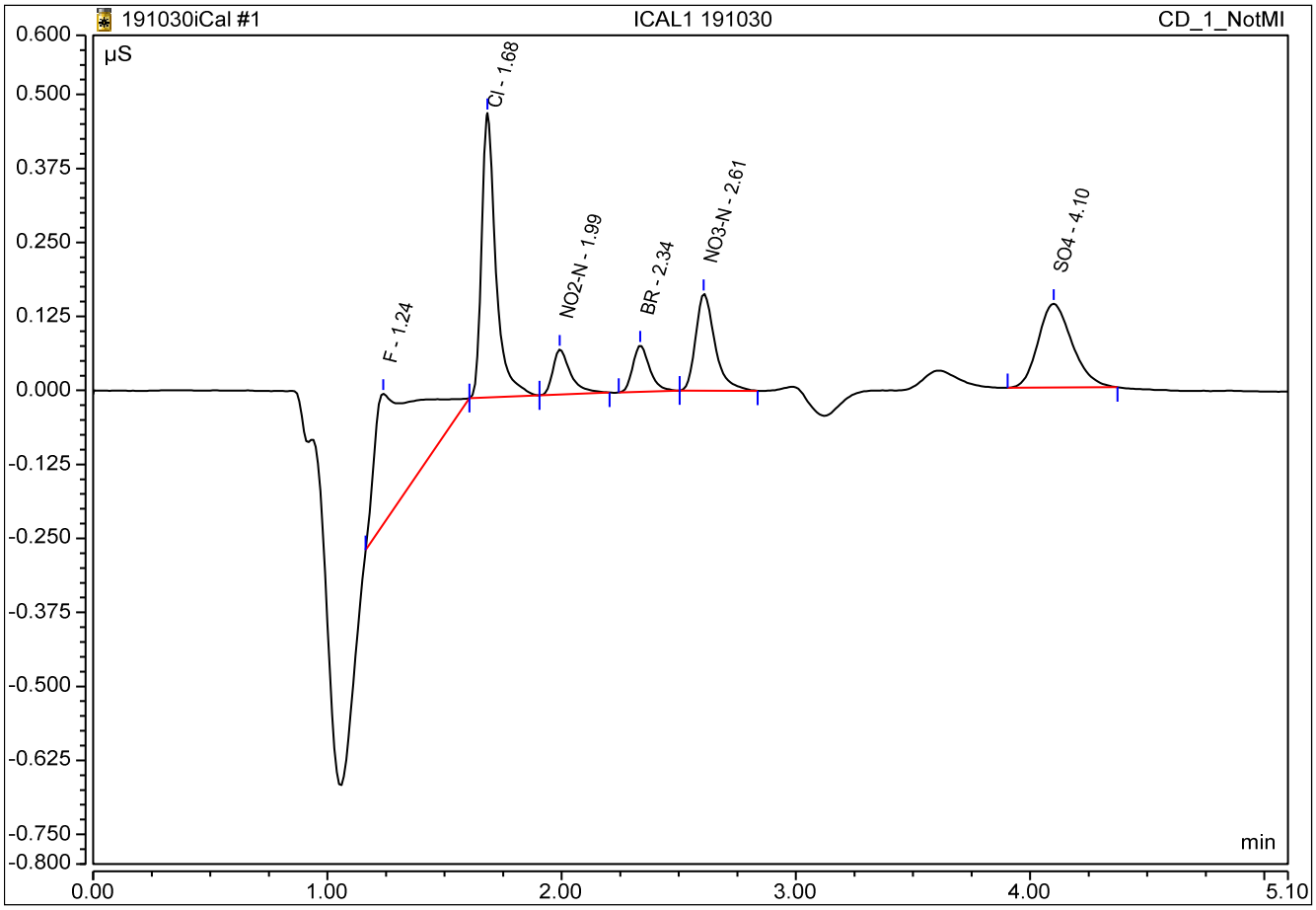


MI1 BW 191031

Not Manipulated Peak Integration Report

Sample Name:	**ICAL1 191030**	*Inj. Vol.:*	**25uL**
Injection Type:	**Calibration Standard**	*Dilution Factor:*	**1.0000**
Program:	**Anion APM 191030**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**30-Oct-2019 / 18:22**	*Run Time:*	**5.10**

No.	Time min	Peak Name	Peak Type	Area µS*min	Height µS	Ammount mg/L
1	1.24	**F**	M *	0.048	0.221	0.0926
2	1.68	**Cl**	bMB*	0.034	0.480	0.4073
3	1.99	**NO2-N**	BMB	0.007	0.076	0.0426
4	2.34	**BR**	BMB	0.007	0.078	0.2137
5	2.61	**NO3-N**	BMB	0.016	0.163	0.0909
6	n.a.	**PO4-P**	BMB*	n.a.	n.a.	n.a.
7	4.10	**SO4**	BMB	0.024	0.142	0.4460

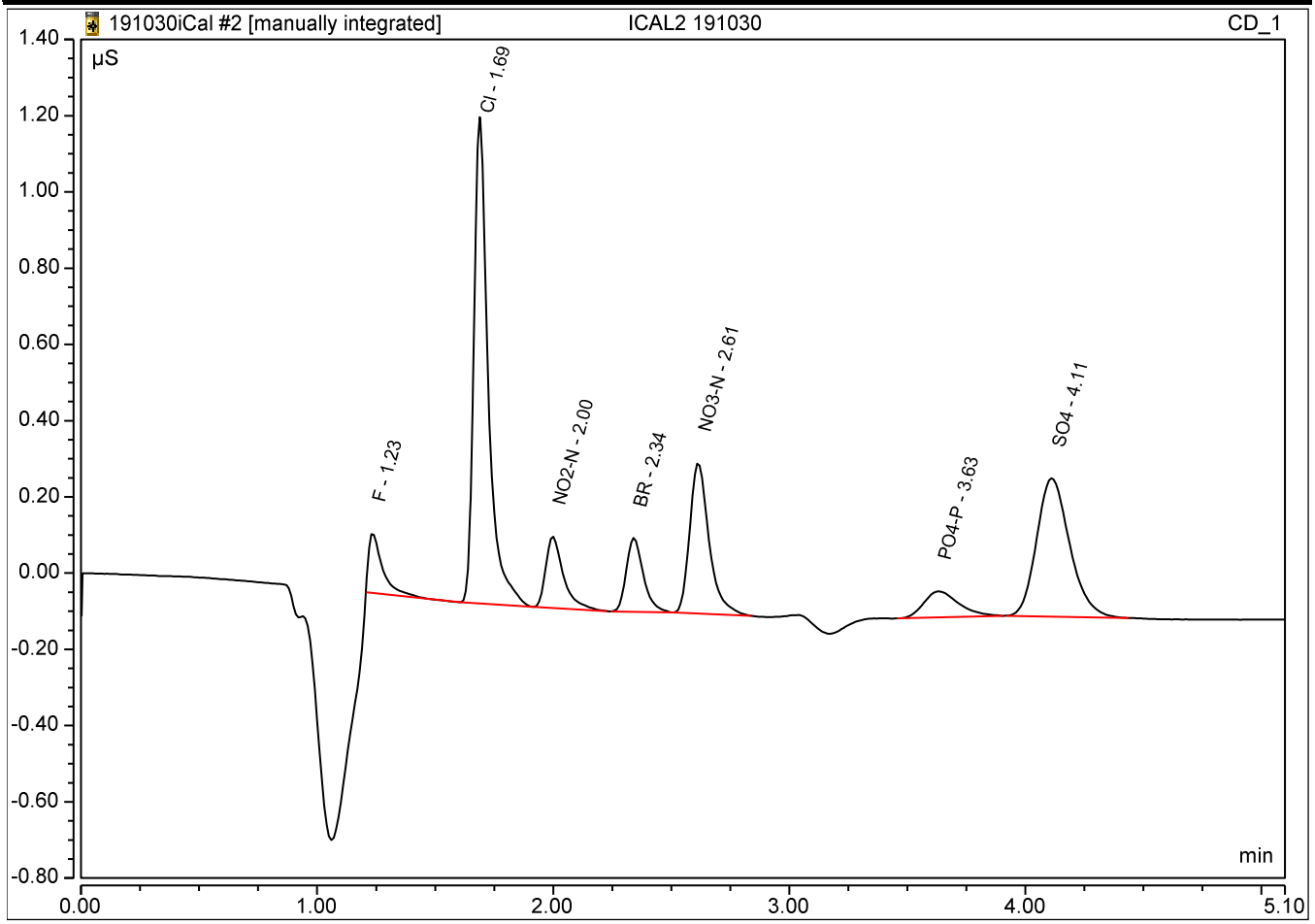


Logged on User: BW
Instrument: Charlie System_1
Sequence: 191030iCal

Peak Integration Report

Sample Name:	**ICAL2 191030**	*Inj. Vol.:*	**25uL**
Injection Type:	**Calibration Standard**	*Dilution Factor:*	**1.00**
Program:	**Anion APM 191030**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**30-Oct-2019 / 18:29**	*Run Time:*	**5.10**

No.	Time (min) min	Peak Name	Peak Type	Area (µS*min) µS*min	Height (µS) µS	Amount mg/L	Spike Level mg/L	Recovery
1	1.23	**F**	Mb*	0.011	0.157	0.21	0.25	82.3%
2	1.69	**Cl**	bMB*	0.090	1.276	0.96	1	96.1%
3	2.00	**NO2-N**	BMB	0.016	0.188	0.10	0.1	96.8%
4	2.34	**BR**	BMB	0.016	0.194	0.49	0.5	97.7%
5	2.61	**NO3-N**	BMB	0.038	0.395	0.19	0.2	94.6%
6	3.63	**PO4-P**	BMB*	0.012	0.068	0.84	0.5	168.7%
7	4.11	**SO4**	BMB	0.059	0.363	0.96	1	96.2%

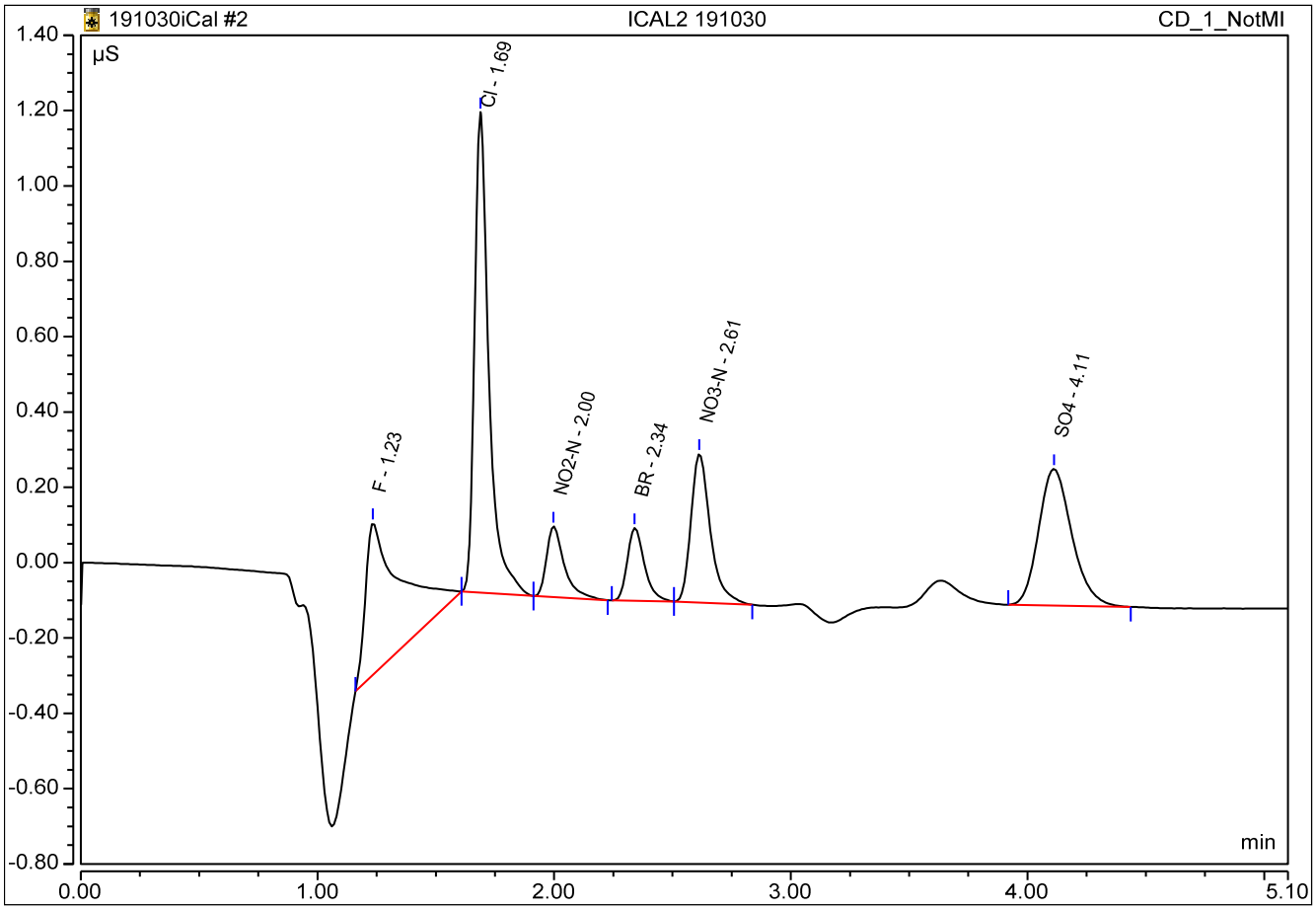


MI1 BW 190931

Not Manipulated Peak Integration Report

Sample Name:	**ICAL2 191030**	*Inj. Vol.:*	**25uL**
Injection Type:	**Calibration Standard**	*Dilution Factor:*	**1.0000**
Program:	**Anion APM 191030**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**30-Oct-2019 / 18:29**	*Run Time:*	**5.10**

No.	Time min	Peak Name	Peak Type	Area µS*min	Height µS	Ammount mg/L
1	1.23	**F**	Mb*	0.069	0.404	0.2711
2	1.69	**Cl**	bMB*	0.090	1.276	0.9610
3	2.00	**NO2-N**	BMB	0.016	0.188	0.0968
4	2.34	**BR**	BMB	0.016	0.194	0.4887
5	2.61	**NO3-N**	BMB	0.038	0.395	0.1893
6	n.a.	**PO4-P**	BMB*	n.a.	n.a.	n.a.
7	4.11	**SO4**	BMB	0.059	0.363	0.9617

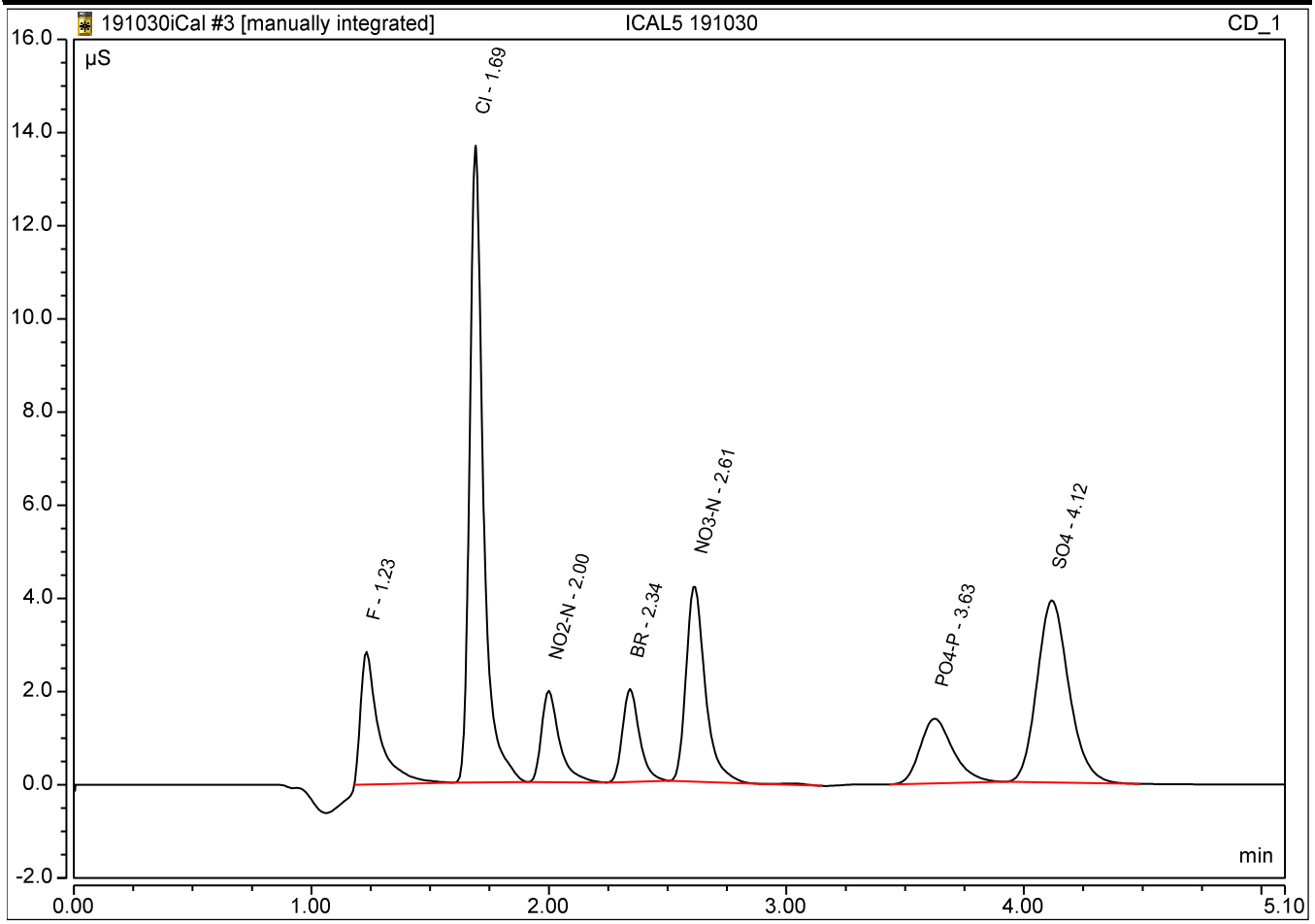


Logged on User: BW
Instrument: Charlie System_1
Sequence: 191030iCal

Peak Integration Report

Sample Name:	**ICAL5 191030**	*Inj. Vol.:*	**25uL**
Injection Type:	**Calibration Standard**	*Dilution Factor:*	**1.00**
Program:	**Anion APM 191030**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**30-Oct-2019 / 18:37**	*Run Time:*	**5.10**

No.	Time (min) min	Peak Name	Peak Type	Area (µS*min) µS*min	Height (µS) µS	Amount mg/L	Spike Level mg/L	Recovery
1	1.23	**F**	MB*	0.255	2.859	2.26	2.5	90.4%
2	1.69	**Cl**	BMB	0.913	13.668	9.12	10	91.2%
3	2.00	**NO2-N**	BMB	0.171	1.960	0.96	1	96.1%
4	2.34	**BR**	BMB	0.165	1.998	4.71	5	94.3%
5	2.61	**NO3-N**	BMB	0.395	4.211	1.79	2	89.7%
7	3.63	**PO4-P**	BMB	0.223	1.389	3.89	5	77.8%
8	4.12	**SO4**	BMB	0.610	3.910	9.04	10	90.4%

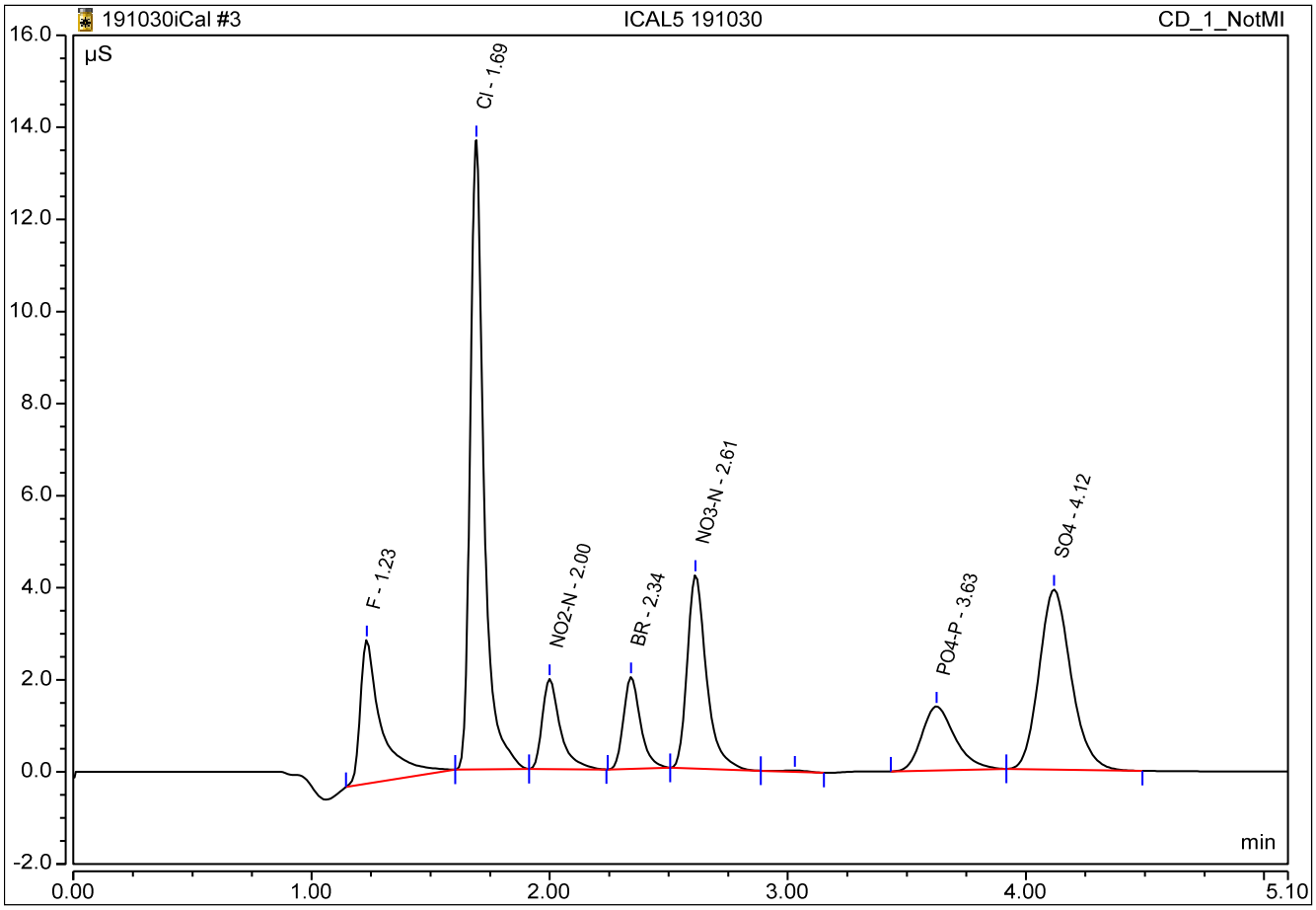


MI1 BW 190931

Not Manipulated Peak Integration Report

Sample Name:	**ICAL5 191030**	*Inj. Vol.:*	**25uL**
Injection Type:	**Calibration Standard**	*Dilution Factor:*	**1.0000**
Program:	**Anion APM 191030**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**30-Oct-2019 / 18:37**	*Run Time:*	**5.10**

No.	Time min	Peak Name	Peak Type	Area µS*min	Height µS	Ammount mg/L
1	1.23	**F**	MB*	0.321	3.121	2.4710
2	1.69	**Cl**	BMB	0.913	13.668	9.1151
3	2.00	**NO2-N**	BMB	0.171	1.960	0.9605
4	2.34	**BR**	BMB	0.165	1.998	4.7141
5	2.61	**NO3-N**	BMB	0.395	4.211	1.7941
7	3.63	**PO4-P**	BMB	0.223	1.389	5.0000
8	4.12	**SO4**	BMB	0.610	3.910	9.0418

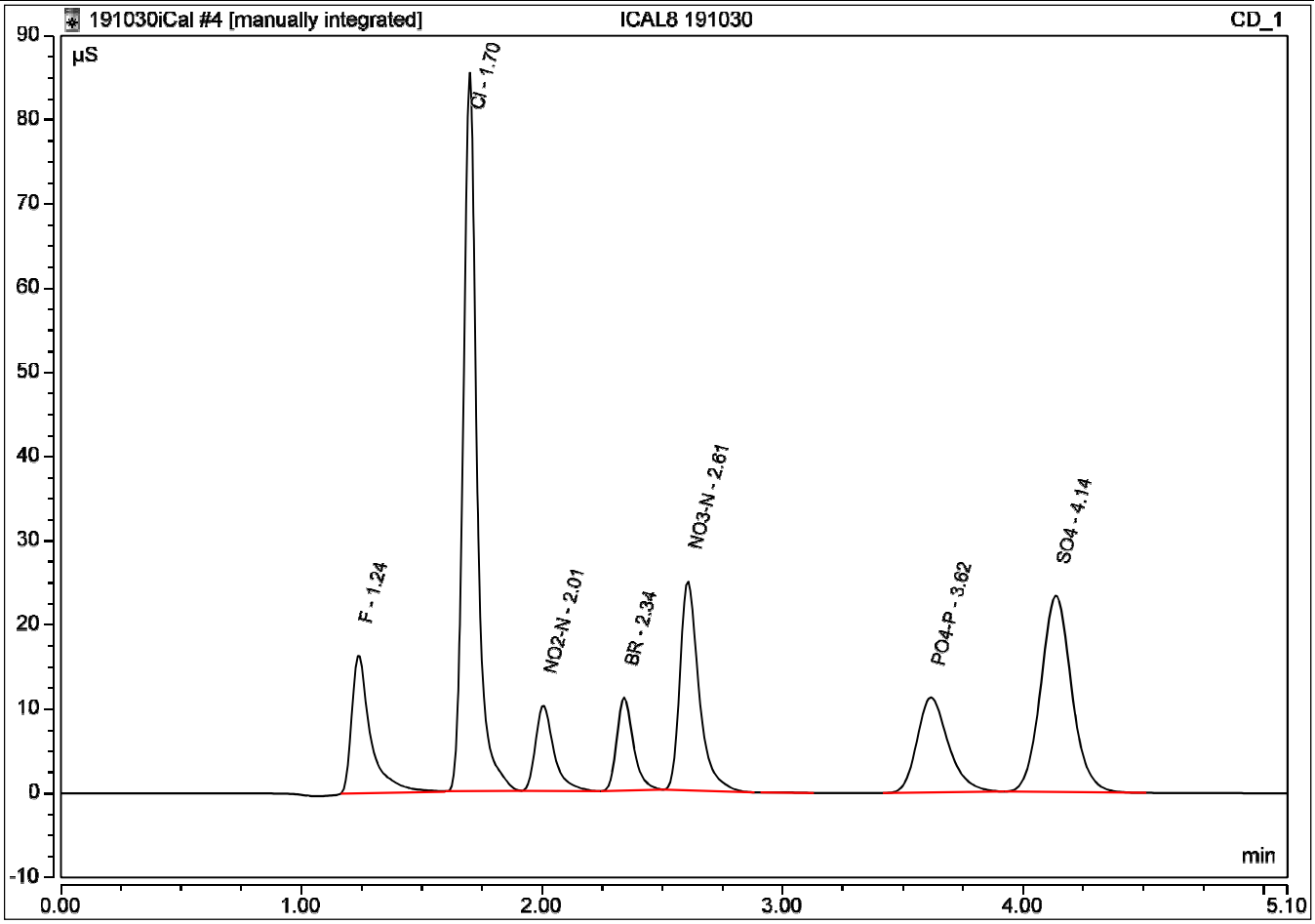


Logged on User: BW
Instrument: Charlie System_1
Sequence: 191030iCal

Peak Integration Report

Sample Name:	**ICAL8 191030**	*Inj. Vol.:*	**25uL**
Injection Type:	**Calibration Standard**	*Dilution Factor:*	**1.00**
Program:	**Anion APM 191030**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**30-Oct-2019 / 18:44**	*Run Time:*	**5.10**

No.	Time (min) min	Peak Name	Peak Type	Area (µS*min) µS*min	Height (µS) µS	Amount mg/L	Spike Level mg/L	Recovery
1	1.24	**F**	BM *	1.503	16.491	12.76	12.5	102.1%
2	1.70	**Cl**	BMB	5.591	85.358	55.47	50	110.9%
3	2.01	**NO2-N**	BMB	0.903	10.178	5.04	5	100.8%
4	2.34	**BR**	BMB	0.890	11.073	25.28	25	101.1%
5	2.61	**NO3-N**	BMB	2.269	24.891	10.21	10	102.1%
7	3.62	**PO4-P**	BMB	1.704	11.286	25.21	25	100.8%
8	4.14	**SO4**	BMB	3.469	23.343	50.95	50	101.9%

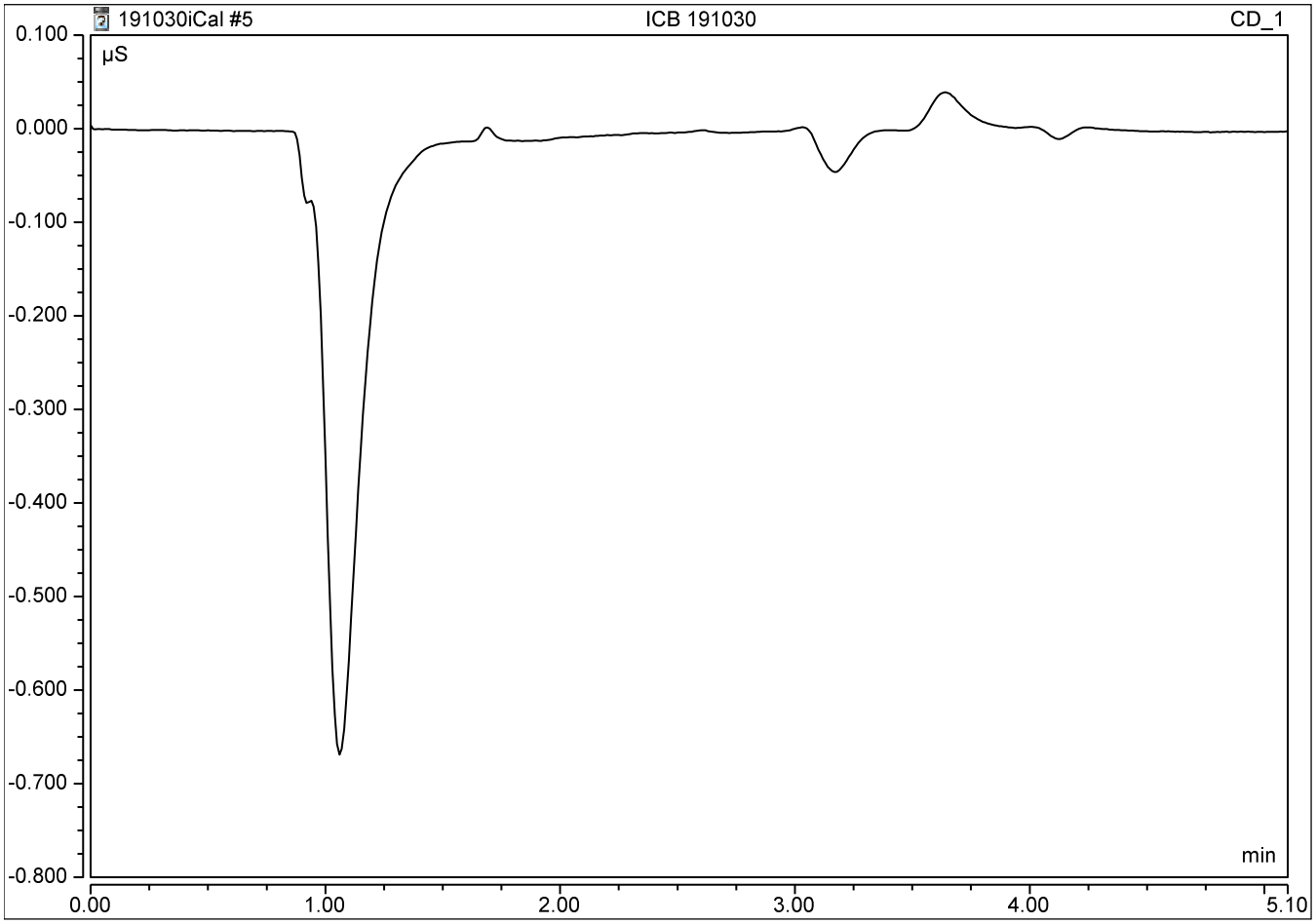


Logged on User: BW
Instrument: Charlie System_1
Sequence: 191030iCal

Peak Integration Report

Sample Name:	**ICB 191030**	*Inj. Vol.:*	**25uL**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.00**
Program:	**Anion APM 191030**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**30-Oct-2019 / 18:52**	*Run Time:*	**5.10**

No.	Time (min) min	Peak Name	Peak Type	Area (µS*min) µS*min	Height (µS) µS	Amount mg/L	Spike Level mg/L	Recovery

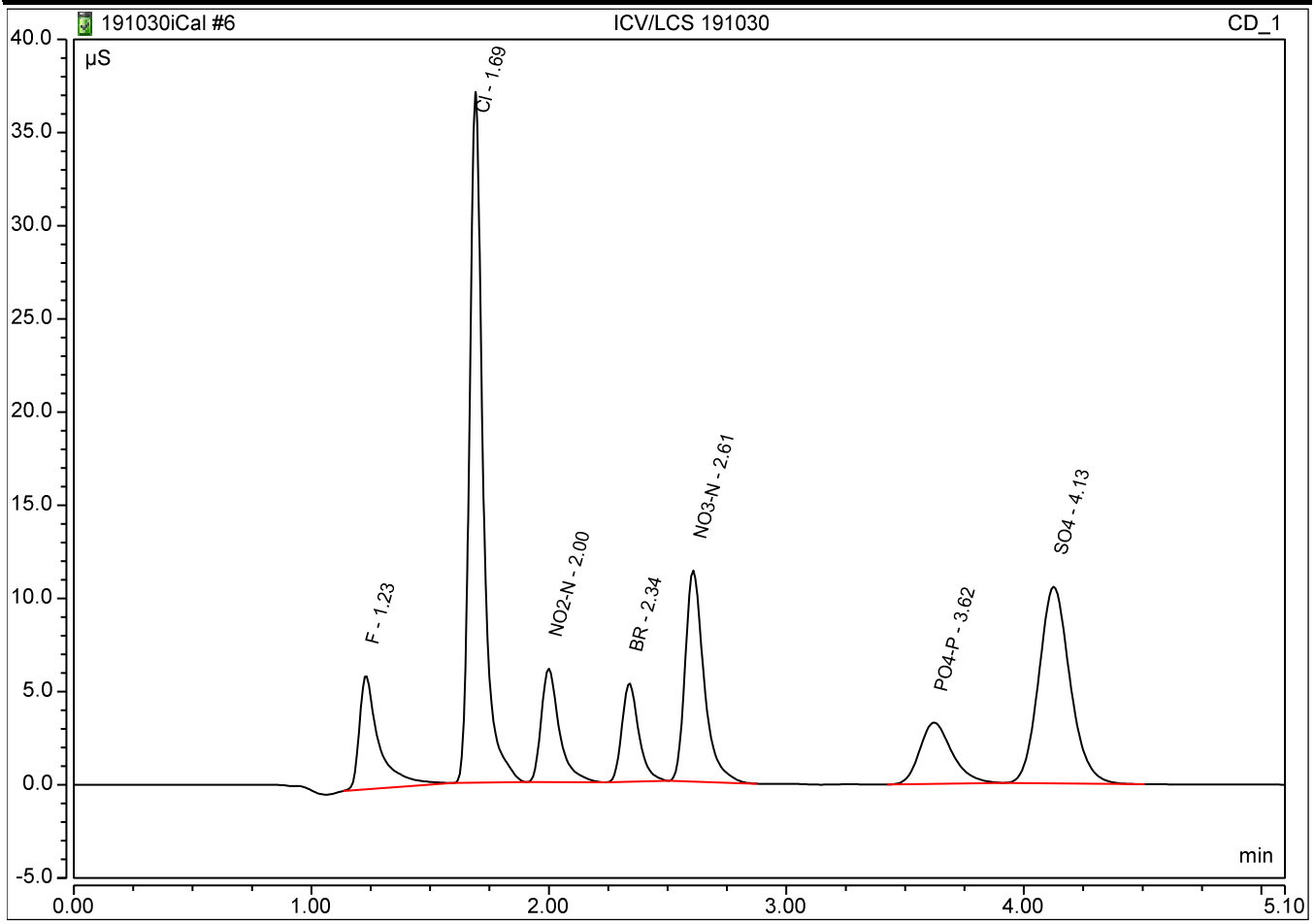


Logged on User: BW
Instrument: Charlie System_1
Sequence: 191030iCal

Peak Integration Report

Sample Name:	**ICV/LCS 191030**	*Inj. Vol.:*	**25uL**
Injection Type:	**Check Standard**	*Dilution Factor:*	**1.00**
Program:	**Anion APM 191030**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**30-Oct-2019 / 18:59**	*Run Time:*	**5.10**

No.	Time (min) min	Peak Name	Peak Type	Area (µS*min) µS*min	Height (µS) µS	Amount mg/L	Spike Level mg/L	Recovery
1	1.23	**F**	BMB	0.589	6.116	5.07	5	101.5%
2	1.69	**Cl**	BMB	2.435	37.074	24.19	25	96.8%
3	2.00	**NO2-N**	BMB	0.539	6.101	3.01	3.04	99.1%
4	2.34	**BR**	BMB	0.435	5.293	12.37	12.5	99.0%
5	2.61	**NO3-N**	BMB	1.049	11.325	4.73	5	94.5%
6	3.62	**PO4-P**	BMB	0.517	3.291	8.12	10	81.2%
7	4.13	**SO4**	BMB	1.608	10.548	23.67	25	94.7%



Algorithm Check
y = Peak Area
x = mg/L S04

y = 0.0682 x + -0.0066
y = 1.6082 therefor x =

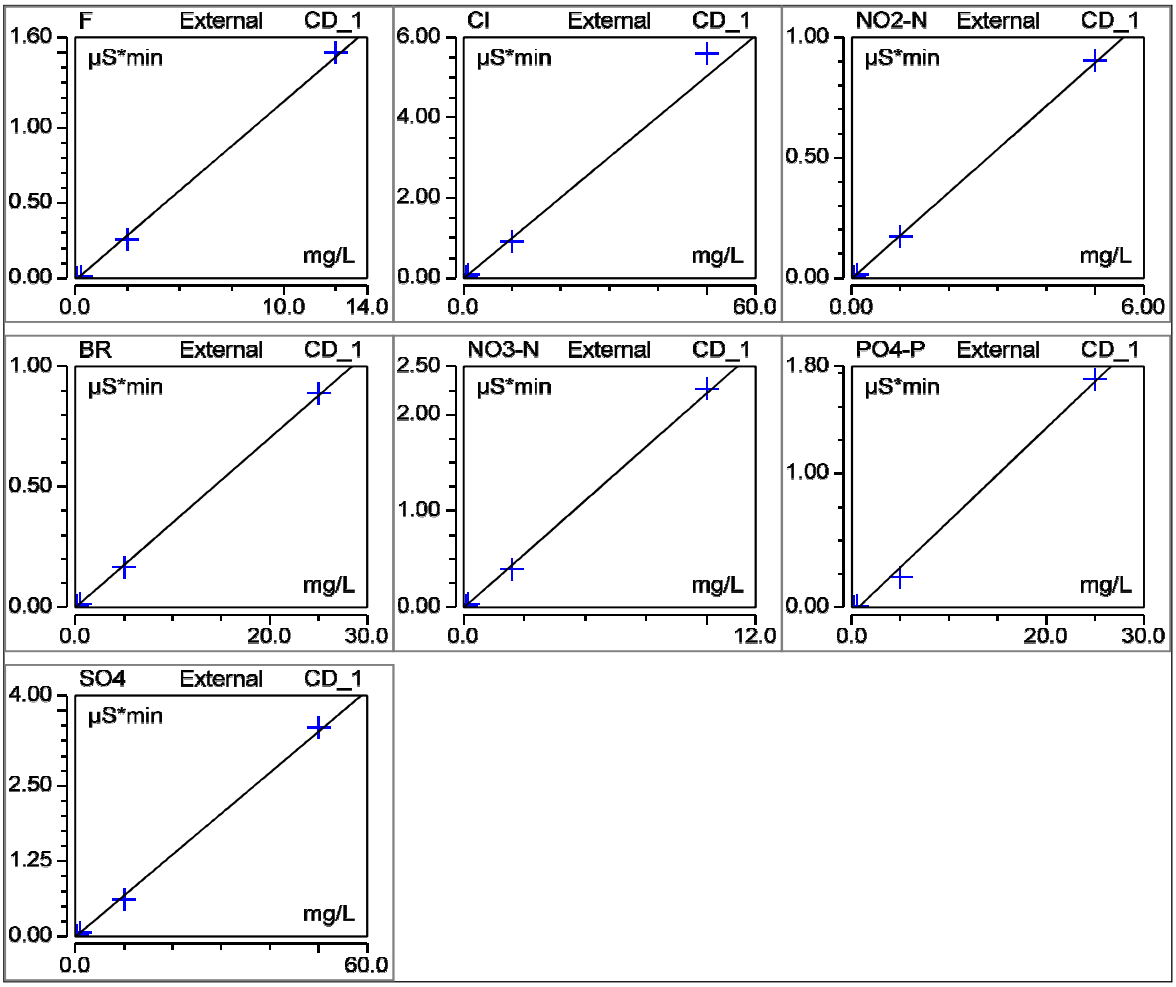
Calibration Batch Report

Sequence:	**191121**	*Injection Volume:*	**25.00**
Instrument Method:	**Anions IM**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**21-Nov-2019 / 17:37**	*Run Time:*	**5.1**

Calibration Summary

Peak Name	Eval.Type	Cal.Type	Points	Offset (C0)	Slope (C1)	Curve (C2)	Coeff.Det. %
F	Area	Lin, WithOffset, 1/A	4.000	-0.014	0.119	0.000	99.7003
Cl	Area	Lin, WithOffset, 1/A²	4.000	-0.007	0.101	0.000	99.0220
NO2-N	Area	Lin, WithOffset, 1/A	4.000	-0.001	0.179	0.000	99.9623
BR	Area	Lin, WithOffset, 1/A	4.000	-0.001	0.035	0.000	99.9272
NO3-N	Area	Lin, WithOffset, 1/A	4.000	-0.005	0.223	0.000	99.7595
PO4-P	Area	Lin, WithOffset	4.000	-0.047	0.069	0.000	99.5917
SO4	Area	Lin, WithOffset, 1/A	4.000	-0.007	0.068	0.000	99.7957

Injection Name	Amount mg/L CD_1 F	Amount mg/L CD_1 Cl	Amount mg/L CD_1 NO2-N	Amount mg/L CD_1 BR	Amount mg/L CD_1 NO3-N	Amount mg/L CD_1 PO4-P	Amount mg/L CD_1 SO4
ICAL1 191121	n.a.	0.3936	0.0365	0.2037	0.0864	n.a.	0.4412
ICAL2 191121	0.141	0.8652	0.0893	0.4685	0.1909	0.7933	0.9693
ICAL5 191121	2.165	8.7043	0.8662	4.4904	1.7800	3.1621	8.9515
ICAL8 191121	12.748	54.0342	4.6258	24.3519	10.2295	22.4920	51.3018

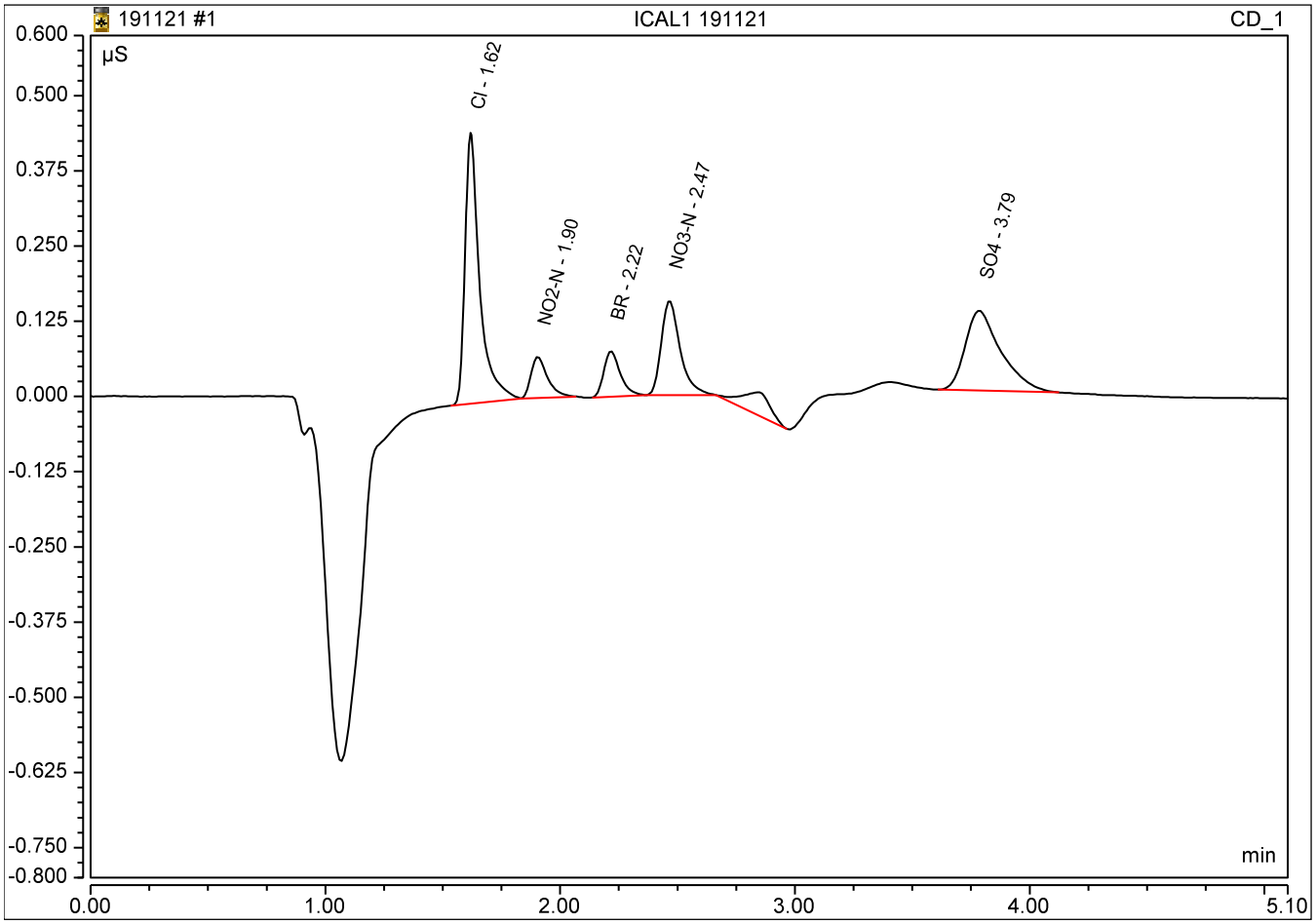


Logged on User: BW
Instrument: Charlie System_1
Sequence: 191121

Peak Integration Report

Sample Name:	**ICAL1 191121**	*Inj. Vol.:*	**25uL**
Injection Type:	**Calibration Standard**	*Dilution Factor:*	**1.00**
Program:	**Anion APM 191030**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**21-Nov-2019 / 17:15**	*Run Time:*	**5.10**

No.	Time (min) min	Peak Name	Peak Type	Area (µS*min) µS*min	Height (µS) µS	Amount mg/L	Spike Level mg/L	Recovery
1	1.62	**Cl**	BMB	0.033	0.450	0.39	0.4	98.4%
2	1.90	**NO2-N**	BMB	0.006	0.068	0.04	0.04	91.2%
3	2.22	**BR**	BMB	0.006	0.076	0.20	0.2	101.9%
4	2.47	**NO3-N**	BMB	0.015	0.157	0.09	0.08	108.0%
6	3.79	**SO4**	BMB	0.023	0.133	0.44	0.4	110.3%

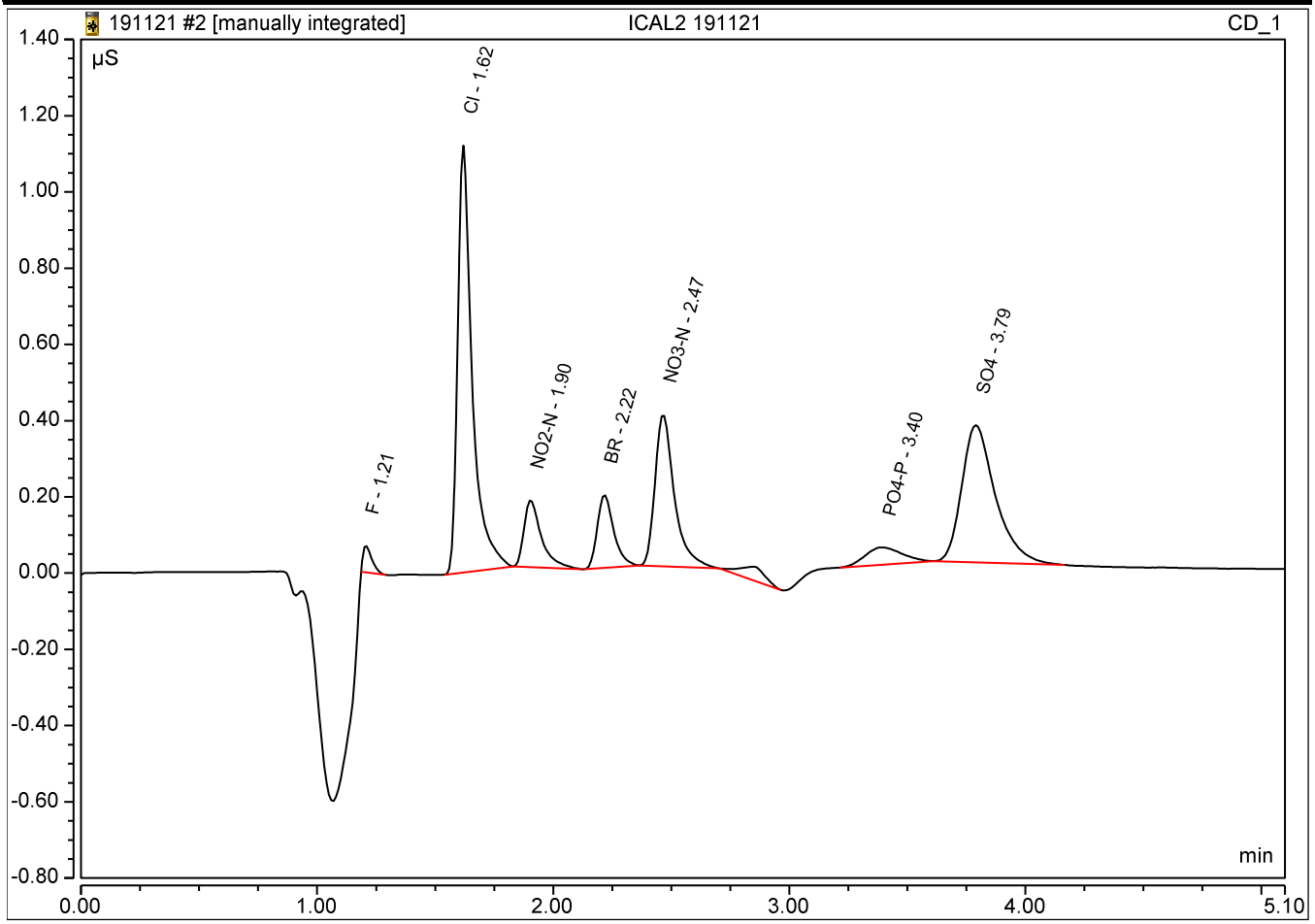


Logged on User: BW
Instrument: Charlie System_1
Sequence: 191121

Peak Integration Report

Sample Name:	**ICAL2 191121**	*Inj. Vol.:*	**25uL**
Injection Type:	**Calibration Standard**	*Dilution Factor:*	**1.00**
Program:	**Anion APM 191030**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**21-Nov-2019 / 17:22**	*Run Time:*	**5.10**

No.	Time (min) min	Peak Name	Peak Type	Area (µS*min) µS*min	Height (µS) µS	Amount mg/L	Spike Level mg/L	Recovery
1	1.21	**F**	MB*	0.003	0.070	0.14	0.25	56.5%
2	1.62	**Cl**	BMB	0.080	1.120	0.87	1	86.5%
3	1.90	**NO2-N**	BMB	0.015	0.176	0.09	0.1	89.3%
4	2.22	**BR**	BMB	0.016	0.191	0.47	0.5	93.7%
5	2.47	**NO3-N**	BMB	0.038	0.399	0.19	0.2	95.4%
7	3.40	**PO4-P**	BMB*	0.008	0.045	0.79	0.5	158.7%
8	3.79	**SO4**	BMB	0.060	0.360	0.97	1	96.9%

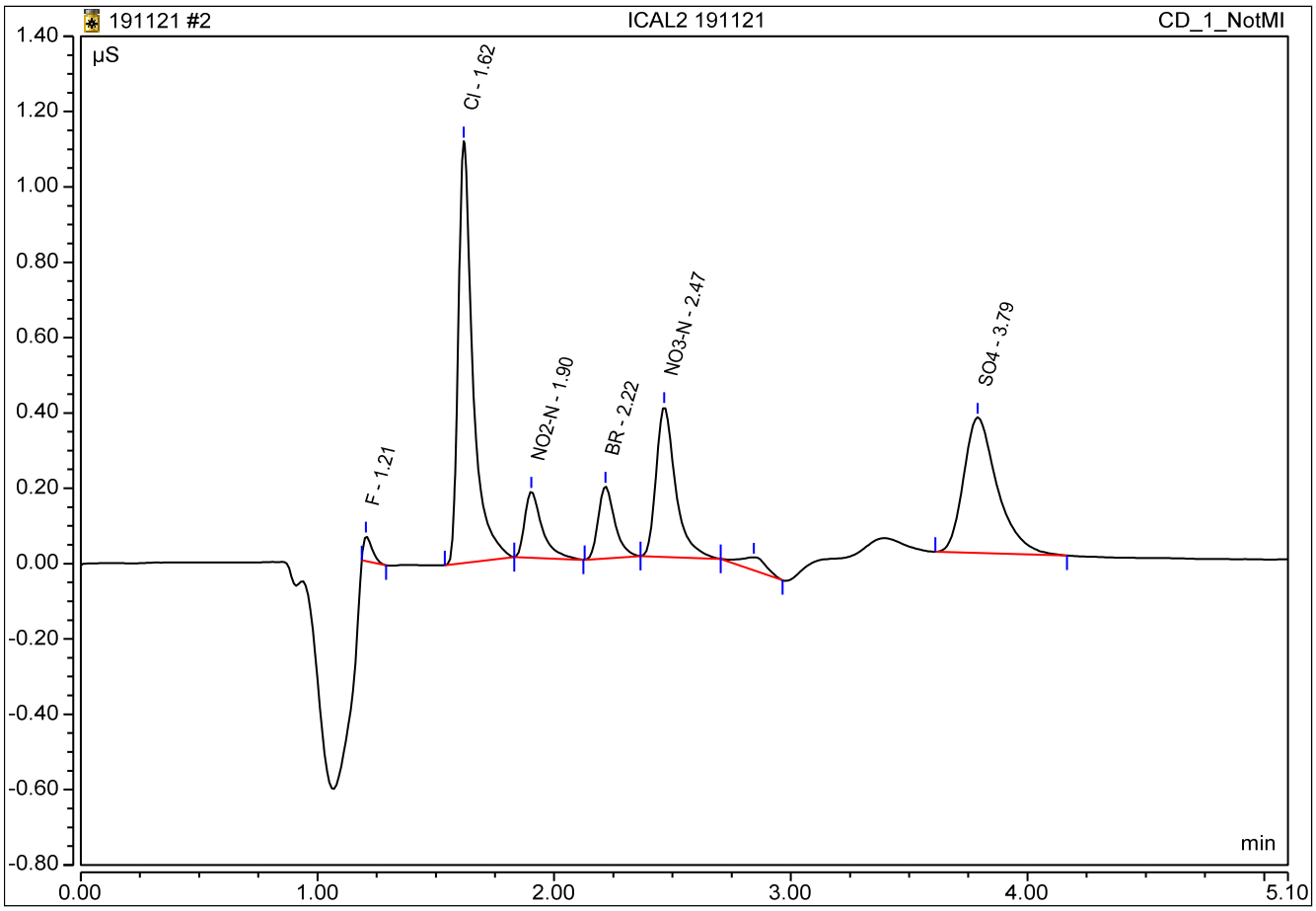


MI5 BW 191122

Not Manipulated Peak Integration Report

Sample Name:	**ICAL2 191121**	*Inj. Vol.:*	**25uL**
Injection Type:	**Calibration Standard**	*Dilution Factor:*	**1.0000**
Program:	**Anion APM 191030**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**21-Nov-2019 / 17:22**	*Run Time:*	**5.10**

No.	Time min	Peak Name	Peak Type	Area µS*min	Height µS	Ammount mg/L
1	1.21	**F**	MB*	0.003	0.066	-0.3023
2	1.62	**Cl**	BMB	0.080	1.120	0.8663
3	1.90	**NO2-N**	BMB	0.015	0.176	0.0893
4	2.22	**BR**	BMB	0.016	0.191	0.4685
5	2.47	**NO3-N**	BMB	0.038	0.399	0.1909
7	n.a.	**PO4-P**	BMB*	n.a.	n.a.	n.a.
8	3.79	**SO4**	BMB	0.060	0.360	0.9693

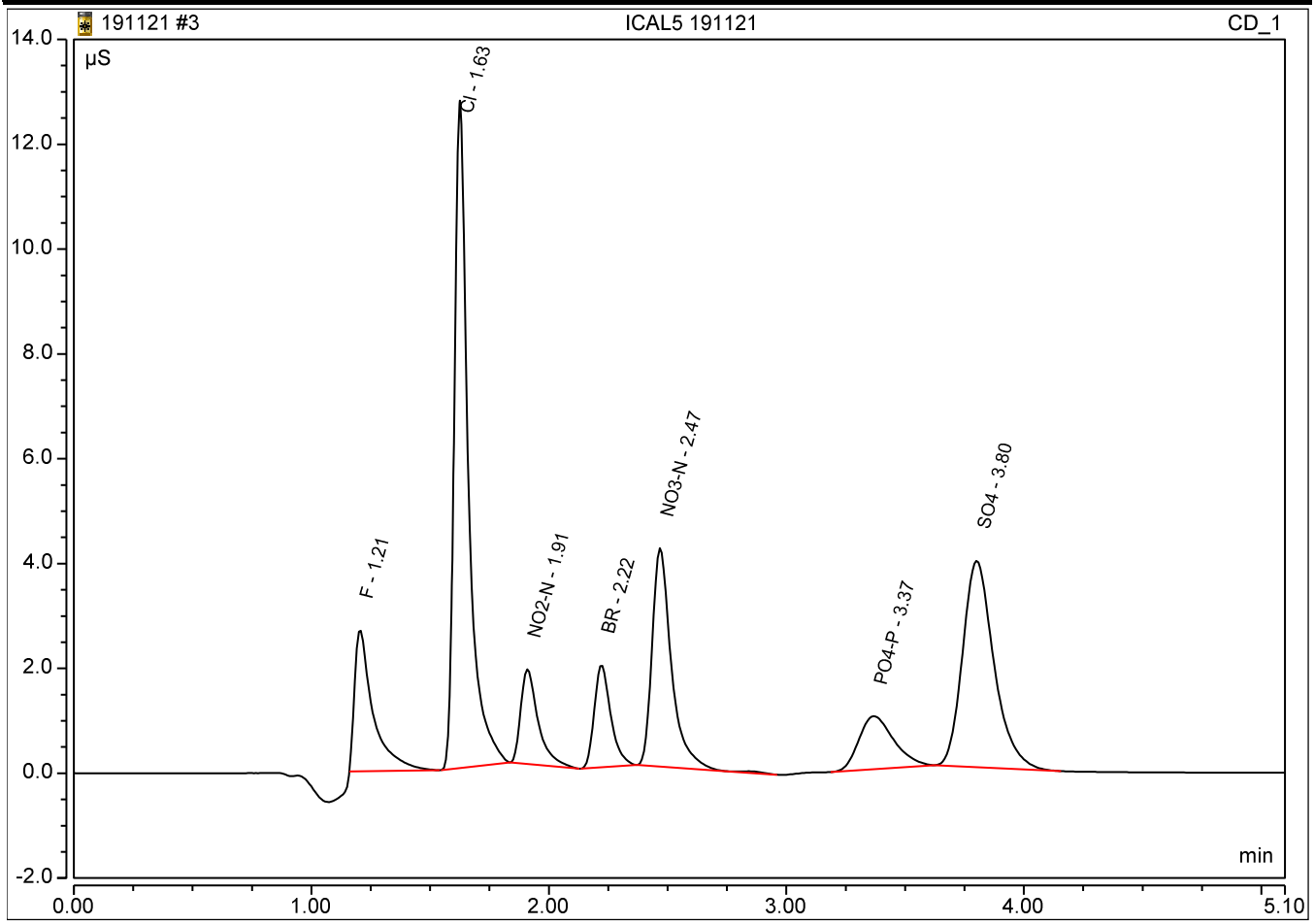


Logged on User: BW
Instrument: Charlie System_1
Sequence: 191121

Peak Integration Report

Sample Name:	**ICAL5 191121**	*Inj. Vol.:*	**25uL**
Injection Type:	**Calibration Standard**	*Dilution Factor:*	**1.00**
Program:	**Anion APM 191030**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**21-Nov-2019 / 17:30**	*Run Time:*	**5.10**

No.	Time (min) min	Peak Name	Peak Type	Area (µS*min) µS*min	Height (µS) µS	Amount mg/L	Spike Level mg/L	Recovery
1	1.21	**F**	BMB	0.244	2.711	2.17	2.5	86.6%
2	1.63	**Cl**	BMB	0.871	12.735	8.70	10	87.0%
3	1.91	**NO2-N**	BMB	0.154	1.812	0.87	1	86.6%
4	2.22	**BR**	BMB	0.157	1.954	4.49	5	89.8%
5	2.47	**NO3-N**	BMB	0.392	4.170	1.78	2	89.0%
7	3.37	**PO4-P**	BMB	0.173	1.014	3.16	5	63.2%
8	3.80	**SO4**	BMB	0.604	3.941	8.95	10	89.5%

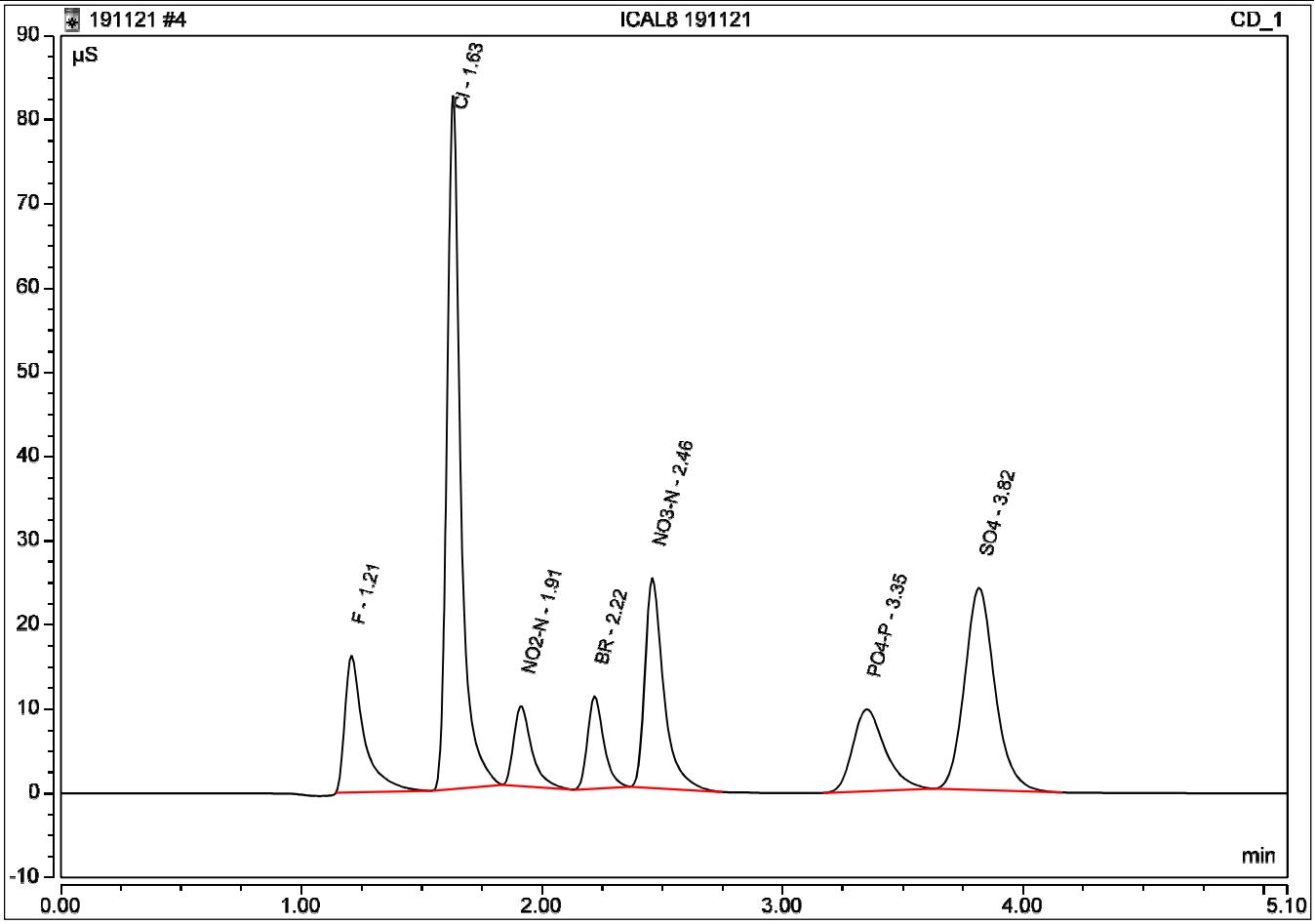


Logged on User: BW
Instrument: Charlie System_1
Sequence: 191121

Peak Integration Report

Sample Name:	**ICAL8 191121**	*Inj. Vol.:*	**25uL**
Injection Type:	**Calibration Standard**	*Dilution Factor:*	**1.00**
Program:	**Anion APM 191030**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**21-Nov-2019 / 17:37**	*Run Time:*	**5.10**

No.	Time (min) min	Peak Name	Peak Type	Area (µS*min) µS*min	Height (µS) µS	Amount mg/L	Spike Level mg/L	Recovery
1	1.21	**F**	BMB	1.502	16.282	12.75	12.5	102.0%
2	1.63	**Cl**	BMB	5.446	82.368	54.03	50	108.1%
3	1.91	**NO2-N**	BMB	0.829	9.566	4.63	5	92.5%
4	2.22	**BR**	BMB	0.857	11.005	24.35	25	97.4%
5	2.46	**NO3-N**	BMB	2.275	24.958	10.23	10	102.3%
6	3.35	**PO4-P**	BMB	1.515	9.745	22.49	25	90.0%
7	3.82	**SO4**	BMB	3.493	24.021	51.30	50	102.6%

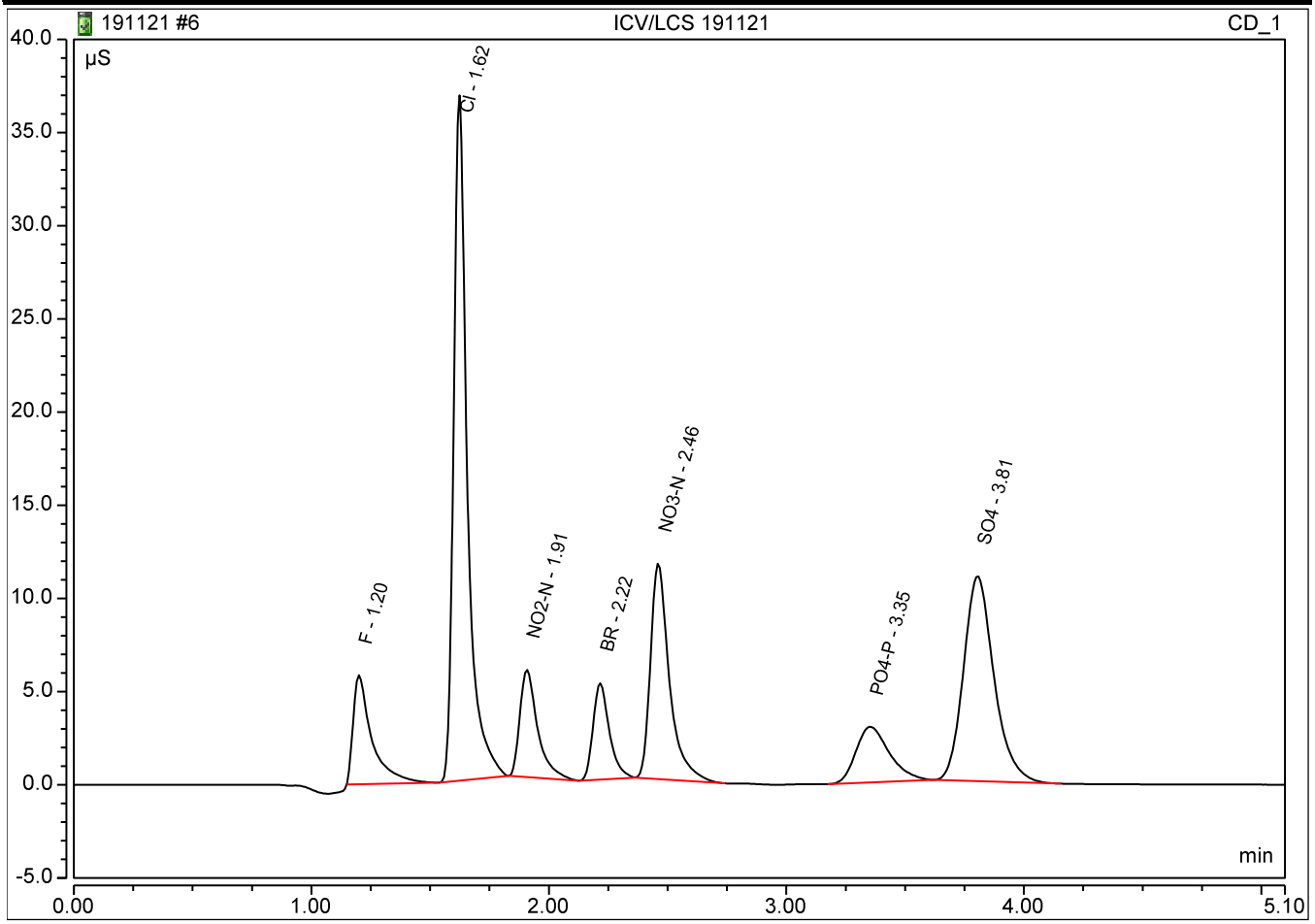


Logged on User: BW
Instrument: Charlie System_1
Sequence: 191121

Peak Integration Report

Sample Name:	**ICV/LCS 191121**	*Inj. Vol.:*	**25uL**
Injection Type:	**Check Standard**	*Dilution Factor:*	**1.00**
Program:	**Anion APM 191121**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**21-Nov-2019 / 17:52**	*Run Time:*	**5.10**

No.	Time (min) min	Peak Name	Peak Type	Area (µS*min) µS*min	Height (µS) µS	Amount mg/L	Spike Level mg/L	Recovery
1	1.20	**F**	BMB	0.534	5.852	4.67	5	93.5%
2	1.62	**Cl**	BMB	2.439	36.770	25.48	25	101.9%
3	1.91	**NO2-N**	BMB	0.500	5.762	3.05	3.04	100.4%
4	2.22	**BR**	BMB	0.411	5.173	12.15	12.5	97.2%
5	2.46	**NO3-N**	BMB	1.068	11.564	4.81	5	96.2%
6	3.35	**PO4-P**	BMB	0.487	2.989	8.93	10	89.3%
7	3.81	**SO4**	BMB	1.639	10.999	24.02	25	96.1%



Algorithm Check
y = Peak Area
x = mg/L S04

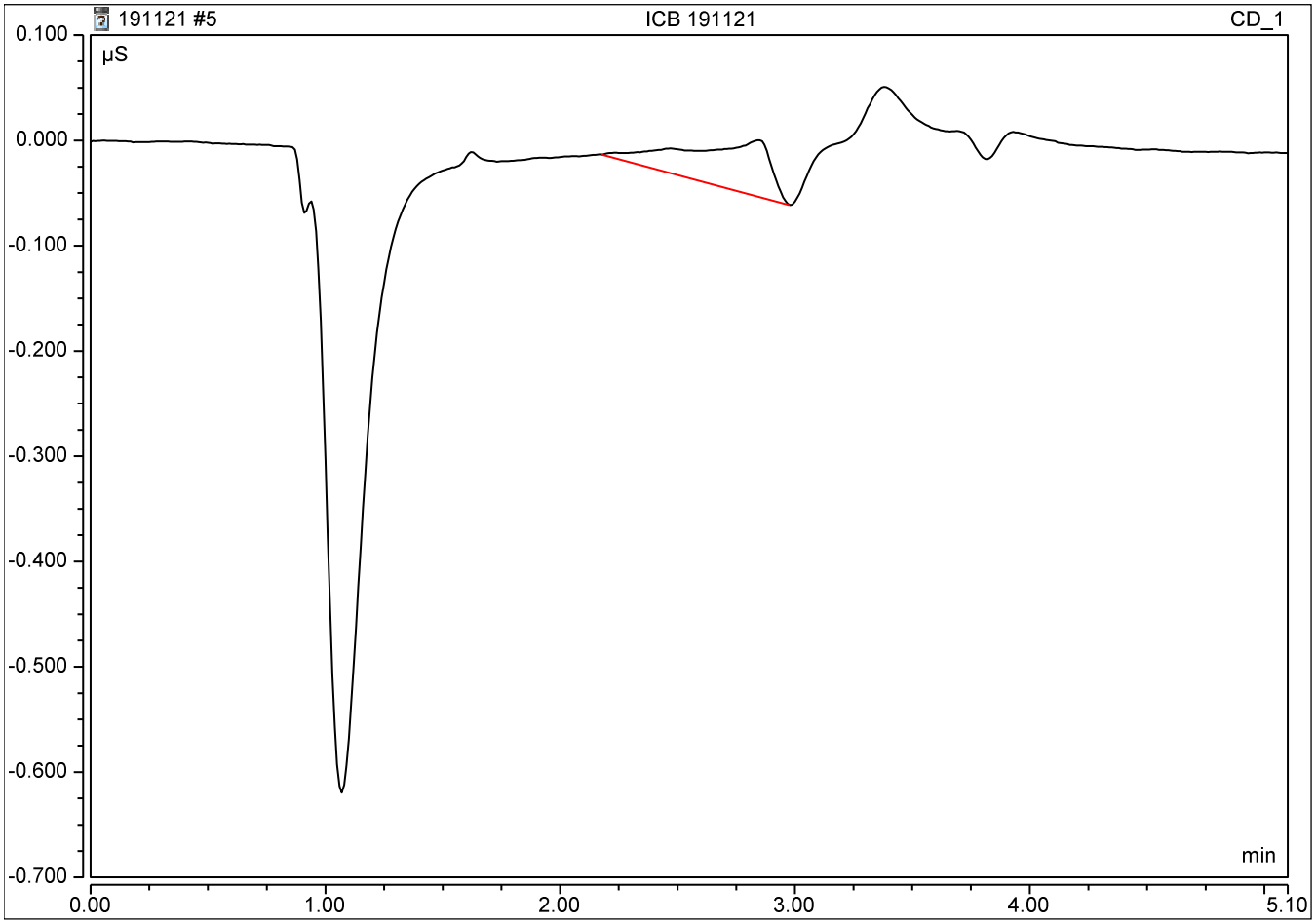
y = 0.0685 x + -0.0071
y = 1.6392 therefor x =

Logged on User: BW
Instrument: Charlie System_1
Sequence: 191121

Peak Integration Report

Sample Name:	**ICB 191121**	*Inj. Vol.:*	**25uL**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.00**
Program:	**Anion APM 191030**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**21-Nov-2019 / 17:45**	*Run Time:*	**5.10**

No.	Time (min) min	Peak Name	Peak Type	Area (µS*min) µS*min	Height (µS) µS	Amount mg/L	Spike Level mg/L	Recovery

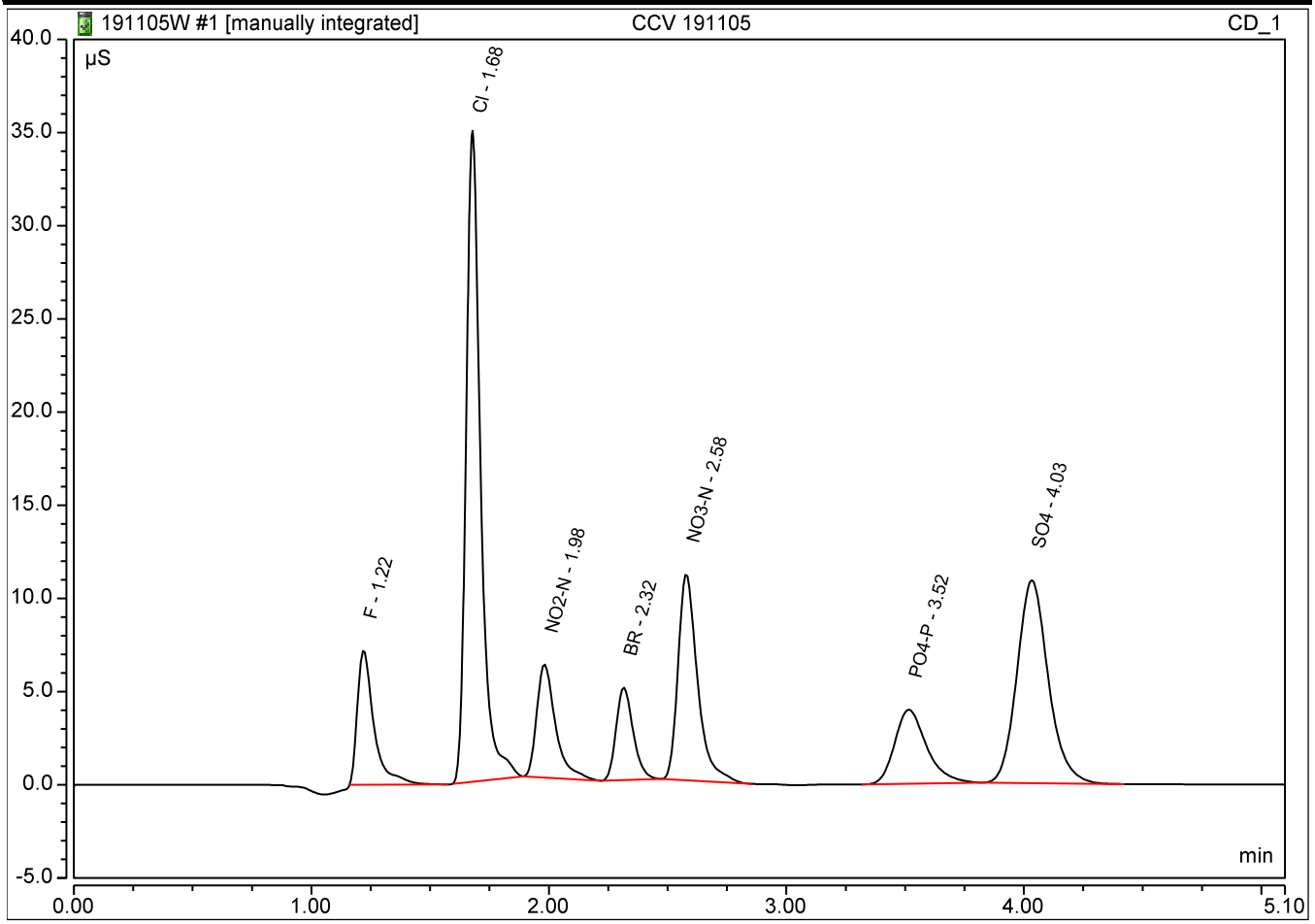


Logged on User: BW
Instrument: Charlie System_1
Sequence: 191105W

Peak Integration Report

Sample Name:	**CCV 191105**	*Inj. Vol.:*	**25uL**
Injection Type:	**Check Standard**	*Dilution Factor:*	**1.00**
Program:	**Anion APM 191030**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**05-Nov-2019 / 20:08**	*Run Time:*	**5.10**

No.	Time (min) min	Peak Name	Peak Type	Area (µS*min) µS*min	Height (µS) µS	Amount mg/L	Spike Level mg/L	Recovery
1	1.22	**F**	MB*	0.584	7.225	5.03	5	100.6%
2	1.68	**Cl**	BMb*	2.456	34.925	24.40	25	97.6%
3	1.98	**NO2-N**	bMB*	0.560	6.077	3.13	3.04	102.8%
4	2.32	**BR**	BMB	0.414	4.971	11.77	12.5	94.2%
5	2.58	**NO3-N**	BMB	1.058	11.085	4.77	5	95.4%
6	3.52	**PO4-P**	BMB	0.620	3.978	9.60	10	96.0%
7	4.03	**SO4**	BMB	1.664	10.899	24.49	25	97.9%

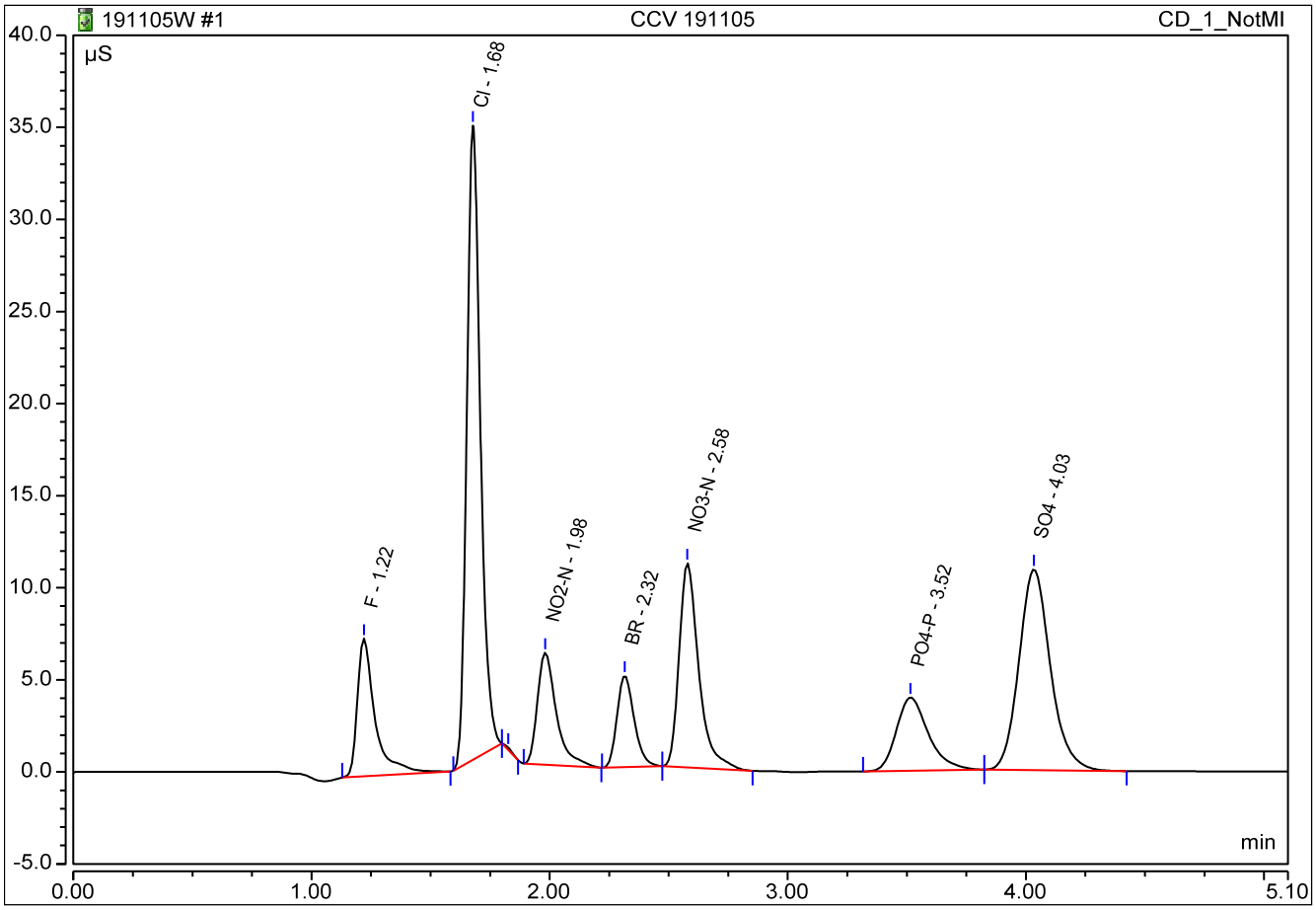


MI4 BW 191114

Not Manipulated Peak Integration Report

Sample Name:	**CCV 191105**	*Inj. Vol.:*	**25uL**
Injection Type:	**Check Standard**	*Dilution Factor:*	**1.0000**
Program:	**Anion APM 191030**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**05-Nov-2019 / 20:08**	*Run Time:*	**5.10**

No.	Time min	Peak Name	Peak Type	Area µS*min	Height µS	Ammount mg/L
1	1.22	**F**	MB*	0.647	7.471	5.3122
2	1.68	**Cl**	BMb*	2.278	34.435	22.6380
3	1.98	**NO2-N**	bMB*	0.560	6.077	3.1254
4	2.32	**BR**	BMB	0.414	4.971	11.7718
5	2.58	**NO3-N**	BMB	1.058	11.085	4.7688
6	3.52	**PO4-P**	BMB	0.620	3.978	10.3549
7	4.03	**SO4**	BMB	1.664	10.899	24.4865

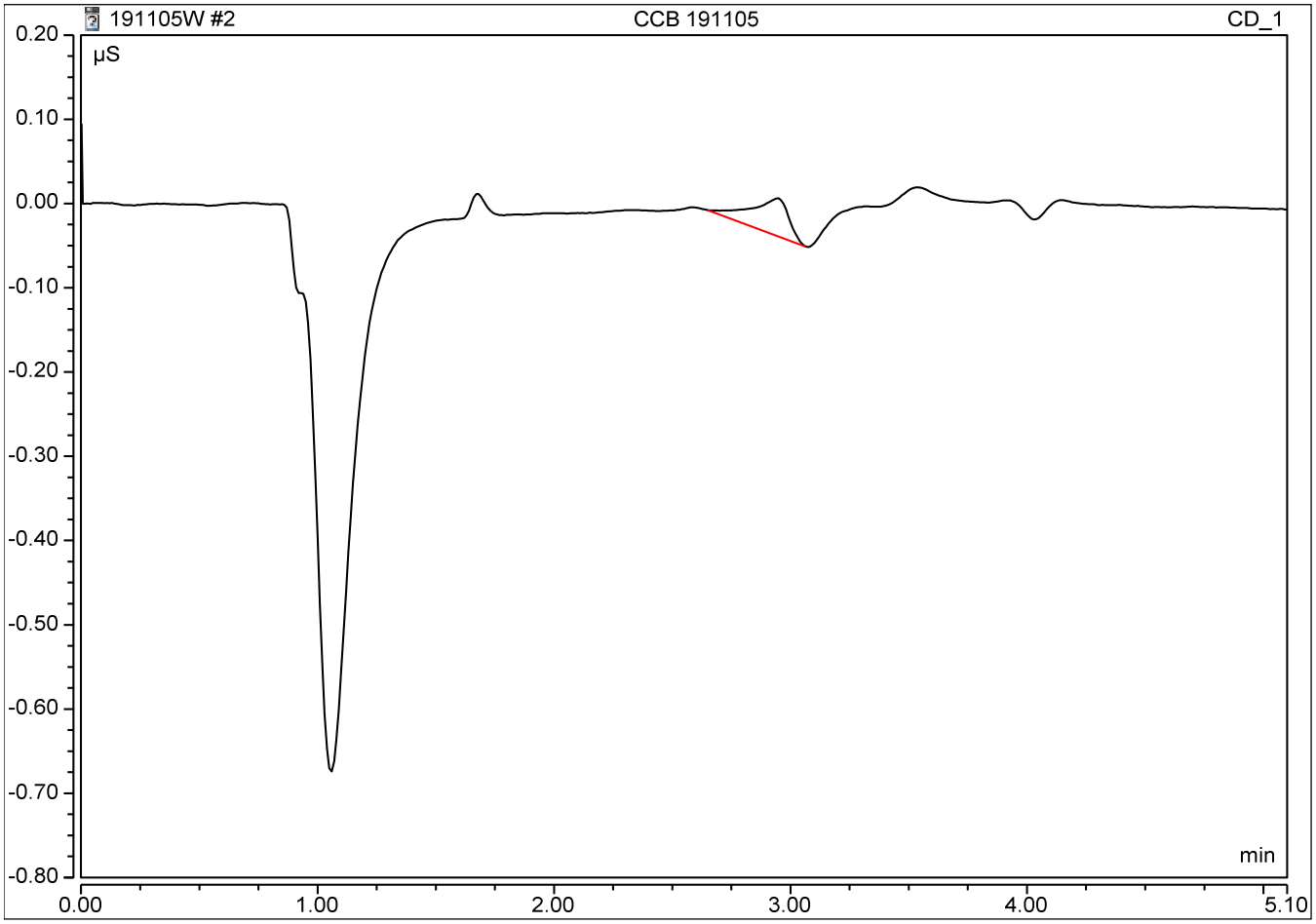


Logged on User: BW
Instrument: Charlie System_1
Sequence: 191105W

Peak Integration Report

Sample Name:	**CCB 191105**	*Inj. Vol.:*	**25uL**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.00**
Program:	**Anion APM 191030**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**05-Nov-2019 / 20:16**	*Run Time:*	**5.10**

No.	Time (min) min	Peak Name	Peak Type	Area (µS*min) µS*min	Height (µS) µS	Amount mg/L	Spike Level mg/L	Recovery

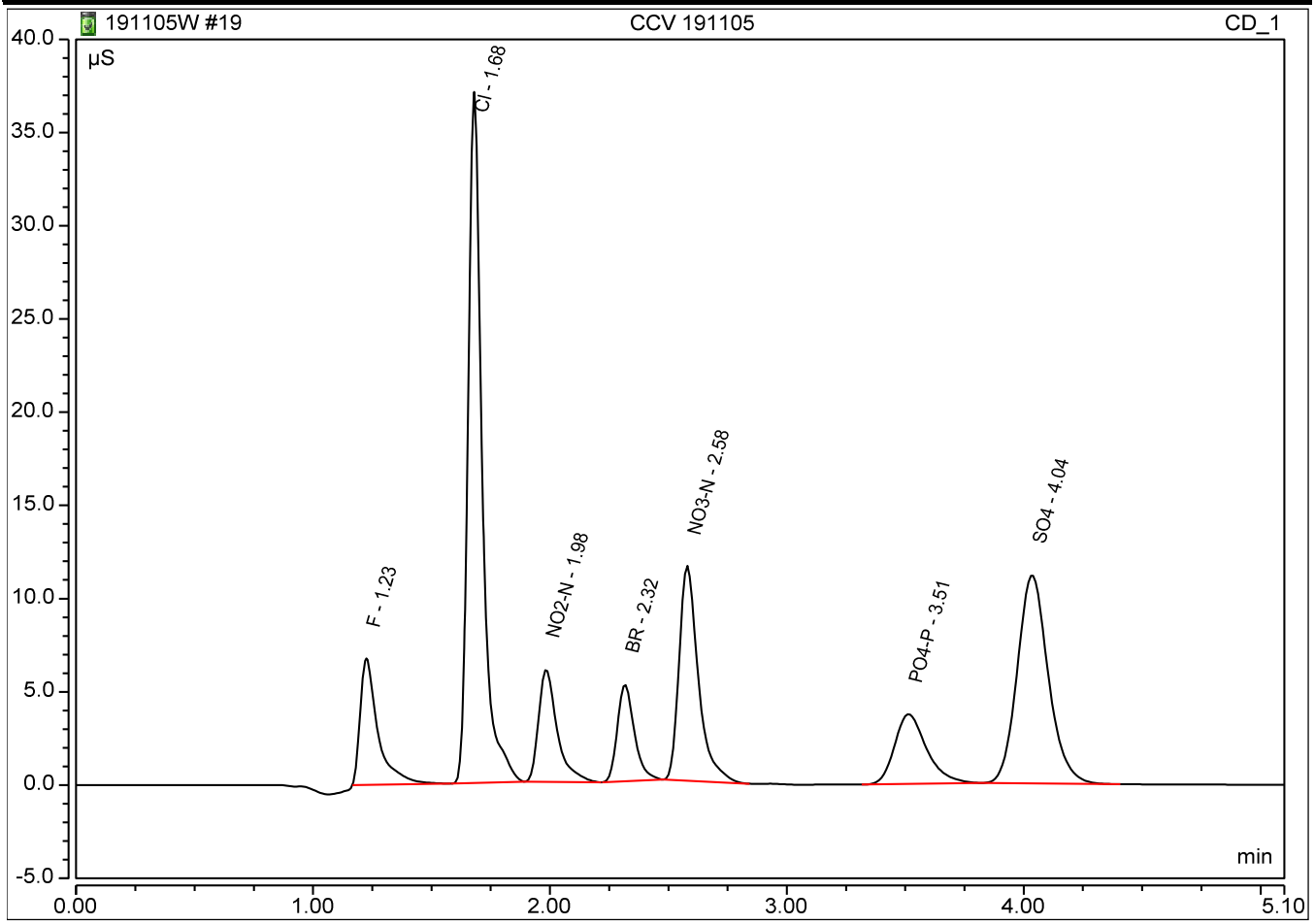


Logged on User: BW
Instrument: Charlie System_1
Sequence: 191105W

Peak Integration Report

Sample Name:	**CCV 191105**	*Inj. Vol.:*	**25uL**
Injection Type:	**Check Standard**	*Dilution Factor:*	**1.00**
Program:	**Anion APM 191030**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**05-Nov-2019 / 22:23**	*Run Time:*	**5.10**

No.	Time (min) min	Peak Name	Peak Type	Area (µS*min) µS*min	Height (µS) µS	Amount mg/L	Spike Level mg/L	Recovery
1	1.23	**F**	BMB	0.588	6.780	5.06	5	101.2%
2	1.68	**Cl**	BMB	2.553	37.066	25.37	25	101.5%
3	1.98	**NO2-N**	BMB	0.550	6.037	3.07	3.04	101.1%
4	2.32	**BR**	BMB	0.432	5.201	12.30	12.5	98.4%
5	2.58	**NO3-N**	BMB	1.087	11.527	4.90	5	97.9%
6	3.51	**PO4-P**	BMB	0.585	3.740	9.10	10	91.0%
7	4.04	**SO4**	BMB	1.695	11.177	24.94	25	99.7%

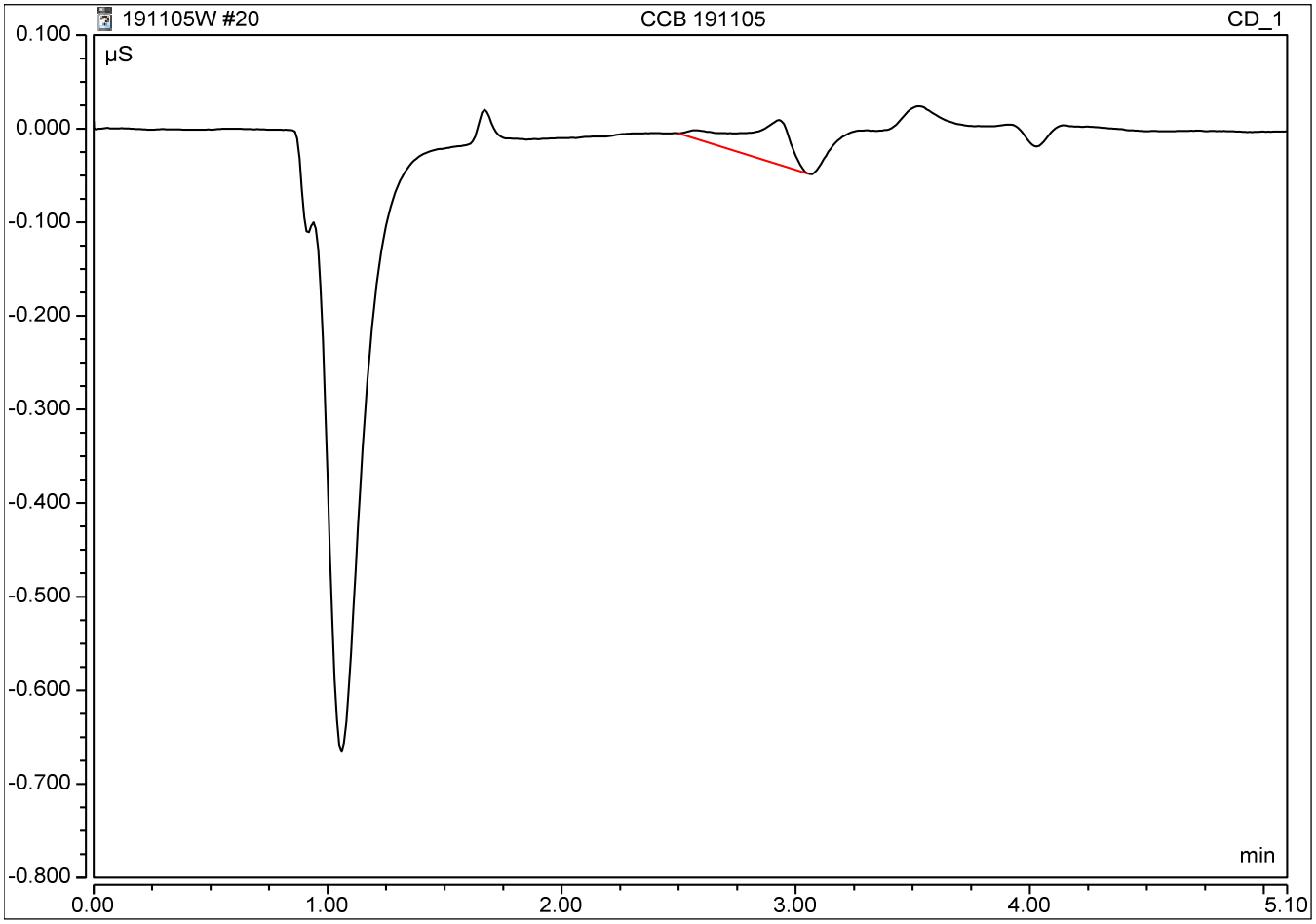


Logged on User: BW
Instrument: Charlie System_1
Sequence: 191105W

Peak Integration Report

Sample Name:	**CCB 191105**	*Inj. Vol.:*	**25uL**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.00**
Program:	**Anion APM 191030**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**05-Nov-2019 / 22:31**	*Run Time:*	**5.10**

No.	Time (min) min	Peak Name	Peak Type	Area (µS*min) µS*min	Height (µS) µS	Amount mg/L	Spike Level mg/L	Recovery

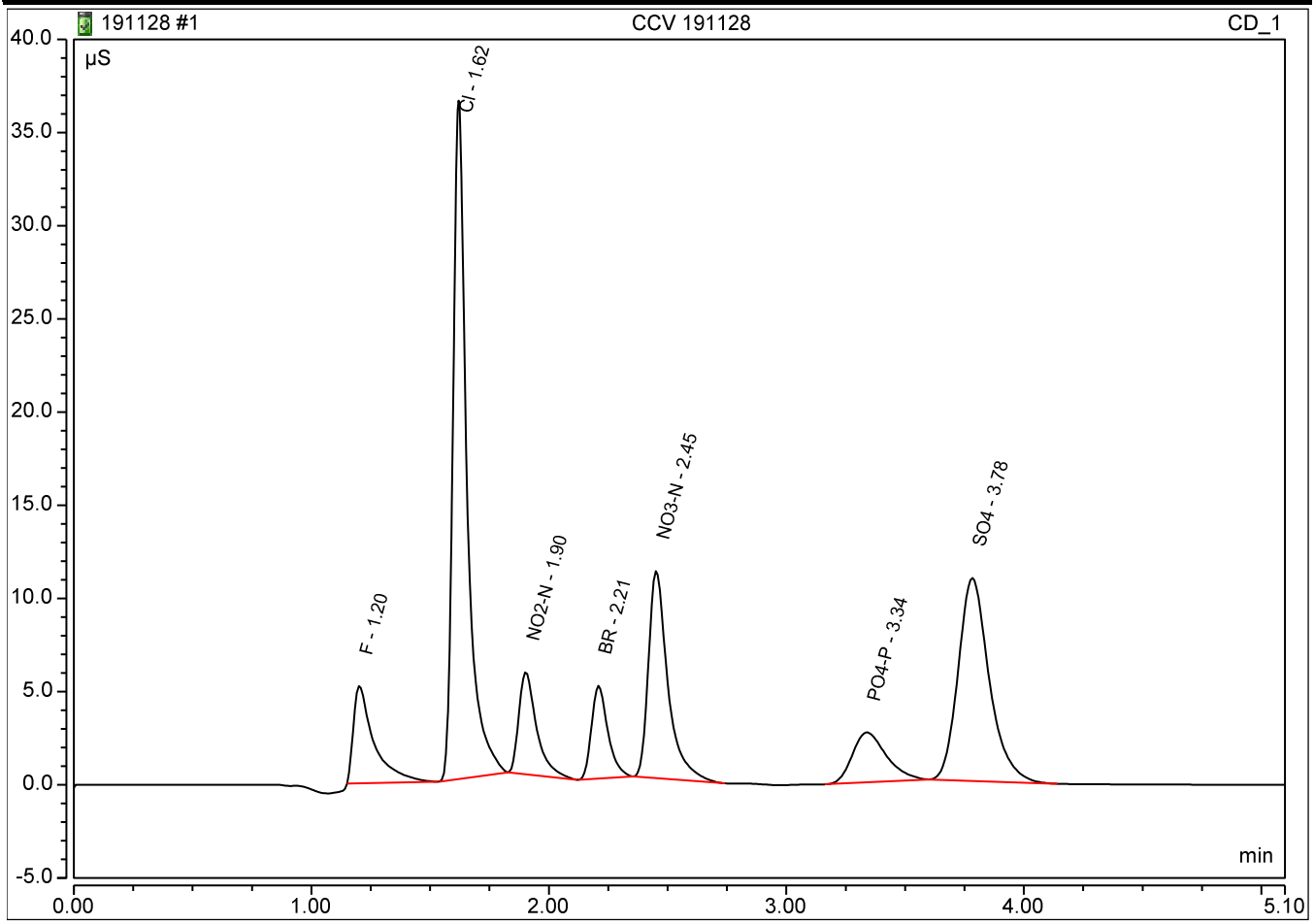


Logged on User: BW
Instrument: Charlie System_1
Sequence: 191128

Peak Integration Report

Sample Name:	**CCV 191128**	*Inj. Vol.:*	**25uL**
Injection Type:	**Check Standard**	*Dilution Factor:*	**1.00**
Program:	**Anion APM 191121**	*Operator:*	**Instrument Controller**
Inj. Date / Time:	**28-Nov-2019 / 14:55**	*Run Time:*	**5.10**

No.	Time (min) min	Peak Name	Peak Type	Area (µS*min) µS*min	Height (µS) µS	Amount mg/L	Spike Level mg/L	Recovery
1	1.20	**F**	BMB	0.525	5.231	4.60	5	92.0%
2	1.62	**Cl**	BMB	2.472	36.406	25.82	25	103.3%
3	1.90	**NO2-N**	BMB	0.477	5.481	2.91	3.04	95.7%
4	2.21	**BR**	BMB	0.399	4.978	11.81	12.5	94.5%
5	2.45	**NO3-N**	BMB	1.053	11.132	4.74	5	94.9%
6	3.34	**PO4-P**	BMB	0.443	2.679	8.23	10	82.3%
7	3.78	**SO4**	BMB	1.651	10.887	24.19	25	96.7%

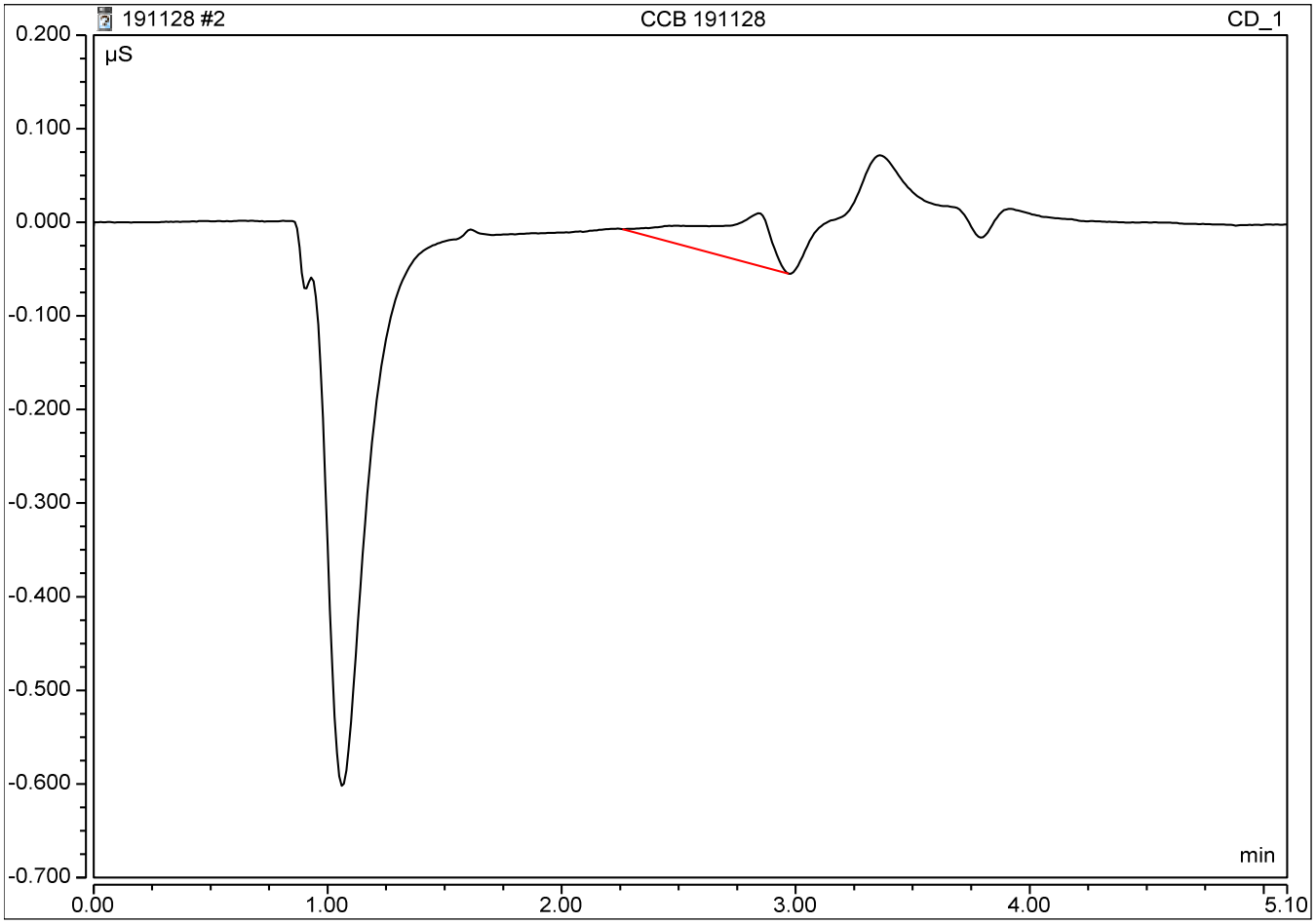


Logged on User: BW
Instrument: Charlie System_1
Sequence: 191128

Peak Integration Report

Sample Name:	**CCB 191128**	*Inj. Vol.:*	**25uL**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.00**
Program:	**Anion APM 191121**	*Operator:*	**Instrument Controller**
Inj. Date / Time:	**28-Nov-2019 / 15:02**	*Run Time:*	**5.10**

No.	Time (min) min	Peak Name	Peak Type	Area (µS*min) µS*min	Height (µS) µS	Amount mg/L	Spike Level mg/L	Recovery

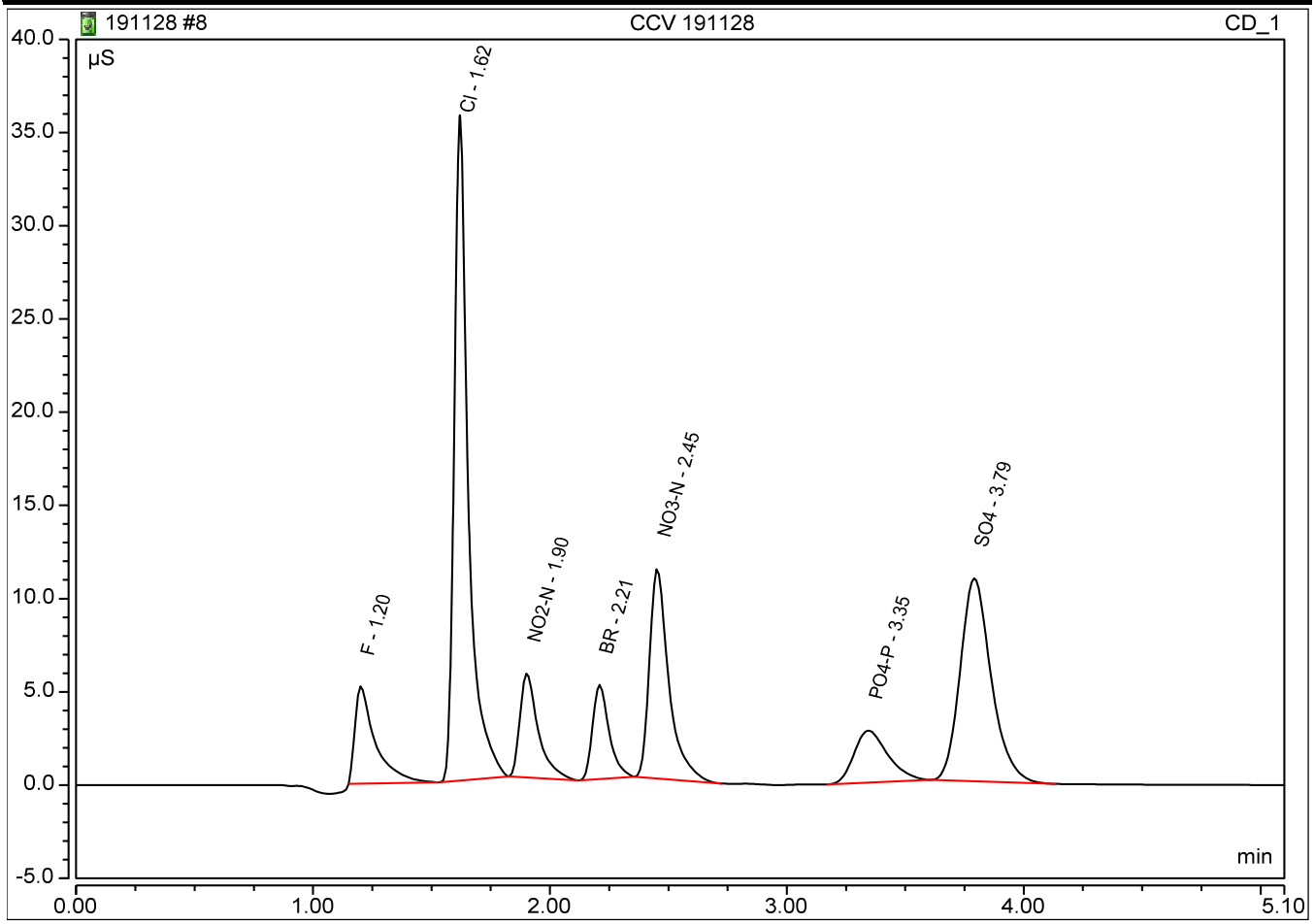


Logged on User: BW
Instrument: Charlie System_1
Sequence: 191128

Peak Integration Report

Sample Name:	**CCV 191128**	*Inj. Vol.:*	**25uL**
Injection Type:	**Check Standard**	*Dilution Factor:*	**1.00**
Program:	**Anion APM 191121**	*Operator:*	**Instrument Controller**
Inj. Date / Time:	**28-Nov-2019 / 15:40**	*Run Time:*	**5.10**

No.	Time (min) min	Peak Name	Peak Type	Area (µS*min) µS*min	Height (µS) µS	Amount mg/L	Spike Level mg/L	Recovery
1	1.20	**F**	BMB	0.519	5.220	4.55	5	91.0%
2	1.62	**Cl**	BMB	2.461	35.700	25.71	25	102.8%
3	1.90	**NO2-N**	BMB	0.504	5.591	3.08	3.04	101.2%
4	2.21	**BR**	BMB	0.410	5.052	12.13	12.5	97.0%
5	2.45	**NO3-N**	BMB	1.066	11.239	4.80	5	96.0%
6	3.35	**PO4-P**	BMB	0.462	2.789	8.53	10	85.3%
7	3.79	**SO4**	BMB	1.654	10.903	24.23	25	96.9%

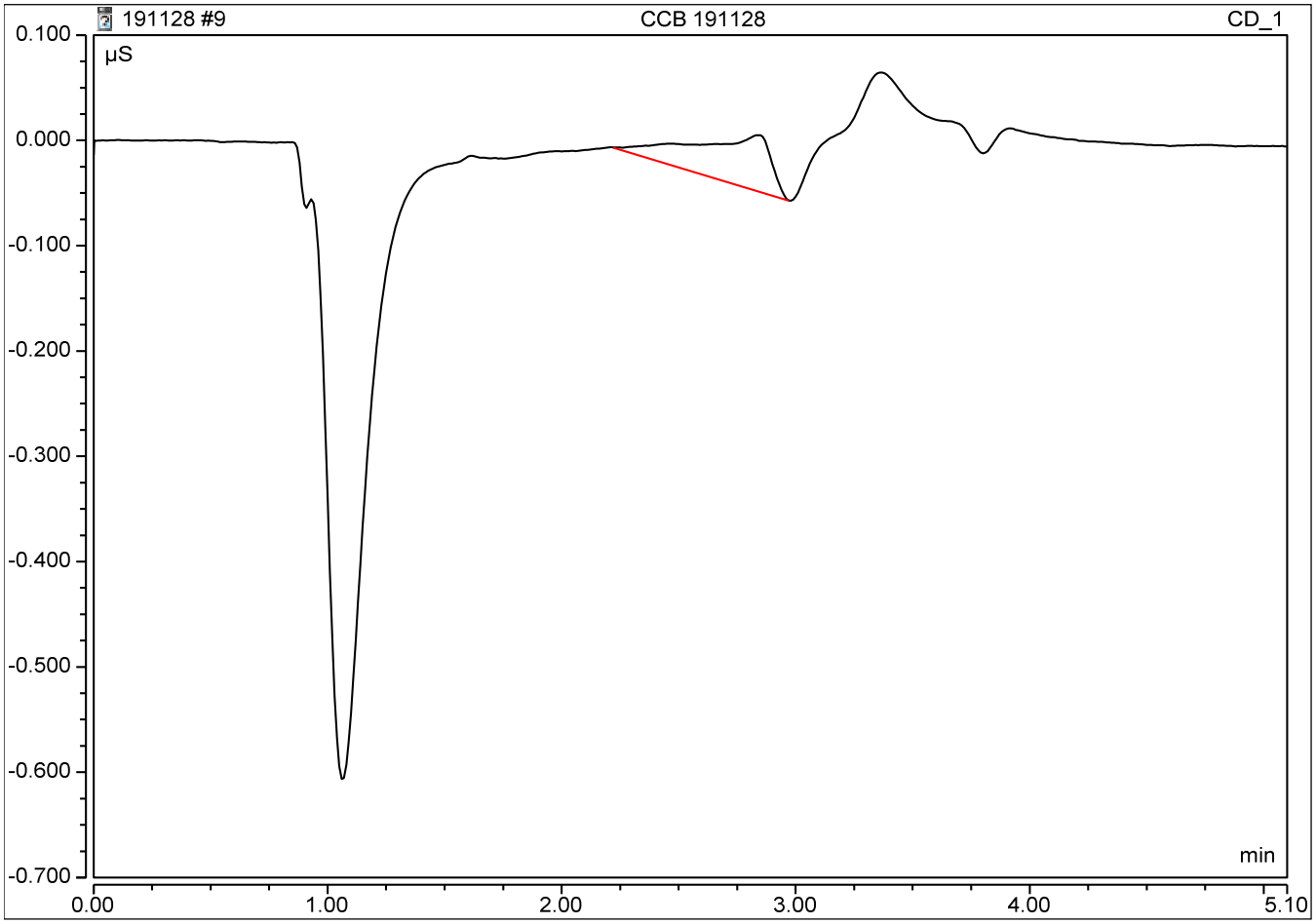


Logged on User: BW
Instrument: Charlie System_1
Sequence: 191128

Peak Integration Report

Sample Name:	**CCB 191128**	*Inj. Vol.:*	**25uL**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.00**
Program:	**Anion APM 191121**	*Operator:*	**Instrument Controller**
Inj. Date / Time:	**28-Nov-2019 / 15:48**	*Run Time:*	**5.10**

No.	Time (min) min	Peak Name	Peak Type	Area (µS*min) µS*min	Height (µS) µS	Amount mg/L	Spike Level mg/L	Recovery



A.P.P.L. INC.
2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: A.P.P.L. INC. Contract: AECOM
ARF No: 90648 SDG: 90648
Initial Calibration Source: Inorganic Ventures
Continuing Calibration Source: o2si
Analysis Date: 11/06/19

Analyte	Calibration Verification									M
	True ICV	Found 17:01	%R(1)	True CCV1	Found 17:20	%R(1)	True	Found	%R(1)	
TOXN	3	3.2156	107	3	2.9835	99.5				

(1) Control Limits: 90-110

ILM02.0

A.P.P.L. INC.
3
BLANKS

Lab Name: A.P.P.L. INC. Contract: AECOM

ARF No.: 90648 SDG: 90648

Preparation Blank Matrix (soil/water): water

Preparation Blank Concentration Units (ug/L or mg/kg): mg/L

Analyte	Calibration Blanks										M
	ICB 11/06/19 17:03	C	CCB 11/06/19 17:21	C		C		C		C	
TOXN	.100	U	.100	U							

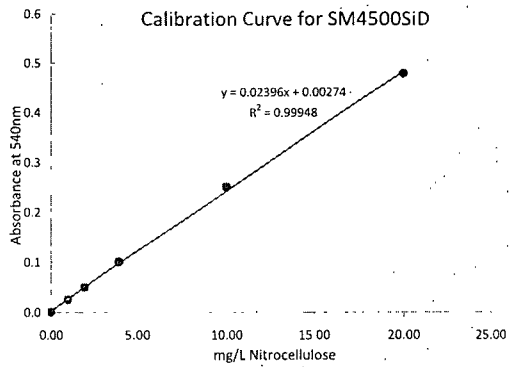
INORGANIC ANALYSIS
Raw Data

	Silica	Rev 2, 04/05/19 controlled copy	
Method SM4500SiD	Units mg/L		Instrument: Genisis Spectrometer
Analyte Silica	QCG: 191106A		Wavelength: 410 nm
Analyist FJR	Final Volume: 25mL		Units: mg/L

Date	Time	Appl ID	[SiO2]	Absorbance	% Recovery
11/06/19	21:16	ICB	0.00	0.000	
11/06/19	21:16	Ical 1	1.00	0.025	92.9%
11/06/19	21:17	Ical 2	2.00	0.050	98.6%
11/06/19	21:17	Ical 3	4.00	0.100	95.2%
11/06/19	21:18	Ical 4	10.00	0.250	103.2%
11/06/19	21:18	Ical 5	20.00	0.478	99.2%
11/06/19	21:19	ICV	4.00	0.097	98.3%
11/06/19	21:20	ICB	0.00	0.001	

Slope	0.023960729
Intercept	0.002742174
Coefficient of Determination	0.999482494

Algortithm Check:	Appl ID	Absorbance	Result
	191106A 4 LCS	0.094	3.81
Result = (Absorbance-Raw Blk-Intercept)/ Slope			
Test:	11/06/19	FJR	3.810



	Date	Time	Appl ID	DF	Raw Result	Sample Amount	Raw BLK	Calc Conc	Result	QC True	% Recovery
id	11/06/19	21:16	ICB	1	0.000	25.0mL		-0.11	-0.11		
id	11/06/19	21:16	Ical 1	1	0.025	25.0mL		0.93	0.93	1.00	92.9%
id	11/06/19	21:17	Ical 2	1	0.050	25.0mL		1.97	1.97	2.00	98.6%
id	11/06/19	21:17	Ical 3	1	0.094	25.0mL		3.81	3.81	4.00	95.2%
id	11/06/19	21:18	Ical 4	1	0.250	25.0mL		10.32	10.32	10.00	103.2%
id	11/06/19	21:18	Ical 5	1	0.478	25.0mL		19.83	19.83	20.00	99.2%
id	11/06/19	21:19	ICV	1	0.097	25.0mL		3.93	3.93	4.00	98.3%
id	11/06/19	21:20	ICB	1	0.001	25.0mL		-0.07	-0.07		
	11/06/19	21:20	191106A CCV1 4	1	0.245	25mL		10.11	10.11	10.00	101.1%
	11/06/19	21:21	191106A CCB	1	0.002	25mL		-0.03	-0.03		
	11/06/19	21:22	191106A BLK	1	0.001	25mL		-0.07	-0.07		
	11/06/19	21:22	191106A 4 LCS	1	0.094	25mL		3.81	3.81	4.00	95.2%
	11/06/19	21:23	191106A 4 LCSD	1	0.095	25mL		3.85	3.85	4.00	96.3%
	11/06/19	21:23	BA02090W09 Total DF:	5	0.238	25mL		9.82	49.09		
	11/06/19	21:24	BA02214W14 Total DF:	5	0.218	25mL		8.98	44.92		
	11/06/19	21:25	BA02301W09 Total DF:	5	0.224	25mL		9.23	46.17		
	11/06/19	21:25	BA02466W14 Total DF:	5	0.211	25mL		8.69	43.46		
	11/06/19	21:26	BA02525W14 Total DF:	5	0.216	25mL		8.90	44.50		
	11/06/19	21:27	BA02525W14 MS Total	5	0.297	25mL		12.28	61.40		
	11/06/19	21:27	BA02525W14 MSD Tot	5	0.298	25mL		12.32	61.61		
	11/06/19	21:28	BA02090w08 Dissolved	5	0.219	25mL		9.03	45.13		
	11/06/19	21:28	BA02214W12 Dissolve	5	0.193	25mL		7.94	39.70		
	11/06/19	21:29	BA02301w08 Dissolved	5	0.207	25mL		8.52	42.62		
	11/06/19	21:29	BA02466W13 Dissolved	5	0.193	25mL		7.94	39.70		
	11/06/19	21:30	BA02525w12 Dissolved	5	0.201	25mL		8.27	41.37		
	11/06/19	21:30	BA02525w12 MS Dissolv	5	0.286	25mL		11.82	59.11		
	11/06/19	21:31	BA02525w12 MSD Diss	5	0.287	25mL		11.86	59.32		
	11/06/19	21:31	191106A CCV1 3	1	0.096	25mL		3.89	3.89	4.00	97.3%
	11/06/19	21:32	191106A CCB	1	-0.001	25mL		-0.16	-0.16		

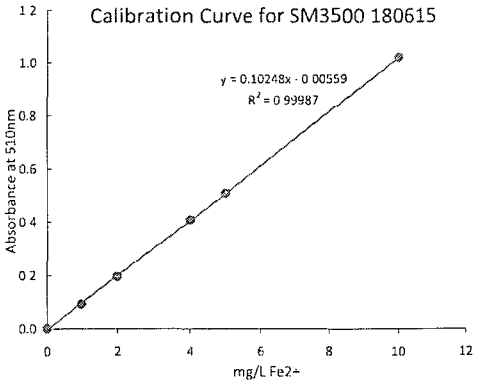
Ferrous Iron — Rev 2, 04-05-19

Method SM3500Fe | Units mg/L | Instrument: Genisis Spectrometer
Analyte Fe2+ | QCG: 191105 | Wavelength: 510 nm
Analyist fjr | Final Volume: 50mL | Units: mg/L

Date	Time	Appl ID	[Fe2+]	Absorbance	% Recovery
06/28/19	12:48	ICB	0.00	0.000	
06/28/19	12:49	Ical 1	1.00	0.092	95.2%
06/28/19	12:50	Ical 2	2.00	0.195	97.9%
06/28/19	12:51	Ical 3	4.00	0.408	100.9%
06/28/19	12:51	Ical 4	5.00	0.507	100.0%
06/28/19	12:52	Ical 5	10.00	1.019	100.0%
06/28/19	13:08	ICV	3.00	0.326	107.9%
06/28/19	12:53	ICB	0.00	0.002	

Slope	0.102479592
Intercept	-0.005591837
Coefficient of Determination	0.999872044

Algortithm Check:	Appl ID	Absorbance	Result
	ICV/LCS 191105A	0.302	3.00
Result = (Absorbance-Raw Blk-Intercept)/ Slope			
Test:	FJR	11/05/19	3.00



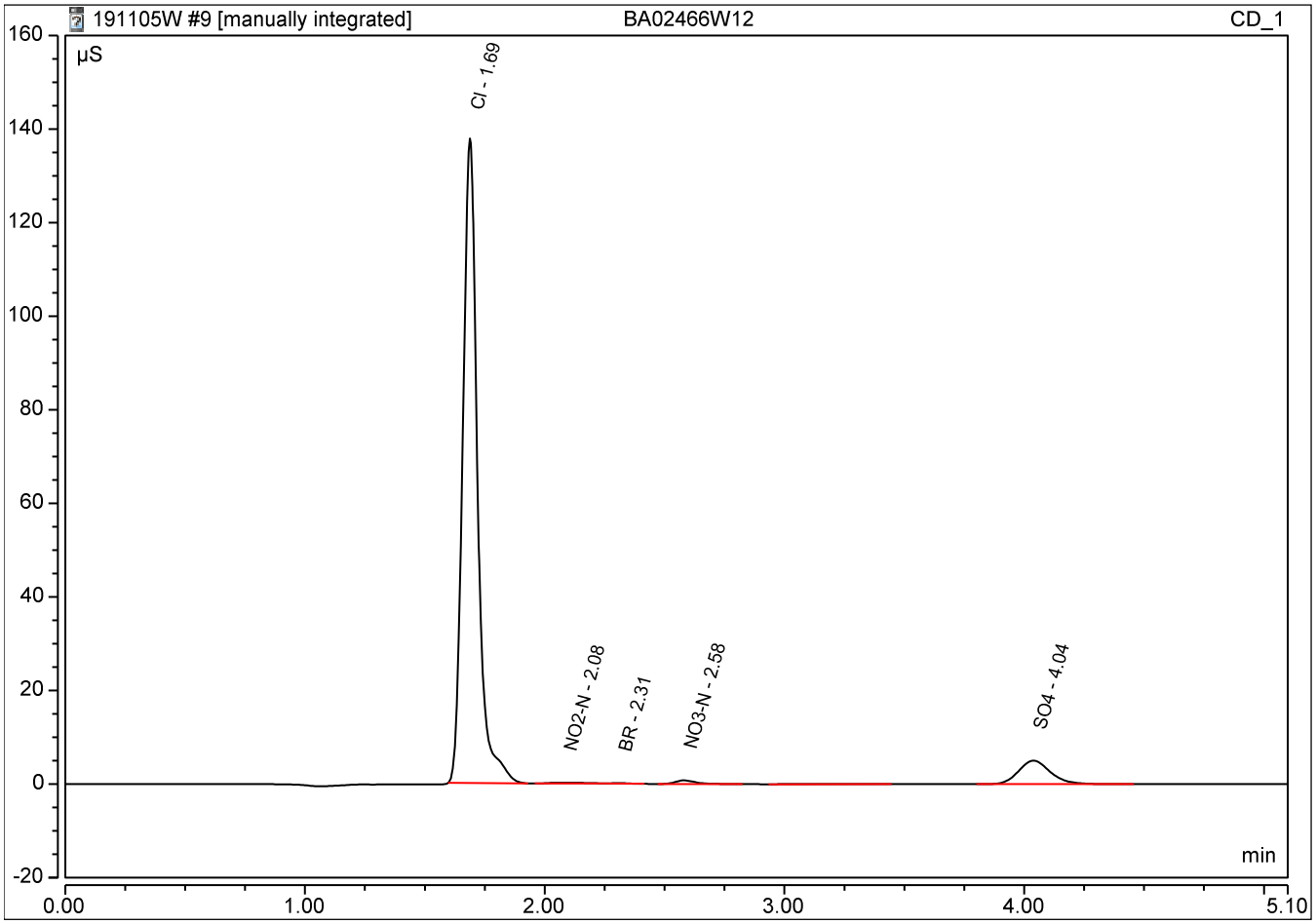
Date	Time	Appl ID	DF	Raw Result	SubSample Amount	Raw BLK	Calc Conc	Result	QC True	% Recovery
11/05/19	21:43	CCV 4.0 191105	1	0.402	25mL		3.98	3.98	4.00	99.4%
11/05/19	21:43	CCB 191105	1	0.000	25mL		0.05	0.05		
11/05/19	21:44	ICV/LCS 191105A	1	0.302	25mL		3.00	3.00	3.00	100.0%
11/05/19	21:44	ICV/LCSD 191105A	1	0.305	25mL		3.03	3.03	3.00	101.0%
11/05/19	21:44	BA02466W16	1	0.005	25mL		0.10	0.10		
11/05/19	21:45	BA02466W16 MS	1	0.301	25mL		2.99	2.99		
11/05/19	21:45	BA02466W16 MSD	1	0.303	25mL		3.01	3.01		
11/05/19	21:46	CCV 4.0 191105	1	0.411	25mL		4.07	4.07	4.00	101.6%
11/05/19	21:47	CCB 191105	1	0.001	25mL		0.06	0.06		

Logged on User: BW
Instrument: Charlie System_1
Sequence: 191105W

Peak Integration Report

Sample Name:	**BA02466W12**	*Inj. Vol.:*	**25uL**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.00**
Program:	**Anion APM 191030**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**05-Nov-2019 / 21:08**	*Run Time:*	**5.10**

No.	Time (min) min	Peak Name	Peak Type	Area (µS*min) µS*min	Height (µS) µS	Amount mg/L	Spike Level mg/L	Recovery
1	1.69	**Cl**	BMB*	9.751	137.746	96.69		
2	2.08	**NO2-N**	BMB	0.025	0.165	0.15		
3	2.31	**BR**	BMB	0.007	0.089	0.22		
4	2.58	**NO3-N**	BMB	0.077	0.780	0.37		
6	4.04	**SO4**	BMB	0.777	5.036	11.49		

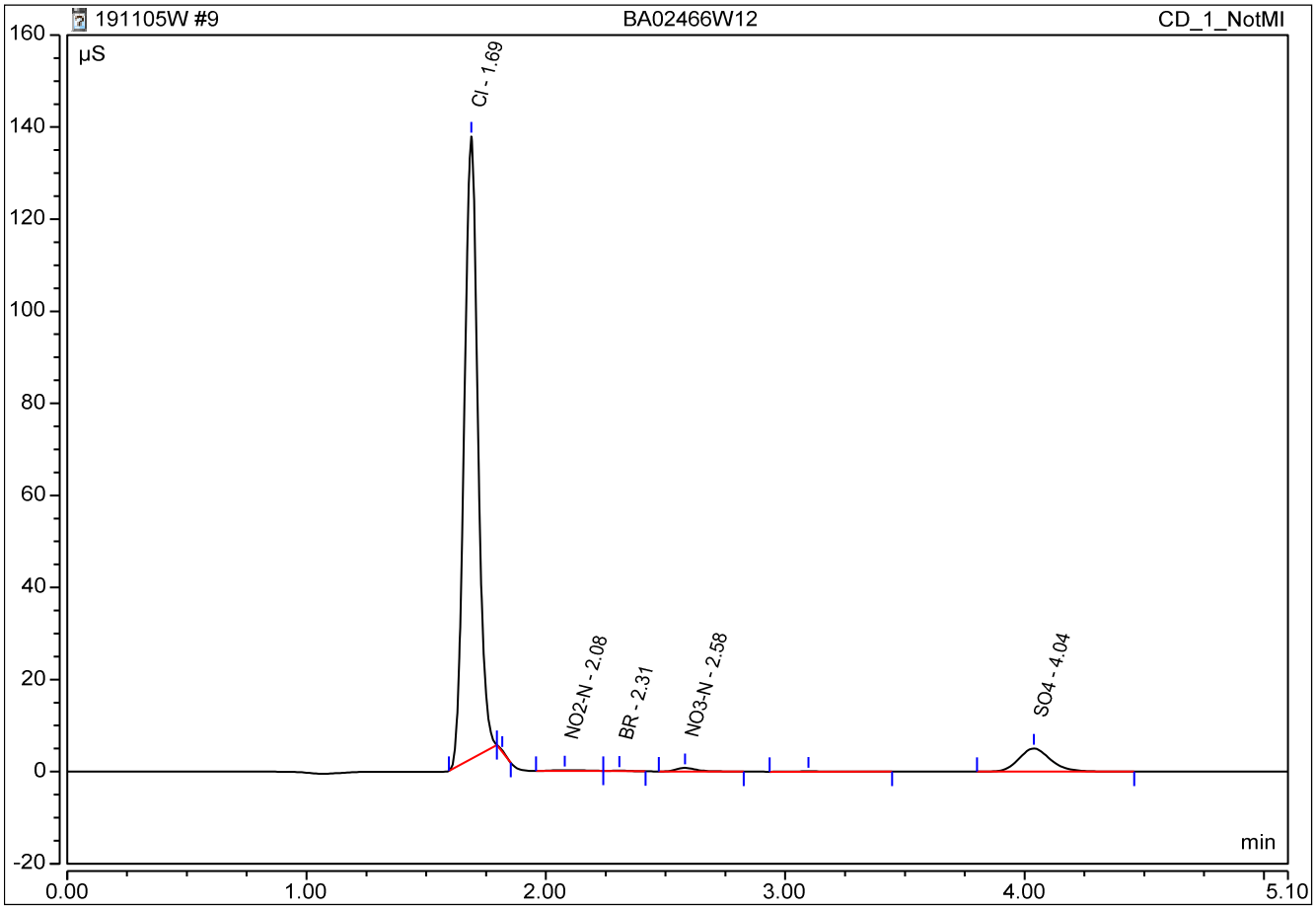


MI4 BW 191114

Not Manipulated Peak Integration Report

Sample Name:	**BA02466W12**	*Inj. Vol.:*	**25uL**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.0000**
Program:	**Anion APM 191030**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**05-Nov-2019 / 21:08**	*Run Time:*	**5.10**

No.	Time min	Peak Name	Peak Type	Area µS*min	Height µS	Ammount mg/L
1	1.69	**Cl**	BMB*	8.946	135.215	88.6941
2	2.08	**NO2-N**	BMB	0.025	0.165	0.1473
3	2.31	**BR**	BMB	0.007	0.089	0.2219
4	2.58	**NO3-N**	BMB	0.077	0.780	0.3679
6	4.04	**SO4**	BMB	0.777	5.036	11.4920

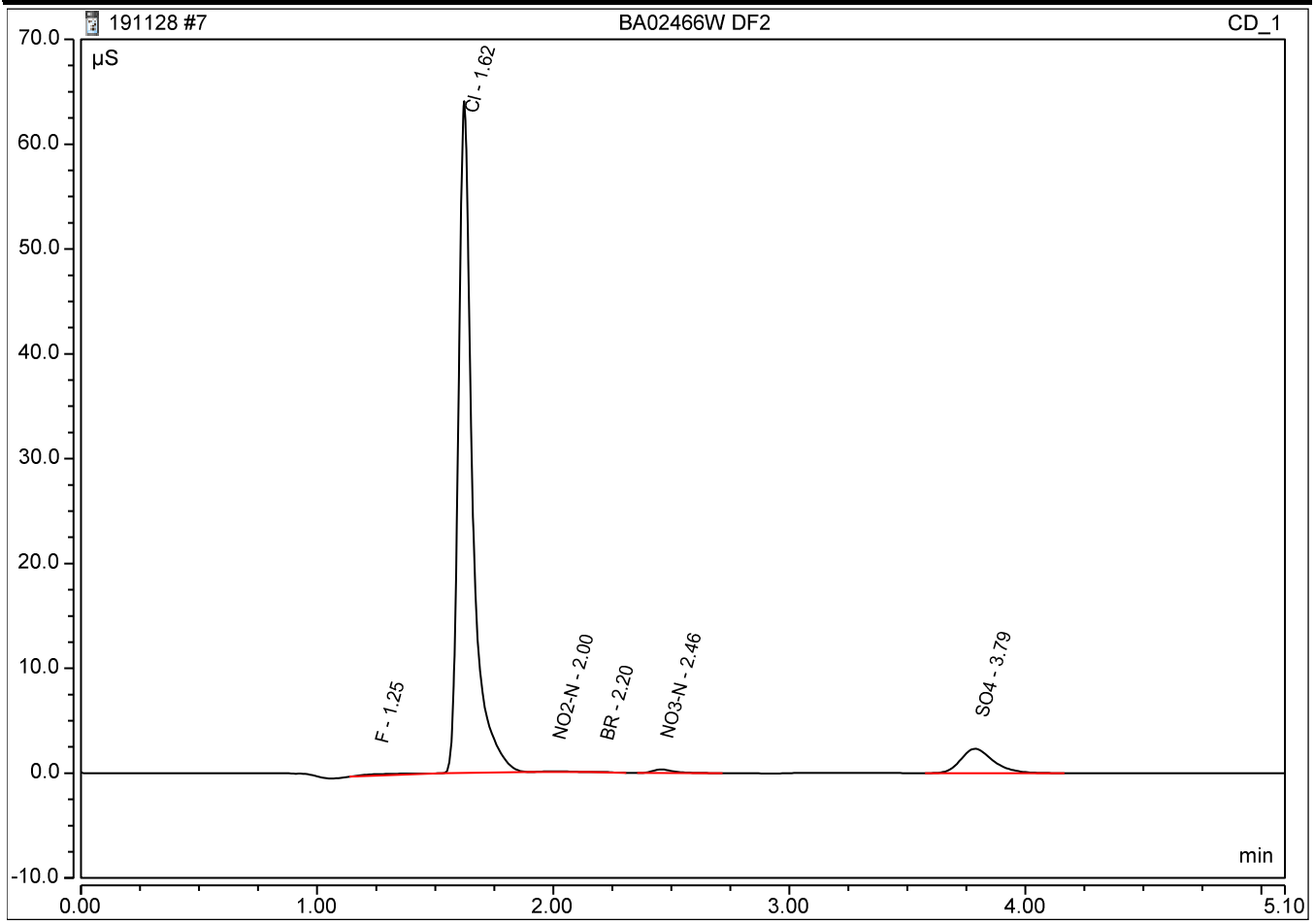


Logged on User: BW
Instrument: Charlie System_1
Sequence: 191128

Peak Integration Report

Sample Name:	**BA02466W DF2**	*Inj. Vol.:*	**25uL**
Injection Type:	**Unknown**	*Dilution Factor:*	**2.00**
Program:	**Anion APM 191121**	*Operator:*	**Instrument Controller**
Inj. Date / Time:	**28-Nov-2019 / 15:33**	*Run Time:*	**5.10**

No.	Time (min) min	Peak Name	Peak Type	Area (µS*min) µS*min	Height (µS) µS	Amount mg/L	Spike Level mg/L	Recovery
1	1.25	**F**	BMB	0.036	0.147	1.09		
2	1.62	**Cl**	BMB	4.429	64.075	92.41		
3	2.00	**NO2-N**	BMB	0.010	0.072	0.14		
4	2.20	**BR**	BMB	0.003	0.041	0.23		
5	2.46	**NO3-N**	BMB	0.034	0.350	0.36		
6	3.79	**SO4**	BMB	0.372	2.329	11.06		

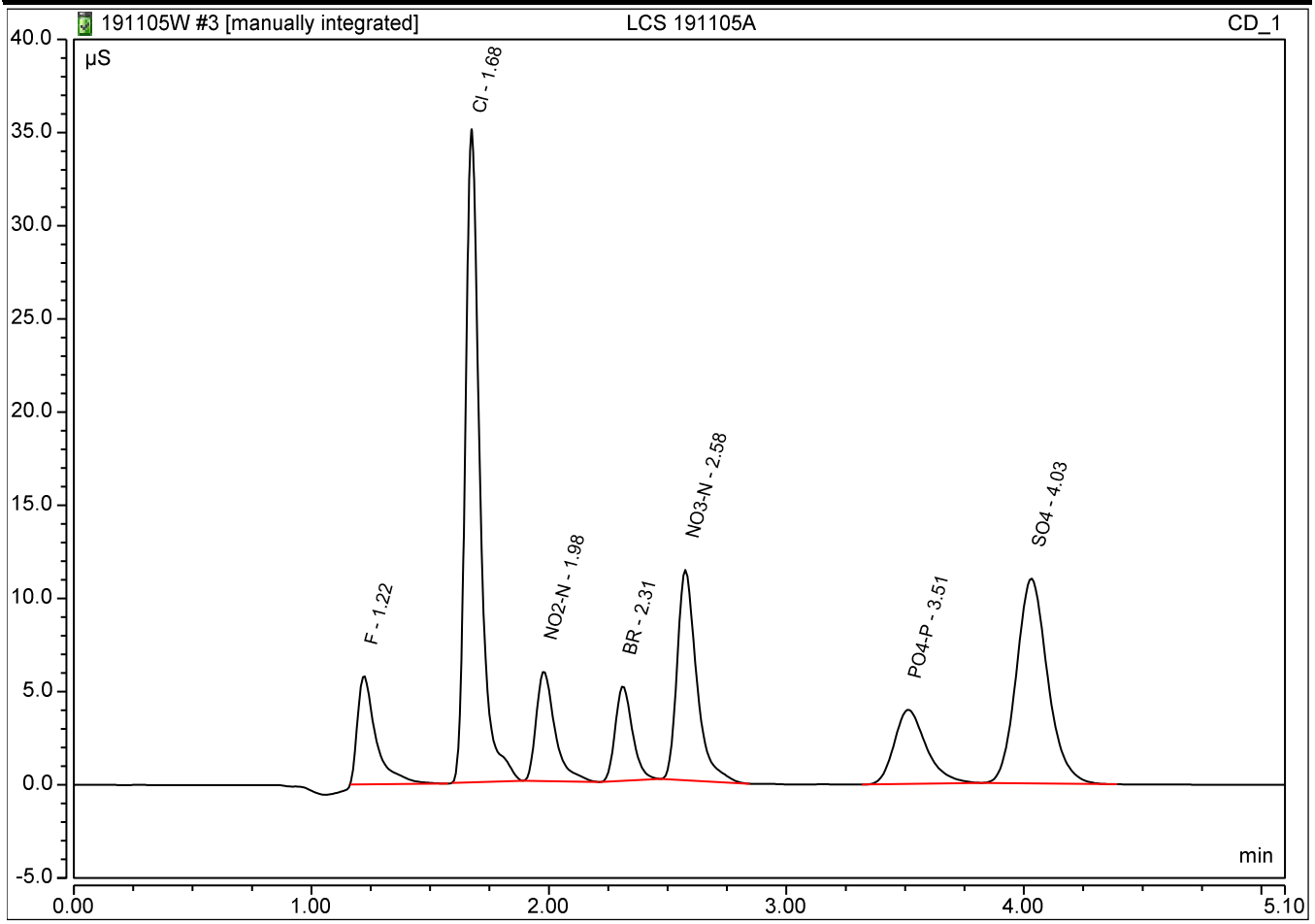


Logged on User: BW
Instrument: Charlie System_1
Sequence: 191105W

Peak Integration Report

Sample Name:	**LCS 191105A**	*Inj. Vol.:*	**25uL**
Injection Type:	**Check Standard**	*Dilution Factor:*	**1.00**
Program:	**Anion APM 191030**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**05-Nov-2019 / 20:23**	*Run Time:*	**5.10**

No.	Time (min) min	Peak Name	Peak Type	Area (µS*min) µS*min	Height (µS) µS	Amount mg/L	Spike Level mg/L	Recovery
1	1.22	**F**	BMB	0.528	5.826	4.55	5	91.1%
2	1.68	**Cl**	BMb*	2.490	35.057	24.74	25	99.0%
3	1.98	**NO2-N**	bMB*	0.542	5.891	3.03	3.04	99.6%
4	2.31	**BR**	BMB	0.427	5.091	12.14	12.5	97.1%
5	2.58	**NO3-N**	BMB	1.081	11.291	4.87	5	97.4%
6	3.51	**PO4-P**	BMB	0.619	3.977	9.59	10	95.9%
7	4.03	**SO4**	BMB	1.675	10.994	24.65	25	98.6%



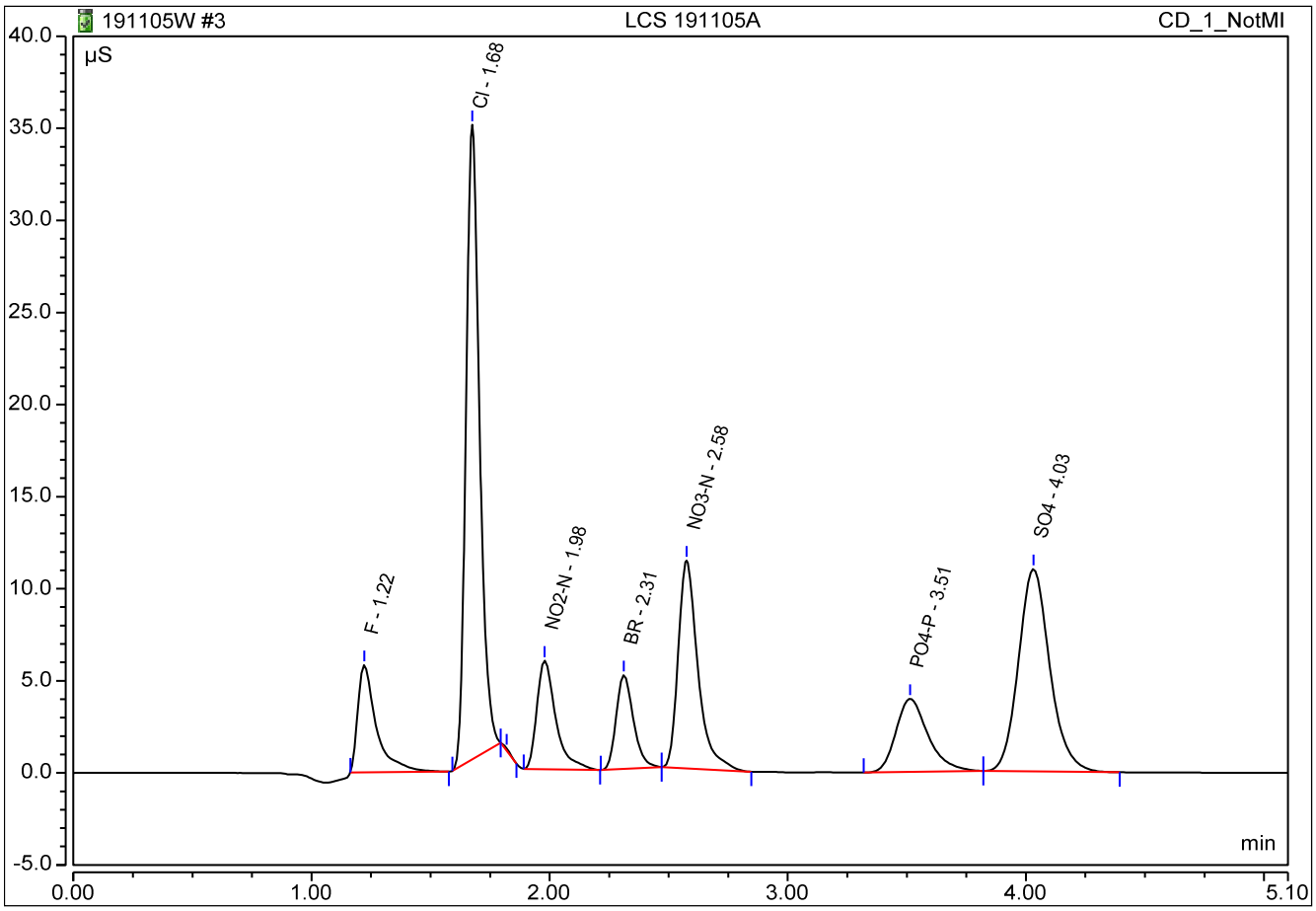
MI4 BW 191114
Algorithm Check
y = Peak Area
x = mg/L S04

y = 0.0682 x + -0.0066
y = 1.6747 therefor x =

Not Manipulated Peak Integration Report

Sample Name:	**LCS 191105A**	*Inj. Vol.:*	**25uL**
Injection Type:	**Check Standard**	*Dilution Factor:*	**1.0000**
Program:	**Anion APM 191030**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**05-Nov-2019 / 20:23**	*Run Time:*	**5.10**

No.	Time min	Peak Name	Peak Type	Area µS*min	Height µS	Ammount mg/L
1	1.22	**F**	BMB	0.528	5.826	4.2733
2	1.68	**Cl**	BMb*	2.278	34.464	22.6377
3	1.98	**NO2-N**	bMB*	0.542	5.891	3.0293
4	2.31	**BR**	BMB	0.427	5.091	12.1412
5	2.58	**NO3-N**	BMB	1.081	11.291	4.8714
6	3.51	**PO4-P**	BMB	0.619	3.977	10.3475
7	4.03	**SO4**	BMB	1.675	10.994	24.6461

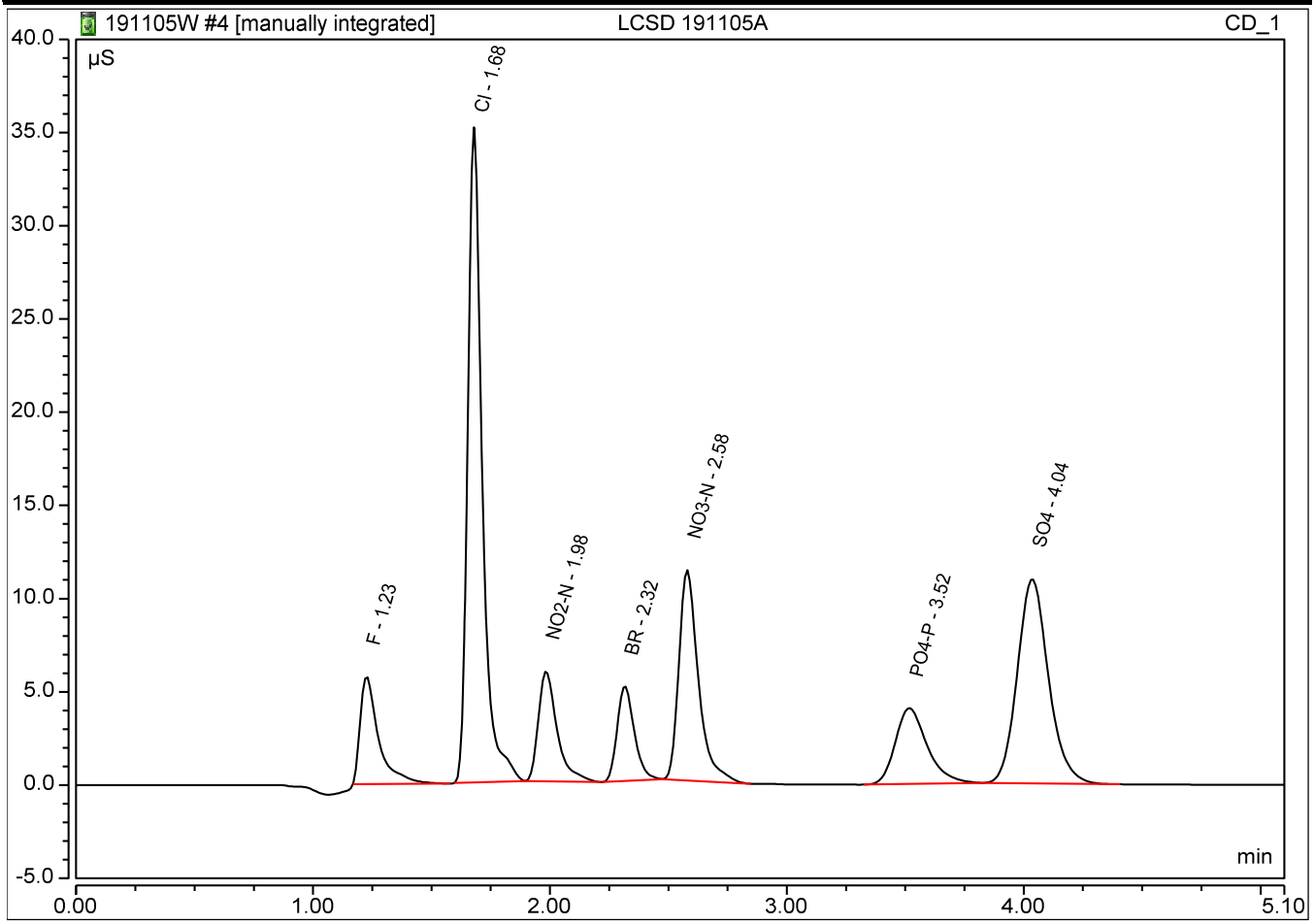


Logged on User: BW
Instrument: Charlie System_1
Sequence: 191105W

Peak Integration Report

Sample Name:	**LCSD 191105A**	*Inj. Vol.:*	**25uL**
Injection Type:	**Check Standard**	*Dilution Factor:*	**1.00**
Program:	**Anion APM 191030**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**05-Nov-2019 / 20:31**	*Run Time:*	**5.10**

No.	Time (min) min	Peak Name	Peak Type	Area (µS*min) µS*min	Height (µS) µS	Amount mg/L	Spike Level mg/L	Recovery
1	1.23	**F**	BMB	0.522	5.786	4.50	5	90.1%
2	1.68	**Cl**	BMb*	2.486	35.141	24.71	25	98.8%
3	1.98	**NO2-N**	bMB*	0.543	5.905	3.03	3.04	99.7%
4	2.32	**BR**	BMB	0.427	5.102	12.14	12.5	97.1%
5	2.58	**NO3-N**	BMB	1.077	11.289	4.86	5	97.1%
6	3.52	**PO4-P**	BMB	0.632	4.067	9.78	10	97.8%
7	4.04	**SO4**	BMB	1.670	10.964	24.58	25	98.3%

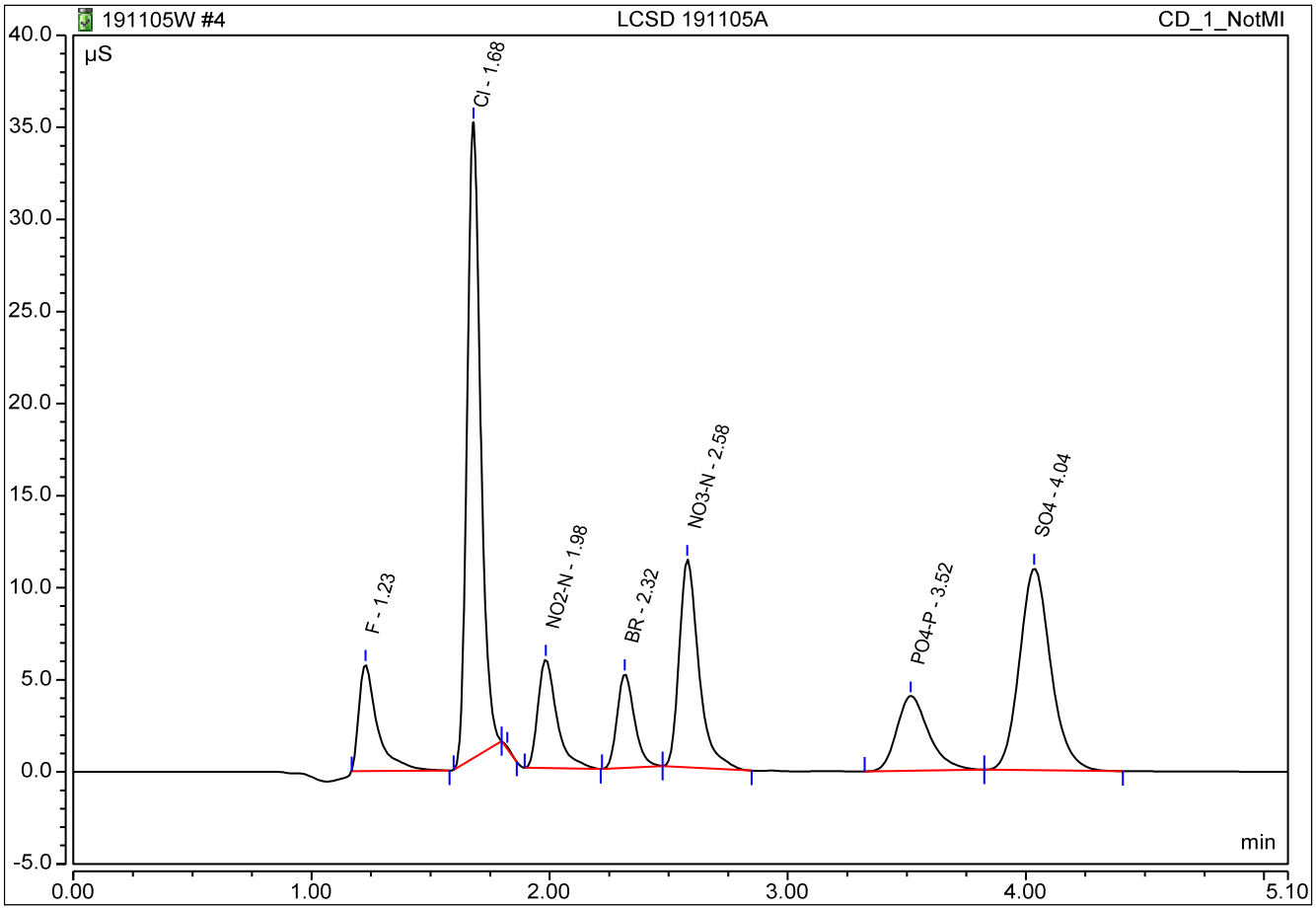


MI4 BW 191114

Not Manipulated Peak Integration Report

Sample Name:	**LCSD 191105A**	*Inj. Vol.:*	**25uL**
Injection Type:	**Check Standard**	*Dilution Factor:*	**1.0000**
Program:	**Anion APM 191030**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**05-Nov-2019 / 20:31**	*Run Time:*	**5.10**

No.	Time min	Peak Name	Peak Type	Area µS*min	Height µS	Ammount mg/L
1	1.23	**F**	BMB	0.522	5.786	4.2199
2	1.68	**Cl**	BMb*	2.270	34.526	22.5615
3	1.98	**NO2-N**	bMB*	0.543	5.905	3.0304
4	2.32	**BR**	BMB	0.427	5.102	12.1421
5	2.58	**NO3-N**	BMB	1.077	11.289	4.8551
6	3.52	**PO4-P**	BMB	0.632	4.067	10.5237
7	4.04	**SO4**	BMB	1.670	10.964	24.5754

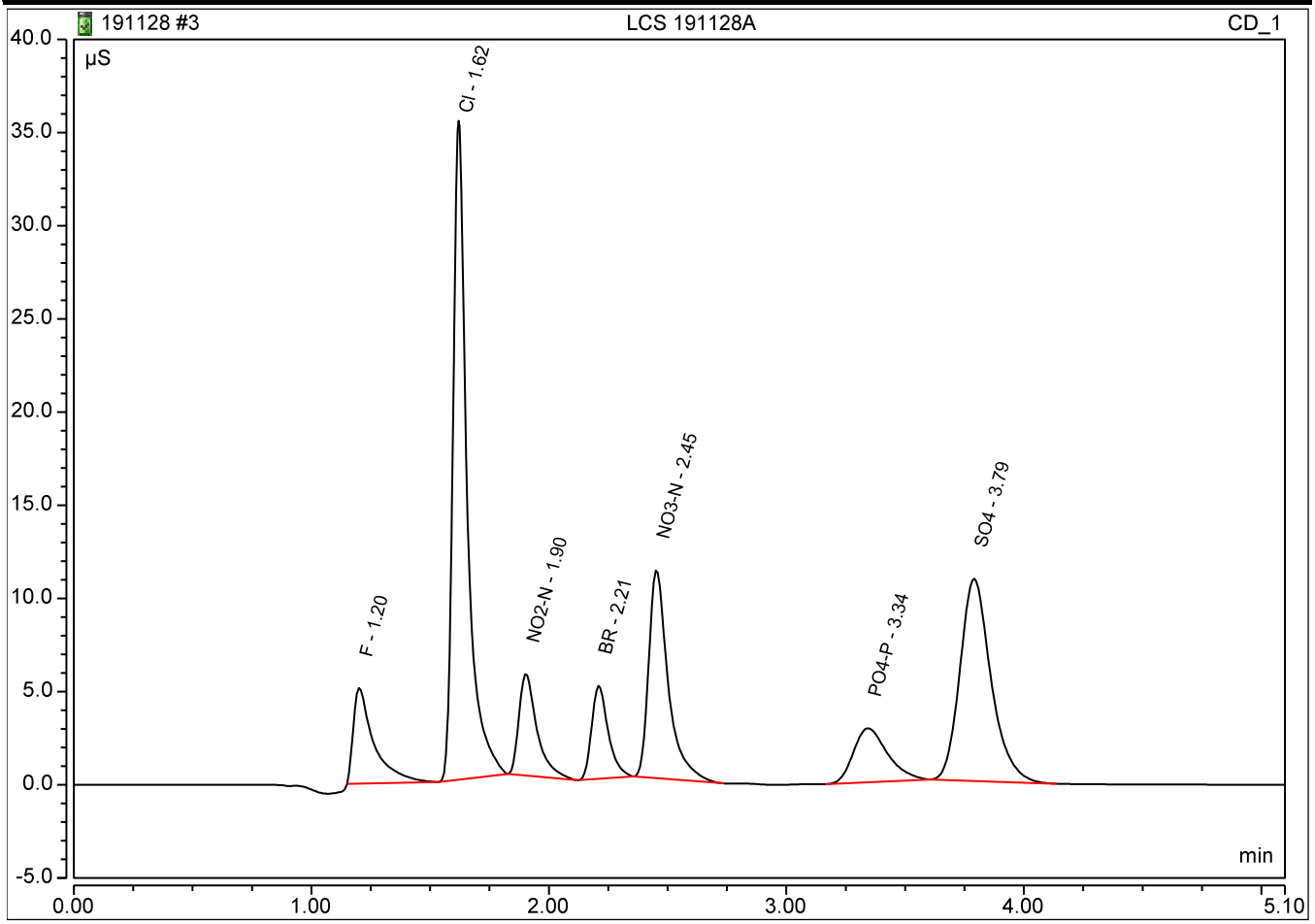


Logged on User: BW
Instrument: Charlie System_1
Sequence: 191128

Peak Integration Report

Sample Name:	**LCS 191128A**	*Inj. Vol.:*	**25uL**
Injection Type:	**Check Standard**	*Dilution Factor:*	**1.00**
Program:	**Anion APM 191121**	*Operator:*	**Instrument Controller**
Inj. Date / Time:	**28-Nov-2019 / 15:10**	*Run Time:*	**5.10**

No.	Time (min) min	Peak Name	Peak Type	Area (µS*min) µS*min	Height (µS) µS	Amount mg/L	Spike Level mg/L	Recovery
1	1.20	**F**	BMB	0.513	5.132	4.51	5	90.1%
2	1.62	**Cl**	BMB	2.425	35.356	25.33	25	101.3%
3	1.90	**NO2-N**	BMB	0.482	5.463	2.94	3.04	96.9%
4	2.21	**BR**	BMB	0.404	5.008	11.96	12.5	95.7%
5	2.45	**NO3-N**	BMB	1.062	11.185	4.78	5	95.6%
6	3.34	**PO4-P**	BMB	0.480	2.903	8.82	10	88.2%
7	3.79	**SO4**	BMB	1.648	10.858	24.14	25	96.6%



Algorithm Check
y = Peak Area
x = mg/L S04

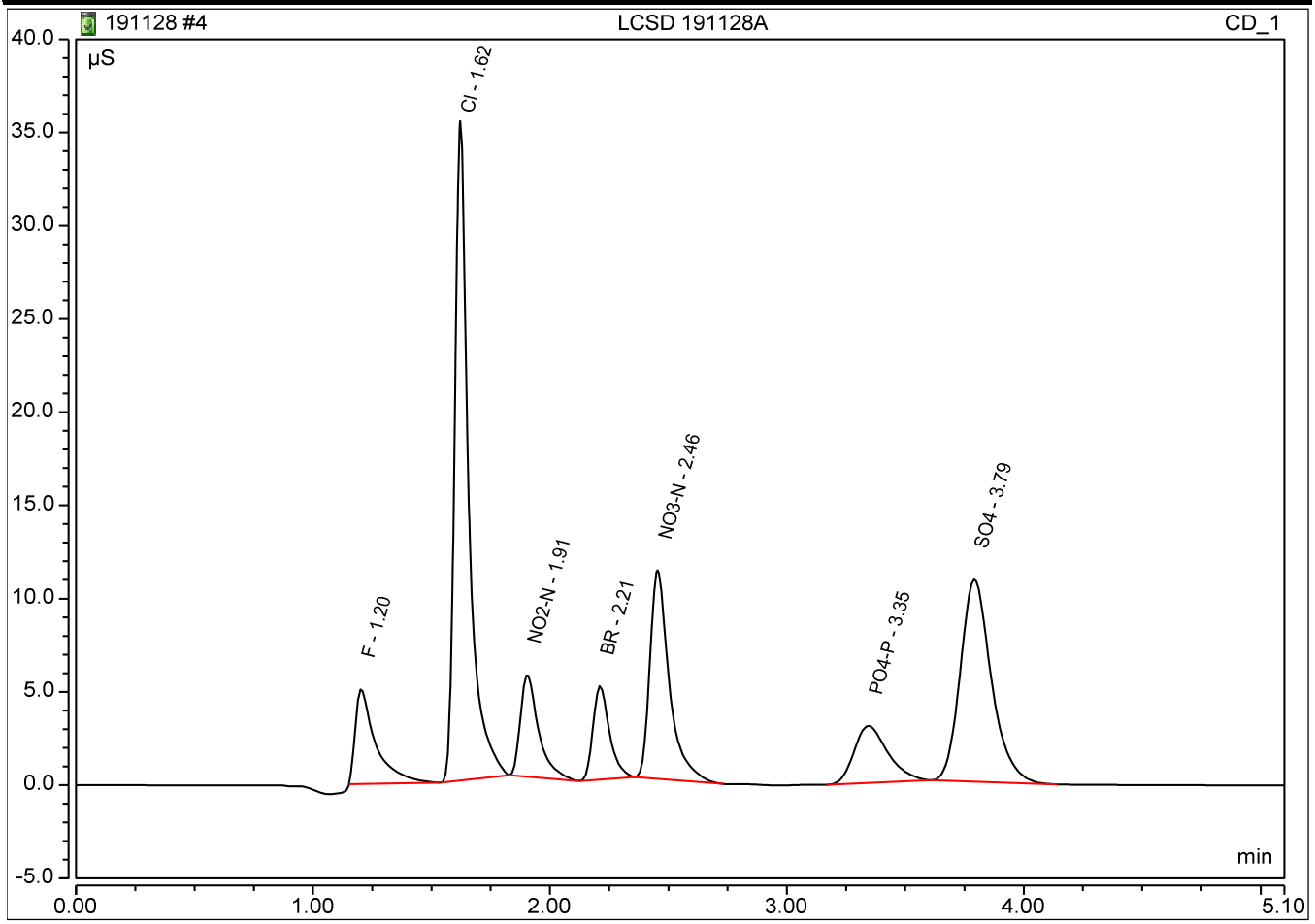
y = 0.0685 x + -0.0071
y = 1.6478 therefor x =

Logged on User: BW
Instrument: Charlie System_1
Sequence: 191128

Peak Integration Report

Sample Name:	**LCSD 191128A**	*Inj. Vol.:*	**25uL**
Injection Type:	**Check Standard**	*Dilution Factor:*	**1.00**
Program:	**Anion APM 191121**	*Operator:*	**Instrument Controller**
Inj. Date / Time:	**28-Nov-2019 / 15:17**	*Run Time:*	**5.10**

No.	Time (min) min	Peak Name	Peak Type	Area (µS*min) µS*min	Height (µS) µS	Amount mg/L	Spike Level mg/L	Recovery
1	1.20	**F**	BMB	0.509	5.105	4.47	5	89.4%
2	1.62	**Cl**	BMB	2.432	35.373	25.41	25	101.6%
3	1.91	**NO2-N**	BMB	0.487	5.489	2.97	3.04	97.8%
4	2.21	**BR**	BMB	0.405	5.012	11.98	12.5	95.8%
5	2.46	**NO3-N**	BMB	1.062	11.186	4.78	5	95.6%
6	3.35	**PO4-P**	BMB	0.504	3.057	9.20	10	92.0%
7	3.79	**SO4**	BMB	1.647	10.856	24.13	25	96.5%



Anion Chromatography Working Standard

Prep Date: 10/30/19

Exp Date: 10/30/19

Prep'd By (Initials): BW

Initial Standard Information						Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier Part No.	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date	Aliquot from Stock	Final Volume	Solvent	Final Standard Conc (µg/mL)
Ion Chromatography Standard Fluoride 1000 µg/mL in H2O	o2si	O2SI-062002-01-01	1000	687393-38-40744	10/30/20	312.5 µL	25 mL	Millipore Water	12.5
Ion Chromatography Standard Nitrite 1000 µg/mL in H2O	Inorganic Ventures	ICN021	1000	N2-NOX672889-40759	05/01/20	411 µL	25 mL	Millipore Water	5 as NO2-N
Ion Chromatography Standard Chloride 5000 µg/mL in H2O	o2si	062001-08-03	5000	10084781-1-39578	02/21/20	250 µL	25 mL	Millipore Water	50
Ortho-Phosphate as P Standard	Ultra Scientific	ICC-005A	1000	G34-CP-3323-39057	08/31/23	625 µL	25 mL	Millipore Water	25
Ion Chromatography Standard Nitrate as N 1000 µg/mL in H2O	o2si	062003-01-03	1000	880117-4-39577	02/21/20	250 µL	25 mL	Millipore Water	10
Bromide Standard	Ultra Scientific	ICC-001	1000	CR-5372-39521	12/31/21	625 µL	25 mL	Millipore Water	25
Sulfate Standard	Agilent	ICC-006	1000	CS-0688-41050	03/31/22	1250 µL	25 mL	Millipore Water	50

Anion Chromatography Calibration Curve

Prep Date: 10/30/19

Exp Date: 10/30/19

Prep'd By (Initials): BW

Initial Standard Information						Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. Range (ug/mL)	Reference To APPL Prep Date	Exp. Date	Aliquot from Stock	Final Volume	Solvent	Final Standard Conc. Range (µg/mL)
Anion Chromatography Working Standard	Varies	ICal1	5.0-50.0	Prepared 10/30/19	10/30/19	200 µL	25000 µL	Millipore Water	0.04-0.40
Anion Chromatography Working Standard	Varies	ICal2	5.0-50.0	Prepared 10/30/19	10/30/19	20 µL	1000 µL	Millipore Water	0.1-1.0
Anion Chromatography Working Standard	Varies	ICal5	5.0-50.0	Prepared 10/30/19	10/30/19	200 µL	1000 µL	Millipore Water	1.0-10.0
Anion Chromatography Working Standard	Varies	ICal8	5.0-50.0	Prepared 10/30/19	10/30/19	1000 µL	1000 µL	Millipore Water	5.0-50.0

Anion Chromatography LCS/ICV

Prep Date: See injection Log

Exp Date: 24 hours after prep

Prep'd By (Initials): BW

Initial Standard Information						Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier Part No.	Conc. Range (ug/mL)	Lot Number - QA Number	Exp. Date	Aliquot from Stock	Final Volume	Solvent	Final Standard Conc (µg/mL)
Flouride	Inorganic Ventures	ICF1	993-999	K-F652018-39801	10/23/19	125 µL	25 mL	Millipore Water	5
Nitrite	Inorganic Ventures	ICNO21	993-1001	M2-NOX660562-40468	08/25/21	250 µL	25 mL	Millipore Water	10
Chloride	Inorganic Ventures	ICCL1	995-1001	N2-CL664868-39905	11/26/19	625 µL	25 mL	Millipore Water	25
O-Phosphate as P	Inorganic Ventures	ICPPO41	1001-1009	M2-POX655826-39803	10/23/19	250 µL	25 mL	Millipore Water	10
Nitrate as N	Inorganic Ventures	ICNNO31	997-1005	P2-NOX675324-49391	02/14/23	125 µL	25 mL	Millipore Water	5
Ion Chromatography Standard Bromide, 1000 µg/mL in H2O	CPI International	4400-IC8M	995-1005	161681-8-39539	02/06/20	312.5 µL	25 mL	Millipore Water	12.5
Sulfate	Inorganic Ventures	ICSO41	998-1006	N2-SOX664928-39507	11/27/19	625 µL	25 mL	Millipore Water	25

Anion Chromatography CCV

Prep Date: See injection Log

Exp Date: 24 hours after prep

Prep'd By (Initials): BW

Initial Standard Information						Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier Part No.	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date	Aliquot from Stock	Final Volume	Solvent	Final Standard Conc (µg/mL)
Ion Chromatography Standard Fluoride 1000 µg/mL in H2O	o2si	O2SI-062002-01-01	1000	687393-38-40744	10/30/20	125 µL	25 mL	Millipore Water	5
Ion Chromatography Standard Nitrite 1000 µg/mL in H2O	Inorganic Ventures	ICN021	1000	N2-NOX672889-40759	05/01/20	250 µL	25 mL	Millipore Water	10
Ion Chromatography Standard Chloride 5000 µg/mL in H2O	o2si	062001-08-03	5000	10084781-1-39578	02/21/20	125 µL	25 mL	Millipore Water	25
Ortho-Phosphate as P Standard	Ultra Scientific	ICC-005A	1000	G34-CP-3323-39057	08/31/23	250 µL	25 mL	Millipore Water	10
Ion Chromatography Standard Nitrate as N 1000 µg/mL in H2O	o2si	062003-01-03	1000	880117-4-39577	02/21/20	125 µL	25 mL	Millipore Water	5
Bromide Standard	Ultra Scientific	ICC-001	1000	CR-5372-39521	12/31/21	312.5 µL	25 mL	Millipore Water	12.5
Sulfate Standard	Agilent	ICC-006	1000	CS-0688-41050	03/31/22	625 µL	25 mL	Millipore Water	25

Anion Chromatography Working Standard

Prep Date: 11/21/19

Exp Date: 11/22/19

Prep'd By (Initials): CD

Initial Standard Information						Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier Part No.	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date	Aliquot from Stock	Final Volume	Solvent	Final Standard Conc (µg/mL)
Ion Chromatography Standard Fluoride 1000 µg/mL in H2O	o2si	O2SI-062002-01-01	1000	142626-24-38407	10/30/20	312.5 µL	25 mL	Millipore Water	12.5
Ion Chromatography Standard Nitrite 1000 µg/mL in H2O	Inorganic Ventures	ICN021	1000	N2-NOX672889	05/01/20	411 µL	25 mL	Millipore Water	5 as NO2-N
Ion Chromatography Standard Chloride 5000 µg/mL in H2O	o2si	062001-08-03	5000	10084781-1-39578	02/21/20	250 µL	25 mL	Millipore Water	50
Ortho-Phosphate as P Standard	Ultra Scientific	ICC-005A	1000	G34-CP-3323-39057	08/31/23	625 µL	25 mL	Millipore Water	25
Ion Chromatography Standard Nitrate as N 1000 µg/mL in H2O	o2si	062003-01-03	1000	880117-4-39577	02/21/20	250 µL	25 mL	Millipore Water	10
Bromide Standard	Ultra Scientific	ICC-001	1000	CR-5372-39521	12/31/21	625 µL	25 mL	Millipore Water	25
Sulfate Standard	Agilent	ICC-006	1000	CS-0688-40047	03/31/22	1250 µL	25 mL	Millipore Water	50

Anion Chromatography Calibration Curve

Prep Date: 11/21/19

Exp Date: 11/22/19

Prep'd By (Initials): CD

Initial Standard Information						Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. Range (ug/mL)	Reference To APPL Prep Date	Exp. Date	Aliquot from Stock	Final Volume	Solvent	Final Standard Conc. Range (µg/mL)
Anion Chromatography Working Standard	Varies	ICal1	5.0-50.0	Prepared 11/21/19	11/22/19	200 µL	25000 µL	Millipore Water	0.04-0.40
Anion Chromatography Working Standard	Varies	ICal2	5.0-50.0	Prepared 11/21/19	11/22/19	20 µL	1000 µL	Millipore Water	0.1-1.0
Anion Chromatography Working Standard	Varies	ICal3	5.0-50.0	Prepared 11/21/19	11/22/19	50 µL	1000 µL	Millipore Water	0.25-2.5
Anion Chromatography Working Standard	Varies	ICal4	5.0-50.0	Prepared 11/21/19	11/22/19	100 µL	1000 µL	Millipore Water	0.5-5.0
Anion Chromatography Working Standard	Varies	ICal5	5.0-50.0	Prepared 11/21/19	11/22/19	200 µL	1000 µL	Millipore Water	1.0-10.0
Anion Chromatography Working Standard	Varies	ICal6	5.0-50.0	Prepared 11/21/19	11/22/19	500 µL	1000 µL	Millipore Water	2.5-25.0
Anion Chromatography Working Standard	Varies	ICal7	5.0-50.0	Prepared 11/21/19	11/22/19	700 µL	1000 µL	Millipore Water	3.5-35.0
Anion Chromatography Working Standard	Varies	ICal8	5.0-50.0	Prepared 11/21/19	11/22/19	1000 µL	1000 µL	Millipore Water	5.0-50.0

Anion Chromatography LCS/ICV

Prep Date: See injection Log

Exp Date: 24 hours after prep

Prep'd By (Initials): CD

Initial Standard Information						Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier Part No.	Conc. Range (ug/mL)	Lot Number - QA Number	Exp. Date	Aliquot from Stock	Final Volume	Solvent	Final Standard Conc (µg/mL)
Flouride	Inorganic Ventures	ICF1	993-999	K-F652018-39801	10/23/19	125 µL	25 mL	Millipore Water	5
Nitrite	Inorganic Ventures	ICNO21	993-1001	M2-NOX660562-39802	10/23/19	250 µL	25 mL	Millipore Water	10
Chloride	Inorganic Ventures	ICCL1	995-1001	N2CL664868-39036	11/26/19	625 µL	25 mL	Millipore Water	25
O-Phosphate as P	Inorganic Ventures	ICPPO41	1001-1009	M2-POX655826-39803	10/23/19	250 µL	25 mL	Millipore Water	10
Nitrate as N	Inorganic Ventures	ICNNO31	997-1005	N2-NOX667147-39510	10/23/19	125 µL	25 mL	Millipore Water	5
Ion Chromatography Standard Bromide, 1000 µg/mL in H2O	CPI International	4400-IC8M	995-1005	16H087-37320	02/06/20	312.5 µL	25 mL	Millipore Water	12.5
Sulfate	Inorganic Ventures	ICSO41	998-1006	N2-SOX664928-39507	11/27/19	625 µL	25 mL	Millipore Water	25

Anion Chromatography CCV

Prep Date: See injection Log

Exp Date: 24 hours after prep

Prep'd By (Initials): CD

Initial Standard Information						Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier Part No.	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date	Aliquot from Stock	Final Volume	Solvent	Final Standard Conc (µg/mL)
Ion Chromatography Standard Fluoride 1000 µg/mL in H2O	o2si	O2SI-062002-01-01	1000	687393-38-40744	10/30/20	125 µL	25 mL	Millipore Water	5
Ion Chromatography Standard Nitrite 1000 µg/mL in H2O	Inorganic Ventures	ICN021	1000	N2-NOX672889	05/01/20	250 µL	25 mL	Millipore Water	10
Ion Chromatography Standard Chloride 5000 µg/mL in H2O	o2si	062001-08-03	5000	10084781-1-39578	02/21/20	125 µL	25 mL	Millipore Water	25
Ortho-Phosphate as P Standard	Ultra Scientific	ICC-005A	1000	G34-CP-3323-39057	08/31/23	250 µL	25 mL	Millipore Water	10
Ion Chromatography Standard Nitrate as N 1000 µg/mL in H2O	o2si	062003-01-03	1000	880117-4-39577	02/21/20	125 µL	25 mL	Millipore Water	5
Bromide Standard	Ultra Scientific	ICC-001	1000	CR-5372-39521	12/31/21	312.5 µL	25 mL	Millipore Water	12.5
Sulfate Standard	Agilent	ICC-006	1000	CS-0688-40047	03/31/22	625 µL	25 mL	Millipore Water	25

Method 300 and 9056 Injection Log

No.	Position	Injection Description	Inject Time		Type	Comment
1	GE1	ICAL1 191030	30/Oct/2019	18:22	Calibration Standard	
2	GE2	ICAL2 191030	30/Oct/2019	18:29	Calibration Standard	
3	GE3	ICAL5 191030	30/Oct/2019	18:37	Calibration Standard	
4	GE4	ICAL8 191030	30/Oct/2019	18:44	Calibration Standard	
5	R1	ICB 191030	30/Oct/2019	18:52	Unknown	
6	R3	ICV/LCS 191030	30/Oct/2019	18:59	Check Standard	
7	R3	LCSD 191030A	30/Oct/2019	19:07	Check Standard	
8	BA1	BA01825W07	30/Oct/2019	19:14	Unknown	filtered
9	BA2	BA02090	30/Oct/2019	19:22	Unknown	
10	BA3	BA02160	30/Oct/2019	19:29	Unknown	
11	BA4	BA02049W12	30/Oct/2019	19:37	Unknown	filtered
12	BA5	BA02050W07	30/Oct/2019	19:44	Unknown	filtered
13	BA6	BA02053W08	30/Oct/2019	19:52	Unknown	filtered
14	BA7	BA02054W08	30/Oct/2019	19:59	Unknown	filtered
15	BA8	BA01390W01 DF20	30/Oct/2019	20:07	Unknown	NDF20 Cl
16	BB1	BA01390W01 DF5	30/Oct/2019	20:14	Unknown	NDF5 SO4
17	BB2	BA01391W01 DF5	30/Oct/2019	20:22	Unknown	NDF5 Cl SO4
18	BB3	BA01391W01 DF2	30/Oct/2019	20:29	Unknown	NDF2 NO3-N
19	BB4	BA01392W01 DF20	30/Oct/2019	20:37	Unknown	NDF20 Cl
20	R2	CCV 191030	30/Oct/2019	20:44	Check Standard	
21	R1	CCB 191030	30/Oct/2019	20:52	Unknown	
22	BB5	BA01393W01 DF10	30/Oct/2019	20:59	Unknown	NDF10 Cl SO4 NO3-N
23	BB6	BA01459W01 DF10	30/Oct/2019	21:07	Unknown	NDF10 Cl
24	BB7	BA01459W01 DF5	30/Oct/2019	21:14	Unknown	NDF5 SO4
25	BB8	BA01460W01 DF10	30/Oct/2019	21:22	Unknown	NDF10 Cl
26	BC1	BA01460W01 DF5	30/Oct/2019	21:29	Unknown	NDF5 SO4
27	BC2	BA01461W01 DF50	30/Oct/2019	21:37	Unknown	NDF50 Cl
28	BC3	BA01461W01 DF5	30/Oct/2019	21:44	Unknown	NDF5 SO4
29	BC4	BA01875 DF2	30/Oct/2019	21:52	Unknown	SO4 NO3 NO2 Cl filtered; NDF2 SC
30	BC5	BA01876 DF2	30/Oct/2019	21:59	Unknown	SO4 NO3 NO2 Cl filtered; NDF2 SC
31	R2	CCV 191030	30/Oct/2019	22:06	Check Standard	
32	R1	CCB 191030	30/Oct/2019	22:14	Unknown	
33	BC2	Stop	n.a.		Unknown	

Method 300 and 9056 Injection Log

No.	Position	Injection Description	Inject Time		Type	Comment
1	BE1	ICAL1 191121	21/Nov/2019	17:15	Calibration Standard	
2	BE2	ICAL2 191121	21/Nov/2019	17:22	Calibration Standard	
3	BE3	ICAL5 191121	21/Nov/2019	17:30	Calibration Standard	
4	BE4	ICAL8 191121	21/Nov/2019	17:37	Calibration Standard	
5	R1	ICB 191121	21/Nov/2019	17:45	Unknown	
6	R3	ICV/LCS 191121	21/Nov/2019	17:52	Check Standard	
7	R3	LCSD 191121A	21/Nov/2019	18:00	Check Standard	
8	GA1	BA03357W06	21/Nov/2019	18:07	Unknown	
9	GA2	BA03358W18	21/Nov/2019	18:15	Unknown	
10	GA3	BA03359W06	21/Nov/2019	18:22	Unknown	
11	GA4	BA03361W06	21/Nov/2019	18:30	Unknown	
12	GA5	BA03368	21/Nov/2019	18:37	Unknown	Insight 191119 0935
13	GA6	BA03366	21/Nov/2019	18:45	Unknown	Insight 191119 1315
14	GA7	BA03367	21/Nov/2019	18:52	Unknown	Insight 191119 1450
15	GA8	BA03367 MS	21/Nov/2019	19:00	Unknown	Insight 191119 1450 MS
16	GB1	BA03367 MSD	21/Nov/2019	19:07	Unknown	Insight 191119 1450 MSD
17	GB2	AZ99924W02	21/Nov/2019	19:15	Unknown	SO4
18	R2	CCV 191121	21/Nov/2019	19:22	Check Standard	
19	R1	CCB 191121	21/Nov/2019	19:30	Unknown	
20	BA1	BA03260	21/Nov/2019	19:37	Unknown	GEO MW2 filtered; repeat sequenc
21	BA2	BA03261	21/Nov/2019	19:45	Unknown	GEO MW5 filtered
22	BA3	BA03291W04	21/Nov/2019	19:52	Unknown	
23	BA4	BA03292W04	21/Nov/2019	20:00	Unknown	
24	BA5	BA03293W03	21/Nov/2019	20:07	Unknown	
25	BA6	BA03287W04	21/Nov/2019	20:15	Unknown	filtered
26	BA7	BA03288W04	21/Nov/2019	20:22	Unknown	
27	BA7	BA03288W04 DUP	21/Nov/2019	20:30	Unknown	
28	BA8	BA03288W04 MS	21/Nov/2019	20:37	Unknown	
29	BB1	BA03288W04 MSD	21/Nov/2019	20:45	Unknown	
30	BB2	BA03289W03	21/Nov/2019	20:52	Unknown	
31	BB3	BA03285W01	21/Nov/2019	21:00	Unknown	
32	R2	CCV 191121	21/Nov/2019	21:07	Check Standard	
33	R1	CCB 191121	21/Nov/2019	21:15	Unknown	
34	R3	STOP	21/Nov/2019	21:20	Unknown	

Method 300 and 9056 Injection Log

No.	Position	Injection Description	Inject Time		Type	Comment
1	R2	CCV 191105	05/Nov/2019	20:08	Check Standard	
2	R1	CCB 191105	05/Nov/2019	20:16	Unknown	
3	R3	LCS 191105A	05/Nov/2019	20:23	Check Standard	
4	R3	LCSD 191105A	05/Nov/2019	20:31	Check Standard	
5	RD1	BA02459W07	05/Nov/2019	20:38	Unknown	
6	RD2	BA02460W07	05/Nov/2019	20:46	Unknown	
7	RD3	BA02461W06	05/Nov/2019	20:53	Unknown	
8	RD4	BA02462W06	05/Nov/2019	21:01	Unknown	filtered
9	RD6	BA02466W12	05/Nov/2019	21:08	Unknown	
10	RA1	BA01785W04 DF2	05/Nov/2019	21:16	Unknown	NO3 filtered
11	RA2	BA01785W04 DF5	05/Nov/2019	21:23	Unknown	SO4 filtered
12	RA3	BA01785W04 DF10	05/Nov/2019	21:31	Unknown	Cl filtered
13	RA4	BA01786W03 DF5	05/Nov/2019	21:38	Unknown	SO4
14	RA5	BA01786W03 DF20	05/Nov/2019	21:46	Unknown	Cl
15	RA6	BA01787W04 DF2	05/Nov/2019	21:53	Unknown	NO3 SO4
16	RA7	BA01788W04 DF2	05/Nov/2019	22:01	Unknown	Cl SO4 filtered
17	RA8	BA01789W04 DF2	05/Nov/2019	22:08	Unknown	SO4 filtered
18	RB1	BA01789W04 DF5	05/Nov/2019	22:16	Unknown	Cl filtered
19	R2	CCV 191105	05/Nov/2019	22:23	Check Standard	
20	R1	CCB 191105	05/Nov/2019	22:31	Unknown	
21	RB2	BA01829W05 DF2	05/Nov/2019	22:38	Unknown	Cl
22	RB3	BA01833W10 DF2	05/Nov/2019	22:46	Unknown	Cl
23	RB4	BA01824W07 DF10	05/Nov/2019	22:53	Unknown	Cl
24	RB5	BA01825W07 DF2	05/Nov/2019	23:01	Unknown	Cl
25	RB6	BA02062W06 DF50	05/Nov/2019	23:08	Unknown	SO4
26	RB7	BA01875W07 DF10	05/Nov/2019	23:16	Unknown	Cl
27	RB8	BA02187W01 MS	05/Nov/2019	23:23	Unknown	NO3
28	RC1	BA02187W01 DF2	05/Nov/2019	23:31	Unknown	NO3
29	RC2	BA02188W01 MS	05/Nov/2019	23:38	Unknown	NO3
30	RC3	BA02188W01 DF2	05/Nov/2019	23:45	Unknown	NO3
31	RC4	BA02189W01 MS	05/Nov/2019	23:53	Unknown	NO3
32	RC5	BA02189W01 DF2	06/Nov/2019	00:00	Unknown	NO3
33	RC6	BA02192W01 MS	06/Nov/2019	00:08	Unknown	NO3
34	RC7	BA02192W01 DF2	06/Nov/2019	00:15	Unknown	NO3
35	R2	CCV 191105	06/Nov/2019	00:23	Check Standard	
36	R1	CCB 191105	06/Nov/2019	00:30	Unknown	
37	RC8	BA02301W10 DF2	06/Nov/2019	00:38	Unknown	Cl
38	RD5	BA02216W07 DF5	06/Nov/2019	00:45	Unknown	Cl
39	R2	CCV 191105	06/Nov/2019	00:53	Check Standard	
40	R1	CCB 191105	06/Nov/2019	01:00	Unknown	
41	R2	Stop	06/Nov/2019	01:05	Unknown	

Method 300 and 9056 Injection Log

No.	Position	Injection Description	Inject Time		Type	Comment
1	R2	CCV 191128	28/Nov/2019	14:55	Check Standard	
2	R1	CCB 191128	28/Nov/2019	15:02	Unknown	
3	R3	LCS 191128A	28/Nov/2019	15:10	Check Standard	
4	R3	LCSD 191128A	28/Nov/2019	15:17	Check Standard	
5	RA1	BA02466W DF2	28/Nov/2019	15:22	Unknown	needs DF2 Cl ASAP---- not ran
6	RA2	BA03715W01 DF2	28/Nov/2019	15:25	Unknown	NDF2 Cl
7	RA1	BA02466W DF2	28/Nov/2019	15:33	Unknown	needs DF2 Cl ASAP
8	R3	CCV 191128	28/Nov/2019	15:40	Check Standard	
9	R1	CCB 191128	28/Nov/2019	15:48	Unknown	
10	RA3	BA03716W01 DF2	28/Nov/2019	15:55	Unknown	filtered NDF2 SO4
11	RA4	BA03717W01 DF2	28/Nov/2019	16:03	Unknown	NDF2 SO4
12	RA5	BA03629W04 DF20	28/Nov/2019	16:10	Unknown	filtered NDF20 Cl
13	RA6	BA03629W04 DF2	28/Nov/2019	16:18	Unknown	filtered NDF2 SO4
14	RA7	BA03642 DF10	28/Nov/2019	16:25	Unknown	filtered NDF10 Cl
15	RA8	BA03637 DF5	28/Nov/2019	16:32	Unknown	NDF5 Cl SO4
16	RB1	BA03619 DF20	28/Nov/2019	16:40	Unknown	df5 NDF20 Cl
17	RB2	BA03621 DF10	28/Nov/2019	16:47	Unknown	DF5 NDF10 SO4
18	RB3	BA03621 DF50	28/Nov/2019	16:55	Unknown	DF5 NDF50 Cl
19	RB4	BA03623W24 DF2	28/Nov/2019	17:02	Unknown	NDF2 Cl SO4
20	RB5	BA03623W24 DF2 MS	28/Nov/2019	17:10	Unknown	NDF2 Cl SO4
21	RB6	BA03623W24 DF2 MSD	28/Nov/2019	17:17	Unknown	NDF2 Cl SO4
22	RB7	BA03625 DF2	28/Nov/2019	17:25	Unknown	NDF2 Cl SO4
23	RB8	BA03627 DF50	28/Nov/2019	17:32	Unknown	DF5 NDF50 Cl
24	R2	CCV 191128	28/Nov/2019	17:40	Check Standard	
25	R1	CCB 191128	28/Nov/2019	17:47	Unknown	
26	RC1	BA03785W04	28/Nov/2019	17:55	Unknown	
27	RC2	BA03786W04	28/Nov/2019	18:02	Unknown	
28	RC3	BA03888W11 df5	28/Nov/2019	18:10	Unknown	df5 high ec
29	RC4	BA03889W11 df5	28/Nov/2019	18:17	Unknown	df5 high ec
30	RC5	BA03890W11	28/Nov/2019	18:25	Unknown	
31	RC6	BA03891W31	28/Nov/2019	18:32	Unknown	
32	RC7	BA03892W11	28/Nov/2019	18:40	Unknown	
33	R2	CCV 191128	28/Nov/2019	18:47	Check Standard	
34	R1	CCB 191128	28/Nov/2019	18:55	Unknown	
35	R5	STOP	28/Nov/2019	19:00	Unknown	

AQ2 Report

Serial Number:	190170
Software Version:	2.1.0
Report Requested By:	Eve V
Date & Time:	2019-11-07 09:19:30
Tray Number:	1
Tray Name:	191106A NO2 NO3 TOXN

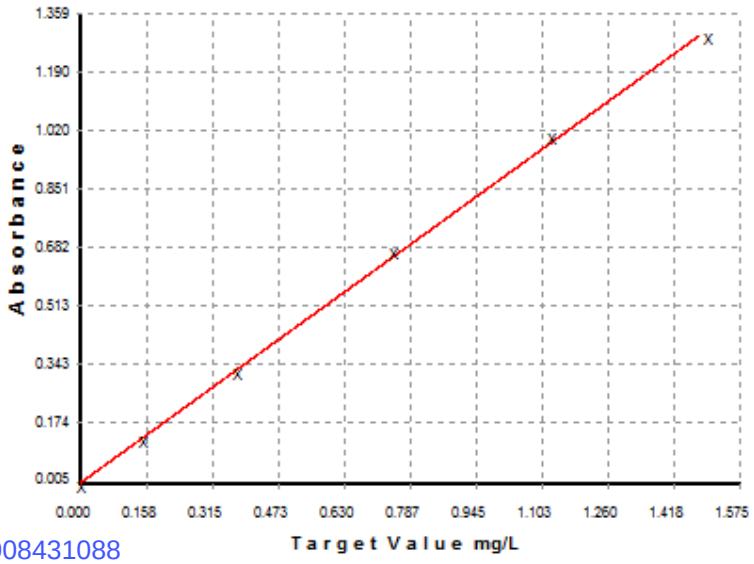
Nitrite-N

Calibration Chart

Type	Absorbance	Calc mg/L	Target mg/L	% Error
S1	0.0050	-0.0027	0.0000	
S90	0.1349	0.1468	0.1500	-2.13
S91	0.3256	0.3661	0.3750	-2.37
S92	0.6720	0.7646	0.7500	1.95
S93	1.0023	1.1447	1.1250	1.75
S94	1.2942	1.4805	1.5000	-1.30
S0	0.0153	0.0092	0.0000	

Polynomial Order:	1
Correlation Coefficient:	0.9997
Carryover(%):	0.8
Calibration equation:	y = bx + a
y =:	Concentration mg/L
x =:	Measured absorbance
a =:	-8.431088E-003
b =:	1.150461E+000
Date & Time:	2019-11-06 16:11:13

Calibration Graph



Algorithm check

y = 1.15061(0.636002)-0.008431088

y = 0.723

EV 11/07/19

Reagents

Name	Batch	Prepared By	Expiry Date
Sulfa-NEDD		Joel	
NO2 Buffer		Joel	

Cup	Type	ID	Result	Units	QC Pro	Raw Data	Auto Dil.	Man Dil.	User	Time/Date
	S1	Standard 1	0.0050			0.004995			Ev	2019-11-06 16:03:50
	S90	Standard 90	0.1349			0.134927			Ev	2019-11-06 16:05:03
	S91	Standard 91	0.3256			0.325551			Ev	2019-11-06 16:06:16
	S92	Standard 92	0.6720			0.671957			Ev	2019-11-06 16:07:30
	S93	Standard 93	1.0023			1.002322			Ev	2019-11-06 16:08:44
	S94	Standard 94	1.2942			1.294164			Ev	2019-11-06 16:09:58
	S0	Standard 0	0.0153			0.015341			Ev	2019-11-06 16:11:13
	CCV	CCV .75	0.7528	mg/L		0.661640			Ev	2019-11-06 16:12:27
	CCB	CCB	0.0042	mg/L		0.010953			Ev	2019-11-06 16:13:41
3	U1	✓ICV NO2	0.7233	mg/L		0.636002			Ev	2019-11-06 16:14:54
4	U2	ICV NO3 TOXN	0.0043	mg/L		0.011104			Ev	2019-11-06 16:16:09
5	U3	ICB NO2 NO3 TOXN	-0.0031	mg/L		0.004616			Ev	2019-11-06 16:16:48
14	U12	1ppm NO2	0.9999	mg/L		0.876442			Ev	2019-11-06 16:18:57
16	U14	1901106A BLK S	0.0597	mg/L		0.012521		x 10.000	Ev	2019-11-06 16:21:10
17	U15	1901106A LCS S	7.3656	mg/L		0.647560		x 10.000	Ev	2019-11-06 16:23:28
18	U16	BA02318S01	0.3650	mg/L		0.039052		x 10.000	Ev	2019-11-06 16:25:45
19	U17	BA02319S01	40.3098	mg/L		3.511121		x 10.000	Ev	2019-11-06 16:28:03
	CCV	CCV .75	0.8102	mg/L		0.711574			Ev	2019-11-06 16:30:20

CCB	CCB	0.0058	mg/L	0.012328	Ev	2019-11-06 16:32:32

TOXN

Calibration Chart

Type	Absorbance	Calc mg/L	Target mg/L	% Error
S1	0.0086	0.0100	0.0000	
S90	0.0145	0.1111	0.1000	11.09
S91	0.0745	1.1501	1.2000	-4.16
S92	0.1823	3.0169	3.0000	0.56
S93	0.2884	4.8529	4.8000	1.10
S94	0.3523	5.9590	6.0000	-0.68
S0	0.0100	0.0346	0.0000	

Polynomial Order:	1
Correlation Coefficient:	0.9999
Carryover(%):	0.4
Calibration equation:	y = bx + a
y =:	Concentration mg/L
x =:	Measured absorbance
a =:	-1.391001E-001
b =:	1.730908E+001
Date & Time:	2019-11-06 16:54:27

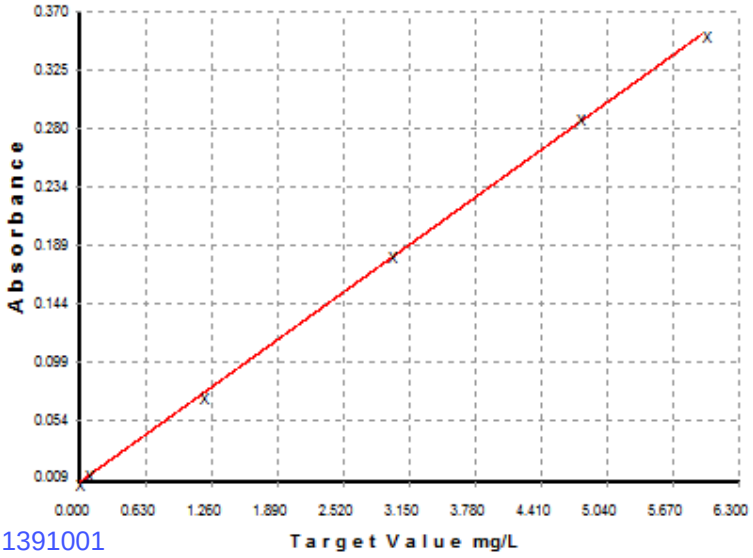
Algorithm check

y = 17.30908(0.193810)-0.1391001

y = 3.22

EV 11/07/19

Calibration Graph



Reagents

Name	Batch	Prepared By	Expiry Date
NO3 W Buffer		Joel	
Sulfa-NEDD		Joel	

Cup	Type	ID	Result	Units	QC Pro	Raw Data	Auto Dil.	Man Dil.	User	Time/Date
	S1	Standard 1	0.0086			0.008612			Ev	2019-11-06 16:41:18
	S90	Standard 90	0.0145			0.014454			Ev	2019-11-06 16:43:30
	S91	Standard 91	0.0745			0.074481			Ev	2019-11-06 16:45:41
	S92	Standard 92	0.1823			0.182334			Ev	2019-11-06 16:47:53
	S93	Standard 93	0.2884			0.288405			Ev	2019-11-06 16:50:04
	S94	Standard 94	0.3523			0.352306			Ev	2019-11-06 16:52:16
	S0	Standard 0	0.0100			0.010034			Ev	2019-11-06 16:54:27
	CCV	CCV	3.1575	mg/L		0.190456			Ev	2019-11-06 16:56:39
	CCB	CCB	0.0036	mg/L		0.008243			Ev	2019-11-06 16:58:51
4	U2	✓ICV NO3 TOXN	3.2156	mg/L		0.193810			Ev	2019-11-06 17:01:02
5	U3	ICB NO2 NO3 TOXN	0.0022	mg/L		0.008162			Ev	2019-11-06 17:03:14
6	U4	191106A BLK TOXN	-0.0176	mg/L		0.007017			Ev	2019-11-06 17:05:27
7	U5	191106A LCS TOXN	3.1863	mg/L		0.192119			Ev	2019-11-06 17:07:39
8	U6	191106A LCSD TOXN	2.9460	mg/L		0.178238			Ev	2019-11-06 17:09:51
9	U7	BA02301W12	0.3736	mg/L		0.029621			Ev	2019-11-06 17:12:03
10	U8	BA02301W12 MS	4.0247	mg/L		0.240559			Ev	2019-11-06 17:14:15
11	U9	BA02301W12 MSD	3.9497	mg/L		0.236225			Ev	2019-11-06 17:16:27
12	U10	BA02466W15	0.4104	mg/L		0.031747			Ev	2019-11-06 17:18:40
13	U11	BA02525W15	0.4059	mg/L		0.031488			Ev	2019-11-06 17:19:18
	CCV	CCV	2.9835	mg/L		0.180403			Ev	2019-11-06 17:20:22
	CCB	CCB	0.0178	mg/L		0.009063			Ev	2019-11-06 17:21:19
15	U13	1ppm NO3	1.0068	mg/L		0.066202			Ev	2019-11-06 17:22:15
16	U14	1901106A BLK S	0.6762	mg/L		0.011943		x 10.000	Ev	2019-11-06 17:23:11
17	U15	1901106A LCS S	34.6363	mg/L		0.208141		x 10.000	Ev	2019-11-06 17:24:07
18	U16	BA02318S01	97.7210	mg/L		0.572601		x 10.000	Ev	2019-11-06 17:25:03
	CCV	CCV	3.0212	mg/L		0.182578			Ev	2019-11-06 17:25:59
	CCB	CCB	0.0017	mg/L		0.008134			Ev	2019-11-06 17:26:56

Nitrite-N

Cup	Type	ID	Result	Units	QC Pro	Raw Data	Auto Dil.	Man Dil.	User	Time/Date
	CCV	CCV .75	0.7706	mg/L		0.677146				2019-11-06 17:40:58
	CCB	CCB	0.0034	mg/L		0.010281				2019-11-06 17:43:16

19	U17	BA02319S01	155.9956	mg/L	3.397178	x 4.000	x 10.000	Ev	2019-11-06 17:45:29
	CCV	CCV .75	0.7842	mg/L	0.688953				2019-11-06 17:47:43
	CCB	CCB	0.0045	mg/L	0.011269				2019-11-06 17:48:51

TOXN

Cup	Type	ID	Result	Units	QC Pro	Raw Data	Auto Dil.	Man Dil.	User	Time/Date
	CCV	CCV	3.1694	mg/L		0.191141				2019-11-06 17:52:06
	CCB	CCB	0.0102	mg/L		0.008626				2019-11-06 17:53:02
18	U16	BA02318S01	93.2150	mg/L		0.061890	x 10.000	x 10.000	Ev	2019-11-06 17:53:59
	CCV	CCV	3.0540	mg/L		0.184478				2019-11-06 17:54:55
	CCB	CCB	0.0000	mg/L		0.008039				2019-11-06 17:55:51

Nitrite-N

Cup	Type	ID	Result	Units	QC Pro	Raw Data	Auto Dil.	Man Dil.	User	Time/Date
	CCV	CCV .75	0.7738	mg/L		0.679891				2019-11-06 18:06:21
	CCB	CCB	0.0038	mg/L		0.010624				2019-11-06 18:07:17
19	U17	BA02319S01	251.7005	mg/L		1.429414	x 15.385	x 10.000	Ev	2019-11-06 18:08:14
	CCV	CCV .75	0.7924	mg/L		0.696075				2019-11-06 18:09:11
	CCB	CCB	0.0040	mg/L		0.010830				2019-11-06 18:10:07

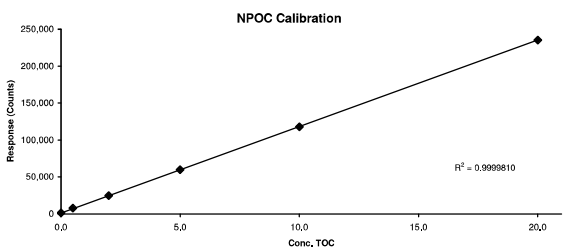
TOTAL ORGANIC CARBON

Method: WetChem | Units mg/L | Instrument: Tic Toc

Analyte: TOC | QCG: 191111B

Analyist: AR | Final Volume: 40mL

Date	Time	Appl ID	[TOC]	Raw	% Recovery
10/31/19	19:20	QC blank	0.00	1130	
10/31/19	19:56	Ical 1	0.50	7935	
10/31/19	20:28	Ical 2	2.00	24866	
10/31/19	21:02	Ical 3	5.00	59510	
10/31/19	21:35	Ical 4	10.00	118117	
10/31/19	22:08	Ical 5	20.00	235471	
11/01/19	10:03	ICB	0.08	883	
11/01/19	10:39	ICV	10.40	121613	104.0%



Date	Time	Appl ID	DF	Raw Result	SubSample Amount	Filter Blank Subtract	Calc Conc	Result	Range (mg/L)	QC True	% Recovery
2019-11-15	12:37 AM	CCV	1		40mL	0.000	5.083	5.08	0.03	5.00	101.7%
2019-11-15	01:13 AM	CCB	1	432	40mL	0.000	0	0.00	0.00		
2019-11-15	01:50 AM	191111B LCS	1	61472	40mL	0.000	5.18	5.18	0.01	5.00	103.6%
2019-11-15	02:27 AM	191111B LCSD	1	61238	40mL	0.000	5.16	5.16	0.02	5.00	103.2%
2019-11-15	03:03 AM	BA02466W11	1	15768	40mL	0.000	1.344	1.34	0.00		
2019-11-15	03:37 AM	BA02525W11	1	3423	40mL	0.000	0.288	0.29	0.01		
2019-11-15	04:10 AM	BA02715W17	1	7532	40mL	0.000	0.64	0.64	0.01		
2019-11-15	04:43 AM	BA02713W10	1	1933	40mL	0.000	0.161	0.16	0.02		
2019-11-15	05:16 AM	BA02433W01	1	30344	40mL	0.000	2.591	2.59	0.02		
2019-11-15	05:50 AM	BA02434W01	1	52915	40mL	0.000	4.521	4.52	0.05		
2019-11-15	06:23 AM	BA02435W01	1	31867	40mL	0.000	2.721	2.72	0.02		
2019-11-15	06:57 AM	BA02436W01	1	38500	40mL	0.000	3.289	3.29	0.07		
2019-11-15	07:30 AM	BA02437W01	1	52522	40mL	0.000	4.488	4.49	0.06		
2019-11-15	08:04 AM	CCV	1	58539	40mL	0.000	4.929	4.93	0.00	5.00	98.6%
2019-11-15	08:41 AM	CCB	1	561	40mL	0.000	0	0.00	0.00		

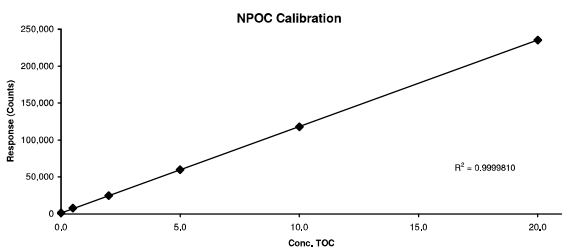
TOTAL ORGANIC CARBON

Method: WetChem | Units mg/L | Instrument: Tic Toc

Analyte: DOC | QCG: 191111A

Analyist: AR | Final Volume: 40mL

Date	Time	Appl ID	[TOC]	Raw	% Recovery
10/31/19	19:20	QC blank	0.00	1130.000	
10/31/19	19:56	Ical 1	0.50	7935.000	
10/31/19	20:28	Ical 2	2.00	24866.000	
10/31/19	21:02	Ical 3	5.00	59510.000	
10/31/19	21:35	Ical 4	10.00	118117.000	
10/31/19	22:08	Ical 5	20.00	235471.000	
11/01/19	10:03	ICB	0.08	883.000	
11/01/19	10:39	ICV	10.40	121613.000	104.0%



Date	Time	Appl ID	DF	Raw Result	SubSample Amount	Filter Blank Subtract	Calc Conc	Result	Range (mg/L)	QC True	% Recovery
2019-11-14	04:55 PM	CCV	1		40mL	0.000	5.228	5.23	0.35	5.00	104.6%
2019-11-14	05:40 PM	CCB	1	690	40mL	0.000	0	0.00	0.00		
2019-11-14	06:16 PM	191111A LCS	1	62265	40mL	0.000	5.248	5.25	0.01	5.00	105.0%
2019-11-14	06:52 PM	191111A LCSD	1	63163	40mL	0.000	5.325	5.33	0.11	5.00	106.5%
2019-11-14	07:29 PM	BA01741W09 DF 2	2	150473	40mL	0.000	12.865	25.73	0.54		
2019-11-14	08:03 PM	BA01752W09 DF 2	2	219179	40mL	0.000	18.741	37.48	0.38		
2019-11-14	08:38 PM	BA01874W13 DF 2	2	146621	40mL	0.000	12.535	25.07	0.05		
2019-11-14	09:11 PM	BA02466W08	1	6522	40mL	0.000	0.553	0.55	0.07		
2019-11-14	09:44 PM	BA02525W09	1	5211	40mL	0.000	0.442	0.44	0.00		
2019-11-14	10:17 PM	BA02713W08	1	4132	40mL	0.000	0.349	0.35	0.00		
2019-11-14	10:51 PM	BA02715W15	1	14979	40mL	0.000	1.277	1.28	0.03		
2019-11-14	11:24 PM	CCV	1	61793	40mL	0.000	5.207	5.21	0.05	5.00	104.1%
2019-11-15	12:01 AM	CCB	1	549	40mL	0.000	0	0.00	0.00		

Metrohm 814/809 Titrando Data

Sample ID	Analysis Date/Time	Method	Titration Volume (to 8.3)	Titration Volume (total)	OH	CO3	HCO3	Total Alk	Unit	Sample Vol	N	Batch	Initials
BA02466W12	2019-11-06 20:40:50 UTC-8	Alkalinity	0.094	1.248	0.00	7.82	44.10	51.92	mg/L	25 mL	0.0208	191106A	CD
191106A LCSD	2019-11-06 19:31:15 UTC-8	Alkalinity	0.200	5.998	0.00	16.64	232.88	249.52	mg/L	25 mL	0.0208	191106A	CD
191106A LCS	2019-11-06 19:22:23 UTC-8	Alkalinity	0.288	5.890	0.00	23.96	221.06	245.02	mg/L	25 mL	0.0208	191106A	CD
191106A BLK	2019-11-06 19:19:58 UTC-8	Alkalinity	0.000	0.026	0.00	0.00	1.08	1.08	mg/L	25 mL	0.0208	191106A	CD

Nitrite

High Point @ 1.5 mg/L
0.2463 mL NO2 Inorganic Ventures lot N2-NOX672889-40759 exp: 05/01/20
50 mL DI Water

CCV @ 0.75 mg/L
0.1232 mL NO2 Inorganic Ventures lot N2-NOX672889-40759 exp: 05/01/20
50 mL DI Water

ICV/LCS @ 0.73 mg/L
0.120 mL NO2 Inorganic Ventures lot M2-NOX660562-40468 exp: 08/25/21
50 mL DI Water

1 mg/L NO2
400 uL of High point and 200 uL of DI made directly into a sample cup

Prep 11/06/19
Exp 11/13/19
EV

Nitrate/TOXN

High Point @ 6 mg/L
0.300 mL NO3 O2Si lot 880117-4-39577 exp: 2/21/20
50 mL DI Water

CCV @ 3.0 mg/L
0.150 mL NO3 O2Si lot 880117-4-39577 exp: 2/21/20
50 mL DI Water

ICV/LCS @ 3.0 mg/L
0.150 mL NO3 Inorganic Ventures lot P2-NOX675324-49391 exp: 02/14/23
50 mL DI Water

1 mg/L NO3
100 uL of High point and 500 uLof DI made directly into a sample cup

MS @ 0.73 mg/L NO2 and 2.5 mg/L NO3
0.120 mL NO2 Inorganic Ventures lot M2-NOX660562-40468 exp: 08/25/21and
0.125 mL NO3 Inorganic Ventures lot P2-NOX675324-49391 exp: 02/14/23
Final volume 50 mL of sample

Prep 11/06/19
Exp 11/13/19
EV

Tiamo Alkalinity Standard Prep

Prep Date:

Exp Date:

Prep'd By (Initials): AR

Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Unit	Conc	Lot Number - QA Number	Prep/Opened	Exp. Date	Aliquot from Stock	Final Volume	Solvent	Final Standard Conc
Sulfuric Acid (H2SO4)	J.T.Baker	NA	NA	167828	NA	NA	PURCHASED	NA	NA	NA
0.10N Sulfuric Acid (H2SO4)	J.T.Baker	Normality	0.1N	167828	05/24/19	05/24/20	3ml	1L	DI	0.10N
0.02N Sulfuric Acid (H2SO4)	J.T.Baker	Normality	0.02N	167828	05/24/19	05/24/20	200mL	1L	DI	0.02N
Inorganic Spike(NaHCO3)	BDH	NA	NA	1575C510	10/18/18	08/14/20	PURCHASED	NA	NA	NA
Inorganic Spike Solution	BDH	Milligrams/Liters	250mg/L	1575C510	09/17/19	03/17/20	3.5g	500mL	DI	250mg/L
Standarizing Solution(NaCO3)	J.T.Baker	Normality	1N	178494	07/25/17	07/25/19	PURCHASED	NA	NA	NA

Standard Prep

	Ferrous Iron Standards		Prep'd By (Initials)		FJR		
Prep Date	06/28/18						
Exp Date	06/28/19						
Stock Label	Supplier	Batch Number	Exp Date	Aliquot from Stock	Final Volume	Solvent	Ferrous Iron Concentration
Ferrous Ammonium Sulfate	J.T.Baker	0000184592	08/21/20	0.351	250mL	5ml H2SO4 (0000167828) Diluted with water	200ug/L
Ferrous Sulfate	Mallinckrodt	Lot 5056 KDRX	NA	0.250	250mL	5ml H2SO4 (0000167828) Diluted with water	200ug/L
Ferrous Iron CCV/LCS/MS/ICV			Prep'd By (Initials)		FJR		
Prep Date	See Injection Log						
Exp Date	24 Hours						
Initial Standard Information	Supplier	Batch Number	Exp Date	Final Standard Information			
Ferrous Iron CCV	J.T.Baker	0000184592	06/14/19	500uL	25mL	Deionized water	4mg/L
Ferrous Iron ICV/LCS	Mallinckrodt	Lot 5056 KDRX	06/14/19	375uL	25mL	Deionized water	3mg/L
	Ferrous Iron Calibration Curve		Prep'd By (Initials)		FJR		
Prep Date	06/28/18						
Exp Date	06/28/19						
Final Standard Information							
Point Label	Supplier	Batch Number	Exp Date	Aliquot from Stock (mL)	Final Volume	Solvent	Ferrous Iron Concentration
CCB	J.T.Baker	0000184592	06/14/19	0	25mL	Deionized water	0mg/L
Ical 1	J.T.Baker	0000184592	06/14/19	0.125	25mL	Deionized water	1mg/L
Ical 2	J.T.Baker	0000184592	06/14/19	0.25	25mL	Deionized water	2mg/L
Ical 3	J.T.Baker	0000184592	06/14/19	0.5	25mL	Deionized water	4mg/L
Ical 4	J.T.Baker	0000184592	06/14/19	0.625	25mL	Deionized water	5mg/L
Ical 5	J.T.Baker	0000184592	06/14/19	1.25	25mL	Deionized water	10mg/L
ICV	Mallinckrodt	Lot 5056 KDRX	06/14/19	0.375	25mL	Deionized water	3mg/L

Reagent Prep

Reagent	Chemical Lot #	Chemical	Chemical Expiration Date	Amount	Date Prep
Colorizer	0747C107	1,10-phenanthroline	na	1.00g 1L DI	10/24/19
		10% HCL conc	na	enough to dissolve	01/15/19
Buffer	Z28B018	Ammonia Acetate	na	248.2G	09/26/19
	2018071399	Glacial Acetic Acid	06/27/20	700mL	

Silica Standard Prep

Spike Amount (uL)*	Final Volume (mL)	Final Concentration (ppm)
25	25	1
50	25	2
100 (CCV2)	25	4
250 (CCV1)	25	10
500	25	20

*Curve Spiked with 1000 ppm SiO_2 o2si lot 1098096-37186 (exp: 4/29/18)

ICV/LCS = 4ppm SiO_2
100 uL of 1000 ppm SiO_2 Ultra Scientific Lot P01064-32895 (exp: 11/30/19) brought up to 25mL with DI

MS = 4ppm SiO_2
100 uL of 1000 ppm SiO_2 Ultra Scientific Lot P01064-32895 (exp: 11/30/19) brought up to 25mL with sample

Prep: 10/25/19
Exp: 10/25/19

Initials: FJR

Name of Final Standard TOC Calibration Curve — **Prep'd By (Initials)** AR

Prep Date 06/11/19

Exp Date 07/09/19

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from contianer Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
Total Organic Carbon (TOC) Standard	Agilent	IQC-1 06-5	1000 mg/L	CS-5157-40233	11/30/20	20 uL	40 mL	DI Water	0.5 ppm
Total Organic Carbon (TOC) Standard	Agilent	IQC-1 06-5	1000 mg/L	CS-5157-40233	11/30/20	50 uL	40 mL	DI Water	1.25 ppm
Total Organic Carbon (TOC) Standard	Agilent	IQC-1 06-5	1000 mg/L	CS-5157-40233	11/30/20	100 uL	40 mL	DI Water	2.5 ppm
Total Organic Carbon (TOC) Standard	Agilent	IQC-1 06-5	1000 mg/L	CS-5157-40233	11/30/20	150 uL	40 mL	DI Water	3.75 ppm
Total Organic Carbon (TOC) Standard	Agilent	IQC-1 06-5	1000 mg/L	CS-5157-40233	11/30/20	200 uL	40 mL	DI Water	5 ppm

Name of Final Standard ICV (TOC) — **Prep'd By (Initials)** AR

Prep Date 06/11/19

Exp Date 07/09/19

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from contianer Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
1000 PPM ICV TOC Intermediate	APPL Inc.	Prep: 2/11/19	1000 mg/L	Prep: 2/11/19	07/09/19	100 uL	40mL	DI Water	2.5 ppm

Name of Final Standard CCV (TOC) — **Prep'd By (Initials)** AR

Prep Date See Data

Exp Date 1 year

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from contianer Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
Total Organic Carbon (TOC) Standard	Agilent	IQC-1 06-5	1000 mg/L	CS-5157-40233	11/30/20	100 uL	40 mL	DI Water	2.5 ppm

Name of Final Standard TOC_LCS/LCSD — **Prep'd By (Initials)** AR

Prep Date See Data

Exp Date 1 year

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from contianer Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
Total Organic Carbon (TOC) Standard	ULTRA Scientific	IQC-106-5	1000 mg/L	CR-0328-37639	02/28/19	100 uL	40 mL	DI Water	2.5 ppm

Name of Final Standard TOC_MS/MSD — **Prep'd By (Initials)** AR

Prep Date See Data

Exp Date 1 year

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from contianer Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
Total Organic Carbon (TOC) Standard	ULTRA Scientific	IQC-106-5	1000 mg/L	CR-0328-37639	02/28/19	100 uL	40 mL	sample	2.5 ppm

EPA 353.2 Injection Log

Directory: I:\EVE\Export\2019\

RunID	Injected		Sample Name	Misc Info	FileName	Multiplier
1	06 Nov 2019	16:41	Standard 1 TOXN/NO3		191107A NO	1.
2	06 Nov 2019	16:43	Standard 90 TOXN/NO3		191107A NO	1.
3	06 Nov 2019	16:45	Standard 91 TOXN/NO3		191107A NO	1.
4	06 Nov 2019	16:47	Standard 92 TOXN/NO3		191107A NO	1.
5	06 Nov 2019	16:50	Standard 93 TOXN/NO3		191107A NO	1.
6	06 Nov 2019	16:52	Standard 94 TOXN/NO3		191107A NO	1.
7	06 Nov 2019	16:54	Standard 0 TOXN/NO3		191107A NO	1.
10	06 Nov 2019	17:01	ICV NO3 TOXN		191107A NO	1.
11	06 Nov 2019	17:03	ICB NO2 NO3 TOXN		191107A NO	1.
12	06 Nov 2019	17:05	191106A BLK TOXN		191107A NO	1.
13	06 Nov 2019	17:07	191106A LCS TOXN		191107A NO	1.
14	06 Nov 2019	17:09	191106A LCSD TOXN		191107A NO	1.
18	06 Nov 2019	17:18	BA02466W15 TOXN/NO3		191107A NO	1.
20	06 Nov 2019	17:20	CCV TOXN/NO3		191107A NO	1.
21	06 Nov 2019	17:21	CCB TOXN/NO3		191107A NO	1.

908 North Temperance Ave. ∇ Clovis, CA 93611 ∇ Phone 559-275-2175 ∇ Fax 559-275-4422

Certification Number: CA1312
NELAP Certification number: CA00046
DoD-ELAP Certificate number: 4064.01

Data Validatable Report

December 5, 2019

AECOM
1001 Bishop Street, Suite 1600
Honolulu, Hawaii 96813

Attn: Margie Pascua

Title: Report of Data: Case 90657

Project: 60571032 CV18F0126 Red Hill Fuel Storage. HI

Contract #: Prime contract # for DoD: NAVY CLEAN N62742-17-F-1800, CV18F0126
Subcontract: 18S-22209-HI27

Dear Ms. Pascua:

Two water samples were received November 06, 2019. Written results for the requested analyses are being provided on this December 5, 2019.

Results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

If you have any questions or require further information, please contact your APPL Project Manager, Libby Cheeseborough, libby@applinc.com, at your convenience. Thank you for choosing APPL, Inc.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. These test results meet all requirements of NELAC and DoD QSM. Release of the hard copy has been authorized by the Laboratory Manager or her designee, as verified by the following signature.

Paula McCartney

Paula McCartney, Laboratory Director
APPL, Inc.

PM/lac
Enclosure
cc: File

Data Validation Package
for
60481245 CIV 0053 Red Hill Fuel Storage
APPL SDG 90657
TABLE OF CONTENTS

LABORATORY NAME: *APPL, Inc.*

CASE NARRATIVE

Case Narrative

ARF: 90657

Project: 60571032 CV18F0126 Red Hill Fuel Storage. HI

Sample Receipt Information:

Two water samples were received November 06, 2019, at 2.4°C. The sample group was assigned Analytical Request Form (ARF) number 90657.

Sample Preparation and Analysis Information:

For the EPA 8011 analysis, the samples were extracted according to APPL SOP method MWE012.

For the EPA 8015B analysis, the sample was extracted according to EPA method 3520C. The sample extracts were silica gel cleaned according to APPL's SOP CLN004 and placed on hold.

For the EPA 8270D SIM analysis, the sample was extracted according to EPA method 3520C.

For the EPA 8270D Phenol analysis, the sample was extracted according to EPA method 3520C.

For the APPL SOP ANA2MEE analysis, the sample was extracted according to EPA method 3535.

For the EPA 8260B analysis, the samples were purged according to EPA method 5030B.

For the RSK-175 analysis, the samples were allowed to equilibrate for 10 minutes at 40°C and a portion of the headspace was analyzed.

For the EPA 6010C analysis, the sample was digested according to EPA method 3010A.

For the EPA 9060A, 300.0, 353.2, SM 2320B, SM 4500-SiD and SM 3500FeB analyses, the sample was prepared according to the methods.

Only the portion of the injection log relative to these samples is included. A full sequence log is available upon request. Measurement uncertainty can be reported upon request.

Analytical Exceptions, Deviations and Abnormalities.

EPA 8015B:. Manual integrations were performed in accordance with APPL's SOP. Chromatograms of before and after manual integration are enclosed.
In the 191111A LCS, Oil recovered above the upper control limit. Corrective action: None, Oil was not detected in the associated samples.

EPA 8270D Phenol: One surrogate recovered above the upper control limit in the blank and LCS. Phenol recovered above the upper control limit in the LCSD. Corrective action: None, phenol was not detected in the associated samples.

EPA 8260B: The surrogate 1,2-DCE-d4 recovered above the 118% limit at 119% in the blank

SAMPLE RECORDS MANAGEMENT

CHAIN OF CUSTODY,

ARF, CRF, AND

CLIENT COMMUNICATION

APPL - Analysis Request Form 90657

Client: AECOM
Address: 1001 Bishop Street, Suite 1600
Honolulu, HI 96813
Attn: Margie Pascua
Phone: 808-356-5373 Fax: 808-523-8950
Job: 60571032 CV18F0126 Red Hill Fuel Storage
PO #: 18S-22209-HI27 PO# 102604
Chain of Custody (Y/N): Y # 119
RAD Screen (Y/N): Y pH (Y/N): N
Turn Around Type: 1 WEEK

Received by: ADE
Date Received: 11/06/19 Time: 10:00
Delivered by: FEDEX
Shuttle Custody Seals (Y/N): Y Time Zone: -10
Chest Temp(s): 2.4°C
Color: VFRG/L-PurBrn/SF-BkR
Samples Chilled until Placed in Refrig/Freezer: Y
Project Manager: Libby Cheesebor
QC Report Type: DVP4DOD/EQUIS/HI
Due Date:

Comments:
PM: login and F1s to Margie.Pascua@aecom.com
AN: 7 day TAT for Form 1s; 21 day TAT for PKG STYLE 1; DOD v5.1; DOD Forms: LOD database
Wetlab: Nitrate by EPA 300 and 353.2
8270 SIM: 1-methylnaphthalene, 2-methylnaphthalene & naphthalene only.
TPH D & O both with and w/o SGC, reverse surrogate for the SGC; analyze SGC if detections
RSK: Methane only; 8011: EDB only; $87DC53W5: report phenol ONLY
FR: 2 labeled CDs to Margie AFTER validation; email ftp info to Margie, Stella, trommelfanger@lab-data
EDD: AECOM EQuIS EDD 2.5.3 Red Hill 87DMEE->3535A to Margie.Pascua@aecom.com & jecklund@lab-data.com

Sample Distribution:
GC: 2-$8011, 1-$87DC53W5, 1-$87DMEEW5, 1-$DOC53W5LIQ, 1-$SIM53LIQ51
Extractions: 2-_MWE012, 1-_LIQ003, 1-_LIQ005, 1-_MWE2MEE
VOA: 2-$86BTOTXDCAW, 2-$GASBL, 2-$GRO86BW, 2-$RSKMETH
Metals: 1-$61CDOD5W(Ca,Mg,Mn,K,Na)
Wetlab: 1-$232W(HCO3,CO3,ALK), 1-$300W(BR,CL,F,SO4), 1-$35FE, 1-$35OF(NO3), 1-$DOCW53, 1-$SIO2, 1-$SIO2D, 1-$TOCW53
Other: 1-_M3010

Charges:

Invoice To:
ACCOUNTS PAYABLE
1001 Bishop Street, Ste 1600
USAPImaging@aecom.com
mary.basano@aecom.com

	Client ID	APPL ID	Sampled	Analyses Requested
1.	ERH956	BA02524W LCSD	11/05/19 07:35	$8011, $86BTOTXDCAW, $GASBL, $GRO86BW, $RSKMETH
2.	ERH957	BA02525W LCSD	11/05/19 08:35	$232W(HCO3,CO3,ALK), $300W(BR,CL,F,SO4), $35FE, $35OF(NO3), $61CDOD5W(Ca,Mg,Mn,K,Na), $8011, $86BTOTXDCAW, $87DC53W5, $87DMEEW5, $DOC53W5LIQ, $DOCW53, $GASBL, $GRO86BW, $RSKMETH, $SIM53LIQ51, $SIO2, $SIO2D, $TOCW53 -- see comments

Note: All times, excluding sample collection times, are Pacific Time Zone unless noted otherwise. Collection times are In: -10 UTC

APPL Sample Receipt Form

ARF# **90657**

Sample	Container Type	Count	p
BA02524	[13] VOAs - HCL	4	NA
	[15] VOAs - NP	3	NA
BA02525	[3] PL 250mL	3	NA
	[6] PL 500mL - HNO3	1	1.7
	[10] PL 250mL - H2SO4	1	1.7
	[13] VOAs - HCL	4	NA
	[15] VOAs - NP	3	NA
	[17] Amber Liter	4	NA
	[32] Clear VOA - H2SO4	4	NA
	[38] 250mL brn poly, HCl prsvd	1	1.7
	[40] 500mL Amber, unprsrvd	3	NA

Sample	Container Type	Count	p

90657

APPL LABS

APPL, Inc.
908 N Temperance Ave
Clovis, CA 93611
www.applinc.com

Phone: (559) 275-2175
Fax: (559) 275-4422
coc@applinc.com

CHAIN OF CUSTODY RECORD

C.O.C. 119

Report to: PLEASE PRINT	Invoice to: PLEASE PRINT
Company Name: AECOM Phone: 808-356-5373	Company Name: AECOM Phone: 808-529-7249
Address: 1001 Bishop St, Suite 1600 Honolulu, HI 96813 Fax: 808-523-8950	Address: 1001 Bishop St, Suite 1600 Honolulu, HI 96813 Fax: 808-523-8950
Attn: Margie Pascua	Attn: Mary Basano
Email: margie.pascua@aecom.com	Email: mary.basano@aecom.com; usapimaging@aecom.com

Project Name/Number: CV18F0126 / 60571032
Purchase Order Number: 102604
Sampler (Print): GM, BM, TV
Sampler (Signature): MP for GM, BM, TV

Date Shipped:
Carrier: FedEx
Waybill No.:
Comments:

Sample Identification	Location	Date Collected	Time Collected	Time Zone	No. of Containers	Matrix: Aq	Matrix: Sed.	Matrix: Soil
ERH956	Trip Blank	11/05/19	0735	HST	7	X		
ERH957	RHMW15-02	11/05/19	0835	HST	24	X		

Analysis Requested/Method Number

Sample Identification	8260C BTEX,TPH-g	8260C DCA 8011 EDB	8015C TPH-d/o	3630/8015C TPH-d/o w/ SGT	8270DSIM PAHs short list	8270D Phenol, Flgs Wtr	8270D 2-(2-methoxyethoxy)-ethanol	RSK175M Methane	SM3500-Fe Ferrous Iron	353.2 Nitrate-Nitrite N	SM2320B Alkalinity 300.0 Nitrate,Sulfate,Chloride	300.0 Bromide/Fluoride 3010 Total Ca,Mg,Mn,K,Na SM4500 Total & Dissolved Silica	9060A TOC	RSK 175
ERH956	X	X						X						
ERH957	X	X	X	X*	X	X	X	X	X	X	X	X	X	X

ES 11/05/19

*Analyze TPH w/SGT only if TPH-d/o detected.

TPH-d/o & PAHs need liquid-liquid extraction.

Shuttle Temperature: RI @ for 4 2.0/2.4

Turnaround Requested: Check one
☐ Standard 2-3 wk ☒ One week ☐ 3 days ☐ 24/48 Hrs. ☐ Other:

Sample Disposal:
☐ Return to client ☒ Disposal by Lab (30-day retention)

Relinquished by sampler: AECOM	Date	Time	Received by:	Relinquished by:	Date	Time	Received by:
Estelle BONNY	11/05/19	1330					
Relinquished by:	Date	Time	Received by:	Relinquished by:	Date	Time	Received at lab by:
					11-6-19	1000	

See page 2 for Container Preservative and Sampling Information

COOLER RECEIPT FORM **ARF: 90657**

1) Project: 60571032 CV18F0126 Red Hill Fuel Storage Date Received: 11/06/19

2) Coolers: Number of Coolers: 1

3) YES Were custody seals present and intact?
How many? 2 Name/Date on seal? see below

4) YES Was there a shipping slip? Carrier name: FEDEX

5) Type of packing in cooler: X bubble wrap __ popcorn __ foam X plastic bags __ other
X wet ice __ dry ice __ no ice __ gel ice

6) YES Were cooler temperatures acceptable?

7) Serial number of certified NIST thermometer use R1 @ +0.4°C

8) Cooler temp(s): In °C. Thermometer Temp / Corrected Temp

1: 2.0°C/ 2.4°C	2:	3:	4:	5:	6:
7:	8:	9:	10:	11:	12:

Chain of custody:

9) YES Was a chain of custody received?

10) YES Were the custody papers complete/signed in the appropriate places?

Sample Labels:

11) YES Were all sample labels complete (sample ID, date/time of sampling, etc.)?

12) YES Did all container labels agree with custody papers?

Sample Containers:

13) YES Were all containers sealed in separate bags?

14) YES Did all containers arrive in good condition:(unbroken, no leakage, no cracked/broken lids)?

15) YES Were correct containers and preservatives used for the tests indicated?

16) YES Was a sufficient amount of sample sent for tests indicated?

17) No Were bubbles present in volatile samples?
If yes, the following were received with air bubbles:
Larger than a pea: _____
Smaller than a pea: _____

Preservation Hold time:

18) Yes Was a sufficient amount of holding time remaining to analyze the samples?

19) Yes Was the pH taken of all non-VOA preserved samples and written on the sample container?

20) Yes Was the pH of acid preserved non-VOA samples < 2?

21) NA Was the pH of sodium hydroxide preserved samples for Cyanide > 12 and Sulfide >9?

22) NO Were unpreserved VOA Vials received?

23) NA Are unpreserved VOA vials noted in the ADD TEST FIELD on the ARF?
pH strip lot number: 90b2031
Lab notified if pH was not adequate: _____

Notes/Deficiencies:

USTODY SEAL
AECOM (808) 521-3051
EB Date: 11/05/19

Personnel receiving samples: ZG Second reviewer: AA
Personnel labeling samples: ZG
Project manager notified: ZG Date/Time of notification 11/06/19
Name of client notified: _____ Date/Time of notification _____

SDG	Received	Client ID	APPL ID	Collected DateTime	Matrix	Method	Method Description
90657	11/6/2019	ERH956	BA02524	11/5/2019 7:35:00 AM	WATER	8011	EPA 8011
90657	11/6/2019	ERH956	BA02524	11/5/2019 7:35:00 AM	WATER	EPA 8260B	EPA 8260B BTEX & 1,2-DCA WATER
90657	11/6/2019	ERH956	BA02524	11/5/2019 7:35:00 AM	WATER	EPA 8260-GAS	EPA 8260 with GAS
90657	11/6/2019	ERH956	BA02524	11/5/2019 7:35:00 AM	WATER	EPA 8260B	EPA 8260B GRO WATER
90657	11/6/2019	ERH956	BA02524	11/5/2019 7:35:00 AM	WATER	RSK 175	METHANE BY RSK 175
90657	11/6/2019	ERH957	BA02525	11/5/2019 8:35:00 AM	WATER	SM 2320B	Wetlab 2320B - Water
90657	11/6/2019	ERH957	BA02525	11/5/2019 8:35:00 AM	WATER	EPA 300.0	Wetlab 300.0 - Water
90657	11/6/2019	ERH957	BA02525	11/5/2019 8:35:00 AM	WATER	SM3500FeB	Ferrous Iron
90657	11/6/2019	ERH957	BA02525	11/5/2019 8:35:00 AM	WATER	EPA 353.2	EPA 353.2 - WATER
90657	11/6/2019	ERH957	BA02525	11/5/2019 8:35:00 AM	WATER	6010C/3010A	EPA 6010C TOTAL
90657	11/6/2019	ERH957	BA02525	11/5/2019 8:35:00 AM	WATER	8011	EPA 8011
90657	11/6/2019	ERH957	BA02525	11/5/2019 8:35:00 AM	WATER	EPA 8260B	EPA 8260B BTEX & 1,2-DCA WATER
90657	11/6/2019	ERH957	BA02525	11/5/2019 8:35:00 AM	WATER	EPA 8270D	EPA 8270D WATER
90657	11/6/2019	ERH957	BA02525	11/5/2019 8:35:00 AM	WATER	EPA 8270D	EPA 8270D MODIFIED WATER
90657	11/6/2019	ERH957	BA02525	11/5/2019 8:35:00 AM	WATER	EPA 8015B-eLL	EPA 8015B TPH LIQ-LIQ
90657	11/6/2019	ERH957	BA02525	11/5/2019 8:35:00 AM	WATER	SW846 9060A	9060A DOC
90657	11/6/2019	ERH957	BA02525	11/5/2019 8:35:00 AM	WATER	EPA 8260-GAS	EPA 8260 with GAS
90657	11/6/2019	ERH957	BA02525	11/5/2019 8:35:00 AM	WATER	EPA 8260B	EPA 8260B GRO WATER
90657	11/6/2019	ERH957	BA02525	11/5/2019 8:35:00 AM	WATER	RSK 175	METHANE BY RSK 175
90657	11/6/2019	ERH957	BA02525	11/5/2019 8:35:00 AM	WATER	8270D-SIM	EPA 8270D SIM LIQ-LIQ
90657	11/6/2019	ERH957	BA02525	11/5/2019 8:35:00 AM	WATER	SM 4500-Si D	Silica W
90657	11/6/2019	ERH957	BA02525	11/5/2019 8:35:00 AM	WATER	SM 4500-Si D	SILICA W - DISSOLVED
90657	11/6/2019	ERH957	BA02525	11/5/2019 8:35:00 AM	WATER	SW846 9060A	9060A TOC

APPL Inc.
Abbreviations and Flags

FLAG	DESCRIPTION
#	Recovery or RPD outside control limits
*	Recovery or RPD outside control limits
B	Analyte detected in associated method blank
C1	Reason for correction: wrote incorrect response
C2	Reason for correction: calculated incorrectly
C3	Reason for correction: needs to be rechecked
C4	Reason for correction: data not usable
DO	Diluted out
E	Exceeds linear range
F	Estimated value
G1	Includes a wide range of hydrocarbons which does not match our gasoline standard
G10	Includes a match to hydrocarbon profiles within the range of mineral spirits
G11	Includes a match to hydrocarbon profiles within the range of JP-4
G12	Pattern does not match the gasoline standard; the carbon range for this sample is consistent with JP8
G13	Closely resembles the hydrocarbon profile of aviation gasoline
G14	Analyte concentration may be biased due to carry over
G2	Closely resembles the boiling point hydrocarbon profile consistent with weathered gasoline
G3	Includes higher boiling hydrocarbons
G4	Includes dominant peak(s) not indicative of petroleum hydrocarbons
G5	Is mainly dominant peak(s) not indicative of petroleum hydrocarbons
G6	Contains recognizable contaminant peak(s) which has been removed from quantitation
G7	Is mainly a match to hydrocarbons within the range of gasoline
G8	Closely resembles the boiling point hydrocarbon profile consistent with weathered gasoline
G9	Includes hydrocarbons within the range of kerosene
J	Estimated value
M	Matrix effect
MI1	Manual integration: integration does not follow baseline
MI2	Manual integration: non-target peak interference
MI3	Manual integration: to split a peak that was integrated as one peak by the computer.
MI4	Manual integration: to integrate a split peak
MI5	Manual integration: the whole peak or part of the peak was not integrated
MI6	Manual integration: computer integrated wrong peak
MI7	Manual integration: other – (See case narrative)
MDL	Method detection limit
ND	Not detected
NT	Non-target
Q	Acceptance criteria not met
T1 I	Includes wide range of hydrocarbons not indicative of diesel
T1 M	Is mainly wide range of hydrocarbons not necessarily indicative of diesel
T2 I	Includes lower boiling hydrocarbons, e.g. mineral spirits, kerosene, stoddard solvent, white gas
T2 M	Is mainly lower boiling hydrocarbons, e.g. mineral spirits, kerosene, stoddard solvent, white gas
T3 I	Includes higher boiling hydrocarbons, e.g. asphaltene, waste oil, motor oil, or weathered diesel fuel
T3 M	Is mainly higher boiling hydrocarbons, e.g. asphaltene, waste oil, motor oil, or weathered diesel fuel
T4 I	Includes dominant peak(s) not indicative of hydrocarbons
T4 M	Is mainly dominant peak(s) not indicative of hydrocarbons
T5	Contains recognizable contaminant peak(s) which has been removed from quantitation
T6	Is mainly a match to hydrocarbons within range of diesel fuel
T7	Closely resembles the boiling point hydrocarbon profile consistent with diesel fuel
T8	Includes a match to hydrocarbon profiles within range of diesel and kerosene fuel
T9 I	Includes non-diesel hydrocarbons within boiling point range of diesel fuel
T9 M	Is mainly non-diesel hydrocarbons within boiling point range of diesel fuel
U	Not detected
Y	Percent difference between primary and confirmation column > 40%

SAMPLE RESULTS

EPA 8011

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

Attn: Margie Pascua
Project: 60571032 CV18F0126 Red Hill Fuel Storage
Sample ID: ERH956
Sample Collection Date: 11/05/19

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

ARF: 90657
APPL ID: BA02524
QCG: #8011-191111A-247068

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
8011	EDB	0.019 U	0.02	0.019	0.010	ug/L	11/11/19	11/12/19
8011	SURROGATE: 1,3-DIBROMOPROPANE	104	70-132			%	11/11/19	11/12/19

Quant Method: 8011106A.M
Run #: 1025159
Instrument: Herbie
Sequence: 191025
Dilution Factor: 1
Initials: GAG

Printed: 12/05/19 4:08:46 PM
APPL-F1-SC-NoMC-REG MDLs-DOD

EPA 8011

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

Sample ID: ERH957

Sample Collection Date: 11/05/19

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

ARF: 90657

APPL ID: BA02525

QCG: #8011-191111A-247068

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
8011	EDB	0.019 U	0.02	0.019	0.010	ug/L	11/11/19	11/13/19
8011	SURROGATE: 1,3-DIBROMOPROPANE	109	70-132			%	11/11/19	11/13/19

Quant Method:	8011106A.M
Run #:	1025160
Instrument:	Herbie
Sequence:	191025
Dilution Factor:	1
Initials:	GAG

Printed: 12/05/19 4:08:46 PM

APPL-F1-SC-NoMC-REG MDLs-DOD

EPA 8015B TPH LIQ-LIQ

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 90657

Sample ID: ERH957

APPL ID: BA02525

Sample Collection Date: 11/05/19

QCG: #DOC53-191111A-247690

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8015B-eL	DIESEL (C10-C24)	25.00 U	40.0	25.00	13.07	ug/L	11/11/19	11/21/19
EPA 8015B-eL	OIL (C24-C40)	40.00 U	40.0	40.00	5.54	ug/L	11/11/19	11/21/19
EPA 8015B-eL	SURROGATE: OCTACOSANE (S)	100	60-142			%	11/11/19	11/21/19
EPA 8015B-eL	SURROGATE: ORTHO-TERPHENYL (S)	99.3	56-125			%	11/11/19	11/21/19

Quant Method: DOC1114.M
Run #: 1121028
Instrument: Apollo
Sequence: 191121
Dilution Factor: 1
Initials: LPO

Printed: 11/30/19 6:15:55 AM

APPL-F1-SC-NoMC-REG MDLs-DOD

EPA 8270D SIM LIQ-LIQ

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 90657

Sample ID: ERH957

APPL ID: BA02525

Sample Collection Date: 11/05/19

QCG: #SIM53-191111A-247241

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
8270D-SIM	1-METHYLNAPHTHALENE	0.10 U	0.2	0.10	0.04	ug/L	11/11/19	11/15/19
8270D-SIM	2-METHYLNAPHTHALENE	0.10 U	0.2	0.10	0.04	ug/L	11/11/19	11/15/19
8270D-SIM	NAPHTHALENE	0.10 U	0.2	0.10	0.04	ug/L	11/11/19	11/15/19
8270D-SIM	SURROGATE: 2-METHYLNAPHTHALEN	83.8	39-114			%	11/11/19	11/15/19
8270D-SIM	SURROGATE: FLUORANTHENE-D10 (S	103	58-120			%	11/11/19	11/15/19

Quant Method: L1028.M
Run #: 1115L008
Instrument: Linus
Sequence: L191115
Dilution Factor: 1
Initials: MA

Printed: 11/18/19 11:06:59 AM

APPL-F1-SC-NoMC-REG MDLs-DOD

EPA 8270D WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

Sample ID: ERH957

Sample Collection Date: 11/05/19

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

ARF: 90657

APPL ID: BA02525

QCG: #87DC5-191111A-247901

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8270D	PHENOL	4.00 U	5.0	4.00	1.00	ug/L	11/11/19	11/27/19
EPA 8270D	SURROGATE: 2,4,6-TRIBROMOPHENO	88.4	43-140			%	11/11/19	11/27/19
EPA 8270D	SURROGATE: 2-FLUORBIPHENYL (S)	82.6	44-119			%	11/11/19	11/27/19
EPA 8270D	SURROGATE: 2-FLUOROPHENOL (S)	89.7	19-119			%	11/11/19	11/27/19
EPA 8270D	SURROGATE: NITROBENZENE-D5 (S)	104	44-120			%	11/11/19	11/27/19
EPA 8270D	SURROGATE: PHENOL-D6 (S)	101	10-115			%	11/11/19	11/27/19
EPA 8270D	SURROGATE: TERPHENYL-D14 (S)	98.4	50-134			%	11/11/19	11/27/19

Quant Method: Not detected.M
Run #: 1121Y168
Instrument: Yoda
Sequence: Y191121
Dilution Factor: 1
Initials: MA

Printed: 12/04/19 1:48:24 PM
APPL-F1-SC-NoMC-REG MDLs-DOD

EPA 8270D MODIFIED WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 90657

Sample ID: ERH957

APPL ID: BA02525

Sample Collection Date: 11/05/19

QCG: #87DME-191111A-247177

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8270D	2-(2-METHOXYETHOXY)-ETHANOL	80.0 U	100	80.0	40.0	ug/L	11/11/19	11/13/19

Quant Method:	YMEE1030.M
Run #:	1030L069
Instrument:	Linus
Sequence:	L191030M
Dilution Factor:	1
Initials:	MA

Printed: 11/15/19 1:09:59 PM

APPL-F1-SC-NoMC-REG MDLs-DOD

EPA 8260B BTEX & 1,2-DCA WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

Sample ID: ERH956

Sample Collection Date: 11/05/19

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

ARF: 90657

APPL ID: BA02524

QCG: #86BTO-191107BM-247033

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8260B	1,2-DICHLOROETHANE	0.30 U	1.0	0.30	0.14	ug/L	11/08/19	11/08/19
EPA 8260B	BENZENE	0.30 U	1.0	0.30	0.15	ug/L	11/08/19	11/08/19
EPA 8260B	ETHYLBENZENE	0.50 U	1.0	0.50	0.23	ug/L	11/08/19	11/08/19
EPA 8260B	TOLUENE	0.30 U	1.0	0.30	0.15	ug/L	11/08/19	11/08/19
EPA 8260B	XYLENES (TOTAL)	0.30 U	2.0	0.30	0.15	ug/L	11/08/19	11/08/19
EPA 8260B	SURROGATE: 1,2-DICHLOROETHANE-	97.3	81-118			%	11/08/19	11/08/19
EPA 8260B	SURROGATE: 4-BROMOFLUOROBENZ	106	85-114			%	11/08/19	11/08/19
EPA 8260B	SURROGATE: DIBROMOFLUOROMETH	86.4	80-119			%	11/08/19	11/08/19
EPA 8260B	SURROGATE: TOLUENE-D8 (S)	104	89-112			%	11/08/19	11/08/19

Quant Method: M1106.M
Run #: 1107M39
Instrument: Max
Sequence: M191107
Dilution Factor: 1
Initials: DPO

Printed: 11/12/19 3:07:34 PM
APPL-F1-SC-NoMC-REG MDLs-DOD

EPA 8260B BTEX & 1,2-DCA WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

Sample ID: ERH957

Sample Collection Date: 11/05/19

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

ARF: 90657

APPL ID: BA02525

QCG: #86BTO-191107BM-247033

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8260B	1,2-DICHLOROETHANE	0.30 U	1.0	0.30	0.14	ug/L	11/08/19	11/08/19
EPA 8260B	BENZENE	0.30 U	1.0	0.30	0.15	ug/L	11/08/19	11/08/19
EPA 8260B	ETHYLBENZENE	0.50 U	1.0	0.50	0.23	ug/L	11/08/19	11/08/19
EPA 8260B	TOLUENE	0.30 U	1.0	0.30	0.15	ug/L	11/08/19	11/08/19
EPA 8260B	XYLENES (TOTAL)	0.30 U	2.0	0.30	0.15	ug/L	11/08/19	11/08/19
EPA 8260B	SURROGATE: 1,2-DICHLOROETHANE-	111	81-118			%	11/08/19	11/08/19
EPA 8260B	SURROGATE: 4-BROMOFLUOROBENZ	105	85-114			%	11/08/19	11/08/19
EPA 8260B	SURROGATE: DIBROMOFLUOROMETH	104	80-119			%	11/08/19	11/08/19
EPA 8260B	SURROGATE: TOLUENE-D8 (S)	105	89-112			%	11/08/19	11/08/19

Quant Method: M1106.M
Run #: 1107M40
Instrument: Max
Sequence: M191107
Dilution Factor: 1
Initials: DPO

Printed: 11/12/19 3:07:34 PM
APPL-F1-SC-NoMC-REG MDLs-DOD

EPA 8260B GRO WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

Sample ID: ERH956

Sample Collection Date: 11/05/19

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

ARF: 90657

APPL ID: BA02524

QCG: #GRO86-191107BM-247030

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8260B	GASOLINE RANGE ORGANICS	18.0 U	20	18.0	8.6	ug/L	11/08/19	11/08/19
EPA 8260B	SURROGATE: 4-BROMOFLUOROBENZ	106	85-114			%	11/08/19	11/08/19

Quant Method:	MGAS1107.M
Run #:	1107M39
Instrument:	Max
Sequence:	M191107
Dilution Factor:	1
Initials:	DPO

Printed: 11/12/19 2:49:08 PM
APPL-F1-SC-NoMC-REG MDLs-DOD

EPA 8260B GRO WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

Sample ID: ERH957

Sample Collection Date: 11/05/19

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

ARF: 90657

APPL ID: BA02525

QCG: #GRO86-191107BM-247030

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8260B	GASOLINE RANGE ORGANICS	18.0 U	20	18.0	8.6	ug/L	11/08/19	11/08/19
EPA 8260B	SURROGATE: 4-BROMOFLUOROBENZ	105	85-114			%	11/08/19	11/08/19

Quant Method:	MGAS1107.M
Run #:	1107M40
Instrument:	Max
Sequence:	M191107
Dilution Factor:	1
Initials:	DPO

Printed: 11/12/19 2:49:08 PM
APPL-F1-SC-NoMC-REG MDLs-DOD

METHANE

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

Sample ID: ERH956

Sample Collection Date: 11/05/19

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

ARF: 90657

APPL ID: BA02524

QCG: #RSKME-191112A-247086

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
RSK 175	METHANE	1.00 U	5.0	1.00	0.25	ug/L	11/12/19	11/12/19

Quant Method: RSK1002.M
Run #: 1112R08
Instrument: Rocky
Sequence: 191002
Dilution Factor: 1
Initials: GAG

Printed: 12/05/19 2:46:24 PM
APPL-F1-SC-NoMC-REG MDLs-DOD

METHANE

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

Attn: Margie Pascua
Project: 60571032 CV18F0126 Red Hill Fuel Storage
Sample ID: ERH957
Sample Collection Date: 11/05/19

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

ARF: 90657
APPL ID: BA02525
QCG: #RSKME-191112A-247086

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
RSK 175	METHANE	1.00 U	5.0	1.00	0.25	ug/L	11/12/19	11/12/19

Quant Method:	RSK1002.M
Run #:	1112R09
Instrument:	Rocky
Sequence:	191002
Dilution Factor:	1
Initials:	GAG

Printed: 12/05/19 2:46:24 PM
APPL-F1-SC-NoMC-REG MDLs-DOD

Metals Analysis

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 90657

Sample ID: ERH957

APPL ID: BA02525

Sample Collection Date: 11/05/19

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
6010C/3010A	CALCIUM (CA)	14900	1000	75.0	27.5	ug/L	1	11/08/19	11/19/19
6010C/3010A	MAGNESIUM (MG)	15900	500	30.0	12.9	ug/L	1	11/08/19	11/19/19
6010C/3010A	MANGANESE (MN)	4.00 U	10.0	4.00	1.23	ug/L	1	11/08/19	11/19/19
6010C/3010A	POTASSIUM (K)	2310 J	3000	500.0	220.0	ug/L	1	11/08/19	11/19/19
6010C/3010A	SODIUM (NA)	42600	5000	500.0	111.1	ug/L	1	11/08/19	11/19/19

J = Estimated value.

Printed: 12/05/19 5:23:56 PM

APPL-F1-SC-NoMC-REG MDLs

Wet Lab Analysis

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

Sample ID: ERH957

Sample Collection Date: 11/05/19

APPL ID: BA02525

ARF: 90657

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
EPA 300.0	CHLORIDE	70.4	5.0	1.00	0.40	mg/L	5	11/06/19	11/06/19
EPA 300.0	BROMIDE	0.22 J	0.5	0.16	0.05	mg/L	1	11/06/19	11/06/19
EPA 300.0	FLUORIDE	0.09 U	0.1	0.09	0.08	mg/L	1	11/06/19	11/06/19
EPA 300.0	NITRATE	1.6	0.5	0.18	0.04	mg/L	1	11/06/19	11/06/19
EPA 300.0	SULFATE	10.9	1.0	0.20	0.09	mg/L	1	11/06/19	11/06/19

J = Estimated value.

Printed: 12/09/19 9:58:02 AM

APPL-F1-SC-NoMC-REG MDLs

Wet Lab Analysis

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

Sample ID: ERH957

Sample Collection Date: 11/05/19

APPL ID: BA02525

ARF: 90657

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
EPA 353.2	NITRATE-NITRITE-N	0.41	0.10	0.090	0.028	mg/L	1	11/06/19	11/06/19
SM 2320B	BICARBONATE AS CACO3	52.6	2.0	1.70	0.85	mg/L	1	11/11/19	11/11/19
SM 2320B	CARBONATE AS CACO3	1.70 U	2.0	1.70	0.85	mg/L	1	11/11/19	11/11/19
SM 2320B	TOTAL ALKALINITY AS CACO	52.6	2.0	1.70	0.85	mg/L	1	11/11/19	11/11/19
SM 4500-Si D	SILICA W	44.5	5.0	4.00	2.65	mg/L	5	11/06/19	11/06/19
SM 4500-Si D	DISSOLVED SILICA	41.4	5.0	4.00	2.65	mg/L	5	11/06/19	11/06/19
SM3500FeB	FERROUS IRON	0.32 U	1.0	0.32	0.16	mg/L	1	11/07/19	11/07/19
SW846 9060A	DISSOLVED ORGANIC CARB	0.44 J	0.93	0.350	0.130	mg/L	1	11/14/19	11/14/19
SW846 9060A	TOTAL ORGANIC CARBON	0.29 J	0.93	0.350	0.130	mg/L	1	11/15/19	11/15/19

J = Estimated value.

Printed: 12/06/19 8:33:06 AM

APPL-F1-SC-NoMC-REG MDLs

QC FORMS

8011

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 90657

Case No: 90657 Date Analyzed: 11/12/19

Matrix: WATER Instrument: Herbie

APPL ID.	Client Sample No.	SURROGATE: 1,3-DIBROMOPROPANE (S)					
		Limits	Result	Qualifier	Limits	Result	Qualifier
191111A-BLK	Blank	70-132	107				
191111A-LCS	Lab Control Spike	70-132	100				
191111A-LCSD	Lab Control SpikeD	70-132	101				
BA02524	ERH956	70-132	104				
BA02525	ERH957	70-132	109				

Comments: Batch: #8011-191111A

8011

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 90657

Case No: 90657 Date Analyzed: 11/12/19

Matrix: WATER Instrument: Herbie

Blank ID: 191111A-BLK Time Analyzed: 2209

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191111A-BLK	Blank	1025154	11/12/19 2209
191111A-LCS	Lab Control Spike	1025155	11/12/19 2230
191111A-LCSD	Lab Control SpikeD	1025156	11/12/19 2250
BA02524	ERH956	1025159	11/12/19 2350
BA02525	ERH957	1025160	11/13/19 0010

Comments: Batch: #8011-191111A

Method Blank

EPA 8011

Blank Name/QCG: **191111W-02465 - 247068**
Batch ID: #8011-191111A

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	EDB	0.019 U	0.02	0.019	0.010	ug/L	11/11/19	11/12/19
BLANK	SURROGATE: 1,3-DIBROMOPRO	107	70-132			%	11/11/19	11/12/19

Quant Method: 8011106A.M
Run #: 1025154
Instrument: Herbie
Sequence: 191025
Initials: GAG

GC SC-Blank-REG MDLs-DOD
Printed: 12/05/19 4:08:45 PM

8011

Form 4

LCS Summary

Lab Name: APPL, Inc. SDG No: 90657

Case No: 90657 Date Analyzed: 11/12/19

Matrix: WATER Instrument: Herbie

LCS ID: 191111A-LCS Time Analyzed: 2230

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191111A-BLK	Blank	1025154	11/12/19 2209
191111A-LCS	Lab Control Spike	1025155	11/12/19 2230
191111A-LCSD	Lab Control SpikeD	1025156	11/12/19 2250
BA02524	ERH956	1025159	11/12/19 2350
BA02525	ERH957	1025160	11/13/19 0010

Comments: Batch: #8011-191111A

Laboratory Control Spike Recoveries

EPA 8011

APPL ID: **191111W-02465 LCS - 247068**
Batch ID: #8011-191111A

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Lvl ug/L	SPK Result ug/L	DUP Result ug/L	SPK % Recovery	DUP % Recovery	Recovery Limits	RPD %	RPD Limits
EDB	0.250	0.251	0.247	100	98.8	60-140	1.6	25
SURROGATE: 1,3-DIBROMOPROPANE (	0.250	0.251	0.252	100	101	70-132		

Comments: _____

Primary	SPK	DUP
Quant Method :	8011106A.M	8011106A.M
Extraction Date :	11/11/19	11/11/19
Analysis Date :	11/12/19	11/12/19
Instrument :	Herbie	Herbie
Run :	1025155	1025156
Initials :	GAG	

EPA 8015B-eLL

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 90657

Case No: 90657 Date Analyzed: 11/21/19

Matrix: WATER Instrument: Apollo

APPL ID.	Client Sample No.	SURROGATE: OCTACOSANE (S)			SURROGATE: ORTHO-TERPHENYL (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
191111A-BLK	Blank	60-142	94.9		56-125	100	
191111A-LCS	Lab Control Spike	60-142	84.3		56-125	107	
191111A-LCSD	Lab Control SpikeD	60-142	84.0		56-125	106	
BA02525	ERH957	60-142	100		56-125	99.3	

Comments: Batch: #DOC53-191111A

EPA 8015B-eL

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 90657

Case No: 90657 Date Analyzed: 11/21/19

Matrix: WATER Instrument: Apollo

Blank ID: 191111A-BLK Time Analyzed: 1653

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191111A-BLK	Blank	1121024	11/21/19 1653
191111A-LCS	Lab Control Spike	1121025	11/21/19 1713
191111A-LCSD	Lab Control SpikeD	1121026	11/21/19 1733
BA02525	ERH957	1121028	11/21/19 1813

Comments: Batch: #DOC53-191111A

Method Blank
EPA 8015B TPH LIQ-LIQ

Blank Name/QCG: **191111W-02466 - 247690**
Batch ID: #DOC53-191111A

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	DIESEL (C10-C24)	25.00 U	40.0	25.00	13.07	ug/L	11/11/19	11/21/19
BLANK	OIL (C24-C40)	40.00 U	40.0	40.00	5.54	ug/L	11/11/19	11/21/19
BLANK	SURROGATE: OCTACOSANE (S)	94.9	60-142			%	11/11/19	11/21/19
BLANK	SURROGATE: ORTHO-TERPHEN	100	56-125			%	11/11/19	11/21/19

Quant Method: DOC1114.M
Run #: 1121024
Instrument: Apollo
Sequence: 191121
Initials: LPO

GC SC-Blank-REG MDLs-DOD
Printed: 11/30/19 6:15:54 AM

EPA 8015B-eL

Form 4

LCS Summary

Lab Name: APPL, Inc. SDG No: 90657

Case No: 90657 Date Analyzed: 11/21/19

Matrix: WATER Instrument: Apollo

LCS ID: 191111A-LCS Time Analyzed: 1713

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191111A-BLK	Blank	1121024	11/21/19 1653
191111A-LCS	Lab Control Spike	1121025	11/21/19 1713
191111A-LCSD	Lab Control SpikeD	1121026	11/21/19 1733
BA02525	ERH957	1121028	11/21/19 1813

Comments: Batch: #DOC53-191111A

Printed: 11/30/19 6:16:19 AM
Form 4, LCS Summary

Laboratory Control Spike Recoveries

EPA 8015B TPH LIQ-LIQ

APPL ID: **191111W-02466 LCS - 247690**
Batch ID: #DOC53-191111A

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Lvl ug/L	SPK Result ug/L	DUP Result ug/L	SPK % Recovery	DUP % Recovery	Recovery Limits	RPD %	RPD Limits
DIESEL (C10-C24)	1000	1170	1080	117	108	36-132	8.0	30
OIL (C24-C40)	1000	1200	1220	120 #	122 #	41-113	1.7	30
SURROGATE: OCTACOSANE (S)	75.0	63.2	63.0	84.3	84.0	60-142		
SURROGATE: ORTHO-TERPHENYL (S)	75.0	80.6	79.3	107	106	56-125		

= Recovery is outside QC limits.

Comments:

Primary	SPK	DUP
Quant Method :	DOC1114.M	DOC1114.M
Extraction Date :	11/11/19	11/11/19
Analysis Date :	11/21/19	11/21/19
Instrument :	Apollo	Apollo
Run :	1121025	1121026
Initials :	LPO	

Printed: 11/30/19 6:16:02 AM
APPL Standard LCSD

8270D-SIM

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 90657

Case No: 90657 Date Analyzed: 11/15/19

Matrix: WATER Instrument: Linus

APPL ID.	Client Sample No.	SURROGATE: 2-METHYLNAPHTHALENE-D10 (S)			SURROGATE: FLUORANTHENE-D10 (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
191111A-BLK	Blank	39-114	80.0		58-120	94.5	
191111A-LCS	Lab Control Spike	39-114	85.1		58-120	95.4	
191111A-LCSD	Lab Control SpikeD	39-114	88.8		58-120	101	
BA02525	ERH957	39-114	83.8		58-120	103	

Comments: Batch: #SIM53-191111A

8270D-SIM

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 90657

Case No: 90657 Date Analyzed: 11/15/19

Matrix: WATER Instrument: Linus

Blank ID: 191111A-BLK Time Analyzed: 1657

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191111A-BLK	Blank	1115L004	11/15/19 1657
191111A-LCS	Lab Control Spike	1115L005	11/15/19 1719
191111A-LCSD	Lab Control SpikeD	1115L006	11/15/19 1741
BA02525	ERH957	1115L008	11/15/19 1825

Comments: Batch: #SIM53-191111A

Printed: 11/18/19 11:07:05 AM
Form 4, Blank Summary

Method Blank
EPA 8270D SIM LIQ-LIQ

Blank Name/QCG: **191111W-02466 - 247241**
Batch ID: #SIM53-191111A

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	1-METHYLNAPHTHALENE	0.10 U	0.2	0.10	0.04	ug/L	11/11/19	11/15/19
BLANK	2-METHYLNAPHTHALENE	0.10 U	0.2	0.10	0.04	ug/L	11/11/19	11/15/19
BLANK	NAPHTHALENE	0.10 U	0.2	0.10	0.04	ug/L	11/11/19	11/15/19
BLANK	SURROGATE: 2-METHYLNAPHT	80.0	39-114			%	11/11/19	11/15/19
BLANK	SURROGATE: FLUORANTHENE-	94.5	58-120			%	11/11/19	11/15/19

Quant Method:L1028.M
Run #:1115L004
Instrument:Linus
Sequence:L191115
Initials:MA

GC SC-Blank-REG MDLs-DOD
Printed: 11/18/19 11:06:57 AM

8270D-SIM

Form 4

LCS Summary

Lab Name: APPL, Inc. SDG No: 90657

Case No: 90657 Date Analyzed: 11/15/19

Matrix: WATER Instrument: Linus

LCS ID: 191111A-LCS Time Analyzed: 1719

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191111A-BLK	Blank	1115L004	11/15/19 1657
191111A-LCS	Lab Control Spike	1115L005	11/15/19 1719
191111A-LCSD	Lab Control SpikeD	1115L006	11/15/19 1741
BA02525	ERH957	1115L008	11/15/19 1825

Comments: Batch: #SIM53-191111A

Laboratory Control Spike Recoveries

EPA 8270D SIM LIQ-LIQ

APPL ID: **191111W-02466 LCS - 247241**
Batch ID: #SIM53-191111A

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Lvl ug/L	SPK Result ug/L	DUP Result ug/L	SPK % Recovery	DUP % Recovery	Recovery Limits	RPD %	RPD Limits
1-METHYLNAPHTHALENE	6.25	6.03	6.30	96.5	101	41-115	4.4	20
2-METHYLNAPHTHALENE	6.25	6.14	6.36	98.2	102	39-114	3.5	20
NAPHTHALENE	6.25	6.18	6.44	98.9	103	43-114	4.1	20
SURROGATE: 2-METHYLNAPHTHALEN	6.25	5.32	5.55	85.1	88.8	39-114		
SURROGATE: FLUORANTHENE-D10 (S)	6.25	5.96	6.34	95.4	101	58-120		

Comments: _____

Primary	SPK	DUP
Quant Method :	L1028.M	L1028.M
Extraction Date :	11/11/19	11/11/19
Analysis Date :	11/15/19	11/15/19
Instrument :	Linus	Linus
Run :	1115L005	1115L006
Initials :	MA	

Printed: 11/18/19 11:07:00 AM
APPL Standard LCSD

Form 5
Tune Summary

Lab Name: APPL Inc.
Case No:
Matrix: Water
ID: 1028L002.D

SDG No:
Date Analyzed: 10/28/19
Instrument: Linus
Time Analyzed: 10:20

	Client Sample No.	APPL ID.	File ID.	Date Analyzed
1		5 SIM 10/28/19(2)	1028L004.D	10/28/19 12:26
2		0.1 SIM 10/28/19	1028L005.D	10/28/19 12:51
3		0.2 SIM 10/28/19	1028L006.D	10/28/19 13:13
4		0.5 SIM 10/28/19	1028L007.D	10/28/19 13:35
5		1 SIM 10/28/19	1028L008.D	10/28/19 13:57
6		20 SIM 10/28/19	1028L009.D	10/28/19 14:19
7		50 SIM 10/28/19	1028L010.D	10/28/19 14:42
8		100 SIM 10/28/19	1028L011.D	10/28/19 15:04
9		SS SIM 10/28/19	1028L012.D	10/28/19 15:55
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				

m/e		
51	9.95 - 80.1% of mass 198	44.0
68	0 - 2.05% of mass 69	0.0
70	0 - 2% of mass 69	0.3
127	10 - 80% of mass 198	66.3
197	0 - 2% of mass 198	0.0
198	100 - 100% of mass 198	100.0
199	5 - 9% of mass 198	6.8
275	10 - 60% of mass 198	23.0
365	1 - 100% of mass 198	3.1
441	0.01 - 24% of mass 442	15.5
442	50 - 500% of mass 198	95.8
443	15 - 24% of mass 442	19.6

Form 5
Tune Summary

Lab Name: APPL Inc.
Case No: 90657
Matrix: Water
ID: 1115L002.D

SDG No: 90657
Date Analyzed: 11/15/19
Instrument: Linus
Time Analyzed: 15:42

	Client Sample No.	APPL ID.	File ID.	Date Analyzed
1		5ug/mL SIM 10/28/19	1115L003.D	11/15/19 16:26
2	Blank	191111A BLK 1/800	1115L004.D	11/15/19 16:57
3	Lab Control Spike	191111A LCS-2 1/800	1115L005.D	11/15/19 17:19
4	Lab Control SpikeD	191111A LCSD-2 1/800	1115L006.D	11/15/19 17:41
5	ERH957	BA02525W23 1/800	1115L008.D	11/15/19 18:25
6		5ug/mL SIM 10/28/19	1115L028.D	11/16/19 1:44
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				

m/e		
51	9.95 - 80.1% of mass 198	53.1
68	0 - 2.05% of mass 69	0.0
70	0 - 2% of mass 69	0.5
127	10 - 80% of mass 198	64.8
197	0 - 2% of mass 198	0.0
198	100 - 100% of mass 198	100.0
199	5 - 9% of mass 198	6.6
275	10 - 60% of mass 198	21.8
365	1 - 100% of mass 198	3.3
441	0.01 - 24% of mass 442	17.9
442	50 - 500% of mass 198	73.6
443	15 - 24% of mass 442	20.2

8A
INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: APPL Inc. Contract: _____

Lab Code: _____ SDG No.: _____

Lab File ID (Standard): 1115L003.D Date Analyzed: 11/15/19

Instrument ID: Linus Time Analyzed: 16:26

GC Column: _____ ID: Heated Purge: (Y/N) _____

		Napthalene-D8(IS)		Acenaphthene-D10(IS)		Phenanthrene-D10(IS)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	47408	4.26	19373	6.27	34698	7.98
	UPPER LIMIT	94816	4.43	38746	6.44	69396	8.15
	LOWER LIMIT	23704	4.09	9687	6.10	17349	7.81
	SAMPLE NO.						
01	191111A BLK 1/800	43082	4.27	17760	6.27	32390	7.98
02	191111A LCS-2 1/800	41644	4.27	17380	6.27	31866	7.98
03	191111A LCSD-2 1/800	37842	4.27	15467	6.27	28725	7.98
04	BA02525W23 1/800	41393	4.27	17216	6.27	30499	7.98
05	5ug/mL SIM 10/28/19 (1	46505	4.27	17348	6.27	32880	7.98
06							
07							
08							
09							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = -50% of internal standard area.
RT UPPER LIMIT = +0.17 minutes of internal standard RT
RT LOWER LIMIT = -0.17 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

8A
INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: APPL Inc. Contract: _____

Lab Code: _____ SDG No.: _____

Lab File ID (Standard): 1115L003.D Date Analyzed: 11/15/19

Instrument ID: Linus Time Analyzed: 16:26

GC Column: _____ ID: Heated Purge: (Y/N) _____

		Chrysene-D12(IS)		Perylene-D12(IS)			
		AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	41639	11.10	42127	13.53		
	UPPER LIMIT	83278	11.27	84254	13.70		
	LOWER LIMIT	20820	10.93	21064	13.36		
	SAMPLE NO.						
01	191111A BLK 1/800	37756	11.10	38374	13.53		
02	191111A LCS-2 1/800	37644	11.10	37962	13.53		
03	191111A LCSD-2 1/800	34085	11.10	32663	13.53		
04	BA02525W23 1/800	36083	11.10	37358	13.53		
05	5ug/mL SIM 10/28/19 (1	40911	11.10	40547	13.53		
06							
07							
08							
09							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = -50% of internal standard area.
RT UPPER LIMIT = +0.17 minutes of internal standard RT
RT LOWER LIMIT = -0.17 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

EPA 8270D

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 90657

Case No: 90657 Date Analyzed: 11/27/19

Matrix: WATER Instrument: Yoda

APPL ID.	Client Sample No.	SURROGATE: 2,4,6-TRIBROMOPHENOL (S)			SURROGATE: 2-FLUORBIPHENYL (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
191111A-BLK	Blank	43-140	96.2		44-119	88.1	
191111A-LCS	Lab Control Spike	43-140	99.2		44-119	90.4	
191111A-LCSD	Lab Control SpikeD	43-140	90.0		44-119	81.6	
BA02525	ERH957	43-140	88.4		44-119	82.6	

Comments: Batch: #87DC5-191111A

EPA 8270D

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 90657

Case No: 90657 Date Analyzed: 11/27/19

Matrix: WATER Instrument: Yoda

APPL ID.	Client Sample No.	SURROGATE: 2-FLUOROPHENOL (S)			SURROGATE: NITROBENZENE-D5 (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
191111A-BLK	Blank	19-119	116		44-120	116	
191111A-LCS	Lab Control Spike	19-119	112		44-120	115	
191111A-LCSD	Lab Control SpikeD	19-119	94.0		44-120	102	
BA02525	ERH957	19-119	89.7		44-120	104	

Comments: Batch: #87DC5-191111A

EPA 8270D

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 90657

Case No: 90657 Date Analyzed: 11/27/19

Matrix: WATER Instrument: Yoda

APPL ID.	Client Sample No.	SURROGATE: PHENOL-D6 (S)			SURROGATE: TERPHENYL-D14 (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
191111A-BLK	Blank	10-115	127	#	50-134	109	
191111A-LCS	Lab Control Spike	10-115	128	*	50-134	90.4	
191111A-LCSD	Lab Control SpikeD	10-115	109		50-134	84.0	
BA02525	ERH957	10-115	101		50-134	98.4	

Comments: Batch: #87DC5-191111A

* = Recovery outside of Control Limits on QC Sample.

= Recovery outside of Control Limits on Sample.

EPA 8270D

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 90657

Case No: 90657 Date Analyzed: 11/27/19

Matrix: WATER Instrument: Yoda

Blank ID: 191111A-BLK Time Analyzed: 0129

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191111A-BLK	Blank	1121Y164	11/27/19 0129
191111A-LCS	Lab Control Spike	1121Y165	11/27/19 0157
191111A-LCSD	Lab Control SpikeD	1121Y166	11/27/19 0225
BA02525	ERH957	1121Y168	11/27/19 0321

Comments: Batch: #87DC5-191111A

Printed: 12/04/19 1:48:54 PM
Form 4, Blank Summary

Method Blank
EPA 8270D WATER

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Blank Name/QCG: **191111W-02466 - 247901**
Batch ID: #87DC5-191111A

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	PHENOL	4.00 U	5.0	4.00	1.00	ug/L	11/11/19	11/27/19
BLANK	SURROGATE: 2,4,6-TRIBROMOP	96.2	43-140			%	11/11/19	11/27/19
BLANK	SURROGATE: 2-FLUORBIPHENY	88.1	44-119			%	11/11/19	11/27/19
BLANK	SURROGATE: 2-FLUOROPHENO	116	19-119			%	11/11/19	11/27/19
BLANK	SURROGATE: NITROBENZENE-	116	44-120			%	11/11/19	11/27/19
BLANK	SURROGATE: PHENOL-D6 (S)	127 #	10-115			%	11/11/19	11/27/19
BLANK	SURROGATE: TERPHENYL-D14 (	109	50-134			%	11/11/19	11/27/19

= Recovery (or RPD) is outside QC limits.

Quant Method: Not detected.
Run #: 1121Y164
Instrument: Yoda
Sequence: Y191121
Initials: MA

GC SC-Blank-REG MDLs-DOD
Printed: 12/04/19 1:48:23 PM

EPA 8270D

Form 4

LCS Summary

Lab Name: APPL, Inc. SDG No: 90657

Case No: 90657 Date Analyzed: 11/27/19

Matrix: WATER Instrument: Yoda

LCS ID: 191111A-LCS Time Analyzed: 0157

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191111A-BLK	Blank	1121Y164	11/27/19 0129
191111A-LCS	Lab Control Spike	1121Y165	11/27/19 0157
191111A-LCSD	Lab Control SpikeD	1121Y166	11/27/19 0225
BA02525	ERH957	1121Y168	11/27/19 0321

Comments: Batch: #87DC5-191111A

Printed: 12/04/19 1:48:55 PM
Form 4, LCS Summary

Laboratory Control Spike Recoveries
EPA 8270D WATER

APPL ID: **191111W-02466 LCS - 247901**
Batch ID: #87DC5-191111A

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Lvl ug/L	SPK Result ug/L	DUP Result ug/L	SPK % Recovery	DUP % Recovery	Recovery Limits	RPD %	RPD Limits
PHENOL	62.5	76.8	66.2	123 #	106	10-115	14.8	20
SURROGATE: 2,4,6-TRIBROMOPHENOL	250	248	225	99.2	90.0	43-140		
SURROGATE: 2-FLUORBIPHENYL (S)	125	113	102	90.4	81.6	44-119		
SURROGATE: 2-FLUOROPHENOL (S)	250	281	235	112	94.0	19-119		
SURROGATE: NITROBENZENE-D5 (S)	125	144	127	115	102	44-120		
SURROGATE: PHENOL-D6 (S)	250	321	272	128 #	109	10-115		
SURROGATE: TERPHENYL-D14 (S)	125	113	105	90.4	84.0	50-134		

= Recovery is outside QC limits.

Comments:

Primary	SPK	DUP
Quant Method :	Not detected.M	Not detected.M
Extraction Date :	11/11/19	11/11/19
Analysis Date :	11/27/19	11/27/19
Instrument :	Yoda	Yoda
Run :	1121Y165	1121Y166
Initials :	MA	

Printed: 12/04/19 1:48:33 PM
APPL Standard LCSD

Form 5
Tune Summary

Lab Name: APPL Inc.
Case No:
Matrix: Soil
ID: 1121Y002.D

SDG No:
Date Analyzed: 11/21/19
Instrument: Yoda
Time Analyzed: 13:52

	Client Sample No.	APPL ID.	File ID.	Date Analyzed
1		4ug/ml 8270 11/21/19	1121Y003.D	11/21/19 14:07
2		5ug/ml 8270 11/21/19	1121Y004.D	11/21/19 14:35
3		10ug/ml 8270 11/21/1	1121Y005.D	11/21/19 15:37
4		20ug/ml 8270 11/21/1	1121Y006.D	11/21/19 16:05
5		40ug/ml 8270 11/21/1	1121Y007.D	11/21/19 16:33
6		50ug/ml 8270 11/21/1	1121Y008.D	11/21/19 17:01
7		60ug/ml 8270 11/21/1	1121Y009.D	11/21/19 17:30
8		80ug/ml 8270 11/21/1	1121Y010.D	11/21/19 17:58
9		100ug/ml 8270 11/21/	1121Y011.D	11/21/19 18:26
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				

m/e		
51	9.95 - 80.04% of mass 198	27.9
68	0 - 2% of mass 69	0.0
70	0 - 2% of mass 69	0.7
127	10 - 80% of mass 198	43.6
197	0 - 2% of mass 198	0.0
198	100 - 100% of mass 198	100.0
199	5 - 9% of mass 198	6.9
275	10 - 60% of mass 198	32.2
365	1 - 100% of mass 198	3.9
441	0.01 - 24% of mass 442	16.6
442	50 - 500% of mass 198	139.4
443	15 - 24% of mass 442	19.7

Form 5
Tune Summary

Lab Name: APPL Inc.
Case No:
Matrix: Soil
ID: 1121Y030.D

SDG No:
Date Analyzed: 11/22/19
Instrument: Yoda
Time Analyzed: 13:23

	Client Sample No.	APPL ID.	File ID.	Date Analyzed
1		SS 8270 11/22/19	1121Y031.D	11/22/19 13:38
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				

m/e		
51	9.95 - 80.04% of mass 198	26.5
68	0 - 2% of mass 69	0.0
70	0 - 2% of mass 69	0.4
127	10 - 80% of mass 198	41.9
197	0 - 2% of mass 198	0.0
198	100 - 100% of mass 198	100.0
199	5 - 9% of mass 198	6.7
275	10 - 60% of mass 198	33.3
365	1 - 100% of mass 198	4.2
441	0.01 - 24% of mass 442	16.3
442	50 - 500% of mass 198	154.9
443	15 - 24% of mass 442	19.0

Form 5
Tune Summary

Lab Name: APPL Inc.
Case No: 90657
Matrix: Water
ID: 1121Y148.D

SDG No: 90657
Date Analyzed: 11/26/19
Instrument: Yoda
Time Analyzed: 18:16

	Client Sample No.	APPL ID.	File ID.	Date Analyzed
1		50ug/ml 8270 11/21/1	1121Y154.D	11/26/19 20:50
2	Blank	191111A BLK 1/800	1121Y164.D	11/27/19 1:29
3	Lab Control Spike	191111A LCS-1 1/800	1121Y165.D	11/27/19 1:57
4	Lab Control SpikeD	191111A LCSD-1 1/800	1121Y166.D	11/27/19 2:25
5	ERH957	BA02525W23 1/800	1121Y168.D	11/27/19 3:21
6		50ug/ml 8270 11/21/1	1121Y172.D	11/27/19 5:11
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				

m/e		
51	9.95 - 80.04% of mass 198	30.7
68	0 - 2% of mass 69	0.0
70	0 - 2% of mass 69	0.2
127	10 - 80% of mass 198	45.8
197	0 - 2% of mass 198	0.0
198	100 - 100% of mass 198	100.0
199	5 - 9% of mass 198	7.0
275	10 - 60% of mass 198	30.9
365	1 - 100% of mass 198	3.6
441	0.01 - 24% of mass 442	16.2
442	50 - 500% of mass 198	125.7
443	15 - 24% of mass 442	19.6

8A
INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: APPL Inc. Contract:

Lab Code: SDG No.:

Lab File ID (Standard): 1121Y154.D Date Analyzed: 11/26/19

Instrument ID: Yoda Time Analyzed: 20:50

GC Column: ID: Heated Purge: (Y/N)

		1,4-dichlorobenzene-D4(IS)		Napthalene-D8(IS)		Acenaphthene-D10(IS)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	179473	5.47	719514	6.91	453439	8.93
	UPPER LIMIT	358946	5.64	1439028	7.08	906878	9.10
	LOWER LIMIT	89737	5.30	359757	6.74	226720	8.76
	SAMPLE NO.						
01	191111A BLK 1/800	133788	5.47	594780	6.91	454257	8.93
02	191111A LCS-1 1/800	134054	5.47	567906	6.91	425107	8.93
03	191111A LCSD-1 1/800	154723	5.47	625632	6.91	456389	8.93
04	BA02525W23 1/800	152707	5.47	625933	6.91	457209	8.92
05	50ug/ml 8270 11/21/19 (	184992	5.47	734252	6.91	456477	8.93
06							
07							
08							
09							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = -50% of internal standard area.
RT UPPER LIMIT = +0.17 minutes of internal standard RT
RT LOWER LIMIT = -0.17 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

8A
INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: APPL Inc. Contract: _____

Lab Code: _____ SDG No.: _____

Lab File ID (Standard): 1121Y154.D Date Analyzed: 11/26/19

Instrument ID: Yoda Time Analyzed: 20:50

GC Column: _____ ID: Heated Purge: (Y/N) _____

		Phenanthrene-D10(IS)		Chrysene-D12(IS)		Perylene-D12(IS)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	869953	10.67	1038490	13.76	946185	15.62
	UPPER LIMIT	1739906	10.84	2076980	13.93	1892370	15.79
	LOWER LIMIT	434977	10.50	519245	13.59	473093	15.45
	SAMPLE NO.						
01	191111A BLK 1/800	942208	10.66	873632	13.75	931720	15.61
02	191111A LCS-1 1/800	864030	10.67	985653	13.75	912241	15.62
03	191111A LCSD-1 1/800	901564	10.67	1040400	13.75	954594	15.62
04	BA02525W23 1/800	918219	10.66	893738	13.74	939329	15.62
05	50ug/ml 8270 11/21/19 (	870891	10.67	1025140	13.76	935612	15.62
06							
07							
08							
09							
10							
11							
12							
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14							
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16							
17							
18							
19							
20							
21							
22							

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = -50% of internal standard area.
RT UPPER LIMIT = +0.17 minutes of internal standard RT
RT LOWER LIMIT = -0.17 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

EPA 8270D

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 90657

Case No: 90657 Date Analyzed: 11/13/19

Matrix: WATER Instrument: Linus

Blank ID: 191111A-BLK Time Analyzed: 1621

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191111A-BLK	Blank	1030L065	11/13/19 1621
BA02525	ERH957	1030L069	11/13/19 1735
191111A-LCS	Lab Control Spike	1030L077	11/14/19 1009
191111A-LCSD	Lab Control SpikeD	1030L078	11/14/19 1027

Comments: Batch: #87DME-191111A

Printed: 11/15/19 1:10:03 PM
Form 4, Blank Summary

Method Blank
EPA 8270D MODIFIED WATER

Blank Name/QCG: **191111W-02466 - 247177**
Batch ID: #87DME-191111A

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	2-(2-METHOXYETHOXY)-ETHAN	80.0 U	100	80.0	40.0	ug/L	11/11/19	11/13/19

Quant Method:YMEE1030.M
Run #:1030L065
Instrument:Linus
Sequence:L191030M
Initials:MA

GC SC-Blank-REG MDLs-DOD
Printed: 11/15/19 1:09:58 PM

EPA 8270D

Form 4

LCS Summary

Lab Name: APPL, Inc. SDG No: 90657

Case No: 90657 Date Analyzed: 11/14/19

Matrix: WATER Instrument: Linus

LCS ID: 191111A-LCS Time Analyzed: 1009

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191111A-BLK	Blank	1030L065	11/13/19 1621
BA02525	ERH957	1030L069	11/13/19 1735
191111A-LCS	Lab Control Spike	1030L077	11/14/19 1009
191111A-LCSD	Lab Control SpikeD	1030L078	11/14/19 1027

Comments: Batch: #87DME-191111A

Laboratory Control Spike Recoveries
EPA 8270D MODIFIED WATER

APPL ID: **191111W-02466 LCS - 247177**
Batch ID: #87DME-191111A

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Lvl ug/L	SPK Result ug/L	DUP Result ug/L	SPK % Recovery	DUP % Recovery	Recovery Limits	RPD %	RPD Limits
2-(2-METHOXYETHOXY)-ETHANOL	80.0	87.4	90.4	109	113	30-130	3.4	20

Comments: _____

Primary	SPK	DUP
Quant Method :	YMEE1030.M	YMEE1030.M
Extraction Date :	11/11/19	11/11/19
Analysis Date :	11/14/19	11/14/19
Instrument :	Linus	Linus
Run :	1030L077	1030L078
Initials :	MA	

Printed: 11/15/19 1:10:01 PM
APPL Standard LCSD

Form 5
Tune Summary

Lab Name: APPL Inc.
Case No:
Matrix: Water
ID: 1030L002.D

SDG No:
Date Analyzed: 10/31/19
Instrument: Linus
Time Analyzed: 9:39

	Client Sample No.	APPL ID.	File ID.	Date Analyzed
1		50 2MEE 4/30/19	1030L004.D	10/31/19 11:50
2		100 2MEE 4/30/19	1030L005.D	10/31/19 12:10
3		200 2MEE 4/30/19	1030L006.D	10/31/19 12:29
4		500 2MEE 4/30/19	1030L008.D	10/31/19 13:07
5		600 2MEE 4/30/19	1030L009.D	10/31/19 13:25
6		800 2MEE 4/30/19	1030L010.D	10/31/19 13:43
7		1000 2MEE 4/30/19	1030L011.D	10/31/19 14:02
8				
9				
10				
11				
12				
14				
15				
16				
17				
18				
19				
20				
21				
22				

m/e		
51	9.95 - 80.04% of mass 198	47.5
68	0 - 2.04% of mass 69	0.0
70	0 - 2.04% of mass 69	0.6
127	10 - 80% of mass 198	64.9
197	0 - 2% of mass 198	0.0
198	100 - 100% of mass 198.1	100.0
199	5 - 9% of mass 198	6.2
275	10 - 60% of mass 198	21.7
365	1 - 100% of mass 198	3.2
441	0.01 - 24% of mass 442	14.5
442	50 - 500% of mass 198.1	95.4
443	15 - 24% of mass 442	18.6

Form 5

Form 5
Tune Summary

Lab Name: APPL Inc.
Case No:
Matrix: Water
ID: 1030L014.D

SDG No:
Date Analyzed: 11/01/19
Instrument: Linus
Time Analyzed: 15:17

	Client Sample No.	APPL ID.	File ID.	Date Analyzed
1		SS 2MEE 11/1/19	1030L016.D	11/01/19 17:11
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				

m/e		
51	9.95 - 80.04% of mass 198	50.2
68	0 - 2.04% of mass 69	0.0
70	0 - 2.04% of mass 69	0.7
127	10 - 80% of mass 198	65.2
197	0 - 2% of mass 198	0.0
198	100 - 100% of mass 198	100.0
199	5 - 9% of mass 198	7.0
275	10 - 60% of mass 198	22.3
365	1 - 100% of mass 198	3.1
441	0.01 - 24% of mass 442	18.5
442	50 - 500% of mass 198	81.1
443	15 - 24% of mass 442	19.7

Form 5
Tune Summary

Lab Name: APPL Inc.
Case No: 90657
Matrix: Water
ID: 1030L062.D

SDG No: 90657
Date Analyzed: 11/13/19
Instrument: Linus
Time Analyzed: 14:33

	Client Sample No.	APPL ID.	File ID.	Date Analyzed
1		500 2MEE 4/30/19	1030L063.D	11/13/19 15:30
2	Blank	191111A BLK 2/500	1030L065.D	11/13/19 16:21
3	ERH957	BA02525W19 2/500	1030L069.D	11/13/19 17:35
4		500 2MEE 4/30/19	1030L074.D	11/13/19 19:07
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				

m/e		
51	9.95 - 80.04% of mass 198	45.9
68	0 - 2.04% of mass 69	0.0
70	0 - 2.04% of mass 69	0.7
127	10 - 80% of mass 198	61.9
197	0 - 2% of mass 198	0.0
198	100 - 100% of mass 198	100.0
199	5 - 9% of mass 198	6.6
275	10 - 60% of mass 198	22.0
365	1 - 100% of mass 198	3.1
441	0.01 - 24% of mass 442	16.9
442	50 - 500% of mass 198	82.0
443	15 - 24% of mass 442	19.1

Form 5
Tune Summary

Lab Name: APPL Inc.
Case No:
Matrix: Water
ID: 1030L075.D

SDG No:
Date Analyzed: 11/14/19
Instrument: Linus
Time Analyzed: 9:32

	Client Sample No.	APPL ID.	File ID.	Date Analyzed
1		500 2MEE 4/30/19	1030L076.D	11/14/19 9:48
2	Lab Control Spike	191111A LCS-1 2/500	1030L077.D	11/14/19 10:09
3	Lab Control SpikeD	191111A LCSD-1 2/500	1030L078.D	11/14/19 10:27
4		500 2MEE 4/30/19	1030L079.D	11/14/19 10:46
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				

m/e		
51	9.95 - 80.04% of mass 198	56.2
68	0 - 2.04% of mass 69	0.0
70	0 - 2.04% of mass 69	0.5
127	10 - 80% of mass 198	66.8
197	0 - 2% of mass 198	0.0
198	100 - 100% of mass 198	100.0
199	5 - 9% of mass 198	6.8
275	10 - 60% of mass 198	22.3
365	1 - 100% of mass 198	3.0
441	0.01 - 24% of mass 442	16.1
442	50 - 500% of mass 198	78.3
443	15 - 24% of mass 442	19.2

8A
INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: APPL Inc. Contract: _____

Lab Code: _____ SDG No.: _____

Lab File ID (Standard): 1030L063.D Date Analyzed: 11/13/19

Instrument ID: Linus Time Analyzed: 15:30

GC Column: _____ ID: Heated Purge: (Y/N) _____

	1,4-dichlorobenzene-D4(IS)		Napthalene-D8(IS)		Acenaphthene-D10(IS)	
	AREA #	RT #	AREA #	RT #	AREA #	RT #
12 HOUR STD	842982	3.67	4206280	4.62	2023920	6.01
UPPER LIMIT	1685964	3.84	8412560	4.79	4047840	6.18
LOWER LIMIT	421491	3.50	2103140	4.45	1011960	5.84
SAMPLE NO.						
01 191111A BLK 2/500	670685	3.66	2651750	4.62	1349830	6.01
02 BA02525W19 2/500	680770	3.66	2504780	4.61	1425950	6.01
03 500 2MEE 4/30/19	851144	3.66	4152420	4.61	2141060	6.01
04						
05						
06						
07						
08						
09						
10						
11						
12						
13						
14						
15						
16						
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18						
19						
20						
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22						

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = -50% of internal standard area.
RT UPPER LIMIT = +0.17 minutes of internal standard RT
RT LOWER LIMIT = -0.17 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

8A
INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: APPL Inc. Contract: _____

Lab Code: _____ SDG No.: _____

Lab File ID (Standard): 1030L063.D Date Analyzed: 11/13/19

Instrument ID: Linus Time Analyzed: 15:30

GC Column: _____ ID: Heated Purge: (Y/N) _____

		Phenanthrene-D10(IS)		Chrysene-D12(IS)		Perylene-D12(IS)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	3817620	7.22	3523260	9.41	3518020	10.62
	UPPER LIMIT	7635240	7.39	7046520	9.58	7036040	10.79
	LOWER LIMIT	1908810	7.05	1761630	9.24	1759010	10.45
	SAMPLE NO.						
01	191111A BLK 2/500	2568680	7.22	1874030	9.39	1925340	10.58
02	BA02525W19 2/500	2537660	7.22	1777500	9.39	1972690	10.57
03	500 2MEE 4/30/19	3885960	7.22	3430660	9.38	3542620	10.56
04							
05							
06							
07							
08							
09							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = -50% of internal standard area.
RT UPPER LIMIT = +0.17 minutes of internal standard RT
RT LOWER LIMIT = -0.17 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

8A
INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: APPL Inc. Contract: _____

Lab Code: _____ SDG No.: _____

Lab File ID (Standard): 1030L076.D Date Analyzed: 11/14/19

Instrument ID: Linus Time Analyzed: 9:48

GC Column: _____ ID: Heated Purge: (Y/N) _____

	1,4-dichlorobenzene-D4(IS)		Napthalene-D8(IS)		Acenaphthene-D10(IS)	
	AREA #	RT #	AREA #	RT #	AREA #	RT #
12 HOUR STD	613947	3.66	3527580	4.61	1898690	6.01
UPPER LIMIT	1227894	3.83	7055160	4.78	3797380	6.18
LOWER LIMIT	306974	3.49	1763790	4.44	949345	5.84
SAMPLE NO.						
01 191111A LCS-1 2/500	585581	3.66	2515560	4.61	1292550	6.01
02 191111A LCSD-1 2/500	553463	3.66	2363890	4.61	1415380	6.01
03 500 2MEE 4/30/19	594041	3.66	3382470	4.61	1914430	6.01
04						
05						
06						
07						
08						
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21						
22						

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = -50% of internal standard area.
RT UPPER LIMIT = +0.17 minutes of internal standard RT
RT LOWER LIMIT = -0.17 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

8A
INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: APPL Inc. Contract: _____

Lab Code: _____ SDG No.: _____

Lab File ID (Standard): 1030L076.D Date Analyzed: 11/14/19

Instrument ID: Linus Time Analyzed: 9:48

GC Column: _____ ID: Heated Purge: (Y/N) _____

		Phenanthrene-D10(IS)		Chrysene-D12(IS)		Perylene-D12(IS)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	3181700	7.21	2583690	9.39	2808490	10.60
	UPPER LIMIT	6363400	7.38	5167380	9.56	5616980	10.77
	LOWER LIMIT	1590850	7.04	1291845	9.22	1404245	10.43
	SAMPLE NO.						
01	191111A LCS-1 2/500	2266880	7.21	1700280	9.39	1846710	10.59
02	191111A LCSD-1 2/500	2408570	7.21	1766990	9.38	2006250	10.57
03	500 2MEE 4/30/19	3204830	7.22	2739210	9.40	2639200	10.60
04							
05							
06							
07							
08							
09							
10							
11							
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13							
14							
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16							
17							
18							
19							
20							
21							
22							

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = -50% of internal standard area.
RT UPPER LIMIT = +0.17 minutes of internal standard RT
RT LOWER LIMIT = -0.17 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

EPA 8260B

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 90657

Case No: 90657 Date Analyzed: 11/08/19

Matrix: WATER Instrument: Max

APPL ID.	Client Sample No.	SURROGATE: 1,2-DICHLOROETHANE-D4 (S)			SURROGATE: 4-BROMOFLUOROBENZENE (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
191107BM-LCS	Lab Control Spike	81-118	118		85-114	112	
191107BM-LCSD	Lab Control SpikeD	81-118	109		85-114	106	
191107BM-BLK	Blank	81-118	119	#	85-114	107	
BA02524	ERH956	81-118	97.3		85-114	106	
BA02525	ERH957	81-118	111		85-114	105	

Comments: Batch: #86BTO-191107BM

= Recovery outside of Control Limits on Sample.

EPA 8260B

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 90657

Case No: 90657 Date Analyzed: 11/08/19

Matrix: WATER Instrument: Max

APPL ID.	Client Sample No.	SURROGATE: DIBROMOFLUOROMETHANE (S)			SURROGATE: TOLUENE-D8 (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
191107BM-LCS	Lab Control Spike	80-119	114		89-112	111	
191107BM-LCSD	Lab Control SpikeD	80-119	108		89-112	107	
191107BM-BLK	Blank	80-119	91.2		89-112	107	
BA02524	ERH956	80-119	86.4		89-112	104	
BA02525	ERH957	80-119	104		89-112	105	

Comments: Batch: #86BTO-191107BM

EPA 8260B

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 90657

Case No: 90657 Date Analyzed: 11/08/19

Matrix: WATER Instrument: Max

Blank ID: 191107BM-BLK Time Analyzed: 0722

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191107BM-LCS	Lab Control Spike	1107M30	11/08/19 0458
191107BM-LCSD	Lab Control SpikeD	1107M31	11/08/19 0527
191107BM-BLK	Blank	1107M35	11/08/19 0722
BA02524	ERH956	1107M39	11/08/19 0917
BA02525	ERH957	1107M40	11/08/19 0946

Comments: Batch: #86BTO-191107BM

Method Blank

EPA 8260B BTEX & 1,2-DCA WATER

Blank Name/QCG: **191107W-02465 - 247033**

Batch ID: #86BTO-191107BM

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	1,2-DICHLOROETHANE	0.30 U	1.0	0.30	0.14	ug/L	11/08/19	11/08/19
BLANK	BENZENE	0.30 U	1.0	0.30	0.15	ug/L	11/08/19	11/08/19
BLANK	ETHYLBENZENE	0.50 U	1.0	0.50	0.23	ug/L	11/08/19	11/08/19
BLANK	TOLUENE	0.30 U	1.0	0.30	0.15	ug/L	11/08/19	11/08/19
BLANK	XYLENES (TOTAL)	0.30 U	2.0	0.30	0.15	ug/L	11/08/19	11/08/19
BLANK	SURROGATE: 1,2-DICHLOROET	119 #	81-118			%	11/08/19	11/08/19
BLANK	SURROGATE: 4-BROMOFLUORO	107	85-114			%	11/08/19	11/08/19
BLANK	SURROGATE: DIBROMOFLUOR	91.2	80-119			%	11/08/19	11/08/19
BLANK	SURROGATE: TOLUENE-D8 (S)	107	89-112			%	11/08/19	11/08/19

= Recovery (or RPD) is outside QC limits.

Quant Method: M1106.M
Run #: 1107M35
Instrument: Max
Sequence: M191107
Initials: DPO

GC SC-Blank-REG MDLs-DOD
Printed: 11/12/19 3:07:41 PM

EPA 8260B

Form 4

LCS Summary

Lab Name: APPL, Inc. SDG No: 90657

Case No: 90657 Date Analyzed: 11/08/19

Matrix: WATER Instrument: Max

LCS ID: 191107BM-LCS Time Analyzed: 0458

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191107BM-LCS	Lab Control Spike	1107M30	11/08/19 0458
191107BM-LCSD	Lab Control SpikeD	1107M31	11/08/19 0527
191107BM-BLK	Blank	1107M35	11/08/19 0722
BA02524	ERH956	1107M39	11/08/19 0917
BA02525	ERH957	1107M40	11/08/19 0946

Comments: Batch: #86BTO-191107BM

Printed: 11/12/19 3:07:35 PM
Form 4, LCS Summary

Laboratory Control Spike Recoveries

EPA 8260B BTEX & 1,2-DCA WATER

APPL ID: **191108W-02465 LCS - 247033**
Batch ID: #86BTO-191107BM

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Lvl ug/L	SPK Result ug/L	DUP Result ug/L	SPK % Recovery	DUP % Recovery	Recovery Limits	RPD %	RPD Limits
1,2-DICHLOROETHANE	10.00	10.4	10.4	104	104	73-128	0.0	20
BENZENE	10.00	10.5	10.4	105	104	79-120	0.96	20
ETHYLBENZENE	10.00	10.7	10.7	107	107	79-121	0.0	20
TOLUENE	10.00	9.65	10.1	96.5	101	80-121	4.6	20
XYLENES (TOTAL)	30.0	32.1	32.6	107	109	79-121	1.5	20
SURROGATE: 1,2-DICHLOROETHANE-D	25.0	29.6	27.2	118	109	81-118		
SURROGATE: 4-BROMOFLUOROBENZE	25.0	28.1	26.5	112	106	85-114		
SURROGATE: DIBROMOFLUOROMETH	25.0	28.5	27.1	114	108	80-119		
SURROGATE: TOLUENE-D8 (S)	25.0	27.8	26.8	111	107	89-112		

Comments:

Primary	SPK	DUP
Quant Method :	M1106.M	M1106.M
Extraction Date :	11/08/19	11/08/19
Analysis Date :	11/08/19	11/08/19
Instrument :	Max	Max
Run :	1107M30	1107M31
Initials :	DPO	

Printed: 11/12/19 3:07:38 PM
APPL Standard LCSD

Form 5
Tune Summary

Lab Name: APPL Inc.
Case No: 90657
Matrix: Water
ID: 1106M03.D

SDG No: 90657
Date Analyzed: 11/06/19
Instrument: Max
Time Analyzed: 9:06

	Client Sample No.	APPL ID.	File ID.	Date Analyzed
1		0.3ug/L VOC STD 11/0	1106M06.D	11/06/19 10:45
2		0.5ug/L VOC STD 11/0	1106M07.D	11/06/19 11:13
3		1.0ug/L VOC STD 11/0	1106M08.D	11/06/19 11:42
4		2.0ug/L VOC STD 11/0	1106M09.D	11/06/19 12:11
5		5.0ug/L VOC STD 11/0	1106M10.D	11/06/19 12:40
6		10ug/L VOC STD 11/06	1106M11.D	11/06/19 13:08
7		20ug/L VOC STD 11/06	1106M12.D	11/06/19 13:37
8		40ug/L VOC STD 11/06	1106M13.D	11/06/19 14:06
9		100ug/L VOC STD 11/0	1106M14.D	11/06/19 14:35
10		(SS)10ug/L VOC STD 1	1106M16.D	11/06/19 15:33
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				

m/e		
50	15.0 - 40.0% of mass 95	15.4
75	30.0 - 60.0% of mas 95	45.7
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	5.6
173	Less than 2.0% of mass 174	1.0
174	50.0 - 200.0% of mass 95	134.2
175	5.0 - 9.0% of mass 174	7.2
176	95.0 - 101.0% of mass 174	97.9
177	5.0 - 9.0% of mass 176	6.3

Form 5
Tune Summary

Lab Name: APPL Inc.
Case No: 90657
Matrix: Water
ID: 1107M28.D

SDG No: 90657
Date Analyzed: 11/08/19
Instrument: Max
Time Analyzed: 4:01

	Client Sample No.	APPL ID.	File ID.	Date Analyzed
1		191107B CCV 10ug/L	1107M29.D	11/08/19 4:30
2	Lab Control Spike	191107B LCS 10ug/L	1107M30.D	11/08/19 4:58
3	Lab Control SpikeD	191107B LCSD 10ug/L	1107M31.D	11/08/19 5:27
4	Blank	191107B Blk	1107M35.D	11/08/19 7:22
5	ERH956	BA02524W01	1107M39.D	11/08/19 9:17
6	ERH957	BA02525W01	1107M40.D	11/08/19 9:46
7		Ending CCV 10ug/L 11	1107M42.D	11/08/19 10:44
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				

m/e		
50	15.0 - 40.0% of mass 95	15.6
75	30.0 - 60.0% of mas 95	46.5
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.6
173	Less than 2.0% of mass 174	0.0
174	50.0 - 200.0% of mass 95	125.6
175	5.0 - 9.0% of mass 174	7.9
176	95.0 - 101.0% of mass 174	99.3
177	5.0 - 9.0% of mass 176	6.5

8A
INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: APPL Inc. Contract: _____

Lab Code: _____ SDG No.: _____

Lab File ID (Standard): 1106M11.D Date Analyzed: 6 Nov 19 13:08

Instrument ID: Max Time Analyzed: 6 Nov 19 13:08

GC Column: _____ ID: Heated Purge: (Y/N) _____

		Fluorobenzene (IS)		Chlorobenzene-D5 (IS)		1,4-Dichlorobenzene-D (IS)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	1472900	5.73	1197770	8.97	729197	11.30
	UPPER LIMIT	2945800	5.90	2395540	9.14	1458394	11.47
	LOWER LIMIT	736450	5.56	598885	8.80	364599	11.13
	SAMPLE NO.						
01	(SS)10ug/L VOC STD 1	1430110	5.73	1166430	8.97	706816	11.30
02							
03							
04							
05							
06							
07							
08							
09							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = -50% of internal standard area.
RT UPPER LIMIT = +0.17 minutes of internal standard RT
RT LOWER LIMIT = -0.17 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

8A
INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: APPL Inc. Contract: _____

Lab Code: _____ SDG No.: _____

Lab File ID (Standard): 1107M29.D Date Analyzed: 8 Nov 19 4:30

Instrument ID: Max Time Analyzed: 8 Nov 19 4:30

GC Column: _____ ID: Heated Purge: (Y/N) _____

		Fluorobenzene (IS)		Chlorobenzene-D5 (IS)		1,4-Dichlorobenzene-D (IS)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	1290670	5.72	1031930	8.97	665296	11.30
	UPPER LIMIT	2581340	5.89	2063860	9.14	1330592	11.47
	LOWER LIMIT	645335	5.55	515965	8.80	332648	11.13
	SAMPLE NO.						
01	191107B LCS 10ug/L	1345750	5.73	1073890	8.97	684131	11.30
02	191107B LCSD 10ug/L	1321430	5.72	1062190	8.97	671732	11.30
03	191107B Blk	1349100	5.72	1091130	8.98	672344	11.30
04	BA02524W01	1354370	5.72	1086860	8.97	676066	11.30
05	BA02525W01	1345390	5.72	1085250	8.97	676722	11.30
06	Ending CCV 10ug/L 11/7	1358060	5.73	1100050	8.97	706713	11.30
07							
08							
09							
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17							
18							
19							
20							
21							
22							

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = -50% of internal standard area.
RT UPPER LIMIT = +0.17 minutes of internal standard RT
RT LOWER LIMIT = -0.17 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

EPA 8260B

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 90657

Case No: 90657 Date Analyzed: 11/08/19

Matrix: WATER Instrument: Max

APPL ID.	Client Sample No.	SURROGATE: 4-BROMOFLUOROBENZENE (S)					
		Limits	Result	Qualifier	Limits	Result	Qualifier
191107BM-LCS	Lab Control Spike	85-114	104				
191107BM-LCSD	Lab Control SpikeD	85-114	107				
191107BM-BLK	Blank	85-114	107				
BA02524	ERH956	85-114	106				
BA02525	ERH957	85-114	105				

Comments: Batch: #GRO86-191107BM

EPA 8260B

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 90657

Case No: 90657 Date Analyzed: 11/08/19

Matrix: WATER Instrument: Max

Blank ID: 191107BM-BLK Time Analyzed: 0722

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191107BM-LCS	Lab Control Spike	1107M33	11/08/19 0625
191107BM-LCSD	Lab Control SpikeD	1107M34	11/08/19 0653
191107BM-BLK	Blank	1107M35	11/08/19 0722
BA02524	ERH956	1107M39	11/08/19 0917
BA02525	ERH957	1107M40	11/08/19 0946

Comments: Batch: #GRO86-191107BM

Printed: 11/12/19 2:49:11 PM
Form 4, Blank Summary

Method Blank

EPA 8260B GRO WATER

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Blank Name/QCG: **191107W-02465 - 247030**
Batch ID: #GRO86-191107BM

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	GASOLINE RANGE ORGANICS	18.0 U	20	18.0	8.6	ug/L	11/08/19	11/08/19
BLANK	SURROGATE: 4-BROMOFLUORO	107	85-114			%	11/08/19	11/08/19

Quant Method: MGAS1107.M
Run #: 1107M35
Instrument: Max
Sequence: M191107
Initials: DPO

GC SC-Blank-REG MDLs-DOD
Printed: 11/12/19 2:49:15 PM

EPA 8260B

Form 4

LCS Summary

Lab Name: APPL, Inc. SDG No: 90657

Case No: 90657 Date Analyzed: 11/08/19

Matrix: WATER Instrument: Max

LCS ID: 191107BM-LCS Time Analyzed: 0625

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191107BM-LCS	Lab Control Spike	1107M33	11/08/19 0625
191107BM-LCSD	Lab Control SpikeD	1107M34	11/08/19 0653
191107BM-BLK	Blank	1107M35	11/08/19 0722
BA02524	ERH956	1107M39	11/08/19 0917
BA02525	ERH957	1107M40	11/08/19 0946

Comments: Batch: #GRO86-191107BM

Printed: 11/12/19 2:49:09 PM
Form 4, LCS Summary

Laboratory Control Spike Recoveries

EPA 8260B GRO WATER

APPL ID: **191108W-02465 LCS - 247030**
Batch ID: #GRO86-191107BM

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Lvl ug/L	SPK Result ug/L	DUP Result ug/L	SPK % Recovery	DUP % Recovery	Recovery Limits	RPD %	RPD Limits
GASOLINE RANGE ORGANICS	300	290	257	96.7	85.7	78-122	12.1	20
SURROGATE: 4-BROMOFLUOROBENZE	25.0	25.9	26.8	104	107	85-114		

Comments: _____

Primary	SPK	DUP
Quant Method :	MGAS1107.M	MGAS1107.M
Extraction Date :	11/08/19	11/08/19
Analysis Date :	11/08/19	11/08/19
Instrument :	Max	Max
Run :	1107M33	1107M34
Initials :	DPO	

RSK 175

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 90657

Case No: 90657 Date Analyzed: 11/12/19

Matrix: WATER Instrument: Rocky

Blank ID: 191112A-BLK Time Analyzed: 1748

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191112A-LCS	Lab Control Spike	1112R03	11/12/19 1745
191112A-BLK	Blank	1112R04	11/12/19 1748
BA02524	ERH956	1112R08	11/12/19 1813
BA02525	ERH957	1112R09	11/12/19 1819
191112A-LCSD	Lab Control SpikeD	1112R10	11/12/19 1823

Comments: Batch: #RSKME-191112A

Printed: 12/05/19 2:46:48 PM
Form 4, Blank Summary

Method Blank
METHANE

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Blank Name/QCG: **191112W-02524 - 247086**
Batch ID: #RSKME-191112A

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	METHANE	1.00 U	5.0	1.00	0.25	ug/L	11/12/19	11/12/19

Quant Method: RSK1002.M
Run #: 1112R04
Instrument: Rocky
Sequence: 191002
Initials: GAG

GC SC-Blank-REG MDLs-DOD
Printed: 12/05/19 2:46:23 PM

RSK 175

Form 4

LCS Summary

Lab Name: APPL, Inc. SDG No: 90657

Case No: 90657 Date Analyzed: 11/12/19

Matrix: WATER Instrument: Rocky

LCS ID: 191112A-LCS Time Analyzed: 1745

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191112A-LCS	Lab Control Spike	1112R03	11/12/19 1745
191112A-BLK	Blank	1112R04	11/12/19 1748
BA02524	ERH956	1112R08	11/12/19 1813
BA02525	ERH957	1112R09	11/12/19 1819
191112A-LCSD	Lab Control SpikeD	1112R10	11/12/19 1823

Comments: Batch: #RSKME-191112A

Laboratory Control Spike Recoveries

METHANE

APPL ID: **191112W-02524 LCS - 247086**
Batch ID: #RSKME-191112A

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Lvl ug/L	SPK Result ug/L	DUP Result ug/L	SPK % Recovery	DUP % Recovery	Recovery Limits	RPD %	RPD Limits
METHANE	83.4	93.4	70.5	112	84.5	72-125	27.9	30

Comments:

Primary	SPK	DUP
Quant Method :	RSK1002.M	RSK1002.M
Extraction Date :	11/12/19	11/12/19
Analysis Date :	11/12/19	11/12/19
Instrument :	Rocky	Rocky
Run :	1112R03	1112R10
Initials :	GAG	

METALS BLANK

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Method	Analyte	Result	LOQ	LOD	DL	Units	Prep Date	Analysis Date	QC Group
6010C	CALCIUM (CA)	40.0 J	1000	75.0	27.5	ug/L	11/08/19	11/19/19	#61CDO-B191108-BA02525
6010C	MAGNESIUM (MG)	20.3 J	500	30.0	12.9	ug/L	11/08/19	11/19/19	#61CDO-B191108-BA02525
6010C	MANGANESE (MN)	4.00 U	10.0	4.00	1.23	ug/L	11/08/19	11/19/19	#61CDO-B191108-BA02525
6010C	POTASSIUM (K)	500.0 U	3000	500.0	220.0	ug/L	11/08/19	11/19/19	#61CDO-B191108-BA02525
6010C	SODIUM (NA)	500.0 U	5000	500.0	111.1	ug/L	11/08/19	11/19/19	#61CDO-B191108-BA02525

J = Estimated value.

Metals SC-Blank-REG MDLs
Printed: 12/05/19 5:23:32 PM

Laboratory Control Spike Recoveries

METALS

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Method	Compound Name	Spike Lvl ug/L	SPK Res ug/L	DUP Res ug/L	SPK % Recov	DUP % Recov	RPD	RPD Max	QC Limits	Extract Date-Spk	Analysis Date-Spk	Extract Date-Dup	Analysis Date-Dup	QC Group
EPA 6010C	CALCIUM (CA)	25000	25800	25500	103	102	1.2	20	87-113	11/08/19	11/19/19	11/08/19	11/19/19	#61CDO-B191108-BA0252
EPA 6010C	MAGNESIUM (MG)	25000	25600	25500	102	102	0.4	20	85-113	11/08/19	11/19/19	11/08/19	11/19/19	#61CDO-B191108-BA0252
EPA 6010C	MANGANESE (MN)	250	258	255	103	102	1.2	20	90-114	11/08/19	11/19/19	11/08/19	11/19/19	#61CDO-B191108-BA0252
EPA 6010C	POTASSIUM (K)	5000	4960	5040	99.2	101	1.6	20	86-114	11/08/19	11/19/19	11/08/19	11/19/19	#61CDO-B191108-BA0252
EPA 6010C	SODIUM (NA)	25000	25400	25400	102	102	0.0	20	87-115	11/08/19	11/19/19	11/08/19	11/19/19	#61CDO-B191108-BA0252

Comments:

6010C/3010A

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 90657

Case No: 90657 Date Analyzed: 11/19/19

Matrix: WATER Instrument: Phoebe

Blank ID: B191108-BLK Time Analyzed: 1006

APPL ID.	Client Sample No.	File ID.	Date Analyzed
B191108-LCSD	Lab Control SpikeD	191119A	11/19/19 1015
B191108-LCS	Lab Control Spike	191119A	11/19/19 1010
B191108-BLK	Blank	191119A	11/19/19 1006
BA02525	ERH957	191119A	11/19/19 1025

Comments: Batch: #61CDO-B191108

6010C/3010A

Form 4

LCS Summary

Lab Name: APPL, Inc. SDG No: 90657

Case No: 90657 Date Analyzed: 11/19/19

Matrix: WATER Instrument: Phoebe

LCS ID: B191108-LCS Time Analyzed: 1010

APPL ID.	Client Sample No.	File ID.	Date Analyzed
B191108-LCSD	Lab Control SpikeD	191119A	11/19/19 1015
B191108-LCS	Lab Control Spike	191119A	11/19/19 1010
B191108-BLK	Blank	191119A	11/19/19 1006
BA02525	ERH957	191119A	11/19/19 1025

Comments: Batch: #61CDO-B191108

EPA 300.0

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 90657

Case No: 90657 Date Analyzed: 11/06/19

Matrix: WATER Instrument: Charlie

Blank ID: 191106AZB-BLK Time Analyzed: 1534

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191106AZB-LCS	Lab Control Spike	12	11/06/19 1357
191106AZB-LCSD	Lab Control SpikeD	13	11/06/19 1405
191106AZB-BLK	Blank	25	11/06/19 1534
BA02525	ERH957	31	11/06/19 1621

Comments: Batch: #300W-191106AZB

Printed: 12/06/19 4:21:57 PM
Form 4, Blank Summary

EPA 300.0

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 90657

Case No: 90657 Date Analyzed: 11/06/19

Matrix: WATER Instrument: Charlie

Blank ID: 191106AZC-BLK Time Analyzed: 1858

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191106AZC-LCS	Lab Control Spike	12	11/06/19 1357
191106AZC-LCSD	Lab Control SpikeD	13	11/06/19 1405
191106AZC-BLK	Blank	52	11/06/19 1858
BA02525	ERH957	58	11/06/19 1943

Comments: Batch: #300WD-191106AZ

Printed: 12/06/19 4:21:57 PM
Form 4, Blank Summary

WETLAB BLANK

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Method	Analyte	Result	LOQ	LOD	DL	Units	Prep Date	Analysis Date	QC Group
EPA 300.0	BROMIDE	0.16 U	0.5	0.16	0.05	mg/L	11/06/19	11/06/19	I300W-191106AZB-BA02525
EPA 300.0	FLUORIDE	0.09 U	0.1	0.09	0.08	mg/L	11/06/19	11/06/19	I300W-191106AZB-BA02525
EPA 300.0	SULFATE	0.20 U	1.0	0.20	0.09	mg/L	11/06/19	11/06/19	I300W-191106AZB-BA02525
EPA 300.0	CHLORIDE	0.13 J	1.0	0.20	0.08	mg/L	11/06/19	11/06/19	00WD-191106AZC-BA02525

J = Estimated value.

Wetlab SC-Blank-REG MDLs
Printed: 12/06/19 4:21:55 PM

EPA 300.0

Form 4

LCS Summary

Lab Name: APPL, Inc. SDG No: 90657

Case No: 90657 Date Analyzed: 11/06/19

Matrix: WATER Instrument: Charlie

LCS ID: 191106AZB-LCS Time Analyzed: 1357

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191106AZB-LCS	Lab Control Spike	12	11/06/19 1357
191106AZB-LCSD	Lab Control SpikeD	13	11/06/19 1405
191106AZB-BLK	Blank	25	11/06/19 1534
BA02525	ERH957	31	11/06/19 1621

Comments: Batch: #300W-191106AZB

Printed: 12/06/19 4:21:58 PM
Form 4, LCS Summary

EPA 300.0

Form 4

LCS Summary

Lab Name: APPL, Inc. SDG No: 90657

Case No: 90657 Date Analyzed: 11/06/19

Matrix: WATER Instrument: Charlie

LCS ID: 191106AZC-LCS Time Analyzed: 1357

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191106AZC-LCS	Lab Control Spike	12	11/06/19 1357
191106AZC-LCSD	Lab Control SpikeD	13	11/06/19 1405
191106AZC-BLK	Blank	52	11/06/19 1858
BA02525	ERH957	58	11/06/19 1943

Comments: Batch: #300WD-191106AZ

Printed: 12/06/19 4:21:58 PM
Form 4, LCS Summary

Laboratory Control Spike Recoveries

WETLAB

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Method	Compound Name	Spike Lvl mg/L	SPK Res mg/L	DUP Res mg/L	SPK % Recov	DUP % Recov	RPD	RPD Max	QC Limits	Extract Date-Spk	Analysis Date-Spk	Extract Date-Dup	Analysis Date-Dup	QC Group
EPA 300.0	CHLORIDE	25.0	24.9	24.9	99.6	99.6	0.0	20	90-110	11/06/19	11/06/19	11/06/19	11/06/19	#300WD-191106AZC-BA0
EPA 300.0	BROMIDE	12.5	12.5	12.5	100	100	0.0	20	90-110	11/06/19	11/06/19	11/06/19	11/06/19	#300W-191106AZB-BA025
EPA 300.0	FLUORIDE	5.00	4.43	4.44	88.6 #	88.8 #	0.23	20	90-110	11/06/19	11/06/19	11/06/19	11/06/19	#300W-191106AZB-BA025
EPA 300.0	NITRATE	22.145	21.7	21.7	98.0	98.0	0.0	20	90-110	11/06/19	11/06/19	11/06/19	11/06/19	#300W-191106AZB-BA025
EPA 300.0	SULFATE	25.0	24.5	24.5	98.0	98.0	0.0	20	90-110	11/06/19	11/06/19	11/06/19	11/06/19	#300W-191106AZB-BA025

= Recovery is outside QC limits.

Comments:

EPA 353.2

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 90657

Case No: 90657 Date Analyzed: 11/06/19

Matrix: WATER Instrument: EVE

Blank ID: 191106A-BLK Time Analyzed: 1705

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191106A-BLK	Blank	12	11/06/19 1705
191106A-LCS	Lab Control Spike	13	11/06/19 1707
191106A-LCSD	Lab Control SpikeD	14	11/06/19 1709
BA02525	ERH957	19	11/06/19 1719

Comments: Batch: #35OF-191106A

Printed: 12/06/19 8:33:08 AM
Form 4, Blank Summary

SM 2320B

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 90657

Case No: 90657 Date Analyzed: 11/11/19

Matrix: WATER Instrument: Tiamo

Blank ID: 191111A-BLK Time Analyzed: 1051

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191111A-BLK	Blank	1	11/11/19 1051
191111A-LCS	Lab Control Spike	2	11/11/19 1054
191111A-LCSD	Lab Control SpikeD	3	11/11/19 1104
BA02525	ERH957	9	11/11/19 1209

Comments: Batch: #232W-191111A

Printed: 12/06/19 8:33:08 AM
Form 4, Blank Summary

SM 4500-Si D

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 90657

Case No: 90657 Date Analyzed: 11/06/19

Matrix: WATER Instrument: Manual Spec

Blank ID: 191106A-BLK Time Analyzed: 2122

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191106A-BLK	Blank	57	11/06/19 2122
191106A-LCS	Lab Control Spike	58	11/06/19 2122
191106A-LCSD	Lab Control SpikeD	60	11/06/19 2123
BA02525	ERH957	64	11/06/19 2126

Comments: Batch: #SIO2-191106A

Printed: 12/06/19 8:33:08 AM
Form 4, Blank Summary

SM 4500-Si D

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 90657

Case No: 90657 Date Analyzed: 11/06/19

Matrix: WATER Instrument: Manual Spec

Blank ID: 191106A-BLK Time Analyzed: 2122

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191106A-BLK	Blank	57	11/06/19 2122
191106A-LCS	Lab Control Spike	58	11/06/19 2122
191106A-LCSD	Lab Control SpikeD	60	11/06/19 2123
BA02525	ERH957	72	11/06/19 2130

Comments: Batch: #SIO2D-191106A

Printed: 12/06/19 8:33:08 AM
Form 4, Blank Summary

SM3500FeB

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 90657

Case No: 90657 Date Analyzed: 11/07/19

Matrix: WATER Instrument: Manual Spec

Blank ID: A191107-BLK Time Analyzed: 1039

APPL ID.	Client Sample No.	File ID.	Date Analyzed
A191107-BLK	Blank	32	11/07/19 1039
A191107-LCS	Lab Control Spike	34	11/07/19 1041
A191107-LCSD	Lab Control SpikeD	35	11/07/19 1042
BA02525	ERH957	36	11/07/19 1043

Comments: Batch: #35FE-A191107

Printed: 12/06/19 8:33:08 AM
Form 4, Blank Summary

SW846 9060A

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 90657

Case No: 90657 Date Analyzed: 11/14/19

Matrix: WATER Instrument: TICTOC

Blank ID: 191111A-BLK Time Analyzed: 1740

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191111A-BLK	Blank	29	11/14/19 1740
191111A-LCS	Lab Control Spike	30	11/14/19 1816
191111A-LCSD	Lab Control SpikeD	31	11/14/19 1852
BA02525	ERH957	36	11/14/19 2144

Comments: Batch: #DOCW5-191111A

Printed: 12/06/19 8:33:08 AM
Form 4, Blank Summary

SW846 9060A

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 90657

Case No: 90657 Date Analyzed: 11/15/19

Matrix: WATER Instrument: TICTOC

Blank ID: 191111B-BLK Time Analyzed: 0113

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191111B-BLK	Blank	27	11/15/19 0113
191111B-LCS	Lab Control Spike	28	11/15/19 0150
191111B-LCSD	Lab Control SpikeD	29	11/15/19 0227
BA02525	ERH957	31	11/15/19 0337

Comments: Batch: #TOCW5-191111B

Printed: 12/06/19 8:33:08 AM
Form 4, Blank Summary

WETLAB BLANK

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Method	Analyte	Result	LOQ	LOD	DL	Units	Prep Date	Analysis Date	QC Group
SM 2320B	BICARBONATE AS	1.3 J	2.0	1.70	0.85	mg/L	11/11/19	11/11/19	#232W-191111A-BA02566
SM 2320B	CARBONATE AS C	1.70 U	2.0	1.70	0.85	mg/L	11/11/19	11/11/19	#232W-191111A-BA02566
SM 2320B	TOTAL ALKALINITY	1.3 J	2.0	1.70	0.85	mg/L	11/11/19	11/11/19	#232W-191111A-BA02566
SM3500Fe	FERROUS IRON	0.32 U	1.0	0.32	0.16	mg/L	11/07/19	11/07/19	#35FE-A191107-BA02525
EPA 353.2	NITRATE-NITRITE-	0.090 U	0.10	0.090	0.028	mg/L	11/06/19	11/06/19	#35OF-191106A-BA02301
SW846 90	DISSOLVED ORGA	0.350 U	0.93	0.350	0.130	mg/L	11/14/19	11/14/19	#DOCW5-191111A-BA02466
SM 4500-S	SILICA W	0.80 U	1.0	0.80	0.53	mg/L	11/06/19	11/06/19	#SIO2-191106A-BA02525
SM 4500-S	DISSOLVED SILICA	0.80 U	1.0	0.80	0.53	mg/L	11/06/19	11/06/19	#SIO2D-191106A-BA02525
SW846 90	TOTAL ORGANIC C	0.350 U	0.93	0.350	0.130	mg/L	11/15/19	11/15/19	#TOCW5-191111B-BA02466

Wetlab SC-Blank-REG MDLs
Printed: 12/06/19 8:33:06 AM

EPA 353.2

Form 4

LCS Summary

Lab Name: APPL, Inc. SDG No: 90657

Case No: 90657 Date Analyzed: 11/06/19

Matrix: WATER Instrument: EVE

LCS ID: 191106A-LCS Time Analyzed: 1707

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191106A-BLK	Blank	12	11/06/19 1705
191106A-LCS	Lab Control Spike	13	11/06/19 1707
191106A-LCSD	Lab Control SpikeD	14	11/06/19 1709
BA02525	ERH957	19	11/06/19 1719

Comments: Batch: #35OF-191106A

Printed: 12/06/19 8:33:08 AM
Form 4, LCS Summary

SM 2320B

Form 4

LCS Summary

Lab Name: APPL, Inc. SDG No: 90657

Case No: 90657 Date Analyzed: 11/11/19

Matrix: WATER Instrument: Tiamo

LCS ID: 191111A-LCS Time Analyzed: 1054

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191111A-BLK	Blank	1	11/11/19 1051
191111A-LCS	Lab Control Spike	2	11/11/19 1054
191111A-LCSD	Lab Control SpikeD	3	11/11/19 1104
BA02525	ERH957	9	11/11/19 1209

Comments: Batch: #232W-191111A

Printed: 12/06/19 8:33:08 AM
Form 4, LCS Summary

SM 4500-Si D

Form 4

LCS Summary

Lab Name: APPL, Inc. SDG No: 90657

Case No: 90657 Date Analyzed: 11/06/19

Matrix: WATER Instrument: Manual Spec

LCS ID: 191106A-LCS Time Analyzed: 2122

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191106A-BLK	Blank	57	11/06/19 2122
191106A-LCS	Lab Control Spike	58	11/06/19 2122
191106A-LCSD	Lab Control SpikeD	60	11/06/19 2123
BA02525	ERH957	64	11/06/19 2126

Comments: Batch: #SIO2-191106A

Printed: 12/06/19 8:33:08 AM
Form 4, LCS Summary

SM 4500-Si D

Form 4

LCS Summary

Lab Name: APPL, Inc. SDG No: 90657

Case No: 90657 Date Analyzed: 11/06/19

Matrix: WATER Instrument: Manual Spec

LCS ID: 191106A-LCS Time Analyzed: 2122

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191106A-BLK	Blank	57	11/06/19 2122
191106A-LCS	Lab Control Spike	58	11/06/19 2122
191106A-LCSD	Lab Control SpikeD	60	11/06/19 2123
BA02525	ERH957	72	11/06/19 2130

Comments: Batch: #SIO2D-191106A

Printed: 12/06/19 8:33:08 AM
Form 4, LCS Summary

SM3500FeB

Form 4

LCS Summary

Lab Name: APPL, Inc. SDG No: 90657

Case No: 90657 Date Analyzed: 11/07/19

Matrix: WATER Instrument: Manual Spec

LCS ID: A191107-LCS Time Analyzed: 1041

APPL ID.	Client Sample No.	File ID.	Date Analyzed
A191107-BLK	Blank	32	11/07/19 1039
A191107-LCS	Lab Control Spike	34	11/07/19 1041
A191107-LCSD	Lab Control SpikeD	35	11/07/19 1042
BA02525	ERH957	36	11/07/19 1043

Comments: Batch: #35FE-A191107

Printed: 12/06/19 8:33:08 AM
Form 4, LCS Summary

SW846 9060A

Form 4

LCS Summary

Lab Name: APPL, Inc. SDG No: 90657

Case No: 90657 Date Analyzed: 11/14/19

Matrix: WATER Instrument: TICTOC

LCS ID: 191111A-LCS Time Analyzed: 1816

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191111A-BLK	Blank	29	11/14/19 1740
191111A-LCS	Lab Control Spike	30	11/14/19 1816
191111A-LCSD	Lab Control SpikeD	31	11/14/19 1852
BA02525	ERH957	36	11/14/19 2144

Comments: Batch: #DOCW5-191111A

Printed: 12/06/19 8:33:08 AM
Form 4, LCS Summary

SW846 9060A

Form 4

LCS Summary

Lab Name: APPL, Inc. SDG No: 90657

Case No: 90657 Date Analyzed: 11/15/19

Matrix: WATER Instrument: TICTOC

LCS ID: 191111B-LCS Time Analyzed: 0150

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191111B-BLK	Blank	27	11/15/19 0113
191111B-LCS	Lab Control Spike	28	11/15/19 0150
191111B-LCSD	Lab Control SpikeD	29	11/15/19 0227
BA02525	ERH957	31	11/15/19 0337

Comments: Batch: #TOCW5-191111B

Printed: 12/06/19 8:33:08 AM
Form 4, LCS Summary

Laboratory Control Spike Recoveries

WETLAB

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Method	Compound Name	Spike Lvl mg/L	SPK Res mg/L	DUP Res mg/L	SPK % Recov	DUP % Recov	RPD	RPD Max	QC Limits	Extract Date-Spk	Analysis Date-Spk	Extract Date-Dup	Analysis Date-Dup	QC Group
EPA 353.2	NITRATE-NITRITE-N	3.00	3.19	2.95	106	98.3	7.8	20	90-110	11/06/19	11/06/19	11/06/19	11/06/19	#35OF-191106A-BA02301
SM 2320B	BICARBONATE AS CACO3	250	225	224	90.0	89.6 #	0.45	20	90-110	11/11/19	11/11/19	11/11/19	11/11/19	#232W-191111A-BA02566
SM 2320B	TOTAL ALKALINITY AS CA	250	244	244	97.6	97.6	0.0	20	90-110	11/11/19	11/11/19	11/11/19	11/11/19	#232W-191111A-BA02566
SM 4500-Si	SILICA W	4.00	3.81	3.85	95.3	96.3	1.0	20	80-120	11/06/19	11/06/19	11/06/19	11/06/19	#SIO2-191106A-BA02525
SM 4500-Si	DISSOLVED SILICA	4.00	3.81	3.85	95.3	96.3	1.0	20	80-120	11/06/19	11/06/19	11/06/19	11/06/19	#SIO2D-191106A-BA02525
SM3500Fe	FERROUS IRON	3.00	3.04	3.03	101	101	0.33	20	80-120	11/07/19	11/07/19	11/07/19	11/07/19	#35FE-A191107-BA02525
SW846 90	DISSOLVED ORGANIC CA	5.00	5.25	5.33	105	107	1.5	20	90-110	11/14/19	11/14/19	11/14/19	11/14/19	#DOCW5-191111A-BA024
SW846 90	TOTAL ORGANIC CARBO	5.00	5.18	5.16	104	103	0.39	20	80-120	11/15/19	11/15/19	11/15/19	11/15/19	#TOCW5-191111B-BA024

= Recovery is outside QC limits.

Comments:

Matrix Spike Recoveries

WETLAB

APPL ID: **191106W-02525 MS - 246870**

Sample ID: BA02525

Client ID: ERH957

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Method	Compound Name	Spike Lvl mg/L	Matrix Res mg/L	SPK Res mg/L	DUP Res mg/L	SPK % Recovery	DUP % Recovery	RPD	RPD Max	Recovery Limits	Extract Date-Spk	Analysis Date-Spk	Extract Date-Dup	Analysis Date-Dup	QC Group	QC Sample
SM 4500-Si	SILICA W	20.0	44.5	61.4	61.6	84.5	85.5	0.33	20	80-120	11/06/19	11/06/19	11/06/19	11/06/19	246870	BA02525
SM 4500-Si	DISSOLVED SILICA	20.0	41.4	59.1	59.3	88.5	89.5	0.34	20	80-120	11/06/19	11/06/19	11/06/19	11/06/19	246871	BA02525
SM3500Fe	FERROUS IRON	3.00	0.14	3.04	3.04	96.7	96.7	0.0	20	80-120	11/07/19	11/07/19	11/07/19	11/07/19	246866	BA02525

Comments: _____

ORGANICS
Calibration Data

DBCP/EDB/1,2,3-TCP Analysis by
504 8011

Form 6
Initial Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Initial Cal. Date: 11/08/19
Matrix: Water Instrument: Herbie Initials:

1025122.D 1025123.D 1025124.D 1025125.D 1025126 D 1025127.D

		Compound	1	2	3	4	5	6					Avg	%RSD	Type	r^2	Q
1	TM	EDB	884525	804465	739004	692297	694324	679871					749081	11	TM		
2	TML	1,2,3-TCP	430975	262120	240364	218305	208006	202514					260381	33	TM	0.999	
3	S	1,3-DIBROMOPROPANE(S)		1033715	901976	824027	801433	770343					866299	12	S		
4	TM	DBCP	3286575	2895745	2909434	2762260	2691157	2691364					2872756	7.8	TM		
5		Signal #2											0	0			
6																	
7																	
8																	
9																	
10																	
11																	
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33																	
34																	
35																	

1.82706

DBCP/EDB/1,2,3-TCP Analysis by
504 8011

Form 6
Initial Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Initial Cal. Date: 11/08/19
Matrix: Water Instrument: Herbie Initials:

1025122.D 1025123.D 1025124.D 1025125.D 1025126.D 1025127.D

		Compound	1	2	3	4	5	6					Avg	%RSD	Type	r^2	Q
36	TM	EDB #2	3885200	3439110	3226410	3017715	2931621	2953985					3242340	11	TM		
37	TM	1,2,3-TCP #2	680875	640785	619024	559442	550172	525478					595963	10	TM		
38	S	1,3-DIBROMOPROPANE(S) #2	2491825	2354260	2198168	2062581	1972708	1929604					2168191	10	S		
39	TM	DBCP #2	10635375	9133015	9102064	9256497	9091623	9154474					9395508	6.5	TM		
40																	
41																	
42																	
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1.092579

Quantitation Report (Not Reviewed)

Signal #1 : G:\HERBIE\DATA\191025\1025122.D\ECD1A.CH Vial: 20
Signal #2 : G:\HERBIE\DATA\191025\1025122.D\ECD2B.CH
Acq On : 11-08-19 16:07:44 Operator: MA,SS
Sample : 8011 1 11/06/19 Inst : Herbie
Misc : water Multiplr: 1.00
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Nov 12 14:22 2019 Quant Results File: 8011106A.RES

Quant Method : G:\HERBIE\DATA\190814\8011106A.M (RTE Integrator)
Title : 504.1 OR 8011
Last Update : Tue Nov 12 13:30:16 2019
Response via : Initial Calibration
DataAcq Meth : DOHS504.M

Volume Inj. : 2µL
Signal #1 Phase : DB-35MS Signal #2 Phase: DB-XLB
Signal #1 Info : 0.25 Signal #2 Info : 0.50

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
	System Monitoring Compounds						
3)	S 1,3-DIBROMOPROPA	10.02	11.03	54908	99673	0.032	0.023 #
	Spiked Amount 0.350			Recovery =		9.14%	6.57%
	Target Compounds						
1)	TM EDB	5.79	7.21	35381	155408	0.024	0.024
2)	TM 1,2,3-TCP	9.22	10.44	17239	27235	0.005	0.023 #
4)	TM DBCP	13.35	14.08	131463	425415	0.023	0.023
	Target Compounds						

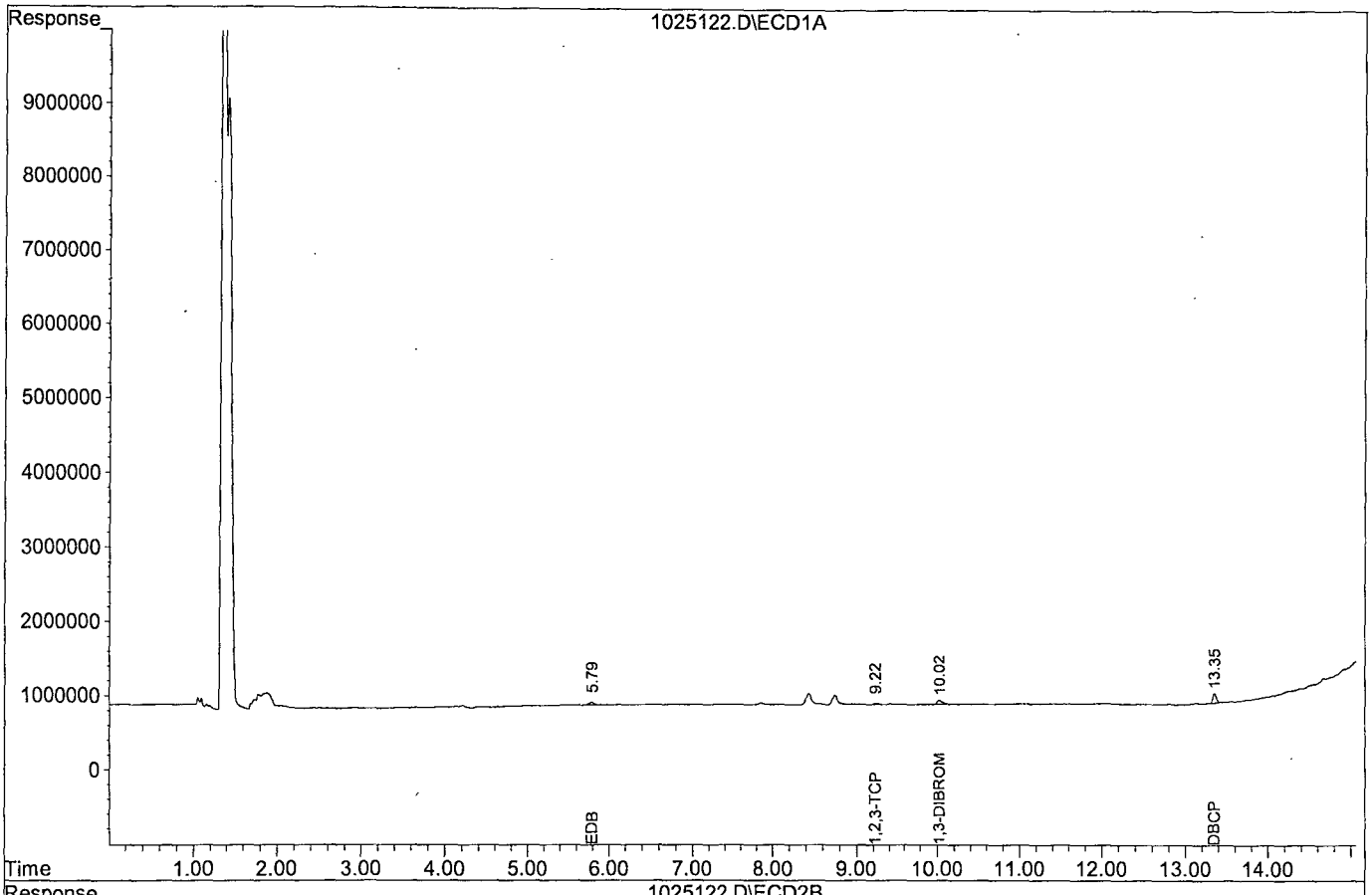
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

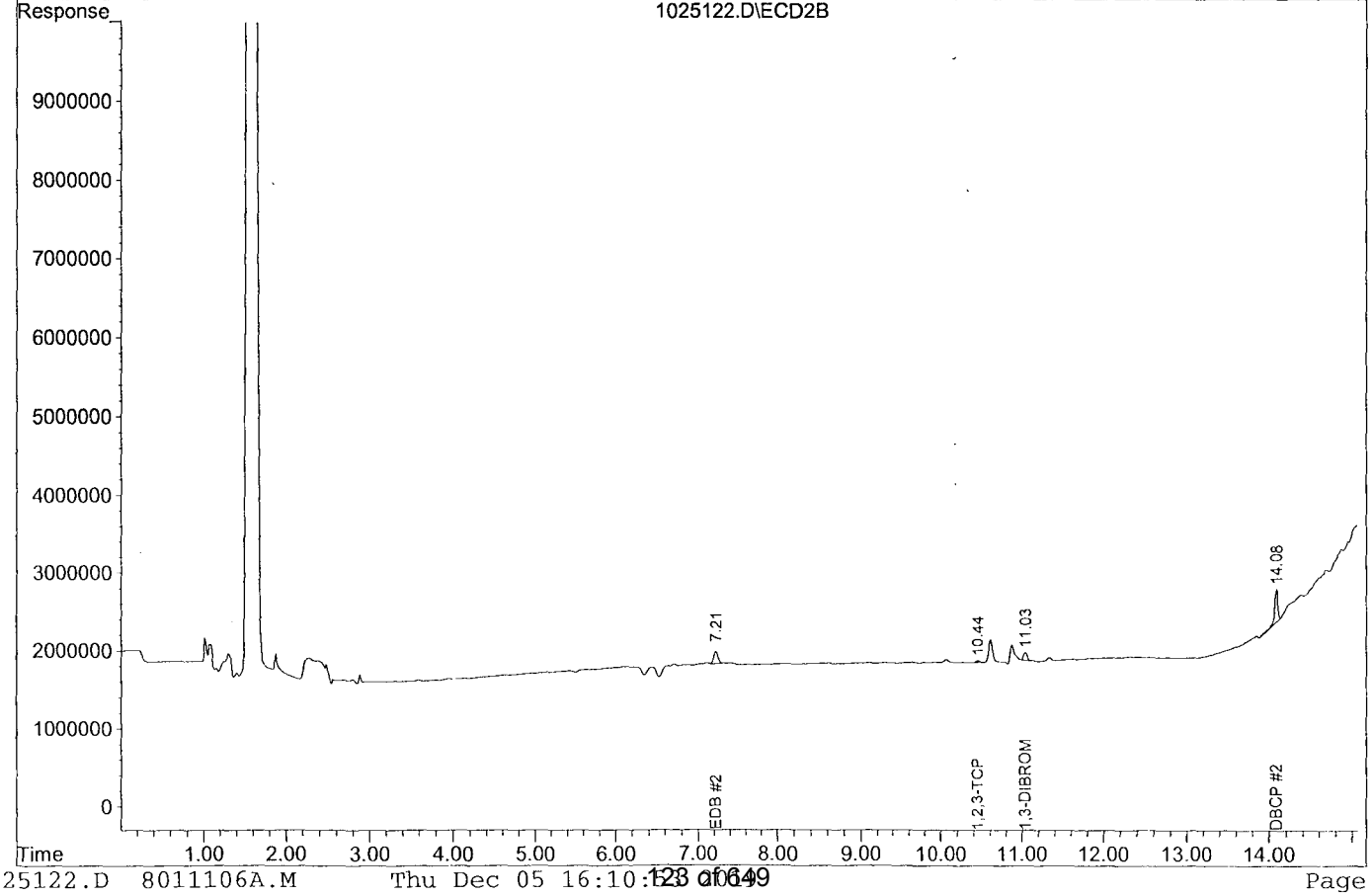
1025122.D 8011106A.M Thu Dec 05 16:10:52 2019

Quantitation Report (Not Reviewed)

Data File : G:\HERBIE\DATA\191025\1025122.D
Acq On : 11-08-19 16:07:44
Sample : 8011 1 11/06/19
Misc : water
Quant Method : G:\HERBIE\DATA\190814\8011106A.M

Vial: 20
Operator: MA,SS
Inst : Herbie
Multiplr: 1.00





Quantitation Report (Not Reviewed)

Signal #1 : G:\HERBIE\DATA\191025\1025123.D\ECD1A.CH Vial: 21
Signal #2 : G:\HERBIE\DATA\191025\1025123.D\ECD2B.CH
Acq On : 11-08-19 16:28:04 Operator: MA,SS
Sample : 8011 2 11/06/19 Inst : Herbie
Misc : water Multiplr: 1.00
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Nov 12 14:22 2019 Quant Results File: 8011106A.RES

Quant Method : G:\HERBIE\DATA\190814\8011106A.M (RTE Integrator)
Title : 504.1 OR 8011
Last Update : Tue Nov 12 13:30:16 2019
Response via : Initial Calibration
DataAcq Meth : DOHS504.M

Volume Inj. : 2µL
Signal #1 Phase : DB-35MS Signal #2 Phase: DB-XLB
Signal #1 Info : 0.25 Signal #2 Info : 0.50

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
	System Monitoring Compounds						
3) S	1,3-DIBROMOPROPA	10.02	11.03	206743	470852	0.119	0.109
Spiked Amount	0.350			Recovery	=	34.00%	31.14%
	Target Compounds						
1) TM	EDB	5.79	7.21	160893	687822	0.107	0.106
2) TM	1,2,3-TCP	9.25	10.44	52424	128157	0.094	0.108
4) TM	DBCP	13.34	14.08	579149	1826603	0.101	0.097

Target Compounds

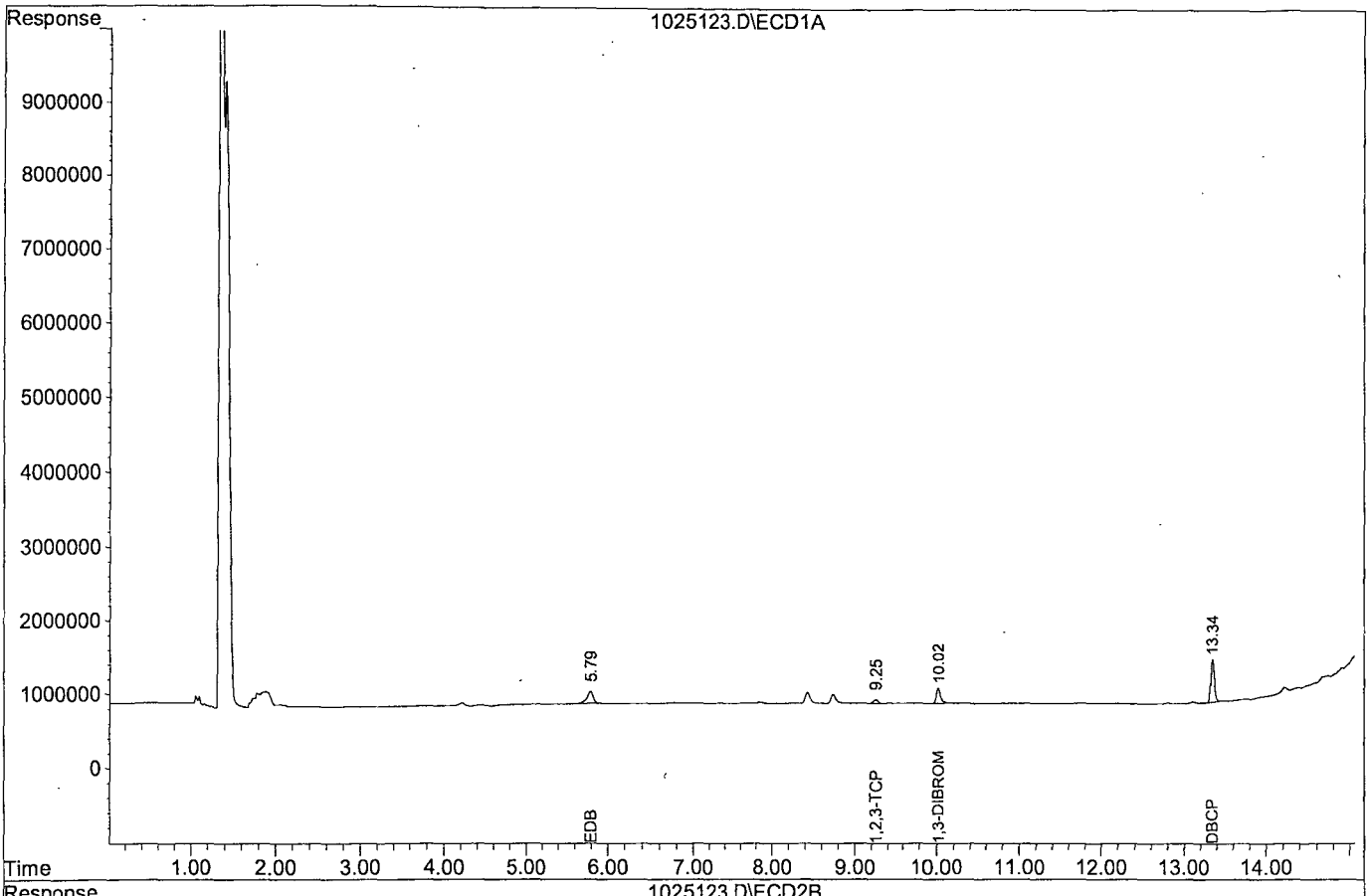
(f)=RT Delta > 1/2 Window (#)=Amounts differ by >25% (m)=manual int.

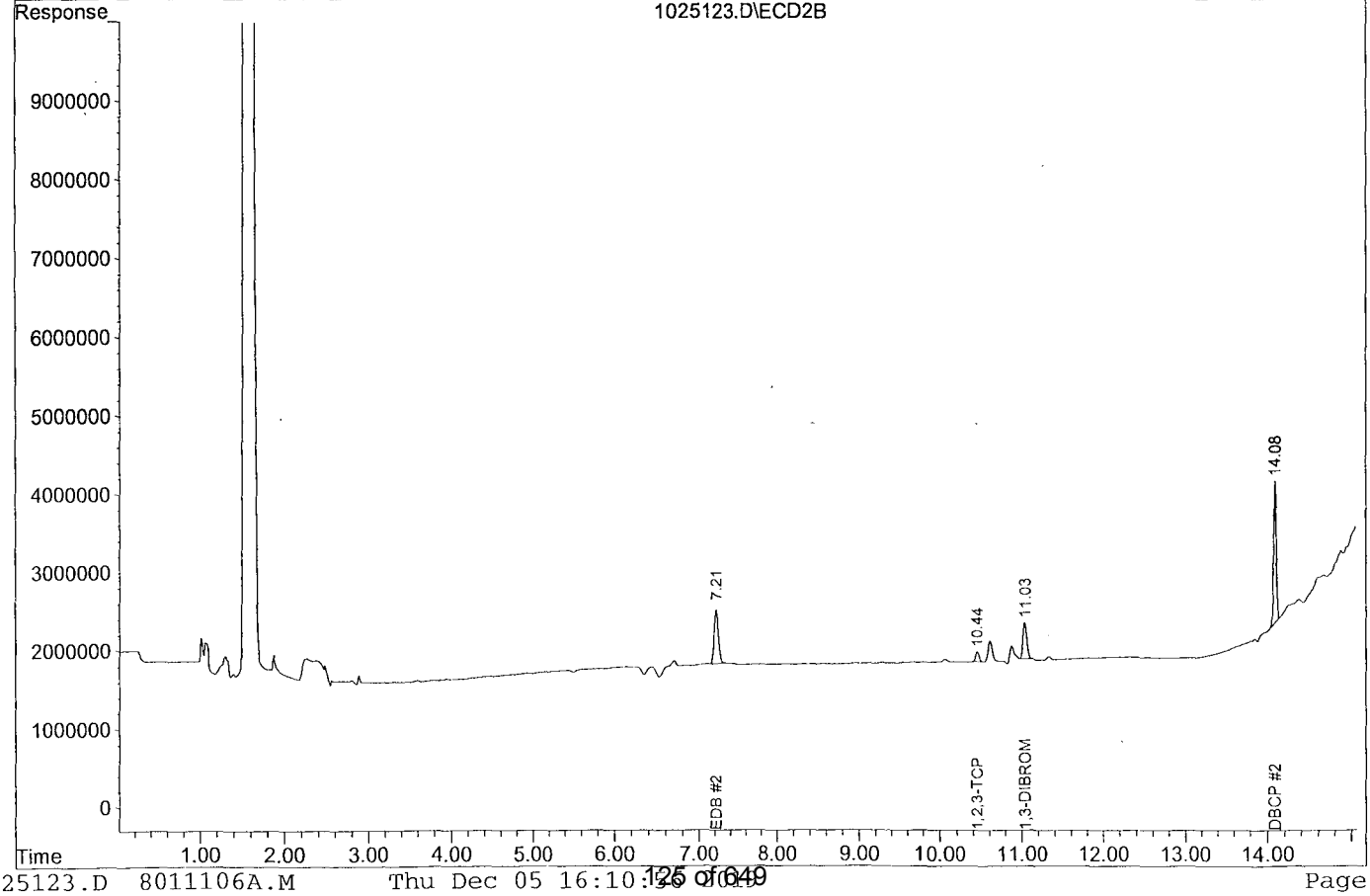
1025123.D 8011106A.M Thu Dec 05 16:10:54 2019 Page 1

Quantitation Report (Not Reviewed)

Data File : G:\HERBIE\DATA\191025\1025123.D
Acq On : 11-08-19 16:28:04
Sample : 8011 2 11/06/19
Misc : water
Quant Method : G:\HERBIE\DATA\190814\8011106A.M

Vial: 21
Operator: MA,SS
Inst : Herbie
Multiplr: 1.00





Quantitation Report (Not Reviewed)

Signal #1 : G:\HERBIE\DATA\191025\1025124.D\ECD1A.CH Vial: 22
Signal #2 : G:\HERBIE\DATA\191025\1025124.D\ECD2B.CH
Acq On : 11-08-19 16:48:46 Operator: MA,SS
Sample : 8011 3 11/06/19 Inst : Herbie
Misc : water Multiplr: 1.00
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Nov 12 14:22 2019 Quant Results File: 8011106A.RES

Quant Method : G:\HERBIE\DATA\190814\8011106A.M (RTE Integrator)
Title : 504.1 OR 8011
Last Update : Tue Nov 12 13:30:16 2019
Response via : Initial Calibration
DataAcq Meth : DOHS504.M

Volume Inj. : 2µL
Signal #1 Phase : DB-35MS Signal #2 Phase: DB-XLB
Signal #1 Info : 0.25 Signal #2 Info : 0.50

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
	System Monitoring Compounds						
3) S	1,3-DIBROMOPROPA	10.02	11.03	450988	1099084	0.260	0.253
Spiked Amount	0.350			Recovery	=	74.29%	72.29%
	Target Compounds						
1) TM	EDB	5.79	7.21	369502	1613205	0.247	0.249
2) TM	1,2,3-TCP	9.25	10.44	120182	309512	0.266	0.260
4) TM	DBCP	13.34	14.09	1454717	4551032	0.253	0.242

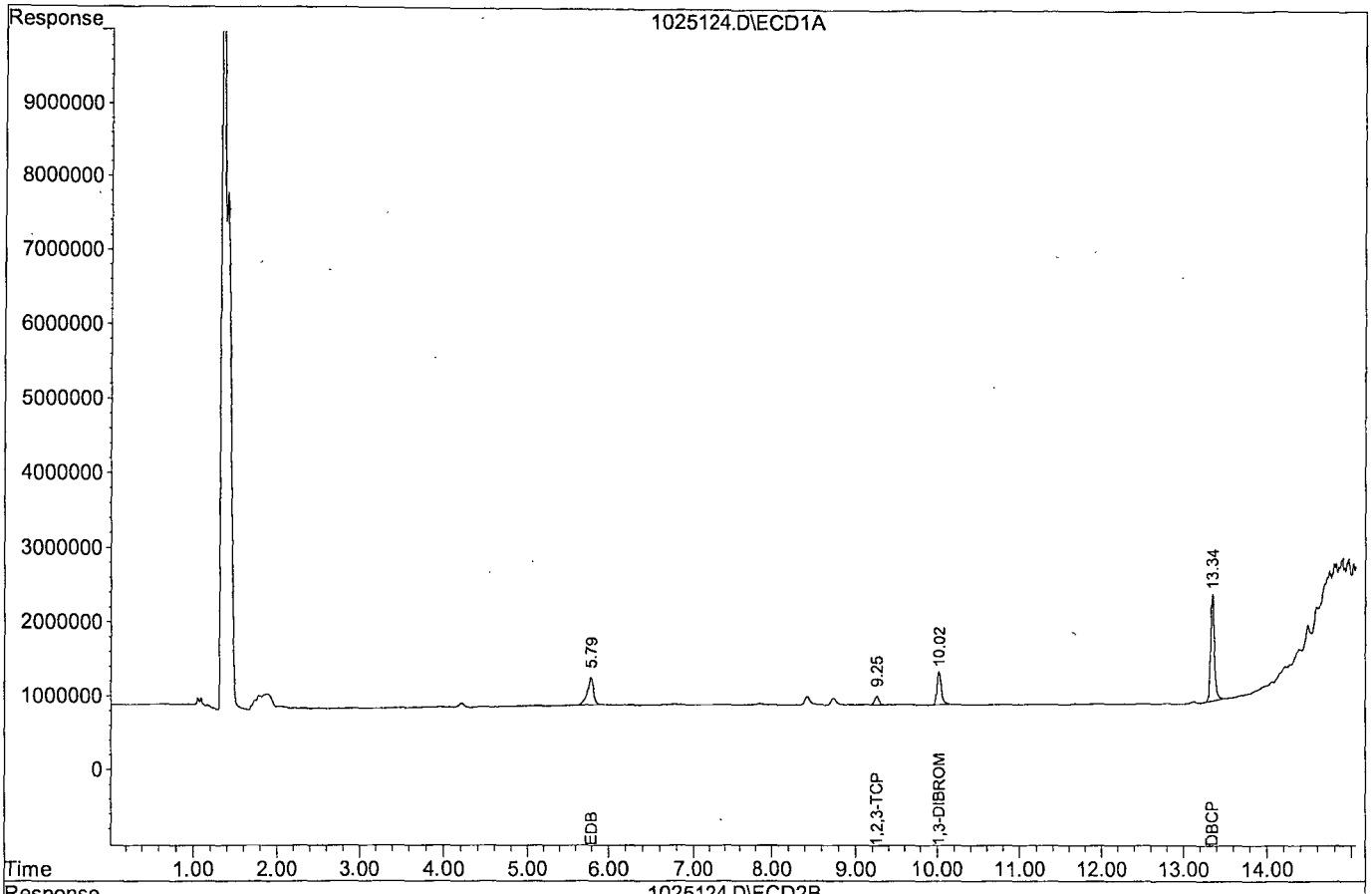
Target Compounds

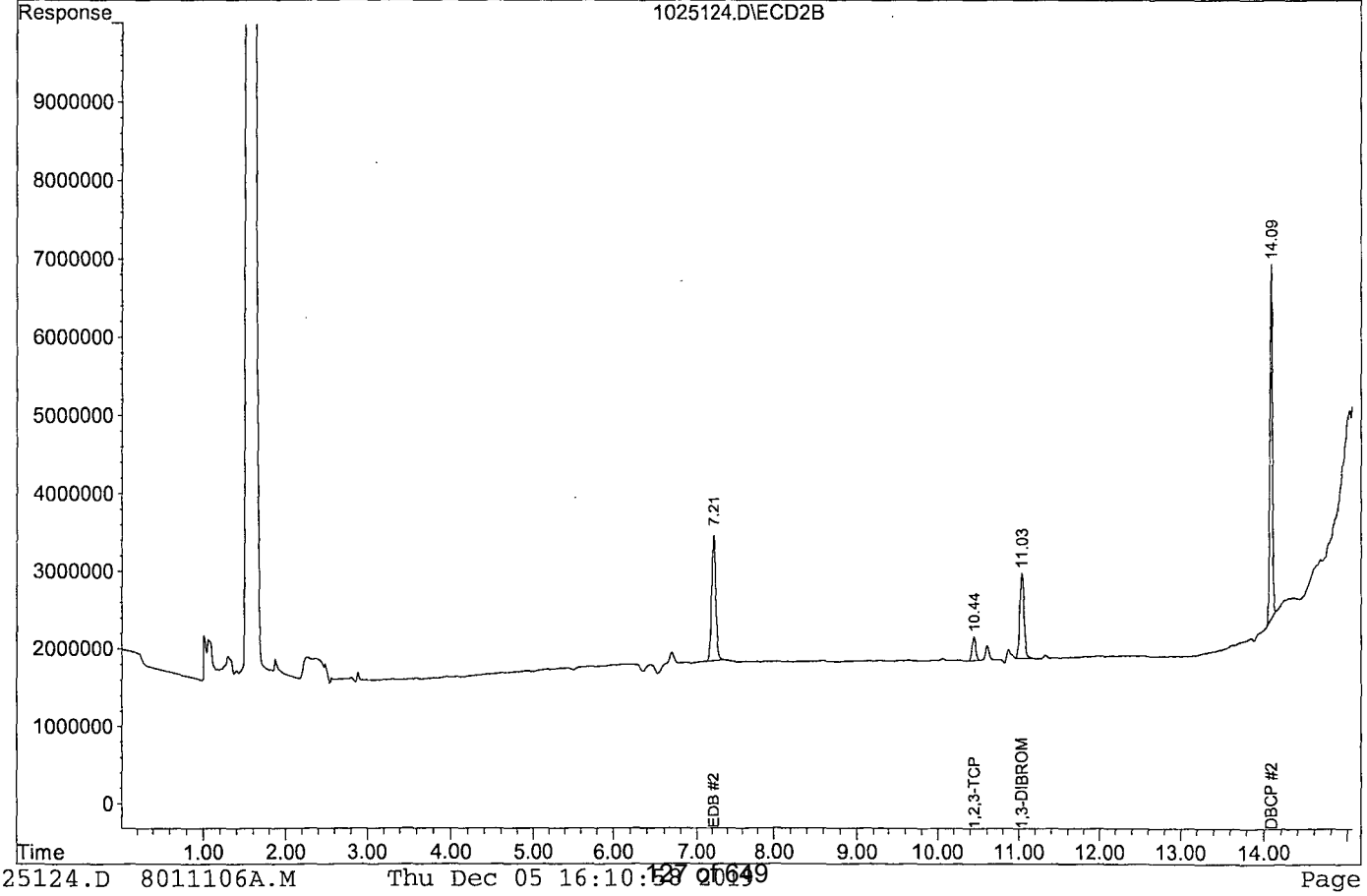
(f)=RT Delta > 1/2 Window (#)=Amounts differ by >25% (m)=manual int.

Quantitation Report (Not Reviewed)

Data File : G:\HERBIE\DATA\191025\1025124.D
Acq On : 11-08-19 16:48:46
Sample : 8011 3 11/06/19
Misc : water
Quant Method : G:\HERBIE\DATA\190814\8011106A.M

Vial: 22
Operator: MA,SS
Inst : Herbie
Multiplr: 1.00





Quantitation Report (Not Reviewed)

Signal #1 : G:\HERBIE\DATA\191025\1025125.D\ECD1A.CH Vial: 23
Signal #2 : G:\HERBIE\DATA\191025\1025125.D\ECD2B.CH
Acq On : 11-08-19 17:09:07 Operator: MA,SS
Sample : 8011 4 11/06/19 Inst : Herbie
Misc : water Multiplr: 1.00
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Nov 12 14:22 2019 Quant Results File: 8011106A.RES

Quant Method : G:\HERBIE\DATA\190814\8011106A.M (RTE Integrator)
Title : 504.1 OR 8011
Last Update : Tue Nov 12 13:30:16 2019
Response via : Initial Calibration
DataAcq Meth : DOHS504.M

Volume Inj. : 2µL
Signal #1 Phase : DB-35MS Signal #2 Phase: DB-XLB
Signal #1 Info : 0.25 Signal #2 Info : 0.50

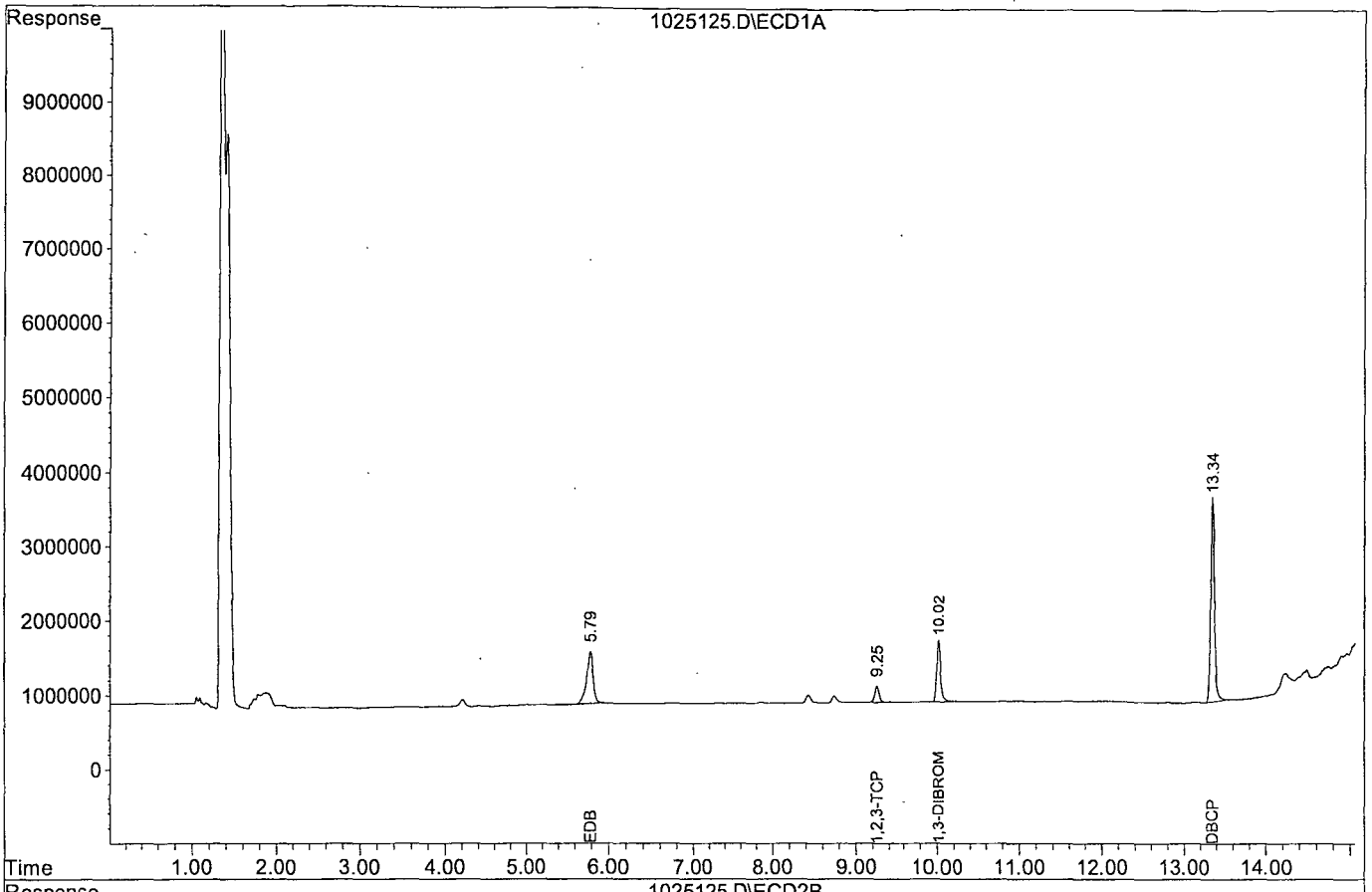
	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
	System Monitoring Compounds						
3) S	1,3-DIBROMOPROPA	10.02	11.03	824027	2062581	0.476	0.476
Spiked Amount	0.350			Recovery	=	136.00%	136.00%
	Target Compounds						
1) TM	EDB	5.79	7.21	692297	3017715	0.462	0.465
2) TM	1,2,3-TCP	9.25	10.44	218305	559442	0.515	0.469
4) TM	DBCP	13.34	14.08	2762260	9256497	0.481	0.493
	Target Compounds						

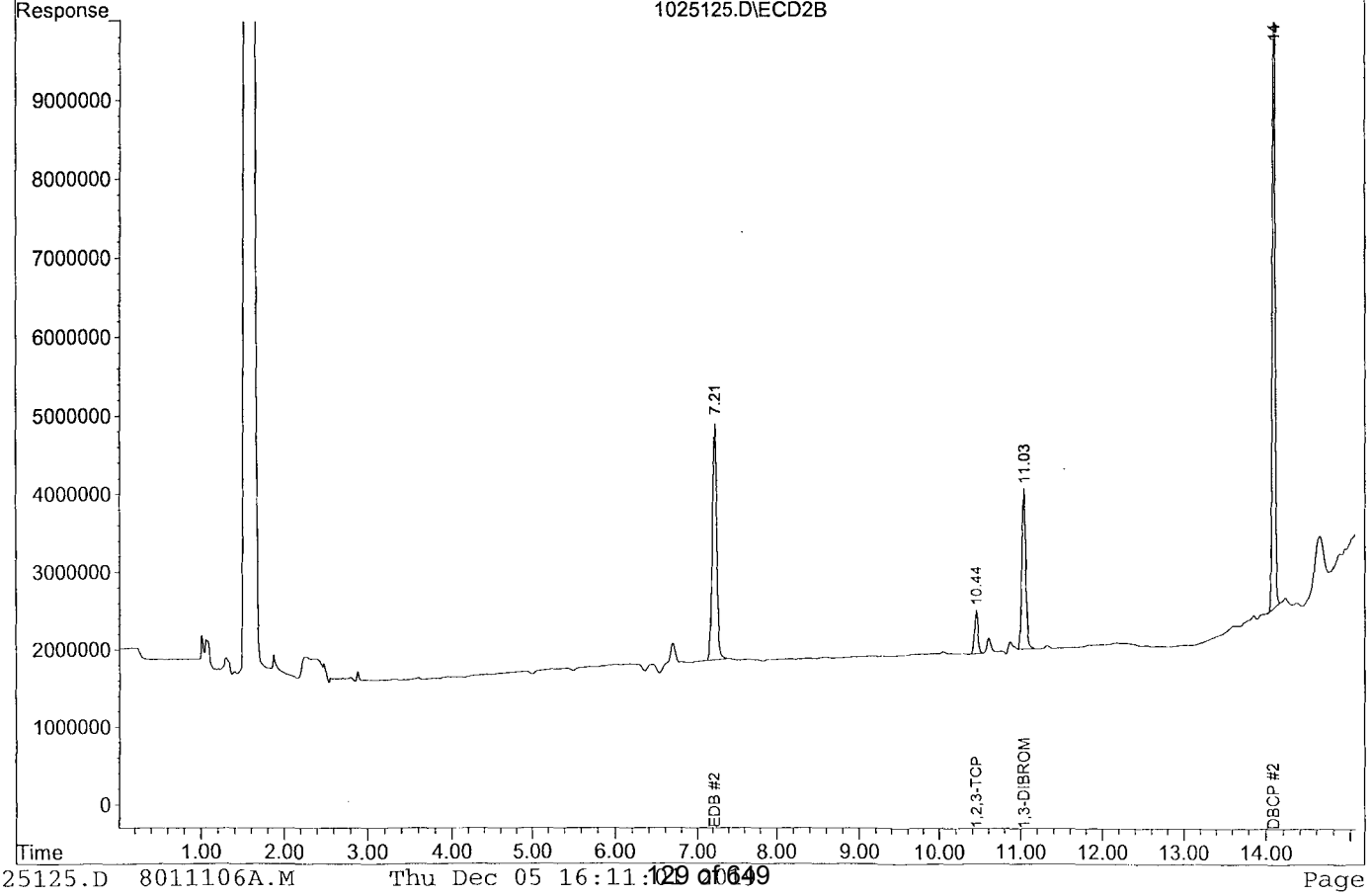
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (Not Reviewed)

Data File : G:\HERBIE\DATA\191025\1025125.D
Acq On : 11-08-19 17:09:07
Sample : 8011 4 11/06/19
Misc : water
Quant Method : G:\HERBIE\DATA\190814\8011106A.M

Vial: 23
Operator: MA,SS
Inst : Herbie
Multiplr: 1.00





Quantitation Report (Not Reviewed)

Signal #1 : G:\HERBIE\DATA\191025\1025126.D\ECD1A.CH Vial: 24
Signal #2 : G:\HERBIE\DATA\191025\1025126.D\ECD2B.CH
Acq On : 11-08-19 17:29:40 Operator: MA,SS
Sample : 8011 5 11/06/19 Inst : Herbie
Misc : water Multiplr: 1.00
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Nov 12 14:22 2019 Quant Results File: 8011106A.RES

Quant Method : G:\HERBIE\DATA\190814\8011106A.M (RTE Integrator)
Title : 504.1 OR 8011
Last Update : Tue Nov 12 13:30:16 2019
Response via : Initial Calibration
DataAcq Meth : DOHS504.M

Volume Inj. : 2µL
Signal #1 Phase : DB-35MS Signal #2 Phase: DB-XLB
Signal #1 Info : 0.25 Signal #2 Info : 0.50

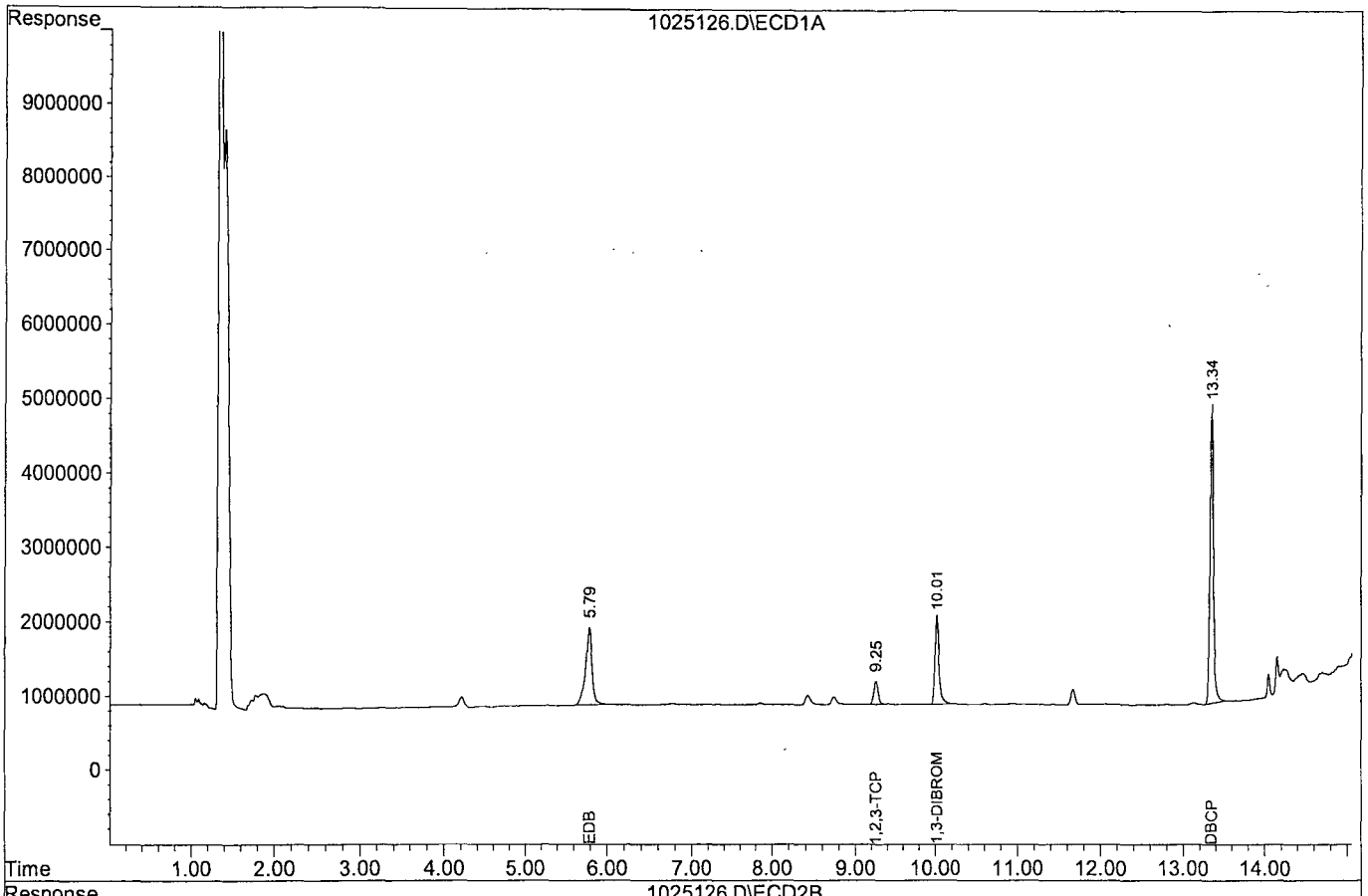
	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
	System Monitoring Compounds						
3) S	1,3-DIBROMOPROPA	10.01	11.03	1202149	2959062	0.694	0.682
Spiked Amount	0.350			Recovery	=	198.29%	194.86%
	Target Compounds						
1) TM	EDB	5.79	7.21	1041486	4397431	0.695	0.678
2) TM	1,2,3-TCP	9.25	10.44	312009	825258	0.752	0.692
4) TM	DBCP	13.34	14.09	4036736	13637434	0.703	0.726
	Target Compounds						

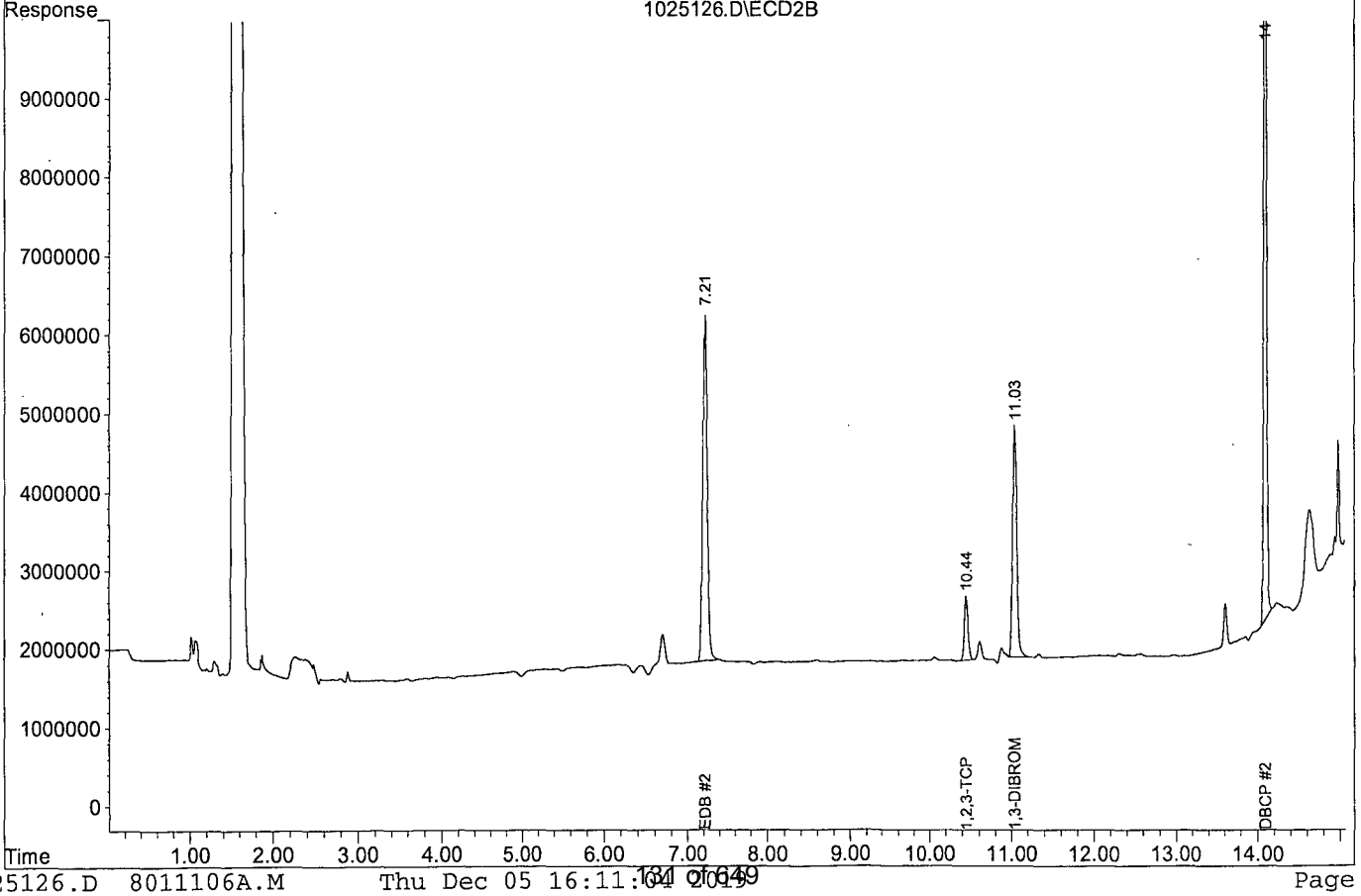
(f)=RT Delta > 1/2 Window (#)=Amounts differ by >25% (m)=manual int.

Quantitation Report (Not Reviewed)

Data File : G:\HERBIE\DATA\191025\1025126.D
Acq On : 11-08-19 17:29:40
Sample : 8011 5 11/06/19
Misc : water
Quant Method : G:\HERBIE\DATA\190814\8011106A.M

Vial: 24
Operator: MA,SS
Inst : Herbie
Multiplr: 1.00





Quantitation Report (Not Reviewed)

Signal #1 : G:\HERBIE\DATA\191025\1025127.D\ECD1A.CH Vial: 25
Signal #2 : G:\HERBIE\DATA\191025\1025127.D\ECD2B.CH
Acq On : 11-08-19 17:50:18 Operator: MA,SS
Sample : 8011 6 11/06/19 Inst : Herbie
Misc : water Multiplr: 1.00
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Nov 12 14:22 2019 Quant Results File: 8011106A.RES

Quant Method : G:\HERBIE\DATA\190814\8011106A.M (RTE Integrator)
Title : 504.1 OR 8011
Last Update : Tue Nov 12 13:30:16 2019
Response via : Initial Calibration
DataAcq Meth : DOHS504.M

Volume Inj. : 2µL
Signal #1 Phase : DB-35MS Signal #2 Phase: DB-XLB
Signal #1 Info : 0.25 Signal #2 Info : 0.50

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
	System Monitoring Compounds						
3) S	1,3-DIBROMOPROPA	10.02	11.03	1540685	3859208	0.889	0.890
Spiked Amount	0.350			Recovery	=	254.00%	254.29%
	Target Compounds						
1) TM	EDB	5.79	7.21	1359742	5907969	0.908	0.911
2) TM	1,2,3-TCP	9.25	10.44	405028	1050955	0.988	0.882
4) TM	DBCP	13.34	14.08	5382727	18308947	0.937	0.974

Target Compounds

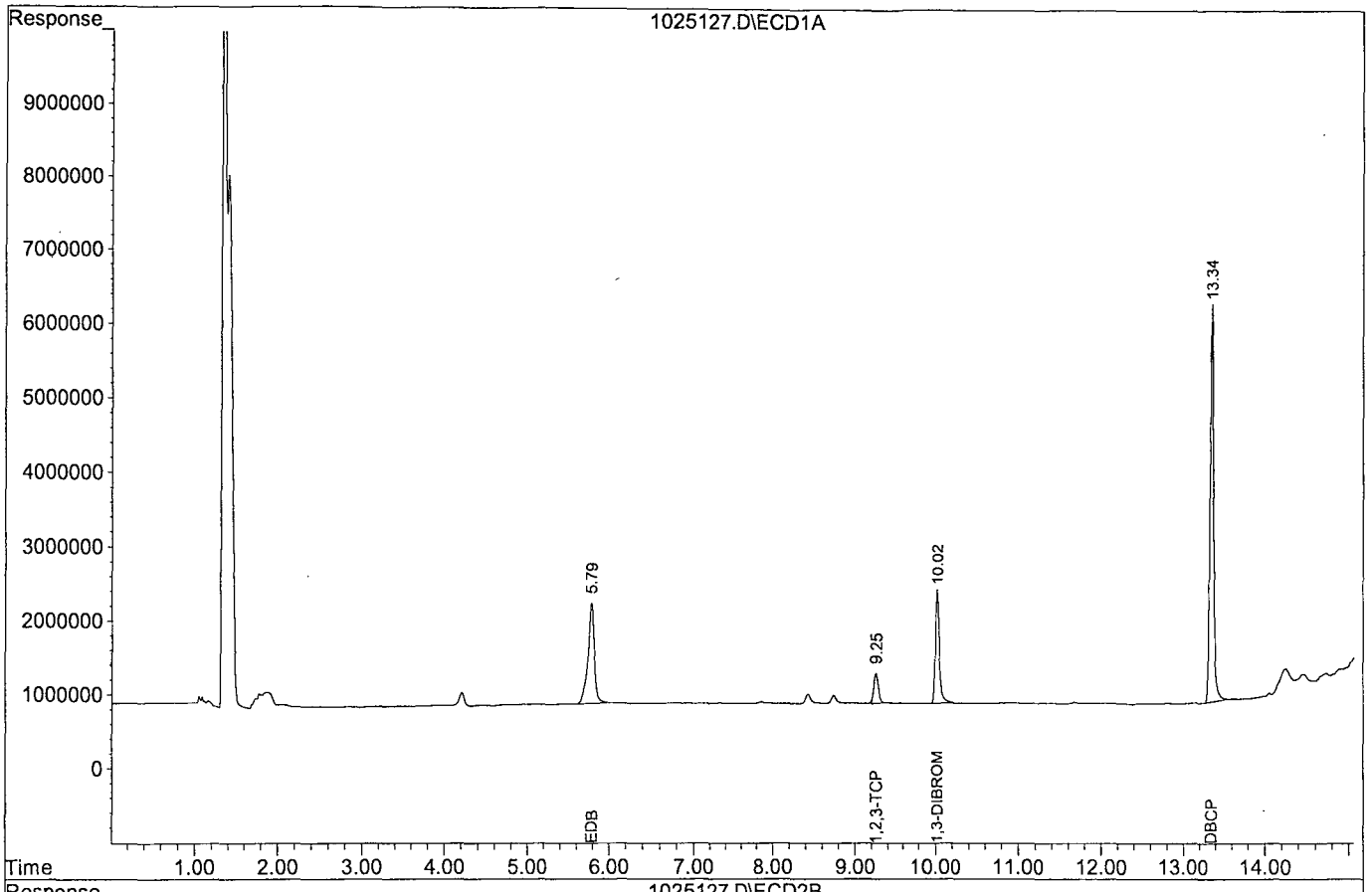
(f)=RT Delta > 1/2 Window (#)=Amounts differ >25% (m)=manual int.

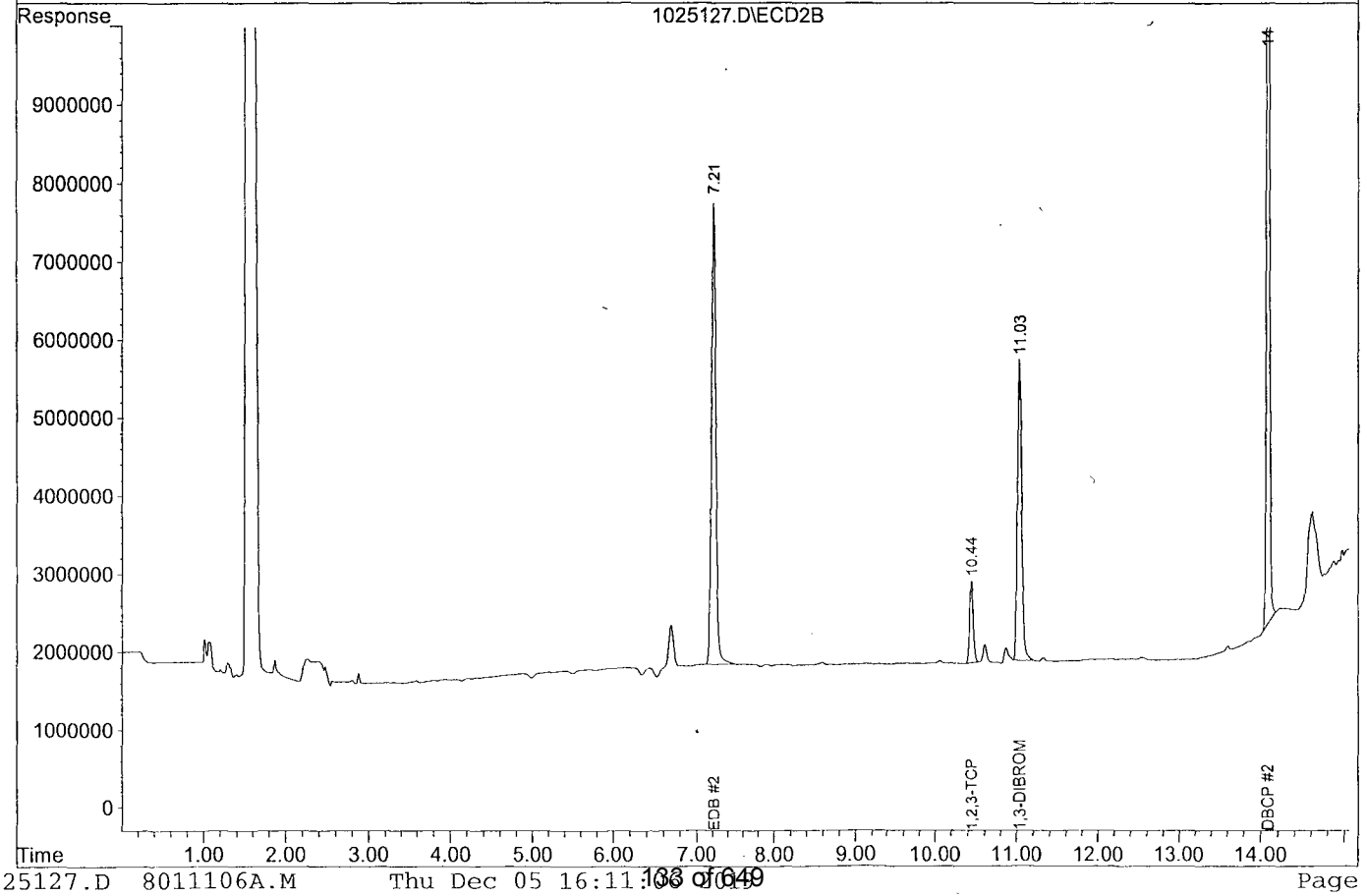
1025127.D 8011106A.M Thu Dec 05 16:11:05 2019 Page 1

Quantitation Report (Not Reviewed)

Data File : G:\HERBIE\DATA\191025\1025127.D
Acq On : 11-08-19 17:50:18
Sample : 8011 6 11/06/19
Misc : water
Quant Method : G:\HERBIE\DATA\190814\8011106A.M

Vial: 25
Operator: MA,SS
Inst : Herbie
Multiplr: 1.00





DBCP/EDB/1,2,3-TCP Analysis by
504 8011

Form 7

Second Source Calibration

Lab Name: APPL, Inc.
Case No:
Matrix: Water

SDG No:
Date Analyzed: 11/08/19
Instrument: Herbie
Initial Cal. Date: 11/08/19
Data File: 1025128.D

		Compound	MEAN	CCRF	%D		%Drift
1	TM	EDB	749081	757325	1.1	TM	
2	TML	1,2,3-TCP	260381	248020	4.7	TML	13
3	TM	DBCP	2872760	2982060	3.8	TM	
4							
5							
6							
7							
8							
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33							
34							
35							
36							
37							
38							
39							
40							
		Average			3.2		

DBCP/EDB/1,2,3-TCP Analysis by
504 8011

Form 7

Second Source Calibration

Lab Name: APPL, Inc.
Case No:
Matrix: Water

SDG No:
Date Analyzed: 11/08/19
Instrument: Herbie
Cal. Date: 11/08/19
Data File: 1025128.D

		Compound	MEAN	CCRF	%D		%Drift
41	TM	EDB	3242340	3336070	2.9	TM	
42	TM	1,2,3-TCP	595963	605250	1.6	TM	
43	TM	DBCP	9395510	9282470	1.2	TM	
44							
45							
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78							
79							
80							
		Average			1.9		

Quantitation Report (Not Reviewed)

Signal #1 : G:\HERBIE\DATA\191025\1025128.D\ECD1A.CH Vial: 26
Signal #2 : G:\HERBIE\DATA\191025\1025128.D\ECD2B.CH
Acq On : 11-08-19 18:10:46 Operator: MA,SS
Sample : 8011 SS 11/06/19 Inst : Herbie
Misc : water Multiplr: 1.00
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Nov 12 14:22 2019 Quant Results File: 8011106A.RES

Quant Method : G:\HERBIE\DATA\190814\8011106A.M (RTE Integrator)
Title : 504.1 OR 8011
Last Update : Tue Nov 12 13:30:16 2019
Response via : Initial Calibration
DataAcq Meth : DOHS504.M

Volume Inj. : 2µL
Signal #1 Phase : DB-35MS Signal #2 Phase: DB-XLB
Signal #1 Info : 0.25 Signal #2 Info : 0.50

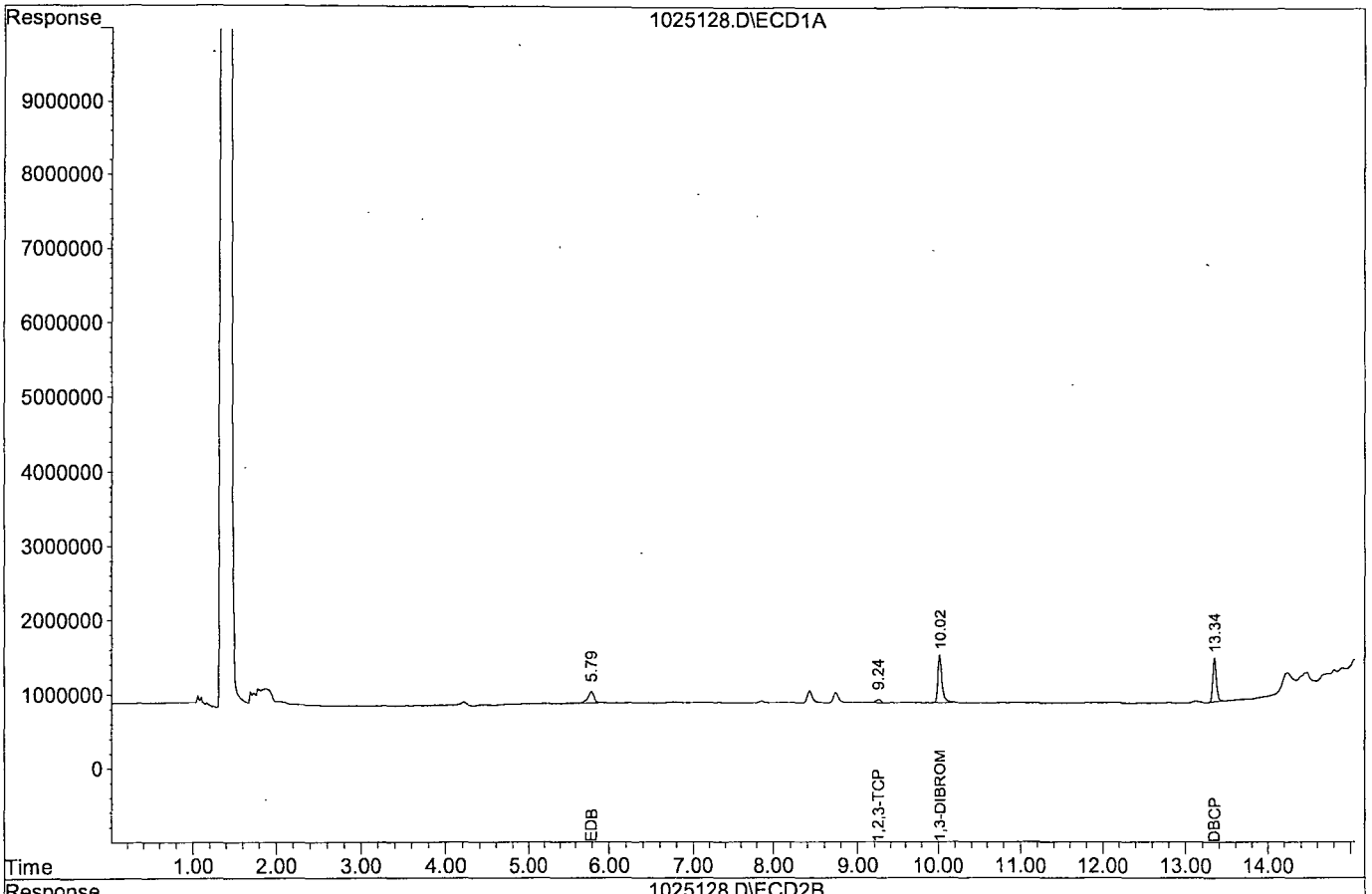
	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
	System Monitoring Compounds						
3) S	1,3-DIBROMOPROPA	10.02	11.03	645848	1574249	0.373	0.363
Spiked Amount	0.350			Recovery	=	106.57%	103.71%
	Target Compounds						
1) TM	EDB	5.79	7.21	151465	667214	0.101	0.103
2) TM	1,2,3-TCP	9.24	10.44	49604	121050	0.087	0.102
4) TM	DBCP	13.34	14.08	596411	1856493	0.104	0.099

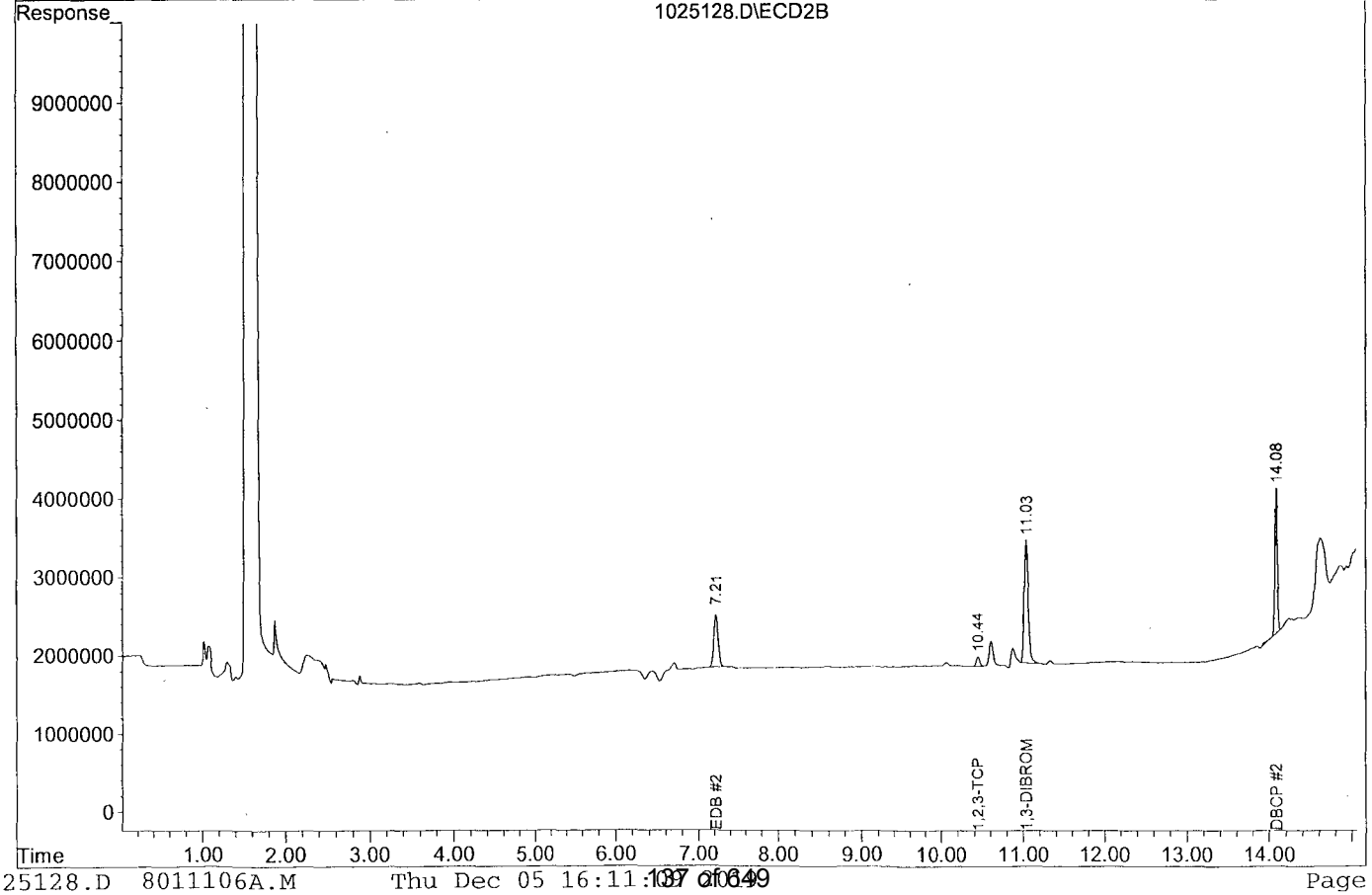
Target Compounds

Quantitation Report (Not Reviewed)

Data File : G:\HERBIE\DATA\191025\1025128.D
Acq On : 11-08-19 18:10:46
Sample : 8011 SS 11/06/19
Misc : water
Quant Method : G:\HERBIE\DATA\190814\8011106A.M

Vial: 26
Operator: MA,SS
Inst : Herbie
Multiplr: 1.00





DBCP/EDB/1,2,3-TCP Analysis by
504 8011

Form 7

Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix: Water

SDG No:
Date Analyzed: 11/12/19
Instrument: Herbie
Initial Cal. Date: 11/08/19
Data File: 1025153.D

		Compound	MEAN	CCRF	%D		%Drift
1	TM	EDB	749081	712606	4.9	TM	
2	TML	1,2,3-TCP	260381	249210	4.3	TML	11
3	S	1,3-DIBROMOPROPANE(S)	866299	957806	11	S	
4	TM	DBCP	2872760	3060590	6.5	TM	
5							
6							
7							
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30							
31							
32							
33							
34							
35							
36							
37							
38							
39							
40							
		Average			6.7		

DBCP/EDB/1,2,3-TCP Analysis by
504 8011

Form 7

Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix: Water

SDG No:
Date Analyzed: 11/12/19
Instrument: Herbie
Cal. Date: 11/08/19
Data File: 1025153.D

		Compound	MEAN	CCRF	%D		%Drift
41	TM	EDB	3242340	3251130	0.27	TM	
42	TM	1,2,3-TCP	595963	636896	6.9	TM	
43	S	1,3-DIBROMOPROPANE(S)	2168190	2279170	5.1	S	
44	TM	DBCP	9395510	9852730	4.9	TM	
45							
46							
47							
48							
49							
50							
51							
52							
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73							
74							
75							
76							
77							
78							
79							
80							
		Average			4.3		

Quantitation Report (Not Reviewed)

Data File : G:\HERBIE\DATA\191025\1025153.D\ECD1A.CH Vial: 53
Acq On : 11-12-19 21:49:51 Operator: MA,SS
Sample : 8011 4 11/06/19 Inst : Herbie
Misc : water Multiplr: 1.00
IntFile : rteint.p

Data File : G:\HERBIE\DATA\191025\1025153.D\ECD2B.CH Vial: 53
Acq On : 11-12-19 21:49:50 Operator: MA,SS
Sample : 8011 4 11/06/19 Inst : Herbie
Misc : water Multiplr: 1.00
IntFile : rteint2.p
Quant Time: Nov 13 9:23 2019 Quant Results File: 8011106A.RES

Quant Method : G:\HERBIE\DATA\190814\8011106A.M (RTE Integrator)
Title : 504.1 OR 8011
Last Update : Tue Nov 12 13:30:16 2019
Response via : Initial Calibration
DataAcq Meth : DOHS504.M

Volume Inj. : 2µL
Signal #1 Phase : DB-35MS Signal #2 Phase: DB-XLB
Signal #1 Info : 0.25 Signal #2 Info : 0.50

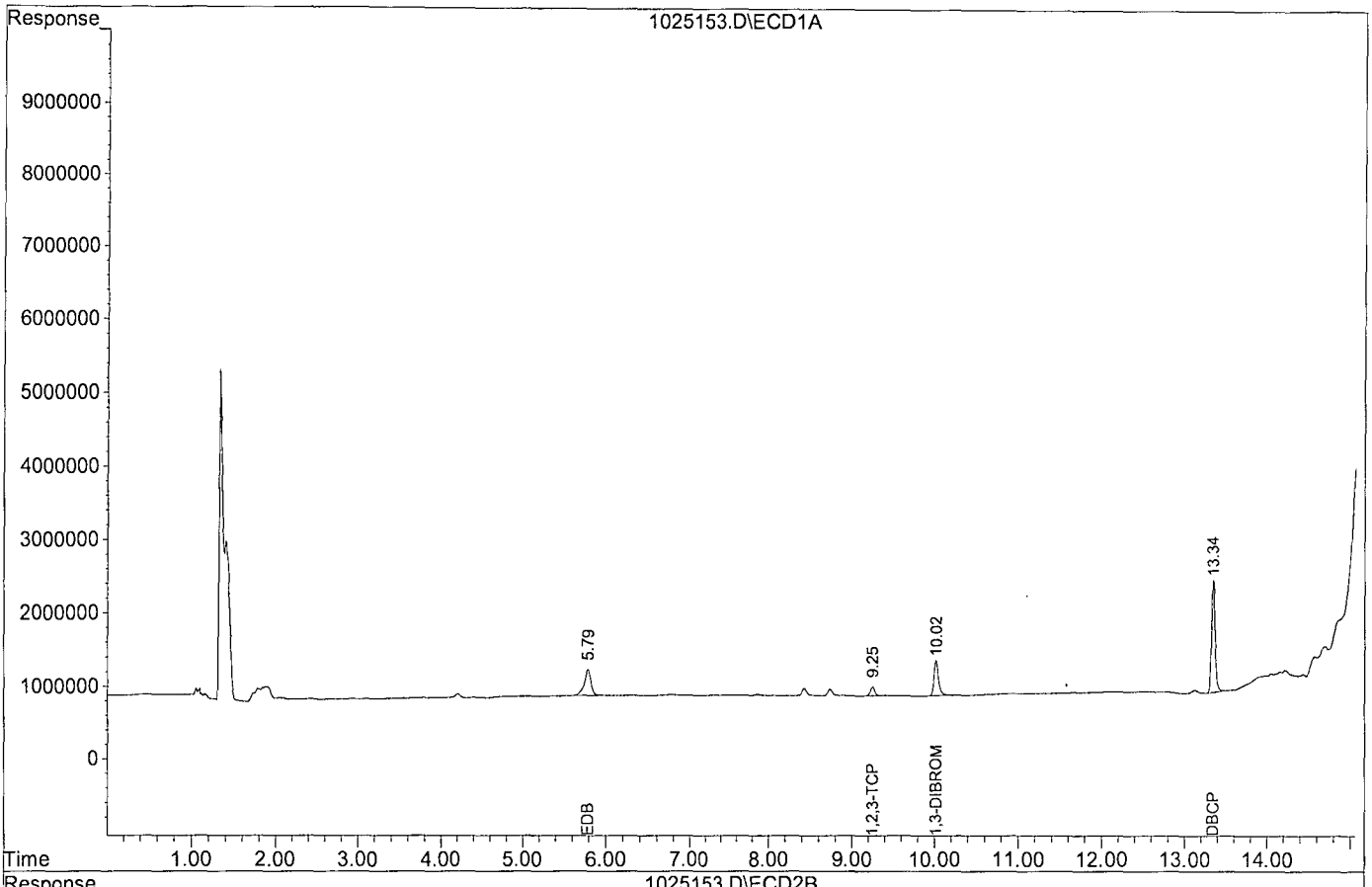
	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
	System Monitoring Compounds						
3) S	1,3-DIBROMOPROPA	10.02	11.03	478903	1139585	0.276	0.263
Spiked Amount	0.350			Recovery	=	78.86%	75.14%
	Target Compounds						
1) TM	EDB	5.79	7.21	356303	1625567	0.238	0.251
2) TM	1,2,3-TCP	9.25	10.44	124605	318448	0.277	0.267
4) TM	DBCP	13.34	14.08	1530294	4926363	0.266	0.262
	Target Compounds						

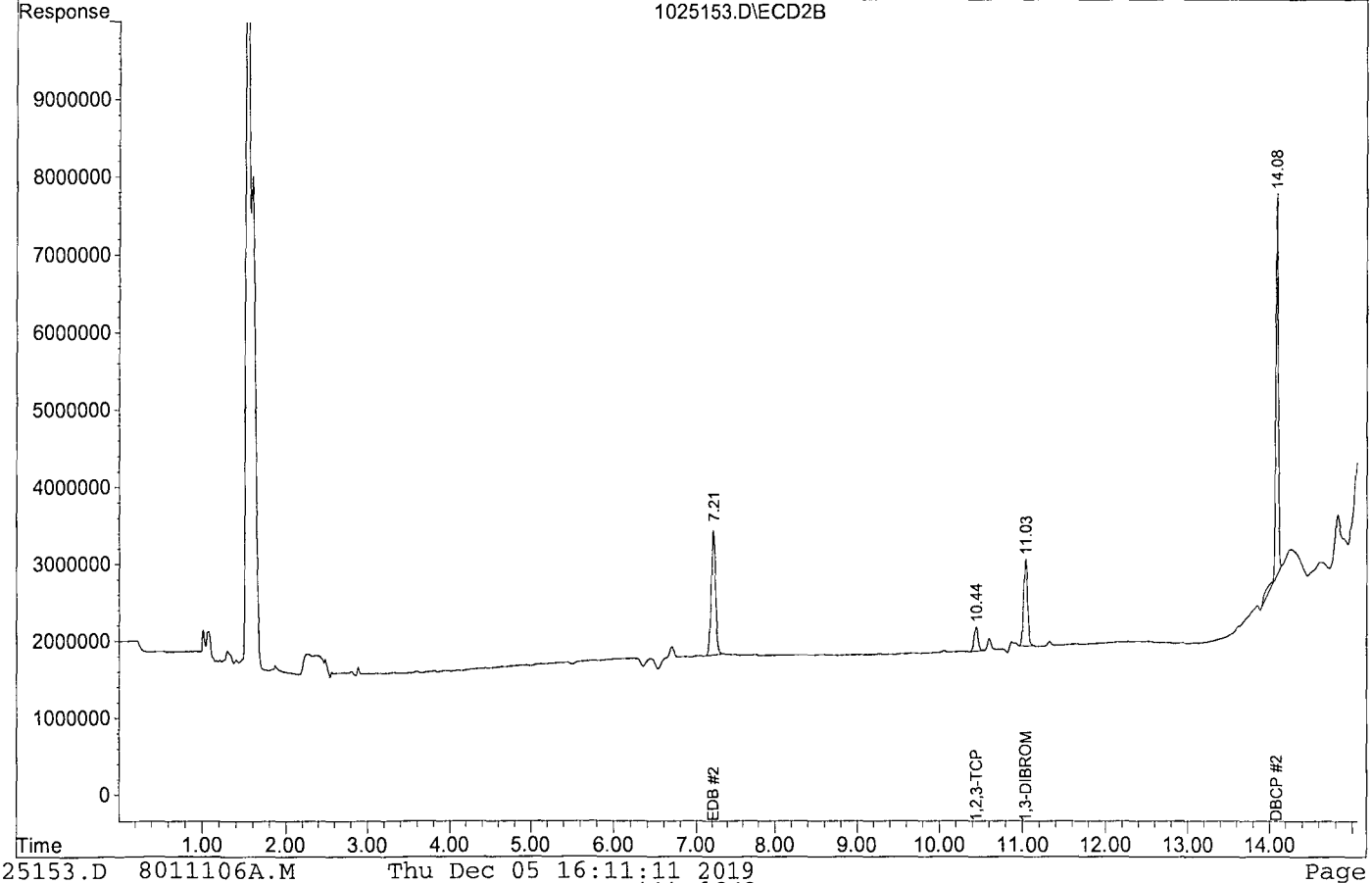
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (Not Reviewed)

Data File : G:\HERBIE\DATA\191025\1025153.D
Acq On : 11-12-19 21:49:51
Sample : 8011 4 11/06/19
Misc : water
Quant Method : G:\HERBIE\DATA\190814\8011106A.M

Vial: 53
Operator: MA,SS
Inst : Herbie
Multiplr: 1.00





DBCP/EDB/1,2,3-TCP Analysis by
504 8011

Form 7

Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix: Water

SDG No:
Date Analyzed: 11/13/19
Instrument: Herbie
Initial Cal. Date: 11/08/19
Data File: 1025169.D

		Compound	MEAN	CCRF	%D	%Drift	
1	TM	EDB	749081	707002	5.6	TM	
2	TML	1,2,3-TCP	260381	249514	4.2	TML	11
3	S	1,3-DIBROMOPROPANE(S)	866299	947448	9.4	S	
4	TM	DBCP	2872760	3139920	9.3	TM	
5							
6							
7							
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29							
30							
31							
32							
33							
34							
35							
36							
37							
38							
39							
40							
		Average			7.1		

DBCP/EDB/1,2,3-TCP Analysis by
504 8011

Form 7

Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix: Water

SDG No:
Date Analyzed: 11/13/19
Instrument: Herbie
Cal. Date: 11/08/19
Data File: 1025169.D

		Compound	MEAN	CCRF	%D	%Drift	
41	TM	EDB	3242340	3272910	0.94	TM	
42	TM	1,2,3-TCP	595963	646568	8.5	TM	
43	S	1,3-DIBROMOPROPANE(S)	2168190	2326090	7.3	S	
44	TM	DBCP	9395510	10161900	8.2	TM	
45							
46							
47							
48							
49							
50							
51							
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71							
72							
73							
74							
75							
76							
77							
78							
79							
80							
		Average			6.2		

Quantitation Report (Not Reviewed)

Signal #1 : G:\HERBIE\DATA\191025\1025169.D\ECD1A.CH Vial: 69
Signal #2 : G:\HERBIE\DATA\191025\1025169.D\ECD2B.CH
Acq On : 11-13-19 3:10:49 Operator: MA,SS
Sample : 8011 4 11/06/19 Inst : Herbie
Misc : water Multiplr: 1.00
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Nov 13 9:26 2019 Quant Results File: 8011106A.RES

Quant Method : G:\HERBIE\DATA\190814\8011106A.M (RTE Integrator)
Title : 504.1 OR 8011
Last Update : Tue Nov 12 13:30:16 2019
Response via : Initial Calibration
DataAcq Meth : DOHS504.M

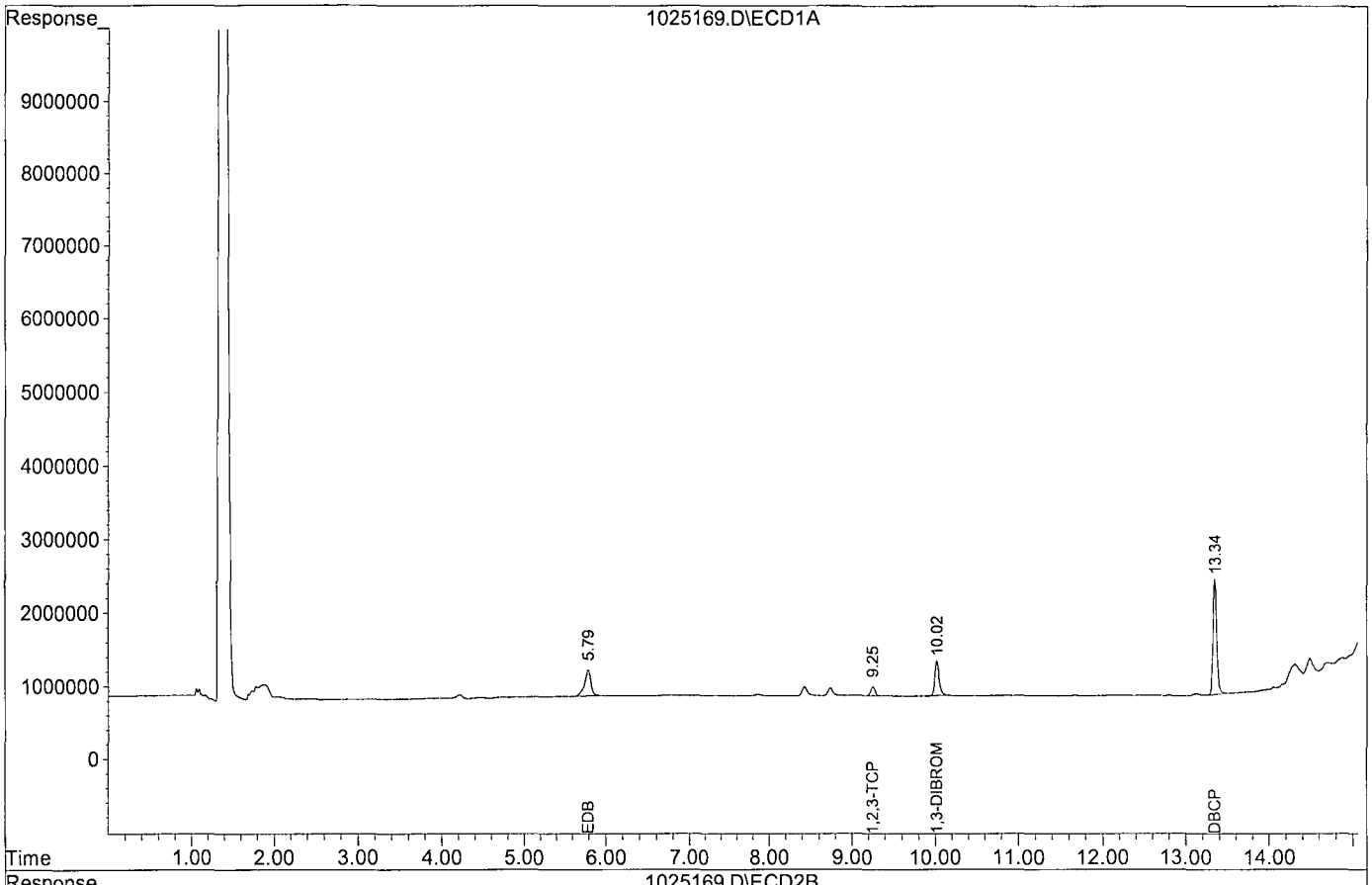
Volume Inj. : 2µL
Signal #1 Phase : DB-35MS Signal #2 Phase: DB-XLB
Signal #1 Info : 0.25 Signal #2 Info : 0.50

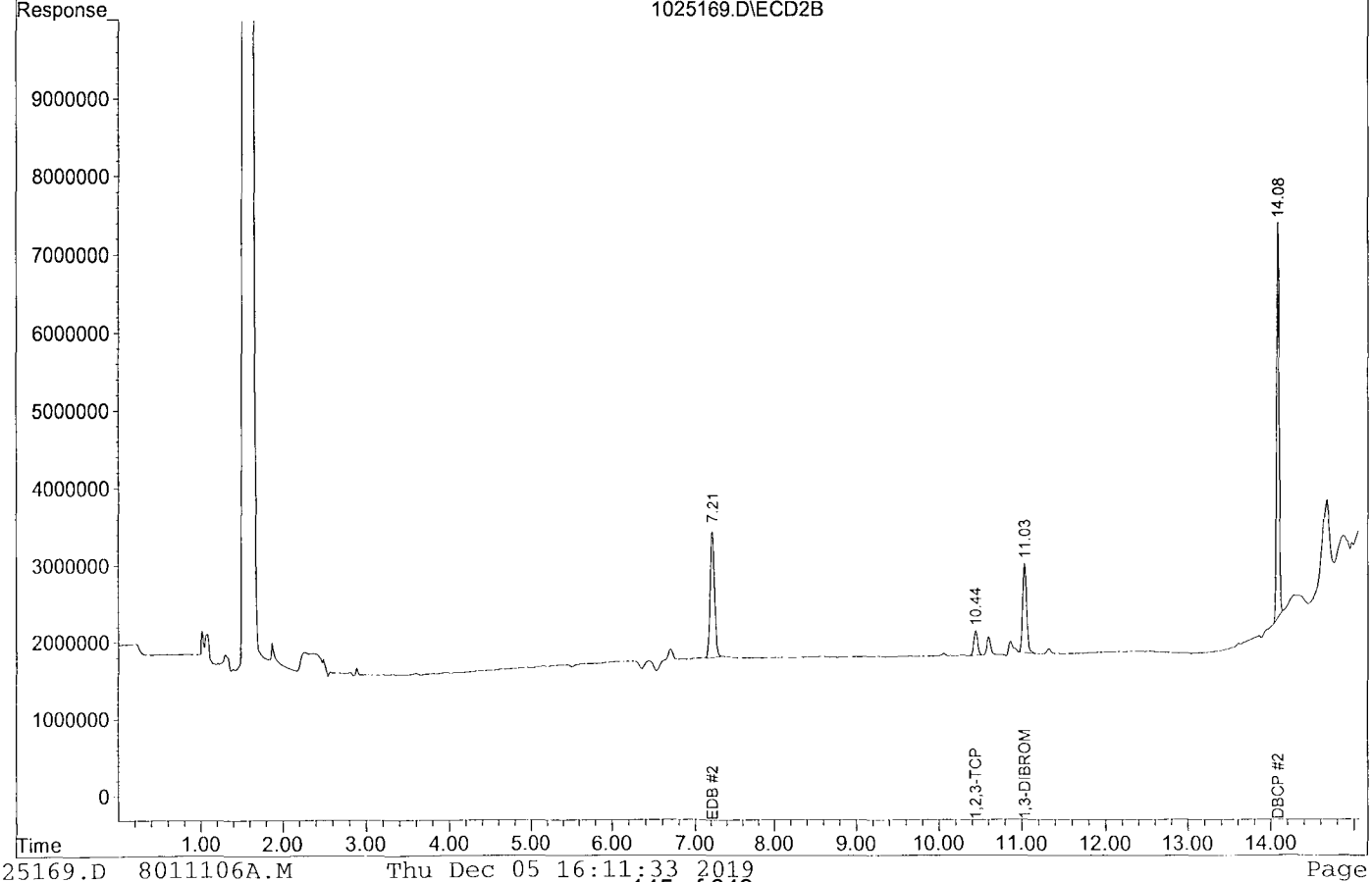
	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
	System Monitoring Compounds						
3)	S 1,3-DIBROMOPROPA	10.02	11.03	473724	1163047	0.273	0.268
	Spiked Amount 0.350			Recovery =		78.00%	76.57%
	Target Compounds						
1)	TM EDB	5.79	7.21	353501	1636457	0.236	0.252
2)	TM 1,2,3-TCP	9.25	10.44	124757	323284	0.278	0.271
4)	TM DBCP	13.34	14.08	1569959	5080932	0.273	0.270
	Target Compounds						

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data File : G:\HERBIE\DATA\191025\1025169.D
Acq On : 11-13-19 3:10:49
Sample : 8011 4 11/06/19
Misc : water
Quant Method : G:\HERBIE\DATA\190814\8011106A.M

Vial: 69
Operator: MA,SS
Inst : Herbie
Multiplr: 1.00





ORGANICS
Raw Data

Quantitation Report (QT Reviewed)

Signal #1 : G:\HERBIE\DATA\191025\1025159.D\ECD1A.CH Vial: 59
Signal #2 : G:\HERBIE\DATA\191025\1025159.D\ECD2B.CH
Acq On : 11-12-19 23:50:27 Operator: MA,SS
Sample : BA02524W05 2/35.21G Inst : Herbie
Misc : water Multiplr: 0.99
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Nov 13 9:39 2019 Quant Results File: 8011106A.RES

Quant Method : G:\HERBIE\DATA\190814\8011106A.M (RTE Integrator)
Title : 504.1 OR 8011
Last Update : Tue Nov 12 13:30:16 2019
Response via : Initial Calibration
DataAcq Meth : DOHS504.M

Volume Inj. : 2µL
Signal #1 Phase : DB-35MS Signal #2 Phase: DB-XLB
Signal #1 Info : 0.25 Signal #2 Info : 0.50

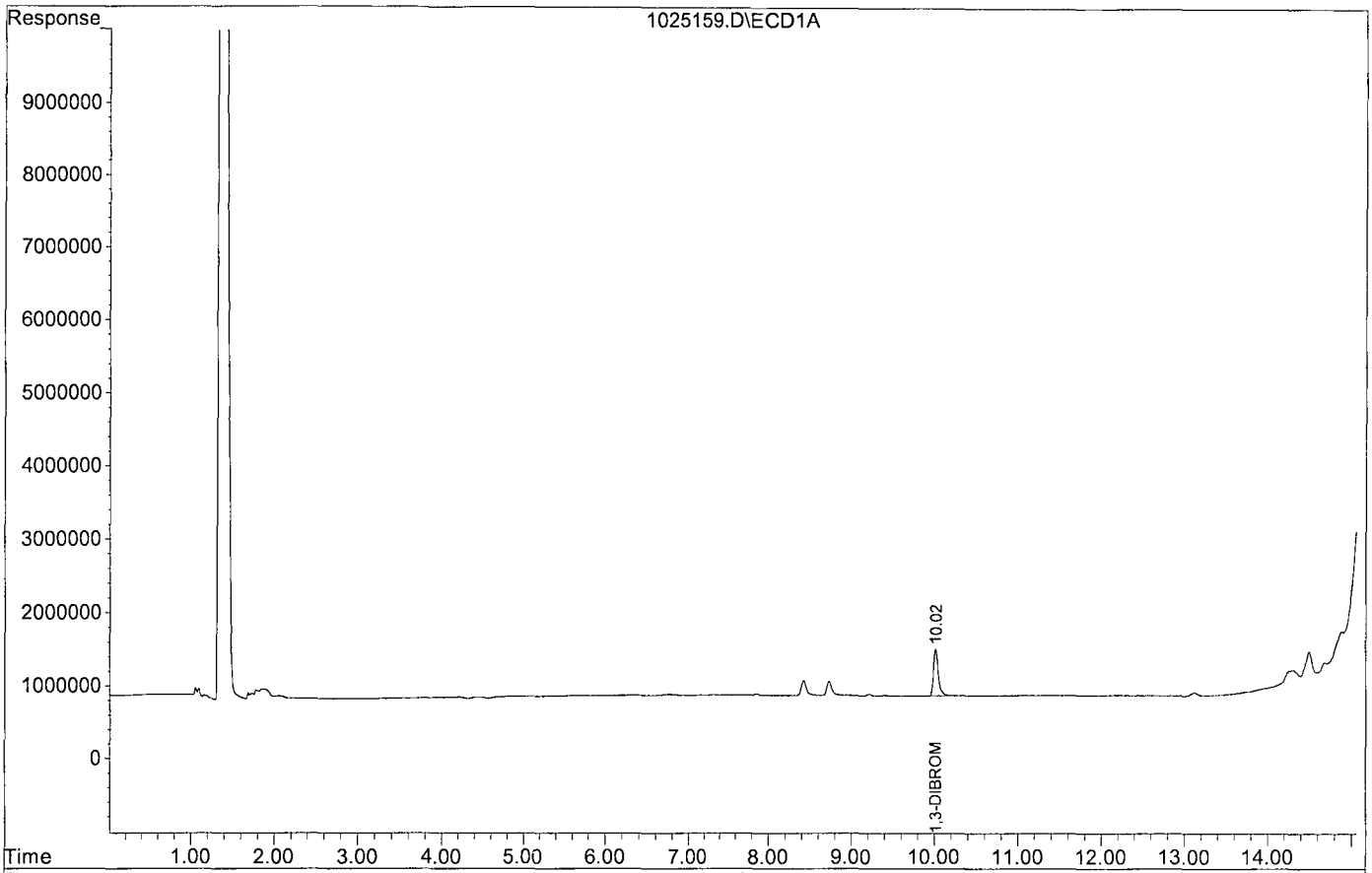
	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
	System Monitoring Compounds						
3) S	1,3-DIBROMOPROPA	10.02	11.03	642339	1574415	0.369	0.361
Spiked Amount	0.348			Recovery	=	106.06%	103.76%
	Target Compounds						
	Target Compounds						
1) TM	EDB	0.00	0.00	0	0	N.D. d	N.D. d
2) TM	1,2,3-TCP	0.00	0.00	0	0	N.D. d	N.D. d
4) TM	DBCP	0.00	0.00	0	0	N.D. d	N.D. d

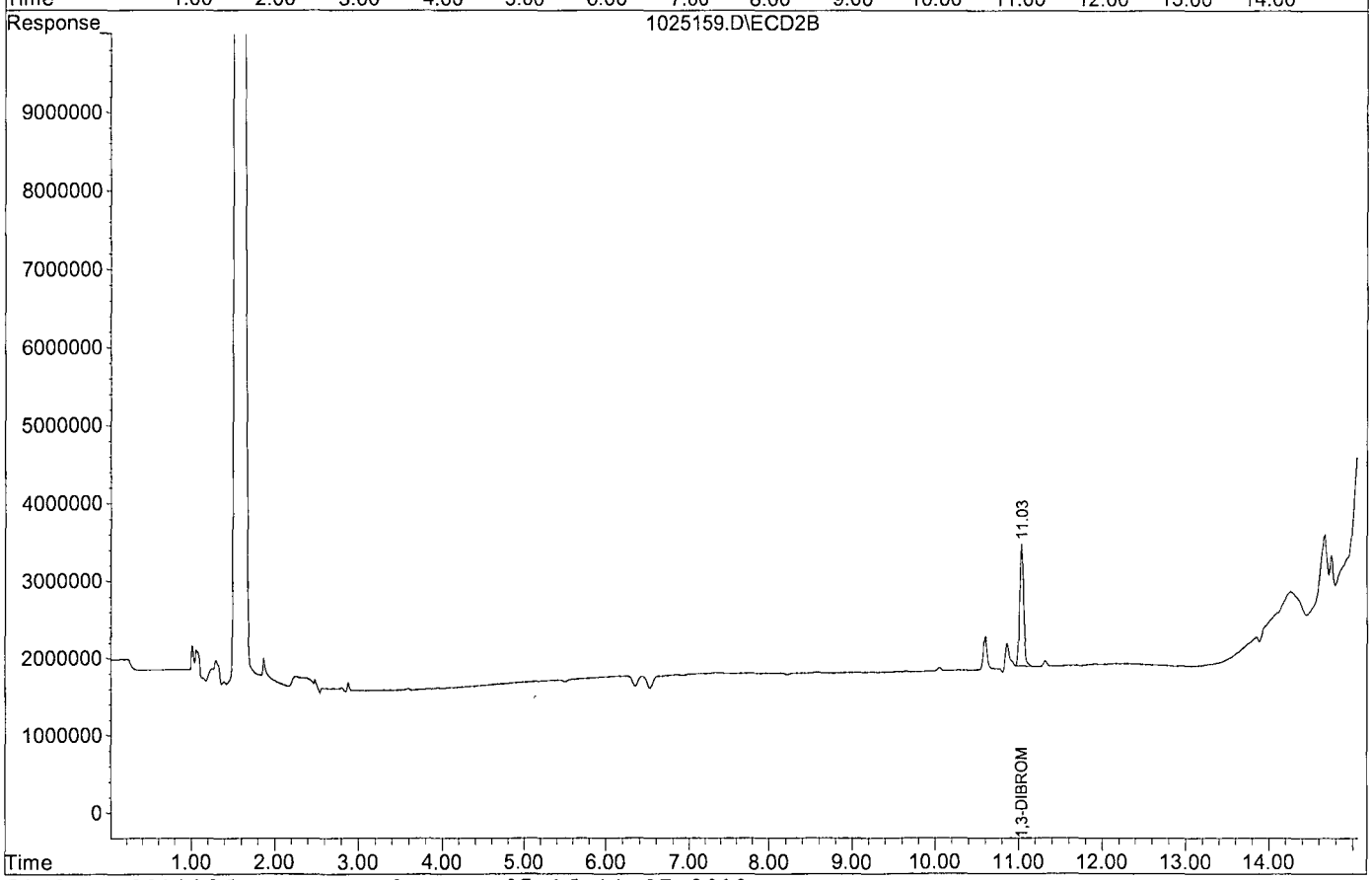
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : G:\HERBIE\DATA\191025\1025159.D
Acq On : 11-12-19 23:50:27
Sample : BA02524W05 2/35.21G
Misc : water
Quant Method : G:\HERBIE\DATA\190814\8011106A.M

Vial: 59
Operator: MA,SS
Inst : Herbie
Multiplr: 0.99





Quantitation Report (QT Reviewed)

Signal #1 : G:\HERBIE\DATA\191025\1025160.D\ECD1A.CH Vial: 60
Signal #2 : G:\HERBIE\DATA\191025\1025160.D\ECD2B.CH
Acq On : 11-13-19 0:10:27 Operator: MA,SS
Sample : BA02525W06 2/35.19G Inst : Herbie
Misc : water Multiplr: 0.99
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Nov 13 9:40 2019 Quant Results File: 8011106A.RES

Quant Method : G:\HERBIE\DATA\190814\8011106A.M (RTE Integrator)
Title : 504.1 OR 8011
Last Update : Tue Nov 12 13:30:16 2019
Response via : Initial Calibration
DataAcq Meth : DOHS504.M

Volume Inj. : 2µL
Signal #1 Phase : DB-35MS Signal #2 Phase: DB-XLB
Signal #1 Info : 0.25 Signal #2 Info : 0.50

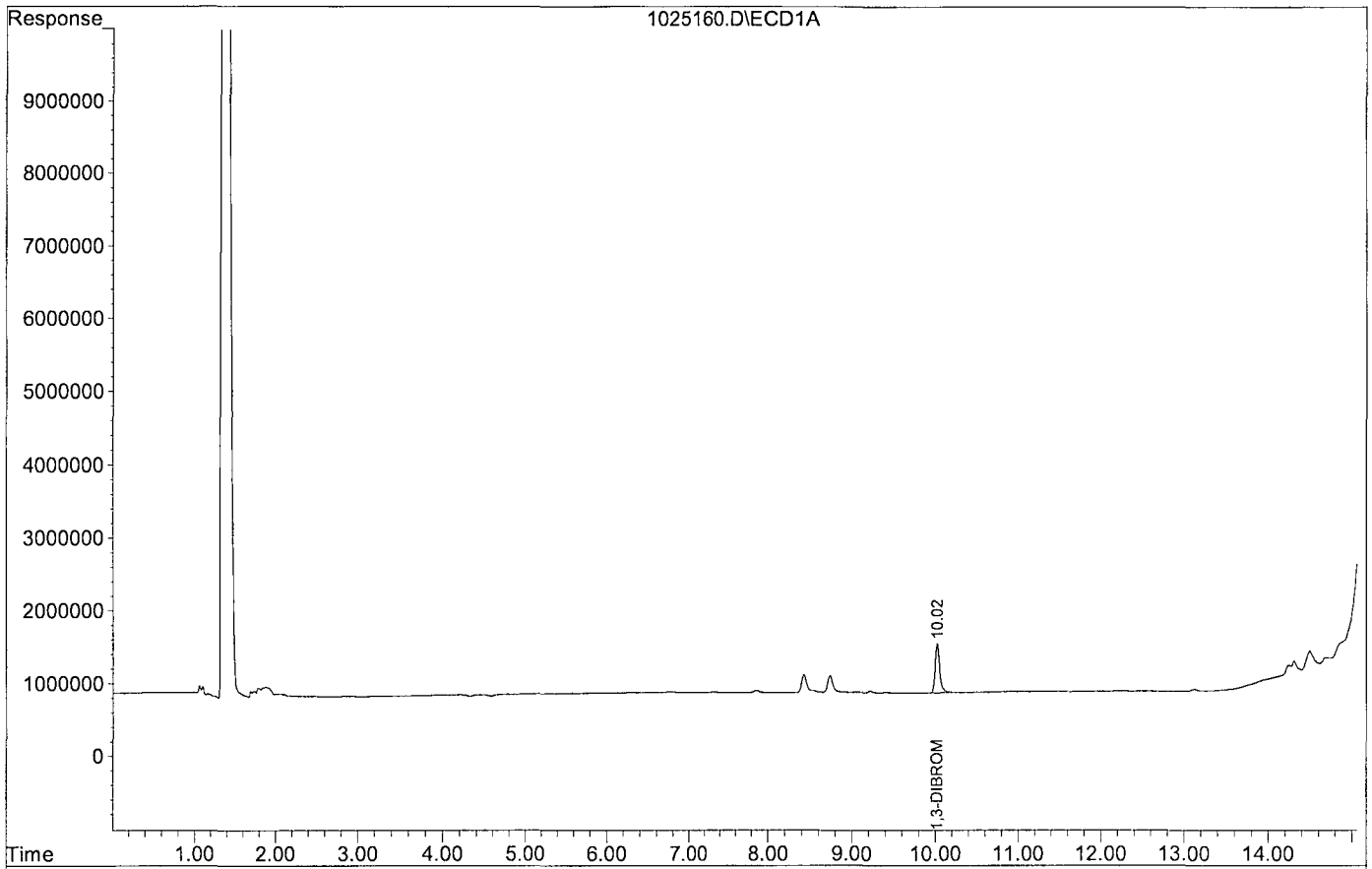
	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
	System Monitoring Compounds						
3) S	1,3-DIBROMOPROPA	10.02	11.03	674527	1650422	0.387	0.379
Spiked Amount	0.348			Recovery	=	111.17%	108.87%
	Target Compounds						
	Target Compounds						
1) TM	EDB	0.00	0.00	0	0	N.D. d	N.D. d
2) TM	1,2,3-TCP	0.00	0.00	0	0	N.D. d	N.D. d
4) TM	DBCP	0.00	0.00	0	0	N.D. d	N.D. d

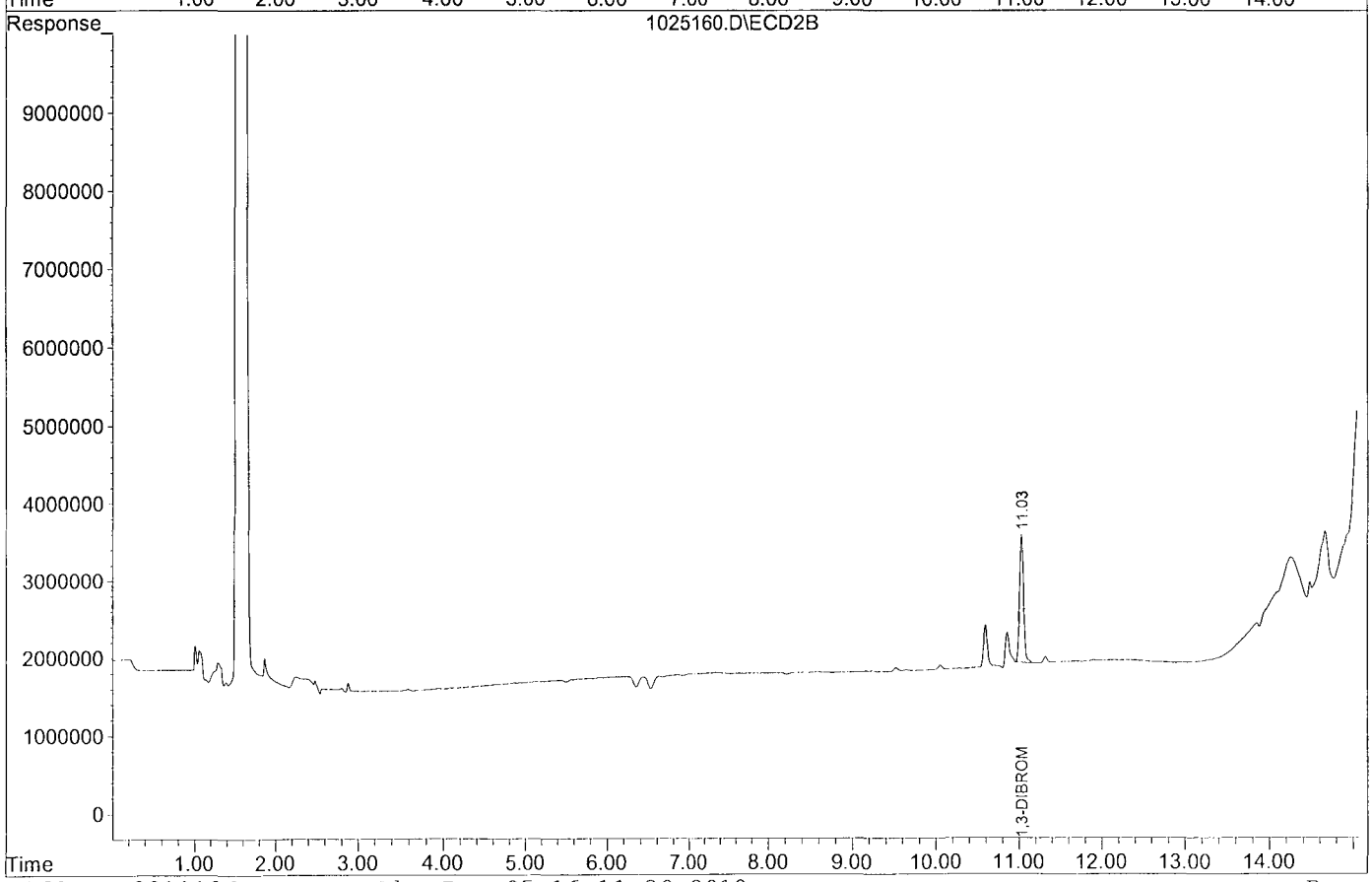
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : G:\HERBIE\DATA\191025\1025160.D
Acq On : 11-13-19 0:10:27
Sample : BA02525W06 2/35.19G
Misc : water
Quant Method : G:\HERBIE\DATA\190814\8011106A.M

Vial: 60
Operator: MA,SS
Inst : Herbie
Multiplr: 0.99





Quantitation Report (QT Reviewed)

Signal #1 : G:\HERBIE\DATA\191025\1025154.D\ECD1A.CH Vial: 54
Signal #2 : G:\HERBIE\DATA\191025\1025154.D\ECD2B.CH
Acq On : 11-12-19 22:09:58 Operator: MA,SS
Sample : 191111A BLK 2/35.20G Inst : Herbie
Misc : water Multiplr: 0.99
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Nov 13 9:34 2019 Quant Results File: 8011106A.RES

Quant Method : G:\HERBIE\DATA\190814\8011106A.M (RTE Integrator)
Title : 504.1 OR 8011
Last Update : Tue Nov 12 13:30:16 2019
Response via : Initial Calibration
DataAcq Meth : DOHS504.M

Volume Inj. : 2µL
Signal #1 Phase : DB-35MS Signal #2 Phase: DB-XLB
Signal #1 Info : 0.25 Signal #2 Info : 0.50

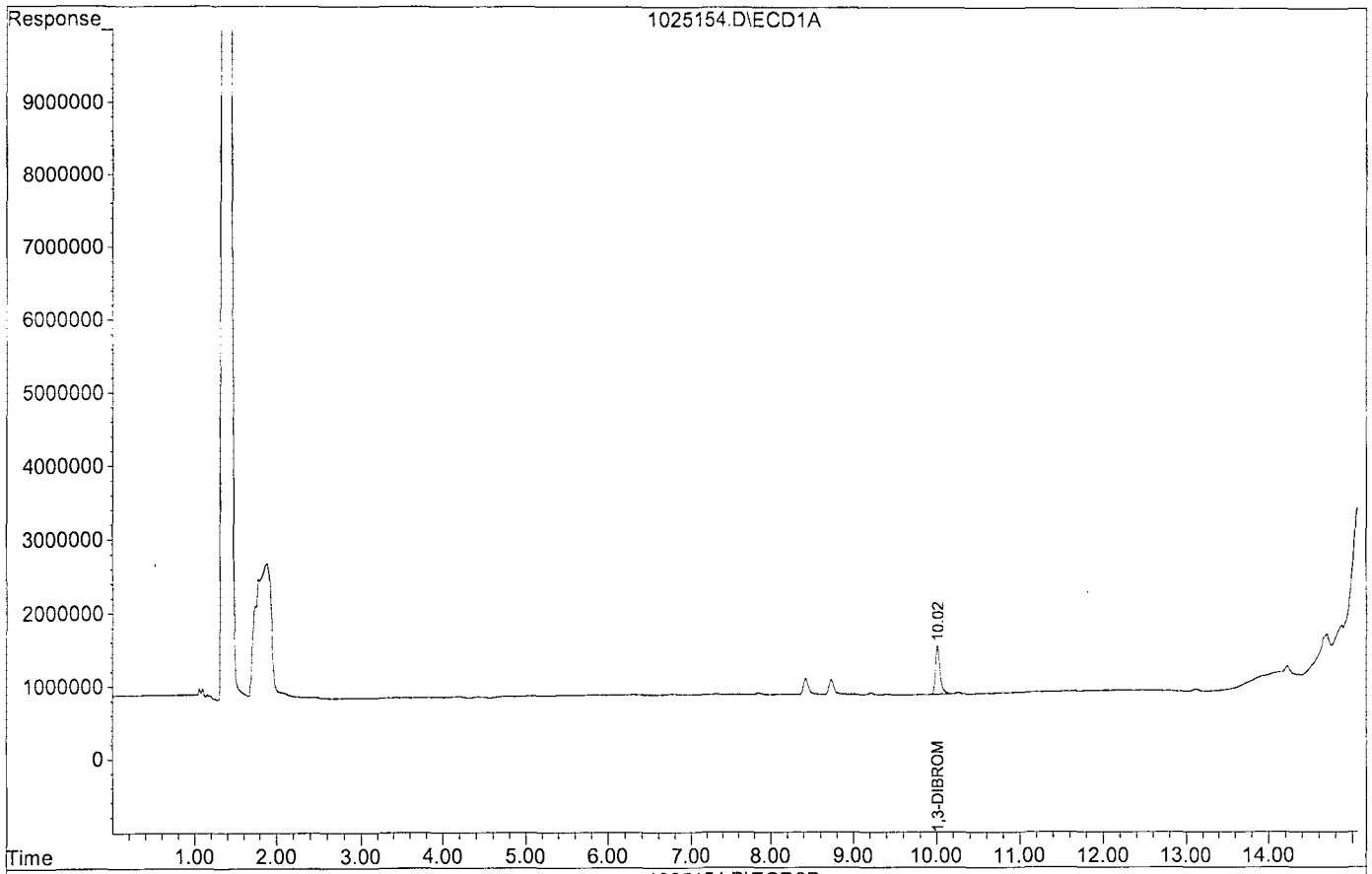
	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
	System Monitoring Compounds						
3) S	1,3-DIBROMOPROPA	10.02	11.03	657606	1621621	0.377	0.372
Spiked Amount	0.348			Recovery	=	108.33%	106.89%
	Target Compounds						
	Target Compounds						
1) TM	EDB	0.00	0.00	0	0	N.D. d	N.D. d
2) TM	1,2,3-TCP	0.00	0.00	0	0	N.D. d	N.D. d
4) TM	DBCP	0.00	0.00	0	0	N.D. d	N.D. d

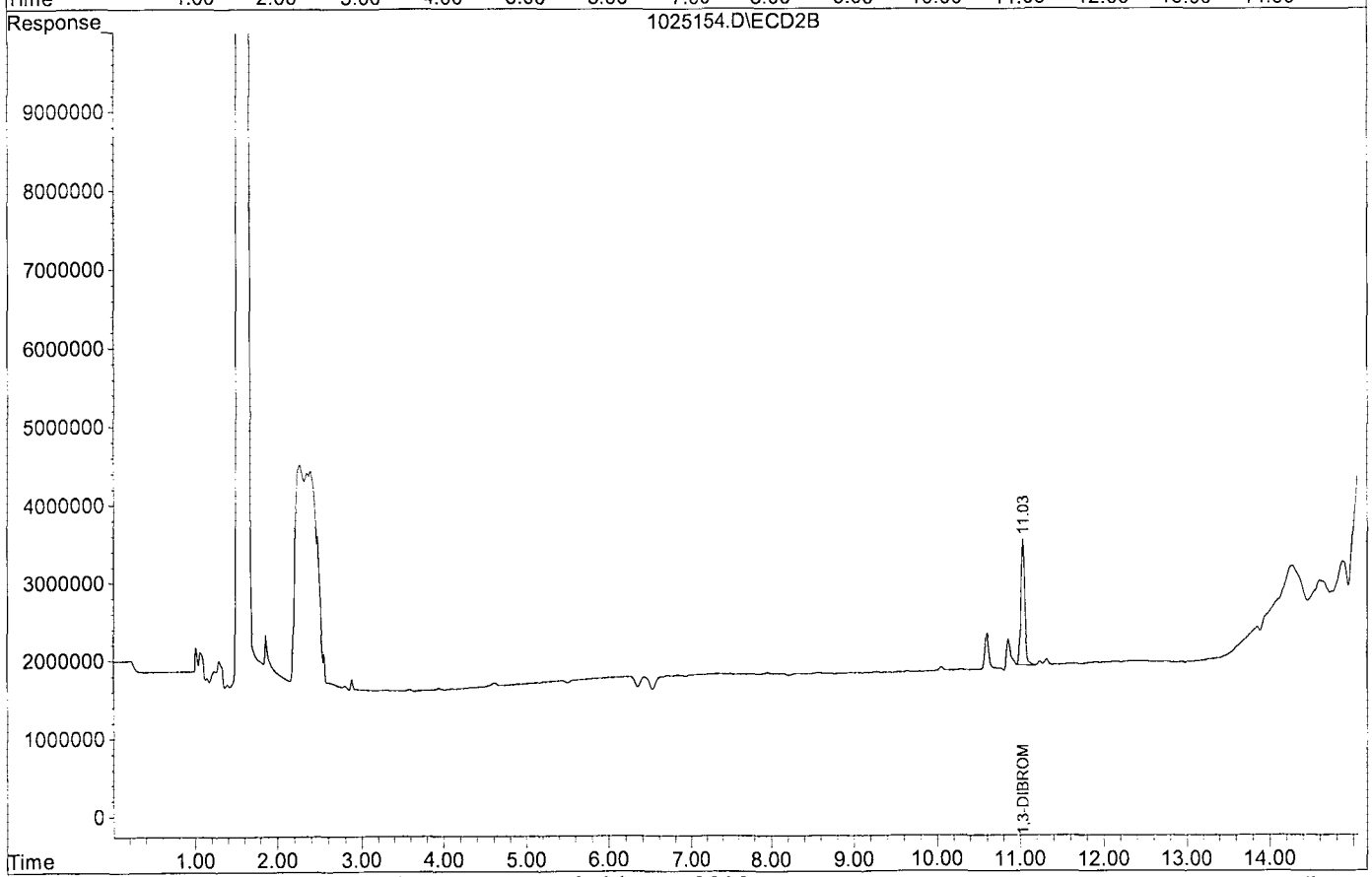
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : G:\HERBIE\DATA\191025\1025154.D
Acq On : 11-12-19 22:09:58
Sample : 191111A BLK 2/35.20G
Misc : water
Quant Method : G:\HERBIE\DATA\190814\8011106A.M

Vial: 54
Operator: MA,SS
Inst : Herbie
Multiplr: 0.99





Quantitation Report (Not Reviewed)

Signal #1 : G:\HERBIE\DATA\191025\1025155.D\ECD1A.CH Vial: 55
Signal #2 : G:\HERBIE\DATA\191025\1025155.D\ECD2B.CH
Acq On : 11-12-19 22:30:04 Operator: MA,SS
Sample : 191111A LCS-1 2/35.18G Inst : Herbie
Misc : water Multiplr: 0.99
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Nov 13 9:33 2019 Quant Results File: 8011106A.RES

Quant Method : G:\HERBIE\DATA\190814\8011106A.M (RTE Integrator)
Title : 504.1 OR 8011
Last Update : Tue Nov 12 13:30:16 2019
Response via : Initial Calibration
DataAcq Meth : DOHS504.M

Volume Inj. : 2µL
Signal #1 Phase : DB-35MS Signal #2 Phase: DB-XLB
Signal #1 Info : 0.25 Signal #2 Info : 0.50

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
	System Monitoring Compounds						
3) S	1,3-DIBROMOPROPA	10.02	11.03	455041	1094942	0.261	0.251
Spiked Amount	0.348			Recovery	=	74.95%	72.08%
	Target Compounds						
1) TM	EDB	5.79	7.21	348751	1635019	0.232	0.251
2) TM	1,2,3-TCP	9.25	10.44	126619	324997	0.281	0.271
4) TM	DBCP	13.34	14.08	1559272	4909189	0.270	0.260

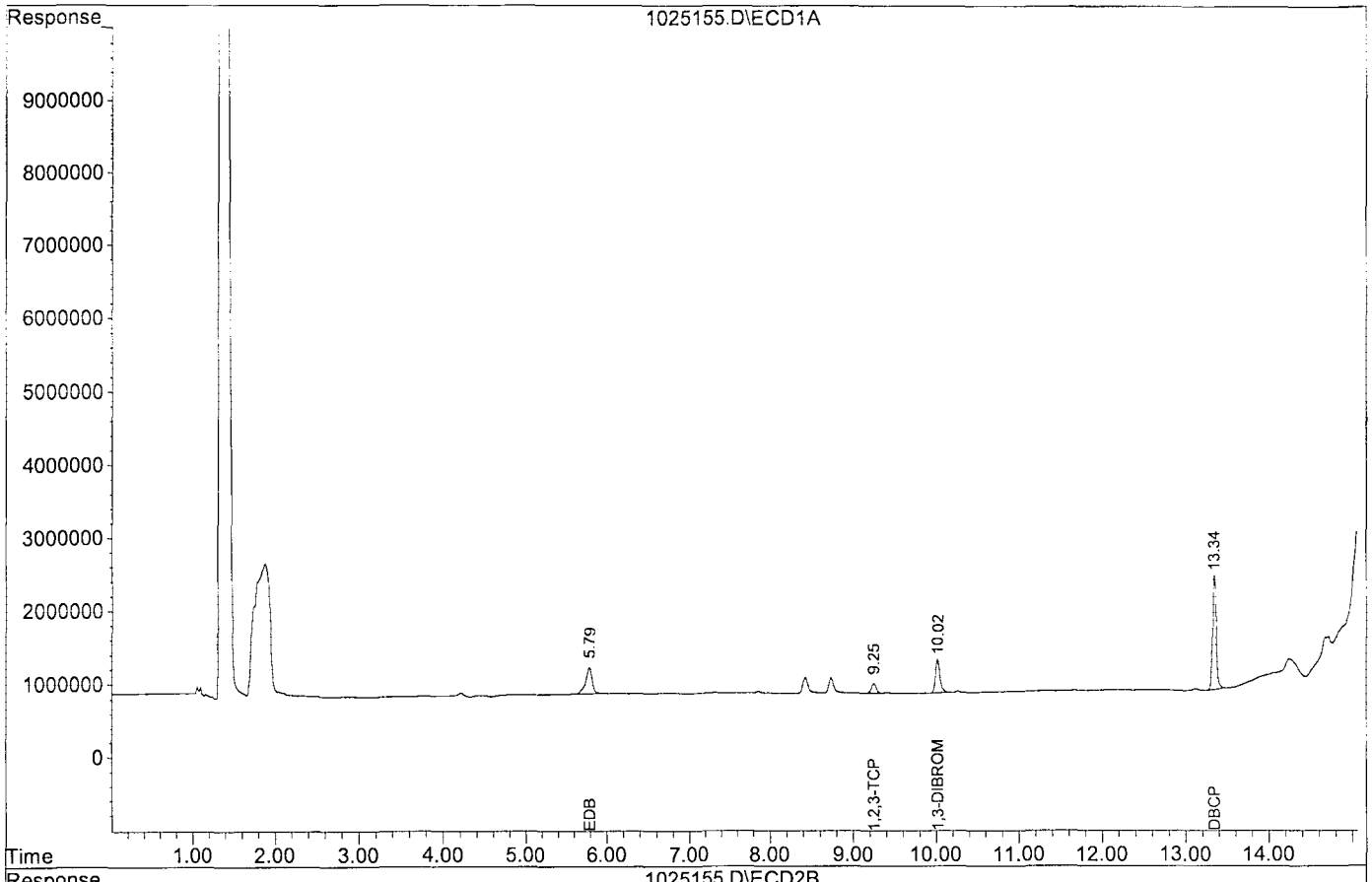
Target Compounds

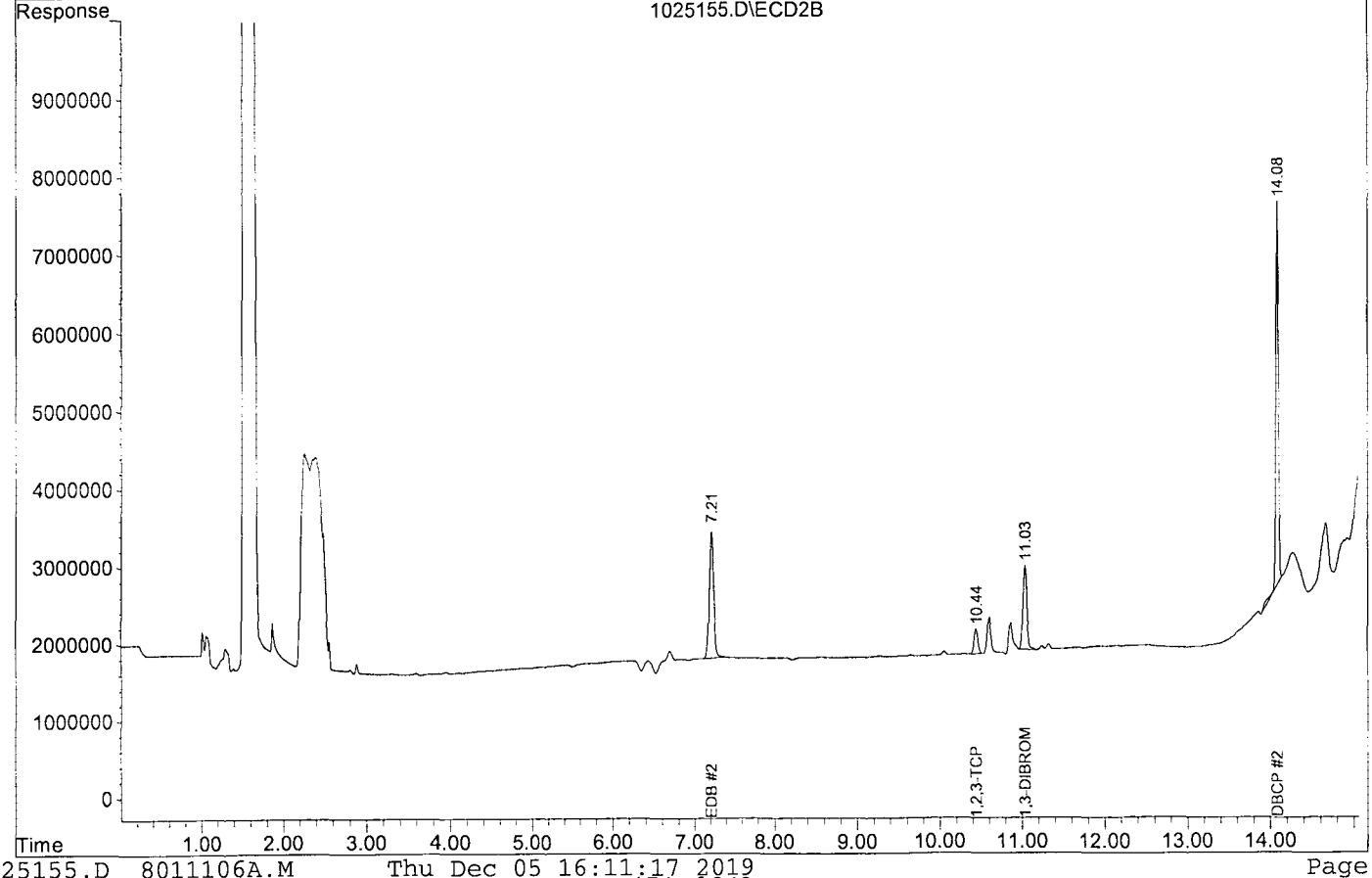
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (Not Reviewed)

Data File : G:\HERBIE\DATA\191025\1025155.D
Acq On : 11-12-19 22:30:04
Sample : 191111A LCS-1 2/35.18G
Misc : water
Quant Method : G:\HERBIE\DATA\190814\8011106A.M

Vial: 55
Operator: MA,SS
Inst : Herbie
Multiplr: 0.99





Quantitation Report (Not Reviewed)

Signal #1 : G:\HERBIE\DATA\191025\1025156.D\ECD1A.CH Vial: 56
Signal #2 : G:\HERBIE\DATA\191025\1025156.D\ECD2B.CH
Acq On : 11-12-19 22:50:16 Operator: MA,SS
Sample : 191111A LCSD-1 2/35.24G Inst : Herbie
Misc : water Multiplr: 0.99
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Nov 13 9:33 2019 Quant Results File: 8011106A.RES

Quant Method : G:\HERBIE\DATA\190814\8011106A.M (RTE Integrator)
Title : 504.1 OR 8011
Last Update : Tue Nov 12 13:30:16 2019
Response via : Initial Calibration
DataAcq Meth : DOHS504.M

Volume Inj. : 2µL
Signal #1 Phase : DB-35MS Signal #2 Phase: DB-XLB
Signal #1 Info : 0.25 Signal #2 Info : 0.50

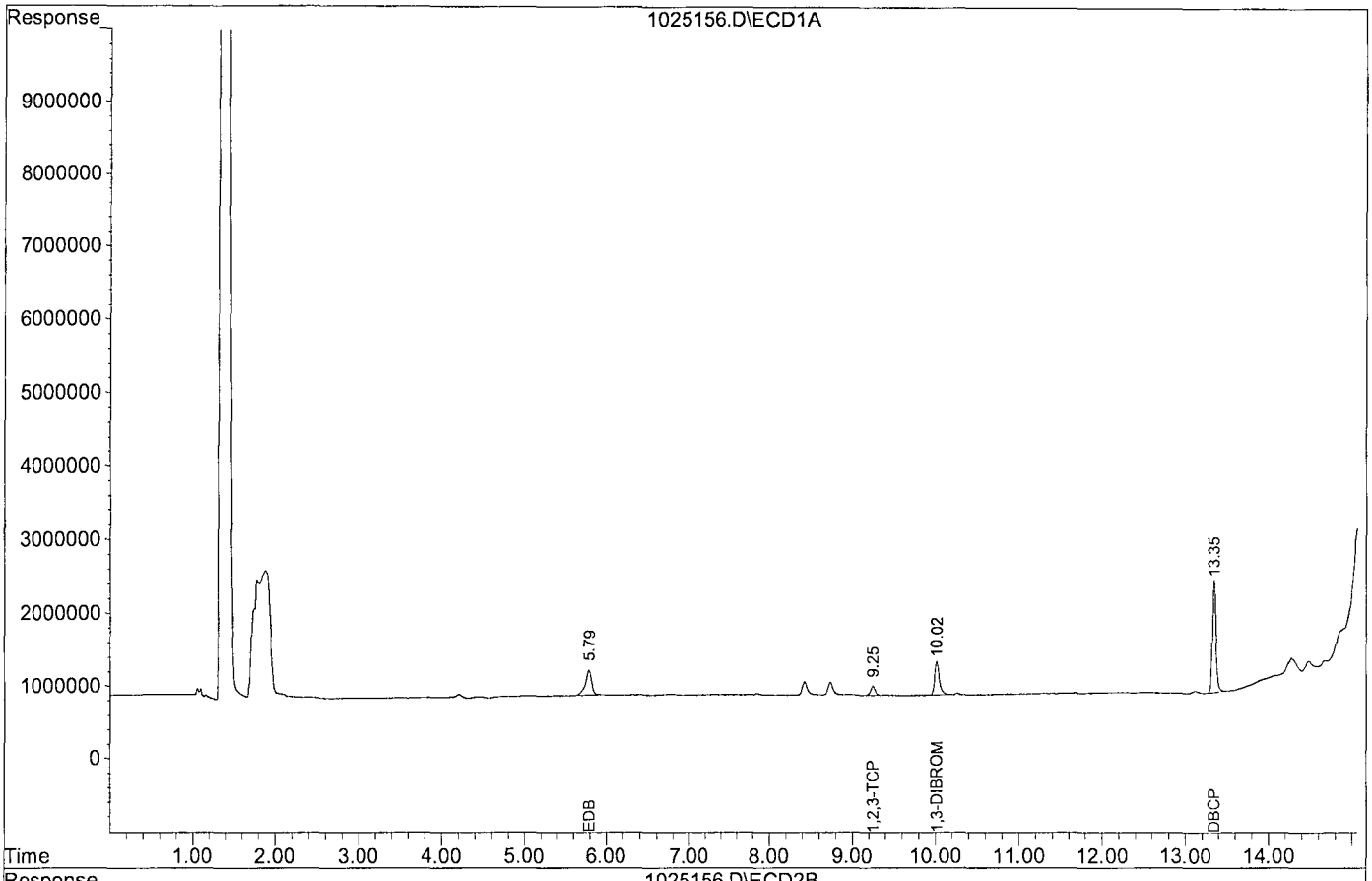
Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
System Monitoring Compounds						
3) S 1,3-DIBROMOPROPA	10.02	11.03	462809	1101122	0.265	0.252
Spiked Amount 0.348			Recovery =		76.23%	72.49%
Target Compounds						
1) TM EDB	5.79	7.21	344631	1610878	0.228	0.247
2) TM 1,2,3-TCP	9.25	10.44	128978	323683	0.286	0.270
4) TM DBCP	13.35	14.09	1527252	4874043	0.264	0.258
Target Compounds						

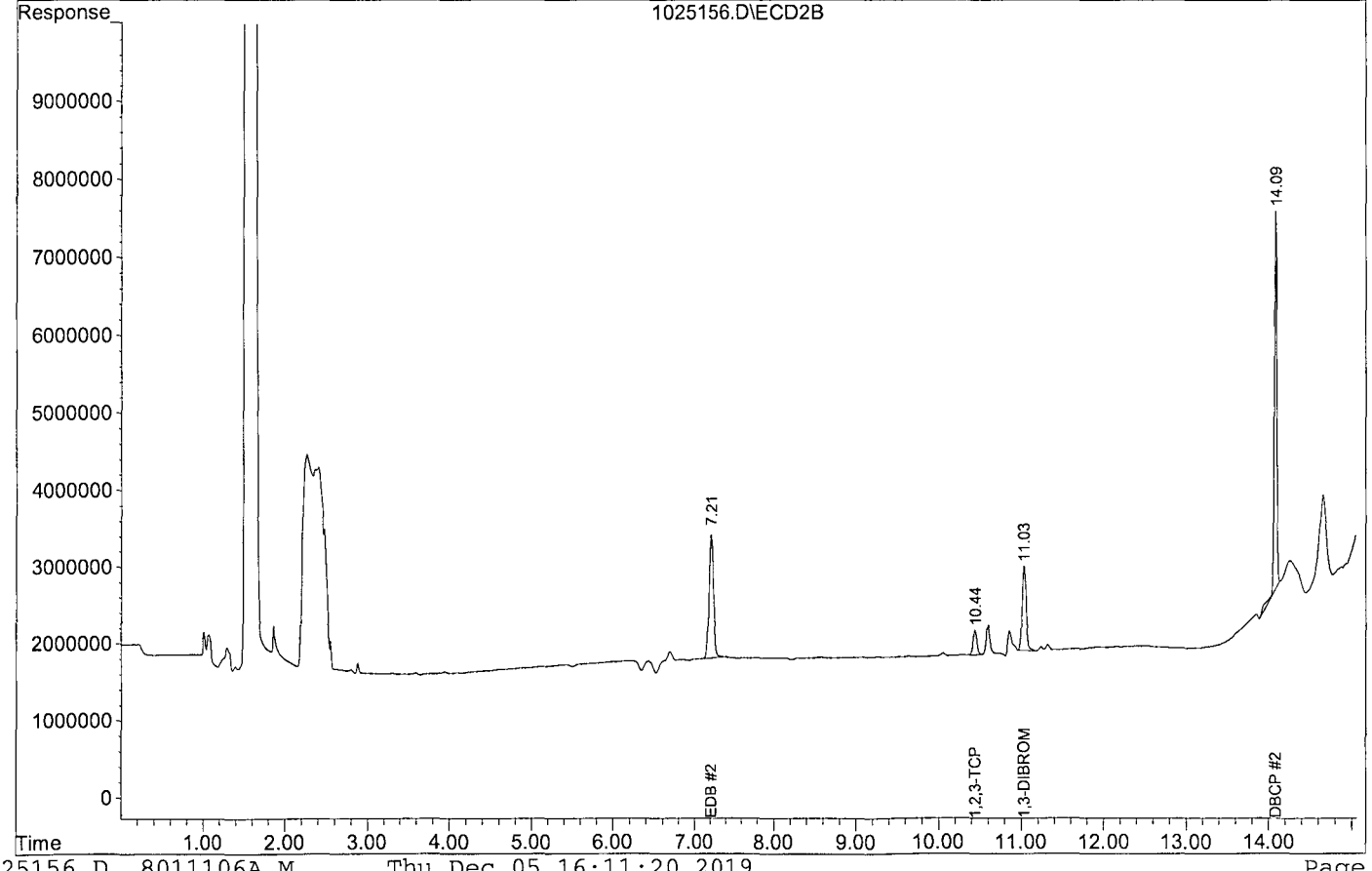
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (Not Reviewed)

Data File : G:\HERBIE\DATA\191025\1025156.D
Acq On : 11-12-19 22:50:16
Sample : 191111A LCSD-1 2/35.24G
Misc : water
Quant Method : G:\HERBIE\DATA\190814\8011106A.M

Vial: 56
Operator: MA,SS
Inst : Herbie
Multiplr: 0.99





Name of Final Standard: **504/8011 Spike** Prep'd By (Initials): GA

Prep Date: 10/31/19

Exp Date: 01/06/20

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from container Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc.(range)
504/8011 Stock	APPL	504/8011 Stock	0.35 ug/mL	**09/09/19**	**01/06/20**	1000 uL	10 mL	**Methanol #208858**	0.035 ug/mL

Name of Final Standard: **504/8011 SS SPK** Prep'd By (Initials): GA

Prep Date: 08/07/19

Exp Date: 12/07/19

Initial Standard Information						Final Standard Information			
(from container Label)	Supplier	APPL Mix Name)	Conc.(range)	to APPL prep date)	Exp Date	Stock	Volume	(or APPL Prep Date)	Conc (range)
504/8011 SS Stock	APPL	504/8011 SS Stock	0.35 ug/mL	**01/22/19**	**01/06/20**	1 mL	10 mL	**Methanol #042317C**	0.035 ug/mL

Name of Final Standard: **504/8011 Surrogate** Prep'd By (Initials): GA

Prep Date: 09/04/19

Exp Date: 01/06/19

Initial Standard Information						Final Standard Information			
(from container Label)	Supplier	APPL Mix Name)	Conc.(range)	to APPL prep date)	Exp Date	Stock	Volume	(or APPL Prep Date)	Conc (range)
1,3 DBP	APPL	1,3 DBP Stock	100 ug/mL	**05/07/19**	**01/06/20**	35 uL	10 mL	**Methanol #208858**	0.35ug/ml

_MWE012

Organic Extraction Worksheet

Method	EPA Method 8011 DBCP/EDB	Extraction Set	191111A	Extraction Method	MWE012	Units	mL

Spiked ID 1	504.1 M. SPIKE 10/31/19 EXP 01/06/20		Surrogate ID 1	504.1 Surrogate 09/04/19 EXP 01/06/20	
Spiked ID 2	504.1 SS 08/07/19 EXP 12/17/19		Surrogate ID 2		
Spiked ID 3			Surrogate ID 3		
Spiked ID 4			Surrogate ID 4		
Spiked ID 5			Surrogate ID 5		
Spiked ID 6			Sufficient Vol for Matrix QC:		
Spiked ID 7			Ext. Start Time:	11/11/19 14:35	
Spiked ID 8			Ext. End Time:	11/12/19 9:30	
			GC Requires Extract By:		

pH1			Water Bath Temp 1 °C	
pH2			Water Bath Temp 2 °C	
pH3			Water Bath Temp 3 °C	

Spiked By: DL **Date** 11/11/19 **Witnessed By:** YL **Date** 11/11/19

	Sample	Sample Container	Spike Amount	Spike ID	Surrogate Amount	Surrogate ID	Extract Amount	Final Volume	pH	Extract Date/Time	Comments
1	191111A Blk				0.035	1 equip	35.20g	2	7	11/11/19 14:35	
2	191111A LCS-1		0.250	NA	NA	NA equip	35.18g	2	7	11/11/19 14:35	
3	191111A LCSD-1		0.250	NA	NA	NA equip	35.24g	2	7	11/11/19 14:35	
4	BA02465	BA02465W06			0.035	1 equip	35.32g	2	7	11/11/19 14:35	90648
5	BA02466	BA02466W07			0.035	1 equip	35.16g	2	7	11/11/19 14:35	90648
6	BA02524	BA02524W05			0.035	1 equip	35.21g	2	7	11/11/19 14:35	90657
7	BA02525	BA02525W06			0.035	1 equip	35.19g	2	7	11/11/19 14:35	90657
8	BA02649	BA02649W01			0.035	1 equip	35.47g	2	7	11/11/19 14:35	90642 PT
9	BA02712	BA02712W05			0.035	1 equip	35.04g	2	7	11/11/19 14:35	90700
10	BA02713	BA02713W06			0.035	1 equip	35.44g	2	7	11/11/19 14:35	90700
11	BA02714	BA02714W06			0.035	1 equip	35.51g	2	7	11/11/19 14:35	90700
12	BA02715	BA02715W14			0.035	1 equip	35.23g	2	7	11/11/19 14:35	90700
13	BA02716	BA02716W07			0.035	1 equip	35.06g	2	7	11/11/19 14:35	90700
14	M STD 1		0.020	NA	NA	NA equip	35.21g	2	7	11/11/19 14:35	
15	SS		0.100		0.035	1 equip	35.15g	2	7	11/11/19 14:35	

GA 11/22/19

Solvent and Lot#	
ph strip	HC863463
Sod. Thiosulfate	1016C241
NaCL	19A035211
GC2 Hexane (2mLs)	DT947

Extraction COC Transfer	
Extraction lab employee Initials	DL
GC analyst's initials	GA
Date	11/22/19
Time	13:30
Refrigerator	Hobart

	Technician's Initials
Scanned By	DL
Sample Preparation	DL
Extraction	DL
Concentration	DL

Modified	11/11/19 4:48:53 PM

Reviewed By: GA 158 of 649 **Date** 11/22/19

Injection Log

Directory: G:\HERBIE\DATA\191025\

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	20	1025122.D	1	8011 1 11/06/19	water	11-08-19 16:07:44
2	21	1025123.D	1	8011 2 11/06/19	water	11-08-19 16:28:04
3	22	1025124.D	1	8011 3 11/06/19	water	11-08-19 16:48:46
4	23	1025125.D	1	8011 4 11/06/19	water	11-08-19 17:09:07
5	24	1025126.D	1	8011 5 11/06/19	water	11-08-19 17:29:40
6	25	1025127.D	1	8011 6 11/06/19	water	11-08-19 17:50:18
7	26	1025128.D	1	8011 SS 11/06/19	water	11-08-19 18:10:46
8	53	1025153.D	1	8011 4 11/06/19	water	11-12-19 21:49:51
9	54	1025154.D	0.994318	191111A BLK 2/35.20G	water	11-12-19 22:09:58
10	55	1025155.D	0.99488	191111A LCS-1 2/35.18G	water	11-12-19 22:30:04
11	56	1025156.D	0.99319	191111A LCSD-1 2/35.24G	water	11-12-19 22:50:16
14	59	1025159.D	0.99404	BA02524W05 2/35.21G	water	11-12-19 23:50:27
15	60	1025160.D	0.9946	BA02525W06 2/35.19G	water	11-13-19 0:10:27
16	69	1025169.D	1	8011 4 11/06/19	water	11-13-19 3:10:49

ORGANICS
Calibration Data

TPH Extractables
DOC1114

Form 6
Initial Calibration

Lab Name: APPL, Inc.
Case No:
Matrix: Water

SDG No:
Initial Cal. Date: 11/14/19
Instrument: Apollo

Initials: BST

			1114003.D	1114004.D	1114005.D	1114006.D	1114007.D	1114008.D									
		Compound	1	2	3	4	5	6					Avg	%RSD	Type	r^2	Q
1	HATM	Diesel (C10-C24)	2027964	1336430	1489661	1454530	1384113	1359697					1508733	17	HATM		
2	HBTM	Motor Oil (C24-C40)	776455	819947	771703	744158	810038	798760					786843	3.6	HBTM		
3	SAL	Ortho-Terphenyl(S)	2345827	1504455	1492939	1513819	1376726	1360942					1599118	23	SA	0.997	
4	SA	Octacosane(S)	1517911	1093917	1010508	997320	1111697	1064489					1132640	17	SA		
5																	
6																	
7																	
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1.749733

Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\191114\1114003.D Vial: 3
Acq On : 11-14-19 19:39:49 Operator: BT
Sample : Diesel Motor Oil - 1 11/14/19 Inst : Apollo
Misc : water Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 15 9:20 2019 Quant Results File: DOC1114.RES

Method : G:\APOLLO\DATA\191114\DOC1114.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Nov 15 09:19:04 2019
Response via : Multiple Level Calibration

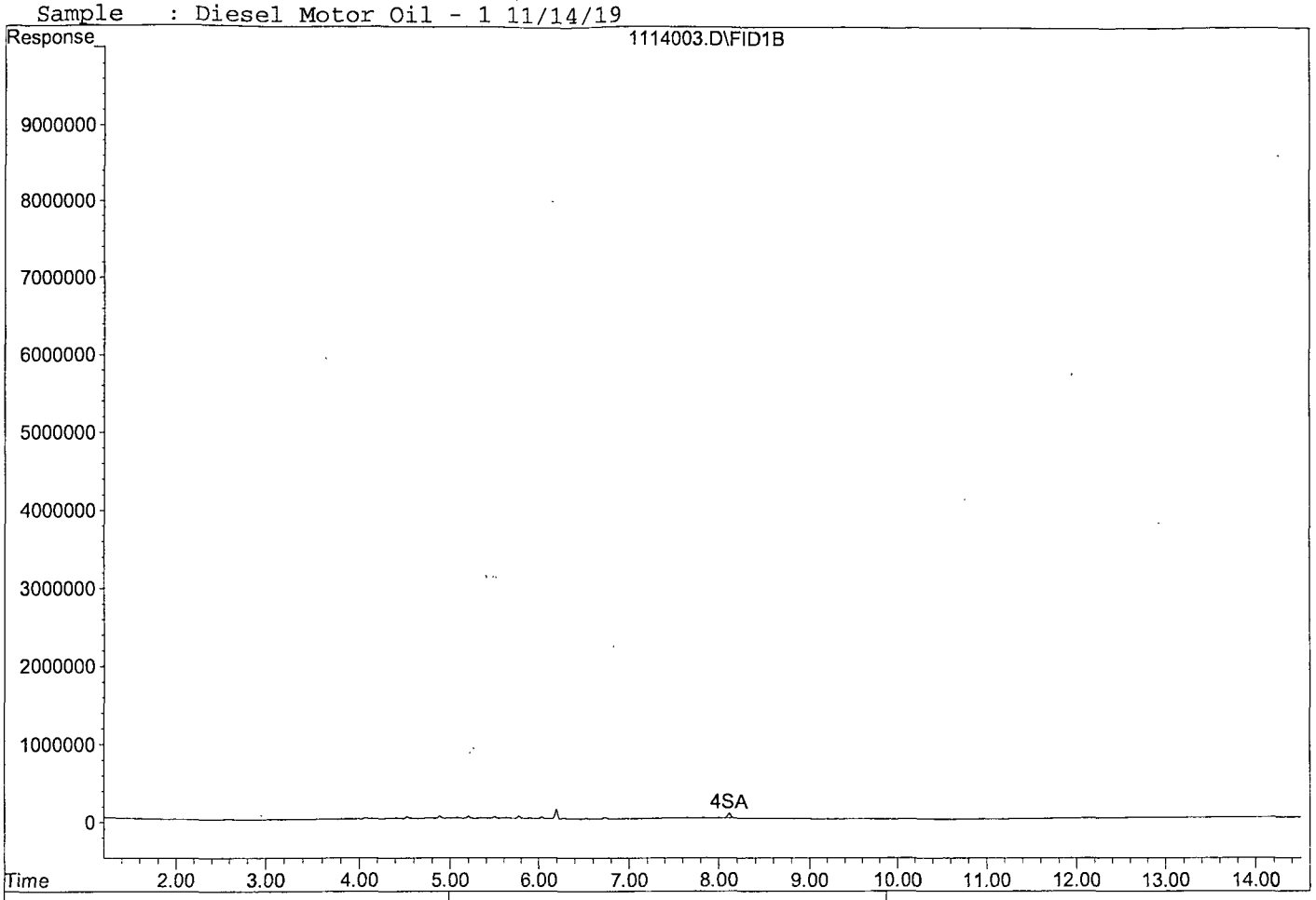
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

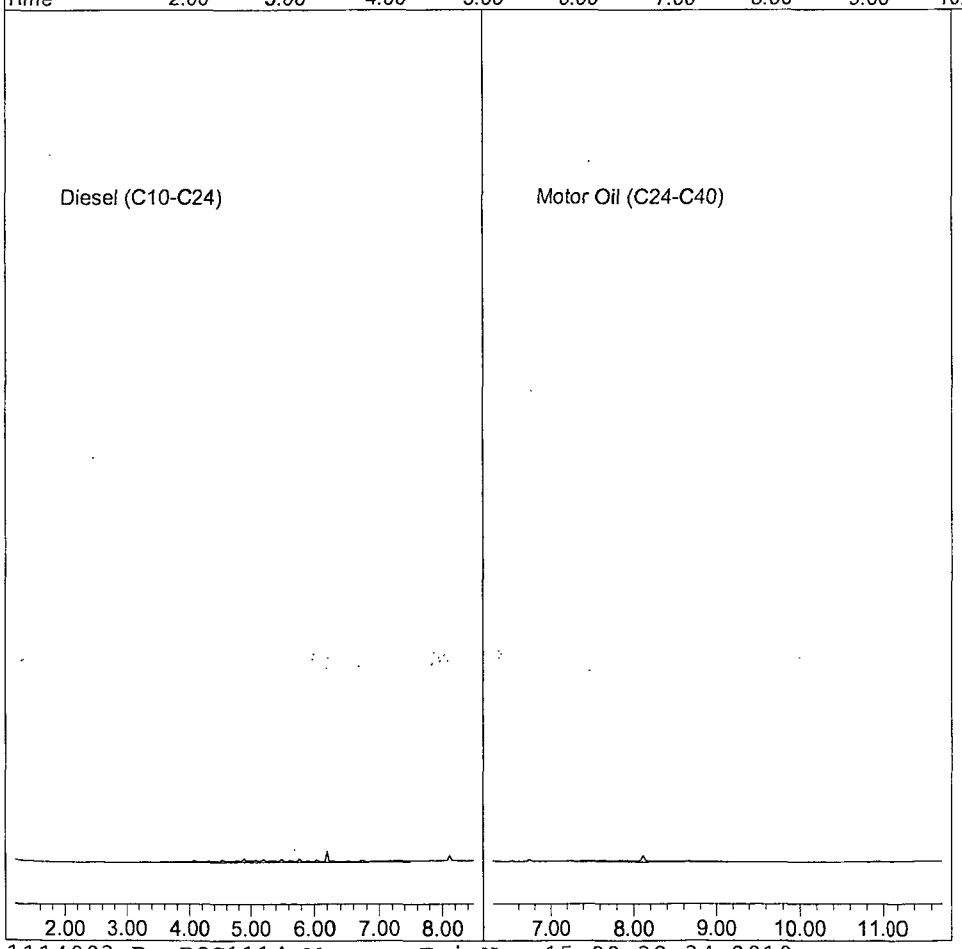
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) SA Ortho-Terphenyl(S)	6.20	2345827	N.D. ppb
Surrogate Spike 30.000	Recovery =		0.00%
4) SA Octacosane(S)	8.11	1517911	0.670 ppb
Surrogate Spike 30.000	Recovery =		2.23%
Target Compounds			
1) HATM Diesel (C10-C24)	4.42	40559274	13.446 ppb
2) HBTM Motor Oil (C24-C40)	9.01	15529092	9.868 ppb
Target Compounds			

(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File: G:\APOLLO\DATA\191114\1114003.D
Sample : Diesel Motor Oil - 1 11/14/19

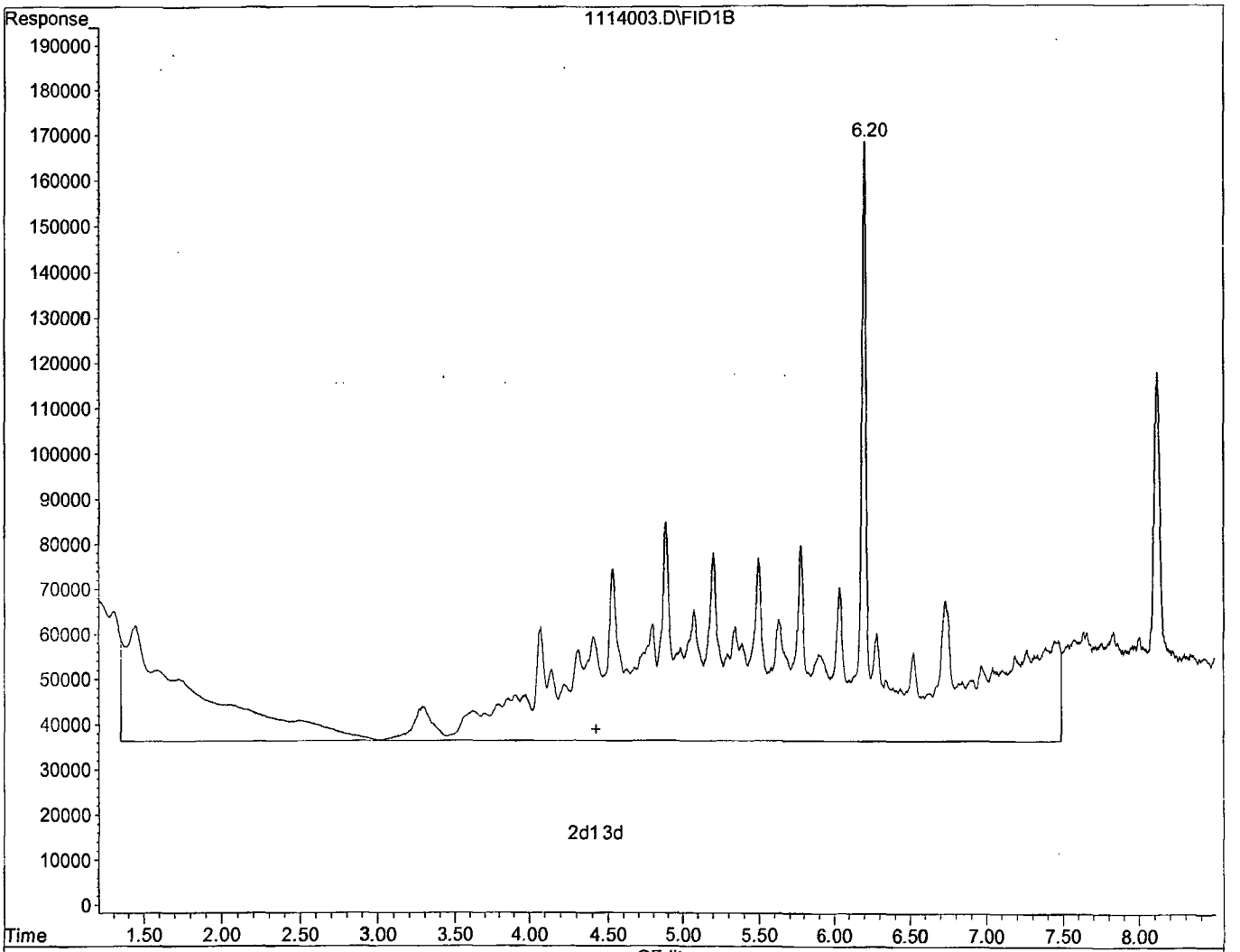




Quantitation Report

Data File : G:\APOLLO\DATA\191114\1114003.D Vial: 3
Acq On : 11-14-19 19:39:49 Operator: BT
Sample : Diesel Motor Oil - 1 11/14/19 Inst : Apollo
Misc : water Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 15 9:19 2019 Quant Results File: DOC1114.RES

Method : G:\APOLLO\DATA\191114\DOC1114.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Nov 15 09:19:04 2019
Response via : Multiple Level Calibration



(1) Diesel (C10-C24) (HATM)

4.42min 16.132ppb m

response 48662424

(+) = Expected Retention Time

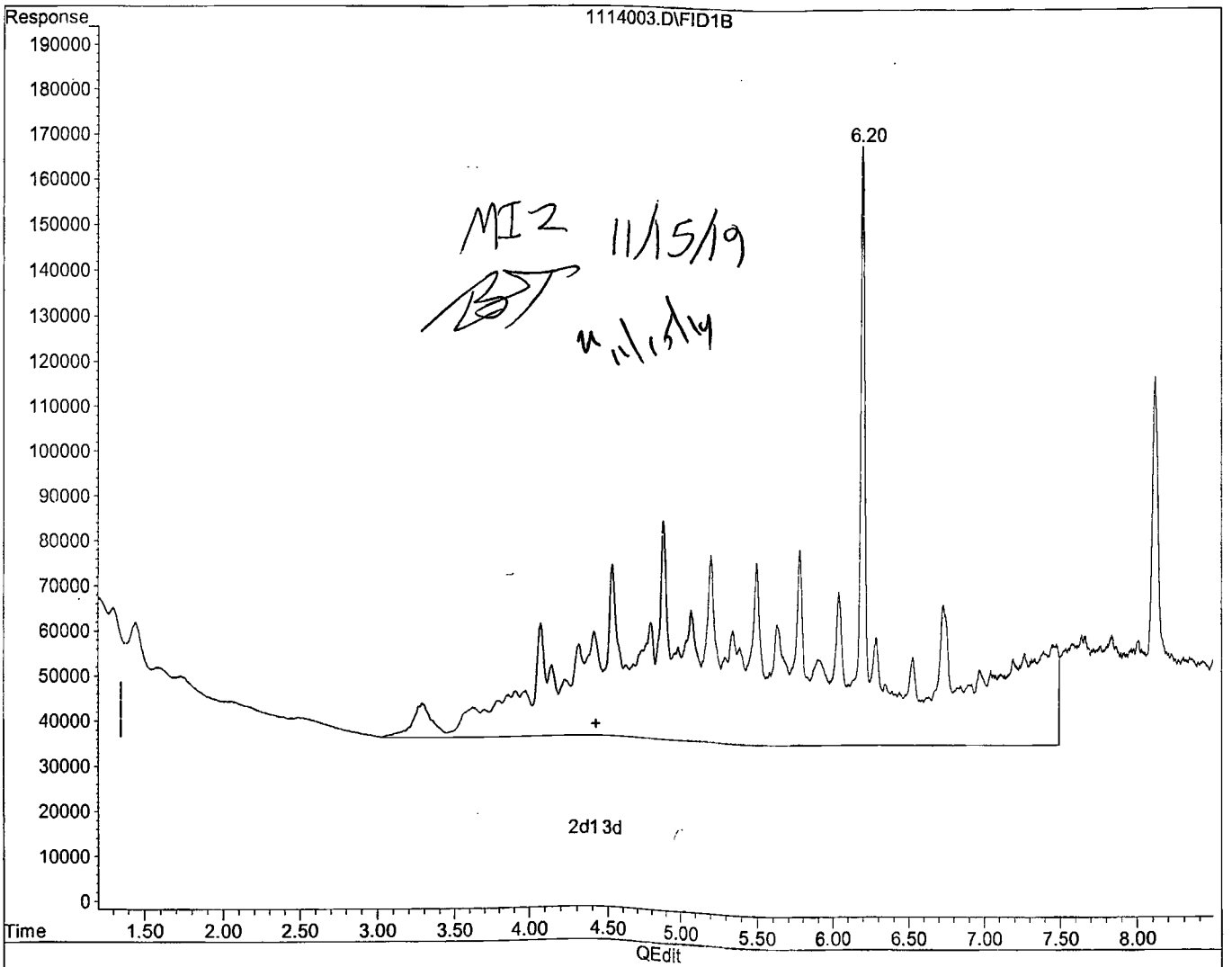
1114003.D DOC1114.M Fri Nov 15 09:20:13 2019

Quantitation Report

Data File : G:\APOLLO\DATA\191114\1114003.D
Acq On : 11-14-19 19:39:49
Sample : Diesel Motor Oil - 1 11/14/19
Misc : water
IntFile : events.e
Quant Time: Nov 15 9:19 2019 Quant Results File: DOC1114.RES

Vial: 3
Operator: BT
Inst : Apollo
Multiplr: 1.00

Method : G:\APOLLO\DATA\191114\DOC1114.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Nov 15 09:19:04 2019
Response via : Multiple Level Calibration



(1) Diesel (C10-C24) (HATM)

4.42min 13.446ppb m

response 40559274

(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\191114\1114004.D Vial: 4
Acq On : 11-14-19 19:59:46 Operator: BT
Sample : Diesel Motor Oil - 2 11/14/19 Inst : Apollo
Misc : water Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 15 9:21 2019 Quant Results File: DOC1114.RES

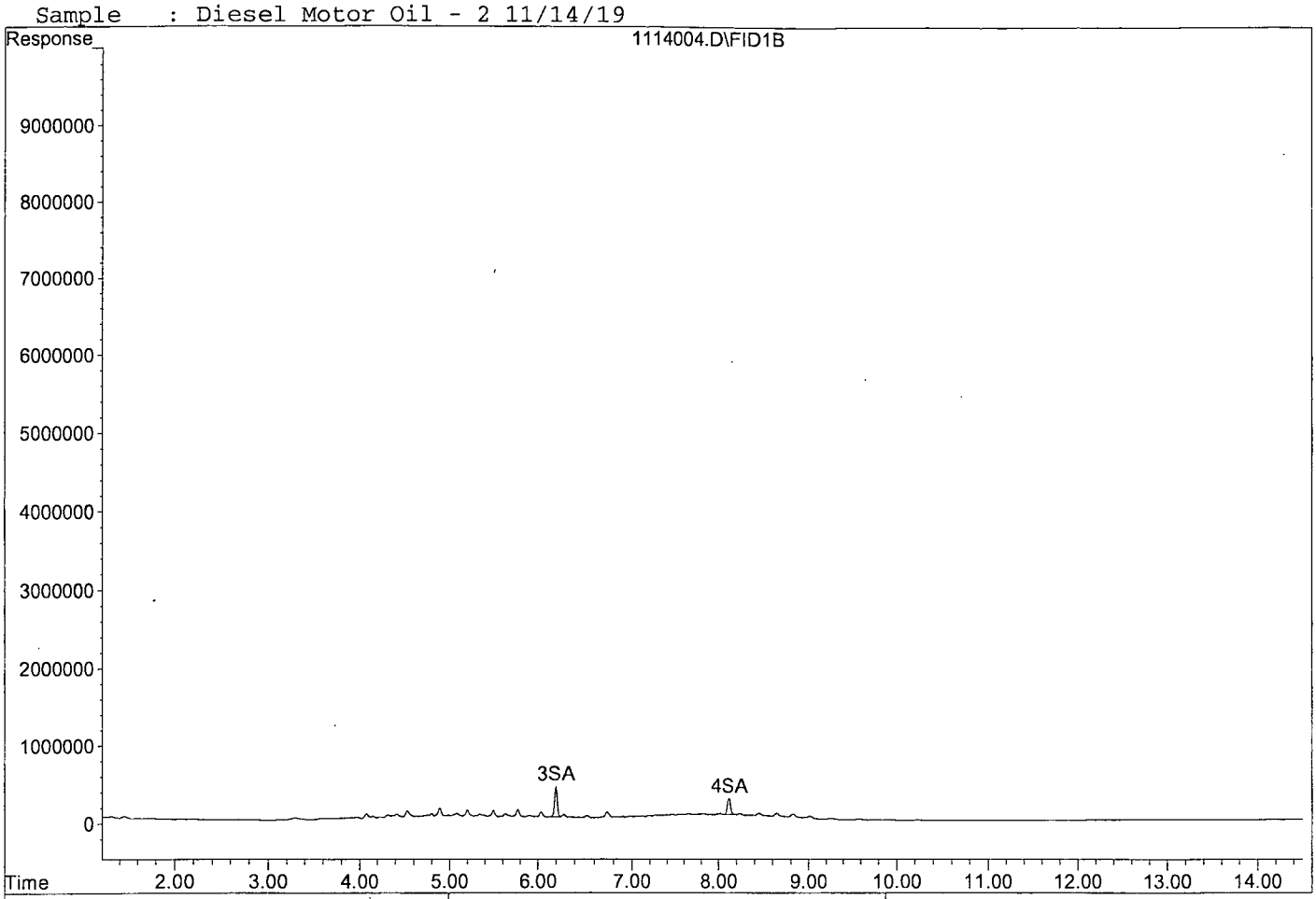
Method : G:\APOLLO\DATA\191114\DOC1114.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Nov 15 09:19:04 2019
Response via : Multiple Level Calibration

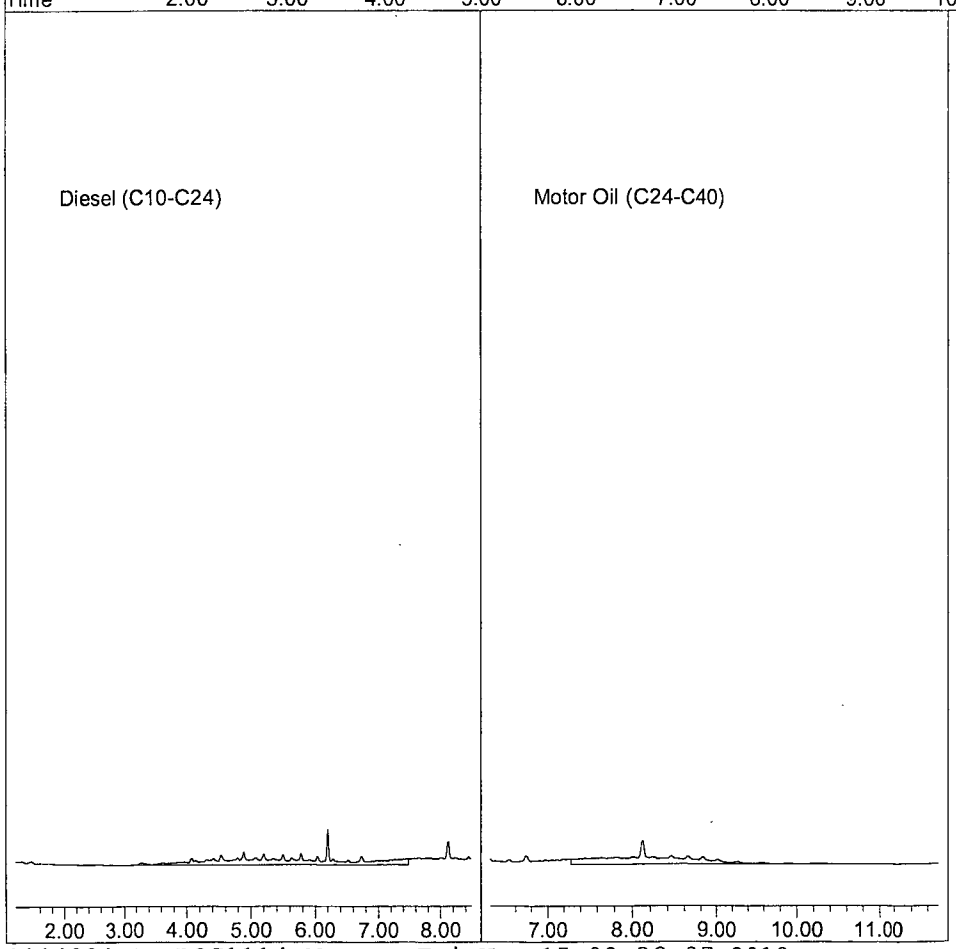
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) SA Ortho-Terphenyl(S)	6.20	7522274	1.503 ppb
Surrogate Spike 30.000	Recovery =		5.01%
4) SA Octacosane(S)	8.12	5469585	2.415 ppb
Surrogate Spike 30.000	Recovery =		8.05%
Target Compounds			
1) HATM Diesel (C10-C24)	4.42	133643009	44.304 ppb
2) HBTM Motor Oil (C24-C40)	9.01	81994744	52.104 ppb
Target Compounds			

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: G:\APOLLO\DATA\191114\1114004.D
Sample : Diesel Motor Oil - 2 11/14/19

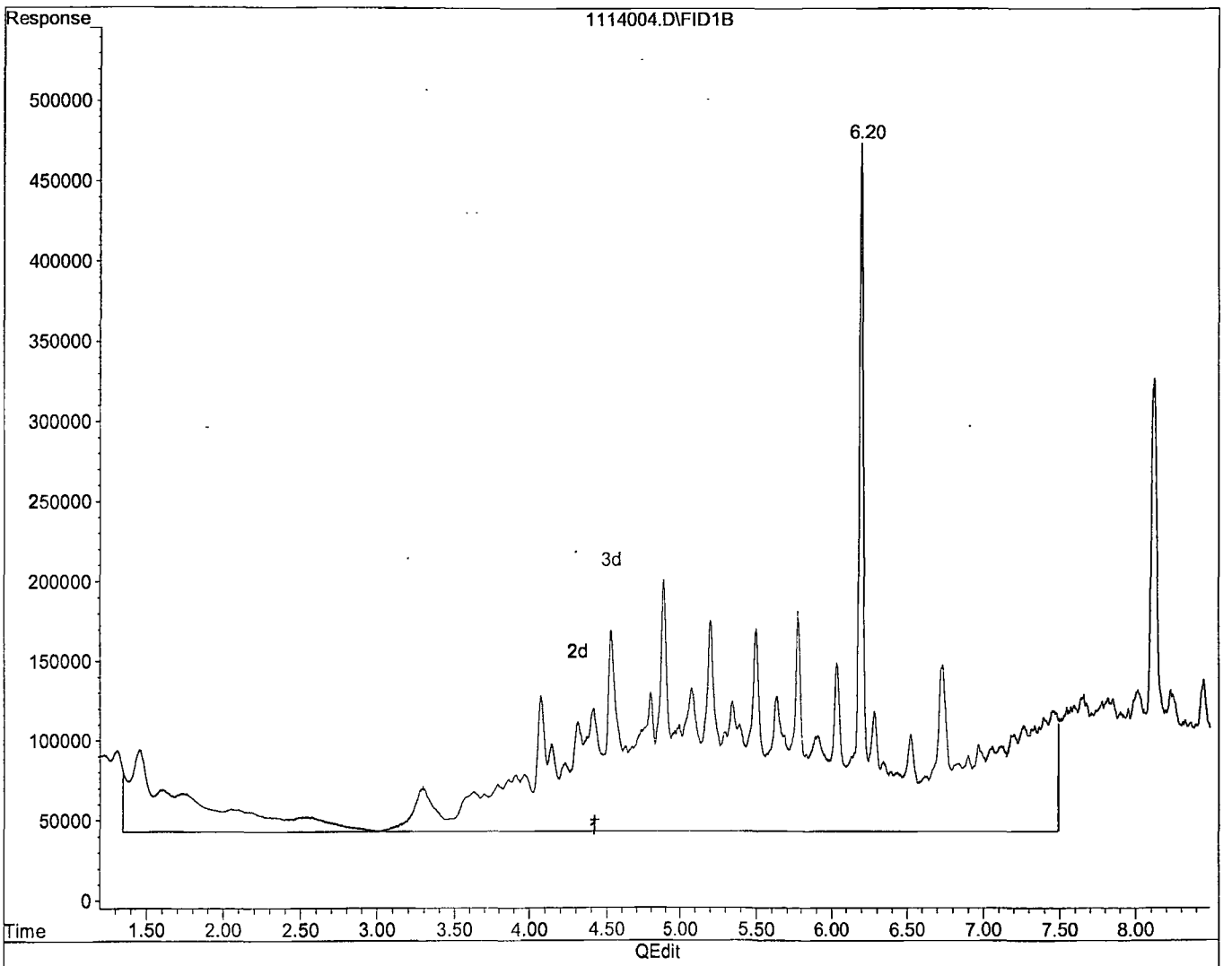




Quantitation Report

Data File : G:\APOLLO\DATA\191114\1114004.D Vial: 4
Acq On : 11-14-19 19:59:46 Operator: BT
Sample : Diesel Motor Oil - 2 11/14/19 Inst : Apollo
Misc : water Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 15 9:19 2019 Quant Results File: DOC1114.RES

Method : G:\APOLLO\DATA\191114\DOC1114.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Nov 15 09:19:04 2019
Response via : Multiple Level Calibration



(1) Diesel (C10-C24) (HATM)

4.42min 48.922ppb m

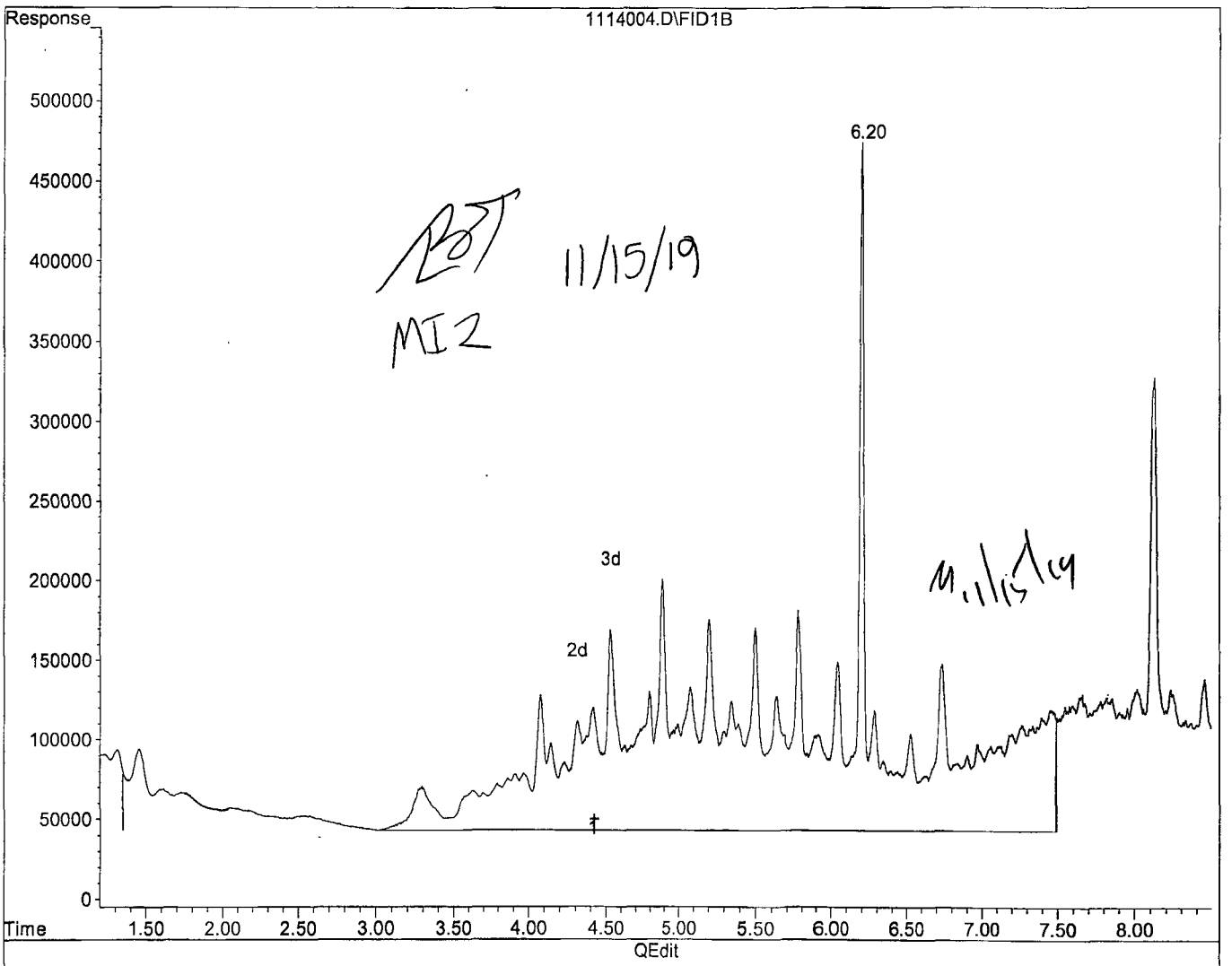
response 147576006

(+) = Expected Retention Time
1114004.D DOC1114.M Fri Nov 15 09:21:02 2019

Quantitation Report

Data File : G:\APOLLO\DATA\191114\1114004.D Vial: 4
Acq On : 11-14-19 19:59:46 Operator: BT
Sample : Diesel Motor Oil - 2 11/14/19 Inst : Apollo
Misc : water Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 15 9:19 2019 Quant Results File: DOC1114.RES

Method : G:\APOLLO\DATA\191114\DOC1114.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Nov 15 09:19:04 2019
Response via : Multiple Level Calibration



(1) Diesel (C10-C24) (HATM)

4.42min 44.304ppb m

response 133643009

(+) = Expected Retention Time

1114004.D DOC1114.M Fri Nov 15 09:21:28 2019

Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\191114\1114005.D Vial: 5
Acq On : 11-14-19 20:19:39 Operator: BT
Sample : Diesel Motor Oil - 3 11/14/19 Inst : Apollo
Misc : water Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 15 9:19 2019 Quant Results File: DOC1114.RES

Method : G:\APOLLO\DATA\191114\DOC1114.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Nov 15 09:19:04 2019
Response via : Multiple Level Calibration

Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

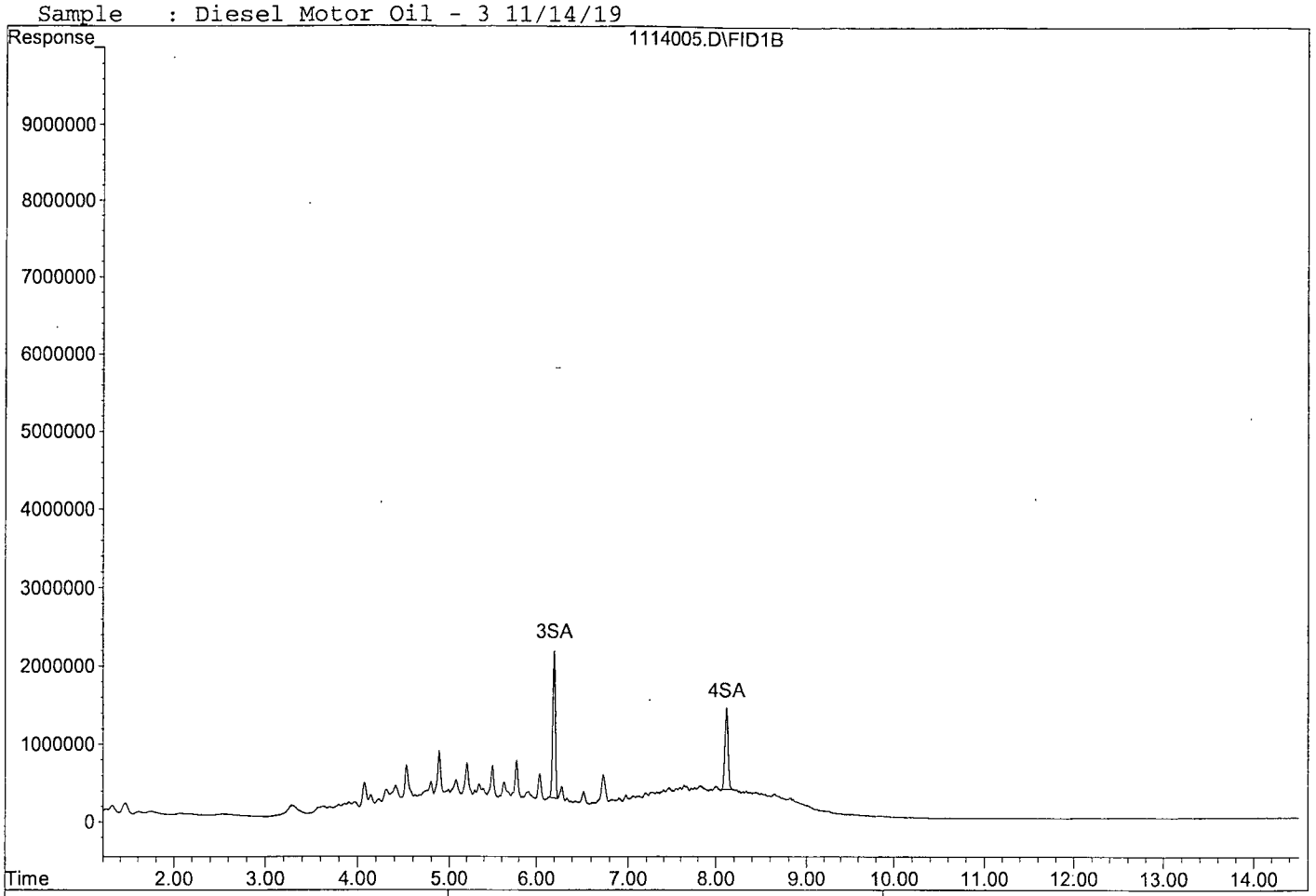
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) SA Ortho-Terphenyl(S)	6.20	37323483	12.416 ppb
Surrogate Spike 30.000	Recovery =		41.39%
4) SA Octacosane(S)	8.12	25262712	11.152 ppb
Surrogate Spike 30.000	Recovery =		37.17%
Target Compounds			
1) HATM Diesel (C10-C24)	4.42	744830742	246.917 ppb
2) HBTM Motor Oil (C24-C40)	9.01	385851504	245.190 ppb

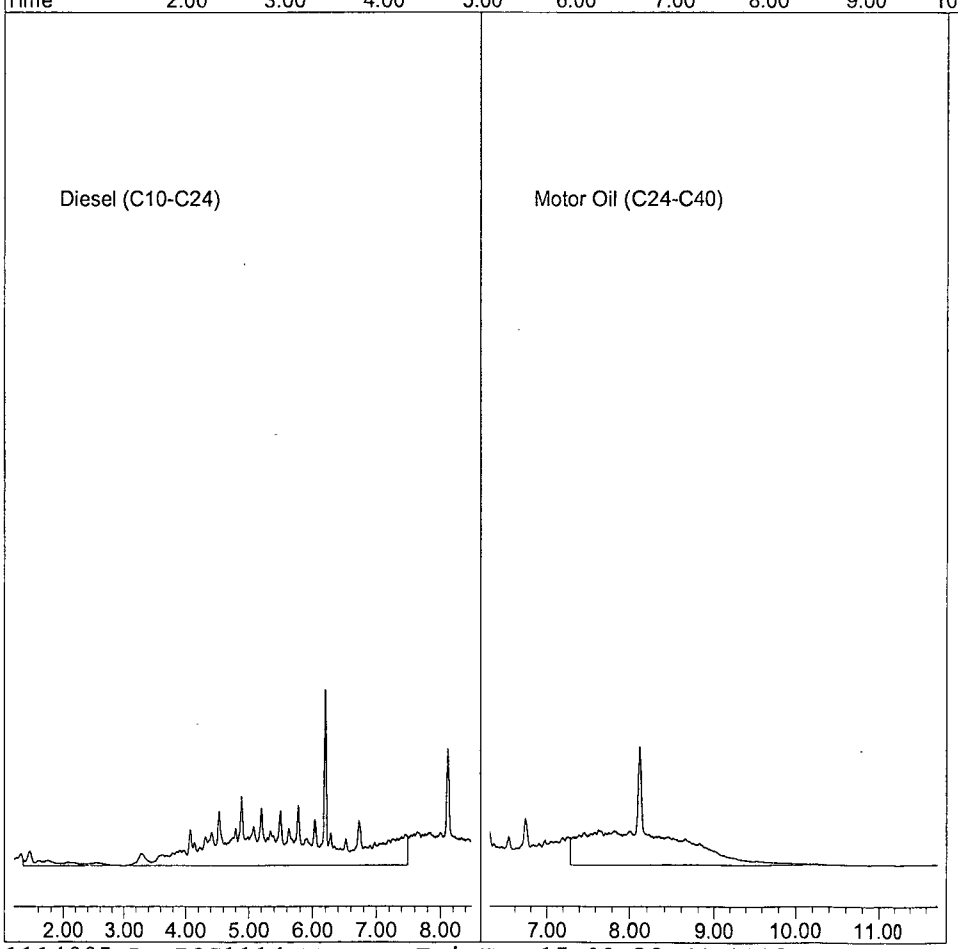
Target Compounds

(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File: G:\APOLLO\DATA\191114\1114005.D
Sample : Diesel Motor Oil - 3 11/14/19





Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\191114\1114006.D Vial: 6
Acq On : 11-14-19 20:39:34 Operator: BT
Sample : Diesel Motor Oil - 4 11/14/19 Inst : Apollo
Misc : water Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 15 9:19 2019 Quant Results File: DOC1114.RES

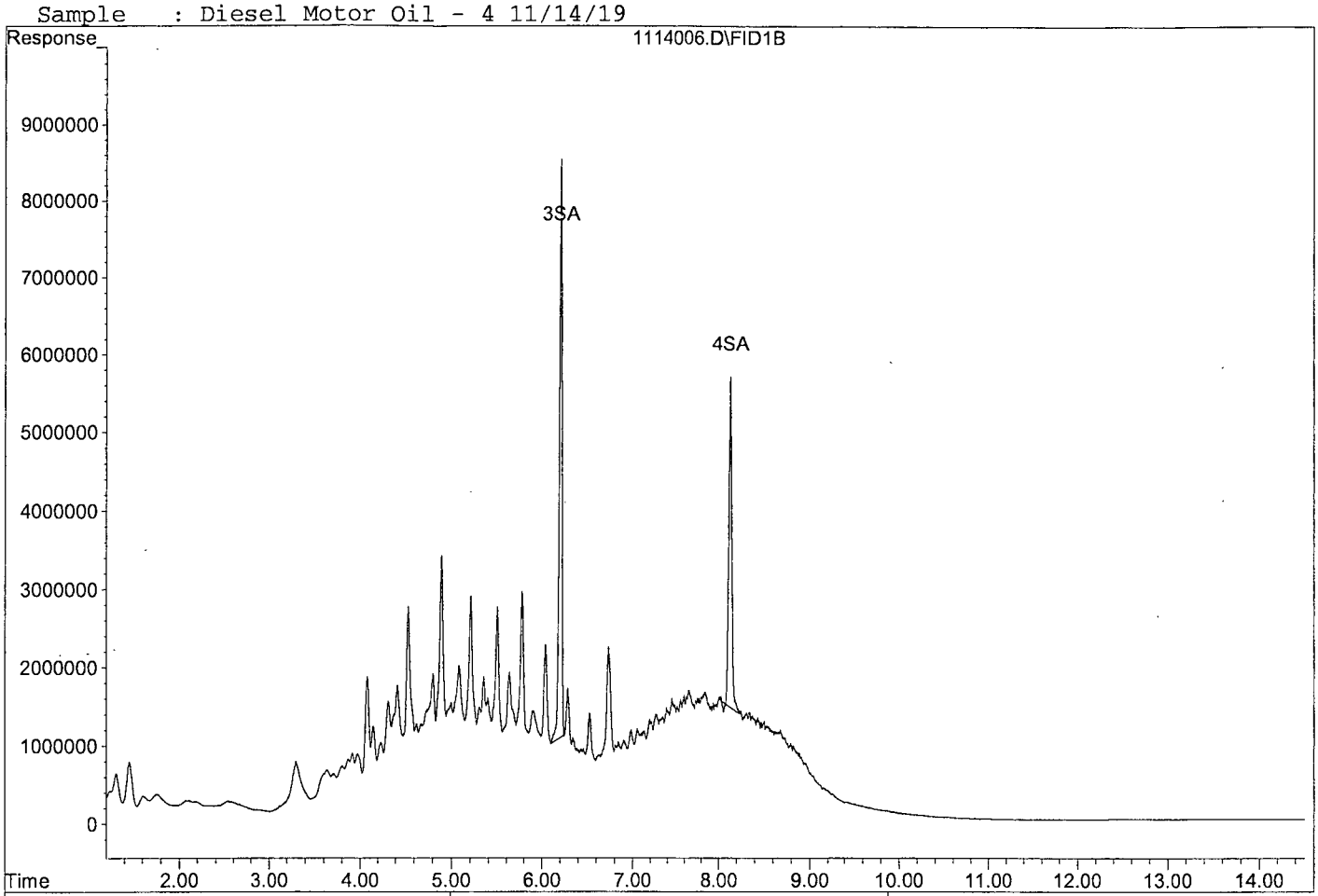
Method : G:\APOLLO\DATA\191114\DOC1114.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Nov 15 09:19:04 2019
Response via : Multiple Level Calibration

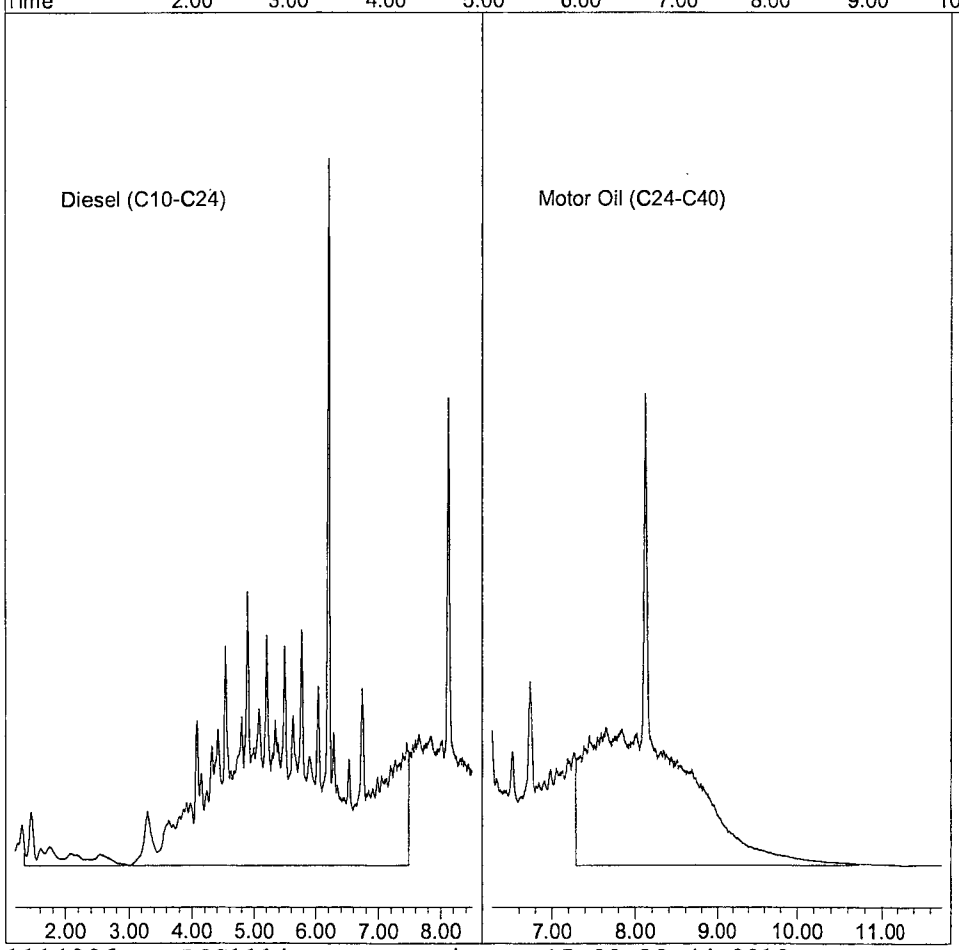
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) SA Ortho-Terphenyl(S)	6.21	151381863	54.183 ppb
Surrogate Spike 30.000		Recovery =	180.61%
4) SA Octacosane(S)	8.12	99731952	44.026 ppb
Surrogate Spike 30.000		Recovery =	146.75%
Target Compounds			
1) HATM Diesel (C10-C24)	4.42	2909060509	964.374 ppb
2) HBTM Motor Oil (C24-C40)	9.01	1488315692	945.751 ppb
Target Compounds			

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: G:\APOLLO\DATA\191114\1114006.D
Sample : Diesel Motor Oil - 4 11/14/19





Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\191114\1114007.D Vial: 7
Acq On : 11-14-19 20:59:26 Operator: BT
Sample : Diesel Motor Oil - 5 11/14/19 Inst : Apollo
Misc : water Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 15 9:19 2019 Quant Results File: DOC1114.RES

Method : G:\APOLLO\DATA\191114\DOC1114.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Nov 15 09:19:04 2019
Response via : Multiple Level Calibration

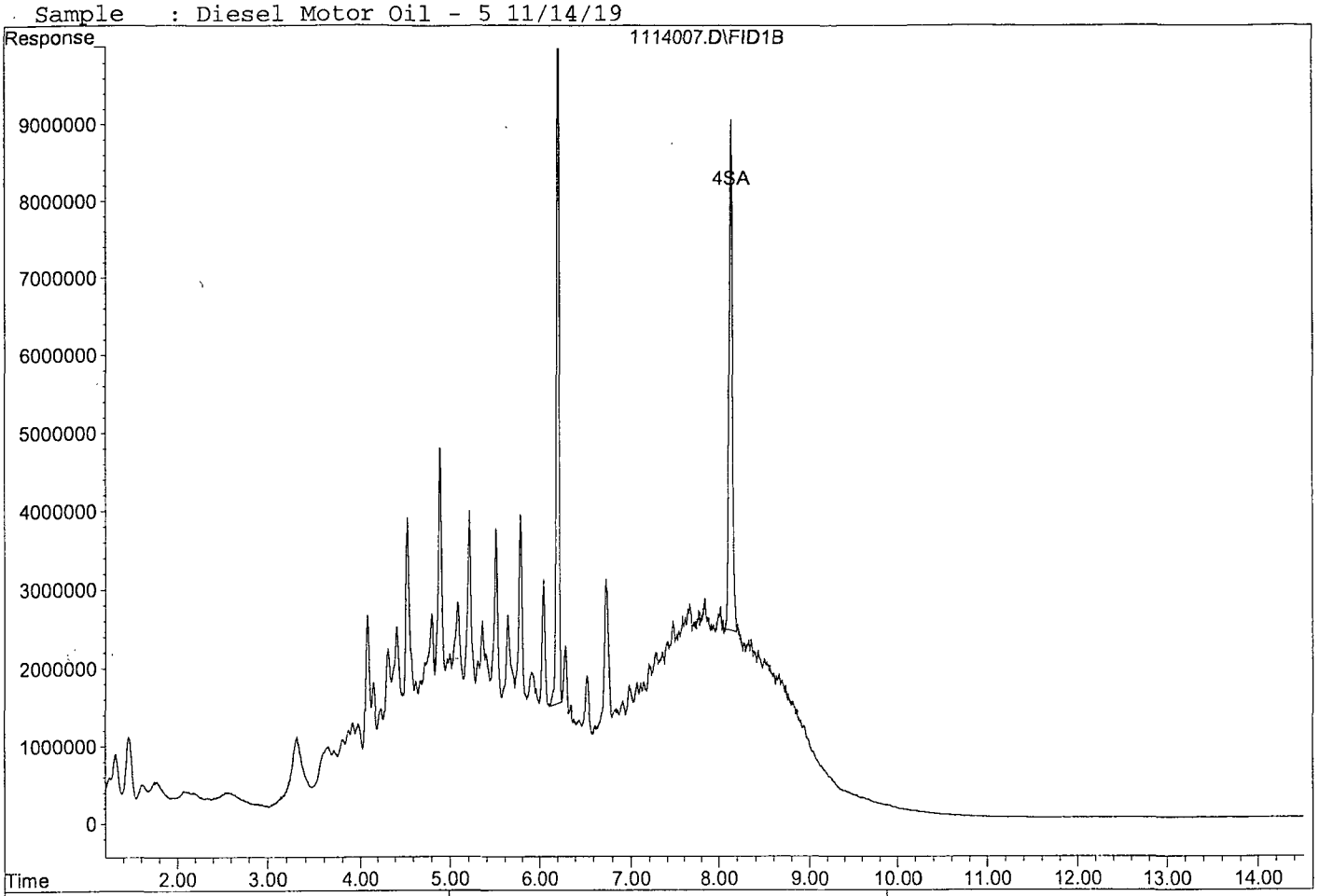
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

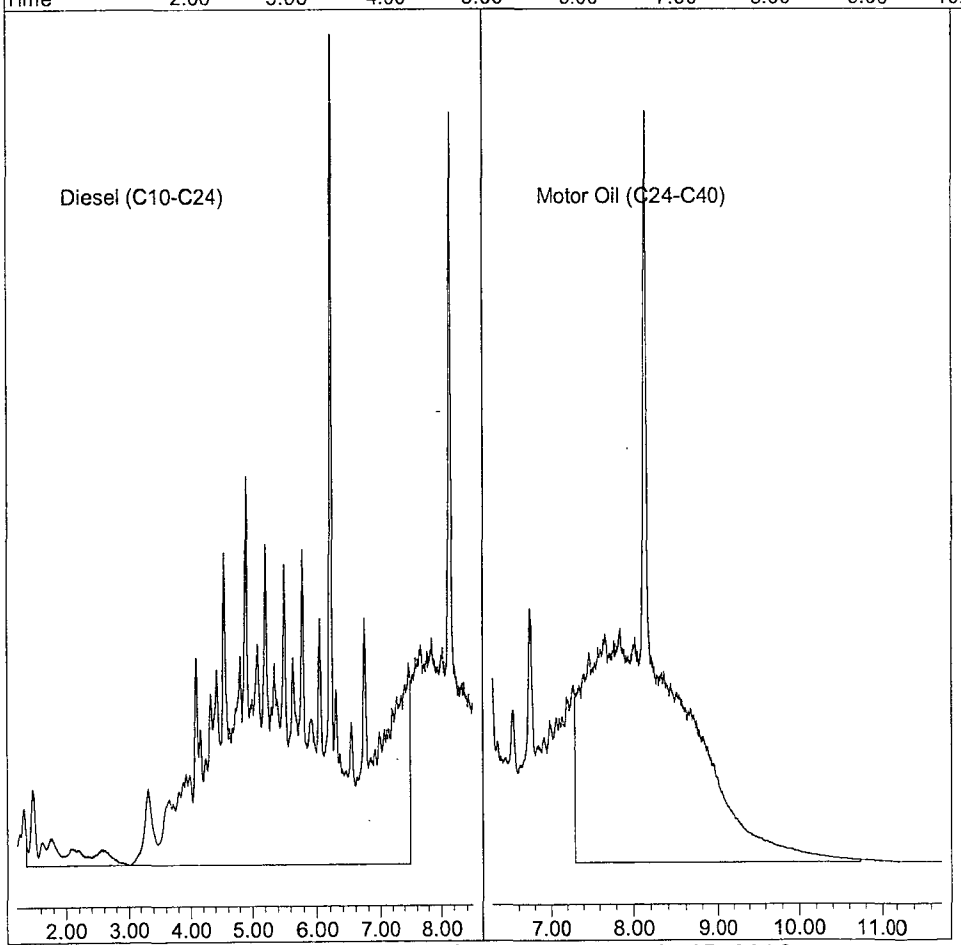
Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
3) SA Ortho-Terphenyl(S)	6.21	206508954	74.370	ppb
Surrogate Spike 30.000	Recovery =		247.90%	
4) SA Octacosane(S)	8.13	166754564	73.613	ppb
Surrogate Spike 30.000	Recovery =		245.38%	
Target Compounds				
1) HATM Diesel (C10-C24)	4.42	4152339086	1376.529	ppb
2) HBTM Motor Oil (C24-C40)	9.01	2430112740	1544.216	ppb

Target Compounds

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: G:\APOLLO\DATA\191114\1114007.D
Sample : Diesel Motor Oil - 5 11/14/19





Quantitation Report (Not Reviewed)

Data File : G:\APOLLO\DATA\191114\1114008.D Vial: 8
Acq On : 11-14-19 21:19:19 Operator: BT
Sample : Diesel Motor Oil - 6 11/14/19 Inst : Apollo
Misc : water Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 15 9:19 2019 Quant Results File: DOC1114.RES

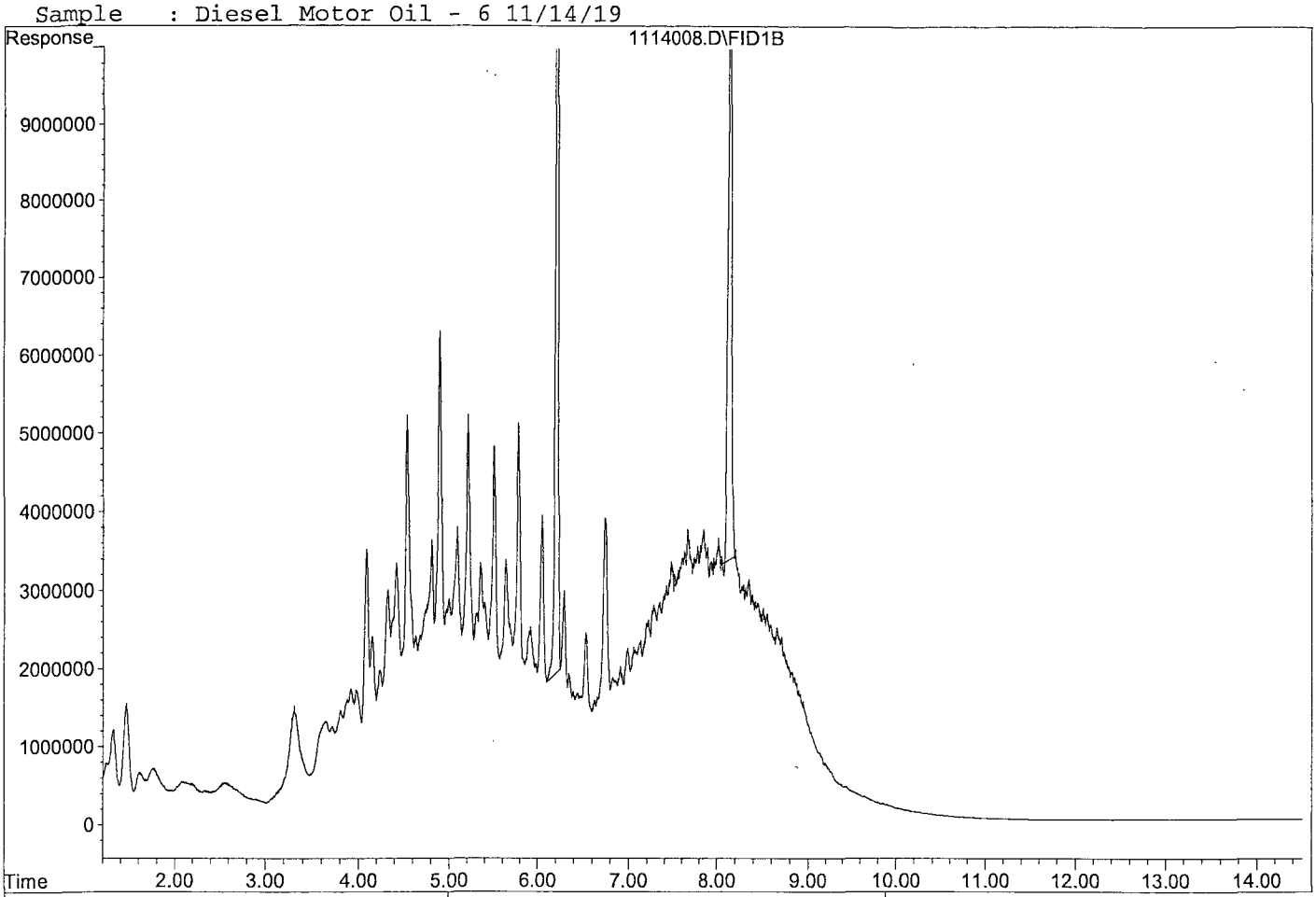
Method : G:\APOLLO\DATA\191114\DOC1114.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Nov 15 09:19:04 2019
Response via : Multiple Level Calibration

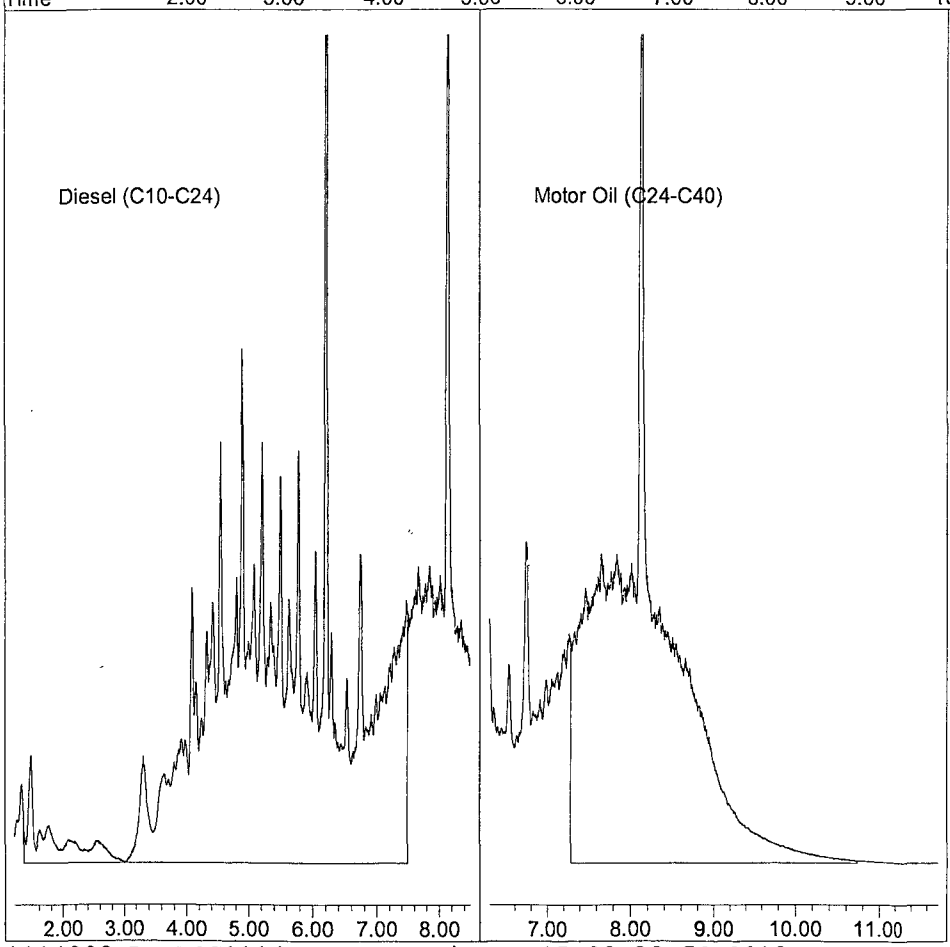
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

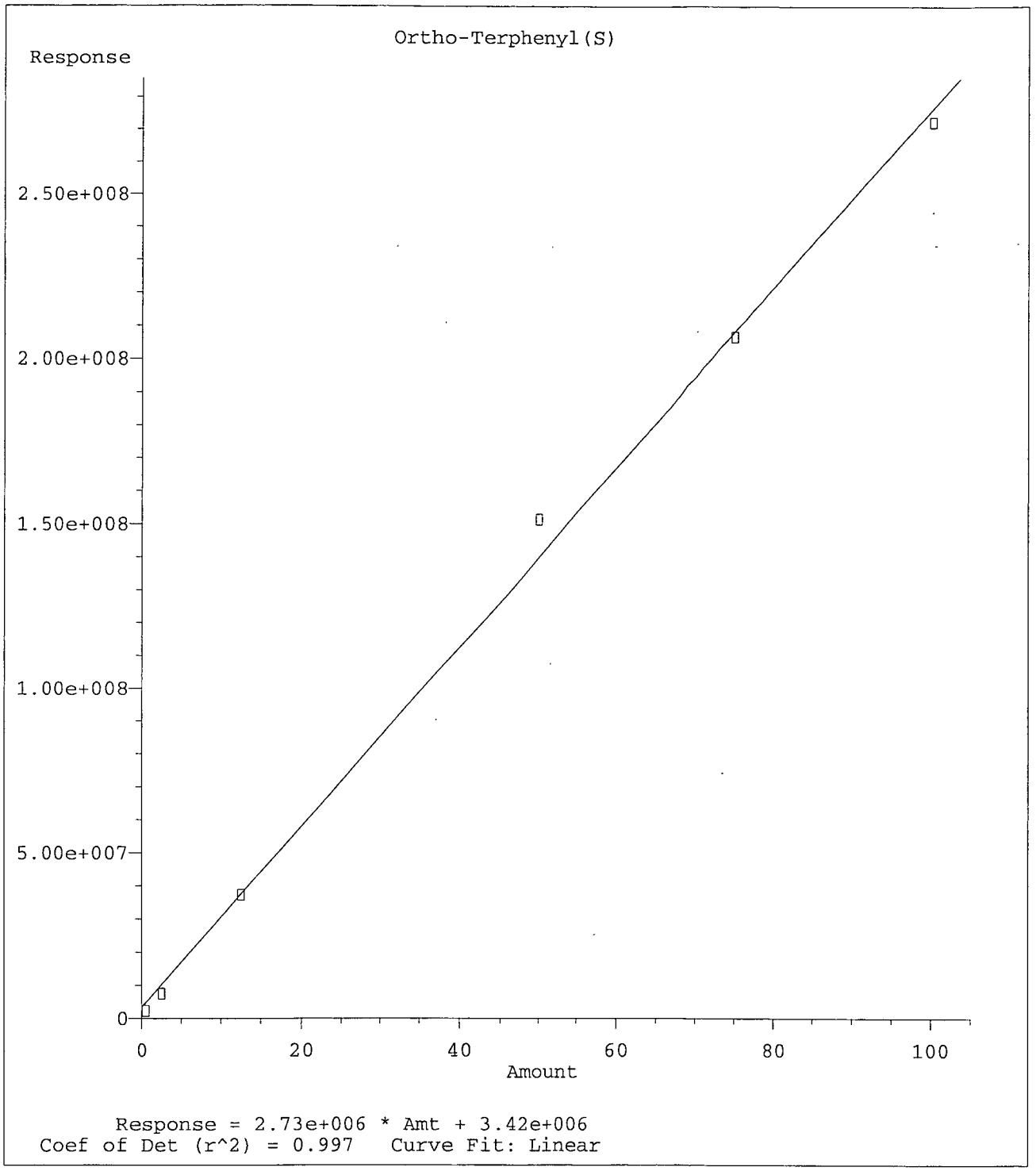
Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) SA Ortho-Terphenyl(S)	6.21	272188350	98.421 ppb
Surrogate Spike 30.000		Recovery =	328.07%
4) SA Octacosane(S)	8.14	212897820	93.983 ppb
Surrogate Spike 30.000		Recovery =	313.28%
Target Compounds			
1) HATM Diesel (C10-C24)	4.42	5438788689	1802.996 ppb
2) HBTM Motor Oil (C24-C40)	9.01	3195039251	2030.289 ppb
Target Compounds			

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: G:\APOLLO\DATA\191114\1114008.D
Sample : Diesel Motor Oil - 6 11/14/19







Method Name: G:\APOLLO\DATA\191114\DOC1114.M
Calibration Table Last Updated: Fri Nov 15 09:19:04 2019

TPH Extractables
DOC1114

Form 7

Second Source Calibration

Lab Name: APPL, Inc.
Case No:
Matrix: Water

SDG No:
Date Analyzed: 11/14/19
Instrument: Apollo
Initial Cal. Date: 11/14/19
Data File: 1114009.D

		Compound	MEAN	CCRF	%D	%Drift	
1	HATM	Diesel (C10-C24)	1508730	1766620	17	HATM	
2	HBTM	Motor Oil (C24-C40)	786843	841695	7.0	HBTM	
3							
4							
5							
6							
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34							
35							
36							
37							
38							
39							
40							
		Average			12.0		

Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\191114\1114009.D Vial: 9
Acq On : 11-14-19 21:39:10 Operator: BT
Sample : Diesel Motor Oil Second Source 1/15/19 Inst : Apollo
Misc : water Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 15 9:29 2019 Quant Results File: DOC1114.RES

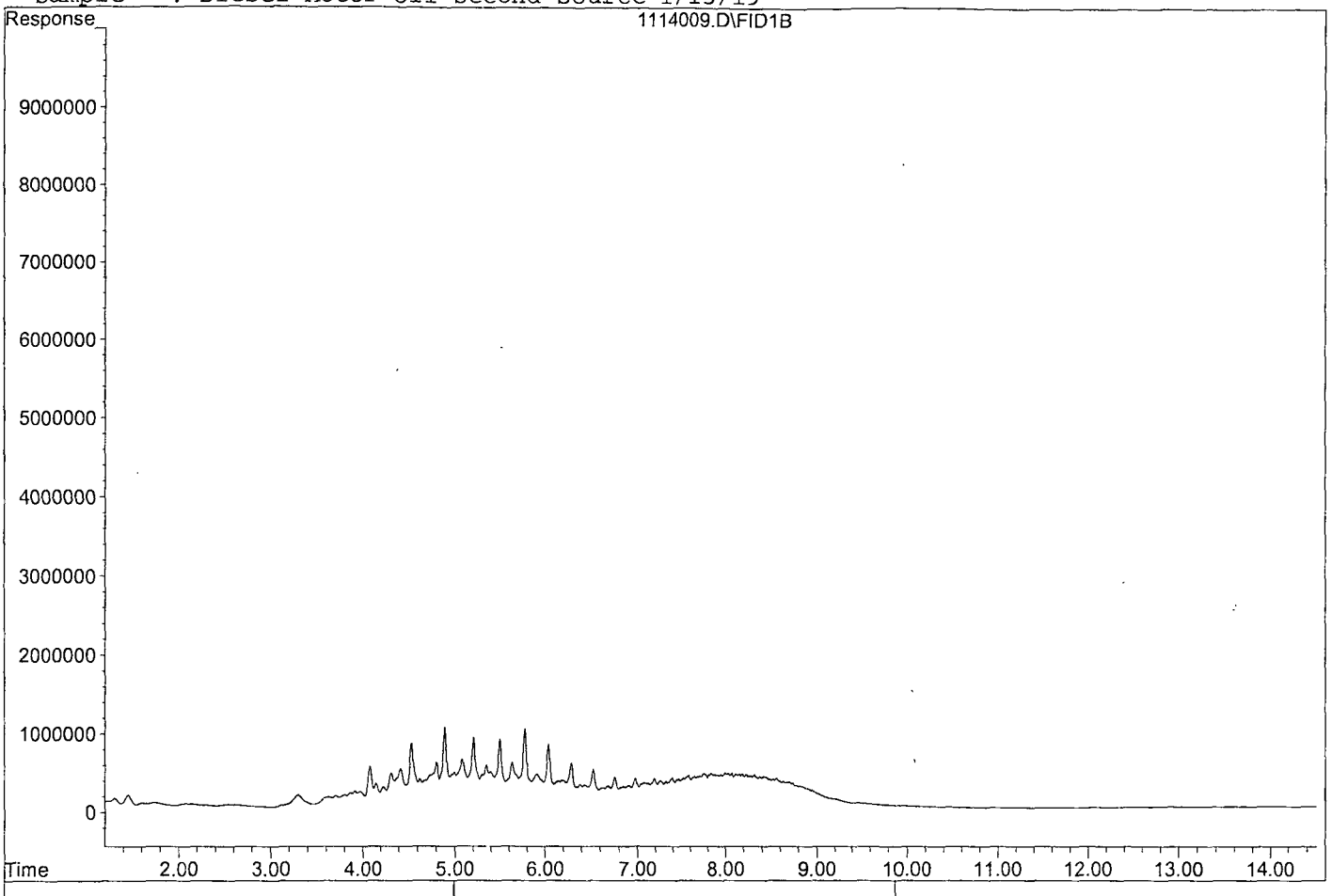
Method : G:\APOLLO\DATA\191114\DOC1114.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Nov 15 09:19:04 2019
Response via : Multiple Level Calibration

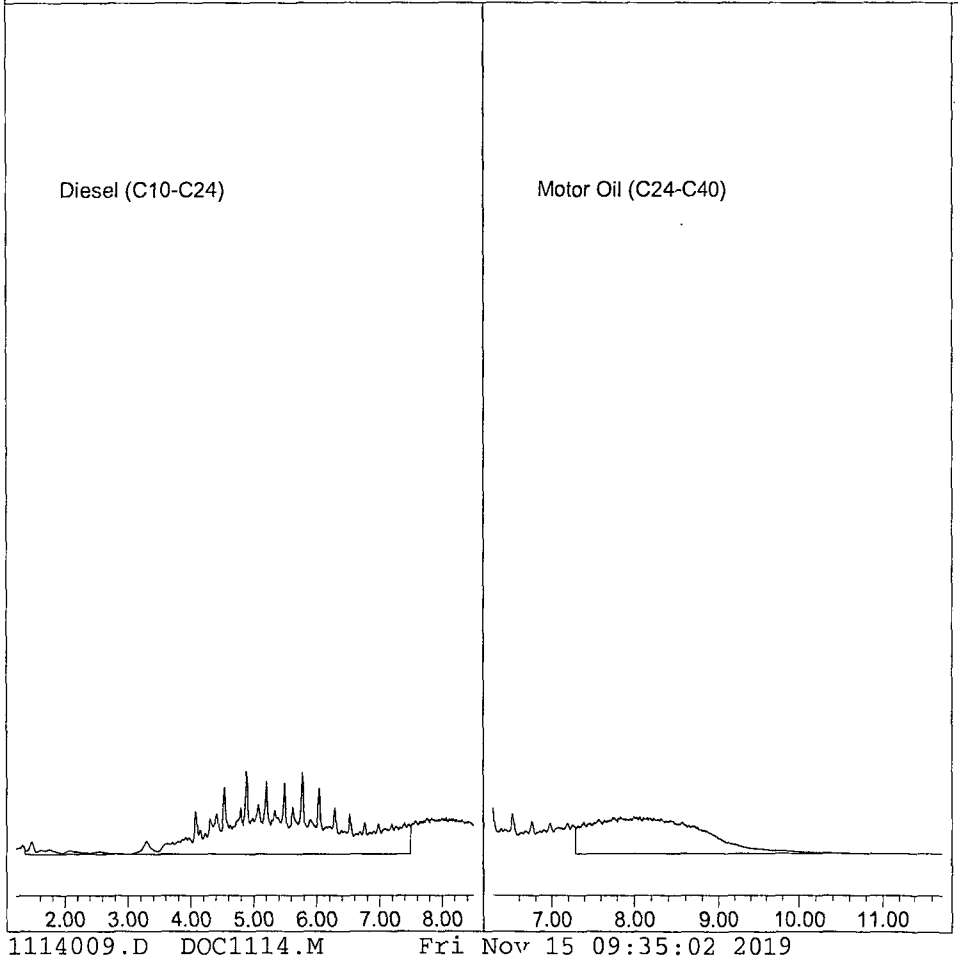
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds					
3) SA Ortho-Terphenyl(S)	0.00	0	N.D.	ppb	d
Surrogate Spike 30.000	Recovery	=	0.00%		
4) SA Octacosane(S)	0.00	0	N.D.	ppb	d
Surrogate Spike 30.000	Recovery	=	0.00%		
Target Compounds					
1) HATM Diesel (C10-C24)	4.42	883311718	292.733	ppb	
2) HBTM Motor Oil (C24-C40)	9.01	420847463	267.428	ppb	
Target Compounds					

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: G:\APOLLO\DATA\191114\1114009.D
Sample : Diesel Motor Oil Second Source 1/15/19^





TPH Extractables
DOC1114

Form 7

Continuing Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Date Analyzed: 11/21/19
Matrix: Water Instrument: Apollo
Initial Cal. Date: 11/14/19
Data File: 1121016.D

		Compound	MEAN	CCRF	%D		%Drift
1	HATM	Diesel (C10-C24)	1508730	1442120	4.4	HATM	
2	HBTM	Motor Oil (C24-C40)	786843	711145	9.6	HBTM	
3	SAL	Ortho-Terphenyl(S)	1599120	1490340	6.8	SAL	0.86
4	SA	Octacosane(S)	1132640	1013280	11	SA	
5							
6							
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39							
40							
		Average			8.0		

Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\191121\1121016.D Vial: 16
Acq On : 11-21-19 14:12:55 Operator: BT
Sample : Diesel Motor Oil CCV 11/14/19 Inst : Apollo
Misc : water Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 21 17:20 2019 Quant Results File: DOC1114.RES

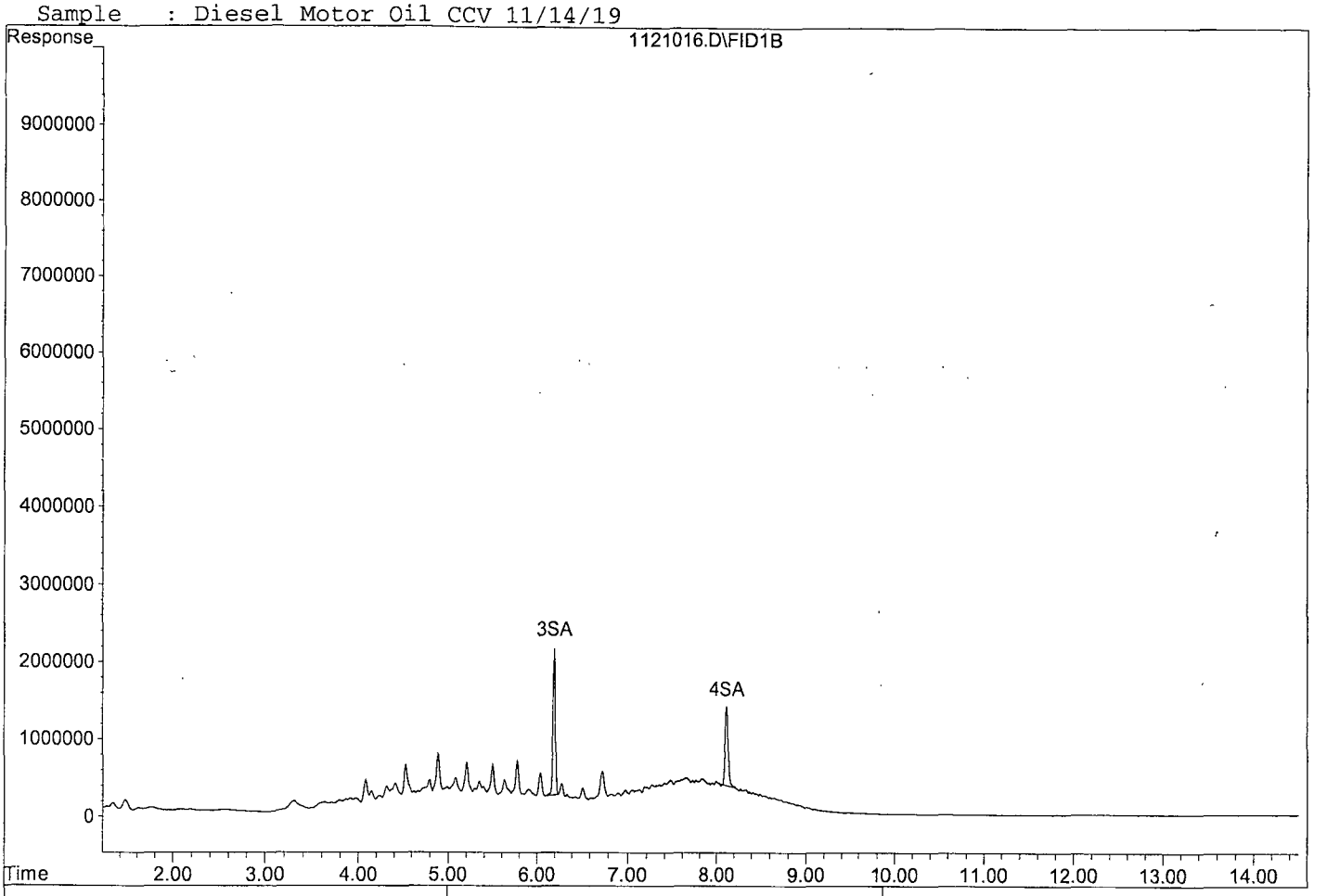
Method : G:\APOLLO\DATA\191114\DOC1114.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Nov 15 09:19:04 2019
Response via : Multiple Level Calibration

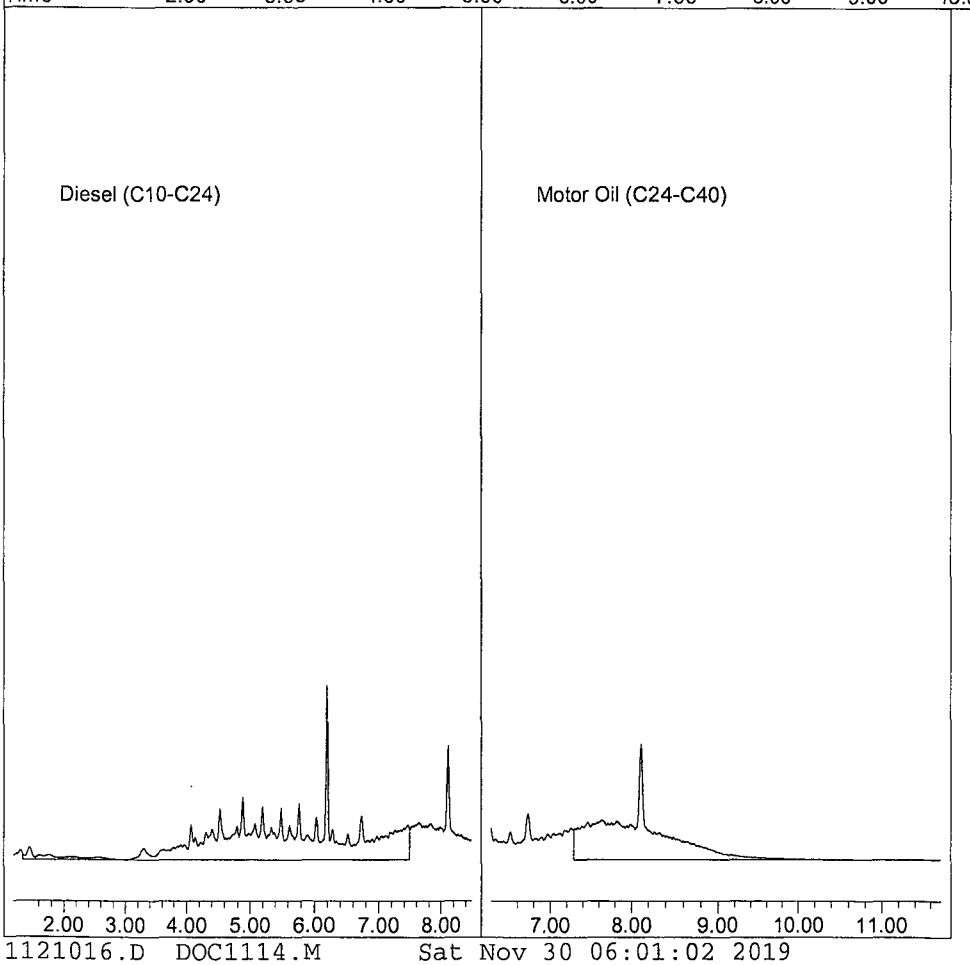
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) SA Ortho-Terphenyl(S)	6.20	37258476	12.392 ppb
Surrogate Spike 30.000	Recovery =		41.31%
4) SA Octacosane(S)	8.12	25331931	11.183 ppb
Surrogate Spike 30.000	Recovery =		37.28%
Target Compounds			
1) HATM Diesel (C10-C24)	4.42	721058398	238.962 ppb
2) HBTM Motor Oil (C24-C40)	9.01	355572350	225.949 ppb
Target Compounds			

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: G:\APOLLO\DATA\191121\1121016.D
Sample : Diesel Motor Oil CCV 11/14/19





1121016.D DOC1114.M Sat Nov 30 06:01:02 2019

TPH Extractables
DOC1114

Form 7

Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix: Water

SDG No:
Date Analyzed: 11/21/19
Instrument: Apollo
Initial Cal. Date: 11/14/19
Data File: 1121032.D

		Compound	MEAN	CCRF	%D		%Drift
1	HATM	Diesel (C10-C24)	1508730	1474930	2.2	HATM	
2	HBTM	Motor Oil (C24-C40)	786843	720400	8.4	HBTM	
3	SAL	Ortho-Terphenyl(S)	1599120	1504260	5.9	SAL	0.16
4	SA	Octacosane(S)	1132640	1018580	10	SA	
5							
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35							
36							
37							
38							
39							
40							
		Average			6.6		

Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\191121\1121032.D Vial: 32
Acq On : 11-21-19 19:32:24 Operator: BT
Sample : Diesel Motor Oil CCV 11/14/19 Inst : Apollo
Misc : water Multiplr: 1.00
IntFile : events.e
Quant Time: Nov 22 6:41 2019 Quant Results File: DOC1114.RES

Method : G:\APOLLO\DATA\191114\DOC1114.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Nov 15 09:19:04 2019
Response via : Multiple Level Calibration

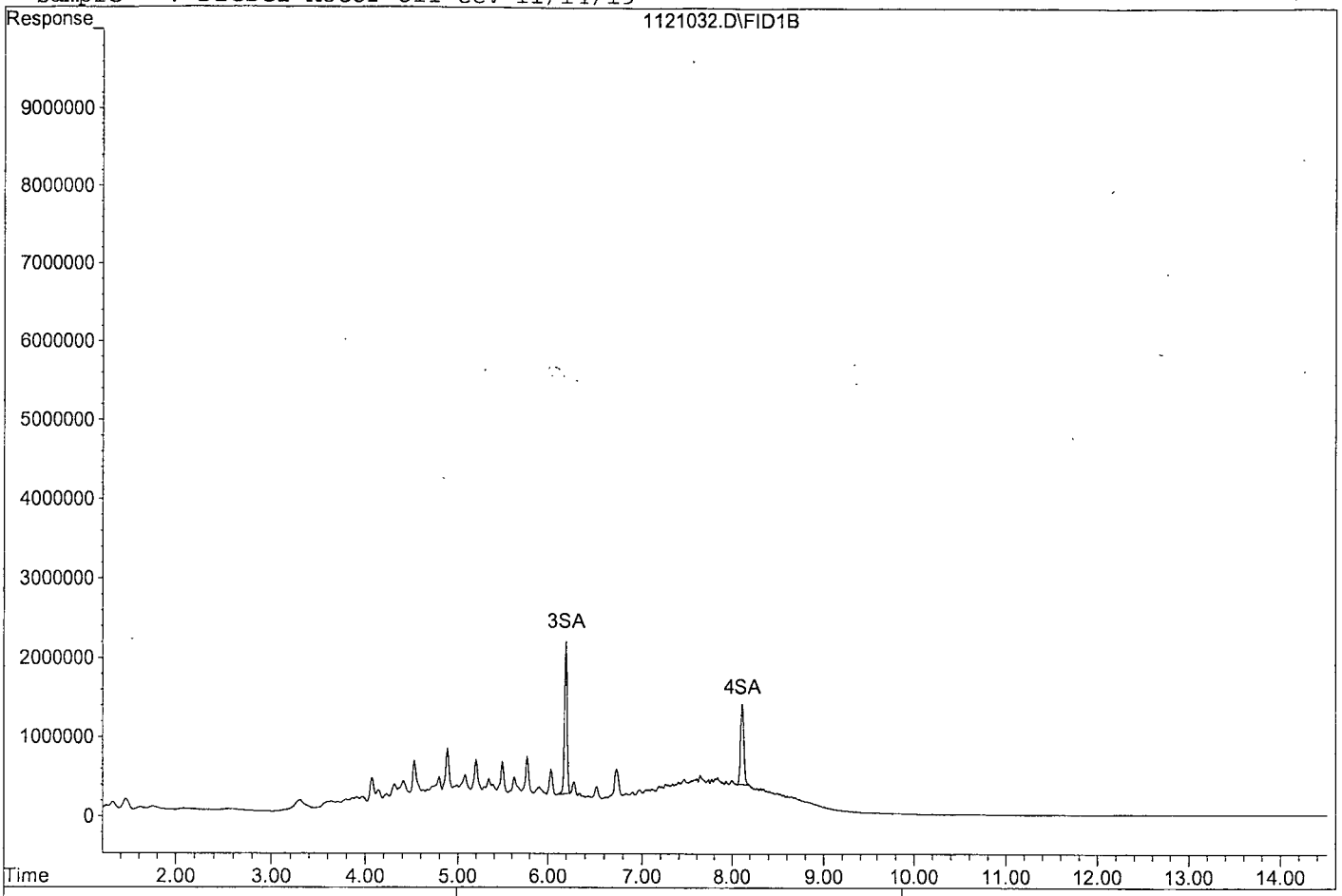
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

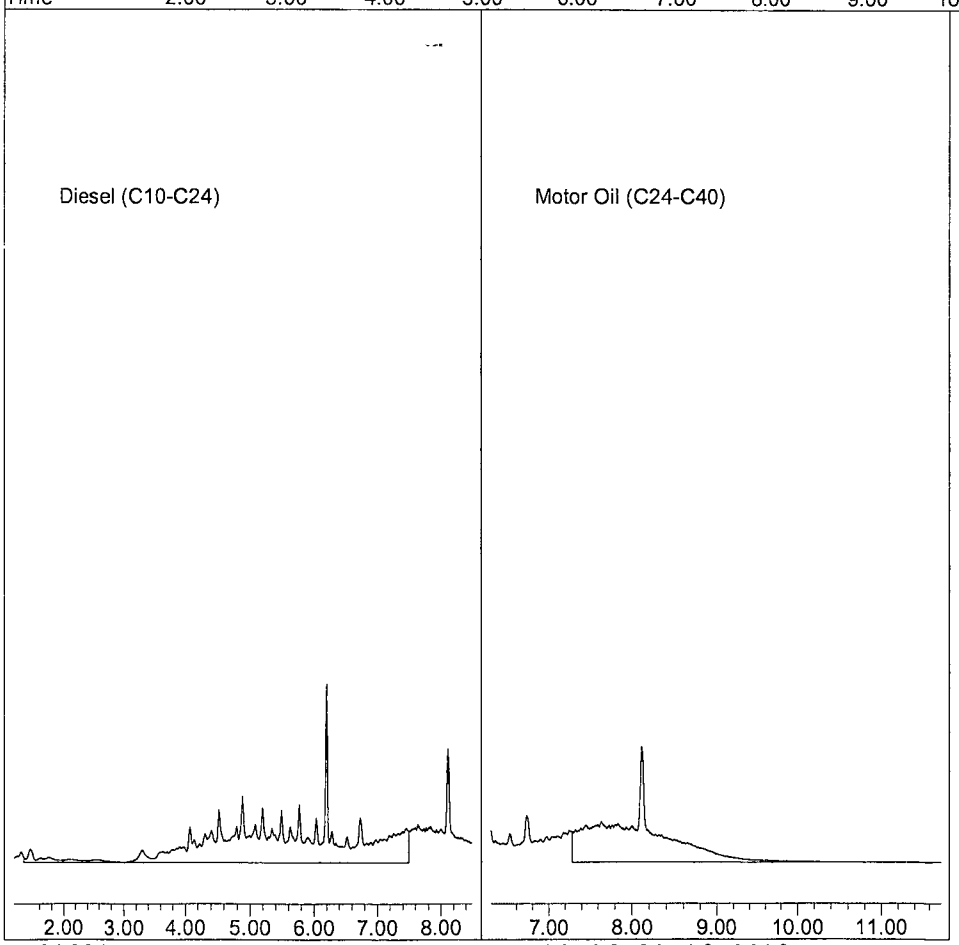
Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
3) SA Ortho-Terphenyl(S)	6.20	37606466	12.519	ppb
Surrogate Spike 30.000	Recovery =		41.73%	
4) SA Octacosane(S)	8.11	25464379	11.241	ppb
Surrogate Spike 30.000	Recovery =		37.47%	
Target Compounds				
1) HATM Diesel (C10-C24)	4.42	737462941	244.398	ppb
2) HBTM Motor Oil (C24-C40)	9.01	360200103	228.889	ppb

Target Compounds

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: G:\APOLLO\DATA\191121\1121032.D
Sample : Diesel Motor Oil CCV 11/14/19





ORGANICS
Raw Data

Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\191121\1121028.D
Acq On : 11-21-19 18:13:01
Sample : BA02525W20 2/800
Misc : water
IntFile : events.e
Vial: 28
Operator: BT
Inst : Apollo
Multiplr: 2.50
Quant Time: Nov 30 5:58 2019 Quant Results File: DOC1114.RES

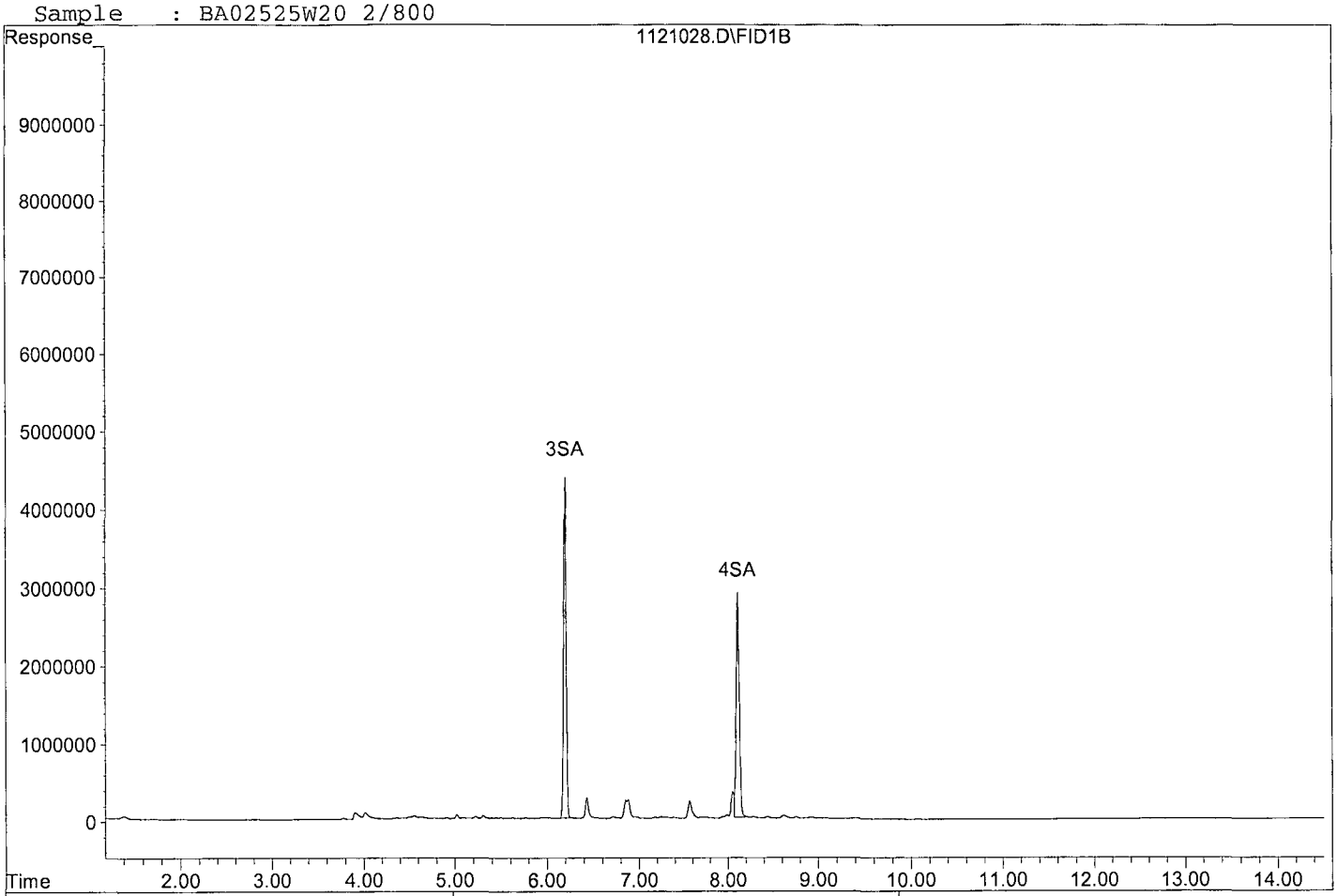
Method : G:\APOLLO\DATA\191114\DOC1114.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Nov 15 09:19:04 2019
Response via : Multiple Level Calibration

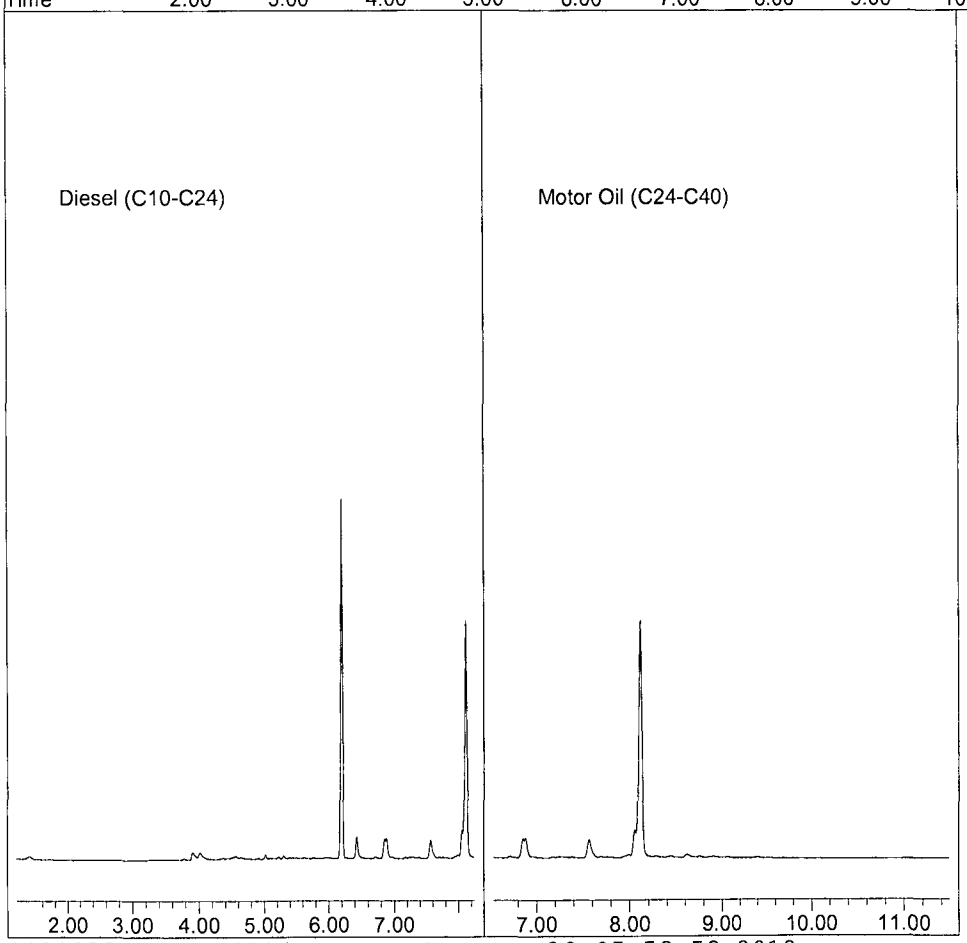
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds					
3) SA Ortho-Terphenyl(S)	6.20	84794173	74.498	ppb	
Surrogate Spike 75.000	Recovery =		99.33%		
4) SA Octacosane(S)	8.11	68093076	75.149	ppb	m
Surrogate Spike 75.000	Recovery =		100.20%		
Target Compounds					
Target Compounds					
1) HATM Diesel (C10-C24)	0.00	0	N.D.	ppb	
2) HBTM Motor Oil (C24-C40)	0.00	0	N.D.	ppb	

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: G:\APOLLO\DATA\191121\1121028.D
Sample : BA02525W20 2/800



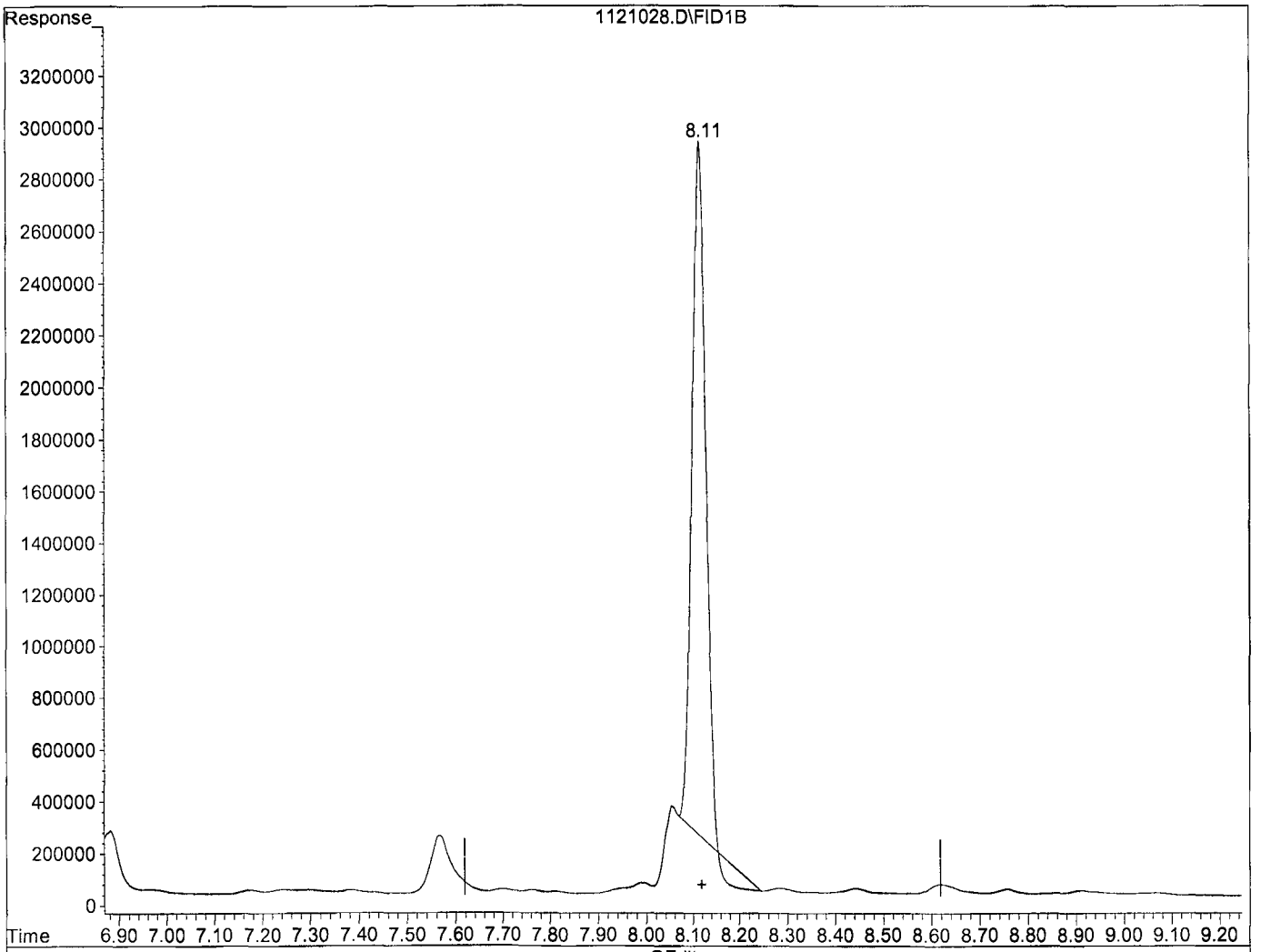


1121028.D DOC1114.M Sat Nov 30 05:58:58 2019

Quantitation Report

Data File : G:\APOLLO\DATA\191121\1121028.D Vial: 28
Acq On : 11-21-19 18:13:01 Operator: BT
Sample : BA02525W20 2/800 Inst : Apollo
Misc : water Multiplr: 2.50
IntFile : events.e
Quant Time: Nov 30 5:55 2019 Quant Results File: DOC1114.RES

Method : G:\APOLLO\DATA\191114\DOC1114.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Nov 15 09:19:04 2019
Response via : Multiple Level Calibration



QEdit

(4) Octacosane(S) (SA)

8.11min 59.377ppb

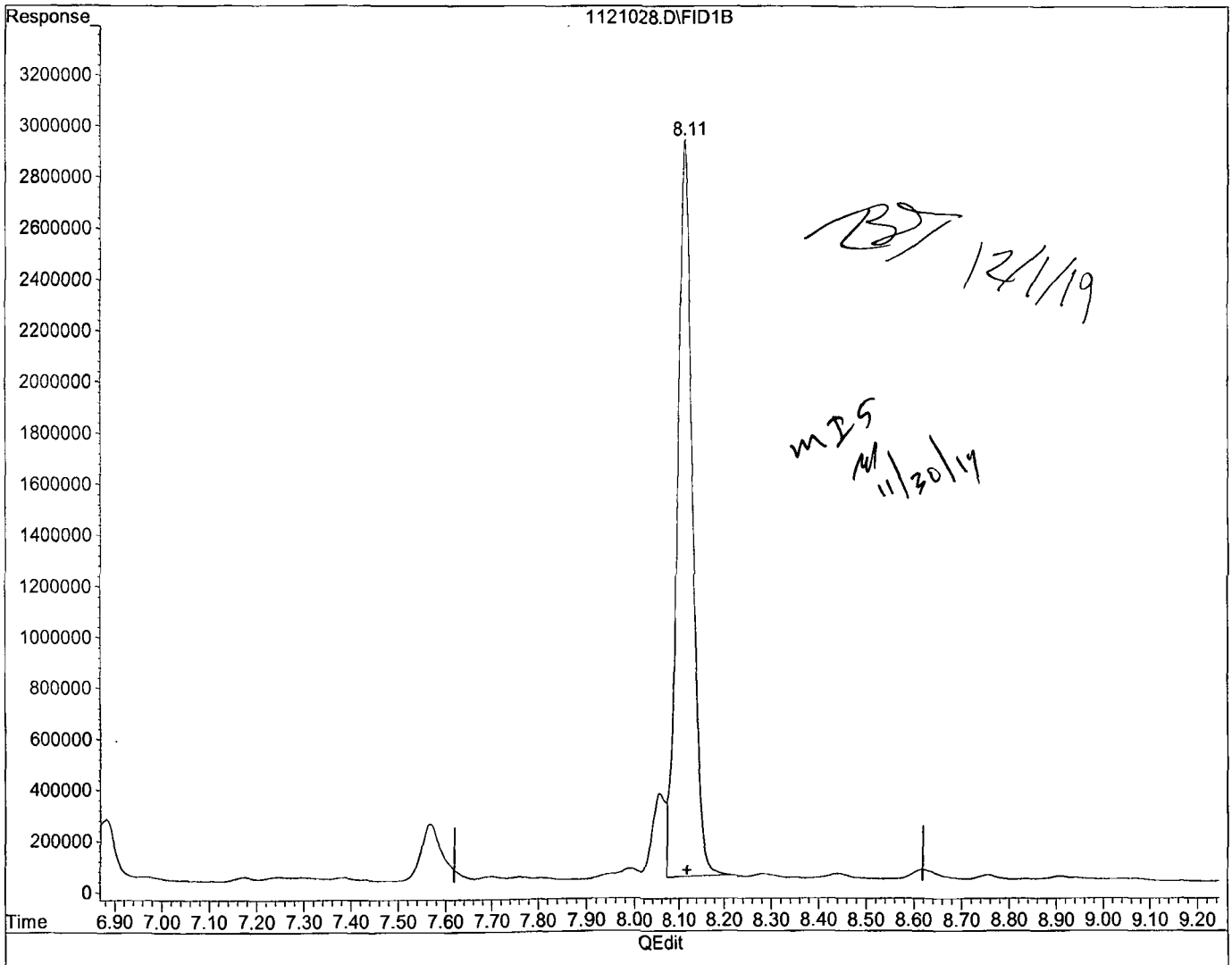
response 53802382

(+) = Expected Retention Time
1121028.D DOC1114.M Sat Nov 30 05:58:39 2019

Quantitation Report

Data File : G:\APOLLO\DATA\191121\1121028.D Vial: 28
Acq On : 11-21-19 18:13:01 Operator: BT
Sample : BA02525W20 2/800 Inst : Apollo
Misc : water Multiplr: 2.50
IntFile : events.e
Quant Time: Nov 30 5:55 2019 Quant Results File: DOC1114.RES

Method : G:\APOLLO\DATA\191114\DOC1114.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Nov 15 09:19:04 2019
Response via : Multiple Level Calibration



BT 12/1/19

MIS M 11/30/19

(4) Octacosane(S) (SA)

8.11min 75.149ppb m

response 68093076

(+) = Expected Retention Time
1121028.D DOC1114.M Sat Nov 30 05:58:48 2019

Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\191121\1121024.D Vial: 24
Acq On : 11-21-19 16:53:36 Operator: BT
Sample : 191111A BLK 2/800 Inst : Apollo
Misc : water Multiplr: 2.50
IntFile : events.e
Quant Time: Nov 30 5:56 2019 Quant Results File: DOC1114.RES

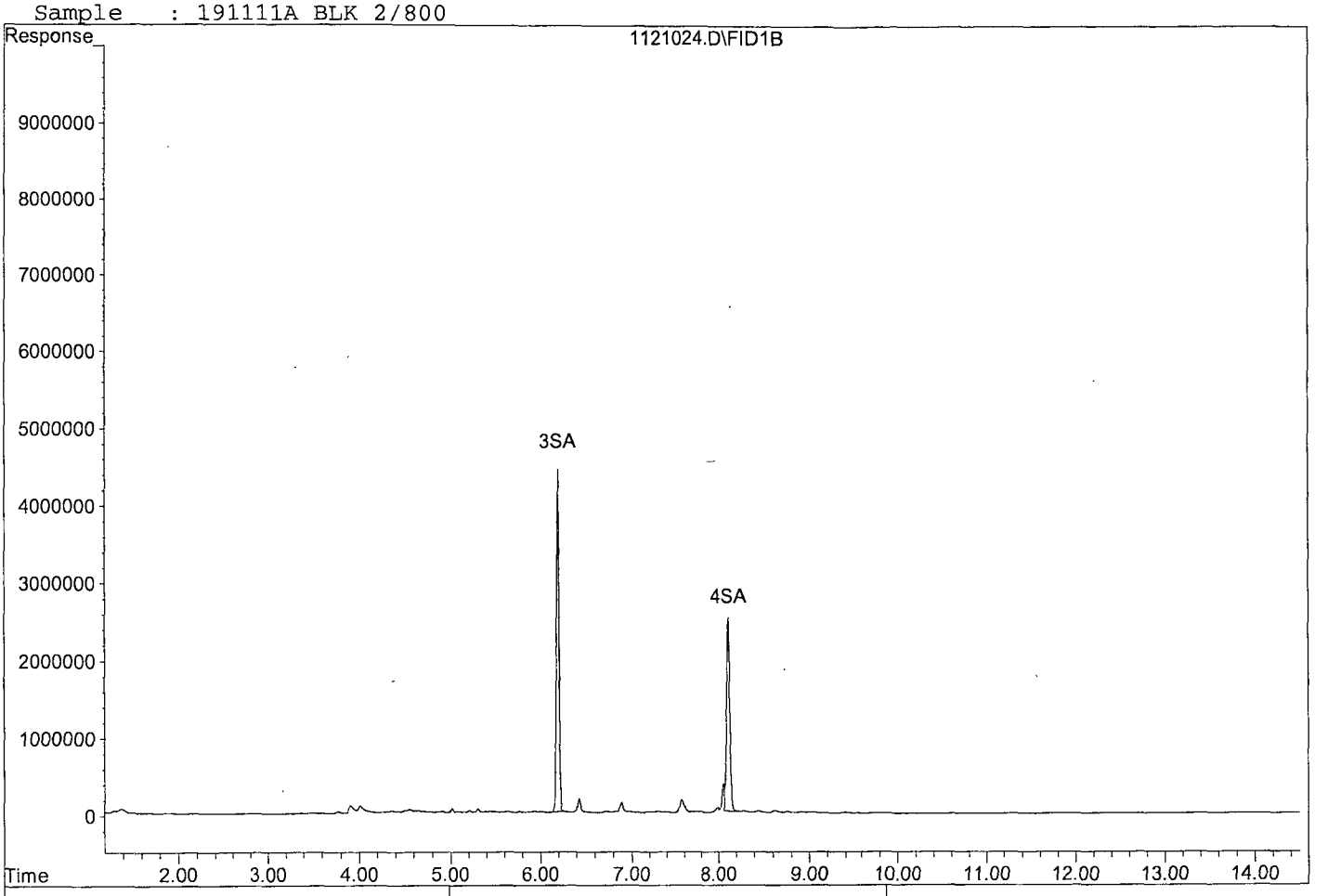
Method : G:\APOLLO\DATA\191114\DOC1114.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Nov 15 09:19:04 2019
Response via : Multiple Level Calibration

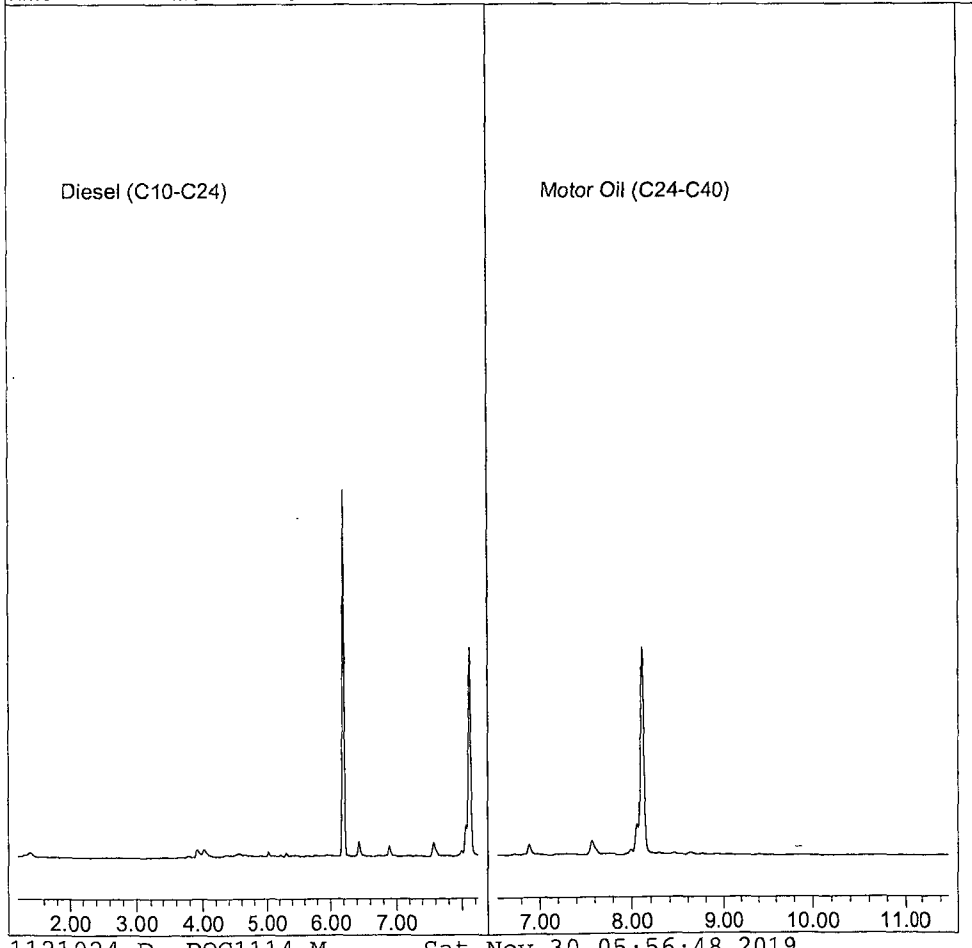
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

Compound	R.T.	Response	Conc	Units	
System Monitoring Compounds					
3) SA Ortho-Terphenyl(S)	6.20	85585588	75.222	ppb	
Surrogate Spike 75.000	Recovery =		100.30%		
4) SA Octacosane(S)	8.11	64507936	71.192	ppb	m
Surrogate Spike 75.000	Recovery =		94.92%		
Target Compounds					
Target Compounds					
1) HATM Diesel (C10-C24)	0.00	0	N.D.	ppb	
2) HBTM Motor Oil (C24-C40)	0.00	0	N.D.	ppb	

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: G:\APOLLO\DATA\191121\1121024.D
Sample : 191111A BLK 2/800

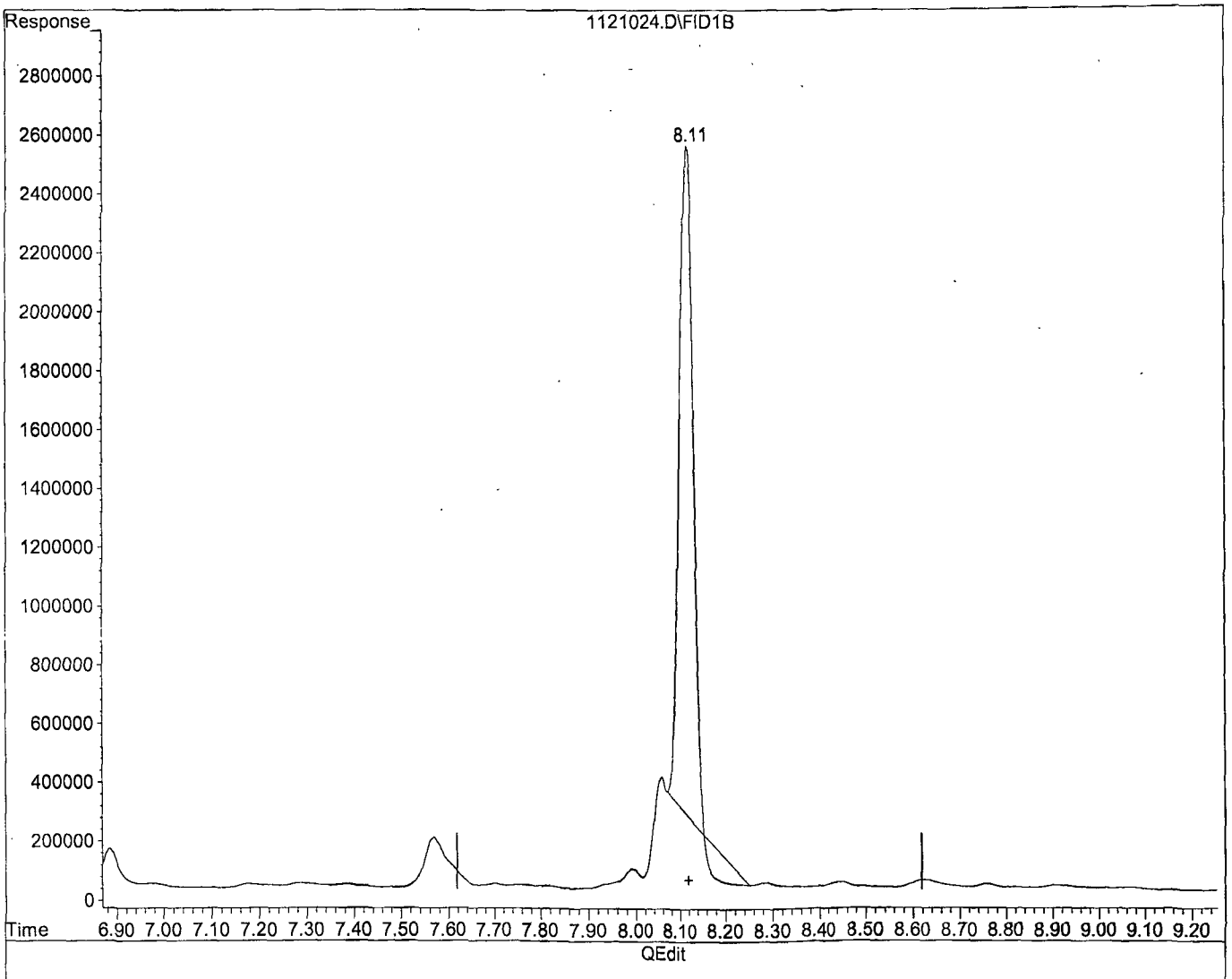




Quantitation Report

Data File : G:\APOLLO\DATA\191121\1121024.D Vial: 24
Acq On : 11-21-19 16:53:36 Operator: BT
Sample : 191111A BLK 2/800 Inst : Apollo
Misc : water Multiplr: 2.50
IntFile : events.e
Quant Time: Nov 30 5:55 2019 Quant Results File: DOC1114.RES

Method : G:\APOLLO\DATA\191114\DOC1114.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Nov 15 09:19:04 2019
Response via : Multiple Level Calibration



(4) Octacosane(S) (SA)

8.12min 52.360ppb

response 47444220

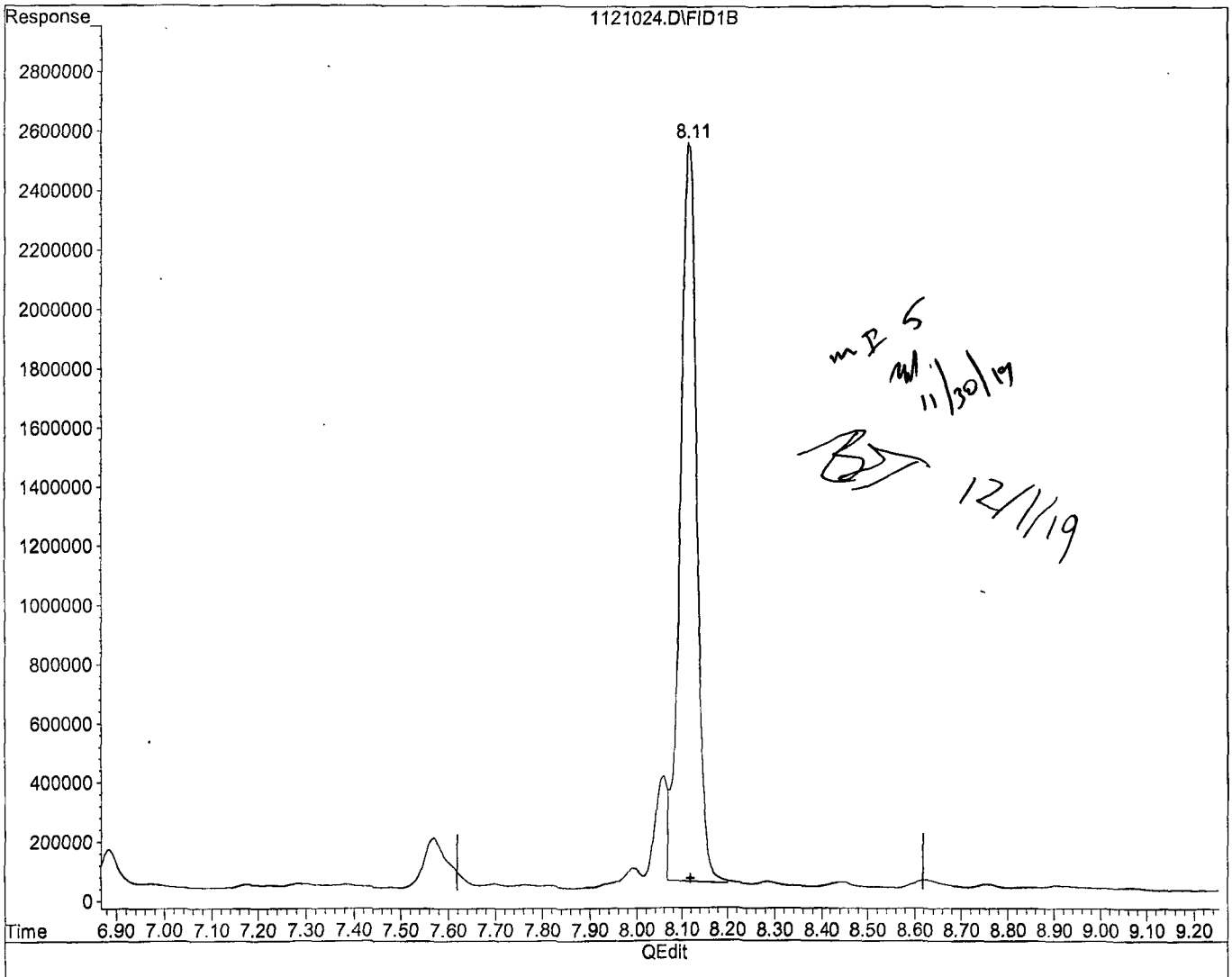
(+) = Expected Retention Time

1121024.D DOC1114.M Sat Nov 30 05:56:31 2019

Quantitation Report

Data File : G:\APOLLO\DATA\191121\1121024.D Vial: 24
Acq On : 11-21-19 16:53:36 Operator: BT
Sample : 191111A BLK 2/800 Inst : Apollo
Misc : water Multiplr: 2.50
IntFile : events.e
Quant Time: Nov 30 5:55 2019 Quant Results File: DOC1114.RES

Method : G:\APOLLO\DATA\191114\DOC1114.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Nov 15 09:19:04 2019
Response via : Multiple Level Calibration



mp 5 11/30/19

BT 12/1/19

(4) Octacosane(S) (SA)

8.11min 71.192ppb m

response 64507936

(+) = Expected Retention Time
1121024.D DOC1114.M Sat Nov 30 05:56:39 2019

Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\191121\1121025.D Vial: 25
Acq On : 11-21-19 17:13:39 Operator: BT
Sample : 191111A LCS-1 2/800 Inst : Apollo
Misc : water Multiplr: 2.50
IntFile : events.e
Quant Time: Nov 30 5:55 2019 Quant Results File: DOC1114.RES

Method : G:\APOLLO\DATA\191114\DOC1114.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Nov 15 09:19:04 2019
Response via : Multiple Level Calibration

Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

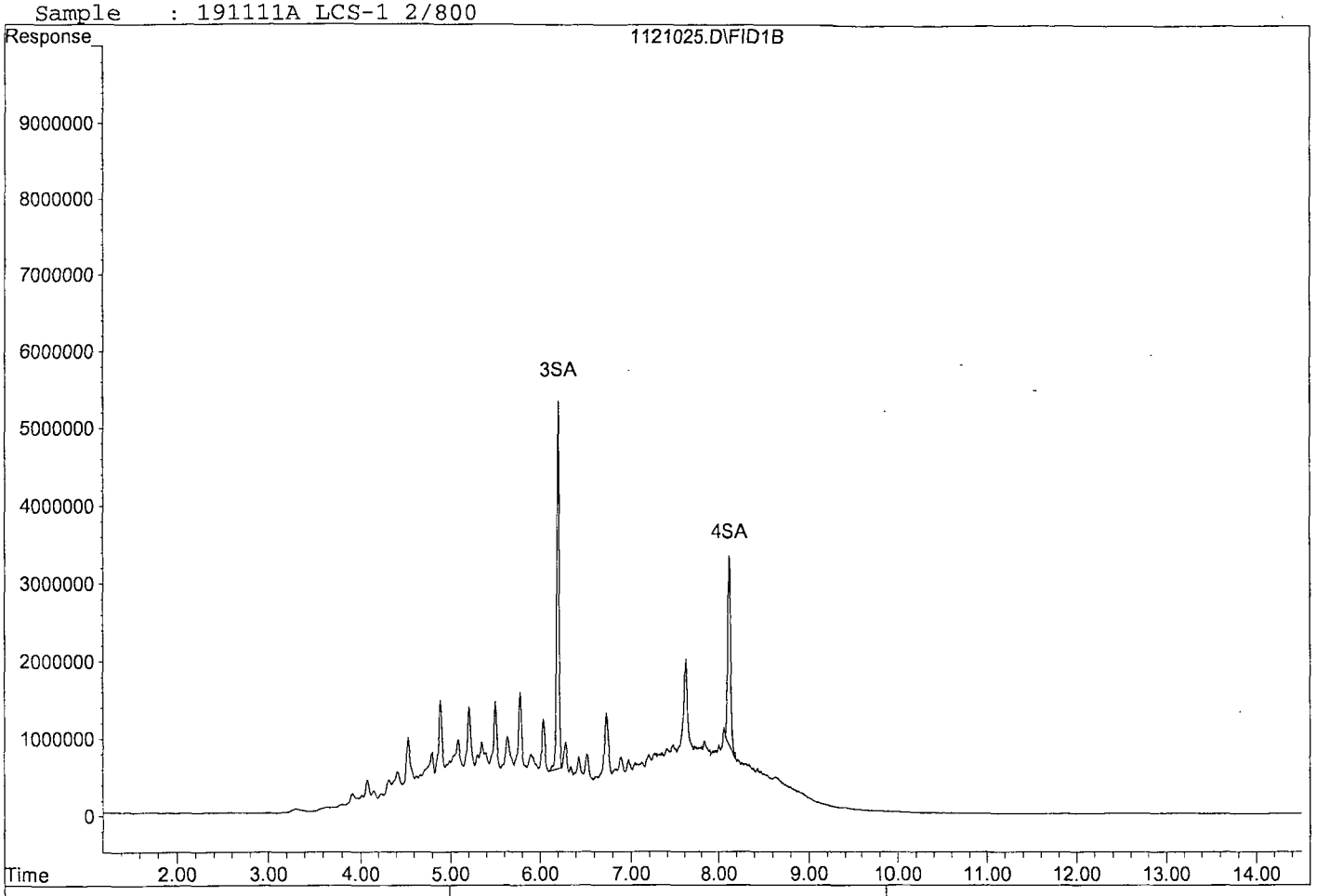
Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
3) SA Ortho-Terphenyl(S)	6.20	91429484	80.572	ppb
Surrogate Spike 75.000	Recovery =		107.43%	
4) SA Octacosane(S)	8.12	57229955	63.160	ppb
Surrogate Spike 75.000	Recovery =		84.21%	
Target Compounds				
1) HATM Diesel (C10-C24)	4.42	1406338271	1165.165	ppb
2) HBTM Motor Oil (C24-C40)	9.01	757547982	1203.461	ppb

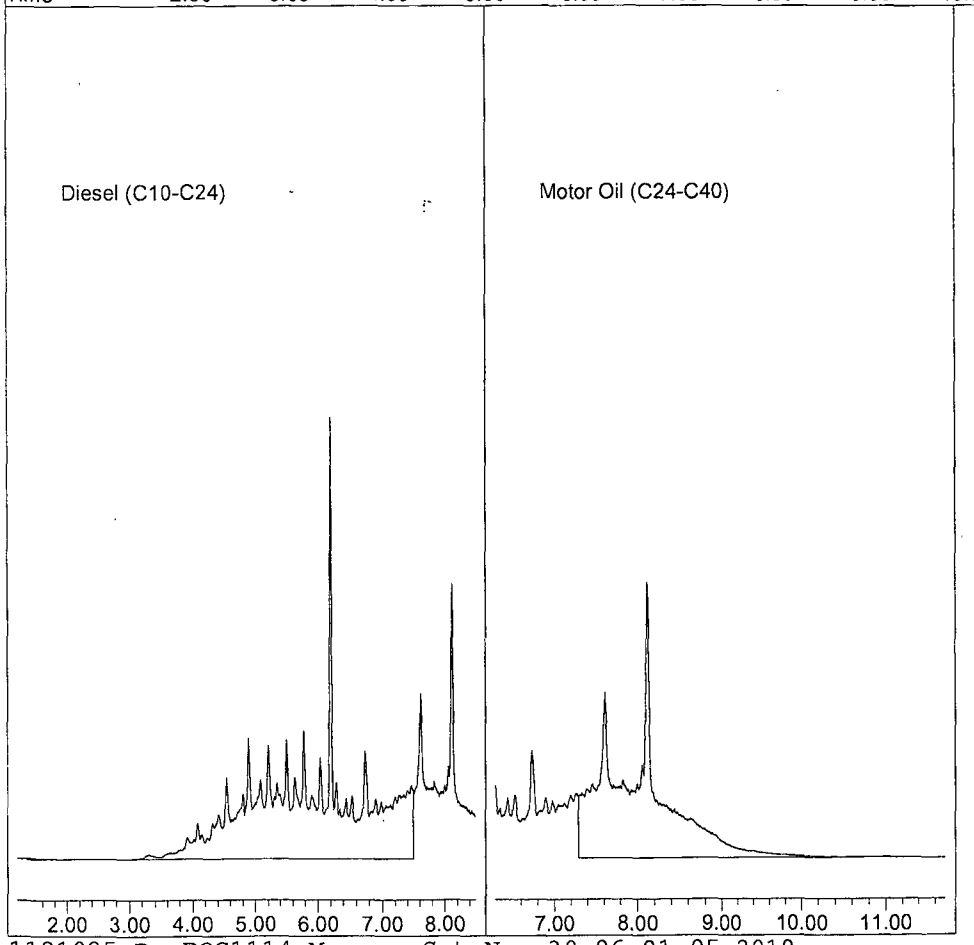
Target Compounds

(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File: G:\APOLLO\DATA\191121\1121025.D
Sample : 191111A LCS-1 2/800





Quantitation Report (QT Reviewed)

Data File : G:\APOLLO\DATA\191121\1121026.D Vial: 26
Acq On : 11-21-19 17:33:41 Operator: BT
Sample : 191111A LCSD-1 2/800 Inst : Apollo
Misc : water Multiplr: 2.50
IntFile : events.e
Quant Time: Nov 30 5:55 2019 Quant Results File: DOC1114.RES

Method : G:\APOLLO\DATA\191114\DOC1114.M (Chemstation Integrator)
Title : 8015 B&C
Last Update : Fri Nov 15 09:19:04 2019
Response via : Multiple Level Calibration

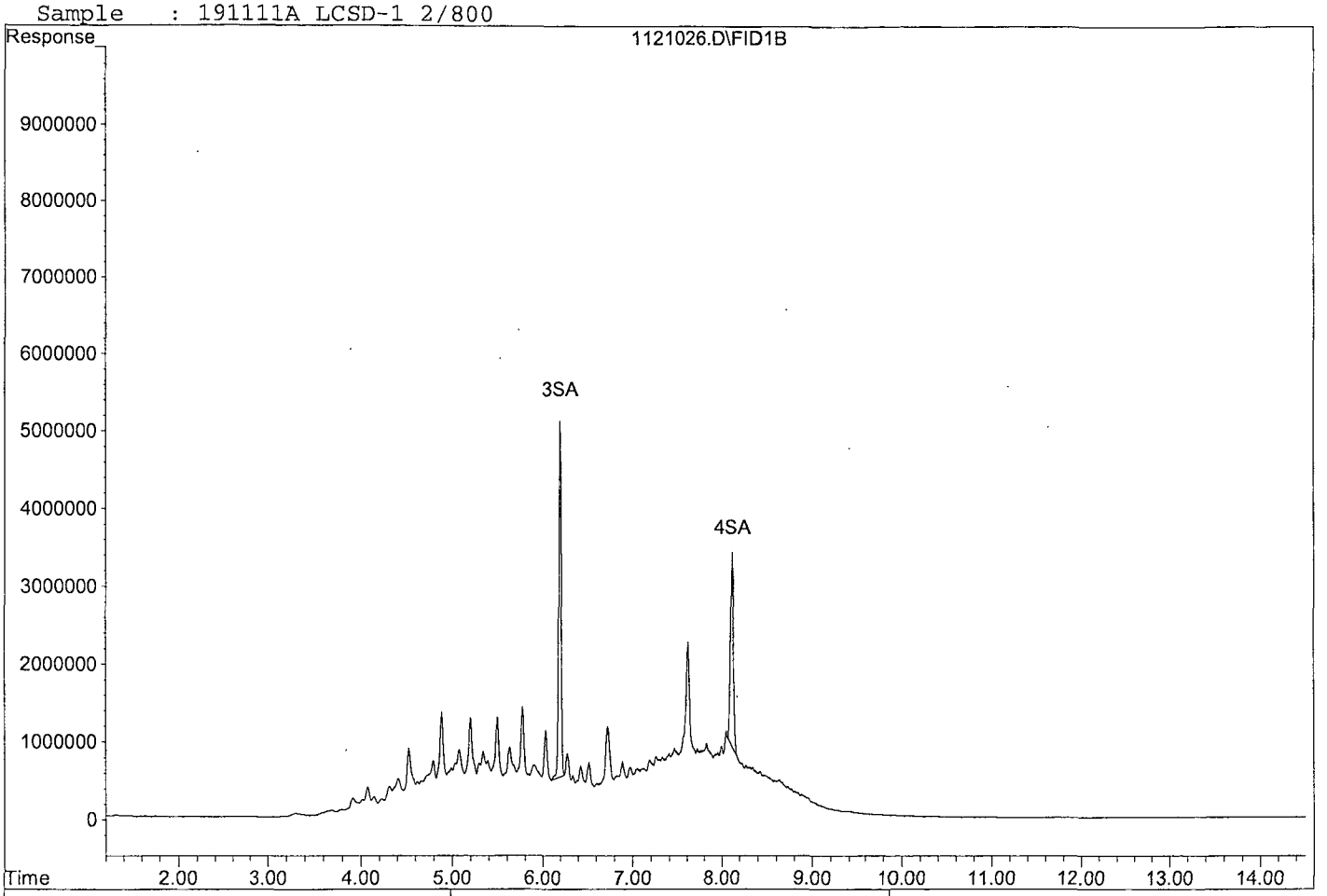
Volume Inj. : 2UL
Signal Phase : DB-5
Signal Info : FID02A

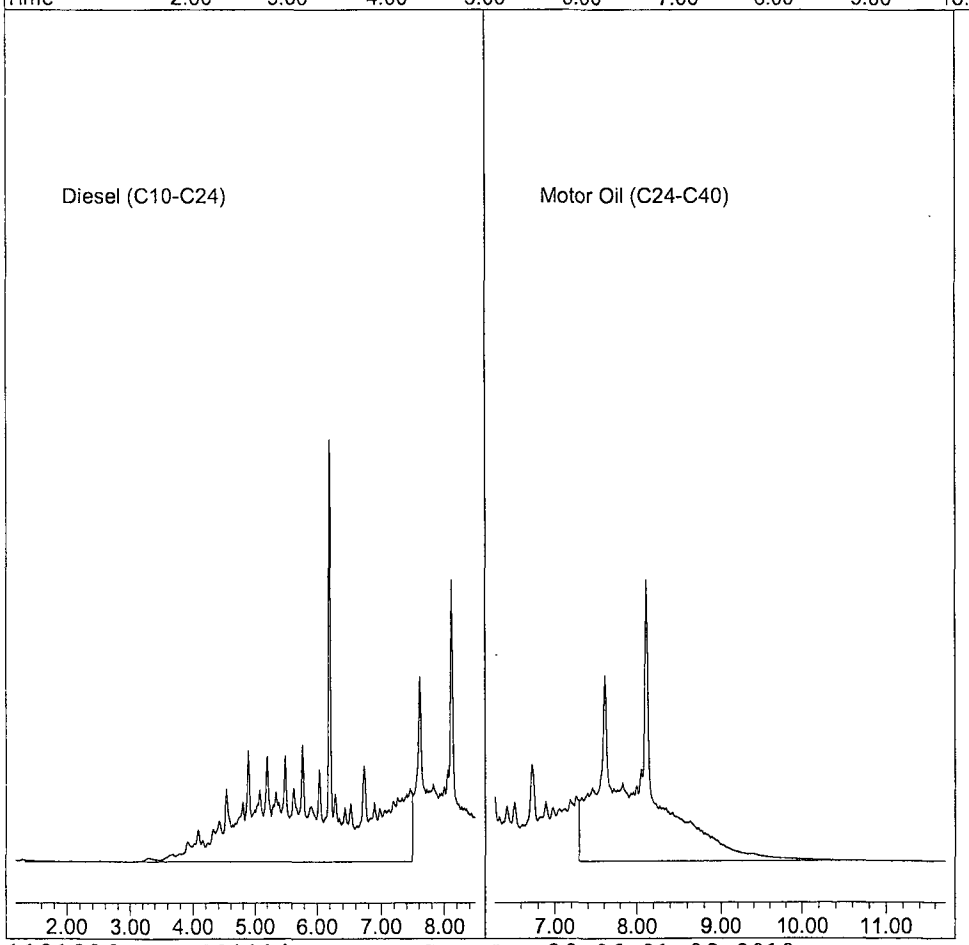
Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
3) SA Ortho-Terphenyl(S)	6.20	89998500	79.262	ppb
Surrogate Spike 75.000	Recovery =		105.68%	
4) SA Octacosane(S)	8.12	57072322	62.986	ppb
Surrogate Spike 75.000	Recovery =		83.98%	
Target Compounds				
1) HATM Diesel (C10-C24)	4.42	1301312135	1078.150	ppb
2) HBTM Motor Oil (C24-C40)	9.01	770152086	1223.484	ppb

Target Compounds

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: G:\APOLLO\DATA\191121\1121026.D
Sample : 191111A LCSD-1 2/800





Diesel / Motor Oil Calibration Curve

Prepared: 11/14/19

Expires: 05/13/20

Prepared By (Initials): BT

Methylene Chloride Lot No. 58059

Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference to APPL Prep Date	Exp. Date	Exp. Date (Manufacturer)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc: (ug/mL)
Diesel / Motor Oil Calibration STD	APPL	Diesel / Motor Oil - 1	2,000	Prepared 11/14/19	09/11/20	N/A	5uL	1mL	MC	10
Diesel / Motor Oil Calibration STD	APPL	Diesel / Motor Oil -2	2,000	Prepared 11/14/19	09/11/20	N/A	25uL	1mL	MC	50
Diesel / Motor Oil Calibration STD	APPL	Diesel / Motor Oil - 3	2,000	Prepared 11/14/19	09/11/20	N/A	125uL	1mL	MC	250
Diesel / Motor Oil Calibration STD	APPL	Diesel / Motor Oil - 4	2,000	Prepared 11/14/19	09/11/20	N/A	500uL	1mL	MC	1000
Diesel / Motor Oil Calibration STD	APPL	Diesel / Motor Oil - 5	2,000	Prepared 11/14/19	09/11/20	N/A	750uL	1mL	MC	1500
Diesel / Motor Oil Calibration STD	APPL	Diesel / Motor Oil - 6	2,000	Prepared 11/14/19	09/11/20	N/A	100uL	100uL	N/A	2,000

Diesel / Motor Oil Calibration Standard

Prepared: 11/14/19 **Prepared By (Initials): BT**

Expires: 09/11/20

Methylene Chloride Lot No. 58059

Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier Part No.	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr.)	Exp. Date (Manufacturer)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
Diesel Fuel #2	Restek	31258	50,000	**A0149066-41325**	**09/24/20**	**06/03/26**	400uL	10mL	MC	2000
Motor Oil	Restek	31464	50,000	**A0147736-41330**	**09/11/20**	**05/31/26**	400uL			2000
THC Surrogate	Phenova	ALO-130161	600	**CL13256-49449**	**11/13/20**	**11/28/24**	1666uL			100

Diesel / Motor Oil Second Source (SS)

Prepared: 01/15/19

Expires: 01/15/20

Prepared By (Initials): DP

Methylene Chloride Lot No. 56278

Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier Part No.	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr.)	Exp. Date (Manufacturer)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
Diesel Fuel #2	O2SI	G34-011598-03	50,000	**G34-319187-38958**	**08/02/19**	**09/29/21**	50uL	10mL	MC	250
Motor Oil Second Source	O2SI	116390-02-SS	50,000	**301142-37652**	**07/13/19**	**03/05/22**	50uL			

Organic Extraction Worksheet

Method	Continuous Liq/Liq TPH-Diesel/MO 3520C	Extraction Set	191111A	Extraction Method	LIQ005	Units	mL

Spiked ID 1	Diesel Spike 10/28/19 10/28/20		Surrogate ID 1	THC Surrogate 10/29/19 10/29/20	
Spiked ID 2	Motor Oil Spike 10/30/19 10/30/20		Surrogate ID 2		
Spiked ID 3			Surrogate ID 3		
Spiked ID 4			Surrogate ID 4		
Spiked ID 5			Surrogate ID 5		
Spiked ID 6			Sufficient Vol for Matrix QC:		
Spiked ID 7			Ext. Start Time:	11/11/19 14:25	
Spiked ID 8			Ext. End Time:	11/20/19 16:25	
			GC Requires Extract By:		

pH1			Water Bath Temp 1 °C	37/36.5 °C
pH2			Water Bath Temp 2 °C	36/39.5
pH3			Water Bath Temp 3 °C	38/37.4 °C

Spiked By: DL **Date** 11/11/19 **Witnessed By:** YL **Date** 11/11/19

	Sample	Sample Container	Spike Amount	Spike ID	Surrogate Amount	Surrogate ID	Extract Amount	Final Volume	pH	Extract Date/Time	Comments
1	191111A Blk				0.100	1 equip	800	2	2Y	11/11/19 14:25	
2	191111A LCS-1		0.020	1,2	0.100	1 equip	800	2	2Y	11/11/19 14:25	
3	191111A LCSD-1		0.020	1,2	0.100	1 equip	800	2	2Y	11/11/19 14:25	
4	BA02466	BA02466W19			0.100	1 equip	800	2	2Y	11/11/19 14:25	90648
5	BA02525	BA02525W20			0.100	1 equip	800	2	2Y	11/11/19 14:25	90657
6	BA02713	BA02713W20			0.100	1 equip	800	2	2Y	11/11/19 14:25	90700
7	BA02715	BA02715W33			0.100	1 equip	800	2	2Y	11/11/19 14:25	90700
8	BA02716	BA02716W11			0.100	1 equip	800	2	2Y	11/11/19 14:25	90700

Solvent and Lot#	
1+1 HCL	*6-15-19
PH Strips	*HC863463
Dicholormethane (DCM)	*59130
Filter Paper	*400171
B. Sodium Sulfate	*2019020631
Silica Gel (*)	*

Extraction COC Transfer	
Extraction lab employee Initials	
GC analyst's initials	
Date	
Time	
Refrigerator	

	Technician's Initials
Scanned By	DL
Sample Preparation	DL
Extraction	DL
Concentration	YL

Modified	11/11/19 1:21:51 PM

Reviewed By: **Date**

Injection Log

Directory: G:\APOLLO\DATA\191114\

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	3	1114003.D	1	Diesel Motor Oil - 1 11/14/19	water	11-14-19 19:39:49
2	4	1114004.D	1	Diesel Motor Oil - 2 11/14/19	water	11-14-19 19:59:46
3	5	1114005.D	1	Diesel Motor Oil - 3 11/14/19	water	11-14-19 20:19:39
4	6	1114006.D	1	Diesel Motor Oil - 4 11/14/19	water	11-14-19 20:39:34
5	7	1114007.D	1	Diesel Motor Oil - 5 11/14/19	water	11-14-19 20:59:26
6	8	1114008.D	1	Diesel Motor Oil - 6 11/14/19	water	11-14-19 21:19:19
7	9	1114009.D	1	Diesel Motor Oil Second Source 1/15/19	water	11-14-19 21:39:10
8	16	1121016.D	1	Diesel Motor Oil CCV 11/14/19	water	11-21-19 14:12:55
9	24	1121024.D	2.5	191111A BLK 2/800	water	11-21-19 16:53:36
10	25	1121025.D	2.5	191111A LCS-1 2/800	water	11-21-19 17:13:39
11	26	1121026.D	2.5	191111A LCSD-1 2/800	water	11-21-19 17:33:41
12	28	1121028.D	2.5	BA02525W20 2/800	water	11-21-19 18:13:01
13	32	1121032.D	1	Diesel Motor Oil CCV 11/14/19	water	11-21-19 19:32:24

ORGANICS
Calibration Data

PAH by GCMS SIM
EPA 8270 SIM

Form 6
Initial Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Initial Cal. Date: 10/28/19
Matrix: Instrument: Linus
Initials: MA LCP

			1028L005.D	1028L006.D	1028L007.D	1028L008.D	1028L004.D	1028L009.D	1028L010.D	1028L011.D								
		Compound	0.1	0.2	0.5	1	5	20	50	100			Avg	%RSD	Type	r^2	Q	MRF
1	I	Napthalene-D8(IS)																
2	S	Surrogate Recovery (NBZ)	0.6154	0.4960	0.4602	0.4714	0.4325	0.4265	0.4474	0.4616			0.48	13	S			
3	TM	Naphthalene	1.353	1.324	1.228	1.322	1.154	1.233	1.170	1.137			1.2	6.8	TM			0.700
4	S	2-Methylnaphthalene-D10 (2M	1.381	1.311	1.233	1.321	1.228	1.192	1.177	1.148			1.2	6.5	S			
5	TM	2-Methylnaphthalene	0.7871	0.7676	0.7353	0.7876	0.7127	0.7463	0.6996	0.6884			0.74	5.2	TM			0.400
6	TM	1-Methylnaphthalene	0.8729	0.8587	0.7207	0.7851	0.7016	0.7332	0.6925	0.6878			0.76	9.8	TM			
7	I	Acenaphthene-D10(IS)																
8	S	Surrogate Recovery (FBP)	2.084	2.067	1.863	2.099	1.844	1.830	1.715	1.653			1.9	9.1	S			
9	TM	Acenaphthylene	5.495	5.363	5.078	5.658	5.251	5.751	5.010	4.930			5.3	5.7	TM			0.900
10	*TM	Acenaphthene	1.708	1.625	1.517	1.618	1.412	1.529	1.338	1.439			1.5	8.1	*TM			0.900
11	TM	Fluorene	1.748	1.717	1.628	1.812	1.633	1.776	1.673	1.592			1.7	4.6	TM			0.900
12	I	Phenanthrene-D10(IS)																
13	TM	Phenanthrene	1.669	1.541	1.498	1.635	1.381	1.470	1.355	1.265			1.5	9.4	TM			0.700
14	TM	Anthracene	1.260	1.193	1.201	1.358	1.291	1.363	1.276	1.260			1.3	4.9	TM			0.700
15	S	Fluoranthene-D10 (FRT)	1.894	1.787	1.721	1.903	1.860	1.907	1.799	1.683			1.8	4.7	S			
16	*TM	Fluoranthene	2.125	1.989	1.963	2.216	2.039	2.159	1.845	1.771			2.0	7.6	*TM			0.600
17	I	Chrysene-D12(IS)																
18	TM	Pyrene	1.917	1.787	1.752	1.917	1.747	1.808	1.714	1.669			1.8	5.0	TM			0.600
19	S	Surrogate Recovery (TPH)	1.035	0.9626	0.9160	0.9919	0.9371	0.9175	0.9804	0.9502			0.96	4.2	S			
20	TM	Benz (a) anthracene	1.534	1.359	1.345	1.415	1.416	1.448	1.430	1.415			1.4	4.0	TM			0.800
21	TM	Chrysene	1.877	1.680	1.536	1.668	1.444	1.534	1.433	1.409			1.6	10	TM			0.700
22	TM	Indeno (1,2,3-cd) pyrene	1.476	1.215	1.084	1.244	1.392	1.511	1.583	1.595			1.4	14	TM			0.500
23	I	Perylene-D12(IS)																
24	TM	Benzo (b) fluoranthene	1.329	1.058	1.106	1.231	1.301	1.421	1.375	1.322			1.3	10	TM			0.700
25	TM	Benzo (k) fluoranthene	1.285	1.483	1.360	1.569	1.476	1.628	1.346	1.365			1.4	8.3	TM			0.700
26	*TM	Benzo (a) pyrene	1.142	0.9908	0.9637	1.073	1.246	1.377	1.283	1.260			1.2	13	*TM			0.700
27	TM	Dibenz (a,h) anthracene	1.207	1.035	0.9842	1.085	1.167	1.279	1.208	1.243			1.2	9.1	TM			0.400
28	TM	Benzo (g,h,i) perylene	1.405	1.180	1.137	1.241	1.225	1.358	1.281	1.283			1.3	7.0	TM			0.500
29																		
30																		
31																		
32																		
33																		
34																		
35																		

Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L191028\1028L004.D Vial: 4
Acq On : 28 Oct 19 12:26 Operator: MA
Sample : 5 SIM 10/28/19(2) Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 30 10:37 2019 Quant Results File: L1028.RES

Quant Method : M:\LINUS\DATA\L191028\L1028.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 30 10:36:52 2019
Response via : Initial Calibration
DataAcq Meth : SIM_2

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Napthalene-D8(IS)	4.27	136	42509	2.50000 ppb	0.00
7) Acenaphthene-D10(IS)	6.27	164	17630	2.50000 ppb	0.00
12) Phenanthrene-D10(IS)	7.99	188	30825	2.50000 ppb	0.00
17) Chrysene-D12(IS)	11.11	240	35746	2.50000 ppb	0.00
23) Perylene-D12(IS)	13.53	264	35057	2.50000 ppb	0.00
System Monitoring Compounds					
2) Surrogate Recovery (NBZ)	3.49	82	18387	2.26999 ppb	0.00
Spiked Amount 5.000			Recovery	= 45.400%	
4) 2-Methylnaphthalene-D10 (2	5.05	152	52219	2.45912 ppb	0.00
Spiked Amount 5.000			Recovery	= 49.180%	
8) Surrogate Recovery (FBP)	5.52	172	32516	2.43389 ppb	0.00
Spiked Amount 5.000			Recovery	= 48.680%	
15) Fluoranthene-D10 (FRT)	9.37	212	57325	2.55457 ppb	0.00
Spiked Amount 5.000			Recovery	= 51.100%	
19) Surrogate Recovery (TPH)	9.86	244	33496	2.43703 ppb	0.00
Spiked Amount 5.000			Recovery	= 48.740%	
Target Compounds					Qvalue
3) Naphthalene	4.30	128	98104	4.65241 ppb	100
5) 2-Methylnaphthalene	5.08	142	60590	4.81172 ppb	100
6) 1-Methylnaphthalene	5.19	142	59650	4.63689 ppb	100
9) Acenaphthylene	6.11	152	185151	4.93782 ppb	100
10) Acenaphthene	6.30	154	49783	4.63497 ppb	100
11) Fluorene	6.90	166	57596	4.81102 ppb	100
13) Phenanthrene	8.01	178	85147	4.67624 ppb	100
14) Anthracene	8.08	178	79570	5.06096 ppb	100
16) Fluoranthene	9.39	202	125700	5.02216 ppb	100
18) Pyrene	9.64	202	124886	4.88571 ppb	100
20) Benz (a) anthracene	11.09	228	101233	4.98555 ppb	100
21) Chrysene	11.14	228	103205	4.58223 ppb	100
22) Indeno (1,2,3-cd) pyrene	15.00	276	99497	5.01530 ppb #	100
24) Benzo (b) fluoranthene	12.90	252	91200	5.12901 ppb	100
25) Benzo (k) fluoranthene	12.95	252	103463	5.12718 ppb	100
26) Benzo (a) pyrene	13.43	252	87360	5.33556 ppb	100
27) Dibenz (a,h) anthracene	15.05	278	81789	5.06796 ppb	100
28) Benzo (g,h,i) perylene	15.38	276	85903	4.84757 ppb	100

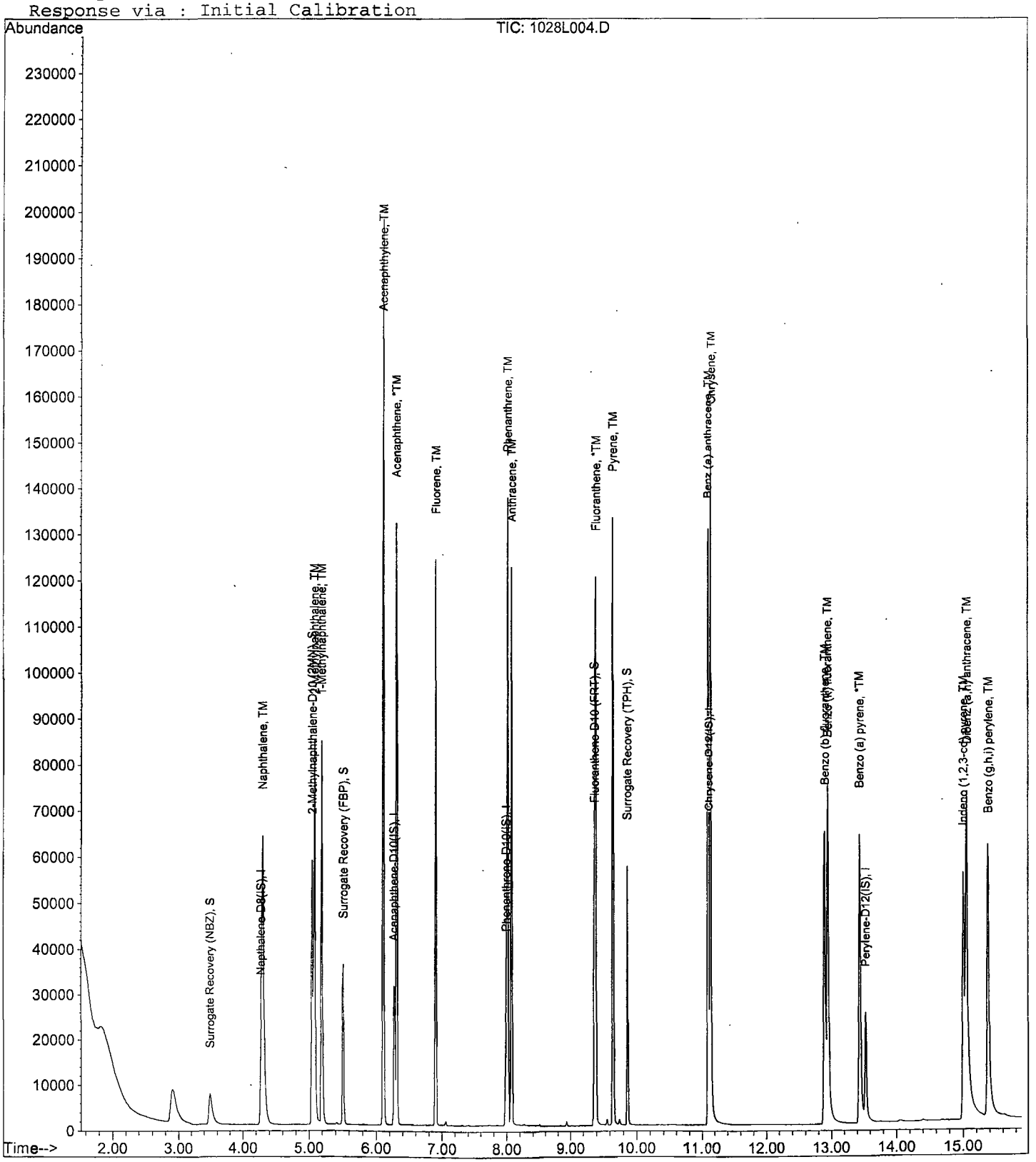
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L191028\1028L004.D Vial: 4
Acq On : 28 Oct 19 12:26 Operator: MA
Sample : 5 SIM 10/28/19(2) Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 30 10:37 2019 Quant Results File: L1028.RES

Method : M:\LINUS\DATA\L191028\L1028.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 30 10:39:31 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L191028\1028L005.D Vial: 5
Acq On : 28 Oct 19 12:51 Operator: MA
Sample : 0.1 SIM 10/28/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 30 10:34 2019 Quant Results File: L1028.RES

Quant Method : M:\LINUS\DATA\L191028\L1028.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 30 10:34:31 2019
Response via : Initial Calibration
DataAcq Meth : SIM_2

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Napthalene-D8(IS)	4.27	136	39324	2.50000 ppb		0.00
7) Acenaphthene-D10(IS)	6.27	164	16174	2.50000 ppb		0.00
12) Phenanthrene-D10(IS)	7.99	188	28360	2.50000 ppb		0.00
17) Chrysene-D12(IS)	11.10	240	31560	2.50000 ppb		-0.01
23) Perylene-D12(IS)	13.52	264	31724	2.50000 ppb		-0.01
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	3.49	82	484	0.06459 ppb		0.00
Spiked Amount 5.000			Recovery =	1.300%		
4) 2-Methylnaphthalene-D10 (2	5.05	152	1086	0.05528 ppb		0.00
Spiked Amount 5.000			Recovery =	1.100%		
8) Surrogate Recovery (FBP)	5.52	172	674	0.05499 ppb		0.00
Spiked Amount 5.000			Recovery =	1.100%		
15) Fluoranthene-D10 (FRT)	9.36	212	1074	0.05202 ppb		-0.01
Spiked Amount 5.000			Recovery =	1.040%		
19) Surrogate Recovery (TPH)	9.86	244	653	0.05381 ppb		0.00
Spiked Amount 5.000			Recovery =	1.080%		
Target Compounds						Qvalue
3) Naphthalene	4.30	128	2128	0.10909 ppb		99
5) 2-Methylnaphthalene	5.08	142	1238	0.10628 ppb		99
6) 1-Methylnaphthalene	5.19	142	1373	0.11537 ppb		95
9) Acenaphthylene	6.11	152	3555	0.10334 ppb		99
10) Acenaphthene	6.30	154	1105	0.11214 ppb		95
11) Fluorene	6.90	166	1131	0.10298 ppb		98
13) Phenanthrene	8.02	178	1893	0.11300 ppb		98
14) Anthracene	8.08	178	1429	0.09879 ppb		99
16) Fluoranthene	9.38	202	2411	0.10470 ppb	#	85
18) Pyrene	9.64	202	2420	0.10723 ppb		94
20) Benz (a) anthracene	11.09	228	1936	0.10799 ppb		99
21) Chrysene	11.14	228	2369	0.11913 ppb		96
22) Indeno (1,2,3-cd) pyrene	15.00	276	1863	0.10636 ppb	#	93
24) Benzo (b) fluoranthene	12.89	252	1687	0.10484 ppb		98
25) Benzo (k) fluoranthene	12.95	252	1630	0.08926 ppb		96
26) Benzo (a) pyrene	13.43	252	1449	0.09780 ppb		96
27) Dibenz (a,h) anthracene	15.04	278	1531	0.10483 ppb	#	91
28) Benzo (g,h,i) perylene	15.37	276	1783	0.11119 ppb		99

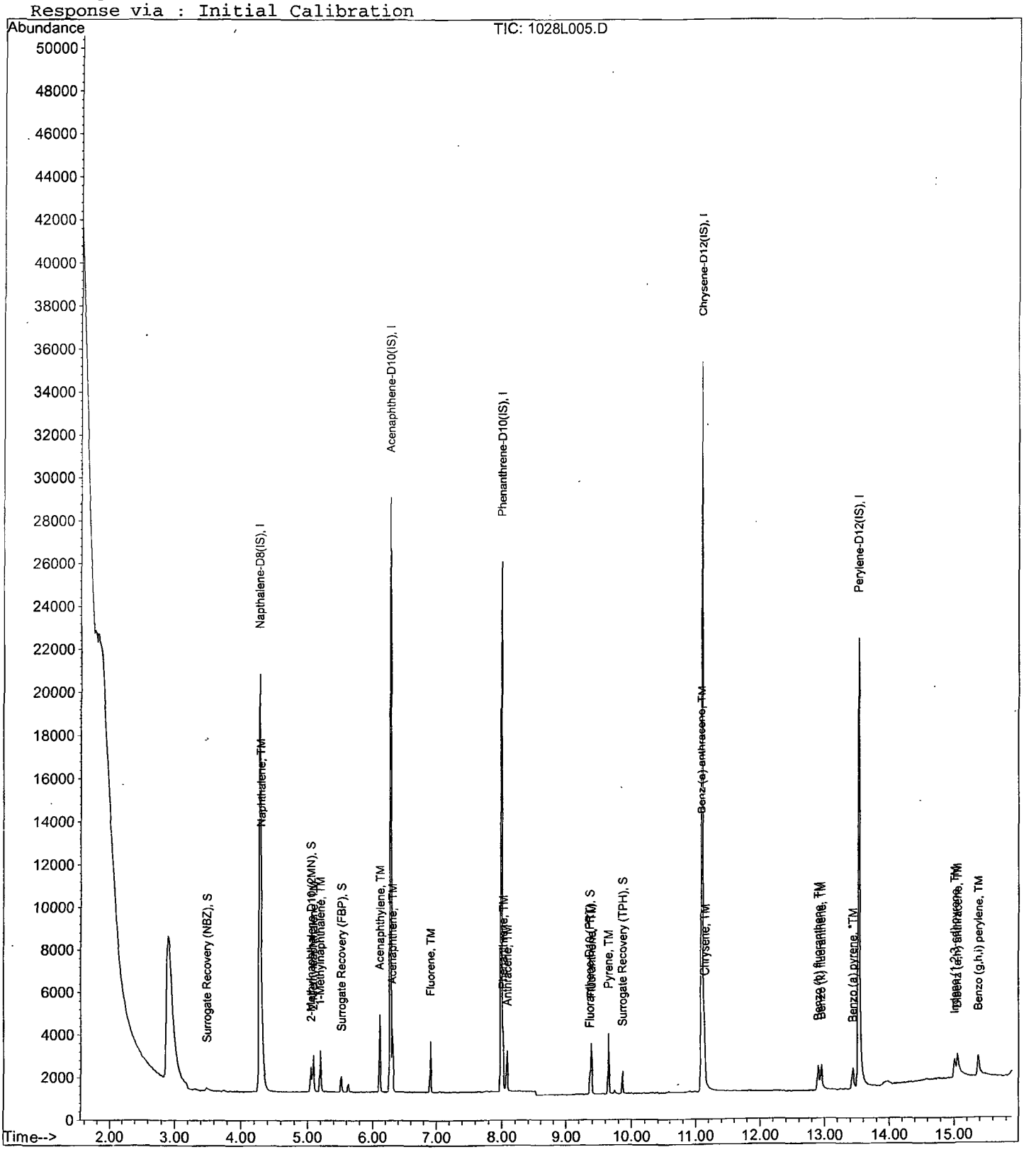
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L191028\1028L005.D Vial: 5
Acq On : 28 Oct 19 12:51 Operator: MA
Sample : 0.1 SIM 10/28/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 30 10:34 2019 Quant Results File: L1028.RES

Method : M:\LINUS\DATA\L191028\L1028.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 30 10:39:31 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L191028\1028L006.D Vial: 6
Acq On : 28 Oct 19 13:13 Operator: MA
Sample : 0.2 SIM 10/28/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 30 10:34 2019 Quant Results File: L1028.RES

Quant Method : M:\LINUS\DATA\L191028\L1028.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 30 10:34:31 2019
Response via : Initial Calibration
DataAcq Meth : SIM_2

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Napthalene-D8(IS)	4.27	136	38562	2.50000	ppb		0.00
7) Acenaphthene-D10(IS)	6.27	164	15986	2.50000	ppb		0.00
12) Phenanthrene-D10(IS)	7.99	188	28375	2.50000	ppb		0.00
17) Chrysene-D12(IS)	11.10	240	31295	2.50000	ppb		-0.01
23) Perylene-D12(IS)	13.52	264	30972	2.50000	ppb		-0.01
System Monitoring Compounds							
2) Surrogate Recovery (NBZ)	3.49	82	765	0.10411	ppb		0.00
Spiked Amount 5.000			Recovery = 2.080%				
4) 2-Methylnaphthalene-D10 (2	5.05	152	2022	0.10497	ppb		0.00
Spiked Amount 5.000			Recovery = 2.100%				
8) Surrogate Recovery (FBP)	5.52	172	1322	0.10913	ppb		0.00
Spiked Amount 5.000			Recovery = 2.180%				
15) Fluoranthene-D10 (FRT)	9.36	212	2028	0.09818	ppb		-0.01
Spiked Amount 5.000			Recovery = 1.960%				
19) Surrogate Recovery (TPH)	9.86	244	1205	0.10014	ppb		0.00
Spiked Amount 5.000			Recovery = 2.000%				
Target Compounds							Qvalue
3) Naphthalene	4.30	128	4084	0.21350	ppb		99
5) 2-Methylnaphthalene	5.08	142	2368	0.20730	ppb		97
6) 1-Methylnaphthalene	5.19	142	2649	0.22700	ppb		98
9) Acenaphthylene	6.11	152	6859	0.20174	ppb		99
10) Acenaphthene	6.30	154	2078	0.21337	ppb		99
11) Fluorene	6.90	166	2196	0.20230	ppb		97
13) Phenanthrene	8.01	178	3498	0.20870	ppb		99
14) Anthracene	8.08	178	2709	0.18718	ppb		100
16) Fluoranthene	9.38	202	4516	0.19601	ppb	#	82
18) Pyrene	9.64	202	4473	0.19988	ppb		94
20) Benz (a) anthracene	11.09	228	3402	0.19137	ppb		98
21) Chrysene	11.14	228	4205	0.21325	ppb		96
22) Indeno (1,2,3-cd) pyrene	15.00	276	3043	0.17520	ppb	#	80
24) Benzo (b) fluoranthene	12.89	252	2622	0.16691	ppb	#	95
25) Benzo (k) fluoranthene	12.95	252	3675	0.20614	ppb		97
26) Benzo (a) pyrene	13.43	252	2455	0.16972	ppb	#	93
27) Dibenz (a,h) anthracene	15.04	278	2564	0.17983	ppb		95
28) Benzo (g,h,i) perylene	15.37	276	2923	0.18670	ppb		93

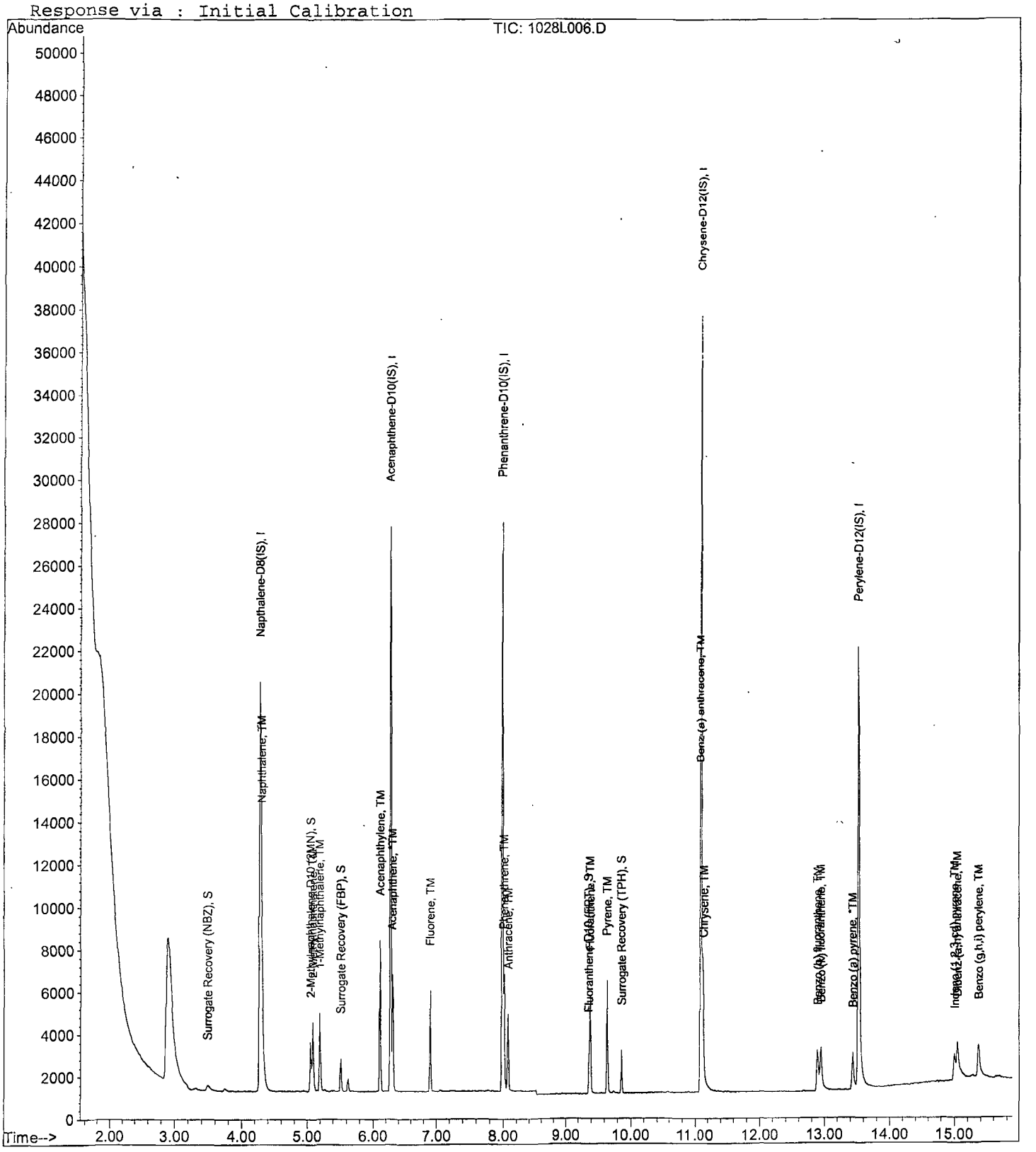
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L191028\1028L006.D Vial: 6
Acq On : 28 Oct 19 13:13 Operator: MA
Sample : 0.2 SIM 10/28/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 30 10:34 2019 Quant Results File: L1028.RES

Method : M:\LINUS\DATA\L191028\L1028.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 30 10:39:31 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L191028\1028L007.D Vial: 7
Acq On : 28 Oct 19 13:35 Operator: MA
Sample : 0.5 SIM 10/28/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 30 10:35 2019 Quant Results File: L1028.RES

Quant Method : M:\LINUS\DATA\L191028\L1028.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 30 10:34:31 2019
Response via : Initial Calibration
DataAcq Meth : SIM_2

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Napthalene-D8(IS)	4.27	136	37004	2.50000 ppb		0.00
7) Acenaphthene-D10(IS)	6.28	164	15527	2.50000 ppb		0.01
12) Phenanthrene-D10(IS)	7.99	188	27459	2.50000 ppb		0.00
17) Chrysene-D12(IS)	11.11	240	30862	2.50000 ppb		0.00
23) Perylene-D12(IS)	13.53	264	29964	2.50000 ppb		0.00
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	3.49	82	1703	0.24152 ppb		0.00
Spiked Amount 5.000			Recovery =	4.840%		
4) 2-Methylnaphthalene-D10 (2	5.05	152	4562	0.24680 ppb		0.00
Spiked Amount 5.000			Recovery =	4.940%		
8) Surrogate Recovery (FBP)	5.52	172	2893	0.24588 ppb		0.00
Spiked Amount 5.000			Recovery =	4.920%		
15) Fluoranthene-D10 (FRT)	9.37	212	4727	0.23647 ppb		0.00
Spiked Amount 5.000			Recovery =	4.720%		
19) Surrogate Recovery (TPH)	9.86	244	2827	0.23823 ppb		0.00
Spiked Amount 5.000			Recovery =	4.760%		
Target Compounds						Qvalue
3) Naphthalene	4.30	128	9091	0.49526 ppb		99
5) 2-Methylnaphthalene	5.08	142	5442	0.49647 ppb		100
6) 1-Methylnaphthalene	5.19	142	5334	0.47632 ppb		96
9) Acenaphthylene	6.11	152	15769	0.47751 ppb		100
10) Acenaphthene	6.30	154	4710	0.49791 ppb		98
11) Fluorene	6.90	166	5056	0.47953 ppb		98
13) Phenanthrene	8.02	178	8228	0.50727 ppb		98
14) Anthracene	8.08	178	6595	0.47089 ppb		99
16) Fluoranthene	9.39	202	10783	0.48363 ppb		98
18) Pyrene	9.64	202	10814	0.49001 ppb		96
20) Benz (a) anthracene	11.09	228	8304	0.47368 ppb		99
21) Chrysene	11.14	228	9479	0.48746 ppb		99
22) Indeno (1,2,3-cd) pyrene	15.00	276	6693	0.39076 ppb	#	90
24) Benzo (b) fluoranthene	12.89	252	6629	0.43618 ppb	#	95
25) Benzo (k) fluoranthene	12.95	252	8149	0.47247 ppb		97
26) Benzo (a) pyrene	13.44	252	5775	0.41266 ppb		95
27) Dibenz (a,h) anthracene	15.04	278	5898	0.42758 ppb	#	89
28) Benzo (g,h,i) perylene	15.37	276	6815	0.44994 ppb		95

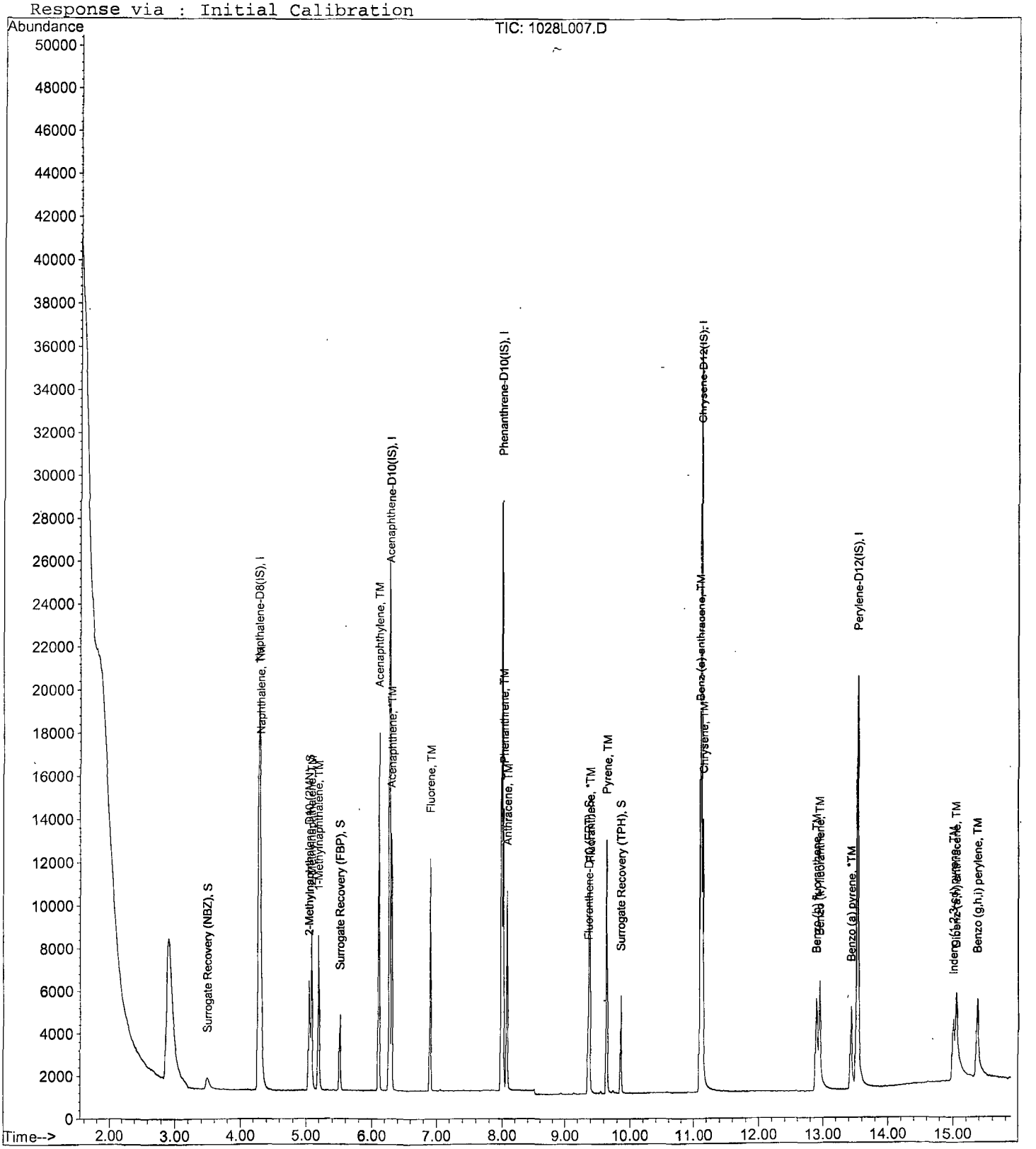
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L191028\1028L007.D Vial: 7
Acq On : 28 Oct 19 13:35 Operator: MA
Sample : 0.5 SIM 10/28/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 30 10:35 2019 Quant Results File: L1028.RES

Method : M:\LINUS\DATA\L191028\L1028.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 30 10:39:31 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L191028\1028L008.D Vial: 8
Acq On : 28 Oct 19 13:57 Operator: MA
Sample : 1 SIM 10/28/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 30 10:35 2019 Quant Results File: L1028.RES

Quant Method : M:\LINUS\DATA\L191028\L1028.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 30 10:34:31 2019
Response via : Initial Calibration
DataAcq Meth : SIM_2

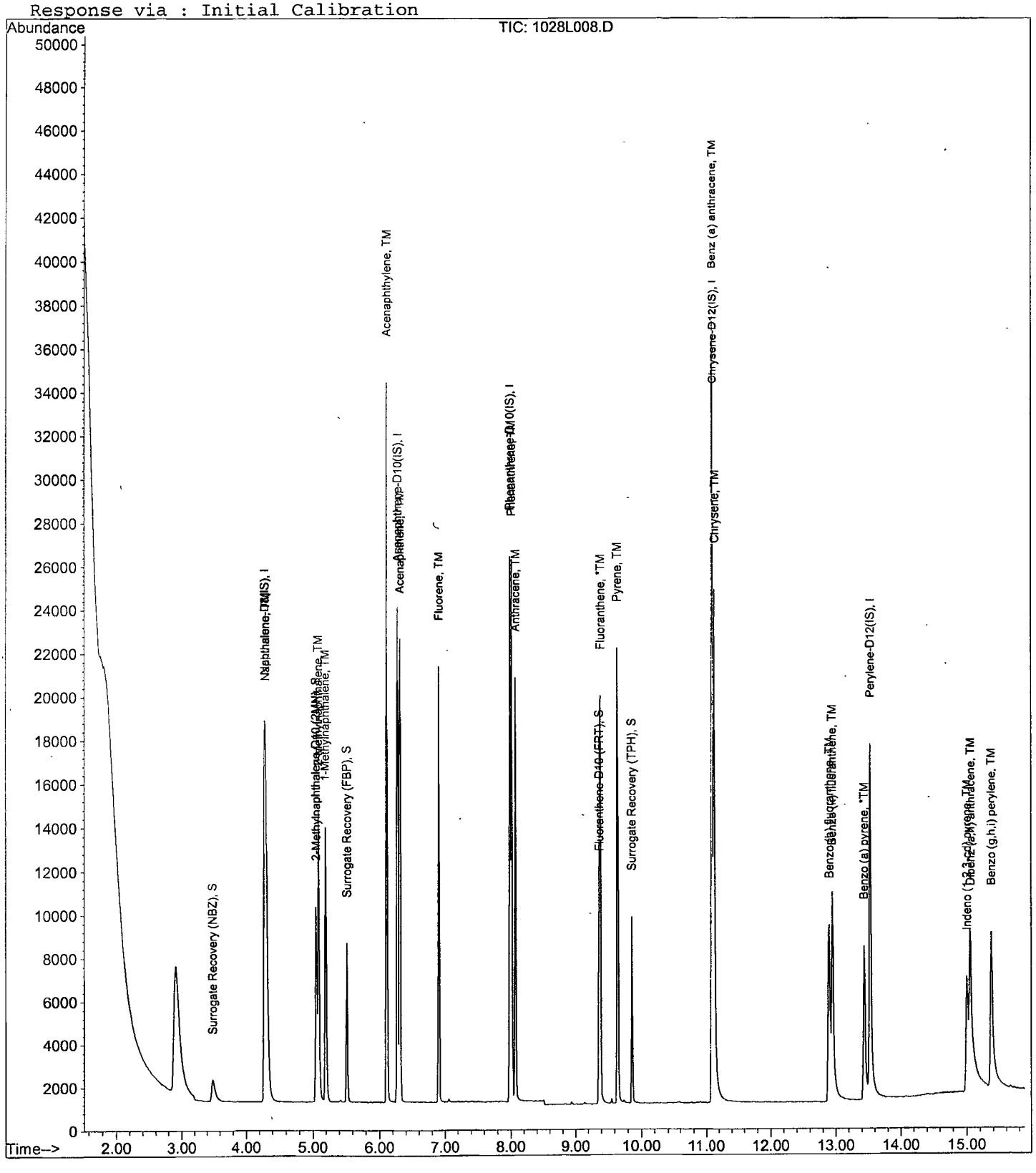
Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Napthalene-D8(IS)	4.29	136	32025	2.50000 ppb		0.01
7) Acenaphthene-D10(IS)	6.28	164	13099	2.50000 ppb		0.01
12) Phenanthrene-D10(IS)	7.99	188	23028	2.50000 ppb		0.00
17) Chrysene-D12(IS)	11.11	240	26425	2.50000 ppb		0.00
23) Perylene-D12(IS)	13.53	264	25032	2.50000 ppb		0.00
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	3.49	82	3019	0.49473 ppb		0.00
Spiked Amount 5.000			Recovery	= 9.900%		
4) 2-Methylnaphthalene-D10 (2	5.05	152	8459	0.52876 ppb		0.00
Spiked Amount 5.000			Recovery	= 10.580%		
8) Surrogate Recovery (FBP)	5.52	172	5500	0.55409 ppb		0.00
Spiked Amount 5.000			Recovery	= 11.080%		
15) Fluoranthene-D10 (FRT)	9.37	212	8766	0.52290 ppb		0.00
Spiked Amount 5.000			Recovery	= 10.460%		
19) Surrogate Recovery (TPH)	9.86	244	5242	0.51591 ppb		0.00
Spiked Amount 5.000			Recovery	= 10.320%		
Target Compounds						Qvalue
3) Naphthalene	4.30	128	16930	1.06571 ppb		100
5) 2-Methylnaphthalene	5.08	142	10089	1.06351 ppb		99
6) 1-Methylnaphthalene	5.19	142	10057	1.03771 ppb		97
9) Acenaphthylene	6.11	152	29648	1.06419 ppb		99
10) Acenaphthene	6.31	154	8477	1.06224 ppb		88
11) Fluorene	6.90	166	9496	1.06758 ppb		97
13) Phenanthrene	8.01	178	15064	1.10743 ppb		100
14) Anthracene	8.08	178	12506	1.06475 ppb		100
16) Fluoranthene	9.39	202	20409	1.09150 ppb		100
18) Pyrene	9.64	202	20263	1.07233 ppb		98
20) Benz (a) anthracene	11.10	228	14953	0.99617 ppb		97
21) Chrysene	11.14	228	17636	1.05923 ppb		99
22) Indeno (1,2,3-cd) pyrene	15.00	276	13150	0.89665 ppb	#	94
24) Benzo (b) fluoranthene	12.90	252	12330	0.97114 ppb		99
25) Benzo (k) fluoranthene	12.95	252	15715	1.09065 ppb		99
26) Benzo (a) pyrene	13.43	252	10748	0.91934 ppb		99
27) Dibenz (a,h) anthracene	15.05	278	10865	0.94286 ppb		98
28) Benzo (g,h,i) perylene	15.37	276	12422	0.98172 ppb	#	89

(#) = qualifier out of range (m) = manual integration

Data File : M:\LINUS\DATA\L191028\1028L008.D Vial: 8
Acq On : 28 Oct 19 13:57 Operator: MA
Sample : 1 SIM 10/28/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 30 10:35 2019 Quant Results File: L1028.RES

Method : M:\LINUS\DATA\L191028\L1028.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 30 10:39:31 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L191028\1028L009.D Vial: 9
Acq On : 28 Oct 19 14:19 Operator: MA
Sample : 20 SIM 10/28/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 30 10:35 2019 Quant Results File: L1028.RES

Quant Method : M:\LINUS\DATA\L191028\L1028.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 30 10:34:31 2019
Response via : Initial Calibration
DataAcq Meth : SIM_2

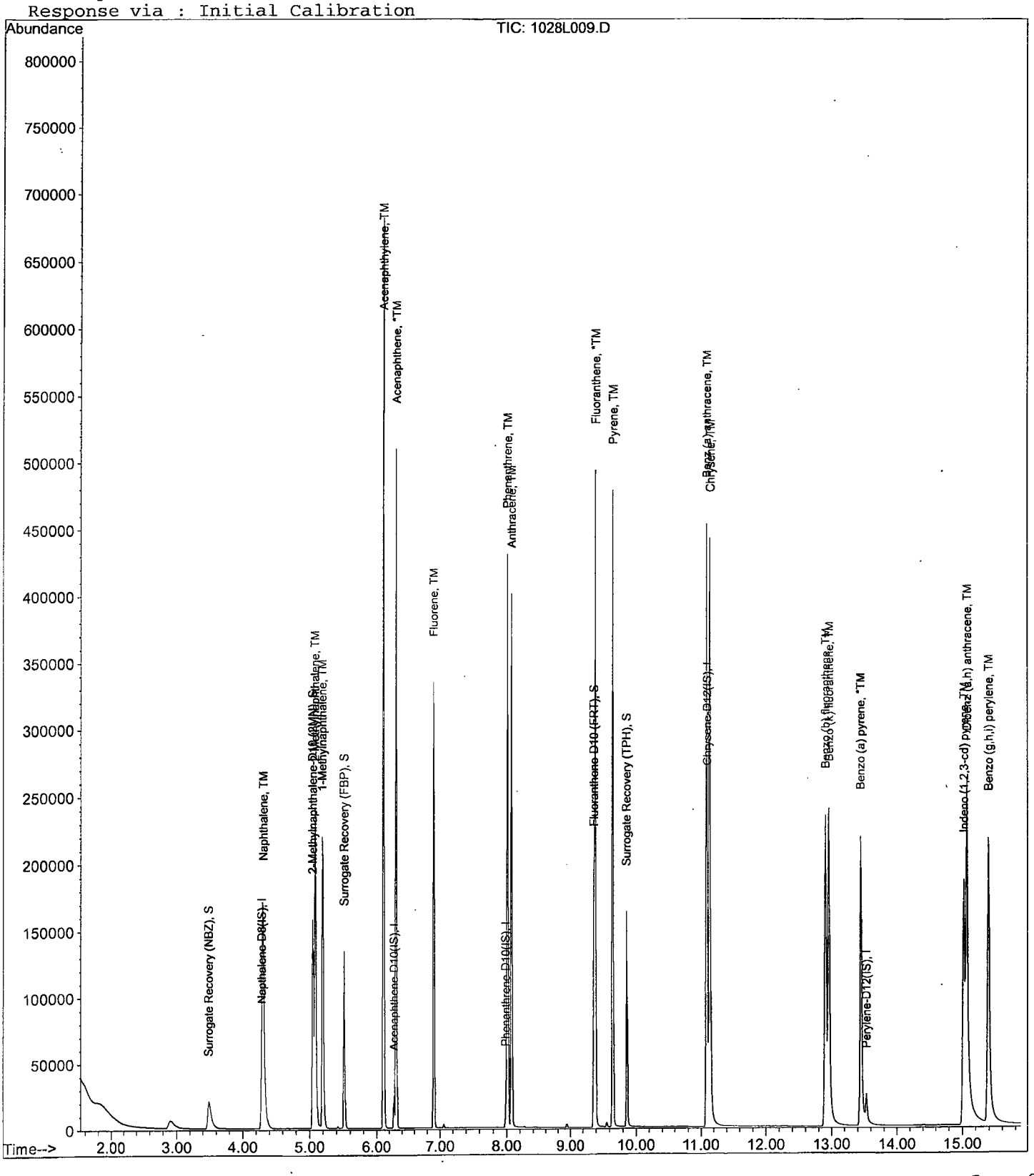
Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Napthalene-D8(IS)	4.29	136	32869	2.50000 ppb		0.01
7) Acenaphthene-D10(IS)	6.28	164	13416	2.50000 ppb		0.01
12) Phenanthrene-D10(IS)	7.99	188	23677	2.50000 ppb		0.00
17) Chrysene-D12(IS)	11.11	240	28661	2.50000 ppb		0.00
23) Perylene-D12(IS)	13.53	264	27623	2.50000 ppb		0.00
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	3.49	82	56078	8.95364 ppb		0.00
Spiked Amount 5.000			Recovery	= 179.080%		
4) 2-Methylnaphthalene-D10 (2	5.05	152	156708	9.54415 ppb		0.00
Spiked Amount 5.000			Recovery	= 190.880%		
8) Surrogate Recovery (FBP)	5.52	172	98204	9.65967 ppb		0.00
Spiked Amount 5.000			Recovery	= 193.200%		
15) Fluoranthene-D10 (FRT)	9.37	212	180565	10.47571 ppb		0.00
Spiked Amount 5.000			Recovery	= 209.520%		
19) Surrogate Recovery (TPH)	9.86	244	105182	9.54434 ppb		0.00
Spiked Amount 5.000			Recovery	= 190.880%		
Target Compounds						Qvalue
3) Naphthalene	4.31	128	324267	19.88786 ppb		99
5) 2-Methylnaphthalene	5.08	142	196246	20.15556 ppb		98
6) 1-Methylnaphthalene	5.19	142	192793	19.38213 ppb		96
9) Acenaphthylene	6.11	152	617256	21.63237 ppb		99
10) Acenaphthene	6.31	154	164055	20.07171 ppb		88
11) Fluorene	6.90	166	190667	20.92904 ppb		96
13) Phenanthrene	8.01	178	278373	19.90356 ppb		99
14) Anthracene	8.08	178	258173	21.37818 ppb		98
16) Fluoranthene	9.39	202	408909	21.26956 ppb	#	88
18) Pyrene	9.65	202	414663	20.23232 ppb	#	88
20) Benz (a) anthracene	11.10	228	331965	20.39010 ppb		99
21) Chrysene	11.15	228	351823	19.48211 ppb		99
22) Indeno (1,2,3-cd) pyrene	15.02	276	346411	21.77783 ppb	#	80
24) Benzo (b) fluoranthene	12.91	252	314014	22.41257 ppb		98
25) Benzo (k) fluoranthene	12.97	252	359815	22.62958 ppb	#	94
26) Benzo (a) pyrene	13.45	252	304231	23.58169 ppb		98
27) Dibenz (a,h) anthracene	15.07	278	282549	22.21959 ppb		96
28) Benzo (g,h,i) perylene	15.39	276	300183	21.49840 ppb	#	87

(#) = qualifier out of range (m) = manual integration

Data File : M:\LINUS\DATA\L191028\1028L009.D Vial: 9
Acq On : 28 Oct 19 14:19 Operator: MA
Sample : 20 SIM 10/28/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 30 10:35 2019 Quant Results File: L1028.RES

Method : M:\LINUS\DATA\L191028\L1028.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 30 10:39:31 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L191028\1028L010.D Vial: 10
Acq On : 28 Oct 19 14:42 Operator: MA
Sample : 50 SIM 10/28/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 30 10:39 2019 Quant Results File: L1028.RES

Quant Method : M:\LINUS\DATA\L191028\L1028.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 30 10:39:03 2019
Response via : Initial Calibration
DataAcq Meth : SIM_2

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Napthalene-D8(IS)	4.29	136	36782	2.50000 ppb		0.01
7) Acenaphthene-D10(IS)	6.28	164	15743	2.50000 ppb		0.01
12) Phenanthrene-D10(IS)	7.99	188	27764	2.50000 ppb		0.00
17) Chrysene-D12(IS)	11.12	240	31502	2.50000 ppb		0.01
23) Perylene-D12(IS)	13.54	264	33834	2.50000 ppb		0.01
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	3.49	82	164569	23.48044 ppb		0.00
Spiked Amount 5.000			Recovery = 469.600%			
4) 2-Methylnaphthalene-D10 (2	5.05	152	432823	23.55633 ppb		0.00
Spiked Amount 5.000			Recovery = 471.120%			
8) Surrogate Recovery (FBP)	5.52	172	269987	22.63141 ppb		0.00
Spiked Amount 5.000			Recovery = 452.620%			
15) Fluoranthene-D10 (FRT)	9.38	212	499535	24.71499 ppb		0.01
Spiked Amount 5.000			Recovery = 494.300%			
19) Surrogate Recovery (TPH)	9.87	244	308848	25.49780 ppb		0.01
Spiked Amount 5.000			Recovery = 509.960%			
Target Compounds						Qvalue
3) Naphthalene	4.31	128	860769	47.17621 ppb		99
5) 2-Methylnaphthalene	5.10	142	514626	47.23207 ppb		96
6) 1-Methylnaphthalene	5.20	142	509460	45.76902 ppb		97
9) Acenaphthylene	6.11	152	1577589	47.11599 ppb		99
10) Acenaphthene	6.31	154	421153	43.91071 ppb		92
11) Fluorene	6.92	166	526911	49.28860 ppb		97
13) Phenanthrene	8.03	178	752594	45.88906 ppb		99
14) Anthracene	8.09	178	708446	50.02779 ppb		99
16) Fluoranthene	9.40	202	1024241	45.43376 ppb	#	91
18) Pyrene	9.66	202	1079871	47.93751 ppb	#	84
20) Benz (a) anthracene	11.11	228	900763	50.33740 ppb		98
21) Chrysene	11.16	228	902898	45.48872 ppb		98
22) Indeno (1,2,3-cd) pyrene	15.04	276	997292	57.04250 ppb	#	80
24) Benzo (b) fluoranthene	12.92	252	930609	54.22848 ppb		100
25) Benzo (k) fluoranthene	12.99	252	911111	46.78279 ppb		100
26) Benzo (a) pyrene	13.47	252	868154	54.93963 ppb		97
27) Dibenz (a,h) anthracene	15.09	278	817460	52.48391 ppb		97
28) Benzo (g,h,i) perylene	15.42	276	866669	50.67466 ppb		93

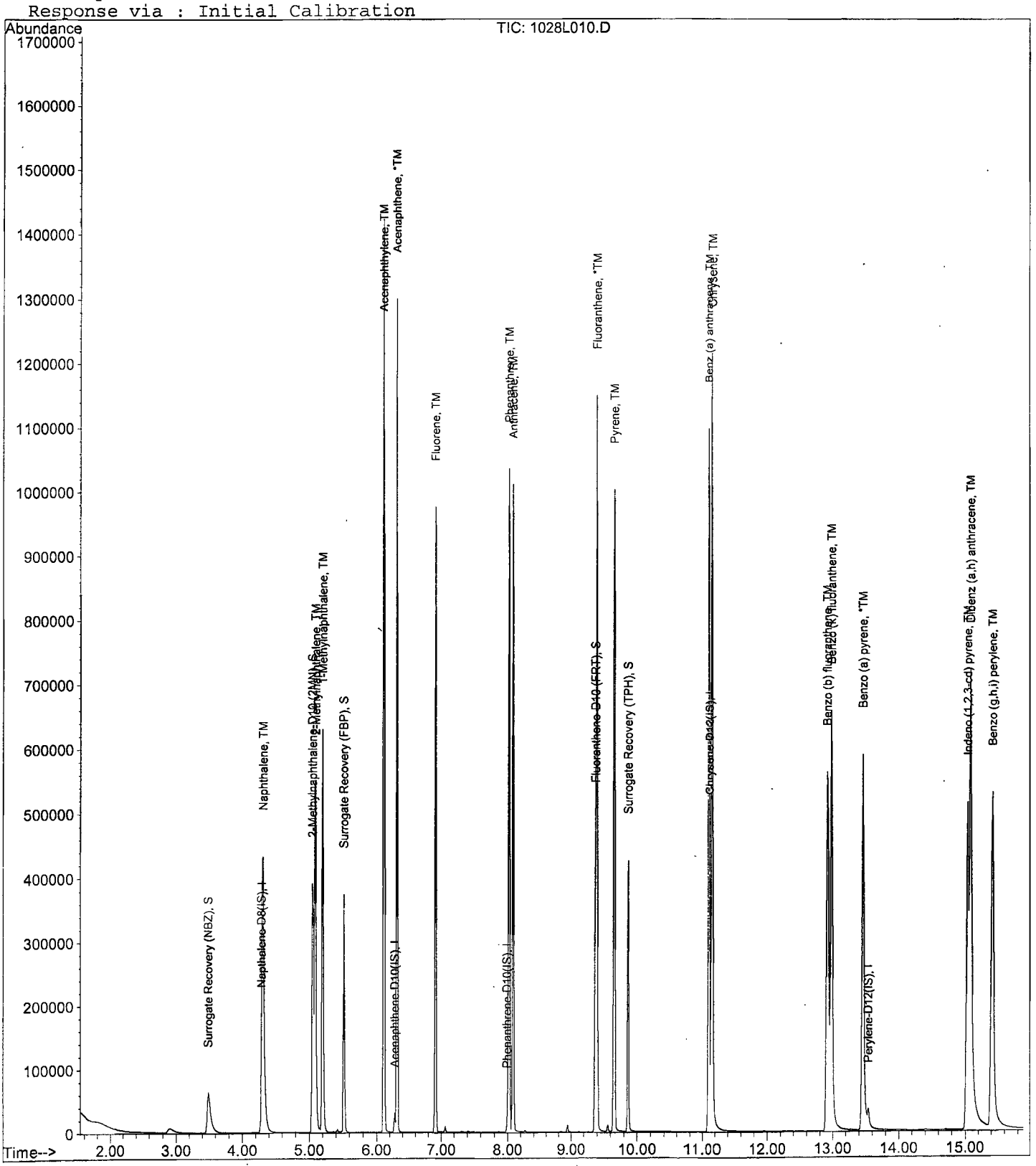
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L191028\1028L010.D Vial: 10
Acq On : 28 Oct 19 14:42 Operator: MA
Sample : 50 SIM 10/28/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 30 10:39 2019 Quant Results File: L1028.RES

Method : M:\LINUS\DATA\L191028\L1028.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 30 10:39:31 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L191028\1028L011.D Vial: 11
Acq On : 28 Oct 19 15:04 Operator: MA
Sample : 100 SIM 10/28/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 30 10:39 2019 Quant Results File: L1028.RES

Quant Method : M:\LINUS\DATA\L191028\L1028.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 30 10:39:03 2019
Response via : Initial Calibration
DataAcq Meth : SIM_2

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Napthalene-D8(IS)	4.29	136	35886	2.50000 ppb		0.01
7) Acenaphthene-D10(IS)	6.28	164	15357	2.50000 ppb		0.01
12) Phenanthrene-D10(IS)	7.99	188	27888	2.50000 ppb		0.00
17) Chrysene-D12(IS)	11.13	240	31266	2.50000 ppb		0.02
23) Perylene-D12(IS)	13.54	264	33574	2.50000 ppb		0.01
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	3.49	82	331274	48.44577 ppb		0.00
Spiked Amount 5.000			Recovery	= 968.920%		
4) 2-Methylnaphthalene-D10 (2	5.06	152	824254	45.97997 ppb		0.01
Spiked Amount 5.000			Recovery	= 919.600%		
8) Surrogate Recovery (FBP)	5.52	172	507607	43.61919 ppb		0.00
Spiked Amount 5.000			Recovery	= 872.380%		
15) Fluoranthene-D10 (FRT)	9.38	212	938946	46.24873 ppb		0.01
Spiked Amount 5.000			Recovery	= 924.980%		
19) Surrogate Recovery (TPH)	9.87	244	594165	49.42319 ppb		0.01
Spiked Amount 5.000			Recovery	= 988.460%		
Target Compounds						Qvalue
3) Naphthalene	4.31	128	1632322	91.69646 ppb		99
5) 2-Methylnaphthalene	5.09	142	988093	92.95084 ppb		96
6) 1-Methylnaphthalene	5.20	142	987228	90.90531 ppb		97
9) Acenaphthylene	6.12	152	3028365	92.71793 ppb		98
10) Acenaphthene	6.33	154	884058	94.49143 ppb		81
11) Fluorene	6.92	166	977828	93.76761 ppb		99
13) Phenanthrene	8.03	178	1410719	85.63545 ppb		98
14) Anthracene	8.10	178	1405385	98.80172 ppb		98
16) Fluoranthene	9.41	202	1975643	87.24682 ppb	#	93
18) Pyrene	9.67	202	2087655	93.37447 ppb	#	79
20) Benz (a) anthracene	11.12	228	1769567	99.63525 ppb		98
21) Chrysene	11.17	228	1761570	89.41920 ppb	#	95
22) Indeno (1,2,3-cd) pyrene	15.08	276	1994441	114.93788 ppb	#	97
24) Benzo (b) fluoranthene	12.95	252	1775337	104.25365 ppb		98
25) Benzo (k) fluoranthene	13.01	252	1833100	94.85304 ppb		98
26) Benzo (a) pyrene	13.49	252	1692412	107.93077 ppb		96
27) Dibenz (a,h) anthracene	15.12	278	1669599	108.02446 ppb		94
28) Benzo (g,h,i) perylene	15.46	276	1722719	101.50847 ppb		96

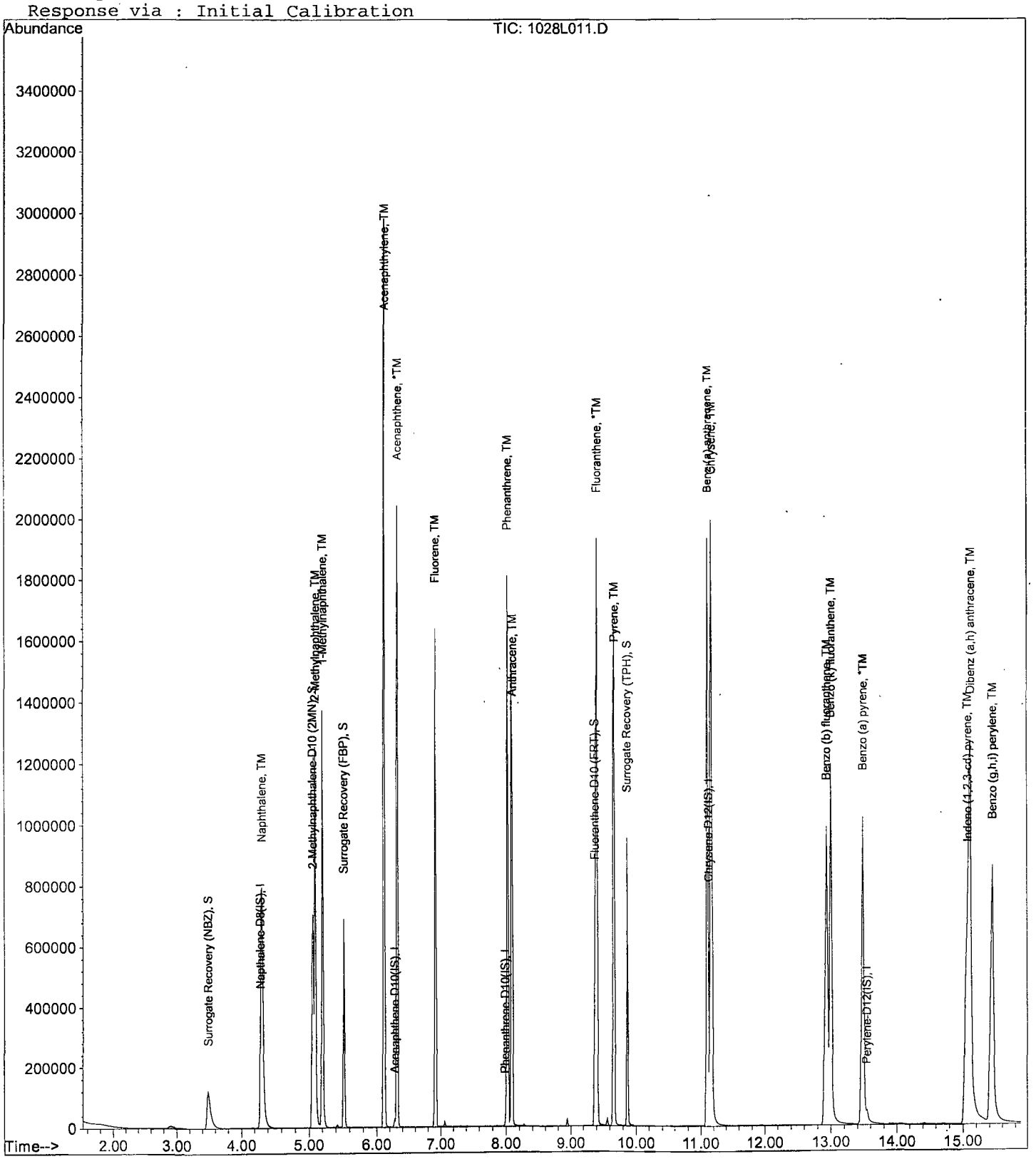
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L191028\1028L011.D Vial: 11
Acq On : 28 Oct 19 15:04 Operator: MA
Sample : 100 SIM 10/28/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 30 10:39 2019 Quant Results File: L1028.RES

Method : M:\LINUS\DATA\L191028\L1028.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 30 10:39:31 2019
Response via : Initial Calibration



PAH by GCMS SIM
EPA 8270 SIM

Form 7

Second Source Calibration

Lab Name: APPL, Inc.
Case No:
Matrix:

SDG No:
Date Analyzed: 10/28/19
Instrument: Linus
Initial Cal. Date: 10/28/19
Data File: 1028L012.D

		Compound	MEAN	CCRF	%D		%Drift
1	TM	Naphthalene	1.240	1.222	1.4	TM	
2	TM	2-Methylnaphthalene	0.7406	0.7386	0.26	TM	
3	TM	1-Methylnaphthalene	0.7566	0.7450	1.5	TM	
4	TM	Acenaphthylene	5.317	5.695	7.1	TM	
5	*TM	Acenaphthene	1.523	1.515	0.52	*TM	
6	TM	Fluorene	1.698	1.746	2.9	TM	
7	TM	Phenanthrene	1.477	1.538	4.1	TM	
8	TM	Anthracene	1.275	1.367	7.2	TM	
9	*TM	Fluoranthene	2.013	2.171	7.8	*TM	
10	TM	Pyrene	1.789	1.816	1.5	TM	
11	TM	Benz (a) anthracene	1.420	1.330	6.4	TM	
12	TM	Chrysene	1.573	1.539	2.2	TM	
13	TM	Indeno (1,2,3-cd) pyrene	1.387	1.255	9.5	TM	
14	TM	Benzo (b) fluoranthene	1.268	1.334	5.2	TM	
15	TM	Benzo (k) fluoranthene	1.439	1.585	10	TM	
16	*TM	Benzo (a) pyrene	1.167	1.265	8.4	*TM	
17	TM	Dibenz (a,h) anthracene	1.151	1.126	2.2	TM	
18	TM	Benzo (g,h,i) perylene	1.264	1.235	2.3	TM	
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
30							
31							
32							
33							
34							
35							
36							
37							
38							
39							
40							
		Average			4.5		

Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L191028\1028L012.D Vial: 12
Acq On : 28 Oct 19 15:55 Operator: MA
Sample : SS SIM 10/28/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 30 10:44 2019 Quant Results File: L1028.RES

Quant Method : M:\LINUS\DATA\L191028\L1028.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 30 10:39:31 2019
Response via : Initial Calibration
DataAcq Meth : SIM_2

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Napthalene-D8(IS)	4.29	136	37041	2.50000	ppb		0.01
7) Acenaphthene-D10(IS)	6.28	164	15072	2.50000	ppb		0.01
12) Phenanthrene-D10(IS)	7.99	188	26057	2.50000	ppb		0.00
17) Chrysene-D12(IS)	11.11	240	32042	2.50000	ppb		0.00
23) Perylene-D12(IS)	13.53	264	29024	2.50000	ppb		0.00
System Monitoring Compounds							
2) Surrogate Recovery (NBZ)	0.00	82	0d	0.00000	ppb		
Spiked Amount 5.000			Recovery	=	0.000%		
4) 2-Methylnaphthalene-D10 (2	0.00	152	0d	0.00000	ppb		
Spiked Amount 5.000			Recovery	=	0.000%		
8) Surrogate Recovery (FBP)	0.00	172	0d	0.00000	ppb		
Spiked Amount 5.000			Recovery	=	0.000%		
15) Fluoranthene-D10 (FRT)	0.00	212	0d	0.00000	ppb		
Spiked Amount 5.000			Recovery	=	0.000%		
19) Surrogate Recovery (TPH)	0.00	244	0d	0.00000	ppb		
Spiked Amount 5.000			Recovery	=	0.000%		
Target Compounds							Qvalue
3) Naphthalene	4.30	128	90550	4.92808	ppb		100
5) 2-Methylnaphthalene	5.08	142	54717	4.98678	ppb		97
6) 1-Methylnaphthalene	5.19	142	55190	4.92351	ppb		97
9) Acenaphthylene	6.11	152	171659	5.35498	ppb		99
10) Acenaphthene	6.31	154	45673	4.97401	ppb		89
11) Fluorene	6.90	166	52636	5.14291	ppb		95
13) Phenanthrene	8.01	178	80127	5.20577	ppb		98
14) Anthracene	8.08	178	71254	5.36132	ppb		99
16) Fluoranthene	9.39	202	113116	5.39024	ppb	#	93
18) Pyrene	9.65	202	116362	5.07511	ppb	#	86
20) Benz (a) anthracene	11.10	228	85204	4.68122	ppb		98
21) Chrysene	11.14	228	98596	4.89203	ppb	#	96
22) Indeno (1,2,3-cd) pyrene	15.01	276	80441	4.52347	ppb		88
24) Benzo (b) fluoranthene	12.90	252	77412	5.25853	ppb		99
25) Benzo (k) fluoranthene	12.96	252	92007	5.50721	ppb		99
26) Benzo (a) pyrene	13.45	252	73458	5.42211	ppb		97
27) Dibenz (a,h) anthracene	15.05	278	65335	4.88992	ppb	#	94
28) Benzo (g,h,i) perylene	15.38	276	71685	4.88610	ppb	#	92

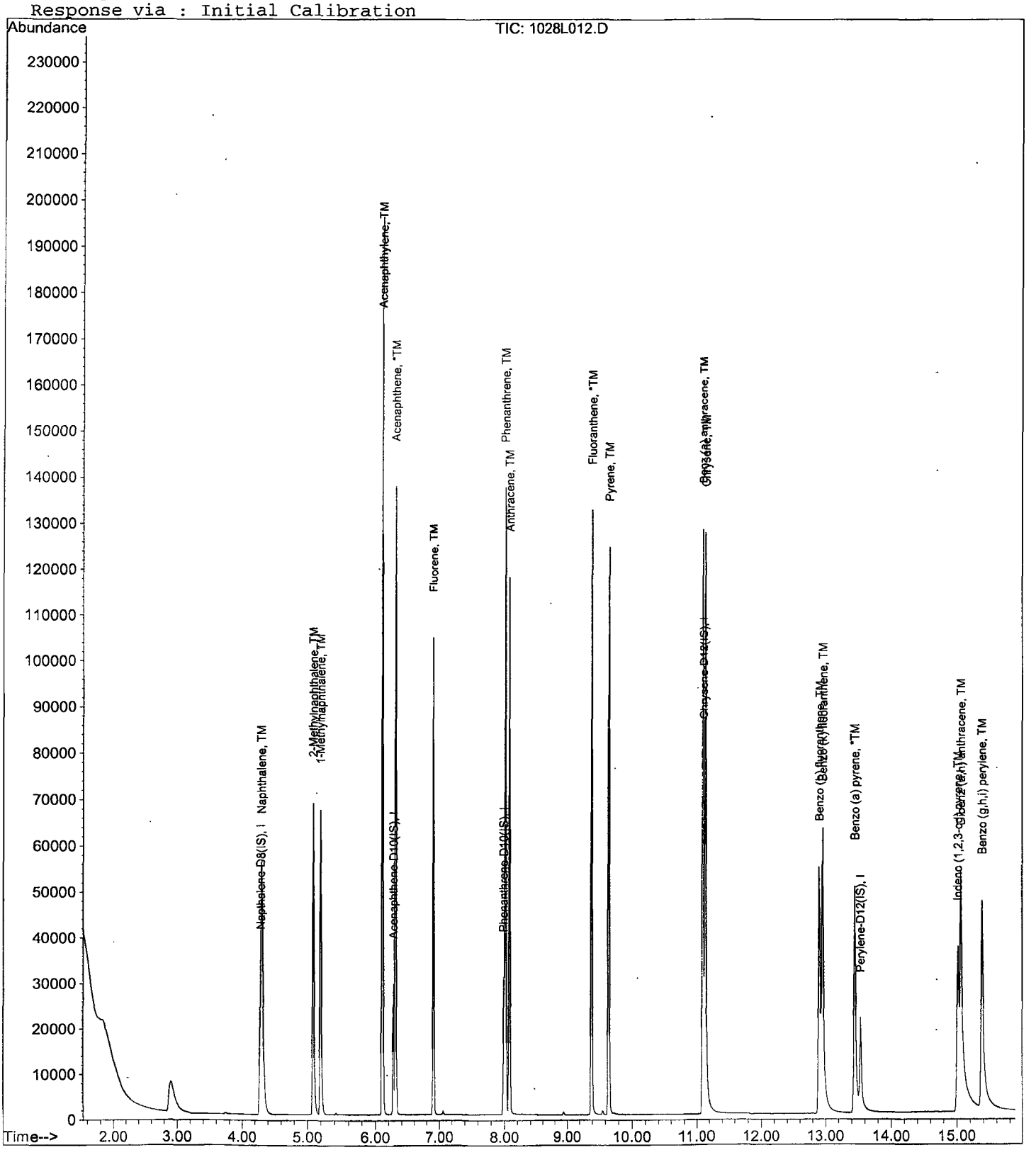
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L191028\1028L012.D Vial: 12
Acq On : 28 Oct 19 15:55 Operator: MA
Sample : SS SIM 10/28/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 30 10:44 2019 Quant Results File: L1028.RES

Method : M:\LINUS\DATA\L191028\L1028.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 30 10:39:31 2019
Response via : Initial Calibration



PAH by GCMS SIM
EPA 8270 SIM

Form 7

Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix:

SDG No:
Date Analyzed: 11/15/19
Instrument: Linus
Initial Cal. Date: 10/28/19
Data File: 1115L003.D

		Compound	MEAN	CCRF	%D	%Drift	
1	I	Napthalene-D8(IS)	ISTD			I	
2	S	Surrogate Recovery (NBZ)	0.4764	0.4624	2.9	S	
3	TM	Naphthalene	1.240	1.210	2.4	TM	
4	S	2-Methylnaphthalene-D10 (2MN)	1.249	1.186	5.0	S	
5	TM	2-Methylnaphthalene	0.7406	0.7349	0.76	TM	
6	TM	1-Methylnaphthalene	0.7566	0.7245	4.2	TM	
7	I	Acenaphthene-D10(IS)	ISTD			I	
8	S	Surrogate Recovery (FBP)	1.894	1.825	3.7	S	
9	TM	Acenaphthylene	5.317	5.626	5.8	TM	
10	*TM	Acenaphthene	1.523	1.488	2.3	*TM	
11	TM	Fluorene	1.698	1.737	2.3	TM	
12	I	Phenanthrene-D10(IS)	ISTD			I	
13	TM	Phenanthrene	1.477	1.419	3.9	TM	
14	TM	Anthracene	1.275	1.316	3.2	TM	
15	S	Fluoranthene-D10 (FRT)	1.819	1.911	5.0	S	
16	*TM	Fluoranthene	2.013	2.103	4.4	*TM	
17	I	Chrysene-D12(IS)	ISTD			I	
18	TM	Pyrene	1.789	1.779	0.56	TM	
19	S	Surrogate Recovery (TPH)	0.9613	0.9573	0.41	S	
20	TM	Benz (a) anthracene	1.420	1.375	3.2	TM	
21	TM	Chrysene	1.573	1.502	4.5	TM	
22	TM	Indeno (1,2,3-cd) pyrene	1.387	1.417	2.1	TM	
23	I	Perylene-D12(IS)	ISTD			I	
24	TM	Benzo (b) fluoranthene	1.268	1.310	3.3	TM	
25	TM	Benzo (k) fluoranthene	1.439	1.467	1.9	TM	
26	*TM	Benzo (a) pyrene	1.167	1.219	4.4	*TM	
27	TM	Dibenz (a,h) anthracene	1.151	1.162	0.99	TM	
28	TM	Benzo (g,h,i) perylene	1.264	1.201	5.0	TM	
29							
30							
31							
32							
33							
34							
35							
36							
37							
38							
39							
40							
		Average			3.1		

Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L191115\1115L003.D Vial: 3
Acq On : 15 Nov 19 16:26 Operator: MA
Sample : 5ug/mL SIM 10/28/19 (1) Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Nov 15 16:46 2019 Quant Results File: L1028.RES

Quant Method : M:\LINUS\DATA\L191115\L1028.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 30 10:39:31 2019
Response via : Initial Calibration
DataAcq Meth : SIM_2

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Napthalene-D8(IS)	4.26	136	47408	2.50000	ppb		-0.01
7) Acenaphthene-D10(IS)	6.27	164	19373	2.50000	ppb		0.00
12) Phenanthrene-D10(IS)	7.98	188	34698	2.50000	ppb		-0.01
17) Chrysene-D12(IS)	11.10	240	41639	2.50000	ppb		-0.01
23) Perylene-D12(IS)	13.53	264	42127	2.50000	ppb		0.00
System Monitoring Compounds							
2) Surrogate Recovery (NBZ)	3.48	82	21921	2.42662	ppb		-0.01
Spiked Amount 5.000			Recovery = 48.540%				
4) 2-Methylnaphthalene-D10 (2	5.03	152	56237	2.37467	ppb		-0.01
Spiked Amount 5.000			Recovery = 47.500%				
8) Surrogate Recovery (FBP)	5.51	172	35348	2.40782	ppb		-0.01
Spiked Amount 5.000			Recovery = 48.160%				
15) Fluoranthene-D10 (FRT)	9.36	212	66291	2.62542	ppb		-0.01
Spiked Amount 5.000			Recovery = 52.500%				
19) Surrogate Recovery (TPH)	9.85	244	39861	2.48968	ppb		-0.01
Spiked Amount 5.000			Recovery = 49.800%				
Target Compounds							Qvalue
3) Naphthalene	4.29	128	114726	4.87845	ppb		100
5) 2-Methylnaphthalene	5.07	142	69683	4.96199	ppb		98
6) 1-Methylnaphthalene	5.18	142	68697	4.78832	ppb		97
9) Acenaphthylene	6.10	152	217978	5.29027	ppb		99
10) Acenaphthene	6.30	154	57649	4.88442	ppb		89
11) Fluorene	6.89	166	67319	5.11726	ppb		94
13) Phenanthrene	8.00	178	98469	4.80425	ppb		98
14) Anthracene	8.06	178	91331	5.16060	ppb		98
16) Fluoranthene	9.38	202	145937	5.22240	ppb	#	89
18) Pyrene	9.64	202	148148	4.97221	ppb		89
20) Benz (a) anthracene	11.09	228	114535	4.84235	ppb		99
21) Chrysene	11.13	228	125073	4.77544	ppb	#	95
22) Indeno (1,2,3-cd) pyrene	15.01	276	117978	5.10523	ppb		83
24) Benzo (b) fluoranthene	12.90	252	110409	5.16723	ppb		95
25) Benzo (k) fluoranthene	12.95	252	123580	5.09631	ppb		98
26) Benzo (a) pyrene	13.43	252	102669	5.22114	ppb		99
27) Dibenz (a,h) anthracene	15.05	278	97921	5.04927	ppb		99
28) Benzo (g,h,i) perylene	15.38	276	101201	4.75242	ppb		93

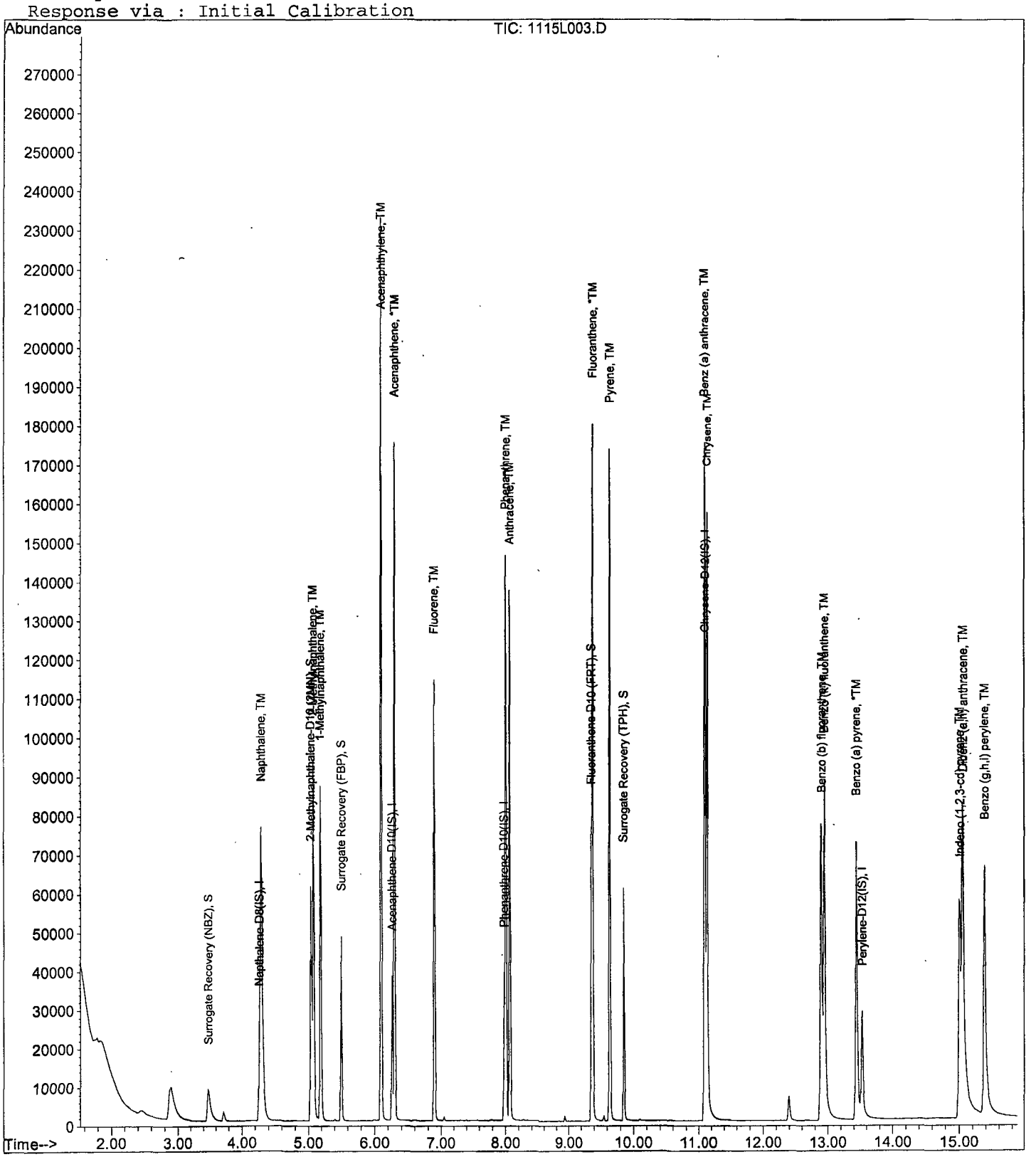
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L191115\1115L003.D Vial: 3
Acq On : 15 Nov 19 16:26 Operator: MA
Sample : 5ug/mL SIM 10/28/19 (1) Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Nov 15 16:46 2019 Quant Results File: L1028.RES

Method : M:\LINUS\DATA\L191115\L1028.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 30 10:39:31 2019
Response via : Initial Calibration



PAH by GCMS SIM
EPA 8270 SIM

Form 7

Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix:

SDG No:
Date Analyzed: 11/16/19
Instrument: Linus
Initial Cal. Date: 10/28/19
Data File: 1115L028.D

		Compound	MEAN	CCRF	%D		%Drift
1	I	Napthalene-D8(IS)	ISTD			I	
2	S	Surrogate Recovery (NBZ)	0.4764	0.4735	0.59	S	
3	TM	Naphthalene	1.240	1.213	2.2	TM	
4	S	2-Methylnaphthalene-D10 (2MN)	1.249	1.167	6.6	S	
5	TM	2-Methylnaphthalene	0.7406	0.7260	2.0	TM	
6	TM	1-Methylnaphthalene	0.7566	0.7210	4.7	TM	
7	I	Acenaphthene-D10(IS)	ISTD			I	
8	S	Surrogate Recovery (FBP)	1.894	2.036	7.4	S	
9	TM	Acenaphthylene	5.317	6.186	16	TM	
10	*TM	Acenaphthene	1.523	1.610	5.7	*TM	
11	TM	Fluorene	1.698	1.846	8.8	TM	
12	I	Phenanthrene-D10(IS)	ISTD			I	
13	TM	Phenanthrene	1.477	1.446	2.1	TM	
14	TM	Anthracene	1.275	1.348	5.7	TM	
15	S	Fluoranthene-D10 (FRT)	1.819	1.992	9.5	S	
16	*TM	Fluoranthene	2.013	2.192	8.9	*TM	
17	I	Chrysene-D12(IS)	ISTD			I	
18	TM	Pyrene	1.789	1.759	1.7	TM	
19	S	Surrogate Recovery (TPH)	0.9613	0.9596	0.17	S	
20	TM	Benz (a) anthracene	1.420	1.378	3.0	TM	
21	TM	Chrysene	1.573	1.488	5.3	TM	
22	TM	Indeno (1,2,3-cd) pyrene	1.387	1.310	5.6	TM	
23	I	Perylene-D12(IS)	ISTD			I	
24	TM	Benzo (b) fluoranthene	1.268	1.285	1.4	TM	
25	TM	Benzo (k) fluoranthene	1.439	1.444	0.36	TM	
26	*TM	Benzo (a) pyrene	1.167	1.217	4.3	*TM	
27	TM	Dibenz (a,h) anthracene	1.151	1.095	4.8	TM	
28	TM	Benzo (g,h,i) perylene	1.264	1.132	10	TM	
29							
30							
31							
32							
33							
34							
35							
36							
37							
38							
39							
40							
		Average			5.1		

Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L191115\1115L028.D Vial: 28
Acq On : 16 Nov 19 1:44 Operator: MA
Sample : 5ug/mL SIM 10/28/19 (1) Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Nov 18 9:27 2019 Quant Results File: L1028.RES

Quant Method : M:\LINUS\DATA\L191115\L1028.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 30 10:39:31 2019
Response via : Initial Calibration
DataAcq Meth : SIM_2

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Napthalene-D8(IS)	4.27	136	46505	2.50000 ppb		0.00
7) Acenaphthene-D10(IS)	6.27	164	17348	2.50000 ppb		0.00
12) Phenanthrene-D10(IS)	7.98	188	32880	2.50000 ppb		-0.01
17) Chrysene-D12(IS)	11.10	240	40911	2.50000 ppb		-0.01
23) Perylene-D12(IS)	13.53	264	40547	2.50000 ppb		0.00
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	3.49	82	22022	2.48514 ppb		0.00
Spiked Amount 5.000			Recovery	= 49.700%		
4) 2-Methylnaphthalene-D10 (2	5.03	152	54273	2.33624 ppb		-0.01
Spiked Amount 5.000			Recovery	= 46.720%		
8) Surrogate Recovery (FBP)	5.51	172	35313	2.68622 ppb		-0.01
Spiked Amount 5.000			Recovery	= 53.720%		
15) Fluoranthene-D10 (FRT)	9.36	212	65510	2.73794 ppb		-0.01
Spiked Amount 5.000			Recovery	= 54.760%		
19) Surrogate Recovery (TPH)	9.85	244	39259	2.49572 ppb		-0.01
Spiked Amount 5.000			Recovery	= 49.920%		
Target Compounds						Qvalue
3) Naphthalene	4.30	128	112799	4.88965 ppb		99
5) 2-Methylnaphthalene	5.07	142	67528	4.90190 ppb		96
6) 1-Methylnaphthalene	5.19	142	67064	4.76526 ppb		99
9) Acenaphthylene	6.10	152	214639	5.81730 ppb		99
10) Acenaphthene	6.30	154	55856	5.28492 ppb		90
11) Fluorene	6.89	166	64065	5.43836 ppb		93
13) Phenanthrene	8.00	178	95061	4.89442 ppb		98
14) Anthracene	8.06	178	88673	5.28745 ppb		98
16) Fluoranthene	9.38	202	144164	5.44420 ppb	#	88
18) Pyrene	9.64	202	143915	4.91609 ppb		89
20) Benz (a) anthracene	11.09	228	112756	4.85197 ppb		99
21) Chrysene	11.14	228	121786	4.73268 ppb		98
22) Indeno (1,2,3-cd) pyrene	15.01	276	107217	4.72213 ppb	#	85
24) Benzo (b) fluoranthene	12.90	252	104243	5.06876 ppb		95
25) Benzo (k) fluoranthene	12.95	252	117122	5.01820 ppb		97
26) Benzo (a) pyrene	13.43	252	98689	5.21430 ppb		99
27) Dibenz (a,h) anthracene	15.05	278	88810	4.75791 ppb		98
28) Benzo (g,h,i) perylene	15.38	276	91825	4.48016 ppb	#	91

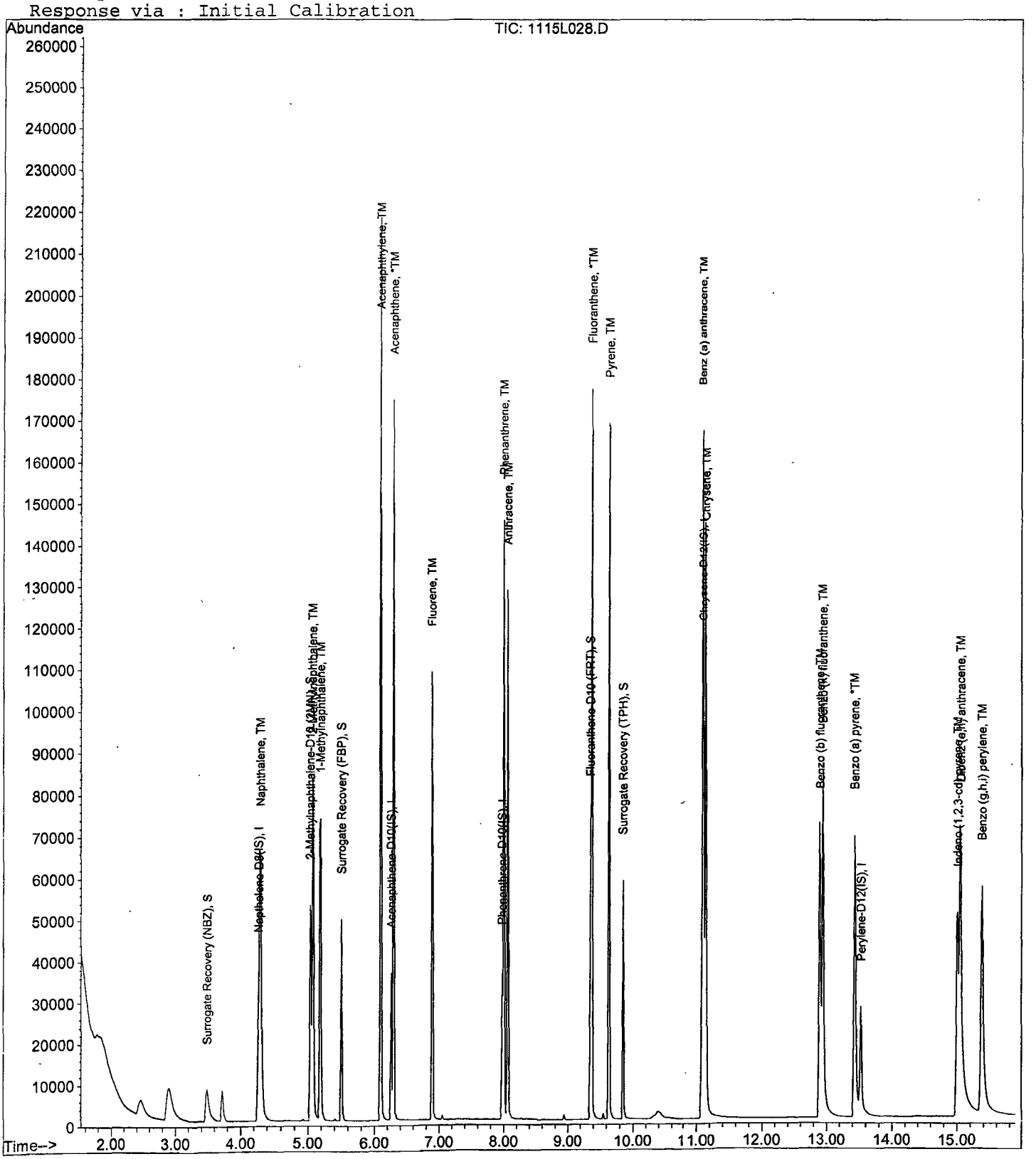
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L191115\1115L028.D Vial: 28
Acq On : 16 Nov 19 1:44 Operator: MA
Sample : 5ug/mL SIM 10/28/19 (1) Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Nov 18 9:27 2019 Quant Results File: L1028.RES

Method : M:\LINUS\DATA\L191115\L1028.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 30 10:39:31 2019
Response via : Initial Calibration



ORGANICS
Raw Data

Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L191115\1115L008.D Vial: 8
Acq On : 15 Nov 19 18:25 Operator: MA
Sample : BA02525W23 1/800 Inst : Linus
Misc : Multiplr: 1.25

Quant Time: Nov 18 9:38 2019 Quant Results File: L1028.RES

Quant Method : M:\LINUS\DATA\L191115\L1028.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 30 10:39:31 2019
Response via : Initial Calibration
DataAcq Meth : SIM_2

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Napthalene-D8(IS)	4.27	136	41393	2.50000	ppb	0.00
7) Acenaphthene-D10(IS)	6.27	164	17216	2.50000	ppb	0.00
12) Phenanthrene-D10(IS)	7.98	188	30499	2.50000	ppb	-0.01
17) Chrysene-D12(IS)	11.10	240	36083	2.50000	ppb	-0.01
23) Perylene-D12(IS)	13.53	264	37358	2.50000	ppb	0.00
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	3.49	82	623198	98.76493	ppb	0.00
Spiked Amount 6.250			Recovery	= 1580.240%		
4) 2-Methylnaphthalene-D10 (2	5.03	152	86630	5.23702	ppb	-0.01
Spiked Amount 6.250			Recovery	= 83.792%		
8) Surrogate Recovery (FBP)	5.51	172	790465	75.73851	ppb	-0.01
Spiked Amount 6.250			Recovery	= 1211.824%		
15) Fluoranthene-D10 (FRT)	9.36	212	114228	6.43347	ppb	-0.01
Spiked Amount 6.250			Recovery	= 102.928%		
19) Surrogate Recovery (TPH)	9.87	244	1036519	93.38576	ppb	0.01
Spiked Amount 6.250			Recovery	= 1494.176%		

Target Compounds Qvalue

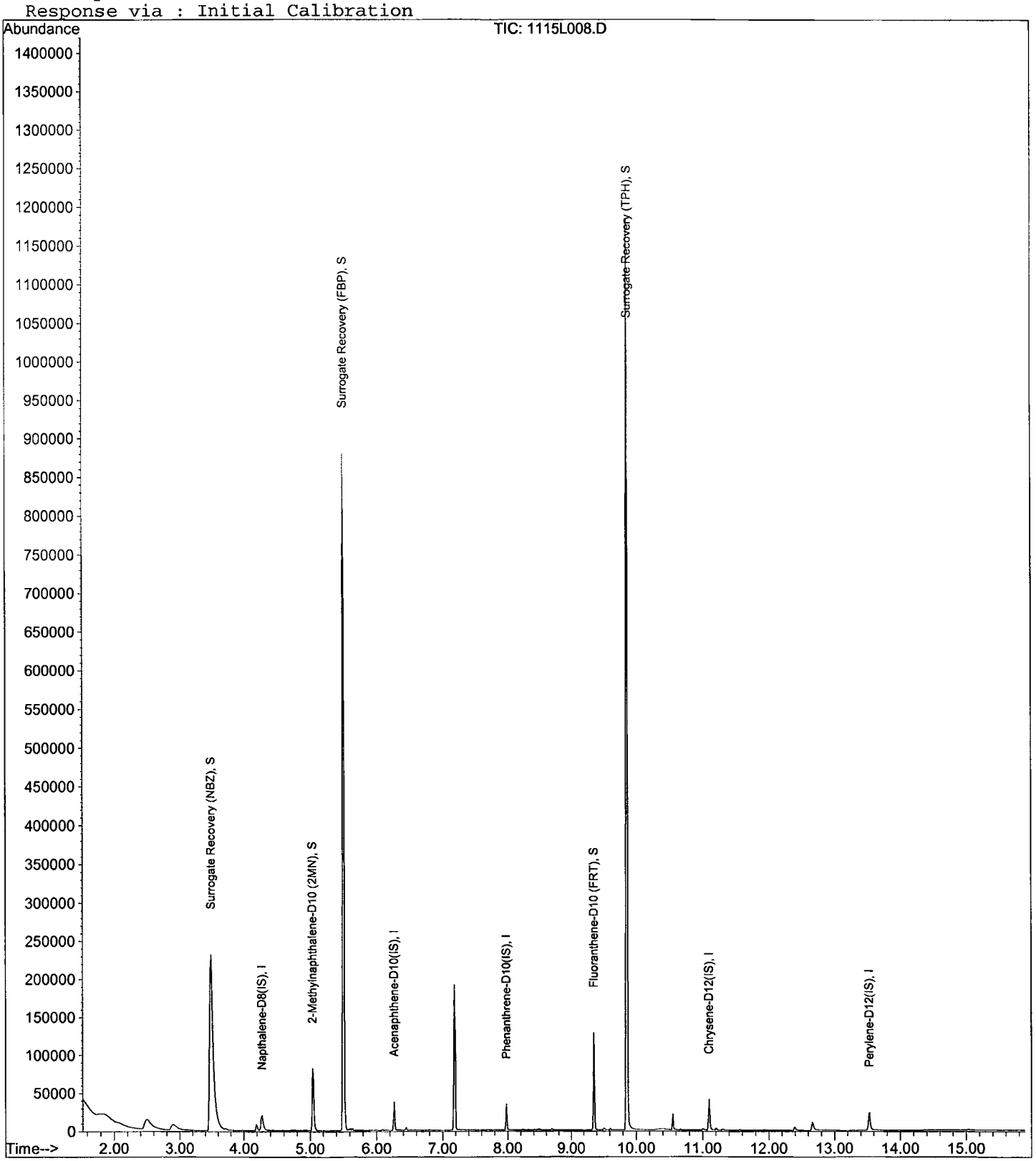
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L191115\1115L008.D Vial: 8
Acq On : 15 Nov 19 18:25 Operator: MA
Sample : BA02525W23 1/800 Inst : Linus
Misc : Multiplr: 1.25

Quant Time: Nov 18 9:38 2019 Quant Results File: L1028.RES

Method : M:\LINUS\DATA\L191115\L1028.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 30 10:39:31 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L191115\1115L004.D Vial: 4
Acq On : 15 Nov 19 16:57 Operator: MA
Sample : 191111A BLK 1/800 Inst : Linus
Misc : Multiplr: 1.25

Quant Time: Nov 15 18:10 2019 Quant Results File: L1028.RES

Quant Method : M:\LINUS\DATA\L191115\L1028.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 30 10:39:31 2019
Response via : Initial Calibration
DataAcq Meth : SIM_2

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Napthalene-D8(IS)	4.27	136	43082	2.50000 ppb	0.00
7) Acenaphthene-D10(IS)	6.27	164	17760	2.50000 ppb	0.00
12) Phenanthrene-D10(IS)	7.98	188	32390	2.50000 ppb	-0.01
17) Chrysene-D12(IS)	11.10	240	37756	2.50000 ppb	-0.01
23) Perylene-D12(IS)	13.53	264	38374	2.50000 ppb	0.00
System Monitoring Compounds					
2) Surrogate Recovery (NBZ)	3.48	82	630385	95.98727 ppb	-0.01
Spiked Amount 6.250			Recovery	= 1535.792%	
4) 2-Methylnaphthalene-D10 (2	5.03	152	86103	5.00109 ppb	-0.01
Spiked Amount 6.250			Recovery	= 80.016%	
8) Surrogate Recovery (FBP)	5.51	172	786352	73.03657 ppb	-0.01
Spiked Amount 6.250			Recovery	= 1168.592%	
15) Fluoranthene-D10 (FRT)	9.36	212	111416	5.90874 ppb	-0.01
Spiked Amount 6.250			Recovery	= 94.544%	
19) Surrogate Recovery (TPH)	9.87	244	1039598	89.51287 ppb	0.01
Spiked Amount 6.250			Recovery	= 1432.208%	

Target Compounds Qvalue

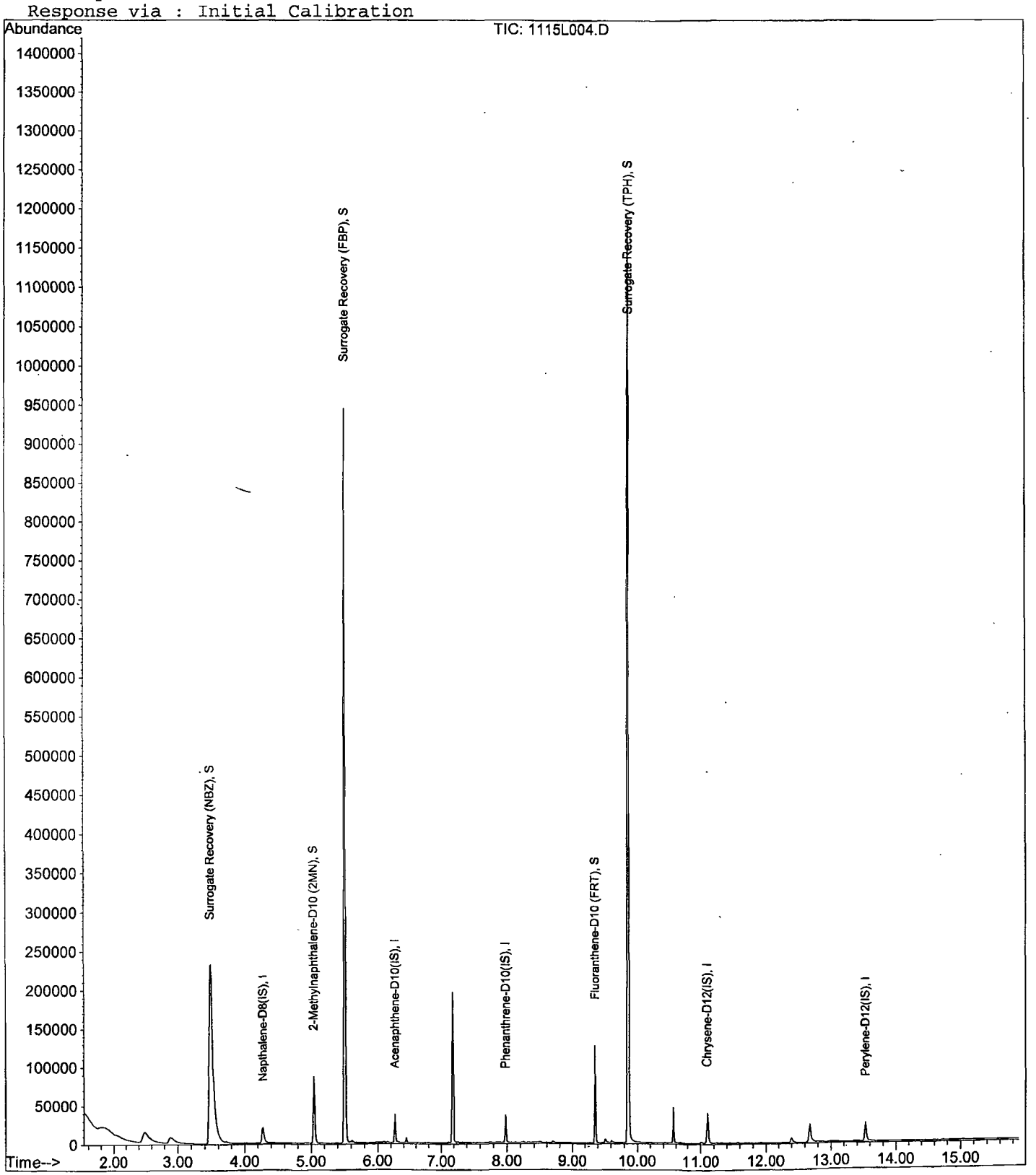
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L191115\1115L004.D Vial: 4
Acq On : 15 Nov 19 16:57 Operator: MA
Sample : 191111A BLK 1/800 Inst : Linus
Misc : Multiplr: 1.25

Quant Time: Nov 15 18:10 2019 Quant Results File: L1028.RES

Method : M:\LINUS\DATA\L191115\L1028.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 30 10:39:31 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L191115\1115L005.D Vial: 5
Acq On : 15 Nov 19 17:19 Operator: MA
Sample : 191111A LCS-2 1/800 Inst : Linus
Misc : Multiplr: 1.25

Quant Time: Nov 15 18:10 2019 Quant Results File: L1028.RES

Quant Method : M:\LINUS\DATA\L191115\L1028.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 30 10:39:31 2019
Response via : Initial Calibration
DataAcq Meth : SIM_2

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Napthalene-D8(IS)	4.27	136	41644	2.50000 ppb		0.00
7) Acenaphthene-D10(IS)	6.27	164	17380	2.50000 ppb		0.00
12) Phenanthrene-D10(IS)	7.98	188	31866	2.50000 ppb		-0.01
17) Chrysene-D12(IS)	11.10	240	37644	2.50000 ppb		-0.01
23) Perylene-D12(IS)	13.53	264	37962	2.50000 ppb		0.00
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	3.50	82	30	0.00473 ppb		0.01
Spiked Amount 6.250			Recovery	= 0.080%		
4) 2-Methylnaphthalene-D10 (2	5.03	152	88463	5.31559 ppb		-0.01
Spiked Amount 6.250			Recovery	= 85.056%		
8) Surrogate Recovery (FBP)	5.51	172	47	0.00446 ppb		-0.01
Spiked Amount 6.250			Recovery	= 0.064%		
15) Fluoranthene-D10 (FRT)	9.36	212	110602	5.96202 ppb		-0.01
Spiked Amount 6.250			Recovery	= 95.392%		
19) Surrogate Recovery (TPH)	9.85	244	463	0.03998 ppb		-0.01
Spiked Amount 6.250			Recovery	= 0.640%		
Target Compounds						Qvalue
3) Naphthalene	4.29	128	102168	6.18222 ppb		100
5) 2-Methylnaphthalene	5.07	142	60563	6.13685 ppb		97
6) 1-Methylnaphthalene	5.18	142	60753	6.02590 ppb		95
9) Acenaphthylene	6.10	152	194763	6.58610 ppb		99
10) Acenaphthene	6.30	154	52462	6.19331 ppb		90
11) Fluorene	6.89	166	64064	6.78533 ppb		96
13) Phenanthrene	8.00	178	94406	6.26921 ppb		98
14) Anthracene	8.06	178	78538	6.04017 ppb		98
16) Fluoranthene	9.38	202	140264	6.83184 ppb	#	90
18) Pyrene	9.64	202	143453	6.65699 ppb		89
20) Benz (a) anthracene	11.09	228	113502	6.63493 ppb		98
21) Chrysene	11.13	228	119425	6.30463 ppb	#	96
22) Indeno (1,2,3-cd) pyrene	15.00	276	116223	6.95378 ppb	#	100
24) Benzo (b) fluoranthene	12.89	252	113670	7.37939 ppb		99
25) Benzo (k) fluoranthene	12.95	252	117614	6.72803 ppb		99
26) Benzo (a) pyrene	13.43	252	90475	6.38228 ppb		99
27) Dibenz (a,h) anthracene	15.04	278	96317	6.88933 ppb	#	91
28) Benzo (g,h,i) perylene	15.38	276	99495	6.48117 ppb		97

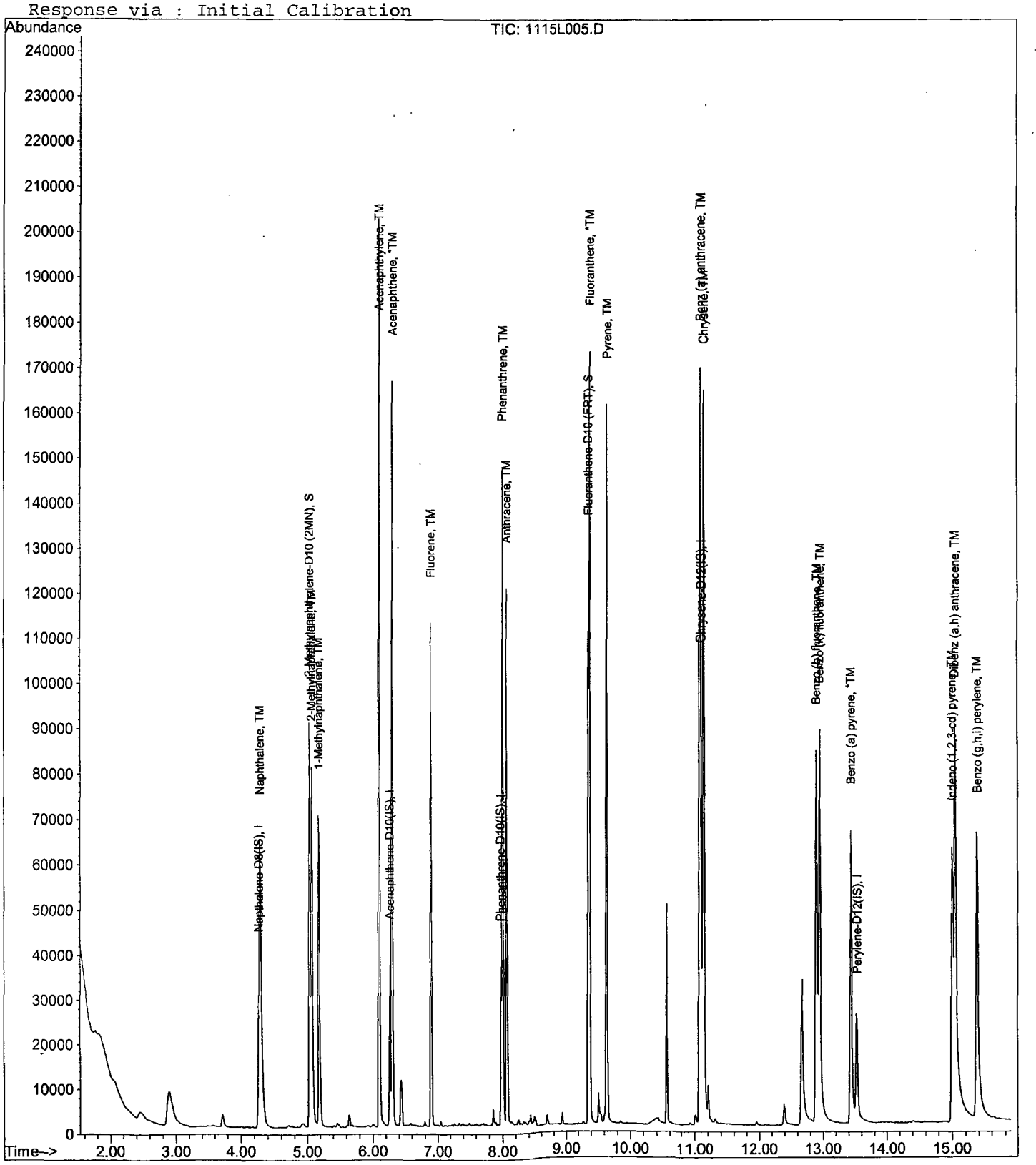
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L191115\1115L005.D Vial: 5
Acq On : 15 Nov 19 17:19 Operator: MA
Sample : 191111A LCS-2 1/800 Inst : Linus
Misc : Multiplr: 1.25

Quant Time: Nov 15 18:10 2019 Quant Results File: L1028.RES

Method : M:\LINUS\DATA\L191115\L1028.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 30 10:39:31 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L191115\1115L006.D Vial: 6
Acq On : 15 Nov 19 17:41 Operator: MA
Sample : 191111A LCSD-2 1/800 Inst : Linus
Misc : Multiplr: 1.25

Quant Time: Nov 15 18:11 2019 Quant Results File: L1028.RES

Quant Method : M:\LINUS\DATA\L191115\L1028.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 30 10:39:31 2019
Response via : Initial Calibration
DataAcq Meth : SIM_2

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Napthalene-D8(IS)	4.27	136	37842	2.50000 ppb		0.00
7) Acenaphthene-D10(IS)	6.27	164	15467	2.50000 ppb		0.00
12) Phenanthrene-D10(IS)	7.98	188	28725	2.50000 ppb		-0.01
17) Chrysene-D12(IS)	11.10	240	34085	2.50000 ppb		-0.01
23) Perylene-D12(IS)	13.53	264	32663	2.50000 ppb		0.00
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	3.57	82	671	0.11632 ppb		0.08
Spiked Amount 6.250			Recovery	= 1.856%		
4) 2-Methylnaphthalene-D10 (2	5.03	152	83895	5.54759 ppb		-0.01
Spiked Amount 6.250			Recovery	= 88.768%		
8) Surrogate Recovery (FBP)	5.51	172	41	0.00437 ppb		-0.01
Spiked Amount 6.250			Recovery	= 0.064%		
15) Fluoranthene-D10 (FRT)	9.36	212	106094	6.34438 ppb		-0.01
Spiked Amount 6.250			Recovery	= 101.504%		
19) Surrogate Recovery (TPH)	9.85	244	301	0.02871 ppb		-0.01
Spiked Amount 6.250			Recovery	= 0.464%		
Target Compounds						Qvalue
3) Naphthalene	4.30	128	96638	6.43511 ppb		99
5) 2-Methylnaphthalene	5.07	142	57012	6.35745 ppb		97
6) 1-Methylnaphthalene	5.19	142	57753	6.30387 ppb		98
9) Acenaphthylene	6.10	152	177823	6.75700 ppb		99
10) Acenaphthene	6.30	154	49019	6.50259 ppb		91
11) Fluorene	6.89	166	59978	7.13826 ppb		94
13) Phenanthrene	8.00	178	88487	6.51868 ppb		98
14) Anthracene	8.06	178	73234	6.24812 ppb		98
16) Fluoranthene	9.38	202	131679	7.11501 ppb	#	89
18) Pyrene	9.64	202	134229	6.87934 ppb		89
20) Benz (a) anthracene	11.09	228	106398	6.86908 ppb		98
21) Chrysene	11.13	228	113094	6.59380 ppb	#	96
22) Indeno (1,2,3-cd) pyrene	15.00	276	108664	7.18037 ppb	#	98
24) Benzo (b) fluoranthene	12.89	252	105611	7.96850 ppb		97
25) Benzo (k) fluoranthene	12.95	252	112170	7.45760 ppb		98
26) Benzo (a) pyrene	13.43	252	83519	6.84740 ppb		99
27) Dibenz (a,h) anthracene	15.05	278	90544	7.52708 ppb		99
28) Benzo (g,h,i) perylene	15.38	276	93315	7.06474 ppb		95

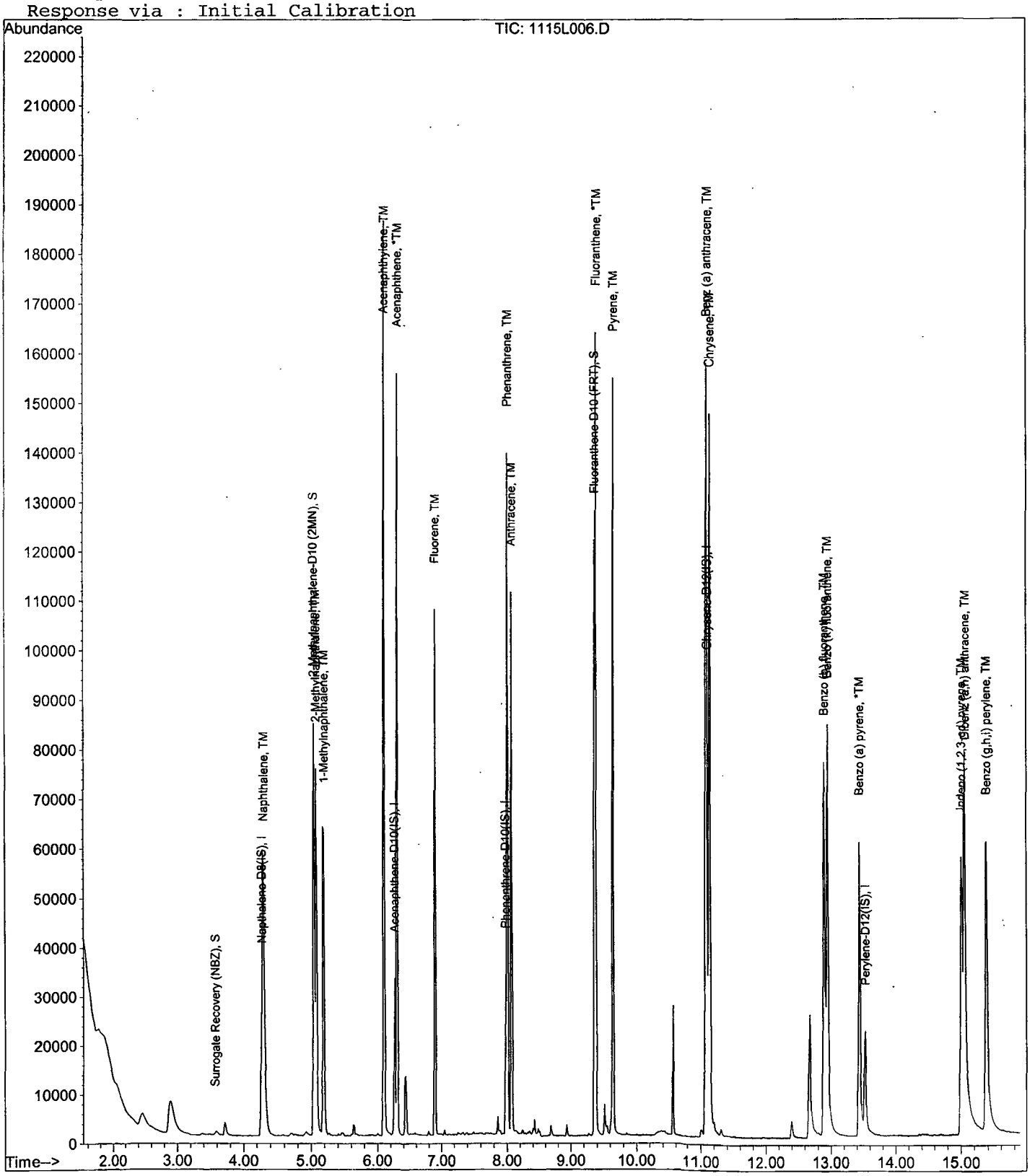
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L191115\1115L006.D Vial: 6
Acq On : 15 Nov 19 17:41 Operator: MA
Sample : 191111A LCSD-2 1/800 Inst : Linus
Misc : Multiplr: 1.25

Quant Time: Nov 15 18:11 2019 Quant Results File: L1028.RES

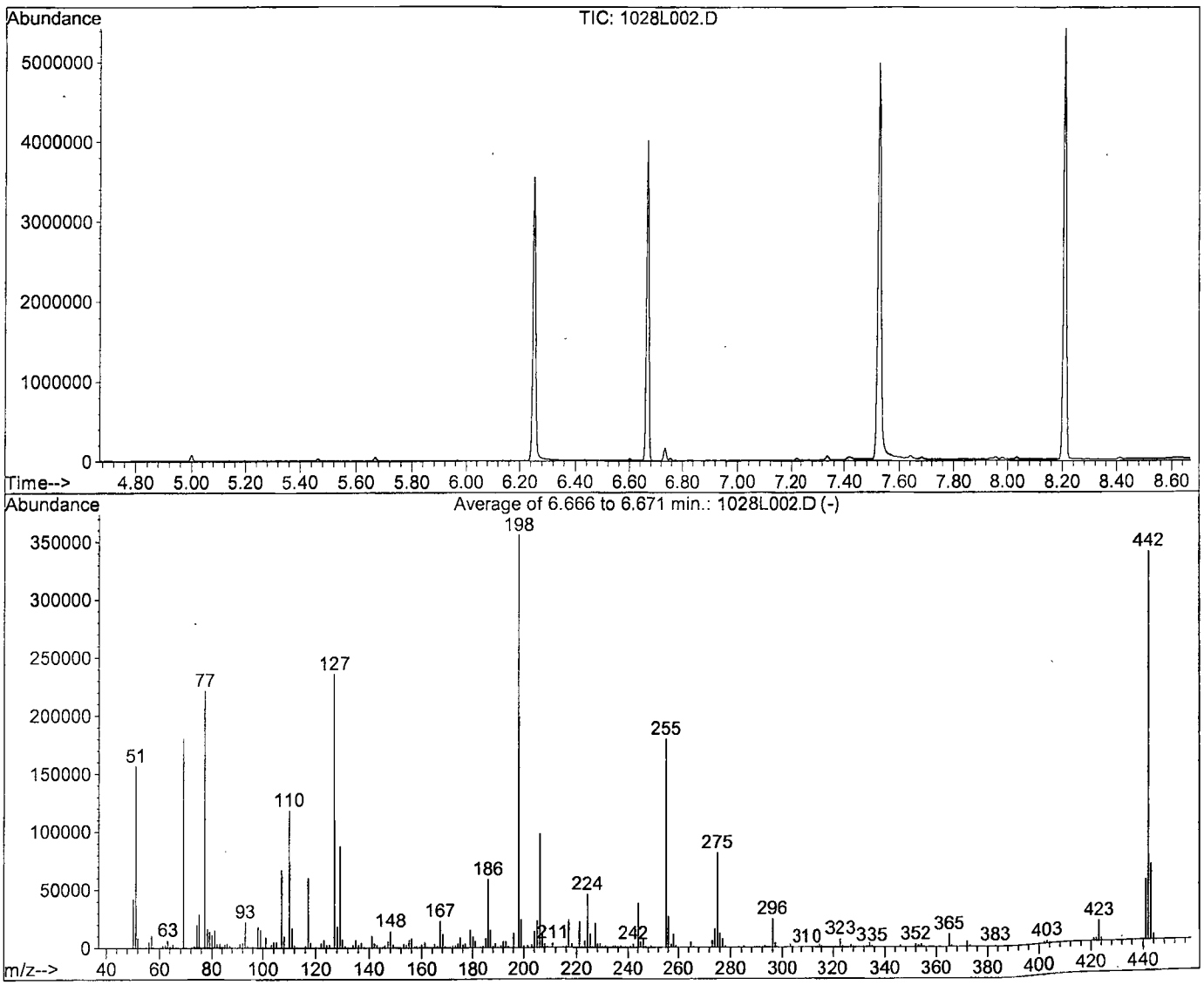
Method : M:\LINUS\DATA\L191115\L1028.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed Oct 30 10:39:31 2019
Response via : Initial Calibration



DFTPP

Data File : M:\LINUS\DATA\L191028\1028L002.D Vial: 2
Acq On : 28 Oct 19 10:20 Operator: MA
Sample : SV Tune 07/11/19 Inst : Linus
Misc : Multiplr: 1.00

Method : M:\LINUS\DATA\L191028\L1028.M (RTE Integrator)
Title : EPA 8270



AutoFind: Scans 1639, 1640, 1641; Background Corrected with Scan 1630

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	44.0	156621	PASS
68	69	0.00	2	0.0	0	PASS
70	69	0.00	2	0.3	628	PASS
127	198	10	80	66.3	235925	PASS
197	198	0.00	2	0.0	0	PASS
198	198	100	100	100.0	355968	PASS
199	198	5	9	6.8	24237	PASS
275	198	10	60	23.0	81733	PASS
365	198	1	100	3.1	10977	PASS
441	442	0.01	24	15.5	52947	PASS
442	198	50	500	95.8	340885	PASS
443	442	15	24	19.6	66771	PASS

Data File Name:	**1028L002.D**
Data File Path:	**M:\LINUS\DATA\L191028**
Operator:	**MA**
Date Acquired:	**28 Oct 2019 10:20**
Method File:	**DFTPP2.M**
Sample Name:	**SV Tune 07/11/19**
Vial Number:	**2**
Instrument Name:	**Linus**

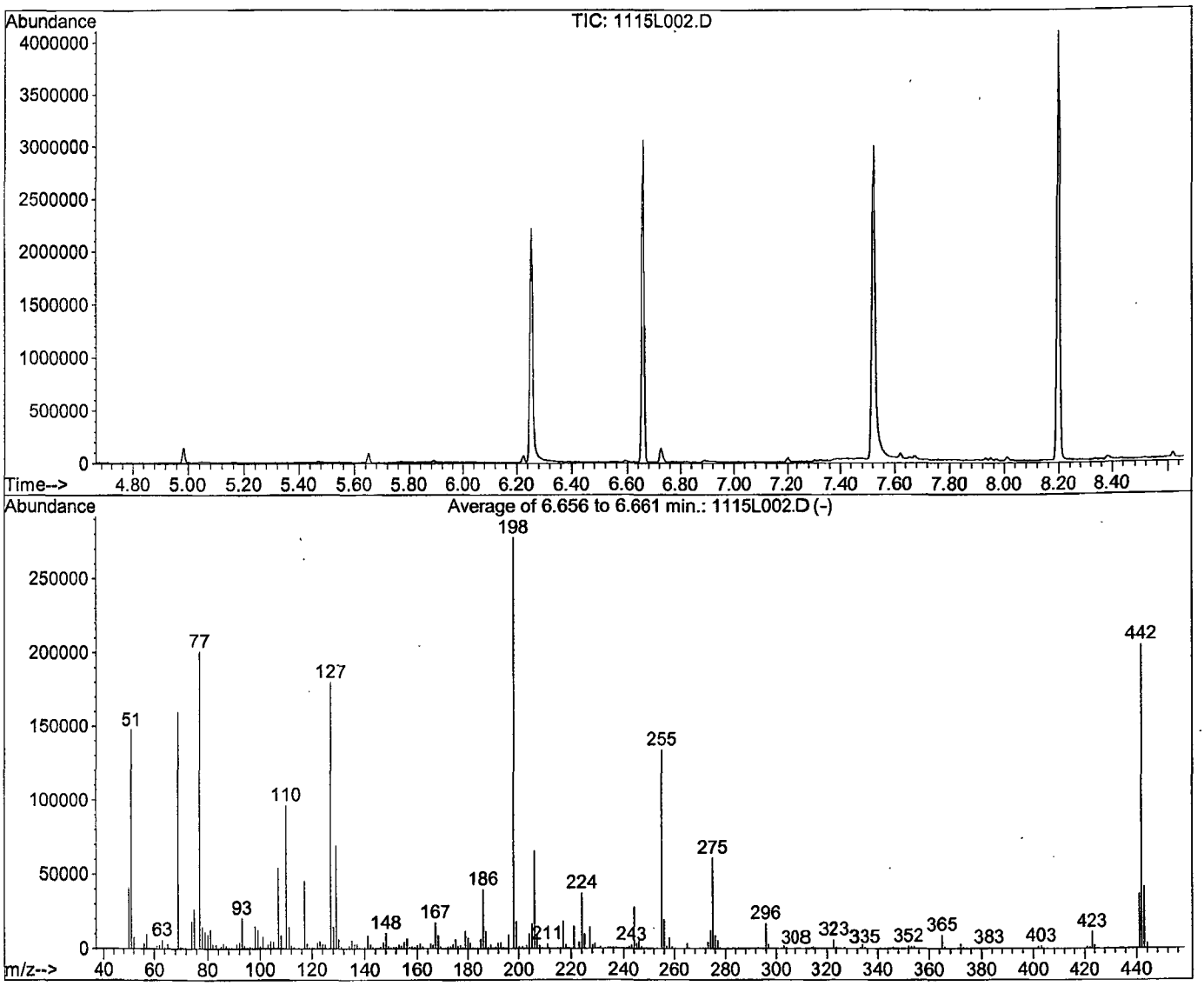
#	Name	Ret Time	Target Response
1)	DDT	8.21	37737600
2)	DDD	7.96	199800
3)	DDE	7.25	192158

Breakdown **1.03**

DFTPP

Data File : M:\LINUS\DATA\L191115\1115L002.D Vial: 2
Acq On : 15 Nov 19 15:42 Operator: MA
Sample : SV Tune 10/01/19 Inst : Linus
Misc : Multiplr: 1.00

Method : M:\LINUS\DATA\L191115\L1028.M (RTE Integrator)
Title : EPA 8270



AutoFind: Scans 1635, 1636, 1637; Background Corrected with Scan 1626

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	53.1	147629	PASS
68	69	0.00	2	0.0	0	PASS
70	69	0.00	2	0.5	824	PASS
127	198	10	80	64.8	180011	PASS
197	198	0.00	2	0.0	0	PASS
198	198	100	100	100.0	277824	PASS
199	198	5	9	6.6	18253	PASS
275	198	10	60	21.8	60688	PASS
365	198	1	100	3.3	9062	PASS
441	442	0.01	24	17.9	36675	PASS
442	198	50	500	73.6	204587	PASS
443	442	15	24	20.2	41280	PASS

Data File Name:	**1115L002.D**
Data File Path:	**M:\LINUS\DATA\L191115**
Operator:	**MA**
Date Acquired:	**15 Nov 2019 15:42**
Method File:	**DFTPP2.M**
Sample Name:	**SV Tune 10/01/19**
Vial Number:	**2**
Instrument Name:	**Linus**

#	Name	Ret Time	Target Response
1)	DDT	8.21	27764900
2)	DDD	7.98	195021
3)	DDE	8.15	0

Breakdown **0.70**

Name of Final Standard	Semivolatile (SV) Tuning Solution	Prep'd By (Initials)	JP
Prep Date	10/01/19		
Exp Date	11/30/20		

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from contianer Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
Semivolatile GC/MS Tuning Standard	Ultra Scientific	GCM-150-1	1,000 ug/mL	CR3789-38879	11/30/20	1,250 uL	25 mL	MC #58240	50 ug/mL

Name of Final Standard	8270 SIM PAH Internal Standard
Prep Date	10/28/19
Exp Date	10/28/20

Prep'd By (Initials) MA

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from contianer Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
SV Internal Standard	Restek	31206	2000 ug/mL	**A0151843-49414**	**07/35/25**	625uL	10mL	**MC 59130**	125 ug/mL

Name of Final Standard	SIM Curve
Prep Date	07/28/19
Exp Date	01/24/20

Prep'd By (Initials) MA

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from container Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
1.0 ug/mL SIM	APPL	1.0 ug/mL SIM	1.0 ug/mL	**08/10/19**	**01/24/20**	10 uL	100uL	**MC 59130 90uL**	0.1 ug/mL
SIM Internal Standard	APPL	SIM Internal Standard	125 ug/mL	**10/28/19**	**10/28/20**	2 uL	*	*	2.5ug/mL
1.0 ug/mL SIM	APPL	1.0 ug/mL SIM	1.0 ug/mL	**08/10/19**	**01/24/20**	20 uL	100uL	**MC 59130 80uL**	0.2 ug/mL
SIM Internal Standard	APPL	SIM Internal Standard	125 ug/mL	**10/28/19**	**10/28/20**	2 uL	*	*	2.5ug/mL
5.0 ug/mL SIM	APPL	5.0 ug/mL SIM	5.0 ug/mL	**08/10/19**	**01/24/20**	10 uL	100uL	**MC 59130 90uL**	0.5 ug/mL
SIM Internal Standard	APPL	SIM Internal Standard	125 ug/mL	**10/28/19**	**10/28/20**	2 uL	*	*	2.5ug/mL
5.0 ug/mL SIM	APPL	5.0 ug/mL SIM	5.0 ug/mL	**08/10/19**	**01/24/20**	20 uL	100uL	**MC 59130 80 uL**	1.0 ug/mL
SIM Internal Standard	APPL	SIM Internal Standard	125 ug/mL	**10/28/19**	**10/28/20**	2 uL	*	*	2.5ug/mL

SIM STOCK	APPL	PAH SIM STOCK	200 ug/mL	**08/10/19**	**08/10/20**	5 uL	200uL	**MC 59130 190 uL**	5.0 ug/mL
SIM 2S SURROGATE	APPL	SIM 2S SURR	100 ug/mL	**05/17/19**	**01/24/20**	5 uL	*	*	2.5ug/mL
SIM Internal Standard	APPL	SIM Internal Standard	125 ug/mL	**10/28/19**	**10/28/20**	4 uL	*	*	2.5ug/mL
SIM STOCK	APPL	PAH SIM STOCK	200 ug/mL	**08/10/19**	**08/10/20**	10 uL	100 uL	**MC 59130 80 uL**	20 ug/mL
SIM 2S SURROGATE	APPL	SIM 2S SURROGATE	100 ug/mL	**05/17/19**	**01/24/20**	10 uL	*	*	10 ug/mL
SIM Internal Standard	APPL	SIM Internal Standard	125 ug/mL	**10/28/19**	**10/28/20**	2 uL	*	*	2.5ug/mL
SIM STOCK	APPL	PAH SIM STOCK	200	**08/10/19**	**08/10/20**	25 uL	100uL	**MC 59130 50 uL**	50 ug/mL
SIM 2S SURROGATE	APPL	SIM 2S SURROGATE	100 ug/mL	**05/17/19**	**01/24/20**	25 uL	*	*	25 ug/mL
SIM Internal Standard	APPL	SIM Internal Standard	125 ug/mL	**10/28/19**	**10/28/20**	2 uL	*	*	2.5ug/mL
SIM STOCK	APPL	PAH SIM STOCK	200 ug/mL	**08/10/19**	**08/10/20**	50 uL	100uL	**na**	100 ug/mL
SIM 2S SURROGATE	APPL	SIM 2S SURROGATE	100 ug/mL	**05/17/19**	**01/24/20**	50 uL	*	*	50 ug/mL
SIM Internal Standard	APPL	SIM Internal Standard	125 ug/mL	**10/28/19**	**10/28/20**	2 uL	*	*	2.5ug/mL

Name of Final Standard **8270 PAH SIM Second Source** **Prep'd By (Initials)** **MA**

Prep Date **10/28/19**

Exp Date **12/28/19**

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from container Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
PAH SIM SS Stock	Phenova	AL0-130490	200 ug/mL	**12/28/18**	**12/28/19**	5 uL	200uL	**MC 59130 195uL**	5 ug/mL
SIM Internal Standard	APPL	SIM Internal Standard	125 ug/mL	**10/28/19**	**10/28/20**	4 uL	*	*	2.5ug/mL

Name of Final Standard	PAH SIM Stock (Ampule)
Prep Date	08/10/19
Exp Date	08/10/20

Prep'd By (I MA

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from contianer Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
Custom PAH SIM Mix	Phenova	ALO-130490	200 ug/mL	**CL13121-41102**	**08/10/20**	1000 uL	1mL	**NA**	200ug/mL

Name of Final Standard	**PAH SIM 2nd Source Stock (Ampule)**	**Prep'd By (Initials)**	**GA**
Prep Date	**12/28/18**		
Exp Date	**12/28/19**		

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from container Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
Custom PAH SIM Mix	Phenova	AL0-130490	200 ug/mL	**CL13121 - 40082**	**12/28/19**	1 mL	na	**na**	200 ug/mL

Name of Final Standard	SIM 2S Surrogate	Prep'd By (Initials)	GA
Prep Date	05/17/19		
Exp Date	01/24/20		

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from contianer Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
SIM Surrogate Mix	Restek	33913	2000 ug/mL	A0137718 - 39318	01/24/20	250 uL	5 mL	Acetone #030817A	100 ug/mL
8270 B/N surrog mix	Restek	31086	5000 ug/mL	A0141697 - 40112	04/10/20	100 uL	*	*	*

Name of Final Standard	SIM Spike
Prep Date	11/13/19
Exp Date	11/13/20

Prep'd By (Initials) SJ

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from contianer Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
Custom PAH Sim Mix	Phenova	AL0-130490	200 ug/mL	CL13121- 41100,41223	12/31/22	2 mL	10 mL	Acetone 0231086	40 ug/mL

Name of Final Standard	**SIM Surrogate**
Prep Date	**09/03/19**
Exp Date	**03/03/20**

Prep'd By (Initials) **MA**

Initial Standard Information						Final Standard Information			
Standard (from	Supplier	P/N# (or	Conc.(range)	#(or	Exp Date	from	Volume	Solvent +	Standard
Sim Surrogate Deuterated	Restek	33913	2000 ug/mL	**A0145699-40651,41234, 41236**	**1/31/25, 4/20/25**	2500 uL	50 mL	**Acetone #217497**	100 ug/mL

LIQ003

Organic Extraction Worksheet

Method	Continuous Liquid/Liquid SVOC 3520C	Extraction Set	191111A	Extraction Method	LIQ003	Units	mL

piked ID 1	8270T Spike 11/1/19 ex 11/1/20	Surrogate ID 1	8270 Surrogate 11/6/19 ex 11/6/20
piked ID 2	Sim Spike 9/30/19 ex 9/30/20	Surrogate ID 2	SIM Surrogate 10/25/19 ex 10/25/19
piked ID 3		Surrogate ID 3	
piked ID 4		Surrogate ID 4	
piked ID 5		Surrogate ID 5	
piked ID 6		Sufficient Vol for Matrix QC:	no
piked ID 7		Ext. Start Time:	11/11/19 14:10
piked ID 8		Ext. End Time:	11/15/19 10:45
		GC Requires Extract By:	

pH1	2	11/12/19 10:00	Water Bath Temp 1 °C	EWB6 75/74.9 °
pH2	14	11/13/19 10:30	Water Bath Temp 2 °C	
pH3			Water Bath Temp 3 °C	

Spiked By: DL **Date** 11/11/19 **Witnessed By:** YL **Date** 11/11/19

	Sample	Sample Container	Spike Amount	Spike ID	Surrogate Amount	Surrogate ID	Extract Amount	Final Volume	pH	Extract Date/Time	Comments
1	191111A Blk				1,0.050	1,2	800	1	2/1	11/11/19 14:10	
						equip	EWB6				
2	191111A LCS-1		1	1	1	1	800	1	2/1	11/11/19 14:10	
						equip	EWB6				
3	191111A LCS-2		0.125	2	0.050	2	800	1	2/1	11/11/19 14:10	
						equip	EWB6				
4	191111A LCSD-1		1	1	1	1	800	1	2/1	11/11/19 14:10	
						equip	EWB6				
5	191111A LCSD-2		0.125	2	0.050	2	800	1	2/1	11/11/19 14:10	
						equip	EWB6				
6	BA02466	BA02466W21			1,0.050	1,2	800	1	2/1	11/11/19 14:10	90648
						equip	EWB6				
7	BA02525	BA02525W23			1,0.050	1,2	800	1	2/1	11/11/19 14:10	90657
						equip	EWB6				
8	BA02713	BA02713W19			1,0.050	1,2	800	1	2/1	11/11/19 14:10	90700
						equip	EWB6				
9	BA02715	BA02715W29			1,0.050	1,2	800	1	2/1	11/11/19 14:10	90700
						equip	EWB6				
10	BA02716	BA02716W12			1,0.050	1,2	800	1	2/1	11/11/19 14:10	90700
						equip	EWB6				

Solvent and Lot#	
PH Strips	HL863463
Dichloromethane (DCM)	59130
1+1 H2SO4	11/1/19
10N NaOH	10/25/19
Filter Paper	400171
B. Na2SO4	2019020631

Extraction COC Transfer	
Extraction lab employee Initials	SS
GC analyst's initials	MA
Date	11/15/19
Time	2:30
Refrigerator	GC_C

	Technician's Initials
Scanned By	DL
Sample Preparation	DL
Extraction	DL
Concentration	DL

Modified	11/18/19 1:27:30 PM

Reviewed By: MA **Date** 11/18/19

Injection Log

Directory: M:\LINUS\DATA\L191028\

Vial	FileName	Multiplier	SampleName	Misc Info	Injected
2	1028L002.D	1	SV Tune 10/01/19		28 Oct 19 10:20
4	1028L004.D	1	5 SIM 10/28/19(2)		28 Oct 19 12:26
5	1028L005.D	1	0.1 SIM 10/28/19		28 Oct 19 12:51
6	1028L006.D	1	0.2 SIM 10/28/19		28 Oct 19 13:13
7	1028L007.D	1	0.5 SIM 10/28/19		28 Oct 19 13:35
8	1028L008.D	1	1 SIM 10/28/19		28 Oct 19 13:57
9	1028L009.D	1	20 SIM 10/28/19		28 Oct 19 14:19
10	1028L010.D	1	50 SIM 10/28/19		28 Oct 19 14:42
11	1028L011.D	1	100 SIM 10/28/19		28 Oct 19 15:04
12	1028L012.D	1	SS SIM 10/28/19		28 Oct 19 15:55
2	1115L002.D	1	SV Tune 10/01/19		15 Nov 19 15:42
3	1115L003.D	1	5ug/mL SIM 10/28/19 (1)		15 Nov 19 16:26
4	1115L004.D	1.25	191111A BLK 1/800		15 Nov 19 16:57
5	1115L005.D	1.25	191111A LCS-2 1/800		15 Nov 19 17:19
6	1115L006.D	1.25	191111A LCSD-2 1/800		15 Nov 19 17:41
8	1115L008.D	1.25	BA02525W23 1/800		15 Nov 19 18:25
28	1115L028.D	1	5ug/mL SIM 10/28/19 (1)		16 Nov 19 1:44

ORGANICS
Calibration Data

Semi-Volatile Analysis by GC-MS
EPA 8270

Form 6
Initial Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Initial Cal. Date: 11/21/19
Matrix: Instrument: Yoda

Initials: MA

			1121Y003.D	1121Y004.D	1121Y005.D	1121Y006.D	1121Y007.D	1121Y008.D	1121Y009.D	1121Y010.D	1121Y011.D							
		Compound	4	5	10	20	40	50	60	80	91		Avg	%RSD	Type	r^2	Q	MRF
1	I	1,4-dichlorobenzene-D4(IS)	ISTD															
2		1,4-Dioxane	0.4131	0.4262	0.6088	0.5154	0.4095	0.4466	0.4353	0.4216	0.5029		0.46	14				
3	TM	n-Nitrosodimethylamine	0.7472	0.7900	0.7145	0.6353	0.6209	0.6613	0.7224	0.7296	0.7209		0.70	7.8	TM			
4	TM	Pyridine	1.503	1.671	1.847	1.602	1.612	1.772	1.882	1.932	1.865		1.7	8.6	TM			
5	S	2-Fluorophenol (S)	1.487	1.348	1.400	1.254	1.237	1.355	1.453	1.534	1.468		1.4	7.4	S			
6	S	Phenol-D6 (S)	1.756	1.549	1.642	1.478	1.476	1.633	1.747	1.861	1.785		1.7	8.4	S			
7	*TM	Phenol	1.749	1.801	1.921	1.714	1.815	1.992	2.160	2.248	2.228		2.0	11	*TM			0.800
8	TM	Aniline			1.047	1.052	1.148	1.169	1.201	1.269	1.211		1.2	7.1	TM			
9	TM	Bis (2-chloroethyl) ether	0.7596	0.7864	0.8586	0.7722	0.7720	0.8416	0.9033	0.9359	0.9016		0.84	8.0	TM			0.700
10	TM	2-Chlorophenol	1.357	1.382	1.497	1.364	1.378	1.499	1.627	1.645	1.601		1.5	8.0	TM			0.800
11	TM	1,3-DCB	1.536	1.641	1.694	1.502	1.551	1.693	1.828	1.878	1.803		1.7	8.1	TM			
12	*TM	1,4-DCB	1.556	1.618	1.733	1.554	1.576	1.738	1.843	1.912	1.838		1.7	8.0	*TM			
13	TM	Benzyl alcohol	0.7592	0.7688	0.8337	0.7639	0.7868	0.8726	0.9274	0.9523	0.9245		0.84	9.2	TM			
14	TM	1,2-DCB	1.441	1.559	1.644	1.456	1.460	1.604	1.710	1.771	1.713		1.6	7.8	TM			
15	TM	2-Methylphenol	1.088	1.109	1.215	1.070	1.076	1.253	1.346	1.314	1.342		1.2	9.8	TM			0.700
16	TM	Bis (2-chloroisopropyl) ether	0.8788	0.9016	0.9685	0.8381	0.8636	0.9380	0.9966	1.034	0.9974		0.94	7.3	TM			
17	TM	Acetophenone	1.946	1.990	2.180	1.908	1.996	2.186	2.386	2.456	2.392		2.2	9.8	TM			0.010
18	TM	3&4-Methylphenol	1.435	1.509	1.633	1.441	1.512	1.696	1.829	1.913	1.862		1.6	11	TM			0.600
19	**TM	n-Nitrosodi-n-propylamine	1.093	1.149	1.236	1.108	1.128	1.259	1.349	1.390	1.363		1.2	9.5	**TM			0.500
20	TM	Hexachloroethane	0.5962	0.6514	0.7001	0.6119	0.6291	0.6831	0.7309	0.7571	0.7360		0.68	8.6	TM			0.300
21	I	Napthalene-D8(IS)	ISTD															
22	S	Nitrobenzene-D5(S)	0.4909	0.4400	0.4480	0.4249	0.4251	0.4425	0.4519	0.4695	0.4641		0.45	4.7	S			
23	TM	Nitrobenzene	0.4203	0.4487	0.4724	0.4405	0.4454	0.4667	0.4790	0.4868	0.4882		0.46	5.1	TM			0.200
24	TM	Isophorone	0.6864	0.7296	0.7374	0.7047	0.7298	0.7674	0.7743	0.7950	0.7997		0.75	5.3	TM			0.400
25	*TM	2-Nitrophenol	0.1792	0.1931	0.2068	0.2007	0.2081	0.2209	0.2244	0.2308	0.2328		0.21	8.6	*TM			0.100
26	TM	2,4-Dimethylphenol	0.2989	0.3139	0.3292	0.3055	0.3201	0.3373	0.3422	0.3500	0.3576		0.33	6.2	TM			0.200
27	TML	Benzoic acid	0.0982	0.1215	0.1867	0.2338	0.2843	0.3119	0.3253	0.3097	0.3131		0.24	36	TML	0.998		
28	TM	Bis (2-chloroethoxy) methane	0.3582	0.3873	0.3992	0.3839	0.3958	0.4153	0.4208	0.4286	0.4365		0.40	6.2	TM			0.300
29	*TM	2,4-Dichlorophenol	0.2978	0.3162	0.3333	0.3182	0.3286	0.3510	0.3576	0.3652	0.3745		0.34	7.6	*TM			0.200
30	TM	1,2,4-Trichlorobenzene	0.3477	0.3741	0.3873	0.3624	0.3854	0.3994	0.4100	0.4254	0.4290		0.39	7.0	TM			
31	TM	3,4-Dimethylphenol	0.4850	0.4923	0.5178	0.4946	0.5265	0.5486	0.5603	0.5755	0.5762		0.53	6.8	TM			
32	TM	Naphthalene	0.9679	1.050	1.070	1.002	1.044	1.102	1.121	1.156	1.183		1.1	6.5	TM			0.700
33	TM	4-Chloroaniline			0.3471	0.3393	0.3746	0.4069	0.3980	0.3986	0.3929		0.38	7.1	TM			0.010
34	TM	2,6-Dichlorophenol	0.2883	0.3109	0.3193	0.3043	0.3167	0.3407	0.3496	0.3553	0.3608		0.33	7.7	TM			
35	TM	Hexachloropropene	0.2899	0.3123	0.3296	0.3193	0.3388	0.3526	0.3667	0.3769	0.3786		0.34	9.0	TM			

Semi-Volatile Analysis by GC-MS
EPA 8270

Form 6
Initial Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Initial Cal. Date: 11/21/19
Matrix: Instrument: Yoda Initials:

		Compound	4	5	10	20	40	50	60	80	91		Avg	%RSD	Type		Q	
36	*TM	Hexachlorobutadiene	0.2483	0.2674	0.2753	0.2570	0.2714	0.2788	0.2882	0.2985	0.3013		0.28	6.4	*TM			0.010
37	TM	Caprolactum	0.1060	0.1109	0.1188	0.1116	0.1158	0.1233	0.1260	0.1284	0.1285		0.12	6.9	TM			0.010
38	*TM	4-Chloro-3-methylphenol	0.3450	0.3598	0.3803	0.3528	0.3721	0.3927	0.4005	0.4114	0.4181		0.38	6.8	*TM			0.200
39	TM	2-Methylnaphthalene	0.6586	0.6946	0.7298	0.6852	0.7108	0.7591	0.7694	0.7921	0.8092		0.73	7.0	TM			0.400
40	TM	1-Methylnaphthalene	0.6864	0.7167	0.7473	0.6960	0.7403	0.7824	0.7954	0.8312	0.8369		0.76	7.3	TM			
41	I	Acenaphthene-D10(IS)	ISTD															
42	**TM	Hexachlorocyclopentadiene			0.4047	0.4452	0.5371	0.5778	0.5356	0.5014	0.5552		0.51	12	**TM			0.050
43	TM	1,2,4,5-Tetrachlorobenzene	0.6252	0.6692	0.6757	0.6442	0.6972	0.7328	0.7295	0.7660	0.7864		0.70	7.8	TM			0.010
44	*TM	2,4,6-Trichlorophenol	0.3803	0.4337	0.4321	0.4274	0.4438	0.4740	0.4637	0.4817	0.4911		0.45	7.7	*TM			0.200
45	TM	2,4,5-Trichlorophenol	0.4406	0.4440	0.4619	0.4489	0.4678	0.5007	0.4912	0.5126	0.5208		0.48	6.4	TM			0.200
46	S	2-Fluorobiphenyl(S)	1.652	1.486	1.453	1.406	1.410	1.509	1.468	1.538	1.539		1.5	5.1	S			
47	TM	1,1'-Biphenyl	1.417	1.439	1.478	1.431	1.492	1.585	1.553	1.631	1.656		1.5	5.9	TM			0.010
48	TM	2-Chloronaphthalene	1.135	1.191	1.236	1.169	1.228	1.300	1.273	1.322	1.343		1.2	5.7	TM			0.800
49	TM	2-Nitroaniline	0.3493	0.3785	0.3935	0.3749	0.3886	0.4159	0.4088	0.4204	0.4192		0.39	6.1	TM			0.010
50	TM	Dimethyl phthalate	1.421	1.459	1.487	1.426	1.501	1.600	1.555	1.609	1.614		1.5	5.1	TM			0.010
51	TM	2,6-DNT	0.2894	0.2971	0.3276	0.3293	0.3389	0.3693	0.3603	0.3705	0.3755		0.34	9.4	TM			0.200
52	TM	Acenaphthylene	1.775	1.825	1.867	1.810	1.887	2.003	1.960	2.039	2.040		1.9	5.3	TM			0.900
53	TM	3-Nitroaniline	0.3368	0.3525	0.3811	0.3775	0.3933	0.4173	0.4102	0.4186	0.4220		0.39	7.8	TM			0.010
54	*TM	Acenaphthene	1.162	1.167	1.230	1.200	1.284	1.375	1.344	1.412	1.459		1.3	8.5	*TM			0.900
55	**TM	2,4-Dinitrophenol				0.1695	0.2095	0.2326	0.2385	0.2537	0.2583		0.23	15	**TM			0.010
56	**TM	4-Nitrophenol	0.0201	0.0218	0.0251	0.0236	0.0259	0.0275	0.0256	0.0271	0.0273		0.02	10	**TM			0.010
57	TM	Dibenzofuran	1.703	1.732	1.754	1.677	1.756	1.875	1.851	1.925	1.953		1.8	5.6	TM			0.800
58	TM	2,4-DNT	0.4206	0.4414	0.4553	0.4644	0.4861	0.5108	0.5051	0.5266	0.5373		0.48	8.3	TM			0.200
59	TM	2,3,4,6-Tetrachlorophenol	0.3407	0.3718	0.3800	0.3806	0.4047	0.4310	0.4264	0.4400	0.4478		0.40	9.0	TM			0.010
60	TM	Diethyl phthalate	1.477	1.526	1.527	1.479	1.516	1.617	1.570	1.621	1.623		1.6	3.8	TM			0.010
61	TM	4-Chlorophenyl phenyl ether	0.7839	0.8192	0.8394	0.8083	0.8621	0.9335	0.9288	0.9951	1.013		0.89	9.4	TM			0.400
62	TM	Fluorene	1.340	1.374	1.424	1.371	1.476	1.601	1.583	1.705	1.729		1.5	9.8	TM			0.900
63	TM	4-Nitroaniline	0.2712	0.2968	0.3093	0.2988	0.3132	0.3343	0.3188	0.3244	0.3253		0.31	6.2	TM			0.010
64	S	2,4,6-Tribromophenol(S)	0.3026	0.2844	0.2722	0.2744	0.2883	0.3138	0.3195	0.3429	0.3559		0.31	9.7	S			
65	I	Phenanthrene-D10(IS)	ISTD															
66	TM	4,6-Dinitro-2-methylphenol			0.1316	0.1466	0.1593	0.1737	0.1764	0.1861	0.1865		0.17	13	TM			0.010
67	TM	Diphenyl amine		0.5641	0.5584	0.5578	0.6050	0.6307	0.6433	0.6780	0.6789		0.61	8.3	TM			
68	*TM	n-Nitrosodiphenylamine		0.5641	0.5584	0.5578	0.6050	0.6307	0.6433	0.6780	0.6789		0.61	8.3	*TM			0.010
69	TM	1,2-Diphenylhydrazine	0.6919	0.7397	0.7428	0.7141	0.7574	0.7929	0.7830	0.8128	0.8106		0.76	5.6	TM			
70	TM	4-Bromophenyl phenyl ether	0.2326	0.2459	0.2506	0.2455	0.2597	0.2772	0.2835	0.2942	0.2998		0.27	9.0	TM			0.100

Semi-Volatile Analysis by GC-MS
EPA 8270

Form 6
Initial Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Initial Cal. Date: 11/21/19
Matrix: Instrument: Yoda Initials:

		Compound	4	5	10	20	40	50	60	80	91		Avg	%RSD	Type		Q	
71	TM	Hexachlorobenzene	0.2473	0.2716	0.2574	0.2566	0.2765	0.2965	0.2962	0.3085	0.3143		0.28	8.7	TM			0.100
72	TM	Atrazine		0.2382	0.2260	0.2098	0.2296	0.2382	0.2397	0.2449	0.2454		0.23	5.1	TM			0.010
73	*TM	Pentachlorophenol			0.1444	0.1557	0.1763	0.1911	0.1903	0.2076	0.2104		0.18	14	*TM			0.050
74	TM	Phenanthrene	1.008	1.049	1.046	1.011	1.056	1.105	1.113	1.171	1.184		1.1	5.9	TM			0.700
75	TM	Anthracene	1.045	1.093	1.101	1.059	1.117	1.168	1.172	1.234	1.241		1.1	6.3	TM			0.700
76	TM	Carbazol	0.9216	0.9673	1.003	0.9601	1.009	1.064	1.071	1.110	1.101		1.0	6.5	TM			0.010
77	TM	Di-n-butylphthalate	1.193	1.246	1.258	1.241	1.312	1.394	1.408	1.456	1.478		1.3	7.9	TM			0.010
78		2-Nitrodiphenylamine	0.2511	0.2717	0.2895	0.3048	0.3243	0.3416	0.3486	0.3566	0.3603		0.32	12				
79	*TM	Fluoranthene	1.196	1.214	1.252	1.210	1.307	1.376	1.389	1.459	1.454		1.3	8.0	*TM			0.600
80	I	Chrysene-D12(IS)	ISTD															
81	TM	Benzidine				0.2277	0.2870	0.3338	0.3091	0.3109	0.3119		0.30	12	TM			
82	TM	Pyrene	1.206	1.248	1.263	1.203	1.189	1.276	1.188	1.182	1.180		1.2	3.1	TM			0.600
83	S	Terphenyl-D14(S)	1.165	1.060	0.9868	0.9558	0.9291	0.9737	0.9485	0.9434	1.038		1.0	7.6	S			
84	TM	Butyl benzylphthalate	0.5532	0.5683	0.5820	0.5395	0.5376	0.5742	0.5448	0.5336	0.5306		0.55	3.4	TM			0.010
85	TM	3,3'-Dichlorobenzidine	0.3670	0.3556	0.3061	0.3163	0.3591	0.4126	0.3916	0.3865	0.3878		0.36	9.7	TM			0.010
86	TM	Benz (a) anthracene	1.298	1.428	1.370	1.289	1.276	1.359	1.302	1.327	1.342		1.3	3.6	TM			0.800
87	TM	Bis (2-ethylhexyl) phthalate	0.8211	0.8729	0.8848	0.8315	0.8196	0.8736	0.8456	0.8374	0.8443		0.85	2.8	TM			0.010
88	TM	Chrysene	1.232	1.177	1.234	1.165	1.158	1.248	1.193	1.137	1.138		1.2	3.6	TM			0.700
89	*TM	Di-n-octylphthalate	1.291	1.381	1.388	1.305	1.300	1.379	1.301	1.309	1.309		1.3	3.1	*TM			0.010
90	I	Perylene-D12(IS)	ISTD															
91	TM	Benzo (b) fluoranthene	1.124	1.138	1.268	1.226	1.210	1.412	1.326	1.337	1.342		1.3	7.8	TM			0.700
92	TM	Benzo (k) fluoranthene	1.085	1.156	1.043	1.031	1.178	1.140	1.189	1.320	1.346		1.2	9.5	TM			0.700
93	*TM	Benzo (a) pyrene	1.031	1.054	1.091	1.052	1.118	1.191	1.159	1.226	1.243		1.1	7.0	*TM			0.700
94	TM	Indeno (1,2,3-cd) pyrene	1.226	1.291	1.300	1.259	1.321	1.402	1.382	1.439	1.448		1.3	6.0	TM			0.500
95	TM	Dibenz (a,h) anthracene	1.076	1.111	1.142	1.090	1.166	1.251	1.222	1.280	1.306		1.2	7.2	TM			0.400
96	TM	Benzo (g,h,i) perylene	1.006	1.037	1.048	1.011	1.049	1.115	1.089	1.123	1.129		1.1	4.5	TM			0.500
97																		
98																		
99																		
100																		
101																		
102																		
103																		
104																		
105																		

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y191121\1121Y003.D Vial: 3
Acq On : 21 Nov 19 14:07 Operator: MA,SS
Sample : 4ug/ml 8270 11/21/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 22 15:55 2019 Quant Results File: Y1121ND.RES

Quant Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 15:42:05 2019
Response via : Initial Calibration
DataAcq Meth : SVOC1011

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.47	152	171877	40.00000 ppb		0.00
21) Napthalene-D8(IS)	6.91	136	699682	40.00000 ppb		0.00
41) Acenaphthene-D10(IS)	8.93	164	435091	40.00000 ppb		0.00
65) Phenanthrene-D10(IS)	10.66	188	880555	40.00000 ppb		0.00
80) Chrysene-D12(IS)	13.75	240	903111	40.00000 ppb		0.00
90) Perylene-D12(IS)	15.62	264	1002643	40.00000 ppb		0.00
System Monitoring Compounds						
5) 2-Fluorophenol (S)	3.90	112	51113	8.54001 ppb		0.00
Spiked Amount 200.000			Recovery	= 4.270%		
6) Phenol-D6 (S)	5.06	99	60351	8.46840 ppb		-0.02
Spiked Amount 200.000			Recovery	= 4.234%		
22) Nitrobenzene-D5(S)	6.09	82	34346	4.35589 ppb		0.00
Spiked Amount 100.000			Recovery	= 4.356%		
46) 2-Fluorobiphenyl(S)	8.14	172	71869	4.41801 ppb		0.00
Spiked Amount 100.000			Recovery	= 4.418%		
64) 2,4,6-Tribromophenol(S)	9.85	330	26335	7.91248 ppb		0.00
Spiked Amount 200.000			Recovery	= 3.956%		
83) Terphenyl-D14(S)	12.52	244	105225	4.66036 ppb		0.00
Spiked Amount 100.000			Recovery	= 4.660%		
Target Compounds						Qvalue
2) 1,4-Dioxane	1.74	58	710	0.35582	#	1
3) n-Nitrosodimethylamine	1.96	42	12843	4.24143 ppb		88
4) Pyridine	1.99	79	25828	3.44888 ppb		97
7) Phenol	5.08	94	30055	3.57098 ppb		83
8) Aniline	5.10	93	15130	3.19391 ppb	#	74
9) Bis (2-chloroethyl) ether	5.17	63	13055	3.63084 ppb		94
10) 2-Chlorophenol	5.24	128	23332	3.66070 ppb		97
11) 1,3-DCB	5.41	146	26394	3.65488 ppb		96
12) 1,4-DCB	5.49	146	26744	3.64508 ppb		99
13) Benzyl alcohol	5.63	108	13049	3.60134 ppb		94
14) 1,2-DCB	5.67	146	24759	3.61216 ppb		99
15) 2-Methylphenol	5.76	107	18692	3.62060 ppb		99
16) Bis (2-chloroisopropyl) et	5.78	45	15104	3.75895 ppb		95
17) Acetophenone	5.93	105	33450	3.60387 ppb		95
18) 3&4-Methylphenol	5.93	107	49324	6.96583 ppb		95
19) n-Nitrosodi-n-propylamine	5.92	70	18786	3.55298 ppb		92
20) Hexachloroethane	6.05	117	10248	3.52118 ppb		89
23) Nitrobenzene	6.11	77	29406	3.64767 ppb		98
24) Isophorone	6.38	82	48023	3.67460 ppb		96
25) 2-Nitrophenol	6.47	139	12539	3.40134 ppb		93
26) 2,4-Dimethylphenol	6.52	122	20911	3.64149 ppb		98
27) Benzoic acid	6.59	105	6870	6.98276 ppb		94
28) Bis (2-chloroethoxy) metha	6.62	93	25066	3.55718 ppb		98
29) 2,4-Dichlorophenol	6.75	162	20834	3.52351 ppb		92
30) 1,2,4-Trichlorobenzene	6.84	180	24329	3.55547 ppb		98
31) 3,4-Dimethylphenol	6.86	107	33935	3.65526 ppb		98
32) Naphthalene	6.94	128	67722	3.59329 ppb		99
33) 4-Chloroaniline	6.99	127	21792	3.39619 ppb		92
34) 2,6-Dichlorophenol	7.00	162	20174	3.52345 ppb		97
35) Hexachloropropene	7.04	213	20281	3.40479 ppb		98
36) Hexachlorobutadiene	7.08	225	17375	3.59566 ppb		96
37) Caprolactum	7.36	55	7420	3.57025 ppb		94

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y191121\1121Y003.D Vial: 3
Acq On : 21 Nov 19 14:07 Operator: MA,SS
Sample : 4ug/ml 8270 11/21/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 22 15:55 2019 Quant Results File: Y1121ND.RES

Quant Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 15:42:05 2019
Response via : Initial Calibration
DataAcq Meth : SVOC1011

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
38)	4-Chloro-3-methylphenol	7.55	107	24140	3.61824	ppb		96
39)	2-Methylnaphthalene	7.73	142	46079	3.58746	ppb		99
40)	1-Methylnaphthalene	7.84	142	48029	3.61675	ppb		98
42)	Hexachlorocyclopentadiene	7.90	237	13066	2.36391	ppb		98
43)	1,2,4,5-Tetrachlorobenzene	7.91	216	27200	3.55745	ppb		99
44)	2,4,6-Trichlorophenol	8.05	196	16547	3.39912	ppb		95
45)	2,4,5-Trichlorophenol	8.10	196	19169	3.69855	ppb		94
47)	1,1'-Biphenyl	8.26	154	61663	3.72896	ppb		98
48)	2-Chloronaphthalene	8.28	162	49376	3.64897	ppb		99
49)	2-Nitroaniline	8.39	65	15196	3.54290	ppb		96
50)	Dimethyl phthalate	8.61	163	61840	3.74213	ppb		99
51)	2,6-DNT	8.67	165	12592	3.40721	ppb		98
52)	Acenaphthylene	8.77	152	77248	3.71436	ppb		99
53)	3-Nitroaniline	8.39	138	14652	3.45457	ppb		92
54)	Acenaphthene	8.97	154	50577	3.59732	ppb		98
55)	2,4-Dinitrophenol	9.00	184	2218	0.89820	ppb		90
56)	4-Nitrophenol	8.67	65	876	3.23673	ppb	#	74
57)	Dibenzofuran	9.17	168	74089	3.77841	ppb		99
58)	2,4-DNT	9.15	165	18301	3.48292	ppb		89
59)	2,3,4,6-Tetrachlorophenol	9.31	232	14824	3.38549	ppb		97
60)	Diethyl phthalate	9.43	149	64247	3.80951	ppb		98
61)	4-Chlorophenyl phenyl ethe	9.56	204	34106	3.53499	ppb		95
62)	Fluorene	9.56	166	58288	3.54590	ppb		99
63)	4-Nitroaniline	8.87	138	11801	3.49716	ppb		98
66)	4,6-Dinitro-2-methylphenol	9.62	198	7216	1.97776	ppb	#	77
67)	Diphenyl amine	9.69	169	94212	6.96393	ppb		99
68)	n-Nitrosodiphenylamine	9.69	169	94212	6.96393	ppb		99
69)	1,2-Diphenylhydrazine	9.75	77	60929	3.63908	ppb		97
70)	4-Bromophenyl phenyl ether	10.13	248	20479	3.50463	ppb		93
71)	Hexachlorobenzene	10.21	284	21775	3.52596	ppb		93
72)	Atrazine	10.32	200	9503	1.84482	ppb		97
73)	Pentachlorophenol	10.45	266	10529	2.62448	ppb		88
74)	Phenanthrene	10.69	178	88775	3.72528	ppb		99
75)	Anthracene	10.74	178	92014	3.67778	ppb		98
76)	Carbazol	10.93	167	81154	3.60423	ppb		100
77)	Di-n-butylphthalate	11.34	149	105020	3.58164	ppb		99
78)	2-Nitrodiphenylamine	11.51	167	11054	1.58658	ppb		92
79)	Fluoranthene	12.08	202	105288	3.63060	ppb	#	97
81)	Benzidine	12.23	184	26925	4.01919	ppb		99
82)	Pyrene	12.34	202	108905	3.96999	ppb		99
84)	Butyl benzylphthalate	13.08	149	49960	4.01214	ppb		91
85)	3,3'-Dichlorobenzidine	13.69	252	33143	4.02465	ppb		99
86)	Benz (a) anthracene	13.73	228	117193	3.89605	ppb		99
87)	Bis (2-ethylhexyl) phthala	13.75	149	74158	3.87394	ppb	#	95
88)	Chrysene	13.77	228	111291	4.15296	ppb		99
89)	Di-n-octylphthalate	14.51	149	116580	3.88466	ppb		94
91)	Benzo (b) fluoranthene	15.05	252	112725	3.55542	ppb		99
92)	Benzo (k) fluoranthene	15.09	252	108771	3.72354	ppb	#	98
93)	Benzo (a) pyrene	15.52	252	103381	3.65175	ppb		97
94)	Indeno (1,2,3-cd) pyrene	17.50	276	122956	3.65819	ppb		96
95)	Dibenz (a,h) anthracene	17.54	278	107866	3.63839	ppb		100
96)	Benzo (g,h,i) perylene	18.07	276	100853	3.76901	ppb		99

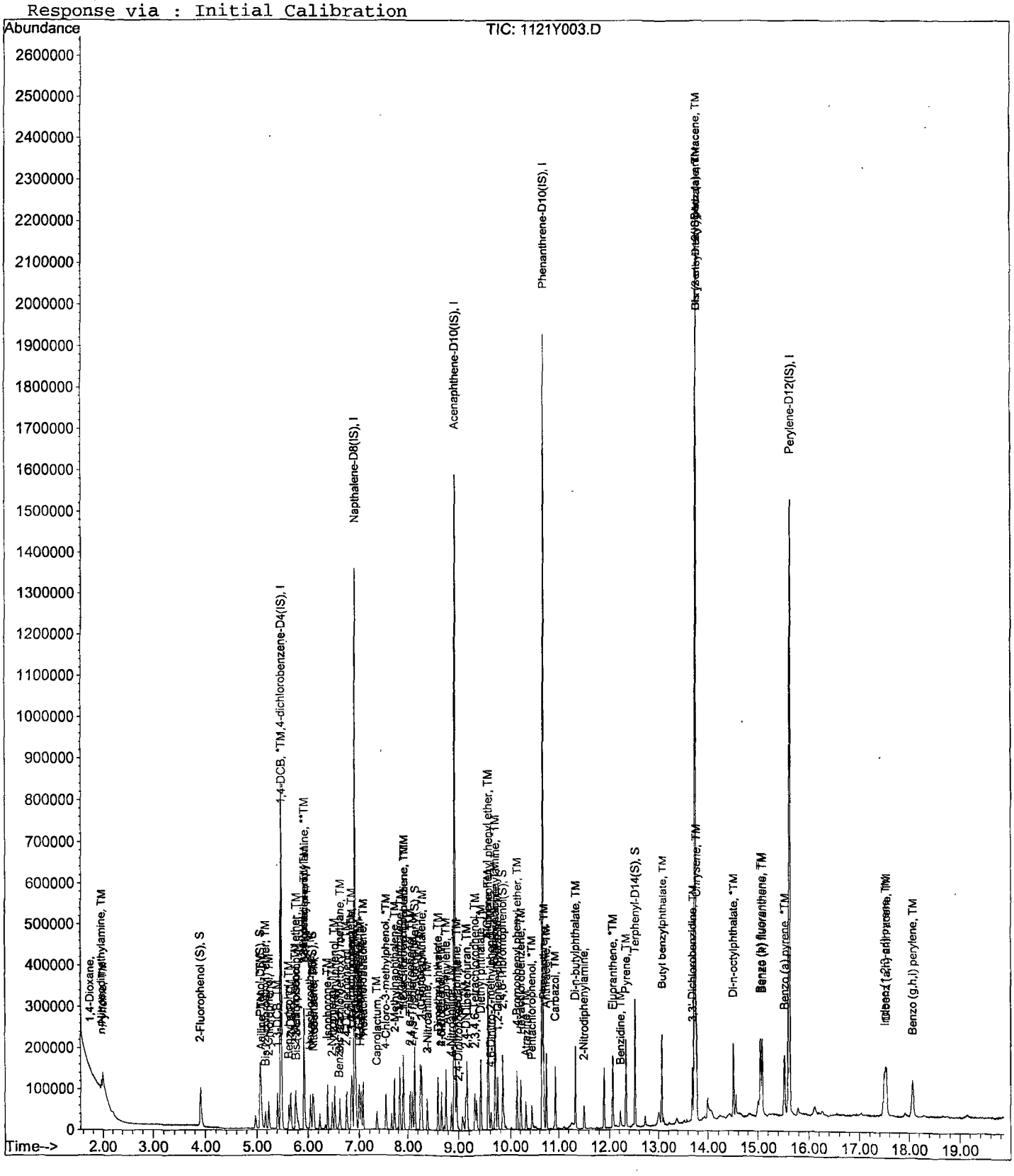
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y191121\1121Y003.D Vial: 3
Acq On : 21 Nov 19 14:07 Operator: MA,SS
Sample : 4ug/ml 8270 11/21/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 22 15:55 2019 Quant Results File: Y1121ND.RES

Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 18:04:15 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y191121\1121Y004.D Vial: 4
Acq On : 21 Nov 19 14:35 Operator: MA,SS
Sample : 5ug/ml 8270 11/21/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 22 17:59 2019 Quant Results File: Y1121ND.RES

Quant Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 16:12:45 2019
Response via : Initial Calibration
DataAcq Meth : SVOC1011

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.48	152	178119	40.00000 ppb	0.00
21) Napthalene-D8(IS)	6.91	136	701942	40.00000 ppb	0.00
41) Acenaphthene-D10(IS)	8.93	164	437841	40.00000 ppb	0.00
65) Phenanthrene-D10(IS)	10.66	188	878554	40.00000 ppb	0.00
80) Chrysene-D12(IS)	13.75	240	894953	40.00000 ppb	0.00
90) Perylene-D12(IS)	15.61	264	1003571	40.00000 ppb	0.00
System Monitoring Compounds					
5) 2-Fluorophenol (S)	3.91	112	60020	9.67677 ppb	0.00
Spiked Amount 200.000			Recovery	= 4.839%	
6) Phenol-D6 (S)	5.07	99	68975	9.33934 ppb	0.00
Spiked Amount 200.000			Recovery	= 4.670%	
22) Nitrobenzene-D5(S)	6.09	82	38608	4.88065 ppb	0.00
Spiked Amount 100.000			Recovery	= 4.881%	
46) 2-Fluorobiphenyl(S)	8.14	172	81328	4.96808 ppb	0.00
Spiked Amount 100.000			Recovery	= 4.968%	
64) 2,4,6-Tribromophenol(S)	9.85	330	31127	9.29352 ppb	0.00
Spiked Amount 200.000			Recovery	= 4.647%	
83) Terphenyl-D14(S)	12.51	244	118567	5.29914 ppb	0.00
Spiked Amount 100.000			Recovery	= 5.299%	
Target Compounds					Qvalue
2) 1,4-Dioxane	1.75	58	949	0.45892 #	1
3) n-Nitrosodimethylamine	1.96	42	17590	5.60557 ppb	78
4) Pyridine	1.99	79	37212	4.79487 ppb	97
7) Phenol	5.08	94	40110	4.59865 ppb	87
8) Aniline	5.10	93	21048	4.28749 ppb #	77
9) Bis (2-chloroethyl) ether	5.17	63	17508	4.69867 ppb	96
10) 2-Chlorophenol	5.24	128	30773	4.65897 ppb	94
11) 1,3-DCB	5.40	146	36544	4.88305 ppb	97
12) 1,4-DCB	5.50	146	36021	4.73744 ppb	96
13) Benzyl alcohol	5.63	108	17118	4.55877 ppb	99
14) 1,2-DCB	5.66	146	34722	4.88817 ppb	99
15) 2-Methylphenol	5.76	107	24694	4.61556 ppb	98
16) Bis (2-chloroisopropyl) et	5.78	45	20074	4.82076 ppb	92
17) Acetophenone	5.92	105	44298	4.60536 ppb	100
18) 3&4-Methylphenol	5.93	107	67207	9.15876 ppb	97
19) n-Nitrosodi-n-propylamine	5.92	70	25583	4.66893 ppb	97
20) Hexachloroethane	6.05	117	14504	4.80888 ppb	98
23) Nitrobenzene	6.11	77	39369	4.86780 ppb	97
24) Isophorone	6.38	82	64013	4.88234 ppb	95
25) 2-Nitrophenol	6.47	139	16944	4.58144 ppb	87
26) 2,4-Dimethylphenol	6.52	122	27539	4.78027 ppb	99
27) Benzoic acid	6.60	105	10661	5.63187 ppb	89
28) Bis (2-chloroethoxy) metha	6.62	93	33987	4.80766 ppb	95
29) 2,4-Dichlorophenol	6.75	162	27742	4.67670 ppb	96
30) 1,2,4-Trichlorobenzene	6.84	180	32824	4.78149 ppb	97
31) 3,4-Dimethylphenol	6.86	107	43196	4.63781 ppb	98
32) Naphthalene	6.94	128	92144	4.87336 ppb	98
33) 4-Chloroaniline	6.99	127	29189	4.53434 ppb	94
34) 2,6-Dichlorophenol	7.00	162	27277	4.74867 ppb	96
35) Hexachloropropene	7.04	213	27403	4.58562 ppb	96
36) Hexachlorobutadiene	7.08	225	23460	4.83929 ppb	98
37) Caprolactum	7.35	55	9733	4.66811 ppb	97

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y191121\1121Y004.D Vial: 4
Acq On : 21 Nov 19 14:35 Operator: MA,SS
Sample : 5ug/ml 8270 11/21/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 22 17:59 2019 Quant Results File: Y1121ND.RES

Quant Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 16:12:45 2019
Response via : Initial Calibration
DataAcq Meth : SVOC1011

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
38)	4-Chloro-3-methylphenol	7.55	107	31574	4.71725 ppb		98
39)	2-Methylnaphthalene	7.73	142	60949	4.72988 ppb		100
40)	1-Methylnaphthalene	7.84	142	62883	4.72006 ppb		100
42)	Hexachlorocyclopentadiene	7.91	237	19448	3.49645 ppb		97
43)	1,2,4,5-Tetrachlorobenzene	7.92	216	36627	4.76031 ppb		96
44)	2,4,6-Trichlorophenol	8.05	196	23738	4.84568 ppb		98
45)	2,4,5-Trichlorophenol	8.10	196	24300	4.65910 ppb		95
47)	1,1'-Biphenyl	8.26	154	78756	4.73271 ppb		97
48)	2-Chloronaphthalene	8.28	162	65185	4.78703 ppb		97
49)	2-Nitroaniline	8.39	65	20713	4.79884 ppb		95
50)	Dimethyl phthalate	8.61	163	79858	4.80211 ppb		99
51)	2,6-DNT	8.68	165	16261	4.37236 ppb	#	77
52)	Acenaphthylene	8.76	152	99907	4.77371 ppb		99
53)	3-Nitroaniline	8.39	138	19292	4.52000 ppb		93
54)	Acenaphthene	8.97	154	63851	4.51292 ppb		98
55)	2,4-Dinitrophenol	9.00	184	3397	1.36701 ppb	#	84
56)	4-Nitrophenol	8.67	65	1191	4.37298 ppb	#	74
57)	Dibenzofuran	9.16	168	94779	4.80321 ppb		98
58)	2,4-DNT	9.15	165	24158	4.56870 ppb		98
59)	2,3,4,6-Tetrachlorophenol	9.31	232	20347	4.61764 ppb		93
60)	Diethyl phthalate	9.42	149	83497	4.91984 ppb		99
61)	4-Chlorophenyl phenyl ethe	9.56	204	44837	4.61804 ppb		93
62)	Fluorene	9.56	166	75174	4.54443 ppb		96
63)	4-Nitroaniline	8.87	138	16245	4.78388 ppb		94
66)	4,6-Dinitro-2-methylphenol	9.62	198	10573	2.90445 ppb	#	74
67)	Diphenyl amine	9.70	169	123899	9.17918 ppb		100
68)	n-Nitrosodiphenylamine	9.70	169	123899	9.17918 ppb		100
69)	1,2-Diphenylhydrazine	9.75	77	81228	4.86252 ppb		97
70)	4-Bromophenyl phenyl ether	10.14	248	27005	4.63197 ppb		89
71)	Hexachlorobenzene	10.21	284	29823	4.84015 ppb		95
72)	Atrazine	10.31	200	13082	2.54540 ppb		93
73)	Pentachlorophenol	10.44	266	13695	3.42141 ppb		96
74)	Phenanthrene	10.69	178	115216	4.84584 ppb		99
75)	Anthracene	10.75	178	120056	4.80954 ppb		98
76)	Carbazol	10.93	167	106227	4.72853 ppb		99
77)	Di-n-butylphthalate	11.34	149	136821	4.67682 ppb		99
78)	2-Nitrodiphenylamine	11.51	167	14920	2.14635 ppb		97
79)	Fluoranthene	12.08	202	133347	4.60862 ppb	#	97
81)	Benzidine	12.23	184	22751	3.42708 ppb		99
82)	Pyrene	12.34	202	139635	5.13662 ppb		99
84)	Butyl benzylphthalate	13.08	149	63571	5.15174 ppb		88
85)	3,3'-Dichlorobenzidine	13.69	252	39776	4.87415 ppb		97
86)	Benz (a) anthracene	13.73	228	159783	5.36036 ppb		100
87)	Bis (2-ethylhexyl) phthala	13.75	149	97649	5.14758 ppb	#	96
88)	Chrysene	13.78	228	131677	4.95848 ppb		100
89)	Di-n-octylphthalate	14.51	149	154516	5.19570 ppb		96
91)	Benzo (b) fluoranthene	15.05	252	142727	4.49753 ppb		99
92)	Benzo (k) fluoranthene	15.09	252	145010	4.95951 ppb		98
93)	Benzo (a) pyrene	15.52	252	132183	4.66482 ppb		96
94)	Indeno (1,2,3-cd) pyrene	17.50	276	161903	4.81249 ppb		99
95)	Dibenz (a,h) anthracene	17.54	278	139369	4.69666 ppb		98
96)	Benzo (g,h,i) perylene	18.06	276	130106	4.85773 ppb		100

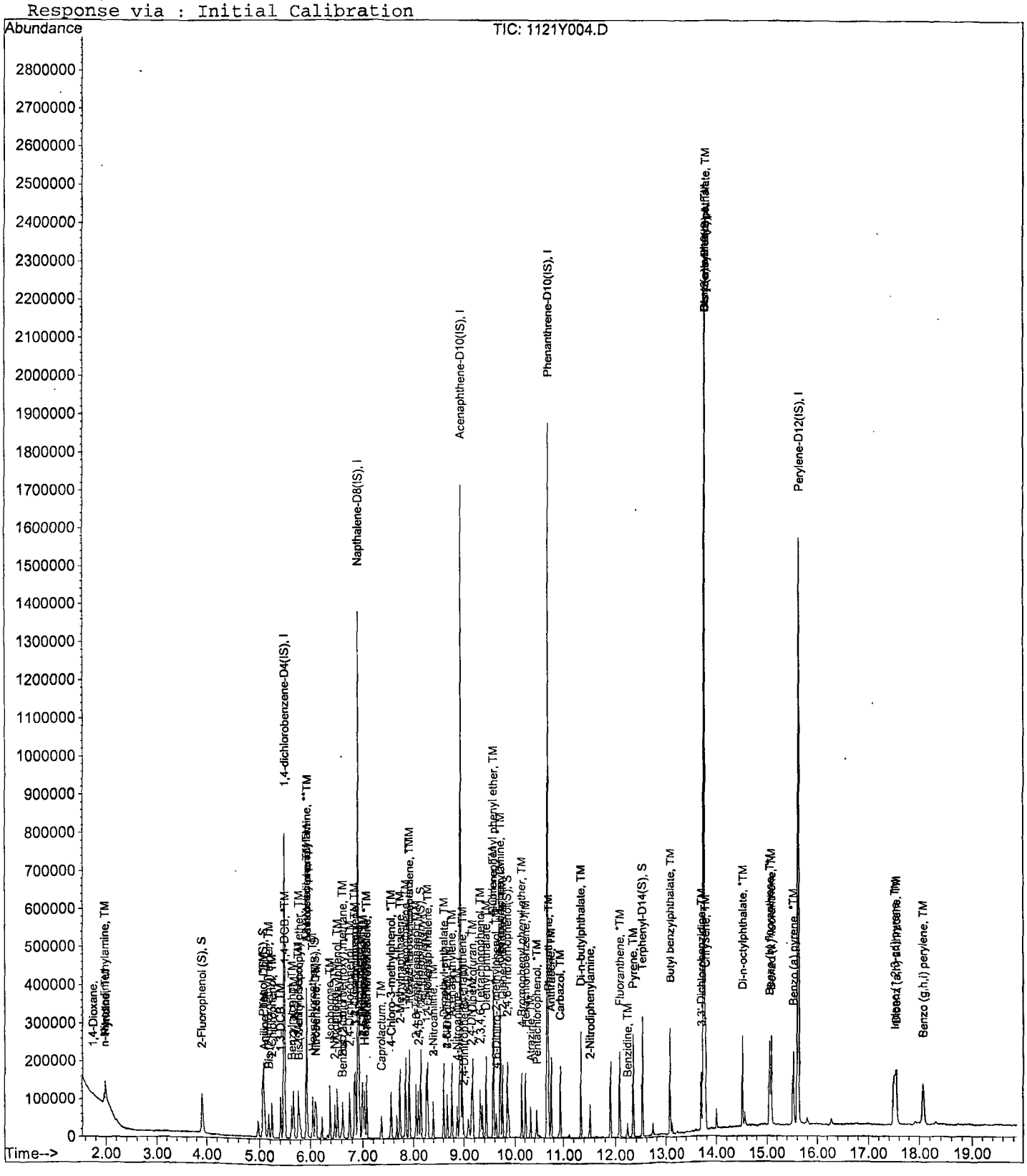
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y191121\1121Y004.D Vial: 4
Acq On : 21 Nov 19 14:35 Operator: MA,SS
Sample : 5ug/ml 8270 11/21/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 22 17:59 2019 Quant Results File: Y1121ND.RES

Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 18:04:15 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y191121\1121Y005.D Vial: 5
Acq On : 21 Nov 19 15:37 Operator: MA,SS
Sample : 10ug/ml 8270 11/21/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 22 15:55 2019 Quant Results File: Y1121ND.RES

Quant Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 15:42:05 2019
Response via : Initial Calibration
DataAcq Meth : SVOC1011

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.47	152	168977	40.00000	ppb		0.00
21) Napthalene-D8(IS)	6.91	136	683114	40.00000	ppb		0.00
41) Acenaphthene-D10(IS)	8.93	164	434378	40.00000	ppb		0.00
65) Phenanthrene-D10(IS)	10.66	188	872989	40.00000	ppb		0.00
80) Chrysene-D12(IS)	13.75	240	893214	40.00000	ppb		0.00
90) Perylene-D12(IS)	15.62	264	988297	40.00000	ppb		0.00
System Monitoring Compounds							
5) 2-Fluorophenol (S)	3.90	112	118316	20.10761	ppb		0.00
Spiked Amount 200.000			Recovery = 10.054%				
6) Phenol-D6 (S)	5.06	99	138757	19.80441	ppb		-0.02
Spiked Amount 200.000			Recovery = 9.902%				
22) Nitrobenzene-D5(S)	6.09	82	76517	9.93955	ppb		0.00
Spiked Amount 100.000			Recovery = 9.940%				
46) 2-Fluorobiphenyl(S)	8.14	172	157762	9.71403	ppb		0.00
Spiked Amount 100.000			Recovery = 9.714%				
64) 2,4,6-Tribromophenol(S)	9.85	330	59109	17.78875	ppb		0.00
Spiked Amount 200.000			Recovery = 8.895%				
83) Terphenyl-D14(S)	12.52	244	220345	9.86711	ppb		0.00
Spiked Amount 100.000			Recovery = 9.867%				
Target Compounds							Qvalue
2) 1,4-Dioxane	1.74	58	2572	1.31107			53
3) n-Nitrosodimethylamine	1.96	42	30183	10.13908	ppb		98
4) Pyridine	1.98	79	78020	10.59700	ppb		97
7) Phenol	5.08	94	81147	9.80693	ppb		92
8) Aniline	5.10	93	44216	9.49410	ppb	#	72
9) Bis (2-chloroethyl) ether	5.17	63	36273	10.26135	ppb		98
10) 2-Chlorophenol	5.24	128	63228	10.09048	ppb		95
11) 1,3-DCB	5.41	146	71562	10.07954	ppb		99
12) 1,4-DCB	5.49	146	73207	10.14901	ppb		96
13) Benzyl alcohol	5.63	108	35220	9.88705	ppb		98
14) 1,2-DCB	5.67	146	69444	10.30527	ppb		96
15) 2-Methylphenol	5.76	107	51325	10.11217	ppb		95
16) Bis (2-chloroisopropyl) et	5.78	45	40914	10.35705	ppb		95
17) Acetophenone	5.93	105	92082	10.09107	ppb		99
18) 3&4-Methylphenol	5.93	107	137956	19.81735	ppb		96
19) n-Nitrosodi-n-propylamine	5.93	70	52205	10.04294	ppb		99
20) Hexachloroethane	6.05	117	29576	10.33662	ppb		87
23) Nitrobenzene	6.11	77	80674	10.24991	ppb		99
24) Isophorone	6.38	82	125937	9.87010	ppb		98
25) 2-Nitrophenol	6.47	139	35318	9.81274	ppb		95
26) 2,4-Dimethylphenol	6.52	122	56214	10.02667	ppb		98
27) Benzoic acid	6.62	105	31882	11.03508	ppb		96
28) Bis (2-chloroethoxy) metha	6.62	93	68176	9.90969	ppb		98
29) 2,4-Dichlorophenol	6.75	162	56920	9.85995	ppb		96
30) 1,2,4-Trichlorobenzene	6.84	180	66134	9.89930	ppb		98
31) 3,4-Dimethylphenol	6.86	107	88422	9.75524	ppb		94
32) Naphthalene	6.94	128	182795	9.93422	ppb		99
33) 4-Chloroaniline	6.99	127	59273	9.46150	ppb	#	93
34) 2,6-Dichlorophenol	7.00	162	54536	9.75589	ppb		97
35) Hexachloropropene	7.04	213	56293	9.67972	ppb		99
36) Hexachlorobutadiene	7.08	225	47021	9.96674	ppb		98
37) Caprolactum	7.36	55	20280	9.99472	ppb		97

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y191121\1121Y005.D Vial: 5
Acq On : 21 Nov 19 15:37 Operator: MA,SS
Sample : 10ug/ml 8270 11/21/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 22 15:55 2019 Quant Results File: Y1121ND.RES

Quant Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 15:42:05 2019
Response via : Initial Calibration
DataAcq Meth : SVOC1011

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
38)	4-Chloro-3-methylphenol	7.55	107	64955	9.97194 ppb		93
39)	2-Methylnaphthalene	7.73	142	124627	9.93812 ppb		98
40)	1-Methylnaphthalene	7.84	142	127619	9.84323 ppb		99
42)	Hexachlorocyclopentadiene	7.91	237	43952	7.96489 ppb		99
43)	1,2,4,5-Tetrachlorobenzene	7.92	216	73379	9.61289 ppb		97
44)	2,4,6-Trichlorophenol	8.05	196	46928	9.65586 ppb		94
45)	2,4,5-Trichlorophenol	8.10	196	50161	9.69416 ppb		97
47)	1,1'-Biphenyl	8.26	154	160463	9.71963 ppb		98
48)	2-Chloronaphthalene	8.28	162	134240	9.93686 ppb		98
49)	2-Nitroaniline	8.39	65	42728	9.97826 ppb		95
50)	Dimethyl phthalate	8.61	163	161526	9.79049 ppb		100
51)	2,6-DNT	8.68	165	35573	9.64134 ppb		76
52)	Acenaphthylene	8.77	152	202717	9.76335 ppb		99
53)	3-Nitroaniline	8.39	138	41383	9.77309 ppb		97
54)	Acenaphthene	8.97	154	133593	9.51748 ppb		99
55)	2,4-Dinitrophenol	9.00	184	13612	5.52138 ppb		97
56)	4-Nitrophenol	8.67	65	2725	10.08512 ppb	#	74
57)	Dibenzofuran	9.16	168	190431	9.72759 ppb		97
58)	2,4-DNT	9.15	165	49448	9.42604 ppb		99
59)	2,3,4,6-Tetrachlorophenol	9.31	232	41263	9.43906 ppb		93
60)	Diethyl phthalate	9.42	149	165836	9.84934 ppb		96
61)	4-Chlorophenyl phenyl ethe	9.56	204	91155	9.46347 ppb		92
62)	Fluorene	9.56	166	154613	9.42120 ppb		99
63)	4-Nitroaniline	8.87	138	33585	9.96907 ppb		96
66)	4,6-Dinitro-2-methylphenol	9.62	198	28721	7.94008 ppb	#	73
67)	Diphenyl amine	9.70	169	243760	18.17433 ppb		100
68)	n-Nitrosodiphenylamine	9.70	169	243760	18.17433 ppb		100
69)	1,2-Diphenylhydrazine	9.75	77	162117	9.76662 ppb		95
70)	4-Bromophenyl phenyl ether	10.14	248	54692	9.44072 ppb		93
71)	Hexachlorobenzene	10.21	284	56169	9.17412 ppb	#	88
72)	Atrazine	10.32	200	24663	4.82934 ppb		95
73)	Pentachlorophenol	10.45	266	31516	7.92382 ppb		96
74)	Phenanthrene	10.69	178	228351	9.66539 ppb		99
75)	Anthracene	10.75	178	240259	9.68633 ppb		99
76)	Carbazol	10.94	167	218795	9.80140 ppb		98
77)	Di-n-butylphthalate	11.34	149	274648	9.44787 ppb		98
78)	2-Nitrodiphenylamine	11.51	167	31586	4.57283 ppb		99
79)	Fluoranthene	12.08	202	273290	9.50542 ppb		98
81)	Benzidine	12.23	184	38752	5.84874 ppb		96
82)	Pyrene	12.34	202	281971	10.39279 ppb		99
84)	Butyl benzylphthalate	13.08	149	129957	10.55210 ppb		81
85)	3,3'-Dichlorobenzidine	13.70	252	68357	8.39277 ppb		99
86)	Benz (a) anthracene	13.73	228	305978	10.28485 ppb		100
87)	Bis (2-ethylhexyl) phthala	13.75	149	197577	10.43558 ppb		98
88)	Chrysene	13.78	228	275483	10.39389 ppb		99
89)	Di-n-octylphthalate	14.51	149	309876	10.44006 ppb		97
91)	Benzo (b) fluoranthene	15.06	252	313332	10.02614 ppb		99
92)	Benzo (k) fluoranthene	15.10	252	257771	8.95233 ppb		100
93)	Benzo (a) pyrene	15.52	252	269584	9.66082 ppb		99
94)	Indeno (1,2,3-cd) pyrene	17.51	276	321122	9.69272 ppb		98
95)	Dibenz (a,h) anthracene	17.55	278	282097	9.65343 ppb		99
96)	Benzo (g,h,i) perylene	18.08	276	259057	9.82182 ppb		98

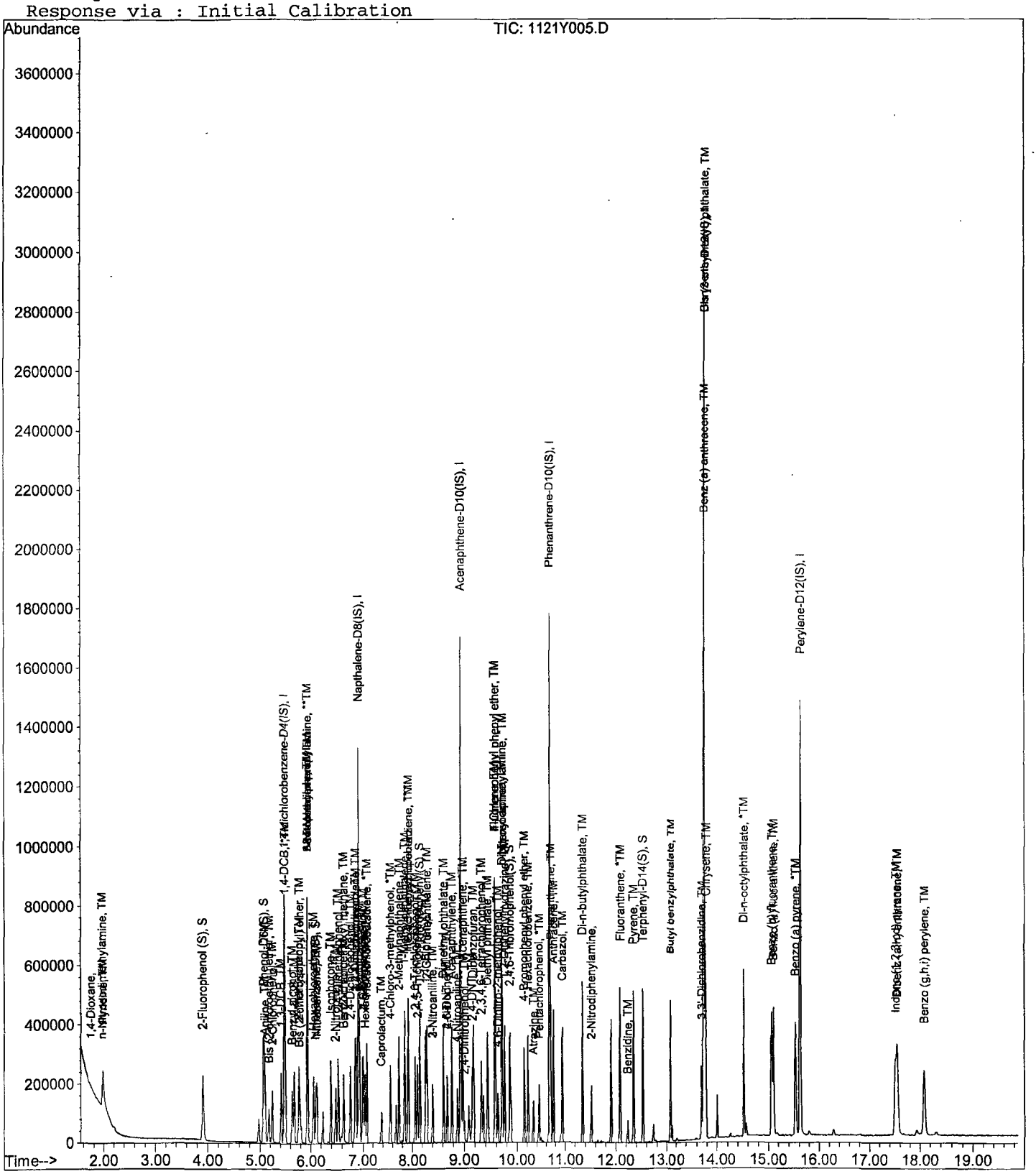
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y191121\1121Y005.D Vial: 5
Acq On : 21 Nov 19 15:37 Operator: MA,SS
Sample : 10ug/ml 8270 11/21/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 22 15:55 2019 Quant Results File: Y1121ND.RES

Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 18:04:15 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y191121\1121Y006.D Vial: 6
Acq On : 21 Nov 19 16:05 Operator: MA,SS
Sample : 20ug/ml 8270 11/21/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 22 15:55 2019 Quant Results File: Y1121ND.RES

Quant Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 15:42:05 2019
Response via : Initial Calibration
DataAcq Meth : SVOC1011

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.48	152	199064	40.00000 ppb		0.00
21) Napthalene-D8(IS)	6.91	136	758291	40.00000 ppb		0.00
41) Acenaphthene-D10(IS)	8.93	164	470271	40.00000 ppb		0.00
65) Phenanthrene-D10(IS)	10.66	188	939739	40.00000 ppb		0.00
80) Chrysene-D12(IS)	13.75	240	1001332	40.00000 ppb		0.00
90) Perylene-D12(IS)	15.61	264	1078368	40.00000 ppb		0.00
System Monitoring Compounds						
5) 2-Fluorophenol (S)	3.91	112	249667	36.01745 ppb		0.00
Spiked Amount 200.000			Recovery =	18.009%		
6) Phenol-D6 (S)	5.07	99	294157	35.63864 ppb		0.00
Spiked Amount 200.000			Recovery =	17.820%		
22) Nitrobenzene-D5(S)	6.09	82	161107	18.85299 ppb		0.00
Spiked Amount 100.000			Recovery =	18.853%		
46) 2-Fluorobiphenyl(S)	8.14	172	330526	18.79846 ppb		0.00
Spiked Amount 100.000			Recovery =	18.798%		
64) 2,4,6-Tribromophenol(S)	9.85	330	129026	35.86647 ppb		0.00
Spiked Amount 200.000			Recovery =	17.933%		
83) Terphenyl-D14(S)	12.51	244	478561	19.11619 ppb		0.00
Spiked Amount 100.000			Recovery =	19.116%		
Target Compounds						Qvalue
2) 1,4-Dioxane	1.74	58	5130	2.21977		94
3) n-Nitrosodimethylamine	1.96	42	63235	18.03137 ppb		94
4) Pyridine	1.98	79	159447	18.38350 ppb		96
7) Phenol	5.08	94	170623	17.50383 ppb		91
8) Aniline	5.10	93	104728	19.08852 ppb	#	76
9) Bis (2-chloroethyl) ether	5.17	63	76855	18.45559 ppb		95
10) 2-Chlorophenol	5.24	128	135758	18.39089 ppb		96
11) 1,3-DCB	5.41	146	149508	17.87547 ppb		100
12) 1,4-DCB	5.50	146	154683	18.20323 ppb		99
13) Benzyl alcohol	5.63	108	76033	18.11817 ppb		97
14) 1,2-DCB	5.67	146	144896	18.25222 ppb		98
15) 2-Methylphenol	5.76	107	106477	17.80762 ppb		97
16) Bis (2-chloroisopropyl) et	5.78	45	83414	17.92413 ppb		92
17) Acetophenone	5.92	105	189886	17.66405 ppb		99
18) 3&4-Methylphenol	5.93	107	286947	34.98981 ppb		99
19) n-Nitrosodi-n-propylamine	5.92	70	110325	18.01596 ppb		98
20) Hexachloroethane	6.05	117	60903	18.06811 ppb		95
23) Nitrobenzene	6.12	77	166997	19.11404 ppb		94
24) Isophorone	6.39	82	267166	18.86283 ppb		100
25) 2-Nitrophenol	6.47	139	76084	19.04342 ppb		90
26) 2,4-Dimethylphenol	6.52	122	115838	18.61318 ppb		99
27) Benzoic acid	6.60	105	88654	18.85200 ppb		98
28) Bis (2-chloroethoxy) metha	6.62	93	145536	19.05708 ppb		99
29) 2,4-Dichlorophenol	6.75	162	120650	18.82758 ppb		96
30) 1,2,4-Trichlorobenzene	6.84	180	137408	18.52887 ppb		97
31) 3,4-Dimethylphenol	6.86	107	187529	18.63818 ppb		98
32) Naphthalene	6.94	128	379858	18.59722 ppb		100
33) 4-Chloroaniline	6.99	127	128659	18.50122 ppb		96
34) 2,6-Dichlorophenol	7.00	162	115378	18.59362 ppb		98
35) Hexachloropropene	7.04	213	121057	18.75235 ppb		99
36) Hexachlorobutadiene	7.08	225	97450	18.60804 ppb		100
37) Caprolactum	7.38	55	42312	18.78553 ppb		97

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y191121\1121Y006.D Vial: 6
Acq On : 21 Nov 19 16:05 Operator: MA,SS
Sample : 20ug/ml 8270 11/21/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 22 15:55 2019 Quant Results File: Y1121ND.RES

Quant Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 15:42:05 2019
Response via : Initial Calibration
DataAcq Meth : SVOC1011

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
38)	4-Chloro-3-methylphenol	7.55	107	133766	18.49994 ppb		96
39)	2-Methylnaphthalene	7.73	142	259800	18.66330 ppb		100
40)	1-Methylnaphthalene	7.84	142	263891	18.33598 ppb		98
42)	Hexachlorocyclopentadiene	7.91	237	104680	17.52202 ppb		100
43)	1,2,4,5-Tetrachlorobenzene	7.92	216	151479	18.32966 ppb		99
44)	2,4,6-Trichlorophenol	8.05	196	100488	19.09822 ppb		99
45)	2,4,5-Trichlorophenol	8.10	196	105541	18.84018 ppb		93
47)	1,1'-Biphenyl	8.26	154	336399	18.82129 ppb		97
48)	2-Chloronaphthalene	8.28	162	274932	18.79801 ppb		98
49)	2-Nitroaniline	8.39	65	88142	19.01274 ppb		97
50)	Dimethyl phthalate	8.61	163	335325	18.77360 ppb		99
51)	2,6-DNT	8.68	165	77433	19.38486 ppb		79
52)	Acenaphthylene	8.76	152	425705	18.93812 ppb		99
53)	3-Nitroaniline	8.39	138	88770	19.36402 ppb		99
54)	Acenaphthene	8.97	154	282238	18.57264 ppb		99
55)	2,4-Dinitrophenol	9.00	184	39846	14.92897 ppb		95
56)	4-Nitrophenol	8.68	65	5546	18.95893 ppb		95
57)	Dibenzofuran	9.16	168	394383	18.60825 ppb		96
58)	2,4-DNT	9.15	165	109203	19.22802 ppb		98
59)	2,3,4,6-Tetrachlorophenol	9.31	232	89499	18.91062 ppb		95
60)	Diethyl phthalate	9.43	149	347798	19.07985 ppb		99
61)	4-Chlorophenyl phenyl ethe	9.56	204	190055	18.22506 ppb		91
62)	Fluorene	9.56	166	322405	18.14603 ppb		98
63)	4-Nitroaniline	8.88	138	70247	19.26001 ppb		80
66)	4,6-Dinitro-2-methylphenol	9.63	198	68893	17.69303 ppb		97
67)	Diphenyl amine	9.70	169	524220	36.30873 ppb		99
68)	n-Nitrosodiphenylamine	9.70	169	524220	36.30873 ppb		99
69)	1,2-Diphenylhydrazine	9.75	77	335520	18.77740 ppb		93
70)	4-Bromophenyl phenyl ether	10.14	248	115339	18.49521 ppb		93
71)	Hexachlorobenzene	10.21	284	120551	18.29110 ppb		91
72)	Atrazine	10.32	200	49292	8.96643 ppb		97
73)	Pentachlorophenol	10.44	266	73146	17.08423 ppb		99
74)	Phenanthrene	10.69	178	475206	18.68529 ppb		100
75)	Anthracene	10.75	178	497372	18.62784 ppb		99
76)	Carbazol	10.94	167	451106	18.77287 ppb		97
77)	Di-n-butylphthalate	11.34	149	583123	18.63456 ppb		99
78)	2-Nitrodiphenylamine	11.51	167	71614	9.63141 ppb		99
79)	Fluoranthene	12.08	202	568406	18.36571 ppb		98
81)	Benzidine	12.23	184	114011	15.34943 ppb		98
82)	Pyrene	12.34	202	602482	19.80839 ppb		99
84)	Butyl benzylphthalate	13.08	149	270124	19.56501 ppb		85
85)	3,3'-Dichlorobenzidine	13.69	252	158377	17.34569 ppb	#	99
86)	Benz (a) anthracene	13.74	228	645189	19.34516 ppb		98
87)	Bis (2-ethylhexyl) phthala	13.75	149	416311	19.61443 ppb	#	97
88)	Chrysene	13.78	228	583044	19.62285 ppb		100
89)	Di-n-octylphthalate	14.51	149	653172	19.62998 ppb		96
91)	Benzo (b) fluoranthene	15.06	252	660853	19.38003 ppb		100
92)	Benzo (k) fluoranthene	15.09	252	555866	17.69263 ppb		99
93)	Benzo (a) pyrene	15.52	252	567068	18.62410 ppb		99
94)	Indeno (1,2,3-cd) pyrene	17.51	276	678920	18.78083 ppb		99
95)	Dibenz (a,h) anthracene	17.55	278	587950	18.43929 ppb		99
96)	Benzo (g,h,i) perylene	18.08	276	545235	18.94528 ppb		98

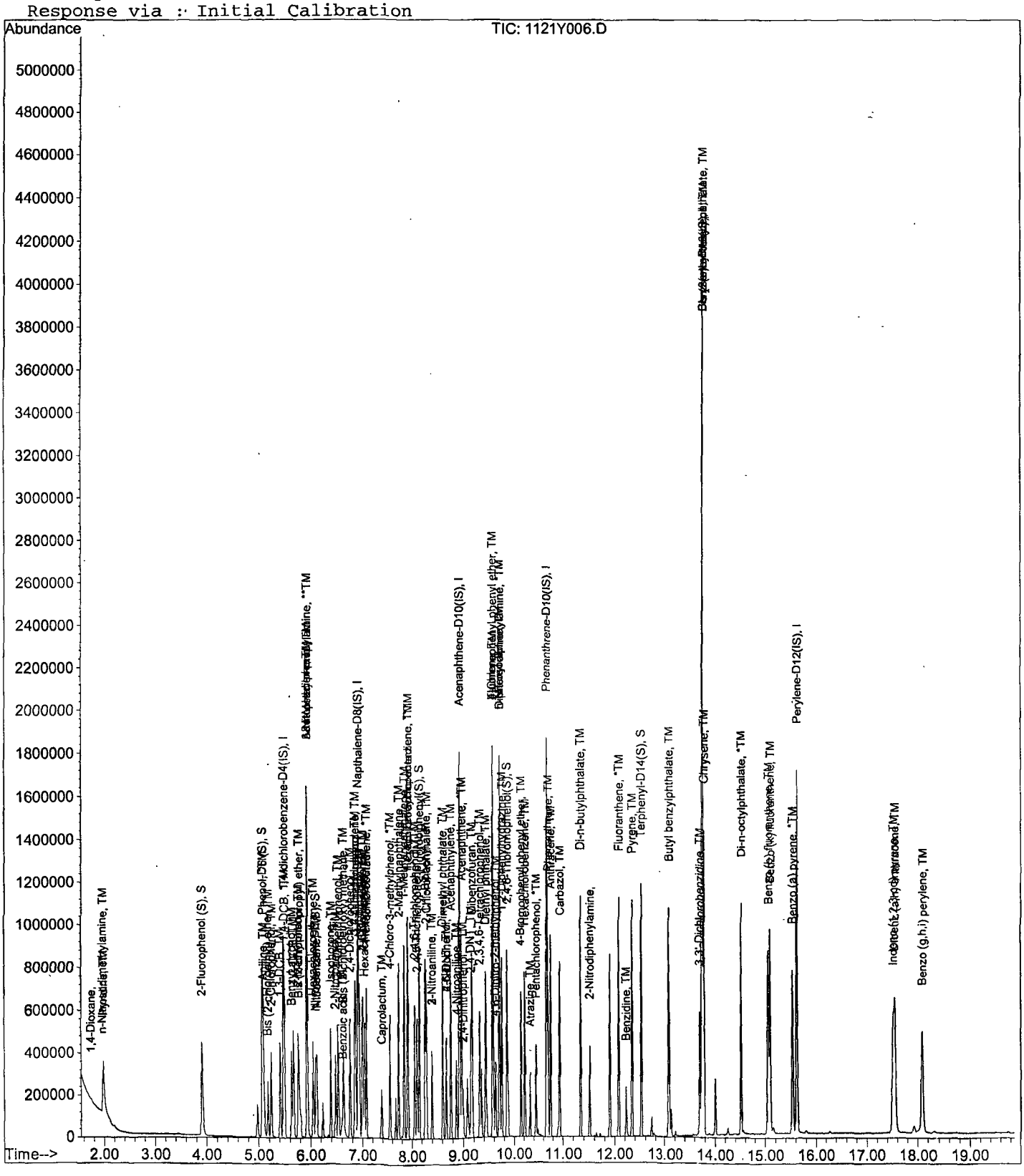
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y191121\1121Y006.D Vial: 6
Acq On : 21 Nov 19 16:05 Operator: MA,SS
Sample : 20ug/ml 8270 11/21/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 22 15:55 2019 Quant Results File: Y1121ND.RES

Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 18:04:15 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y191121\1121Y007.D Vial: 7
Acq On : 21 Nov 19 16:33 Operator: MA,SS
Sample : 40ug/ml 8270 11/21/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 22 15:55 2019 Quant Results File: Y1121ND.RES

Quant Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 15:42:05 2019
Response via : Initial Calibration
DataAcq Meth : SVOC1011

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.48	152	193290	40.00000 ppb	0.00
21) Napthalene-D8(IS)	6.91	136	718227	40.00000 ppb	0.00
41) Acenaphthene-D10(IS)	8.93	164	443843	40.00000 ppb	0.00
65) Phenanthrene-D10(IS)	10.67	188	873650	40.00000 ppb	0.00
80) Chrysene-D12(IS)	13.75	240	1011815	40.00000 ppb	0.00
90) Perylene-D12(IS)	15.61	264	1014443	40.00000 ppb	0.00
System Monitoring Compounds					
5) 2-Fluorophenol (S)	3.91	112	478213	71.04877 ppb	0.00
Spiked Amount 200.000			Recovery =	35.525%	
6) Phenol-D6 (S)	5.07	99	570499	71.18363 ppb	0.00
Spiked Amount 200.000			Recovery =	35.592%	
22) Nitrobenzene-D5(S)	6.10	82	305289	37.71822 ppb	0.00
Spiked Amount 100.000			Recovery =	37.718%	
46) 2-Fluorobiphenyl(S)	8.14	172	625810	37.71186 ppb	0.00
Spiked Amount 100.000			Recovery =	37.712%	
64) 2,4,6-Tribromophenol(S)	9.85	330	255942	75.38271 ppb	0.00
Spiked Amount 200.000			Recovery =	37.692%	
83) Terphenyl-D14(S)	12.52	244	940108	37.16368 ppb	0.00
Spiked Amount 100.000			Recovery =	37.164%	
Target Compounds					Qvalue
2) 1,4-Dioxane	1.74	58	7916	3.52761	59
3) n-Nitrosodimethylamine	1.96	42	120018	35.24528 ppb	96
4) Pyridine	1.98	79	311631	37.00290 ppb	98
7) Phenol	5.09	94	350876	37.07084 ppb	97
8) Aniline	5.10	93	221824	41.63910 ppb	86
9) Bis (2-chloroethyl) ether	5.18	63	149223	36.90413 ppb	95
10) 2-Chlorophenol	5.24	128	266304	37.15338 ppb	95
11) 1,3-DCB	5.41	146	299866	36.92356 ppb	98
12) 1,4-DCB	5.50	146	304720	36.93093 ppb	100
13) Benzyl alcohol	5.64	108	152088	37.32419 ppb	99
14) 1,2-DCB	5.66	146	282123	36.60001 ppb	98
15) 2-Methylphenol	5.77	107	208047	35.83397 ppb	99
16) Bis (2-chloroisopropyl) et	5.79	45	166924	36.94036 ppb	99
17) Acetophenone	5.93	105	385878	36.96841 ppb	91
18) 3&4-Methylphenol	5.93	107	584480	73.39947 ppb	95
19) n-Nitrosodi-n-propylamine	5.93	70	218037	36.66883 ppb	100
20) Hexachloroethane	6.05	117	121590	37.14970 ppb	95
23) Nitrobenzene	6.12	77	319916	38.65930 ppb	98
24) Isophorone	6.39	82	524152	39.07122 ppb	96
25) 2-Nitrophenol	6.48	139	149445	39.49181 ppb	97
26) 2,4-Dimethylphenol	6.53	122	229872	38.99686 ppb	98
27) Benzoic acid	6.64	105	204208	38.00783 ppb	98
28) Bis (2-chloroethoxy) metha	6.63	93	284276	39.30071 ppb	99
29) 2,4-Dichlorophenol	6.75	162	236041	38.88919 ppb	95
30) 1,2,4-Trichlorobenzene	6.84	180	276835	39.41234 ppb	97
31) 3,4-Dimethylphenol	6.86	107	378173	39.68257 ppb	99
32) Naphthalene	6.94	128	750123	38.77336 ppb	100
33) 4-Chloroaniline	6.99	127	269013	40.84206 ppb	97
34) 2,6-Dichlorophenol	7.01	162	227469	38.70236 ppb	99
35) Hexachloropropene	7.04	213	243359	39.80039 ppb	98
36) Hexachlorobutadiene	7.08	225	194922	39.29649 ppb	100
37) Caprolactum	7.40	55	83188	38.99372 ppb	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y191121\1121Y007.D Vial: 7
Acq On : 21 Nov 19 16:33 Operator: MA,SS
Sample : 40ug/ml 8270 11/21/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 22 15:55 2019 Quant Results File: Y1121ND.RES

Quant Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 15:42:05 2019
Response via : Initial Calibration
DataAcq Meth : SVOC1011

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
38)	4-Chloro-3-methylphenol	7.55	107	267287	39.02802 ppb		90
39)	2-Methylnaphthalene	7.73	142	510524	38.72037 ppb		99
40)	1-Methylnaphthalene	7.84	142	531683	39.00376 ppb		100
42)	Hexachlorocyclopentadiene	7.91	237	238400	42.28104 ppb		99
43)	1,2,4,5-Tetrachlorobenzene	7.92	216	309462	39.67603 ppb		98
44)	2,4,6-Trichlorophenol	8.05	196	196965	39.66310 ppb		98
45)	2,4,5-Trichlorophenol	8.10	196	207639	39.27277 ppb	#	91
47)	1,1'-Biphenyl	8.26	154	662128	39.25142 ppb		99
48)	2-Chloronaphthalene	8.29	162	544895	39.47465 ppb		99
49)	2-Nitroaniline	8.40	65	172460	39.41567 ppb		93
50)	Dimethyl phthalate	8.62	163	666101	39.51306 ppb		99
51)	2,6-DNT	8.68	165	150437	39.90341 ppb		96
52)	Acenaphthylene	8.76	152	837454	39.47372 ppb		100
53)	3-Nitroaniline	8.40	138	174570	40.34761 ppb		95
54)	Acenaphthene	8.97	154	569769	39.72608 ppb		98
55)	2,4-Dinitrophenol	9.01	184	93000	36.91875 ppb		94
56)	4-Nitrophenol	8.68	65	11500	41.65342 ppb		100
57)	Dibenzofuran	9.17	168	779361	38.96231 ppb		98
58)	2,4-DNT	9.15	165	215764	40.25297 ppb		89
59)	2,3,4,6-Tetrachlorophenol	9.31	232	179644	40.21787 ppb	#	93
60)	Diethyl phthalate	9.43	149	672653	39.09829 ppb		97
61)	4-Chlorophenyl phenyl ethe	9.56	204	382649	38.87845 ppb		87
62)	Fluorene	9.57	166	655165	39.07053 ppb		99
63)	4-Nitroaniline	8.88	138	138994	40.37790 ppb		93
66)	4,6-Dinitro-2-methylphenol	9.63	198	139175	38.44661 ppb	#	79
67)	Diphenyl amine	9.71	169	1057137	78.75870 ppb		99
68)	n-Nitrosodiphenylamine	9.71	169	1057137	78.75870 ppb		99
69)	1,2-Diphenylhydrazine	9.75	77	661686	39.83262 ppb	#	88
70)	4-Bromophenyl phenyl ether	10.14	248	226910	39.13870 ppb		97
71)	Hexachlorobenzene	10.21	284	241564	39.42494 ppb	#	83
72)	Atrazine	10.32	200	100285	19.62226 ppb		99
73)	Pentachlorophenol	10.44	266	153986	38.68619 ppb		100
74)	Phenanthrene	10.70	178	922442	39.01456 ppb		100
75)	Anthracene	10.75	178	975577	39.30179 ppb		100
76)	Carbazol	10.94	167	881170	39.44405 ppb		99
77)	Di-n-butylphthalate	11.34	149	1146641	39.41451 ppb		98
78)	2-Nitrodiphenylamine	11.51	167	141659	20.49302 ppb		98
79)	Fluoranthene	12.08	202	1141702	39.67999 ppb		99
81)	Benzidine	12.23	184	290367	38.68742 ppb		98
82)	Pyrene	12.35	202	1203115	39.14616 ppb		100
84)	Butyl benzylphthalate	13.09	149	543907	38.98688 ppb		97
85)	3,3'-Dichlorobenzidine	13.70	252	363359	39.38333 ppb		100
86)	Benz (a) anthracene	13.74	228	1291293	38.31661 ppb		99
87)	Bis (2-ethylhexyl) phthala	13.75	149	829295	38.66730 ppb		97
88)	Chrysene	13.78	228	1171969	39.03498 ppb		99
89)	Di-n-octylphthalate	14.51	149	1315078	39.11298 ppb		98
91)	Benzo (b) fluoranthene	15.06	252	1227741	38.27328 ppb		99
92)	Benzo (k) fluoranthene	15.09	252	1195396	40.44580 ppb		99
93)	Benzo (a) pyrene	15.53	252	1134185	39.59711 ppb		99
94)	Indeno (1,2,3-cd) pyrene	17.52	276	1340147	39.40832 ppb		100
95)	Dibenz (a,h) anthracene	17.55	278	1182851	39.43422 ppb		98
96)	Benzo (g,h,i) perylene	18.09	276	1063705	39.28962 ppb		99

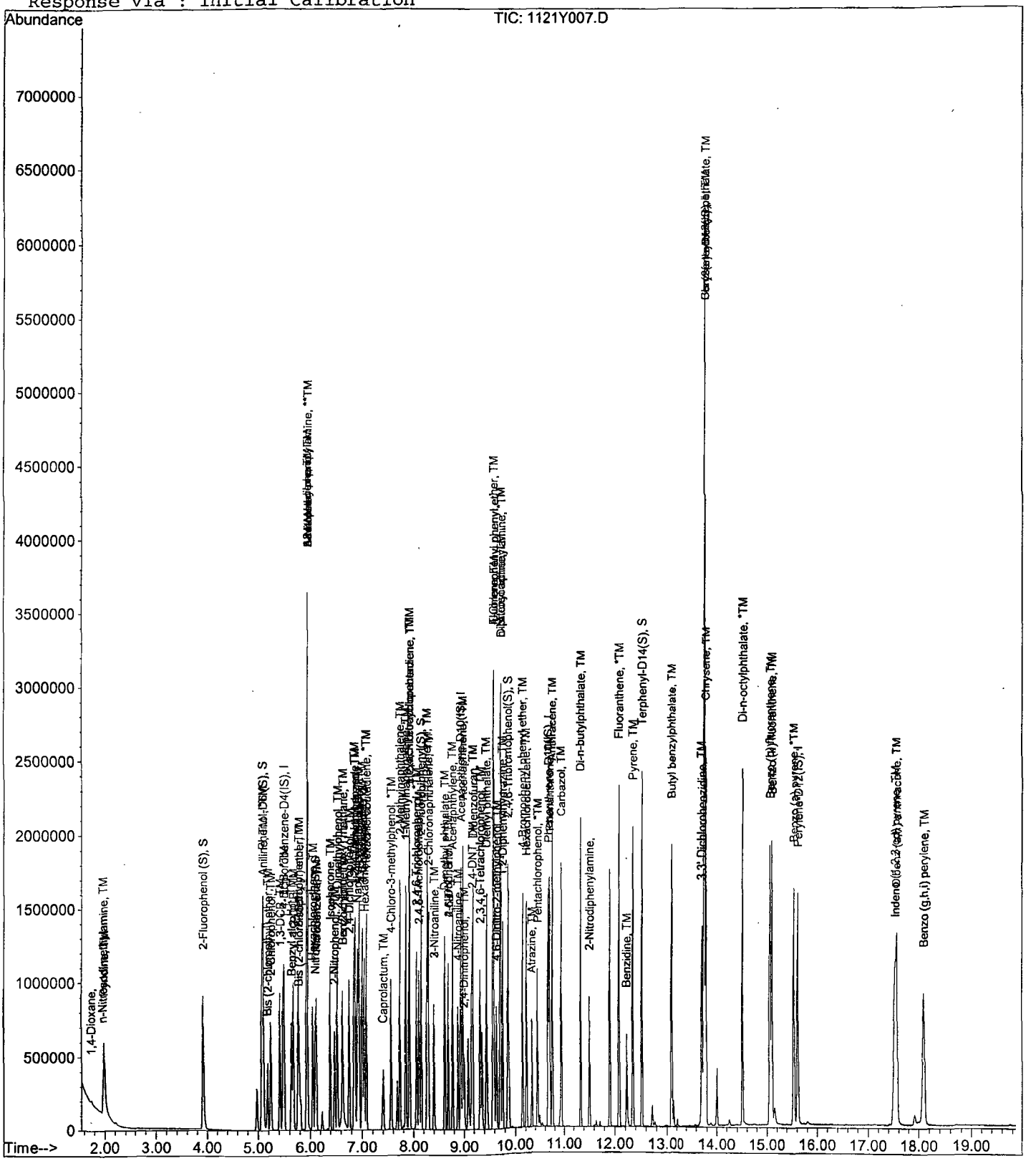
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y191121\1121Y007.D Vial: 7
Acq On : 21 Nov 19 16:33 Operator: MA,SS
Sample : 40ug/ml 8270 11/21/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 22 15:55 2019 Quant Results File: Y1121ND.RES

Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 18:04:15 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y191121\1121Y008.D Vial: 8
Acq On : 21 Nov 19 17:01 Operator: MA,SS
Sample : 50ug/ml 8270 11/21/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 22 15:55 2019 Quant Results File: Y1121ND.RES

Quant Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 15:42:05 2019
Response via : Initial Calibration
DataAcq Meth : SVOC1011

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.48	152	171005	40.00000 ppb	0.00
21) Napthalene-D8(IS)	6.92	136	663771	40.00000 ppb	0.00
41) Acenaphthene-D10(IS)	8.93	164	407738	40.00000 ppb	0.00
65) Phenanthrene-D10(IS)	10.67	188	815726	40.00000 ppb	0.00
80) Chrysene-D12(IS)	13.75	240	934599	40.00000 ppb	0.00
90) Perylene-D12(IS)	15.61	264	938399	40.00000 ppb	0.00
System Monitoring Compounds					
5) 2-Fluorophenol (S)	3.91	112	579236	97.27277 ppb	0.00
Spiked Amount 200.000			Recovery =	48.637%	
6) Phenol-D6 (S)	5.08	99	698019	98.44487 ppb	0.00
Spiked Amount 200.000			Recovery =	49.223%	
22) Nitrobenzene-D5(S)	6.10	82	367148	49.08227 ppb	0.00
Spiked Amount 100.000			Recovery =	49.082%	
46) 2-Fluorobiphenyl(S)	8.15	172	768989	50.44333 ppb	0.00
Spiked Amount 100.000			Recovery =	50.443%	
64) 2,4,6-Tribromophenol(S)	9.86	330	319887	102.55928 ppb	0.00
Spiked Amount 200.000			Recovery =	51.280%	
83) Terphenyl-D14(S)	12.52	244	1137526	48.68309 ppb	0.00
Spiked Amount 100.000			Recovery =	48.683%	
Target Compounds					Qvalue
2) 1,4-Dioxane	1.74	58	9546	4.80835	100
3) n-Nitrosodimethylamine	1.96	42	141360	46.92256 ppb	100
4) Pyridine	1.98	79	378779	50.83719 ppb	100
7) Phenol	5.09	94	425758	50.84429 ppb	100
8) Aniline	5.10	93	249856	53.01309 ppb	100
9) Bis (2-chloroethyl) ether	5.18	63	179891	50.28624 ppb	100
10) 2-Chlorophenol	5.25	128	320461	50.53548 ppb	100
11) 1,3-DCB	5.41	146	361793	50.35436 ppb	100
12) 1,4-DCB	5.50	146	371417	50.88053 ppb	100
13) Benzyl alcohol	5.64	108	186524	51.74052 ppb	100
14) 1,2-DCB	5.66	146	342793	50.26610 ppb	100
15) 2-Methylphenol	5.77	107	267866	52.14968 ppb	100
16) Bis (2-chloroisopropyl) et	5.78	45	200510	50.15555 ppb	100
17) Acetophenone	5.93	105	467300	50.60310 ppb	100
18) 3&4-Methylphenol	5.94	107	725121	102.92818 ppb	100
19) n-Nitrosodi-n-propylamine	5.93	70	269072	51.14886 ppb	100
20) Hexachloroethane	6.04	117	146012	50.42507 ppb	100
23) Nitrobenzene	6.12	77	387198	50.62844 ppb	100
24) Isophorone	6.40	82	636697	51.35420 ppb	100
25) 2-Nitrophenol	6.48	139	183318	52.41725 ppb	100
26) 2,4-Dimethylphenol	6.53	122	279872	51.37437 ppb	100
27) Benzoic acid	6.65	105	258747	50.49164 ppb	100
28) Bis (2-chloroethoxy) metha	6.63	93	344576	51.54525 ppb	100
29) 2,4-Dichlorophenol	6.76	162	291193	51.91177 ppb	100
30) 1,2,4-Trichlorobenzene	6.85	180	331385	51.04903 ppb	100
31) 3,4-Dimethylphenol	6.86	107	455150	51.67819 ppb	100
32) Naphthalene	6.94	128	913992	51.11952 ppb	100
33) 4-Chloroaniline	6.99	127	337587	55.45792 ppb	100
34) 2,6-Dichlorophenol	7.01	162	282687	52.04326 ppb	100
35) Hexachloropropene	7.04	213	292552	51.77099 ppb	100
36) Hexachlorobutadiene	7.07	225	231300	50.45591 ppb	100
37) Caprolactum	7.41	55	102304	51.88838 ppb	100

(#) = qualifier out of range (m) = manual integration

Data File : M:\YODA\DATA\Y191121\1121Y008.D Vial: 8
Acq On : 21 Nov 19 17:01 Operator: MA,SS
Sample : 50ug/ml 8270 11/21/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 22 15:55 2019 Quant Results File: Y1121ND.RES

Quant Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 15:42:05 2019
Response via : Initial Calibration
DataAcq Meth : SVOC1011

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
38)	4-Chloro-3-methylphenol	7.56	107	325787	51.47257	ppb	100
39)	2-Methylnaphthalene	7.72	142	629795	51.68518	ppb	100
40)	1-Methylnaphthalene	7.84	142	649196	51.53153	ppb	100
42)	Hexachlorocyclopentadiene	7.91	237	294464	56.84860	ppb	100
43)	1,2,4,5-Tetrachlorobenzene	7.92	216	373513	52.12844	ppb	100
44)	2,4,6-Trichlorophenol	8.05	196	241595	52.95826	ppb	100
45)	2,4,5-Trichlorophenol	8.11	196	255196	52.54176	ppb	100
47)	1,1'-Biphenyl	8.26	154	808031	52.14223	ppb	100
48)	2-Chloronaphthalene	8.29	162	662366	52.23381	ppb	100
49)	2-Nitroaniline	8.40	65	211988	52.73999	ppb	100
50)	Dimethyl phthalate	8.62	163	815644	52.66831	ppb	100
51)	2,6-DNT	8.68	165	188199	54.34015	ppb	100
52)	Acenaphthylene	8.76	152	1021037	52.38859	ppb	100
53)	3-Nitroaniline	8.40	138	212688	53.51054	ppb	100
54)	Acenaphthene	8.97	154	700903	53.19649	ppb	100
55)	2,4-Dinitrophenol	9.01	184	118563	51.23438	ppb	100
56)	4-Nitrophenol	8.68	65	14018	55.26970	ppb	100
57)	Dibenzofuran	9.17	168	955387	51.99165	ppb	100
58)	2,4-DNT	9.15	165	260352	52.87228	ppb	100
59)	2,3,4,6-Tetrachlorophenol	9.32	232	219669	53.53321	ppb	100
60)	Diethyl phthalate	9.44	149	823957	52.13381	ppb	100
61)	4-Chlorophenyl phenyl ethe	9.57	204	475789	52.62244	ppb	100
62)	Fluorene	9.57	166	815787	52.95702	ppb	100
63)	4-Nitroaniline	8.88	138	170405	53.88627	ppb	100
66)	4,6-Dinitro-2-methylphenol	9.64	198	177142	52.40968	ppb	100
67)	Diphenyl amine	9.71	169	1286170	102.62633	ppb	100
68)	n-Nitrosodiphenylamine	9.71	169	1286170	102.62633	ppb	100
69)	1,2-Diphenylhydrazine	9.76	77	808449	52.12339	ppb	100
70)	4-Bromophenyl phenyl ether	10.14	248	282643	52.21366	ppb	100
71)	Hexachlorobenzene	10.22	284	302354	52.85033	ppb	100
72)	Atrazine	10.32	200	121452	25.45135	ppb	100
73)	Pentachlorophenol	10.44	266	194818	52.41999	ppb	100
74)	Phenanthrene	10.69	178	1126250	51.01708	ppb	100
75)	Anthracene	10.75	178	1190869	51.38164	ppb	100
76)	Carbazol	10.94	167	1084434	51.98980	ppb	100
77)	Di-n-butylphthalate	11.34	149	1421631	52.33699	ppb	100
78)	2-Nitrodiphenylamine	11.51	167	174136	26.98010	ppb	100
79)	Fluoranthene	12.08	202	1403330	52.23623	ppb	100
81)	Benzidine	12.23	184	389926	56.24456	ppb	100
82)	Pyrene	12.35	202	1490379	52.49942	ppb	100
84)	Butyl benzylphthalate	13.09	149	670791	52.05433	ppb	100
85)	3,3'-Dichlorobenzidine	13.70	252	482025	56.56162	ppb	100
86)	Benz (a) anthracene	13.74	228	1587379	50.99396	ppb	100
87)	Bis (2-ethylhexyl) phthala	13.75	149	1020587	51.51820	ppb	100
88)	Chrysene	13.79	228	1457437	52.55371	ppb	100
89)	Di-n-octylphthalate	14.51	149	1611365	51.88467	ppb	100
91)	Benzo (b) fluoranthene	15.07	252	1656567	55.82619	ppb	100
92)	Benzo (k) fluoranthene	15.10	252	1337361	48.91594	ppb	100
93)	Benzo (a) pyrene	15.53	252	1397191	52.73214	ppb	100
94)	Indeno (1,2,3-cd) pyrene	17.53	276	1644836	52.28754	ppb	100
95)	Dibenz (a,h) anthracene	17.56	278	1467340	52.88276	ppb	100
96)	Benzo (g,h,i) perylene	18.10	276	1307740	52.21774	ppb	100

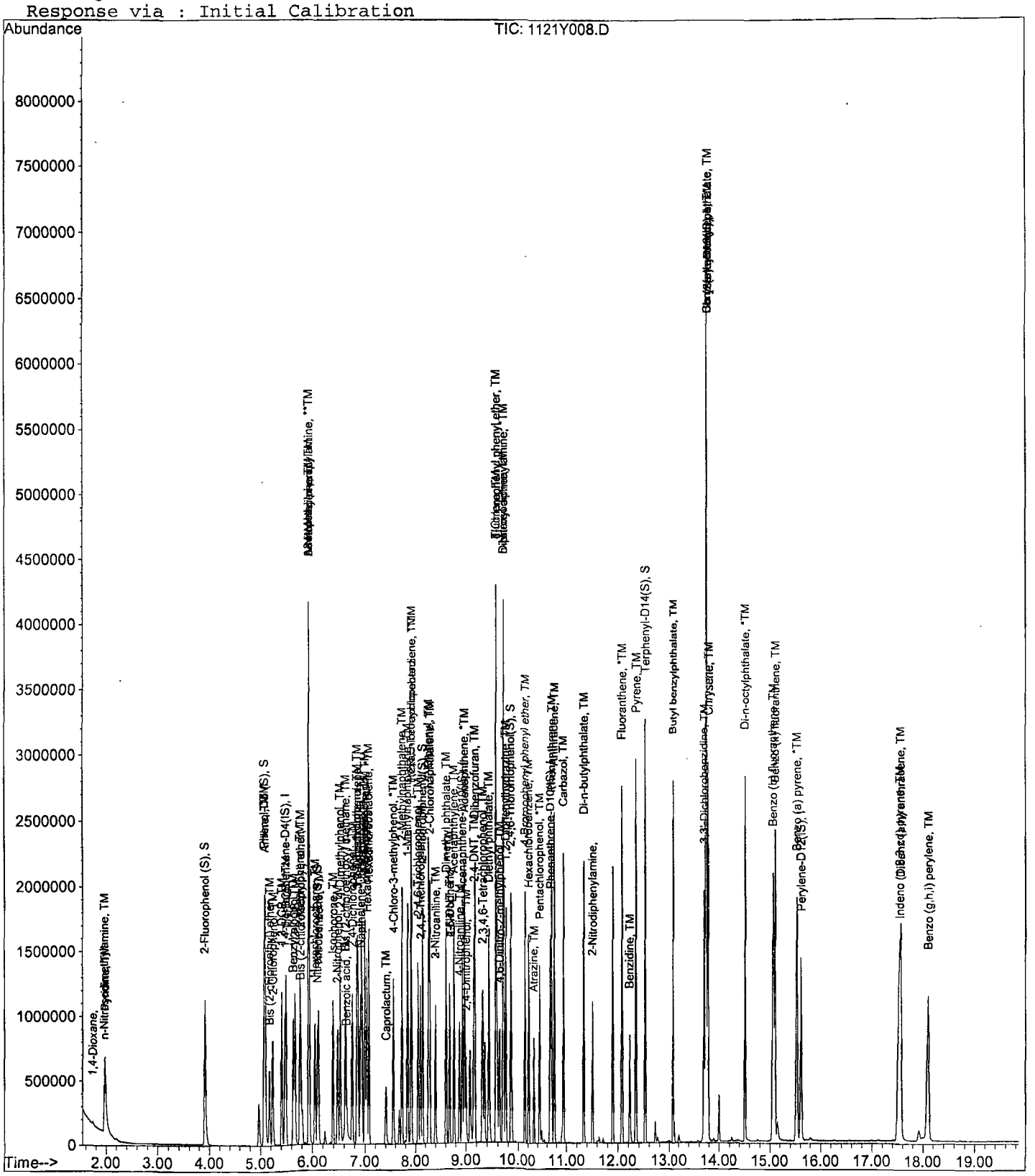
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y191121\1121Y008.D Vial: 8
Acq On : 21 Nov 19 17:01 Operator: MA,SS
Sample : 50ug/ml 8270 11/21/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 22 15:55 2019 Quant Results File: Y1121ND.RES

Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 18:04:15 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y191121\1121Y009.D Vial: 9
Acq On : 21 Nov 19 17:30 Operator: MA,SS
Sample : 60ug/ml 8270 11/21/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 22 15:55 2019 Quant Results File: Y1121ND.RES

Quant Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 15:42:05 2019
Response via : Initial Calibration
DataAcq Meth : SVOC1011

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.48	152	167367	40.00000 ppb		0.00
21) Napthalene-D8(IS)	6.92	136	682970	40.00000 ppb		0.00
41) Acenaphthene-D10(IS)	8.93	164	436434	40.00000 ppb		0.00
65) Phenanthrene-D10(IS)	10.67	188	853269	40.00000 ppb		0.00
80) Chrysene-D12(IS)	13.76	240	1039035	40.00000 ppb		0.00
90) Perylene-D12(IS)	15.61	264	1002354	40.00000 ppb		0.00
System Monitoring Compounds						
5) 2-Fluorophenol (S)	3.91	112	729383	125.14986 ppb		0.00
Spiked Amount 200.000			Recovery =	62.575%		
6) Phenol-D6 (S)	5.08	99	877326	126.42292 ppb		0.00
Spiked Amount 200.000			Recovery =	63.212%		
22) Nitrobenzene-D5(S)	6.10	82	462991	60.15513 ppb		0.00
Spiked Amount 100.000			Recovery =	60.155%		
46) 2-Fluorobiphenyl(S)	8.15	172	960712	58.87615 ppb		0.00
Spiked Amount 100.000			Recovery =	58.876%		
64) 2,4,6-Tribromophenol(S)	9.86	330	418277	125.28670 ppb		0.00
Spiked Amount 200.000			Recovery =	62.644%		
83) Terphenyl-D14(S)	12.52	244	1478351	56.91011 ppb		0.00
Spiked Amount 100.000			Recovery =	56.910%		
Target Compounds						Qvalue
2) 1,4-Dioxane	1.74	58	10929	5.62464		78
3) n-Nitrosodimethylamine	1.96	42	181363	61.50958 ppb		98
4) Pyridine	1.98	79	472362	64.77533 ppb		99
7) Phenol	5.10	94	542251	66.16354 ppb		91
8) Aniline	5.11	93	301632	65.38976 ppb	#	76
9) Bis (2-chloroethyl) ether	5.18	63	226768	64.76800 ppb		100
10) 2-Chlorophenol	5.25	128	408420	65.80625 ppb		99
11) 1,3-DCB	5.41	146	458825	65.24737 ppb		99
12) 1,4-DCB	5.50	146	462750	64.77020 ppb		99
13) Benzyl alcohol	5.64	108	232819	65.98625 ppb		97
14) 1,2-DCB	5.66	146	429263	64.31403 ppb		100
15) 2-Methylphenol	5.77	107	337894	67.21303 ppb		99
16) Bis (2-chloroisopropyl) et	5.78	45	250202	63.94590 ppb		97
17) Acetophenone	5.93	105	599064	66.28169 ppb		92
18) 3&4-Methylphenol	5.94	107	918482	133.20896 ppb		99
19) n-Nitrosodi-n-propylamine	5.93	70	338621	65.76885 ppb		96
20) Hexachloroethane	6.04	117	183498	64.74829 ppb		99
23) Nitrobenzene	6.12	77	490695	62.35765 ppb		99
24) Isophorone	6.40	82	793249	62.18267 ppb		99
25) 2-Nitrophenol	6.48	139	229856	63.87658 ppb		99
26) 2,4-Dimethylphenol	6.53	122	350532	62.53618 ppb		99
27) Benzoic acid	6.67	105	333277	62.42385 ppb		97
28) Bis (2-chloroethoxy) metha	6.63	93	431089	62.67397 ppb		100
29) 2,4-Dichlorophenol	6.76	162	366318	63.46873 ppb		98
30) 1,2,4-Trichlorobenzene	6.85	180	420058	62.88985 ppb		98
31) 3,4-Dimethylphenol	6.87	107	573978	63.33804 ppb		96
32) Naphthalene	6.94	128	1148408	62.42481 ppb		100
33) 4-Chloroaniline	7.00	127	407727	65.09745 ppb		95
34) 2,6-Dichlorophenol	7.01	162	358099	64.07349 ppb		99
35) Hexachloropropene	7.04	213	375716	64.61892 ppb		99
36) Hexachlorobutadiene	7.07	225	295237	62.59272 ppb		99
37) Caprolactum	7.42	55	129071	63.62427 ppb		99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y191121\1121Y009.D Vial: 9
Acq On : 21 Nov 19 17:30 Operator: MA,SS
Sample : 60ug/ml 8270 11/21/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 22 15:55 2019 Quant Results File: Y1121ND.RES

Quant Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 15:42:05 2019
Response via : Initial Calibration
DataAcq Meth : SVOC1011

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
38)	4-Chloro-3-methylphenol	7.56	107	410265	62.99749	ppb		97
39)	2-Methylnaphthalene	7.72	142	788195	62.86619	ppb		99
40)	1-Methylnaphthalene	7.84	142	814831	62.86101	ppb		100
42)	Hexachlorocyclopentadiene	7.91	237	350656	63.24577	ppb		98
43)	1,2,4,5-Tetrachlorobenzene	7.92	216	477589	62.27101	ppb		99
44)	2,4,6-Trichlorophenol	8.06	196	303584	62.17091	ppb		96
45)	2,4,5-Trichlorophenol	8.10	196	321535	61.84743	ppb		99
47)	1,1'-Biphenyl	8.26	154	1016984	61.31099	ppb		100
48)	2-Chloronaphthalene	8.29	162	833303	61.39306	ppb		99
49)	2-Nitroaniline	8.40	65	267591	62.19606	ppb		98
50)	Dimethyl phthalate	8.62	163	1017940	61.40921	ppb		100
51)	2,6-DNT	8.69	165	235838	63.61799	ppb		77
52)	Acenaphthylene	8.77	152	1283418	61.52137	ppb		99
53)	3-Nitroaniline	8.40	138	268555	63.12367	ppb		99
54)	Acenaphthene	8.98	154	879704	62.37697	ppb		99
55)	2,4-Dinitrophenol	9.01	184	156158	63.04333	ppb		98
56)	4-Nitrophenol	8.68	65	16756	61.72115	ppb		100
57)	Dibenzofuran	9.17	168	1211806	61.60982	ppb		100
58)	2,4-DNT	9.15	165	330641	62.73161	ppb		94
59)	2,3,4,6-Tetrachlorophenol	9.32	232	279128	63.55073	ppb		99
60)	Diethyl phthalate	9.44	149	1027987	60.76663	ppb		99
61)	4-Chlorophenyl phenyl ethe	9.57	204	608036	62.82731	ppb		99
62)	Fluorene	9.57	166	1036089	62.83570	ppb		99
63)	4-Nitroaniline	8.88	138	208716	61.66151	ppb		83
66)	4,6-Dinitro-2-methylphenol	9.64	198	225751	63.85252	ppb	#	86
67)	Diphenyl amine	9.71	169	1646816	125.62146	ppb		100
68)	n-Nitrosodiphenylamine	9.71	169	1646816	125.62146	ppb		100
69)	1,2-Diphenylhydrazine	9.76	77	1002105	61.76630	ppb		98
70)	4-Bromophenyl phenyl ether	10.14	248	362845	64.08043	ppb		96
71)	Hexachlorobenzene	10.22	284	379070	63.34462	ppb		98
72)	Atrazine	10.33	200	153425	30.73694	ppb		98
73)	Pentachlorophenol	10.44	266	243544	62.64748	ppb		99
74)	Phenanthrene	10.69	178	1424318	61.68024	ppb		100
75)	Anthracene	10.75	178	1499952	61.86994	ppb		99
76)	Carbazol	10.94	167	1370757	62.82519	ppb		100
77)	Di-n-butylphthalate	11.34	149	1802593	63.44215	ppb		100
78)	2-Nitrodiphenylamine	11.51	167	223110	33.04703	ppb		96
79)	Fluoranthene	12.08	202	1777159	63.24069	ppb		99
81)	Benzidine	12.23	184	481715	62.50052	ppb		100
82)	Pyrene	12.35	202	1851615	58.66831	ppb		100
84)	Butyl benzylphthalate	13.09	149	849128	59.27041	ppb		100
85)	3,3'-Dichlorobenzidine	13.70	252	610343	64.42010	ppb		97
86)	Benz (a) anthracene	13.74	228	2029724	58.65030	ppb		99
87)	Bis (2-ethylhexyl) phthala	13.75	149	1317864	59.83790	ppb		99
88)	Chrysene	13.78	228	1859803	60.32199	ppb		100
89)	Di-n-octylphthalate	14.51	149	2028250	58.74377	ppb		99
91)	Benzo (b) fluoranthene	15.07	252	1993390	62.89088	ppb		100
92)	Benzo (k) fluoranthene	15.10	252	1788270	61.23522	ppb		99
93)	Benzo (a) pyrene	15.54	252	1743187	61.59281	ppb		99
94)	Indeno (1,2,3-cd) pyrene	17.53	276	2077884	61.83912	ppb		99
95)	Dibenz (a,h) anthracene	17.56	278	1837837	62.00929	ppb		99
96)	Benzo (g,h,i) perylene	18.11	276	1637386	61.20884	ppb		100

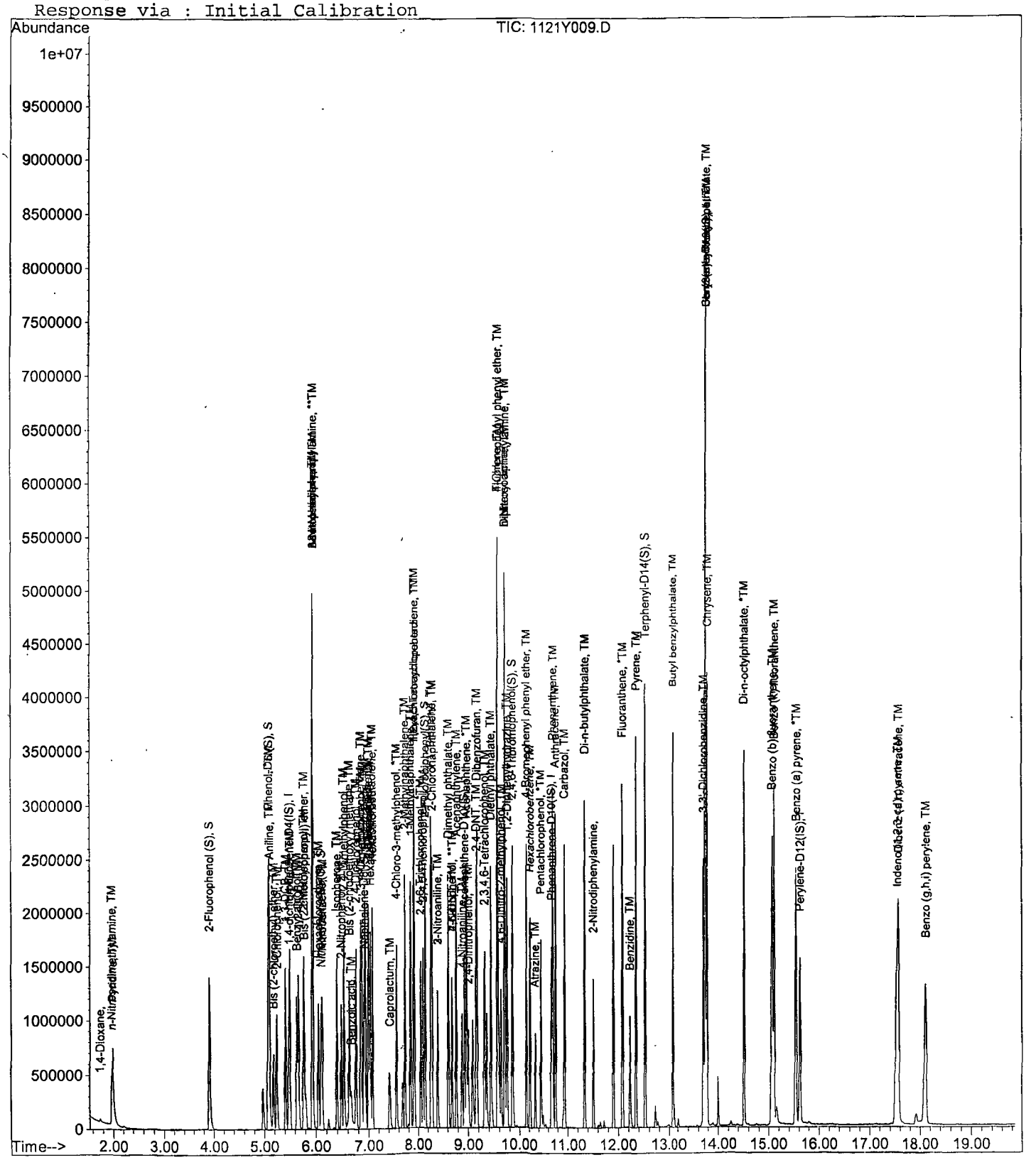
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y191121\1121Y009.D Vial: 9
Acq On : 21 Nov 19 17:30 Operator: MA,SS
Sample : 60ug/ml 8270 11/21/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 22 15:55 2019 Quant Results File: Y1121ND.RES

Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 18:04:15 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y191121\1121Y010.D Vial: 10
Acq On : 21 Nov 19 17:58 Operator: MA,SS
Sample : 80ug/ml 8270 11/21/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 22 15:55 2019 Quant Results File: Y1121ND.RES

Quant Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 15:42:05 2019
Response via : Initial Calibration
DataAcq Meth : SVOC1011

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.48	152	161505	40.00000 ppb		0.00
21) Napthalene-D8(IS)	6.92	136	659343	40.00000 ppb		0.00
41) Acenaphthene-D10(IS)	8.93	164	420757	40.00000 ppb		0.00
65) Phenanthrene-D10(IS)	10.67	188	817022	40.00000 ppb		0.00
80) Chrysene-D12(IS)	13.76	240	1057013	40.00000 ppb		0.00
90) Perylene-D12(IS)	15.62	264	952132	40.00000 ppb		0.00
System Monitoring Compounds						
5) 2-Fluorophenol (S)	3.92	112	990840	176.18224 ppb		0.00
Spiked Amount 200.000			Recovery =	88.091%		
6) Phenol-D6 (S)	5.09	99	1202244	179.53177 ppb		0.00
Spiked Amount 200.000			Recovery =	89.766%		
22) Nitrobenzene-D5(S)	6.11	82	619066	83.31579 ppb		0.00
Spiked Amount 100.000			Recovery =	83.316%		
46) 2-Fluorobiphenyl(S)	8.15	172	1294339	82.27758 ppb		0.00
Spiked Amount 100.000			Recovery =	82.278%		
64) 2,4,6-Tribromophenol(S)	9.86	330	577082	179.29400 ppb		0.00
Spiked Amount 200.000			Recovery =	89.647%		
83) Terphenyl-D14(S)	12.52	244	1994267	75.46491 ppb		0.00
Spiked Amount 100.000			Recovery =	75.465%		
Target Compounds						Qvalue
2) 1,4-Dioxane	1.74	58	13617	7.26239		84
3) n-Nitrosodimethylamine	1.96	42	235667	82.82792 ppb		94
4) Pyridine	1.98	79	624008	88.67653 ppb		98
7) Phenol	5.10	94	726252	91.83105 ppb		93
8) Aniline	5.11	93	409792	92.06184 ppb		96
9) Bis (2-chloroethyl) ether	5.18	63	302296	89.47362 ppb		97
10) 2-Chlorophenol	5.25	128	531400	88.72900 ppb		97
11) 1,3-DCB	5.41	146	606639	89.39847 ppb		98
12) 1,4-DCB	5.50	146	617470	89.56298 ppb		99
13) Benzyl alcohol	5.64	108	307594	90.34346 ppb		97
14) 1,2-DCB	5.67	146	572108	88.82682 ppb		97
15) 2-Methylphenol	5.77	107	424481	87.50142 ppb		98
16) Bis (2-chloroisopropyl) et	5.78	45	333832	88.41659 ppb	#	86
17) Acetophenone	5.94	105	793424	90.97238 ppb		96
18) 3&4-Methylphenol	5.95	107	1235710	185.72194 ppb		100
19) n-Nitrosodi-n-propylamine	5.94	70	449037	90.38001 ppb		99
20) Hexachloroethane	6.05	117	244557	89.42540 ppb		81
23) Nitrobenzene	6.13	77	641878	84.49302 ppb		96
24) Isophorone	6.41	82	1048398	85.12875 ppb		99
25) 2-Nitrophenol	6.48	139	304374	87.61603 ppb		94
26) 2,4-Dimethylphenol	6.54	122	461574	85.29730 ppb		97
27) Benzoic acid	6.68	105	408452	78.92895 ppb		96
28) Bis (2-chloroethoxy) metha	6.63	93	565143	85.10769 ppb		100
29) 2,4-Dichlorophenol	6.76	162	481524	86.41909 ppb		96
30) 1,2,4-Trichlorobenzene	6.85	180	560904	86.98614 ppb		98
31) 3,4-Dimethylphenol	6.87	107	758867	86.74117 ppb		99
32) Naphthalene	6.94	128	1524779	85.85353 ppb		99
33) 4-Chloroaniline	7.00	127	525627	86.92855 ppb		97
34) 2,6-Dichlorophenol	7.01	162	468519	86.83458 ppb		98
35) Hexachloropropene	7.04	213	497069	88.55374 ppb		99
36) Hexachlorobutadiene	7.08	225	393639	86.44530 ppb		99
37) Caprolactum	7.44	55	169346	86.46877 ppb		97

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y191121\1121Y010.D Vial: 10
Acq On : 21 Nov 19 17:58 Operator: MA,SS
Sample : 80ug/ml 8270 11/21/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 22 15:55 2019 Quant Results File: Y1121ND.RES

Quant Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 15:42:05 2019
Response via : Initial Calibration
DataAcq Meth : SVOC1011

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
38)	4-Chloro-3-methylphenol	7.56	107	542466	86.28226	ppb	91
39)	2-Methylnaphthalene	7.73	142	1044506	86.29480	ppb	99
40)	1-Methylnaphthalene	7.84	142	1096138	87.59298	ppb	99
42)	Hexachlorocyclopentadiene	7.91	237	421952	78.94061	ppb	98
43)	1,2,4,5-Tetrachlorobenzene	7.93	216	644608	87.17953	ppb	97
44)	2,4,6-Trichlorophenol	8.06	196	405336	86.10151	ppb	97
45)	2,4,5-Trichlorophenol	8.10	196	431346	86.06100	ppb	95
47)	1,1'-Biphenyl	8.27	154	1372352	85.81772	ppb	98
48)	2-Chloronaphthalene	8.29	162	1112347	85.00487	ppb	98
49)	2-Nitroaniline	8.41	65	353796	85.29656	ppb	92
50)	Dimethyl phthalate	8.61	163	1354088	84.73161	ppb	99
51)	2,6-DNT	8.69	165	311799	87.24250	ppb	89
52)	Acenaphthylene	8.77	152	1715728	85.30874	ppb	100
53)	3-Nitroaniline	8.41	138	352251	85.88127	ppb	94
54)	Acenaphthene	8.98	154	1188456	87.40938	ppb	98
55)	2,4-Dinitrophenol	9.01	184	213465	89.38997	ppb	90
56)	4-Nitrophenol	8.69	65	22795	87.09445	ppb	98
57)	Dibenzofuran	9.17	168	1619716	85.41674	ppb	99
58)	2,4-DNT	9.16	165	443127	87.20575	ppb	96
59)	2,3,4,6-Tetrachlorophenol	9.32	232	370261	87.44043	ppb	96
60)	Diethyl phthalate	9.44	149	1363775	83.61948	ppb	97
61)	4-Chlorophenyl phenyl ethe	9.57	204	837406	89.75166	ppb	98
62)	Fluorene	9.57	166	1434471	90.23778	ppb	100
63)	4-Nitroaniline	8.88	138	272975	83.65050	ppb	92
66)	4,6-Dinitro-2-methylphenol	9.65	198	304020	89.80545	ppb	95
67)	Diphenyl amine	9.72	169	2215854	176.52740	ppb	99
68)	n-Nitrosodiphenylamine	9.72	169	2215854	176.52740	ppb	99
69)	1,2-Diphenylhydrazine	9.76	77	1328140	85.49377	ppb	95
70)	4-Bromophenyl phenyl ether	10.14	248	480779	88.67516	ppb	94
71)	Hexachlorobenzene	10.22	284	504135	87.98109	ppb	92
72)	Atrazine	10.33	200	200128	41.87209	ppb	100
73)	Pentachlorophenol	10.44	266	339237	91.13425	ppb	98
74)	Phenanthrene	10.69	178	1913358	86.53416	ppb	100
75)	Anthracene	10.76	178	2016161	86.85199	ppb	99
76)	Carbazol	10.94	167	1813480	86.80372	ppb	98
77)	Di-n-butylphthalate	11.34	149	2379965	87.47883	ppb	99
78)	2-Nitrodiphenylamine	11.51	167	291341	45.06789	ppb	96
79)	Fluoranthene	12.09	202	2383800	88.59156	ppb	98
81)	Benzidine	12.23	184	657175	83.81550	ppb	100
82)	Pyrene	12.35	202	2499582	77.85207	ppb	99
84)	Butyl benzylphthalate	13.09	149	1127954	77.39377	ppb	93
85)	3,3'-Dichlorobenzidine	13.71	252	817041	84.76979	ppb	99
86)	Benz (a) anthracene	13.74	228	2804468	79.65877	ppb	100
87)	Bis (2-ethylhexyl) phthala	13.76	149	1770210	79.00970	ppb #	90
88)	Chrysene	13.78	228	2404541	76.66388	ppb	99
89)	Di-n-octylphthalate	14.52	149	2767567	78.79312	ppb	94
91)	Benzo (b) fluoranthene	15.07	252	2546511	84.57946	ppb	99
92)	Benzo (k) fluoranthene	15.11	252	2513489	90.60854	ppb	100
93)	Benzo (a) pyrene	15.54	252	2333955	86.81655	ppb	99
94)	Indeno (1,2,3-cd) pyrene	17.53	276	2739905	85.84233	ppb	100
95)	Dibenz (a,h) anthracene	17.58	278	2438265	86.60732	ppb	100
96)	Benzo (g,h,i) perylene	18.12	276	2139103	84.18191	ppb	100

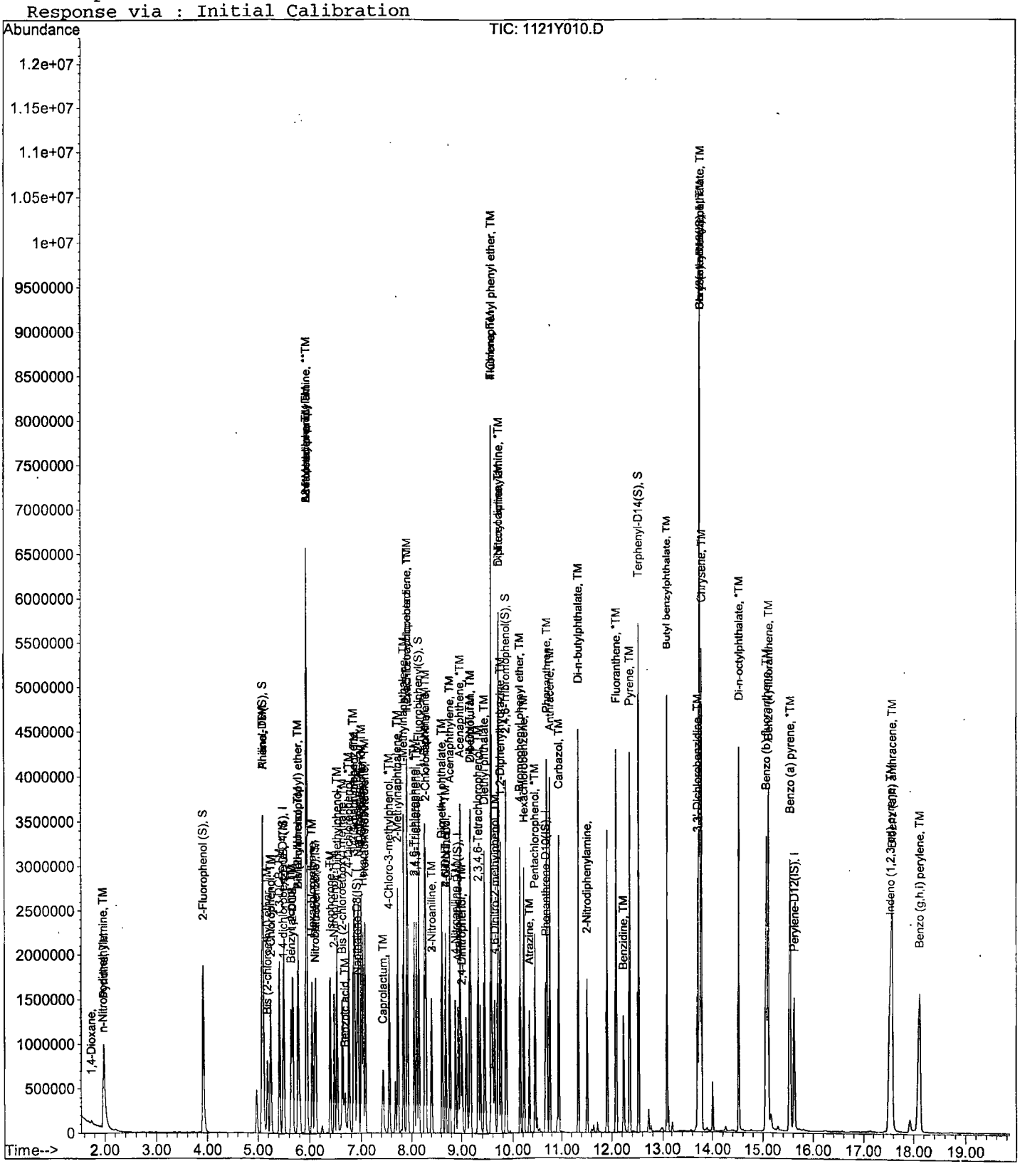
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y191121\1121Y010.D Vial: 10
Acq On : 21 Nov 19 17:58 Operator: MA,SS
Sample : 80ug/ml 8270 11/21/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 22 15:55 2019 Quant Results File: Y1121ND.RES

Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 18:04:15 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y191121\1121Y011.D Vial: 11
Acq On : 21 Nov 19 18:26 Operator: MA,SS
Sample : 100ug/ml 8270 11/21/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 22 15:55 2019 Quant Results File: Y1121ND.RES

Quant Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 15:42:05 2019
Response via : Initial Calibration
DataAcq Meth : SVOC1011

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.48	152	165464	40.00000 ppb		0.00
21) Napthalene-D8(IS)	6.92	136	652211	40.00000 ppb		0.00
41) Acenaphthene-D10(IS)	8.93	164	415860	40.00000 ppb		0.00
65) Phenanthrene-D10(IS)	10.67	188	819523	40.00000 ppb		0.00
80) Chrysene-D12(IS)	13.76	240	1060730	40.00000 ppb		0.00
90) Perylene-D12(IS)	15.62	264	938773	40.00000 ppb		0.00
System Monitoring Compounds						
5) 2-Fluorophenol (S)	3.92	112	1214721	210.82280 ppb		0.01
Spiked Amount 200.000			Recovery	= 105.412%		
6) Phenol-D6 (S)	5.09	99	1477093	215.29750 ppb		0.00
Spiked Amount 200.000			Recovery	= 107.649%		
22) Nitrobenzene-D5(S)	6.11	82	756797	102.96581 ppb		0.01
Spiked Amount 100.000			Recovery	= 102.966%		
46) 2-Fluorobiphenyl(S)	8.15	172	1600159	102.91550 ppb		0.00
Spiked Amount 100.000			Recovery	= 102.916%		
64) 2,4,6-Tribromophenol(S)	9.86	330	739921	232.59361 ppb		0.00
Spiked Amount 200.000			Recovery	= 116.297%		
83) Terphenyl-D14(S)	12.52	244	2504948	94.45739 ppb		0.00
Spiked Amount 100.000			Recovery	= 94.457%		
Target Compounds						Qvalue
2) 1,4-Dioxane	1.74	58	18929	9.85390		95
3) n-Nitrosodimethylamine	1.96	42	271356	93.08932 ppb		93
4) Pyridine	1.98	79	702025	97.37636 ppb		100
7) Phenol	5.10	94	838607	103.50067 ppb		90
8) Aniline	5.11	93	455808	99.94949 ppb		91
9) Bis (2-chloroethyl) ether	5.18	63	339378	98.04574 ppb		96
10) 2-Chlorophenol	5.25	128	602478	98.19009 ppb		96
11) 1,3-DCB	5.41	146	678718	97.62737 ppb		98
12) 1,4-DCB	5.50	146	691769	97.93912 ppb		99
13) Benzyl alcohol	5.65	108	347998	99.76497 ppb		99
14) 1,2-DCB	5.67	146	644684	97.70020 ppb		97
15) 2-Methylphenol	5.78	107	505332	101.67545 ppb		97
16) Bis (2-chloroisopropyl) et	5.79	45	375455	97.06131 ppb	#	85
17) Acetophenone	5.94	105	900554	100.78512 ppb		98
18) 3&4-Methylphenol	5.95	107	1402122	205.69082 ppb		100
19) n-Nitrosodi-n-propylamine	5.94	70	512893	100.76263 ppb		99
20) Hexachloroethane	6.05	117	277059	98.88616 ppb		77
23) Nitrobenzene	6.13	77	724399	96.39831 ppb		97
24) Isophorone	6.41	82	1186602	97.40437 ppb		99
25) 2-Nitrophenol	6.48	139	345383	100.50791 ppb		95
26) 2,4-Dimethylphenol	6.54	122	530631	99.13108 ppb		98
27) Benzoic acid	6.70	105	464552	90.96933 ppb		98
28) Bis (2-chloroethoxy) metha	6.63	93	647653	98.59982 ppb		99
29) 2,4-Dichlorophenol	6.76	162	555679	100.81822 ppb		95
30) 1,2,4-Trichlorobenzene	6.85	180	636557	99.79806 ppb		98
31) 3,4-Dimethylphenol	6.87	107	854975	98.79530 ppb		97
32) Naphthalene	6.95	128	1756038	99.95590 ppb		100
33) 4-Chloroaniline	7.00	127	582992	97.46992 ppb		96
34) 2,6-Dichlorophenol	7.01	162	535409	100.31698 ppb		99
35) Hexachloropropene	7.04	213	561742	101.16969 ppb		99
36) Hexachlorobutadiene	7.08	225	447133	99.26663 ppb		99
37) Caprolactum	7.45	55	190606	98.38846 ppb		98

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y191121\1121Y011.D Vial: 11
Acq On : 21 Nov 19 18:26 Operator: MA,SS
Sample : 100ug/ml 8270 11/21/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 22 15:55 2019 Quant Results File: Y1121ND.RES

Quant Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 15:42:05 2019
Response via : Initial Calibration
DataAcq Meth : SVOC1011

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
38)	4-Chloro-3-methylphenol	7.56	107	620360	99.75072	ppb		90
39)	2-Methylnaphthalene	7.73	142	1200691	100.28321	ppb		99
40)	1-Methylnaphthalene	7.85	142	1241758	100.31464	ppb		100
42)	Hexachlorocyclopentadiene	7.91	237	525248	99.42281	ppb		100
43)	1,2,4,5-Tetrachlorobenzene	7.93	216	743990	101.80524	ppb		97
44)	2,4,6-Trichlorophenol	8.06	196	464648	99.86283	ppb		98
45)	2,4,5-Trichlorophenol	8.11	196	492676	99.45490	ppb		95
47)	1,1'-Biphenyl	8.27	154	1566999	99.14353	ppb		98
48)	2-Chloronaphthalene	8.29	162	1270438	98.22934	ppb		99
49)	2-Nitroaniline	8.41	65	396579	96.73698	ppb		89
50)	Dimethyl phthalate	8.62	163	1527158	96.68670	ppb		100
51)	2,6-DNT	8.69	165	355236	100.56678	ppb		90
52)	Acenaphthylene	8.77	152	1930263	97.10593	ppb		99
53)	3-Nitroaniline	8.41	138	399288	98.49557	ppb		94
54)	Acenaphthene	8.98	154	1379881	102.68352	ppb		99
55)	2,4-Dinitrophenol	9.02	184	244377	103.53964	ppb		93
56)	4-Nitrophenol	8.69	65	25792	99.70573	ppb		97
57)	Dibenzofuran	9.17	168	1847326	98.56707	ppb		100
58)	2,4-DNT	9.16	165	508284	101.20631	ppb		96
59)	2,3,4,6-Tetrachlorophenol	9.32	232	423645	101.22566	ppb		98
60)	Diethyl phthalate	9.44	149	1535193	95.23836	ppb		97
61)	4-Chlorophenyl phenyl ethe	9.57	204	958012	103.88708	ppb		98
62)	Fluorene	9.57	166	1635750	104.11127	ppb		99
63)	4-Nitroaniline	8.89	138	307746	95.41624	ppb		95
66)	4,6-Dinitro-2-methylphenol	9.65	198	347696	102.39361	ppb	#	87
67)	Diphenyl amine	9.72	169	2531599	201.06594	ppb		100
68)	n-Nitrosodiphenylamine	9.72	169	2531599	201.06594	ppb		100
69)	1,2-Diphenylhydrazine	9.76	77	1511310	96.98772	ppb		94
70)	4-Bromophenyl phenyl ether	10.14	248	558947	102.77789	ppb		94
71)	Hexachlorobenzene	10.22	284	585989	101.95407	ppb		94
72)	Atrazine	10.33	200	226263	47.19575	ppb		100
73)	Pentachlorophenol	10.44	266	392286	105.06398	ppb		99
74)	Phenanthrene	10.70	178	2206608	99.49222	ppb		100
75)	Anthracene	10.76	178	2313072	99.33821	ppb		99
76)	Carbazol	10.95	167	2052704	97.95452	ppb		98
77)	Di-n-butylphthalate	11.34	149	2755900	100.98770	ppb		99
78)	2-Nitrodiphenylamine	11.51	167	332160	51.22542	ppb		97
79)	Fluoranthene	12.09	202	2710719	100.43374	ppb		98
81)	Benzidine	12.23	184	752592	95.64854	ppb		100
82)	Pyrene	12.35	202	2846621	88.35027	ppb		100
84)	Butyl benzylphthalate	13.09	149	1280524	87.55436	ppb		93
85)	3,3'-Dichlorobenzidine	13.71	252	935925	96.76400	ppb		99
86)	Benz (a) anthracene	13.74	228	3237968	91.64972	ppb		100
87)	Bis (2-ethylhexyl) phthala	13.75	149	2037331	90.61345	ppb		99
88)	Chrysene	13.79	228	2746558	87.26154	ppb		99
89)	Di-n-octylphthalate	14.52	149	3158477	89.60729	ppb		94
91)	Benzo (b) fluoranthene	15.07	252	2866820	96.57314	ppb		99
92)	Benzo (k) fluoranthene	15.11	252	2873942	105.07677	ppb		100
93)	Benzo (a) pyrene	15.55	252	2654481	100.14430	ppb		98
94)	Indeno (1,2,3-cd) pyrene	17.54	276	3092876	98.27998	ppb		99
95)	Dibenz (a,h) anthracene	17.58	278	2789126	100.47972	ppb		99
96)	Benzo (g,h,i) perylene	18.13	276	2411552	96.25433	ppb		99

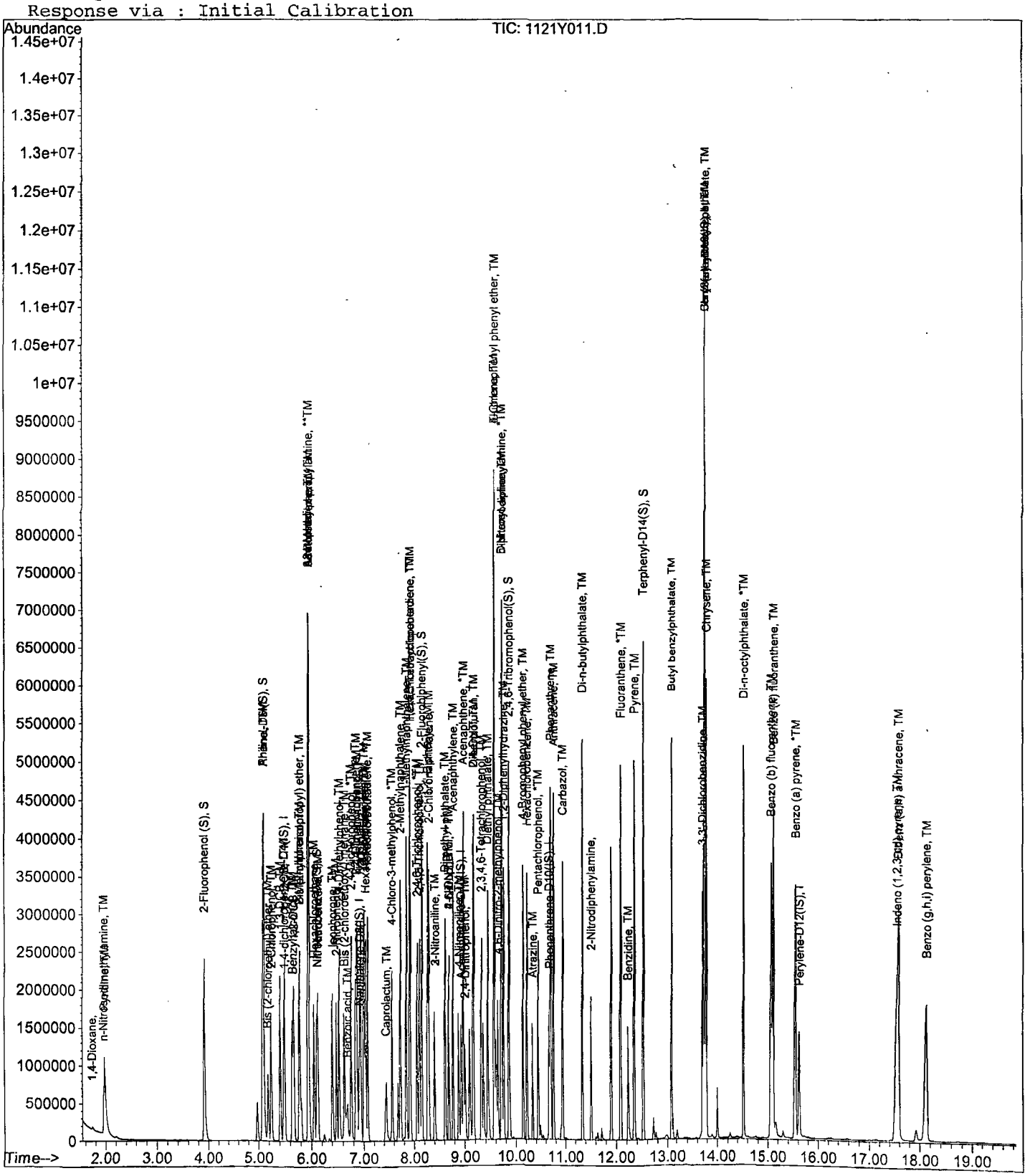
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y191121\1121Y011.D Vial: 11
Acq On : 21 Nov 19 18:26 Operator: MA,SS
Sample : 100ug/ml 8270 11/21/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 22 15:55 2019 Quant Results File: Y1121ND.RES

Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 18:04:15 2019
Response via : Initial Calibration



Semi-Volatile Analysis by GC-MS
EPA 8270

Form 7

Second Source Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Date Analyzed: 11/22/19
Matrix: Instrument: Yoda
Initial Cal. Date: 11/21/19
Data File: 1121Y031.D

		Compound	MEAN	CCRF	%D		%Drift
1		1,4-Dioxane	0.4644	0.4187	9.8		
2	TM	n-Nitrosodimethylamine	0.7047	0.7350	4.3	TM	
3	TM	Pyridine	1.743	1.856	6.5	TM	
4	*TM	Phenol	1.959	2.048	4.5	*TM	
5	TM	Aniline	1.157	1.383	20	TM	
6	TM	Bis (2-chloroethyl) ether	0.8368	0.8714	4.1	TM	
7	TM	2-Chlorophenol	1.483	1.540	3.8	TM	
8	TM	1,3-DCB	1.681	1.730	2.9	TM	
9	*TM	1,4-DCB	1.708	1.750	2.5	*TM	
10	TM	Benzyl alcohol	0.8432	0.9373	11	TM	
11	TM	1,2-DCB	1.595	1.611	1.0	TM	
12	TM	2-Methylphenol	1.201	1.217	1.3	TM	
13	TM	Bis (2-chloroisopropyl) ether	0.9351	0.9909	6.0	TM	
14	TM	Acetophenone	2.160	2.216	2.6	TM	
15	TM	3&4-Methylphenol	1.648	1.689	2.5	TM	
16	**TM	n-Nitrosodi-n-propylamine	1.231	1.296	5.3	**TM	
17	TM	Hexachloroethane	0.6773	0.7009	3.5	TM	
18	TM	Nitrobenzene	0.4609	0.4732	2.7	TM	
19	TM	Isophorone	0.7471	0.7881	5.5	TM	
20	*TM	2-Nitrophenol	0.2108	0.2226	5.6	*TM	
21	TM	2,4-Dimethylphenol	0.3283	0.3485	6.2	TM	
22	TML	Benzoic acid	0.2427	0.3209	32	TML	5.0
23	TM	Bis (2-chloroethoxy) methane	0.4028	0.4376	8.6	TM	
24	*TM	2,4-Dichlorophenol	0.3380	0.3552	5.1	*TM	
25	TM	1,2,4-Trichlorobenzene	0.3912	0.4061	3.8	TM	
26	TM	3,4-Dimethylphenol	0.5307	0.5603	5.6	TM	
27	TM	Naphthalene	1.077	1.149	6.7	TM	
28	TM	4-Chloroaniline	0.3796	0.4520	19	TM	
29	TM	2,6-Dichlorophenol	0.3273	0.3457	5.6	TM	
30	TM	Hexachloropropene	0.3405	0.3575	5.0	TM	
31	*TM	Hexachlorobutadiene	0.2763	0.2845	3.0	*TM	
32	TM	Caprolactum	0.1188	0.1277	7.5	TM	
33	*TM	4-Chloro-3-methylphenol	0.3814	0.4051	6.2	*TM	
34	TM	2-Methylnaphthalene	0.7343	0.7998	8.9	TM	
35	TM	1-Methylnaphthalene	0.7592	0.7910	4.2	TM	
36	**TM	Hexachlorocyclopentadiene	0.5081	0.5178	1.9	**TM	
37	TM	1,2,4,5-Tetrachlorobenzene	0.7029	0.7210	2.6	TM	
38	*TM	2,4,6-Trichlorophenol	0.4475	0.4698	5.0	*TM	
39	TM	2,4,5-Trichlorophenol	0.4765	0.4958	4.1	TM	
40	TM	1,1'-Biphenyl	1.520	1.591	4.7	TM	
		Average			6.3		

Semi-Volatile Analysis by GC-MS
EPA 8270

Form 7

Second Source Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Date Analyzed: 11/22/19
Matrix: 0 Instrument: Yoda
Cal. Date: 11/21/19
Data File: 1121Y031.D

		Compound	MEAN	CCRF	%D	%Drift	
41	TM	2-Chloronaphthalene	1.244	1.270	2.1	TM	
42	TM	2-Nitroaniline	0.3943	0.4363	11	TM	
43	TM	Dimethyl phthalate	1.519	1.581	4.0	TM	
44	TM	2,6-DNT	0.3398	0.3503	3.1	TM	
45	TM	Acenaphthylene	1.912	2.013	5.3	TM	
46	TM	3-Nitroaniline	0.3899	0.4282	9.8	TM	
47	*TM	Acenaphthene	1.293	1.374	6.3	*TM	
48	**TM	2,4-Dinitrophenol	0.2270	0.2078	8.5	**TM	
49	**TM	4-Nitrophenol	0.0249	0.0255	2.5	**TM	
50	TM	Dibenzofuran	1.803	1.948	8.0	TM	
51	TM	2,4-DNT	0.4831	0.5081	5.2	TM	
52	TM	2,3,4,6-Tetrachlorophenol	0.4026	0.4217	4.8	TM	
53	TM	Diethyl phthalate	1.550	1.616	4.2	TM	
54	TM	4-Chlorophenyl phenyl ether	0.8870	0.9201	3.7	TM	
55	TM	Fluorene	1.511	1.605	6.2	TM	
56	TM	4-Nitroaniline	0.3102	0.3481	12	TM	
57	TM	4,6-Dinitro-2-methylphenol	0.1657	0.1692	2.1	TM	
58	TM	Diphenyl amine	0.6145	0.6582	7.1	TM	
59	*TM	n-Nitrosodiphenylamine	0.6145	0.6582	7.1	*TM	
60	TM	1,2-Diphenylhydrazine	0.7606	0.7882	3.6	TM	
61	TM	4-Bromophenyl phenyl ether	0.2654	0.2802	5.6	TM	
62	TM	Hexachlorobenzene	0.2805	0.2914	3.9	TM	
63	TM	Atrazine	0.2340	0.2529	8.1	TM	
64	*TM	Pentachlorophenol	0.1822	0.1839	0.90	*TM	
65	TM	Phenanthrene	1.083	1.158	6.9	TM	
66	TM	Anthracene	1.137	1.193	5.0	TM	
67	TM	Carbazol	1.023	1.086	6.1	TM	
68	TM	Di-n-butylphthalate	1.332	1.413	6.1	TM	
69		2-Nitrodiphenylamine	0.3165	0.3476	9.8		
70	*TM	Fluoranthene	1.317	1.408	6.9	*TM	
71	TM	Benzidine	0.2967	0.3285	11	TM	
72	TM	Pyrene	1.215	1.271	4.6	TM	
73	TM	Butyl benzylphthalate	0.5515	0.5707	3.5	TM	
74	TM	3,3'-Dichlorobenzidine	0.3647	0.4360	20	TM	
75	TM	Benz (a) anthracene	1.332	1.397	4.9	TM	
76	TM	Bis (2-ethylhexyl) phthalate	0.8479	0.9274	9.4	TM	
77	TM	Chrysene	1.187	1.239	4.4	TM	
78	*TM	Di-n-octylphthalate	1.329	1.443	8.6	*TM	
79	TM	Benzo (b) fluoranthene	1.265	1.319	4.3	TM	
80	TM	Benzo (k) fluoranthene	1.165	1.283	10	TM	
		Average			6.4		

Semi-Volatile Analysis by GC-MS
EPA 8270

Form 7

Second Source Calibration

Lab Name: APPL, Inc.
Case No:
Matrix: 0

SDG No:
Date Analyzed: 11/22/19
Instrument: Yoda
Cal. Date: 11/21/19
Data File: 1121Y031.D

		Compound	MEAN	CCRF	%D	%Drift	
81	*TM	Benzo (a) pyrene	1.129	1.217	7.8	*TM	
82	TM	Indeno (1,2,3-cd) pyrene	1.341	1.394	3.9	TM	
83	TM	Dibenz (a,h) anthracene	1.183	1.278	8.1	TM	
84	TM	Benzo (g,h,i) perylene	1.068	1.226	15	TM	
85							
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118							
119							
120							
		Average			8.7		

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y191121\1121Y031.D Vial: 31
Acq On : 22 Nov 19 13:38 Operator: MA,SS
Sample : SS 8270 11/22/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 25 11:24 2019 Quant Results File: Y1121ND.RES

Quant Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 18:04:15 2019
Response via : Initial Calibration
DataAcq Meth : SVOC1011

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.47	152	171421	40.00000 ppb	0.00
21) Napthalene-D8(IS)	6.91	136	662584	40.00000 ppb	0.00
41) Acenaphthene-D10(IS)	8.93	164	418442	40.00000 ppb	0.00
65) Phenanthrene-D10(IS)	10.66	188	824762	40.00000 ppb	0.00
80) Chrysene-D12(IS)	13.75	240	956637	40.00000 ppb	0.00
90) Perylene-D12(IS)	15.62	264	963616	40.00000 ppb	0.00
System Monitoring Compounds					
5) 2-Fluorophenol (S)	0.00	112	0	0.00000 ppb	
Spiked Amount 200.000			Recovery =	0.000%	
6) Phenol-D6 (S)	0.00	99	0	0.00000 ppb	
Spiked Amount 200.000			Recovery =	0.000%	
22) Nitrobenzene-D5(S)	6.05	82	44357	5.94050 ppb	-0.05
Spiked Amount 100.000			Recovery =	5.940%	
46) 2-Fluorobiphenyl(S)	8.10	172	717	0.04583 ppb	-0.05
Spiked Amount 100.000			Recovery =	0.046%	
64) 2,4,6-Tribromophenol(S)	0.00	330	0	0.00000 ppb	
Spiked Amount 200.000			Recovery =	0.000%	
83) Terphenyl-D14(S)	12.52	244	529	0.02212 ppb	0.00
Spiked Amount 100.000			Recovery =	0.022%	
Target Compounds					Qvalue
2) 1,4-Dioxane	1.73	58	8972	4.50826	97
3) n-Nitrosodimethylamine	1.94	42	157497	52.15215 ppb	85
4) Pyridine	1.97	79	397706	53.24792 ppb	97
7) Phenol	5.08	94	438769	52.27091 ppb	95
8) Aniline	5.09	93	296448	59.80681 ppb	97
9) Bis (2-chloroethyl) ether	5.17	63	186730	52.07133 ppb	97
10) 2-Chlorophenol	5.24	128	329970	51.90873 ppb	96
11) 1,3-DCB	5.41	146	370675	51.46536 ppb	99
12) 1,4-DCB	5.49	146	374910	51.23440 ppb	98
13) Benzyl alcohol	5.63	108	200832	55.57427 ppb	95
14) 1,2-DCB	5.67	146	345304	50.51143 ppb	97
15) 2-Methylphenol	5.76	107	260765	50.64401 ppb	98
16) Bis (2-chloroisopropyl) et	5.78	45	212330	52.98331 ppb	89
17) Acetophenone	5.93	105	474785	51.28887 ppb	89
18) 3&4-Methylphenol	5.94	107	723826	102.49502 ppb	98
19) n-Nitrosodi-n-propylamine	5.93	70	277635	52.64855 ppb	98
20) Hexachloroethane	6.05	117	150185	51.74034 ppb	85
23) Nitrobenzene	6.12	77	391946	51.34108 ppb	94
24) Isophorone	6.39	82	652688	52.73830 ppb	97
25) 2-Nitrophenol	6.47	139	184402	52.82167 ppb	89
26) 2,4-Dimethylphenol	6.53	122	288651	53.08080 ppb	96
27) Benzoic acid	6.65	105	265773	52.52237 ppb	98
28) Bis (2-chloroethoxy) metha	6.62	93	362438	54.31436 ppb	99
29) 2,4-Dichlorophenol	6.75	162	294151	52.53304 ppb	95
30) 1,2,4-Trichlorobenzene	6.85	180	336307	51.90006 ppb	97
31) 3,4-Dimethylphenol	6.86	107	464030	52.78082 ppb	99
32) Naphthalene	6.94	128	951836	53.33151 ppb	100
33) 4-Chloroaniline	6.99	127	374395	59.53877 ppb	96
34) 2,6-Dichlorophenol	7.00	162	286319	52.80635 ppb	98
35) Hexachloropropene	7.04	213	296131	52.49822 ppb	99
36) Hexachlorobutadiene	7.08	225	235619	51.49013 ppb	99
37) Caprolactum	7.41	55	105792	53.75361 ppb	98

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y191121\1121Y031.D Vial: 31
Acq On : 22 Nov 19 13:38 Operator: MA,SS
Sample : SS 8270 11/22/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 25 11:24 2019 Quant Results File: Y1121ND.RES

Quant Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 18:04:15 2019
Response via : Initial Calibration
DataAcq Meth : SVOC1011

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
38)	4-Chloro-3-methylphenol	7.55	107	335513	53.10419	ppb		90
39)	2-Methylnaphthalene	7.73	142	662441	54.46172	ppb		99
40)	1-Methylnaphthalene	7.84	142	655119	52.09484	ppb		99
42)	Hexachlorocyclopentadiene	7.91	237	270848	50.95175	ppb		98
43)	1,2,4,5-Tetrachlorobenzene	7.92	216	377114	51.28467	ppb		99
44)	2,4,6-Trichlorophenol	8.05	196	245742	52.48934	ppb		97
45)	2,4,5-Trichlorophenol	8.10	196	259336	52.02828	ppb		93
47)	1,1'-Biphenyl	8.27	154	832163	52.32581	ppb		98
48)	2-Chloronaphthalene	8.28	162	664290	51.04548	ppb		97
49)	2-Nitroaniline	8.40	65	228214	55.32443	ppb		91
50)	Dimethyl phthalate	8.61	163	826771	52.02114	ppb		99
51)	2,6-DNT	8.68	165	183246	51.55656	ppb		92
52)	Acenaphthylene	8.77	152	1052996	52.64630	ppb		100
53)	3-Nitroaniline	8.40	138	223977	54.90928	ppb		95
54)	Acenaphthene	8.97	154	718729	53.15403	ppb		98
55)	2,4-Dinitrophenol	9.01	184	108675	45.76019	ppb		96
56)	4-Nitrophenol	8.68	65	13343	51.26258	ppb		96
57)	Dibenzofuran	9.17	168	1018717	54.01990	ppb		97
58)	2,4-DNT	9.16	165	265741	52.58617	ppb		95
59)	2,3,4,6-Tetrachlorophenol	9.31	232	220565	52.37656	ppb		94
60)	Diethyl phthalate	9.43	149	845111	52.10442	ppb		98
61)	4-Chlorophenyl phenyl ethe	9.56	204	481244	51.86421	ppb		92
62)	Fluorene	9.57	166	839435	53.09820	ppb		98
63)	4-Nitroaniline	8.88	138	182054	56.09730	ppb		94
66)	4,6-Dinitro-2-methylphenol	9.63	198	174409	51.03576	ppb	#	72
67)	Diphenyl amine	9.70	169	1357188	107.10657	ppb		100
68)	n-Nitrosodiphenylamine	9.70	169	1357188	107.10657	ppb		100
69)	1,2-Diphenylhydrazine	9.75	77	812596	51.81678	ppb		91
70)	4-Bromophenyl phenyl ether	10.14	248	288847	52.77515	ppb		93
71)	Hexachlorobenzene	10.21	284	300398	51.93315	ppb	#	86
72)	Atrazine	10.33	200	130350	27.01674	ppb		98
73)	Pentachlorophenol	10.45	266	189568	50.44853	ppb		99
74)	Phenanthrene	10.69	178	1193495	53.47084	ppb		100
75)	Anthracene	10.75	178	1230249	52.49920	ppb		100
76)	Carbazol	10.94	167	1119240	53.07059	ppb		99
77)	Di-n-butylphthalate	11.34	149	1456976	53.05055	ppb		98
78)	2-Nitrodiphenylamine	11.51	167	179156	27.45378	ppb		94
79)	Fluoranthene	12.08	202	1451245	53.42793	ppb		99
81)	Benzidine	12.23	184	392760	55.34822	ppb		97
82)	Pyrene	12.35	202	1519982	52.30875	ppb		99
84)	Butyl benzylphthalate	13.08	149	682425	51.73717	ppb		84
85)	3,3'-Dichlorobenzidine	13.70	252	521346	59.76631	ppb		98
86)	Benz (a) anthracene	13.74	228	1670654	52.43277	ppb		99
87)	Bis (2-ethylhexyl) phthala	13.75	149	1108962	54.68968	ppb	#	95
88)	Chrysene	13.78	228	1481718	52.19841	ppb		100
89)	Di-n-octylphthalate	14.51	149	1725602	54.28301	ppb		96
91)	Benzo (b) fluoranthene	15.06	252	1589370	52.15999	ppb		99
92)	Benzo (k) fluoranthene	15.10	252	1545615	55.05372	ppb		99
93)	Benzo (a) pyrene	15.53	252	1465947	53.87924	ppb		99
94)	Indeno (1,2,3-cd) pyrene	17.52	276	1678695	51.96740	ppb		99
95)	Dibenz (a,h) anthracene	17.56	278	1539902	54.04555	ppb		98
96)	Benzo (g,h,i) perylene	18.10	276	1476910	57.42940	ppb		100

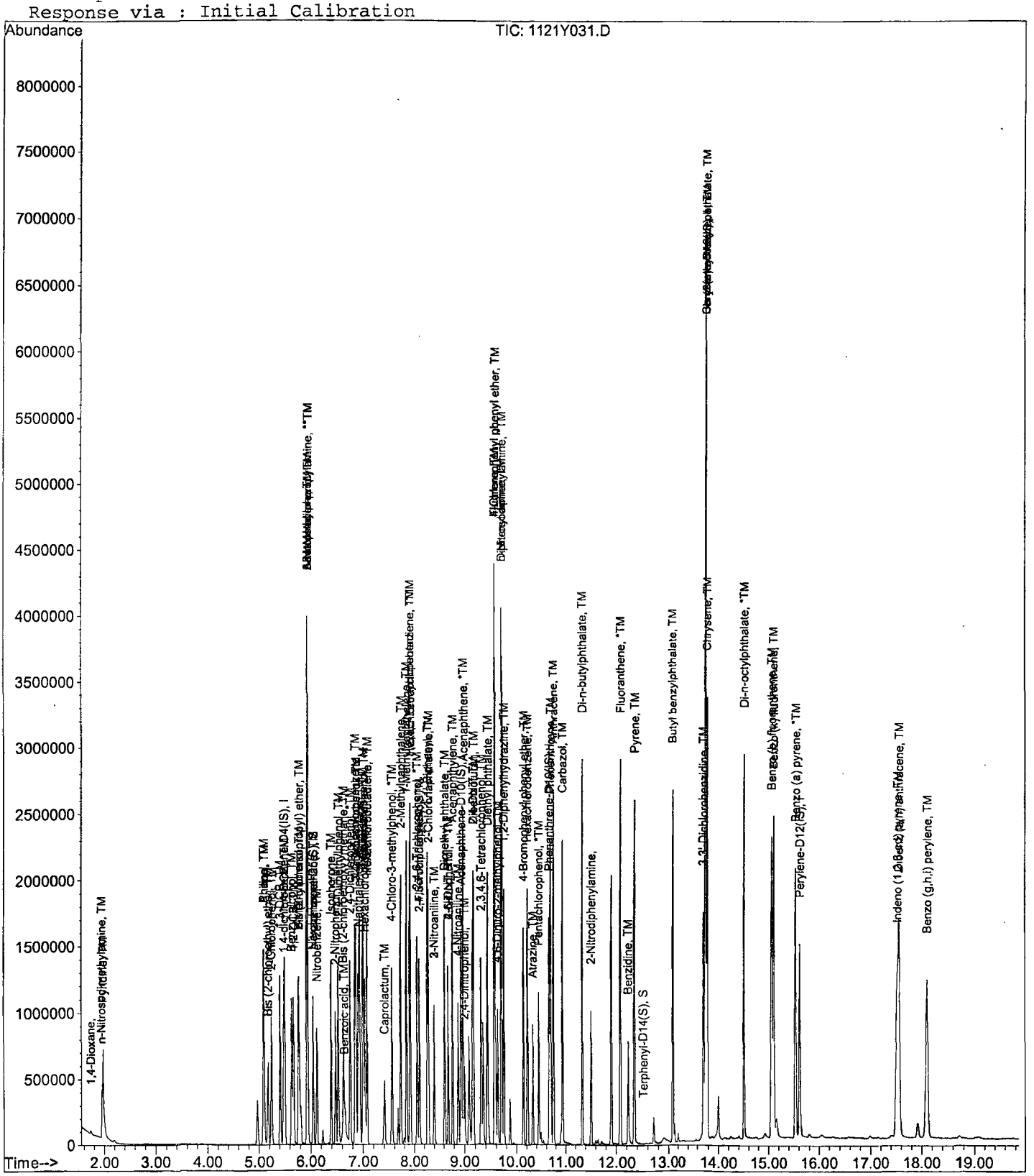
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y191121\1121Y031.D Vial: 31
Acq On : 22 Nov 19 13:38 Operator: MA,SS
Sample : SS 8270 11/22/19 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 25 11:24 2019 Quant Results File: Y1121ND.RES

Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 18:04:15 2019
Response via : Initial Calibration



Semi-Volatile Analysis by GC-MS
EPA 8270

Form 7

Ending Continuing Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Date Analyzed: 11/26/19
Matrix: Instrument: Yoda
Initial Cal. Date: 11/21/19
Data File: 1121Y154.D

		Compound	MEAN	CCRF	%D		%Drift
1	I	1,4-dichlorobenzene-D4(IS)	ISTD			I	
2		1,4-Dioxane	0.4644	0.4740	2.1		
3	TM	n-Nitrosodimethylamine	0.7047	0.8639	23	TM	
4	TM	Pyridine	1.743	2.050	18	TM	
5	S	2-Fluorophenol (S)	1.393	1.435	3.0	S	
6	S	Phenol-D6 (S)	1.659	1.762	6.2	S	
7	*TM	Phenol	1.959	2.184	11	*TM	
8	TM	Aniline	1.157	1.329	15	TM	
9	TM	Bis (2-chloroethyl) ether	0.8368	0.9543	14	TM	
10	TM	2-Chlorophenol	1.483	1.581	6.6	TM	
11	TM	1,3-DCB	1.681	1.715	2.0	TM	
12	*TM	1,4-DCB	1.708	1.760	3.1	*TM	
13	TM	Benzyl alcohol	0.8432	0.9323	11	TM	
14	TM	1,2-DCB	1.595	1.638	2.7	TM	
15	TM	2-Methylphenol	1.201	1.355	13	TM	
16	TM	Bis (2-chloroisopropyl) ether	0.9351	1.121	20	TM	
17	TM	Acetophenone	2.160	2.372	9.8	TM	
18	TM	3&4-Methylphenol	1.648	1.838	12	TM	
19	**TM	n-Nitrosodi-n-propylamine	1.231	1.442	17	**TM	
20	TM	Hexachloroethane	0.6773	0.7210	6.4	TM	
21	I	Napthalene-D8(IS)	ISTD			I	
22	S	Nitrobenzene-D5(S)	0.4508	0.4694	4.1	S	
23	TM	Nitrobenzene	0.4609	0.4980	8.1	TM	
24	TM	Isophorone	0.7471	0.8098	8.4	TM	
25	*TM	2-Nitrophenol	0.2108	0.2193	4.1	*TM	
26	TM	2,4-Dimethylphenol	0.3283	0.3480	6.0	TM	
27	TML	Benzoic acid	0.2427	0.3340	38	TML	9.0
28	TM	Bis (2-chloroethoxy) methane	0.4028	0.4317	7.2	TM	
29	*TM	2,4-Dichlorophenol	0.3380	0.3497	3.5	*TM	
30	TM	1,2,4-Trichlorobenzene	0.3912	0.3971	1.5	TM	
31	TM	3,4-Dimethylphenol	0.5307	0.5743	8.2	TM	
32	TM	Naphthalene	1.077	1.129	4.8	TM	
33	TM	4-Chloroaniline	0.3796	0.4418	16	TM	
34	TM	2,6-Dichlorophenol	0.3273	0.3346	2.2	TM	
35	TM	Hexachloropropene	0.3405	0.2967	13	TM	
36	*TM	Hexachlorobutadiene	0.2763	0.2758	0.17	*TM	
37	TM	Caprolactum	0.1188	0.1334	12	TM	
38	*TM	4-Chloro-3-methylphenol	0.3814	0.4063	6.5	*TM	
39	TM	2-Methylnaphthalene	0.7343	0.7765	5.8	TM	
40	TM	1-Methylnaphthalene	0.7592	0.7902	4.1	TM	
		Average			9.2		

Semi-Volatile Analysis by GC-MS
EPA 8270

Form 7

Ending Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix: 0

SDG No:
Date Analyzed: 11/26/19
Instrument: Yoda
Cal. Date: 11/21/19
Data File: 1121Y154.D

		Compound	MEAN	CCRF	%D	%Drift	
41	I	Acenaphthene-D10(IS)	ISTD			I	
42	**TM	Hexachlorocyclopentadiene	0.5081	0.3896	23	**TM	
43	TM	1,2,4,5-Tetrachlorobenzene	0.7029	0.6995	0.49	TM	
44	*TM	2,4,6-Trichlorophenol	0.4475	0.4551	1.7	*TM	
45	TM	2,4,5-Trichlorophenol	0.4765	0.4851	1.8	TM	
46	S	2-Fluorobiphenyl(S)	1.496	1.445	3.4	S	
47	TM	1,1'-Biphenyl	1.520	1.603	5.4	TM	
48	TM	2-Chloronaphthalene	1.244	1.292	3.9	TM	
49	TM	2-Nitroaniline	0.3943	0.4473	13	TM	
50	TM	Dimethyl phthalate	1.519	1.591	4.7	TM	
51	TM	2,6-DNT	0.3398	0.3560	4.8	TM	
52	TM	Acenaphthylene	1.912	1.972	3.2	TM	
53	TM	3-Nitroaniline	0.3899	0.4205	7.8	TM	
54	*TM	Acenaphthene	1.293	1.313	1.6	*TM	
55	**TM	2,4-Dinitrophenol	0.2270	0.1474	35	**TM	
56	**TM	4-Nitrophenol	0.0249	0.0292	17	**TM	
57	TM	Dibenzofuran	1.803	1.851	2.7	TM	
58	TM	2,4-DNT	0.4831	0.5120	6.0	TM	
59	TM	2,3,4,6-Tetrachlorophenol	0.4026	0.4054	0.70	TM	
60	TM	Diethyl phthalate	1.550	1.605	3.5	TM	
61	TM	4-Chlorophenyl phenyl ether	0.8870	0.9205	3.8	TM	
62	TM	Fluorene	1.511	1.612	6.7	TM	
63	TM	4-Nitroaniline	0.3102	0.3431	11	TM	
64	S	2,4,6-Tribromophenol(S)	0.3060	0.2897	5.3	S	
65	I	Phenanthrene-D10(IS)	ISTD			I	
66	TM	4,6-Dinitro-2-methylphenol	0.1657	0.1247	25	TM	
67	TM	Diphenyl amine	0.6145	0.6755	9.9	TM	
68	*TM	n-Nitrosodiphenylamine	0.6145	0.6755	9.9	*TM	
69	TM	1,2-Diphenylhydrazine	0.7606	0.8649	14	TM	
70	TM	4-Bromophenyl phenyl ether	0.2654	0.2751	3.6	TM	
71	TM	Hexachlorobenzene	0.2805	0.2811	0.22	TM	
72	TM	Atrazine	0.2340	0.2208	5.6	TM	
73	*TM	Pentachlorophenol	0.1822	0.1782	2.2	*TM	
74	TM	Phenanthrene	1.083	1.145	5.7	TM	
75	TM	Anthracene	1.137	1.205	6.0	TM	
76	TM	Carbazol	1.023	1.096	7.2	TM	
77	TM	Di-n-butylphthalate	1.332	1.457	9.4	TM	
78		2-Nitrodiphenylamine	0.3165	0.3573	13		
79	*TM	Fluoranthene	1.317	1.407	6.8	*TM	
80	I	Chrysene-D12(IS)	ISTD			I	
		Average			7.7		

Semi-Volatile Analysis by GC-MS
EPA 8270

Form 7

Ending Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix: 0

SDG No:
Date Analyzed: 11/26/19
Instrument: Yoda
Cal. Date: 11/21/19
Data File: 1121Y154.D

		Compound	MEAN	CCRF	%D		%Drift
81	TM	Benzidine	0.2967	0.3296	11	TM	
82	TM	Pyrene	1.215	1.222	0.57	TM	
83	S	Terphenyl-D14(S)	1.000	0.9423	5.8	S	
84	TM	Butyl benzylphthalate	0.5515	0.5704	3.4	TM	
85	TM	3,3'-Dichlorobenzidine	0.3647	0.4696	29	TM	
86	TM	Benz (a) anthracene	1.332	1.326	0.46	TM	
87	TM	Bis (2-ethylhexyl) phthalate	0.8479	0.9572	13	TM	
88	TM	Chrysene	1.187	1.161	2.1	TM	
89	*TM	Di-n-octylphthalate	1.329	1.409	6.0	*TM	
90	I	Perylene-D12(IS)	ISTD			I	
91	TM	Benzo (b) fluoranthene	1.265	1.329	5.0	TM	
92	TM	Benzo (k) fluoranthene	1.165	1.261	8.2	TM	
93	*TM	Benzo (a) pyrene	1.129	1.179	4.4	*TM	
94	TM	Indeno (1,2,3-cd) pyrene	1.341	1.356	1.1	TM	
95	TM	Dibenz (a,h) anthracene	1.183	1.195	1.0	TM	
96	TM	Benzo (g,h,i) perylene	1.068	1.073	0.49	TM	
97							
98							
99							
100							
101							
102							
103							
104							
105							
106							
107							
108							
109							
110							
111							
112							
113							
114							
115							
116							
117							
118							
119							
120							
		Average			6.1		

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y191121\1121Y154.D Vial: 54
Acq On : 26 Nov 19 20:50 Operator: MA,SS
Sample : 50ug/ml 8270 11/21/19 (1) Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 27 7:38 2019 Quant Results File: Y1121ND.RES

Quant Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 18:04:15 2019
Response via : Initial Calibration
DataAcq Meth : SVOC1011

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.47	152	179473	40.00000 ppb		0.00
21) Napthalene-D8(IS)	6.91	136	719514	40.00000 ppb		0.00
41) Acenaphthene-D10(IS)	8.93	164	453439	40.00000 ppb		0.00
65) Phenanthrene-D10(IS)	10.67	188	869953	40.00000 ppb		0.00
80) Chrysene-D12(IS)	13.76	240	1038491	40.00000 ppb		0.00
90) Perylene-D12(IS)	15.62	264	946185	40.00000 ppb		0.00
System Monitoring Compounds						
5) 2-Fluorophenol (S)	3.90	112	643790	103.01244 ppb		0.00
Spiked Amount 200.000			Recovery =	51.506%		
6) Phenol-D6 (S)	5.07	99	790641	106.24656 ppb		0.00
Spiked Amount 200.000			Recovery =	53.124%		
22) Nitrobenzene-D5(S)	6.10	82	422202	52.06943 ppb		0.00
Spiked Amount 100.000			Recovery =	52.069%		
46) 2-Fluorobiphenyl(S)	8.14	172	819046	48.31191 ppb		0.00
Spiked Amount 100.000			Recovery =	48.312%		
64) 2,4,6-Tribromophenol(S)	9.86	330	328385	94.67254 ppb		0.00
Spiked Amount 200.000			Recovery =	47.337%		
83) Terphenyl-D14(S)	12.52	244	1223267	47.11515 ppb		0.00
Spiked Amount 100.000			Recovery =	47.115%		
Target Compounds						Qvalue
2) 1,4-Dioxane	1.72	58	10634	5.10366		75
3) n-Nitrosodimethylamine	1.94	42	193799	61.29377 ppb		100
4) Pyridine	1.96	79	459851	58.80612 ppb		99
7) Phenol	5.09	94	489897	55.74345 ppb		90
8) Aniline	5.10	93	298240	57.46890 ppb		90
9) Bis (2-chloroethyl) ether	5.17	63	214083	57.02058 ppb		91
10) 2-Chlorophenol	5.24	128	354618	53.28336 ppb		96
11) 1,3-DCB	5.40	146	384680	51.01363 ppb		97
12) 1,4-DCB	5.49	146	394790	51.53065 ppb		98
13) Benzyl alcohol	5.64	108	209164	55.28314 ppb		98
14) 1,2-DCB	5.66	146	367467	51.34183 ppb		99
15) 2-Methylphenol	5.77	107	304001	56.39216 ppb		96
16) Bis (2-chloroisopropyl) et	5.78	45	251533	59.94978 ppb	#	73
17) Acetophenone	5.93	105	532131	54.90471 ppb		89
18) 3&4-Methylphenol	5.94	107	824480	111.50995 ppb		99
19) n-Nitrosodi-n-propylamine	5.93	70	323406	58.57674 ppb		96
20) Hexachloroethane	6.04	117	161743	53.22224 ppb		96
23) Nitrobenzene	6.12	77	447941	54.03327 ppb		98
24) Isophorone	6.39	82	728304	54.19197 ppb		94
25) 2-Nitrophenol	6.48	139	197237	52.02793 ppb		98
26) 2,4-Dimethylphenol	6.53	122	313026	53.00862 ppb		99
27) Benzoic acid	6.67	105	300385	54.51101 ppb		97
28) Bis (2-chloroethoxy) metha	6.63	93	388252	53.57921 ppb		99
29) 2,4-Dichlorophenol	6.76	162	314516	51.72573 ppb		99
30) 1,2,4-Trichlorobenzene	6.84	180	357184	50.76047 ppb		97
31) 3,4-Dimethylphenol	6.86	107	516511	54.10175 ppb		99
32) Naphthalene	6.94	128	1015093	52.37563 ppb		100
33) 4-Chloroaniline	6.99	127	397384	58.19449 ppb		98
34) 2,6-Dichlorophenol	7.01	162	300931	51.10985 ppb		99
35) Hexachloropropene	7.04	213	266832	43.56125 ppb		99
36) Hexachlorobutadiene	7.08	225	248033	49.91429 ppb		100
37) Caprolactum	7.42	55	119960	56.12973 ppb		94

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y191121\1121Y154.D Vial: 54
Acq On : 26 Nov 19 20:50 Operator: MA,SS
Sample : 50ug/ml 8270 11/21/19 (1) Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 27 7:38 2019 Quant Results File: Y1121ND.RES

Quant Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 18:04:15 2019
Response via : Initial Calibration
DataAcq Meth : SVOC1011

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
38)	4-Chloro-3-methylphenol	7.56	107	365424	53.26209 ppb		95
39)	2-Methylnaphthalene	7.72	142	698402	52.87511 ppb		100
40)	1-Methylnaphthalene	7.84	142	710656	52.03980 ppb		100
42)	Hexachlorocyclopentadiene	7.91	237	220800	38.33090 ppb		99
43)	1,2,4,5-Tetrachlorobenzene	7.92	216	396483	49.75720 ppb		100
44)	2,4,6-Trichlorophenol	8.05	196	257942	50.84288 ppb		100
45)	2,4,5-Trichlorophenol	8.11	196	274951	50.90359 ppb		95
47)	1,1'-Biphenyl	8.26	154	908359	52.70860 ppb		99
48)	2-Chloronaphthalene	8.29	162	732391	51.93487 ppb		99
49)	2-Nitroaniline	8.40	65	253528	56.71749 ppb		95
50)	Dimethyl phthalate	8.62	163	901594	52.35065 ppb		100
51)	2,6-DNT	8.69	165	201795	52.39336 ppb		82
52)	Acenaphthylene	8.76	152	1117973	51.58089 ppb		99
53)	3-Nitroaniline	8.40	138	238316	53.91528 ppb		99
54)	Acenaphthene	8.97	154	744268	50.79451 ppb		99
55)	2,4-Dinitrophenol	9.01	184	83537	32.46037 ppb		88
56)	4-Nitrophenol	8.68	65	16549	58.67257 ppb		97
57)	Dibenzofuran	9.17	168	1049257	51.34504 ppb		100
58)	2,4-DNT	9.15	165	290218	52.99730 ppb		86
59)	2,3,4,6-Tetrachlorophenol	9.32	232	229755	50.34795 ppb		97
60)	Diethyl phthalate	9.43	149	909668	51.75593 ppb		96
61)	4-Chlorophenyl phenyl ethe	9.56	204	521741	51.88883 ppb	#	84
62)	Fluorene	9.57	166	913843	53.34340 ppb		99
63)	4-Nitroaniline	8.88	138	194469	55.29788 ppb		87
66)	4,6-Dinitro-2-methylphenol	9.64	198	135601	37.61849 ppb	#	85
67)	Diphenyl amine	9.71	169	1469100	109.91585 ppb		100
68)	n-Nitrosodiphenylamine	9.71	169	1469100	109.91585 ppb		100
69)	1,2-Diphenylhydrazine	9.76	77	940567	56.86150 ppb		98
70)	4-Bromophenyl phenyl ether	10.14	248	299176	51.82284 ppb		96
71)	Hexachlorobenzene	10.22	284	305728	50.10899 ppb		96
72)	Atrazine	10.32	200	120041	23.58763 ppb		98
73)	Pentachlorophenol	10.44	266	193784	48.89160 ppb		99
74)	Phenanthrene	10.69	178	1244623	52.86486 ppb		100
75)	Anthracene	10.75	178	1310274	53.00961 ppb		100
76)	Carbazol	10.94	167	1191847	53.57770 ppb		98
77)	Di-n-butylphthalate	11.34	149	1584063	54.68180 ppb		98
78)	2-Nitrodiphenylamine	11.51	167	194295	28.22703 ppb		99
79)	Fluoranthene	12.08	202	1530294	53.41157 ppb		99
81)	Benzidine	12.23	184	427883	55.54512 ppb		99
82)	Pyrene	12.35	202	1586188	50.28460 ppb		99
84)	Butyl benzylphthalate	13.09	149	740503	51.71529 ppb		99
85)	3,3'-Dichlorobenzidine	13.70	252	609564	64.37158 ppb	#	98
86)	Benz (a) anthracene	13.74	228	1721546	49.77134 ppb		100
87)	Bis (2-ethylhexyl) phthala	13.75	149	1242523	56.44658 ppb		99
88)	Chrysene	13.79	228	1507683	48.92673 ppb		100
89)	Di-n-octylphthalate	14.51	149	1828785	52.99445 ppb		96
91)	Benzo (b) fluoranthene	15.07	252	1571322	52.51769 ppb		98
92)	Benzo (k) fluoranthene	15.10	252	1491286	54.09713 ppb		99
93)	Benzo (a) pyrene	15.54	252	1394881	52.21175 ppb		99
94)	Indeno (1,2,3-cd) pyrene	17.54	276	1603749	50.56191 ppb		98
95)	Dibenz (a,h) anthracene	17.57	278	1413122	50.50966 ppb		99
96)	Benzo (g,h,i) perylene	18.12	276	1268799	50.24594 ppb		98

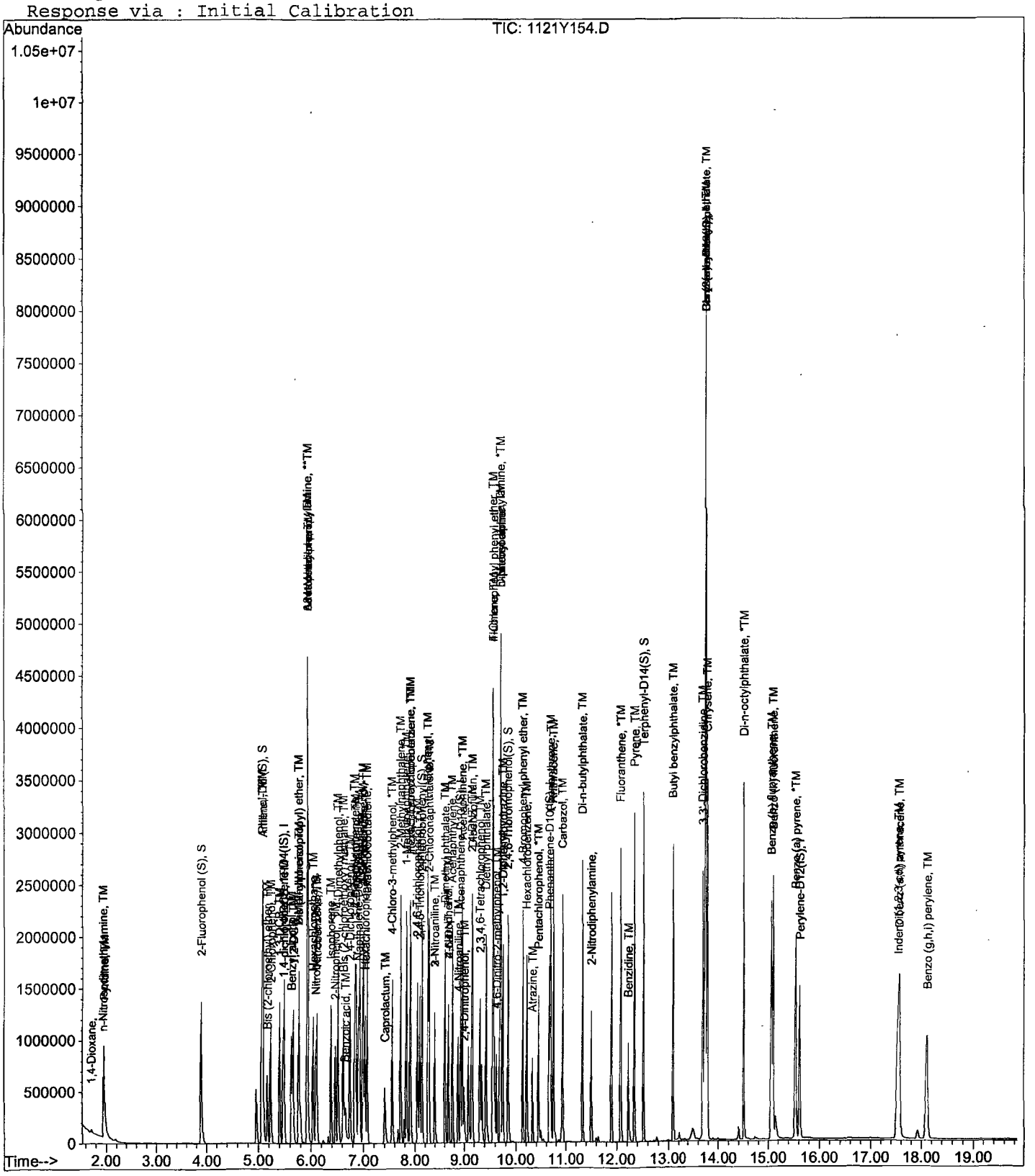
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y191121\1121Y154.D Vial: 54
Acq On : 26 Nov 19 20:50 Operator: MA,SS
Sample : 50ug/ml 8270 11/21/19 (1) Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 27 7:38 2019 Quant Results File: Y1121ND.RES

Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 18:04:15 2019
Response via : Initial Calibration



Semi-Volatile Analysis by GC-MS
EPA 8270

Form 7

Ending Continuing Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Date Analyzed: 11/27/19
Matrix: Instrument: Yoda
Initial Cal. Date: 11/21/19
Data File: 1121Y172.D

		Compound	MEAN	CCRF	%D	%Drift	
1	I	1,4-dichlorobenzene-D4(IS)	ISTD			I	
2		1,4-Dioxane	0.4644	0.4417	4.9		
3	TM	n-Nitrosodimethylamine	0.7047	0.8379	19	TM	
4	TM	Pyridine	1.743	1.952	12	TM	
5	S	2-Fluorophenol (S)	1.393	1.379	1.0	S	
6	S	Phenol-D6 (S)	1.659	1.703	2.7	S	
7	*TM	Phenol	1.959	2.067	5.5	*TM	
8	TM	Aniline	1.157	1.091	5.6	TM	
9	TM	Bis (2-chloroethyl) ether	0.8368	0.9041	8.0	TM	
10	TM	2-Chlorophenol	1.483	1.502	1.2	TM	
11	TM	1,3-DCB	1.681	1.676	0.29	TM	
12	*TM	1,4-DCB	1.708	1.702	0.30	*TM	
13	TM	Benzyl alcohol	0.8432	0.8845	4.9	TM	
14	TM	1,2-DCB	1.595	1.559	2.3	TM	
15	TM	2-Methylphenol	1.201	1.294	7.7	TM	
16	TM	Bis (2-chloroisopropyl) ether	0.9351	1.075	15	TM	
17	TM	Acetophenone	2.160	2.289	6.0	TM	
18	TM	3&4-Methylphenol	1.648	1.757	6.6	TM	
19	**TM	n-Nitrosodi-n-propylamine	1.231	1.402	14	**TM	
20	TM	Hexachloroethane	0.6773	0.7003	3.4	TM	
21	I	Napthalene-D8(IS)	ISTD			I	
22	S	Nitrobenzene-D5(S)	0.4508	0.4617	2.4	S	
23	TM	Nitrobenzene	0.4609	0.4820	4.6	TM	
24	TM	Isophorone	0.7471	0.7816	4.6	TM	
25	*TM	2-Nitrophenol	0.2108	0.2130	1.1	*TM	
26	TM	2,4-Dimethylphenol	0.3283	0.3335	1.6	TM	
27	TML	Benzoic acid	0.2427	0.3303	36	TML	7.9
28	TM	Bis (2-chloroethoxy) methane	0.4028	0.4235	5.1	TM	
29	*TM	2,4-Dichlorophenol	0.3380	0.3384	0.10	*TM	
30	TM	1,2,4-Trichlorobenzene	0.3912	0.3808	2.7	TM	
31	TM	3,4-Dimethylphenol	0.5307	0.5599	5.5	TM	
32	TM	Naphthalene	1.077	1.087	0.90	TM	
33	TM	4-Chloroaniline	0.3796	0.3954	4.1	TM	
34	TM	2,6-Dichlorophenol	0.3273	0.3292	0.58	TM	
35	TM	Hexachloropropene	0.3405	0.2996	12	TM	
36	*TM	Hexachlorobutadiene	0.2763	0.2674	3.2	*TM	
37	TM	Caprolactum	0.1188	0.1328	12	TM	
38	*TM	4-Chloro-3-methylphenol	0.3814	0.3947	3.5	*TM	
39	TM	2-Methylnaphthalene	0.7343	0.7458	1.6	TM	
40	TM	1-Methylnaphthalene	0.7592	0.7694	1.3	TM	
		Average			5.9		

Semi-Volatile Analysis by GC-MS
EPA 8270

Form 7

Ending Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix: 0

SDG No:
Date Analyzed: 11/27/19
Instrument: Yoda
Cal. Date: 11/21/19
Data File: 1121Y172.D

		Compound	MEAN	CCRF	%D		%Drift
41	I	Acenaphthene-D10(IS)	ISTD			I	
42	**TM	Hexachlorocyclopentadiene	0.5081	0.3947	22	**TM	
43	TM	1,2,4,5-Tetrachlorobenzene	0.7029	0.6869	2.3	TM	
44	*TM	2,4,6-Trichlorophenol	0.4475	0.4440	0.80	*TM	
45	TM	2,4,5-Trichlorophenol	0.4765	0.4706	1.2	TM	
46	S	2-Fluorobiphenyl(S)	1.496	1.423	4.9	S	
47	TM	1,1'-Biphenyl	1.520	1.561	2.7	TM	
48	TM	2-Chloronaphthalene	1.244	1.262	1.4	TM	
49	TM	2-Nitroaniline	0.3943	0.4340	10	TM	
50	TM	Dimethyl phthalate	1.519	1.541	1.4	TM	
51	TM	2,6-DNT	0.3398	0.3449	1.5	TM	
52	TM	Acenaphthylene	1.912	1.932	1.0	TM	
53	TM	3-Nitroaniline	0.3899	0.4015	3.0	TM	
54	*TM	Acenaphthene	1.293	1.230	4.8	*TM	
55	**TM	2,4-Dinitrophenol	0.2270	0.1679	26	**TM	
56	**TM	4-Nitrophenol	0.0249	0.0294	18	**TM	
57	TM	Dibenzofuran	1.803	1.828	1.4	TM	
58	TM	2,4-DNT	0.4831	0.4959	2.7	TM	
59	TM	2,3,4,6-Tetrachlorophenol	0.4026	0.3916	2.7	TM	
60	TM	Diethyl phthalate	1.550	1.560	0.62	TM	
61	TM	4-Chlorophenyl phenyl ether	0.8870	0.9068	2.2	TM	
62	TM	Fluorene	1.511	1.591	5.3	TM	
63	TM	4-Nitroaniline	0.3102	0.3289	6.0	TM	
64	S	2,4,6-Tribromophenol(S)	0.3060	0.2874	6.1	S	
65	I	Phenanthrene-D10(IS)	ISTD			I	
66	TM	4,6-Dinitro-2-methylphenol	0.1657	0.1350	19	TM	
67	TM	Diphenyl amine	0.6145	0.6626	7.8	TM	
68	*TM	n-Nitrosodiphenylamine	0.6145	0.6626	7.8	*TM	
69	TM	1,2-Diphenylhydrazine	0.7606	0.8556	12	TM	
70	TM	4-Bromophenyl phenyl ether	0.2654	0.2698	1.6	TM	
71	TM	Hexachlorobenzene	0.2805	0.2786	0.69	TM	
72	TM	Atrazine	0.2340	0.2257	3.5	TM	
73	*TM	Pentachlorophenol	0.1822	0.1785	2.1	*TM	
74	TM	Phenanthrene	1.083	1.106	2.1	TM	
75	TM	Anthracene	1.137	1.165	2.5	TM	
76	TM	Carbazol	1.023	1.060	3.7	TM	
77	TM	Di-n-butylphthalate	1.332	1.424	6.9	TM	
78		2-Nitrodiphenylamine	0.3165	0.3451	9.0		
79	*TM	Fluoranthene	1.317	1.373	4.2	*TM	
80	I	Chrysene-D12(IS)	ISTD			I	
		Average			5.7		

Semi-Volatile Analysis by GC-MS
EPA 8270

Form 7

Ending Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix: 0

SDG No:
Date Analyzed: 11/27/19
Instrument: Yoda
Cal. Date: 11/21/19
Data File: 1121Y172.D

		Compound	MEAN	CCRF	%D	%Drift	
81	TM	Benzidine	0.2967	0.0557	81	TM	*
82	TM	Pyrene	1.215	1.214	0.09	TM	
83	S	Terphenyl-D14(S)	1.000	0.9343	6.6	S	
84	TM	Butyl benzylphthalate	0.5515	0.5760	4.4	TM	
85	TM	3,3'-Dichlorobenzidine	0.3647	0.4464	22	TM	
86	TM	Benz (a) anthracene	1.332	1.318	1.1	TM	
87	TM	Bis (2-ethylhexyl) phthalate	0.8479	0.9482	12	TM	
88	TM	Chrysene	1.187	1.170	1.5	TM	
89	*TM	Di-n-octylphthalate	1.329	1.404	5.6	*TM	
90	I	Perylene-D12(IS)	ISTD			I	
91	TM	Benzo (b) fluoranthene	1.265	1.316	4.0	TM	
92	TM	Benzo (k) fluoranthene	1.165	1.232	5.7	TM	
93	*TM	Benzo (a) pyrene	1.129	1.183	4.8	*TM	
94	TM	Indeno (1,2,3-cd) pyrene	1.341	1.357	1.2	TM	
95	TM	Dibenz (a,h) anthracene	1.183	1.204	1.8	TM	
96	TM	Benzo (g,h,i) perylene	1.068	1.065	0.25	TM	
97							
98							
99							
100							
101							
102							
103							
104							
105							
106							
107							
108							
109							
110							
111							
112							
113							
114							
115							
116							
117							
118							
119							
120							
		Average			10.1		

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y191121\1121Y172.D Vial: 72
Acq On : 27 Nov 19 5:11 Operator: MA,SS
Sample : 50ug/ml 8270 11/21/19 (2) Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 27 7:32 2019 Quant Results File: Y1121ND.RES

Quant Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 18:04:15 2019
Response via : Initial Calibration
DataAcq Meth : SVOC1011

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.47	152	184992	40.00000	ppb		0.00
21) Napthalene-D8(IS)	6.91	136	734252	40.00000	ppb		0.00
41) Acenaphthene-D10(IS)	8.93	164	456477	40.00000	ppb		0.00
65) Phenanthrene-D10(IS)	10.67	188	870891	40.00000	ppb		0.00
80) Chrysene-D12(IS)	13.76	240	1025135	40.00000	ppb		0.00
90) Perylene-D12(IS)	15.62	264	935612	40.00000	ppb		0.00
System Monitoring Compounds							
5) 2-Fluorophenol (S)	3.90	112	637612	98.98015	ppb		0.00
Spiked Amount 200.000			Recovery = 49.490%				
6) Phenol-D6 (S)	5.07	99	787677	102.69041	ppb		0.00
Spiked Amount 200.000			Recovery = 51.345%				
22) Nitrobenzene-D5(S)	6.10	82	423758	51.21233	ppb		0.00
Spiked Amount 100.000			Recovery = 51.212%				
46) 2-Fluorobiphenyl(S)	8.14	172	811938	47.57390	ppb		0.00
Spiked Amount 100.000			Recovery = 47.574%				
64) 2,4,6-Tribromophenol(S)	9.86	330	327984	93.92762	ppb		0.00
Spiked Amount 200.000			Recovery = 46.964%				
83) Terphenyl-D14(S)	12.52	244	1197240	46.71348	ppb		0.00
Spiked Amount 100.000			Recovery = 46.713%				
Target Compounds							Qvalue
2) 1,4-Dioxane	1.72	58	10213	4.75537			80
3) n-Nitrosodimethylamine	1.94	42	193764	59.45441	ppb		95
4) Pyridine	1.96	79	451366	55.99901	ppb		99
7) Phenol	5.09	94	478022	52.76952	ppb		91
8) Aniline	5.10	93	252352	47.17587	ppb		91
9) Bis (2-chloroethyl) ether	5.17	63	209067	54.02330	ppb		91
10) 2-Chlorophenol	5.24	128	347270	50.62258	ppb		95
11) 1,3-DCB	5.40	146	387517	49.85670	ppb		98
12) 1,4-DCB	5.49	146	393673	49.85185	ppb		98
13) Benzyl alcohol	5.63	108	204538	52.44764	ppb		85
14) 1,2-DCB	5.66	146	360520	48.86844	ppb		98
15) 2-Methylphenol	5.77	107	299339	53.87077	ppb		95
16) Bis (2-chloroisopropyl) et	5.78	45	248574	57.47706	ppb	#	73
17) Acetophenone	5.92	105	529331	52.98642	ppb		87
18) 3&4-Methylphenol	5.94	107	812630	106.62831	ppb		98
19) n-Nitrosodi-n-propylamine	5.93	70	324178	56.96483	ppb		97
20) Hexachloroethane	6.04	117	161933	51.69508	ppb		91
23) Nitrobenzene	6.12	77	442354	52.28830	ppb		99
24) Isophorone	6.39	82	717342	52.30493	ppb		94
25) 2-Nitrophenol	6.48	139	195512	50.53772	ppb		99
26) 2,4-Dimethylphenol	6.53	122	306094	50.79430	ppb		99
27) Benzoic acid	6.67	105	303196	53.95801	ppb		98
28) Bis (2-chloroethoxy) metha	6.63	93	388659	52.55880	ppb		100
29) 2,4-Dichlorophenol	6.76	162	310575	50.05235	ppb		99
30) 1,2,4-Trichlorobenzene	6.84	180	349522	48.67459	ppb		98
31) 3,4-Dimethylphenol	6.86	107	513912	52.74905	ppb		99
32) Naphthalene	6.94	128	997778	50.44887	ppb		99
33) 4-Chloroaniline	6.99	127	362861	52.07220	ppb		98
34) 2,6-Dichlorophenol	7.01	162	302183	50.29233	ppb		98
35) Hexachloropropene	7.04	213	275007	43.99469	ppb		99
36) Hexachlorobutadiene	7.07	225	245404	48.39396	ppb		100
37) Caprolactum	7.42	55	121852	55.87059	ppb		93

(#) = qualifier out of range (m) = manual integration

Data File : M:\YODA\DATA\Y191121\1121Y172.D Vial: 72
Acq On : 27 Nov 19 5:11 Operator: MA,SS
Sample : 50ug/ml 8270 11/21/19 (2) Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 27 7:32 2019 Quant Results File: Y1121ND.RES

Quant Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 18:04:15 2019
Response via : Initial Calibration
DataAcq Meth : SVOC1011

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
38)	4-Chloro-3-methylphenol	7.56	107	362279	51.74381 ppb		95
39)	2-Methylnaphthalene	7.72	142	684488	50.78153 ppb		99
40)	1-Methylnaphthalene	7.84	142	706153	50.67213 ppb		99
42)	Hexachlorocyclopentadiene	7.91	237	225216	38.83731 ppb		99
43)	1,2,4,5-Tetrachlorobenzene	7.92	216	391941	48.85984 ppb		100
44)	2,4,6-Trichlorophenol	8.05	196	253330	49.60149 ppb		97
45)	2,4,5-Trichlorophenol	8.10	196	268521	49.38230 ppb		96
47)	1,1'-Biphenyl	8.26	154	890689	51.33931 ppb		99
48)	2-Chloronaphthalene	8.29	162	720008	50.71697 ppb		100
49)	2-Nitroaniline	8.40	65	247641	55.03178 ppb		95
50)	Dimethyl phthalate	8.62	163	879421	50.72334 ppb		99
51)	2,6-DNT	8.69	165	196771	50.74893 ppb		83
52)	Acenaphthylene	8.76	152	1102374	50.52269 ppb		100
53)	3-Nitroaniline	8.40	138	229101	51.48559 ppb		98
54)	Acenaphthene	8.97	154	702020	47.59232 ppb		98
55)	2,4-Dinitrophenol	9.01	184	95794	36.97540 ppb		88
56)	4-Nitrophenol	8.68	65	16756	59.01110 ppb		97
57)	Dibenzofuran	9.17	168	1043326	50.71502 ppb		99
58)	2,4-DNT	9.15	165	282953	51.32674 ppb		84
59)	2,3,4,6-Tetrachlorophenol	9.32	232	223457	48.64192 ppb		98
60)	Diethyl phthalate	9.43	149	890191	50.31070 ppb		96
61)	4-Chlorophenyl phenyl ethe	9.56	204	517414	51.11602 ppb	#	85
62)	Fluorene	9.57	166	907725	52.63363 ppb		100
63)	4-Nitroaniline	8.88	138	187675	53.01082 ppb		86
66)	4,6-Dinitro-2-methylphenol	9.64	198	147009	40.73938 ppb	#	80
67)	Diphenyl amine	9.71	169	1442713	107.82535 ppb		100
68)	n-Nitrosodiphenylamine	9.71	169	1442713	107.82535 ppb		100
69)	1,2-Diphenylhydrazine	9.75	77	931386	56.24582 ppb	#	84
70)	4-Bromophenyl phenyl ether	10.14	248	293678	50.81569 ppb		98
71)	Hexachlorobenzene	10.22	284	303272	49.65292 ppb		97
72)	Atrazine	10.32	200	122867	24.11693 ppb		95
73)	Pentachlorophenol	10.44	266	194283	48.96471 ppb		99
74)	Phenanthrene	10.69	178	1203605	51.06758 ppb		99
75)	Anthracene	10.75	178	1268023	51.24502 ppb		100
76)	Carbazol	10.94	167	1154451	51.84072 ppb		100
77)	Di-n-butylphthalate	11.33	149	1550566	53.46784 ppb	#	98
78)	2-Nitrodiphenylamine	11.51	167	187833	27.25885 ppb		99
79)	Fluoranthene	12.08	202	1494235	52.09684 ppb		99
81)	Benzidine	12.23	184	71385	9.38749 ppb		99
82)	Pyrene	12.35	202	1555591	49.95713 ppb		100
84)	Butyl benzylphthalate	13.09	149	738067	52.21673 ppb		99
85)	3,3'-Dichlorobenzidine	13.70	252	571991	61.19074 ppb	#	97
86)	Benz (a) anthracene	13.74	228	1688421	49.44964 ppb		100
87)	Bis (2-ethylhexyl) phthala	13.75	149	1215094	55.91969 ppb		99
88)	Chrysene	13.79	228	1498662	49.26762 ppb		100
89)	Di-n-octylphthalate	14.51	149	1798749	52.80317 ppb		98
91)	Benzo (b) fluoranthene	15.07	252	1538723	52.00932 ppb		99
92)	Benzo (k) fluoranthene	15.10	252	1440477	52.84451 ppb	#	99
93)	Benzo (a) pyrene	15.54	252	1383860	52.38459 ppb		99
94)	Indeno (1,2,3-cd) pyrene	17.53	276	1586518	50.58391 ppb		98
95)	Dibenz (a,h) anthracene	17.57	278	1407996	50.89516 ppb		99
96)	Benzo (g,h,i) perylene	18.11	276	1245326	49.87369 ppb		98

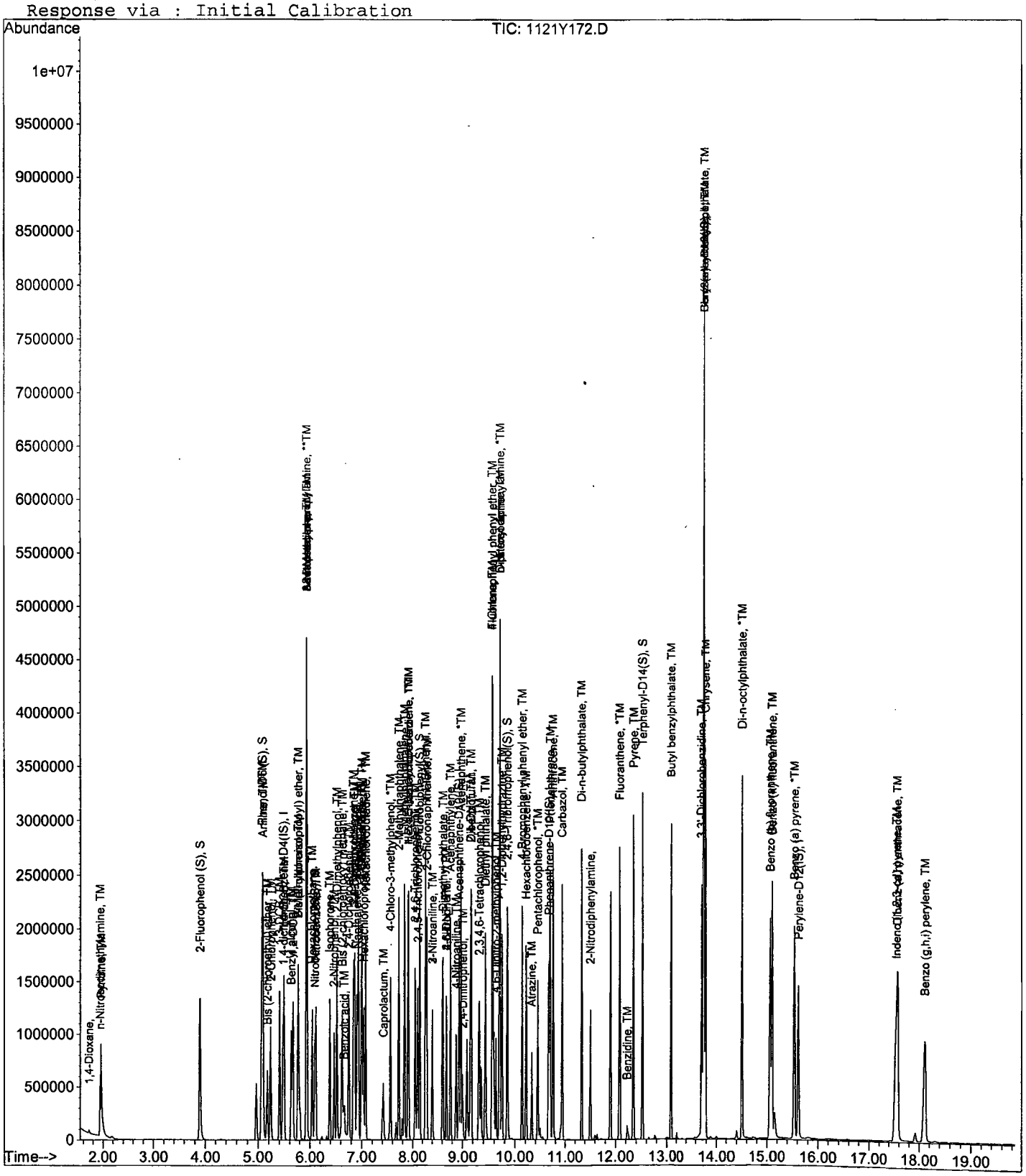
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y191121\1121Y172.D Vial: 72
Acq On : 27 Nov 19 5:11 Operator: MA,SS
Sample : 50ug/ml 8270 11/21/19 (2) Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Nov 27 7:32 2019 Quant Results File: Y1121ND.RES

Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 18:04:15 2019
Response via : Initial Calibration



ORGANICS
Raw Data

Quantitation Report (QT Reviewed)

Data File : M:\YODA\DATA\Y191121\1121Y168.D Vial: 68
Acq On : 27 Nov 19 3:21 Operator: MA,SS
Sample : BA02525W23 1/800 Inst : Yoda
Misc : Multiplr: 1.25

Quant Time: Dec 4 13:36 2019 Quant Results File: Y1121ND.RES

Quant Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 18:04:15 2019
Response via : Initial Calibration
DataAcq Meth : SVOC1011

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.47	152	152707	40.00000 ppb	0.00
21) Napthalene-D8(IS)	6.91	136	625933	40.00000 ppb	0.00
41) Acenaphthene-D10(IS)	8.92	164	457209	40.00000 ppb	0.00
65) Phenanthrene-D10(IS)	10.66	188	918219	40.00000 ppb	0.00
80) Chrysene-D12(IS)	13.74	240	893738	40.00000 ppb	0.00
90) Perylene-D12(IS)	15.62	264	939329	40.00000 ppb	0.00
System Monitoring Compounds					
5) 2-Fluorophenol (S)	3.89	112	953675	224.17957 ppb	-0.02
Spiked Amount 250.000			Recovery =	89.672%	
6) Phenol-D6 (S)	5.07	99	1283093	253.30506 ppb	0.00
Spiked Amount 250.000			Recovery =	101.322%	
22) Nitrobenzene-D5(S)	6.09	82	733467	129.97640 ppb	0.00
Spiked Amount 125.000			Recovery =	103.981%	
46) 2-Fluorobiphenyl(S)	8.14	172	1411358	103.20417 ppb	0.00
Spiked Amount 125.000			Recovery =	82.563%	
64) 2,4,6-Tribromophenol(S)	9.85	330	618383	221.01022 ppb	0.00
Spiked Amount 250.000			Recovery =	88.404%	
83) Terphenyl-D14(S)	12.53	244	2198773	123.00486 ppb	0.00
Spiked Amount 125.000			Recovery =	98.404%	
Target Compounds					Qvalue
87) Bis (2-ethylhexyl) phthala	13.74	149	36677	2.42008 ppb	99

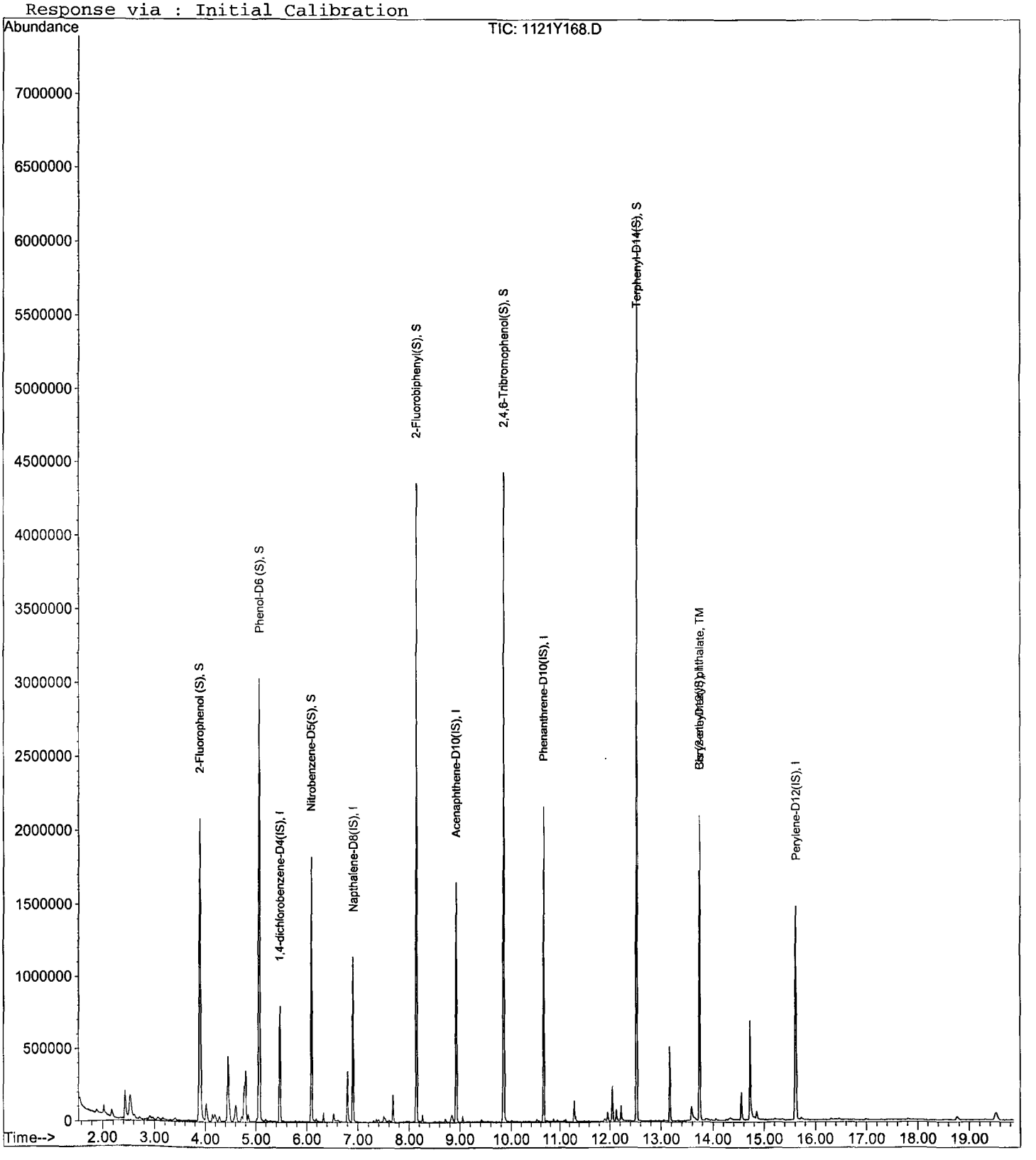
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y191121\1121Y168.D Vial: 68
Acq On : 27 Nov 19 3:21 Operator: MA,SS
Sample : BA02525W23 1/800 Inst : Yoda
Misc : Multiplr: 1.25

Quant Time: Dec 4 13:36 2019 Quant Results File: Y1121ND.RES

Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 18:04:15 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\YODA\DATA\Y191121\1121Y164.D Vial: 64
Acq On : 27 Nov 19 1:29 Operator: MA,SS
Sample : 191111A BLK 1/800 Inst : Yoda
Misc : Multiplr: 1.25

Quant Time: Dec 4 13:34 2019 Quant Results File: Y1121ND.RES

Quant Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 18:04:15 2019
Response via : Initial Calibration
DataAcq Meth : SVOC1011

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.47	152	133788	40.00000 ppb	0.00
21) Napthalene-D8(IS)	6.91	136	594780	40.00000 ppb	0.00
41) Acenaphthene-D10(IS)	8.93	164	454257	40.00000 ppb	0.00
65) Phenanthrene-D10(IS)	10.66	188	942208	40.00000 ppb	0.00
80) Chrysene-D12(IS)	13.75	240	873632	40.00000 ppb	0.00
90) Perylene-D12(IS)	15.61	264	931720	40.00000 ppb	0.00
System Monitoring Compounds					
5) 2-Fluorophenol (S)	3.89	112	1076623	288.86908 ppb	-0.02
Spiked Amount 250.000			Recovery	= 115.548%	
6) Phenol-D6 (S)	5.07	99	1404154	316.40421 ppb	0.00
Spiked Amount 250.000			Recovery	= 126.562%	
22) Nitrobenzene-D5(S)	6.09	82	774607	144.45642 ppb	0.00
Spiked Amount 125.000			Recovery	= 115.565%	
46) 2-Fluorobiphenyl(S)	8.14	172	1495703	110.08257 ppb	0.00
Spiked Amount 125.000			Recovery	= 88.066%	
64) 2,4,6-Tribromophenol(S)	9.85	330	668570	240.49987 ppb	0.00
Spiked Amount 250.000			Recovery	= 96.200%	
83) Terphenyl-D14(S)	12.52	244	2375908	135.97316 ppb	0.00
Spiked Amount 125.000			Recovery	= 108.778%	

Target Compounds Qvalue

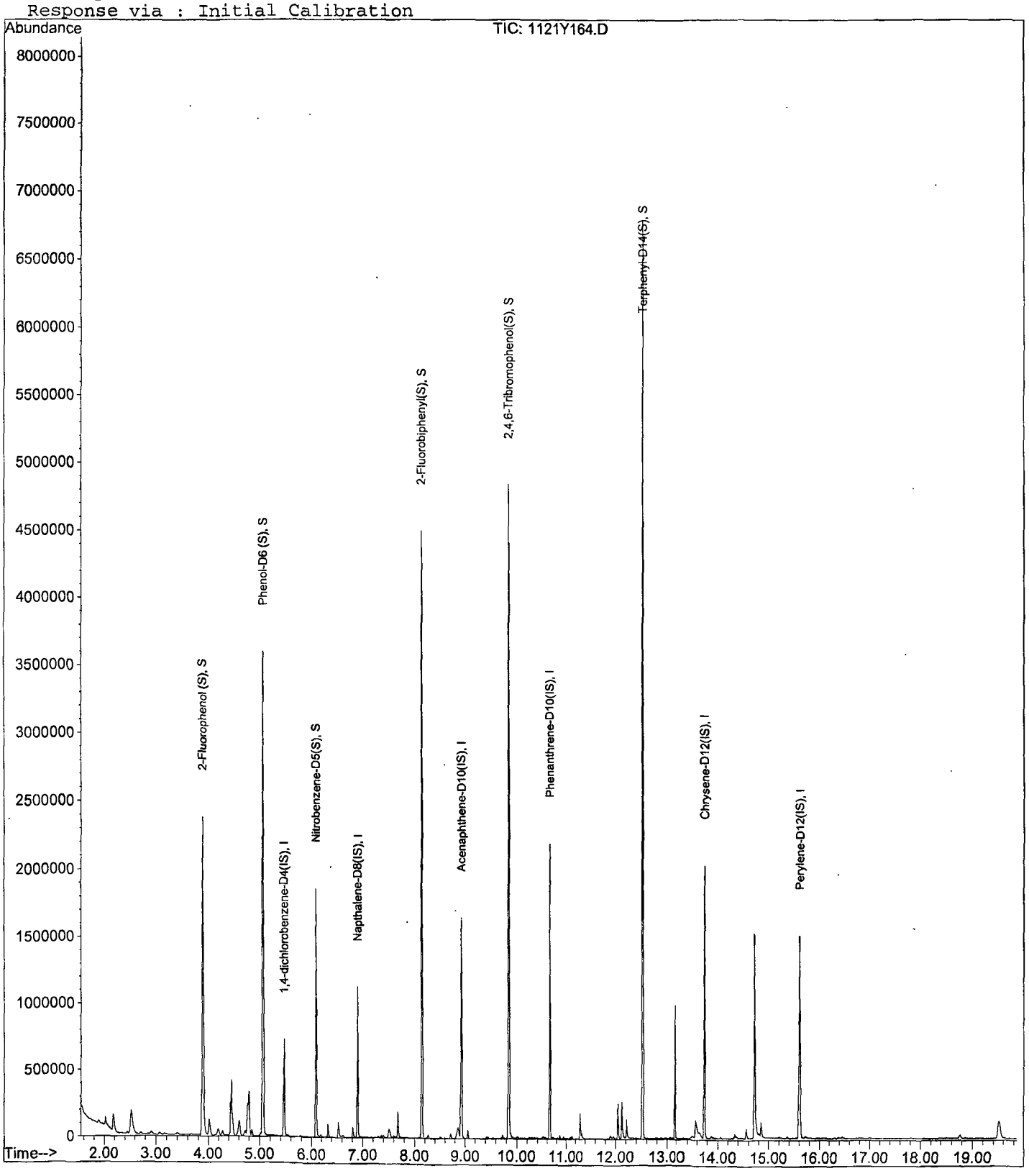
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y191121\1121Y164.D Vial: 64
Acq On : 27 Nov 19 1:29 Operator: MA,SS
Sample : 191111A BLK 1/800 Inst : Yoda
Misc : Multiplr: 1.25

Quant Time: Dec 4 13:34 2019 Quant Results File: Y1121ND.RES

Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 18:04:15 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y191121\1121Y165.D Vial: 65
Acq On : 27 Nov 19 1:57 Operator: MA,SS
Sample : 191111A LCS-1 1/800 Inst : Yoda
Misc : Multiplr: 1.25

Quant Time: Nov 27 8:02 2019 Quant Results File: Y1121ND.RES

Quant Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 18:04:15 2019
Response via : Initial Calibration
DataAcq Meth : SVOC1011

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.47	152	134054	40.00000	ppb		0.00
21) Napthalene-D8(IS)	6.91	136	567906	40.00000	ppb		0.00
41) Acenaphthene-D10(IS)	8.93	164	425107	40.00000	ppb		0.00
65) Phenanthrene-D10(IS)	10.67	188	864030	40.00000	ppb		0.00
80) Chrysene-D12(IS)	13.75	240	985653	40.00000	ppb		0.00
90) Perylene-D12(IS)	15.62	264	912241	40.00000	ppb		0.00
System Monitoring Compounds							
5) 2-Fluorophenol (S)	3.90	112	1050953	281.42203	ppb		0.00
Spiked Amount 250.000			Recovery	= 112.569%			
6) Phenol-D6 (S)	5.08	99	1428770	321.31220	ppb		0.00
Spiked Amount 250.000			Recovery	= 128.525%			
22) Nitrobenzene-D5(S)	6.10	82	735179	143.59140	ppb		0.00
Spiked Amount 125.000			Recovery	= 114.873%			
46) 2-Fluorobiphenyl(S)	8.15	172	1434678	112.83166	ppb		0.00
Spiked Amount 125.000			Recovery	= 90.266%			
64) 2,4,6-Tribromophenol(S)	9.86	330	646094	248.35164	ppb		0.00
Spiked Amount 250.000			Recovery	= 99.341%			
83) Terphenyl-D14(S)	12.52	244	2236504	113.44823	ppb		0.00
Spiked Amount 125.000			Recovery	= 90.758%			
Target Compounds							Qvalue
2) 1,4-Dioxane	1.72	58	10452	8.39486			91
3) n-Nitrosodimethylamine	1.94	42	154693	81.87755	ppb		94
4) Pyridine	1.96	79	285845	61.17378	ppb		97
7) Phenol	5.09	94	403283	76.79419	ppb		86
8) Aniline	5.10	93	185984	59.97523	ppb		94
9) Bis (2-chloroethyl) ether	5.17	63	179375	79.95409	ppb		88
10) 2-Chlorophenol	5.24	128	293515	73.80581	ppb		94
11) 1,3-DCB	5.40	146	270593	60.05270	ppb		97
12) 1,4-DCB	5.49	146	284209	62.08214	ppb		97
13) Benzyl alcohol	5.63	108	176570	78.10017	ppb		88
14) 1,2-DCB	5.66	146	273134	63.86429	ppb		98
15) 2-Methylphenol	5.77	107	240216	74.57187	ppb		97
16) Bis (2-chloroisopropyl) et	5.77	45	212268	84.66551	ppb	#	76
17) Acetophenone	5.93	105	467184	80.66932	ppb		88
18) 3&4-Methylphenol	5.93	107	700619	158.57867	ppb		96
19) n-Nitrosodi-n-propylamine	5.93	70	274187	83.11001	ppb		96
20) Hexachloroethane	6.04	117	96368	53.06765	ppb		92
23) Nitrobenzene	6.12	77	402814	76.95163	ppb		97
24) Isophorone	6.39	82	629529	74.18409	ppb		94
25) 2-Nitrophenol	6.48	139	163810	68.43234	ppb		96
26) 2,4-Dimethylphenol	6.53	122	260706	69.91815	ppb		98
27) Benzoic acid	6.67	105	240807	69.13248	ppb		96
28) Bis (2-chloroethoxy) metha	6.63	93	329950	72.11134	ppb		99
29) 2,4-Dichlorophenol	6.75	162	264815	68.97303	ppb		94
30) 1,2,4-Trichlorobenzene	6.84	180	267728	60.25600	ppb		97
31) 3,4-Dimethylphenol	6.86	107	445009	73.81988	ppb		100
32) Naphthalene	6.94	128	838665	68.53063	ppb		99
33) 4-Chloroaniline	6.99	127	295853	68.61519	ppb		98
34) 2,6-Dichlorophenol	7.01	162	260929	70.18314	ppb		99
35) Hexachloropropene	7.04	213	83993	21.71592	ppb		99
36) Hexachlorobutadiene	7.07	225	155356	49.51266	ppb		97
37) Caprolactum	7.41	55	110178	81.64398	ppb		93

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y191121\1121Y165.D Vial: 65
Acq On : 27 Nov 19 1:57 Operator: MA,SS
Sample : 191111A LCS-1 1/800 Inst : Yoda
Misc : Multiplr: 1.25

Quant Time: Nov 27 8:02 2019 Quant Results File: Y1121ND.RES

Quant Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 18:04:15 2019
Response via : Initial Calibration
DataAcq Meth : SVOC1011

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
38)	4-Chloro-3-methylphenol	7.56	107	319209	73.68330 ppb		95
39)	2-Methylnaphthalene	7.72	142	572024	68.58559 ppb		99
40)	1-Methylnaphthalene	7.84	142	593346	68.81087 ppb		99
42)	Hexachlorocyclopentadiene	7.91	237	29192	6.75685 ppb		95
43)	1,2,4,5-Tetrachlorobenzene	7.92	216	316928	53.03012 ppb		100
44)	2,4,6-Trichlorophenol	8.06	196	221668	58.25614 ppb		96
45)	2,4,5-Trichlorophenol	8.10	196	233905	57.73820 ppb		91
47)	1,1'-Biphenyl	8.26	154	760072	58.80433 ppb		100
48)	2-Chloronaphthalene	8.29	162	609345	57.61159 ppb		99
49)	2-Nitroaniline	8.40	65	214416	63.95565 ppb		93
50)	Dimethyl phthalate	8.61	163	771312	59.71339 ppb		100
51)	2,6-DNT	8.69	165	175913	60.89679 ppb		78
52)	Acenaphthylene	8.76	152	924849	56.89302 ppb		100
53)	3-Nitroaniline	8.40	138	194277	58.60177 ppb		97
54)	Acenaphthene	8.97	154	603594	54.92410 ppb		100
55)	2,4-Dinitrophenol	9.00	184	81992	42.47924 ppb		93
56)	4-Nitrophenol	8.68	65	14791	69.91841 ppb		98
57)	Dibenzofuran	9.17	168	901227	58.80055 ppb		100
58)	2,4-DNT	9.15	165	244589	59.55208 ppb		88
59)	2,3,4,6-Tetrachlorophenol	9.32	232	194897	56.94461 ppb		99
60)	Diethyl phthalate	9.43	149	782662	59.37206 ppb		96
61)	4-Chlorophenyl phenyl ethe	9.56	204	442395	58.66238 ppb	#	83
62)	Fluorene	9.57	166	780968	60.78172 ppb		99
63)	4-Nitroaniline	8.88	138	169527	64.27286 ppb		87
66)	4,6-Dinitro-2-methylphenol	9.64	198	123257	43.03552 ppb	#	86
67)	Diphenyl amine	9.71	169	1179739	111.08921 ppb		100
68)	n-Nitrosodiphenylamine	9.71	169	1179739	111.08921 ppb		100
69)	1,2-Diphenylhydrazine	9.75	77	811381	61.73485 ppb	#	83
70)	4-Bromophenyl phenyl ether	10.14	248	257189	56.06913 ppb		98
71)	Hexachlorobenzene	10.21	284	259583	53.54682 ppb	#	75
72)	Atrazine	10.32	200	87451	21.62701 ppb		97
73)	Pentachlorophenol	10.44	266	172493	54.77279 ppb		99
74)	Phenanthrene	10.69	178	1064662	56.91386 ppb		100
75)	Anthracene	10.75	178	1092341	55.61958 ppb		100
76)	Carbazol	10.94	167	1025742	58.03348 ppb		99
77)	Di-n-butylphthalate	11.33	149	1377356	59.84027 ppb	#	98
79)	Fluoranthene	12.08	202	1298094	57.02215 ppb		100
81)	Benzidine	12.23	184	17782	3.04012 ppb	#	79
82)	Pyrene	12.35	202	1379925	57.61354 ppb		99
84)	Butyl benzylphthalate	13.09	149	645700	59.38977 ppb		99
85)	3,3'-Dichlorobenzidine	13.70	252	332604	46.25845 ppb		100
86)	Benz (a) anthracene	13.74	228	1465052	55.78307 ppb		100
87)	Bis (2-ethylhexyl) phthala	13.75	149	1093760	65.44010 ppb		99
88)	Chrysene	13.78	228	1319744	56.40461 ppb		99
89)	Di-n-octylphthalate	14.51	149	1582702	60.40259 ppb		97
91)	Benzo (b) fluoranthene	15.07	252	1392755	60.35200 ppb		99
92)	Benzo (k) fluoranthene	15.10	252	1201009	56.48537 ppb		98
93)	Benzo (a) pyrene	15.54	252	1172571	56.90452 ppb		98
94)	Indeno (1,2,3-cd) pyrene	17.53	276	1395175	57.02854 ppb		99
95)	Dibenz (a,h) anthracene	17.56	278	1242111	57.56145 ppb		98
96)	Benzo (g,h,i) perylene	18.11	276	1100827	56.52021 ppb		99

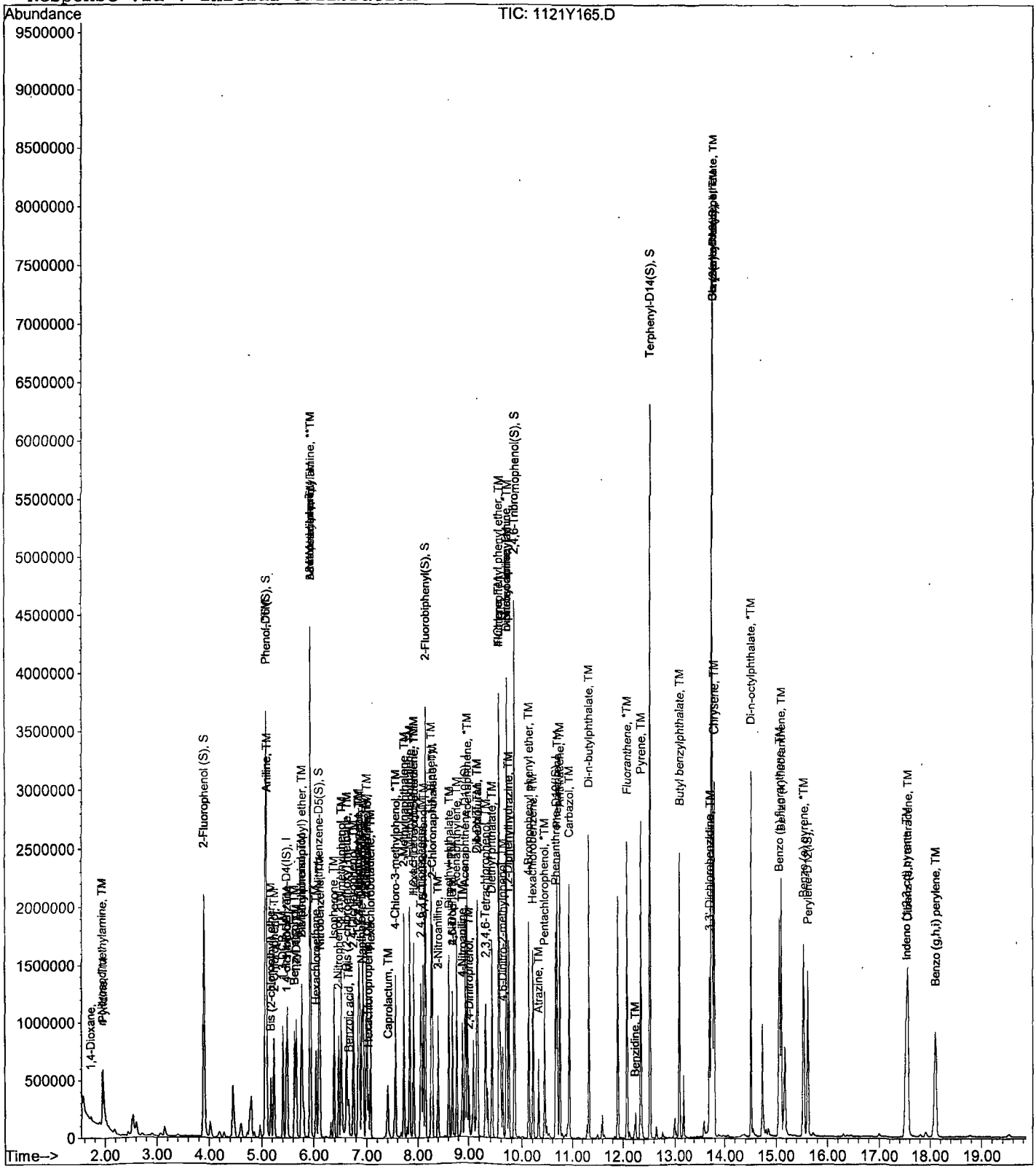
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y191121\1121Y165.D Vial: 65
Acq On : 27 Nov 19 1:57 Operator: MA,SS
Sample : 191111A LCS-1 1/800 Inst : Yoda
Misc : Multiplr: 1.25

Quant Time: Nov 27 8:02 2019 Quant Results File: Y1121ND.RES

Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 18:04:15 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y191121\1121Y166.D Vial: 66
Acq On : 27 Nov 19 2:25 Operator: MA,SS
Sample : 191111A LCSD-1 1/800 Inst : Yoda
Misc : Multiplr: 1.25

Quant Time: Nov 27 8:02 2019 Quant Results File: Y1121ND.RES

Quant Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 18:04:15 2019
Response via : Initial Calibration
DataAcq Meth : SVOC1011

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.47	152	154723	40.00000 ppb		0.00
21) Napthalene-D8(IS)	6.91	136	625632	40.00000 ppb		0.00
41) Acenaphthene-D10(IS)	8.93	164	456389	40.00000 ppb		0.00
65) Phenanthrene-D10(IS)	10.67	188	901564	40.00000 ppb		0.00
80) Chrysene-D12(IS)	13.75	240	1040399	40.00000 ppb		0.00
90) Perylene-D12(IS)	15.62	264	954594	40.00000 ppb		0.00
System Monitoring Compounds						
5) 2-Fluorophenol (S)	3.89	112	1014563	235.38496 ppb		-0.02
Spiked Amount 250.000			Recovery	= 94.154%		
6) Phenol-D6 (S)	5.08	99	1398314	272.45482 ppb		0.00
Spiked Amount 250.000			Recovery	= 108.982%		
22) Nitrobenzene-D5(S)	6.10	82	717207	127.15615 ppb		0.00
Spiked Amount 125.000			Recovery	= 101.725%		
46) 2-Fluorobiphenyl(S)	8.15	172	1393412	102.07495 ppb		0.00
Spiked Amount 125.000			Recovery	= 81.660%		
64) 2,4,6-Tribromophenol(S)	9.86	330	629670	225.44854 ppb		0.00
Spiked Amount 250.000			Recovery	= 90.180%		
83) Terphenyl-D14(S)	12.52	244	2188906	105.19117 ppb		0.00
Spiked Amount 125.000			Recovery	= 84.153%		
Target Compounds						Qvalue
2) 1,4-Dioxane	1.72	58	10221	7.11267		92
3) n-Nitrosodimethylamine	1.94	42	159861	73.30973 ppb		94
4) Pyridine	1.96	79	283143	52.50074 ppb		96
7) Phenol	5.09	94	401186	66.18950 ppb		87
8) Aniline	5.09	93	205568	57.43502 ppb	#	59
9) Bis (2-chloroethyl) ether	5.17	63	179321	69.25240 ppb		88
10) 2-Chlorophenol	5.24	128	288633	62.88269 ppb		97
11) 1,3-DCB	5.40	146	280829	53.99864 ppb		97
12) 1,4-DCB	5.49	146	294270	55.69289 ppb		97
13) Benzyl alcohol	5.63	108	173638	66.54337 ppb		86
14) 1,2-DCB	5.66	146	280424	56.80969 ppb		99
15) 2-Methylphenol	5.77	107	242012	65.09309 ppb		97
16) Bis (2-chloroisopropyl) et	5.78	45	211853	73.21188 ppb	#	81
17) Acetophenone	5.92	105	456852	68.34722 ppb		88
18) 3&4-Methylphenol	5.93	107	692379	135.77870 ppb		95
19) n-Nitrosodi-n-propylamine	5.93	70	273675	71.87312 ppb		97
20) Hexachloroethane	6.04	117	102189	48.75578 ppb		90
23) Nitrobenzene	6.12	77	394373	68.38769 ppb		98
24) Isophorone	6.39	82	617189	66.01927 ppb		95
25) 2-Nitrophenol	6.47	139	166118	62.99342 ppb		85
26) 2,4-Dimethylphenol	6.53	122	264179	64.31240 ppb		99
27) Benzoic acid	6.67	105	269742	70.21460 ppb		98
28) Bis (2-chloroethoxy) metha	6.63	93	315784	62.64740 ppb		98
29) 2,4-Dichlorophenol	6.75	162	261342	61.78790 ppb	#	93
30) 1,2,4-Trichlorobenzene	6.84	180	272138	55.59723 ppb		97
31) 3,4-Dimethylphenol	6.86	107	439261	66.14312 ppb		97
32) Naphthalene	6.94	128	829480	61.52614 ppb		100
33) 4-Chloroaniline	6.99	127	283070	59.59306 ppb		99
34) 2,6-Dichlorophenol	7.00	162	255963	62.49498 ppb		96
35) Hexachloropropene	7.04	213	66217	15.54040 ppb		99
36) Hexachlorobutadiene	7.08	225	158247	45.78057 ppb		99
37) Caprolactum	7.41	55	108491	72.97608 ppb		97

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y191121\1121Y166.D Vial: 66
Acq On : 27 Nov 19 2:25 Operator: MA,SS
Sample : 191111A LCSD-1 1/800 Inst : Yoda
Misc : Multiplr: 1.25

Quant Time: Nov 27 8:02 2019 Quant Results File: Y1121ND.RES

Quant Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 18:04:15 2019
Response via : Initial Calibration
DataAcq Meth : SVOC1011

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
38)	4-Chloro-3-methylphenol	7.56	107	312921	65.56713 ppb		97
39)	2-Methylnaphthalene	7.72	142	563171	61.29379 ppb		98
40)	1-Methylnaphthalene	7.84	142	592605	62.38380 ppb		100
42)	Hexachlorocyclopentadiene	7.91	237	38064	8.20650 ppb		99
43)	1,2,4,5-Tetrachlorobenzene	7.92	216	308156	48.02813 ppb		99
44)	2,4,6-Trichlorophenol	8.05	196	218732	53.54441 ppb		98
45)	2,4,5-Trichlorophenol	8.11	196	227631	52.33813 ppb		93
47)	1,1'-Biphenyl	8.26	154	747351	53.85701 ppb		99
48)	2-Chloronaphthalene	8.29	162	598479	52.70583 ppb		100
49)	2-Nitroaniline	8.40	65	210331	58.43702 ppb		96
50)	Dimethyl phthalate	8.62	163	751558	54.19600 ppb		99
51)	2,6-DNT	8.68	165	169470	54.64525 ppb		90
52)	Acenaphthylene	8.76	152	906385	51.93546 ppb		100
53)	3-Nitroaniline	8.40	138	191930	53.92564 ppb		99
54)	Acenaphthene	8.97	154	596914	50.59329 ppb		99
55)	2,4-Dinitrophenol	9.01	184	84147	40.60756 ppb		94
56)	4-Nitrophenol	8.68	65	13929	61.33057 ppb		98
57)	Dibenzofuran	9.17	168	881610	53.57804 ppb		99
58)	2,4-DNT	9.15	165	236294	53.58902 ppb		88
59)	2,3,4,6-Tetrachlorophenol	9.32	232	194207	52.85370 ppb		98
60)	Diethyl phthalate	9.43	149	774719	54.74131 ppb		96
61)	4-Chlorophenyl phenyl ethe	9.56	204	436665	53.93379 ppb		87
62)	Fluorene	9.57	166	768196	55.68970 ppb		99
63)	4-Nitroaniline	8.88	138	154497	54.55969 ppb		91
66)	4,6-Dinitro-2-methylphenol	9.64	198	128653	43.04946 ppb		96
67)	Diphenyl amine	9.71	169	978564	88.30950 ppb		99
68)	n-Nitrosodiphenylamine	9.71	169	978564	88.30950 ppb		99
69)	1,2-Diphenylhydrazine	9.75	77	746267	54.41668 ppb	#	85
70)	4-Bromophenyl phenyl ether	10.14	248	252537	52.76291 ppb		96
71)	Hexachlorobenzene	10.21	284	257093	50.82530 ppb	#	79
72)	Atrazine	10.32	200	64385	15.25979 ppb		98
73)	Pentachlorophenol	10.44	266	171912	52.31567 ppb		99
74)	Phenanthrene	10.69	178	1042906	53.42982 ppb		99
75)	Anthracene	10.75	178	1061135	51.78123 ppb		99
76)	Carbazol	10.94	167	1001791	54.31877 ppb		100
77)	Di-n-butylphthalate	11.34	149	1357017	56.50214 ppb		98
79)	Fluoranthene	12.08	202	1270090	53.46927 ppb		99
82)	Pyrene	12.35	202	1320170	52.21834 ppb		100
84)	Butyl benzylphthalate	13.09	149	640625	55.82245 ppb		97
85)	3,3'-Dichlorobenzidine	13.70	252	275533	36.30457 ppb		100
86)	Benz (a) anthracene	13.74	228	1432516	51.67411 ppb		99
87)	Bis (2-ethylhexyl) phthala	13.75	149	1034034	58.61123 ppb		99
88)	Chrysene	13.79	228	1267610	51.32568 ppb		100
89)	Di-n-octylphthalate	14.51	149	1528245	55.25525 ppb		99
91)	Benzo (b) fluoranthene	15.07	252	1355640	56.13739 ppb		99
92)	Benzo (k) fluoranthene	15.10	252	1148503	51.61938 ppb		98
93)	Benzo (a) pyrene	15.54	252	1122021	52.03547 ppb		99
94)	Indeno (1,2,3-cd) pyrene	17.53	276	1349780	52.72511 ppb		99
95)	Dibenz (a,h) anthracene	17.56	278	1199603	53.12510 ppb		99
96)	Benzo (g,h,i) perylene	18.11	276	1070082	52.50403 ppb		99

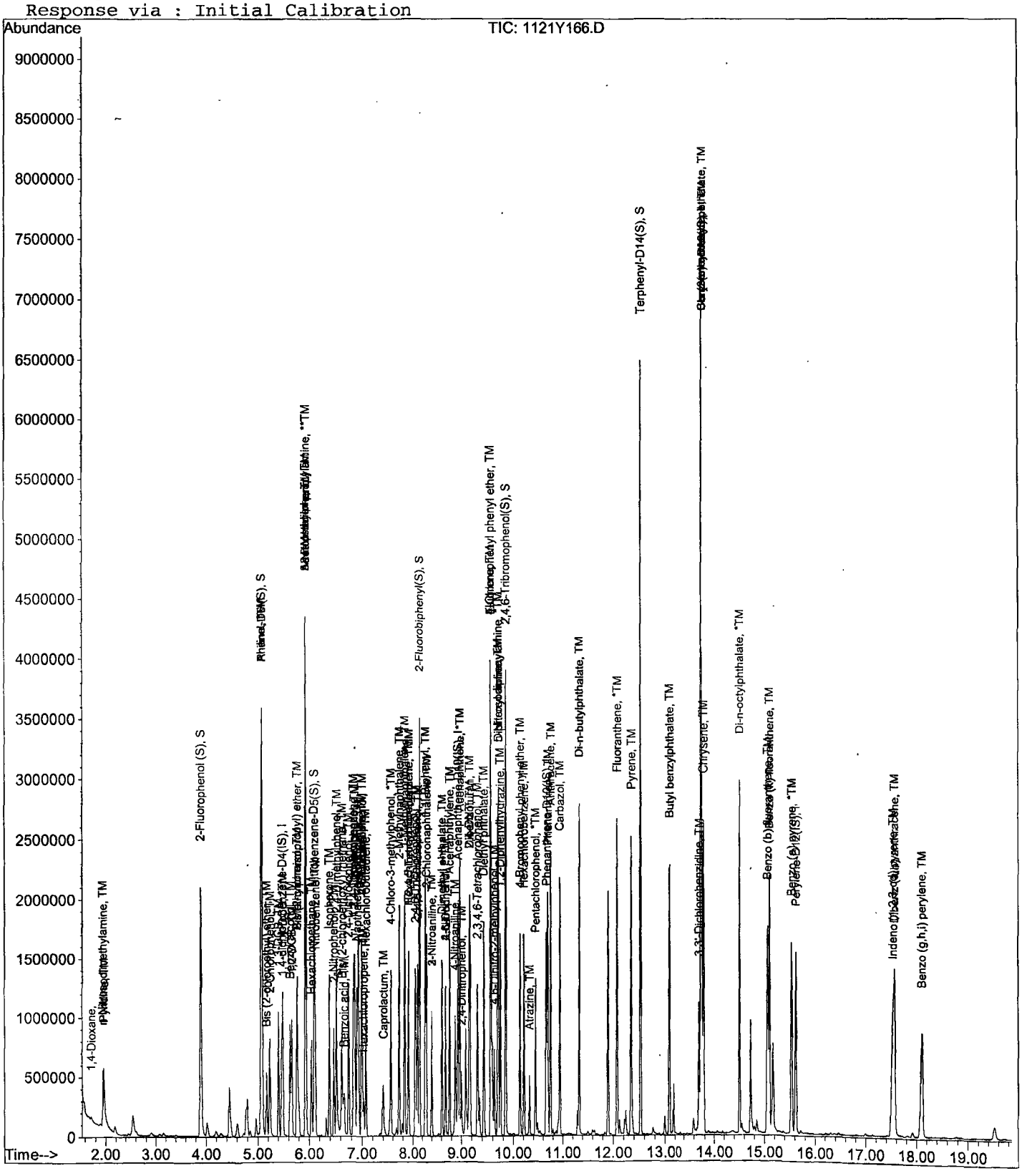
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y191121\1121Y166.D Vial: 66
Acq On : 27 Nov 19 2:25 Operator: MA,SS
Sample : 191111A LCSD-1 1/800 Inst : Yoda
Misc : Multiplr: 1.25

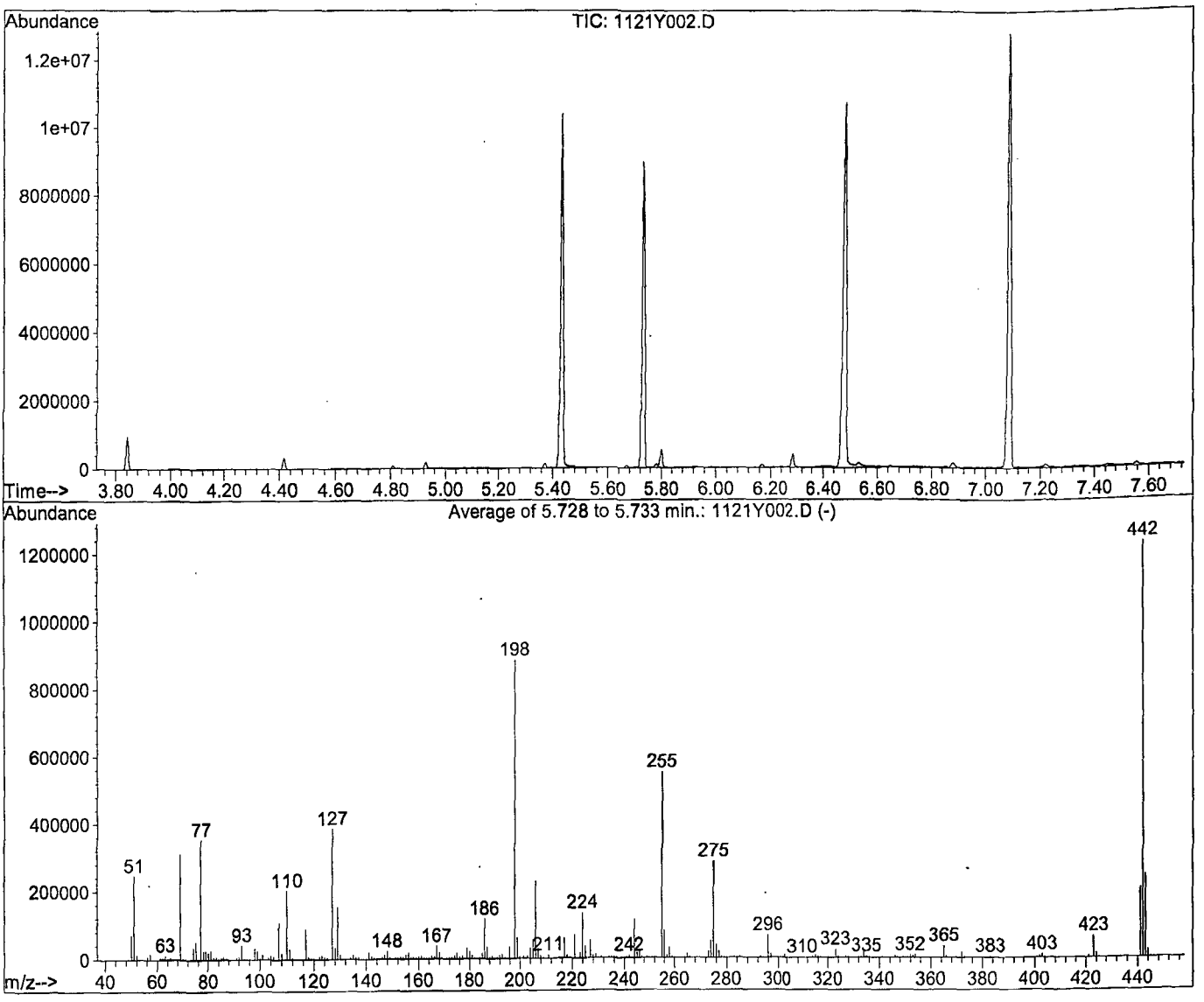
Quant Time: Nov 27 8:02 2019 Quant Results File: Y1121ND.RES

Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 22 18:04:15 2019
Response via : Initial Calibration



Data File : M:\YODA\DATA\Y191121\1121Y002.D Vial: 2
Acq On : 21 Nov 19 13:52 Operator: MA,SS
Sample : SV TUNE 10/01/19 Inst : Yoda
Misc : Multiplr: 1.00

Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C



Spectrum Information: Average of 5.728 to 5.733 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	27.9	246367	PASS
68	69	0.00	2	0.0	0	PASS
70	69	0.00	2	0.7	2239	PASS
127	198	10	80	43.6	385771	PASS
197	198	0.00	2	0.0	0	PASS
198	198	100	100	100.0	884437	PASS
199	198	5	9	6.9	61053	PASS
275	198	10	60	32.2	284928	PASS
365	198	1	100	3.9	34467	PASS
441	442	0.01	24	16.6	205141	PASS
442	198	50	500	139.4	1232555	PASS
443	442	15	24	19.7	243243	PASS

Data File Name:	**1121Y002.D**
Data File Path:	**M:\YODA\DATA\Y191121**
Operator:	**MA,SS**
Date Acquired:	**21 Nov 2019 13:52**
Method File:	**DFTPP2.M**
Sample Name:	**SV TUNE 10/01/19**
Vial Number:	**2**
Instrument Name:	**Yoda**

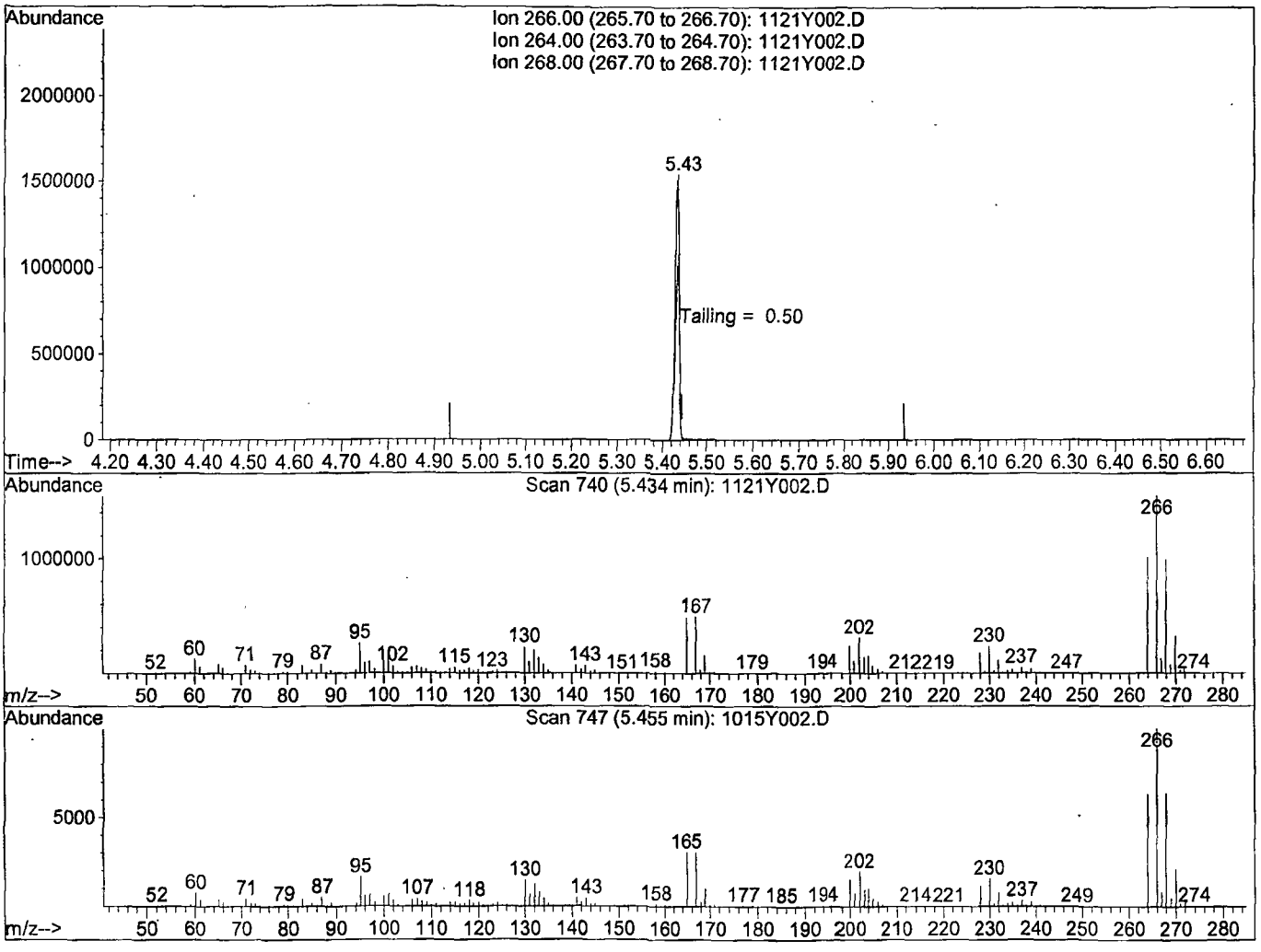
#	Name	Ret Time	Target Response
1)	DDT	7.09	103687000
2)	DDD	6.88	1239160
3)	DDE	6.61	214961

Breakdown **1.38**

Quantitation Report

Data File : M:\YODA\DATA\Y191121\1121Y002.D Vial: 2
Acq On : 21 Nov 19 13:52 Operator: MA,SS
Sample : SV TUNE 10/01/19 Inst : Yoda
Misc : Multiplr: 1.00
Quant Time: Nov 25 11:35 2019 Quant Results File: temp.res

Method : M:\YODA\DATA\Y191121\DFTPP2.M (Chemstation Integrator)
Title :
Last Update : Mon Nov 25 11:35:23 2019
Response via : Single Level Calibration



TIC: 1121Y002.D

(5) Pentachlorophenol

5.43min 0.0000

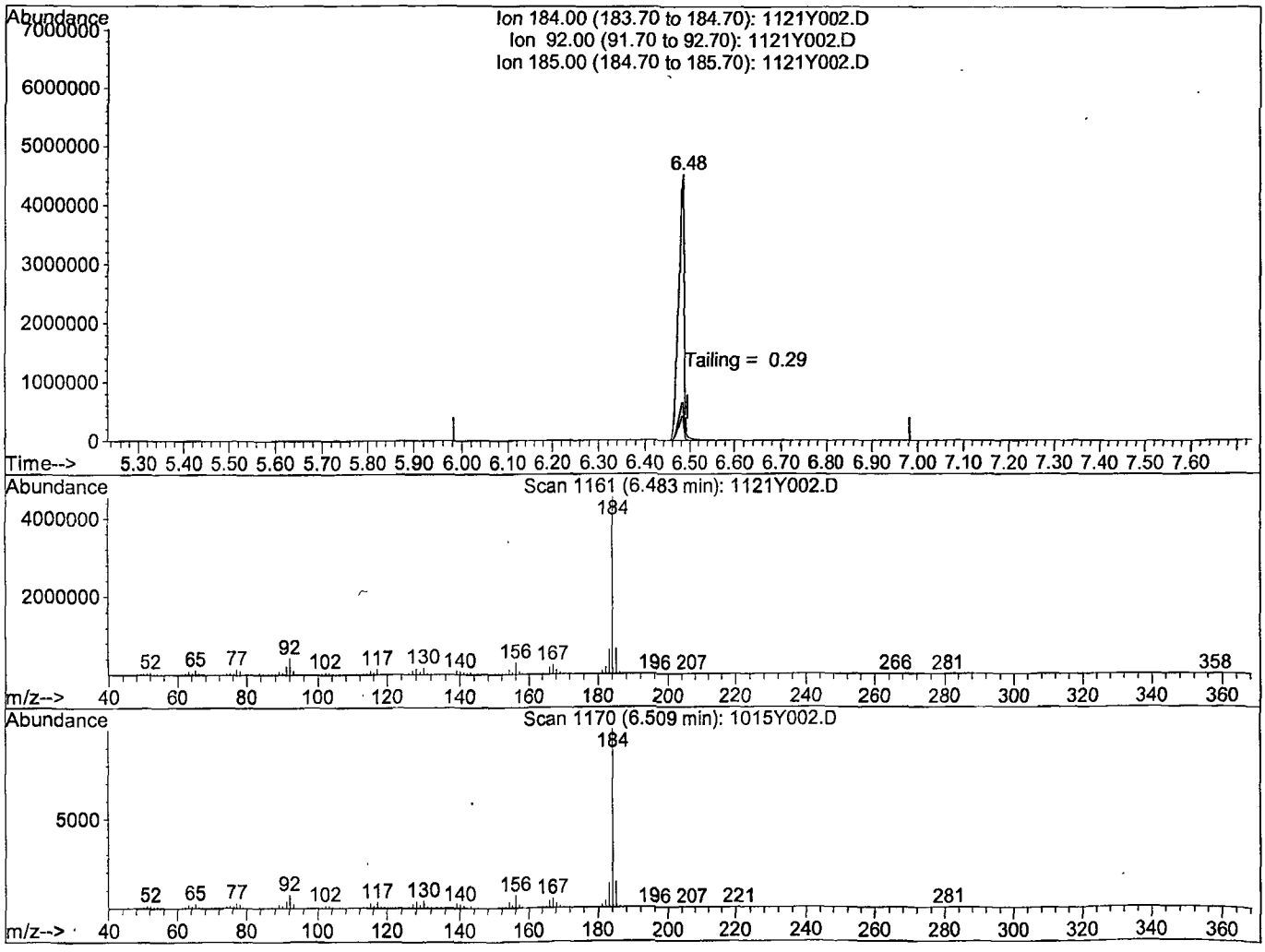
response 10183664

Ion	Exp%	Act%
266.00	100	100
264.00	65.50	63.47
268.00	64.40	63.76
0.00	0.00	0.00

Quantitation Report

Data File : M:\YODA\DATA\Y191121\1121Y002.D Vial: 2
Acq On : 21 Nov 19 13:52 Operator: MA,SS
Sample : SV TUNE 10/01/19 Inst : Yoda
Misc : Multiplr: 1.00
Quant Time: Nov 25 11:35 2019 Quant Results File: temp.res

Method : M:\YODA\DATA\Y191121\DFTPP2.M (Chemstation Integrator)
Title :
Last Update : Mon Nov 25 11:35:23 2019
Response via : Single Level Calibration



TIC: 1121Y002.D

(6) Benzidine

6.48min 0.0000

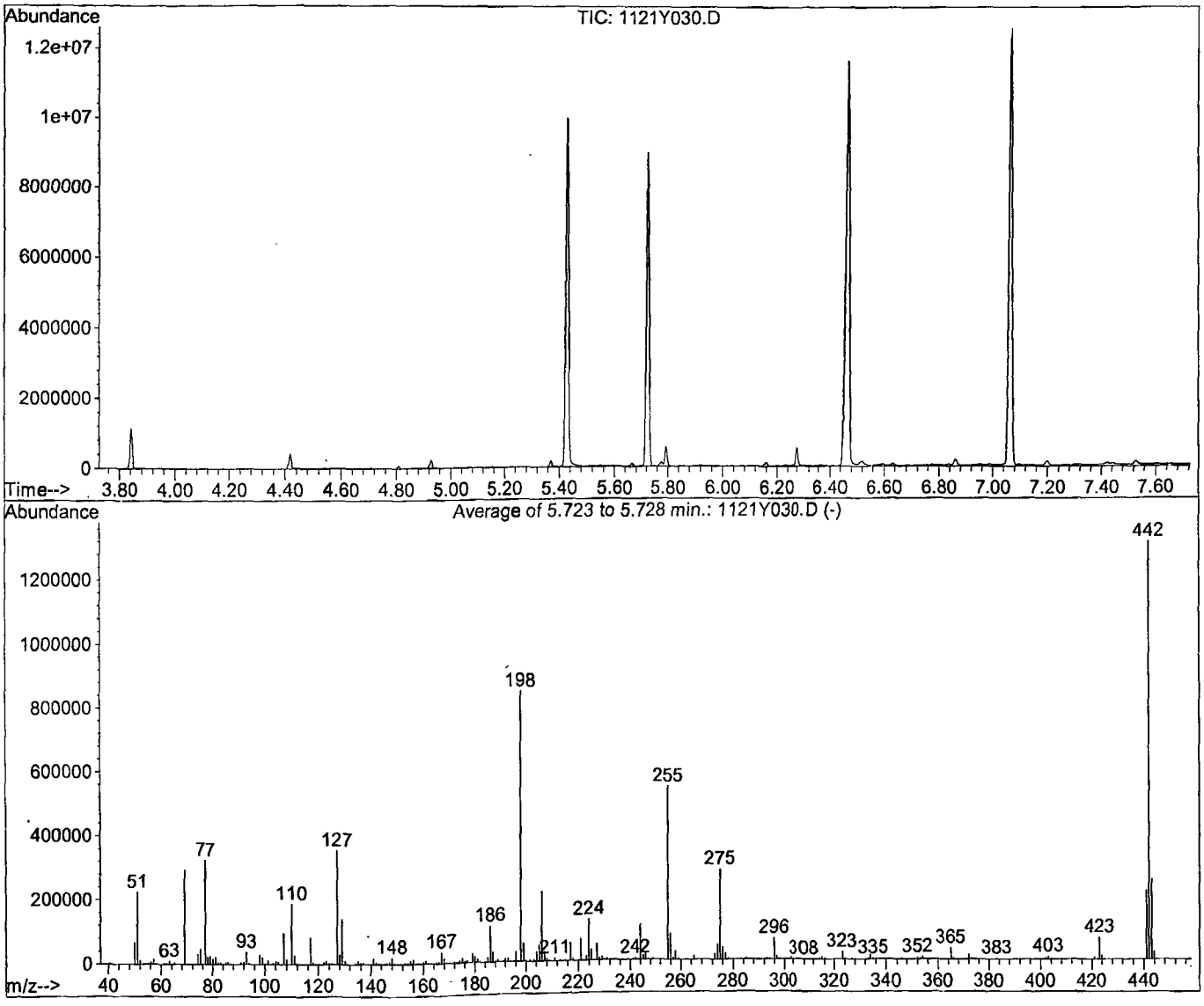
response 41952279

Ion	Exp%	Act%
184.00	100	100
92.00	9.20	8.85
185.00	14.30	14.28
0.00	0.00	0.00

Data File : M:\YODA\DATA\Y191121\1121Y030.D
Acq On : 22 Nov 19 13:23
Sample : SV TUNE 10/01/19
Misc :

Vial: 30
Operator: MA,SS
Inst : Yoda
Multiplr: 1.00

Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C



Spectrum Information: Average of 5.723 to 5.728 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	26.5	224439	PASS
68	69	0.00	2	0.0	0	PASS
70	69	0.00	2	0.4	1281	PASS
127	198	10	80	41.9	354859	PASS
197	198	0.00	2	0.0	0	PASS
198	198	100	100	100.0	847637	PASS
199	198	5	9	6.7	57211	PASS
275	198	10	60	33.3	282091	PASS
365	198	1	100	4.2	35747	PASS
441	442	0.01	24	16.3	213781	PASS
442	198	50	500	154.9	1313109	PASS
443	442	15	24	19.0	249600	PASS

Data File Name:	**1121Y030.D**
Data File Path:	**M:\YODA\DATA\Y191121**
Operator:	**MA,SS**
Date Acquired:	**22 Nov 2019 13:23**
Method File:	**DFTPP2.M**
Sample Name:	**SV TUNE 10/01/19**
Vial Number:	**30**
Instrument Name:	**Yoda**

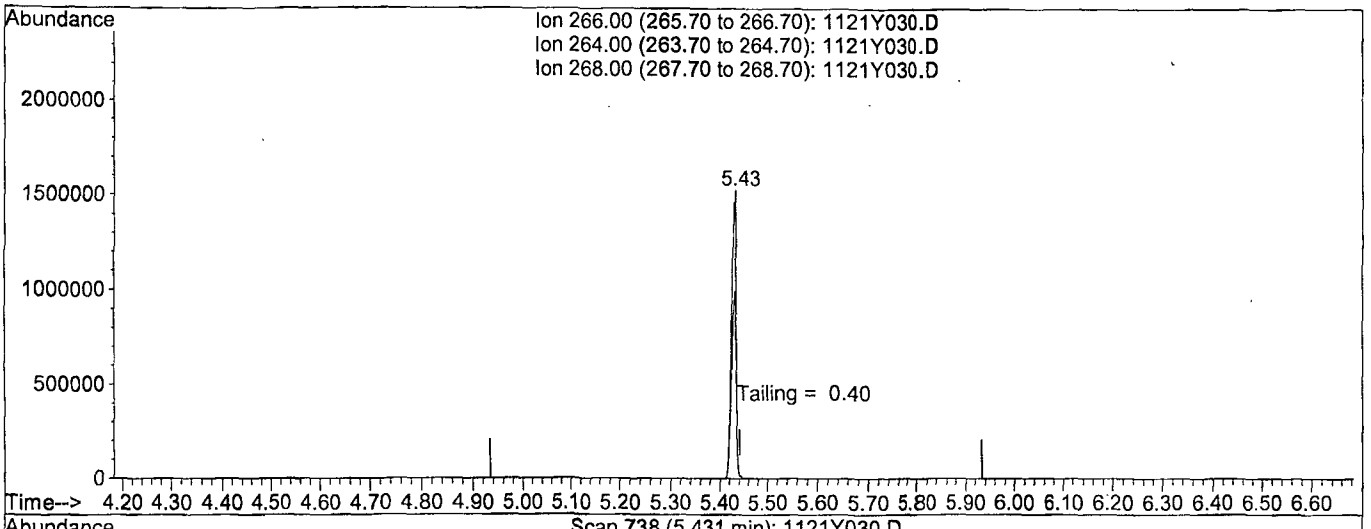
#	Name	Ret Time	Target Response
1)	DDT	7.09	106455000
2)	DDD	6.88	1407220
3)	DDE	6.61	235872

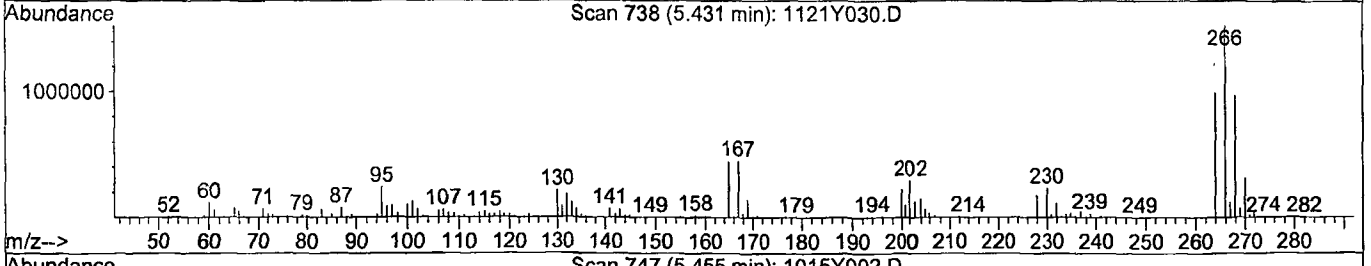
Breakdown **1.52**

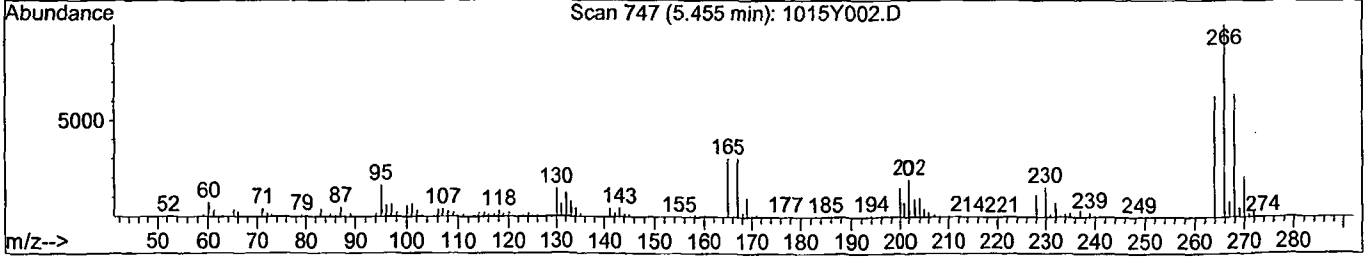
Quantitation Report

Data File : M:\YODA\DATA\Y191121\1121Y030.D Vial: 30
Acq On : 22 Nov 19 13:23 Operator: MA,SS
Sample : SV TUNE 10/01/19 Inst : Yoda
Misc : Multiplr: 1.00
Quant Time: Nov 25 11:36 2019 Quant Results File: temp.res

Method : M:\YODA\DATA\Y191121\DFTPP2.M (Chemstation Integrator)
Title :
Last Update : Mon Nov 25 11:35:23 2019
Response via : Single Level Calibration







TIC: 1121Y030.D

(5) Pentachlorophenol

5.43min 0.0000

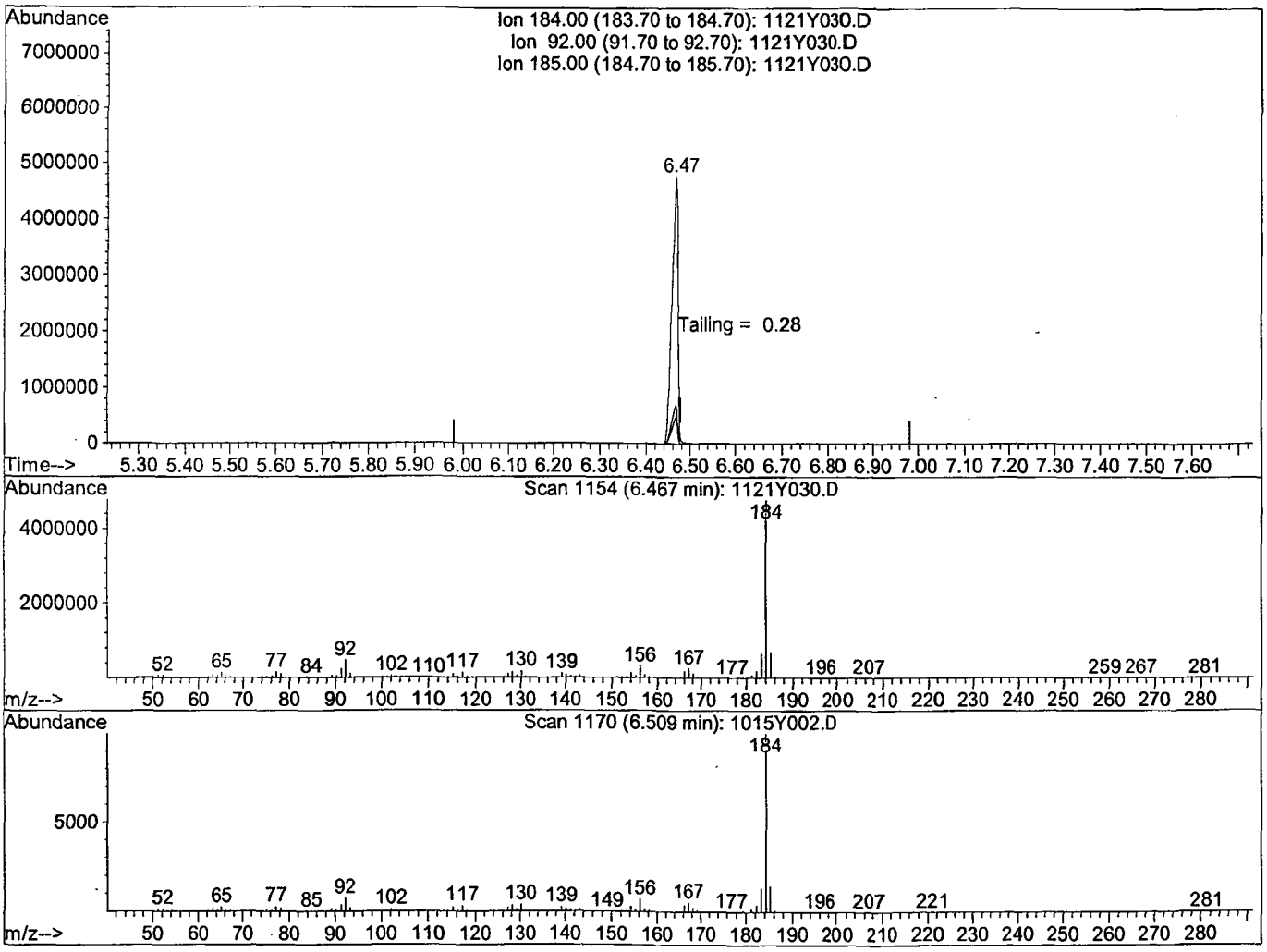
response 10296121

Ion	Exp%	Act%
266.00	100	100
264.00	65.50	63.86
268.00	64.40	63.64
0.00	0.00	0.00

Quantitation Report

Data File : M:\YODA\DATA\Y191121\1121Y030.D Vial: 30
Acq On : 22 Nov 19 13:23 Operator: MA,SS
Sample : SV TUNE 10/01/19 Inst : Yoda
Misc : Multiplr: 1.00
Quant Time: Nov 25 11:36 2019 Quant Results File: temp.res

Method : M:\YODA\DATA\Y191121\DFTPP2.M (Chemstation Integrator)
Title :
Last Update : Mon Nov 25 11:35:23 2019
Response via : Single Level Calibration



TIC: 1121Y030.D

(6) Benzidine

6.47min 0.0000

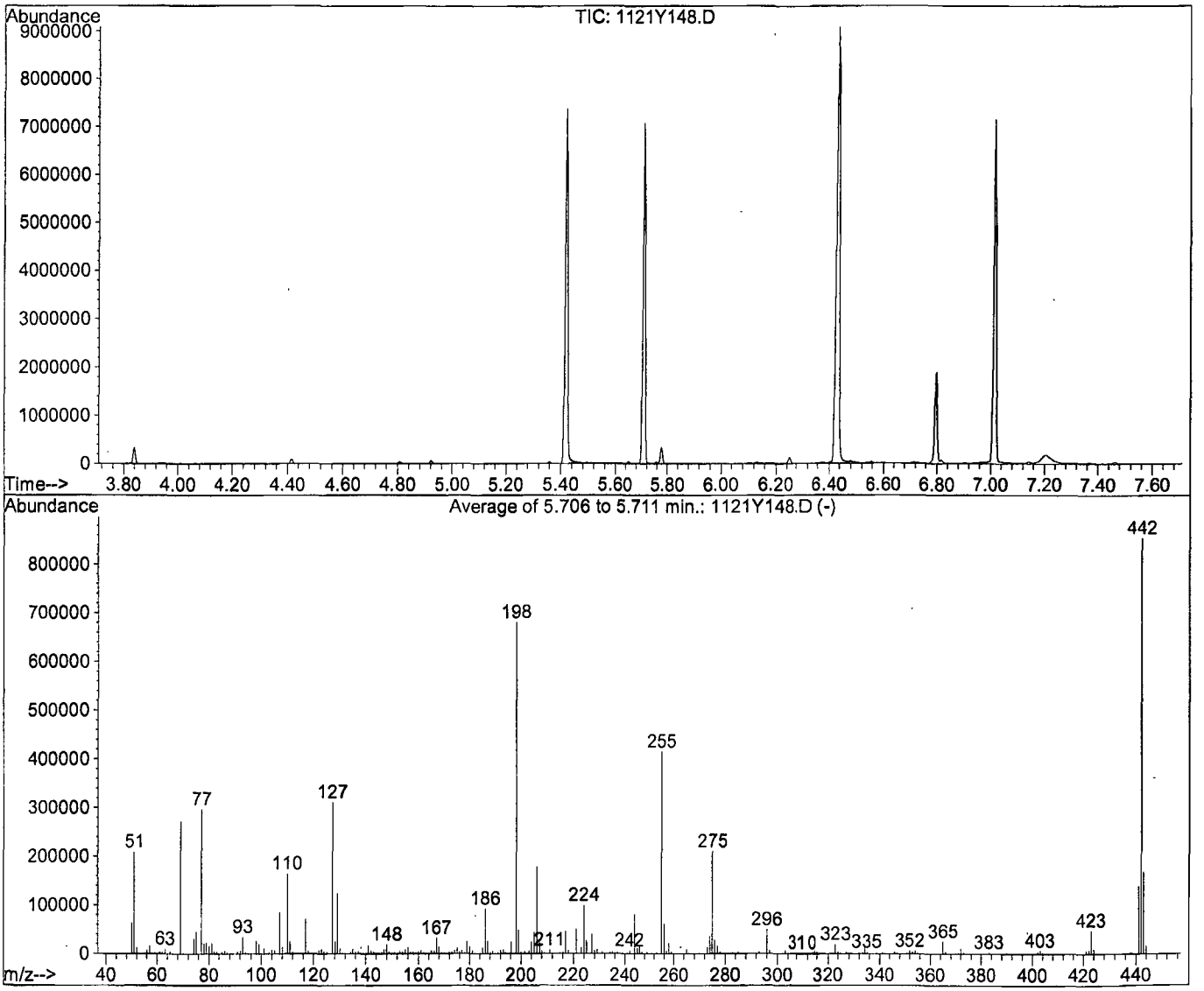
response 43745170

Ion	Exp%	Act%
184.00	100	100
92.00	9.20	9.26
185.00	14.30	14.55
0.00	0.00	0.00

DFTPP

Data File : M:\YODA\DATA\Y191121\1121Y148.D Vial: 48
Acq On : 26 Nov 19 18:16 Operator: MA,SS
Sample : SV TUNE 10/01/19 Inst : Yoda
Misc : Multiplr: 1.00

Method : M:\YODA\DATA\Y191121\Y1121ND.M (RTE Integrator)
Title : EPA 8270C



Spectrum Information: Average of 5.706 to 5.711 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	30.7	208917	PASS
68	69	0.00	2	0.0	0	PASS
70	69	0.00	2	0.2	654	PASS
127	198	10	80	45.8	311232	PASS
197	198	0.00	2	0.0	0	PASS
198	198	100	100	100.0	679979	PASS
199	198	5	9	7.0	47424	PASS
275	198	10	60	30.9	209792	PASS
365	198	1	100	3.6	24760	PASS
441	442	0.01	24	16.2	138283	PASS
442	198	50	500	125.7	854912	PASS
443	442	15	24	19.6	167749	PASS

Data File Name:	**1121Y148.D**
Data File Path:	**M:\YODA\DATA\Y191121**
Operator:	**MA,SS**
Date Acquired:	**26 Nov 2019 18:16**
Method File:	**DFTPP2.M**
Sample Name:	**SV TUNE 10/01/19**
Vial Number:	**48**
Instrument Name:	**Yoda**

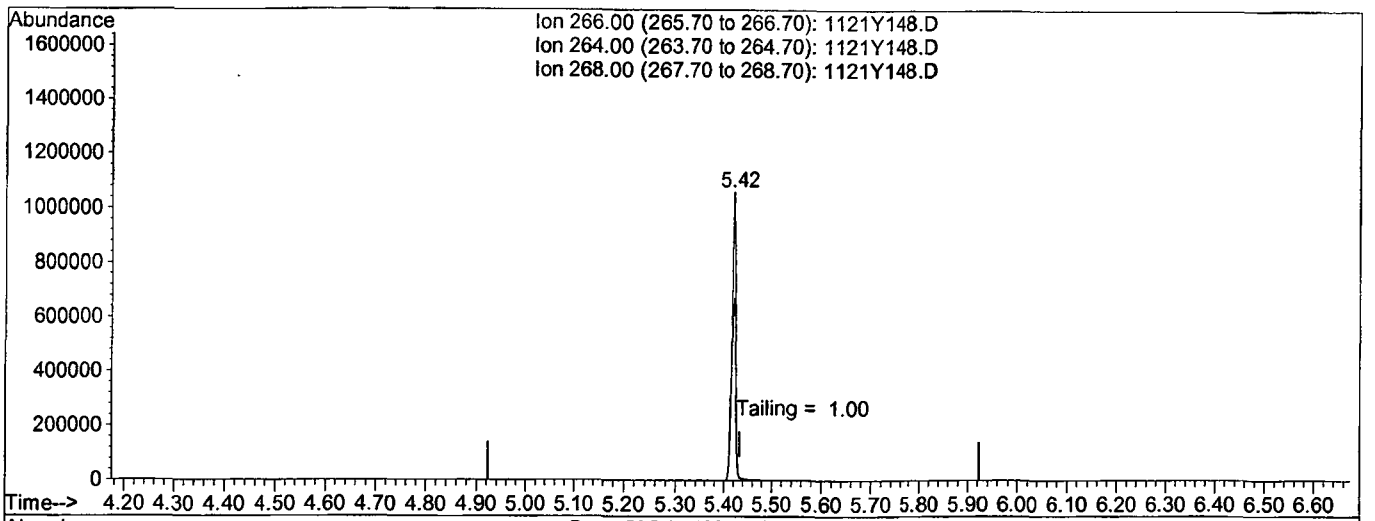
#	Name	Ret Time	Target Response
1)	DDT	7.03	50149300
2)	DDD	6.83	496078
3)	DDE	6.65	0

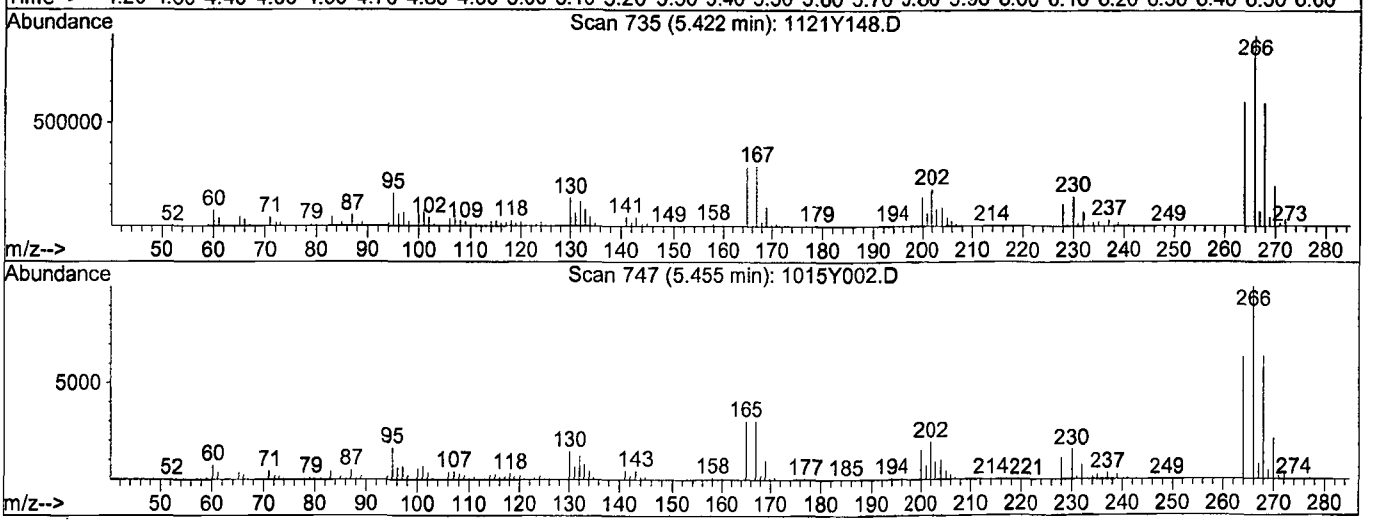
Breakdown **0.98**

Quantitation Report

Data File : M:\YODA\DATA\Y191121\1121Y148.D Vial: 48
Acq On : 26 Nov 19 18:16 Operator: MA,SS
Sample : SV TUNE 10/01/19 Inst : Yoda
Misc : Multiplr: 1.00
Quant Time: Nov 26 17:13 2019 Quant Results File: temp.res

Method : M:\YODA\DATA\Y191121\DFTPP2.M (Chemstation Integrator)
Title :
Last Update : Mon Nov 25 12:03:01 2019
Response via : Single Level Calibration





TIC: 1121Y148.D

(5) Pentachlorophenol

5.42min 0.0000

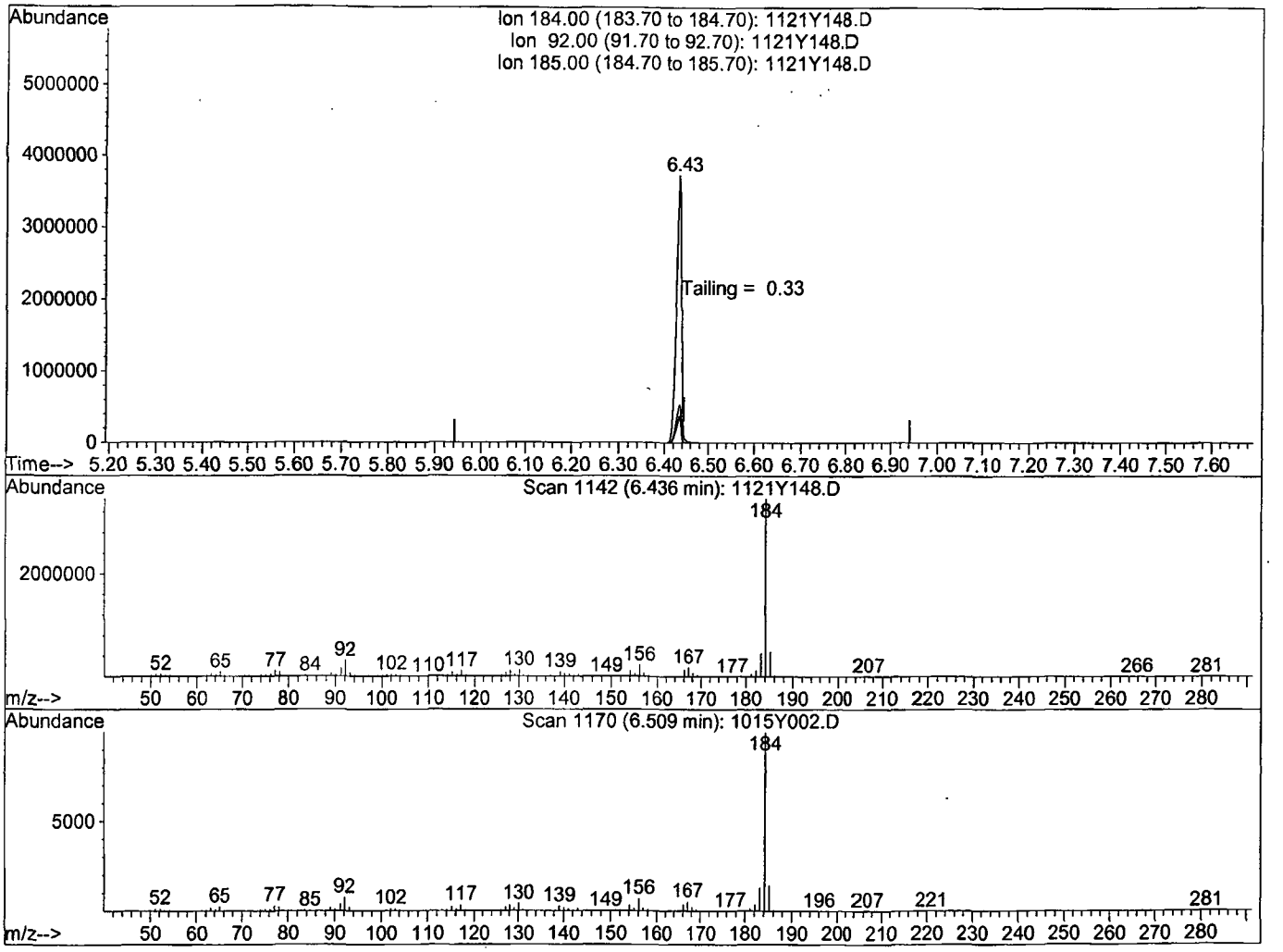
response 6348230

Ion	Exp%	Act%
266.00	100	100
264.00	64.40	64.10
268.00	63.20	63.12
0.00	0.00	0.00

Quantitation Report

Data File : M:\YODA\DATA\Y191121\1121Y148.D Vial: 48
Acq On : 26 Nov 19 18:16 Operator: MA,SS
Sample : SV TUNE 10/01/19 Inst : Yoda
Misc : Multiplr: 1.00
Quant Time: Nov 26 17:13 2019 Quant Results File: temp.res

Method : M:\YODA\DATA\Y191121\DFTPP2.M (Chemstation Integrator)
Title :
Last Update : Mon Nov 25 12:03:01 2019
Response via : Single Level Calibration



TIC: 1121Y148.D

(6) Benzidine

6.44min 0.0000

response 29597434

Ion	Exp%	Act%
184.00	100	100
92.00	9.40	9.28
185.00	14.10	14.36
0.00	0.00	0.00

Name of Final Standard	8270 Full Scan Stock Spike	Prep'd By (Initials)	JP
Prep Date	011/21/2019		
Exp Date	011/21/2020		

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from contianer Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
10001	Absolute	10001	2000	081419 - 49302	08/14/22	1.0 mL	11 mL	NA	181.82 ug/mL
10002	Absolute	10002	2000	090919- 49211	09/09/22	1.0 mL	*	*	181.82 ug/mL
10004	Absolute	10004	2000	071618- 99221	07/16/23	1.0 mL	*	*	181.82 ug/mL
10005	Absolute	10005	2000	032018- 40234	03/20/23	1.0 mL	*	*	181.82 ug/mL
10006	Absolute	10006	2000	030119- 49242	03/01/22	1.0 mL	*	*	181.82 ug/mL
10007	Absolute	10007	2000	080116- 40254	08/01/21	1.0 mL	*	*	181.82 ug/mL
10018	Absolute	10018	2000	051719- 49262	05/17/24	1.0 mL	*	*	181.82 ug/mL
70023	Absolute	70023	1000	012819- 49268	01/28/24	1.0 mL	*	*	90.91ug/mL
82705	Absolute	82705	2000	090919- 49293	09/09/22	1.0 mL	*	*	181.82 ug/mL
94552	Absolute	94552	various	053119- 49284	05/31/21	1.0 mL	*	*	various
72304	Absolute	70023	1000	090519- 49455 - 41159	09/05/24	1.0 mL	*	*	90.91ug/mL

Name of Final Standard	8270 Internal Standard Ampules (2)	Prep'd By (Initials)	JP
Prep Date	11/20/19		
Exp Date	11/20/20		

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from contianer Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
Semivolatile Internal Standard	Restek	31206	2000 ug/mL	**A0151843-49411 A0151843-49412**	**07/31/25**	2 mL	2 mL	NA	2000ug/mL

Name of Final Standard	**8270 SS STOCK**	**Prep'd By (Initials)**	**JP**
Prep Date	**11/20/19**		
Exp Date	**11/20/20**		

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from contianer Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
10001	Absolute	10001	2000 ug/mL	051019-40534	05/10/21	1.0 mL	20 mL	**Methanol Lot 208858**	100 ug/mL
10002	Absolute	10002	2000 ug/mL	020217-39199	02/02/20	1.0 mL	*	*	100 ug/mL
10004	Absolute	10004	2000 ug/mL	051018-39196	05/10/21	1.0 mL	*	*	100 ug/mL
10005	Absolute	10005	2000 ug/mL	031618-39207	03/16/23	1.0 mL	*	*	100 ug/mL
10006	Absolute	10006	2000 ug/mL	011718-39208	01/17/21	1.0 mL	*	*	100 ug/mL
10007	Absolute	10007	2000 ug/mL	060118-39213	06/01/23	1.0 mL	*	*	100 ug/mL
10018	Absolute	10018	2000 ug/mL	062718-40535	06/27/23	1.0 mL	*	*	100 ug/mL
70023	Absolute	70023	1000 ug/mL	051618-39214	05/16/23	1.0 mL	*	*	50 ug/mL
82705	Absolute	82705	2000 ug/mL	090617-40540	09/06/20	1.0 mL	*	*	100 ug/mL
94552	Absolute	94552	various	013118-40542	01/31/20	1.0 mL	*	*	various
72304	Absolute	72304	1000 ug/mL	110719-49477	11/07/24	1.0 mL	*	*	50 ug/mL

Name of Final Standard	**8270 Full Scan Second Source**	**Prep'd By (Initials)**	**JP**
Prep Date	**11/22/19**		
Exp Date	**11/22/20**		

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from container Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
8270 SS Stock	APPL	8270 SS Stock	100:50 ug/mL	**11/20/19**	**11/20/20**	100 uL	200uL	**MC DW717 150uL**	50:25 ug/mL
SV Internal Standard	APPL	SV Internal Standard	2000 ug/mL	**11/20/19**	**11/20/19**	4 uL	*	*	*

Name of Final Standard	8270 Full Scan Standard Curve	Prep'd By (Initials)	JP
Prep Date	011/21/2019		
Exp Date	011/21/2020		

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from container Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
8270 Stock	APPL	8270 Stock	182:91 ug/mL	011/21/2019	011/21/2020	4.4 uL	200uL	MC DW717 150uL	4 ug/mL
8270 Surrogate	APPL	8270 Surrogate	200:400 ug/mL	07/10/19	06/24/20	4 uL	*	*	*
SV Internal Standard	APPL	SV Internal Standard	2000 ug/mL	011/20/2019	07/31/25	4 uL	*	*	*
8270 Stock	APPL	8270 Stock	182:91 ug/mL	011/21/2019	011/21/2020	11 uL	400uL	MC DW717 150uL	5 ug/mL
8270 Surrogate	APPL	8270 Surrogate	200:400 ug/mL	07/10/19	06/24/20	10 uL	*	*	*
SV Internal Standard	APPL	SV Internal Standard	2000 ug/mL	011/20/2019	07/31/25	8 uL	*	*	*
8270 Stock	APPL	8270 Stock	182:91 ug/mL	011/21/2019	011/21/2020	11 uL	200uL	MC DW717 150uL	10 ug/mL
8270 Surrogate	APPL	8270 Surrogate	200:400 ug/mL	07/10/19	06/24/20	10 uL	*	*	*
SV Internal Standard	APPL	SV Internal Standard	2000 ug/mL	011/20/2019	07/31/25	4 uL	*	*	*
8270 Stock	APPL	8270 Stock	182:91 ug/mL	011/21/2019	011/21/2020	11 uL	100uL	MC DW717 150uL	20 ug/mL
8270 Surrogate	APPL	8270 Surrogate	200:400 ug/mL	07/10/19	06/24/20	10 uL	*	*	*
SV Internal Standard	APPL	SV Internal Standard	2000 ug/mL	011/20/2019	07/31/25	2 uL	*	*	*
8270 Stock	APPL	8270 Stock	182:91 ug/mL	011/21/2019	011/21/2020	22 uL	100uL	MC DW717 150uL	40 ug/mL
8270 Surrogate	APPL	8270 Surrogate	200:400 ug/mL	07/10/19	06/24/20	20 uL	*	*	*
SV Internal Standard	APPL	SV Internal Standard	2000 ug/mL	011/20/2019	07/31/25	2 uL	*	*	*
8270 Stock	APPL	8270 Stock	182:91 ug/mL	011/21/2019	011/21/2020	55 uL	200 uL	MC DW717 150uL	50 ug/mL
8270 Surrogate	APPL	8270 Surrogate	200:400 ug/mL	07/10/19	06/24/20	50 uL	*	*	*
SV Internal Standard	APPL	SV Internal Standard	2000 ug/mL	011/20/2019	07/31/25	4 uL	*	*	*
8270 Stock	APPL	8270 Stock	182:91 ug/mL	011/21/2019	011/21/2020	33 uL	100uL	MC DW717 150uL	60 ug/mL
8270 Surrogate	APPL	8270 Surrogate	200:400 ug/mL	07/10/19	06/24/20	30 uL	*	*	*
SV Internal Standard	APPL	SV Internal Standard	2000 ug/mL	011/20/2019	07/31/25	2 uL	*	*	*
8270 Stock	APPL	8270 Stock	182:91 ug/mL	011/21/2019	011/21/2020	44 uL	100uL	MC DW717 150uL	80 ug/mL
8270 Surrogate	APPL	8270 Surrogate	200:400 ug/mL	07/10/19	06/24/20	40 uL	*	*	*
SV Internal Standard	APPL	SV Internal Standard	2000 ug/mL	011/20/2019	07/31/25	2 uL	*	*	*
8270 Stock	APPL	8270 Stock	182:91 ug/mL	011/21/2019	011/21/2020	50 uL	100uL	na	91 ug/mL
8270 Surrogate	APPL	8270 Surrogate	200:400 ug/mL	07/10/19	06/24/20	50 uL	*	*	*
SV Internal Standard	APPL	SV Internal Standard	2000 ug/mL	011/20/2019	07/31/25	2 uL	*	*	*

Name of Final Standard	**Semivolatile (SV) Tuning Solution**
Prep Date	**10/01/19**
Exp Date	**11/30/20**

Prep'd By (Initials) **JP**

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from contianer Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
Semivolatile GC/MS Tuning Standard	Ultra Scientific	GCM-150-1	1,000 ug/mL	CR3789-38879	**11/30/20**	1,250 uL	25 mL	**MC #58240**	50 ug/mL

_LIQ003

Organic Extraction Worksheet

Method	Continuous Liquid/Liquid SVOC 3520C	Extraction Set	191111A	Extraction Method	LIQ003	Units	mL

Spiked ID 1	8270T Spike 11/1/19 ex 11/1/20		Surrogate ID 1	8270 Surrogate 11/6/19 ex 11/6/20	
Spiked ID 2	Sim Spike 9/30/19 ex 9/30/20		Surrogate ID 2	SIM Surrogate 10/25/19 ex 10/25/19	
Spiked ID 3			Surrogate ID 3		
Spiked ID 4			Surrogate ID 4		
Spiked ID 5			Surrogate ID 5		
Spiked ID 6			Sufficient Vol for Matrix QC:	no	
Spiked ID 7			Ext. Start Time:	11/11/19 14:10	
Spiked ID 8			Ext. End Time:	11/15/19 10:45	
			GC Requires Extract By:		

pH1	2	11/12/19 10:00	Water Bath Temp 1 °C	EWB6 75/74.9 °
pH2	14	11/13/19 10:30	Water Bath Temp 2 °C	
pH3			Water Bath Temp 3 °C	

Spiked By: DL **Date** 11/11/19 **Witnessed By:** YL **Date** 11/11/19

	Sample	Sample Container	Spike Amount	Spike ID	Surrogate Amount	Surrogate ID	Extract Amount	Final Volume	pH	Extract Date/Time	Comments
1	191111A Blk				1,0.050	1,2	800	1	2/1	11/11/19 14:10	
						equip	EWB6				
2	191111A LCS-1		1	1	1	1	800	1	2/1	11/11/19 14:10	
						equip	EWB6				
3	191111A LCS-2		0.125	2	0.050	2	800	1	2/1	11/11/19 14:10	
						equip	EWB6				
4	191111A LCSD-1		1	1	1	1	800	1	2/1	11/11/19 14:10	
						equip	EWB6				
5	191111A LCSD-2		0.125	2	0.050	2	800	1	2/1	11/11/19 14:10	
						equip	EWB6				
6	BA02466	BA02466W21			1,0.050	1,2	800	1	2/1	11/11/19 14:10	90648
						equip	EWB6				
7	BA02525	BA02525W23			1,0.050	1,2	800	1	2/1	11/11/19 14:10	90657
						equip	EWB6				
8	BA02713	BA02713W19			1,0.050	1,2	800	1	2/1	11/11/19 14:10	90700
						equip	EWB6				
9	BA02715	BA02715W29			1,0.050	1,2	800	1	2/1	11/11/19 14:10	90700
						equip	EWB6				
10	BA02716	BA02716W12			1,0.050	1,2	800	1	2/1	11/11/19 14:10	90700
						equip	EWB6				

olvent and Lot#	
H Strips	HL863463
ichloromethane (DCM)	59130
+1 H2SO4	11/1/19
ON NaOH	10/25/19
ilter Paper	400171
. Na2SO4	2019020631

Extraction COC Transfer	
Extraction lab employee Initials	SS
GC analyst's initials	MA
Date	11/15/19
Time	2:30
Refrigerator	GC_C

	Technician's Initials
Scanned By	DL
Sample Preparation	DL
Extraction	DL
Concentration	DL

Modified	11/18/19 1:27:30 PM

Reviewed By: HA **Date** 11/18/19

1/18/19 1:30:30 PM

Injection Log

Directory: M:\YODA\DATA\Y191121\

Vial	FileName	Multiplier	SampleName	Misc Info	Injected
2	1121Y002.D	1	SV TUNE 10/01/19		21 Nov 19 13:52
3	1121Y003.D	1	4ug/ml 8270 11/21/19		21 Nov 19 14:07
4	1121Y004.D	1	5ug/ml 8270 11/21/19		21 Nov 19 14:35
5	1121Y005.D	1	10ug/ml 8270 11/21/19		21 Nov 19 15:37
6	1121Y006.D	1	20ug/ml 8270 11/21/19		21 Nov 19 16:05
7	1121Y007.D	1	40ug/ml 8270 11/21/19		21 Nov 19 16:33
8	1121Y008.D	1	50ug/ml 8270 11/21/19		21 Nov 19 17:01
9	1121Y009.D	1	60ug/ml 8270 11/21/19		21 Nov 19 17:30
10	1121Y010.D	1	80ug/ml 8270 11/21/19		21 Nov 19 17:58
11	1121Y011.D	1	100ug/ml 8270 11/21/19		21 Nov 19 18:26
30	1121Y030.D	1	SV TUNE 10/01/19		22 Nov 19 13:23
31	1121Y031.D	1	SS 8270 11/22/19		22 Nov 19 13:38
48	1121Y148.D	1	SV TUNE 10/01/19		26 Nov 19 18:16
54	1121Y154.D	1	50ug/ml 8270 11/21/19 (1)		26 Nov 19 20:50
64	1121Y164.D	1.25	191111A BLK 1/800		27 Nov 19 1:29
65	1121Y165.D	1.25	191111A LCS-1 1/800		27 Nov 19 1:57
66	1121Y166.D	1.25	191111A LCSD-1 1/800		27 Nov 19 2:25
68	1121Y168.D	1.25	BA02525W23 1/800		27 Nov 19 3:21
72	1121Y172.D	1	50ug/ml 8270 11/21/19 (2)		27 Nov 19 5:11

ORGANICS
Calibration Data

2MEE
EPA 8270

Form 6
Initial Calibration

Lab Name: APPL, Inc.
Case No:
Matrix:

SDG No:
Initial Cal. Date: 10/31/19
Instrument: Linus

Initials: MA/JM

		Compound	1030L004.D	1030L005.D	1030L006.D	1030L007 D	1030L008.D	1030L009 D	1030L010 D	1030L011 D			Avg	%RSD	Type	r^2	Q	MRF
1	I	1,4-dichlorobenzene-D4(IS)																
2	TM	2-(2-Methoxyethoxy)ethanol	0.1255	0.1270	0.1199	*	0.1601	0.1377	0.1599	0.1385			0.14	12	TM			
3	I	Napthalene-D8(IS)																
4	I	Acenaphthene-D10(IS)																
5	I	Phenanthrene-D10(IS)																
6	I	Chrysene-D12(IS)																
7	I	Perylene-D12(IS)																
8																		
9																		
10																		
11																		
12																		
13		* It was concentrated. Deleted from the ICAL																
14																		
15																		
16																		
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34																		
35																		

Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L191030M\1030L004.D Vial: 4
Acq On : 31 Oct 19 11:50 Operator: MA
Sample : 50 2MEE 4/30/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 31 12:28 2019 Quant Results File: YMEE1030.RES

Quant Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Oct 31 11:46:50 2019
Response via : Initial Calibration
DataAcq Meth : GED

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	3.67	152	924546	40.00000 ppb	0.00
3) Napthalene-D8(IS)	4.62	136	3824592	40.00000 ppb	0.00
4) Acenaphthene-D10(IS)	6.02	164	1847509	40.00000 ppb	0.00
5) Phenanthrene-D10(IS)	7.22	188	3070665	40.00000 ppb	0.00
6) Chrysene-D12(IS)	9.42	240	2379935	40.00000 ppb	0.02
7) Perylene-D12(IS)	10.65	264	2480690	40.00000 ppb	0.06

System Monitoring Compounds

Target Compounds					Qvalue
2) 2-(2-Methoxyethoxy)ethanol	3.19	45	145043m	63.19099 ppb	98

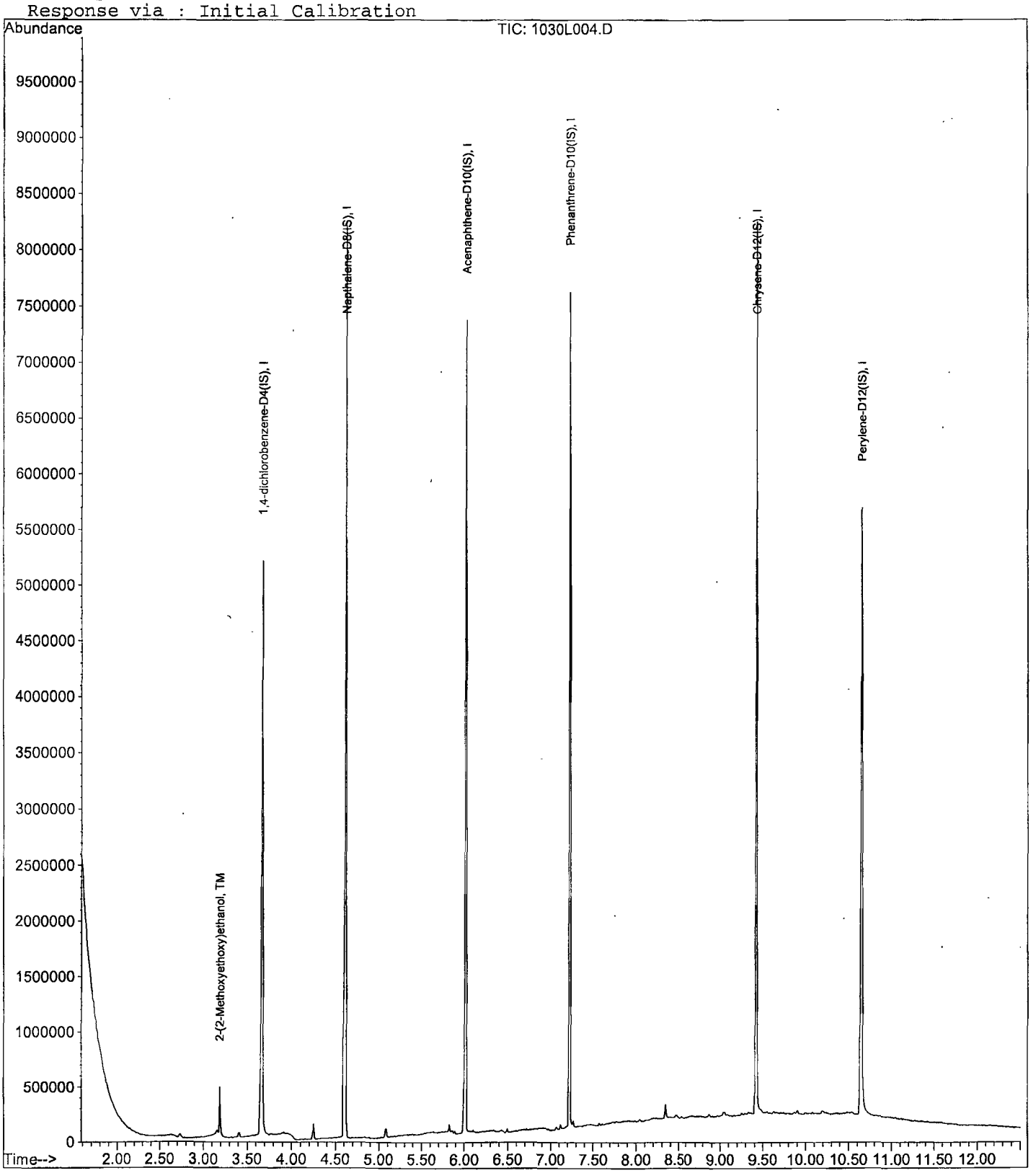
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L191030M\1030L004.D Vial: 4
Acq On : 31 Oct 19 11:50 Operator: MA
Sample : 50 2MEE 4/30/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 31 12:28 2019 Quant Results File: YMEE1030.RES

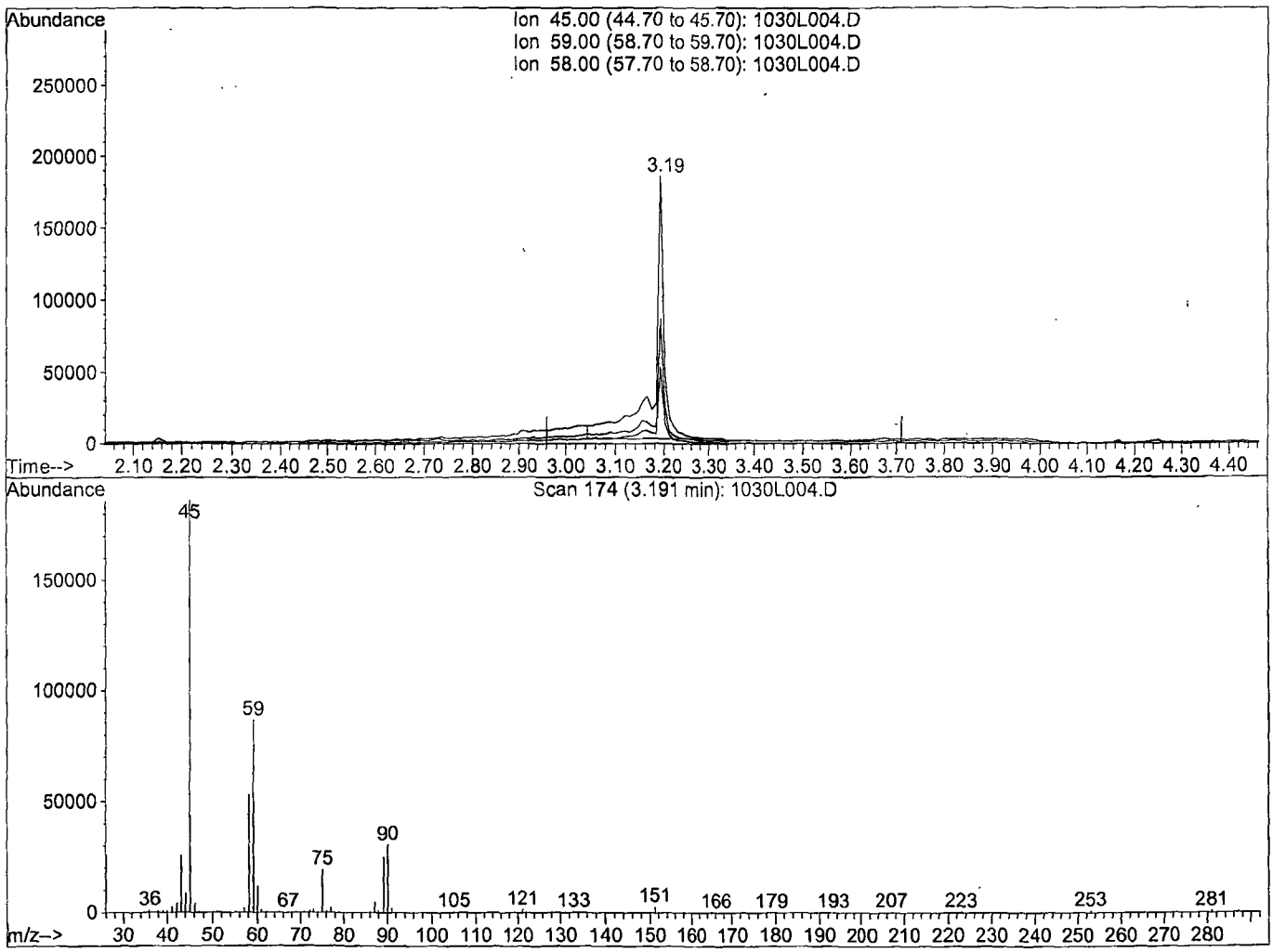
Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Oct 31 14:18:15 2019
Response via : Initial Calibration



Quantitation Report

Data File : M:\LINUS\DATA\L191030M\1030L004.D Vial: 4
Acq On : 31 Oct 19 11:50 Operator: MA
Sample : 50 2MEE 4/30/19 Inst : Linus
Misc : Multiplr: 1.00
Quant Time: Oct 31 12:04 2019 Quant Results File: temp.res

Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Oct 31 11:46:50 2019
Response via : Multiple Level Calibration



TIC: 1030L004.D

(2) 2-(2-Methoxyethoxy)ethanol (TM)

3.19min 99.2279ppb

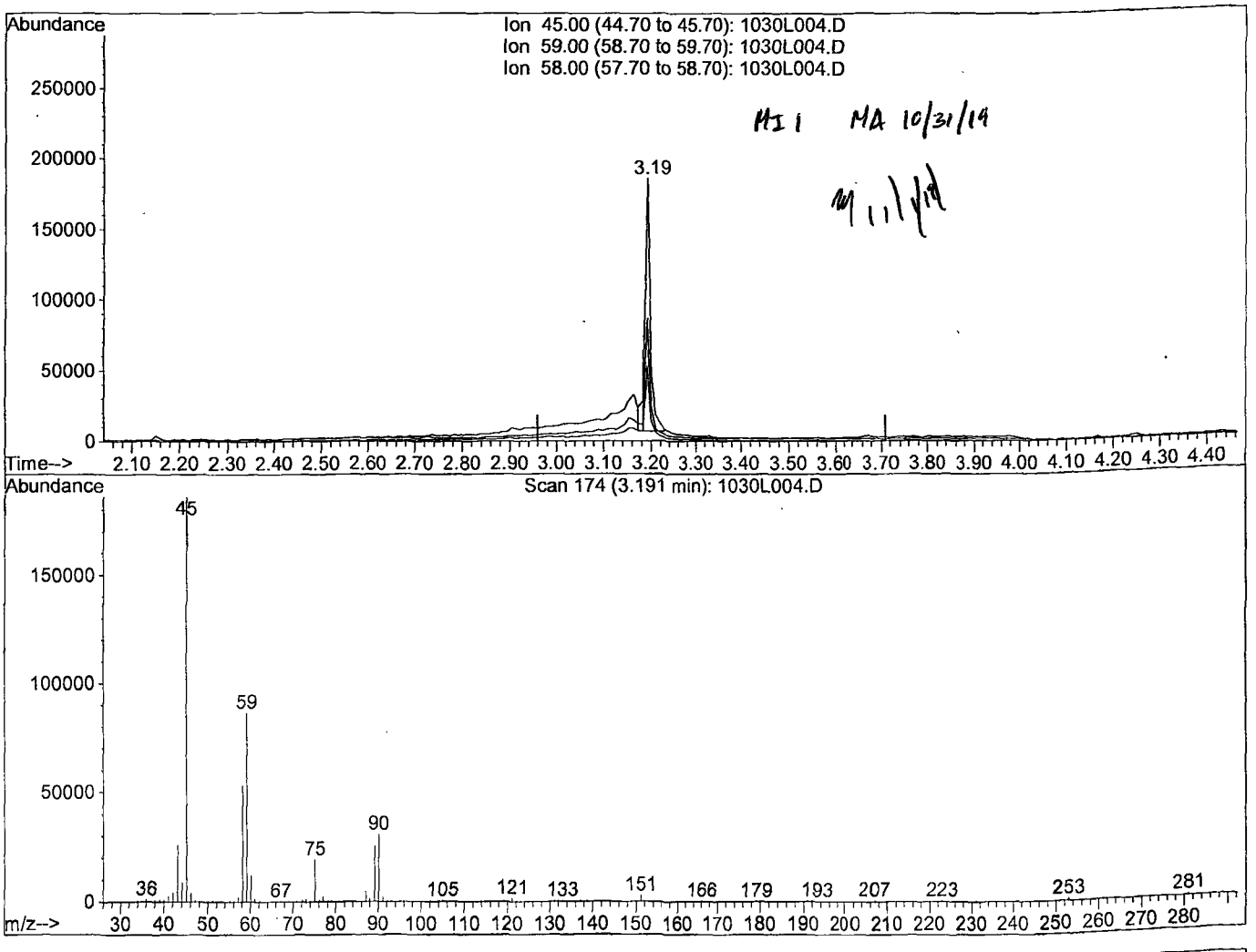
response 284001

Ion	Exp%	Act%
45.00	100	100
59.00	48.10	46.59
58.00	29.40	28.49
0.00	0.00	0.00

Quantitation Report

Data File : M:\LINUS\DATA\L191030M\1030L004.D Vial: 4
Acq On : 31 Oct 19 11:50 Operator: MA
Sample : 50 2MEE 4/30/19 Inst : Linus
Misc : Multiplr: 1.00
Quant Time: Oct 31 12:28 2019 Quant Results File: temp.res

Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Oct 31 11:46:50 2019
Response via : Multiple Level Calibration



TIC: 1030L004.D

(2) 2-(2-Methoxyethoxy)ethanol (TM)

3.19min 63.1910ppb m

response 145043

Ion	Exp%	Act%
45.00	100	100
59.00	48.10	46.59
58.00	29.40	28.49
0.00	0.00	0.00

Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L191030M\1030L005.D Vial: 5
Acq On : 31 Oct 19 12:10 Operator: MA
Sample : 100 2MEE 4/30/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 31 13:29 2019 Quant Results File: YMEE1030.RES

Quant Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Oct 31 13:28:52 2019
Response via : Initial Calibration
DataAcq Meth : GED

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	3.66	152	802143	40.00000	ppb	0.00
3) Napthalene-D8(IS)	4.62	136	3947022	40.00000	ppb	0.00
4) Acenaphthene-D10(IS)	6.02	164	1905798	40.00000	ppb	0.00
5) Phenanthrene-D10(IS)	7.23	188	3352515	40.00000	ppb	0.00
6) Chrysene-D12(IS)	9.39	240	2935825	40.00000	ppb	0.00
7) Perylene-D12(IS)	10.58	264	2243163	40.00000	ppb	-0.02

System Monitoring Compounds

Target Compounds						Qvalue
2) 2-(2-Methoxyethoxy)ethanol	3.19	45	254665	101.69486	ppb	93

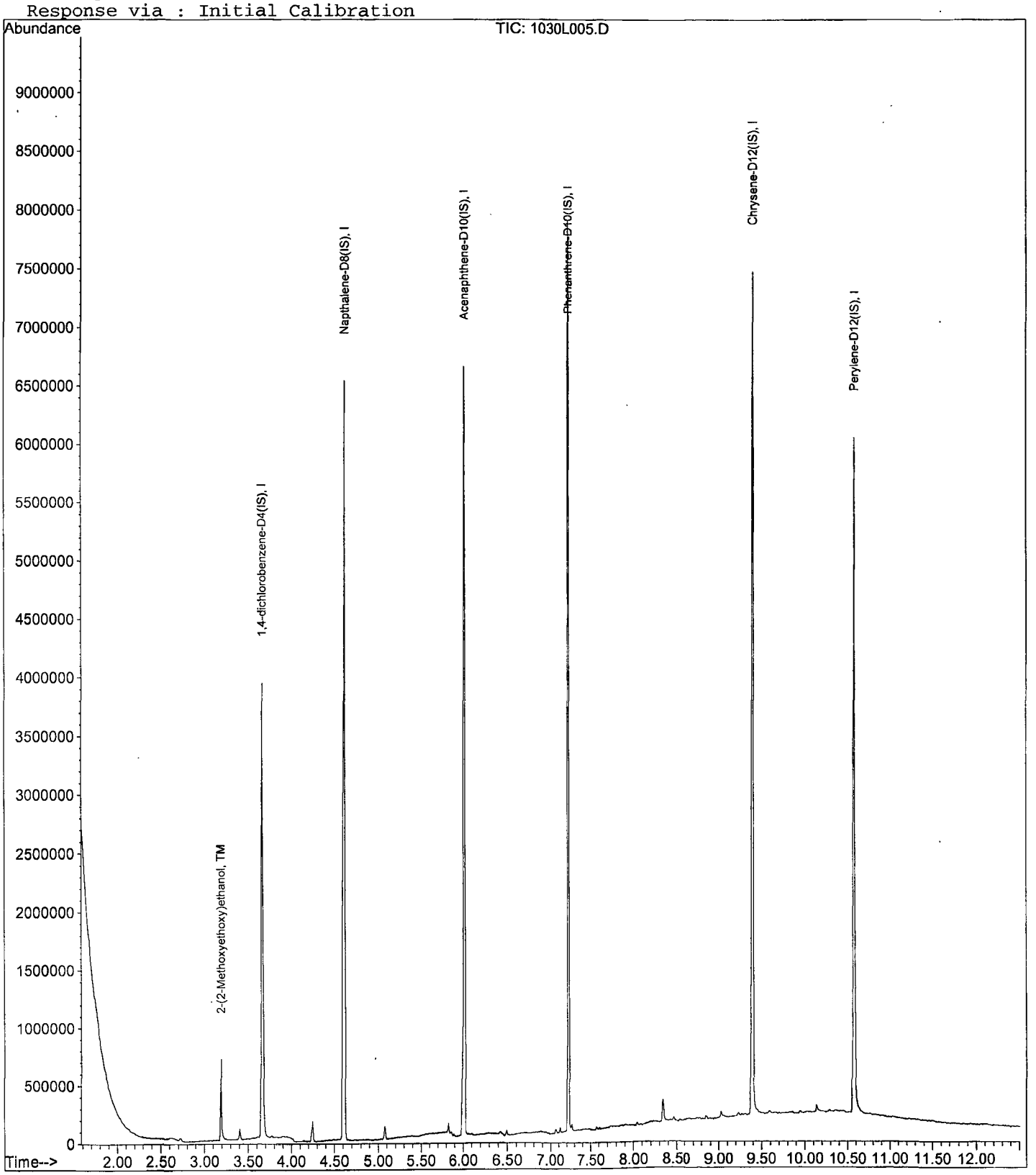
(#) = qualifier out of range (m) = manual integration
1030L005.D YMEE1030.M Thu Oct 31 17:13:20 2019

Quantitation Report

Data File : M:\LINUS\DATA\L191030M\1030L005.D Vial: 5
Acq On : 31 Oct 19 12:10 Operator: MA
Sample : 100 2MEE 4/30/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 31 13:29 2019 Quant Results File: YMEE1030.RES

Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Oct 31 14:18:15 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L191030M\1030L006.D Vial: 6
Acq On : 31 Oct 19 12:29 Operator: MA
Sample : 200 2MEE 4/30/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 31 13:30 2019 Quant Results File: YMEE1030.RES

Quant Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Oct 31 13:28:52 2019
Response via : Initial Calibration
DataAcq Meth : GED

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	3.67	152	867176	40.00000 ppb	0.00
3) Napthalene-D8(IS)	4.62	136	3930052	40.00000 ppb	0.00
4) Acenaphthene-D10(IS)	6.02	164	2009214	40.00000 ppb	0.00
5) Phenanthrene-D10(IS)	7.22	188	3319659	40.00000 ppb	0.00
6) Chrysene-D12(IS)	9.40	240	3235629	40.00000 ppb	0.00
7) Perylene-D12(IS)	10.58	264	2613264	40.00000 ppb	-0.02
System Monitoring Compounds					
Target Compounds					Qvalue
2) 2-(2-Methoxyethoxy)ethanol	3.20	45	519817	166.78709 ppb	99

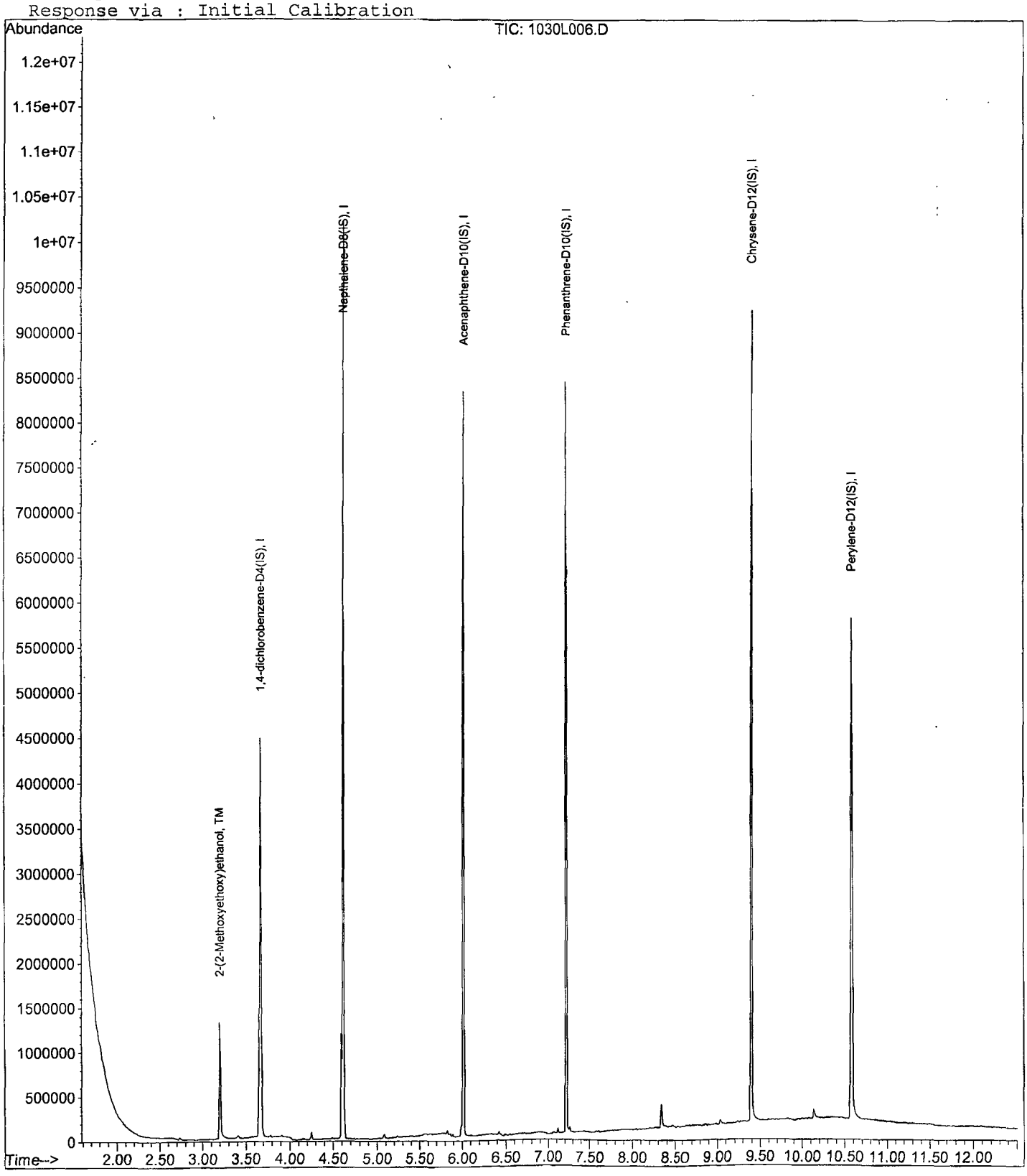
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L191030M\1030L006.D Vial: 6
Acq On : 31 Oct 19 12:29 Operator: MA
Sample : 200 2MEE 4/30/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 31 13:30 2019 Quant Results File: YMEE1030.RES

Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Oct 31 14:18:15 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L191030M\1030L007.D Vial: 7
Acq On : 31 Oct 19 12:49 Operator: MA
Sample : 400 2MEE 4/30/19 not used. It got concen Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 31 13:30 2019 Quant Results File: YMEE1030.RES

Quant Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Oct 31 13:28:52 2019
Response via : Initial Calibration
DataAcq Meth : GED

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	3.67	152	768222	40.00000 ppb	0.00
3) Napthalene-D8(IS)	4.62	136	3846001	40.00000 ppb	0.00
4) Acenaphthene-D10(IS)	6.02	164	2102228	40.00000 ppb	0.00
5) Phenanthrene-D10(IS)	7.23	188	3529522	40.00000 ppb	0.00
6) Chrysene-D12(IS)	9.40	240	2845578	40.00000 ppb	0.00
7) Perylene-D12(IS)	10.60	264	2568289	40.00000 ppb	0.00

System Monitoring Compounds

Target Compounds					Qvalue
2) 2-(2-Methoxyethoxy)ethanol	3.22	45	1438559	476.21754 ppb	94

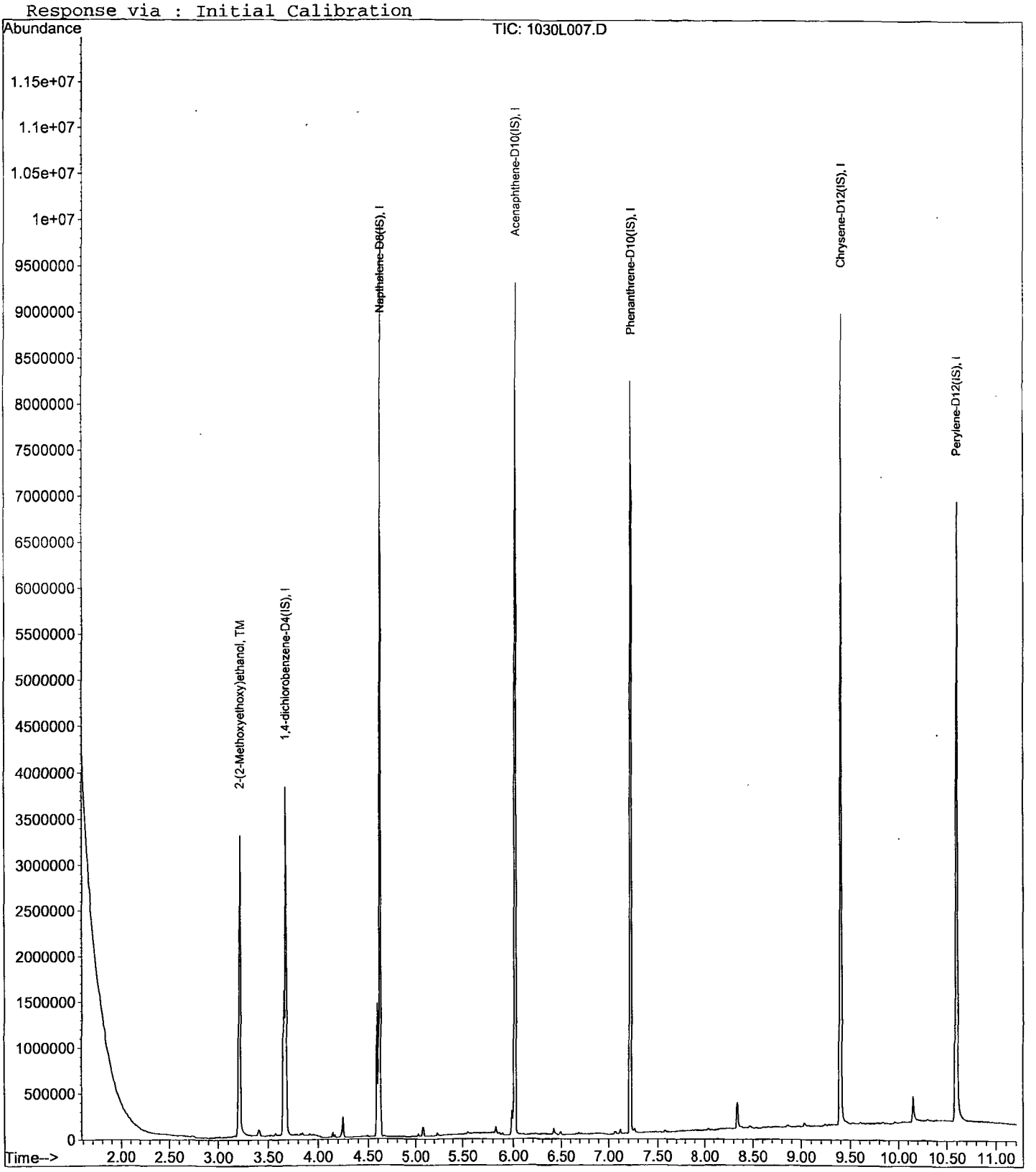
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L191030M\1030L007.D Vial: 7
Acq On : 31 Oct 19 12:49 Operator: MA
Sample : 400 2MEE 4/30/19 not used. It got concen Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 31 13:30 2019 Quant Results File: YMEE1030.RES

Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Oct 31 14:18:15 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L191030M\1030L008.D Vial: 8
Acq On : 31 Oct 19 13:07 Operator: MA
Sample : 500 2MEE 4/30/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 31 14:14 2019 Quant Results File: YMEE1030.RES

Quant Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Oct 31 14:14:39 2019
Response via : Initial Calibration
DataAcq Meth : GED

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	3.67	152	772292	40.00000	ppb	0.00
3) Napthalene-D8(IS)	4.62	136	3394425	40.00000	ppb	0.00
4) Acenaphthene-D10(IS)	6.02	164	1712966	40.00000	ppb	0.00
5) Phenanthrene-D10(IS)	7.22	188	2832000	40.00000	ppb	0.00
6) Chrysene-D12(IS)	9.40	240	2510708	40.00000	ppb	0.00
7) Perylene-D12(IS)	10.60	264	2441015	40.00000	ppb	0.00

System Monitoring Compounds

Target Compounds						Qvalue
2) 2-(2-Methoxyethoxy)ethanol	3.21	45	1545173	578.42618	ppb	100

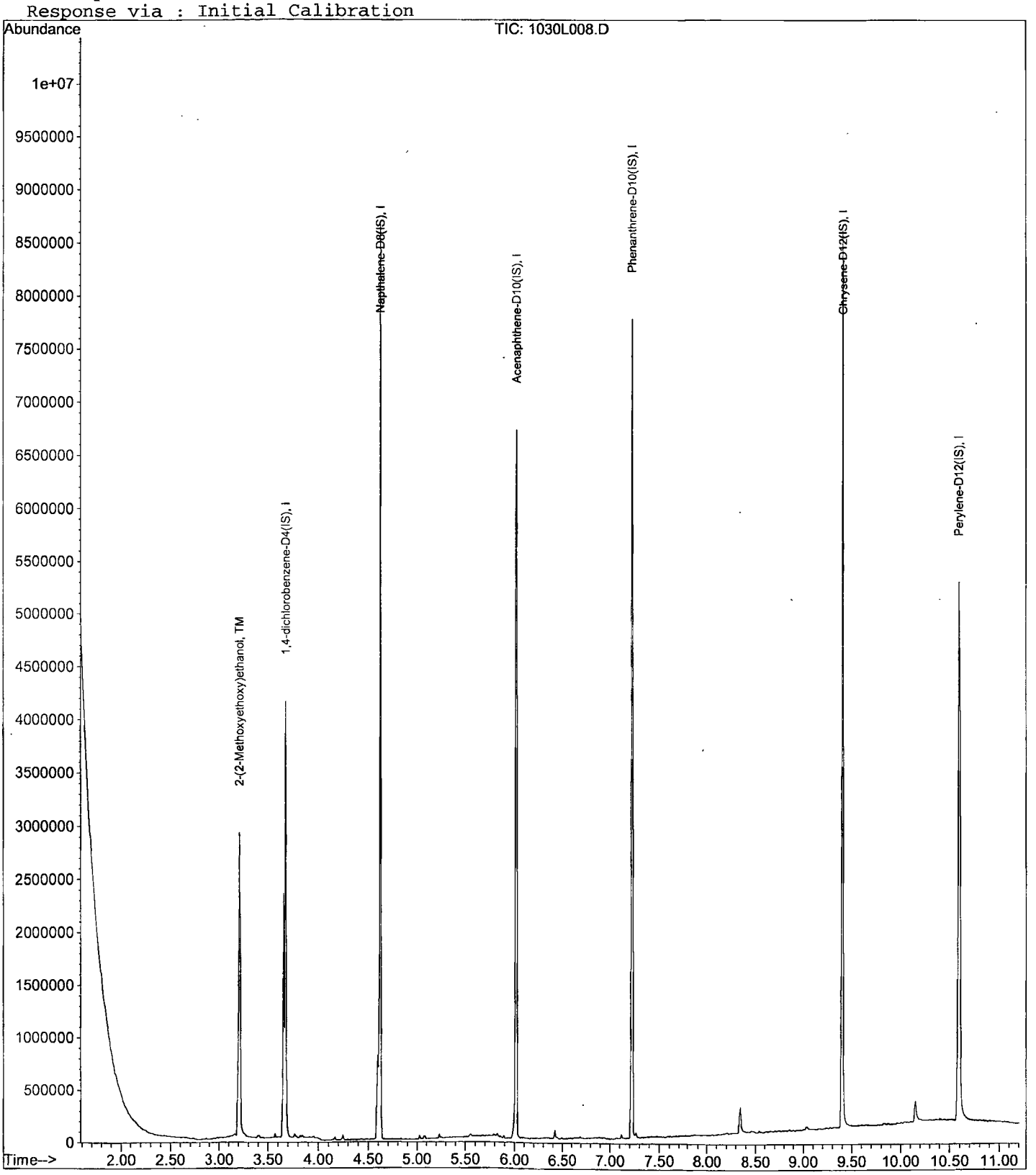
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L191030M\1030L008.D Vial: 8
Acq On : 31 Oct 19 13:07 Operator: MA
Sample : 500 2MEE 4/30/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 31 14:14 2019 Quant Results File: YMEE1030.RES

Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Oct 31 14:18:15 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L191030M\1030L009.D Vial: 9
Acq On : 31 Oct 19 13:25 Operator: MA
Sample : 600 2MEE 4/30/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 31 13:40 2019 Quant Results File: YMEE1030.RES

Quant Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Oct 31 13:28:52 2019
Response via : Initial Calibration
DataAcq Meth : GED

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	3.67	152	918679	40.00000 ppb	0.00
3) Napthalene-D8(IS)	4.62	136	3995417	40.00000 ppb	0.00
4) Acenaphthene-D10(IS)	6.02	164	2035544	40.00000 ppb	0.00
5) Phenanthrene-D10(IS)	7.23	188	3476903	40.00000 ppb	0.00
6) Chrysene-D12(IS)	9.40	240	2887642	40.00000 ppb	0.00
7) Perylene-D12(IS)	10.59	264	2390309	40.00000 ppb	0.00
System Monitoring Compounds					
Target Compounds					Qvalue
2) 2-(2-Methoxyethoxy)ethanol	3.22	45	1897302	517.69156 ppb	98

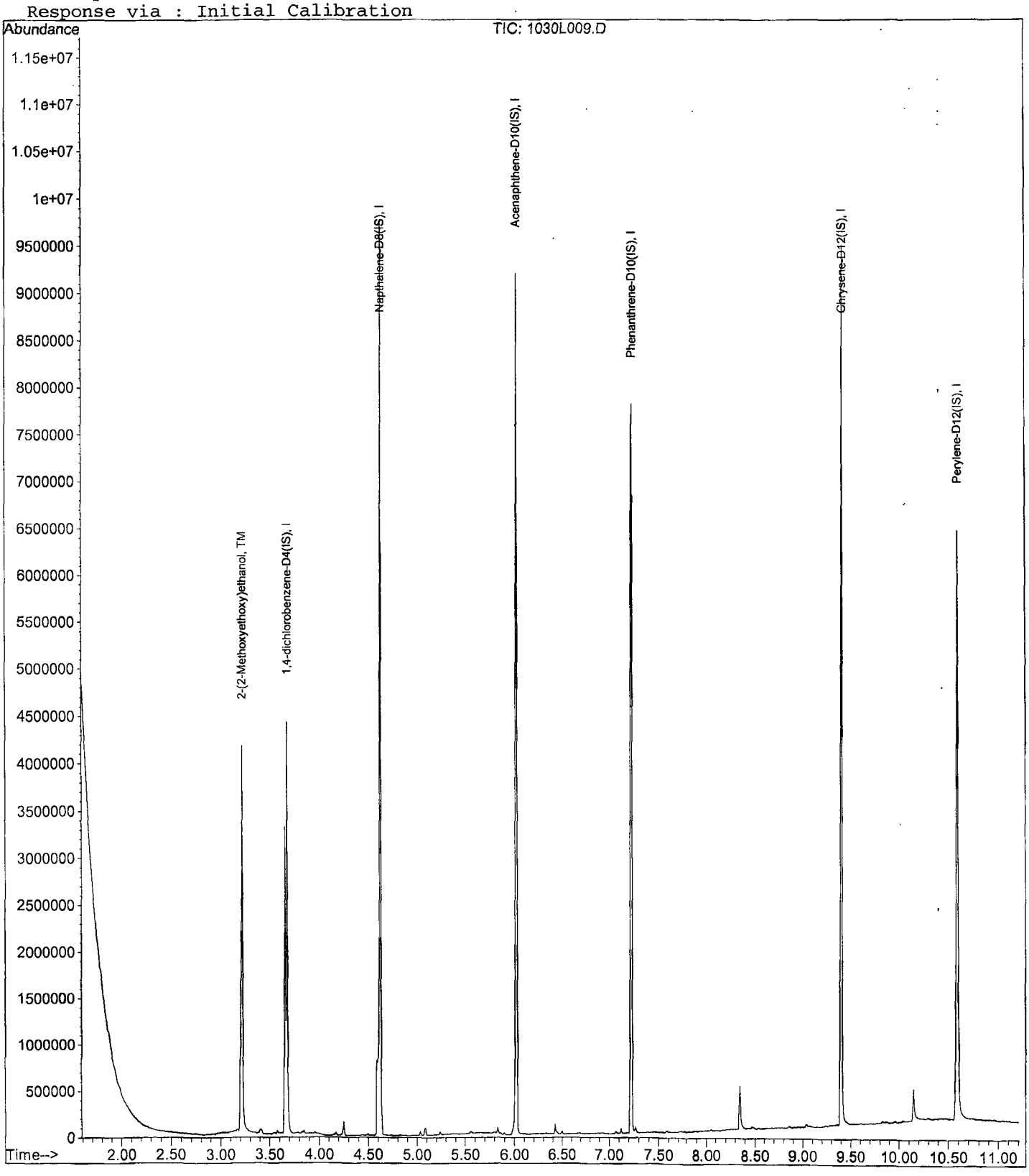
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L191030M\1030L009.D Vial: 9
Acq On : 31 Oct 19 13:25 Operator: MA
Sample : 600 2MEE 4/30/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 31 13:40 2019 Quant Results File: YMEE1030.RES

Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Oct 31 14:18:15 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L191030M\1030L010.D Vial: 10
Acq On : 31 Oct 19 13:43 Operator: MA
Sample : 800 2MEE 4/30/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 31 14:12 2019 Quant Results File: YMEE1030.RES

Quant Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Oct 31 13:28:52 2019
Response via : Initial Calibration
DataAcq Meth : GED

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	3.67	152	781913	40.00000 ppb	0.00
3) Napthalene-D8(IS)	4.62	136	3819124	40.00000 ppb	0.00
4) Acenaphthene-D10(IS)	6.02	164	2060420	40.00000 ppb	0.00
5) Phenanthrene-D10(IS)	7.23	188	3432435	40.00000 ppb	0.00
6) Chrysene-D12(IS)	9.41	240	3218071	40.00000 ppb	0.00
7) Perylene-D12(IS)	10.61	264	2421844	40.00000 ppb	0.00
System Monitoring Compounds					
Target Compounds					Qvalue
2) 2-(2-Methoxyethoxy)ethanol	3.23	45	2499934	802.74185 ppb	98

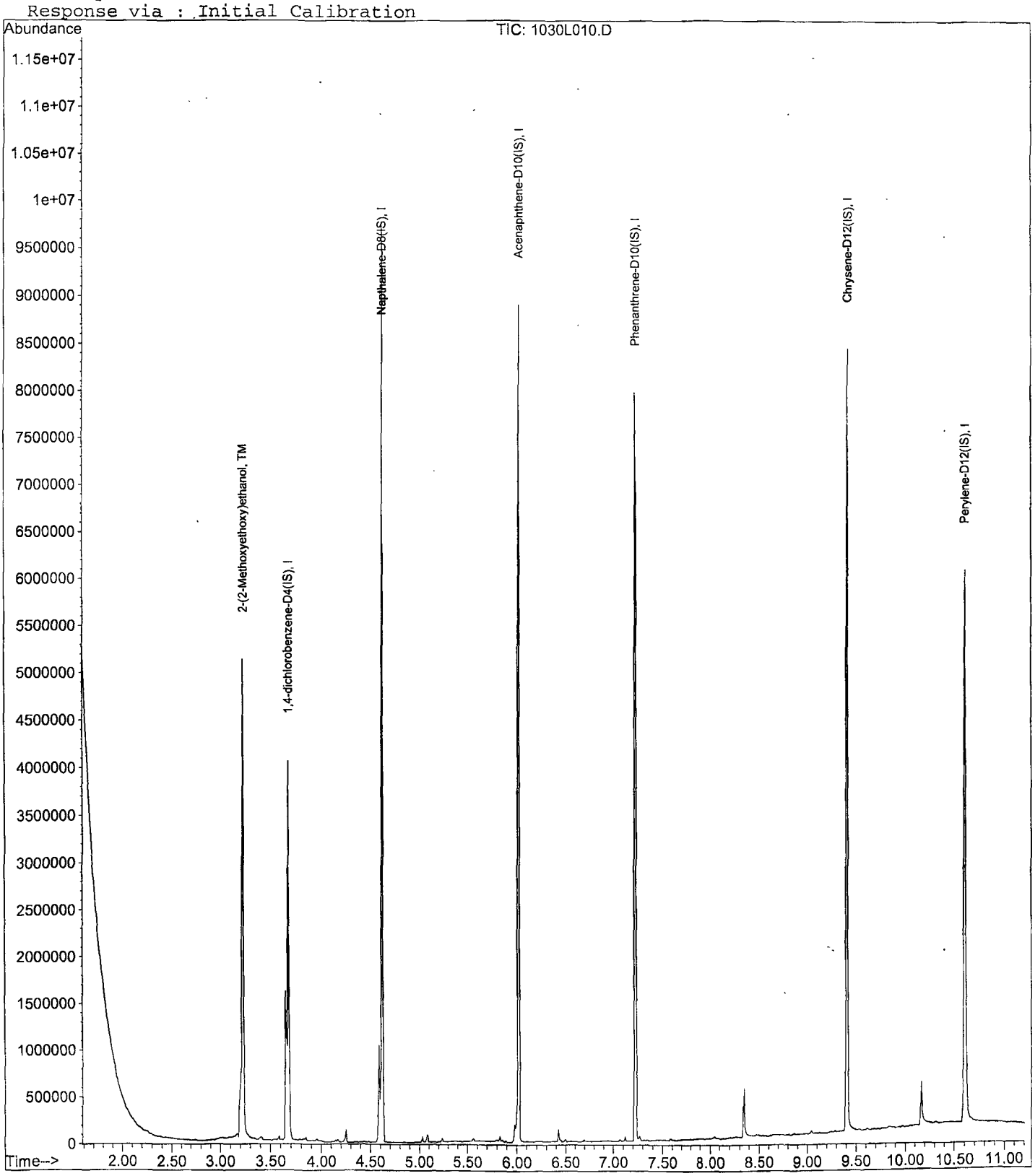
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L191030M\1030L010.D Vial: 10
Acq On : 31 Oct 19 13:43 Operator: MA
Sample : 800 2MEE 4/30/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 31 14:12 2019 Quant Results File: YMEE1030.RES

Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Oct 31 14:18:15 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L191030M\1030L011.D Vial: 11
Acq On : 31 Oct 19 14:02 Operator: MA
Sample : 1000 2MEE 4/30/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 31 14:13 2019 Quant Results File: YMEE1030.RES

Quant Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Oct 31 13:28:52 2019
Response via : Initial Calibration
DataAcq Meth : GED

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	3.67	152	893999	40.00000	ppb	0.00
3) Napthalene-D8(IS)	4.62	136	4002209	40.00000	ppb	0.00
4) Acenaphthene-D10(IS)	6.02	164	2003789	40.00000	ppb	0.00
5) Phenanthrene-D10(IS)	7.22	188	3346119	40.00000	ppb	0.00
6) Chrysene-D12(IS)	9.40	240	2853107	40.00000	ppb	0.00
7) Perylene-D12(IS)	10.60	264	2370540	40.00000	ppb	0.00

System Monitoring Compounds

Target Compounds						Qvalue
2) 2-(2-Methoxyethoxy)ethanol	3.23	45	3096034	880.60620	ppb	98

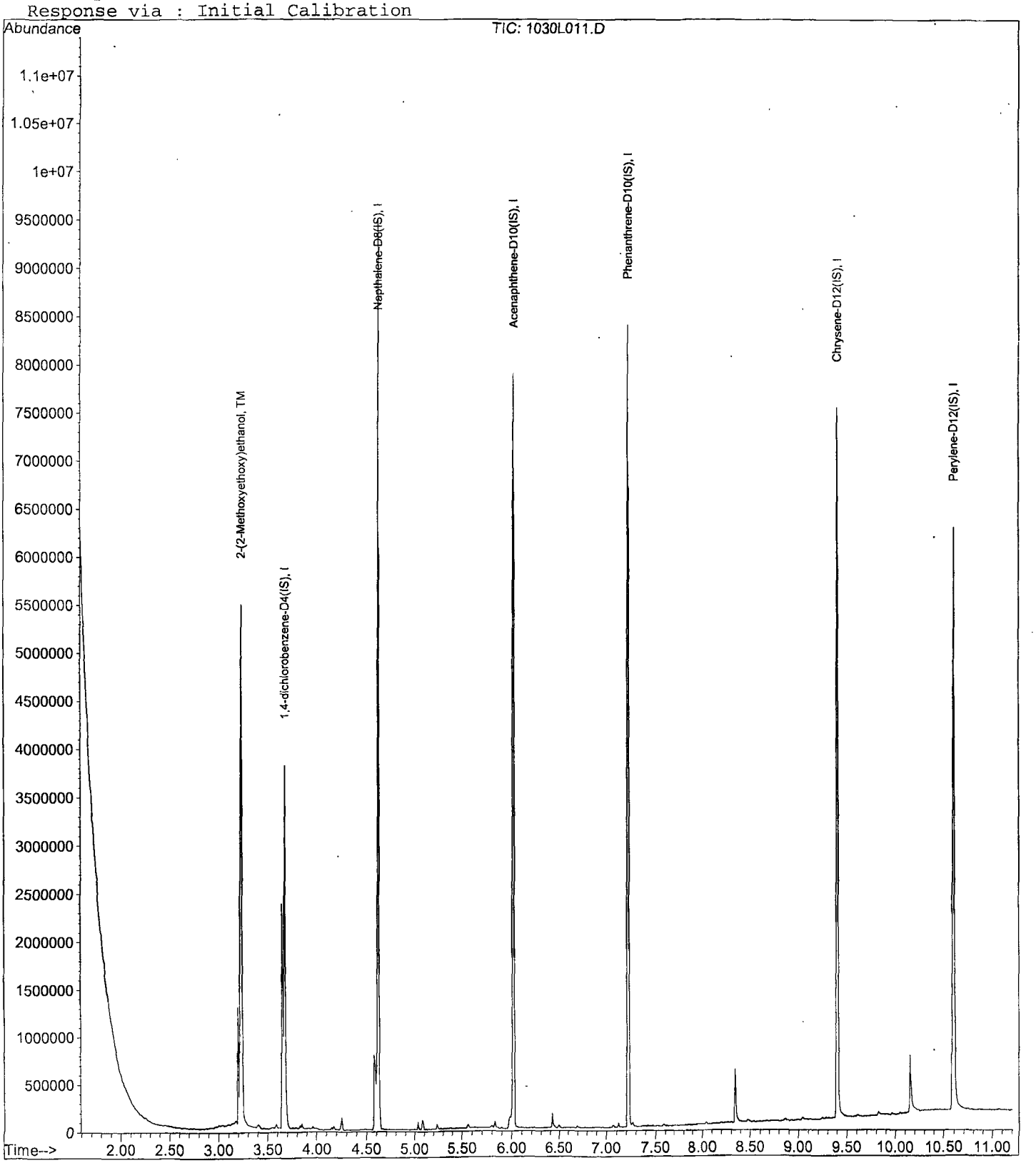
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L191030M\1030L011.D Vial: 11
Acq On : 31 Oct 19 14:02 Operator: MA
Sample : 1000 2MEE 4/30/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Oct 31 14:13 2019 Quant Results File: YMEE1030.RES

Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Oct 31 14:18:15 2019
Response via : Initial Calibration



2MEE
EPA 8270

Form 7

Secon Source Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix:

SDG No:
Date Analyzed: 1 Nov 19 17:11
Instrument: Linus
Initial Cal. Date: 10/31/19
Data File: 1030L016.D

		Compound	MEAN	CCRF	%D		%Drift
1	I	1,4-dichlorobenzene-D4(IS)	ISTD			I	
2	TM	2-(2-Methoxyethoxy)ethanol	0.1384	0.1658	20	TM	
3	I	Napthalene-D8(IS)	ISTD			I	
4	I	Acenaphthene-D10(IS)	ISTD			I	
5	I	Phenanthrene-D10(IS)	ISTD			I	
6	I	Chrysene-D12(IS)	ISTD			I	
7	I	Perylene-D12(IS)	ISTD			I	
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
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30							
31							
32							
33							
34							
35							
36							
37							
38							
39							
40							
		Average			20.0		

Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L191030M\1030L016.D Vial: 16
Acq On : 1 Nov 19 17:11 Operator: MA
Sample : SS 2MEE 11/1/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Nov 1 17:27 2019 Quant Results File: YMEE1030.RES

Quant Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 01 17:06:59 2019
Response via : Initial Calibration
DataAcq Meth : GED

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	3.67	152	966230	40.00000 ppb	0.00
3) Napthalene-D8(IS)	4.62	136	4151555	40.00000 ppb	0.00
4) Acenaphthene-D10(IS)	6.02	164	2209408	40.00000 ppb	0.00
5) Phenanthrene-D10(IS)	7.23	188	4025811	40.00000 ppb	0.00
6) Chrysene-D12(IS)	9.40	240	2795621	40.00000 ppb	0.00
7) Perylene-D12(IS)	10.59	264	3078419	40.00000 ppb	0.00

System Monitoring Compounds

Target Compounds					Qvalue
2) 2-(2-Methoxyethoxy)ethanol	3.20	45	2003024	599.31894 ppb	100

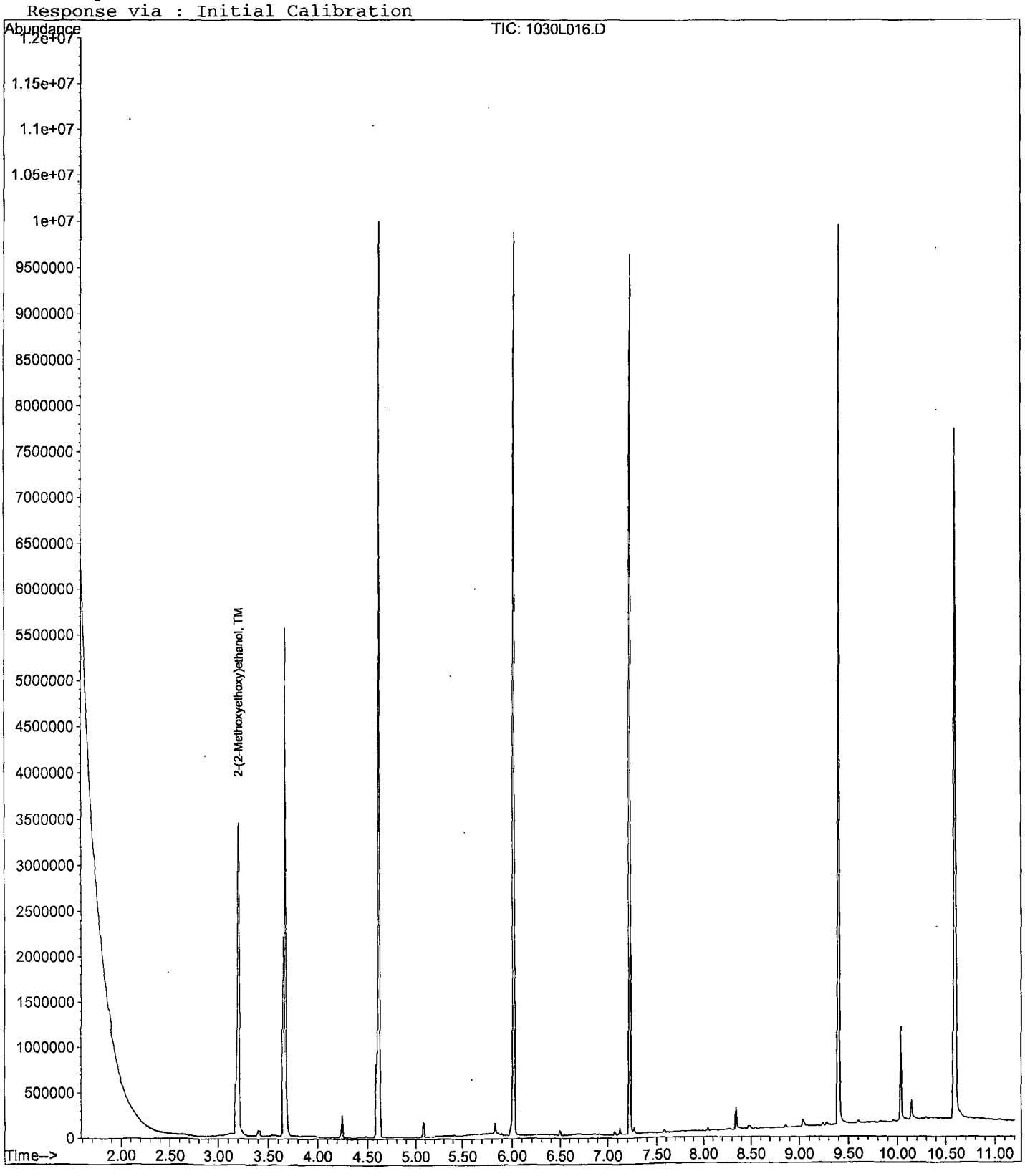
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L191030M\1030L016.D Vial: 16
Acq On : 1 Nov 19 17:11 Operator: MA
Sample : SS 2MEE 11/1/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Nov 1 17:27 2019 Quant Results File: YMEE1030.RES

Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 01 17:44:15 2019
Response via : Initial Calibration



2MEE
EPA 8270

Form 7

Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix:

SDG No:
Date Analyzed: 11/13/19
Instrument: Linus
Initial Cal. Date: 10/31/19
Data File: 1030L063.D

		Compound	MEAN	CCRF	%D	%Drift	
1	I	1,4-dichlorobenzene-D4(IS)	ISTD			I	
2	TM	2-(2-Methoxyethoxy)ethanol	0.1384	0.1584	15	TM	
3	I	Napthalene-D8(IS)	ISTD			I	
4	I	Acenaphthene-D10(IS)	ISTD			I	
5	I	Phenanthrene-D10(IS)	ISTD			I	
6	I	Chrysene-D12(IS)	ISTD			I	
7	I	Perylene-D12(IS)	ISTD			I	
8							
9							
10							
11							
12							
13							
14							
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32							
33							
34							
35							
36							
37							
38							
39							
40							
		Average			15.0		

Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L191030M\1030L063.D Vial: 63
Acq On : 13 Nov 19 15:30 Operator: MA
Sample : 500 2MEE 4/30/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Nov 13 15:53 2019 Quant Results File: YMEE1030.RES

Quant Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 01 17:44:15 2019
Response via : Initial Calibration
DataAcq Meth : GED

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	3.67	152	842982	40.00000 ppb	0.00
3) Napthalene-D8(IS)	4.62	136	4206280	40.00000 ppb	0.00
4) Acenaphthene-D10(IS)	6.01	164	2023921	40.00000 ppb	0.00
5) Phenanthrene-D10(IS)	7.22	188	3817623	40.00000 ppb	0.00
6) Chrysene-D12(IS)	9.41	240	3523261	40.00000 ppb	0.00
7) Perylene-D12(IS)	10.62	264	3518018	40.00000 ppb	0.02
System Monitoring Compounds					
Target Compounds					Qvalue
2) 2-(2-Methoxyethoxy)ethanol	3.20	45	1669328	572.50034 ppb	93

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L191030M\1030L063.D Vial: 63
Acq On : 13 Nov 19 15:30 Operator: MA
Sample : 500 2MEE 4/30/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Nov 13 15:53 2019 Quant Results File: YMEE1030.RES

Quant Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 01 17:44:15 2019
Response via : Initial Calibration
DataAcq Meth : GED

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	3.67	152	842982	40.00000 ppb	0.00
3) Napthalene-D8(IS)	4.62	136	4206280	40.00000 ppb	0.00
4) Acenaphthene-D10(IS)	6.01	164	2023921	40.00000 ppb	0.00
5) Phenanthrene-D10(IS)	7.22	188	3817623	40.00000 ppb	0.00
6) Chrysene-D12(IS)	9.41	240	3523261	40.00000 ppb	0.00
7) Perylene-D12(IS)	10.62	264	3518018	40.00000 ppb	0.02

System Monitoring Compounds

Target Compounds					Qvalue
2) 2-(2-Methoxyethoxy)ethanol	3.20	45	1669328	572.50034 ppb	93

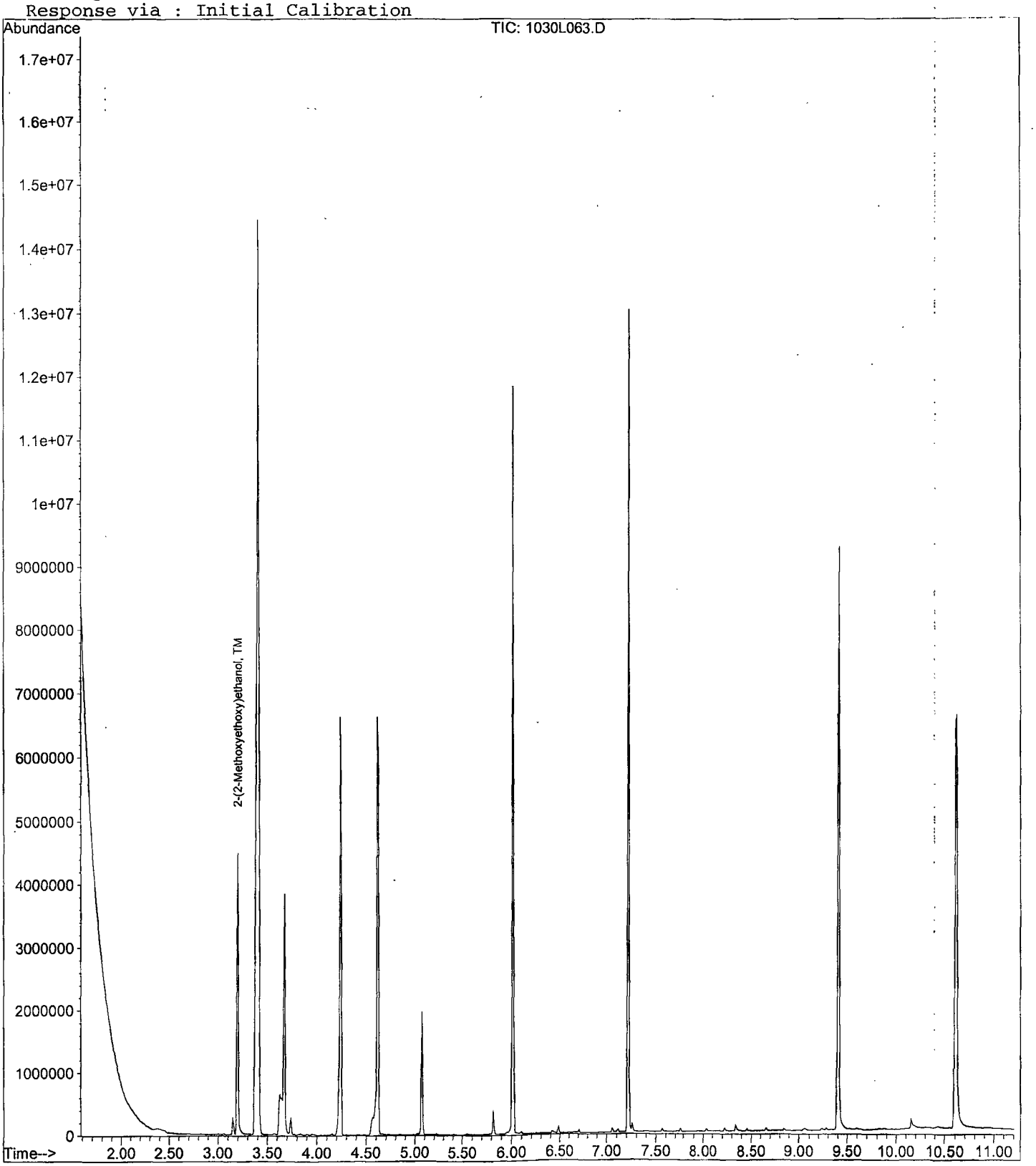
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L191030M\1030L063.D Vial: 63
Acq On : 13 Nov 19 15:30 Operator: MA
Sample : 500 2MEE 4/30/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Nov 13 15:53 2019 Quant Results File: YMEE1030.RES

Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 01 17:44:15 2019
Response via : Initial Calibration



2MEE
EPA 8270

Form 7

Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix:

SDG No:
Date Analyzed: 11/13/19
Instrument: Linus
Initial Cal. Date: 10/31/19
Data File: 1030L074.D

		Compound	MEAN	CCRF	%D	%Drift	
1	I	1,4-dichlorobenzene-D4(IS)	ISTD			I	
2	TM	2-(2-Methoxyethoxy)ethanol	0.1384	0.1450	4.8	TM	
3	I	Napthalene-D8(IS)	ISTD			I	
4	I	Acenaphthene-D10(IS)	ISTD			I	
5	I	Phenanthrene-D10(IS)	ISTD			I	
6	I	Chrysene-D12(IS)	ISTD			I	
7	I	Perylene-D12(IS)	ISTD			I	
8							
9							
10							
11							
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36							
37							
38							
39							
40							
		Average			4.8		

Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L191030M\1030L074.D Vial: 74
Acq On : 13 Nov 19 19:07 Operator: MA
Sample : 500 2MEE 4/30/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Nov 14 9:22 2019 Quant Results File: YMEE1030.RES

Quant Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 01 17:44:15 2019
Response via : Initial Calibration
DataAcq Meth : GED

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	3.66	152	851144	40.00000	ppb	0.00
3) Napthalene-D8(IS)	4.61	136	4152415	40.00000	ppb	0.00
4) Acenaphthene-D10(IS)	6.01	164	2141056	40.00000	ppb	0.00
5) Phenanthrene-D10(IS)	7.22	188	3885959	40.00000	ppb	0.00
6) Chrysene-D12(IS)	9.38	240	3430664	40.00000	ppb	-0.02
7) Perylene-D12(IS)	10.56	264	3542620	40.00000	ppb	-0.04

System Monitoring Compounds

Target Compounds						Qvalue
2) 2-(2-Methoxyethoxy)ethanol	3.19	45	1543034	524.11287	ppb	95

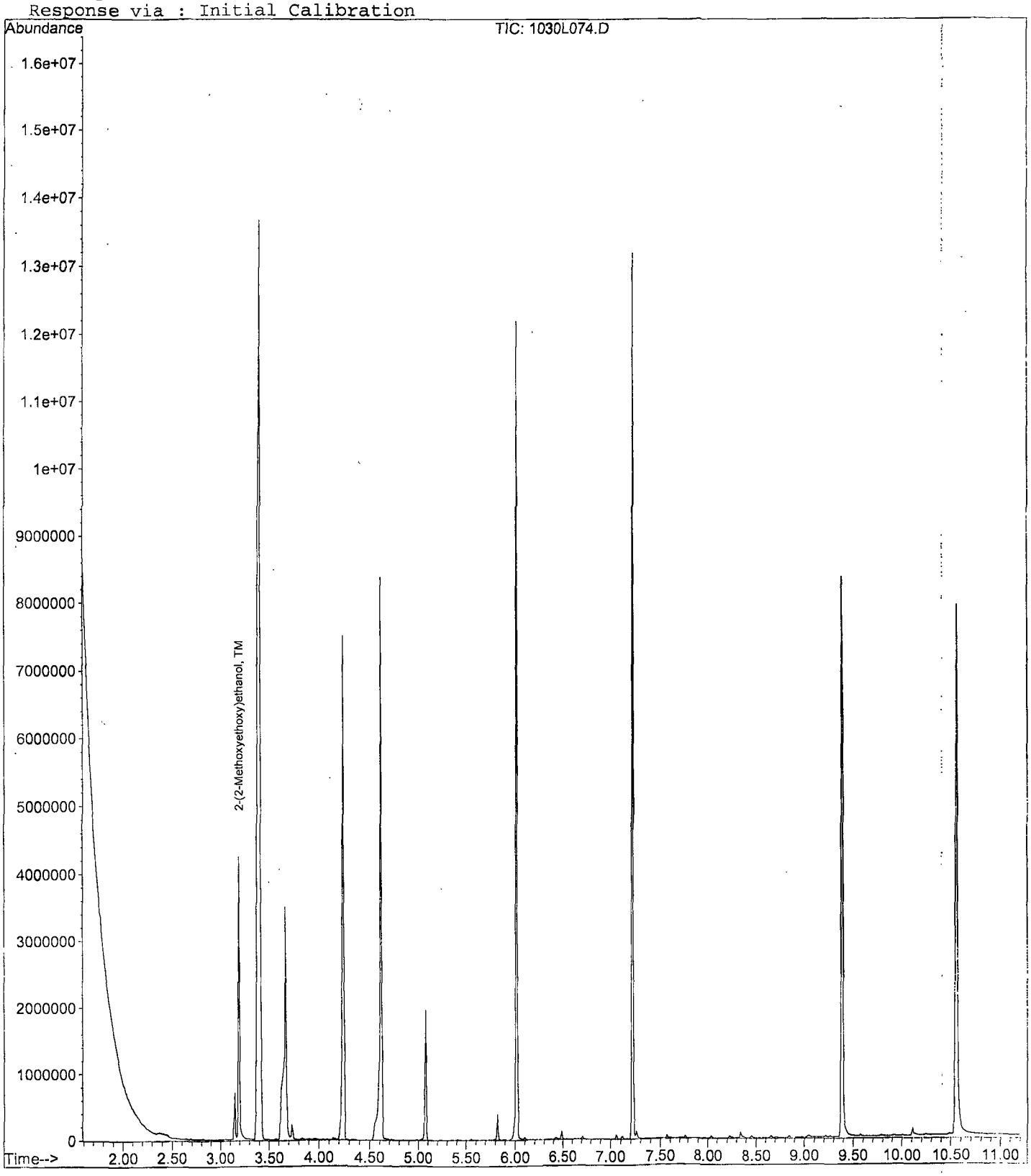
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L191030M\1030L074.D Vial: 74
Acq On : 13 Nov 19 19:07 Operator: MA
Sample : 500 2MEE 4/30/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Nov 14 9:22 2019 Quant Results File: YMEE1030.RES

Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 01 17:44:15 2019
Response via : Initial Calibration



2MEE
EPA 8270

Form 7

Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix:

SDG No:
Date Analyzed: 11/14/19
Instrument: Linus
Initial Cal. Date: 10/31/19
Data File: 1030L076.D

		Compound	MEAN	CCRF	%D		%Drift
1	I	1,4-dichlorobenzene-D4(IS)	ISTD			I	
2	TM	2-(2-Methoxyethoxy)ethanol	0.1384	0.1527	10	TM	
3	I	Napthalene-D8(IS)	ISTD			I	
4	I	Acenaphthene-D10(IS)	ISTD			I	
5	I	Phenanthrene-D10(IS)	ISTD			I	
6	I	Chrysene-D12(IS)	ISTD			I	
7	I	Perylene-D12(IS)	ISTD			I	
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
30							
31							
32							
33							
34							
35							
36							
37							
38							
39							
40							
		Average			10.0		

Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L191030M\1030L076.D Vial: 76
Acq On : 14 Nov 19 9:48 Operator: MA
Sample : 500 2MEE 4/30/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Nov 14 10:01 2019 Quant Results File: YMEE1030.RES

Quant Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 01 17:44:15 2019
Response via : Initial Calibration
DataAcq Meth : GED

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	3.66	152	613947	40.00000 ppb	0.00
3) Napthalene-D8(IS)	4.61	136	3527576	40.00000 ppb	0.00
4) Acenaphthene-D10(IS)	6.01	164	1898687	40.00000 ppb	0.00
5) Phenanthrene-D10(IS)	7.21	188	3181704	40.00000 ppb	-0.02
6) Chrysene-D12(IS)	9.39	240	2583688	40.00000 ppb	0.00
7) Perylene-D12(IS)	10.60	264	2808488	40.00000 ppb	0.00
System Monitoring Compounds					
Target Compounds					Qvalue
2) 2-(2-Methoxyethoxy)ethanol	3.18	45	1171676	551.73308 ppb	97

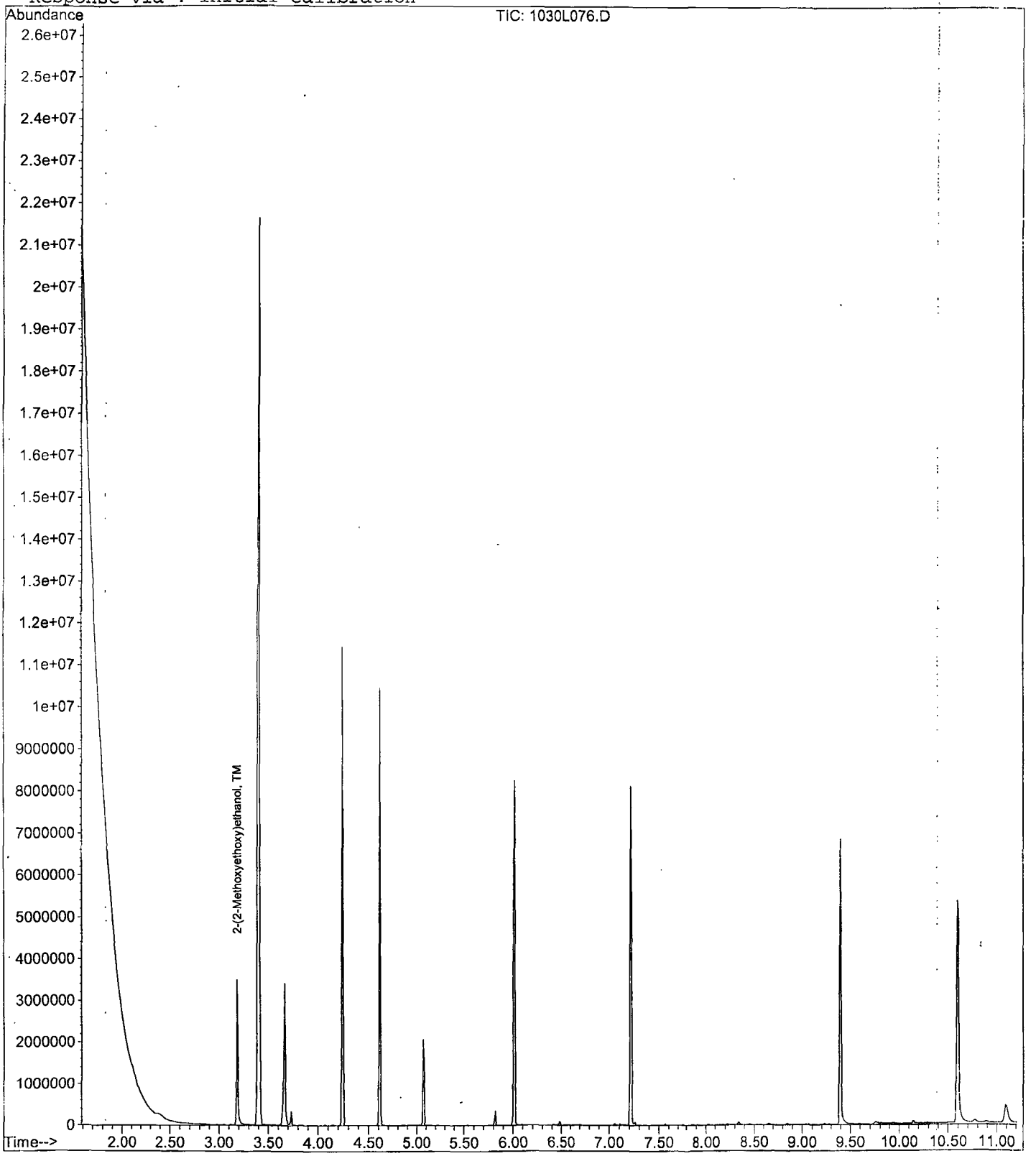
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L191030M\1030L076.D Vial: 76
Acq On : 14 Nov 19 9:48 Operator: MA
Sample : 500 2MEE 4/30/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Nov 14 10:01 2019 Quant Results File: YMEE1030.RES

Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 01 17:44:15 2019
Response via : Initial Calibration



2MEE
EPA 8270

Form 7

Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix:

SDG No:
Date Analyzed: 11/14/19
Instrument: Linus
Initial Cal. Date: 10/31/19
Data File: 1030L079.D

		Compound	MEAN	CCRF	%D		%Drift
1	I	1,4-dichlorobenzene-D4(IS)	ISTD			I	
2	TM	2-(2-Methoxyethoxy)ethanol	0.1384	0.1493	7.9	TM	
3	I	Napthalene-D8(IS)	ISTD			I	
4	I	Acenaphthene-D10(IS)	ISTD			I	
5	I	Phenanthrene-D10(IS)	ISTD			I	
6	I	Chrysene-D12(IS)	ISTD			I	
7	I	Perylene-D12(IS)	ISTD			I	
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
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27							
28							
29							
30							
31							
32							
33							
34							
35							
36							
37							
38							
39							
40							
		Average			7.9		

Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L191030M\1030L079.D Vial: 79
Acq On : 14 Nov 19 10:46 Operator: MA
Sample : 500 2MEE 4/30/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Nov 14 10:58 2019 Quant Results File: YMEE1030.RES

Quant Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 01 17:44:15 2019
Response via : Initial Calibration
DataAcq Meth : GED

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	3.66	152	594041	40.00000	ppb	0.00
3) Napthalene-D8(IS)	4.61	136	3382472	40.00000	ppb	0.00
4) Acenaphthene-D10(IS)	6.01	164	1914427	40.00000	ppb	0.00
5) Phenanthrene-D10(IS)	7.22	188	3204828	40.00000	ppb	0.00
6) Chrysene-D12(IS)	9.40	240	2739212	40.00000	ppb	0.00
7) Perylene-D12(IS)	10.60	264	2639198	40.00000	ppb	0.00
System Monitoring Compounds						
Target Compounds						Qvalue
2) 2-(2-Methoxyethoxy)ethanol	3.18	45	1108969	539.70365	ppb	97

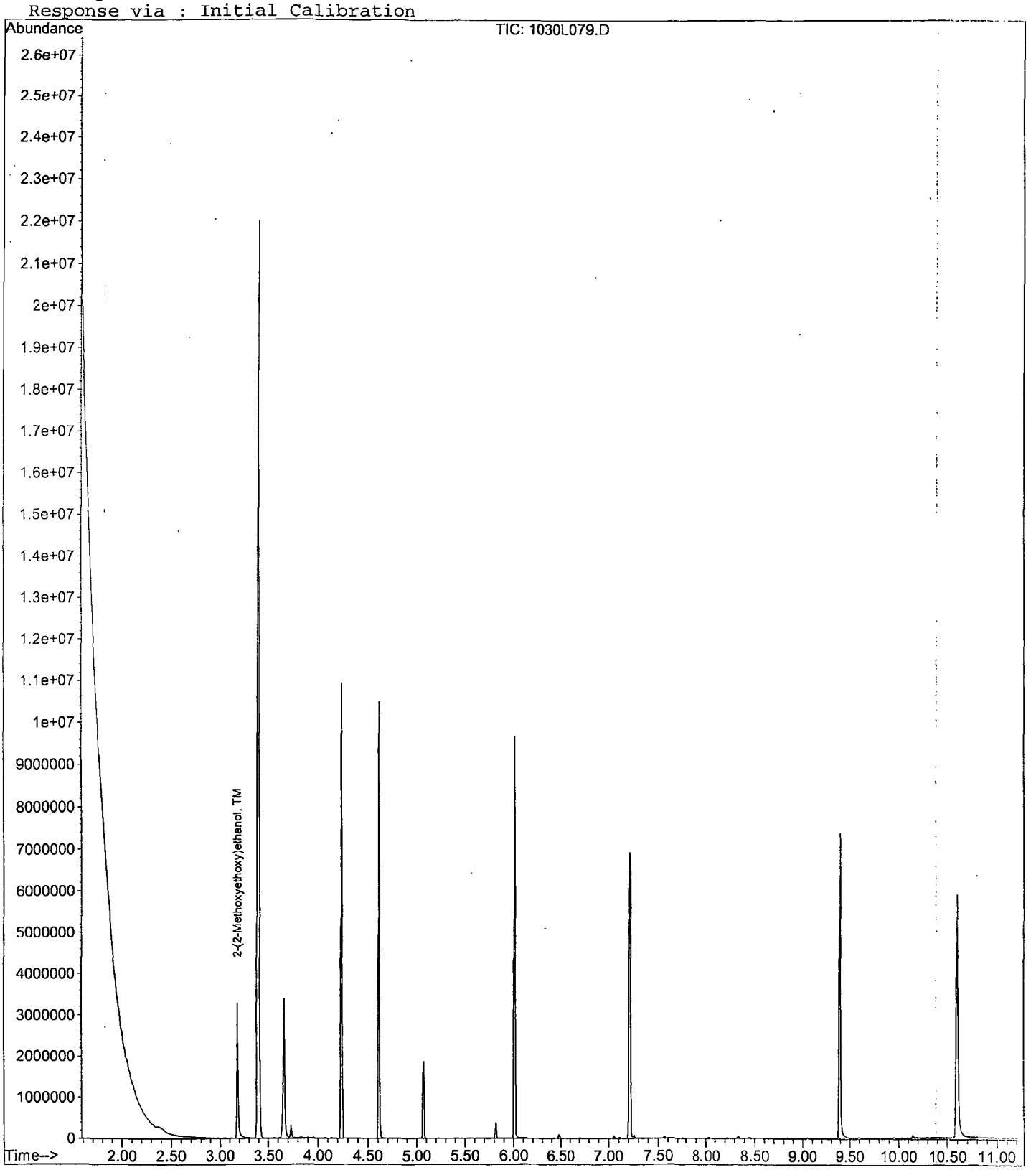
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L191030M\1030L079.D Vial: 79
Acq On : 14 Nov 19 10:46 Operator: MA
Sample : 500 2MEE 4/30/19 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Nov 14 10:58 2019 Quant Results File: YMEE1030.RES

Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 01 17:44:15 2019
Response via : Initial Calibration



ORGANICS
Raw Data

Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L191030M\1030L069.D Vial: 69
Acq On : 13 Nov 19 17:35 Operator: MA
Sample : BA02525W19 2/500 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Nov 14 9:22 2019 Quant Results File: YMEE1030.RES

Quant Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 01 17:44:15 2019
Response via : Initial Calibration
DataAcq Meth : GED

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	3.66	152	680770	40.00000 ppb	0.00
3) Napthalene-D8(IS)	4.61	136	2504776	40.00000 ppb	0.00
4) Acenaphthene-D10(IS)	6.01	164	1425945	40.00000 ppb	0.00
5) Phenanthrene-D10(IS)	7.22	188	2537656	40.00000 ppb	0.00
6) Chrysene-D12(IS)	9.39	240	1777501	40.00000 ppb	0.00
7) Perylene-D12(IS)	10.57	264	1972692	40.00000 ppb	-0.03

System Monitoring Compounds

Target Compounds Qvalue

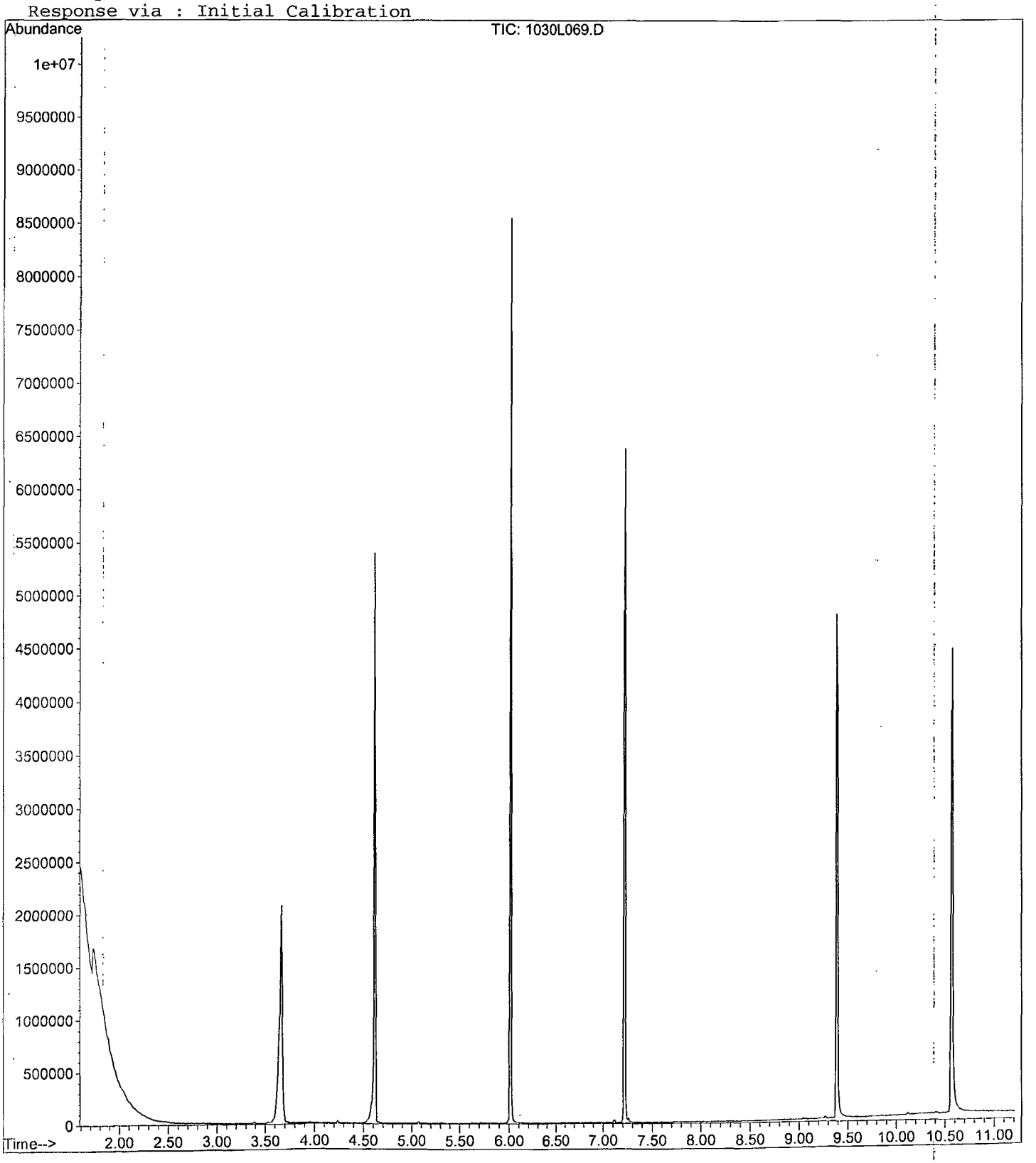
(#) = qualifier out of range (m) = manual integration
1030L069.D YMEE1030.M Thu Nov 14 11:05:59 2019

Quantitation Report

Data File : M:\LINUS\DATA\L191030M\1030L069.D Vial: 69
Acq On : 13 Nov 19 17:35 Operator: MA
Sample : BA02525W19 2/500 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Nov 14 9:22 2019 Quant Results File: YMEE1030.RES

Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 01 17:44:15 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L191030M\1030L065.D Vial: 65
Acq On : 13 Nov 19 16:21 Operator: MA
Sample : 191111A BLK 2/500 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Nov 13 16:38 2019 Quant Results File: YMEE1030.RES

Quant Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 01 17:44:15 2019
Response via : Initial Calibration
DataAcq Meth : GED

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	3.66	152	670685	40.00000	ppb	0.00
3) Napthalene-D8(IS)	4.62	136	2651750	40.00000	ppb	0.00
4) Acenaphthene-D10(IS)	6.01	164	1349831	40.00000	ppb	0.00
5) Phenanthrene-D10(IS)	7.22	188	2568678	40.00000	ppb	0.00
6) Chrysene-D12(IS)	9.39	240	1874027	40.00000	ppb	0.00
7) Perylene-D12(IS)	10.58	264	1925339	40.00000	ppb	-0.02

System Monitoring Compounds

Target Compounds Qvalue

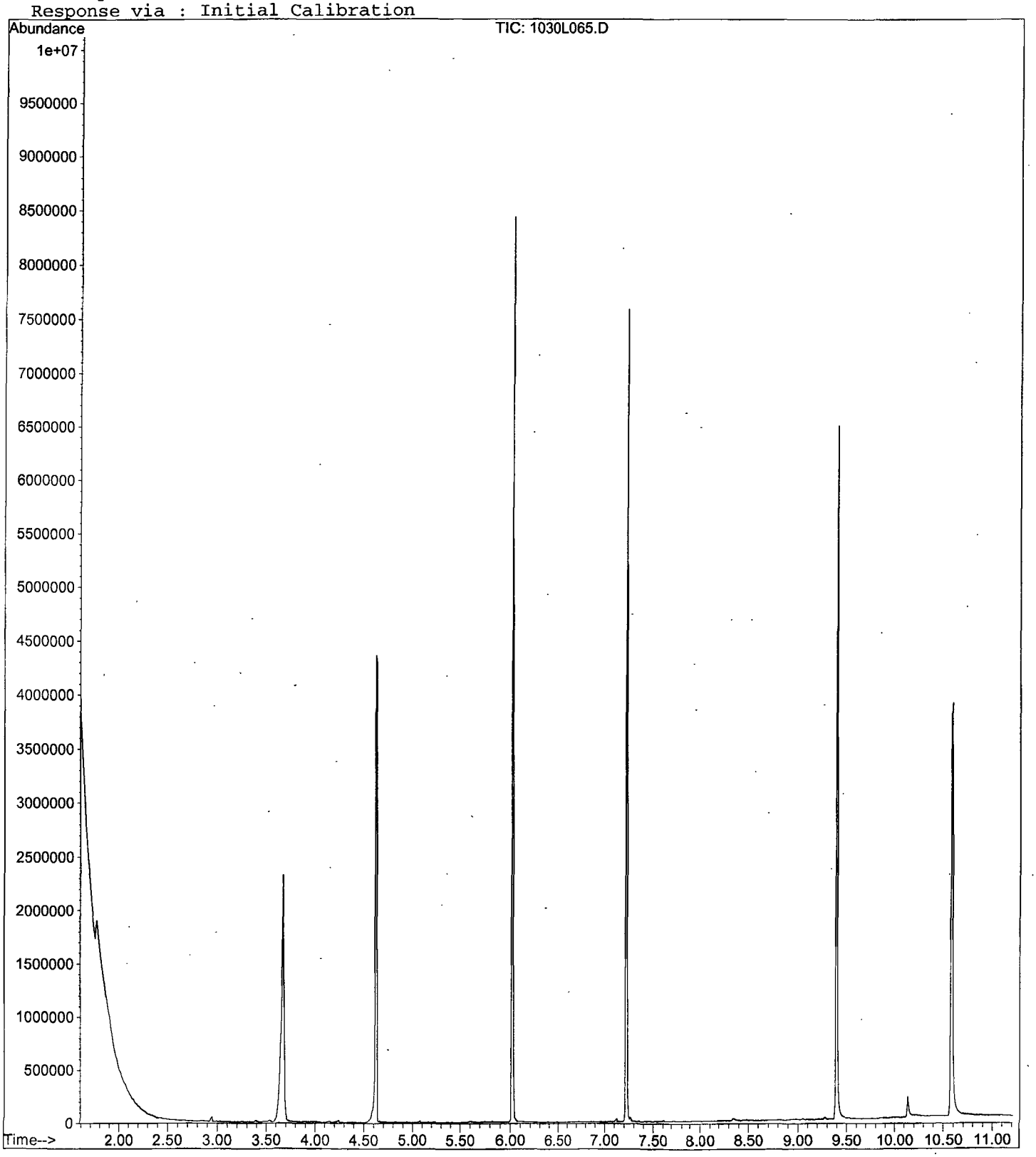
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L191030M\1030L065.D Vial: 65
Acq On : 13 Nov 19 16:21 Operator: MA
Sample : 191111A BLK 2/500 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Nov 13 16:38 2019 Quant Results File: YMEE1030.RES

Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 01 17:44:15 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L191030M\1030L077.D Vial: 77
Acq On : 14 Nov 19 10:09 Operator: MA
Sample : 191111A LCS-1 2/500 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Nov 14 10:21 2019 Quant Results File: YMEE1030.RES

Quant Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 01 17:44:15 2019
Response via : Initial Calibration
DataAcq Meth : GED

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	3.66	152	585581	40.00000	ppb	0.00
3) Napthalene-D8(IS)	4.61	136	2515557	40.00000	ppb	0.00
4) Acenaphthene-D10(IS)	6.01	164	1292546	40.00000	ppb	0.00
5) Phenanthrene-D10(IS)	7.21	188	2266884	40.00000	ppb	-0.02
6) Chrysene-D12(IS)	9.39	240	1700279	40.00000	ppb	0.00
7) Perylene-D12(IS)	10.59	264	1846707	40.00000	ppb	0.00

System Monitoring Compounds

Target Compounds						Qvalue
2) 2-(2-Methoxyethoxy)ethanol	3.22	45	177103	87.43621	ppb	99

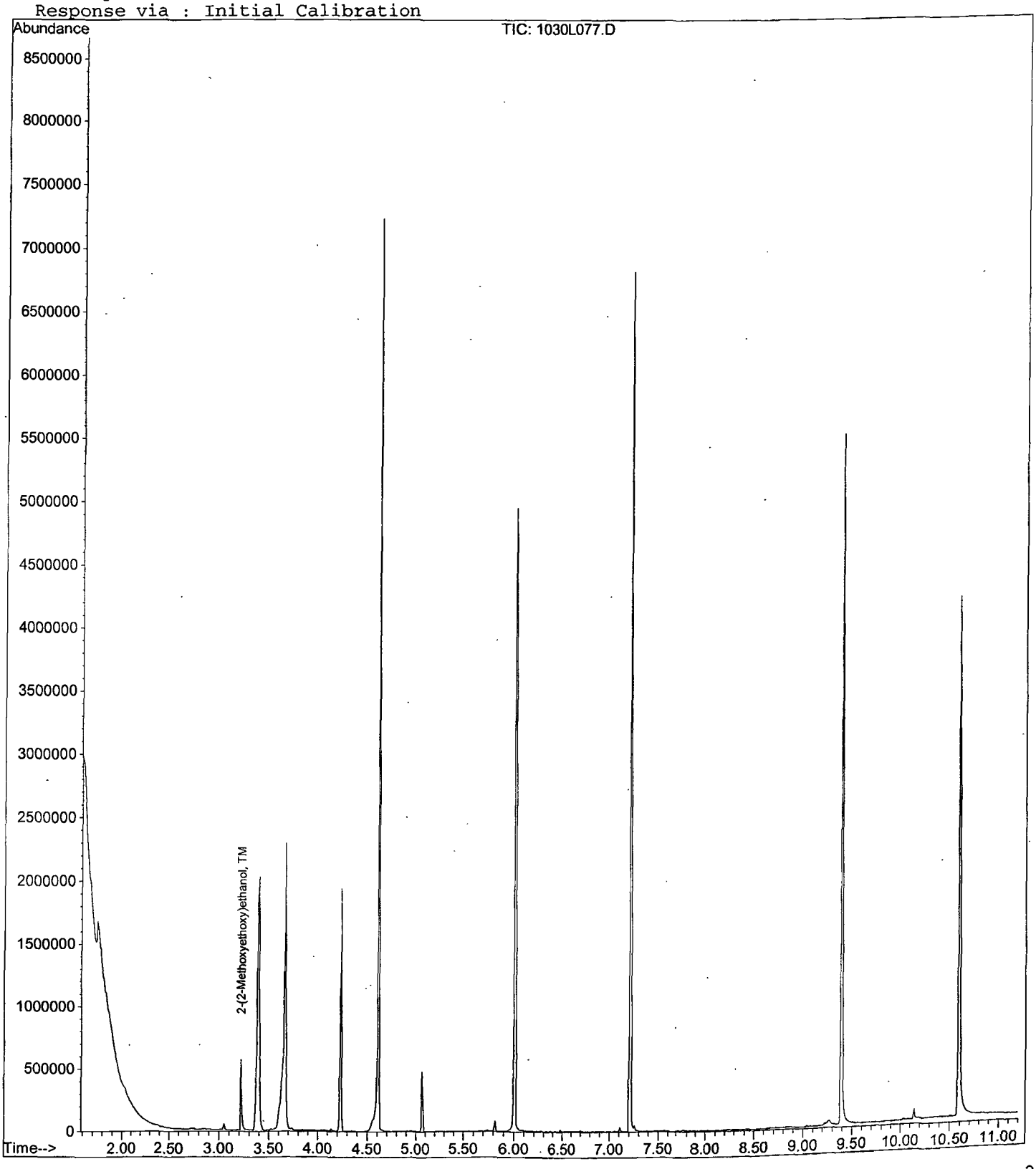
(#) = qualifier out of range (m) = manual integration
1030L077.D YMEE1030.M Wed Dec 04 13:04:56 2019

Quantitation Report

Data File : M:\LINUS\DATA\L191030M\1030L077.D Vial: 77
Acq On : 14 Nov 19 10:09 Operator: MA
Sample : 191111A LCS-1 2/500 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Nov 14 10:21 2019 Quant Results File: YMEE1030.RES

Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 01 17:44:15 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L191030M\1030L078.D Vial: 78
Acq On : 14 Nov 19 10:27 Operator: MA
Sample : 191111A LCSD-1 2/500 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Nov 14 10:40 2019 Quant Results File: YMEE1030.RES

Quant Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 01 17:44:15 2019
Response via : Initial Calibration
DataAcq Meth : GED

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	3.66	152	553463	40.00000	ppb	0.00
3) Napthalene-D8(IS)	4.61	136	2363892	40.00000	ppb	0.00
4) Acenaphthene-D10(IS)	6.01	164	1415384	40.00000	ppb	0.00
5) Phenanthrene-D10(IS)	7.21	188	2408568	40.00000	ppb	-0.02
6) Chrysene-D12(IS)	9.38	240	1766989	40.00000	ppb	-0.02
7) Perylene-D12(IS)	10.57	264	2006249	40.00000	ppb	-0.03

System Monitoring Compounds

Target Compounds						Qvalue
2) 2-(2-Methoxyethoxy)ethanol	3.22	45	173084	90.41088	ppb	98

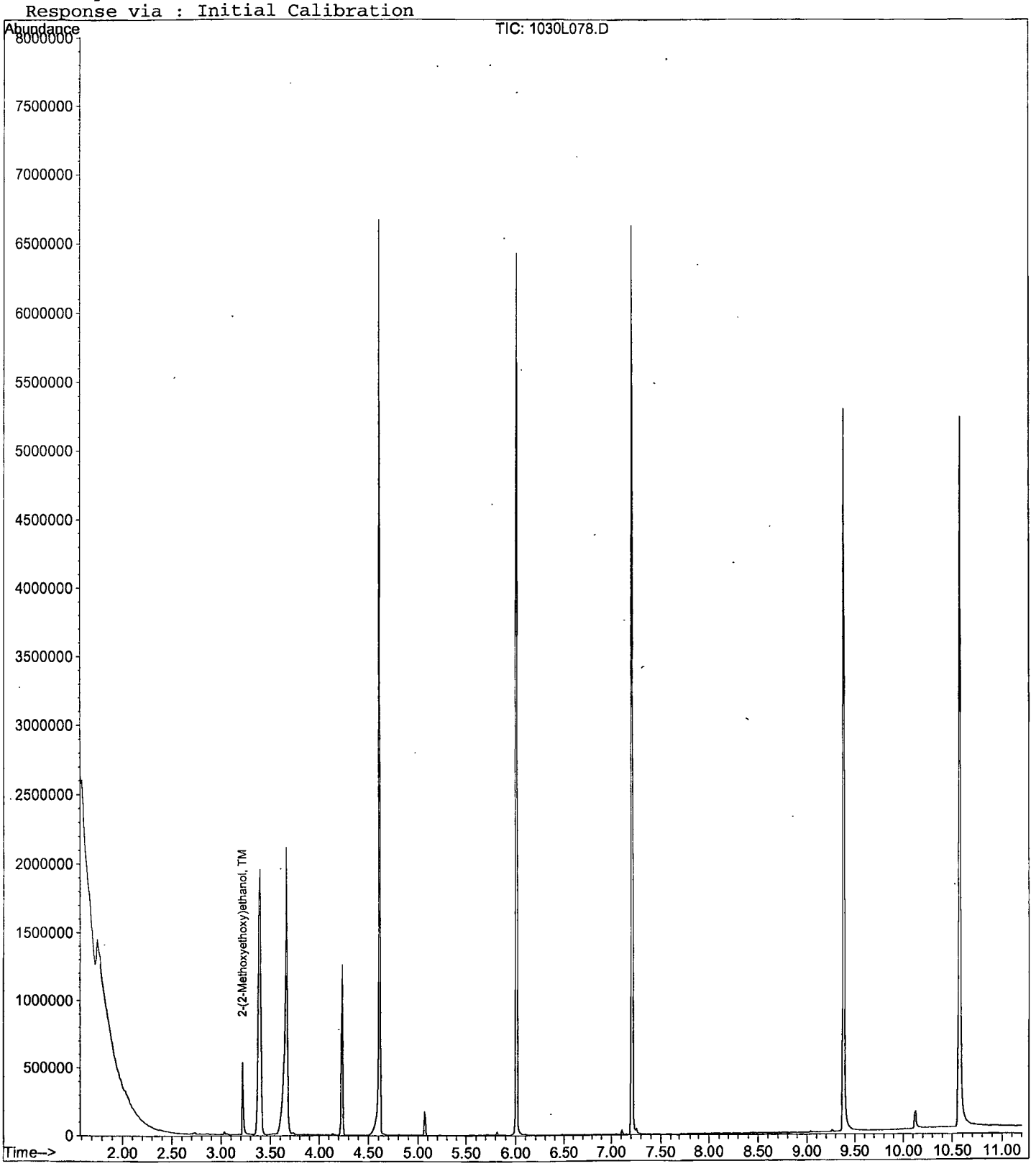
(#) = qualifier out of range (m) = manual integration
1030L078.D YMEE1030.M Wed Dec 04 13:05:00 2019 Page 1

Quantitation Report

Data File : M:\LINUS\DATA\L191030M\1030L078.D Vial: 78
Acq On : 14 Nov 19 10:27 Operator: MA
Sample : 191111A LCSD-1 2/500 Inst : Linus
Misc : Multiplr: 1.00

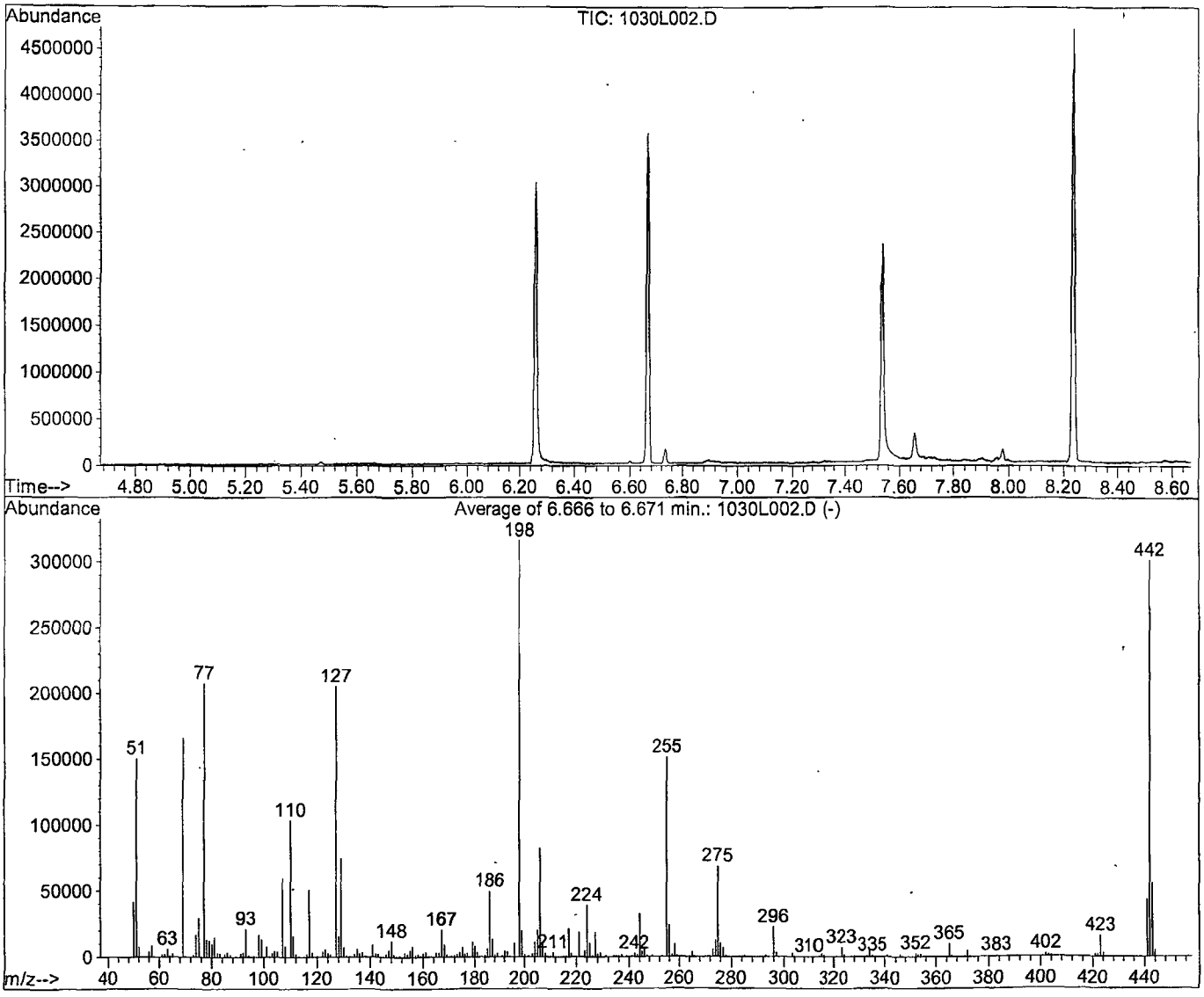
Quant Time: Nov 14 10:40 2019 Quant Results File: YMEE1030.RES

Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Nov 01 17:44:15 2019
Response via : Initial Calibration



Data File : M:\LINUS\DATA\L191030M\1030L002.D Vial: 86
Acq On : 31 Oct 19 9:39 Operator: MA
Sample : SV Tune 10/01/19 Inst : Linus
Misc : Multiplr: 1.00

Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C



AutoFind: Scans 1639, 1640, 1641; Background Corrected with Scan 1629

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	47.5	150243	PASS
68	69	0.00	2	0.0	0	PASS
70	69	0.00	2	0.6	922	PASS
127	198	10	80	64.9	205418	PASS
197	198	0.00	2	0.0	0	PASS
198	198	100	100	100.0	316523	PASS
199	198	5	9	6.2	19776	PASS
275	198	10	60	21.7	68701	PASS
365	198	1	100	3.2	9986	PASS
441	442	0.01	24	14.5	43648	PASS
442	198	50	500	95.4	301909	PASS
443	442	15	24	18.6	56149	PASS

Data File Name:	**1030L002.D**
Data File Path:	**M:\LINUS\DATA\L191030M**
Operator:	**MA**
Date Acquired:	**31 Oct 2019 09:39**
Method File:	**DFTPP2.M**
Sample Name:	**SV Tune 07/11/19**
Vial Number:	**86**
Instrument Name:	**Linus**

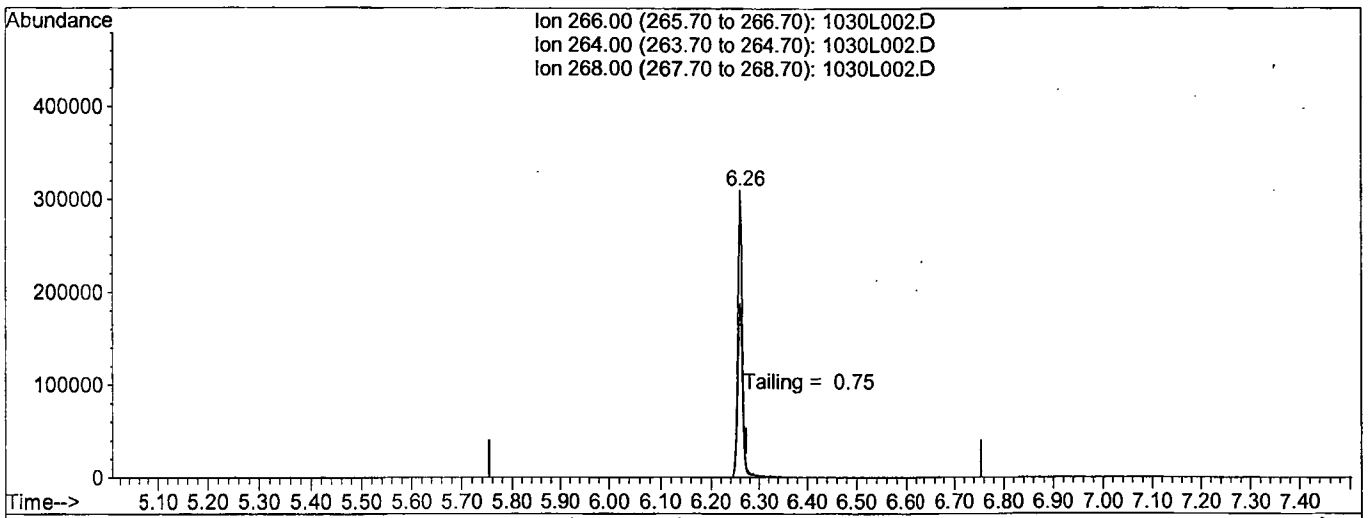
#	Name	Ret Time	Target Response
1)	DDT	8.21	32088400
2)	DDD	7.98	1040940
3)	DDE	8.00	701952

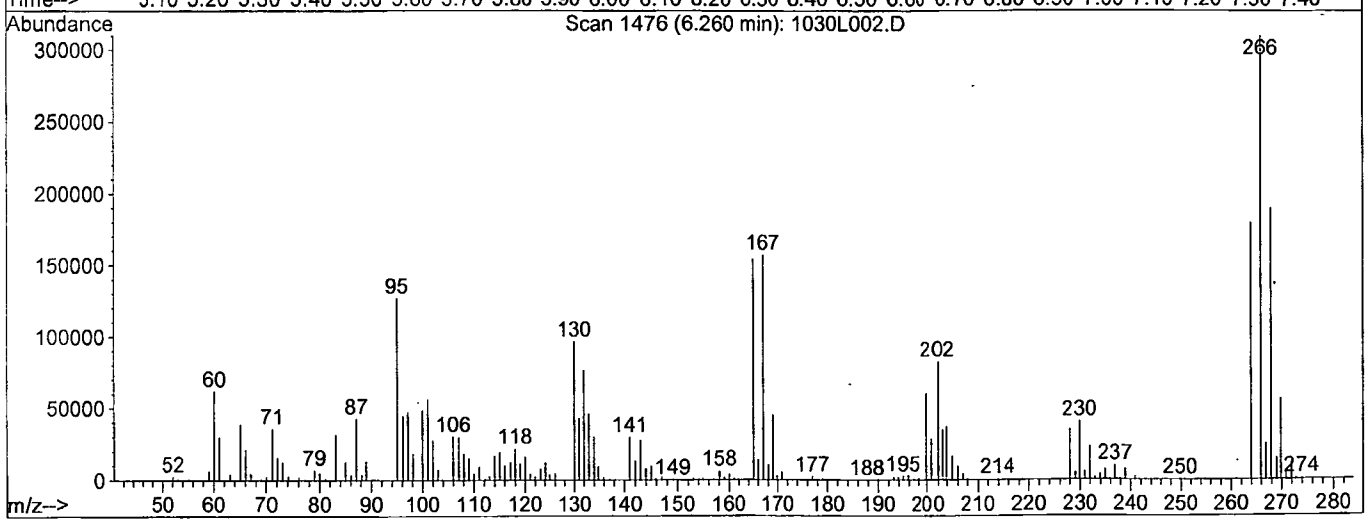
Breakdown **5.15**

Quantitation Report

Data File : M:\LINUS\DATA\L191030M\1030L002.D Vial: 86
Acq On : 31 Oct 19 9:39 Operator: MA
Sample : SV Tune 07/11/19 Inst : Linus
Misc : Multiplr: 1.00
Quant Time: Oct 31 17:15 2019 Quant Results File: temp.res

Method : M:\LINUS\DATA\L191030M\DFTPP2.M (Chemstation Integrator)
Title :
Last Update : Thu Oct 31 09:52:59 2019
Response via : Single Level Calibration





TIC: 1030L002.D

(5) Pentachlorophenol

6.26min 0.0000

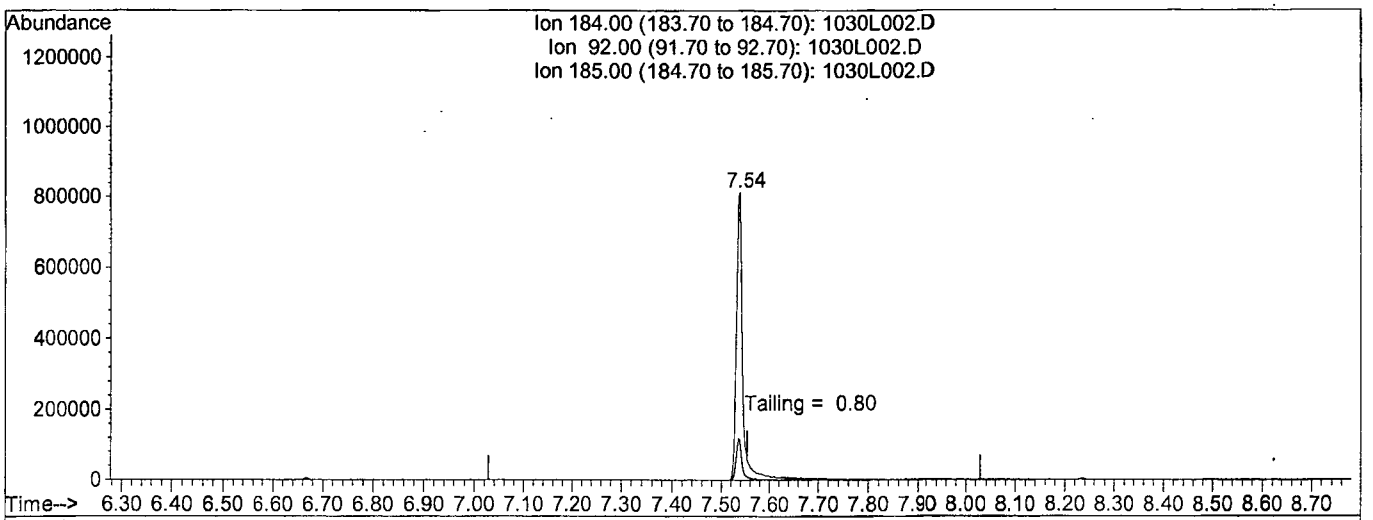
response 2123401

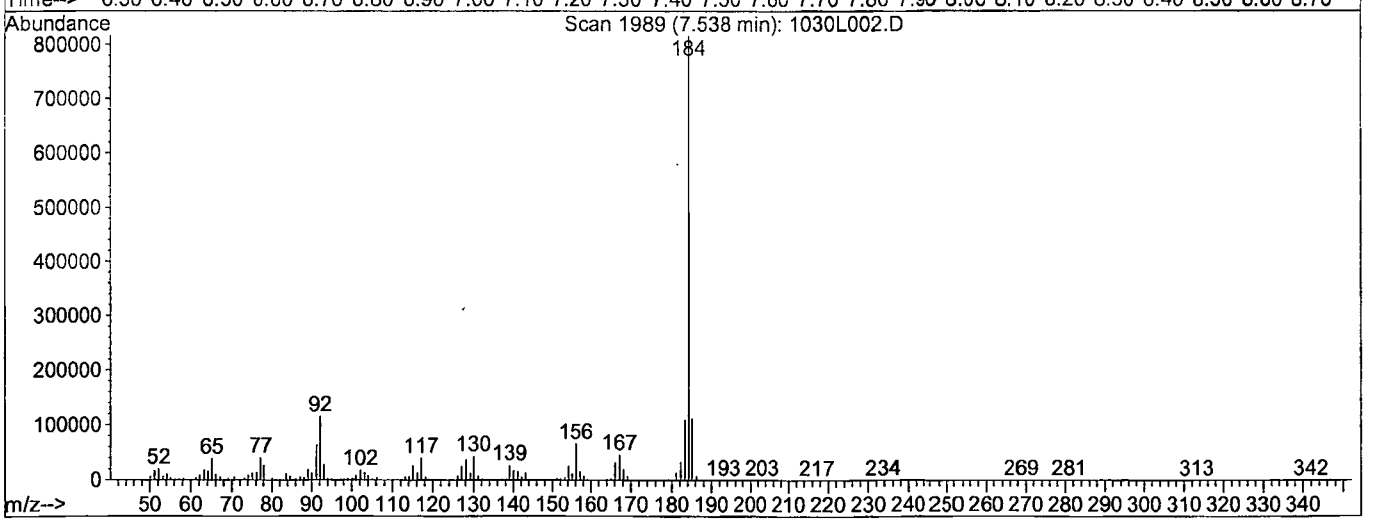
Ion	Exp%	Act%
266.00	100	100
264.00	58.90	57.25
268.00	62.10	64.34
0.00	0.00	0.00

Quantitation Report

Data File : M:\LINUS\DATA\L191030M\1030L002.D Vial: 86
Acq On : 31 Oct 19 9:39 Operator: MA
Sample : SV Tune 07/11/19 Inst : Linus
Misc : Multiplr: 1.00
Quant Time: Oct 31 17:15 2019 Quant Results File: temp.res

Method : M:\LINUS\DATA\L191030M\DFTPP2.M (Chemstation Integrator)
Title :
Last Update : Thu Oct 31 09:52:59 2019
Response via : Single Level Calibration





TIC: 1030L002.D

(6) Benzidine

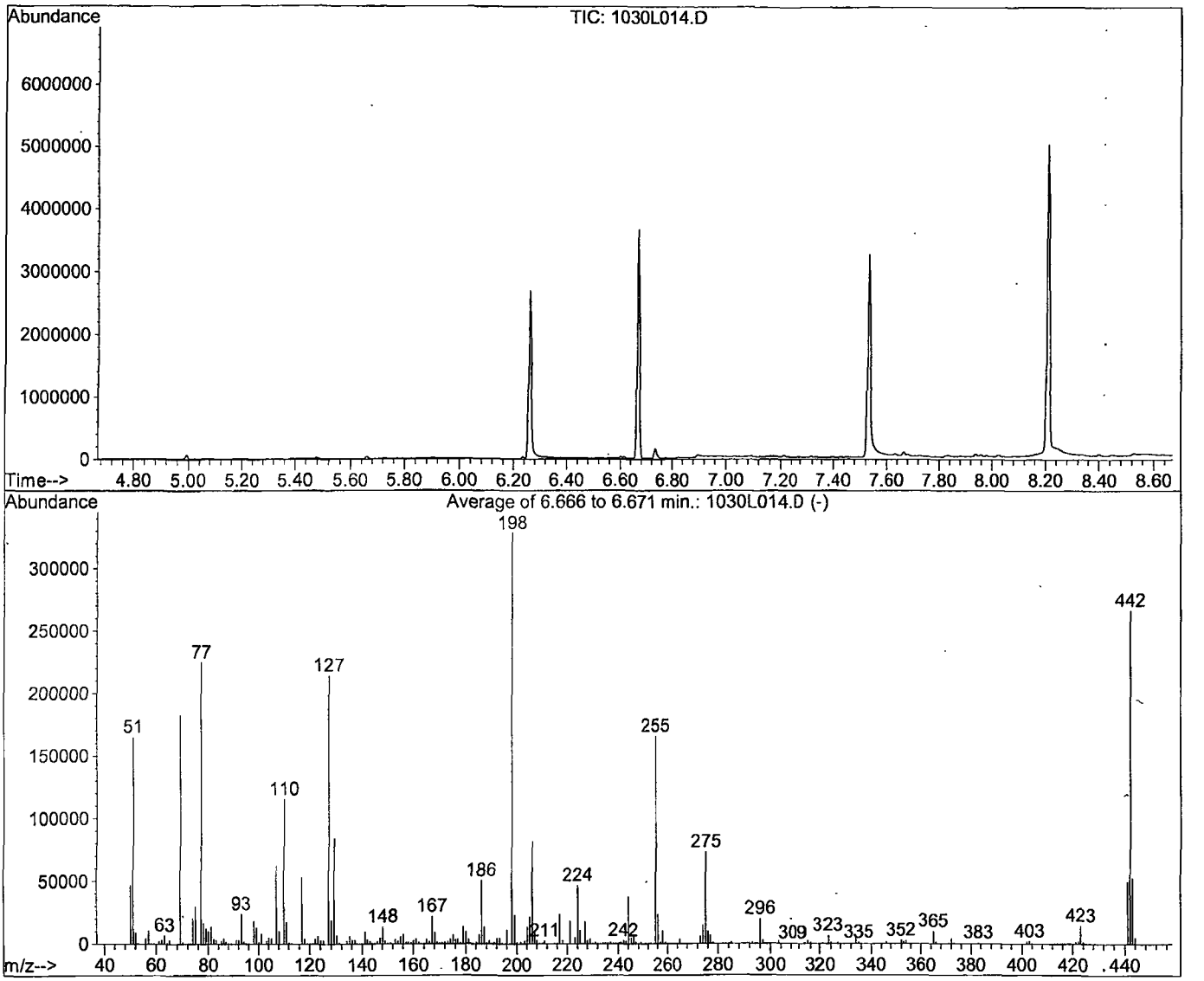
7.54min 0.0000

response 6810019

Ion	Exp%	Act%
184.00	100	100
92.00	12.10	14.47
185.00	13.30	14.66
0.00	0.00	0.00

Data File : M:\LINUS\DATA\L191030M\1030L014.D Vial: 14
Acq On : 1 Nov 19 15:17 Operator: MA
Sample : SV Tune 10/01/19 Inst : Linus
Misc : Multiplr: 1.00

Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C



AutoFind: Scans 1639, 1640, 1641; Background Corrected with Scan 1630

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	50.2	164951	PASS
68	69	0.00	2	0.0	0	PASS
70	69	0.00	2	0.7	1364	PASS
127	198	10	80	65.2	214229	PASS
197	198	0.00	2	0.0	0	PASS
198	198	100	100	100.0	328597	PASS
199	198	5	9	7.0	22899	PASS
275	198	10	60	22.3	73325	PASS
365	198	1	100	3.1	10112	PASS
441	442	0.01	24	18.5	49301	PASS
442	198	50	500	81.1	266539	PASS
443	442	15	24	19.7	52437	PASS

Data File Name:	**1030L014.D**
Data File Path:	**M:\LINUS\DATA\L191030M**
Operator:	**MA**
Date Acquired:	**1 Nov 19 15:17**
Method File:	**DFTPP2.M**
Sample Name:	**SV Tune 10/01/19**
Vial Number:	**14**
Instrument Name:	**Linus**

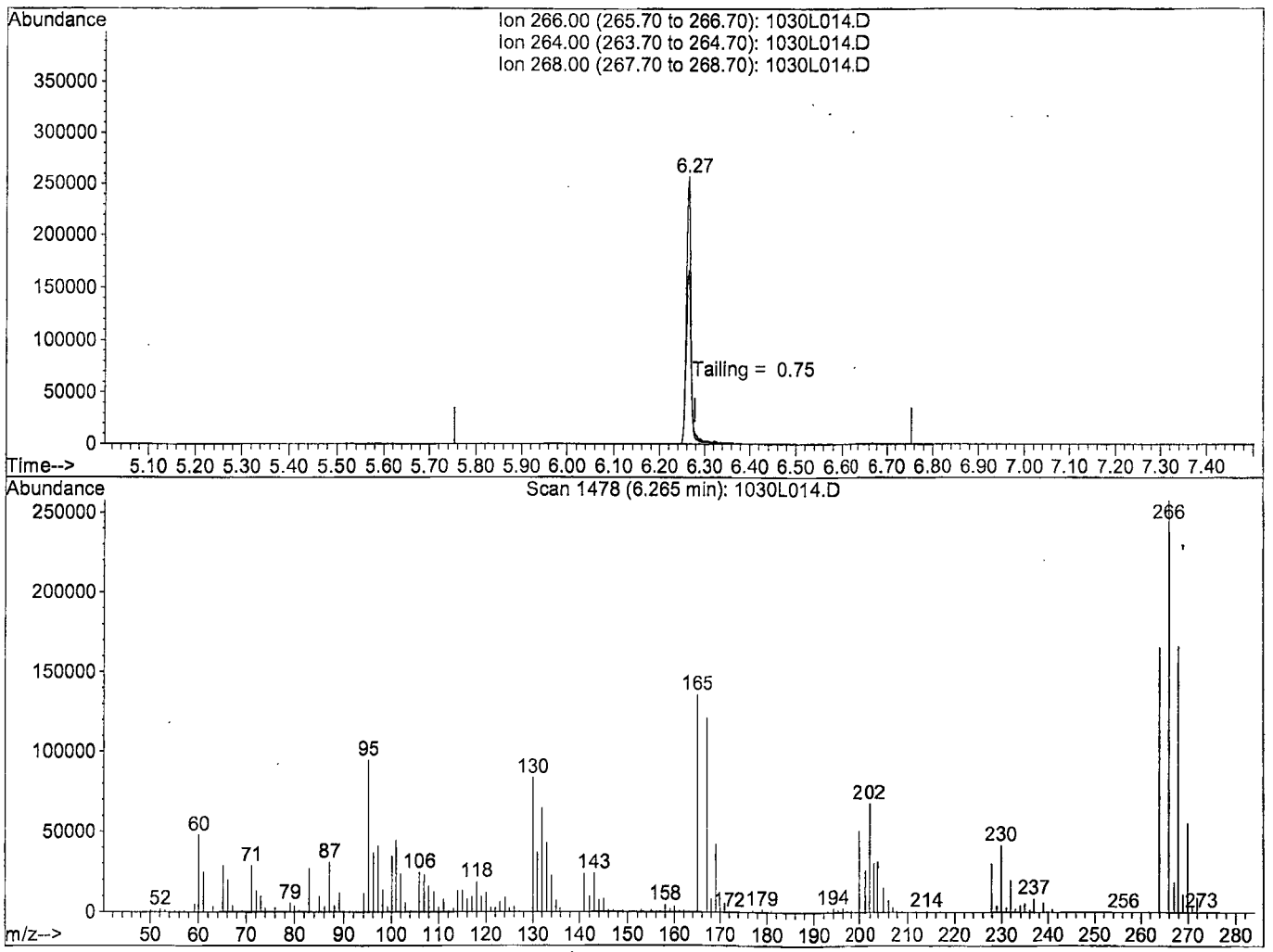
#	Name	Ret Time	Target Response
1)	DDT	8.21	38086400
2)	DDD	7.98	224750
3)	DDE	8.00	113996

Breakdown **0.88**

Quantitation Report

Data File : M:\LINUS\DATA\L191030M\1030L014.D Vial: 14
Acq On : 1 Nov 19 15:17 Operator: MA
Sample : SV Tune 10/01/19 Inst : Linus
Misc : Multiplr: 1.00
Quant Time: Nov 1 15:30 2019 Quant Results File: temp.res

Method : M:\LINUS\DATA\L191030M\DFTPP2.M (Chemstation Integrator)
Title :
Last Update : Thu Oct 31 09:52:59 2019
Response via : Single Level Calibration



TIC: 1030L014.D

(5) Pentachlorophenol

6.26min 0.0000

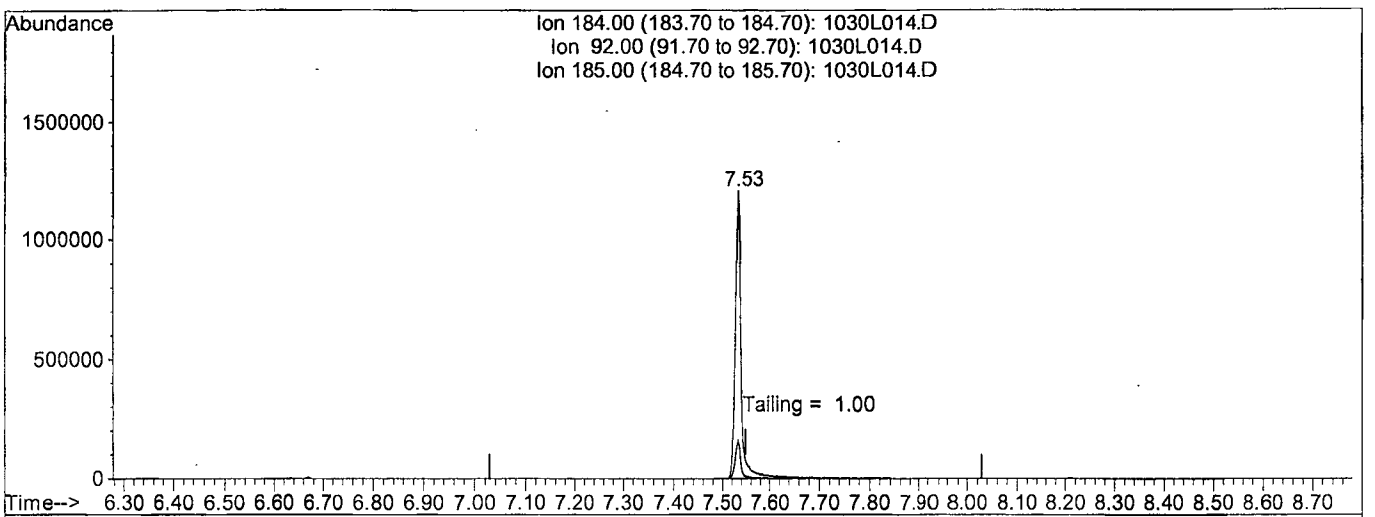
response 1793923

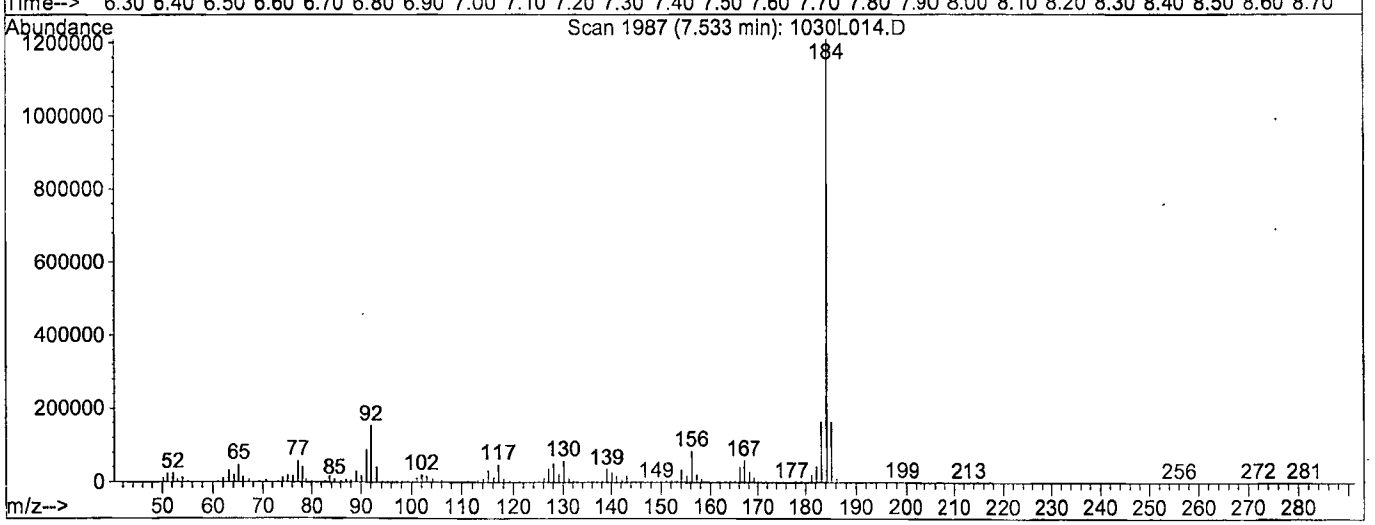
Ion	Exp%	Act%
266.00	100	100
264.00	58.90	65.01
268.00	62.10	61.84
0.00	0.00	0.00

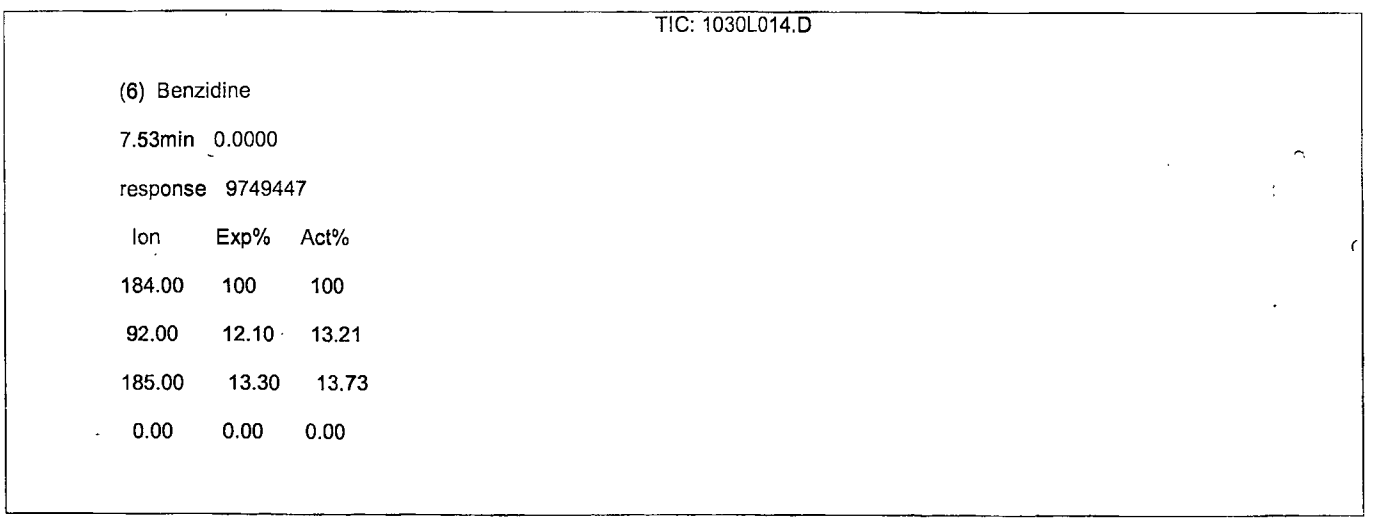
Quantitation Report

Data File : M:\LINUS\DATA\L191030M\1030L014.D Vial: 14
Acq On : 1 Nov 19 15:17 Operator: MA
Sample : SV Tune 10/01/19 Inst : Linus
Misc : Multiplr: 1.00
Quant Time: Nov 1 15:30 2019 Quant Results File: temp.res

Method : M:\LINUS\DATA\L191030M\DFTPP2.M (Chemstation Integrator)
Title :
Last Update : Thu Oct 31 09:52:59 2019
Response via : Single Level Calibration







(6) Benzidine

7.53min 0.0000

response 9749447

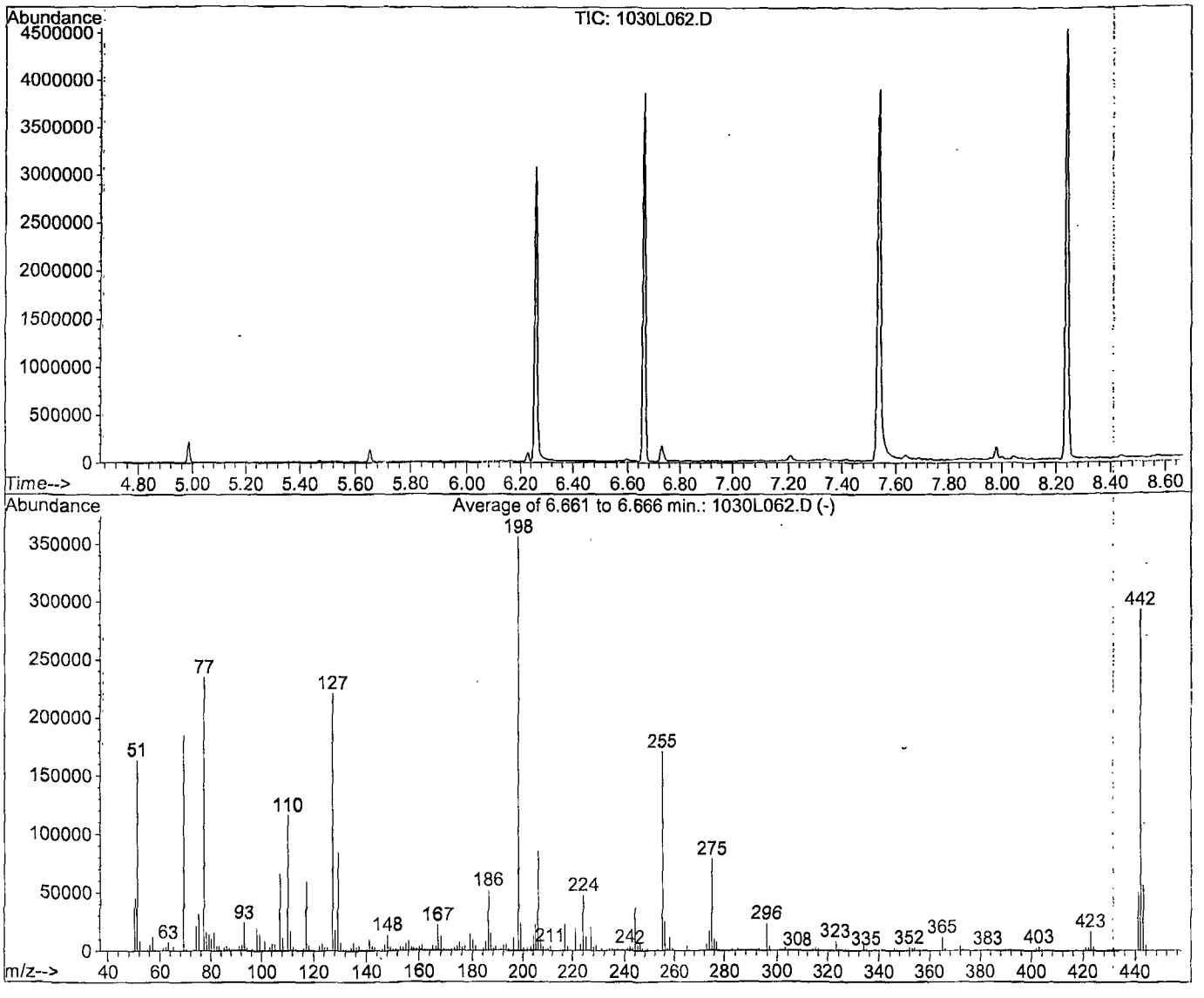
Ion	Exp%	Act%
184.00	100	100
92.00	12.10	13.21
185.00	13.30	13.73
0.00	0.00	0.00

DFTPP

Data File : M:\LINUS\DATA\L191030M\1030L062.D
Acq On : 13 Nov 19 14:33
Sample : SV Tune 10/01/19
Misc :

Vial: 62
Operator: MA
Inst : Linus
Multiplr: 1.00

Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C



AutoFind: Scans 1637, 1638, 1639; Background Corrected with Scan 1628

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	45.9	163337	PASS
68	69	0.00	2	0.0	0	PASS
70	69	0.00	2	0.7	1352	PASS
127	198	10	80	61.9	220608	PASS
197	198	0.00	2	0.0	0	PASS
198	198	100	100	100.0	356203	PASS
199	198	5	9	6.6	23437	PASS
275	198	10	60	22.0	78240	PASS
365	198	1	100	3.1	11207	PASS
441	442	0.01	24	16.9	49360	PASS
442	198	50	500	82.0	292075	PASS
443	442	15	24	19.1	55757	PASS

Data File Name:	**1030L062.D**
Data File Path:	**M:\LINUS\DATA\L191030M**
Operator:	**MA**
Date Acquired:	**13 Nov 2019 14:33**
Method File:	**DFTPP2.M**
Sample Name:	**SV Tune 10/01/19**
Vial Number:	**62**
Instrument Name:	Linus

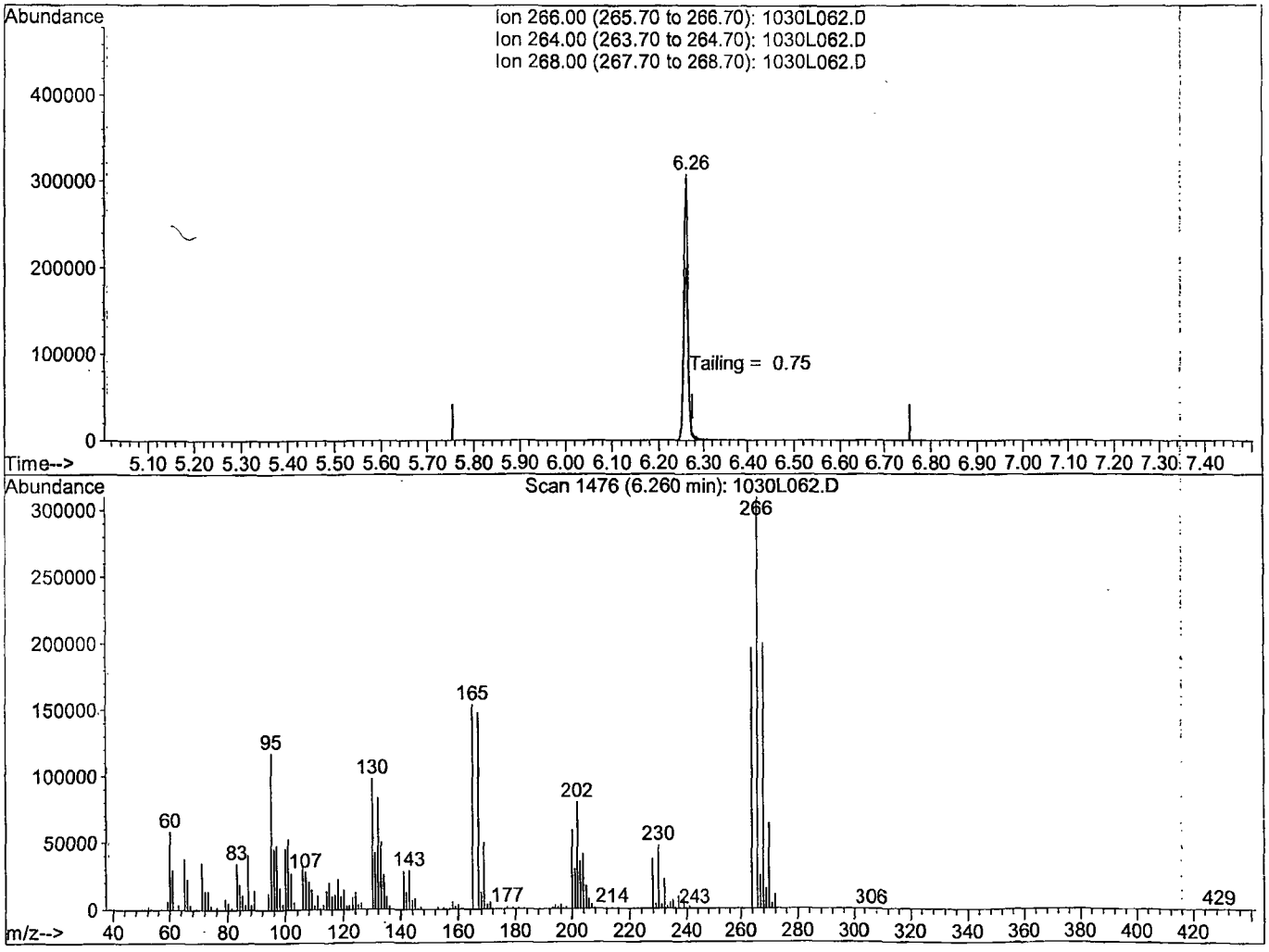
#	Name	Ret Time	Target Response
1)	DDT	8.21	33180100
2)	DDD	7.98	1105850
3)	DDE	8.00	206498

Breakdown **3.80**

Quantitation Report

Data File : M:\LINUS\DATA\L191030M\1030L062.D Vial: 62
Acq On : 13 Nov 19 14:33 Operator: MA
Sample : SV Tune 10/01/19 Inst : Linus
Misc : Multiplr: 1.00
Quant Time: Nov 13 16:09 2019 Quant Results File: temp.res

Method : M:\LINUS\DATA\L191030M\DFTPP2.M (Chemstation Integrator)
Title :
Last Update : Thu Oct 31 09:52:59 2019
Response via : Single Level Calibration



TIC: 1030L062.D

(5) Pentachlorophenol

6.26min 0.0000

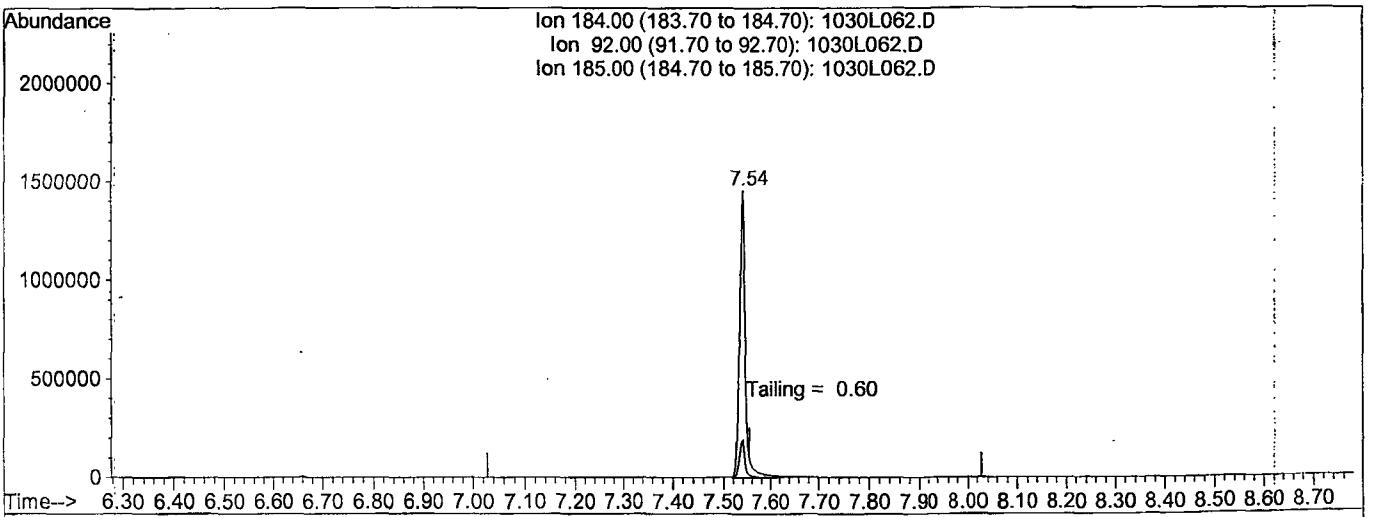
response 2078639

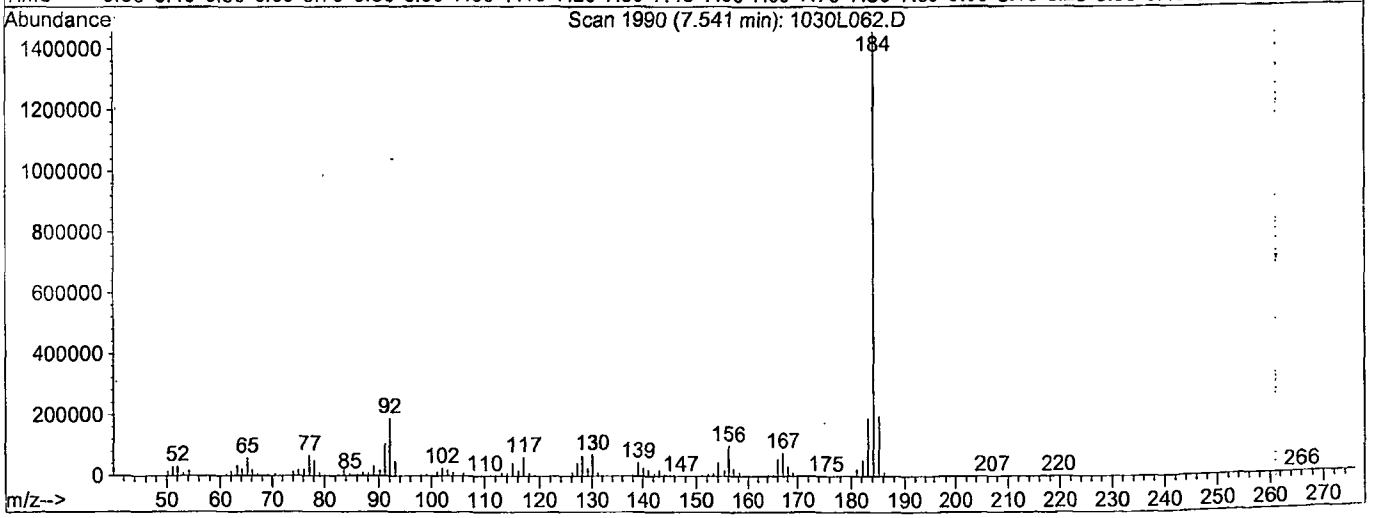
Ion	Exp%	Act%
266.00	100	100
264.00	58.90	66.65
268.00	62.10	65.16
0.00	0.00	0.00

Quantitation Report

Data File : M:\LINUS\DATA\L191030M\1030L062.D Vial: 62
Acq On : 13 Nov 19 14:33 Operator: MA
Sample : SV Tune 10/01/19 Inst : Linus
Misc : Multiplr: 1.00
Quant Time: Nov 13 16:09 2019 Quant Results File: temp.res

Method : M:\LINUS\DATA\L191030M\DFTPP2.M (Chemstation Integrator)
Title :
Last Update : Thu Oct 31 09:52:59 2019
Response via : Single Level Calibration





TIC: 1030L062.D

(6) Benzidine

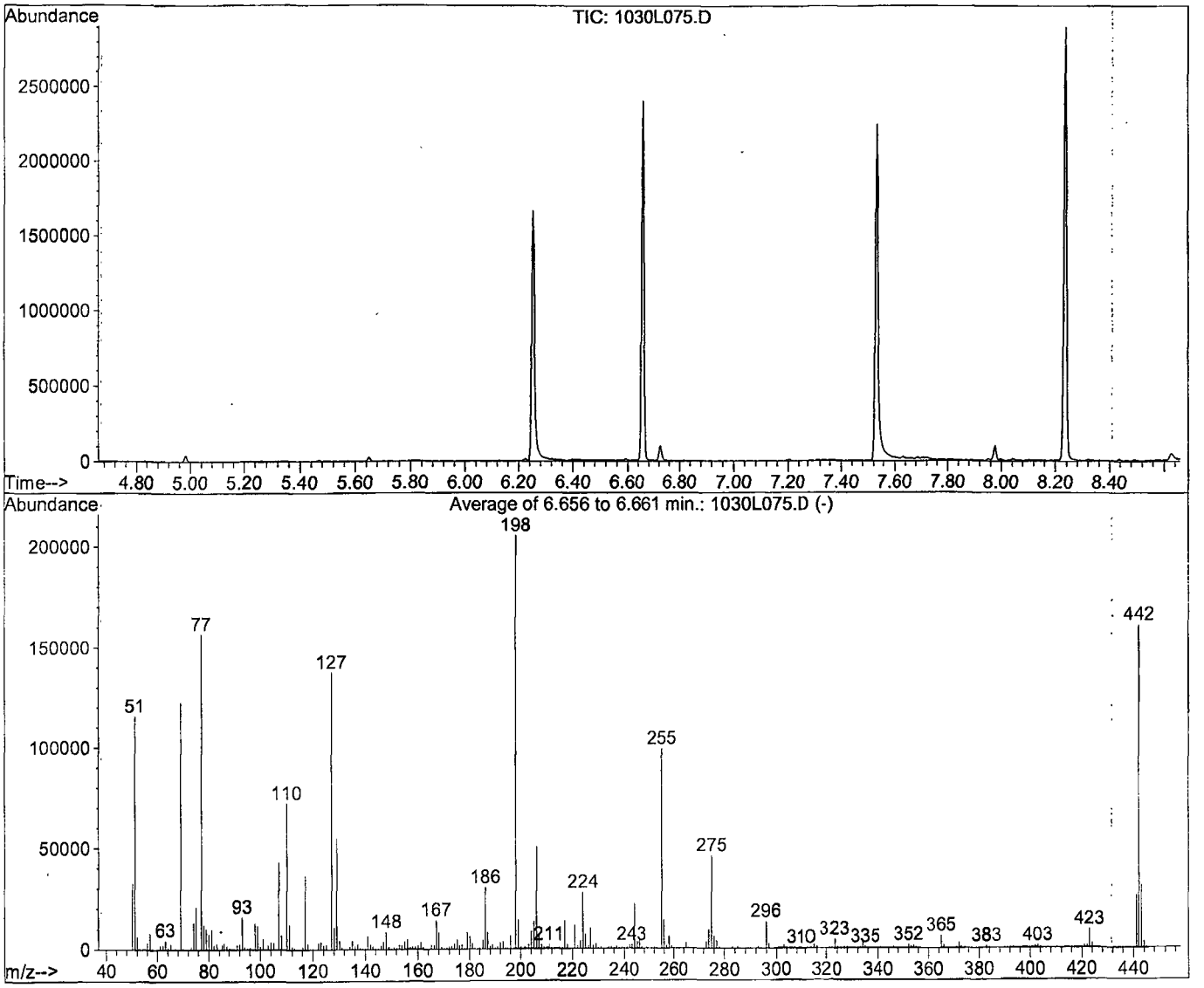
7.54min 0.0000

response 12043880

Ion	Exp%	Act%
184.00	100	100
92.00	12.10	13.50
185.00	13.30	13.27
0.00	0.00	0.00

Data File : M:\LINUS\DATA\L191030M\1030L075.D Vial: 75
Acq On : 14 Nov 19 9:32 Operator: MA
Sample : SV Tune 10/01/19 Inst : Linus
Misc : Multiplr: 1.00

Method : M:\LINUS\DATA\L191030M\YMEE1030.M (RTE Integrator)
Title : EPA 8270C



AutoFind: Scans 1635, 1636, 1637; Background Corrected with Scan 1626

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	10	80	56.2	115653	PASS
68	69	0.00	2	0.0	0	PASS
70	69	0.00	2	0.5	566	PASS
127	198	10	80	66.8	137496	PASS
197	198	0.00	2	0.0	0	PASS
198	198	100	100	100.0	205717	PASS
199	198	5	9	6.8	14054	PASS
275	198	10	60	22.3	45795	PASS
365	198	1	100	3.0	6257	PASS
441	442	0.01	24	16.1	25981	PASS
442	198	50	500	78.3	161088	PASS
443	442	15	24	19.2	30893	PASS

Data File Name:	**1030L075.D**
Data File Path:	**M:\LINUS\DATA\L191030M**
Operator:	**MA**
Date Acquired:	**14 Nov 2019 09:32**
Method File:	**DFTPP2.M**
Sample Name:	**SV Tune 10/01/19**
Vial Number:	**75**
Instrument Name:	**Linus**

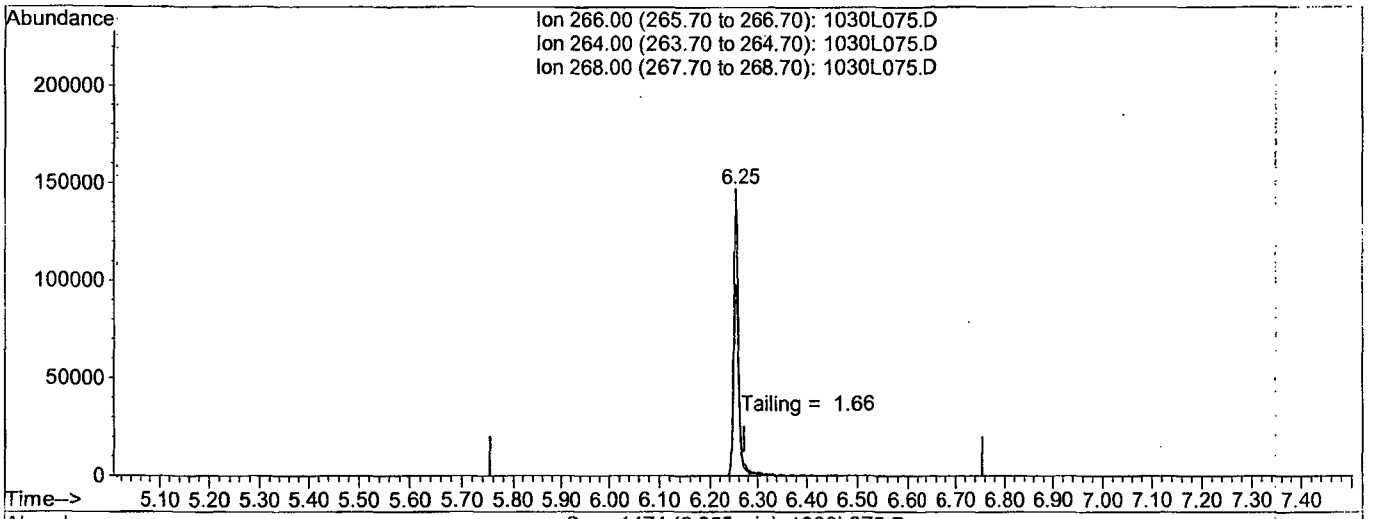
#	Name	Ret Time	Target Response
1)	DDT	8.21	19218300
2)	DDD	7.98	693744
3)	DDE	7.69	64547

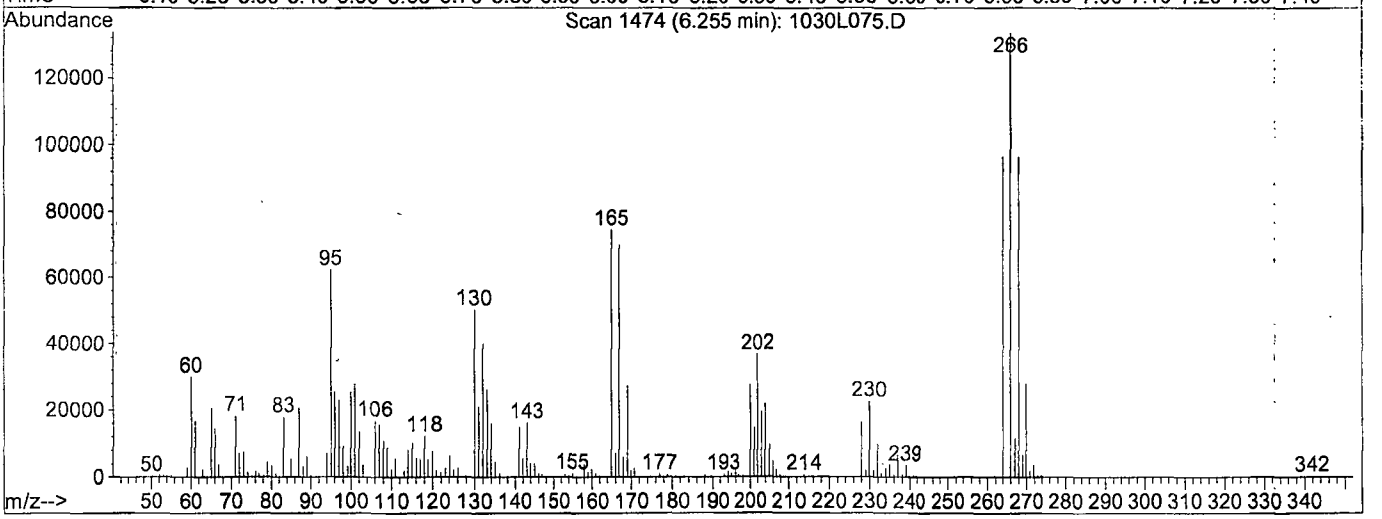
Breakdown **3.80**

Quantitation Report

Data File : M:\LINUS\DATA\L191030M\1030L075.D Vial: 75
Acq On : 14 Nov 19 9:32 Operator: MA
Sample : SV Tune 10/01/19 Inst : Linus
Misc : Multiplr: 1.00
Quant Time: Nov 14 9:48 2019 Quant Results File: temp.res

Method : M:\LINUS\DATA\L191030M\DFTPP2.M (Chemstation Integrator)
Title :
Last Update : Thu Oct 31 09:52:59 2019
Response via : Single Level Calibration





TIC: 1030L075.D

(5) Pentachlorophenol

6.25min 0.0000

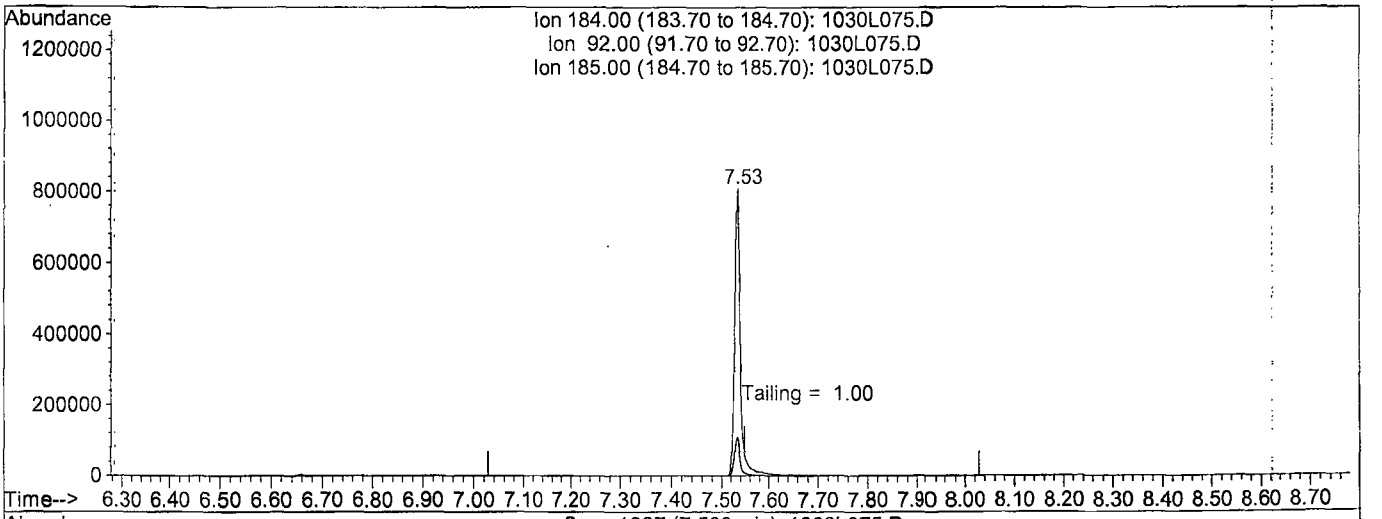
response 1096798

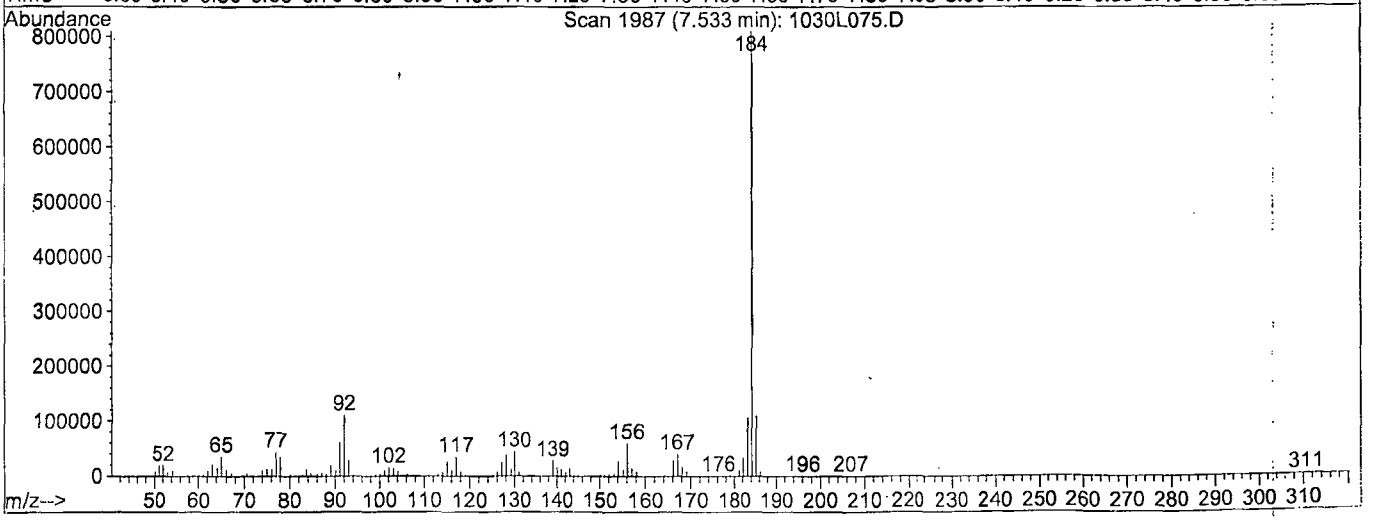
Ion	Exp%	Act%
266.00	100	100
264.00	58.90	68.14
268.00	62.10	65.33
0.00	0.00	0.00

Quantitation Report

Data File : M:\LINUS\DATA\L191030M\1030L075.D Vial: 75
Acq On : 14 Nov 19 9:32 Operator: MA
Sample : SV Tune 10/01/19 Inst : Linus
Misc : Multiplr: 1.00
Quant Time: Nov 14 9:48 2019 Quant Results File: temp.res

Method : M:\LINUS\DATA\L191030M\DFTPP2.M (Chemstation Integrator)
Title :
Last Update : Thu Oct 31 09:52:59 2019
Response via : Single Level Calibration





TIC: 1030L075.D

(6) Benzidine

7.53min 0.0000

response 6656775

Ion	Exp%	Act%
184.00	100	100
92.00	12.10	12.58
185.00	13.30	14.23
0.00	0.00	0.00

Name of Final Standard Diethylene Glycol

Prep'd By (Initials) GA

Prep Date 01/31/19

Exp Date 01/31/20

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from contianer Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc.(range)
Diethylene glycol methyl ether	AccuStandard	S-72273	2000 ug/mL	**218101558-39888 39889**	**01/31/20**	2.0 mL	4 mL	**Methanol #042317C**	1000 ug/mL

Given to Extraction to do **MEE M STD Stock** (used for ICAL) Final concentration 2000ug/L

_MWE2MEE

Organic Extraction Worksheet

Method	Solid Phase Extraction of 2MEE in Water	Extraction Set	190429A	Extraction Method	MWE2MEE	Units	mL

Spiked ID 1	Diethylene Glycol 1-31-19 EXP 1-31-20		Surrogate ID 1		
Spiked ID 2	2MEE SS 10320ug/mL 8-3-18 exp 8-3-19		Surrogate ID 2		
Spiked ID 3			Surrogate ID 3		
Spiked ID 4			Surrogate ID 4		
Spiked ID 5			Surrogate ID 5		
Spiked ID 6			Sufficient Vol for Matrix QC:	YES	
Spiked ID 7			Ext. Start Time:	04/29/19 10:50	
Spiked ID 8			Ext. End Time:	04/29/19 16:40	
			GC Requires Extract By:	04/30/19 0:00	

M STD AND SS PREPARATION

HA 5/1/19

pH1			Water Bath Temp Criteria	
pH2				
pH3				

Spiked By: KY **Date** 04/29/19 **Witnessed By:** DL **Date** 04/29/19

	Sample	Sample Container	Spike Amount	Spike ID	Surrogate Amount	Surrogate ID	Extract Amount	Final Volume	pH	Extract Date/Time	Comments
1	190429A Blk				NA	NA equip	500	2	7	04/29/19 10:50	
2	190429A LCS-1		0.040	1	NA	NA equip	500	2	7	04/29/19 10:50	
3	190429A LCSD-1		0.040	1	NA	NA equip	500	2	7	04/29/19 10:50	
4	AZ89958 MS-1	AZ89958W23	0.040	1	NA	NA equip	510	2	7	04/29/19 10:50	88687
5	AZ89958 MSD-1	AZ89958W22	0.040	1	NA	NA equip	510	2	7	04/29/19 10:50	88687
6	AZ89958	AZ89958W24			NA	NA equip	500	2	7	04/29/19 10:50	88687
7	AZ89959	AZ89959W06			NA	NA equip	480	2	7	04/29/19 10:50	88687
8	AZ89961	AZ89961W22			NA	NA equip	510	2	7	04/29/19 10:50	88687
9	AZ90051 MS-1	AZ90051W21	0.040	1	NA	NA equip	500	2	7	04/29/19 10:50	88701
10	AZ90051 MSD-1	AZ90051W25	0.040	1	NA	NA equip	500	2	7	04/29/19 10:50	88701
11	AZ90051	AZ90051W22			NA	NA equip	500	2	7	04/29/19 10:50	88701
12	AZ90052	AZ90052W05			NA	NA equip	505	2	7	04/29/19 10:50	88701
13	AZ90054	AZ90054W16			NA	NA equip	510	2	7	04/29/19 10:50	88701
14	AZ90056	AZ90056W16			NA	NA equip	510	2	7	04/29/19 10:50	88701
15	AZ90058	AZ90058W17			NA	NA equip	500	2	7	04/29/19 10:50	88701
16	AZ90060	AZ90060W17			NA	NA equip	505	2	7	04/29/19 10:50	88701

Solvent and Lot#	
ENVI-Carb Plus 400MG/1ML	.
Reverible Tube Lot:	11225702
PH Strip	HC 863463
Di Water	4-29-19
Dichloromethane	58240
Methanol	58179

Extraction COC Transfer	
Extraction lab employee Initials	KY
GC analyst's initials	
Date	
Time	
Refrigerator	

	Technician's Initials
Scanned By	DL
Sample Preparation	DL
Extraction	DL
Concentration	DL

Modified	04/29/19 2:46:49 PM

Reviewed By: **Date**

Organic Extraction Worksheet

Method	Solid Phase Extraction of 2MEE in Water	Extraction Set	190429A	Extraction Method	MWE2MEE	Units	mL

Spiked ID 1	Diethylene Glycol 1-31-19 EXP 1-31-20		Surrogate ID 1		
Spiked ID 2	2MEE SS 10320ug/mL 8-3-18 exp 8-3-19		Surrogate ID 2		
Spiked ID 3			Surrogate ID 3		
Spiked ID 4			Surrogate ID 4		
Spiked ID 5			Surrogate ID 5		
Spiked ID 6			Sufficient Vol for Matrix QC:	YES	
Spiked ID 7			Ext. Start Time:	04/29/19 10:50	
Spiked ID 8			Ext. End Time:	04/29/19 16:40	
			GC Requires Extract By:	04/30/19 0:00	

pH1			Water Bath Temp Criteria	
pH2				
pH3				

Spiked By: KY **Date** 04/29/19 **Witnessed By:** DL **Date** 04/29/19

	Sample	Sample Container	Spike Amount	Spike ID	Surrogate Amount	Surrogate ID	Extract Amount	Final Volume	pH	Extract Date/Time	Comments
17	AZ90100	AZ90100W17			NA	NA equip	510	2	7	04/29/19 10:50	88714
18	AZ90102	AZ90102W16			NA	NA equip	395	2	7	04/29/19 10:50	88714
19	AZ90103	AZ90103W04			NA	NA equip	250	2	7	04/29/19 10:50	88714
20	AZ90105	AZ90105W16			NA	NA equip	500	2	7	04/29/19 10:50	88714
21	AZ90107	AZ90107W16			NA	NA equip	510	2	7	04/29/19 10:50	88714
22	AZ90109	AZ90109W17			NA	NA equip	505	2	7	04/29/19 10:50	88714
23	AZ90213	AZ90213W15			NA	NA equip	505	2	7	04/29/19 10:50	88736
24	AZ90215	AZ90215W16			NA	NA equip	500	2	7	04/29/19 10:50	88736
25	M STD		1	1	NA	NA equip	500	2	7	04/29/19 10:50	
26	SS		0.097	2	NA	NA equip	500	2	7	04/29/19 10:50	

Solvent and Lot#	
ENVI-Carb Plus 400MG/1ML	
Reverible Tube Lot:	11225702
PH Strip	HC 863463
Di Water	4-29-19
Dichloromethane	58240
Methanol	58179

Extraction COC Transfer	
Extraction lab employee Initials	KY
GC analyst's initials	
Date	
Time	
Refrigerator	

	Technician's Initials
Scanned By	DL
Sample Preparation	DL
Extraction	DL
Concentration	DL

Modified	04/29/19 2:46:49 PM

Reviewed By: 397 of 649 **Date**

Name of Final Standard	**MEE Curve**	**Prep'd By (Initials)**	**SS**
Prep Date	**04/30/19**		
Exp Date	**10/30/19**		

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from container Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
MEE M STD Stock	APPL		2000 ug/mL	04/29/19	01/31/20	5 uL	200uL	Methanol 195uL Lot# 208858	50 ug/mL
SV Internal Standard	APPL	8270 I.S.	2000 ug/mL	03/12/19	03/12/20	4 uL	"	"	"
MEE M STD Stock	APPL		2000 ug/mL	04/29/19	01/31/20	5 uL	100uL	Methanol 95uL Lot# 208858	100 ug/mL
SV Internal Standard	APPL	8270 I.S.	2000 ug/mL	03/12/19	03/12/20	2 uL	"	"	"
MEE M STD Stock	APPL		2000 ug/mL	04/29/19	01/31/20	10 uL	100uL	Methanol 90uL Lot# 208858	200 ug/mL
SV Internal Standard	APPL	8270 I.S.	2000 ug/mL	03/12/19	03/12/20	2 uL	"	"	"
MEE M STD Stock	APPL		2000 ug/mL	04/29/19	01/31/20	20 uL	100uL	Methanol 80 uL Lot# 208858	400 ug/mL
SV Internal Standard	APPL	8270 I.S.	2000 ug/mL	03/12/19	03/12/20	2 uL	"	"	"
MEE M STD Stock	APPL		2000 ug/mL	04/29/19	01/31/20	50 uL	200 uL	Methanol 150 uL	500 ug/mL
SV Internal Standard	APPL	8270 I.S.	2000 ug/mL	03/12/19	03/12/20	4 uL	"	"	"
MEE M STD Stock	APPL		2000 ug/mL	04/29/19	01/31/20	30 uL	100uL	Methanol 70 uL Lot# 208858	600 ug/mL
SV Internal Standard	APPL	8270 I.S.	2000 ug/mL	03/12/19	03/12/20	2 uL	"	"	"
MEE M STD Stock	APPL		2000 ug/mL	04/29/19	01/31/20	40 uL	100uL	Methanol 60 uL Lot# 208858	800 ug/mL
SV Internal Standard	APPL	8270 I.S.	2000 ug/mL	03/12/19	03/12/20	2 uL	"	"	"
MEE M STD Stock	APPL		2000 ug/mL	04/29/19	01/31/20	50 uL	100uL	Methanol 50uL Lot# 208858	1000 ug/mL
SV Internal Standard	APPL	8270 I.S.	2000 ug/mL	03/12/19	03/12/20	2 uL	"	"	"

Name of Final Standard	**MEE Second Source**	**Prep'd By (Initials)**	**SS**
Prep Date	**04/30/19**		
Exp Date	**08/03/19**		

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from container Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
MEE SS	APPL		2000 ug/mL	04/29/19	08/03/19	50 uL	200uL	Methanol 150uL Lot# 208858	500 ug/mL
SV Internal Standard	APPL	8270 I.S.	2000 ug/mL	03/12/19	03/12/20	4 uL	"	"	"

Name of Final Standard 2MEE Second Source Stock **Prep'd By (Initials)** JP

Prep Date 10/28/19
Exp Date 10/28/20

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from contianer Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
Methoxyethanol-Neat	Chem Service	N-12404-1G	Neat 99.5%	**7079100 - 39417**	**07/31/22**	0.1022g	10 mL	**MC #56258**	10220 ug/mL

Given to Extraction to do **MEE SS** (used for ICAL SS)
0.097ml were spiked in 500ml of water and extracted on 10/28/2019 . Final concentration is 2000ug/L

Name of Final Standard	**MEE Second Source**	**Prep'd By (Initials)**	**MA**
Prep Date	**11/01/19**		
Exp Date	**11/01/20**		

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from container Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
MEE SS	APPL		2000 ug/mL	**10/28/19**	**10/28/20**	50 uL	200uL	**Methanol 150uL Lot# 208858**	500 ug/mL
SV Internal Standard	APPL	8270 I.S.	2000 ug/mL	**10/28/19**	**10/28/20**	4 uL	"	"	"

Organic Extraction Worksheet

Method	Solid Phase Extraction of 2MEE in Water	Extraction Set	191028A	Extraction Method	MWE2MEE	Units	mL

Spiked ID 1	Diethylene Glycol 1-31-19 EXP 1-31-20		Surrogate ID 1		
Spiked ID 2	2MEE SS 10200ug/mL10/28/19 10/28/20		Surrogate ID 2		
Spiked ID 3			Surrogate ID 3		
Spiked ID 4			Surrogate ID 4		
Spiked ID 5			Surrogate ID 5		
Spiked ID 6			Sufficient Vol for Matrix QC:		
Spiked ID 7			Ext. Start Time:	10/28/19 16:10	
Spiked ID 8			Ext. End Time:	10/30/19 14:30	
			GC Requires Extract By:		

pH1			Water Bath Temp 1 °C	
pH2			Water Bath Temp 2 °C	
pH3			Water Bath Temp 3 °C	

Spiked By: **Date** **Witnessed By:** **Date**

	Sample	Sample Container	Spike Amount	Spike ID	Surrogate Amount	Surrogate ID	Extract Amount	Final Volume	pH	Extract Date/Time	Comments
1	191028A Blk				NA	NA equip	500	2	7Y	10/28/19 11:10	
2	191028A LCS-1		0.040	1	NA	NA equip	500	2	7Y	10/28/19 11:10	
3	191028A LCSD-1		0.040	1	NA	NA equip	500	2	7Y	10/28/19 11:10	
4	BA01579 MS-1	BA01579W21	0.040	1	NA	NA equip	500	2	7Y	10/28/19 11:10	
5	BA01579 MSD-1	BA01579W18	0.040	1	NA	NA equip	500	2	7Y	10/28/19 11:10	
6	BA01579	BA01579W16			NA	NA equip	500	2	7Y	10/28/19 11:10	90524
7	BA01580	BA01580W06			NA	NA equip	500	2	7Y	10/28/19 11:10	90524
8	BA01582	BA01582W12			NA	NA equip	500	2	7Y	10/28/19 11:10	90524
9	BA01651	BA01651W11			NA	NA equip	500	2	7Y	10/28/19 11:10	90532
10	BA01652	BA01652W07			NA	NA equip	500	2	7Y	10/28/19 11:10	90532
11	BA01654	BA01654W10			NA	NA equip	500	2	7Y	10/28/19 11:10	90532
12	BA01656	BA01656W10			NA	NA equip	500	2	7Y	10/28/19 11:10	90532
13	BA01658	BA01658W11			NA	NA equip	500	2	7Y	10/28/19 11:10	90532
14	BA01660	BA01660W10			NA	NA equip	500	2	7Y	10/28/19 11:10	90532
15	BA01662	BA01662W17			NA	NA equip	500	2	7Y	10/28/19 11:10	90532
16	BA01664	BA01664W18			NA	NA equip	500	2	7Y	10/28/19 11:10	90532

Solvent and Lot#	
ENVI-Carb Plus 400MG/1ML	1169450
PH Strip	HC863463
Di Water	10/30/19
Dichloromethane	59130
Methanol	59129

Extraction COC Transfer	
Extraction lab employee Initials	SS
GC analyst's initials	JP
Date	
Time	
Refrigerator	Hobard

	Technician's Initials
Scanned By	DL
Sample Preparation	DL
Extraction	DL
Concentration	DL

Modified	10/28/19 12:42:46 PM

Reviewed By: **Date**

Organic Extraction Worksheet

Method	Solid Phase Extraction of 2MEE in Water	Extraction Set	191028A	Extraction Method	MWE2MEE	Units	mL

Spiked ID 1	Diethylene Glycol 1-31-19 EXP 1-31-20		Surrogate ID 1		
Spiked ID 2	2MEE SS 10200ug/mL10/28/19 10/28/20		Surrogate ID 2		
Spiked ID 3			Surrogate ID 3		
Spiked ID 4			Surrogate ID 4		
Spiked ID 5			Surrogate ID 5		
Spiked ID 6			Sufficient Vol for Matrix QC:		
Spiked ID 7			Ext. Start Time:	10/28/19 16:10	
Spiked ID 8			Ext. End Time:	10/30/19 14:30	
			GC Requires Extract By:		

pH1			Water Bath Temp 1 °C	
pH2			Water Bath Temp 2 °C	
pH3			Water Bath Temp 3 °C	

Spiked By: **Date** **Witnessed By:** **Date**

	Sample	Sample Container	Spike Amount	Spike ID	Surrogate Amount	Surrogate ID	Extract Amount	Final Volume	pH	Extract Date/Time	Comments
17	BA01775	BA01775W07			NA	NA equip	500	2	7Y	10/28/19 11:10	90551
18	BA01777	BA01777W08			NA	NA equip	500	2	7Y	10/28/19 11:10	90551
19	BA01779	BA01779W08			NA	NA equip	500	2	7Y	10/28/19 11:10	90551
20	BA01781	BA01781W09			NA	NA equip	500	2	7Y	10/28/19 11:10	90551
21	BA01782	BA01782W07			NA	NA equip	500	2	7Y	10/28/19 11:10	90551
22	BA01784	BA01784W13			NA	NA equip	500	2	7Y	10/28/19 11:10	90551
23	SS		0.097	2	NA	NA equip	500	2	7Y	10/28/19 11:10	90551

Solvent and Lot#	
ENVI-Carb Plus 400MG/1ML	1169450
PH Strip	HC863463
Di Water	10/30/19
Dichloromethane	59130
Methanol	59129

Extraction COC Transfer	
Extraction lab employee Initials	SS
GC analyst's initials	JP
Date	
Time	
Refrigerator	Hobard

	Technician's Initials
Scanned By	DL
Sample Preparation	DL
Extraction	DL
Concentration	DL

Modified	10/28/19 12:42:46 PM

Reviewed By: **Date**

_MWE2MEE

Organic Extraction Worksheet

Method	Solid Phase Extraction of 2MEE in Water	Extraction Set	191111A	Extraction Method	MWE2MEE	Units	mL

Spiked ID 1	Diethylene Glycol 1-31-19 EXP 1-31-20		Surrogate ID 1		
Spiked ID 2	2MEE SS 10320ug/mL 10/28/19 exp 10/28/20		Surrogate ID 2		
Spiked ID 3			Surrogate ID 3		
Spiked ID 4			Surrogate ID 4		
Spiked ID 5			Surrogate ID 5		
Spiked ID 6			Sufficient Vol for Matrix QC:		
Spiked ID 7			Ext. Start Time:	11/11/19 14:35	
Spiked ID 8			Ext. End Time:	11/12/19 13:15	
			GC Requires Extract By:		

pH1			Water Bath Temp 1 °C	
pH2			Water Bath Temp 2 °C	
pH3			Water Bath Temp 3 °C	

Spiked By: DL **Date** 11/11/19 **Witnessed By:** YL **Date** 11/11/19

	Sample	Sample Container	Spike Amount	Spike ID	Surrogate Amount	Surrogate ID	Extract Amount	Final Volume	pH	Extract Date/Time	Comments
1	191111A Blk				NA	NA equip	500	2	7Y	11/11/19 14:35	
2	191111A LCS-1		0.040	1	NA	NA equip	500	2	7Y	11/11/19 14:35	
3	191111A LCSD-1		0.040	1	NA	NA equip	500	2	7Y	11/11/19 14:35	
4	BA02466	BA02466W18			NA	NA equip	500	2	7Y	11/11/19 14:35	90648
5	BA02525	BA02525W19			NA	NA equip	500	2	7Y	11/11/19 14:35	90657
6	BA02713	BA02713W23			NA	NA equip	500	2	7Y	11/11/19 14:35	90700
7	BA02715	BA02715W28			NA	NA equip	500	2	7Y	11/11/19 14:35	90700
8	BA02716	BA02716W09			NA	NA equip	500	2	7Y	11/11/19 14:35	90700
9	SS		0.097	2	NA	NA equip	500	2	7Y	11/11/19 14:35	

Solvent and Lot#	
ENVI-Carb Plus 400MG/1ML	11694501
Reverible Tube Lot:	11694501
PH Strip	HC863463
Di Water	11/11/19
Dichloromethane	59130
Methanol	59129

Extraction COC Transfer	
Extraction lab employee Initials	SS
GC analyst's initials	MA
Date	11/12/19
Time	4:50
Refrigerator	Hobart

	Technician's Initials
Scanned By	DL
Sample Preparation	DL
Extraction	DL
Concentration	DL

Modified	11/11/19 1:20:31 PM

Reviewed By: MA **Date** 11/19/19

Injection Log

Directory: M:\LINUS\DATA\L191030M\

Vial	FileName	Multiplier	SampleName	Misc Info	Injected
86	1030L002.D	1	SV Tune 10/01/19		31 Oct 19 9:39
4	1030L004.D	1	50 2MEE 4/30/19		31 Oct 19 11:50
5	1030L005.D	1	100 2MEE 4/30/19		31 Oct 19 12:10
6	1030L006.D	1	200 2MEE 4/30/19		31 Oct 19 12:29
8	1030L008.D	1	500 2MEE 4/30/19		31 Oct 19 13:07
9	1030L009.D	1	600 2MEE 4/30/19		31 Oct 19 13:25
10	1030L010.D	1	800 2MEE 4/30/19		31 Oct 19 13:43
11	1030L011.D	1	1000 2MEE 4/30/19		31 Oct 19 14:02
14	1030L014.D	1	SV Tune 10/01/19		1 Nov 19 15:17
16	1030L016.D	1	SS 2MEE 11/1/19		1 Nov 19 17:11
62	1030L062.D	1	SV Tune 10/01/19		13 Nov 19 14:33
63	1030L063.D	1	500 2MEE 4/30/19		13 Nov 19 15:30
65	1030L065.D	1	191111A BLK 2/500		13 Nov 19 16:21
69	1030L069.D	1	BA02525W19 2/500		13 Nov 19 17:35
74	1030L074.D	1	500 2MEE 4/30/19		13 Nov 19 19:07
75	1030L075.D	1	SV Tune 10/01/19		14 Nov 19 9:32
76	1030L076.D	1	500 2MEE 4/30/19		14 Nov 19 9:48
77	1030L077.D	1	191111A LCS-1 2/500		14 Nov 19 10:09
78	1030L078.D	1	191111A LCSD-1 2/500		14 Nov 19 10:27
79	1030L079.D	1	500 2MEE 4/30/19		14 Nov 19 10:46

ORGANICS
Calibration Data

VOLATILE ORGANIC ANALYSIS BY
EPA METHOD 8260B

Form 6
Initial Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Initial Cal. Date: 11/06/19
Matrix: water Instrument: Max Initials: DG

		Compound	1106M06.D	1106M07.D	1106M08.D	1106M09.D	1106M10.D	1106M11.D	1106M12.D	1106M13.D	1106M14.D		Avg	%RSD	Type	r^2	Q	MRF
1	I	Fluorobenzene (IS)																
2	TML	Dichlorodifluoromethane		0.0932	0.0638	0.0679	0.0561	0.0594	0.0695	0.0670			0.07	18	TML	0.998		
3	TM	Freon 114			0.0737	0.1038	0.0869	0.0840	0.0923	0.0943	0.0848		0.09	11	TM			
4	TM**	Chloromethane		0.1468	0.1506	0.1380	0.1237	0.1142	0.1318	0.1274	0.1185		0.13	9.9	TM**			
5	TM*	Vinyl chloride		0.1114	0.1128	0.1160	0.1179	0.1098	0.1191	0.1138	0.0970		0.11	6.1	TM*			
6	TML	Chloroethane			0.0309	0.0464	0.0423	0.0465	0.0581				0.04	22	TML	0.990		
7	TM	Dichlorofluoromethane		0.1575	0.1525	0.1728	0.1621	0.1585	0.1755	0.1649	0.1545		0.16	5.1	TM			
8	TML	Trichlorofluoromethane			0.0693	0.1103	0.1177	0.1240	0.1477	0.1530	0.1460		0.12	24	TML	0.999		
9	TML	Acetone		0.1606	0.1009	0.0630	0.0358	0.0290	0.0314	0.0262	0.0236		0.06	83	TML	0.998		
10	TM	Freon-113		0.0820	0.0689	0.0667	0.0728	0.0747	0.0826	0.0843	0.0762		0.08	8.6	TM			
11	TM*	1,1-DCE		0.2071	0.2265	0.1922	0.2089	0.2025	0.2286	0.2256	0.1926		0.21	7.1	TM*			
12	TM	Acetonitrile		0.0072	0.0069	0.0078	0.0073	0.0076	0.0092	0.0092	0.0086		0.01	11	TM			
13	TM	Methyl Acetate													TM			
14	TM	Acrylonitrile		0.0211	0.0285	0.0267	0.0212	0.0239	0.0259	0.0247	0.0246		0.02	10	TM			
15	TML	Methylene chloride		0.2407	0.1630	0.1394	0.1189	0.1047	0.1131	0.1066	0.0969		0.14	35	TML	0.998		
16	TM	Carbon disulfide		0.1876	0.2075	0.2424	0.2330	0.2172	0.2568	0.2490	0.2407		0.23	10	TM			
17	TM	Trans-1,2-DCE		0.0965	0.0992	0.1054	0.1008	0.0973	0.1086	0.1046	0.1005		0.10	4.1	TM			
18	TML	Cis-1,2-DCE		0.1709	0.1324	0.1179	0.1139	0.1019	0.1161	0.1146	0.1102		0.12	18	TML	1.000		
19	TM*L	Chloroform		0.0490	0.0592	0.0460	0.0959	0.1078	0.1496	0.1629	0.1724		0.11	49	TM*L	0.999		
20	TML	Bromochloromethane		0.0088	0.0268	0.0338	0.0399	0.0421	0.0515	0.0496	0.0505		0.04	39	TML	1.000		
21	SL	Dibromofluoromethane(S)	0.1161	0.1088	0.1047	0.1106	0.1575	0.1734	0.2099	0.2172	0.2253		0.16	32	SL	0.997		
22	TM	Cyclohexane		0.0769	0.0742	0.0743	0.0703	0.0636	0.0668	0.0697	0.0639		0.07	7.1	TM			
23	TM	1,1-Dichloropropene		0.1061	0.1448	0.1279	0.1304	0.1207	0.1315	0.1304	0.1224		0.13	8.7	TM			
24	TM	2,2,4-Trimethylpentane		0.1762	0.1893	0.1592	0.1748	0.1667	0.1697	0.1730	0.1616		0.17	5.5	TM			
25	SL	1,2-DCA-D4(S)	0.1291	0.1039	0.0954	0.1031	0.1278	0.1426	0.1716	0.1789	0.1937		0.14	26	SL	0.994		
26	TMQ	1,2-DCA			0.0772	0.0739	0.0977	0.0964	0.1187	0.1281	0.1476		0.11	26	TMQ	1.000		
27	TM	Benzene	0.3730	0.3738	0.3556	0.3934	0.3993	0.3824	0.4034	0.3894	0.3716		0.38	4.0	TM			
28	TML	TCE		0.2747	0.1838	0.1492	0.1211	0.1045	0.1121	0.1086			0.15	41	TML	0.999		
29	TM	2-Pentanone		0.0447	0.0405	0.0428	0.0408	0.0421	0.0428	0.0442	0.0400		0.04	4.1	TM			
30	TM	Methyl Cyclohexane		0.1369	0.1404	0.1289	0.1323	0.1223	0.1316	0.1327	0.1224		0.13	4.9	TM			
31	TML	Dibromomethane		0.0334	0.0255	0.0251	0.0294	0.0331	0.0375	0.0362	0.0388		0.03	16	TML	0.999		
32	TM	MIBK (methyl isobutyl ketone)		0.0670	0.0612	0.0601	0.0573	0.0583	0.0639	0.0621	0.0600		0.06	5.1	TM			
33	TM*	Toluene	0.4879	0.4869	0.4690	0.4397	0.4434	0.4169	0.4573	0.4428	0.4262		0.45	5.5	TM*			
34	TM	1,1,2-TCA		0.0512	0.0555	0.0630	0.0663	0.0644	0.0671	0.0660	0.0640		0.06	9.2	TM			
35	I	Chlorobenzene-D5 (IS)																

VOLATILE ORGANIC ANALYSIS BY
EPA METHOD 8260B

Form 6
Initial Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Initial Cal. Date: 11/06/19
Matrix: water Instrument: Max Initials: DG

		Compound	1	2	3	4	5	6	7	8	9		Avg	%RSD	Type		Q	MRF
36	S	Toluene-D8(S)	1.371	1.259	1.097	1.070	1.148	1.113	1.150	1.131	1.078		1.2	8.4	S			
37	TM	Tetrachloroethene		0.1400	0.1821	0.1536	0.1551	0.1452	0.1495	0.1459	0.1384		0.15	9.1	TM			
38	TM	1-Chlorohexane		0.1342	0.1550	0.1513	0.1503	0.1474	0.1534	0.1493	0.1456		0.15	4.3	TM			
39	TM	m&p-Xylene	0.2677	0.2836	0.2383	0.2684	0.2521	0.2477	0.2643	0.2583	0.2511		0.26	5.2	TM			
40	TM	o-Xylene	0.2065	0.3211	0.2505	0.2761	0.2637	0.2442	0.2694	0.2550	0.2489		0.26	12	TM			
41	TM	Styrene		0.4045	0.3704	0.3899	0.4146	0.4016	0.4350	0.4227	0.4169		0.41	5.0	TM			
42	S	4-Bromofluorobenzene(S)	0.5341	0.4709	0.3773	0.3953	0.4172	0.4147	0.4368	0.4276	0.4189		0.43	11	S			
43	TM**	Chlorobenzene		0.4289	0.4024	0.3905	0.3814	0.3654	0.3867	0.3727	0.3674		0.39	5.4	TM**			
44	TM*	Ethylbenzene	0.6044	0.5913	0.6171	0.6213	0.6021	0.5765	0.6161	0.5916	0.5804		0.60	2.7	TM*			
45	I	1,4-Dichlorobenzene-D (IS)																
46	TM	Isopropylbenzene		1.122	1.022	1.043	1.037	0.9943	1.027	0.9877	0.9570		1.0	4.8	TM			
47	TM	1,2,3-Trichloropropane		0.0687	0.0772	0.0894	0.0709	0.0696	0.0712	0.0705	0.0673		0.07	9.9	TM			
48	TML	t-1,4-Dichloro-2-Butene			0.0076	0.0088	0.0074	0.0159	0.0150	0.0170	0.0196		0.01	38	TML	0.997		
49	TM	Bromobenzene		0.3921	0.3684	0.3510	0.3374	0.3339	0.3308	0.3153	0.3047		0.34	8.3	TM			
50	TM	n-Propylbenzene		1.120	1.044	1.096	1.072	1.012	1.059	1.043	1.003		1.1	3.8	TM			
51	TM	4-Ethyltoluene		1.022	0.9873	0.9946	0.9657	0.9615	0.9943	0.9643	0.9442		0.98	2.5	TM			
52	TM	2-Chlorotoluene		0.7817	0.7379	0.7007	0.6901	0.6822	0.6841	0.6521	0.6312		0.69	6.8	TM			
53	TM	1,3,5-Trimethylbenzene		0.8967	0.8263	0.7829	0.8522	0.8171	0.8547	0.8200	0.7981		0.83	4.3	TM			
54	TM	4-Chlorotoluene		0.8476	0.8612	0.7912	0.7444	0.7639	0.7869	0.7645	0.7411		0.79	5.7	TM			
55	TM	Tert-Butylbenzene		0.8505	0.7778	0.7715	0.7936	0.7168	0.7612	0.7541	0.7295		0.77	5.4	TM			
56	TM	1,2,4-Trimethylbenzene		0.9424	0.8467	0.8570	0.8618	0.8114	0.8787	0.8439	0.8222		0.86	4.7	TM			
57	TM	Sec-Butylbenzene		0.9880	0.9363	0.9738	0.9548	0.9242	0.9718	0.9635	0.9283		0.96	2.4	TM			
58	TM	p-Isopropyltoluene		0.5874	0.5432	0.5757	0.6058	0.5542	0.6511	0.6252	0.6256		0.60	6.3	TM			
59	TML	Benzyl Chloride		0.2136	0.2208	0.2314	0.2659	0.2868	0.3009	0.3318	0.3549		0.28	19	TML	0.999		
60	TM	1,3-DCB		0.6901	0.5682	0.5851	0.5981	0.5675	0.5987	0.5776	0.5519		0.59	7.2	TM			
61	TM	1,4-DCB		0.3943	0.3910	0.3861	0.3721	0.3763	0.3973	0.3949	0.3894		0.39	2.3	TM			
62	TM	n-Butylbenzene		0.3506	0.3461	0.3483	0.4070	0.3894	0.4425	0.4355	0.4281		0.39	10	TM			
63	TM	1,2-DCB		0.5541	0.5427	0.5805	0.5275	0.5270	0.5804	0.5620	0.5332		0.55	4.0	TM			
64	TM	1,2-Dibromo-3-chloropropane		0.0461	0.0503	0.0513	0.0476	0.0513	0.0585	0.0619	0.0616		0.05	12	TM			
65	TML	1,2,4-Trichlorobenzene		0.2832	0.2612	0.3130	0.3378	0.3326	0.3921	0.3997	0.3933		0.34	15	TML	1.000		
66	TM	Hexachlorobutadiene		0.1868	0.2007	0.1886	0.1967	0.1960	0.2156	0.2074	0.1933		0.20	4.8	TM			
67	TML	Naphthalene		0.0368	0.0258	0.0338	0.0390	0.0449	0.0503	0.0548	0.0529		0.04	24	TML	0.996		
68	TML	1,2,3-Trichlorobenzene		0.1975	0.2039	0.2103	0.2659	0.2738	0.3327	0.3458	0.3327		0.27	23	TML	0.999		
69																		
70																		

Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M191106\1106M06.D Vial: 3
Acq On : 6 Nov 19 10:45 Operator: LP,DG,CMM
Sample : 0.3ug/L VOC STD 11/06/19 Inst : Max
Misc : IS&S 9/24/19 Multiplr: 1.00

Quant Time: Nov 7 14:29 2019 Quant Results File: M1106.RES

Quant Method : M:\MAX\DATA\M191106\M1106.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 07 14:27:44 2019
Response via : Initial Calibration
DataAcq Meth : M8260

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene (IS)	5.73	96	1402469	25.000	ppb		0.00
35) Chlorobenzene-D5 (IS)	8.97	117	1106542	25.000	ppb		0.00
45) 1,4-Dichlorobenzene-D (IS)	11.30	152	604127	25.000	ppb		0.00
System Monitoring Compounds							
21) Dibromofluoromethane(S)	4.89	111	32559	7.368	ppb		0.00
Spiked Amount 25.000			Recovery	=	29.472%		
25) 1,2-DCA-D4(S)	5.30	65	36221	8.248	ppb		0.00
Spiked Amount 25.000			Recovery	=	32.992%		
36) Toluene-D8(S)	7.51	98	303410	5.922	ppb		0.00
Spiked Amount 25.000			Recovery	=	23.688%		
42) 4-Bromofluorobenzene(S)	10.16	95	118198	6.174	ppb		0.00
Spiked Amount 25.000			Recovery	=	24.696%		
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.01	85	1416	0.619	ppb		85
3) Freon 114	1.08	85	1548	0.312	ppb		73
4) Chloromethane	1.13	50	3574	0.485	ppb		94
5) Vinyl chloride	1.20	62	2062	0.328	ppb	#	100
6) Chloroethane	1.48	64	725	1.175	ppb	#	41
7) Dichlorofluoromethane	1.63	67	4462	0.490	ppb		85
8) Trichlorofluoromethane	1.67	101	1250	0.647	ppb		82
9) Acetone	2.15	43	3836	-0.893	ppb		92
10) Freon-113	2.09	101	1131	0.265	ppb	#	47
11) 1,1-DCE	2.07	61	3583	0.303	ppb		93
12) Acetonitrile	2.39	41	5453	12.167	ppb	#	78
14) Acrylonitrile	2.80	53	253	0.183	ppb	#	48
16) Carbon disulfide	2.25	76	4122	0.320	ppb	#	85
17) Trans-1,2-DCE	2.82	96	1966	0.345	ppb	#	79
18) Cis-1,2-DCE	4.20	96	4090	0.376	ppb	#	78
19) Chloroform	4.67	83	146	1.937	ppb	#	17
20) Bromochloromethane	4.53	128	498	0.893	ppb	#	26
22) Cyclohexane	4.91	41	1294	0.330	ppb	#	24
23) 1,1-Dichloropropene	5.10	75	2021	0.284	ppb	#	80
24) 2,2,4-Trimethylpentane	5.53	57	1980	0.206	ppb	#	17
26) 1,2-DCA	5.39	62	1186	1.094	ppb	#	10
27) Benzene	5.36	78	6277	0.293	ppb	#	91
28) TCE	6.16	95	6552	0.473	ppb	#	81
29) 2-Pentanone	6.44	43	22665	9.566	ppb		94
30) Methyl Cyclohexane	6.36	83	2573	0.350	ppb		97
31) Dibromomethane	6.54	93	101	0.980	ppb	#	30
32) MIBK (methyl isobutyl ket	7.44	43	1440	0.419	ppb	#	91
33) Toluene	7.58	91	8211	0.324	ppb		90
34) 1,1,2-TCA	8.01	83	941	0.270	ppb		96
37) Tetrachloroethene	8.14	164	2704	0.404	ppb	#	80
38) 1-Chlorohexane	9.03	91	1566	0.239	ppb	#	71
39) m&p-Xylene	9.26	106	7109	0.620	ppb		98
40) o-Xylene	9.66	106	2742	0.239	ppb		77
41) Styrene	9.67	104	5815	0.323	ppb		89
43) Chlorobenzene	9.00	112	5328	0.311	ppb		87
44) Ethylbenzene	9.14	91	8025	0.302	ppb		84
46) Isopropylbenzene	10.03	105	8114	0.328	ppb		97
47) 1,2,3-Trichloropropane	10.37	110	359	0.203	ppb		86
48) t-1,4-Dichloro-2-Butene	10.42	53	208	3.088	ppb	#	34

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M191106\1106M06.D Vial: 3
Acq On : 6 Nov 19 10:45 Operator: LP,DG,CMM
Sample : 0.3ug/L VOC STD 11/06/19 Inst : Max
Misc : IS&S 9/24/19 Multiplr: 1.00

Quant Time: Nov 7 14:29 2019 Quant Results File: M1106.RES

Quant Method : M:\MAX\DATA\M191106\M1106.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 07 14:27:44 2019
Response via : Initial Calibration
DataAcq Meth : M8260

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
49)	Bromobenzene	10.29	156	2448	0.296	ppb	#	63
50)	n-Propylbenzene	10.44	91	10021	0.393	ppb		96
51)	4-Ethyltoluene	10.55	105	8030	0.339	ppb		99
52)	2-Chlorotoluene	10.50	91	6607	0.393	ppb		95
53)	1,3,5-Trimethylbenzene	10.62	105	6436	0.320	ppb		89
54)	4-Chlorotoluene	10.62	91	5951	0.313	ppb		90
55)	Tert-Butylbenzene	10.94	119	5579	0.300	ppb		92
56)	1,2,4-Trimethylbenzene	10.99	105	7068	0.341	ppb	#	75
57)	Sec-Butylbenzene	11.16	105	7856	0.340	ppb		99
58)	p-Isopropyltoluene	11.31	119	3662	0.254	ppb	#	85
59)	Benzyl Chloride	11.48	91	1440	1.512	ppb	#	60
60)	1,3-DCB	11.23	146	4555	0.318	ppb		92
61)	1,4-DCB	11.33	146	3045	0.325	ppb		92
62)	n-Butylbenzene	11.72	91	2044	0.215	ppb		96
63)	1,2-DCB	11.68	146	4016	0.302	ppb	#	83
64)	1,2-Dibromo-3-chloropropan	12.45	157	435	0.336	ppb	#	38
65)	1,2,4-Trichlorobenzene	13.29	180	2094	0.702	ppb	#	73
66)	Hexachlorobutadiene	13.48	225	1444	0.302	ppb	#	63
67)	Naphthalene	13.50	127	139	0.517	ppb	#	2
68)	1,2,3-Trichlorobenzene	13.75	180	1666	0.773	ppb	#	49

(#) = qualifier out of range (m) = manual integration

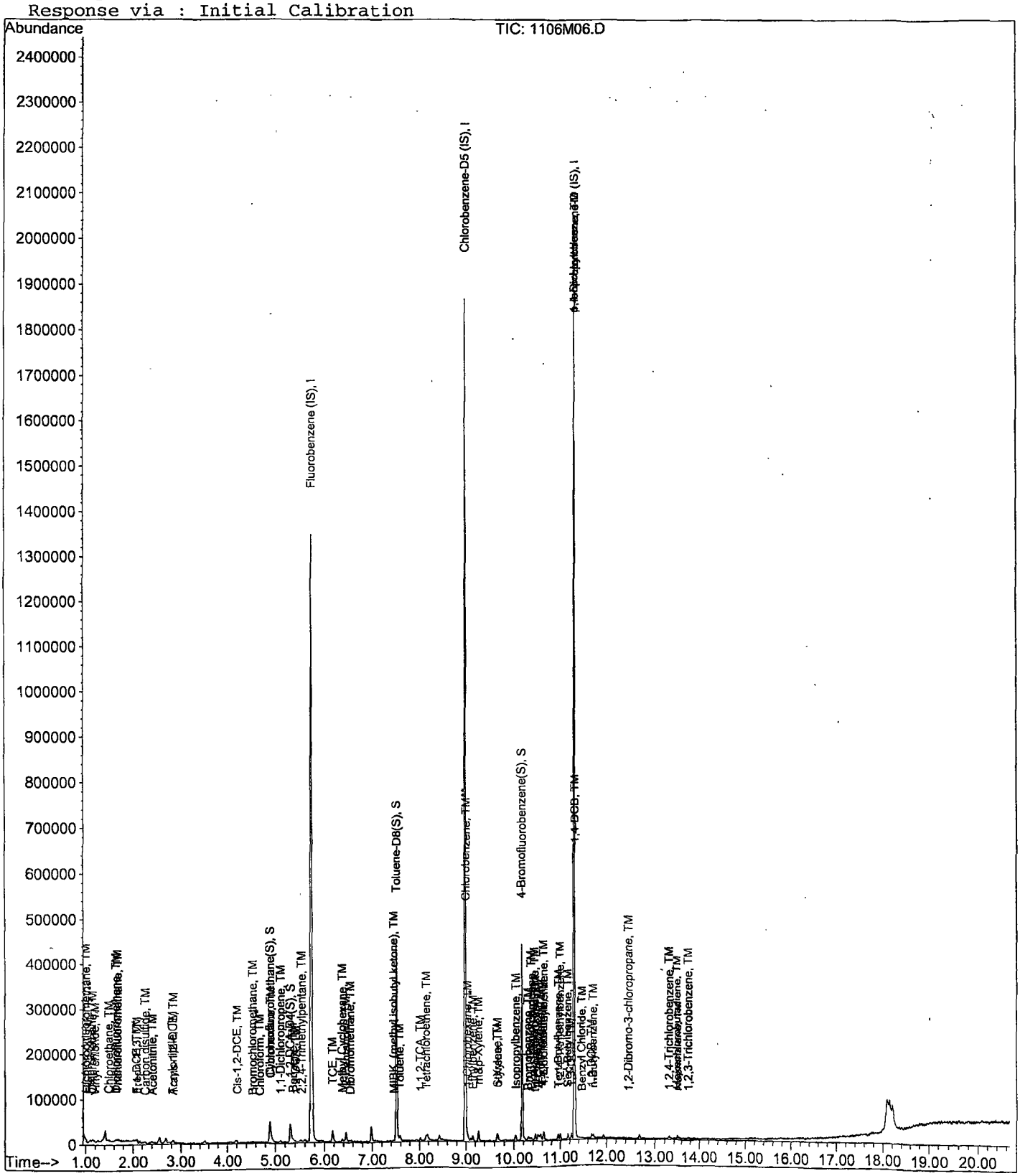
Quantitation Report

Data File : M:\MAX\DATA\M191106\1106M06.D
Acq On : 6 Nov 19 10:45
Sample : 0.3ug/L VOC STD 11/06/19
Misc : IS&S 9/24/19

Vial: 3
Operator: LP,DG,CMM
Inst : Max
Multiplr: 1.00

Quant Time: Nov 7 14:29 2019 Quant Results File: M1106.RES

Method : M:\MAX\DATA\M191106\M1106.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 07 14:27:44 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M191106\1106M07.D Vial: 4
Acq On : 6 Nov 19 11:13 Operator: LP,DG,CMM
Sample : 0.5ug/L VOC STD 11/06/19 Inst : Max
Misc : IS&S 9/24/19 Multiplr: 1.00

Quant Time: Nov 7 14:29 2019 Quant Results File: M1106.RES

Quant Method : M:\MAX\DATA\M191106\M1106.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 07 14:27:44 2019
Response via : Initial Calibration
DataAcq Meth : M8260

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene (IS)	5.72	96	1423298	25.000	ppb		0.00
35) Chlorobenzene-D5 (IS)	8.98	117	1128694	25.000	ppb		0.00
45) 1,4-Dichlorobenzene-D (IS)	11.30	152	625275	25.000	ppb		0.00
System Monitoring Compounds							
21) Dibromofluoromethane(S)	4.90	111	30962	7.212	ppb		0.01
Spiked Amount 25.000			Recovery	=	28.848%		
25) 1,2-DCA-D4(S)	5.30	65	29566	7.614	ppb		0.00
Spiked Amount 25.000			Recovery	=	30.456%		
36) Toluene-D8(S)	7.51	98	284245	5.439	ppb		0.00
Spiked Amount 25.000			Recovery	=	21.756%		
42) 4-Bromofluorobenzene(S)	10.16	95	106304	5.444	ppb		0.00
Spiked Amount 25.000			Recovery	=	21.776%		
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.01	85	2653	0.934	ppb	#	74
4) Chloromethane	1.14	50	4178	0.559	ppb		91
5) Vinyl chloride	1.19	62	3171	0.496	ppb	#	100
6) Chloroethane	1.50	64	937	1.234	ppb	#	41
7) Dichlorofluoromethane	1.65	67	4482	0.485	ppb		98
8) Trichlorofluoromethane	1.65	101	96	0.507	ppb	#	22
9) Acetone	2.15	43	4572	-0.374	ppb		96
10) Freon-113	2.09	101	2333	0.539	ppb	#	80
11) 1,1-DCE	2.07	61	5895	0.492	ppb		94
12) Acetonitrile	2.41	41	10294	22.632	ppb	#	71
14) Acrylonitrile	2.80	53	600	0.429	ppb	#	54
15) Methylene chloride	2.55	84	6853	-0.242	ppb	#	75
16) Carbon disulfide	2.25	76	5341	0.409	ppb		95
17) Trans-1,2-DCE	2.83	96	2748	0.475	ppb		80
18) Cis-1,2-DCE	4.18	96	4864	0.489	ppb	#	63
19) Chloroform	4.68	83	1394	2.063	ppb	#	17
20) Bromochloromethane	4.52	128	250	0.804	ppb	#	5
22) Cyclohexane	4.93	41	2190	0.550	ppb		84
23) 1,1-Dichloropropene	5.11	75	3020	0.418	ppb		87
24) 2,2,4-Trimethylpentane	5.53	57	5016	0.514	ppb	#	58
26) 1,2-DCA	5.41	62	2121	1.231	ppb	#	91
27) Benzene	5.35	78	10641	0.489	ppb		95
28) TCE	6.16	95	7821	0.665	ppb		82
29) 2-Pentanone	6.44	43	63656	26.472	ppb		95
30) Methyl Cyclohexane	6.37	83	3897	0.523	ppb		88
31) Dibromomethane	6.53	93	952	1.364	ppb	#	56
32) MIBK (methyl isobutyl ket	7.45	43	1907	0.547	ppb		95
33) Toluene	7.58	91	13861	0.538	ppb		91
34) 1,1,2-TCA	8.02	83	1457	0.412	ppb	#	82
37) Tetrachloroethene	8.13	164	3160	0.463	ppb	#	57
38) 1-Chlorohexane	9.04	91	3030	0.453	ppb		92
39) m&p-Xylene	9.26	106	12804	1.095	ppb		85
40) o-Xylene	9.65	106	7248	0.619	ppb	#	58
41) Styrene	9.67	104	9132	0.497	ppb		99
43) Chlorobenzene	9.00	112	9683	0.554	ppb		96
44) Ethylbenzene	9.14	91	13348	0.493	ppb		91
46) Isopropylbenzene	10.03	105	14033	0.548	ppb		90
47) 1,2,3-Trichloropropane	10.35	110	859	0.470	ppb	#	1
48) t-1,4-Dichloro-2-Butene	10.38	53	114	2.884	ppb	#	34

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M191106\1106M07.D Vial: 4
Acq On : 6 Nov 19 11:13 Operator: LP,DG,CMM
Sample : 0.5ug/L VOC STD 11/06/19 Inst : Max
Misc : IS&S 9/24/19 Multiplr: 1.00

Quant Time: Nov 7 14:29 2019 Quant Results File: M1106.RES

Quant Method : M:\MAX\DATA\M191106\M1106.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 07 14:27:44 2019
Response via : Initial Calibration
DataAcq Meth : M8260

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
49)	Bromobenzene	10.29	156	4904	0.574	ppb		72
50)	n-Propylbenzene	10.44	91	14004	0.530	ppb		95
51)	4-Ethyltoluene	10.55	105	12786	0.522	ppb		96
52)	2-Chlorotoluene	10.50	91	9775	0.562	ppb		87
53)	1,3,5-Trimethylbenzene	10.62	105	11214	0.540	ppb		97
54)	4-Chlorotoluene	10.61	91	10600	0.538	ppb		97
55)	Tert-Butylbenzene	10.94	119	10636	0.553	ppb		89
56)	1,2,4-Trimethylbenzene	10.98	105	11785	0.549	ppb		98
57)	Sec-Butylbenzene	11.16	105	12355	0.517	ppb		95
58)	p-Isopropyltoluene	11.31	119	7346	0.493	ppb	#	86
59)	Benzyl Chloride	11.47	91	2671	1.645	ppb		94
60)	1,3-DCB	11.24	146	8630	0.583	ppb		92
61)	1,4-DCB	11.33	146	4931	0.509	ppb		91
62)	n-Butylbenzene	11.72	91	4384	0.446	ppb		92
63)	1,2-DCB	11.69	146	6929	0.503	ppb		97
64)	1,2-Dibromo-3-chloropropan	12.46	157	577	0.431	ppb	#	72
65)	1,2,4-Trichlorobenzene	13.29	180	3542	0.841	ppb	#	68
66)	Hexachlorobutadiene	13.48	225	2336	0.471	ppb		88
67)	Naphthalene	13.51	127	460	0.757	ppb	#	1
68)	1,2,3-Trichlorobenzene	13.75	180	2470	0.861	ppb	#	75

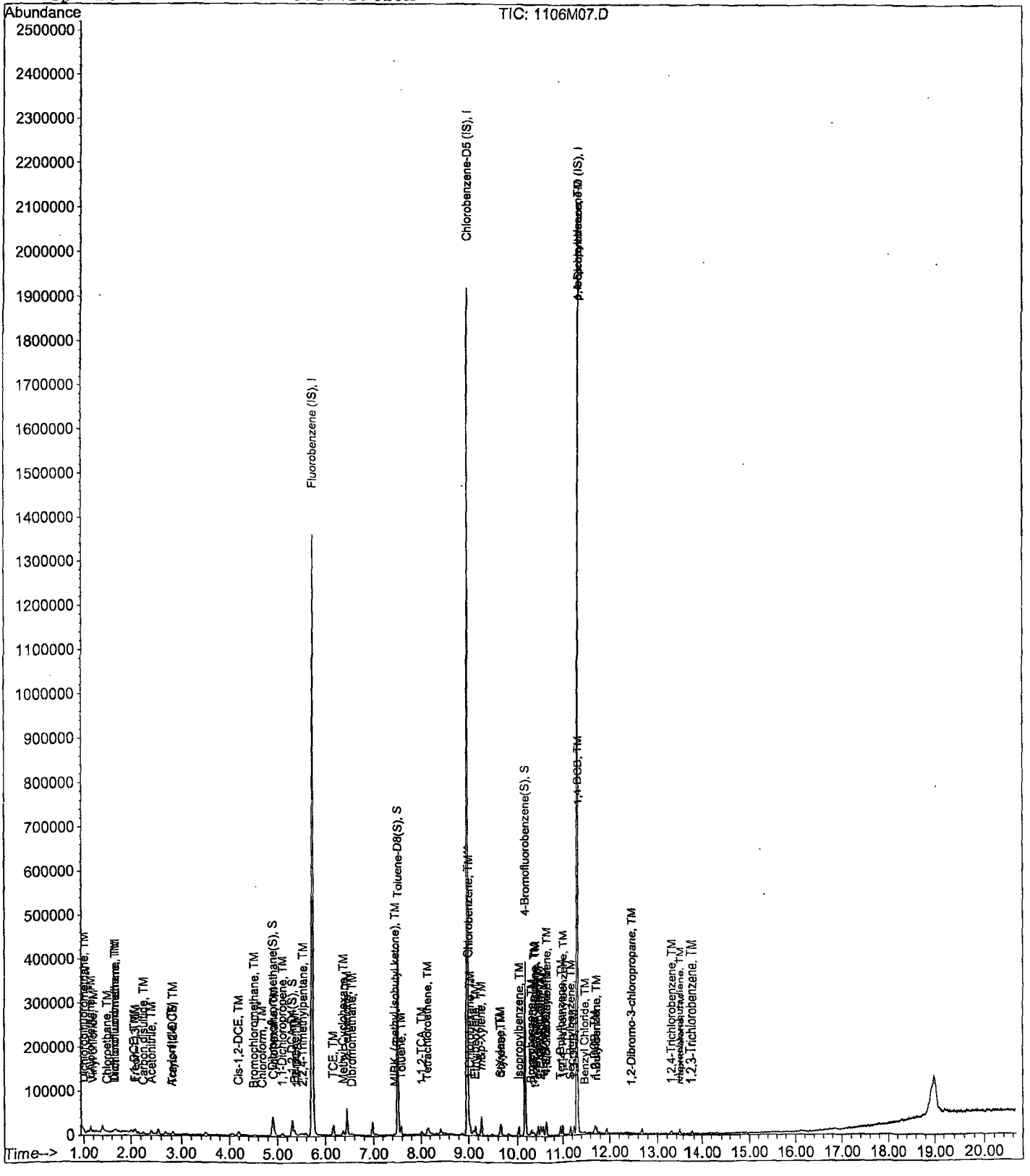
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\MAX\DATA\M191106\1106M07.D Vial: 4
Acq On : 6 Nov 19 11:13 Operator: LP,DG,CMM
Sample : 0.5ug/L VOC STD 11/06/19 Inst : Max
Misc : IS&S 9/24/19 Multiplr: 1.00

Quant Time: Nov 7 14:29 2019 Quant Results File: M1106.RES

Method : M:\MAX\DATA\M191106\M1106.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 07 14:27:44 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M191106\1106M08.D Vial: 5
Acq On : 6 Nov 19 11:42 Operator: LP,DG,CMM
Sample : 1.0ug/L VOC STD 11/06/19 Inst : Max
Misc : IS&S 9/24/19 Multiplr: 1.00

Quant Time: Nov 7 14:29 2019 Quant Results File: M1106.RES

Quant Method : M:\MAX\DATA\M191106\M1106.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 07 14:27:44 2019
Response via : Initial Calibration
DataAcq Meth : M8260

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene (IS)	5.72	96	1487798	25.000	ppb		0.00
35) Chlorobenzene-D5 (IS)	8.97	117	1172875	25.000	ppb		0.00
45) 1,4-Dichlorobenzene-D (IS)	11.30	152	667426	25.000	ppb		0.00
System Monitoring Compounds							
21) Dibromofluoromethane(S)	4.90	111	62320	9.354	ppb		0.01
Spiked Amount 25.000			Recovery	=	37.416%		
25) 1,2-DCA-D4(S)	5.30	65	56795	9.797	ppb		0.00
Spiked Amount 25.000			Recovery	=	39.188%		
36) Toluene-D8(S)	7.51	98	514751	9.478	ppb		0.00
Spiked Amount 25.000			Recovery	=	37.912%		
42) 4-Bromofluorobenzene(S)	10.16	95	177007	8.723	ppb		0.00
Spiked Amount 25.000			Recovery	=	34.892%		
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.01	85	3798	1.189	ppb		86
3) Freon 114	1.09	85	4385	0.832	ppb		99
4) Chloromethane	1.14	50	8965	1.147	ppb		97
5) Vinyl chloride	1.21	62	6711	1.005	ppb	#	100
6) Chloroethane	1.49	64	1836	1.478	ppb	#	52
7) Dichlorofluoromethane	1.64	67	9078	0.940	ppb		96
8) Trichlorofluoromethane	1.67	101	4124	0.965	ppb		83
9) Acetone	2.15	43	6005	0.524	ppb		94
10) Freon-113	2.09	101	4102	0.907	ppb	#	84
11) 1,1-DCE	2.07	61	13480	1.076	ppb	#	90
12) Acetonitrile	2.41	41	20555	43.232	ppb		95
14) Acrylonitrile	2.82	53	1695	1.159	ppb	#	69
15) Methylene chloride	2.55	84	9703	0.199	ppb		90
16) Carbon disulfide	2.26	76	12348	0.905	ppb		100
17) Trans-1,2-DCE	2.84	96	5902	0.976	ppb		84
18) Cis-1,2-DCE	4.19	96	7879	0.914	ppb		81
19) Chloroform	4.69	83	3525	2.262	ppb		90
20) Bromochloromethane	4.54	128	1593	1.245	ppb	#	65
22) Cyclohexane	4.93	41	4414	1.060	ppb		86
23) 1,1-Dichloropropene	5.11	75	8616	1.142	ppb	#	85
24) 2,2,4-Trimethylpentane	5.52	57	11264	1.105	ppb	#	67
26) 1,2-DCA	5.41	62	4592	1.569	ppb	#	74
27) Benzene	5.35	78	21162	0.930	ppb		95
28) TCE	6.16	95	10936	1.099	ppb		89
29) 2-Pentanone	6.44	43	120563	47.964	ppb		98
30) Methyl Cyclohexane	6.37	83	8356	1.072	ppb		79
31) Dibromomethane	6.53	93	1516	1.589	ppb		95
32) MIBK (methyl isobutyl ket	7.45	43	3643	0.999	ppb		94
33) Toluene	7.58	91	27914	1.037	ppb		94
34) 1,1,2-TCA	8.01	83	3303	0.893	ppb	#	80
37) Tetrachloroethene	8.14	164	8545	1.204	ppb	#	65
38) 1-Chlorohexane	9.03	91	7270	1.045	ppb		89
39) m&p-Xylene	9.26	106	22357	1.840	ppb		100
40) o-Xylene	9.65	106	11751	0.965	ppb		84
41) Styrene	9.67	104	17378	0.910	ppb		94
43) Chlorobenzene	9.00	112	18880	1.040	ppb		93
44) Ethylbenzene	9.14	91	28949	1.028	ppb		98
46) Isopropylbenzene	10.03	105	27277	0.998	ppb		96
47) 1,2,3-Trichloropropane	10.36	110	2062	1.057	ppb		89

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M191106\1106M08.D Vial: 5
Acq On : 6 Nov 19 11:42 Operator: LP,DG,CMM
Sample : 1.0ug/L VOC STD 11/06/19 Inst : Max
Misc : IS&S 9/24/19 Multiplr: 1.00

Quant Time: Nov 7 14:29 2019 Quant Results File: M1106.RES

Quant Method : M:\MAX\DATA\M191106\M1106.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 07 14:27:44 2019
Response via : Initial Calibration
DataAcq Meth : M8260

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
48)	t-1,4-Dichloro-2-Butene	10.40	53	202	3.035 ppb	#	34
49)	Bromobenzene	10.29	156	9834	1.078 ppb		85
50)	n-Propylbenzene	10.44	91	27872	0.989 ppb		100
51)	4-Ethyltoluene	10.56	105	26359	1.008 ppb		90
52)	2-Chlorotoluene	10.50	91	19700	1.062 ppb		97
53)	1,3,5-Trimethylbenzene	10.62	105	22059	0.994 ppb		95
54)	4-Chlorotoluene	10.61	91	22992	1.093 ppb		96
55)	Tert-Butylbenzene	10.94	119	20765	1.011 ppb		92
56)	1,2,4-Trimethylbenzene	10.99	105	22604	0.987 ppb		85
57)	Sec-Butylbenzene	11.16	105	24997	0.980 ppb		99
58)	p-Isopropyltoluene	11.31	119	14503	0.911 ppb	#	86
59)	Benzyl Chloride	11.48	91	5896	1.965 ppb	#	93
60)	1,3-DCB	11.23	146	15170	0.960 ppb		85
61)	1,4-DCB	11.32	146	10439	1.009 ppb		94
62)	n-Butylbenzene	11.72	91	9239	0.880 ppb		98
63)	1,2-DCB	11.68	146	14488	0.985 ppb		91
64)	1,2-Dibromo-3-chloropropan	12.45	157	1344	0.940 ppb	#	62
65)	1,2,4-Trichlorobenzene	13.29	180	6973	1.142 ppb		93
66)	Hexachlorobutadiene	13.47	225	5358	1.013 ppb		84
67)	Naphthalene	13.51	127	689	0.897 ppb	#	36
68)	1,2,3-Trichlorobenzene	13.76	180	5443	1.174 ppb		96

(#) = qualifier out of range (m) = manual integration

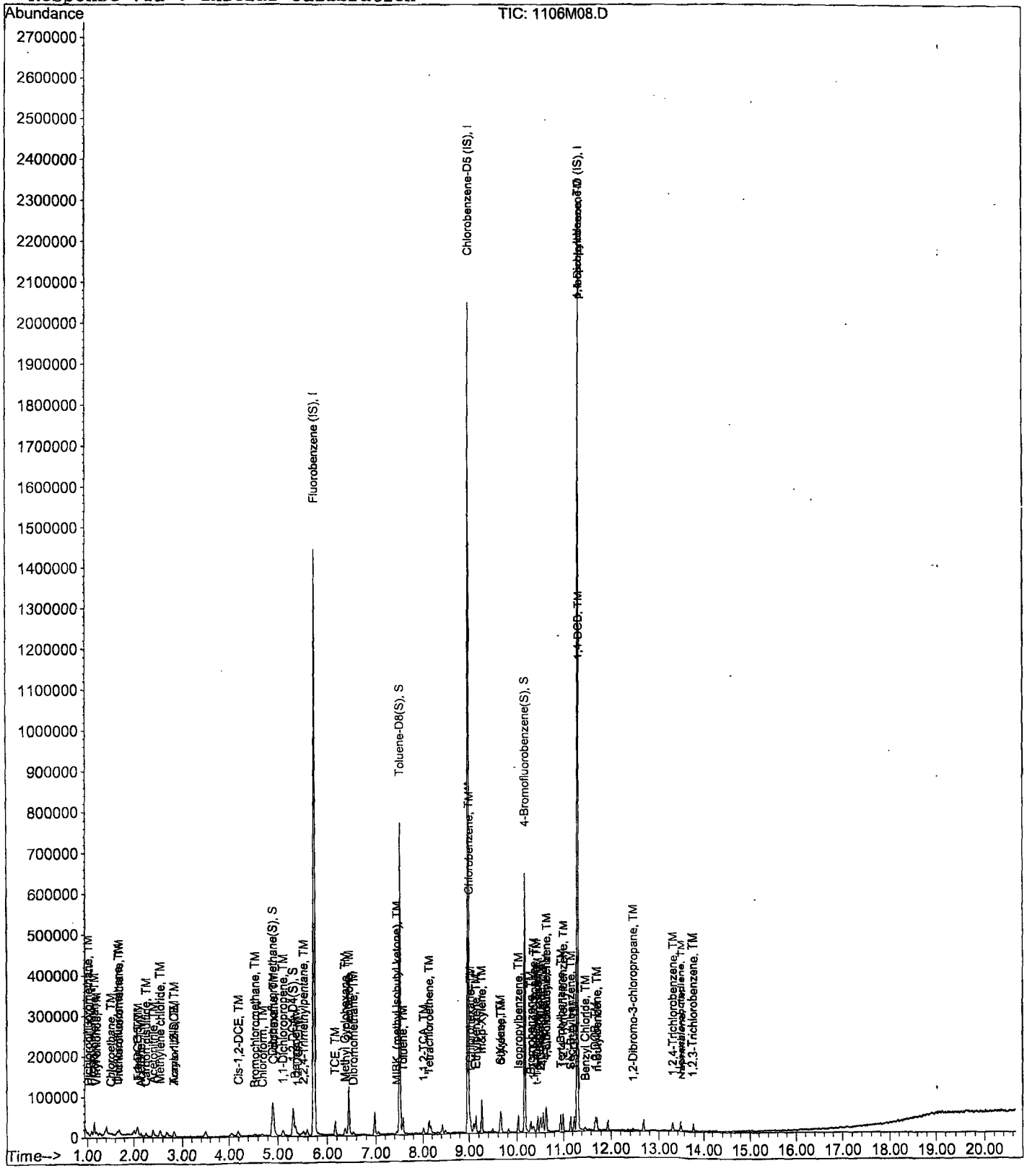
Quantitation Report

Data File : M:\MAX\DATA\M191106\1106M08.D
Acq On : 6 Nov 19 11:42
Sample : 1.0ug/L VOC STD 11/06/19
Misc : IS&S 9/24/19

Vial: 5
Operator: LP,DG,CMM
Inst : Max
Multiplr: 1.00

Quant Time: Nov 7 14:29 2019 Quant Results File: M1106.RES

Method : M:\MAX\DATA\M191106\M1106.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 07 14:27:44 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M191106\1106M09.D Vial: 6
Acq On : 6 Nov 19 12:11 Operator: LP,DG,CMM
Sample : 2.0ug/L VOC STD 11/06/19 Inst : Max
Misc : IS&S 9/24/19 Multiplr: 1.00

Quant Time: Nov 7 14:29 2019 Quant Results File: M1106.RES

Quant Method : M:\MAX\DATA\M191106\M1106.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 07 14:27:44 2019
Response via : Initial Calibration
DataAcq Meth : M8260

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene (IS)	5.73	96	1433425	25.000	ppb		0.00
35) Chlorobenzene-D5 (IS)	8.97	117	1128770	25.000	ppb		0.00
45) 1,4-Dichlorobenzene-D (IS)	11.30	152	678074	25.000	ppb		0.00
System Monitoring Compounds							
21) Dibromofluoromethane(S)	4.89	111	63393	9.603	ppb		0.00
Spiked Amount 25.000			Recovery =	38.412%			
25) 1,2-DCA-D4(S)	5.30	65	59104	10.181	ppb		0.00
Spiked Amount 25.000			Recovery =	40.724%			
36) Toluene-D8(S)	7.51	98	483232	9.245	ppb		0.00
Spiked Amount 25.000			Recovery =	36.980%			
42) 4-Bromofluorobenzene(S)	10.16	95	178485	9.140	ppb		0.00
Spiked Amount 25.000			Recovery =	36.560%			
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.00	85	7789	2.254	ppb		91
3) Freon 114	1.09	85	11905	2.345	ppb		92
4) Chloromethane	1.13	50	15827	2.101	ppb		96
5) Vinyl chloride	1.19	62	13298	2.067	ppb	#	100
6) Chloroethane	1.48	64	5322	2.528	ppb		84
7) Dichlorofluoromethane	1.63	67	19812	2.129	ppb		95
8) Trichlorofluoromethane	1.68	101	12647	1.989	ppb		95
9) Acetone	2.14	43	7219	1.613	ppb		99
10) Freon-113	2.08	101	7649	1.755	ppb		83
11) 1,1-DCE	2.07	61	22035	1.826	ppb		96
12) Acetonitrile	2.40	41	33649	73.457	ppb		93
14) Acrylonitrile	2.82	53	3067	2.176	ppb	#	87
15) Methylene chloride	2.54	84	15985	1.396	ppb		88
16) Carbon disulfide	2.25	76	27797	2.115	ppb		94
17) Trans-1,2-DCE	2.82	96	12087	2.075	ppb		83
18) Cis-1,2-DCE	4.18	96	13515	1.850	ppb		95
19) Chloroform	4.68	83	5273	2.449	ppb	#	68
20) Bromochloromethane	4.52	128	3874	2.047	ppb		78
22) Cyclohexane	4.93	41	8518	2.123	ppb		77
23) 1,1-Dichloropropene	5.10	75	14670	2.018	ppb		93
24) 2,2,4-Trimethylpentane	5.52	57	18253	1.858	ppb	#	77
26) 1,2-DCA	5.40	62	8479	2.166	ppb	#	88
27) Benzene	5.36	78	45109	2.057	ppb		94
28) TCE	6.16	95	17110	2.172	ppb		86
29) 2-Pentanone	6.44	43	183841	75.913	ppb		98
30) Methyl Cyclohexane	6.36	83	14783	1.969	ppb		97
31) Dibromomethane	6.53	93	2876	2.224	ppb	#	89
32) MIBK (methyl isobutyl ket	7.44	43	6891	1.962	ppb		95
33) Toluene	7.58	91	50420	1.944	ppb		98
34) 1,1,2-TCA	8.01	83	7230	2.028	ppb		94
37) Tetrachloroethene	8.14	164	13869	2.031	ppb		95
38) 1-Chlorohexane	9.03	91	13667	2.041	ppb		90
39) m&p-Xylene	9.26	106	48479	4.145	ppb		99
40) o-Xylene	9.65	106	24933	2.128	ppb		97
41) Styrene	9.67	104	35211	1.916	ppb		92
43) Chlorobenzene	9.00	112	35263	2.018	ppb		96
44) Ethylbenzene	9.14	91	56101	2.071	ppb		99
46) Isopropylbenzene	10.03	105	56602	2.038	ppb		98
47) 1,2,3-Trichloropropane	10.35	110	4849	2.446	ppb		95

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M191106\1106M09.D Vial: 6
Acq On : 6 Nov 19 12:11 Operator: LP,DG,CMM
Sample : 2.0ug/L VOC STD 11/06/19 Inst : Max
Misc : IS&S 9/24/19 Multiplr: 1.00

Quant Time: Nov 7 14:29 2019 Quant Results File: M1106.RES

Quant Method : M:\MAX\DATA\M191106\M1106.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 07 14:27:44 2019
Response via : Initial Calibration
DataAcq Meth : M8260

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
48)	t-1,4-Dichloro-2-Butene	10.39	53	478	3.542	ppb	#	1
49)	Bromobenzene	10.29	156	19043	2.055	ppb		88
50)	n-Propylbenzene	10.44	91	59479	2.076	ppb		94
51)	4-Ethyltoluene	10.56	105	53952	2.031	ppb		95
52)	2-Chlorotoluene	10.50	91	38011	2.016	ppb		91
53)	1,3,5-Trimethylbenzene	10.63	105	42467	1.884	ppb		89
54)	4-Chlorotoluene	10.61	91	42918	2.009	ppb		99
55)	Tert-Butylbenzene	10.94	119	41849	2.005	ppb		96
56)	1,2,4-Trimethylbenzene	10.99	105	46488	1.998	ppb		99
57)	Sec-Butylbenzene	11.15	105	52822	2.039	ppb		95
58)	p-Isopropyltoluene	11.31	119	31229	1.932	ppb		93
59)	Benzyl Chloride	11.47	91	12555	2.644	ppb		93
60)	1,3-DCB	11.23	146	31738	1.976	ppb		91
61)	1,4-DCB	11.32	146	20944	1.992	ppb		99
62)	n-Butylbenzene	11.72	91	18896	1.771	ppb		96
63)	1,2-DCB	11.68	146	31492	2.108	ppb	#	87
64)	1,2-Dibromo-3-chloropropan	12.46	157	2782	1.914	ppb		93
65)	1,2,4-Trichlorobenzene	13.29	180	16980	2.063	ppb		88
66)	Hexachlorobutadiene	13.48	225	10231	1.904	ppb		96
67)	Naphthalene	13.51	127	1834	1.691	ppb		76
68)	1,2,3-Trichlorobenzene	13.76	180	11408	1.818	ppb		91

(#) = qualifier out of range (m) = manual integration

Quantitation Report

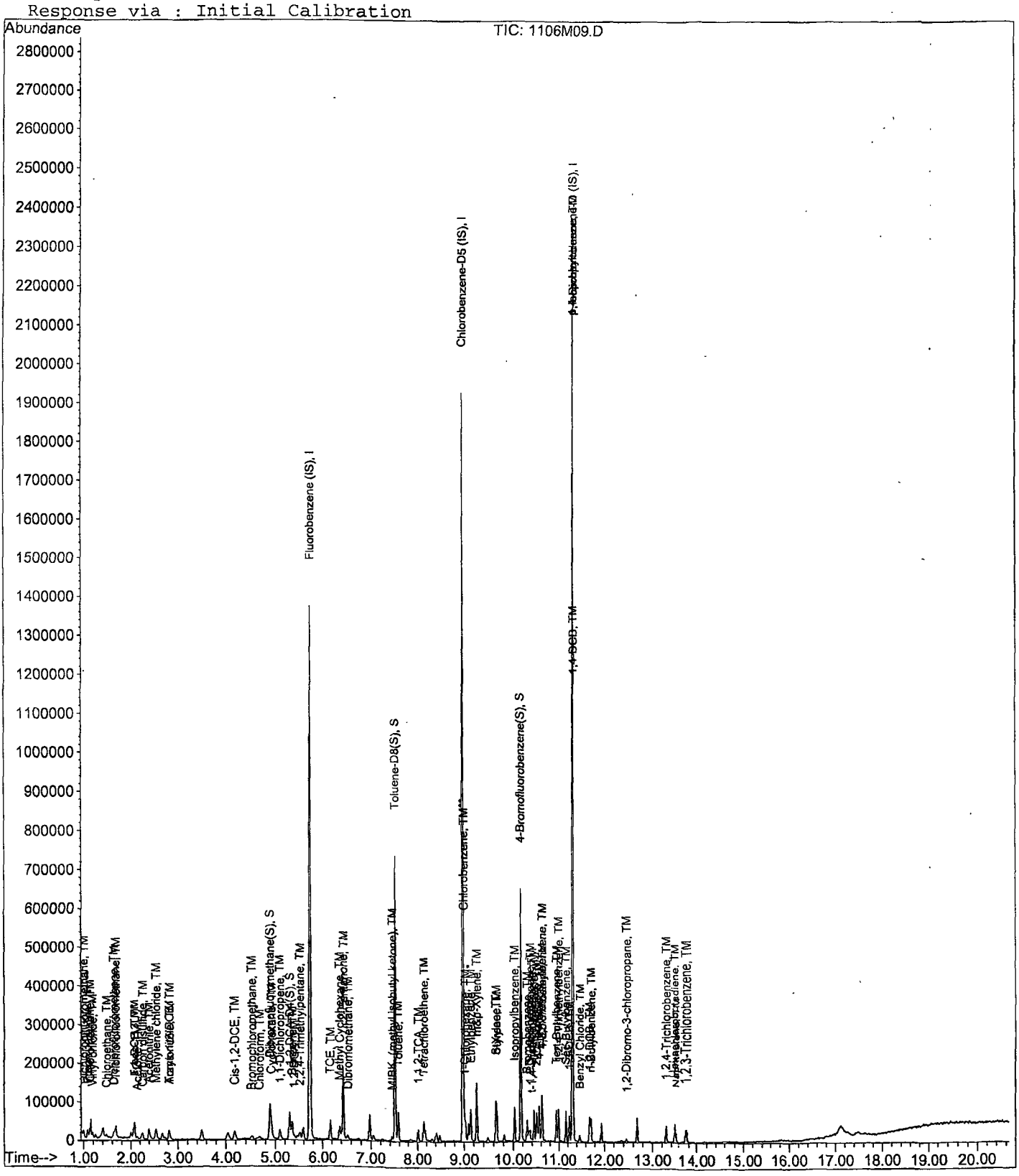
Data File : M:\MAX\DATA\M191106\1106M09.D
Acq On : 6 Nov 19 12:11
Sample : 2.0ug/L VOC STD 11/06/19
Misc : IS&S 9/24/19

Vial: 6
Operator: LP,DG,CMM
Inst : Max
Multiplr: 1.00

Quant Time: Nov 7 14:29 2019

Quant Results File: M1106.RES

Method : M:\MAX\DATA\M191106\M1106.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 07 14:27:44 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M191106\1106M10.D Vial: 7
Acq On : 6 Nov 19 12:40 Operator: LP,DG,CMM
Sample : 5.0ug/L VOC STD 11/06/19 Inst : Max
Misc : IS&S 9/24/19 Multiplr: 1.00

Quant Time: Nov 7 14:29 2019 Quant Results File: M1106.RES

Quant Method : M:\MAX\DATA\M191106\M1106.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 07 14:27:44 2019
Response via : Initial Calibration
DataAcq Meth : M8260

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene (IS)	5.73	96	1472512	25.000	ppb		0.00
35) Chlorobenzene-D5 (IS)	8.97	117	1205195	25.000	ppb		0.00
45) 1,4-Dichlorobenzene-D (IS)	11.30	152	728245	25.000	ppb		0.00
System Monitoring Compounds							
21) Dibromofluoromethane(S)	4.89	111	231874	21.651	ppb		0.00
Spiked Amount 25.000			Recovery =	86.604%			
25) 1,2-DCA-D4(S)	5.30	65	188191	21.045	ppb		0.00
Spiked Amount 25.000			Recovery =	84.180%			
36) Toluene-D8(S)	7.51	98	1383599	24.793	ppb		0.00
Spiked Amount 25.000			Recovery =	99.172%			
42) 4-Bromofluorobenzene(S)	10.16	95	502805	24.114	ppb		0.00
Spiked Amount 25.000			Recovery =	96.456%			
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.01	85	16536	4.396	ppb		92
3) Freon 114	1.09	85	25594	4.908	ppb		85
4) Chloromethane	1.13	50	36444	4.710	ppb	#	87
5) Vinyl chloride	1.19	62	34712	5.251	ppb	#	100
6) Chloroethane	1.48	64	12470	4.542	ppb		91
7) Dichlorofluoromethane	1.64	67	47744	4.995	ppb		90
8) Trichlorofluoromethane	1.67	101	34672	4.479	ppb		86
9) Acetone	2.14	43	10551	3.932	ppb		92
10) Freon-113	2.09	101	21433	4.787	ppb		93
11) 1,1-DCE	2.07	61	61531	4.963	ppb		98
12) Acetonitrile	2.40	41	43276	91.965	ppb		98
14) Acrylonitrile	2.82	53	6254	4.320	ppb	#	73
15) Methylene chloride	2.54	84	35011	4.658	ppb		86
16) Carbon disulfide	2.25	76	68629	5.082	ppb		93
17) Trans-1,2-DCE	2.82	96	29683	4.960	ppb		97
18) Cis-1,2-DCE	4.19	96	33553	4.874	ppb		93
19) Chloroform	4.68	83	28254	4.669	ppb		99
20) Bromochloromethane	4.53	128	11765	4.647	ppb		90
22) Cyclohexane	4.92	41	20711	5.026	ppb		80
23) 1,1-Dichloropropene	5.10	75	38397	5.142	ppb		93
24) 2,2,4-Trimethylpentane	5.52	57	51477	5.102	ppb	#	78
26) 1,2-DCA	5.40	62	28782	5.017	ppb		100
27) Benzene	5.35	78	117593	5.220	ppb		100
28) TCE	6.16	95	35657	5.043	ppb		94
29) 2-Pentanone	6.44	43	240303	96.594	ppb		99
30) Methyl Cyclohexane	6.36	83	38969	5.053	ppb		99
31) Dibromomethane	6.53	93	8661	4.717	ppb		85
32) MIBK (methyl isobutyl ket	7.44	43	16883	4.680	ppb	#	84
33) Toluene	7.58	91	130586	4.902	ppb		98
34) 1,1,2-TCA	8.01	83	19530	5.332	ppb		98
37) Tetrachloroethene	8.13	164	37393	5.129	ppb		92
38) 1-Chlorohexane	9.03	91	36222	5.066	ppb		95
39) m&p-Xylene	9.26	106	121536	9.732	ppb		95
40) o-Xylene	9.65	106	63553	5.081	ppb		87
41) Styrene	9.67	104	99936	5.094	ppb		99
43) Chlorobenzene	9.00	112	91940	4.929	ppb		96
44) Ethylbenzene	9.14	91	145130	5.017	ppb		94
46) Isopropylbenzene	10.03	105	151036	5.064	ppb		97
47) 1,2,3-Trichloropropane	10.35	110	10331	4.852	ppb		88

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M191106\1106M10.D Vial: 7
Acq On : 6 Nov 19 12:40 Operator: LP,DG,CMM
Sample : 5.0ug/L VOC STD 11/06/19 Inst : Max
Misc : IS&S 9/24/19 Multiplr: 1.00

Quant Time: Nov 7 14:29 2019 Quant Results File: M1106.RES

Quant Method : M:\MAX\DATA\M191106\M1106.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 07 14:27:44 2019
Response via : Initial Calibration
DataAcq Meth : M8260

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
48)	t-1,4-Dichloro-2-Butene	10.38	53	1080	4.521 ppb		85
49)	Bromobenzene	10.29	156	49144	4.937 ppb		92
50)	n-Propylbenzene	10.44	91	156103	5.074 ppb		97
51)	4-Ethyltoluene	10.56	105	140649	4.930 ppb		95
52)	2-Chlorotoluene	10.50	91	100514	4.965 ppb		99
53)	1,3,5-Trimethylbenzene	10.63	105	124119	5.127 ppb		98
54)	4-Chlorotoluene	10.61	91	108422	4.726 ppb		91
55)	Tert-Butylbenzene	10.94	119	115580	5.157 ppb		94
56)	1,2,4-Trimethylbenzene	10.99	105	125517	5.022 ppb		97
57)	Sec-Butylbenzene	11.16	105	139069	4.999 ppb		97
58)	p-Isopropyltoluene	11.31	119	88232	5.082 ppb		95
59)	Benzyl Chloride	11.47	91	38734	5.077 ppb		92
60)	1,3-DCB	11.23	146	87114	5.050 ppb		99
61)	1,4-DCB	11.32	146	54200	4.799 ppb		93
62)	n-Butylbenzene	11.72	91	59280	5.172 ppb		95
63)	1,2-DCB	11.69	146	76834	4.788 ppb		97
64)	1,2-Dibromo-3-chloropropan	12.45	157	6926	4.437 ppb	#	86
65)	1,2,4-Trichlorobenzene	13.29	180	49203	4.745 ppb		95
66)	Hexachlorobutadiene	13.48	225	28653	4.965 ppb		98
67)	Naphthalene	13.52	127	5677	4.105 ppb	#	98
68)	1,2,3-Trichlorobenzene	13.76	180	38730	4.518 ppb		90

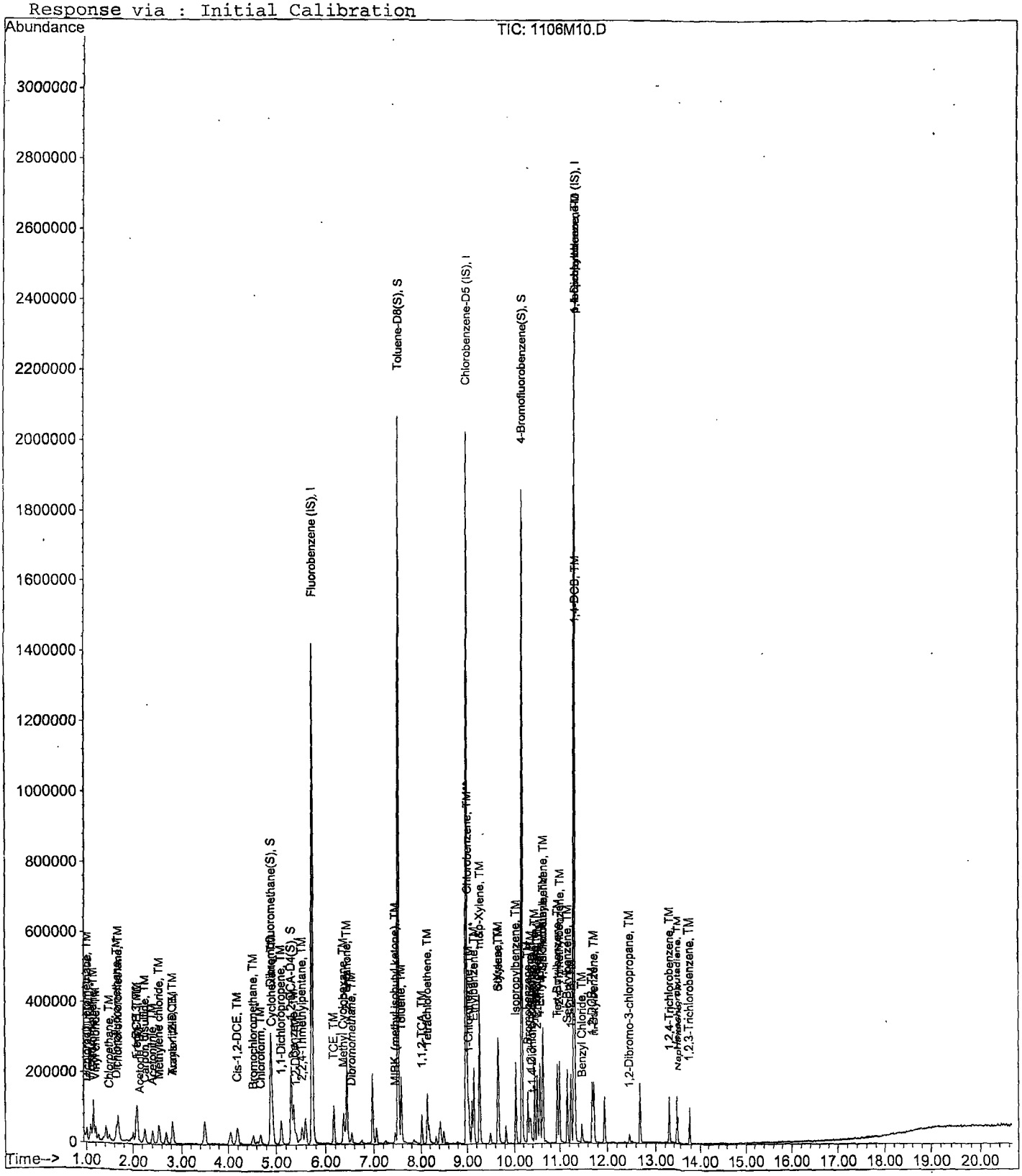
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\MAX\DATA\M191106\1106M10.D Vial: 7
Acq On : 6 Nov 19 12:40 Operator: LP,DG,CMM
Sample : 5.0ug/L VOC STD 11/06/19 Inst : Max
Misc : IS&S 9/24/19 Multiplr: 1.00

Quant Time: Nov 7 14:29 2019 Quant Results File: M1106.RES

Method : M:\MAX\DATA\M191106\M1106.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 07 14:27:44 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M191106\1106M11.D Vial: 8
Acq On : 6 Nov 19 13:08 Operator: LP,DG,CMM
Sample : 10ug/L VOC STD 11/06/19 Inst : Max
Misc : IS&S 9/24/19 Multiplr: 1.00

Quant Time: Nov 7 14:29 2019 Quant Results File: M1106.RES

Quant Method : M:\MAX\DATA\M191106\M1106.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 07 14:27:44 2019
Response via : Initial Calibration
DataAcq Meth : M8260

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene (IS)	5.73	96	1472898	25.000	ppb		0.00
35) Chlorobenzene-D5 (IS)	8.97	117	1197765	25.000	ppb		0.00
45) 1,4-Dichlorobenzene-D (IS)	11.30	152	729197	25.000	ppb		0.00
System Monitoring Compounds							
21) Dibromofluoromethane(S)	4.89	111	255331	23.340	ppb		0.00
Spiked Amount 25.000			Recovery =	93.360%			
25) 1,2-DCA-D4(S)	5.30	65	210027	22.902	ppb		0.00
Spiked Amount 25.000			Recovery =	91.608%			
36) Toluene-D8(S)	7.51	98	1333176	24.037	ppb		0.00
Spiked Amount 25.000			Recovery =	96.148%			
42) 4-Bromofluorobenzene(S)	10.16	95	496680	23.968	ppb		0.00
Spiked Amount 25.000			Recovery =	95.872%			
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.01	85	34980	9.024	ppb		100
3) Freon 114	1.09	85	49480	9.485	ppb		100
4) Chloromethane	1.13	50	67269	8.691	ppb		100
5) Vinyl chloride	1.19	62	64708	9.786	ppb	#	100
6) Chloroethane	1.48	64	27382	8.828	ppb		100
7) Dichlorofluoromethane	1.64	67	93360	9.765	ppb		100
8) Trichlorofluoromethane	1.67	101	73073	8.889	ppb		100
9) Acetone	2.14	43	17074	8.754	ppb		100
10) Freon-113	2.08	101	44017	9.828	ppb		100
11) 1,1-DCE	2.07	61	119290	9.619	ppb		100
12) Acetonitrile	2.40	41	56229	119.460	ppb		100
14) Acrylonitrile	2.81	53	14092	9.731	ppb		100
15) Methylene chloride	2.54	84	61672	9.333	ppb		100
16) Carbon disulfide	2.25	76	127950	9.472	ppb		100
17) Trans-1,2-DCE	2.82	96	57341	9.579	ppb		100
18) Cis-1,2-DCE	4.18	96	60055	8.946	ppb		100
19) Chloroform	4.68	83	63540	8.099	ppb		100
20) Bromochloromethane	4.52	128	24804	9.000	ppb		100
22) Cyclohexane	4.93	41	37494	9.097	ppb		100
23) 1,1-Dichloropropene	5.10	75	71097	9.519	ppb		100
24) 2,2,4-Trimethylpentane	5.52	57	98186	9.728	ppb		100
26) 1,2-DCA	5.39	62	56824	8.928	ppb		100
27) Benzene	5.35	78	225303	10.000	ppb		100
28) TCE	6.16	95	61549	9.153	ppb		100
29) 2-Pentanone	6.43	43	309807	124.499	ppb		100
30) Methyl Cyclohexane	6.36	83	72059	9.341	ppb		100
31) Dibromomethane	6.53	93	19530	9.461	ppb		100
32) MIBK (methyl isobutyl ket	7.44	43	34342	9.517	ppb		100
33) Toluene	7.58	91	245634	9.219	ppb		100
34) 1,1,2-TCA	8.01	83	37917	10.349	ppb		100
37) Tetrachloroethene	8.13	164	69545	9.599	ppb		100
38) 1-Chlorohexane	9.03	91	70602	9.936	ppb		100
39) m&p-Xylene	9.26	106	237322	19.121	ppb		100
40) o-Xylene	9.65	106	117020	9.413	ppb		100
41) Styrene	9.67	104	192397	9.868	ppb		100
43) Chlorobenzene	9.00	112	175088	9.444	ppb		100
44) Ethylbenzene	9.14	91	276207	9.607	ppb		100
46) Isopropylbenzene	10.03	105	290014	9.712	ppb		100
47) 1,2,3-Trichloropropane	10.36	110	20290	9.517	ppb		100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M191106\1106M11.D Vial: 8
Acq On : 6 Nov 19 13:08 Operator: LP,DG,CMM
Sample : 10ug/L VOC STD 11/06/19 Inst : Max
Misc : IS&S 9/24/19 Multiplr: 1.00

Quant Time: Nov 7 14:29 2019 Quant Results File: M1106.RES

Quant Method : M:\MAX\DATA\M191106\M1106.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 07 14:27:44 2019
Response via : Initial Calibration
DataAcq Meth : M8260

Compound	R.T.	QIon	Response	Conc Unit	Qvalue
48) t-1,4-Dichloro-2-Butene	10.39	53	4647	10.678 ppb	100
49) Bromobenzene	10.29	156	97380	9.770 ppb	100
50) n-Propylbenzene	10.44	91	295093	9.580 ppb	100
51) 4-Ethyltoluene	10.55	105	280456	9.819 ppb	100
52) 2-Chlorotoluene	10.50	91	198982	9.816 ppb	100
53) 1,3,5-Trimethylbenzene	10.62	105	238345	9.833 ppb	100
54) 4-Chlorotoluene	10.61	91	222825	9.699 ppb	100
55) Tert-Butylbenzene	10.94	119	209088	9.317 ppb	100
56) 1,2,4-Trimethylbenzene	10.99	105	236655	9.456 ppb	100
57) Sec-Butylbenzene	11.16	105	269561	9.676 ppb	100
58) p-Isopropyltoluene	11.31	119	161658	9.299 ppb	100
59) Benzyl Chloride	11.47	91	83665	9.395 ppb	100
60) 1,3-DCB	11.23	146	165535	9.584 ppb	100
61) 1,4-DCB	11.32	146	109746	9.705 ppb	100
62) n-Butylbenzene	11.72	91	113584	9.898 ppb	100
63) 1,2-DCB	11.68	146	153723	9.566 ppb	100
64) 1,2-Dibromo-3-chloropropan	12.45	157	14963	9.574 ppb	100
65) 1,2,4-Trichlorobenzene	13.28	180	97021	8.877 ppb	100
66) Hexachlorobutadiene	13.47	225	57155	9.890 ppb	100
67) Naphthalene	13.51	127	13087	8.919 ppb	100
68) 1,2,3-Trichlorobenzene	13.76	180	79871	8.704 ppb	100

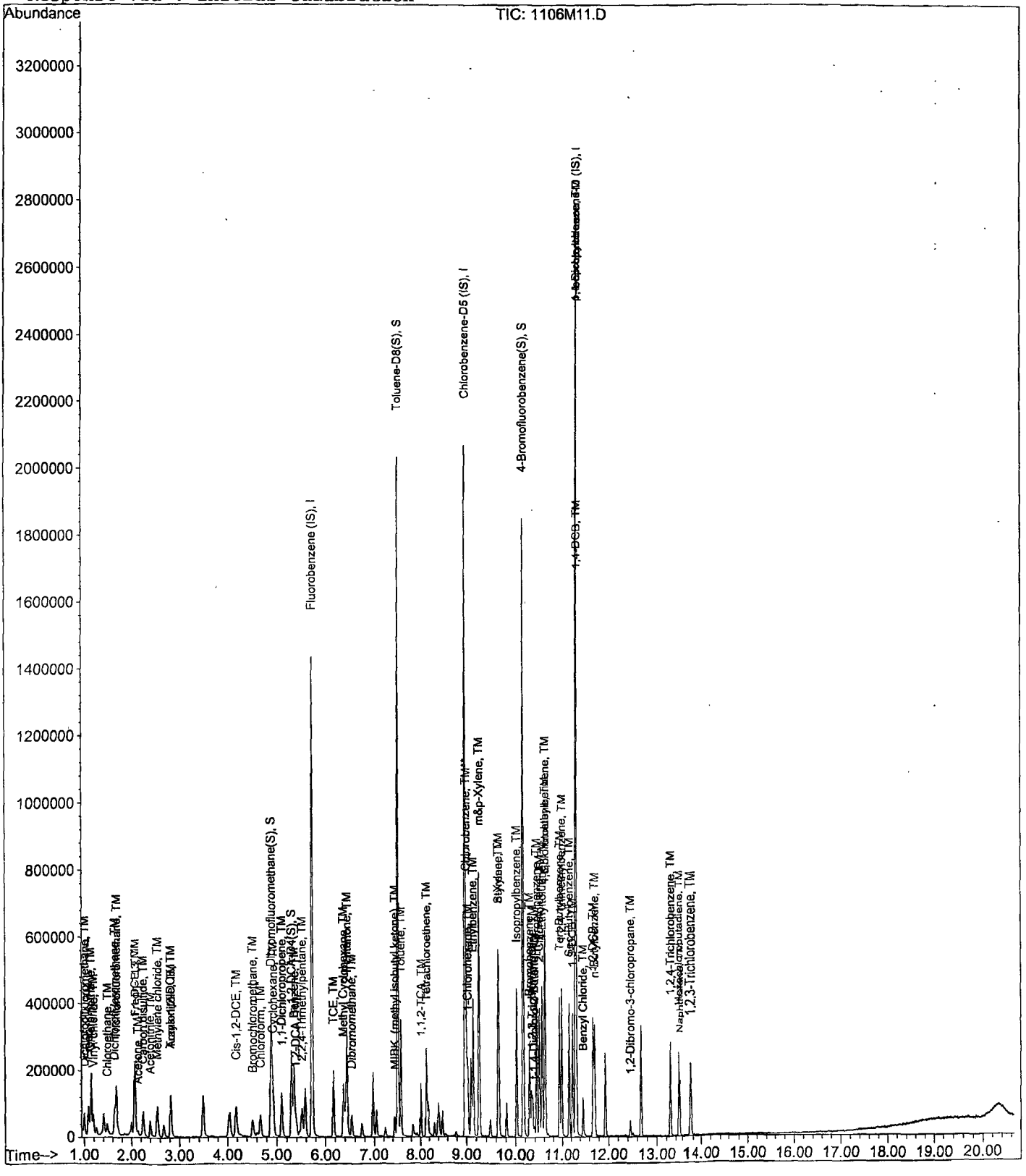
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\MAX\DATA\M191106\1106M11.D Vial: 8
Acq On : 6 Nov 19 13:08 Operator: LP,DG,CMM
Sample : 10ug/L VOC STD 11/06/19 Inst : Max
Misc : IS&S 9/24/19 Multiplr: 1.00

Quant Time: Nov 7 14:29 2019 Quant Results File: M1106.RES

Method : M:\MAX\DATA\M191106\M1106.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 07 14:27:44 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M191106\1106M12.D Vial: 9
Acq On : 6 Nov 19 13:37 Operator: LP,DG,CMM
Sample : 20ug/L VOC STD 11/06/19 Inst : Max
Misc : IS&S 9/24/19 Multiplr: 1.00

Quant Time: Nov 7 14:29 2019 Quant Results File: M1106.RES

Quant Method : M:\MAX\DATA\M191106\M1106.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 07 14:27:44 2019
Response via : Initial Calibration
DataAcq Meth : M8260

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Fluorobenzene (IS)	5.73	96	1340710	25.000 ppb		0.00
35) Chlorobenzene-D5 (IS)	8.97	117	1114510	25.000 ppb		0.00
45) 1,4-Dichlorobenzene-D (IS)	11.30	152	724038	25.000 ppb		0.00
System Monitoring Compounds						
21) Dibromofluoromethane(S)	4.89	111	562950	49.569 ppb		0.00
Spiked Amount 25.000			Recovery	= 198.276%		
25) 1,2-DCA-D4(S)	5.30	65	460191	48.082 ppb		0.00
Spiked Amount 25.000			Recovery	= 192.328%		
36) Toluene-D8(S)	7.51	98	2563898	49.681 ppb		0.00
Spiked Amount 25.000			Recovery	= 198.724%		
42) 4-Bromofluorobenzene(S)	10.16	95	973597	50.493 ppb		0.00
Spiked Amount 25.000			Recovery	= 201.972%		
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.00	85	74589	20.811 ppb		91
3) Freon 114	1.08	85	99035	20.856 ppb		91
4) Chloromethane	1.13	50	141358	20.063 ppb		98
5) Vinyl chloride	1.19	62	127765	21.228 ppb	#	100
6) Chloroethane	1.47	64	62269	20.624 ppb		93
7) Dichlorofluoromethane	1.63	67	188217	21.628 ppb		97
8) Trichlorofluoromethane	1.66	101	158423	20.486 ppb		93
9) Acetone	2.14	43	33668	23.480 ppb		99
10) Freon-113	2.08	101	88598	21.731 ppb		90
11) 1,1-DCE	2.06	61	245199	21.721 ppb		92
12) Acetonitrile	2.40	41	73673	171.953 ppb		94
14) Acrylonitrile	2.81	53	27764	21.063 ppb	#	94
15) Methylene chloride	2.54	84	121263	21.885 ppb		97
16) Carbon disulfide	2.24	76	275404	22.399 ppb		98
17) Trans-1,2-DCE	2.82	96	116453	21.371 ppb		97
18) Cis-1,2-DCE	4.18	96	124478	20.734 ppb		93
19) Chloroform	4.68	83	160434	19.054 ppb		94
20) Bromochloromethane	4.52	128	55261	20.988 ppb		95
22) Cyclohexane	4.93	41	71603	19.085 ppb		85
23) 1,1-Dichloropropene	5.10	75	141044	20.746 ppb		93
24) 2,2,4-Trimethylpentane	5.51	57	182066	19.818 ppb		91
26) 1,2-DCA	5.39	62	127364	20.086 ppb		99
27) Benzene	5.35	78	432722	21.099 ppb		99
28) TCE	6.16	95	120206	20.349 ppb		96
29) 2-Pentanone	6.43	43	344368	152.032 ppb		97
30) Methyl Cyclohexane	6.37	83	141133	20.099 ppb		99
31) Dibromomethane	6.53	93	40231	20.231 ppb		88
32) MIBK (methyl isobutyl ket	7.44	43	68560	20.874 ppb		96
33) Toluene	7.58	91	490522	20.225 ppb		96
34) 1,1,2-TCA	8.01	83	71973	21.582 ppb		99
37) Tetrachloroethene	8.13	164	133272	19.769 ppb		97
38) 1-Chlorohexane	9.03	91	136765	20.686 ppb		92
39) m&p-Xylene	9.26	106	471388	40.817 ppb		96
40) o-Xylene	9.65	106	240194	20.764 ppb		97
41) Styrene	9.67	104	387884	21.380 ppb		100
43) Chlorobenzene	9.00	112	344827	19.990 ppb		97
44) Ethylbenzene	9.14	91	549315	20.534 ppb		97
46) Isopropylbenzene	10.03	105	594917	20.064 ppb		99
47) 1,2,3-Trichloropropane	10.35	110	41222	19.473 ppb		88

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M191106\1106M12.D Vial: 9
Acq On : 6 Nov 19 13:37 Operator: LP,DG,CMM
Sample : 20ug/L VOC STD 11/06/19 Inst : Max
Misc : IS&S 9/24/19 Multiplr: 1.00

Quant Time: Nov 7 14:29 2019 Quant Results File: M1106.RES

Quant Method : M:\MAX\DATA\M191106\M1106.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 07 14:27:44 2019
Response via : Initial Calibration
DataAcq Meth : M8260

Compound	R.T.	QIon	Response	Conc Unit		Qvalue
48) t-1,4-Dichloro-2-Butene	10.39	53	8664	17.720 ppb	#	75
49) Bromobenzene	10.29	156	191615	19.362 ppb		96
50) n-Propylbenzene	10.44	91	613339	20.053 ppb		100
51) 4-Ethyltoluene	10.55	105	575943	20.307 ppb		96
52) 2-Chlorotoluene	10.50	91	396266	19.687 ppb		100
53) 1,3,5-Trimethylbenzene	10.62	105	495051	20.570 ppb		94
54) 4-Chlorotoluene	10.61	91	455801	19.982 ppb		97
55) Tert-Butylbenzene	10.94	119	440891	19.787 ppb		97
56) 1,2,4-Trimethylbenzene	10.98	105	508978	20.483 ppb		98
57) Sec-Butylbenzene	11.15	105	562880	20.350 ppb		99
58) p-Isopropyltoluene	11.31	119	377151	21.848 ppb		95
59) Benzyl Chloride	11.47	91	174275	18.234 ppb		95
60) 1,3-DCB	11.23	146	346764	20.220 ppb		97
61) 1,4-DCB	11.32	146	230144	20.497 ppb		99
62) n-Butylbenzene	11.71	91	256320	22.495 ppb		95
63) 1,2-DCB	11.68	146	336189	21.070 ppb		94
64) 1,2-Dibromo-3-chloropropan	12.45	157	33887	21.836 ppb	#	85
65) 1,2,4-Trichlorobenzene	13.28	180	227097	20.270 ppb		94
66) Hexachlorobutadiene	13.47	225	124856	21.759 ppb		97
67) Naphthalene	13.51	127	29152	19.502 ppb		68
68) 1,2,3-Trichlorobenzene	13.75	180	192714	20.339 ppb		97

(#) = qualifier out of range (m) = manual integration

Quantitation Report

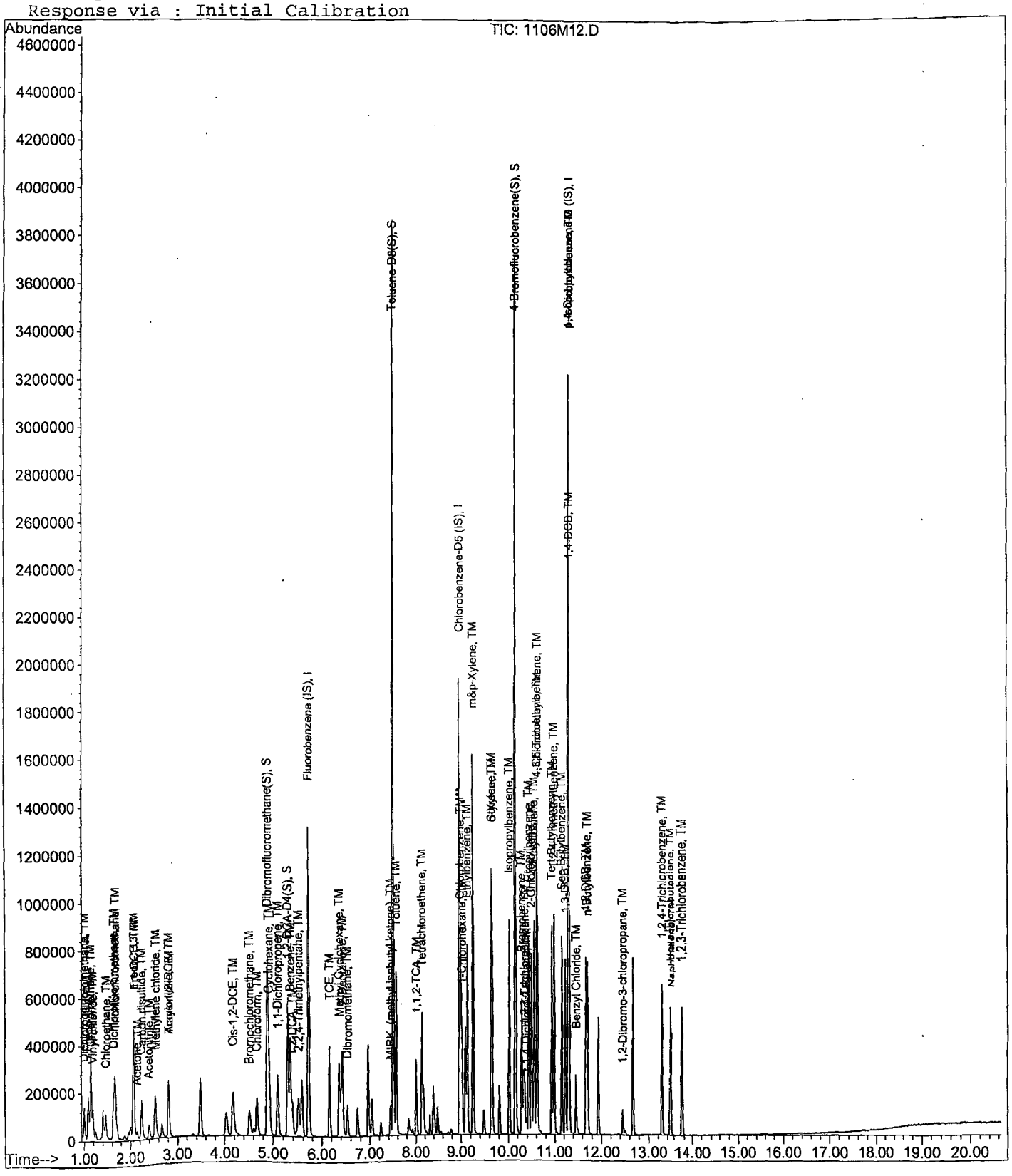
Data File : M:\MAX\DATA\M191106\1106M12.D
Acq On : 6 Nov 19 13:37
Sample : 20ug/L VOC STD 11/06/19
Misc : IS&S 9/24/19

Vial: 9
Operator: LP,DG,CMM
Inst : Max
Multiplr: 1.00

Quant Time: Nov 7 14:29 2019

Quant Results File: M1106.RES

Method : M:\MAX\DATA\M191106\M1106.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 07 14:27:44 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M191106\1106M13.D Vial: 10
Acq On : 6 Nov 19 14:06 Operator: LP,DG,CMM
Sample : 40ug/L VOC STD 11/06/19 Inst : Max
Misc : IS&S 9/24/19 Multiplr: 1.00

Quant Time: Nov 7 14:29 2019 Quant Results File: M1106.RES

Quant Method : M:\MAX\DATA\M191106\M1106.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 07 14:27:44 2019
Response via : Initial Calibration
DataAcq Meth : M8260

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Fluorobenzene (IS)	5.72	96	1359962	25.000 ppb		0.00
35) Chlorobenzene-D5 (IS)	8.97	117	1143203	25.000 ppb		0.00
45) 1,4-Dichlorobenzene-D (IS)	11.30	152	738427	25.000 ppb		0.00
System Monitoring Compounds						
21) Dibromofluoromethane(S)	4.89	111	590870	51.121 ppb		0.00
Spiked Amount 25.000			Recovery	= 204.484%		
25) 1,2-DCA-D4(S)	5.30	65	486478	49.898 ppb		0.00
Spiked Amount 25.000			Recovery	= 199.592%		
36) Toluene-D8(S)	7.51	98	2586805	48.867 ppb		0.00
Spiked Amount 25.000			Recovery	= 195.468%		
42) 4-Bromofluorobenzene(S)	10.16	95	977576	49.426 ppb		0.00
Spiked Amount 25.000			Recovery	= 197.704%		
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.00	85	145858	39.891 ppb		97
3) Freon 114	1.08	85	205121	42.586 ppb		82
4) Chloromethane	1.13	50	277218	38.789 ppb		98
5) Vinyl chloride	1.19	62	247712	40.575 ppb	#	100
6) Chloroethane	1.47	64	124872	39.839 ppb		91
7) Dichlorofluoromethane	1.63	67	358798	40.646 ppb		97
8) Trichlorofluoromethane	1.66	101	333009	41.920 ppb		92
9) Acetone	2.14	43	57011	41.788 ppb		96
10) Freon-113	2.08	101	183377	44.342 ppb		96
11) 1,1-DCE	2.07	61	490846	42.866 ppb		95
12) Acetonitrile	2.40	41	87233	200.720 ppb		96
14) Acrylonitrile	2.80	53	53748	40.198 ppb	#	84
15) Methylene chloride	2.54	84	231852	42.567 ppb		97
16) Carbon disulfide	2.24	76	541709	43.434 ppb		97
17) Trans-1,2-DCE	2.82	96	227575	41.173 ppb		100
18) Cis-1,2-DCE	4.18	96	249256	41.207 ppb		88
19) Chloroform	4.68	83	354392	39.230 ppb		99
20) Bromochloromethane	4.52	128	107956	39.756 ppb		89
22) Cyclohexane	4.93	41	151559	39.824 ppb		95
23) 1,1-Dichloropropene	5.10	75	283748	41.145 ppb		94
24) 2,2,4-Trimethylpentane	5.52	57	376489	40.401 ppb		97
26) 1,2-DCA	5.39	62	278758	40.262 ppb		100
27) Benzene	5.35	78	847229	40.725 ppb		99
28) TCE	6.16	95	236310	40.019 ppb		91
29) 2-Pentanone	6.43	43	421061	183.259 ppb		98
30) Methyl Cyclohexane	6.36	83	288668	40.529 ppb		97
31) Dibromomethane	6.53	93	78757	38.176 ppb		92
32) MIBK (methyl isobutyl ket	7.44	43	135205	40.582 ppb		98
33) Toluene	7.57	91	963475	39.163 ppb		98
34) 1,1,2-TCA	8.01	83	143572	42.442 ppb		99
37) Tetrachloroethene	8.13	164	266781	38.581 ppb		98
38) 1-Chlorohexane	9.03	91	273052	40.262 ppb		91
39) m&p-Xylene	9.26	106	944907	79.766 ppb		100
40) o-Xylene	9.65	106	466367	39.305 ppb		97
41) Styrene	9.67	104	773244	41.551 ppb		98
43) Chlorobenzene	9.00	112	681657	38.524 ppb		96
44) Ethylbenzene	9.14	91	1082144	39.436 ppb		99
46) Isopropylbenzene	10.03	105	1166908	38.588 ppb		100
47) 1,2,3-Trichloropropane	10.35	110	83286	38.578 ppb		90

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M191106\1106M13.D Vial: 10
Acq On : 6 Nov 19 14:06 Operator: LP,DG,CMM
Sample : 40ug/L VOC STD 11/06/19 Inst : Max
Misc : IS&S 9/24/19 Multiplr: 1.00

Quant Time: Nov 7 14:29 2019 Quant Results File: M1106.RES

Quant Method : M:\MAX\DATA\M191106\M1106.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 07 14:27:44 2019
Response via : Initial Calibration
DataAcq Meth : M8260

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
48)	t-1,4-Dichloro-2-Butene	10.39	53	20088	36.905 ppb	#	66
49)	Bromobenzene	10.29	156	372495	36.906 ppb		99
50)	n-Propylbenzene	10.44	91	1232027	39.496 ppb		99
51)	4-Ethyltoluene	10.55	105	1139291	39.387 ppb		97
52)	2-Chlorotoluene	10.50	91	770395	37.529 ppb		100
53)	1,3,5-Trimethylbenzene	10.62	105	968853	39.472 ppb		96
54)	4-Chlorotoluene	10.61	91	903285	38.828 ppb		97
55)	Tert-Butylbenzene	10.94	119	890906	39.205 ppb		94
56)	1,2,4-Trimethylbenzene	10.98	105	997089	39.344 ppb		99
57)	Sec-Butylbenzene	11.15	105	1138326	40.352 ppb		100
58)	p-Isopropyltoluene	11.31	119	738688	41.959 ppb		96
59)	Benzyl Chloride	11.47	91	392050	38.597 ppb		96
60)	1,3-DCB	11.23	146	682394	39.016 ppb		96
61)	1,4-DCB	11.32	146	466609	40.748 ppb		97
62)	n-Butylbenzene	11.71	91	514594	44.281 ppb		95
63)	1,2-DCB	11.68	146	663974	40.803 ppb		97
64)	1,2-Dibromo-3-chloropropan	12.45	157	73184	46.240 ppb		90
65)	1,2,4-Trichlorobenzene	13.28	180	472224	40.826 ppb		97
66)	Hexachlorobutadiene	13.48	225	245051	41.874 ppb		97
67)	Naphthalene	13.51	127	64704	41.963 ppb		75
68)	1,2,3-Trichlorobenzene	13.75	180	408576	41.667 ppb		96

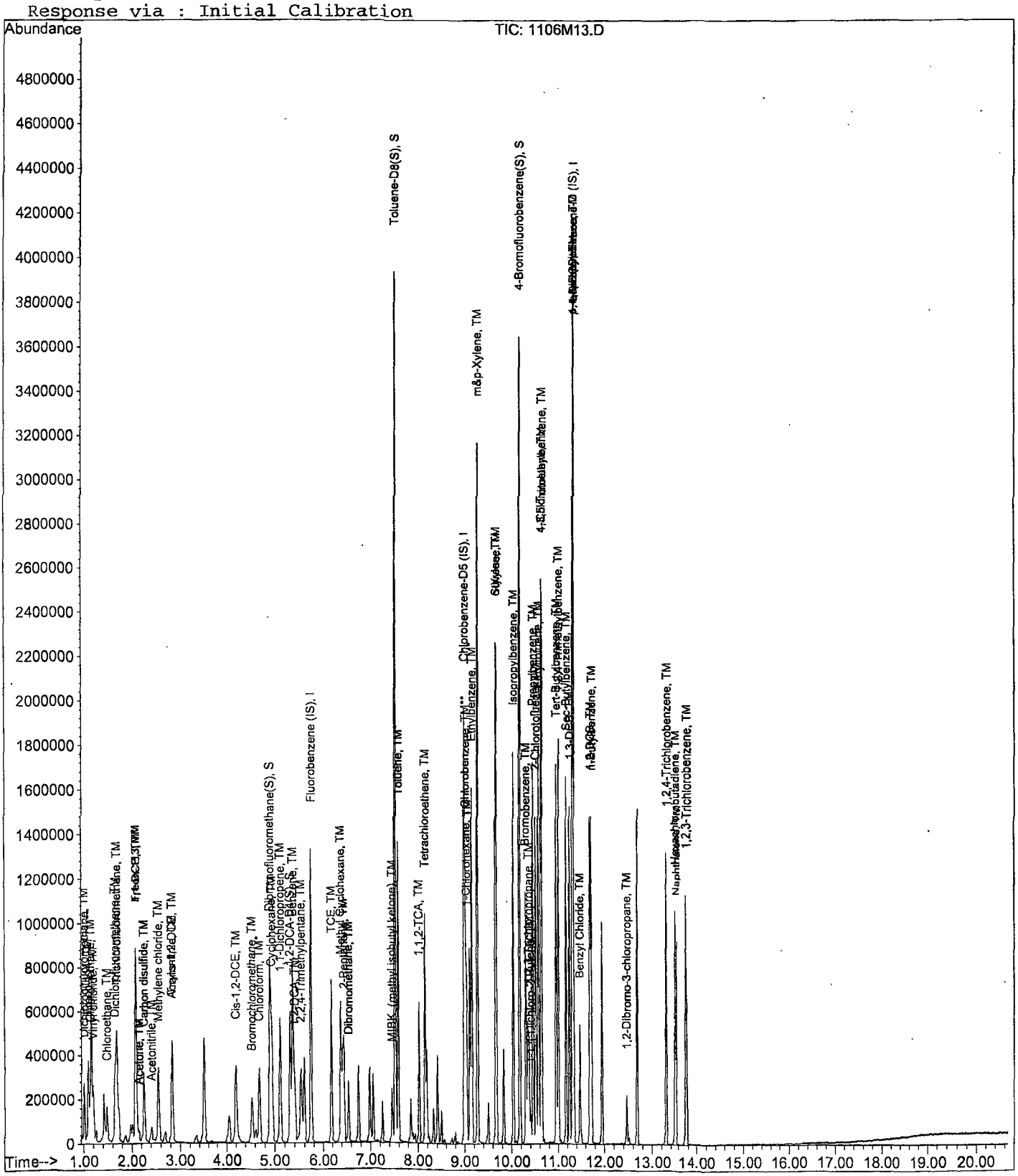
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\MAX\DATA\M191106\1106M13.D Vial: 10
Acq On : 6 Nov 19 14:06 Operator: LP,DG,CMM
Sample : 40ug/L VOC STD 11/06/19 Inst : Max
Misc : IS&S 9/24/19 Multiplr: 1.00

Quant Time: Nov 7 14:29 2019 Quant Results File: M1106.RES

Method : M:\MAX\DATA\M191106\M1106.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 07 14:27:44 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M191106\1106M14.D Vial: 11
Acq On : 6 Nov 19 14:35 Operator: LP,DG,CMM
Sample : 100ug/L VOC STD 11/06/19 Inst : Max
Misc : IS&S 9/24/19 Multiplr: 1.00

Quant Time: Nov 7 14:29 2019 Quant Results File: M1106.RES

Quant Method : M:\MAX\DATA\M191106\M1106.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 07 14:27:44 2019
Response via : Initial Calibration
DataAcq Meth : M8260

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Fluorobenzene (IS)	5.73	96	1491318	25.000 ppb		0.00
35) Chlorobenzene-D5 (IS)	8.97	117	1242508	25.000 ppb		0.00
45) 1,4-Dichlorobenzene-D (IS)	11.30	152	820397	25.000 ppb		0.00
System Monitoring Compounds						
21) Dibromofluoromethane(S)	4.89	111	1344078	100.783 ppb		0.00
Spiked Amount 25.000			Recovery = 403.132%			
25) 1,2-DCA-D4(S)	5.30	65	1155380	102.232 ppb		0.00
Spiked Amount 25.000			Recovery = 408.928%			
36) Toluene-D8(S)	7.51	98	5359123	93.147 ppb		0.00
Spiked Amount 25.000			Recovery = 372.588%			
42) 4-Bromofluorobenzene(S)	10.16	95	2081844	96.846 ppb		0.00
Spiked Amount 25.000			Recovery = 387.384%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.00	85	383923	95.408 ppb		95
3) Freon 114	1.08	85	505925	95.786 ppb		86
4) Chloromethane	1.13	50	706690	90.173 ppb		100
5) Vinyl chloride	1.19	62	578838	86.462 ppb	#	100
6) Chloroethane	1.47	64	314096	90.146 ppb		100
7) Dichlorofluoromethane	1.63	67	921390	95.185 ppb		97
8) Trichlorofluoromethane	1.65	101	870769	99.273 ppb		89
9) Acetone	2.15	43	140556	98.784 ppb		98
10) Freon-113	2.08	101	454702	100.266 ppb		97
11) 1,1-DCE	2.06	61	1149162	91.517 ppb		93
12) Acetonitrile	2.41	41	103130	216.397 ppb		95
14) Acrylonitrile	2.81	53	146679	100.038 ppb	#	89
15) Methylene chloride	2.54	84	578232	98.704 ppb		98
16) Carbon disulfide	2.24	76	1435887	104.989 ppb		97
17) Trans-1,2-DCE	2.82	96	599362	98.885 ppb		99
18) Cis-1,2-DCE	4.18	96	657253	99.486 ppb		93
19) Chloroform	4.68	83	1028653	100.674 ppb		100
20) Bromochloromethane	4.52	128	301108	100.013 ppb		87
22) Cyclohexane	4.93	41	381330	91.373 ppb		91
23) 1,1-Dichloropropene	5.10	75	730306	96.571 ppb		95
24) 2,2,4-Trimethylpentane	5.52	57	963807	94.317 ppb		97
26) 1,2-DCA	5.39	62	880645	99.972 ppb		100
27) Benzene	5.35	78	2216680	97.168 ppb		98
28) TCE	6.16	95	605682	94.366 ppb		96
29) 2-Pentanone	6.43	43	477188	189.395 ppb		100
30) Methyl Cyclohexane	6.37	83	729954	93.458 ppb		99
31) Dibromomethane	6.53	93	231441	100.737 ppb		87
32) MIBK (methyl isobutyl ket	7.44	43	357872	97.954 ppb		99
33) Toluene	7.58	91	2542439	94.242 ppb		96
34) 1,1,2-TCA	8.01	83	381730	102.905 ppb		95
37) Tetrachloroethene	8.13	164	687923	91.533 ppb		98
38) 1-Chlorohexane	9.03	91	723741	98.188 ppb		95
39) m&p-Xylene	9.26	106	2495692	193.839 ppb		98
40) o-Xylene	9.65	106	1236855	95.909 ppb		98
41) Styrene	9.67	104	2071849	102.434 ppb		100
43) Chlorobenzene	9.00	112	1826038	94.951 ppb		96
44) Ethylbenzene	9.14	91	2884835	96.728 ppb		96
46) Isopropylbenzene	10.03	105	3140631	93.480 ppb		97
47) 1,2,3-Trichloropropane	10.36	110	220731	92.026 ppb		90

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M191106\1106M14.D Vial: 11
Acq On : 6 Nov 19 14:35 Operator: LP,DG,CMM
Sample : 100ug/L VOC STD 11/06/19 Inst : Max
Misc : IS&S 9/24/19 Multiplr: 1.00

Quant Time: Nov 7 14:29 2019 Quant Results File: M1106.RES

Quant Method : M:\MAX\DATA\M191106\M1106.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 07 14:27:44 2019
Response via : Initial Calibration
DataAcq Meth : M8260

Compound	R.T.	QIon	Response	Conc Unit		Qvalue
48) t-1,4-Dichloro-2-Butene	10.39	53	64472	101.599 ppb	#	69
49) Bromobenzene	10.29	156	1000026	89.181 ppb		99
50) n-Propylbenzene	10.44	91	3292310	94.998 ppb		100
51) 4-Ethyltoluene	10.56	105	3098319	96.412 ppb		98
52) 2-Chlorotoluene	10.50	91	2071207	90.816 ppb		100
53) 1,3,5-Trimethylbenzene	10.63	105	2619041	96.041 ppb		99
54) 4-Chlorotoluene	10.61	91	2431827	94.089 ppb		99
55) Tert-Butylbenzene	10.94	119	2393774	94.814 ppb		95
56) 1,2,4-Trimethylbenzene	10.99	105	2698205	95.830 ppb		100
57) Sec-Butylbenzene	11.16	105	3046250	97.196 ppb		100
58) p-Isopropyltoluene	11.31	119	2052857	104.955 ppb		94
59) Benzyl Chloride	11.47	91	1164551	100.943 ppb		97
60) 1,3-DCB	11.23	146	1810945	93.196 ppb		97
61) 1,4-DCB	11.32	146	1277952	100.450 ppb		97
62) n-Butylbenzene	11.72	91	1404738	108.801 ppb		95
63) 1,2-DCB	11.68	146	1749587	96.774 ppb		97
64) 1,2-Dibromo-3-chloropropan	12.45	157	202147	114.962 ppb		90
65) 1,2,4-Trichlorobenzene	13.28	180	1290759	99.736 ppb		99
66) Hexachlorobutadiene	13.48	225	634202	97.545 ppb		96
67) Naphthalene	13.51	127	173440	100.667 ppb		68
68) 1,2,3-Trichlorobenzene	13.76	180	1091787	99.419 ppb		97

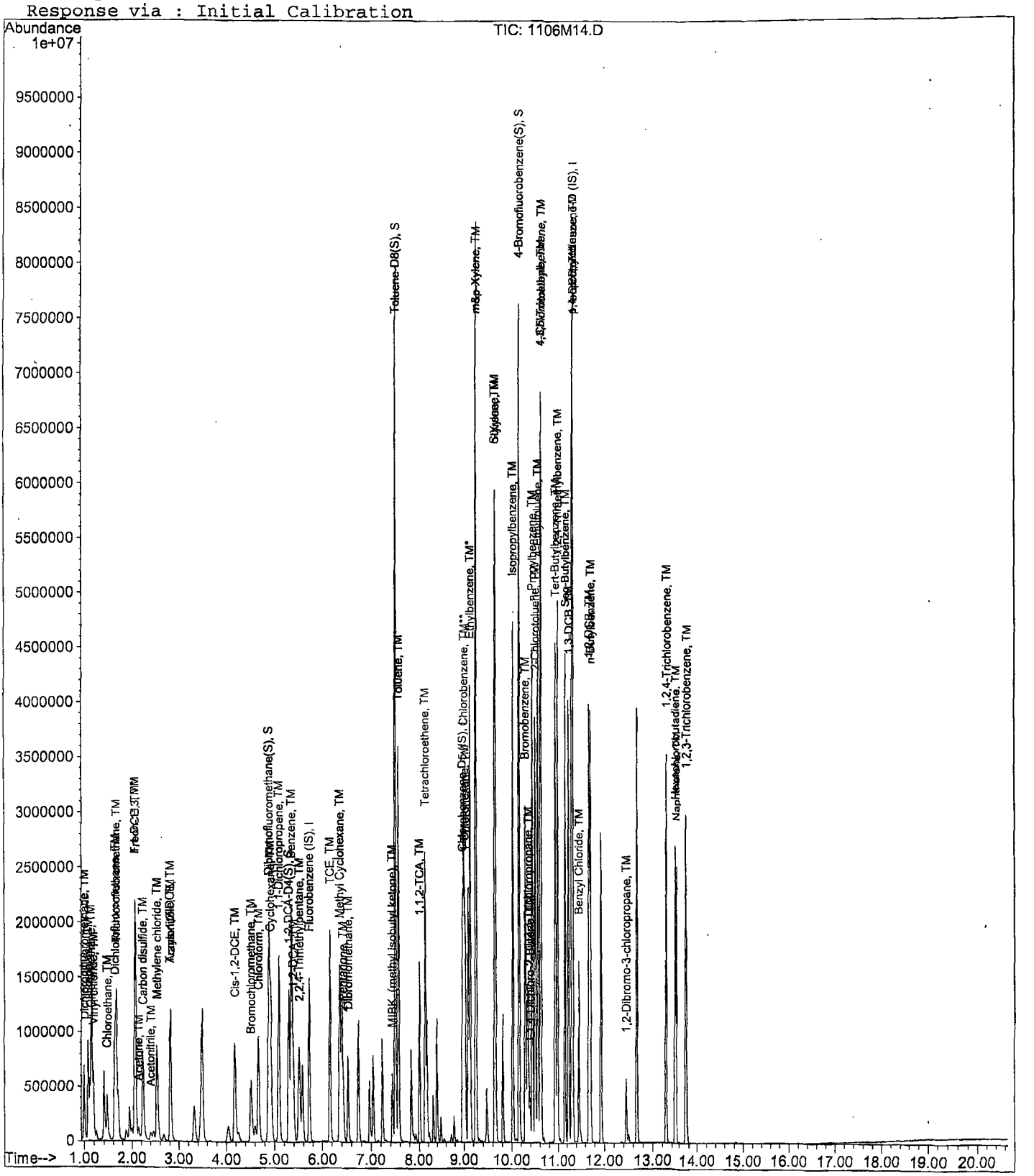
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\MAX\DATA\M191106\1106M14.D Vial: 11
Acq On : 6 Nov 19 14:35 Operator: LP,DG,CMM
Sample : 100ug/L VOC STD 11/06/19 Inst : Max
Misc : IS&S 9/24/19 Multiplr: 1.00

Quant Time: Nov 7 14:29 2019 Quant Results File: M1106.RES

Method : M:\MAX\DATA\M191106\M1106.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 07 14:27:44 2019
Response via : Initial Calibration



VOLATILE ORGANIC ANALYSIS BY
EPA METHOD 8260B

Form 7

Second Source Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Date Analyzed: 6 Nov 19 15:33
Matrix: water Instrument: Max
Initial Cal. Date: 11/06/19
Data File: 1106M16.D

		Compound	MEAN	CCRF	%D		%Drift	
1	TML	Dichlorodifluoromethane	0.0681	0.0751	10	TML	14	
2	TM	Freon 114	0.0885	0.0958	8.2	TM		
3	TM**	Chloromethane	0.1314	0.1438	9.5	TM**		
4	TM*	Vinyl chloride	0.1122	0.1405	25	TM*		*
5	TML	Chloroethane	0.0448	0.0656	46	TML	21	*
6	TM	Dichlorofluoromethane	0.1623	0.1783	9.9	TM		
7	TML	Trichlorofluoromethane	0.1240	0.1540	24	TML	9.2	
8	TML	Acetone	0.0588	0.0177	70	TML	62	*NT
9	TM	Freon-113	0.0760	0.0907	19	TM		
10	TM*	1,1-DCE	0.2105	0.2136	1.5	TM*		
11	TM	Acetonitrile	0.0080	0.0068	15	TM		
12	TM	Methyl Acetate	0.0000	0.0017	0.00	TM		
13	TM	Acrylonitrile	0.0246	0.0254	3.1	TM		
14	TML	Methylene chloride	0.1354	0.1087	20	TML	2.6	
15	TM	Carbon disulfide	0.2293	0.2836	24	TM		*NT
16	TM	Trans-1,2-DCE	0.1016	0.1084	6.7	TM		
17	TML	Cis-1,2-DCE	0.1222	0.1186	3.0	TML	4.5	
18	TM*L	Chloroform	0.1054	0.1230	17	TM*L	10	
19	TML	Bromochloromethane	0.0379	0.0448	18	TML	4.7	
20	TM	Cyclohexane	0.0700	0.0725	3.7	TM		
21	TM	1,1-Dichloropropene	0.1268	0.1337	5.5	TM		
22	TM	2,2,4-Trimethylpentane	0.1713	0.1859	8.5	TM		
23	TMQ	1,2-DCA	0.1057	0.0854	19	TMQ	20	
24	TM	Benzene	0.3824	0.3933	2.8	TM		
25	TML	TCE	0.1506	0.1129	25	TML	0.60	
26	TM	2-Pentanone	0.0422	0.0365	14	TM		
27	TM	Methyl Cyclohexane	0.1309	0.1421	8.6	TM		
28	TML	Dibromomethane	0.0324	0.0248	23	TML	27	*NT
29	TM	MIBK (methyl isobutyl ketone)	0.0612	0.0640	4.5	TM		
30	TM*	Toluene	0.4522	0.4567	0.99	TM*		
31	TM	1,1,2-TCA	0.0622	0.0633	1.8	TM		
32	TM	Tetrachloroethene	0.1512	0.1619	7.0	TM		
33	TM	1-Chlorohexane	0.1483	0.1613	8.8	TM		
34	TM	m&p-Xylene	0.2591	0.2728	5.3	TM		
35	TM	o-Xylene	0.2595	0.2629	1.3	TM		
36	TM	Styrene	0.4070	0.4649	14	TM		
37	TM**	Chlorobenzene	0.3869	0.3937	1.7	TM**		
38	TM*	Ethylbenzene	0.6001	0.6246	4.1	TM*		
39	TM	Isopropylbenzene	1.024	1.074	4.9	TM		
40	TM	1,2,3-Trichloropropane	0.0731	0.0712	2.6	TM		
		Average			12.4			

VOLATILE ORGANIC ANALYSIS BY EPA METHOD 8260B

Form 7

Second Source Calibration

Lab Name: APPL, Inc.
Case No:
Matrix: water

SDG No:
Date Analyzed: 6 Nov 19 15:33
Instrument: Max
Cal. Date: 11/06/19
Data File: 1106M16.D

		Compound	MEAN	CCRF	%D		%Drift	
41	TML	t-1,4-Dichloro-2-Butene	0.0130	0.0079	39	TML	34	*NT
42	TM	Bromobenzene	0.3417	0.3675	7.5	TM		
43	TM	n-Propylbenzene	1.056	1.125	6.5	TM		
44	TM	4-Ethyltoluene	0.9793	1.110	13	TM		
45	TM	2-Chlorotoluene	0.6950	0.7112	2.3	TM		
46	TM	1,3,5-Trimethylbenzene	0.8310	0.8901	7.1	TM		
47	TM	4-Chlorotoluene	0.7876	0.8413	6.8	TM		
48	TM	Tert-Butylbenzene	0.7694	0.8114	5.5	TM		
49	TM	1,2,4-Trimethylbenzene	0.8580	0.8910	3.9	TM		
50	TM	Sec-Butylbenzene	0.9551	0.9993	4.6	TM		
51	TM	p-Isopropyltoluene	0.5960	0.6560	10	TM		
52	TML	Benzyl Chloride	0.2758	0.2672	3.1	TML	12	
53	TM	1,3-DCB	0.5921	0.6224	5.1	TM		
54	TM	1,4-DCB	0.3877	0.4226	9.0	TM		
55	TM	n-Butylbenzene	0.3934	0.4545	16	TM		
56	TM	1,2-DCB	0.5509	0.6003	9.0	TM		
57	TM	1,2-Dibromo-3-chloropropane	0.0536	0.0564	5.2	TM		
58	TML	1,2,4-Trichlorobenzene	0.3391	0.4079	20	TML	7.8	
59	TM	Hexachlorobutadiene	0.1981	0.2270	15	TM		
60	TML	Naphthalene	0.0423	0.0429	1.4	TML	15	
61	TML	1,2,3-Trichlorobenzene	0.2703	0.3364	24	TML	5.6	
62								
63								
64								
65								
66								
67								
68								
69								
70								
71								
72								
73								
74								
75								
76								
77								
78								
79								
80								
		Average			10.2			

Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M191106\1106M16.D Vial: 13
Acq On : 6 Nov 19 15:33 Operator: LP,DG,CMM
Sample : (SS)10ug/L VOC STD 11/06/19 Inst : Max
Misc : IS&S 9/24/19 Multiplr: 1.00

Quant Time: Nov 7 14:29 2019 Quant Results File: M1106.RES

Quant Method : M:\MAX\DATA\M191106\M1106.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 07 14:27:44 2019
Response via : Initial Calibration
DataAcq Meth : M8260

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Fluorobenzene (IS)	5.73	96	1430108	25.000 ppb		0.00
35) Chlorobenzene-D5 (IS)	8.97	117	1166431	25.000 ppb		0.00
45) 1,4-Dichlorobenzene-D (IS)	11.30	152	706816	25.000 ppb		0.00
System Monitoring Compounds						
21) Dibromofluoromethane(S)	4.89	111	252751	23.700 ppb		0.00
Spiked Amount 25.000			Recovery = 94.800%			
25) 1,2-DCA-D4(S)	5.30	65	181544	20.938 ppb		0.00
Spiked Amount 25.000			Recovery = 83.752%			
36) Toluene-D8(S)	7.51	98	1379839	25.547 ppb		0.00
Spiked Amount 25.000			Recovery = 102.188%			
42) 4-Bromofluorobenzene(S)	10.16	95	517002	25.619 ppb		0.00
Spiked Amount 25.000			Recovery = 102.476%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.01	85	42984	11.356 ppb		92
3) Freon 114	1.09	85	54795	10.818 ppb		83
4) Chloromethane	1.13	50	82280	10.948 ppb		97
5) Vinyl chloride	1.19	62	80349	12.516 ppb	#	100
6) Chloroethane	1.48	64	37521	12.066 ppb		90
7) Dichlorofluoromethane	1.64	67	101975	10.986 ppb		95
8) Trichlorofluoromethane	1.67	101	88107	10.918 ppb		89
9) Acetone	2.15	43	10114	3.831 ppb		87
10) Freon-113	2.09	101	51907	11.936 ppb		95
11) 1,1-DCE	2.07	61	122171	10.146 ppb		94
12) Acetonitrile	2.40	41	48713	106.589 ppb		99
14) Acrylonitrile	2.81	53	14502	10.314 ppb		95
15) Methylene chloride	2.54	84	62154	9.744 ppb		90
16) Carbon disulfide	2.25	76	162227	12.369 ppb		99
17) Trans-1,2-DCE	2.82	96	62023	10.671 ppb		100
18) Cis-1,2-DCE	4.18	96	67839	10.454 ppb		89
19) Chloroform	4.68	83	70344	8.964 ppb		99
20) Bromochloromethane	4.52	128	25630	9.532 ppb		86
22) Cyclohexane	4.92	41	41497	10.369 ppb		93
23) 1,1-Dichloropropene	5.10	75	76488	10.547 ppb		97
24) 2,2,4-Trimethylpentane	5.52	57	106361	10.854 ppb		91
26) 1,2-DCA	5.40	62	48873	8.029 ppb		95
27) Benzene	5.35	78	224978	10.284 ppb		98
28) TCE	6.16	95	64574	9.940 ppb		92
29) 2-Pentanone	6.43	43	260697	107.898 ppb		95
30) Methyl Cyclohexane	6.36	83	81314	10.856 ppb		94
31) Dibromomethane	6.54	93	14175	7.308 ppb		79
32) MIBK (methyl isobutyl ket	7.44	43	36619	10.452 ppb		94
33) Toluene	7.58	91	261255	10.099 ppb		93
34) 1,1,2-TCA	8.01	83	36217	10.181 ppb		97
37) Tetrachloroethene	8.13	164	75521	10.704 ppb		96
38) 1-Chlorohexane	9.03	91	75262	10.877 ppb		97
39) m&p-Xylene	9.26	106	254573	21.062 ppb		96
40) o-Xylene	9.65	106	122646	10.131 ppb		99
41) Styrene	9.67	104	216923	11.424 ppb		96
43) Chlorobenzene	9.00	112	183697	10.175 ppb		96
44) Ethylbenzene	9.14	91	291444	10.409 ppb		99
46) Isopropylbenzene	10.03	105	303681	10.491 ppb		100
47) 1,2,3-Trichloropropane	10.36	110	20136	9.744 ppb		91

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M191106\1106M16.D Vial: 13
Acq On : 6 Nov 19 15:33 Operator: LP,DG,CMM
Sample : (SS)10ug/L VOC STD 11/06/19 Inst : Max
Misc : IS&S 9/24/19 Multiplr: 1.00

Quant Time: Nov 7 14:29 2019 Quant Results File: M1106.RES

Quant Method : M:\MAX\DATA\M191106\M1106.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 07 14:27:44 2019
Response via : Initial Calibration
DataAcq Meth : M8260

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
48)	t-1,4-Dichloro-2-Butene	10.39	53	2241	6.646	ppb		96
49)	Bromobenzene	10.29	156	103902	10.755	ppb		93
50)	n-Propylbenzene	10.44	91	318102	10.654	ppb		96
51)	4-Ethyltoluene	10.55	105	313761	11.332	ppb		100
52)	2-Chlorotoluene	10.50	91	201070	10.233	ppb		96
53)	1,3,5-Trimethylbenzene	10.62	105	251660	10.711	ppb		93
54)	4-Chlorotoluene	10.61	91	237846	10.681	ppb		100
55)	Tert-Butylbenzene	10.94	119	229405	10.547	ppb		96
56)	1,2,4-Trimethylbenzene	10.98	105	251921	10.385	ppb		97
57)	Sec-Butylbenzene	11.16	105	282531	10.463	ppb		97
58)	p-Isopropyltoluene	11.31	119	185470	11.006	ppb		97
59)	Benzyl Chloride	11.47	91	75536	8.843	ppb		95
60)	1,3-DCB	11.23	146	175982	10.512	ppb		97
61)	1,4-DCB	11.32	146	119480	10.901	ppb		98
62)	n-Butylbenzene	11.71	91	128511	11.553	ppb		97
63)	1,2-DCB	11.68	146	169716	10.896	ppb		97
64)	1,2-Dibromo-3-chloropropan	12.46	157	15943	10.524	ppb	#	84
65)	1,2,4-Trichlorobenzene	13.28	180	115317	10.775	ppb		95
66)	Hexachlorobutadiene	13.47	225	64176	11.457	ppb		92
67)	Naphthalene	13.51	127	12116	8.537	ppb	#	82
68)	1,2,3-Trichlorobenzene	13.76	180	95114	10.563	ppb		95

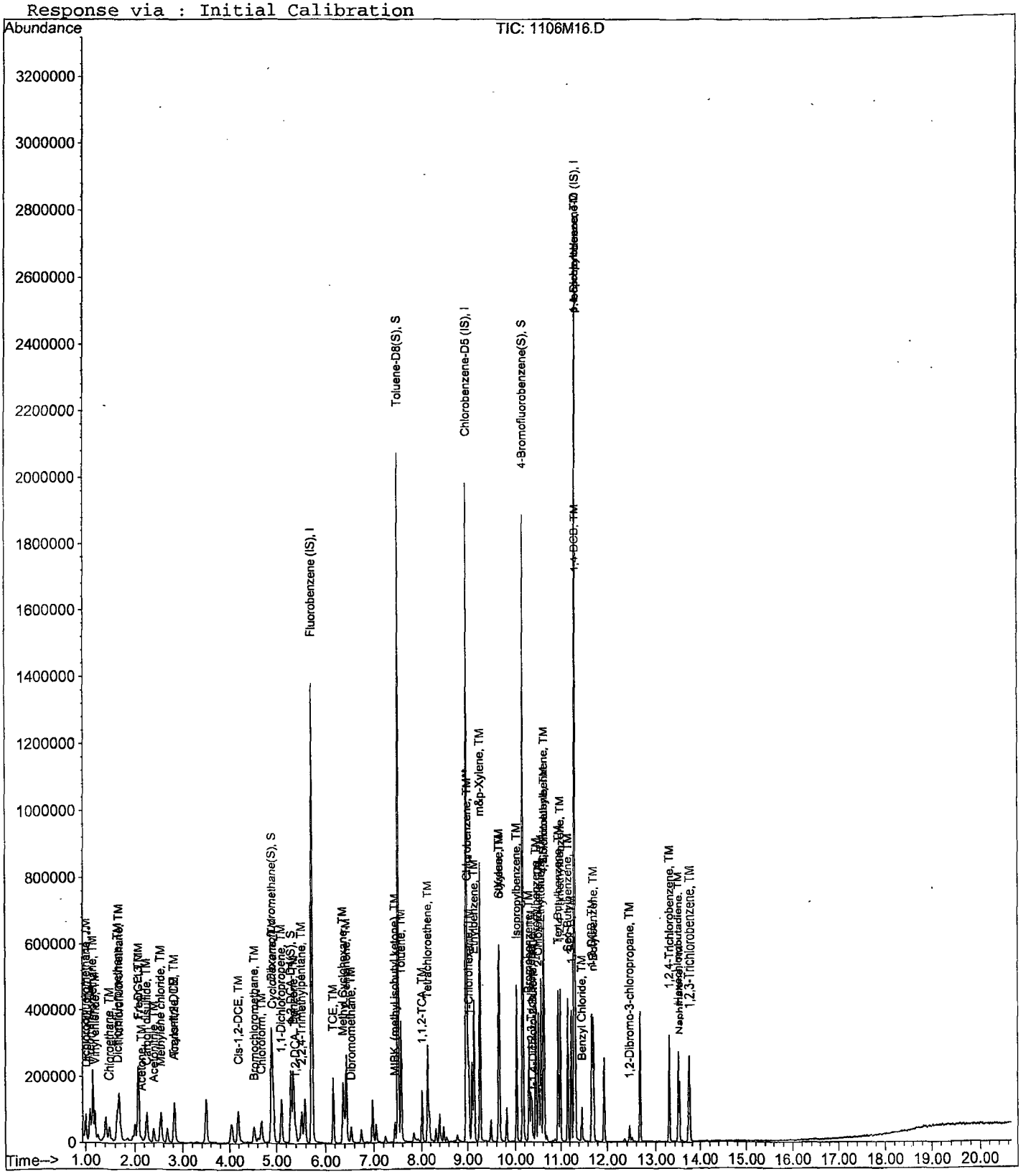
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\MAX\DATA\M191106\1106M16.D Vial: 13
Acq On : 6 Nov 19 15:33 Operator: LP,DG,CMM
Sample : (SS)10ug/L VOC STD 11/06/19 Inst : Max
Misc : IS&S 9/24/19 Multiplr: 1.00

Quant Time: Nov 7 14:29 2019 Quant Results File: M1106.RES

Method : M:\MAX\DATA\M191106\M1106.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 07 14:27:44 2019
Response via : Initial Calibration



VOLATILE ORGANIC ANALYSIS BY
EPA METHOD 8260B

Form 7

Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix:

SDG No:
Date Analyzed: 8 Nov 19 4:30
Instrument: Max
Initial Cal. Date: 11/06/19
Data File: 1107M29.D

		Compound	MEAN	CCRF	%D		%Drift	
1	I	Fluorobenzene (IS)	ISTD			I		
2	TML	Dichlorodifluoromethane	0.0681	0.0563	17	TML	14	
3	TM	Freon 114	0.0885	0.0907	2.4	TM		
4	TM**	Chloromethane	0.1314	0.1187	9.7	TM**		
5	TM*	Vinyl chloride	0.1122	0.1215	8.2	TM*		
6	TML	Chloroethane	0.0448	0.0499	11	TML	5.9	
7	TM	Dichlorofluoromethane	0.1623	0.1807	11	TM		
8	TML	Trichlorofluoromethane	0.1240	0.1356	9.3	TML	3.3	
9	TML	Acetone	0.0588	0.0242	59	TML	33	*
10	TM	Freon-113	0.0760	0.0775	1.9	TM		
11	TM*	1,1-DCE	0.2105	0.2311	9.8	TM*		
12	TM	Acetonitrile	0.0080	0.0090	12	TM		
13	TM	Methyl Acetate	0.0000	0.0020	0.00	TM		
14	TM	Acrylonitrile	0.0246	0.0257	4.4	TM		
15	TML	Methylene chloride	0.1354	0.0984	27	TML	13	
16	TM	Carbon disulfide	0.2293	0.2326	1.5	TM		
17	TM	Trans-1,2-DCE	0.1016	0.1075	5.8	TM		
18	TML	Cis-1,2-DCE	0.1222	0.1225	0.21	TML	8.1	
19	TM*L	Chloroform	0.1054	0.1494	42	TM*L	4.8	
20	TML	Bromochloromethane	0.0379	0.0386	1.8	TML	17	
21	SL	Dibromofluoromethane(S)	0.1582	0.2136	35	SL	10	
22	TM	Cyclohexane	0.0700	0.0706	0.92	TM		
23	TM	1,1-Dichloropropene	0.1268	0.1392	9.8	TM		
24	TM	2,2,4-Trimethylpentane	0.1713	0.1800	5.1	TM		
25	SL	1,2-DCA-D4(S)	0.1385	0.1889	36	SL	15	
26	TMQ	1,2-DCA	0.1057	0.1165	10	TMQ	5.5	
27	TM	Benzene	0.3824	0.4154	8.6	TM		
28	TML	TCE	0.1506	0.1164	23	TML	2.7	
29	TM	2-Pentanone	0.0422	0.0440	4.2	TM		
30	TM	Methyl Cyclohexane	0.1309	0.1304	0.40	TM		
31	TML	Dibromomethane	0.0324	0.0357	10	TML	1.1	
32	TM	MIBK (methyl isobutyl ketone)	0.0612	0.0597	2.5	TM		
33	TM*	Toluene	0.4522	0.4812	6.4	TM*		
34	TM	1,1,2-TCA	0.0622	0.0630	1.3	TM		
35	I	Chlorobenzene-D5 (IS)	ISTD			I		
36	S	Toluene-D8(S)	1.158	1.315	14	S		
37	TM	Tetrachloroethene	0.1512	0.1672	11	TM		
38	TM	1-Chlorohexane	0.1483	0.1543	4.0	TM		
39	TM	m&p-Xylene	0.2591	0.2844	9.8	TM		
40	TM	o-Xylene	0.2595	0.2912	12	TM		
		Average			11.5			

VOLATILE ORGANIC ANALYSIS BY
EPA METHOD 8260B

Form 7

Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix: 0

SDG No:
Date Analyzed: 8 Nov 19 4:30
Instrument: Max
Cal. Date: 11/06/19
Data File: 1107M29.D

		Compound	MEAN	CCRF	%D		%Drift	
41	TM	Styrene	0.4070	0.4753	17	TM		
42	S	4-Bromofluorobenzene(S)	0.4325	0.4855	12	S		
43	TM**	Chlorobenzene	0.3869	0.4150	7.3	TM**		
44	TM*	Ethylbenzene	0.6001	0.6669	11	TM*		
45	I	1,4-Dichlorobenzene-D (IS)	ISTD			I		
46	TM	Isopropylbenzene	1.024	1.113	8.7	TM		
47	TM	1,2,3-Trichloropropane	0.0731	0.0797	9.0	TM		
48	TML	t-1,4-Dichloro-2-Butene	0.0130	0.0071	45	TML	38	*
49	TM	Bromobenzene	0.3417	0.3692	8.0	TM		
50	TM	n-Propylbenzene	1.056	1.119	6.0	TM		
51	TM	4-Ethyltoluene	0.9793	1.082	10	TM		
52	TM	2-Chlorotoluene	0.6950	0.7176	3.3	TM		
53	TM	1,3,5-Trimethylbenzene	0.8310	0.9198	11	TM		
54	TM	4-Chlorotoluene	0.7876	0.8692	10	TM		
55	TM	Tert-Butylbenzene	0.7694	0.8379	8.9	TM		
56	TM	1,2,4-Trimethylbenzene	0.8580	0.9400	9.6	TM		
57	TM	Sec-Butylbenzene	0.9551	1.042	9.1	TM		
58	TM	p-Isopropyltoluene	0.5960	0.6669	12	TM		
59	TML	Benzyl Chloride	0.2758	0.2251	18	TML	23	*
60	TM	1,3-DCB	0.5921	0.6264	5.8	TM		
61	TM	1,4-DCB	0.3877	0.4044	4.3	TM		
62	TM	n-Butylbenzene	0.3934	0.4470	14	TM		
63	TM	1,2-DCB	0.5509	0.6058	10.0	TM		
64	TM	1,2-Dibromo-3-chloropropane	0.0536	0.0583	8.7	TM		
65	TML	1,2,4-Trichlorobenzene	0.3391	0.3688	8.7	TML	2.1	
66	TM	Hexachlorobutadiene	0.1981	0.2239	13	TM		
67	TML	Naphthalene	0.0423	0.0390	7.8	TML	22	*
68	TML	1,2,3-Trichlorobenzene	0.2703	0.2913	7.7	TML	7.8	
69								
70								
71								
72								
73								
74								
75								
76								
77								
78								
79								
80								
		Average			11.0			

Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M191107\1107M29.D Vial: 29
Acq On : 8 Nov 19 4:30 Operator: LP,DG,CMM
Sample : 191107B CCV 10ug/L Inst : Max
Misc : IS&S 9/24/19 Multiplr: 1.00

Quant Time: Nov 8 13:06 2019 Quant Results File: M1106.RES

Quant Method : M:\MAX\DATA\M191106\M1106.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 07 14:27:44 2019
Response via : Initial Calibration
DataAcq Meth : M8260

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Fluorobenzene (IS)	5.72	96	1290666	25.0000 ppb		0.00
35) Chlorobenzene-D5 (IS)	8.97	117	1031927	25.0000 ppb		0.00
45) 1,4-Dichlorobenzene-D (IS)	11.30	152	665296	25.0000 ppb		0.00
System Monitoring Compounds						
21) Dibromofluoromethane(S)	4.90	111	275697	27.6232 ppb		0.01
Spiked Amount 25.000			Recovery = 110.492%			
25) 1,2-DCA-D4(S)	5.30	65	243769	28.7091 ppb		0.00
Spiked Amount 25.000			Recovery = 114.836%			
36) Toluene-D8(S)	7.51	98	1356917	28.3973 ppb		0.00
Spiked Amount 25.000			Recovery = 113.588%			
42) 4-Bromofluorobenzene(S)	10.16	95	500954	28.0596 ppb		0.00
Spiked Amount 25.000			Recovery = 112.240%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.01	85	29043	8.5634 ppb		87
3) Freon 114	1.09	85	46830	10.2446 ppb		86
4) Chloromethane	1.13	50	61257	9.0315 ppb		98
5) Vinyl chloride	1.19	62	62715	10.8242 ppb	#	100
6) Chloroethane	1.48	64	25777	9.4132 ppb		90
7) Dichlorofluoromethane	1.64	67	93276	11.1340 ppb		98
8) Trichlorofluoromethane	1.67	101	69998	9.6708 ppb		80
9) Acetone	2.14	43	12497	6.6738 ppb		94
10) Freon-113	2.09	101	39992	10.1896 ppb		96
11) 1,1-DCE	2.07	61	119309	10.9787 ppb		97
12) Acetonitrile	2.39	41	57799	140.1337 ppb		94
14) Acrylonitrile	2.81	53	13253	10.4441 ppb	#	83
15) Methylene chloride	2.54	84	50807	8.6858 ppb		91
16) Carbon disulfide	2.25	76	120101	10.1467 ppb		100
17) Trans-1,2-DCE	2.83	96	55513	10.5826 ppb		98
18) Cis-1,2-DCE	4.18	96	63230	10.8060 ppb		95
19) Chloroform	4.69	83	77107	10.4755 ppb		98
20) Bromochloromethane	4.52	128	19905	8.3024 ppb	#	71
22) Cyclohexane	4.93	41	36452	10.0924 ppb		99
23) 1,1-Dichloropropene	5.10	75	71860	10.9796 ppb		91
24) 2,2,4-Trimethylpentane	5.52	57	92931	10.5079 ppb	#	87
26) 1,2-DCA	5.40	62	60149	10.5531 ppb		99
27) Benzene	5.35	78	214455	10.8620 ppb		100
28) TCE	6.16	95	60070	10.2650 ppb		96
29) 2-Pentanone	6.43	43	283927	130.2090 ppb		96
30) Methyl Cyclohexane	6.36	83	67328	9.9603 ppb		97
31) Dibromomethane	6.54	93	18419	10.1116 ppb		92
32) MIBK (methyl isobutyl ket	7.44	43	30835	9.7520 ppb		98
33) Toluene	7.58	91	248414	10.6397 ppb		99
34) 1,1,2-TCA	8.01	83	32508	10.1258 ppb		96
37) Tetrachloroethene	8.13	164	69006	11.0555 ppb		98
38) 1-Chlorohexane	9.03	91	63688	10.4036 ppb		94
39) m&p-Xylene	9.26	106	234785	21.9569 ppb		100
40) o-Xylene	9.65	106	120200	11.2227 ppb		97
41) Styrene	9.66	104	196186	11.6789 ppb		100
43) Chlorobenzene	9.00	112	171308	10.7255 ppb		98
44) Ethylbenzene	9.14	91	275291	11.1140 ppb		98
46) Isopropylbenzene	10.03	105	296290	10.8750 ppb		97
47) 1,2,3-Trichloropropane	10.35	110	21198	10.8981 ppb		93

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M191107\1107M29.D Vial: 29
Acq On : 8 Nov 19 4:30 Operator: LP,DG,CMM
Sample : 191107B CCV 10ug/L Inst : Max
Misc : IS&S 9/24/19 Multiplr: 1.00

Quant Time: Nov 8 13:06 2019 Quant Results File: M1106.RES

Quant Method : M:\MAX\DATA\M191106\M1106.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 07 14:27:44 2019
Response via : Initial Calibration
DataAcq Meth : M8260

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
48)	t-1,4-Dichloro-2-Butene	10.39	53	1896	6.2422	ppb	#	48
49)	Bromobenzene	10.29	156	98243	10.8037	ppb		86
50)	n-Propylbenzene	10.44	91	297794	10.5960	ppb		96
51)	4-Ethyltoluene	10.55	105	287814	11.0440	ppb		98
52)	2-Chlorotoluene	10.50	91	190972	10.3256	ppb		98
53)	1,3,5-Trimethylbenzene	10.62	105	244769	11.0683	ppb		94
54)	4-Chlorotoluene	10.61	91	231321	11.0365	ppb		97
55)	Tert-Butylbenzene	10.94	119	222991	10.8914	ppb		97
56)	1,2,4-Trimethylbenzene	10.98	105	250157	10.9559	ppb		99
57)	Sec-Butylbenzene	11.15	105	277397	10.9142	ppb		100
58)	p-Isopropyltoluene	11.31	119	177472	11.1888	ppb		95
59)	Benzyl Chloride	11.47	91	59908	7.6632	ppb		93
60)	1,3-DCB	11.23	146	166701	10.5789	ppb		93
61)	1,4-DCB	11.32	146	107621	10.4314	ppb		98
62)	n-Butylbenzene	11.71	91	118944	11.3603	ppb		94
63)	1,2-DCB	11.68	146	161219	10.9964	ppb		97
64)	1,2-Dibromo-3-chloropropan	12.46	157	15502	10.8714	ppb		88
65)	1,2,4-Trichlorobenzene	13.28	180	98138	9.7888	ppb		97
66)	Hexachlorobutadiene	13.47	225	59597	11.3034	ppb		96
67)	Naphthalene	13.51	127	10370	7.7999	ppb		78
68)	1,2,3-Trichlorobenzene	13.76	180	77515	9.2224	ppb		99

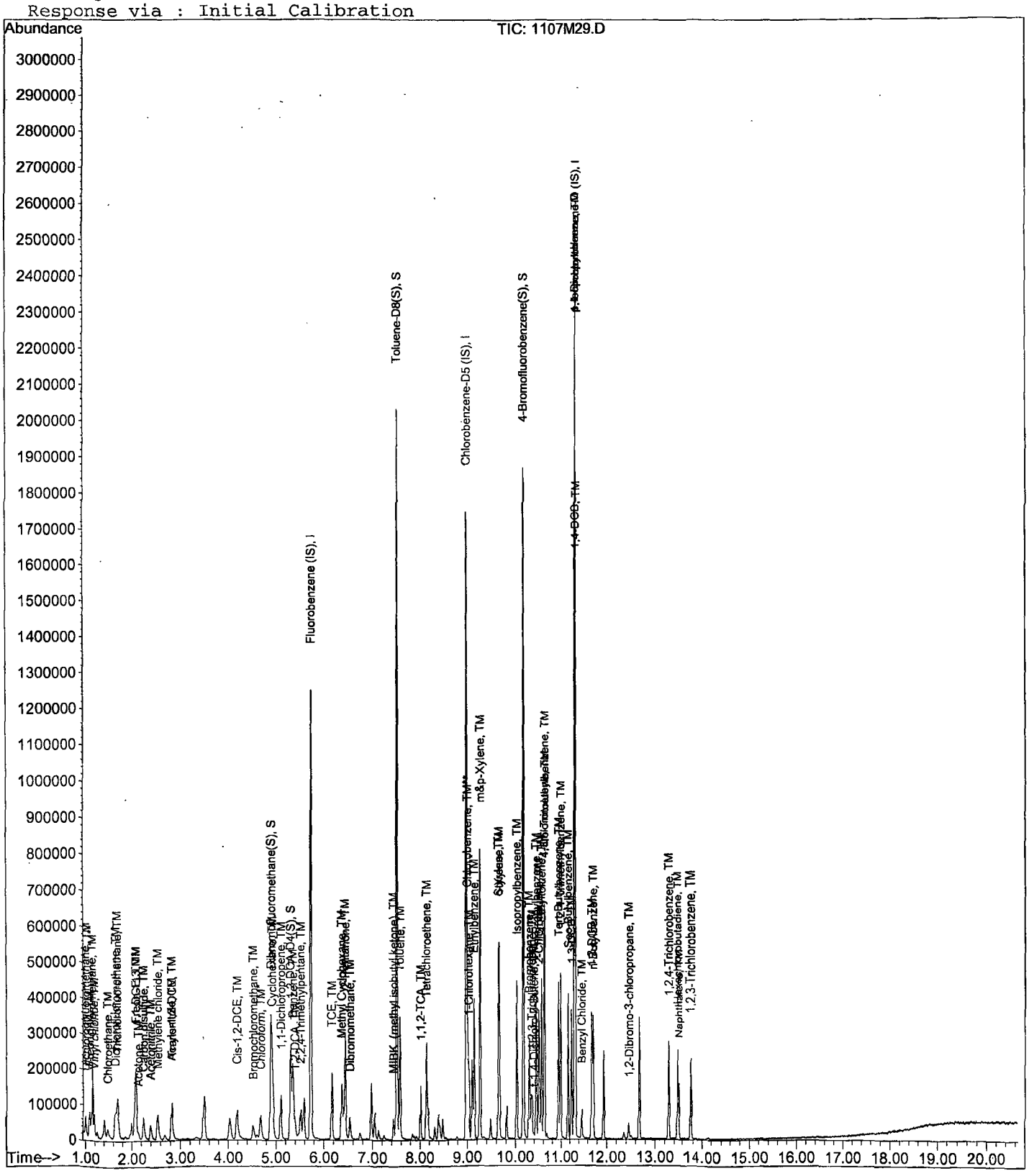
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\MAX\DATA\M191107\1107M29.D Vial: 29
Acq On : 8 Nov 19 4:30 Operator: LP,DG,CMM
Sample : 191107B CCV 10ug/L Inst : Max
Misc : IS&S 9/24/19 Multiplr: 1.00

Quant Time: Nov 8 13:06 2019 Quant Results File: M1106.RES

Method : M:\MAX\DATA\M191106\M1106.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 07 14:27:44 2019
Response via : Initial Calibration



VOLATILE ORGANIC ANALYSIS BY EPA METHOD 8260B

Form 7

Ending Continuing Calibration

Lab Name: APPL, Inc. SDG No:

Case No: Date Analyzed: 8 Nov 19 10:44

Matrix: Instrument: Max

Initial Cal. Date: 11/06/19

Data File: 1107M42.D

		Compound	MEAN	CCRF	%D		%Drift
1	I	Fluorobenzene (IS)	ISTD			I	
2	TML	Dichlorodifluoromethane	0.0681	0.0501	26	TML	23
3	TM	Freon 114	0.0885	0.0880	0.62	TM	
4	TM**	Chloromethane	0.1314	0.1233	6.1	TM**	
5	TM*	Vinyl chloride	0.1122	0.1107	1.4	TM*	
6	TML	Chloroethane	0.0448	0.0486	8.4	TML	8.1
7	TM	Dichlorofluoromethane	0.1623	0.1678	3.4	TM	
8	TML	Trichlorofluoromethane	0.1240	0.1371	11	TML	2.3
9	TML	Acetone	0.0588	0.0284	52	TML	15
10	TM	Freon-113	0.0760	0.0767	0.88	TM	
11	TM*	1,1-DCE	0.2105	0.2148	2.1	TM*	
12	TM	Acetonitrile	0.0080	0.0082	3.0	TM	
13	TM	Methyl Acetate	0.0000	0.0020	0.00	TM	
14	TM	Acrylonitrile	0.0246	0.0246	0.05	TM	
15	TML	Methylene chloride	0.1354	0.1007	26	TML	11
16	TM	Carbon disulfide	0.2293	0.2294	0.06	TM	
17	TM	Trans-1,2-DCE	0.1016	0.0998	1.8	TM	
18	TML	Cis-1,2-DCE	0.1222	0.1188	2.8	TML	4.7
19	TM*L	Chloroform	0.1054	0.1367	30	TM*L	2.5
20	TML	Bromochloromethane	0.0379	0.0421	11	TML	10
21	SL	Dibromofluoromethane(S)	0.1582	0.2005	27	SL	4.9
22	TM	Cyclohexane	0.0700	0.0689	1.5	TM	
23	TM	1,1-Dichloropropene	0.1268	0.1304	2.9	TM	
24	TM	2,2,4-Trimethylpentane	0.1713	0.1629	4.9	TM	
25	SL	1,2-DCA-D4(S)	0.1385	0.1704	23	SL	5.6
26	TMQ	1,2-DCA	0.1057	0.1087	2.9	TMQ	0.74
27	TM	Benzene	0.3824	0.4009	4.8	TM	
28	TML	TCE	0.1506	0.1115	26	TML	1.8
29	TM	2-Pentanone	0.0422	0.0420	0.49	TM	
30	TM	Methyl Cyclohexane	0.1309	0.1273	2.8	TM	
31	TML	Dibromomethane	0.0324	0.0323	0.27	TML	7.6
32	TM	MIBK (methyl isobutyl ketone)	0.0612	0.0612	0.03	TM	
33	TM*	Toluene	0.4522	0.4463	1.3	TM*	
34	TM	1,1,2-TCA	0.0622	0.0648	4.2	TM	
35	I	Chlorobenzene-D5 (IS)	ISTD			I	
36	S	Toluene-D8(S)	1.158	1.201	3.8	S	
37	TM	Tetrachloroethene	0.1512	0.1545	2.2	TM	
38	TM	1-Chlorohexane	0.1483	0.1478	0.36	TM	
39	TM	m&p-Xylene	0.2591	0.2702	4.3	TM	
40	TM	o-Xylene	0.2595	0.2651	2.2	TM	
		Average			7.9		

VOLATILE ORGANIC ANALYSIS BY EPA METHOD 8260B

Form 7

Ending Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix: 0

SDG No:
Date Analyzed: 8 Nov 19 10:44
Instrument: Max
Cal. Date: 11/06/19
Data File: 1107M42.D

		Compound	MEAN	CCRF	%D		%Drift
41	TM	Styrene	0.4070	0.4237	4.1	TM	
42	S	4-Bromofluorobenzene(S)	0.4325	0.4456	3.0	S	
43	TM**	Chlorobenzene	0.3869	0.3982	2.9	TM**	
44	TM*	Ethylbenzene	0.6001	0.6159	2.6	TM*	
45	I	1,4-Dichlorobenzene-D (IS)	ISTD			I	
46	TM	Isopropylbenzene	1.024	1.019	0.46	TM	
47	TM	1,2,3-Trichloropropane	0.0731	0.0701	4.1	TM	
48	TML	t-1,4-Dichloro-2-Butene	0.0130	0.0075	43	TML	36
49	TM	Bromobenzene	0.3417	0.3333	2.5	TM	
50	TM	n-Propylbenzene	1.056	1.055	0.09	TM	
51	TM	4-Ethyltoluene	0.9793	1.005	2.6	TM	
52	TM	2-Chlorotoluene	0.6950	0.6812	2.0	TM	
53	TM	1,3,5-Trimethylbenzene	0.8310	0.8878	6.8	TM	
54	TM	4-Chlorotoluene	0.7876	0.7876	0.00	TM	
55	TM	Tert-Butylbenzene	0.7694	0.7871	2.3	TM	
56	TM	1,2,4-Trimethylbenzene	0.8580	0.8855	3.2	TM	
57	TM	Sec-Butylbenzene	0.9551	0.9610	0.62	TM	
58	TM	p-Isopropyltoluene	0.5960	0.6057	1.6	TM	
59	TML	Benzyl Chloride	0.2758	0.1757	36	TML	37
60	TM	1,3-DCB	0.5921	0.5804	2.0	TM	
61	TM	1,4-DCB	0.3877	0.3834	1.1	TM	
62	TM	n-Butylbenzene	0.3934	0.4110	4.5	TM	
63	TM	1,2-DCB	0.5509	0.5533	0.43	TM	
64	TM	1,2-Dibromo-3-chloropropane	0.0536	0.0516	3.6	TM	
65	TML	1,2,4-Trichlorobenzene	0.3391	0.3413	0.66	TML	9.0
66	TM	Hexachlorobutadiene	0.1981	0.1994	0.66	TM	
67	TML	Naphthalene	0.0423	0.0354	16	TML	29
68	TML	1,2,3-Trichlorobenzene	0.2703	0.2779	2.8	TML	12
69							
70							
71							
72							
73							
74							
75							
76							
77							
78							
79							
80							
		Average			5.5		

Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M191107\1107M42.D Vial: 42
Acq On : 8 Nov 19 10:44 Operator: LP,DG,CMM
Sample : Ending CCV 10ug/L 11/7/19 Inst : Max
Misc : IS&S 9/24/19 Multiplr: 1.00

Quant Time: Nov 8 13:08 2019 Quant Results File: M1106.RES

Quant Method : M:\MAX\DATA\M191106\M1106.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 07 14:27:44 2019
Response via : Initial Calibration
DataAcq Meth : M8260

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Fluorobenzene (IS)	5.73	96	1358064	25.0000 ppb		0.00
35) Chlorobenzene-D5 (IS)	8.97	117	1100052	25.0000 ppb		0.00
45) 1,4-Dichlorobenzene-D (IS)	11.30	152	706713	25.0000 ppb		0.00
System Monitoring Compounds						
21) Dibromofluoromethane(S)	4.89	111	272325	26.2312 ppb		0.00
Spiked Amount 25.000			Recovery = 104.924%			
25) 1,2-DCA-D4(S)	5.30	65	231448	26.3943 ppb		0.00
Spiked Amount 25.000			Recovery = 105.576%			
36) Toluene-D8(S)	7.51	98	1321215	25.9378 ppb		0.00
Spiked Amount 25.000			Recovery = 103.752%			
42) 4-Bromofluorobenzene(S)	10.16	95	490191	25.7563 ppb		0.00
Spiked Amount 25.000			Recovery = 103.024%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.01	85	27220	7.6544 ppb		93
3) Freon 114	1.09	85	47800	9.9378 ppb		89
4) Chloromethane	1.13	50	66994	9.3872 ppb		95
5) Vinyl chloride	1.19	62	60129	9.8629 ppb	#	100
6) Chloroethane	1.48	64	26392	9.1852 ppb		100
7) Dichlorofluoromethane	1.64	67	91127	10.3377 ppb		93
8) Trichlorofluoromethane	1.67	101	74487	9.7746 ppb		91
9) Acetone	2.14	43	15425	8.4988 ppb		96
10) Freon-113	2.09	101	41659	10.0876 ppb		91
11) 1,1-DCE	2.07	61	116697	10.2054 ppb		94
12) Acetonitrile	2.40	41	55854	128.6975 ppb		92
14) Acrylonitrile	2.81	53	13359	10.0051 ppb	#	87
15) Methylene chloride	2.54	84	54726	8.9267 ppb		96
16) Carbon disulfide	2.25	76	124626	10.0065 ppb		96
17) Trans-1,2-DCE	2.82	96	54198	9.8191 ppb		97
18) Cis-1,2-DCE	4.19	96	64538	10.4736 ppb		84
19) Chloroform	4.68	83	74283	9.7533 ppb		91
20) Bromochloromethane	4.53	128	22868	8.9989 ppb		89
22) Cyclohexane	4.93	41	37417	9.8454 ppb		96
23) 1,1-Dichloropropene	5.10	75	70854	10.2886 ppb		89
24) 2,2,4-Trimethylpentane	5.51	57	88474	9.5074 ppb		96
26) 1,2-DCA	5.40	62	59073	9.9257 ppb		92
27) Benzene	5.35	78	217803	10.4841 ppb		98
28) TCE	6.16	95	60594	9.8150 ppb		97
29) 2-Pentanone	6.44	43	285405	124.3912 ppb		98
30) Methyl Cyclohexane	6.37	83	69130	9.7193 ppb		97
31) Dibromomethane	6.54	93	17543	9.2413 ppb		86
32) MIBK (methyl isobutyl ket	7.44	43	33259	9.9966 ppb		96
33) Toluene	7.58	91	242425	9.8678 ppb		93
34) 1,1,2-TCA	8.01	83	35189	10.4169 ppb		93
37) Tetrachloroethene	8.13	164	67971	10.2153 ppb		98
38) 1-Chlorohexane	9.03	91	65023	9.9639 ppb		90
39) m&p-Xylene	9.26	106	237780	20.8599 ppb		99
40) o-Xylene	9.65	106	116641	10.2160 ppb		99
41) Styrene	9.66	104	186447	10.4118 ppb		94
43) Chlorobenzene	9.00	112	175212	10.2905 ppb		93
44) Ethylbenzene	9.14	91	271020	10.2640 ppb		98
46) Isopropylbenzene	10.03	105	288072	9.9537 ppb		100
47) 1,2,3-Trichloropropane	10.35	110	19820	9.5925 ppb		95

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M191107\1107M42.D Vial: 42
Acq On : 8 Nov 19 10:44 Operator: LP,DG,CMM
Sample : Ending CCV 10ug/L 11/7/19 Inst : Max
Misc : IS&S 9/24/19 Multiplr: 1.00

Quant Time: Nov 8 13:08 2019 Quant Results File: M1106.RES

Quant Method : M:\MAX\DATA\M191106\M1106.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 07 14:27:44 2019
Response via : Initial Calibration
DataAcq Meth : M8260

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
48)	t-1,4-Dichloro-2-Butene	10.39	53	2115	6.4221	ppb		96
49)	Bromobenzene	10.29	156	94210	9.7531	ppb		98
50)	n-Propylbenzene	10.44	91	298273	9.9910	ppb		98
51)	4-Ethyltoluene	10.55	105	284166	10.2650	ppb		99
52)	2-Chlorotoluene	10.50	91	192561	9.8013	ppb		98
53)	1,3,5-Trimethylbenzene	10.62	105	250964	10.6834	ppb		97
54)	4-Chlorotoluene	10.61	91	222655	10.0004	ppb		97
55)	Tert-Butylbenzene	10.94	119	222499	10.2305	ppb		97
56)	1,2,4-Trimethylbenzene	10.99	105	250330	10.3209	ppb		97
57)	Sec-Butylbenzene	11.16	105	271665	10.0623	ppb		98
58)	p-Isopropyltoluene	11.31	119	171217	10.1618	ppb		96
59)	Benzyl Chloride	11.47	91	49658	6.2753	ppb		96
60)	1,3-DCB	11.23	146	164065	9.8014	ppb		97
61)	1,4-DCB	11.32	146	108376	9.8889	ppb		97
62)	n-Butylbenzene	11.71	91	116176	10.4456	ppb		96
63)	1,2-DCB	11.68	146	156411	10.0432	ppb		99
64)	1,2-Dibromo-3-chloropropan	12.45	157	14595	9.6355	ppb		90
65)	1,2,4-Trichlorobenzene	13.28	180	96493	9.0966	ppb		96
66)	Hexachlorobutadiene	13.48	225	56379	10.0664	ppb		90
67)	Naphthalene	13.51	127	9994	7.1143	ppb	#	60
68)	1,2,3-Trichlorobenzene	13.76	180	78551	8.8241	ppb		95

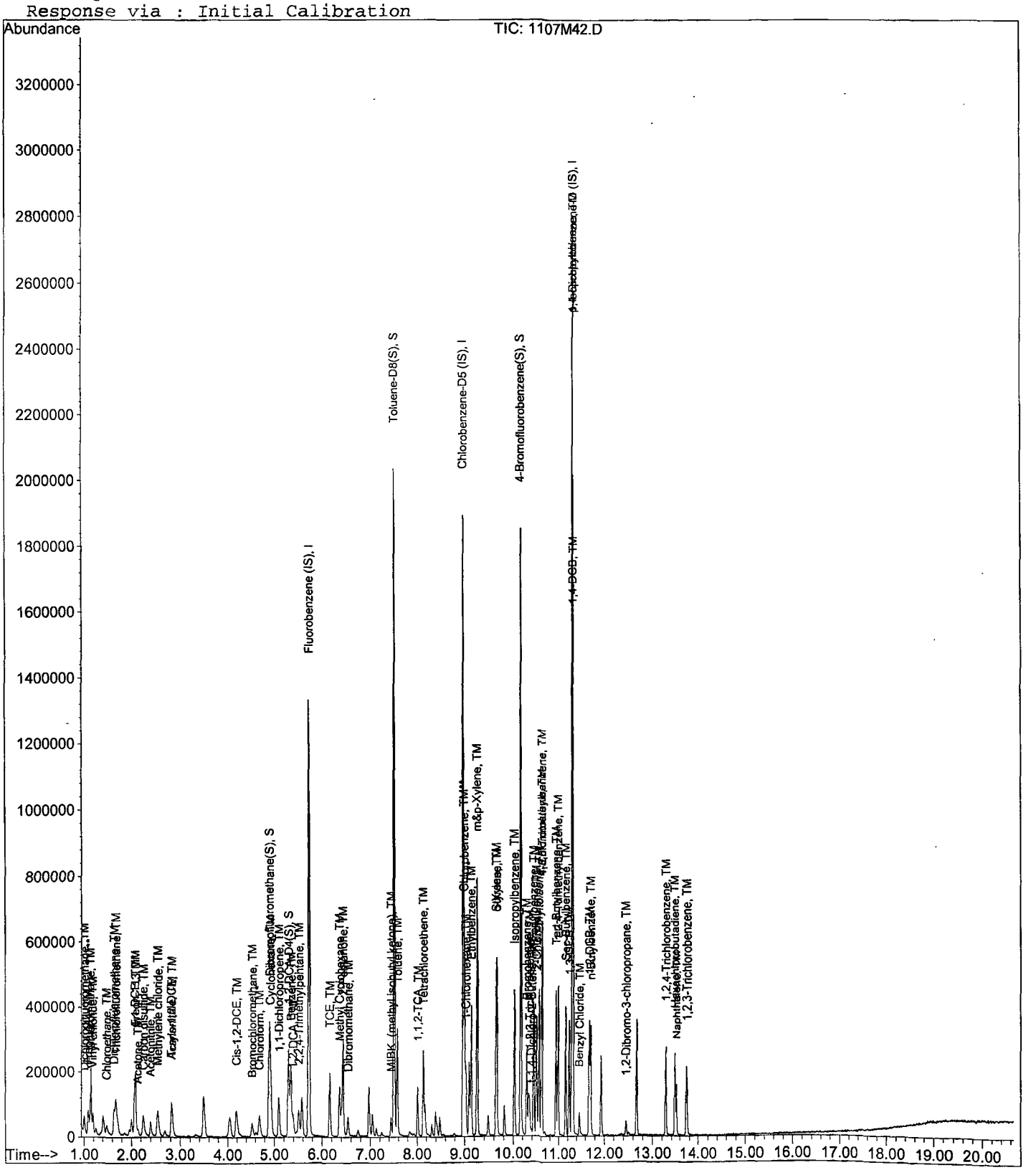
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\MAX\DATA\M191107\1107M42.D Vial: 42
Acq On : 8 Nov 19 10:44 Operator: LP,DG,CMM
Sample : Ending CCV 10ug/L 11/7/19 Inst : Max
Misc : IS&S 9/24/19 Multiplr: 1.00

Quant Time: Nov 8 13:08 2019 Quant Results File: M1106.RES

Method : M:\MAX\DATA\M191106\M1106.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 07 14:27:44 2019
Response via : Initial Calibration



ORGANICS
Raw Data

Quantitation Report (QT Reviewed)

Data File : M:\MAX\DATA\M191107\1107M39.D Vial: 39
Acq On : 8 Nov 19 9:17 Operator: LP,DG,CMM
Sample : BA02524W01 Inst : Max
Misc : IS&S 9/24/19 Multiplr: 1.00

Quant Time: Nov 12 14:56 2019 Quant Results File: M1106.RES

Quant Method : M:\MAX\DATA\M191106\M1106.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 07 14:27:44 2019
Response via : Initial Calibration
DataAcq Meth : M8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	5.72	96	1354371	25.0000	ppb	0.00
35) Chlorobenzene-D5 (IS)	8.97	117	1086864	25.0000	ppb	0.00
45) 1,4-Dichlorobenzene-D (IS)	11.30	152	676066	25.0000	ppb	0.00
System Monitoring Compounds						
21) Dibromofluoromethane(S)	4.90	111	212592	21.5972	ppb	0.01
Spiked Amount 25.000			Recovery = 86.388%			
25) 1,2-DCA-D4(S)	5.30	65	208521	24.3282	ppb	0.00
Spiked Amount 25.000			Recovery = 97.312%			
36) Toluene-D8(S)	7.51	98	1314358	26.1163	ppb	0.00
Spiked Amount 25.000			Recovery = 104.464%			
42) 4-Bromofluorobenzene(S)	10.16	95	496511	26.4050	ppb	0.00
Spiked Amount 25.000			Recovery = 105.620%			

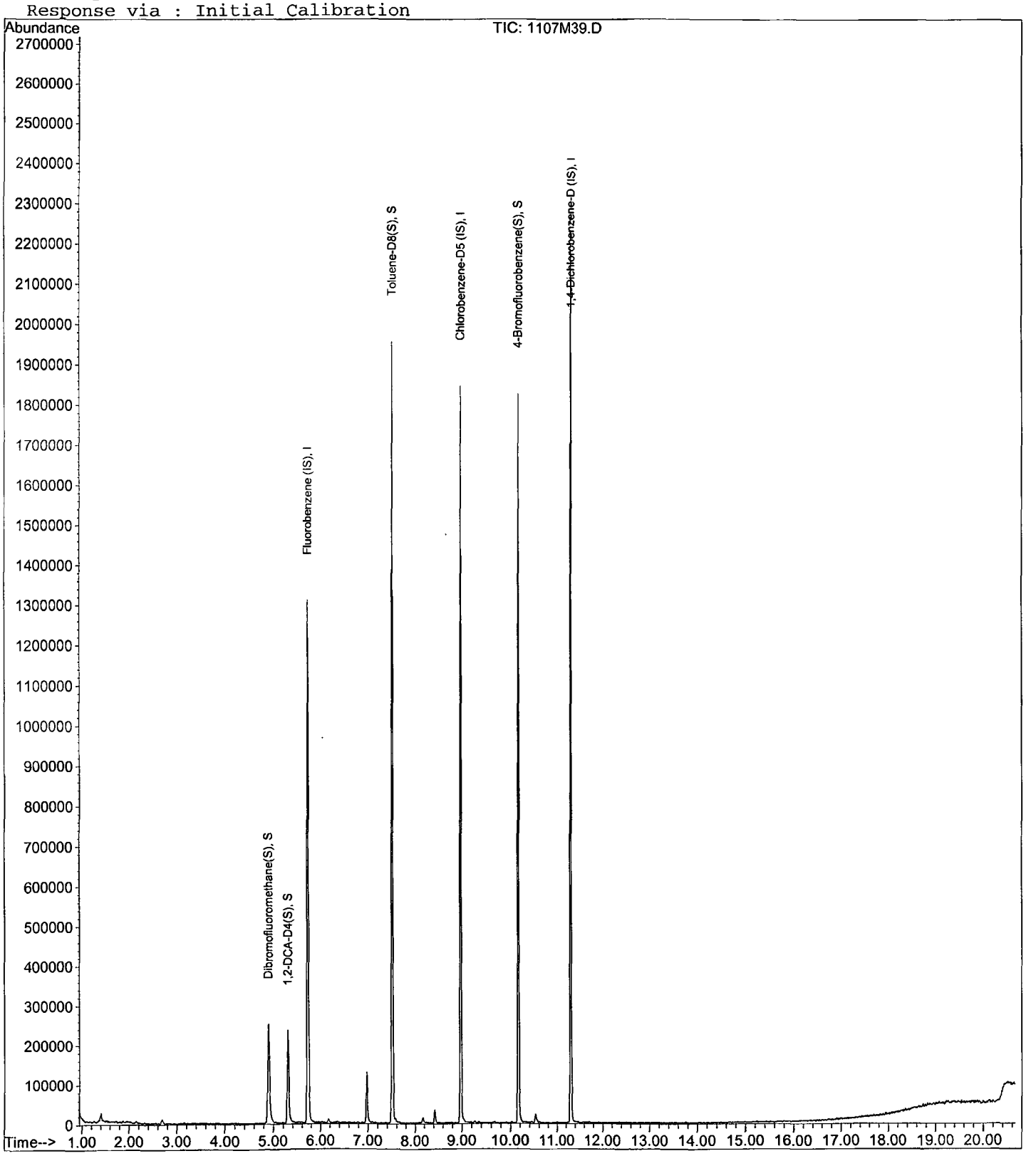
Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration

Data File : M:\MAX\DATA\M191107\1107M39.D Vial: 39
Acq On : 8 Nov 19 9:17 Operator: LP,DG,CMM
Sample : BA02524W01 Inst : Max
Misc : IS&S 9/24/19 Multiplr: 1.00

Quant Time: Nov 12 14:56 2019 Quant Results File: M1106.RES

Method : M:\MAX\DATA\M191106\M1106.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 07 14:27:44 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\MAX\DATA\M191107\1107M40.D Vial: 40
Acq On : 8 Nov 19 9:46 Operator: LP,DG,CMM
Sample : BA02525W01 Inst : Max
Misc : IS&S 9/24/19 Multiplr: 1.00

Quant Time: Nov 12 14:56 2019 Quant Results File: M1106.RES

Quant Method : M:\MAX\DATA\M191106\M1106.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 07 14:27:44 2019
Response via : Initial Calibration
DataAcq Meth : M8260

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene (IS)	5.72	96	1345394	25.0000 ppb	0.00
35) Chlorobenzene-D5 (IS)	8.97	117	1085252	25.0000 ppb	0.00
45) 1,4-Dichlorobenzene-D (IS)	11.30	152	676722	25.0000 ppb	0.00
System Monitoring Compounds					
21) Dibromofluoromethane(S)	4.89	111	265656	25.9048 ppb	0.00
Spiked Amount 25.000			Recovery = 103.620%		
25) 1,2-DCA-D4(S)	5.30	65	244361	27.8002 ppb	0.00
Spiked Amount 25.000			Recovery = 111.200%		
36) Toluene-D8(S)	7.51	98	1315276	26.1733 ppb	0.00
Spiked Amount 25.000			Recovery = 104.692%		
42) 4-Bromofluorobenzene(S)	10.16	95	491640	26.1848 ppb	0.00
Spiked Amount 25.000			Recovery = 104.740%		
Target Compounds					Qvalue
9) Acetone	2.14	43	253006	200.9548 ppb	94

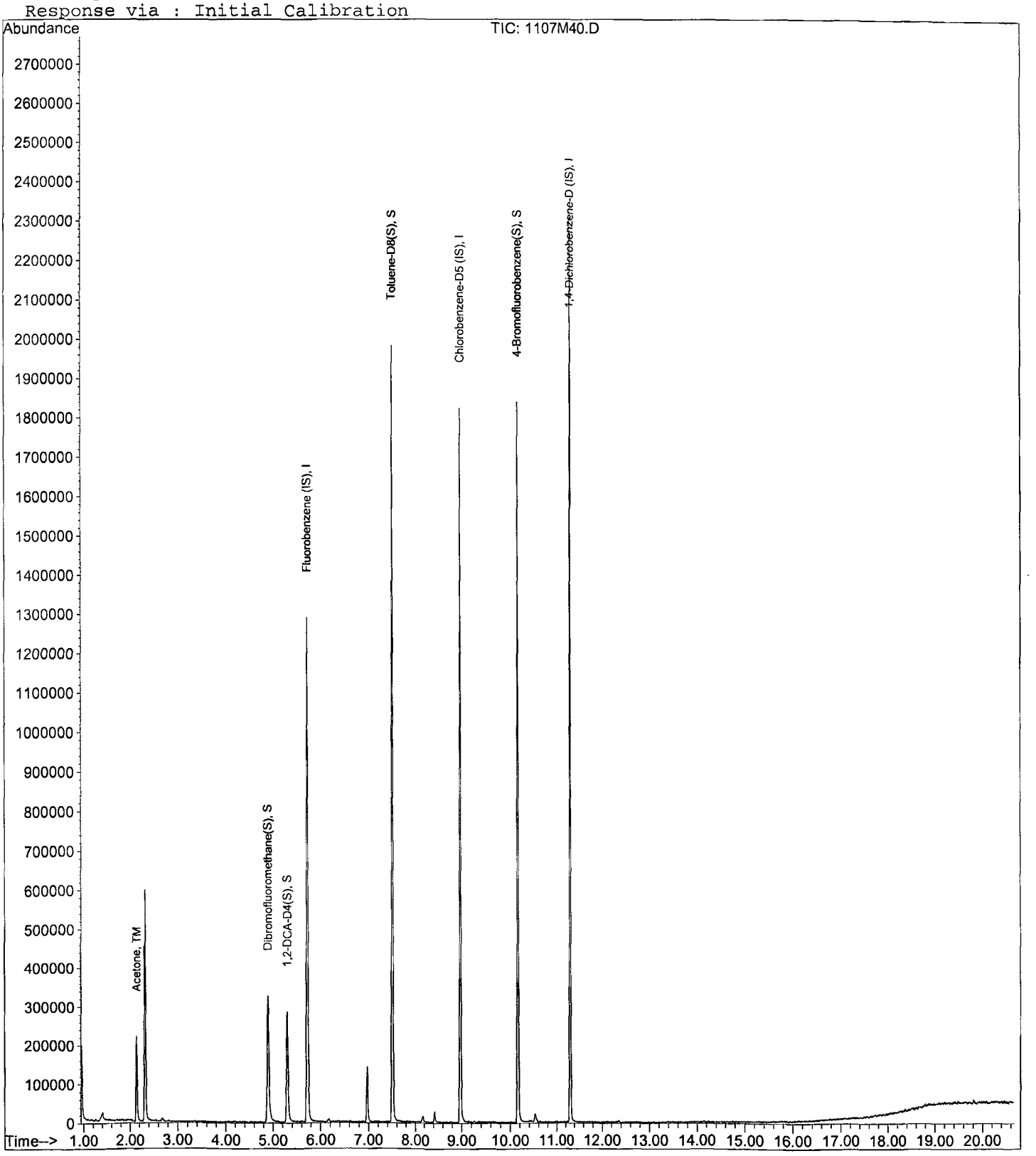
(#) = qualifier out of range (m) = manual integration

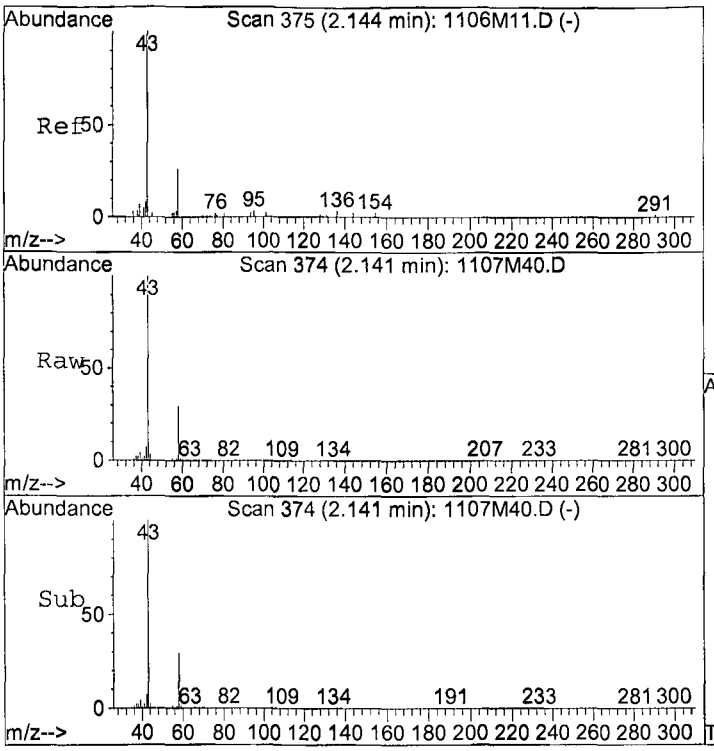
Quantitation Report

Data File : M:\MAX\DATA\M191107\1107M40.D Vial: 40
Acq On : 8 Nov 19 9:46 Operator: LP,DG,CMM
Sample : BA02525W01 Inst : Max
Misc : IS&S 9/24/19 Multiplr: 1.00

Quant Time: Nov 12 14:56 2019 Quant Results File: M1106.RES

Method : M:\MAX\DATA\M191106\M1106.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 07 14:27:44 2019
Response via : Initial Calibration

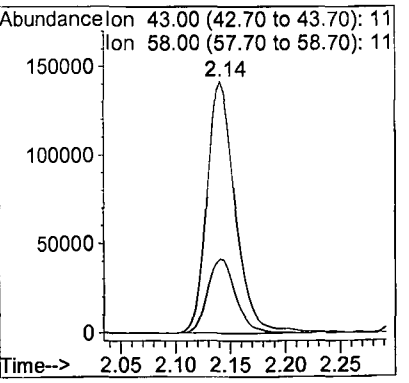




#9
Acetone
Concen: 200.9548 ppb
RT: 2.14 min Scan# 374
Delta R.T. -0.00 min
Lab File: 1107M40.D
Acq: 8 Nov 19 9:46

Tgt Ion: 43 Resp: 253006

Ion	Ratio	Lower	Upper
43	100		
58	29.4	18.3	34.1



Quantitation Report (QT Reviewed)

Data File : M:\MAX\DATA\M191107\1107M35.D Vial: 35
Acq On : 8 Nov 19 7:22 Operator: LP,DG,CMM
Sample : 191107B Blk Inst : Max
Misc : IS&S 9/24/19 Multiplr: 1.00

Quant Time: Nov 12 14:54 2019 Quant Results File: M1106.RES

Quant Method : M:\MAX\DATA\M191106\M1106.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 07 14:27:44 2019
Response via : Initial Calibration
DataAcq Meth : M8260

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene (IS)	5.72	96	1349098	25.0000 ppb	0.00
35) Chlorobenzene-D5 (IS)	8.98	117	1091129	25.0000 ppb	0.00
45) 1,4-Dichlorobenzene-D (IS)	11.30	152	672344	25.0000 ppb	0.00
System Monitoring Compounds					
21) Dibromofluoromethane(S)	4.90	111	226953	22.7950 ppb	0.02
Spiked Amount 25.000			Recovery = 91.180%		
25) 1,2-DCA-D4(S)	5.31	65	266645	29.8105 ppb	0.00
Spiked Amount 25.000			Recovery = 119.240%		
36) Toluene-D8(S)	7.51	98	1356763	26.8535 ppb	0.00
Spiked Amount 25.000			Recovery = 107.412%		
42) 4-Bromofluorobenzene(S)	10.16	95	504791	26.7404 ppb	0.00
Spiked Amount 25.000			Recovery = 106.960%		

Target Compounds Qvalue

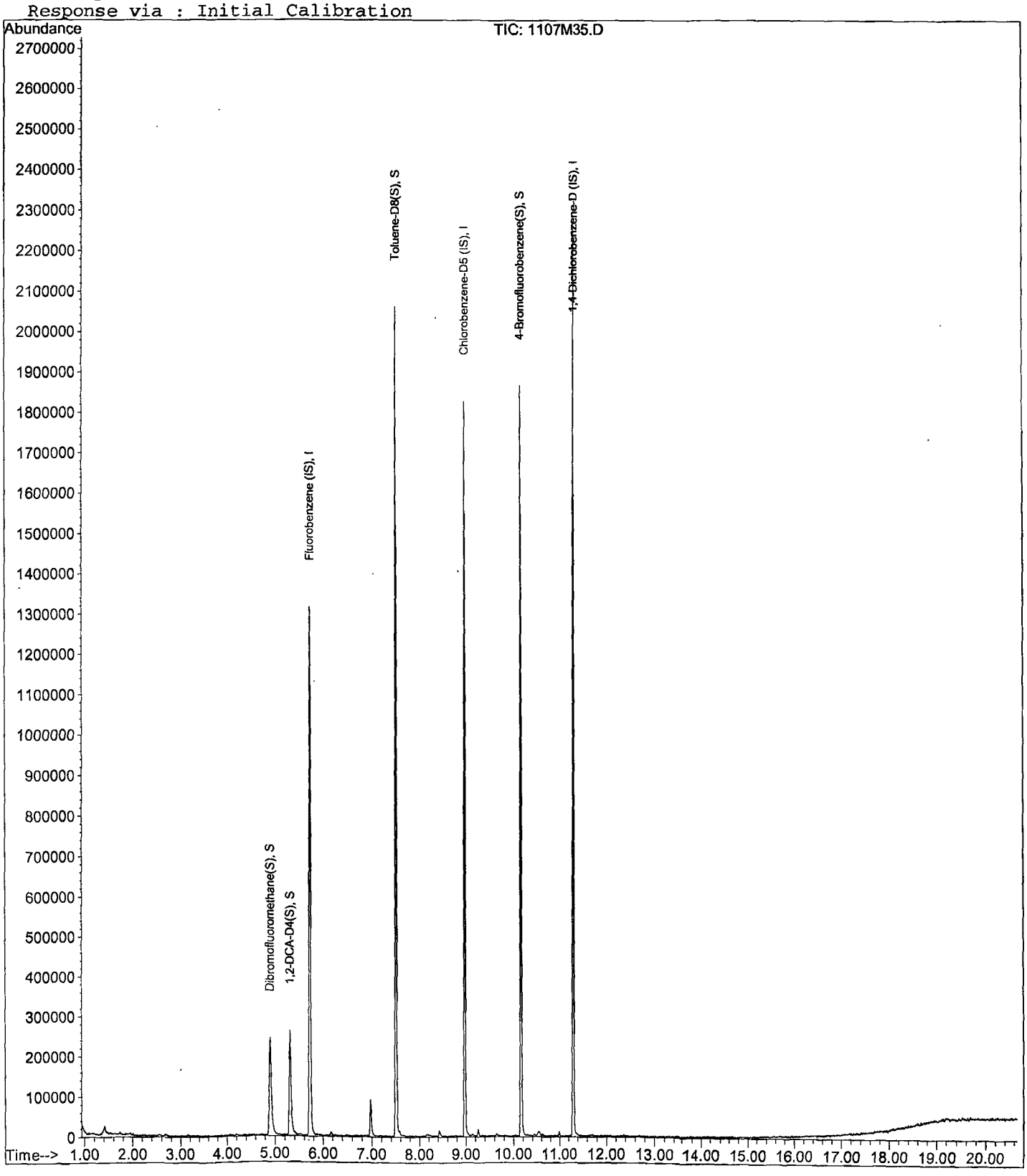
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\MAX\DATA\M191107\1107M35.D Vial: 35
Acq On : 8 Nov 19 7:22 Operator: LP,DG,CMM
Sample : 191107B Blk Inst : Max
Misc : IS&S 9/24/19 Multiplr: 1.00

Quant Time: Nov 12 14:54 2019 Quant Results File: M1106.RES

Method : M:\MAX\DATA\M191106\M1106.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 07 14:27:44 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M191107\1107M30.D Vial: 30
Acq On : 8 Nov 19 4:58 Operator: LP,DG,CMM
Sample : 191107B LCS 10ug/L Inst : Max
Misc : IS&S 9/24/19 Multiplr: 1.00

Quant Time: Nov 8 13:06 2019 Quant Results File: M1106.RES

Quant Method : M:\MAX\DATA\M191106\M1106.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 07 14:27:44 2019
Response via : Initial Calibration
DataAcq Meth : M8260

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Fluorobenzene (IS)	5.73	96	1345753	25.0000 ppb		0.00
35) Chlorobenzene-D5 (IS)	8.97	117	1073885	25.0000 ppb		0.00
45) 1,4-Dichlorobenzene-D (IS)	11.30	152	684131	25.0000 ppb		0.00
System Monitoring Compounds						
21) Dibromofluoromethane(S)	4.90	111	299156	28.5475 ppb		0.01
Spiked Amount 25.000			Recovery = 114.192%			
25) 1,2-DCA-D4(S)	5.30	65	263619	29.5899 ppb		0.00
Spiked Amount 25.000			Recovery = 118.360%			
36) Toluene-D8(S)	7.51	98	1382538	27.8030 ppb		0.00
Spiked Amount 25.000			Recovery = 111.212%			
42) 4-Bromofluorobenzene(S)	10.16	95	522595	28.1280 ppb		0.00
Spiked Amount 25.000			Recovery = 112.512%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.01	85	26168	7.4332 ppb		96
3) Freon 114	1.09	85	48027	10.0764 ppb		82
4) Chloromethane	1.13	50	61499	8.6960 ppb		100
5) Vinyl chloride	1.20	62	63131	10.4500 ppb	#	100
6) Chloroethane	1.48	64	24577	8.6894 ppb		96
7) Dichlorofluoromethane	1.64	67	89503	10.2463 ppb		92
8) Trichlorofluoromethane	1.68	101	78449	10.3576 ppb		98
9) Acetone	2.15	43	14206	7.6253 ppb		97
10) Freon-113	2.09	101	43664	10.6698 ppb		92
11) 1,1-DCE	2.07	61	117004	10.3259 ppb		90
12) Acetonitrile	2.39	41	55380	128.7726 ppb		99
14) Acrylonitrile	2.82	53	13692	10.3483 ppb	#	61
15) Methylene chloride	2.54	84	54507	8.9799 ppb		93
16) Carbon disulfide	2.25	76	125829	10.1955 ppb		94
17) Trans-1,2-DCE	2.83	96	55017	10.0587 ppb		95
18) Cis-1,2-DCE	4.19	96	62985	10.3108 ppb		86
19) Chloroform	4.69	83	81994	10.6453 ppb		94
20) Bromochloromethane	4.53	128	19488	7.8395 ppb	#	69
22) Cyclohexane	4.94	41	36718	9.7499 ppb		92
23) 1,1-Dichloropropene	5.10	75	69802	10.2286 ppb		92
24) 2,2,4-Trimethylpentane	5.52	57	89861	9.7448 ppb		94
26) 1,2-DCA	5.40	62	61836	10.4211 ppb		98
27) Benzene	5.35	78	216783	10.5305 ppb		97
28) TCE	6.16	95	62193	10.1884 ppb		94
29) 2-Pentanone	6.43	43	285525	125.5819 ppb		99
30) Methyl Cyclohexane	6.37	83	67588	9.5895 ppb		97
31) Dibromomethane	6.54	93	19622	10.3108 ppb		97
32) MIBK (methyl isobutyl ket	7.45	43	32566	9.8779 ppb		99
33) Toluene	7.57	91	234982	9.6524 ppb		99
34) 1,1,2-TCA	8.01	83	38168	11.4021 ppb		85
37) Tetrachloroethene	8.13	164	70958	10.9240 ppb		90
38) 1-Chlorohexane	9.03	91	66329	10.4117 ppb		91
39) m&p-Xylene	9.26	106	237576	21.3498 ppb		98
40) o-Xylene	9.65	106	120222	10.7862 ppb		98
41) Styrene	9.67	104	193284	11.0566 ppb		98
43) Chlorobenzene	9.00	112	171061	10.2915 ppb		98
44) Ethylbenzene	9.14	91	275994	10.7071 ppb		97
46) Isopropylbenzene	10.03	105	287132	10.2487 ppb		100
47) 1,2,3-Trichloropropane	10.36	110	21607	10.8026 ppb		93

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M191107\1107M30.D Vial: 30
Acq On : 8 Nov 19 4:58 Operator: LP,DG,CMM
Sample : 191107B LCS 10ug/L Inst : Max
Misc : IS&S 9/24/19 Multiplr: 1.00

Quant Time: Nov 8 13:06 2019 Quant Results File: M1106.RES

Quant Method : M:\MAX\DATA\M191106\M1106.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 07 14:27:44 2019
Response via : Initial Calibration
DataAcq Meth : M8260

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
48)	t-1,4-Dichloro-2-Butene	10.39	53	2297	6.8814	ppb	#	26
49)	Bromobenzene	10.29	156	93726	10.0232	ppb		99
50)	n-Propylbenzene	10.44	91	302661	10.4726	ppb		99
51)	4-Ethyltoluene	10.55	105	288453	10.7638	ppb		99
52)	2-Chlorotoluene	10.50	91	197545	10.3869	ppb		99
53)	1,3,5-Trimethylbenzene	10.62	105	246002	10.8178	ppb		99
54)	4-Chlorotoluene	10.61	91	227057	10.5348	ppb		97
55)	Tert-Butylbenzene	10.94	119	226242	10.7460	ppb		94
56)	1,2,4-Trimethylbenzene	10.98	105	251547	10.7134	ppb		100
57)	Sec-Butylbenzene	11.15	105	287105	10.9852	ppb		98
58)	p-Isopropyltoluene	11.31	119	183338	11.2404	ppb		95
59)	Benzyl Chloride	11.47	91	68787	8.3999	ppb		98
60)	1,3-DCB	11.23	146	170319	10.5109	ppb		99
61)	1,4-DCB	11.32	146	114928	10.8329	ppb		96
62)	n-Butylbenzene	11.72	91	127616	11.8529	ppb		98
63)	1,2-DCB	11.68	146	167042	11.0799	ppb		96
64)	1,2-Dibromo-3-chloropropan	12.46	157	14607	9.9617	ppb	#	81
65)	1,2,4-Trichlorobenzene	13.28	180	104319	10.1026	ppb		97
66)	Hexachlorobutadiene	13.48	225	62491	11.5260	ppb		97
67)	Naphthalene	13.51	127	11339	8.2681	ppb		83
68)	1,2,3-Trichlorobenzene	13.76	180	82529	9.5285	ppb		95

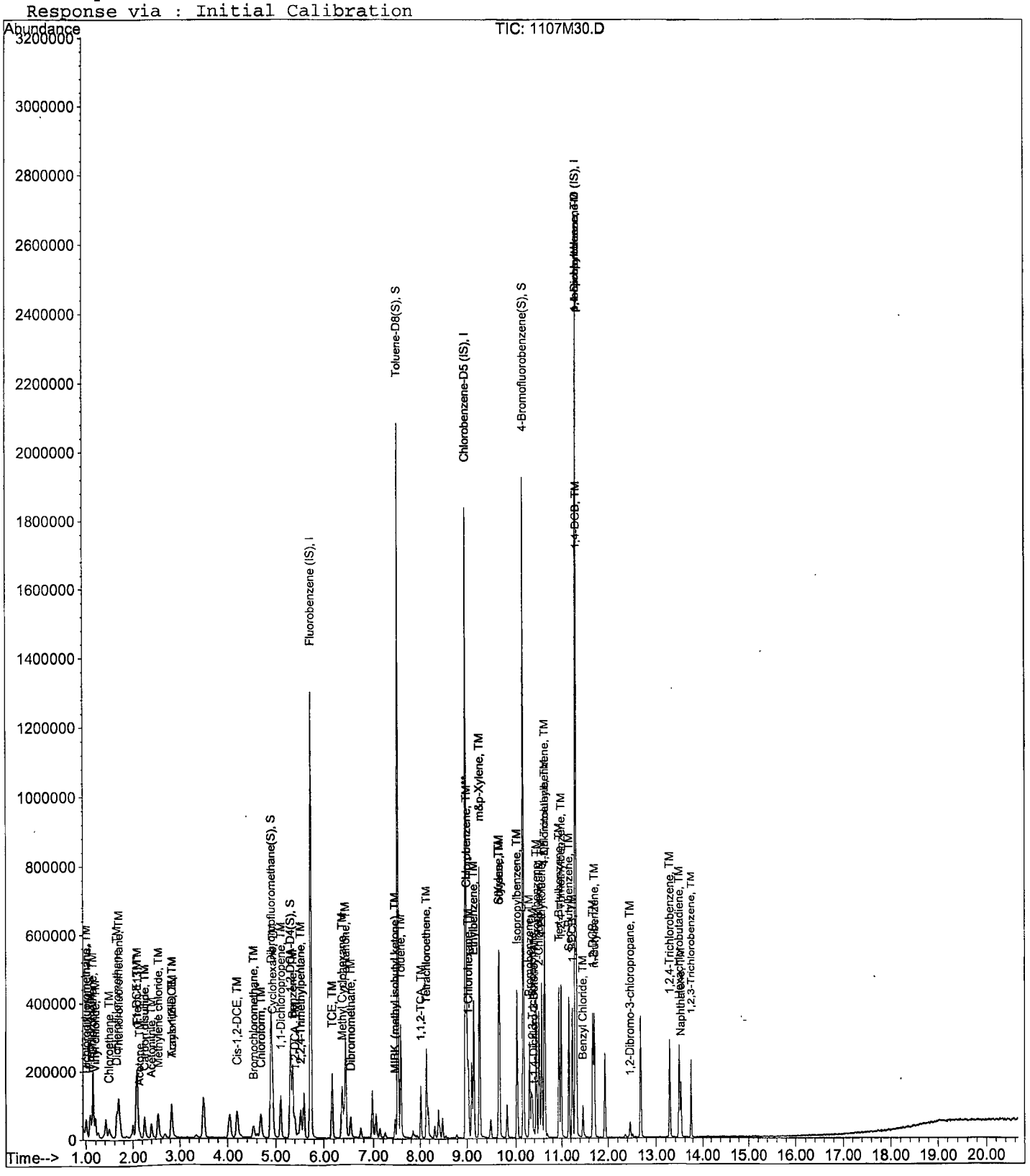
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\MAX\DATA\M191107\1107M30.D Vial: 30
Acq On : 8 Nov 19 4:58 Operator: LP,DG,CMM
Sample : 191107B LCS 10ug/L Inst : Max
Misc : IS&S 9/24/19 Multiplr: 1.00

Quant Time: Nov 8 13:06 2019 Quant Results File: M1106.RES

Method : M:\MAX\DATA\M191106\M1106.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 07 14:27:44 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M191107\1107M31.D Vial: 31
Acq On : 8 Nov 19 5:27 Operator: LP,DG,CMM
Sample : 191107B LCSD 10ug/L Inst : Max
Misc : IS&S 9/24/19 Multiplr: 1.00

Quant Time: Nov 8 13:06 2019 Quant Results File: M1106.RES

Quant Method : M:\MAX\DATA\M191106\M1106.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 07 14:27:44 2019
Response via : Initial Calibration
DataAcq Meth : M8260

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Fluorobenzene (IS)	5.72	96	1321429	25.0000 ppb		0.00
35) Chlorobenzene-D5 (IS)	8.97	117	1062187	25.0000 ppb		0.00
45) 1,4-Dichlorobenzene-D (IS)	11.30	152	671732	25.0000 ppb		0.00
System Monitoring Compounds						
21) Dibromofluoromethane(S)	4.89	111	275239	27.0573 ppb		0.00
Spiked Amount 25.000			Recovery = 108.228%			
25) 1,2-DCA-D4(S)	5.30	65	233352	27.1680 ppb		0.00
Spiked Amount 25.000			Recovery = 108.672%			
36) Toluene-D8(S)	7.51	98	1316826	26.7732 ppb		0.00
Spiked Amount 25.000			Recovery = 107.092%			
42) 4-Bromofluorobenzene(S)	10.16	95	487813	26.5451 ppb		0.00
Spiked Amount 25.000			Recovery = 106.180%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.00	85	28168	8.1250 ppb		100
3) Freon 114	1.09	85	48192	10.2971 ppb		99
4) Chloromethane	1.13	50	69937	10.0712 ppb		100
5) Vinyl chloride	1.19	62	62693	10.5685 ppb	#	100
6) Chloroethane	1.48	64	26156	9.3377 ppb		97
7) Dichlorofluoromethane	1.64	67	94022	10.9618 ppb		94
8) Trichlorofluoromethane	1.67	101	77060	10.3613 ppb		97
9) Acetone	2.14	43	12750	6.6368 ppb		100
10) Freon-113	2.09	101	41843	10.4130 ppb		97
11) 1,1-DCE	2.07	61	115305	10.3632 ppb		98
12) Acetonitrile	2.40	41	57614	136.4332 ppb		89
14) Acrylonitrile	2.81	53	11766	9.0564 ppb	#	82
15) Methylene chloride	2.54	84	55217	9.3114 ppb		98
16) Carbon disulfide	2.25	76	127934	10.5569 ppb		98
17) Trans-1,2-DCE	2.82	96	53835	10.0238 ppb		94
18) Cis-1,2-DCE	4.19	96	64277	10.7271 ppb		78
19) Chloroform	4.68	83	81678	10.7716 ppb		92
20) Bromochloromethane	4.52	128	21996	8.9040 ppb		85
22) Cyclohexane	4.93	41	37714	10.1987 ppb		85
23) 1,1-Dichloropropene	5.10	75	71840	10.7210 ppb		93
24) 2,2,4-Trimethylpentane	5.52	57	91744	10.1322 ppb	#	87
26) 1,2-DCA	5.40	62	60286	10.3551 ppb		99
27) Benzene	5.35	78	209843	10.3810 ppb		96
28) TCE	6.16	95	62102	10.3712 ppb		97
29) 2-Pentanone	6.43	43	282889	126.7128 ppb		98
30) Methyl Cyclohexane	6.36	83	71176	10.2844 ppb		97
31) Dibromomethane	6.54	93	17744	9.5694 ppb		94
32) MIBK (methyl isobutyl ket	7.44	43	36521	11.2814 ppb		96
33) Toluene	7.57	91	242011	10.1241 ppb		97
34) 1,1,2-TCA	8.01	83	36198	11.0126 ppb		88
37) Tetrachloroethene	8.13	164	70177	10.9228 ppb		98
38) 1-Chlorohexane	9.03	91	66967	10.6276 ppb		90
39) m&p-Xylene	9.26	106	242273	22.0117 ppb		96
40) o-Xylene	9.65	106	117219	10.6326 ppb		99
41) Styrene	9.67	104	190152	10.9973 ppb		96
43) Chlorobenzene	9.00	112	171531	10.4335 ppb		97
44) Ethylbenzene	9.14	91	273872	10.7418 ppb		100
46) Isopropylbenzene	10.03	105	295469	10.7409 ppb		99
47) 1,2,3-Trichloropropane	10.35	110	19411	9.8838 ppb		89

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M191107\1107M31.D Vial: 31
Acq On : 8 Nov 19 5:27 Operator: LP,DG,CMM
Sample : 191107B LCSD 10ug/L Inst : Max
Misc : IS&S 9/24/19 Multiplr: 1.00

Quant Time: Nov 8 13:06 2019 Quant Results File: M1106.RES

Quant Method : M:\MAX\DATA\M191106\M1106.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 07 14:27:44 2019
Response via : Initial Calibration
DataAcq Meth : M8260

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
48)	t-1,4-Dichloro-2-Butene	10.39	53	3377	8.9837	ppb	#	52
49)	Bromobenzene	10.29	156	93915	10.2288	ppb		98
50)	n-Propylbenzene	10.44	91	303787	10.7056	ppb		99
51)	4-Ethyltoluene	10.55	105	283807	10.7859	ppb		98
52)	2-Chlorotoluene	10.50	91	194356	10.4079	ppb		100
53)	1,3,5-Trimethylbenzene	10.62	105	246753	11.0511	ppb		98
54)	4-Chlorotoluene	10.61	91	229648	10.8517	ppb		98
55)	Tert-Butylbenzene	10.94	119	224458	10.8580	ppb		96
56)	1,2,4-Trimethylbenzene	10.98	105	244499	10.6055	ppb		98
57)	Sec-Butylbenzene	11.15	105	273765	10.6681	ppb		98
58)	p-Isopropyltoluene	11.31	119	182016	11.3653	ppb		96
59)	Benzyl Chloride	11.47	91	63851	8.0145	ppb		97
60)	1,3-DCB	11.23	146	168219	10.5729	ppb		94
61)	1,4-DCB	11.32	146	109576	10.5191	ppb		97
62)	n-Butylbenzene	11.72	91	119648	11.3180	ppb		97
63)	1,2-DCB	11.68	146	161961	10.9411	ppb		97
64)	1,2-Dibromo-3-chloropropan	12.46	157	15220	10.5713	ppb		87
65)	1,2,4-Trichlorobenzene	13.28	180	100858	9.9551	ppb		98
66)	Hexachlorobutadiene	13.48	225	56529	10.6188	ppb		97
67)	Naphthalene	13.51	127	10820	8.0467	ppb		79
68)	1,2,3-Trichlorobenzene	13.76	180	80242	9.4410	ppb		96

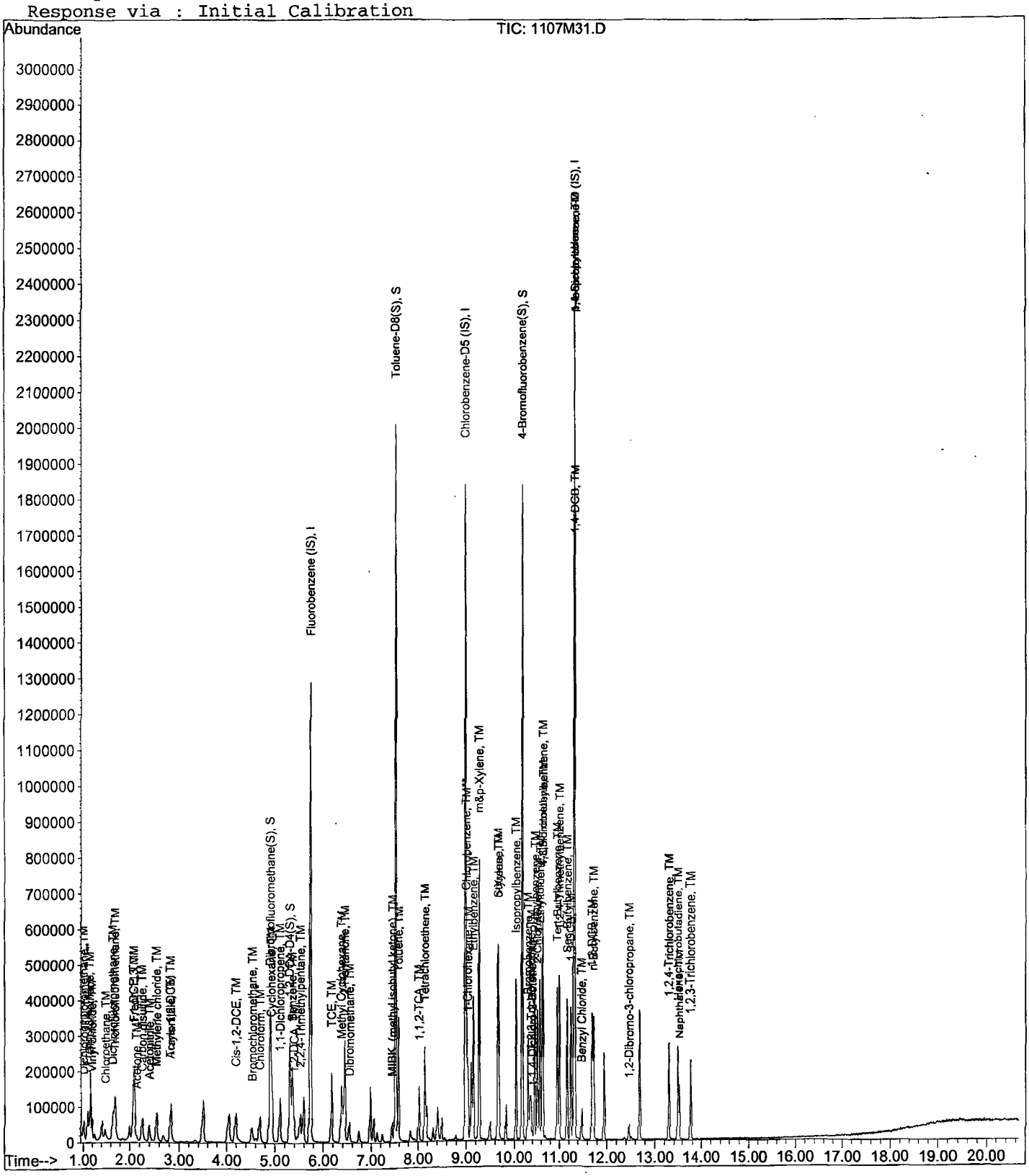
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\MAX\DATA\M191107\1107M31.D Vial: 31
Acq On : 8 Nov 19 5:27 Operator: LP,DG,CMM
Sample : 191107B LCSD 10ug/L Inst : Max
Misc : IS&S 9/24/19 Multiplr: 1.00

Quant Time: Nov 8 13:06 2019 Quant Results File: M1106.RES

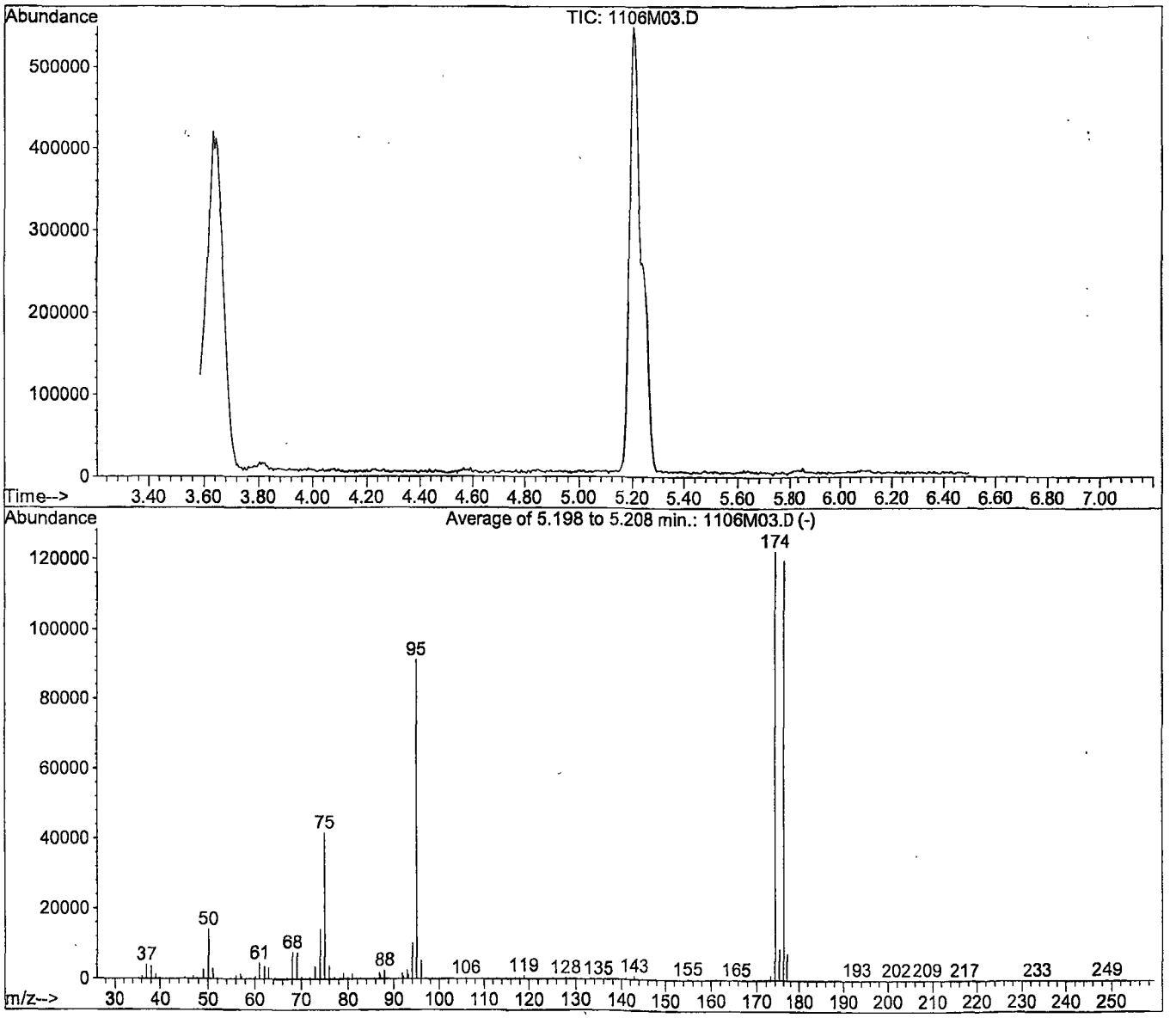
Method : M:\MAX\DATA\M191106\M1106.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 07 14:27:44 2019
Response via : Initial Calibration



Data File : M:\MAX\DATA\M191106\1106M03.D
Acq On : 6 Nov 19 9:06
Sample : 25ug/L BFB STD 10/10/19
Misc : IS&S 9/24/19

Vial: 1
Operator: LP,DG,CMM
Inst : Max
Multiplr: 1.00

Method : M:\MAX\DATA\M191106\M1106.M (RTE Integrator)
Title : METHOD 8260B



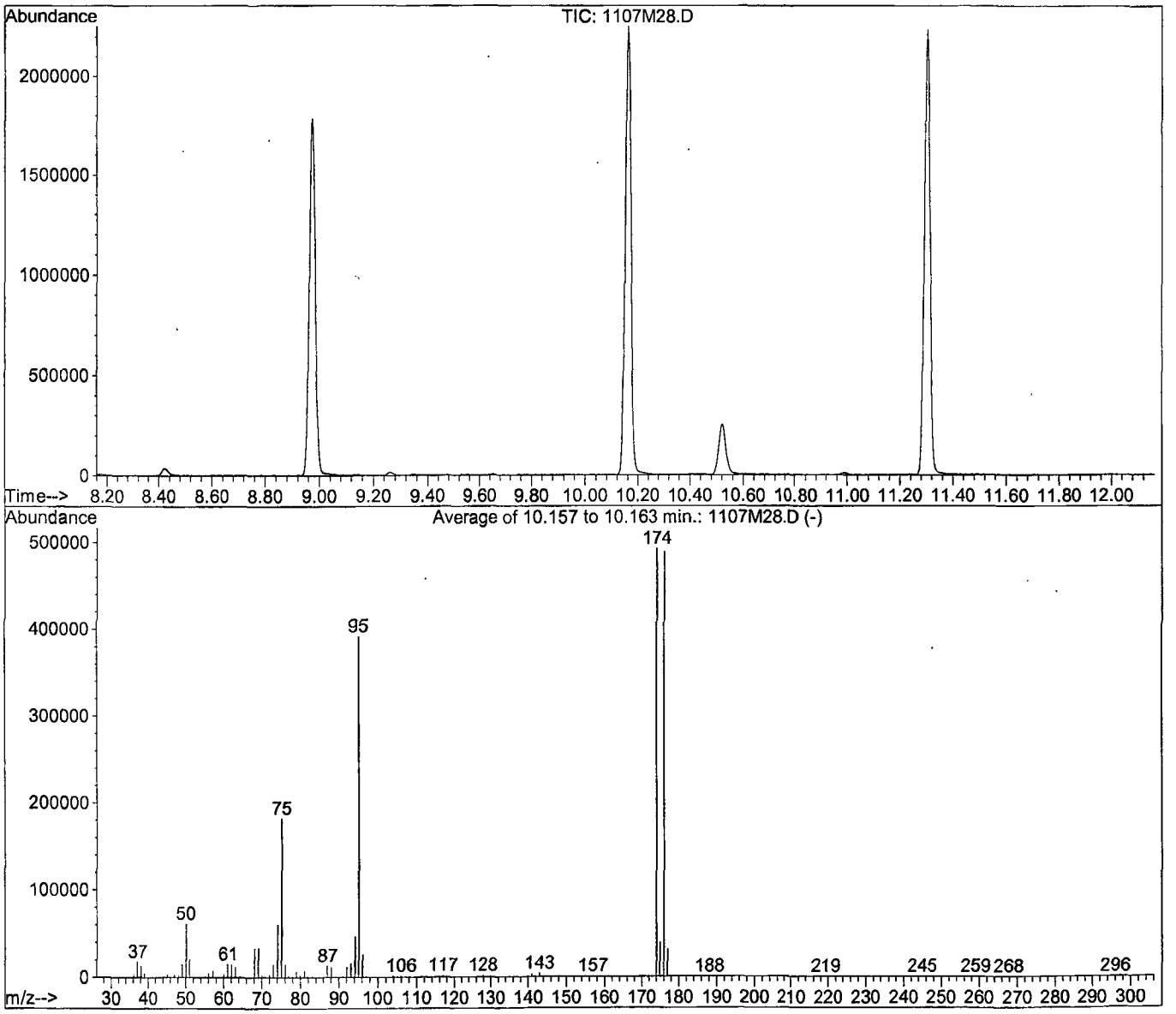
AutoFind: Scans 322, 323, 324; Background Corrected with Scan 309

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	15.4	14077	PASS
75	95	30	60	45.7	41691	PASS
95	95	100	100	100.0	91158	PASS
96	95	5	9	5.6	5114	PASS
173	174	0.00	2	1.0	1203	PASS
174	95	50	200	134.2	122368	PASS
175	174	5	9	7.2	8838	PASS
176	174	95	100	97.9	119747	PASS
177	176	5	9	6.3	7518	PASS

Data File : M:\MAX\DATA\M191107\1107M28.D
Acq On : 8 Nov 19 4:01
Sample : 25ug/L BFB STD 10/10/19
Misc : IS&S 9/24/19

Vial: 28
Operator: LP,DG,CMM
Inst : Max
Multiplr: 1.00

Method : M:\MAX\DATA\M191106\M1106.M (RTE Integrator)
Title : METHOD 8260B



AutoFind: Scans 2872, 2873, 2874; Background Corrected with Scan 2856

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	15.6	61136	PASS
75	95	30	60	46.5	182229	PASS
95	95	100	100	100.0	391765	PASS
96	95	5	9	6.6	25744	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	200	125.6	492096	PASS
175	174	5	9	7.9	39053	PASS
176	174	95	100	99.3	488555	PASS
177	176	5	9	6.5	31743	PASS

1107M28.D M1106.M Thu Dec 05 08:43:39 2019

Max 8260 Standard Prep

Max 8260 Water Calibration Curve

0.3ug/L

Prepared: 11/06/19

Expires: 12/06/19

Prepared By (Initials): CH

Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)
VOA STD. 9	O2SI	0.3ug/L	5	Prepared 11/04/19	01/03/20	N/A	3uL	50mL	P&T Water	0.3
VOA STD. 10	O2SI		5	Prepared 11/04/19	01/03/20	N/A	3uL			0.3
VOA STD. 12	O2SI		5	Prepared 11/04/19	01/03/20	N/A	3uL			0.3
VOA STD. TBA	Various		250	Prepared 11/04/19	10/30/19	N/A	2uL			10

0.5ug/L

Prepared: 11/06/19

Expires: 12/06/19

Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)
VOA STD. 9	O2SI	0.5ug/L	5	Prepared 11/04/19	01/03/20	N/A	5uL	50mL	P&T Water	0.5
VOA STD. 10	O2SI		5	Prepared 11/04/19	01/03/20	N/A	5uL			0.5
VOA STD. 12	O2SI		5	Prepared 11/04/19	01/03/20	N/A	5uL			0.5
VOA STD. TBA	Various		250	Prepared 11/04/19	10/30/19	N/A	5uL			25

1.0ug/L

Prepared: 11/06/19

Expires: 12/06/19

Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)
VOA STD. 9	O2SI	1.0ug/L	5	Prepared 11/04/19	01/03/20	N/A	10uL	50mL	P&T Water	1
VOA STD. 10	O2SI		5	Prepared 11/04/19	01/03/20	N/A	10uL			1
VOA STD. 12	O2SI		5	Prepared 11/04/19	01/03/20	N/A	10uL			1
VOA STD. TBA	Various		250	Prepared 11/04/19	10/30/19	N/A	10uL			50

2.0ug/L

Prepared: 11/06/19

Expires: 12/06/19

Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)
VOA STD. 9	O2SI	2.0ug/L	5	Prepared 11/04/19	01/03/20	N/A	20uL	50mL	P&T Water	2
VOA STD. 10	O2SI		5	Prepared 11/04/19	01/03/20	N/A	20uL			2
VOA STD. 12	O2SI		5	Prepared 11/04/19	01/03/20	N/A	20uL			2
VOA STD. TBA	Various		250	Prepared 11/04/19	10/30/19	N/A	15uL			75

5ug/L

Prepared: 11/06/19

Expires: 12/06/19

Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)
VOA STD. 7	Various	5ug/L	50	Prepared 11/04/19	01/03/20	N/A	5uL	50mL	P&T Water	5
VOA STD. 8	Phenova		50	Prepared 11/04/19	10/30/19	N/A	5uL			5
VOA STD. 1	O2SI		50	Prepared 11/04/19	01/03/20	N/A	5uL			5
VOA STD. 2	O2SI		50	Prepared 11/04/19	01/03/20	N/A	5uL			5
VOA STD. TBA	Various		250	Prepared 11/04/19	10/30/19	N/A	20uL			100

10ug/L

Prepared: 11/06/19

Expires: 12/06/19

Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)
VOA STD. 7	Various	10ug/L	50	Prepared 11/04/19	01/03/20	N/A	10uL	50mL	P&T Water	10
VOA STD. 8	Phenova		50	Prepared 11/04/19	10/30/19	N/A	10uL			10
VOA STD. 1	O2SI		50	Prepared 11/04/19	01/03/20	N/A	10uL			10
VOA STD. 2	O2SI		50	Prepared 11/04/19	01/03/20	N/A	10uL			10
VOA STD. TBA	Various		250	Prepared 11/04/19	10/30/19	N/A	25uL			125

20ug/L

Prepared: 11/06/19

Expires: 12/06/19

Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)
VOA STD. 7	Various	20ug/L	50	Prepared 11/04/19	01/03/20	N/A	20uL	50mL	P&T Water	20
VOA STD. 8	Phenova		50	Prepared 11/04/19	10/30/19	N/A	20uL			20
VOA STD. 1	O2SI		50	Prepared 11/04/19	01/03/20	N/A	20uL			20
VOA STD. 2	O2SI		50	Prepared 11/04/19	01/03/20	N/A	20uL			20
VOA STD. TBA	Various		250	Prepared 11/04/19	10/30/19	N/A	30uL			150

40ug/L

Prepared: 11/06/19

Expires: 12/06/19

Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)
VOA STD. 7	Various	40ug/L	50	Prepared 11/04/19	01/03/20	N/A	40uL	50mL	P&T Water	40
VOA STD. 8	Phenova		50	Prepared 11/04/19	10/30/19	N/A	40uL			40
VOA STD. 1	O2SI		50	Prepared 11/04/19	01/03/20	N/A	40uL			40
VOA STD. 2	O2SI		50	Prepared 11/04/19	01/03/20	N/A	40uL			40
VOA STD. TBA	Various		250	Prepared 11/04/19	10/30/19	N/A	35uL			175

100ug/L

Prepared: 11/06/19

Expires: 12/06/19

Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)
VOA STD. 7	Various	100ug/L	50	Prepared 11/04/19	01/03/20	N/A	100uL	50mL	P&T Water	100
VOA STD. 8	Phenova		50	Prepared 11/04/19	10/30/19	N/A	100uL			100
VOA STD. 1	O2SI		50	Prepared 11/04/19	01/03/20	N/A	100uL			100
VOA STD. 2	O2SI		50	Prepared 11/04/19	01/03/20	N/A	100uL			100
VOA STD. TBA	Various		250	Prepared 11/04/19	10/30/19	N/A	40uL			200

Max 8260 Water Second Source (SS)

Prepared: 11/06/19

Expires: 12/06/19

Prepared By (Initials): CH

Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)
VOA STD. 4	Phenova	8260 Water SS	50	Prepared 11/04/19	01/03/20	N/A	10uL	50mL	P&T Water	10
VOA STD. 5	O2SI	8260 Water SS	50	Prepared 11/04/19	01/03/20	N/A	10uL			10
VOA STD. 6	Various	8260 Water SS	50	Prepared 11/04/19	10/16/19	N/A	10uL			10
Voa STD. TBA	Various	8260 Water SS	250	Prepared 11/04/19	09/18/19	N/A	25uL			250

8260 Water Continuing Calibrations (CCV)/ Lab Control Spikes (LCS)

Prepared: 11/06/19

Expires: 11/07/19

Prepared By (Initials): CH

Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)
VOA STD. 7	Various	CCV/ LCS	50	Prepared 11/04/19	01/03/20	N/A	10uL	50mL	P&T Water	10
VOA STD. 8	Phenova	CCV/ LCS	50	Prepared 11/04/19	10/30/19	N/A	10uL			10
VOA STD. 1	O2SI	CCV/ LCS	50	Prepared 11/04/19	01/03/20	N/A	10uL			10
VOA STD. 2	O2SI	CCV/ LCS	50	Prepared 11/04/19	01/03/20	N/A	10uL			10
VOA STD. TBA	Various	CCV/ LCS	250	Prepared 11/04/19	10/30/19	N/A	25uL			125

LCS (X4 Ketones)

Prepared: 11/06/19

Expires: 11/07/19

Prepared By (Initials): CH

Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)
VOA STD. 7	Various	LCS X4 Ketones	50	Prepared 11/04/19	01/03/20	N/A	10uL	50mL	P&T Water	10
VOA STD. 8	Phenova	LCS X4 Ketones	50	Prepared 11/04/19	10/30/19	N/A	10uL			10
VOA STD. 1	O2SI	LCS X4 Ketones	50	Prepared 11/04/19	01/03/20	N/A	10uL			10
VOA STD. 2	O2SI	LCS X4 Ketones	50	Prepared 11/04/19	01/03/20	N/A	40uL			40
VOA STD. TBA	Various	LCS X4 Ketones	250	Prepared 11/04/19	10/30/19	N/A	25uL			125

Primary and Secondary Working Standards

Primary Standards

VOA STD 7

Prepared: 11/04/19 A
Expires: 01/03/20
Methanol Lot No. DW117-US-0095

Prepared By (Initials): CH

Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
VOA Gasses STD	Phenova	ALO-101206	2,000	CL13712-49316	10/16/20	06/30/24	100uL	4mL	Methanol	50
Hexachloroethane	Absolute	70199	1,000	091818-41284	10/16/20	09/18/23	200uL			50
Benzyl Chloride	Accusta	M-8010-01	2,000	061919-41289	10/16/20	06/19/20	200uL			50

VOA STD 8

Prepared: 11/04/19 B
Expires: 10/30/19
Methanol Lot No. DW117-US-0095

Prepared By (Initials): CH

Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
VOA Additions STD	Phenova	ALO-130175	2,000	CL12622-40992	10/16/20	06/30/20	100uL	4mL	Methanol	50
502.2 Cal. Std.	Phenova	ALO-101200	2,000	CL13742-41024	10/16/20	06/30/24	100uL			50
Vinyl Acetate	Phenova	ALO-101228	2,000	CL14220-49394	10/16/20	10/30/19	100uL			50

VOA STD TBA

Prepared: 11/04/19 C
Expires: 10/30/19
Methanol Lot No. DW117-US-0095

Prepared By (Initials): CH

Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
Custom VOC Mix	Phenova	ALO-130176	2,000	CL12734-49377	10/16/20	08/31/20	500uL	4mL	Methanol	250
Acrolein	Phenova	ALO-130549	10,000	CL14311-49395	10/16/20	10/30/19	100uL			250

VOA STD 1

Prepared: 11/04/19 D
Expires: 01/03/20
Methanol Lot No. DW117-US-0095

Prepared By (Initials): CH

Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
2-CEVE	Absolute	82408	2,000	071018-41299	10/16/20	07/10/21	50	2mL	Methanol	50

VOA STD 2

Prepared: 11/04/19 E
Expires: 01/03/20
Methanol Lot No. DW117-US-0095

Prepared By (Initials): CH

Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
Ketones Std.	Phenova	ALO-109211	2,000	CL13994-41247	10/16/20	08/31/29	100	4mL	Methanol	50

VOA STD 9

Prepared: 11/04/19 F
Expires: 01/03/20
Methanol Lot No. DW117-US-0095

Prepared By (Initials): CH

Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
VOA STD. 7		VOA STD. 9	50	Prepared 11/04/19	10/16/20	N/A	200uL	2mL	Methanol	5
VOA STD. 8			50	Prepared 11/04/19	10/16/20	N/A	200uL			5

VOA STD. 10

Prepared: 11/04/19 G
Expires: 01/03/20
Methanol Lot No. DW117-US-0095

Prepared By (Initials): CH

Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
VOA STD. 1		VOA STD. 10	50	Prepared 11/04/19	10/16/20	N/A	200uL	2mL	Methanol	5

VOA STD. 12

Prepared: 11/04/19 H
Expires: 01/03/20
Methanol Lot No. DW117-US-0095

Prepared By (Initials): CH

Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
VOA STD. 2		VOA STD. 12	50	Prepared 11/04/19	10/16/20	N/A	200uL	2mL	Methanol	5

Second Source (SS) Standards

VOA STD. 3

Prepared: 11/04/19 I
Expires: 01/03/20
Methanol Lot No. DW117-US-0095

Prepared By (Initials): CH

Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
Ketones Standard	Phenova	ALO-101211	2,000	CL12730-41075	10/16/20	08/31/28	50uL	2mL	Methanol	50

VOA STD. 5

Prepared: 11/04/19 J
Expires: 01/03/20
Methanol Lot No. DW117-US-0095

Prepared By (Initials): CH

Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
8260 Gases (SS)	Phenova	ALO-101206	2,000	CL14057-41319	10/16/20	08/31/24	50uL	2mL	Methanol	50
2-CEVE (SS)	Absolute	82408	2,000	061419-41292	10/16/20	06/14/22	50uL			50

VOA STD. 6

Prepared: 11/04/19 K
Expires: 10/16/19
Methanol Lot No. DW117-US-0095

Prepared By (Initials): CH

Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
502.2 Calibration STD. (54-compounds)	Phenova	ALO-101200	2,000	CL12490-40920	10/16/20	05/31/23	50uL	2mL	Methanol	50
Vinyl Acetate	Phenova	ALO-101228	2,000	CL14220-49312	10/03/20	10/16/19	50uL			50
Hexachloroethane	Accustan	AS-E0011	1,000	219061767-41120	10/16/20	06/28/29	100uL			50
Benzyl Chloride	Accustan	M-8010-01	200	219041664-40959	10/16/20	05/22/21	500uL			50

VOA STD. TBA

Prepared: 11/04/19 L
Expires: 09/18/19
Methanol Lot No. DW117-US-0095

Prepared By (Initials): CH

Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
Custom VOA Mix (4-3)	Phenova	ALO-130176	2,000	CL12228-41063	10/16/20	01/31/20	250uL	2mL	Methanol	250
Acrolein	Phenova	ALO-101224	10,000	CL14224-49313	08/29/20	09/18/19	50uL			250

VOA STD. 0

Prepared: 11/04/19 M
Expires: 01/03/20
Methanol Lot No. DW117-US-0095

Prepared By (Initials): CH

Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
VOA Addition STD.	Phenova	ALO-130175	2,000	CL12744-41387	10/16/20	08/31/20	50uL	2mL	Methanol	50

Injection Log

Directory: M:\MAX\DATA\M191106\

Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1106M03.D	1	25ug/L BFB STD 10/10/19	IS&S 9/24/19	6 Nov 19 9:06
3	1106M06.D	1	0.3ug/L VOC STD 11/06/19	IS&S 9/24/19	6 Nov 19 10:45
4	1106M07.D	1	0.5ug/L VOC STD 11/06/19	IS&S 9/24/19	6 Nov 19 11:13
5	1106M08.D	1	1.0ug/L VOC STD 11/06/19	IS&S 9/24/19	6 Nov 19 11:42
6	1106M09.D	1	2.0ug/L VOC STD 11/06/19	IS&S 9/24/19	6 Nov 19 12:11
7	1106M10.D	1	5.0ug/L VOC STD 11/06/19	IS&S 9/24/19	6 Nov 19 12:40
8	1106M11.D	1	10ug/L VOC STD 11/06/19	IS&S 9/24/19	6 Nov 19 13:08
9	1106M12.D	1	20ug/L VOC STD 11/06/19	IS&S 9/24/19	6 Nov 19 13:37
10	1106M13.D	1	40ug/L VOC STD 11/06/19	IS&S 9/24/19	6 Nov 19 14:06
11	1106M14.D	1	100ug/L VOC STD 11/06/19	IS&S 9/24/19	6 Nov 19 14:35
13	1106M16.D	1	(SS)10ug/L VOC STD 11/06/19	IS&S 9/24/19	6 Nov 19 15:33
28	1107M28.D	1	25ug/L BFB STD 10/10/19	IS&S 9/24/19	8 Nov 19 4:01
29	1107M29.D	1	191107B CCV 10ug/L	IS&S 9/24/19	8 Nov 19 4:30
30	1107M30.D	1	191107B LCS 10ug/L	IS&S 9/24/19	8 Nov 19 4:58
31	1107M31.D	1	191107B LCSD 10ug/L	IS&S 9/24/19	8 Nov 19 5:27
35	1107M35.D	1	191107B Blk	IS&S 9/24/19	8 Nov 19 7:22
39	1107M39.D	1	BA02524W01	IS&S 9/24/19	8 Nov 19 9:17
40	1107M40.D	1	BA02525W01	IS&S 9/24/19	8 Nov 19 9:46
42	1107M42.D	1	Ending CCV 10ug/L 11/7/19	IS&S 9/24/19	8 Nov 19 10:44

ORGANICS
Calibration Data

VOLATILE ORGANIC ANALYSIS BY
EPA METHOD 8260B

Form 6
Initial Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Initial Cal. Date: 11/06/19
Matrix: Instrument: Max Initials: DP

		Compound	1106M06.D	1106M07.D	1106M08.D	1106M09.D	1106M10.D	1106M11.D	1106M12.D	1106M13.D	1106M14.D		Avg	%RSD	Type	r^2	Q	MRF
1	I	Fluorobenzene (IS)																
2	SL	Dibromofluoromethane(S)	0.1161	0.1088	0.1047	0.1106	0.1575	0.1734	0.2099	0.2172	0.2253		0.16	32	SL	0.997		
3	SL	1,2-DCA-D4(S)	0.1291	0.1039	0.0954	0.1031	0.1278	0.1426	0.1716	0.1789	0.1937		0.14	26	SL	0.994		
4	I	Chlorobenzene-D5 (IS)																
5	S	Toluene-D8(S)	1.371	1.259	1.097	1.070	1.148	1.113	1.150	1.131	1.078		1.2	8.4	S			
6	S	4-Bromofluorobenzene(S)	0.5341	0.4709	0.3773	0.3953	0.4172	0.4147	0.4368	0.4276	0.4189		0.43	11	S			
7	I	1,4-Dichlorobenzene-D (IS)																
8																		
9																		
10																		
11																		
12																		
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Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M191106\1106M06.D Vial: 3
Acq On : 6 Nov 19 10:45 Operator: LP,DG,CMM
Sample : 0.3ug/L VOC STD 11/06/19 Inst : Max
Misc : IS&S 9/24/19 Multiplr: 1.00

Quant Time: Nov 8 10:59 2019 Quant Results File: MSUR1106.RES

Quant Method : M:\MAX\DATA\M191106\MSUR1106.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 07 14:27:44 2019
Response via : Initial Calibration
DataAcq Meth : M8260

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene (IS)	5.73	96	1402469	25.00 ppb	0.00
4) Chlorobenzene-D5 (IS)	8.97	117	1106542	25.00 ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	11.30	152	604127	25.00 ppb	0.00
System Monitoring Compounds					
2) Dibromofluoromethane(S)	4.89	111	32559	7.37 ppb	0.00
Spiked Amount 25.000			Recovery =	29.472%	
3) 1,2-DCA-D4(S)	5.30	65	36221	8.25 ppb	0.00
Spiked Amount 25.000			Recovery =	32.992%	
5) Toluene-D8(S)	7.51	98	303410	5.92 ppb	0.00
Spiked Amount 25.000			Recovery =	23.688%	
6) 4-Bromofluorobenzene(S)	10.16	95	118198	6.17 ppb	0.00
Spiked Amount 25.000			Recovery =	24.696%	

Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration

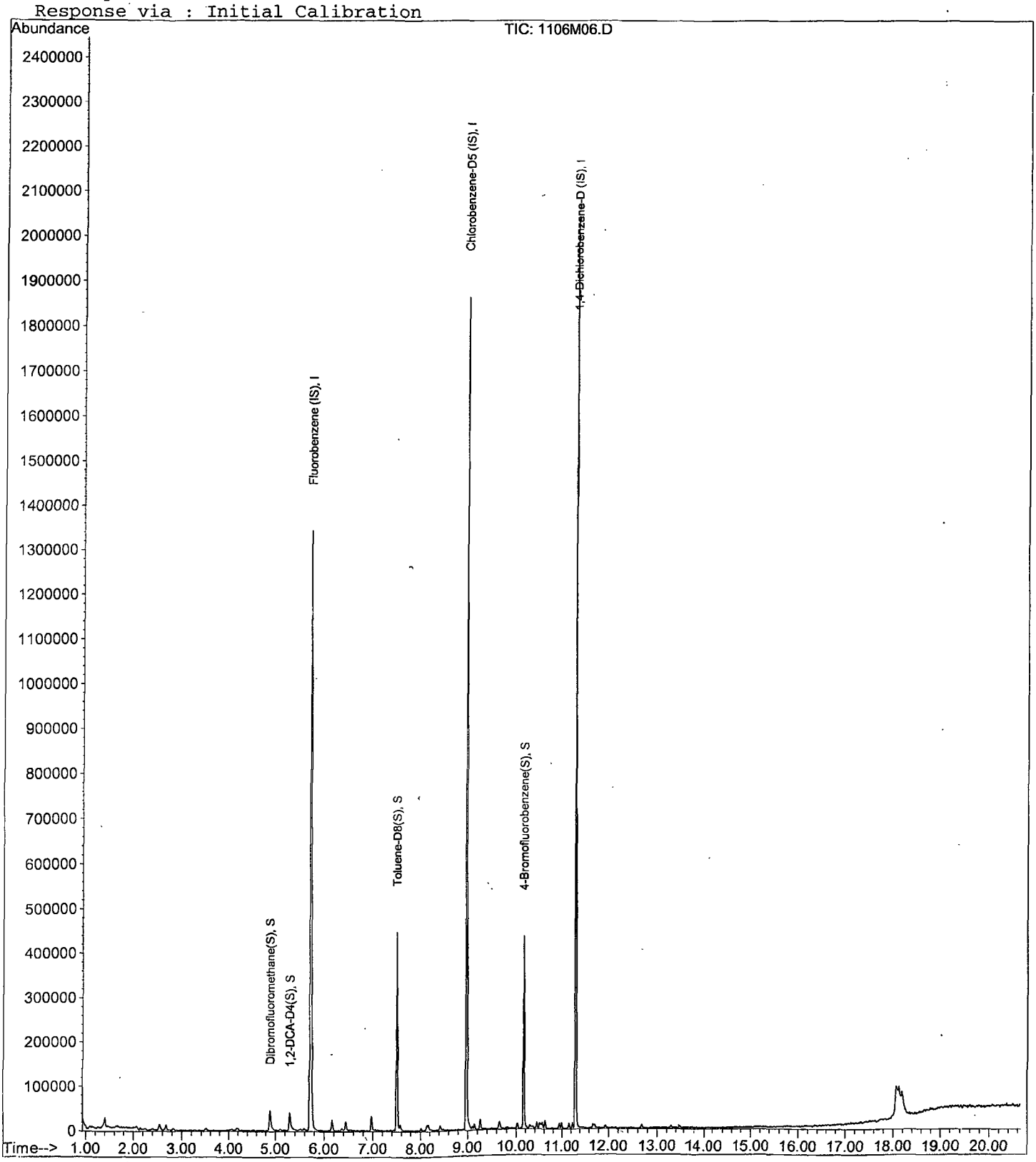
Quantitation Report

Data File : M:\MAX\DATA\M191106\1106M06.D
Acq On : 6 Nov 19 10:45
Sample : 0.3ug/L VOC STD 11/06/19
Misc : IS&S 9/24/19

Vial: 3
Operator: LP,DG,CMM
Inst : Max
Multiplr: 1.00

Quant Time: Nov 8 10:59 2019 Quant Results File: MSUR1106.RES

Method : M:\MAX\DATA\M191106\MSUR1106.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 07 14:27:44 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M191106\1106M07.D Vial: 4
Acq On : 6 Nov 19 11:13 Operator: LP,DG,CMM
Sample : 0.5ug/L VOC STD 11/06/19 Inst : Max
Misc : IS&S 9/24/19 Multiplr: 1.00

Quant Time: Nov 8 10:59 2019 Quant Results File: MSUR1106.RES

Quant Method : M:\MAX\DATA\M191106\MSUR1106.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 07 14:27:44 2019
Response via : Initial Calibration
DataAcq Meth : M8260

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene (IS)	5.72	96	1423298	25.00 ppb	0.00
4) Chlorobenzene-D5 (IS)	8.98	117	1128694	25.00 ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	11.30	152	625275	25.00 ppb	0.00
System Monitoring Compounds					
2) Dibromofluoromethane(S)	4.90	111	30962	7.21 ppb	0.01
Spiked Amount 25.000			Recovery	= 28.848%	
3) 1,2-DCA-D4(S)	5.30	65	29566	7.61 ppb	0.00
Spiked Amount 25.000			Recovery	= 30.456%	
5) Toluene-D8(S)	7.51	98	284245	5.44 ppb	0.00
Spiked Amount 25.000			Recovery	= 21.756%	
6) 4-Bromofluorobenzene(S)	10.16	95	106304	5.44 ppb	0.00
Spiked Amount 25.000			Recovery	= 21.776%	

Target Compounds Qvalue

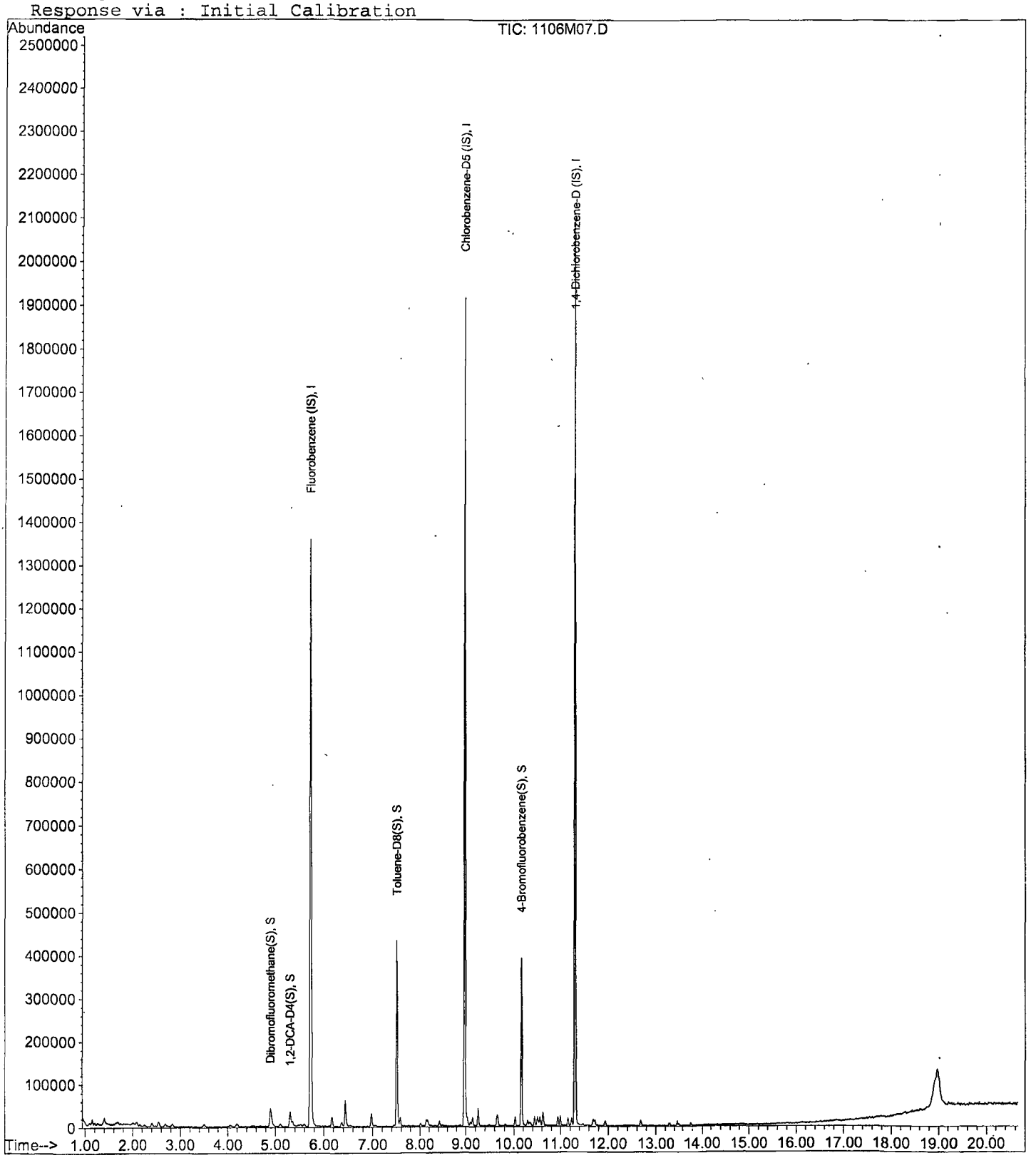
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\MAX\DATA\M191106\1106M07.D Vial: 4
Acq On : 6 Nov 19 11:13 Operator: LP,DG,CMM
Sample : 0.5ug/L VOC STD 11/06/19 Inst : Max
Misc : IS&S 9/24/19 Multiplr: 1.00

Quant Time: Nov 8 10:59 2019 Quant Results File: MSUR1106.RES

Method : M:\MAX\DATA\M191106\MSUR1106.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 07 14:27:44 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M191106\1106M08.D Vial: 5
Acq On : 6 Nov 19 11:42 Operator: LP,DG,CMM
Sample : 1.0ug/L VOC STD 11/06/19 Inst : Max
Misc : IS&S 9/24/19 Multiplr: 1.00

Quant Time: Nov 8 10:59 2019 Quant Results File: MSUR1106.RES

Quant Method : M:\MAX\DATA\M191106\MSUR1106.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 07 14:27:44 2019
Response via : Initial Calibration
DataAcq Meth : M8260

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene (IS)	5.72	96	1487798	25.00 ppb	0.00
4) Chlorobenzene-D5 (IS)	8.97	117	1172875	25.00 ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	11.30	152	667426	25.00 ppb	0.00
System Monitoring Compounds					
2) Dibromofluoromethane(S)	4.90	111	62320	9.35 ppb	0.01
Spiked Amount 25.000			Recovery	= 37.416%	
3) 1,2-DCA-D4(S)	5.30	65	56795	9.80 ppb	0.00
Spiked Amount 25.000			Recovery	= 39.188%	
5) Toluene-D8(S)	7.51	98	514751	9.48 ppb	0.00
Spiked Amount 25.000			Recovery	= 37.912%	
6) 4-Bromofluorobenzene(S)	10.16	95	177007	8.72 ppb	0.00
Spiked Amount 25.000			Recovery	= 34.892%	

Target Compounds Qvalue

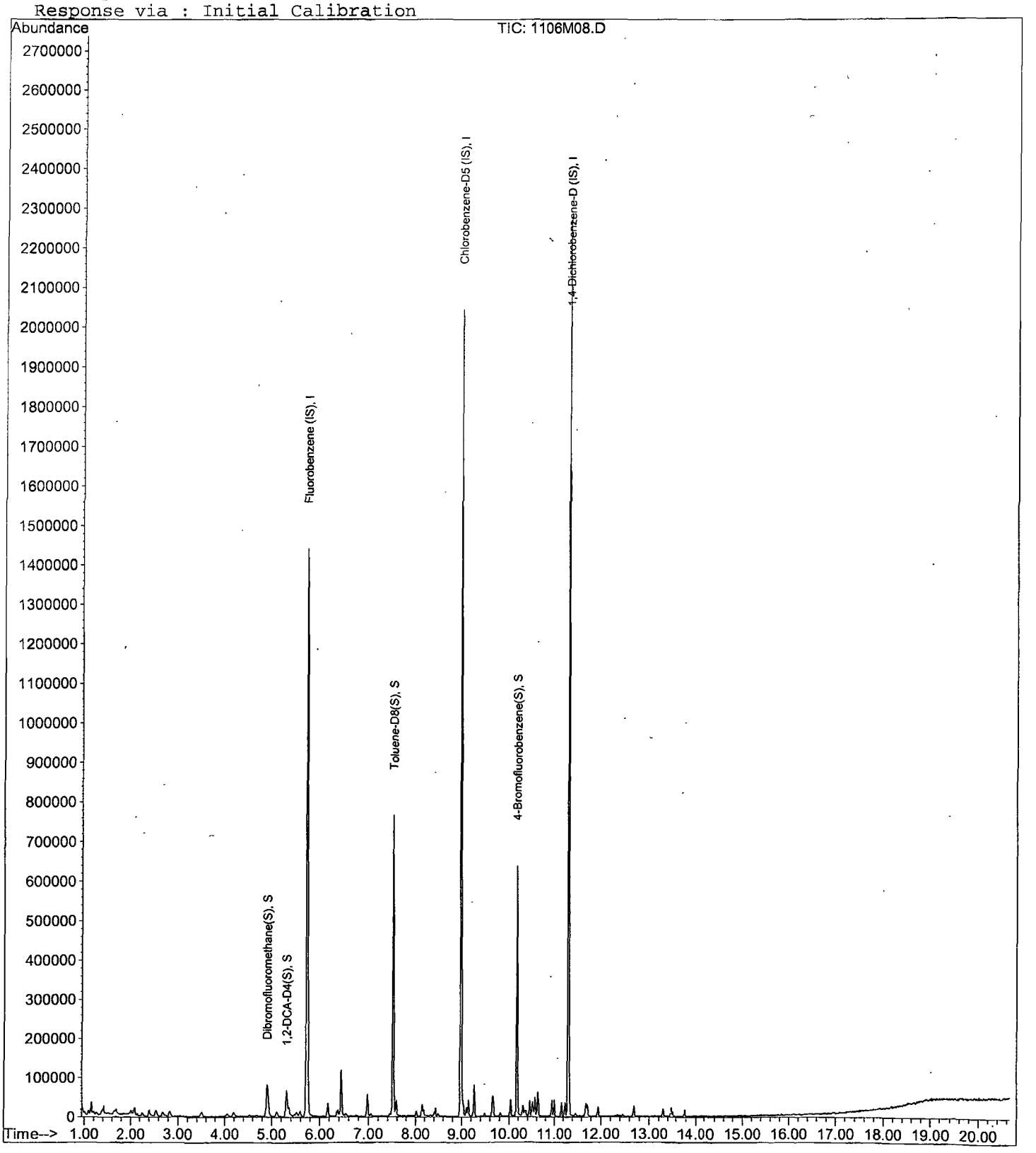
(#) = qualifier out of range (m) = manual integration

Data File : M:\MAX\DATA\M191106\1106M08.D
Acq On : 6 Nov 19 11:42
Sample : 1.0ug/L VOC STD 11/06/19
Misc : IS&S 9/24/19

Vial: 5
Operator: LP,DG,CMM
Inst : Max
Multiplr: 1.00

Quant Time: Nov 8 10:59 2019 Quant Results File: MSUR1106.RES

Method : M:\MAX\DATA\M191106\MSUR1106.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 07 14:27:44 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M191106\1106M09.D Vial: 6
Acq On : 6 Nov 19 12:11 Operator: LP,DG,CMM
Sample : 2.0ug/L VOC STD 11/06/19 Inst : Max
Misc : IS&S 9/24/19 Multiplr: 1.00

Quant Time: Nov 8 10:59 2019 Quant Results File: MSUR1106.RES

Quant Method : M:\MAX\DATA\M191106\MSUR1106.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 07 14:27:44 2019
Response via : Initial Calibration
DataAcq Meth : M8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	5.73	96	1433425	25.00	ppb	0.00
4) Chlorobenzene-D5 (IS)	8.97	117	1128770	25.00	ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	11.30	152	678074	25.00	ppb	0.00
System Monitoring Compounds						
2) Dibromofluoromethane(S)	4.89	111	63393	9.60	ppb	0.00
Spiked Amount 25.000			Recovery =	38.412%		
3) 1,2-DCA-D4(S)	5.30	65	59104	10.18	ppb	0.00
Spiked Amount 25.000			Recovery =	40.724%		
5) Toluene-D8(S)	7.51	98	483232	9.25	ppb	0.00
Spiked Amount 25.000			Recovery =	36.980%		
6) 4-Bromofluorobenzene(S)	10.16	95	178485	9.14	ppb	0.00
Spiked Amount 25.000			Recovery =	36.560%		

Target Compounds Qvalue

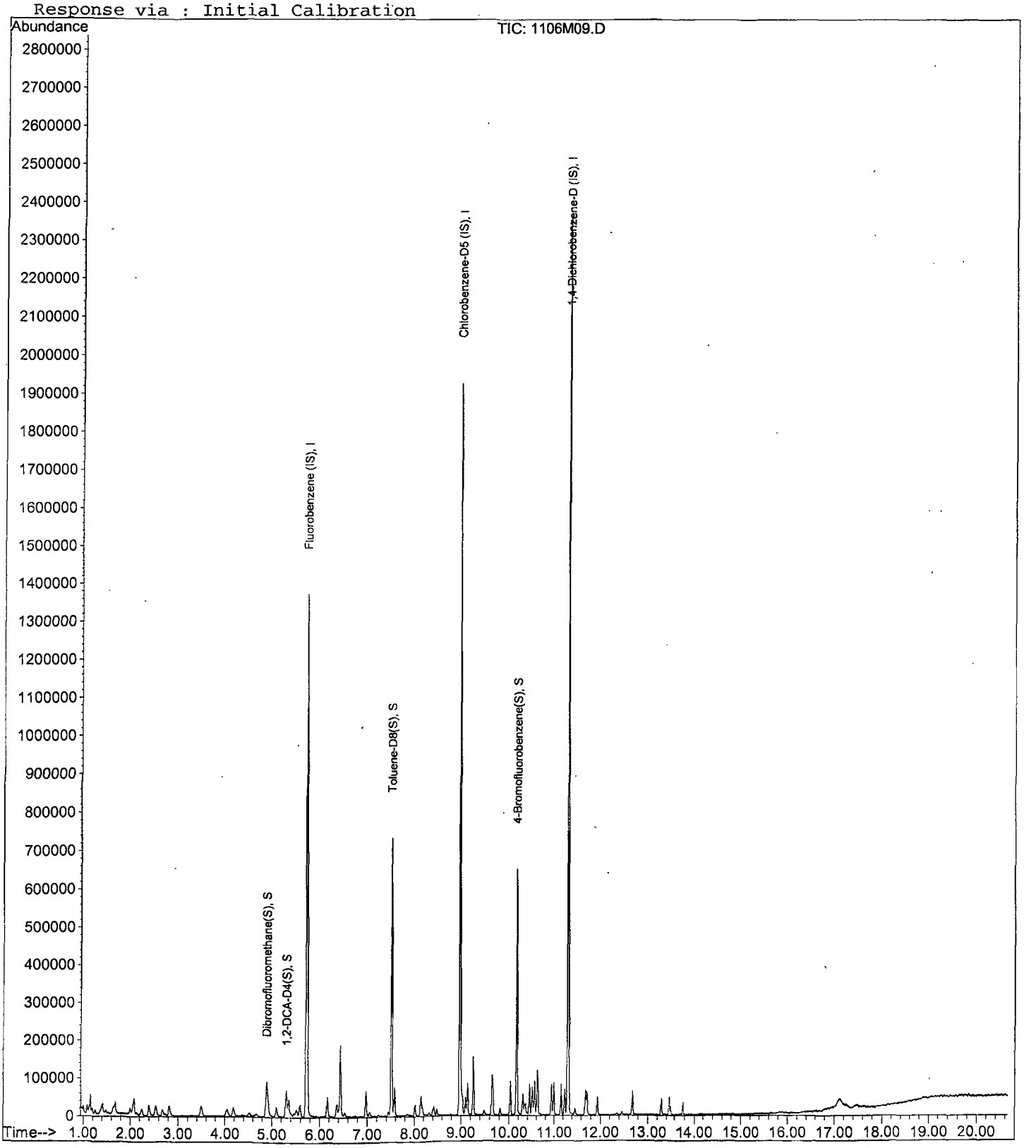
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\MAX\DATA\M191106\1106M09.D Vial: 6
Acq On : 6 Nov 19 12:11 Operator: LP,DG,CMM
Sample : 2.0ug/L VOC STD 11/06/19 Inst : Max
Misc : IS&S 9/24/19 Multiplr: 1.00

Quant Time: Nov 8 10:59 2019 Quant Results File: MSUR1106.RES

Method : M:\MAX\DATA\M191106\MSUR1106.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 07 14:27:44 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M191106\1106M10.D Vial: 7
Acq On : 6 Nov 19 12:40 Operator: LP,DG,CMM
Sample : 5.0ug/L VOC STD 11/06/19 Inst : Max
Misc : IS&S 9/24/19 Multiplr: 1.00

Quant Time: Nov 8 10:59 2019 Quant Results File: MSUR1106.RES

Quant Method : M:\MAX\DATA\M191106\MSUR1106.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 07 14:27:44 2019
Response via : Initial Calibration
DataAcq Meth : M8260

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene (IS)	5.73	96	1472512	25.00 ppb	0.00
4) Chlorobenzene-D5 (IS)	8.97	117	1205195	25.00 ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	11.30	152	728245	25.00 ppb	0.00
System Monitoring Compounds					
2) Dibromofluoromethane(S)	4.89	111	231874	21.65 ppb	0.00
Spiked Amount 25.000			Recovery =	86.604%	
3) 1,2-DCA-D4(S)	5.30	65	188191	21.05 ppb	0.00
Spiked Amount 25.000			Recovery =	84.180%	
5) Toluene-D8(S)	7.51	98	1383599	24.79 ppb	0.00
Spiked Amount 25.000			Recovery =	99.172%	
6) 4-Bromofluorobenzene(S)	10.16	95	502805	24.11 ppb	0.00
Spiked Amount 25.000			Recovery =	96.456%	

Target Compounds Qvalue

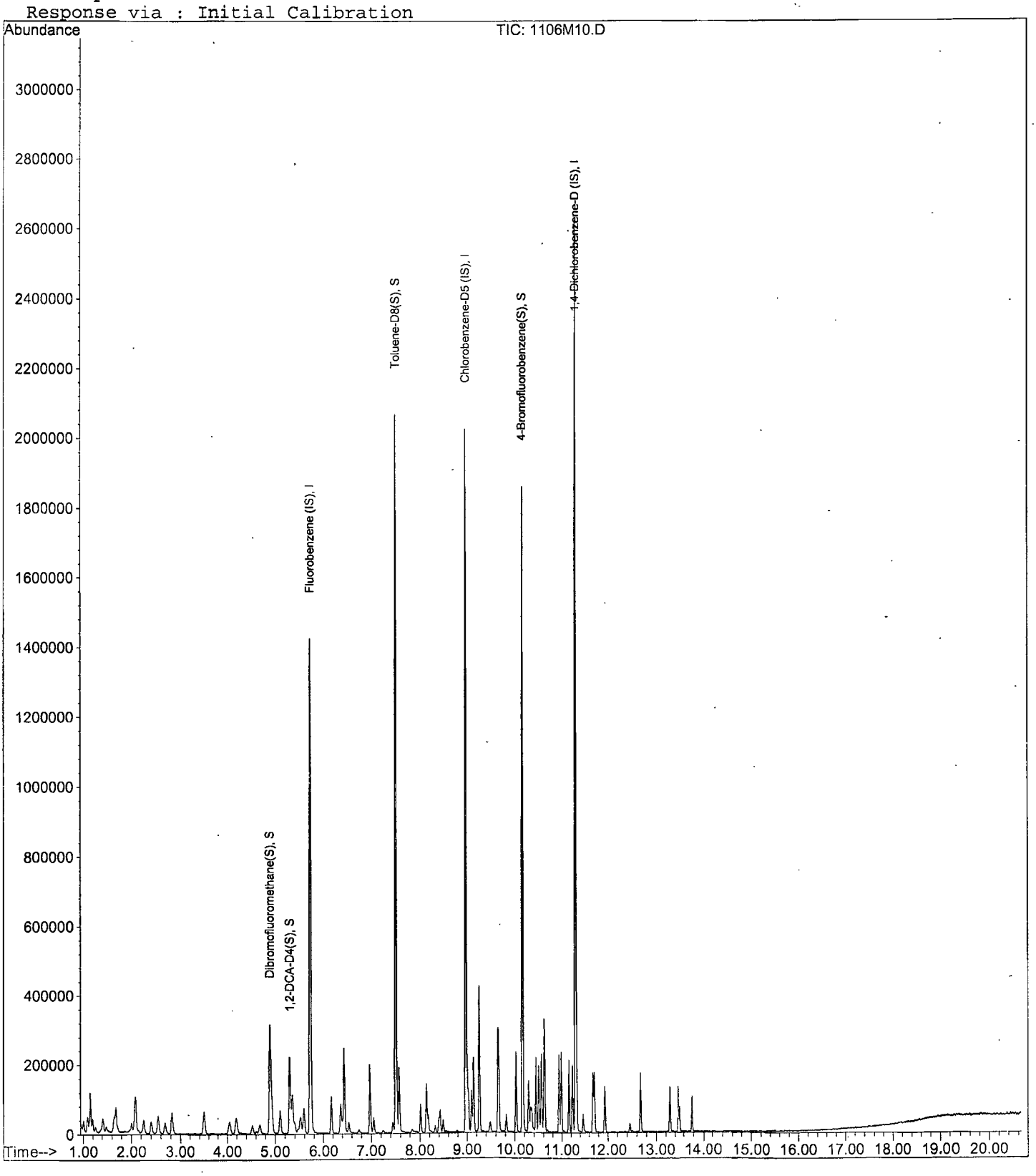
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\MAX\DATA\M191106\1106M10.D Vial: 7
Acq On : 6 Nov 19 12:40 Operator: LP,DG,CMM
Sample : 5.0ug/L VOC STD 11/06/19 Inst : Max
Misc : IS&S 9/24/19 Multiplr: 1.00

Quant Time: Nov 8 10:59 2019 Quant Results File: MSUR1106.RES

Method : M:\MAX\DATA\M191106\MSUR1106.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 07 14:27:44 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M191106\1106M11.D Vial: 8
Acq On : 6 Nov 19 13:08 Operator: LP,DG,CMM
Sample : 10ug/L VOC STD 11/06/19 Inst : Max
Misc : IS&S 9/24/19 Multiplr: 1.00

Quant Time: Nov 8 10:59 2019 Quant Results File: MSUR1106.RES

Quant Method : M:\MAX\DATA\M191106\MSUR1106.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 07 14:27:44 2019
Response via : Initial Calibration
DataAcq Meth : M8260

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene (IS)	5.73	96	1472898	25.00 ppb	0.00
4) Chlorobenzene-D5 (IS)	8.97	117	1197765	25.00 ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	11.30	152	729197	25.00 ppb	0.00
System Monitoring Compounds					
2) Dibromofluoromethane(S)	4.89	111	255331	23.34 ppb	0.00
Spiked Amount 25.000			Recovery =	93.360%	
3) 1,2-DCA-D4(S)	5.30	65	210027	22.90 ppb	0.00
Spiked Amount 25.000			Recovery =	91.608%	
5) Toluene-D8(S)	7.51	98	1333176	24.04 ppb	0.00
Spiked Amount 25.000			Recovery =	96.148%	
6) 4-Bromofluorobenzene(S)	10.16	95	496680	23.97 ppb	0.00
Spiked Amount 25.000			Recovery =	95.872%	

Target Compounds Qvalue

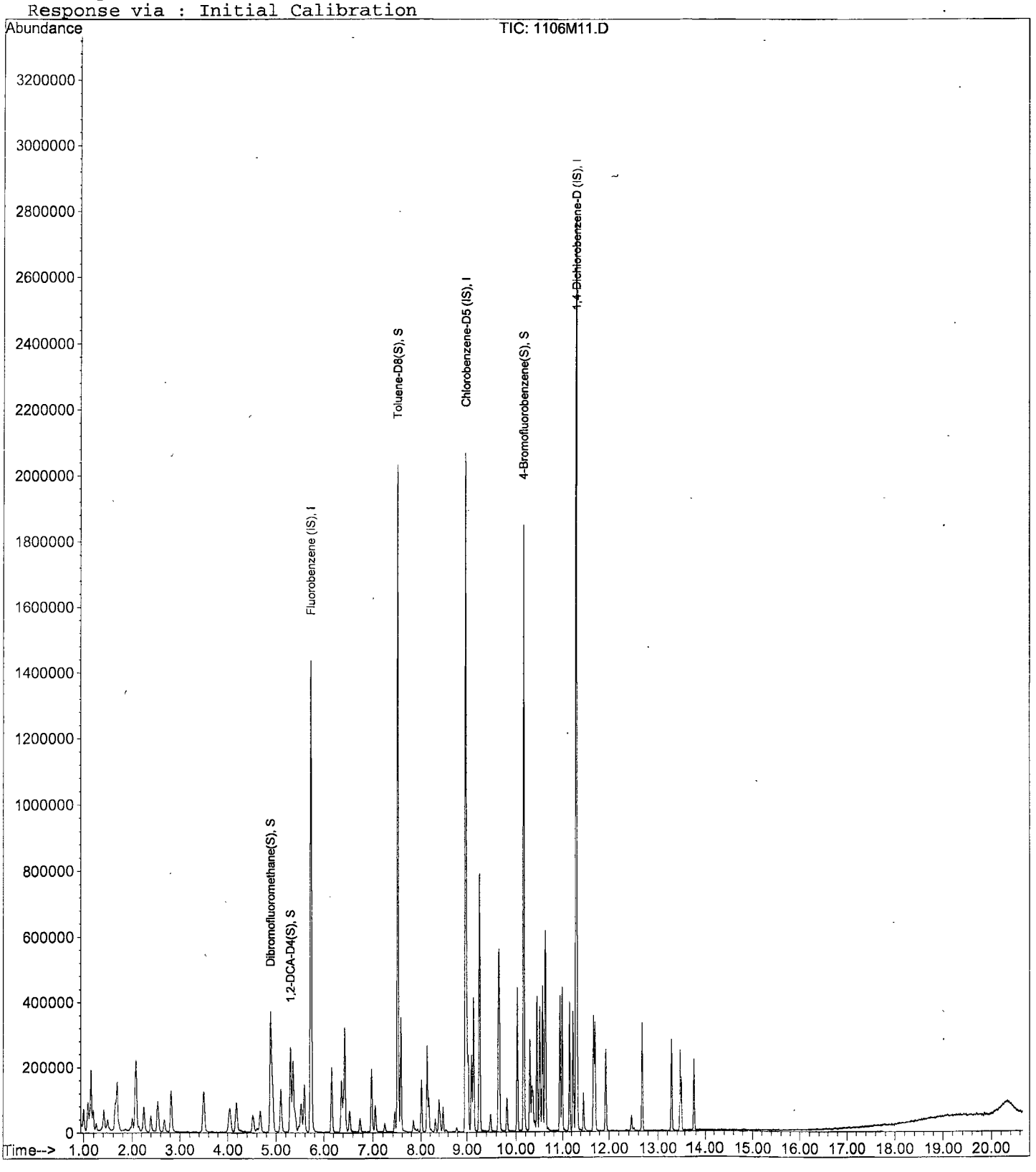
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\MAX\DATA\M191106\1106M11.D Vial: 8
Acq On : 6 Nov 19 13:08 Operator: LP,DG,CMM
Sample : 10ug/L VOC STD 11/06/19 Inst : Max
Misc : IS&S 9/24/19 Multiplr: 1.00

Quant Time: Nov 8 10:59 2019 Quant Results File: MSUR1106.RES

Method : M:\MAX\DATA\M191106\MSUR1106.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 07 14:27:44 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M191106\1106M12.D Vial: 9
Acq On : 6 Nov 19 13:37 Operator: LP,DG,CMM
Sample : 20ug/L VOC STD 11/06/19 Inst : Max
Misc : IS&S 9/24/19 Multiplr: 1.00

Quant Time: Nov 8 10:59 2019 Quant Results File: MSUR1106.RES

Quant Method : M:\MAX\DATA\M191106\MSUR1106.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 07 14:27:44 2019
Response via : Initial Calibration
DataAcq Meth : M8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	5.73	96	1340710	25.00	ppb	0.00
4) Chlorobenzene-D5 (IS)	8.97	117	1114510	25.00	ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	11.30	152	724038	25.00	ppb	0.00
System Monitoring Compounds						
2) Dibromofluoromethane(S)	4.89	111	562950	49.57	ppb	0.00
Spiked Amount 25.000			Recovery =	198.276%		
3) 1,2-DCA-D4(S)	5.30	65	460191	48.08	ppb	0.00
Spiked Amount 25.000			Recovery =	192.328%		
5) Toluene-D8(S)	7.51	98	2563898	49.68	ppb	0.00
Spiked Amount 25.000			Recovery =	198.724%		
6) 4-Bromofluorobenzene(S)	10.16	95	973597	50.49	ppb	0.00
Spiked Amount 25.000			Recovery =	201.972%		

Target Compounds Qvalue

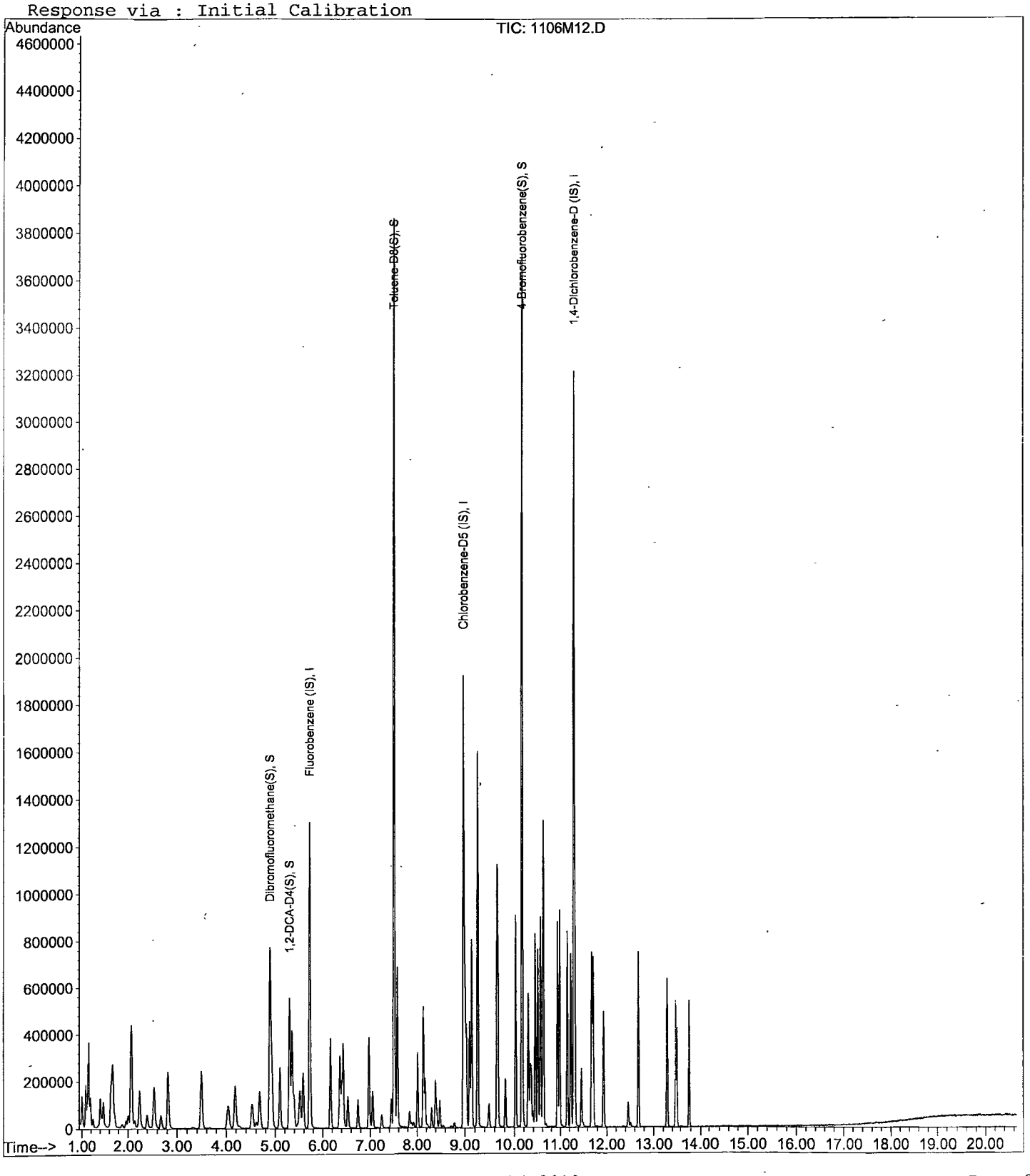
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\MAX\DATA\M191106\1106M12.D Vial: 9
Acq On : 6 Nov 19 13:37 Operator: LP,DG,CMM
Sample : 20ug/L VOC STD 11/06/19 Inst : Max
Misc : IS&S 9/24/19 Multiplr: 1.00

Quant Time: Nov 8 10:59 2019 Quant Results File: MSUR1106.RES

Method : M:\MAX\DATA\M191106\MSUR1106.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 07 14:27:44 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M191106\1106M13.D Vial: 10
Acq On : 6 Nov 19 14:06 Operator: LP,DG,CMM
Sample : 40ug/L VOC STD 11/06/19 Inst : Max
Misc : IS&S 9/24/19 Multiplr: 1.00

Quant Time: Nov 8 10:59 2019 Quant Results File: MSUR1106.RES

Quant Method : M:\MAX\DATA\M191106\MSUR1106.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 07 14:27:44 2019
Response via : Initial Calibration
DataAcq Meth : M8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	5.72	96	1359962	25.00	ppb	0.00
4) Chlorobenzene-D5 (IS)	8.97	117	1143203	25.00	ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	11.30	152	738427	25.00	ppb	0.00
System Monitoring Compounds						
2) Dibromofluoromethane(S)	4.89	111	590870	51.12	ppb	0.00
Spiked Amount 25.000			Recovery =	204.484%		
3) 1,2-DCA-D4(S)	5.30	65	486478	49.90	ppb	0.00
Spiked Amount 25.000			Recovery =	199.592%		
5) Toluene-D8(S)	7.51	98	2586805	48.87	ppb	0.00
Spiked Amount 25.000			Recovery =	195.468%		
6) 4-Bromofluorobenzene(S)	10.16	95	977576	49.43	ppb	0.00
Spiked Amount 25.000			Recovery =	197.704%		

Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration

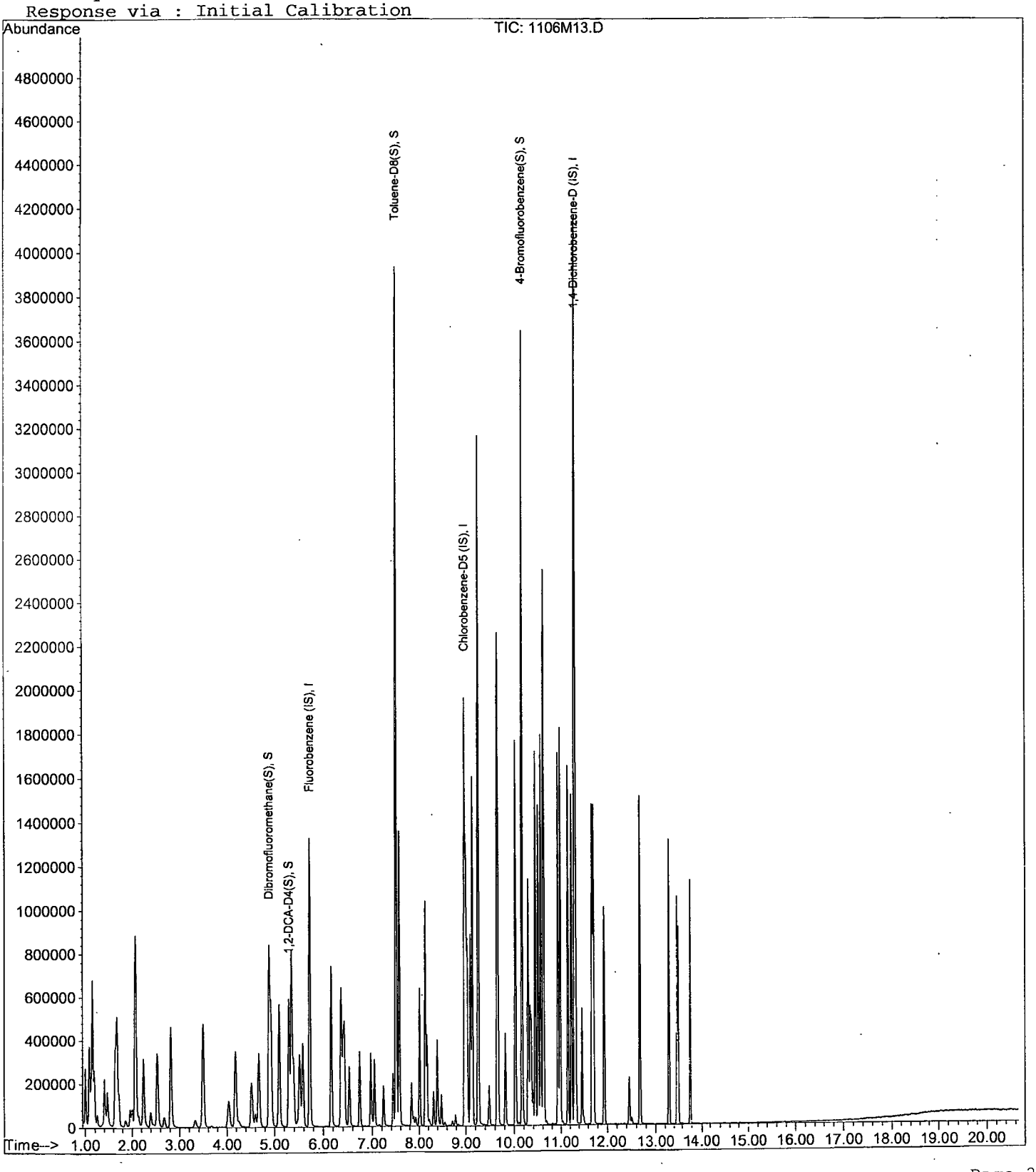
Quantitation Report

Data File : M:\MAX\DATA\M191106\1106M13.D
Acq On : 6 Nov 19 14:06
Sample : 40ug/L VOC STD 11/06/19
Misc : IS&S 9/24/19

Vial: 10
Operator: LP,DG,CMM
Inst : Max
Multiplr: 1.00

Quant Time: Nov 8 10:59 2019 Quant Results File: MSUR1106.RES

Method : M:\MAX\DATA\M191106\MSUR1106.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 07 14:27:44 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M191106\1106M14.D Vial: 11
Acq On : 6 Nov 19 14:35 Operator: LP,DG,CMM
Sample : 100ug/L VOC STD 11/06/19 Inst : Max
Misc : IS&S 9/24/19 Multiplr: 1.00

Quant Time: Nov 8 10:59 2019 Quant Results File: MSUR1106.RES

Quant Method : M:\MAX\DATA\M191106\MSUR1106.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 07 14:27:44 2019
Response via : Initial Calibration
DataAcq Meth : M8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	5.73	96	1491318	25.00	ppb	0.00
4) Chlorobenzene-D5 (IS)	8.97	117	1242508	25.00	ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	11.30	152	820397	25.00	ppb	0.00
System Monitoring Compounds						
2) Dibromofluoromethane(S)	4.89	111	1344078	100.78	ppb	0.00
Spiked Amount 25.000			Recovery =	403.132%		
3) 1,2-DCA-D4(S)	5.30	65	1155380	102.23	ppb	0.00
Spiked Amount 25.000			Recovery =	408.928%		
5) Toluene-D8(S)	7.51	98	5359123	93.15	ppb	0.00
Spiked Amount 25.000			Recovery =	372.588%		
6) 4-Bromofluorobenzene(S)	10.16	95	2081844	96.85	ppb	0.00
Spiked Amount 25.000			Recovery =	387.384%		

Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration

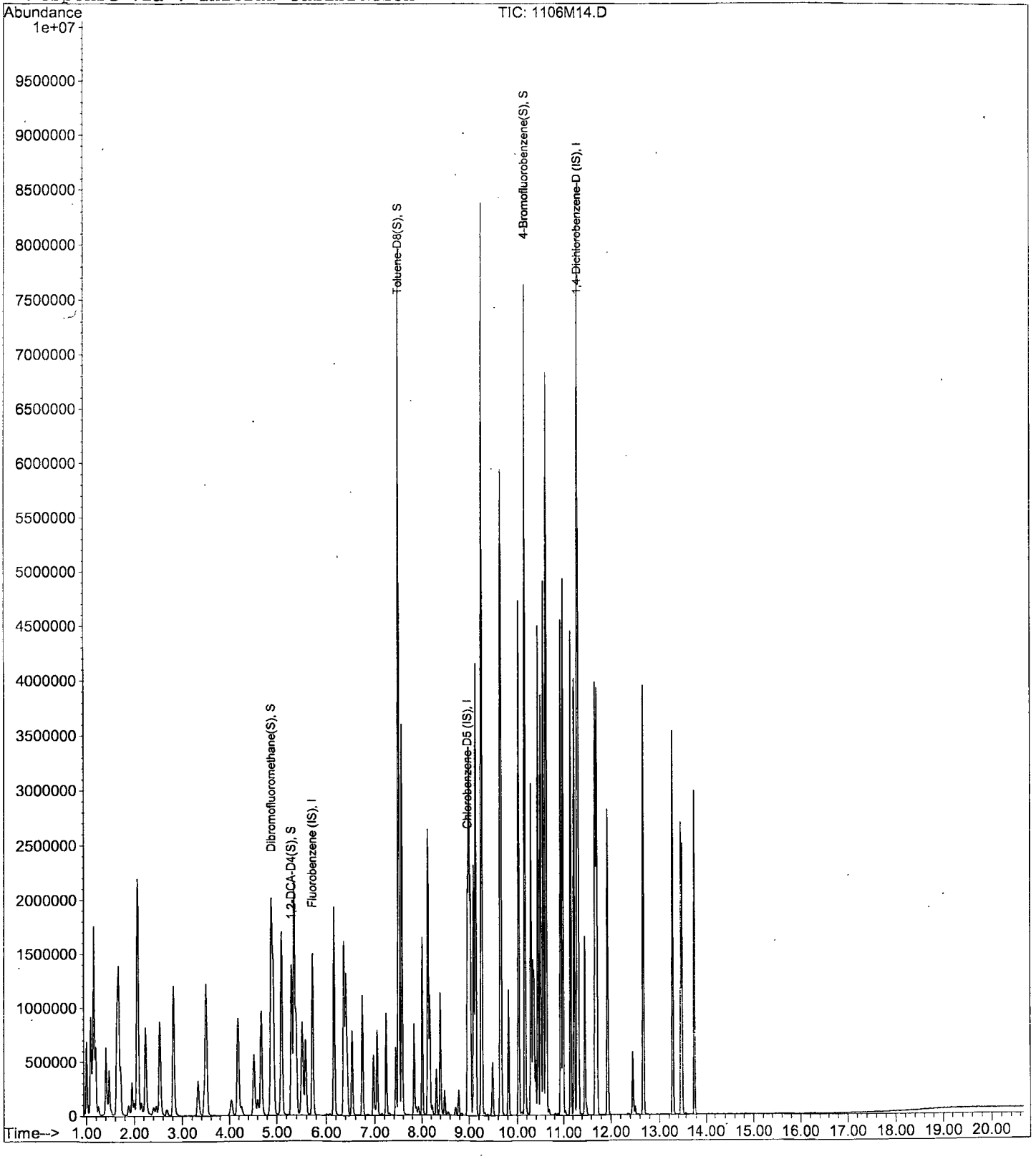
Quantitation Report

Data File : M:\MAX\DATA\M191106\1106M14.D
Acq On : 6 Nov 19 14:35
Sample : 100ug/L VOC STD 11/06/19
Misc : IS&S 9/24/19

Vial: 11
Operator: LP,DG,CMM
Inst : Max
Multiplr: 1.00

Quant Time: Nov 8 10:59 2019 Quant Results File: MSUR1106.RES

Method : M:\MAX\DATA\M191106\MSUR1106.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 07 14:27:44 2019
Response via : Initial Calibration



VOLATILE ORGANIC ANALYSIS
VOLATILE ORGANIC COMPOUNDS

Form 6
Initial Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Initial Cal. Date: 11/08/19
Matrix: water Instrument: Max Initials: DG

		Compound	1107M19.D	1107M20.D	1107M21 D	1107M22.D	1107M23 D	1107M24.D	1107M25.D				Avg	%RSD	Type	r^2	Q	MRF
1	I	Fluorobenzene (IS)																
2	TMHBL	Gasoline C6-C10	17.5	7.378	3.948	1.647	1.043	0.9296	0.8326				4.8	128	TMHBL	0.999		
3	TMHB	Chlorobenzene-D5 (IS)																
4	TMHB	1,4-Dichlorobenzene (IS)																
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Quantitation Report (QT Reviewed)

Data File : M:\MAX\DATA\M191107\1107M19.D
Acq On : 7 Nov 19 23:42
Sample : 20ug/L Gas 11/7/19
Misc : IS&S 9/24/19

Vial: 19
Operator: LP,DG,CMM
Inst : Max
Multiplr: 1.00

Quant Time: Nov 8 12:47 2019 Quant Results File: MGAS1107.RES

Quant Method : M:\MAX\DATA\M191107\MGAS1107.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Nov 08 12:47:04 2019
Response via : Initial Calibration
DataAcq Meth : M8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	5.72	TIC	1286698	25.000	ppb	0.00
3) Chlorobenzene-D5 (IS)	8.97	TIC	1031870m	25.000	ppb	0.00
4) 1,4-Dichlorobenzene (IS)	11.30	TIC	1138720m	25.000	ppb	0.00
System Monitoring Compounds						
Target Compounds						Qvalue
2) Gasoline C6-C10	11.30	TIC	17998583m	15.546	ppb	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report

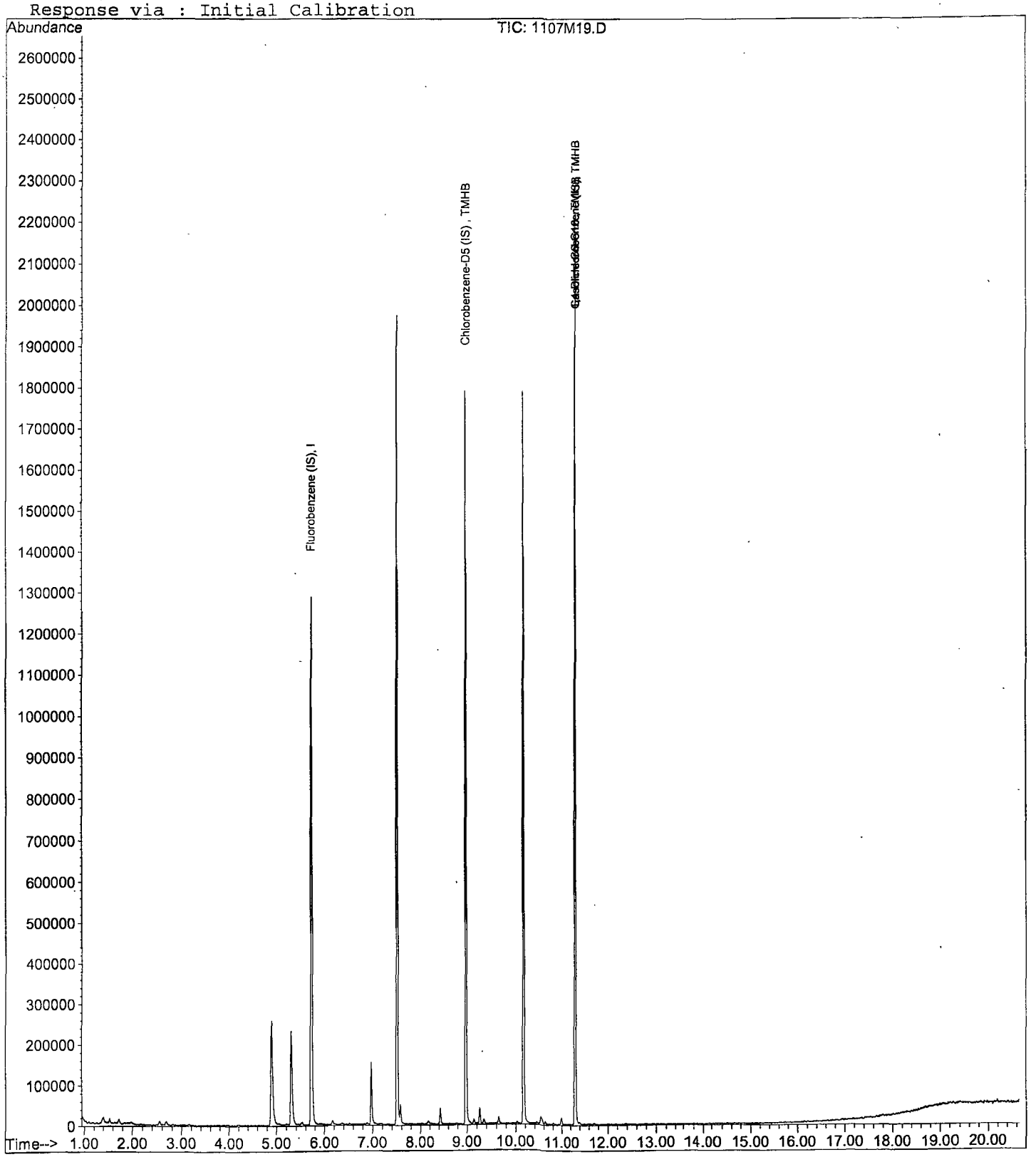
Data File : M:\MAX\DATA\M191107\1107M19.D
Acq On : 7 Nov 19 23:42
Sample : 20ug/L Gas 11/7/19
Misc : IS&S 9/24/19

Vial: 19
Operator: LP,DG,CMM
Inst : Max
Multiplr: 1.00

Quant Time: Nov 8 12:47 2019

Quant Results File: MGAS1107.RES

Method : M:\MAX\DATA\M191107\MGAS1107.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Nov 08 12:47:04 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\MAX\DATA\M191107\1107M20.D Vial: 20
Acq On : 8 Nov 19 00:11 Operator: LP,DG,CMM
Sample : 50ug/L Gas 11/7/19 Inst : Max
Misc : IS&S 9/24/19 Multiplr: 1.00

Quant Time: Nov 8 12:43 2019 Quant Results File: MGAS1107.RES

Quant Method : M:\MAX\DATA\M191107\MGAS1107.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Nov 08 10:38:50 2019
Response via : Initial Calibration
DataAcq Meth : M8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	5.72	TIC	1251981	25.000	ppb	0.00
3) Chlorobenzene-D5 (IS)	8.97	TIC	1048953m	25.000	ppb	0.00
4) 1,4-Dichlorobenzene (IS)	11.30	TIC	1127573m	25.000	ppb	0.00
System Monitoring Compounds						
Target Compounds						Qvalue
2) Gasoline C6-C10	11.30	TIC	18475157m	44.219	ppb	100

(#) = qualifier out of range (m) = manual integration

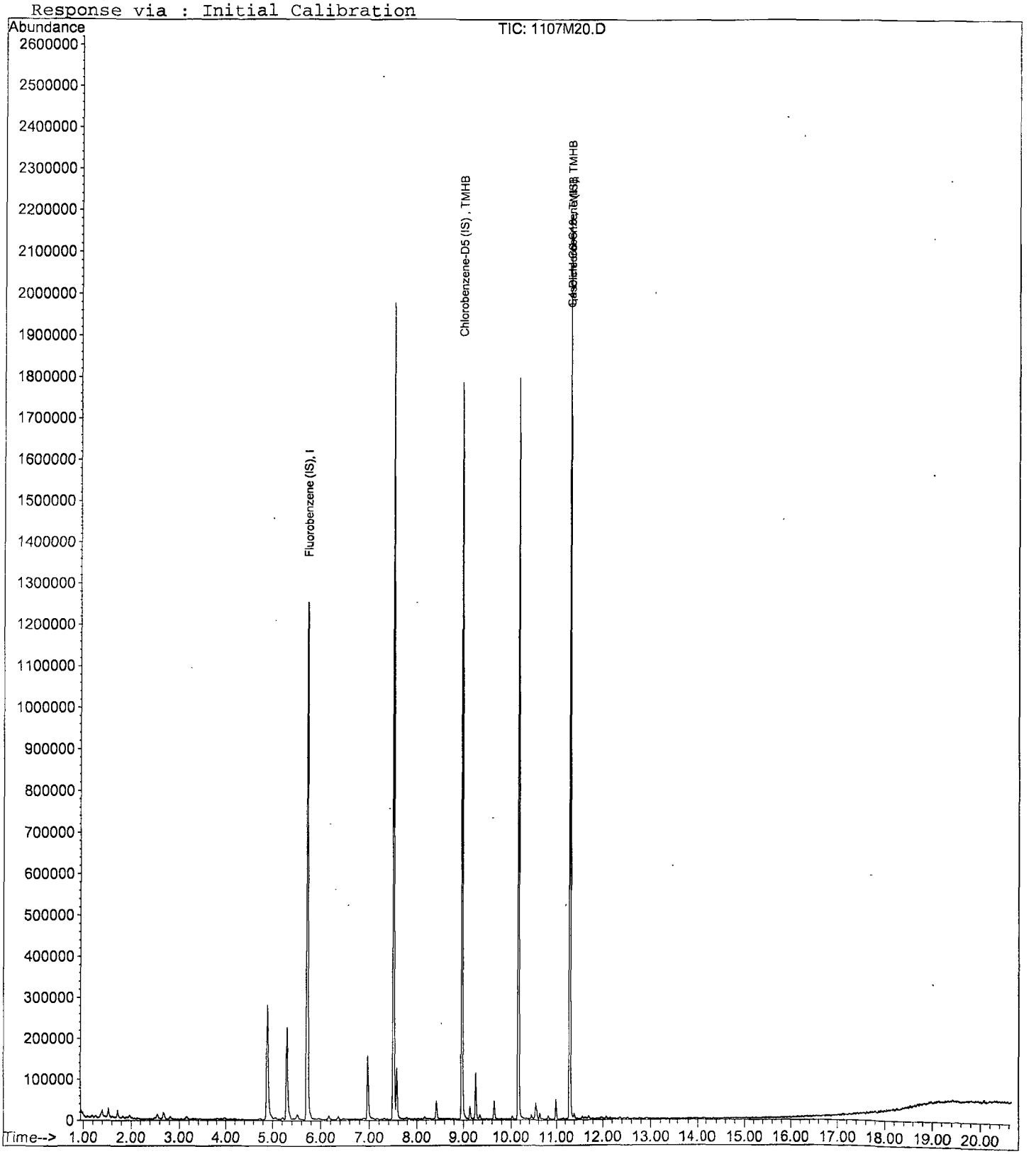
Quantitation Report

Data File : M:\MAX\DATA\M191107\1107M20.D
Acq On : 8 Nov 19 00:11
Sample : 50ug/L Gas 11/7/19
Misc : IS&S 9/24/19

Vial: 20
Operator: LP,DG,CMM
Inst : Max
Multiplr: 1.00

Quant Time: Nov 8 12:43 2019 Quant Results File: MGAS1107.RES

Method : M:\MAX\DATA\M191107\MGAS1107.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Nov 08 12:47:04 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\MAX\DATA\M191107\1107M21.D Vial: 21
Acq On : 8 Nov 19 00:40 Operator: LP,DG,CMM
Sample : 100ug/L Gas 11/7/19 Inst : Max
Misc : IS&S 9/24/19 Multiplr: 1.00

Quant Time: Nov 8 12:43 2019 Quant Results File: MGAS1107.RES

Quant Method : M:\MAX\DATA\M191107\MGAS1107.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Nov 08 10:38:50 2019
Response via : Initial Calibration
DataAcq Meth : M8260

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene (IS)	5.73	TIC	1262653	25.000 ppb	0.00
3) Chlorobenzene-D5 (IS)	8.97	TIC	1124851m	25.000 ppb	0.00
4) 1,4-Dichlorobenzene (IS)	11.30	TIC	1182072m	25.000 ppb	0.00

System Monitoring Compounds

Target Compounds					Qvalue
2) Gasoline C6-C10	11.30	TIC	19942220m	96.934 ppb	100

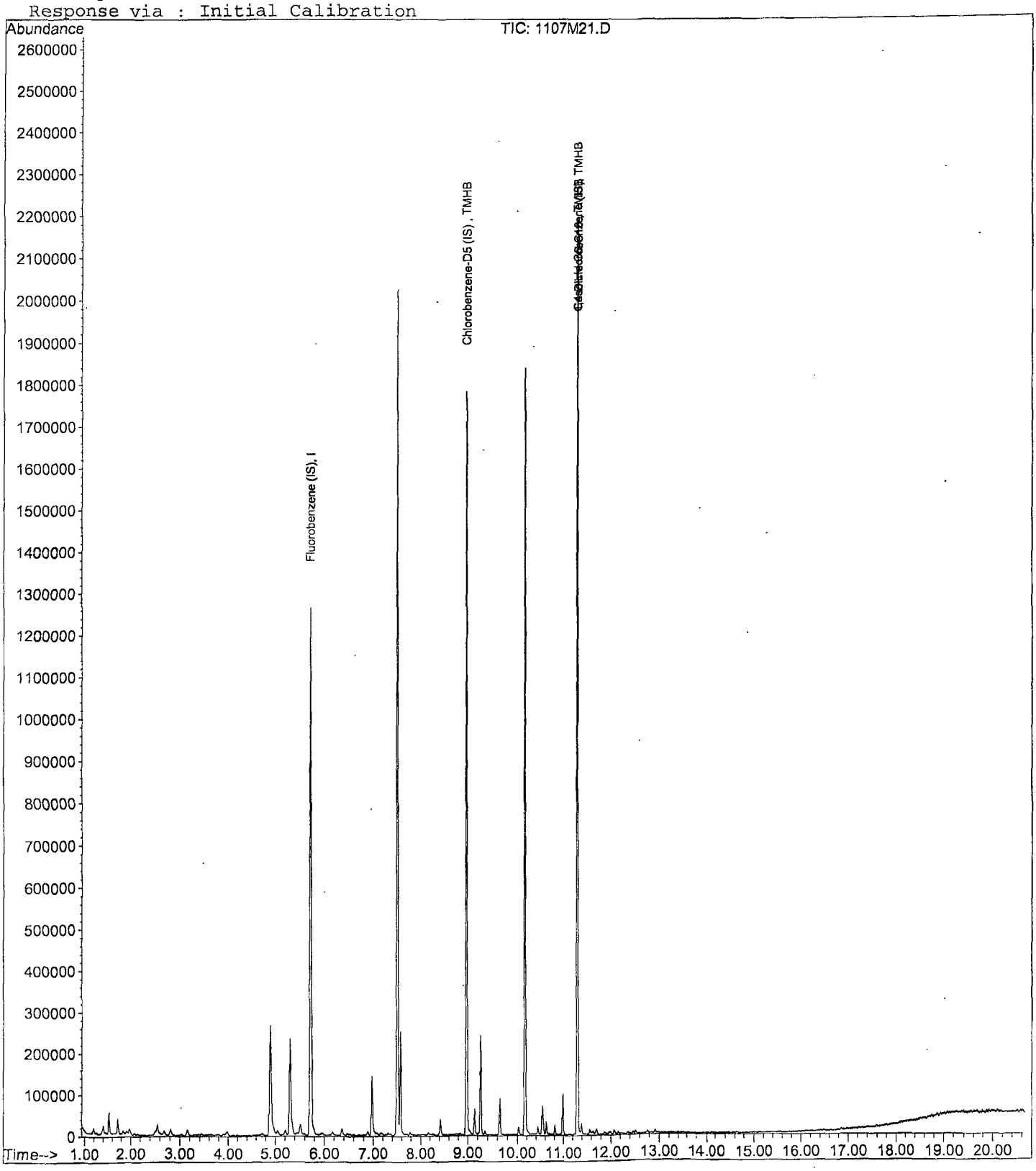
(#) = qualifier out of range (m) = manual integration

Data File : M:\MAX\DATA\M191107\1107M21.D
Acq On : 8 Nov 19 00:40
Sample : 100ug/L Gas 11/7/19
Misc : IS&S 9/24/19

Vial: 21
Operator: LP,DG,CMM
Inst : Max
Multiplr: 1.00

Quant Time: Nov 8 12:43 2019 Quant Results File: MGAS1107.RES

Method : M:\MAX\DATA\M191107\MGAS1107.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Nov 08 12:47:04 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\MAX\DATA\M191107\1107M22.D Vial: 22
Acq On : 8 Nov 19 1:09 Operator: LP,DG,CMM
Sample : 300ug/L Gas 11/7/19 Inst : Max
Misc : IS&S 9/24/19 Multiplr: 1.00

Quant Time: Nov 8 12:44 2019 Quant Results File: MGAS1107.RES

Quant Method : M:\MAX\DATA\M191107\MGAS1107.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Nov 08 10:38:50 2019
Response via : Initial Calibration
DataAcq Meth : M8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	5.72	TIC	1241499	25.000	ppb	0.00
3) Chlorobenzene-D5 (IS)	8.97	TIC	1288412m	25.000	ppb	0.00
4) 1,4-Dichlorobenzene (IS)	11.30	TIC	1249543m	25.000	ppb	0.00
System Monitoring Compounds						
Target Compounds						Qvalue
2) Gasoline C6-C10	11.30	TIC	24540952m	298.880	ppb	100

(#) = qualifier out of range (m) = manual integration

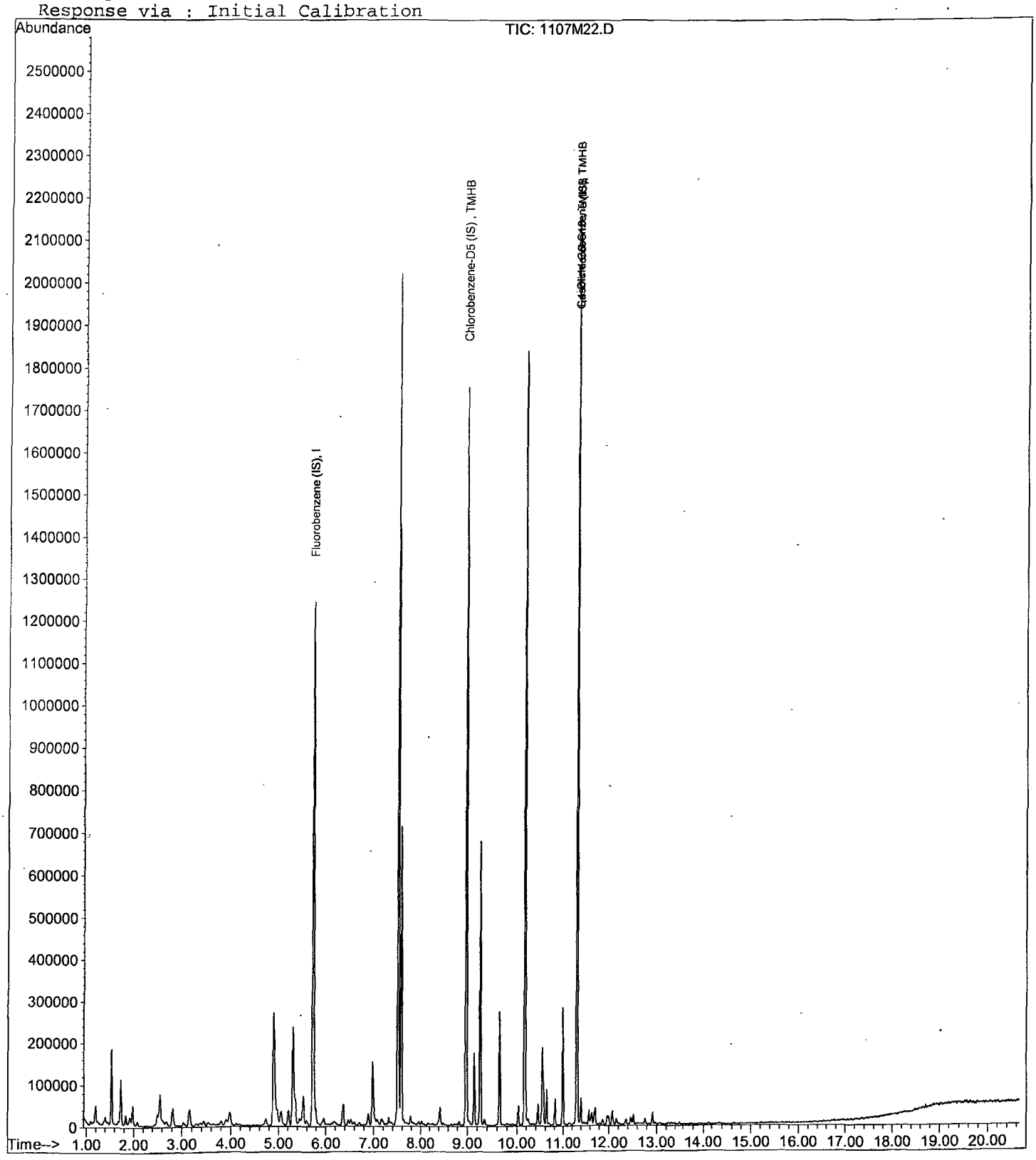
Quantitation Report

Data File : M:\MAX\DATA\M191107\1107M22.D
Acq On : 8 Nov 19 1:09
Sample : 300ug/L Gas 11/7/19
Misc : IS&S 9/24/19

Vial: 22
Operator: LP,DG,CMM
Inst : Max
Multiplr: 1.00

Quant Time: Nov 8 12:44 2019 Quant Results File: MGAS1107.RES

Method : M:\MAX\DATA\M191107\MGAS1107.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Nov 08 12:47:04 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\MAX\DATA\M191107\1107M23.D Vial: 23
Acq On : 8 Nov 19 1:37 Operator: LP,DG,CMM
Sample : 600ug/L Gas 11/7/19 Inst : Max
Misc : IS&S 9/24/19 Multiplr: 1.00

Quant Time: Nov 8 12:44 2019 Quant Results File: MGAS1107.RES

Quant Method : M:\MAX\DATA\M191107\MGAS1107.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Nov 08 10:38:50 2019
Response via : Initial Calibration
DataAcq Meth : M8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	5.72	TIC	1242187	25.000	ppb	0.00
3) Chlorobenzene-D5 (IS)	8.97	TIC	1588413m	25.000	ppb	0.00
4) 1,4-Dichlorobenzene (IS)	11.30	TIC	1334287m	25.000	ppb	0.00

System Monitoring Compounds

Target Compounds						Qvalue
2) Gasoline C6-C10	11.30	TIC	31097912m	566.610	ppb	100

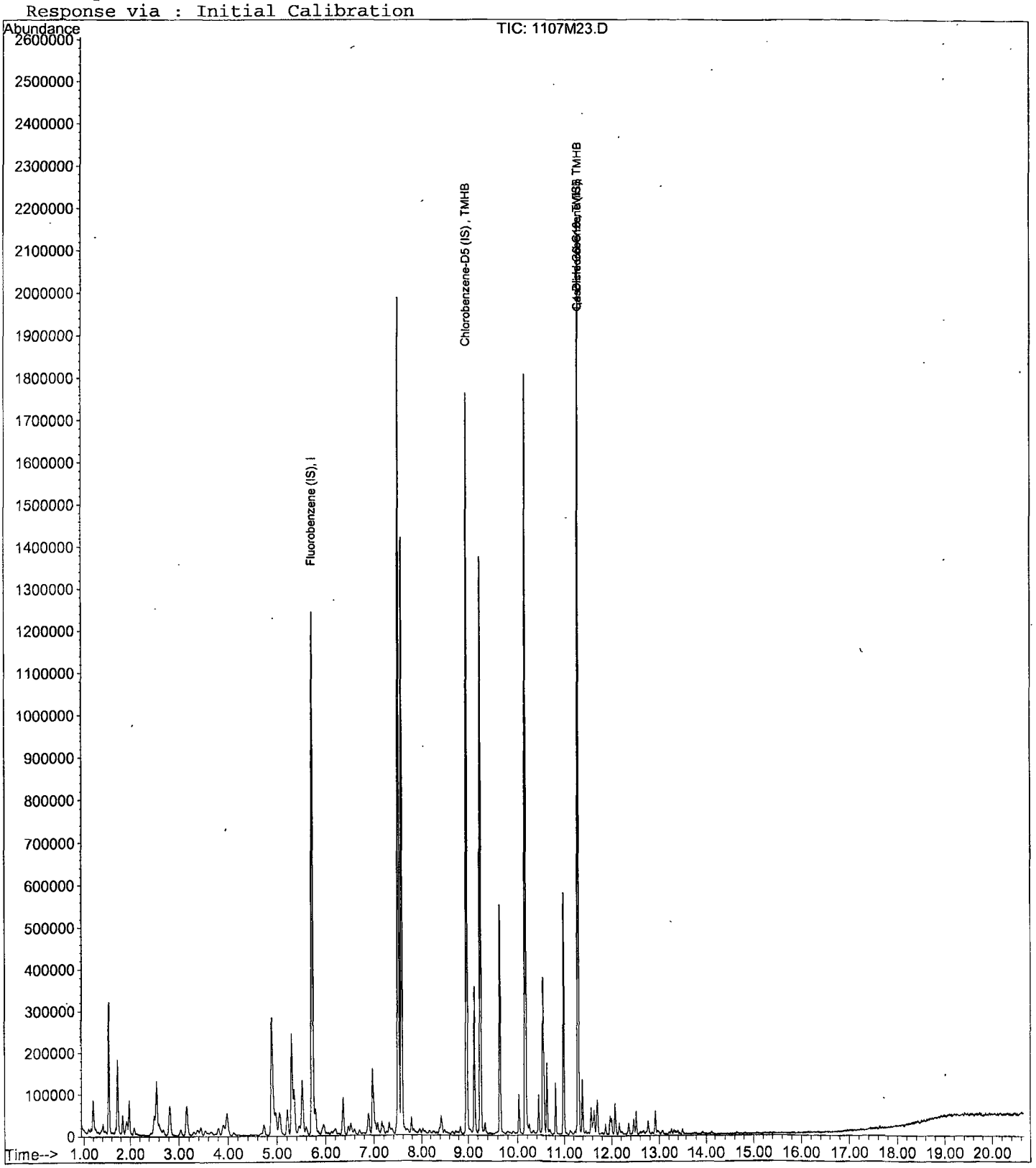
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\MAX\DATA\M191107\1107M23.D Vial: 23
Acq On : 8 Nov 19 1:37 Operator: LP,DG,CMM
Sample : 600ug/L Gas 11/7/19 Inst : Max
Misc : IS&S 9/24/19 Multiplr: 1.00

Quant Time: Nov 8 12:44 2019 Quant Results File: MGAS1107.RES

Method : M:\MAX\DATA\M191107\MGAS1107.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Nov 08 12:47:04 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\MAX\DATA\M191107\1107M24.D Vial: 24
Acq On : 8 Nov 19 2:06 Operator: LP,DG,CMM
Sample : 800ug/L Gas 11/7/19 Inst : Max
Misc : IS&S 9/24/19 Multiplr: 1.00

Quant Time: Nov 8 12:45 2019 Quant Results File: MGAS1107.RES

Quant Method : M:\MAX\DATA\M191107\MGAS1107.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Nov 08 10:38:50 2019
Response via : Initial Calibration
DataAcq Meth : M8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	5.73	TIC	1229071	25.000	ppb	0.00
3) Chlorobenzene-D5 (IS)	8.97	TIC	1787453m	25.000	ppb	0.00
4) 1,4-Dichlorobenzene (IS)	11.30	TIC	1371444m	25.000	ppb	0.00
System Monitoring Compounds						
Target Compounds						Qvalue
2) Gasoline C6-C10	11.30	TIC	36561363m	806.119	ppb	100

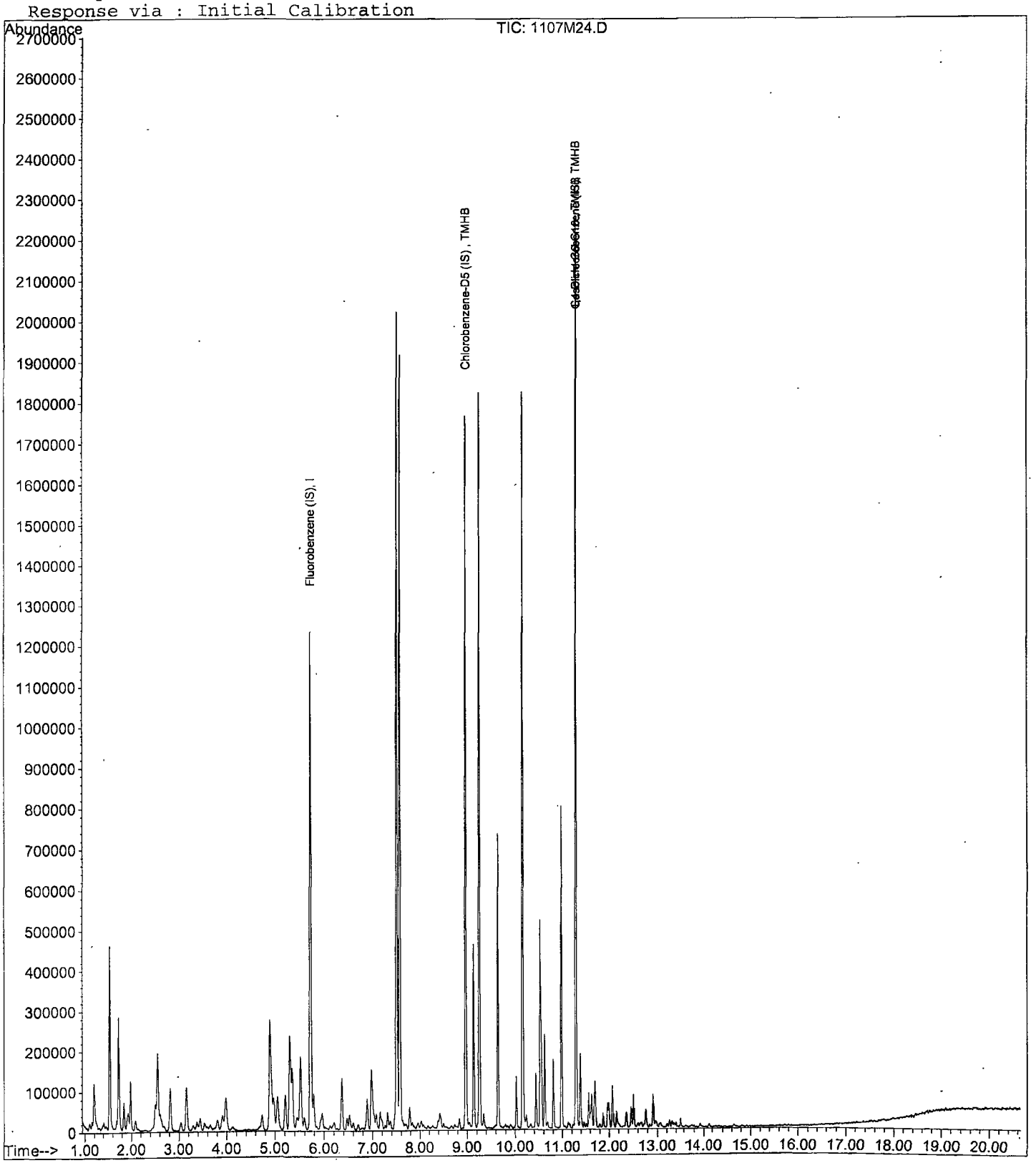
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\MAX\DATA\M191107\1107M24.D Vial: 24
Acq On : 8 Nov 19 2:06 Operator: LP,DG,CMM
Sample : 800ug/L Gas 11/7/19 Inst : Max
Misc : IS&S 9/24/19 Multiplr: 1.00

Quant Time: Nov 8 12:45 2019 Quant Results File: MGAS1107.RES

Method : M:\MAX\DATA\M191107\MGAS1107.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Nov 08 12:47:04 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\MAX\DATA\M191107\1107M25.D Vial: 25
Acq On : 8 Nov 19 2:35 Operator: LP,DG,CMM
Sample : 1000ug/L Gas 11/7/19 Inst : Max
Misc : IS&S 9/24/19 Multiplr: 1.00

Quant Time: Nov 8 12:45 2019 Quant Results File: MGAS1107.RES

Quant Method : M:\MAX\DATA\M191107\MGAS1107.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Nov 08 10:38:50 2019
Response via : Initial Calibration
DataAcq Meth : M8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	5.72	TIC	1206988	25.000	ppb	0.00
3) Chlorobenzene-D5 (IS)	8.97	TIC	1944667m	25.000	ppb	0.00
4) 1,4-Dichlorobenzene (IS)	11.30	TIC	1498057m	25.000	ppb	0.00
System Monitoring Compounds						
Target Compounds						Qvalue
2) Gasoline C6-C10	7.57	TIC	40196818m	986.869	ppb	100

(#) = qualifier out of range (m) = manual integration

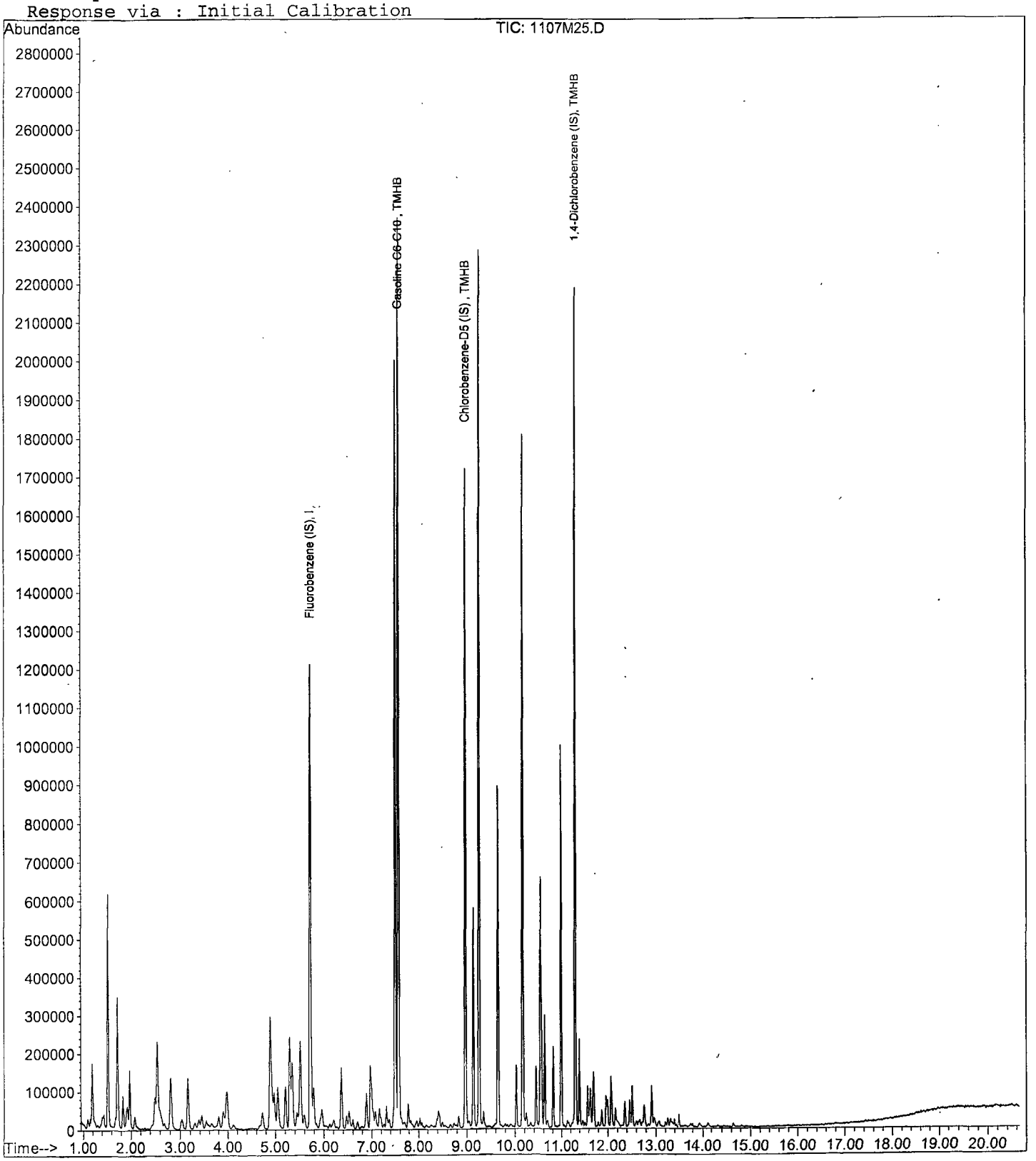
Quantitation Report

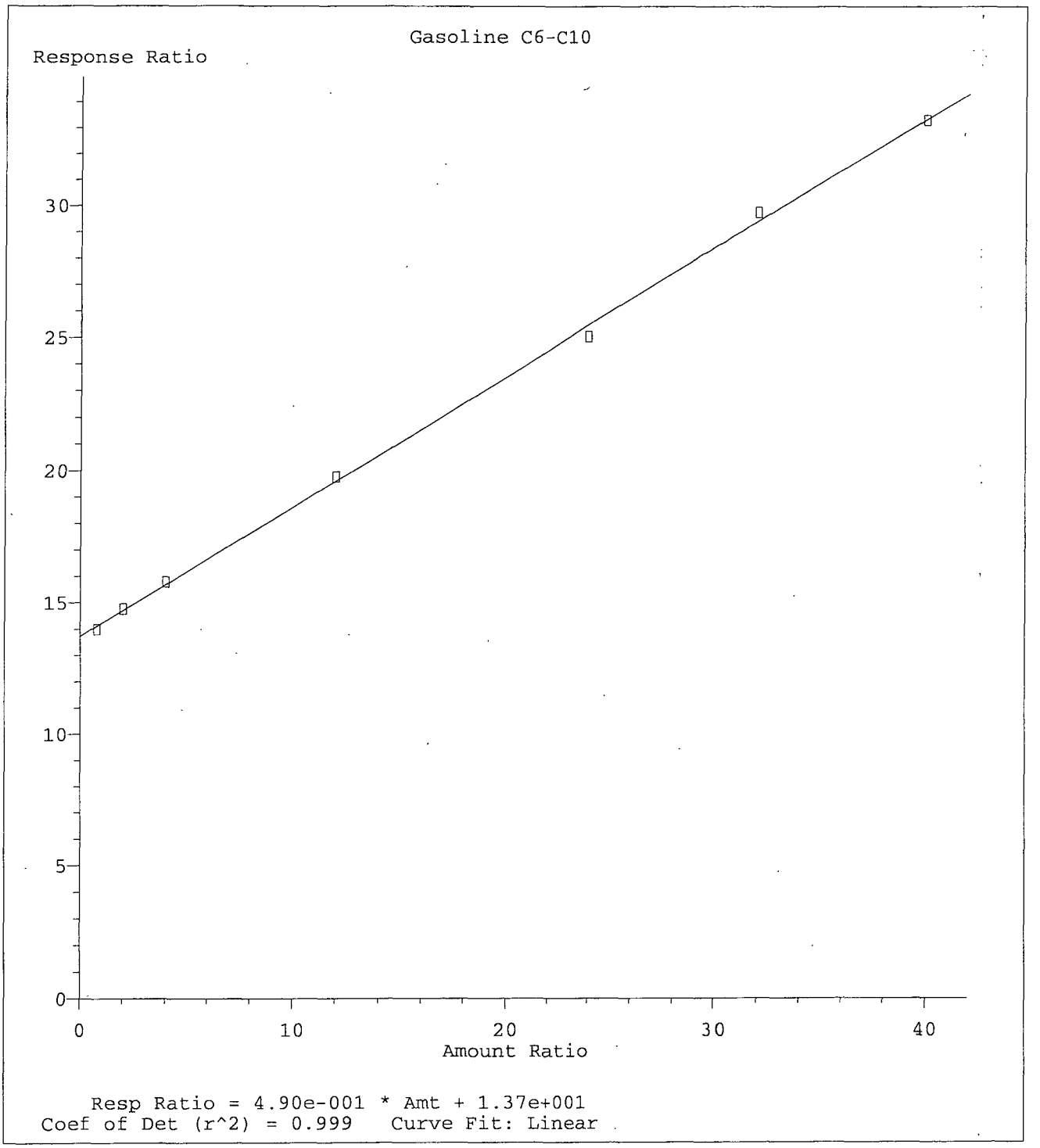
Data File : M:\MAX\DATA\M191107\1107M25.D
Acq On : 8 Nov 19 2:35
Sample : 1000ug/L Gas 11/7/19
Misc : IS&S 9/24/19

Vial: 25
Operator: LP,DG,CMM
Inst : Max
MultiplIr: 1.00

Quant Time: Nov 8 12:45 2019 Quant Results File: MGAS1107.RES

Method : M:\MAX\DATA\M191107\MGAS1107.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Nov 08 12:47:04 2019
Response via : Initial Calibration





Method Name: M:\MAX\DATA\M191107\MGAS1107.M
Calibration Table Last Updated: Fri Nov 08 12:47:04 2019

VOLATILE ORGANIC ANALYSIS
VOLATILE ORGANIC COMPOUNDS

Form 7

Second Source Calibration

Lab Name: APPL, Inc.
Case No:
Matrix:

SDG No:
Date Analyzed: 8 Nov 19 3:32
Instrument: Max
Initial Cal. Date: 11/06/19
Data File: 1107M27.D

		Compound	MEAN	CCRF	%D		%Drift
1	TMHB	Gasoline C6-C10	4.752	1.617	66	TMHBL	3.6
2							
3							
4							
5							
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38							
39							
40							
		Average			66.0		

Quantitation Report (QT Reviewed)

Data File : M:\MAX\DATA\M191107\1107M27.D Vial: 27
Acq On : 8 Nov 19 3:32 Operator: LP,DG,CMM
Sample : (SS) 300ug/L Gas 11/7/19 Inst. : Max
Misc : IS&S 9/24/19 Multiplr: 1.00

Quant Time: Nov 8 12:49 2019 Quant Results File: MGAS1107.RES

Quant Method : M:\MAX\DATA\M191107\MGAS1107.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Nov 08 12:47:04 2019
Response via : Initial Calibration
DataAcq Meth : M8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	5.73	TIC	1307038	25.000	ppb	0.00
3) Chlorobenzene-D5 (IS)	8.97	TIC	1382709m	25.000	ppb	0.00
4) 1,4-Dichlorobenzene (IS)	11.30	TIC	1289449m	25.000	ppb	0.00
System Monitoring Compounds						
Target Compounds						Qvalue
2) Gasoline C6-C10	11.30	TIC	25359403m	289.284	ppb	100

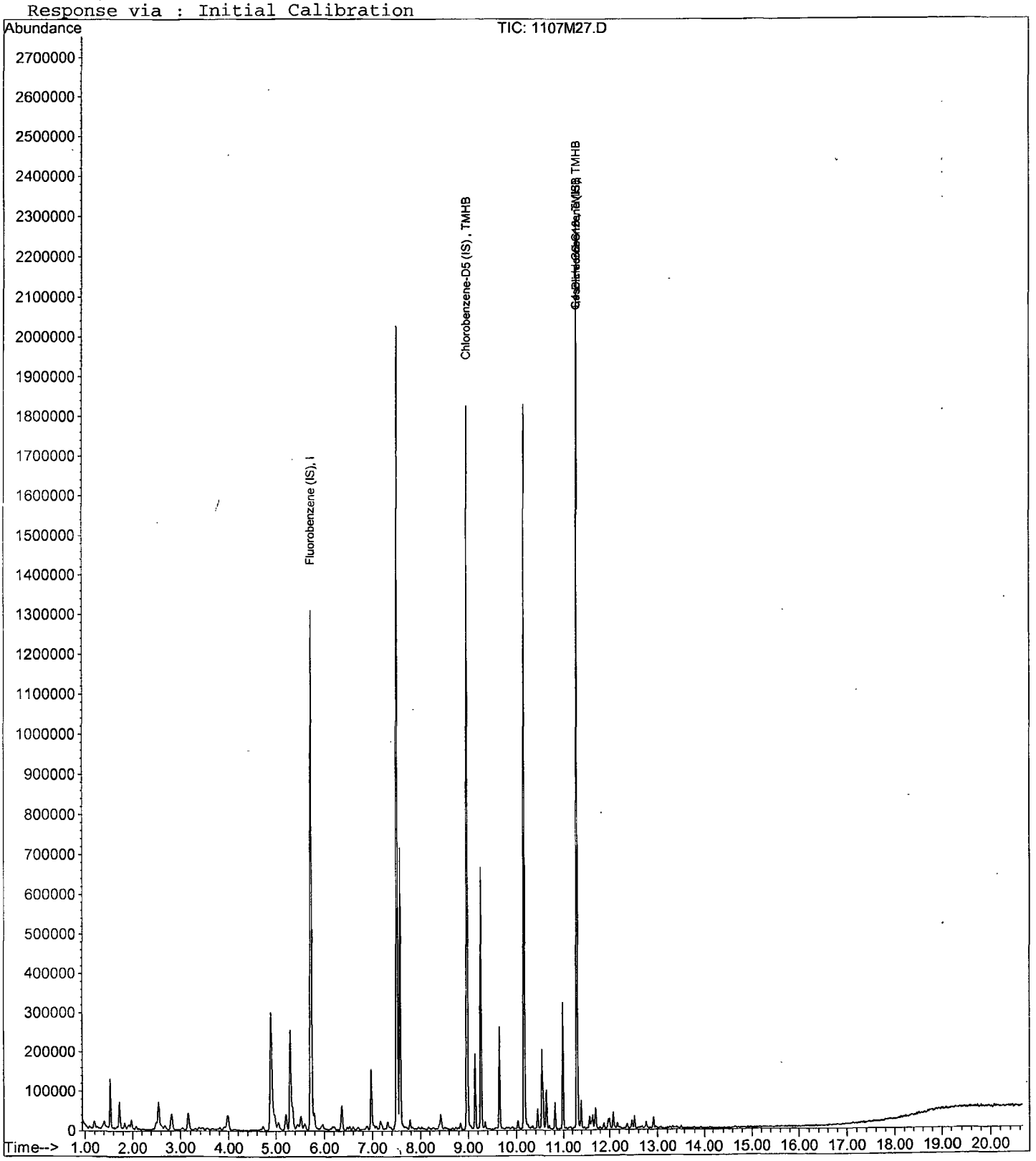
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\MAX\DATA\M191107\1107M27.D Vial: 27
Acq On : 8 Nov 19 3:32 Operator: LP,DG,CMM
Sample : (SS) 300ug/L Gas 11/7/19 Inst : Max
Misc : IS&S 9/24/19 Multiplr: 1.00

Quant Time: Nov 8 12:49 2019 Quant Results File: MGAS1107.RES

Method : M:\MAX\DATA\M191107\MGAS1107.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Nov 08 12:47:04 2019
Response via : Initial Calibration



VOLATILE ORGANIC ANALYSIS
VOLATILE ORGANIC COMPOUNDS

Form 7

Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix:

SDG No:
Date Analyzed: 8 Nov 19 5:56
Instrument: Max
Initial Cal. Date: 11/06/19
Data File: 1107M32.D

		Compound	MEAN	CCRF	%D		%Drift
1	I	Fluorobenzene (IS)	ISTD			I	
2	TMHB	Gasoline C6-C10	4.752	1.645	65	TMHBL	2.2
3	TMHB	Chlorobenzene-D5 (IS)	ISTD			TMHB	
4	TMHB	1,4-Dichlorobenzene (IS)	ISTD			TMHB	
5							
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39							
40							
		Average			65.0		

VOLATILE ORGANIC ANALYSIS BY
EPA METHOD 8260B

Form 7

Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix:

SDG No:
Date Analyzed: 8 Nov 19 5:56
Instrument: Max
Initial Cal. Date: 11/06/19
Data File: 1107M32.D

		Compound	MEAN	CCRF	%D		%Drift
1	I	Fluorobenzene (IS)	ISTD			I	
2	SL	Dibromofluoromethane(S)	0.1582	0.1918	21	SL	1.2
3	SL	1,2-DCA-D4(S)	0.1385	0.1842	33	SL	12
4	I	Chlorobenzene-D5 (IS)	ISTD			I	
5	S	Toluene-D8(S)	1.158	1.277	10	S	
6	S	4-Bromofluorobenzene(S)	0.4325	0.4749	9.8	S	
7	I	1,4-Dichlorobenzene-D (IS)	ISTD			I	
8							
9							
10							
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39							
40							
		Average			18.5		

Quantitation Report (QT Reviewed)

Data File : M:\MAX\DATA\M191107\1107M32.D Vial: 32
Acq On : 8 Nov 19 5:56 Operator: LP,DG,CMM
Sample : 191107B CCV 300ug/L Inst : Max
Misc : IS&S 9/24/19 Multiplr: 1.00

Quant Time: Nov 8 12:50 2019 Quant Results File: MGAS1107.RES

Quant Method : M:\MAX\DATA\M191107\MGAS1107.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Nov 08 12:47:04 2019
Response via : Initial Calibration
DataAcq Meth : M8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	5.73	TIC	1284527	25.000	ppb	0.00
3) Chlorobenzene-D5 (IS)	8.97	TIC	1349591m	25.000	ppb	0.00
4) 1,4-Dichlorobenzene (IS)	11.30	TIC	1325871m	25.000	ppb	0.00

System Monitoring Compounds

Target Compounds						Qvalue
2) Gasoline C6-C10	11.30	TIC	25360115m	306.646	ppb	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M191107\1107M32.D Vial: 32
Acq On : 8 Nov 19 5:56 Operator: LP,DG,CMM
Sample : 191107B CCV 300ug/L Inst : Max
Misc : IS&S 9/24/19 Multiplr: 1.00

Quant Time: Nov 8 13:03 2019 Quant Results File: MSUR1106.RES

Quant Method : M:\MAX\DATA\M191107\MSUR1106.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 07 14:27:44 2019
Response via : Initial Calibration
DataAcq Meth : M8260

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene (IS)	5.73	96	1308732	25.0000 ppb	0.00
4) Chlorobenzene-D5 (IS)	8.97	117	1073210	25.0000 ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	11.30	152	680550	25.0000 ppb	0.00
System Monitoring Compounds					
2) Dibromofluoromethane(S)	4.90	111	251053	25.3061 ppb	0.01
Spiked Amount 25.000			Recovery = 101.224%		
3) 1,2-DCA-D4(S)	5.30	65	241033	28.1196 ppb	0.00
Spiked Amount 25.000			Recovery = 112.480%		
5) Toluene-D8(S)	7.51	98	1370396	27.5762 ppb	0.00
Spiked Amount 25.000			Recovery = 110.304%		
6) 4-Bromofluorobenzene(S)	10.16	95	509674	27.4498 ppb	0.00
Spiked Amount 25.000			Recovery = 109.800%		

Target Compounds Qvalue

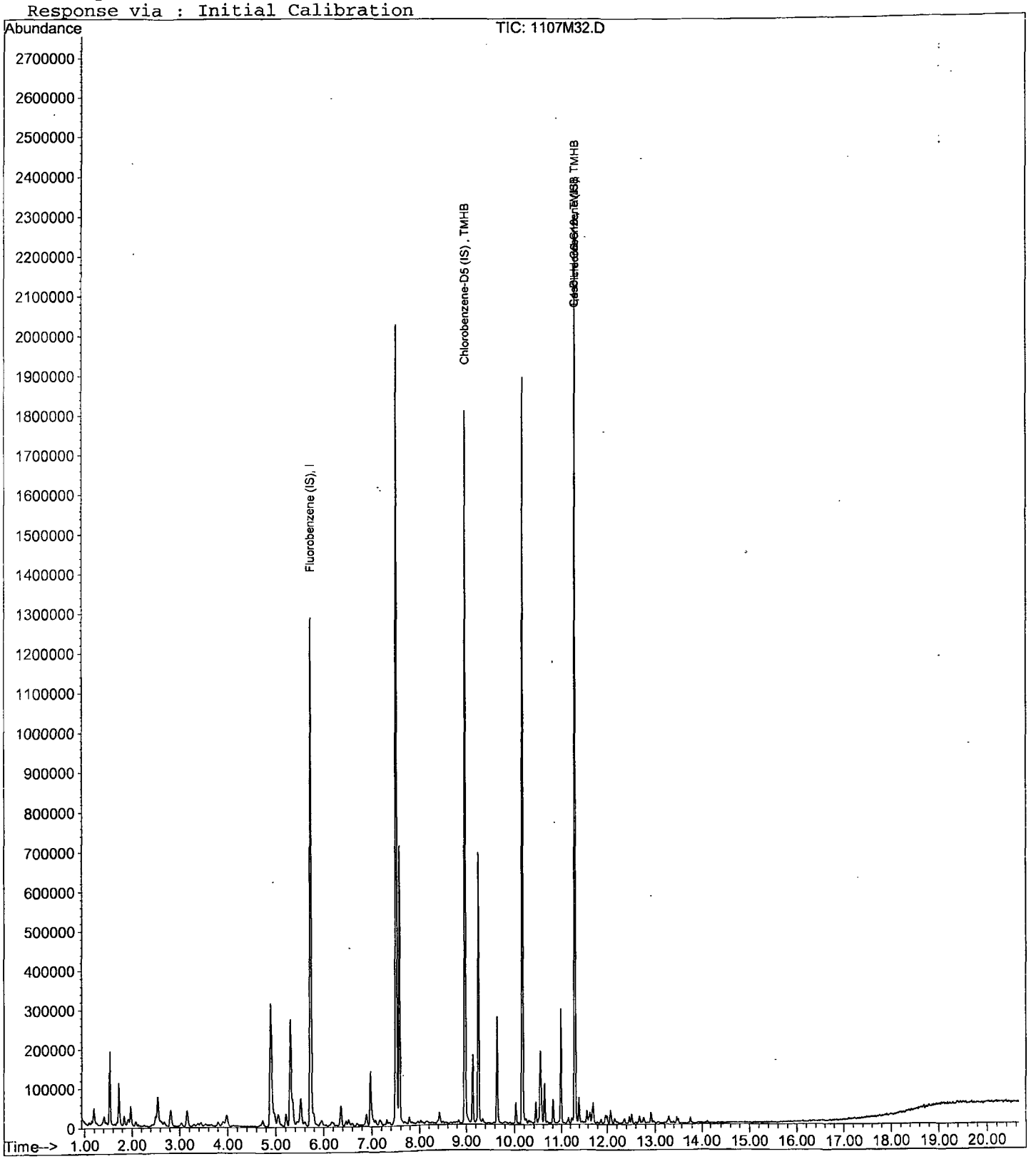
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\MAX\DATA\M191107\1107M32.D Vial: 32
Acq On : 8 Nov 19 5:56 Operator: LP,DG,CMM
Sample : 191107B CCV 300ug/L Inst : Max
Misc : IS&S 9/24/19 Multiplr: 1.00

Quant Time: Nov 8 12:50 2019 Quant Results File: MGAS1107.RES

Method : M:\MAX\DATA\M191107\MGAS1107.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Nov 08 12:47:04 2019
Response via : Initial Calibration



VOLATILE ORGANIC ANALYSIS
VOLATILE ORGANIC COMPOUNDS

Form 7

Ending Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix:

SDG No:
Date Analyzed: 8 Nov 19 10:15
Instrument: Max
Initial Cal. Date: 11/06/19
Data File: 1107M41.D

		Compound	MEAN	CCRF	%D		%Drift
1	I	Fluorobenzene (IS)	ISTD			I	
2	TMHB	Gasoline C6-C10	4.752	1.547	67	TMHBL	18
3	TMHB	Chlorobenzene-D5 (IS)	ISTD			TMHB	
4	TMHB	1,4-Dichlorobenzene (IS)	ISTD			TMHB	
5							
6							
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37							
38							
39							
40							
		Average			67.0		

VOLATILE ORGANIC ANALYSIS BY EPA METHOD 8260B

Form 7

Ending Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix:

SDG No:
Date Analyzed: 8 Nov 19 10:15
Instrument: Max
Initial Cal. Date: 11/06/19
Data File: 1107M41.D

		Compound	MEAN	CCRF	%D	%Drift	
1	I	Fluorobenzene (IS)	ISTD			I	
2	SL	Dibromofluoromethane(S)	0.1582	0.1745	10	SL	6.1
3	SL	1,2-DCA-D4(S)	0.1385	0.1552	12	SL	2.1
4	I	Chlorobenzene-D5 (IS)	ISTD			I	
5	S	Toluene-D8(S)	1.158	1.217	5.1	S	
6	S	4-Bromofluorobenzene(S)	0.4325	0.4547	5.1	S	
7	I	1,4-Dichlorobenzene-D (IS)	ISTD			I	
8							
9							
10							
11							
12							
13							
14							
15							
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38							
39							
40							
		Average			8.1		

Quantitation Report (QT Reviewed)

Data File : M:\MAX\DATA\M191107\1107M41.D Vial: 41
Acq On : 8 Nov 19 10:15 Operator: LP,DG,CMM
Sample : Ending CCV 300ug/L 11/7/19 Inst : Max
Misc : IS&S 9/24/19 Multiplr: 1.00

Quant Time: Nov 8 13:09 2019 Quant Results File: MGAS1107.RES

Quant Method : M:\MAX\DATA\M191107\MGAS1107.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Nov 08 12:47:04 2019
Response via : Initial Calibration
DataAcq Meth : M8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	5.72	TIC	1278329	25.000	ppb	0.00
3) Chlorobenzene-D5 (IS)	8.97	TIC	1284452m	25.000	ppb	0.00
4) 1,4-Dichlorobenzene (IS)	11.30	TIC	1241537m	25.000	ppb	0.00

System Monitoring Compounds

Target Compounds						Qvalue
2) Gasoline C6-C10	11.30	TIC	23729037m	246.481	ppb	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M191107\1107M41.D Vial: 41
Acq On : 8 Nov 19 10:15 Operator: LP,DG,CMM
Sample : Ending CCV 300ug/L 11/7/19 Inst : Max
Misc : IS&S 9/24/19 Multiplr: 1.00

Quant Time: Nov 12 14:40 2019 Quant Results File: MSUR1106.RES

Quant Method : M:\MAX\DATA\M191107\MSUR1106.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 07 14:27:44 2019
Response via : Initial Calibration
DataAcq Meth : M8260

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene (IS)	5.72	96	1312637	25.0000 ppb	0.00
4) Chlorobenzene-D5 (IS)	8.97	117	1084434	25.0000 ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	11.30	152	703472	25.0000 ppb	0.00
System Monitoring Compounds					
2) Dibromofluoromethane(S)	4.90	111	229076	23.4642 ppb	0.00
Spiked Amount 25.000			Recovery = 93.856%		
3) 1,2-DCA-D4(S)	5.30	65	203745	24.4859 ppb	0.00
Spiked Amount 25.000			Recovery = 97.944%		
5) Toluene-D8(S)	7.51	98	1319818	26.2835 ppb	0.00
Spiked Amount 25.000			Recovery = 105.136%		
6) 4-Bromofluorobenzene(S)	10.16	95	493066	26.2805 ppb	0.00
Spiked Amount 25.000			Recovery = 105.124%		

Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration

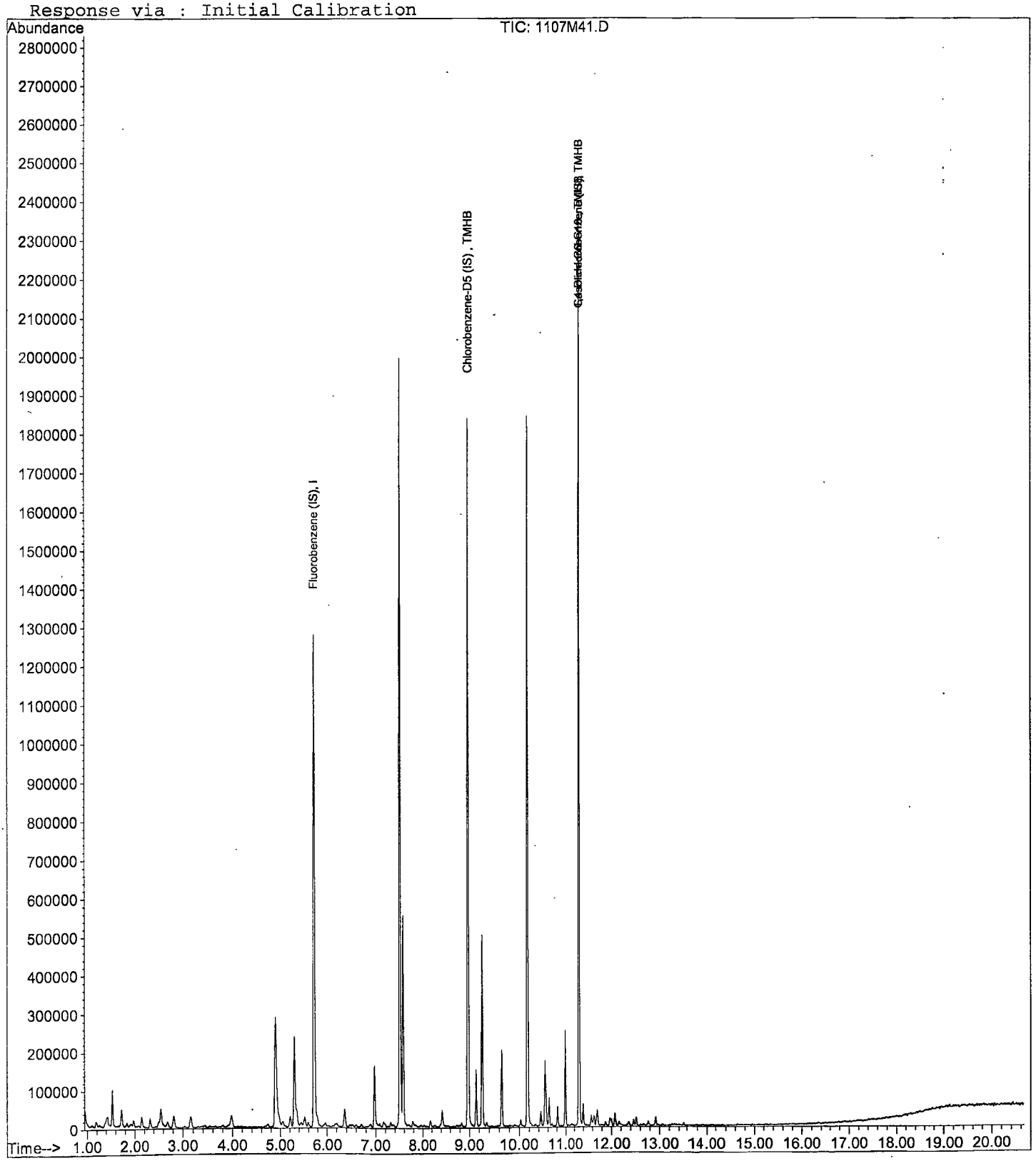
Quantitation Report

Data File : M:\MAX\DATA\M191107\1107M41.D
Acq On : 8 Nov 19 10:15
Sample : Ending CCV 300ug/L 11/7/19
Misc : IS&S 9/24/19

Vial: 41
Operator: LP,DG,CMM
Inst : Max
Multiplr: 1.00

Quant Time: Nov 8 13:09 2019 Quant Results File: MGAS1107.RES

Method : M:\MAX\DATA\M191107\MGAS1107.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Nov 08 12:47:04 2019
Response via : Initial Calibration



ORGANICS
Raw Data

Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M191107\1107M39.D Vial: 39
Acq On : 8 Nov 19 9:17 Operator: LP,DG,CMM
Sample : BA02524W01 Inst : Max
Misc : IS&S 9/24/19 Multiplr: 1.00

Quant Time: Nov 8 12:48 2019 Quant Results File: MGAS1107.RES

Quant Method : M:\MAX\DATA\M191107\MGAS1107.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Nov 08 12:47:04 2019
Response via : Initial Calibration
DataAcq Meth : M8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	5.72	TIC	1308200	25.0000	ppb	0.00
3) Chlorobenzene-D5 (IS)	8.97	TIC	1068657m	25.0000	ppb	0.00
4) 1,4-Dichlorobenzene (IS)	11.30	TIC	1165519m	25.0000	ppb	0.00

System Monitoring Compounds

Target Compounds						Qvalue
2) Gasoline C6-C10	7.51	TIC	11414623m	-254.9931	ppb	100

(#) = qualifier out of range (m) = manual integration
1107M39.D MGAS1107.M Thu Dec 05 09:23:22 2019 Page 1

Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M191107\1107M39.D Vial: 39
Acq On : 8 Nov 19 9:17 Operator: LP,DG,CMM
Sample : BA02524W01 Inst : Max
Misc : IS&S 9/24/19 Multiplr: 1.00

Quant Time: Nov 8 13:03 2019 Quant Results File: MSUR1106.RES

Quant Method : M:\MAX\DATA\M191107\MSUR1106.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 07 14:27:44 2019
Response via : Initial Calibration
DataAcq Meth : M8260

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene (IS)	5.72	96	1354371	25.0000 ppb	0.00
4) Chlorobenzene-D5 (IS)	8.97	117	1086864	25.0000 ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	11.30	152	676066	25.0000 ppb	0.00
System Monitoring Compounds					
2) Dibromofluoromethane(S)	4.90	111	212592	21.5972 ppb	0.01
Spiked Amount 25.000			Recovery =	86.388%	
3) 1,2-DCA-D4(S)	5.30	65	208521	24.3282 ppb	0.00
Spiked Amount 25.000			Recovery =	97.312%	
5) Toluene-D8(S)	7.51	98	1314358	26.1163 ppb	0.00
Spiked Amount 25.000			Recovery =	104.464%	
6) 4-Bromofluorobenzene(S)	10.16	95	496511	26.4050 ppb	0.00
Spiked Amount 25.000			Recovery =	105.620%	

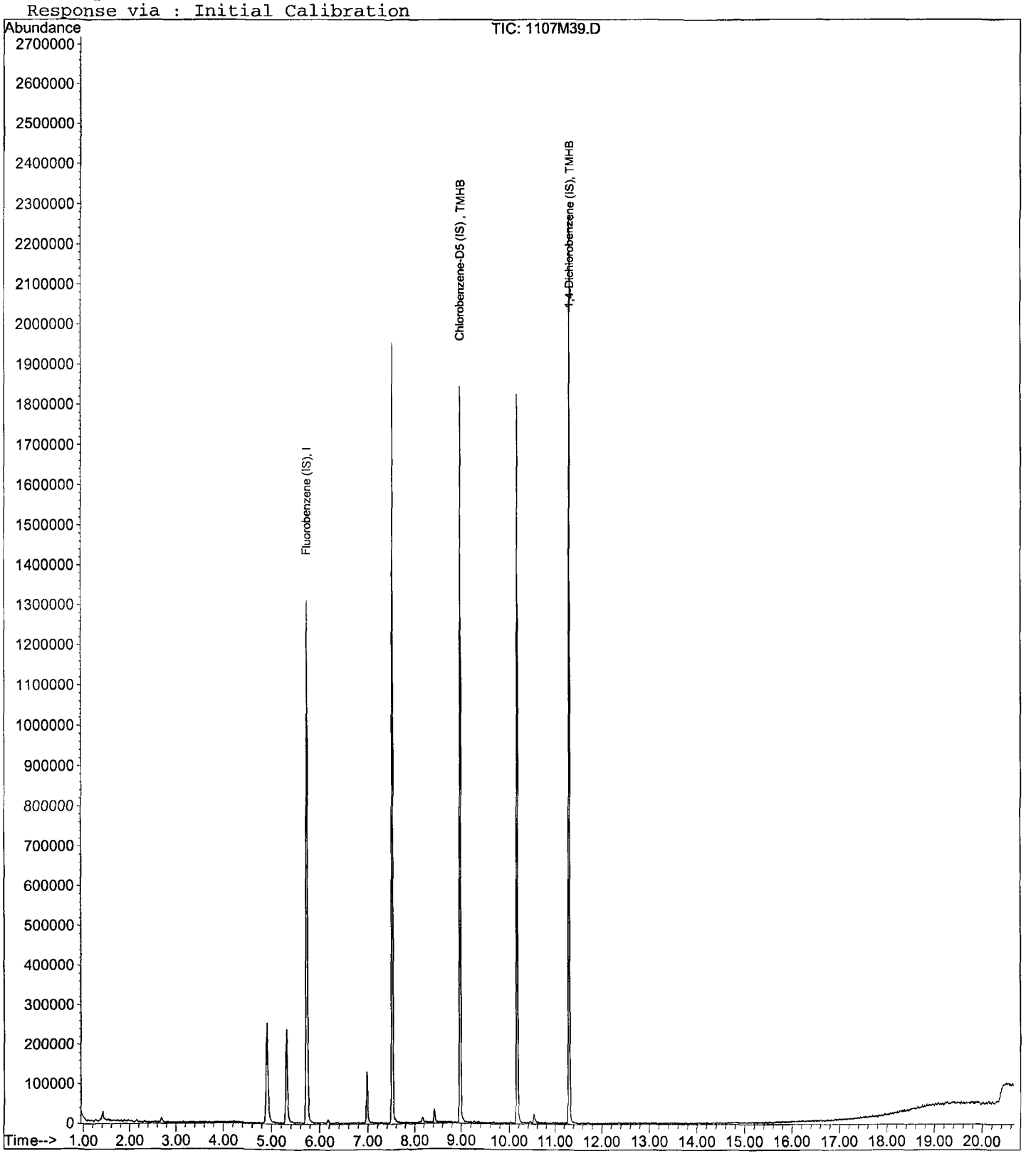
Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration

Data File : M:\MAX\DATA\M191107\1107M39.D Vial: 39
Acq On : 8 Nov 19 9:17 Operator: LP,DG,CMM
Sample : BA02524W01 Inst : Max
Misc : IS&S 9/24/19 Multiplr: 1.00

Quant Time: Nov 8 12:48 2019 Quant Results File: MGAS1107.RES

Method : M:\MAX\DATA\M191107\MGAS1107.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Nov 08 12:47:04 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M191107\1107M40.D Vial: 40
Acq On : 8 Nov 19 9:46 Operator: LP,DG,CMM
Sample : BA02525W01 Inst : Max
Misc : IS&S 9/24/19 Multiplr: 1.00

Quant Time: Nov 8 12:48 2019 Quant Results File: MGAS1107.RES

Quant Method : M:\MAX\DATA\M191107\MGAS1107.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Nov 08 12:47:04 2019
Response via : Initial Calibration
DataAcq Meth : M8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	5.73	TIC	1286762	25.0000	ppb	0.00
3) Chlorobenzene-D5 (IS)	8.97	TIC	1060416m	25.0000	ppb	0.00
4) 1,4-Dichlorobenzene (IS)	11.30	TIC	1168025m	25.0000	ppb	0.00

System Monitoring Compounds

Target Compounds						Qvalue
2) Gasoline C6-C10	7.51	TIC	11760030m	-233.8985	ppb	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M191107\1107M40.D Vial: 40
Acq On : 8 Nov 19 9:46 Operator: LP,DG,CMM
Sample : BA02525W01 Inst : Max
Misc : IS&S 9/24/19 Multiplr: 1.00

Quant Time: Nov 8 13:03 2019 Quant Results File: MSUR1106.RES

Quant Method : M:\MAX\DATA\M191107\MSUR1106.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 07 14:27:44 2019
Response via : Initial Calibration
DataAcq Meth : M8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	5.72	96	1345394	25.0000	ppb	0.00
4) Chlorobenzene-D5 (IS)	8.97	117	1085252	25.0000	ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	11.30	152	676722	25.0000	ppb	0.00
System Monitoring Compounds						
2) Dibromofluoromethane(S)	4.89	111	265656	25.9048	ppb	0.00
Spiked Amount 25.000			Recovery = 103.620%			
3) 1,2-DCA-D4(S)	5.30	65	244361	27.8002	ppb	0.00
Spiked Amount 25.000			Recovery = 111.200%			
5) Toluene-D8(S)	7.51	98	1315276	26.1733	ppb	0.00
Spiked Amount 25.000			Recovery = 104.692%			
6) 4-Bromofluorobenzene(S)	10.16	95	491640	26.1848	ppb	0.00
Spiked Amount 25.000			Recovery = 104.740%			

Target Compounds Qvalue

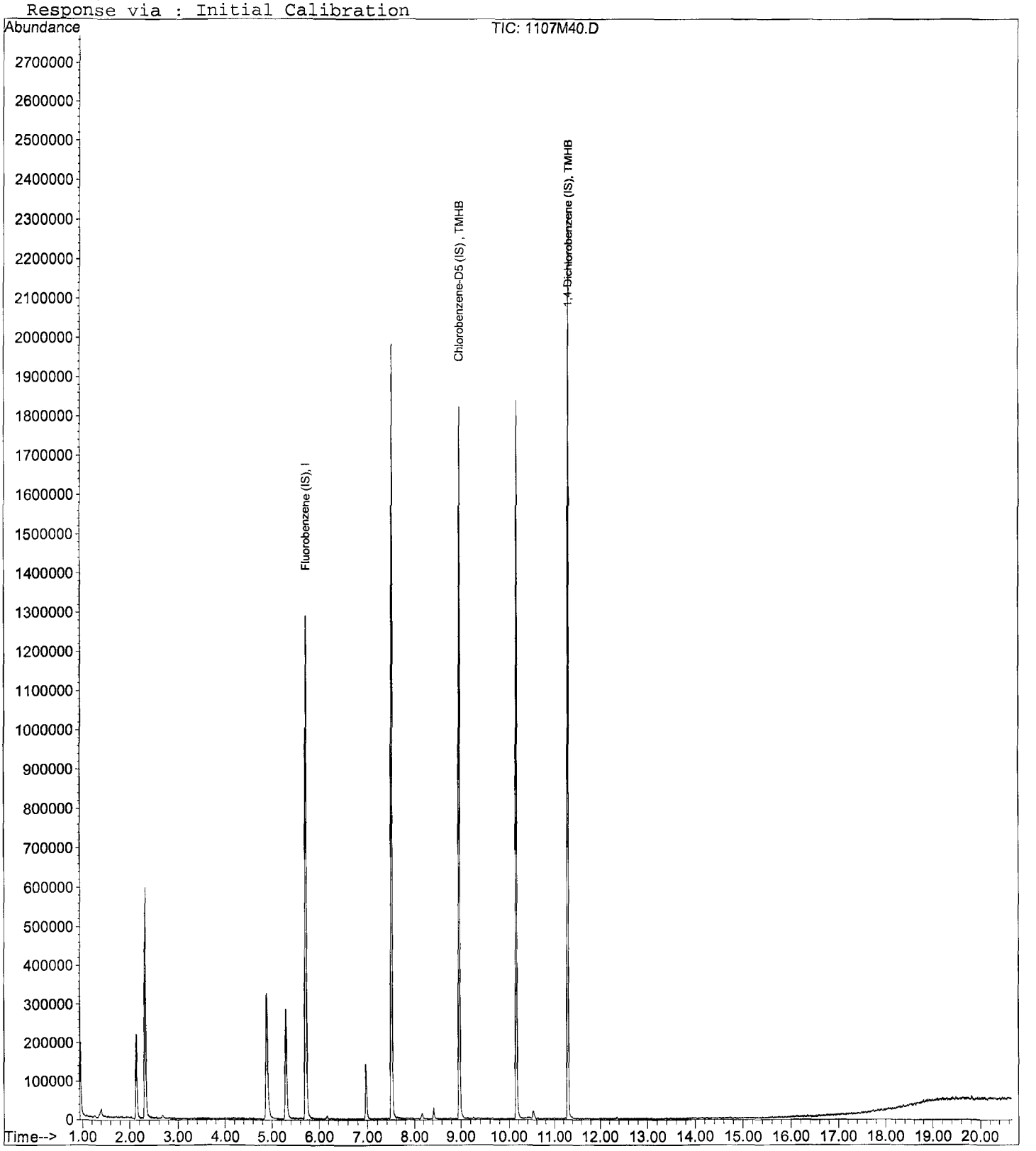
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\MAX\DATA\M191107\1107M40.D Vial: 40
Acq On : 8 Nov 19 9:46 Operator: LP,DG,CMM
Sample : BA02525W01 Inst : Max
Misc : IS&S 9/24/19 Multiplr: 1.00

Quant Time: Nov 8 12:48 2019 Quant Results File: MGAS1107.RES

Method : M:\MAX\DATA\M191107\MGAS1107.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Nov 08 12:47:04 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\MAX\DATA\M191107\1107M35.D Vial: 35
Acq On : 8 Nov 19 7:22 Operator: LP,DG,CMM
Sample : 191107B Blk Inst : Max
Misc : IS&S 9/24/19 Multiplr: 1.00

Quant Time: Nov 8 12:57 2019 Quant Results File: MGAS1107.RES

Quant Method : M:\MAX\DATA\M191107\MGAS1107.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Nov 08 12:47:04 2019
Response via : Initial Calibration
DataAcq Meth : M8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	5.72	TIC	1312443	25.000	ppb	0.00
3) Chlorobenzene-D5 (IS)	8.97	TIC	1089364m	25.000	ppb	0.00
4) 1,4-Dichlorobenzene (IS)	11.30	TIC	1149314m	25.000	ppb	0.00

System Monitoring Compounds

Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M191107\1107M35.D Vial: 35
Acq On : 8 Nov 19 7:22 Operator: LP,DG,CMM
Sample : 191107B Blk Inst : Max
Misc : IS&S 9/24/19 Multiplr: 1.00

Quant Time: Nov 8 13:03 2019 Quant Results File: MSUR1106.RES

Quant Method : M:\MAX\DATA\M191107\MSUR1106.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 07 14:27:44 2019
Response via : Initial Calibration
DataAcq Meth : M8260

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene (IS)	5.72	96	1349098	25.0000 ppb	0.00
4) Chlorobenzene-D5 (IS)	8.98	117	1091129	25.0000 ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	11.30	152	672344	25.0000 ppb	0.00
System Monitoring Compounds					
2) Dibromofluoromethane(S)	4.90	111	226953	22.7950 ppb	0.02
Spiked Amount 25.000			Recovery =	91.180%	
3) 1,2-DCA-D4(S)	5.31	65	266645	29.8105 ppb	0.00
Spiked Amount 25.000			Recovery =	119.240%	
5) Toluene-D8(S)	7.51	98	1356763	26.8535 ppb	0.00
Spiked Amount 25.000			Recovery =	107.412%	
6) 4-Bromofluorobenzene(S)	10.16	95	504791	26.7404 ppb	0.00
Spiked Amount 25.000			Recovery =	106.960%	

Target Compounds Qvalue

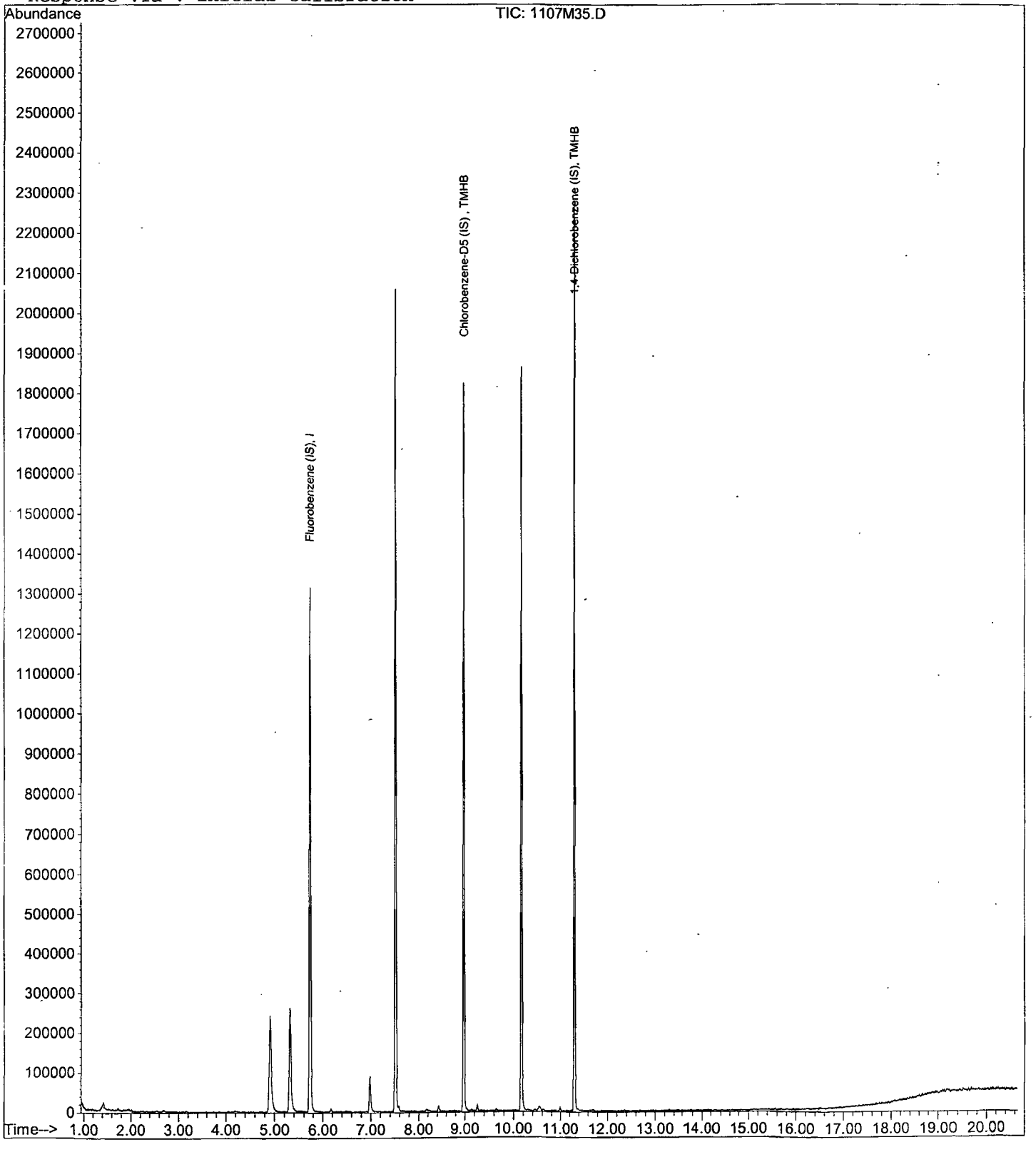
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\MAX\DATA\M191107\1107M35.D Vial: 35
Acq On : 8 Nov 19 7:22 Operator: LP,DG,CMM
Sample : 191107B Blk Inst : Max
Misc : IS&S 9/24/19 Multiplr: 1.00

Quant Time: Nov 8 12:57 2019 Quant Results File: MGAS1107.RES

Method : M:\MAX\DATA\M191107\MGAS1107.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Nov 08 12:47:04 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\MAX\DATA\M191107\1107M33.D Vial: 33
Acq On : 8 Nov 19 6:25 Operator: LP,DG,CMM
Sample : 191107B LCS 300ug/L Inst : Max
Misc : IS&S 9/24/19 Multiplr: 1.00

Quant Time: Nov 8 12:50 2019 Quant Results File: MGAS1107.RES

Quant Method : M:\MAX\DATA\M191107\MGAS1107.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Nov 08 12:47:04 2019
Response via : Initial Calibration
DataAcq Meth : M8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	5.73	TIC	1295555	25.000	ppb	0.00
3) Chlorobenzene-D5 (IS)	8.97	TIC	1351499m	25.000	ppb	0.00
4) 1,4-Dichlorobenzene (IS)	11.30	TIC	1250274m	25.000	ppb	0.00

System Monitoring Compounds

Target Compounds						Qvalue
2) Gasoline C6-C10	11.30	TIC	25153660m	289.955	ppb	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M191107\1107M33.D Vial: 33
Acq On : 8 Nov 19 6:25 Operator: LP,DG,CMM
Sample : 191107B LCS 300ug/L Inst : Max
Misc : IS&S 9/24/19 Multiplr: 1.00

Quant Time: Nov 8 13:03 2019 Quant Results File: MSUR1106.RES

Quant Method : M:\MAX\DATA\M191107\MSUR1106.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 07 14:27:44 2019
Response via : Initial Calibration
DataAcq Meth : M8260

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene (IS)	5.73	96	1330196	25.0000 ppb	0.00
4) Chlorobenzene-D5 (IS)	8.97	117	1091588	25.0000 ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	11.30	152	679992	25.0000 ppb	0.00
System Monitoring Compounds					
2) Dibromofluoromethane(S)	4.89	111	242232	24.2713 ppb	0.00
Spiked Amount 25.000			Recovery =	97.084%	
3) 1,2-DCA-D4(S)	5.30	65	216161	25.4001 ppb	0.00
Spiked Amount 25.000			Recovery =	101.600%	
5) Toluene-D8(S)	7.51	98	1339076	26.4923 ppb	0.00
Spiked Amount 25.000			Recovery =	105.968%	
6) 4-Bromofluorobenzene(S)	10.16	95	489770	25.9338 ppb	0.00
Spiked Amount 25.000			Recovery =	103.736%	

Target Compounds Qvalue

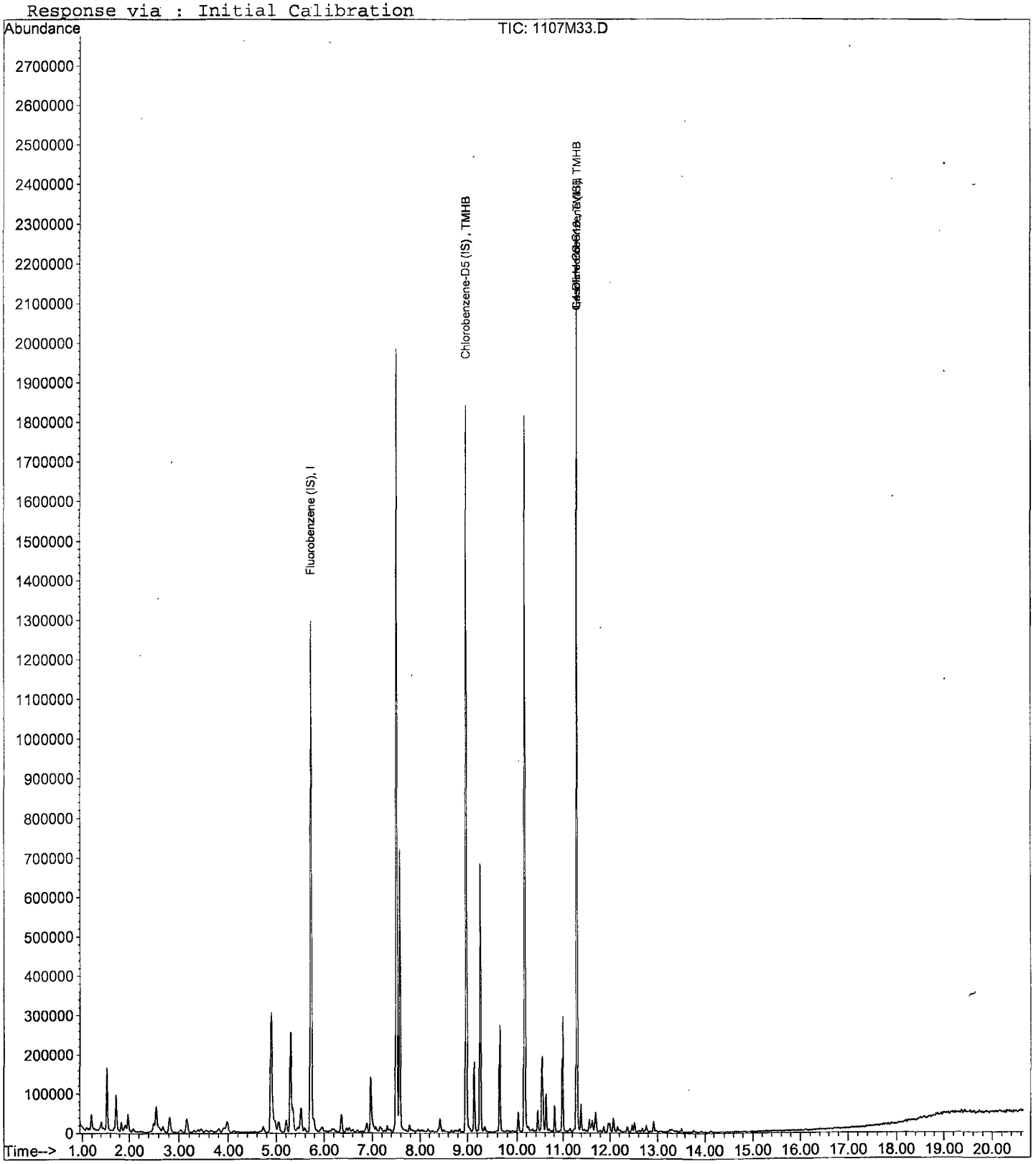
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\MAX\DATA\M191107\1107M33.D Vial: 33
Acq On : 8 Nov 19 6:25 Operator: LP,DG,CMM
Sample : 191107B LCS 300ug/L Inst : Max
Misc : IS&S 9/24/19 Multiplr: 1.00

Quant Time: Nov 8 12:50 2019 Quant Results File: MGAS1107.RES

Method : M:\MAX\DATA\M191107\MGAS1107.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Nov 08 12:47:04 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : M:\MAX\DATA\M191107\1107M34.D Vial: 34
Acq On : 8 Nov 19 6:53 Operator: LP,DG,CMM
Sample : 191107B LCSD 300ug/L Inst : Max
Misc : IS&S 9/24/19 Multiplr: 1.00

Quant Time: Nov 8 12:50 2019 Quant Results File: MGAS1107.RES

Quant Method : M:\MAX\DATA\M191107\MGAS1107.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Nov 08 12:47:04 2019
Response via : Initial Calibration
DataAcq Meth : M8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene (IS)	5.72	TIC	1340912	25.000	ppb	0.00
3) Chlorobenzene-D5 (IS)	8.97	TIC	1307069m	25.000	ppb	0.00
4) 1,4-Dichlorobenzene (IS)	11.30	TIC	1243702m	25.000	ppb	0.00
System Monitoring Compounds						
Target Compounds						Qvalue
2) Gasoline C6-C10	11.30	TIC	25177291m	257.375	ppb	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : M:\MAX\DATA\M191107\1107M34.D Vial: 34
Acq On : 8 Nov 19 6:53 Operator: LP,DG,CMM
Sample : 191107B LCSD 300ug/L Inst : Max
Misc : IS&S 9/24/19 Multiplr: 1.00

Quant Time: Nov 8 13:03 2019 Quant Results File: MSUR1106.RES

Quant Method : M:\MAX\DATA\M191107\MSUR1106.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Thu Nov 07 14:27:44 2019
Response via : Initial Calibration
DataAcq Meth : M8260

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene (IS)	5.72	96	1368600	25.0000 ppb	0.00
4) Chlorobenzene-D5 (IS)	8.97	117	1068901	25.0000 ppb	0.00
7) 1,4-Dichlorobenzene-D (IS)	11.30	152	676796	25.0000 ppb	0.00
System Monitoring Compounds					
2) Dibromofluoromethane(S)	4.89	111	237542	23.3631 ppb	0.00
Spiked Amount 25.000			Recovery =	93.452%	
3) 1,2-DCA-D4(S)	5.30	65	203301	23.6487 ppb	0.00
Spiked Amount 25.000			Recovery =	94.596%	
5) Toluene-D8(S)	7.51	98	1343590	27.1458 ppb	0.00
Spiked Amount 25.000			Recovery =	108.584%	
6) 4-Bromofluorobenzene(S)	10.16	95	495025	26.7683 ppb	0.00
Spiked Amount 25.000			Recovery =	107.072%	

Target Compounds *Qvalue*

(#) = qualifier out of range (m) = manual integration

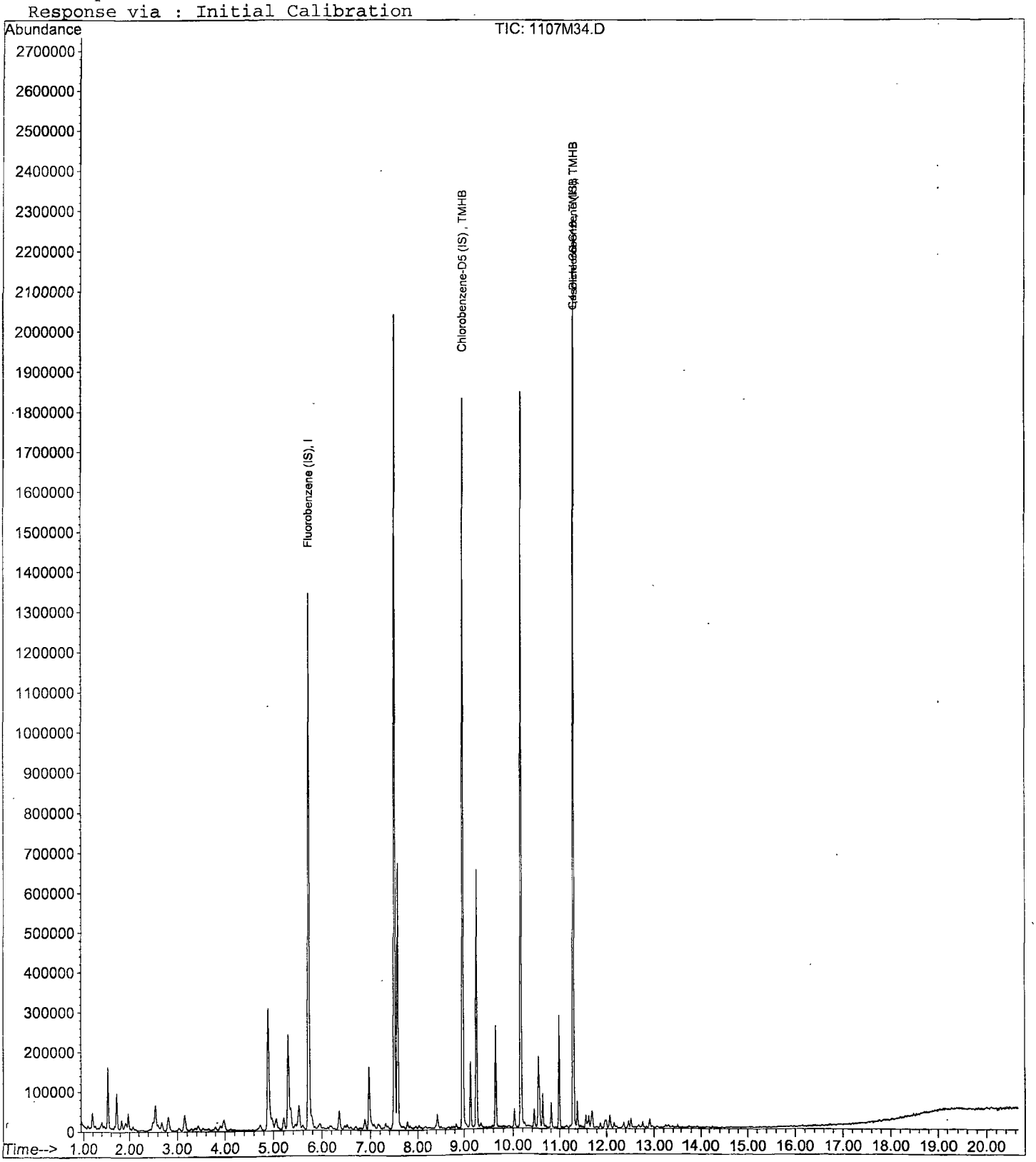
Quantitation Report

Data File : M:\MAX\DATA\M191107\1107M34.D
Acq On : 8 Nov 19 6:53
Sample : 191107B LCSD 300ug/L
Misc : IS&S 9/24/19

Vial: 34
Operator: LP,DG,CMM
Inst : Max
Multiplr: 1.00

Quant Time: Nov 8 12:50 2019 Quant Results File: MGAS1107.RES

Method : M:\MAX\DATA\M191107\MGAS1107.M (RTE Integrator)
Title : METHOD 8260B
Last Update : Fri Nov 08 12:47:04 2019
Response via : Initial Calibration



Max Gas Standard Prep

Gas Primary Working Standard

Prepared: 07/16/19 **Prepared By (Initials):** DG
Expires: 07/15/20
Methanol Lot No. 58019-00962

Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
50,000ug/mL Gas STD	Restek	30205	50,000	A0132443-39859	10/26/20	12/31/24	80uL	2mL	Methanol	2,000

Gas Second Source (SS) Working Standard

Prepared: 10/28/19 **Prepared By (Initials):** DG
Expires: 07/16/20
Methanol Lot No. 58019-00962

Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
Gasoline (5,000ppm)	O2SI	020246-06	5,000	CL11750-40999	07/16/20	02/28/27	800uL	2mL	Methanol	2,000

Max Gas Calibration Curve

Prepared: 11/07/19 **Prepared By (Initials):** CH
Expires: 01/06/20

Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)
VOA Gasses Standards	Phenova	20ug/L	2,000	Prepared 07/16/19	07/15/20	N/A	1uL	100mL	P&T Water	20
VOA Gasses Standards	Phenova	50ug/L	2,000	Prepared 07/16/19	07/15/20	N/A	2.5uL	100mL	P&T Water	50
VOA Gasses Standards	Phenova	100ug/L	2,000	Prepared 07/16/19	07/15/20	N/A	5uL	100mL	P&T Water	100
VOA Gasses Standards	Phenova	300ug/L	2,000	Prepared 07/16/19	07/15/20	N/A	15uL	100mL	P&T Water	300
VOA Gasses Standards	Phenova	600ug/L	2,000	Prepared 07/16/19	07/15/20	N/A	30uL	100mL	P&T Water	600
VOA Gasses Standards	Phenova	800ug/L	2,000	Prepared 07/16/19	07/15/20	N/A	40uL	100mL	P&T Water	800
VOA Gasses Standards	Phenova	1,000ug/L	2,000	Prepared 07/16/19	07/15/20	N/A	50uL	100mL	P&T Water	1,000

Max Gas Second Source

Prepared: 11/07/19 **Prepared By (Initials):** CH
Expires: 01/06/20

Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)
50,000ug/mL Gas STD	Phenova	SS 300ug/L	2,000	Prepared 10/28/19	07/16/20	N/A	15uL	100mL	P&T Water	300

Max Gas Continuing Calibrations/Lab Control Spikes

Prepared: 11/07/19 **Prepared By (Initials):** CH
Expires: 11/08/19

Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
VOA Gasses Standards	Phenova	300ug/L	2,000	Prepared 07/16/19	07/15/20	N/A	15uL	100mL	P&T Water	300

Max 8260 Standard Prep

Max 8260 Water Calibration Curve

0.3ug/L

Prepared By (Initials): CH

Prepared: 11/06/19

Expires: 12/06/19

Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)
VOA STD. 9	O2SI	0.3ug/L	5	Prepared 11/04/19	01/03/20	N/A	3uL	50mL	P&T Water	0.3
VOA STD. 10	O2SI		5	Prepared 11/04/19	01/03/20	N/A	3uL			0.3
VOA STD. 12	O2SI		5	Prepared 11/04/19	01/03/20	N/A	3uL			0.3
VOA STD. TBA	Various		250	Prepared 11/04/19	10/30/19	N/A	2uL			10

0.5ug/L

Prepared: 11/06/19

Expires: 12/06/19

Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)
VOA STD. 9	O2SI	0.5ug/L	5	Prepared 11/04/19	01/03/20	N/A	5uL	50mL	P&T Water	0.5
VOA STD. 10	O2SI		5	Prepared 11/04/19	01/03/20	N/A	5uL			0.5
VOA STD. 12	O2SI		5	Prepared 11/04/19	01/03/20	N/A	5uL			0.5
VOA STD. TBA	Various		250	Prepared 11/04/19	10/30/19	N/A	5uL			25

1.0ug/L

Prepared: 11/06/19

Expires: 12/06/19

Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)
VOA STD. 9	O2SI	1.0ug/L	5	Prepared 11/04/19	01/03/20	N/A	10uL	50mL	P&T Water	1
VOA STD. 10	O2SI		5	Prepared 11/04/19	01/03/20	N/A	10uL			1
VOA STD. 12	O2SI		5	Prepared 11/04/19	01/03/20	N/A	10uL			1
VOA STD. TBA	Various		250	Prepared 11/04/19	10/30/19	N/A	10uL			50

2.0ug/L

Prepared: 11/06/19

Expires: 12/06/19

Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)
VOA STD. 9	O2SI	2.0ug/L	5	Prepared 11/04/19	01/03/20	N/A	20uL	50mL	P&T Water	2
VOA STD. 10	O2SI		5	Prepared 11/04/19	01/03/20	N/A	20uL			2
VOA STD. 12	O2SI		5	Prepared 11/04/19	01/03/20	N/A	20uL			2
VOA STD. TBA	Various		250	Prepared 11/04/19	10/30/19	N/A	15uL			75

5ug/L

Prepared: 11/06/19

Expires: 12/06/19

Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)
VOA STD. 7	Various	5ug/L	50	Prepared 11/04/19	01/03/20	N/A	5uL	50mL	P&T Water	5
VOA STD. 8	Phenova		50	Prepared 11/04/19	10/30/19	N/A	5uL			5
VOA STD. 1	O2SI		50	Prepared 11/04/19	01/03/20	N/A	5uL			5
VOA STD. 2	O2SI		50	Prepared 11/04/19	01/03/20	N/A	5uL			5
VOA STD. TBA	Various		250	Prepared 11/04/19	10/30/19	N/A	20uL			100

10ug/L

Prepared: 11/06/19

Expires: 12/06/19

Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)
VOA STD. 7	Various	10ug/L	50	Prepared 11/04/19	01/03/20	N/A	10uL	50mL	P&T Water	10
VOA STD. 8	Phenova		50	Prepared 11/04/19	10/30/19	N/A	10uL			10
VOA STD. 1	O2SI		50	Prepared 11/04/19	01/03/20	N/A	10uL			10
VOA STD. 2	O2SI		50	Prepared 11/04/19	01/03/20	N/A	10uL			10
VOA STD. TBA	Various		250	Prepared 11/04/19	10/30/19	N/A	25uL			125

20ug/L

Prepared: 11/06/19

Expires: 12/06/19

Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)
VOA STD. 7	Various	20ug/L	50	Prepared 11/04/19	01/03/20	N/A	20uL	50mL	P&T Water	20
VOA STD. 8	Phenova		50	Prepared 11/04/19	10/30/19	N/A	20uL			20
VOA STD. 1	O2SI		50	Prepared 11/04/19	01/03/20	N/A	20uL			20
VOA STD. 2	O2SI		50	Prepared 11/04/19	01/03/20	N/A	20uL			20
VOA STD. TBA	Various		250	Prepared 11/04/19	10/30/19	N/A	30uL			150

40ug/L

Prepared: 11/06/19

Expires: 12/06/19

Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)
VOA STD. 7	Various	40ug/L	50	Prepared 11/04/19	01/03/20	N/A	40uL	50mL	P&T Water	40
VOA STD. 8	Phenova		50	Prepared 11/04/19	10/30/19	N/A	40uL			40
VOA STD. 1	O2SI		50	Prepared 11/04/19	01/03/20	N/A	40uL			40
VOA STD. 2	O2SI		50	Prepared 11/04/19	01/03/20	N/A	40uL			40
VOA STD. TBA	Various		250	Prepared 11/04/19	10/30/19	N/A	35uL			175

100ug/L

Prepared: 11/06/19

Expires: 12/06/19

Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)
VOA STD. 7	Various	100ug/L	50	Prepared 11/04/19	01/03/20	N/A	100uL	50mL	P&T Water	100
VOA STD. 8	Phenova		50	Prepared 11/04/19	10/30/19	N/A	100uL			100
VOA STD. 1	O2SI		50	Prepared 11/04/19	01/03/20	N/A	100uL			100
VOA STD. 2	O2SI		50	Prepared 11/04/19	01/03/20	N/A	100uL			100
VOA STD. TBA	Various		250	Prepared 11/04/19	10/30/19	N/A	40uL			200

Max 8260 Water Second Source (SS)

Prepared: 11/06/19

Prepared By (Initials): CH

Expires: 12/06/19

Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)
VOA STD. 4	Phenova	8260 Water SS	50	Prepared 11/04/19	01/03/20	N/A	10uL	50mL	P&T Water	10
VOA STD. 5	O2SI	8260 Water SS	50	Prepared 11/04/19	01/03/20	N/A	10uL			10
VOA STD. 6	Various	8260 Water SS	50	Prepared 11/04/19	10/16/19	N/A	10uL			10
Voa STD. TBA	Various	8260 Water SS	250	Prepared 11/04/19	09/18/19	N/A	25uL			250

8260 Water Continuing Calibrations (CCV)/ Lab Control Spikes (LCS)

Prepared: 11/06/19

Prepared By (Initials): CH

Expires: 11/07/19

Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)
VOA STD. 7	Various	CCV/ LCS	50	Prepared 11/04/19	01/03/20	N/A	10uL	50mL	P&T Water	10
VOA STD. 8	Phenova	CCV/ LCS	50	Prepared 11/04/19	10/30/19	N/A	10uL			10
VOA STD. 1	O2SI	CCV/ LCS	50	Prepared 11/04/19	01/03/20	N/A	10uL			10
VOA STD. 2	O2SI	CCV/ LCS	50	Prepared 11/04/19	01/03/20	N/A	10uL			10
VOA STD. TBA	Various	CCV/ LCS	250	Prepared 11/04/19	10/30/19	N/A	25uL			125

LCS (X4 Ketones)

Prepared: 11/06/19

Prepared By (Initials): CH

Expires: 11/07/19

Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/L)
VOA STD. 7	Various	LCS X4 Ketones	50	Prepared 11/04/19	01/03/20	N/A	10uL	50mL	P&T Water	10
VOA STD. 8	Phenova	LCS X4 Ketones	50	Prepared 11/04/19	10/30/19	N/A	10uL			10
VOA STD. 1	O2SI	LCS X4 Ketones	50	Prepared 11/04/19	01/03/20	N/A	10uL			10
VOA STD. 2	O2SI	LCS X4 Ketones	50	Prepared 11/04/19	01/03/20	N/A	40uL			40
VOA STD. TBA	Various	LCS X4 Ketones	250	Prepared 11/04/19	10/30/19	N/A	25uL			125

Primary and Secondary Working Standards

Primary Standards

VOA STD 7

Prepared: 11/04/19 A
Expires: 01/03/20
Methanol Lot No. DW117-US-0095

Prepared By (Initials): CH

Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
VOA Gasses STD	Phenova	ALO-101206	2,000	**CL13712-49316**	**10/16/20**	**06/30/24**	100uL	4mL	Methanol	50
Hexachloroethane	Absolute	70199	1,000	**091818-41284**	**10/16/20**	**09/18/23**	200uL			50
Benzyl Chloride	Accusta	M-8010-01	2,000	**061919-41289**	**10/16/20**	06/19/20	200uL			50

VOA STD 8

Prepared: 11/04/19 B
Expires: 10/30/19
Methanol Lot No. DW117-US-0095

Prepared By (Initials): CH

Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
VOA Additions STD	Phenova	ALO-130175	2,000	**CL12622-40992**	**10/16/20**	**06/30/20**	100uL	4mL	Methanol	50
502 2 Cal. Std.	Phenova	ALO-101200	2,000	**CL13742-41024**	**10/16/20**	**06/30/24**	100uL			50
Vinyl Acetate	Phenova	ALO-101228	2,000	**CL14220-49394**	**10/16/20**	**10/30/19**	100uL			50

VOA STD TBA

Prepared: 11/04/19 C
Expires: 10/30/19
Methanol Lot No. DW117-US-0095

Prepared By (Initials): CH

Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
Custom VOC Mix	Phenova	ALO-130176	2,000	**CL12734-49377**	**10/16/20**	**08/31/20**	500uL	4mL	Methanol	250
Acrolein	Phenova	ALO-130549	10,000	**CL14311-49395**	**10/16/20**	**10/30/19**	100uL			250

VOA STD 1

Prepared: 11/04/19 D
Expires: 01/03/20
Methanol Lot No. DW117-US-0095

Prepared By (Initials): CH

Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
2-CEVE	Absolute	82408	2,000	**071018-41299**	**10/16/20**	**07/10/21**	50	2mL	Methanol	50

VOA STD 2

Prepared: 11/04/19 E
Expires: 01/03/20
Methanol Lot No. DW117-US-0095

Prepared By (Initials): CH

Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
Ketones Std.	Phenova	AL0-109211	2,000	**CL13994-41247**	**10/16/20**	**08/31/29**	100	4mL	Methanol	50

VOA STD 9

Prepared: 11/04/19 F
Expires: 01/03/20
Methanol Lot No. DW117-US-0095

Prepared By (Initials): CH

Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
VOA STD. 7		VOA STD. 9	50	Prepared 11/04/19	**10/16/20**	N/A	200uL	2mL	Methanol	5
VOA STD. 8			50	Prepared 11/04/19	**10/16/20**	N/A	200uL			5

VOA STD. 10

Prepared: 11/04/19 G
Expires: 01/03/20
Methanol Lot No. DW117-US-0095

Prepared By (Initials): CH

Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
VOA STD. 1		VOA STD. 10	50	Prepared 11/04/19	**10/16/20**	N/A	200uL	2mL	Methanol	5

VOA STD. 12

Prepared: 11/04/19 H
Expires: 01/03/20
Methanol Lot No. DW117-US-0095

Prepared By (Initials): CH

Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. (ug/mL)	Reference To APPL Prep Date	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
VOA STD. 2		VOA STD. 12	50	Prepared 11/04/19	**10/16/20**	N/A	200uL	2mL	Methanol	5

Second Source (SS) Standards

VOA STD. 3

Prepared: 11/04/19 I

Expires: 01/03/20

Prepared By (Initials): CH

Methanol Lot No. DW117-US-0095

Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
Ketones Standard	Phenova	ALO-101211	2,000	**CL12730-41075**	**10/16/20**	**08/31/28**	50uL	2mL	Methanol	50

VOA STD. 5

Prepared: 11/04/19 J

Expires: 01/03/20

Prepared By (Initials): CH

Methanol Lot No. DW117-US-0095

Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
8260 Gases (SS)	Phenova	ALO-101206	2,000	**CL14057-41319**	**10/16/20**	**08/31/24**	50uL	2mL	Methanol	50
2-CEVE (SS)	Absolute	82408	2,000	**061419-41292**	**10/16/20**	**06/14/22**	50uL			50

VOA STD. 6

Prepared: 11/04/19 K

Expires: 10/16/19

Prepared By (Initials): CH

Methanol Lot No. DW117-US-0095

Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
502.2 Calibration STD. (54-compounds)	Phenova	ALO-101200	2,000	**CL12490-40920**	**10/16/20**	**05/31/23**	50uL	2mL	Methanol	50
Vinyl Acetate	Phenova	ALO-101228	2,000	**CL14220-49312**	**10/03/20**	**10/16/19**	50uL			50
Hexachloroethane	Accustan	AS-E0011	1,000	**219061767-41120**	**10/16/20**	**06/26/29**	100uL			50
Benzyl Chloride	Accustan	M-8010-01	200	**219041664-40959**	**10/16/20**	**05/22/21**	500uL			50

VOA STD. TBA

Prepared: 11/04/19 L

Expires: 09/18/19

Prepared By (Initials): CH

Methanol Lot No. DW117-US-0095

Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
Custom VOA Mix (4-3)	Phenova	ALO-130176	2,000	**CL12228-41063**	**10/16/20**	**01/31/20**	250uL	2mL	Methanol	250
Acrolein	Phenova	ALO-101224	10,000	**CL14224-49313**	**08/29/20**	**09/18/19**	50uL			250

VOA STD. 0

Prepared: 11/04/19 M

Expires: 01/03/20

Prepared By (Initials): CH

Methanol Lot No. DW117-US-0095

Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier P/N#	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date (1 yr)	Exp. Date (Manufacturers)	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
VOA Addition STD.	Phenova	ALO-130175	2,000	**CL12744-41387**	**10/16/20**	**08/31/20**	50uL	2mL	Methanol	50

Injection Log

Directory: M:\MAX\DATA\M191106\

Vial	FileName	Multiplier	SampleName	Misc Info	Injected
3	1106M06.D	1	0.3ug/L VOC STD 11/06/19	IS&S 9/24/19	6 Nov 19 10:45
4	1106M07.D	1	0.5ug/L VOC STD 11/06/19	IS&S 9/24/19	6 Nov 19 11:13
5	1106M08.D	1	1.0ug/L VOC STD 11/06/19	IS&S 9/24/19	6 Nov 19 11:42
6	1106M09.D	1	2.0ug/L VOC STD 11/06/19	IS&S 9/24/19	6 Nov 19 12:11
7	1106M10.D	1	5.0ug/L VOC STD 11/06/19	IS&S 9/24/19	6 Nov 19 12:40
8	1106M11.D	1	10ug/L VOC STD 11/06/19	IS&S 9/24/19	6 Nov 19 13:08
9	1106M12.D	1	20ug/L VOC STD 11/06/19	IS&S 9/24/19	6 Nov 19 13:37
10	1106M13.D	1	40ug/L VOC STD 11/06/19	IS&S 9/24/19	6 Nov 19 14:06
11	1106M14.D	1	100ug/L VOC STD 11/06/19	IS&S 9/24/19	6 Nov 19 14:35
19	1107M19.D	1	20ug/L Gas 11/7/19	IS&S 9/24/19	7 Nov 19 23:42
20	1107M20.D	1	50ug/L Gas 11/7/19	IS&S 9/24/19	8 Nov 19 00:11
21	1107M21.D	1	100ug/L Gas 11/7/19	IS&S 9/24/19	8 Nov 19 00:40
22	1107M22.D	1	300ug/L Gas 11/7/19	IS&S 9/24/19	8 Nov 19 1:09
23	1107M23.D	1	600ug/L Gas 11/7/19	IS&S 9/24/19	8 Nov 19 1:37
24	1107M24.D	1	800ug/L Gas 11/7/19	IS&S 9/24/19	8 Nov 19 2:06
25	1107M25.D	1	1000ug/L Gas 11/7/19	IS&S 9/24/19	8 Nov 19 2:35
27	1107M27.D	1	(SS) 300ug/L Gas 11/7/19	IS&S 9/24/19	8 Nov 19 3:32
32	1107M32.D	1	191107B CCV 300ug/L	IS&S 9/24/19	8 Nov 19 5:56
33	1107M33.D	1	191107B LCS 300ug/L	IS&S 9/24/19	8 Nov 19 6:25
34	1107M34.D	1	191107B LCSD 300ug/L	IS&S 9/24/19	8 Nov 19 6:53
35	1107M35.D	1	191107B Blk	IS&S 9/24/19	8 Nov 19 7:22
39	1107M39.D	1	BA02524W01	IS&S 9/24/19	8 Nov 19 9:17
40	1107M40.D	1	BA02525W01	IS&S 9/24/19	8 Nov 19 9:46
41	1107M41.D	1	Ending CCV 300ug/L 11/7/19	IS&S 9/24/19	8 Nov 19 10:15

ORGANICS
Calibration Data

RSK 175
RSK 175

Form 6
Initial Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Initial Cal. Date: 10/02/19
Matrix: Instrument: 7890 Initials:

			1002R02.D	1002R03.D	1002R04.D	1002R05.D	1002R06.D	1002R07.D	1002R08.D								
		Compound	1	2	3	4	5	6	7				Avg	%RSD	Type	r^2	Q
1	ATM	Methane	63820	40452	36215	45202	48427	44031	45774				46274	19	ATM		
2	ATM	Ethane	42546	31037	26553	34655	37738	32771	32974				34039	15	ATM		
3	ATM	Ethene	32900	24299	20841	27689	29847	25551	26297				26775	15	ATM		
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1.377886

Quantitation Report (Not Reviewed)

Data File : G:\ROCKY\DATA\191002RS\1002R02.D Vial: 2
Acq On : 2 Oct 19 17:45 Operator: GA
Sample : RSK STD 1 10/2/19 Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 2 18:11 2019 Quant Results File: RSK1002.RES

Method : G:\ROCKY\DATA\190929RS\RSK1002.M (Chemstation Integrator)
Title : RSK 175
Last Update : Wed Oct 02 18:14:49 2019
Response via : Multiple Level Calibration

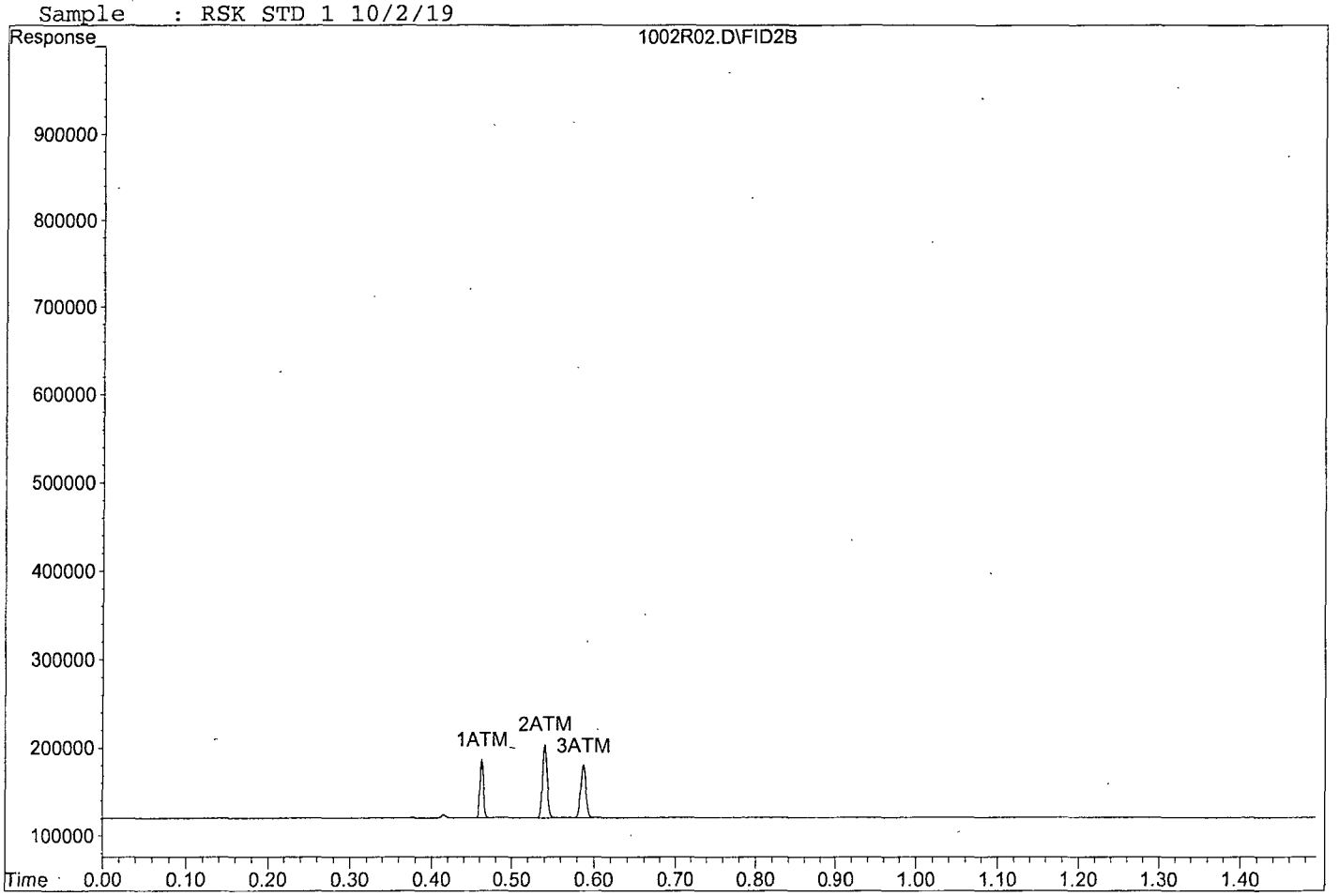
Volume Inj. : 0.500 mL
Signal Phase : CARBOPACK
Signal Info :

Compound	R.T.	Response	Conc Units
Target Compounds			
1) ATM Methane	0.46	66373	8.306 ppb
2) ATM Ethane	0.54	83177	6.216 ppb
3) ATM Ethene	0.59	60042	5.640 ppb

Target Compounds

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: G:\ROCKY\DATA\191002RS\1002R02.D
Sample : RSK STD 1 10/2/19



Quantitation Report (Not Reviewed)

Data File : G:\ROCKY\DATA\191002RS\1002R03.D Vial: 3
Acq On : 2 Oct 19 17:50 Operator: GA
Sample : RSK STD 2 10/2/19 Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 2 18:11 2019 Quant Results File: RSK1002.RES

Method : G:\ROCKY\DATA\190929RS\RSK1002.M (Chemstation Integrator)
Title : RSK 175
Last Update : Wed Oct 02 18:14:49 2019
Response via : Multiple Level Calibration

Volume Inj. : 0.500 mL
Signal Phase : CARBOPACK
Signal Info :

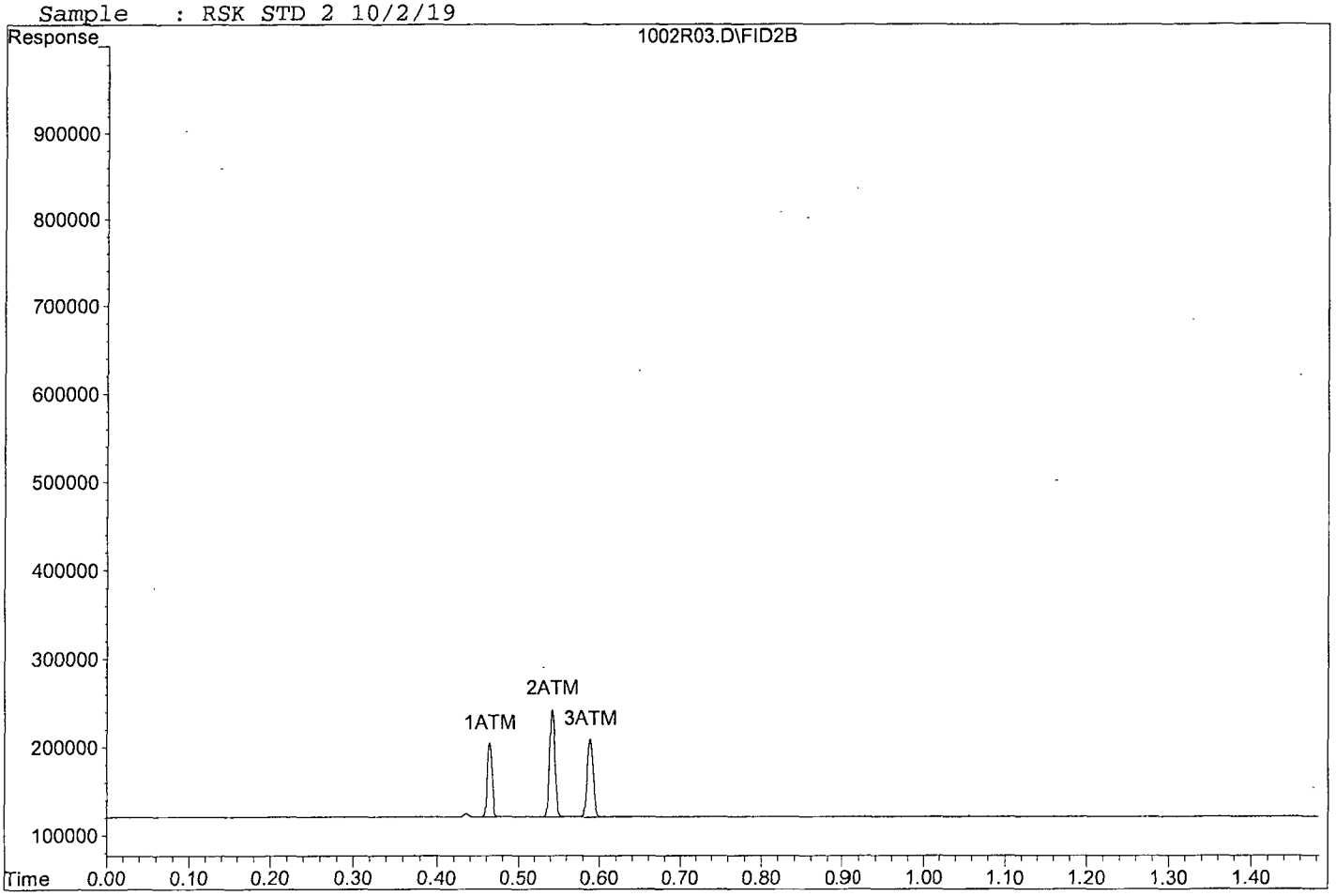
Compound	R.T.	Response	Conc Units
Target Compounds			
1) ATM Methane	0.46	84140	9.332 ppb
2) ATM Ethane	0.54	121200	9.058 ppb
3) ATM Ethene	0.59	88693	8.332 ppb

Target Compounds

(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File: G:\ROCKY\DATA\191002RS\1002R03.D
Sample : RSK STD 2 10/2/19



Quantitation Report (Not Reviewed)

Data File : G:\ROCKY\DATA\191002RS\1002R04.D Vial: 4
Acq On : 2 Oct 19 17:52 Operator: GA
Sample : RSK STD 3 10/2/19 Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 2 18:11 2019 Quant Results File: RSK1002.RES

Method : G:\ROCKY\DATA\190929RS\RSK1002.M (Chemstation Integrator)
Title : RSK 175
Last Update : Wed Oct 02 18:14:49 2019
Response via : Multiple Level Calibration

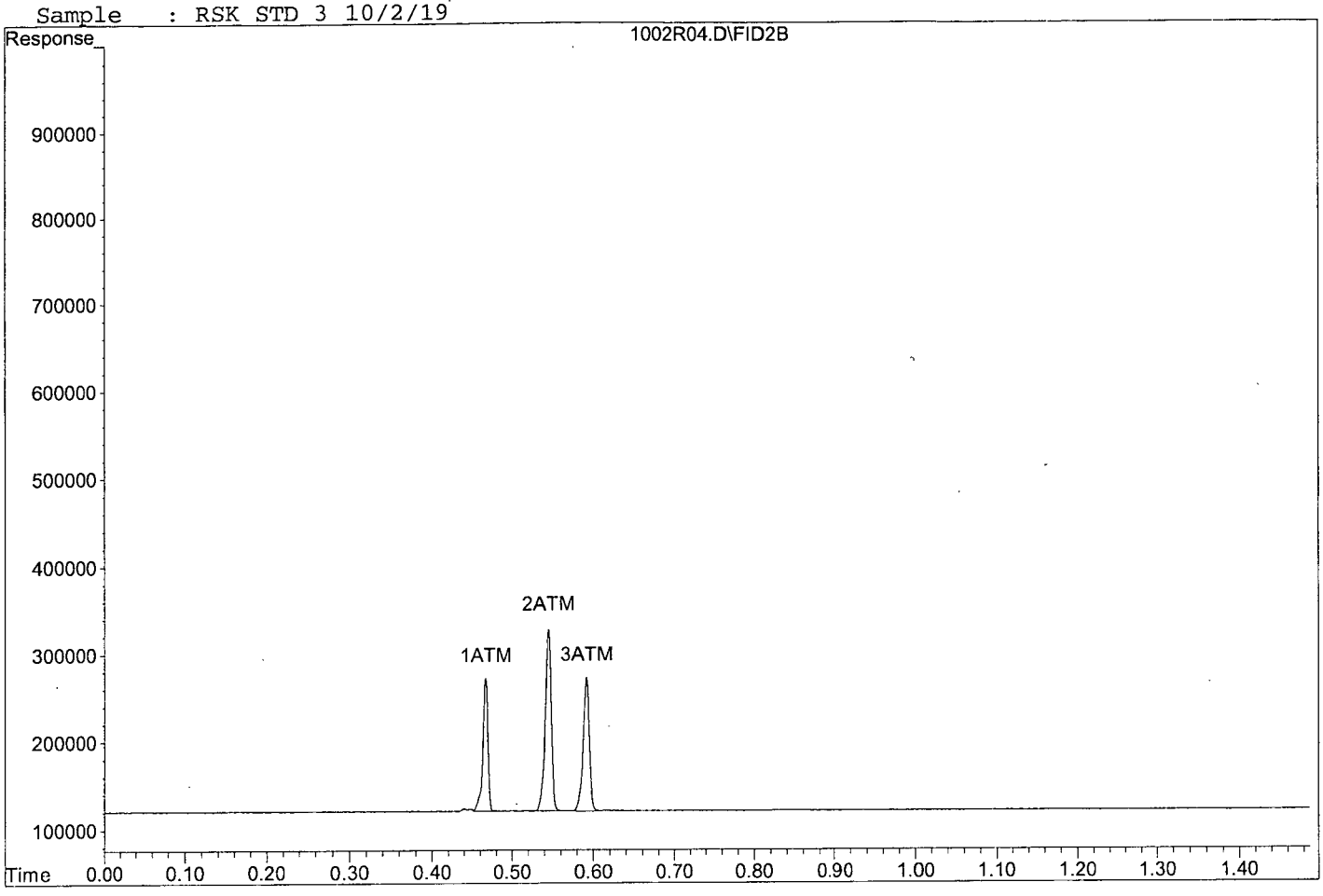
Volume Inj. : 0.500 mL
Signal Phase : CARBOPACK
Signal Info :

Compound	R.T.	Response	Conc Units
Target Compounds			
1) ATM Methane	0.47	151018	13.195 ppb
2) ATM Ethane	0.55	207113	15.479 ppb
3) ATM Ethene	0.59	152138	14.292 ppb

Target Compounds

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: G:\ROCKY\DATA\191002RS\1002R04.D
Sample : RSK STD 3 10/2/19



Quantitation Report (Not Reviewed)

Data File : G:\ROCKY\DATA\191002RS\1002R05.D Vial: 5
Acq On : 2 Oct 19 17:57 Operator: GA
Sample : RSK STD 4 10/2/19 Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 2 18:11 2019 Quant Results File: RSK1002.RES

Method : G:\ROCKY\DATA\190929RS\RSK1002.M (Chemstation Integrator)
Title : RSK 175
Last Update : Wed Oct 02 18:14:49 2019
Response via : Multiple Level Calibration

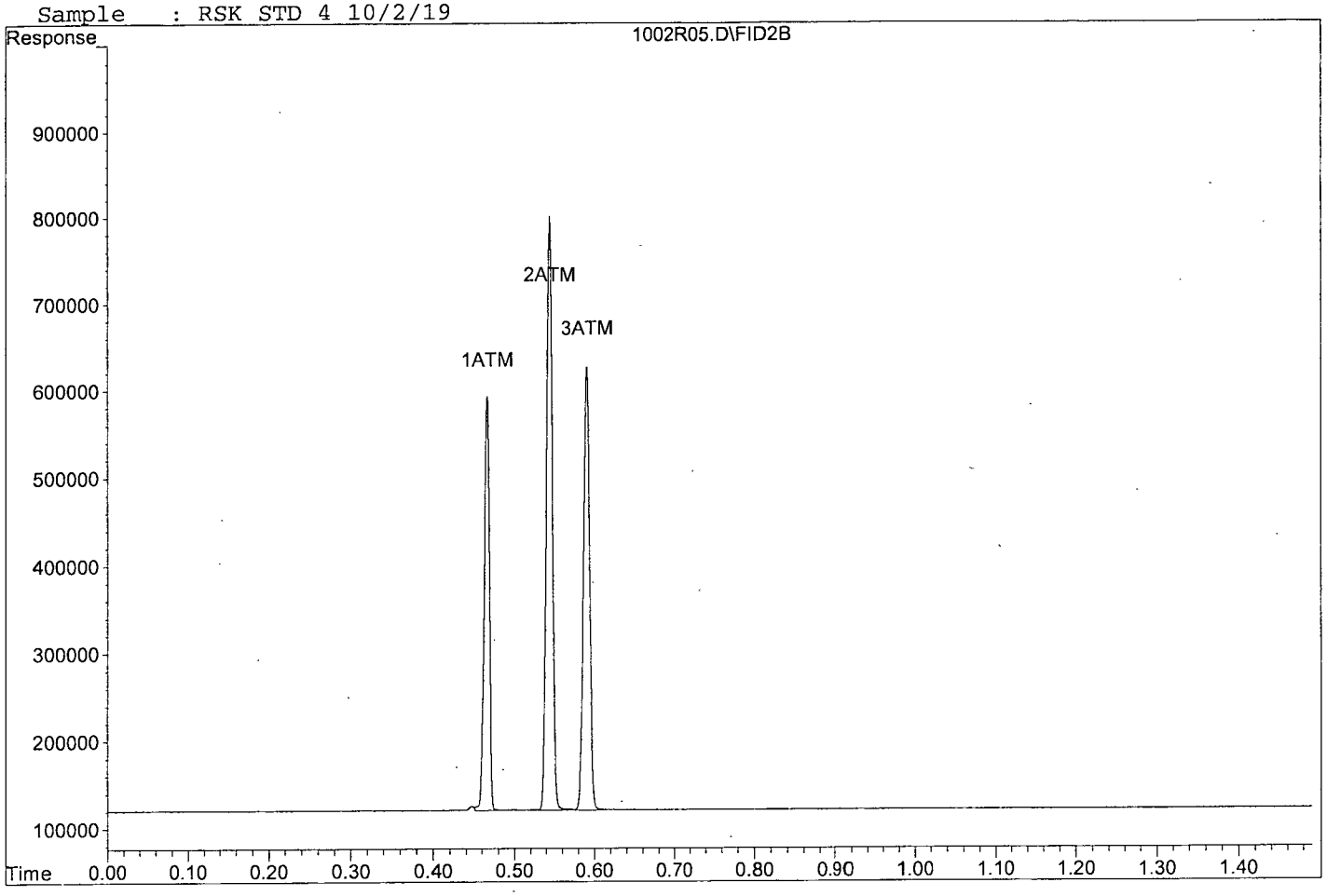
Volume Inj. : 0.500 mL
Signal Phase : CARBOPACK
Signal Info :

Compound	R.T.	Response	Conc Units
Target Compounds			
1) ATM Methane	0.47	471234	31.689 ppb
2) ATM Ethane	0.54	677330	50.623 ppb
3) ATM Ethene	0.59	504779	47.419 ppb

Target Compounds

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: G:\ROCKY\DATA\191002RS\1002R05.D
Sample : RSK STD 4 10/2/19



Quantitation Report (Not Reviewed)

Data File : G:\ROCKY\DATA\191002RS\1002R06.D Vial: 6
Acq On : 2 Oct 19 17:59 Operator: GA
Sample : RSK STD 5 10/2/19 Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 2 18:11 2019 Quant Results File: RSK1002.RES

Method : G:\ROCKY\DATA\190929RS\RSK1002.M (Chemstation Integrator)
Title : RSK 175
Last Update : Wed Oct 02 18:14:49 2019
Response via : Multiple Level Calibration

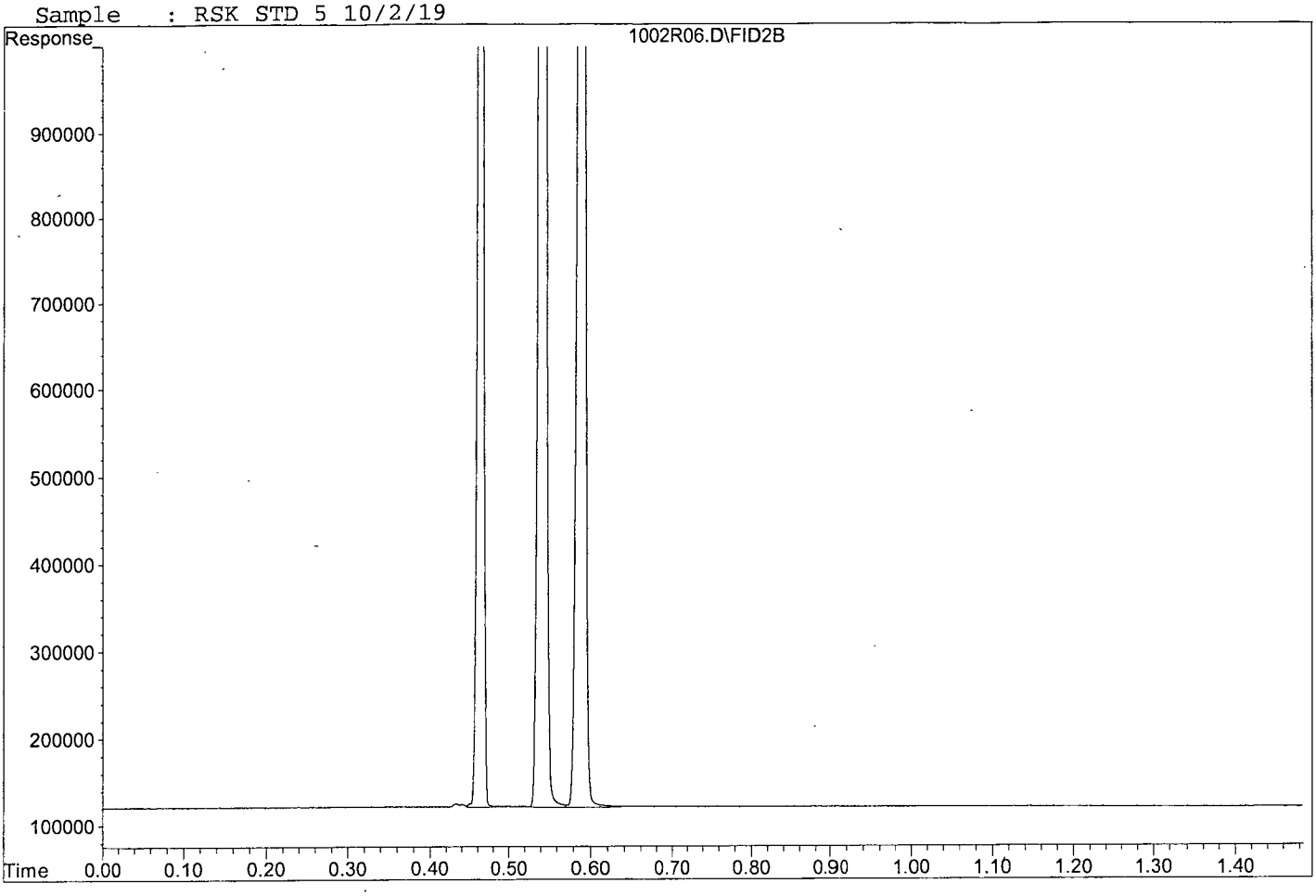
Volume Inj. : 0.500 mL
Signal Phase : CARBOPACK
Signal Info :

Compound	R.T.	Response	Conc	Units
Target Compounds				
1) ATM Methane	0.46	2019402	121.105	ppb
2) ATM Ethane	0.54	2950189	220.492	ppb
3) ATM Ethene	0.59	2176445	204.454	ppb

Target Compounds

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: G:\ROCKY\DATA\191002RS\1002R06.D
Sample : RSK STD 5 10/2/19



Quantitation Report (Not Reviewed)

Data File : G:\ROCKY\DATA\191002RS\1002R07.D Vial: 7
Acq On : 2 Oct 19 18:05 Operator: GA
Sample : RSK STD 6 10/2/19 Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 2 18:11 2019 Quant Results File: RSK1002.RES

Method : G:\ROCKY\DATA\190929RS\RSK1002.M (Chemstation Integrator)
Title : RSK 175
Last Update : Wed Oct 02 18:14:49 2019
Response via : Multiple Level Calibration

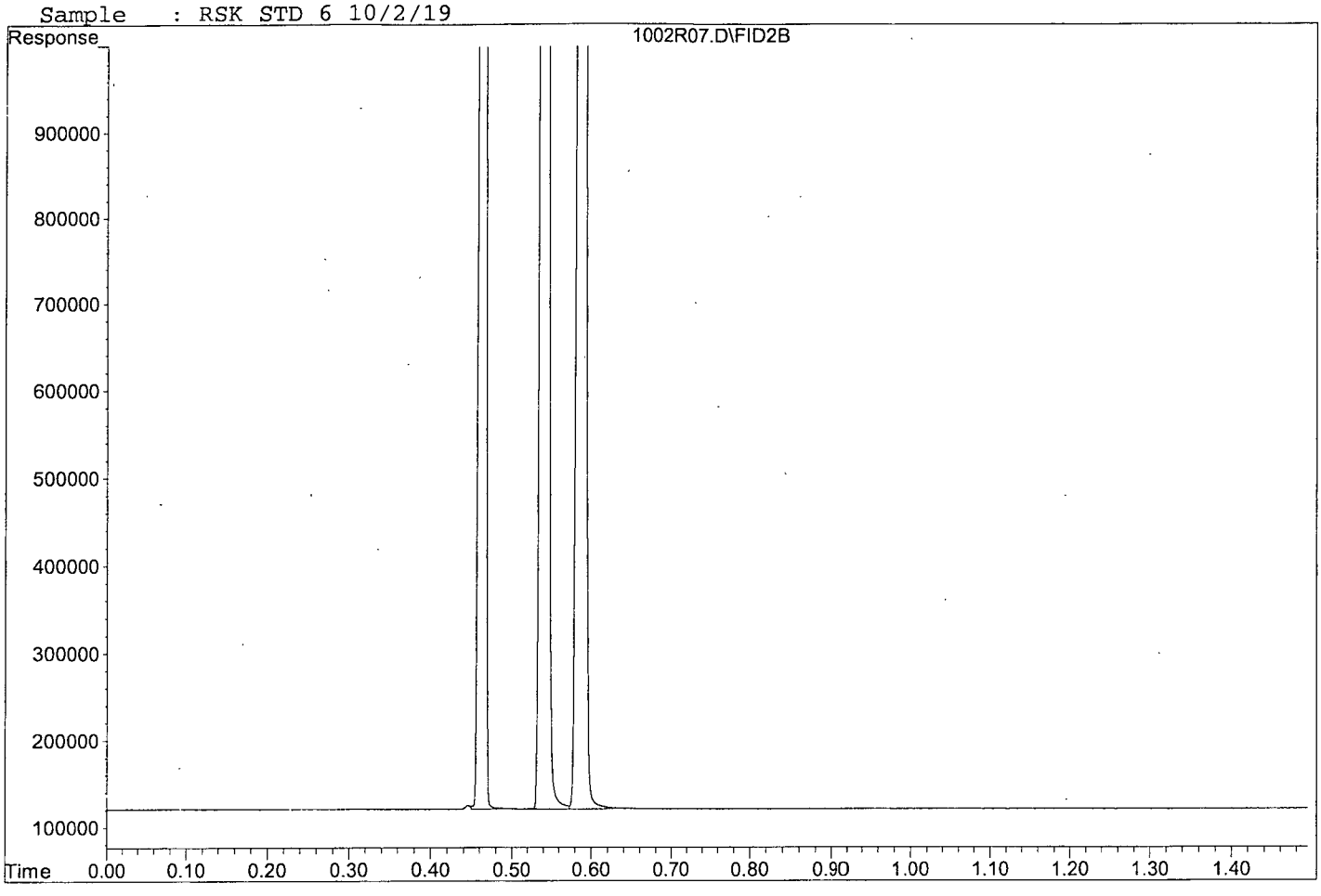
Volume Inj. : 0.500 mL
Signal Phase : CARBOPACK
Signal Info :

Compound	R.T.	Response	Conc Units
Target Compounds			
1) ATM Methane	0.46	4590194	269.583 ppb
2) ATM Ethane	0.54	6405030	478.702 ppb
3) ATM Ethene	0.59	4657966	437.567 ppb

Target Compounds

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: G:\ROCKY\DATA\191002RS\1002R07.D
Sample : RSK STD 6 10/2/19



Quantitation Report (Not Reviewed)

Data File : G:\ROCKY\DATA\191002RS\1002R08.D Vial: 8
Acq On : 2 Oct 19 18:07 Operator: GA
Sample : RSK STD 7 10/2/19 Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 2 18:11 2019 Quant Results File: RSK1002.RES

Method : G:\ROCKY\DATA\190929RS\RSK1002.M (Chemstation Integrator)
Title : RSK 175
Last Update : Wed Oct 02 18:14:49 2019
Response via : Multiple Level Calibration

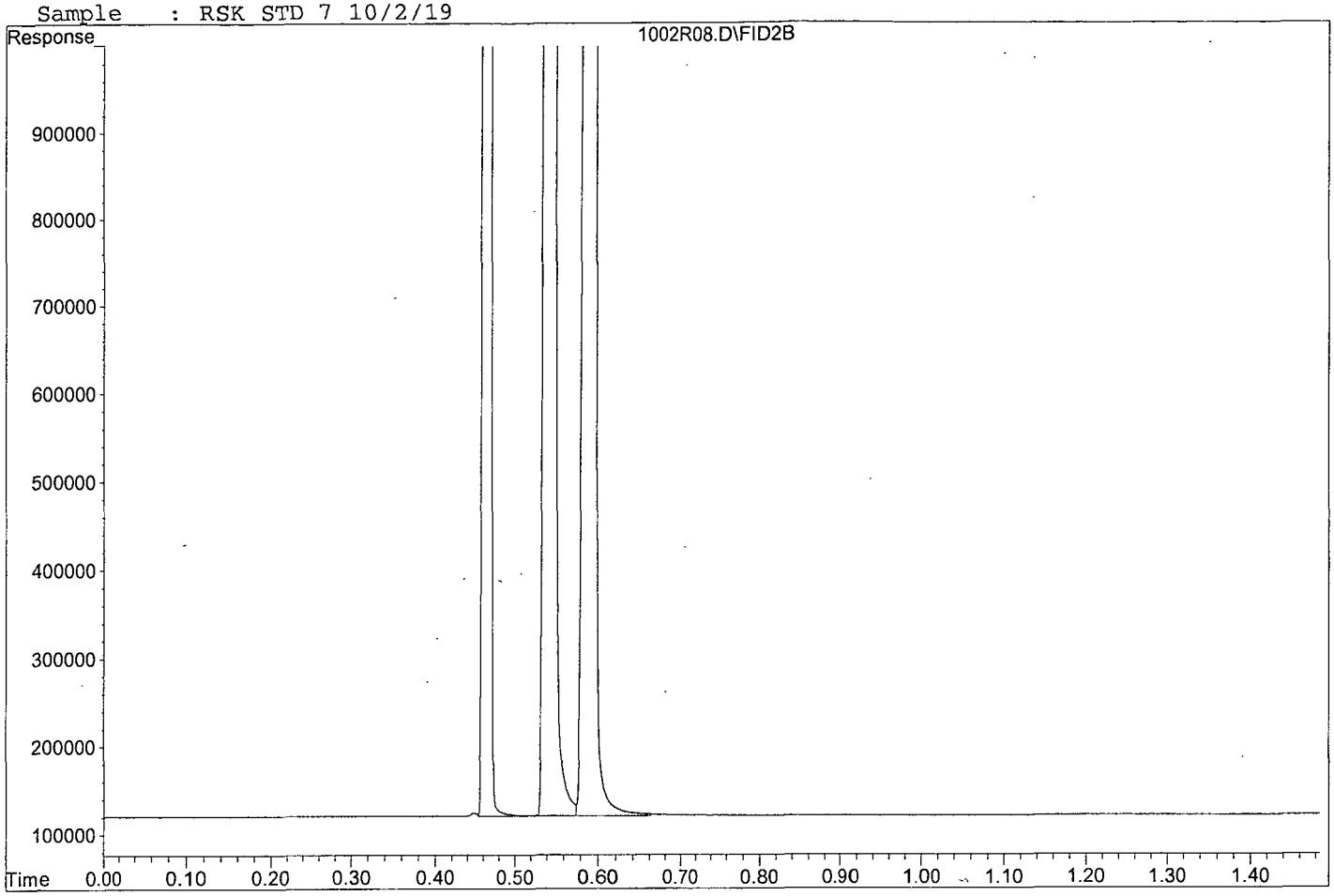
Volume Inj. : 0.500 mL
Signal Phase : CARBOPACK
Signal Info :

Compound	R.T.	Response	Conc	Units
Target Compounds				
1) ATM Methane	0.46	19087907	1106.909	ppb
2) ATM Ethane	0.54	25777712	1926.584	ppb
3) ATM Ethene	0.59	19176068	1801.389	ppb

Target Compounds

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: G:\ROCKY\DATA\191002RS\1002R08.D
Sample : RSK STD 7 10/2/19



Form 7

Second Source Calibration

Lab Name: APPL, Inc.
Case No:
Matrix:

SDG No:
Date Analyzed: 2 Oct 19 18:24
Instrument: 7890
Initial Cal. Date: 10/02/19
Data File: 1002R10.D

		Compound	MEAN	CCRF	%D		%Drift
1	ATM	Methane	46275	50203	8.5	ATM	
2	ATM	Ethane	34039	37011	8.7	ATM	
3	ATM	Ethene	26775	28699	7.2	ATM	
4							
5							
6							
7							
8							
9							
10							
11							
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32							
33							
34							
35							
36							
37							
38							
39							
40							
		Average			8.1		

Quantitation Report (Not Reviewed)

Data File : G:\ROCKY\DATA\191002RS\1002R10.D Vial: 10
Acq On : 2 Oct 19 18:24 Operator: GA
Sample : SS RSK STD 5 10/2/19 Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Oct 2 18:27 2019 Quant Results File: RSK1002.RES

Method : G:\ROCKY\DATA\190929RS\RSK1002.M (Chemstation Integrator)
Title : RSK 175
Last Update : Wed Oct 02 18:14:49 2019
Response via : Multiple Level Calibration

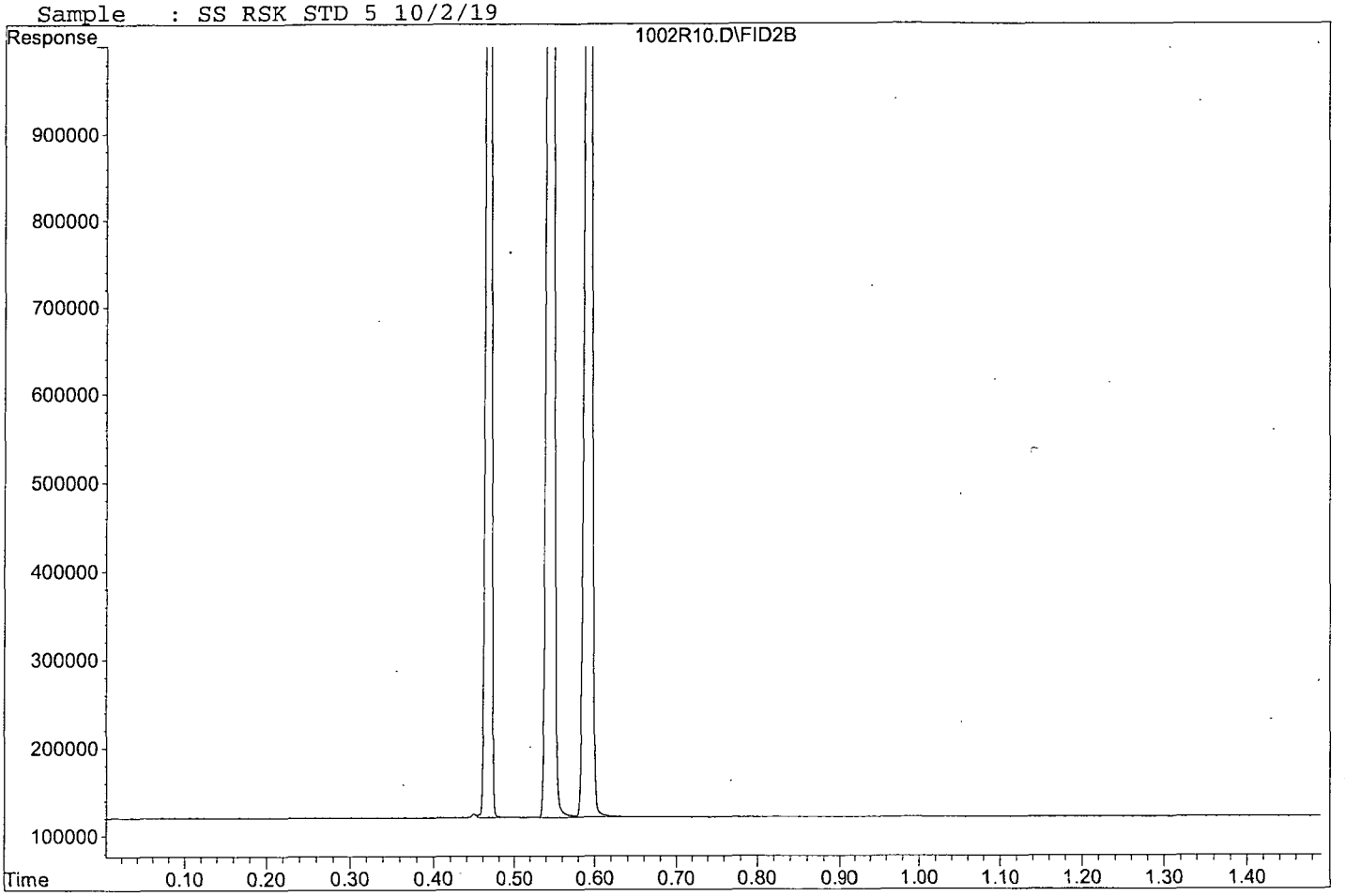
Volume Inj. : 0.500 mL
Signal Phase : CARBOPACK
Signal Info :

Compound	R.T.	Response	Conc	Units
Target Compounds				
1) ATM Methane	0.47	2093456	90.480	ppb
2) ATM Ethane	0.54	2893356	170.002	ppb
3) ATM Ethene	0.59	2092707	156.318	ppb

Target Compounds

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: G:\ROCKY\DATA\191002RS\1002R10.D
Sample : SS RSK STD 5 10/2/19



Form 7

Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix:

SDG No:
Date Analyzed: 11/12/19
Instrument: 7890
Initial Cal. Date: 10/02/19
Data File: 1112R03.D

		Compound	MEAN	CCRF	%D		%Drift
1	ATM	Methane	46275	51828	12	ATM	
2	ATM	Ethane	34039	36470	7.1	ATM	
3	ATM	Ethene	26775	26101	2.5	ATM	
4							
5							
6							
7							
8							
9							
10							
11							
12							
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14							
15							
16							
17							
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29							
30							
31							
32							
33							
34							
35							
36							
37							
38							
39							
40							
		Average			7.2		

Quantitation Report (Not Reviewed)

Data File : G:\ROCKY\DATA\191002RS\1112R03.D Vial: 3
Acq On : 12 Nov 19 17:45 Operator: GA
Sample : 191112A LCS/CCV RSK STD 5 Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Nov 12 17:47 2019 Quant Results File: RSK1002.RES

Method : G:\ROCKY\DATA\190929RS\RSK1002.M (Chemstation Integrator)
Title : RSK 175
Last Update : Thu Nov 07 15:54:22 2019
Response via : Multiple Level Calibration

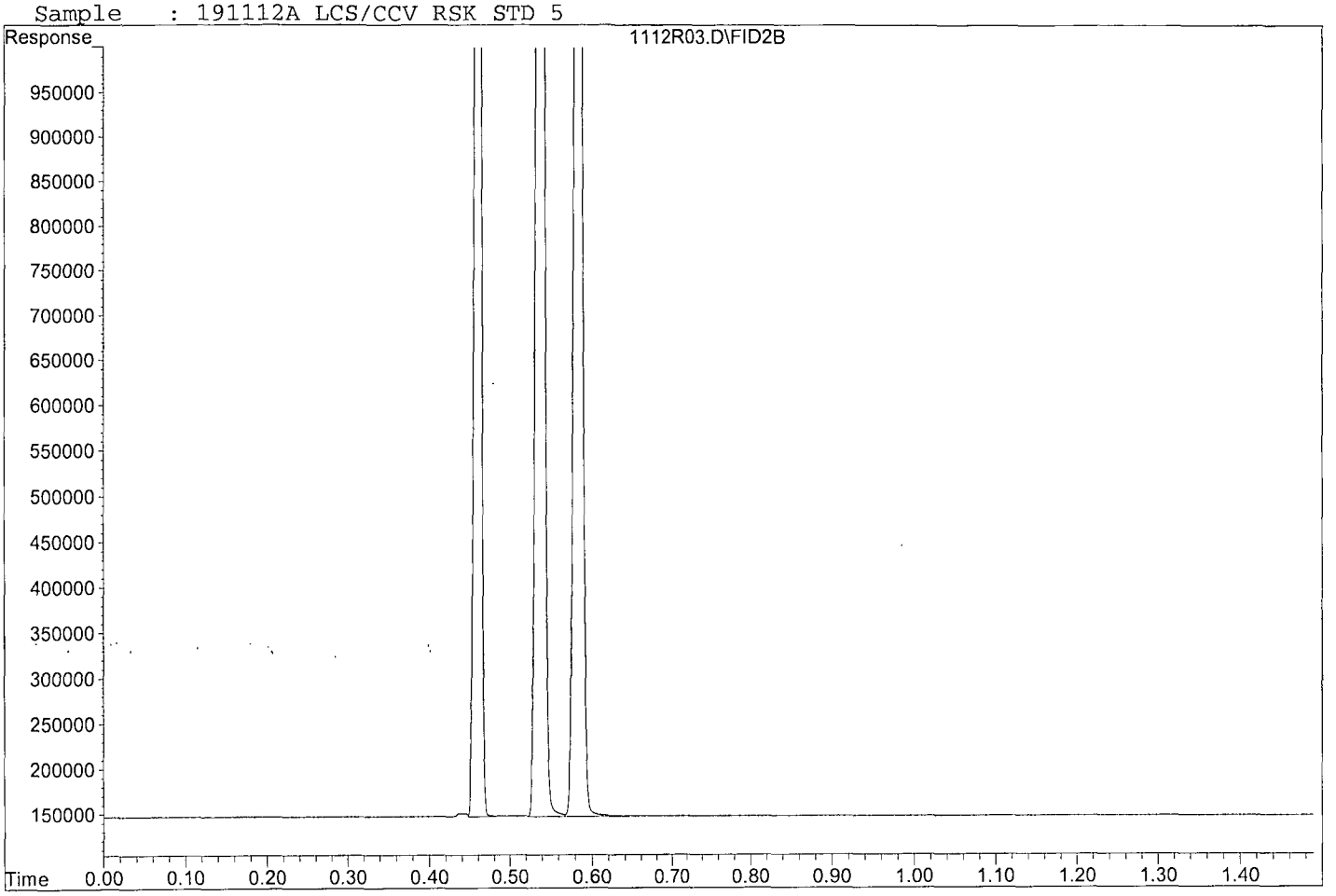
Volume Inj. : 0.500 mL
Signal Phase : CARBOPACK
Signal Info :

Compound	R.T.	Response	Conc Units
Target Compounds			
1) ATM Methane	0.46	2161222	93.409 ppb
2) ATM Ethane	0.54	2851036	167.515 ppb
3) ATM Ethene	0.58	1903280	142.168 ppb

Target Compounds

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: G:\ROCKY\DATA\191002RS\1112R03.D
Sample : 191112A LCS/CCV RSK STD 5



RSK 175
RSK 175

Form 7

Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix:

SDG No:
Date Analyzed: 11/12/19
Instrument: 7890
Initial Cal. Date: 10/02/19
Data File: 1112R10.D

		Compound	MEAN	CCRF	%D		%Drift	
1	ATM	Methane	46275	39094	16	ATM		
2	ATM	Ethane	34039	27276	20	ATM		
3	ATM	Ethene	26775	19832	26	ATM		*
4								
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6								
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32								
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35								
36								
37								
38								
39								
40								
		Average			20.7			

Quantitation Report (Not Reviewed)

Data File : G:\ROCKY\DATA\191002RS\1112R10.D Vial: 10
Acq On : 12 Nov 19 18:23 Operator: GA
Sample : LCSD/CCV RSK STD 5 11/12/19 Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Nov 12 18:27 2019 Quant Results File: RSK1002.RES

Method : G:\ROCKY\DATA\190929RS\RSK1002.M (Chemstation Integrator)
Title : RSK 175
Last Update : Thu Nov 07 15:54:22 2019
Response via : Multiple Level Calibration

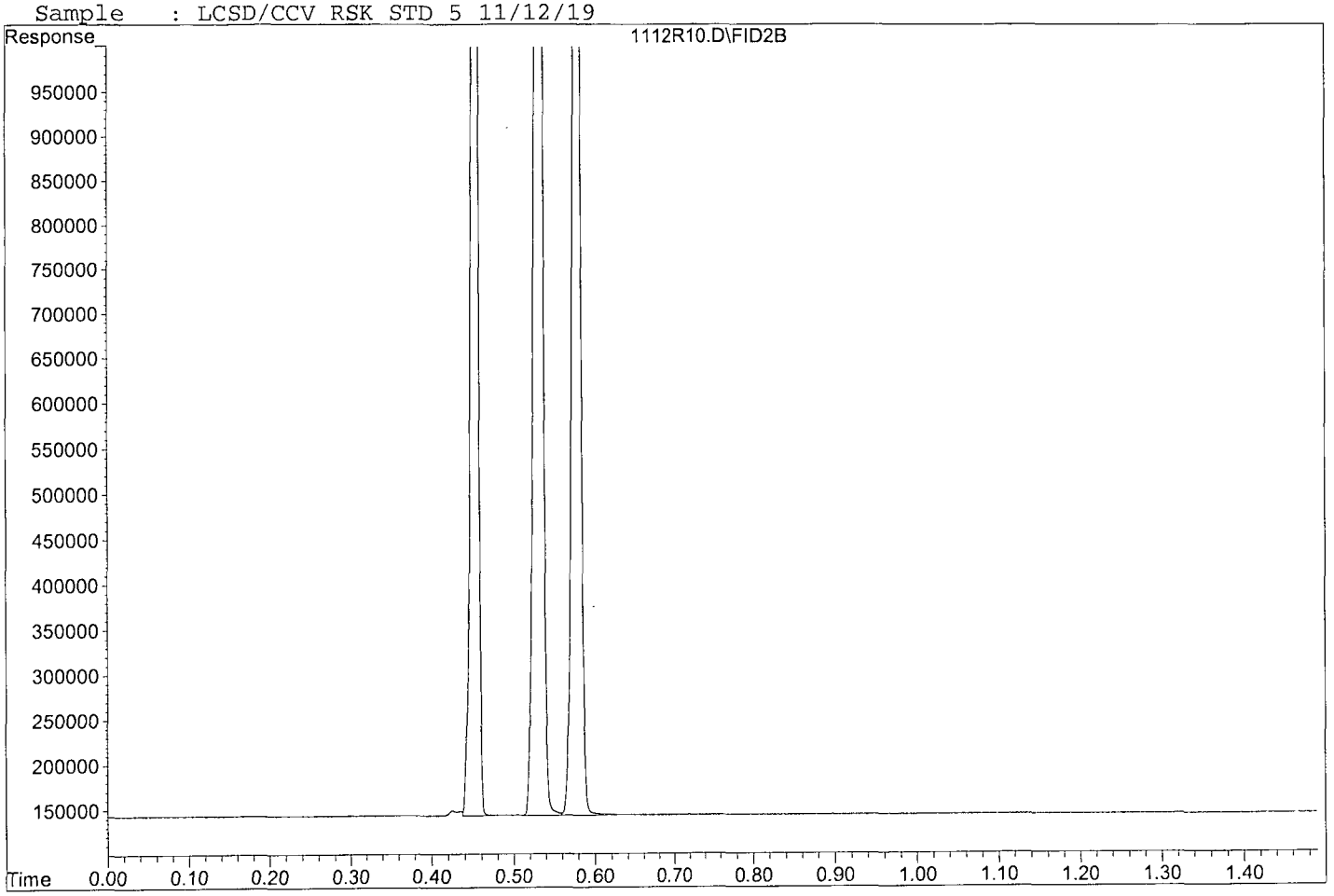
Volume Inj. : 0.500 mL
Signal Phase : CARBOPACK
Signal Info :

Compound	R.T.	Response	Conc Units
Target Compounds			
1) ATM Methane	0.45	1630232	70.459 ppb
2) ATM Ethane	0.53	2132299	125.285 ppb
3) ATM Ethene	0.58	1446113	108.020 ppb

Target Compounds

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: G:\ROCKY\DATA\191002RS\1112R10.D
Sample : LCSD/CCV RSK STD 5 11/12/19



ORGANICS
Raw Data

Quantitation Report (QT Reviewed)

Data File : G:\ROCKY\DATA\191002RS\1112R08.D Vial: 8
Acq On : 12 Nov 19 18:13 Operator: GA
Sample : BA02524W04 Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Nov 12 18:18 2019 Quant Results File: RSK1002.RES

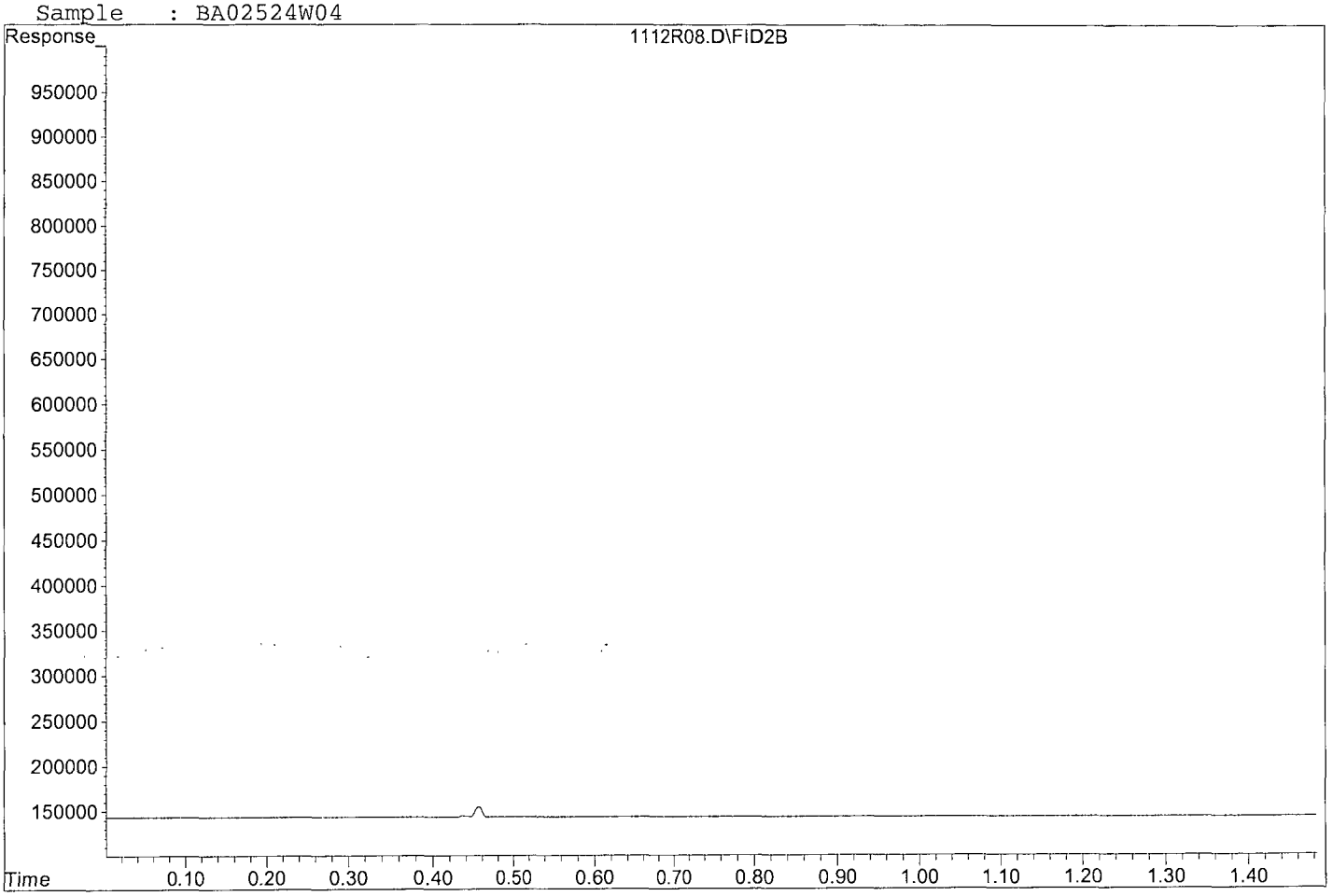
Method : G:\ROCKY\DATA\190929RS\RSK1002.M (Chemstation Integrator)
Title : RSK 175
Last Update : Thu Nov 07 15:54:22 2019
Response via : Multiple Level Calibration

Volume Inj. : 0.500 mL
Signal Phase : CARBOPACK
Signal Info :

Compound	R.T.	Response	Conc	Units	
Target Compounds					
Target Compounds					
1) ATM Methane	0.00	0	N.D.	ppb	d
2) ATM Ethane	0.00	0	N.D.	ppb	d
3) ATM Ethene	0.00	0	N.D.	ppb	d

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: G:\ROCKY\DATA\191002RS\1112R08.D
Sample : BA02524W04



Quantitation Report (QT Reviewed)

Data File : G:\ROCKY\DATA\191002RS\1112R09.D Vial: 9
Acq On : 12 Nov 19 18:19 Operator: GA
Sample : BA02525W04 Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Nov 12 18:22 2019 Quant Results File: RSK1002.RES

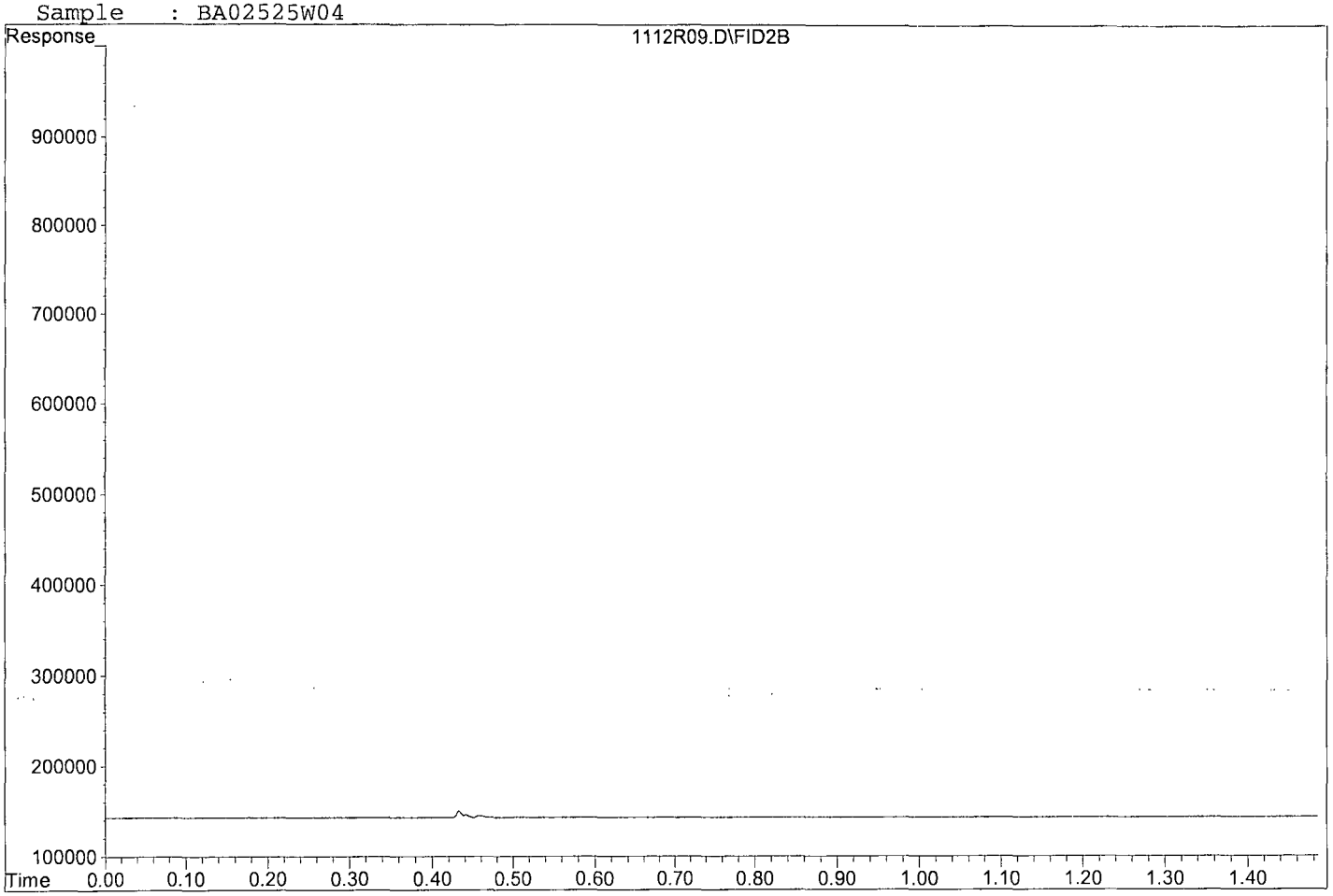
Method : G:\ROCKY\DATA\190929RS\RSK1002.M (Chemstation Integrator)
Title : RSK 175
Last Update : Thu Nov 07 15:54:22 2019
Response via : Multiple Level Calibration

Volume Inj. : 0.500 mL
Signal Phase : CARBOPACK
Signal Info :

Compound	R.T.	Response	Conc	Units	
Target Compounds					
Target Compounds					
1) ATM Methane	0.00	0	N.D.	ppb	d
2) ATM Ethane	0.00	0	N.D.	ppb	d
3) ATM Ethene	0.00	0	N.D.	ppb	d

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: G:\ROCKY\DATA\191002RS\1112R09.D
Sample : BA02525W04



Quantitation Report (QT Reviewed)

Data File : G:\ROCKY\DATA\191002RS\1112R04.D Vial: 4
Acq On : 12 Nov 19 17:48 Operator: GA
Sample : 191112A BLK Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Nov 12 17:51 2019 Quant Results File: RSK1002.RES

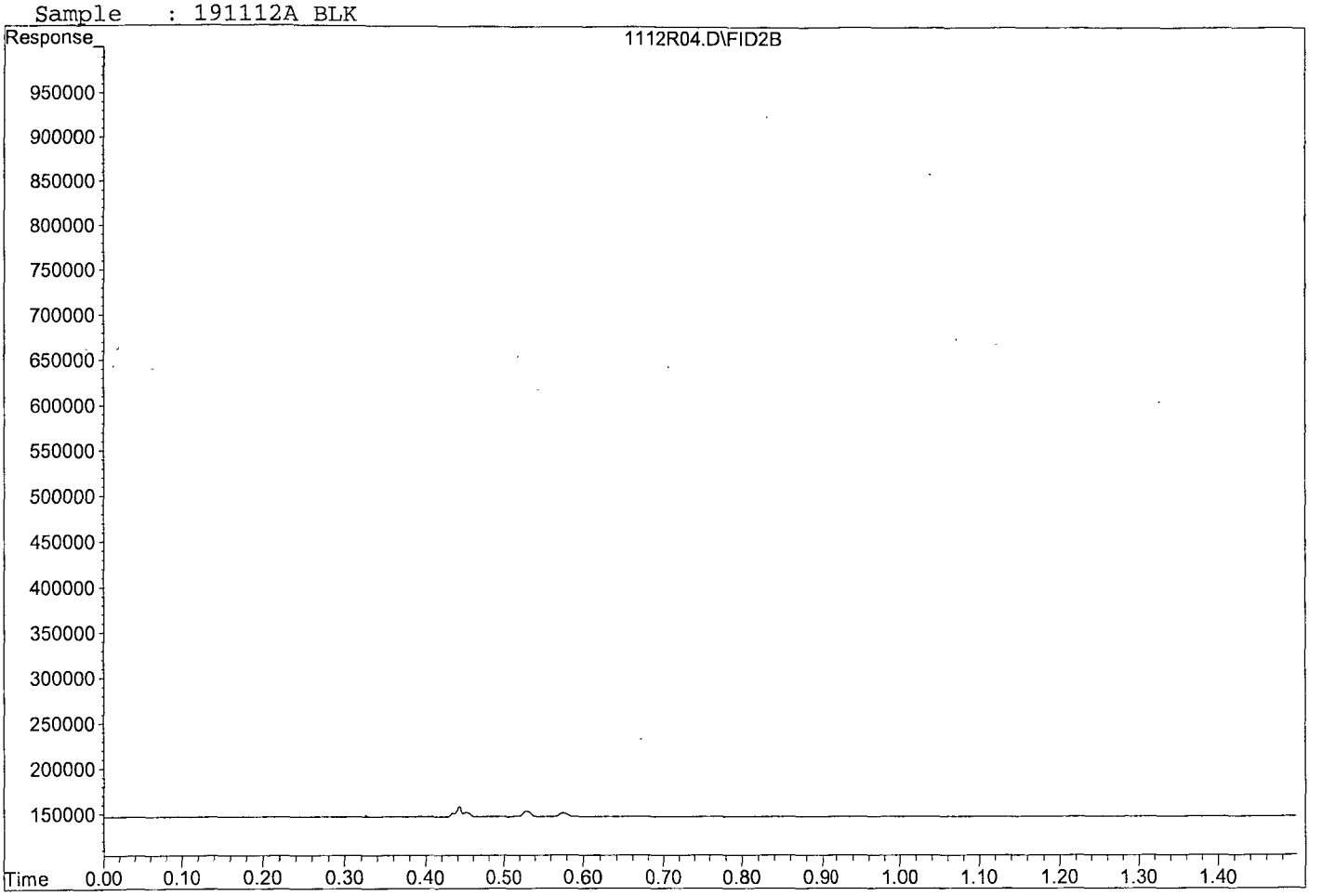
Method : G:\ROCKY\DATA\190929RS\RSK1002.M (Chemstation Integrator)
Title : RSK 175
Last Update : Thu Nov 07 15:54:22 2019
Response via : Multiple Level Calibration

Volume Inj. : 0.500 mL
Signal Phase : CARBOPACK
Signal Info :

Compound	R.T.	Response	Conc	Units	
Target Compounds					
Target Compounds					
1) ATM Methane	0.00	0	N.D.	ppb	d
2) ATM Ethane	0.00	0	N.D.	ppb	d
3) ATM Ethene	0.00	0	N.D.	ppb	d

(f)=RT Delta > 1/2 Window (m)=manual int.

Data File: G:\ROCKY\DATA\191002RS\1112R04.D
Sample : 191112A BLK



Quantitation Report (Not Reviewed)

Data File : G:\ROCKY\DATA\191002RS\1112R03.D Vial: 3
Acq On : 12 Nov 19 17:45 Operator: GA
Sample : 191112A LCS/CCV RSK STD 5 Inst : 7890
Misc : Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Nov 12 17:47 2019 Quant Results File: RSK1002.RES

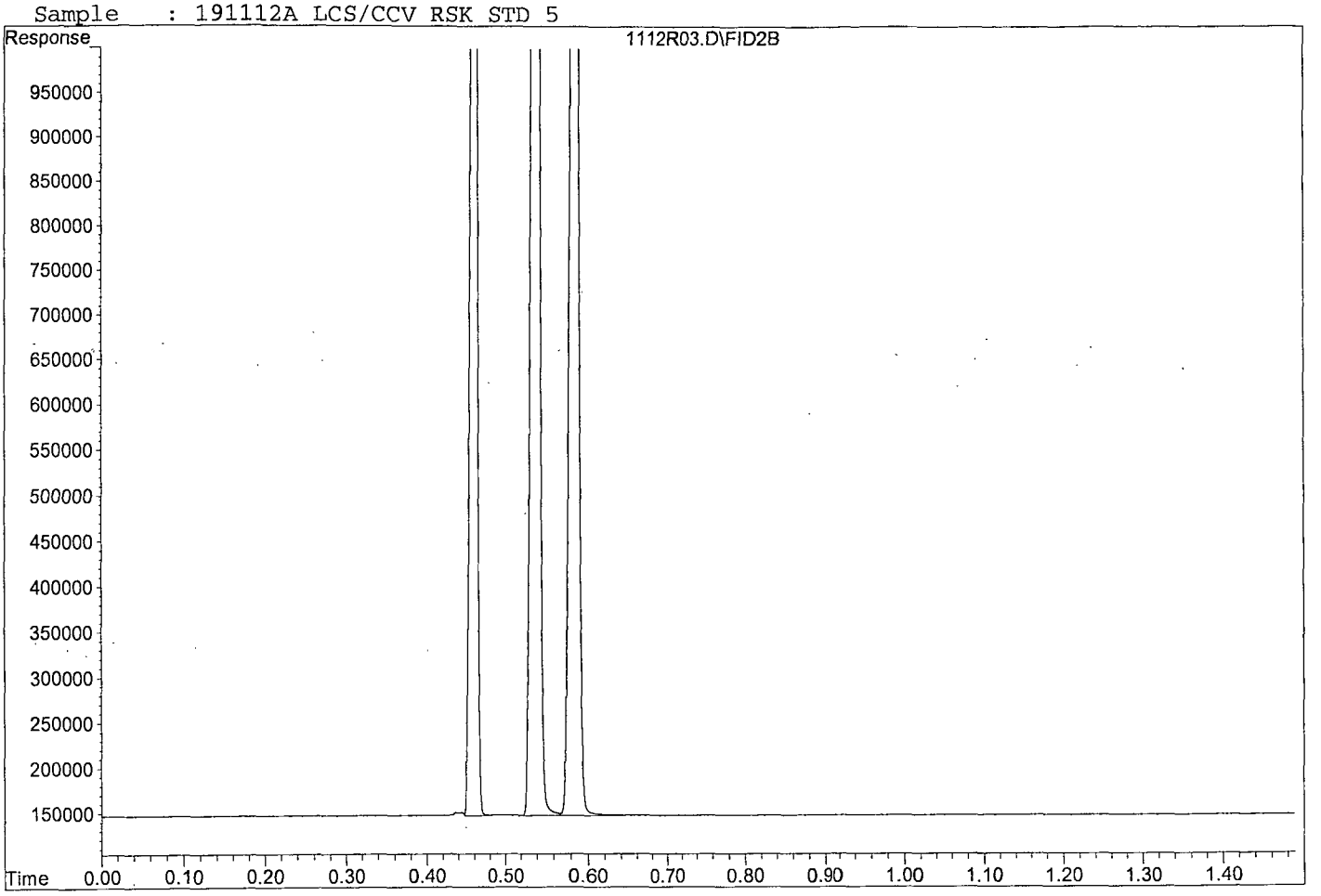
Method : G:\ROCKY\DATA\190929RS\RSK1002.M (Chemstation Integrator)
Title : RSK 175
Last Update : Thu Nov 07 15:54:22 2019
Response via : Multiple Level Calibration

Volume Inj. : 0.500 mL
Signal Phase : CARBOPACK
Signal Info :

Compound	R.T.	Response	Conc Units
Target Compounds			
1) ATM Methane	0.46	2161222	93.409 ppb
2) ATM Ethane	0.54	2851036	167.515 ppb
3) ATM Ethene	0.58	1903280	142.168 ppb

Target Compounds

Data File: G:\ROCKY\DATA\191002RS\1112R03.D
Sample : 191112A LCS/CCV RSK STD 5



Primary Stock Source

10,000ppmV **Manufacture Expiration:** 09/21/21

RSK Gas Mix (Scott Specialty Gas) CAT#X04NI97CP140001 LOT#160-401558175-1

1% Gas Concentration Moles = 10,000ppmV Methane, Ethane, Ethene

RSK Calibration Curve (prepared in 1.0 L Tedlar Bags at room temp) **01/02/19** **10/02/19**

Analyte	Conc Std 1 (1/2 = LOD) (ug/L)	Conc Std 2 (LOQ Chk) (ug/L)	Conc Std 3 (ug/L)	Conc Std 4 (ug/L)	Conc Std 5 (ug/L)	Conc Std 6 (ug/L)	Conc Std 7 (ug/L)
Methane (MW 16.04)	2.08	4.16	8.34	20.85	83.40	208.5	834.0
Ethane (MW 30.07)	3.91	7.81	15.6	39.09	156.35	390.9	1563.5
Ethene (MW 28.05)	3.65	7.30	14.6	36.46	145.84	364.6	1458.4
Stock Source	160-401558175-1	160-401558175-1	160-401558175-1	160-401558175-1	160-401558175-1	160-401558175-1	160-401558175-1
Stock Conc (ppmv)	10,000 ppmV	10,000 ppmV	10,000 ppmV	10,000 ppmV	10,000 ppmV	10,000 ppmV	10,000 ppmV
Stock Aliquot (mL)	0.010	0.020	0.040	0.100	0.400	1.00	4.00
Final Volume P&T Water	32 mL	32 mL	32 mL	32 mL	32 mL	32 mL	32 mL

Second Source Stock Standard 10,000ppmV **Manufacturer Exp date 9-21-2021**

RSK Gas Mix (Scott Specialty Gas) Cat.# 23452, Lot # 160-401303032-1-39774

1% Gas Concentration Moles = 10,000ppmV Methane, Ethane, Ethene

Second Source **Expires 10/03/19** **10/02/19**

2.0mL of SS from tank into 980 mL Nitrogen

final conc: 13.3ug/L Methane, 25.0 ug/L Ethane, and 23.3 ug/L Ethene

CCV/LCS/LCSD **GA 11/12/19**

Spike 0.400mL of 10,000ppmV into 32mL DI water, with 8mL Nitrogen headspace

final conc: 83.40ug/L Methane, 156.35ug/L Ethane, and 145.84ug/L Ethene

Injection Log

Directory: G:\ROCKY\DATA\191002RS\

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	2	1002R02.D	1	RSK STD 1 10/2/19		2 Oct 19 17:45
2	3	1002R03.D	1	RSK STD 2 10/2/19		2 Oct 19 17:50
3	4	1002R04.D	1	RSK STD 3 10/2/19		2 Oct 19 17:52
4	5	1002R05.D	1	RSK STD 4 10/2/19		2 Oct 19 17:57
5	6	1002R06.D	1	RSK STD 5 10/2/19		2 Oct 19 17:59
6	7	1002R07.D	1	RSK STD 6 10/2/19		2 Oct 19 18:05
7	8	1002R08.D	1	RSK STD 7 10/2/19		2 Oct 19 18:07
8	10	1002R10.D	1	SS RSK STD 5 10/2/19		2 Oct 19 18:24
9	3	1112R03.D	1	191112A LCS/CCV RSK STD 5		12 Nov 19 17:45
10	4	1112R04.D	1	191112A BLK		12 Nov 19 17:48
11	8	1112R08.D	1	BA02524W04		12 Nov 19 18:13
12	9	1112R09.D	1	BA02525W04		12 Nov 19 18:19
13	10	1112R10.D	1	LCSD/CCV RSK STD 5 11/12/19		12 Nov 19 18:23

METALS

Calibration Data

A.P.P.L. INC.

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: A.P.P.L. INC. Contract: AECOM

ARF No: 90657 SDG: 90657

Analysis Date: 11/19/19 Concentration Units: ug/L

Analyte	Initial Calibration			Continuing Calibration						M
	True	Found 9:19	%R(1)	True CCV2	Found 10:30	%R(1)	True	Found	%R(1)	
Calcium (Ca)	12500	12300	98.4	18750	18710	99.8				P
Potassium (K)	12500	12050	96.4	7500	7294	97.3				P
Magnesium (Mg)	12500	12620	101	18750	19220	103				P
Manganese (Mn)	500	494.9	99.0	375.5	375.4	100				P
Sodium (Na)	12500	12230	97.8	9375	9216	98.3				P

(1) Control Limits: Metals 90-110

ILM02.0

A.P.P.L. INC.
3
BLANKS

Lab Name: A.P.P.L. INC. Contract: AECOM

ARF No.: 90657 SDG:. 90657

Preparation Blank Matrix (soil/water): water

Preparation Blank Concentration Units (ug/L or mg/kg): ug/L

Analysis Date: 11/19/19

Analyte	Initial Calibration Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Preparation Blank	C	M
	09:32		10:34						10:06		
Calcium (Ca)	1000.00	U	1000.00	U					40.00	J	P
Potassium (K)	3000.00	U	3000.00	U					3000.00	U	P
Magnesium (Mg)	500.00	U	500.00	U					20.30	J	P
Manganese (Mn)	10.00	U	10.00	U					10.00	U	P
Sodium (Na)	5000.00	U	5000.00	U					5000.00	U	P

A.P.P.L. INC.
4
ICP INTERFERENCE CHECK SAMPLE

Lab Name: A.P.P.L. INC. Contract: AECOM
ARF No.: 90657 SDG: 90657
ICP ID Number: Phoebe ICS Source: Environmental Express

Analysis Date: 11/19/19 Concentration Units: ug/L

Analyte	True		Initial Found		
	Sol A	Sol AB	Sol A 9:56	Sol AB 10:01	%R(1)
Aluminum (Al)	100000	100000	97930	106100	106
Calcium (Ca)	100000	100000	97510	103600	104
Iron (Fe)	100000	100000	93500	99190	99.2
Potassium (K)			-80.35	-120.3	
Magnesium (Mg)	100000	100000	97960	104700	105
Manganese (Mn)		250	-1.842	254.7	102
Sodium (Na)			104	112.2	

(1) Control Limits: Metals 80-120

Low Level ICV

Sample Name	Acq Date Time	Run Sequence	Analyte	Actual Conc (ug/L)	Spiked Conc (ug/L)	Control Limits	% Recovery	QC Flag
LLICV10	11/19/19 9:52 AM	191119A	Silver	5.419	5	80-120%	108	
LLICVX2	11/19/19 9:42 AM	191119A	Aluminum	95.1	100	80-120%	95	
LLICVX2	11/19/19 9:42 AM	191119A	Arsenic	4.04	4	80-120%	101	
LLICVX6	11/19/19 9:47 AM	191119A	Boron	153.90	150	80-120%	103	
LLICV	11/19/19 9:37 AM	191119A	Barium	1.774	1.5	80-120%	118	
LLICV	11/19/19 9:37 AM	191119A	Beryllium	1.047	1	80-120%	105	
LLICVX2	11/19/19 9:42 AM	191119A	Calcium	111.70	100	80-120%	112	
LLICVX2	11/19/19 9:42 AM	191119A	Cadmium	0.48	0.5	80-120%	95	
LLICV	11/19/19 9:37 AM	191119A	Cobalt	2.878	2.5	80-120%	115	
LLICV	11/19/19 9:37 AM	191119A	Chromium	0.46	0.5	80-120%	92	
LLICVX6	11/19/19 9:47 AM	191119A	Copper	17.55	15	80-120%	117	
LLICV	11/19/19 9:37 AM	191119A	Iron	28.90	25	80-120%	116	
LLICV	11/19/19 9:37 AM	191119A	Potassium	419.8	500	80-120%	84	
LLICVX2	11/19/19 9:42 AM	191119A	Magnesium	50.80	50	80-120%	102	
LLICVX6	11/19/19 9:47 AM	191119A	Manganese	6.39	6	80-120%	107	
LLICVX2	11/19/19 9:42 AM	191119A	Molybdenum	2.04	2	80-120%	102	
LLICV	11/19/19 9:37 AM	191119A	Sodium	439.4	500	80-120%	88	
LLICVX6	11/19/19 9:47 AM	191119A	Nickel	6.043	6	80-120%	101	
LLICV	11/19/19 9:37 AM	191119A	Phosphorus	13.09	12.5	80-120%	105	
LLICVX6	11/19/19 9:47 AM	191119A	Lead	9.67	9	80-120%	107	
LLICVX2	11/19/19 9:42 AM	191119A	Antimony	4.00	4	80-120%	100	
LLICV	11/19/19 9:37 AM	191119A	Selenium	2.17	2	80-120%	108	
LLICV	11/19/19 9:37 AM	191119A	Tin	3.217	3	80-120%	107	
LLICV	11/19/19 9:37 AM	191119A	Strontium	1.015	1	80-120%	102	
LLICV	11/19/19 9:37 AM	191119A	Titanium	2.42	2.5	80-120%	97	
LLICVX2	11/19/19 9:42 AM	191119A	Thallium	4.31	4	80-120%	108	
LLICVX6	11/19/19 9:47 AM	191119A	Vanadium	2.64	3	80-120%	88	
LLICV	11/19/19 9:37 AM	191119A	Zinc	27.16	25	80-120%	109	

Reprocessing Begun
Logged In Analyst: chemist_metals Technique: ICP Continuous

Results Data Set (original): 191119A2007
Results Library (original): C:\PE\chemist\RESULTS\Results.mdb
Results Data Set (reprocessed): 191119A2007R1
Results Library (reprocessed): C:\PE\chemist\RESULTS\Results.mdb

Sequence No.: 1 Autosampler Location: 1
Sample ID: CalBlk 191119 I:PB O:PW Date Collected: 11/19/19 9:00:44 AM
Analyst: Data Type: Reprocessed on 11/20/19 10:03:49 AM
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:

Mean Data: CalBlk 191119 I:PB O:PW

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Y 371.029	1286663.9	16613.11	1.29%	100.0	%
Y 371.029 Radial	1235338.2	16771.37	1.36%	100.0	%
Ag 338.289†	-129.4	39.09	30.22%	[0.00]	ug/L
Al 308.215†	39.0	8.93	22.90%	[0.00]	ug/L
As 188.979†	-56.9	2.12	3.73%	[0.00]	ug/L
B†	-198.5	6.10	3.07%	[0.00]	ug/L
Ba 233.527†	60.6	5.32	8.78%	[0.00]	ug/L
Be 313.107†	-1.6	14.02	896.26%	[0.00]	ug/L
Ca 315.887†	-119.6	10.59	8.85%	[0.00]	ug/L
Cd 214.440†	-237.7	14.67	6.17%	[0.00]	ug/L
Co 228.616†	62.9	8.82	14.01%	[0.00]	ug/L
Cr 267.716†	227.6	16.53	7.26%	[0.00]	ug/L
Cu 327.393†	-809.1	75.05	9.28%	[0.00]	ug/L
Fe 273.955†	-69.7	1.57	2.25%	[0.00]	ug/L
K 766.490†	1029.7	22.59	2.19%	[0.00]	ug/L
Mg 285.213†	-22.3	3.83	17.14%	[0.00]	ug/L
Mn 257.610†	-77.8	7.57	9.74%	[0.00]	ug/L
Mo 202.031†	61.1	8.69	14.21%	[0.00]	ug/L
Na 589.592†	399.7	10.95	2.74%	[0.00]	ug/L
Ni 231.604†	41.2	10.79	26.17%	[0.00]	ug/L
P 213.617†	-73.9	5.40	7.30%	[0.00]	ug/L
Pb 220.353†	37.0	19.77	53.37%	[0.00]	ug/L
Sb 206.836†	-20.6	0.55	2.67%	[0.00]	ug/L
Se 196.026†	1.4	6.02	444.63%	[0.00]	ug/L
Sn 189.927†	8.7	4.15	47.78%	[0.00]	ug/L
Sr 421.552†	39.7	15.25	38.44%	[0.00]	ug/L
Ti 337.279†	-112.1	4.54	4.05%	[0.00]	ug/L
Tl 190.801†	-96.2	3.59	3.73%	[0.00]	ug/L
V 292.402†	-285.1	56.80	19.92%	[0.00]	ug/L
Zn 206.200†	-405.5	9.24	2.28%	[0.00]	ug/L

Sequence No.: 2
Sample ID: STD 1 191119 I:PB O:PW
Analyst:
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:

Autosampler Location: 2
Date Collected: 11/19/19 9:06:24 AM
Data Type: Reprocessed on 11/20/19 10:04:22 AM

Initial Sample Vol:
Sample Prep Vol:

Mean Data: STD 1 191119 I:PB O:PW

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Y 371.029	1273621.3	5908.51	0.46%	98.99	%
Y 371.029 Radial	1221929.0	6314.07	0.52%	98.91	%
Ag 338.289†	113.1	44.00	38.92%	[0.5]	ug/L
Al 308.215†	12.1	0.78	6.45%	[50]	ug/L
As 188.979†	5.9	3.12	53.20%	[2]	ug/L
B†	962.5	7.59	0.79%	[25]	ug/L
Ba 233.527†	177.2	5.22	2.94%	[1.5]	ug/L
Be 313.107†	71.1	3.13	4.40%	[1]	ug/L
Ca 315.887†	88.3	6.23	7.05%	[50]	ug/L
Cd 214.440†	43.4	12.09	27.86%	[0.25]	ug/L
Co 228.616†	129.9	5.25	4.04%	[2.5]	ug/L
Cr 267.716†	49.9	18.48	37.03%	[0.5]	ug/L
Cu 327.393†	362.0	149.14	41.20%	[2.5]	ug/L
Fe 273.955†	446.1	15.25	3.42%	[25]	ug/L
K 766.490†	898.0	30.79	3.43%	[500]	ug/L
Mg 285.213†	60.1	5.46	9.09%	[25]	ug/L
Mn 257.610†	1.8	2.23	122.62%	[1]	ug/L
Mo 202.031†	39.9	3.61	9.04%	[1]	ug/L
Na 589.592†	1423.3	106.15	7.46%	[500]	ug/L
Ni 231.604†	35.5	6.92	19.50%	[1]	ug/L
P 213.617†	37.6	4.11	10.91%	[12.5]	ug/L
Pb 220.353†	11.9	26.11	219.97%	[1.5]	ug/L
Sb 206.836†	5.6	1.77	31.57%	[2]	ug/L
Se 196.026†	0.1	2.10	>999.9%	[2]	ug/L
Sn 189.927†	19.6	2.20	11.23%	[3]	ug/L
Sr 421.552†	167.8	72.78	43.38%	[1]	ug/L
Ti 337.279†	18.2	6.03	33.07%	[2.5]	ug/L
Tl 190.801†	10.2	1.75	17.23%	[2]	ug/L
V 292.402†	64.5	41.53	64.40%	[0.5]	ug/L
Zn 206.200†	1182.7	12.89	1.09%	[25]	ug/L

Sequence No.: 3
Sample ID: STD 2 191119 I:PB O:PW
Analyst:
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:

Autosampler Location: 3
Date Collected: 11/19/19 9:11:09 AM
Data Type: Reprocessed on 11/20/19 10:04:23 AM
Initial Sample Vol:
Sample Prep Vol:

Mean Data: STD 2 191119 I:PB O:PW

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Y 371.029	1213922.2	8733.52	0.72%	94.35	%
Y 371.029 Radial	1161811.2	8624.72	0.74%	94.05	%
Ag 338.289†	18992.8	54.40	0.29%	[250]	ug/L
Al 308.215†	2612.9	8.46	0.32%	[10000]	ug/L
As 188.979†	1579.3	16.74	1.06%	[500]	ug/L
B†	18888.8	37.84	0.20%	[500]	ug/L
Ba 233.527†	54552.3	128.07	0.23%	[500]	ug/L
Be 313.107†	32193.9	621.49	1.93%	[500]	ug/L
Ca 315.887†	32325.0	126.39	0.39%	[25000]	ug/L
Cd 214.440†	67308.8	373.37	0.55%	[500]	ug/L
Co 228.616†	23494.1	48.70	0.21%	[500]	ug/L
Cr 267.716†	37822.5	81.69	0.22%	[500]	ug/L
Cu 327.393†	42659.3	120.29	0.28%	[500]	ug/L
Fe 273.955†	154937.5	397.91	0.26%	[10000]	ug/L
K 766.490†	18541.6	376.90	2.03%	[10000]	ug/L
Mg 285.213†	51475.0	777.75	1.51%	[25000]	ug/L
Mn 257.610†	2868.0	12.04	0.42%	[500]	ug/L
Mo 202.031†	13183.2	107.80	0.82%	[500]	ug/L
Na 589.592†	37277.4	491.82	1.32%	[12500]	ug/L
Ni 231.604†	19073.9	86.44	0.45%	[500]	ug/L
P 213.617†	8526.1	86.00	1.01%	[2500]	ug/L
Pb 220.353†	5035.8	40.15	0.80%	[500]	ug/L
Sb 206.836†	1940.6	10.22	0.53%	[500]	ug/L
Se 196.026†	1336.6	4.48	0.33%	[500]	ug/L
Sn 189.927†	4467.1	39.93	0.89%	[500]	ug/L
Sr 421.552†	66509.4	961.26	1.45%	[500]	ug/L
Ti 337.279†	3398.0	15.42	0.45%	[500]	ug/L
Tl 190.801†	2108.3	6.48	0.31%	[500]	ug/L
V 292.402†	69067.3	103.29	0.15%	[500]	ug/L
Zn 206.200†	22183.4	187.26	0.84%	[500]	ug/L

Sequence No.: 4
Sample ID: STD 3 191119 I:PB O:PW
Analyst:
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:

Autosampler Location: 4
Date Collected: 11/19/19 9:15:49 AM
Data Type: Reprocessed on 11/20/19 10:04:24 AM
Initial Sample Vol:
Sample Prep Vol:

Mean Data: STD 3 191119 I:PB O:PW

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Y 371.029	1197623.1	10928.39	0.91%	93.08	%
Y 371.029 Radial	1146046.5	10987.67	0.96%	92.77	%
Ag 338.289†	38191.5	60.42	0.16%	[500]	ug/L
Al 308.215†	5178.7	99.32	1.92%	[20000]	ug/L
As 188.979†	3169.4	36.31	1.15%	[1000]	ug/L
B†	38640.1	286.56	0.74%	[1000]	ug/L
Ba 233.527†	108934.5	151.06	0.14%	[1000]	ug/L
Be 313.107†	64076.0	525.86	0.82%	[1000]	ug/L
Ca 315.887†	64373.7	1544.19	2.40%	[50000]	ug/L
Cd 214.440†	132992.3	124.09	0.09%	[1000]	ug/L
Co 228.616†	46719.7	52.23	0.11%	[1000]	ug/L
Cr 267.716†	75287.0	98.77	0.13%	[1000]	ug/L
Cu 327.393†	86502.7	373.26	0.43%	[1000]	ug/L
Fe 273.955†	309347.3	342.76	0.11%	[20000]	ug/L
K 766.490†	37503.3	356.86	0.95%	[20000]	ug/L
Mg 285.213†	101987.5	811.68	0.80%	[50000]	ug/L
Mn 257.610†	5711.2	155.22	2.72%	[1000]	ug/L
Mo 202.031†	26095.5	292.93	1.12%	[1000]	ug/L
Na 589.592†	74501.3	699.45	0.94%	[25000]	ug/L
Ni 231.604†	37589.3	175.23	0.47%	[1000]	ug/L
P 213.617†	17036.6	184.63	1.08%	[5000]	ug/L
Pb 220.353†	9844.4	120.40	1.22%	[1000]	ug/L
Sb 206.836†	3865.6	41.01	1.06%	[1000]	ug/L
Se 196.026†	2662.8	36.41	1.37%	[1000]	ug/L
Sn 189.927†	8810.4	81.50	0.93%	[1000]	ug/L
Sr 421.552†	133316.0	1359.45	1.02%	[1000]	ug/L
Ti 337.279†	6788.2	172.36	2.54%	[1000]	ug/L
Tl 190.801†	4136.9	52.81	1.28%	[1000]	ug/L
V 292.402†	138931.8	196.32	0.14%	[1000]	ug/L
Zn 206.200†	43754.3	60.88	0.14%	[1000]	ug/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 338.289	3	Lin Thru 0	0.0	76.30	0.00000	0.999996	
Al 308.215	3	Lin Thru 0	0.0	0.2594	0.00000	0.999993	
As 188.979	3	Lin Thru 0	0.0	3.167	0.00000	0.999999	
B	3	Lin Thru 0	0.0	38.47	0.00000	0.999960	
Ba 233.527	3	Lin Thru 0	0.0	109.0	0.00000	1.000000	
Be 313.107	3	Lin Thru 0	0.0	64.14	0.00000	0.999998	
Ca 315.887	3	Lin Thru 0	0.0	1.289	0.00000	0.999998	
Cd 214.440	3	Lin Thru 0	0.0	133.3	0.00000	0.999988	
Co 228.616	3	Lin Thru 0	0.0	46.77	0.00000	0.999997	
Cr 267.716	3	Lin Thru 0	0.0	75.36	0.00000	0.999998	
Cu 327.393	3	Lin Thru 0	0.0	86.27	0.00000	0.999984	
Fe 273.955	3	Lin Thru 0	0.0	15.47	0.00000	1.000000	
K 766.490	3	Lin Thru 0	0.0	1.871	0.00000	0.999990	
Mg 285.213	3	Lin Thru 0	0.0	2.044	0.00000	0.999993	
Mn 257.610	3	Lin Thru 0	0.0	5.716	0.00000	0.999998	
Mo 202.031	3	Lin Thru 0	0.0	26.15	0.00000	0.999991	
Na 589.592	3	Lin Thru 0	0.0	2.980	0.00000	1.000000	
Ni 231.604	3	Lin Thru 0	0.0	37.70	0.00000	0.999982	
P 213.617	3	Lin Thru 0	0.0	3.408	0.00000	1.000000	
Pb 220.353	3	Lin Thru 0	0.0	9.890	0.00000	0.999958	
Sb 206.836	3	Lin Thru 0	0.0	3.869	0.00000	0.999999	
Se 196.026	3	Lin Thru 0	0.0	2.665	0.00000	0.999997	
Sn 189.927	3	Lin Thru 0	0.0	8.835	0.00000	0.999984	
Sr 421.552	3	Lin Thru 0	0.0	133.3	0.00000	1.000000	

Ti 337.279	3	Lin Thru 0	0.0	6.790	0.00000	1.000000
Tl 190.801	3	Lin Thru 0	0.0	4.153	0.00000	0.999970
V 292.402	3	Lin Thru 0	0.0	138.8	0.00000	0.999997
Zn 206.200	3	Lin Thru 0	0.0	43.88	0.00000	0.999983

Sequence No.: 5
Sample ID: ICV 191119 I:PB O:PW
Analyst:
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:

Autosampler Location: 5
Date Collected: 11/19/19 9:19:42 AM
Data Type: Reprocessed on 11/20/19 10:04:26 AM
Initial Sample Vol:
Sample Prep Vol:

Mean Data: ICV 191119 I:PB O:PW

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	1233813.1	95.89	%	0.439				0.46%
Y 371.029 Radial	1182511.9	95.72	%	0.479				0.50%
Ag 338.289†	19147.2	253.1	ug/L	0.59	253.1	ug/L	0.59	0.23%
QC value within limits for Ag 338.289 Recovery = 101.24%								
Al 308.215†	3217.8	12410	ug/L	90.5	12410	ug/L	90.5	0.73%
QC value within limits for Al 308.215 Recovery = 99.29%								
As 188.979†	1570.8	498.9	ug/L	6.26	498.9	ug/L	6.26	1.25%
QC value within limits for As 188.979 Recovery = 99.77%								
B†	19518.7	507.4	ug/L	2.95	507.4	ug/L	2.95	0.58%
QC value within limits for B Recovery = 101.48%								
Ba 233.527†	55252.7	506.3	ug/L	0.53	506.3	ug/L	0.53	0.10%
QC value within limits for Ba 233.527 Recovery = 101.26%								
Be 313.107†	31254.6	488.8	ug/L	4.92	488.8	ug/L	4.92	1.01%
QC value within limits for Be 313.107 Recovery = 97.76%								
Ca 315.887†	15850.3	12300	ug/L	69.1	12300	ug/L	69.1	0.56%
QC value within limits for Ca 315.887 Recovery = 98.37%								
Cd 214.440†	67247.5	504.4	ug/L	2.15	504.4	ug/L	2.15	0.43%
QC value within limits for Cd 214.440 Recovery = 100.87%								
Co 228.616†	23795.6	506.9	ug/L	1.43	506.9	ug/L	1.43	0.28%
QC value within limits for Co 228.616 Recovery = 101.38%								
Cr 267.716†	37556.0	497.6	ug/L	2.07	497.6	ug/L	2.07	0.42%
QC value within limits for Cr 267.716 Recovery = 99.52%								
Cu 327.393†	43331.4	503.2	ug/L	1.81	503.2	ug/L	1.81	0.36%
QC value within limits for Cu 327.393 Recovery = 100.64%								
Fe 273.955†	192473.2	12400	ug/L	19.2	12400	ug/L	19.2	0.15%
QC value within limits for Fe 273.955 Recovery = 99.17%								
K 766.490†	22556.2	12050	ug/L	176.5	12050	ug/L	176.5	1.47%
QC value within limits for K 766.490 Recovery = 96.36%								
Mg 285.213†	25755.4	12620	ug/L	47.3	12620	ug/L	47.3	0.37%
QC value within limits for Mg 285.213 Recovery = 100.92%								
Mn 257.610†	2825.4	494.9	ug/L	2.02	494.9	ug/L	2.02	0.41%
QC value within limits for Mn 257.610 Recovery = 98.98%								
Mo 202.031†	12805.7	489.9	ug/L	5.47	489.9	ug/L	5.47	1.12%
QC value within limits for Mo 202.031 Recovery = 97.98%								
Na 589.592†	36430.1	12230	ug/L	112.3	12230	ug/L	112.3	0.92%
QC value within limits for Na 589.592 Recovery = 97.86%								
Ni 231.604†	19165.5	504.8	ug/L	3.11	504.8	ug/L	3.11	0.62%
QC value within limits for Ni 231.604 Recovery = 100.95%								
P 213.617†	8330.6	2444	ug/L	30.1	2444	ug/L	30.1	1.23%
QC value within limits for P 213.617 Recovery = 97.78%								
Pb 220.353†	4999.7	508.0	ug/L	5.50	508.0	ug/L	5.50	1.08%
QC value within limits for Pb 220.353 Recovery = 101.61%								
Sb 206.836†	1862.3	481.4	ug/L	5.43	481.4	ug/L	5.43	1.13%
QC value within limits for Sb 206.836 Recovery = 96.27%								
Se 196.026†	1324.0	502.2	ug/L	4.48	502.2	ug/L	4.48	0.89%
QC value within limits for Se 196.026 Recovery = 100.45%								
Sn 189.927†	2175.5	249.8	ug/L	2.45	249.8	ug/L	2.45	0.98%
QC value within limits for Sn 189.927 Recovery = 99.91%								
Sr 421.552†	65266.9	489.7	ug/L	5.31	489.7	ug/L	5.31	1.09%
QC value within limits for Sr 421.552 Recovery = 97.93%								
Ti 337.279†	3328.0	489.9	ug/L	1.97	489.9	ug/L	1.97	0.40%
QC value within limits for Ti 337.279 Recovery = 97.97%								
Tl 190.801†	2048.1	505.4	ug/L	6.07	505.4	ug/L	6.07	1.20%
QC value within limits for Tl 190.801 Recovery = 101.08%								
V 292.402†	68099.9	498.3	ug/L	1.56	498.3	ug/L	1.56	0.31%
QC value within limits for V 292.402 Recovery = 99.66%								
Zn 206.200†	22260.6	509.7	ug/L	2.35	509.7	ug/L	2.35	0.46%
QC value within limits for Zn 206.200 Recovery = 101.93%								

All analyte(s) passed QC.

Sequence No.: 6
Sample ID: ICB 191119 I:PB O:PW
Analyst:
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 11/19/19 9:32:38 AM
Data Type: Reprocessed on 11/20/19 10:04:32 AM
Initial Sample Vol:
Sample Prep Vol:

Mean Data: ICB 191119 I:PB O:PW

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	1278719.0	99.38	%	0.153				0.15%
Y 371.029 Radial	1226966.5	99.32	%	0.153				0.15%
Ag 338.289†	16.6	0.210	ug/L	0.3549	0.210	ug/L	0.3549	169.06%
QC value within limits for Ag 338.289 Recovery = Not calculated								
Al 308.215†	2.4	9.270	ug/L	25.2298	9.270	ug/L	25.2298	272.17%
QC value within limits for Al 308.215 Recovery = Not calculated								
As 188.979†	-2.2	-0.693	ug/L	2.6324	-0.693	ug/L	2.6324	380.01%
QC value within limits for As 188.979 Recovery = Not calculated								
B†	314.8	8.183	ug/L	0.1532	8.183	ug/L	0.1532	1.87%
QC value within limits for B Recovery = Not calculated								
Ba 233.527†	16.0	0.145	ug/L	0.1324	0.145	ug/L	0.1324	91.30%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	8.0	0.124	ug/L	0.1217	0.124	ug/L	0.1217	98.21%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 315.887†	-6.2	-4.822	ug/L	5.4434	-4.822	ug/L	5.4434	112.90%
QC value within limits for Ca 315.887 Recovery = Not calculated								
Cd 214.440†	1.1	0.009	ug/L	0.0806	0.009	ug/L	0.0806	907.08%
QC value within limits for Cd 214.440 Recovery = Not calculated								
Co 228.616†	9.3	0.200	ug/L	0.4191	0.200	ug/L	0.4191	210.01%
QC value within limits for Co 228.616 Recovery = Not calculated								
Cr 267.716†	18.9	0.249	ug/L	0.1673	0.249	ug/L	0.1673	67.20%
QC value within limits for Cr 267.716 Recovery = Not calculated								
Cu 327.393†	160.8	1.861	ug/L	1.9440	1.861	ug/L	1.9440	104.45%
QC value within limits for Cu 327.393 Recovery = Not calculated								
Fe 273.955†	1.8	0.174	ug/L	0.0993	0.174	ug/L	0.0993	57.15%
QC value within limits for Fe 273.955 Recovery = Not calculated								
K 766.490†	-140.5	-75.09	ug/L	59.872	-75.09	ug/L	59.872	79.73%
QC value within limits for K 766.490 Recovery = Not calculated								
Mg 285.213†	2.9	1.422	ug/L	3.3414	1.422	ug/L	3.3414	235.02%
QC value within limits for Mg 285.213 Recovery = Not calculated								
Mn 257.610†	1.2	0.210	ug/L	1.1115	0.210	ug/L	1.1115	529.71%
QC value within limits for Mn 257.610 Recovery = Not calculated								
Mo 202.031†	11.9	0.454	ug/L	0.1046	0.454	ug/L	0.1046	23.05%
QC value within limits for Mo 202.031 Recovery = Not calculated								
Na 589.592†	-128.2	-42.99	ug/L	48.261	-42.99	ug/L	48.261	112.26%
QC value within limits for Na 589.592 Recovery = Not calculated								
Ni 231.604†	-1.8	-0.048	ug/L	0.1346	-0.048	ug/L	0.1346	278.35%
QC value within limits for Ni 231.604 Recovery = Not calculated								
P 213.617†	-3.4	-1.004	ug/L	1.9110	-1.004	ug/L	1.9110	190.26%
QC value within limits for P 213.617 Recovery = Not calculated								
Pb 220.353†	-8.6	-0.867	ug/L	2.0257	-0.867	ug/L	2.0257	233.66%
QC value within limits for Pb 220.353 Recovery = Not calculated								
Sb 206.836†	4.5	1.176	ug/L	1.0776	1.176	ug/L	1.0776	91.66%
QC value within limits for Sb 206.836 Recovery = Not calculated								
Se 196.026†	-1.6	-0.603	ug/L	1.4269	-0.603	ug/L	1.4269	236.65%
QC value within limits for Se 196.026 Recovery = Not calculated								
Sn 189.927†	-3.1	-0.354	ug/L	0.7231	-0.354	ug/L	0.7231	204.39%
QC value within limits for Sn 189.927 Recovery = Not calculated								
Sr 421.552†	-40.2	-0.302	ug/L	0.4117	-0.302	ug/L	0.4117	136.47%
QC value within limits for Sr 421.552 Recovery = Not calculated								
Ti 337.279†	-1.9	-0.284	ug/L	1.5138	-0.284	ug/L	1.5138	533.19%
QC value within limits for Ti 337.279 Recovery = Not calculated								
Tl 190.801†	-0.9	-0.218	ug/L	0.6967	-0.218	ug/L	0.6967	319.52%
QC value within limits for Tl 190.801 Recovery = Not calculated								
V 292.402†	-99.3	-0.707	ug/L	0.4882	-0.707	ug/L	0.4882	69.04%
QC value within limits for V 292.402 Recovery = Not calculated								
Zn 206.200†	-3.1	-0.082	ug/L	0.1913	-0.082	ug/L	0.1913	233.45%
QC value within limits for Zn 206.200 Recovery = Not calculated								

All analyte(s) passed QC.

Sequence No.: 7
Sample ID: LLICV 191119 I:PB O:PW
Analyst:
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:

Autosampler Location: 2
Date Collected: 11/19/19 9:37:19 AM
Data Type: Reprocessed on 11/20/19 10:04:33 AM
Initial Sample Vol:
Sample Prep Vol:

Mean Data: LLICV 191119 I:PB O:PW

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	1289094.7	100.2	%	1.62				1.62%
Y 371.029 Radial	1237591.4	100.2	%	1.70				1.69%
Ag 338.289†	121.5	1.621	ug/L	0.3539	1.621	ug/L	0.3539	21.84%
QC value greater than the upper limit for Ag 338.289 Recovery = 324.14%								
Al 308.215†	17.4	66.99	ug/L	30.155	66.99	ug/L	30.155	45.01%
QC value greater than the upper limit for Al 308.215 Recovery = 133.99%								
As 188.979†	1.8	0.583	ug/L	1.5591	0.583	ug/L	1.5591	267.55%
QC value less than the lower limit for As 188.979 Recovery = 29.14%								
B†	1214.2	31.56	ug/L	0.570	31.56	ug/L	0.570	1.81%
QC value greater than the upper limit for B Recovery = 126.26%								
Ba 233.527†	194.1	1.774	ug/L	0.0748	1.774	ug/L	0.0748	4.21%
QC value within limits for Ba 233.527 Recovery = 118.29%								
Be 313.107†	66.7	1.047	ug/L	0.1840	1.047	ug/L	0.1840	17.57%
QC value within limits for Be 313.107 Recovery = 104.71%								
Ca 315.887†	88.8	68.84	ug/L	5.209	68.84	ug/L	5.209	7.57%
QC value greater than the upper limit for Ca 315.887 Recovery = 137.69%								
Cd 214.440†	43.3	0.325	ug/L	0.1057	0.325	ug/L	0.1057	32.54%
QC value greater than the upper limit for Cd 214.440 Recovery = 129.98%								
Co 228.616†	135.1	2.878	ug/L	0.3663	2.878	ug/L	0.3663	12.73%
QC value within limits for Co 228.616 Recovery = 115.11%								
Cr 267.716†	35.3	0.458	ug/L	0.2075	0.458	ug/L	0.2075	45.34%
QC value within limits for Cr 267.716 Recovery = 91.52%								
Cu 327.393†	407.4	4.703	ug/L	0.5618	4.703	ug/L	0.5618	11.94%
QC value greater than the upper limit for Cu 327.393 Recovery = 188.14%								
Fe 273.955†	446.8	28.90	ug/L	0.427	28.90	ug/L	0.427	1.48%
QC value within limits for Fe 273.955 Recovery = 115.62%								
K 766.490†	785.4	419.8	ug/L	92.82	419.8	ug/L	92.82	22.11%
QC value within limits for K 766.490 Recovery = 83.95%								
Mg 285.213†	65.6	32.01	ug/L	1.965	32.01	ug/L	1.965	6.14%
QC value greater than the upper limit for Mg 285.213 Recovery = 128.04%								
Mn 257.610†	3.3	0.579	ug/L	1.5566	0.579	ug/L	1.5566	268.80%
QC value less than the lower limit for Mn 257.610 Recovery = 57.91%								
Mo 202.031†	34.0	1.293	ug/L	0.1737	1.293	ug/L	0.1737	13.44%
QC value greater than the upper limit for Mo 202.031 Recovery = 129.26%								
Na 589.592†	1310.0	439.4	ug/L	26.93	439.4	ug/L	26.93	6.13%
QC value within limits for Na 589.592 Recovery = 87.88%								
Ni 231.604†	30.5	0.775	ug/L	0.2477	0.775	ug/L	0.2477	31.94%
QC value less than the lower limit for Ni 231.604 Recovery = 77.55%								
P 213.617†	44.6	13.09	ug/L	2.622	13.09	ug/L	2.622	20.03%
QC value within limits for P 213.617 Recovery = 104.75%								
Pb 220.353†	20.6	2.081	ug/L	0.5874	2.081	ug/L	0.5874	28.23%
QC value greater than the upper limit for Pb 220.353 Recovery = 138.72%								
Sb 206.836†	11.4	2.934	ug/L	1.0789	2.934	ug/L	1.0789	36.77%
QC value greater than the upper limit for Sb 206.836 Recovery = 146.69%								
Se 196.026†	5.8	2.169	ug/L	4.1077	2.169	ug/L	4.1077	189.36%
QC value within limits for Se 196.026 Recovery = 108.46%								
Sn 189.927†	28.3	3.217	ug/L	0.8927	3.217	ug/L	0.8927	27.74%
QC value within limits for Sn 189.927 Recovery = 107.25%								
Sr 421.552†	135.3	1.015	ug/L	0.5279	1.015	ug/L	0.5279	52.03%
QC value within limits for Sr 421.552 Recovery = 101.45%								
Ti 337.279†	16.4	2.418	ug/L	0.2430	2.418	ug/L	0.2430	10.05%
QC value within limits for Ti 337.279 Recovery = 96.73%								
Tl 190.801†	11.1	2.679	ug/L	1.2589	2.679	ug/L	1.2589	46.99%
QC value greater than the upper limit for Tl 190.801 Recovery = 133.96%								
V 292.402†	-20.6	-0.135	ug/L	0.5083	-0.135	ug/L	0.5083	376.84%
QC value less than the lower limit for V 292.402 Recovery = -26.98%								
Zn 206.200†	1193.8	27.16	ug/L	0.231	27.16	ug/L	0.231	0.85%
QC value within limits for Zn 206.200 Recovery = 108.65%								

QC Failed. Continue with analysis.

Sequence No.: 8
Sample ID: LLICVX2 191119 I:PB O:PW
Analyst:
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:

Autosampler Location: 10
Date Collected: 11/19/19 9:42:11 AM
Data Type: Reprocessed on 11/20/19 10:04:34 AM
Initial Sample Vol:
Sample Prep Vol:

Mean Data: LLICVX2 191119 I:PB O:PW

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	1285051.4	99.87	%	1.601				1.60%
Y 371.029 Radial	1233275.3	99.83	%	1.695				1.70%
Ag 338.289†	86.7	1.201	ug/L	1.6289	1.201	ug/L	1.6289	135.58%
QC value greater than the upper limit for Ag 338.289 Recovery = 120.15%								
Al 308.215†	24.7	95.14	ug/L	18.774	95.14	ug/L	18.774	19.73%
QC value within limits for Al 308.215 Recovery = 95.14%								
As 188.979†	12.6	4.037	ug/L	0.9756	4.037	ug/L	0.9756	24.17%
QC value within limits for As 188.979 Recovery = 100.93%								
B†	2315.3	60.19	ug/L	7.200	60.19	ug/L	7.200	11.96%
QC value greater than the upper limit for B Recovery = 120.38%								
Ba 233.527†	377.7	3.457	ug/L	0.1223	3.457	ug/L	0.1223	3.54%
QC value within limits for Ba 233.527 Recovery = 115.23%								
Be 313.107†	127.9	2.010	ug/L	0.1239	2.010	ug/L	0.1239	6.16%
QC value within limits for Be 313.107 Recovery = 100.48%								
Ca 315.887†	144.1	111.7	ug/L	3.24	111.7	ug/L	3.24	2.90%
QC value within limits for Ca 315.887 Recovery = 111.75%								
Cd 214.440†	64.2	0.476	ug/L	0.1274	0.476	ug/L	0.1274	26.78%
QC value within limits for Cd 214.440 Recovery = 95.12%								
Co 228.616†	253.1	5.375	ug/L	0.1106	5.375	ug/L	0.1106	2.06%
QC value within limits for Co 228.616 Recovery = 107.49%								
Cr 267.716†	70.8	0.906	ug/L	0.1736	0.906	ug/L	0.1736	19.16%
QC value within limits for Cr 267.716 Recovery = 90.63%								
Cu 327.393†	544.6	6.261	ug/L	1.0559	6.261	ug/L	1.0559	16.86%
QC value greater than the upper limit for Cu 327.393 Recovery = 125.22%								
Fe 273.955†	872.5	56.40	ug/L	0.934	56.40	ug/L	0.934	1.66%
QC value within limits for Fe 273.955 Recovery = 112.80%								
K 766.490†	1747.4	933.9	ug/L	50.62	933.9	ug/L	50.62	5.42%
QC value within limits for K 766.490 Recovery = 93.39%								
Mg 285.213†	104.1	50.80	ug/L	2.428	50.80	ug/L	2.428	4.78%
QC value within limits for Mg 285.213 Recovery = 101.60%								
Mn 257.610†	16.9	2.963	ug/L	0.1911	2.963	ug/L	0.1911	6.45%
QC value greater than the upper limit for Mn 257.610 Recovery = 148.14%								
Mo 202.031†	53.6	2.036	ug/L	0.2118	2.036	ug/L	0.2118	10.40%
QC value within limits for Mo 202.031 Recovery = 101.81%								
Na 589.592†	2924.6	981.0	ug/L	29.18	981.0	ug/L	29.18	2.97%
QC value within limits for Na 589.592 Recovery = 98.10%								
Ni 231.604†	447.7	11.75	ug/L	16.380	11.75	ug/L	16.380	139.36%
QC value greater than the upper limit for Ni 231.604 Recovery = 587.69%								
P 213.617†	83.3	24.43	ug/L	0.189	24.43	ug/L	0.189	0.77%
QC value within limits for P 213.617 Recovery = 97.73%								
Pb 220.353†	65.1	6.576	ug/L	6.4307	6.576	ug/L	6.4307	97.79%
QC value greater than the upper limit for Pb 220.353 Recovery = 219.20%								
Sb 206.836†	15.5	4.000	ug/L	0.6067	4.000	ug/L	0.6067	15.17%
QC value within limits for Sb 206.836 Recovery = 99.99%								
Se 196.026†	-1.0	-0.374	ug/L	3.4717	-0.374	ug/L	3.4717	927.28%
QC value less than the lower limit for Se 196.026 Recovery = -9.36%								
Sn 189.927†	53.8	6.125	ug/L	0.3750	6.125	ug/L	0.3750	6.12%
QC value within limits for Sn 189.927 Recovery = 102.09%								
Sr 421.552†	260.7	1.955	ug/L	0.5192	1.955	ug/L	0.5192	26.56%
QC value within limits for Sr 421.552 Recovery = 97.74%								
Ti 337.279†	37.4	5.499	ug/L	1.2895	5.499	ug/L	1.2895	23.45%
QC value within limits for Ti 337.279 Recovery = 109.98%								
Tl 190.801†	17.6	4.305	ug/L	2.1877	4.305	ug/L	2.1877	50.81%
QC value within limits for Tl 190.801 Recovery = 107.64%								
V 292.402†	56.6	0.425	ug/L	0.4771	0.425	ug/L	0.4771	112.15%
QC value less than the lower limit for V 292.402 Recovery = 42.54%								
Zn 206.200†	5693.2	129.7	ug/L	124.50	129.7	ug/L	124.50	95.99%
Saturated within auto integration window (code 4)								
QC value greater than the upper limit for Zn 206.200 Recovery = 259.39%								

Sequence No.: 9
Sample ID: LLICVX6 191119 I:PB O:PW
Analyst:
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:

Autosampler Location: 11
Date Collected: 11/19/19 9:47:09 AM
Data Type: Reprocessed on 11/20/19 10:04:35 AM
Initial Sample Vol:
Sample Prep Vol:

Mean Data: LLICVX6 191119 I:PB O:PW

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	1284075.5	99.80	%	0.852				0.85%
Y 371.029 Radial	1232783.8	99.79	%	0.912				0.91%
Ag 338.289†	319.1	4.362	ug/L	0.5343	4.362	ug/L	0.5343	12.25%
QC value greater than the upper limit for Ag 338.289 Recovery = 145.41%								
Al 308.215†	89.9	346.0	ug/L	23.71	346.0	ug/L	23.71	6.85%
QC value within limits for Al 308.215 Recovery = 115.34%								
As 188.979†	38.3	12.23	ug/L	1.141	12.23	ug/L	1.141	9.33%
QC value within limits for As 188.979 Recovery = 101.92%								
B†	5922.0	153.9	ug/L	0.81	153.9	ug/L	0.81	0.53%
QC value within limits for B Recovery = 102.63%								
Ba 233.527†	1059.2	9.689	ug/L	0.1690	9.689	ug/L	0.1690	1.74%
QC value within limits for Ba 233.527 Recovery = 107.66%								
Be 313.107†	392.1	6.159	ug/L	0.1458	6.159	ug/L	0.1458	2.37%
QC value within limits for Be 313.107 Recovery = 102.64%								
Ca 315.887†	388.7	301.4	ug/L	7.42	301.4	ug/L	7.42	2.46%
QC value within limits for Ca 315.887 Recovery = 100.46%								
Cd 214.440†	211.0	1.579	ug/L	0.0849	1.579	ug/L	0.0849	5.38%
QC value within limits for Cd 214.440 Recovery = 105.29%								
Co 228.616†	781.6	16.64	ug/L	0.219	16.64	ug/L	0.219	1.32%
QC value within limits for Co 228.616 Recovery = 110.96%								
Cr 267.716†	240.5	3.138	ug/L	0.3050	3.138	ug/L	0.3050	9.72%
QC value within limits for Cr 267.716 Recovery = 104.58%								
Cu 327.393†	1523.3	17.55	ug/L	0.593	17.55	ug/L	0.593	3.38%
QC value within limits for Cu 327.393 Recovery = 117.03%								
Fe 273.955†	2450.9	158.3	ug/L	1.67	158.3	ug/L	1.67	1.06%
QC value within limits for Fe 273.955 Recovery = 105.51%								
K 766.490†	5318.3	2843	ug/L	119.8	2843	ug/L	119.8	4.22%
QC value within limits for K 766.490 Recovery = 94.75%								
Mg 285.213†	306.6	149.5	ug/L	2.93	149.5	ug/L	2.93	1.96%
QC value within limits for Mg 285.213 Recovery = 99.69%								
Mn 257.610†	36.4	6.390	ug/L	0.8634	6.390	ug/L	0.8634	13.51%
QC value within limits for Mn 257.610 Recovery = 106.49%								
Mo 202.031†	158.7	6.018	ug/L	0.2707	6.018	ug/L	0.2707	4.50%
QC value within limits for Mo 202.031 Recovery = 100.31%								
Na 589.592†	8717.6	2924	ug/L	14.2	2924	ug/L	14.2	0.49%
QC value within limits for Na 589.592 Recovery = 97.47%								
Ni 231.604†	235.2	6.043	ug/L	0.6576	6.043	ug/L	0.6576	10.88%
QC value within limits for Ni 231.604 Recovery = 100.72%								
P 213.617†	245.6	72.06	ug/L	0.458	72.06	ug/L	0.458	0.64%
QC value within limits for P 213.617 Recovery = 96.08%								
Pb 220.353†	95.6	9.674	ug/L	0.4208	9.674	ug/L	0.4208	4.35%
QC value within limits for Pb 220.353 Recovery = 107.49%								
Sb 206.836†	44.1	11.40	ug/L	1.095	11.40	ug/L	1.095	9.60%
QC value within limits for Sb 206.836 Recovery = 95.04%								
Se 196.026†	39.0	14.67	ug/L	0.868	14.67	ug/L	0.868	5.91%
QC value greater than the upper limit for Se 196.026 Recovery = 122.27%								
Sn 189.927†	156.5	17.82	ug/L	0.256	17.82	ug/L	0.256	1.44%
QC value within limits for Sn 189.927 Recovery = 99.03%								
Sr 421.552†	809.5	6.071	ug/L	0.5652	6.071	ug/L	0.5652	9.31%
QC value within limits for Sr 421.552 Recovery = 101.19%								
Ti 337.279†	104.3	15.35	ug/L	0.308	15.35	ug/L	0.308	2.01%
QC value within limits for Ti 337.279 Recovery = 102.37%								
Tl 190.801†	55.0	13.43	ug/L	0.728	13.43	ug/L	0.728	5.42%
QC value within limits for Tl 190.801 Recovery = 111.89%								
V 292.402†	357.5	2.641	ug/L	0.6154	2.641	ug/L	0.6154	23.30%
QC value within limits for V 292.402 Recovery = 88.03%								
Zn 206.200†	7056.0	160.6	ug/L	0.48	160.6	ug/L	0.48	0.30%
QC value within limits for Zn 206.200 Recovery = 107.05%								

QC Failed. Continue with analysis.

Sequence No.: 11
Sample ID: ICSA 191119 I:PB O:PW
Analyst:
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:

Autosampler Location: 6
Date Collected: 11/19/19 9:56:48 AM
Data Type: Reprocessed on 11/20/19 10:04:38 AM
Initial Sample Vol:
Sample Prep Vol:

Mean Data: ICSA 191119 I:PB O:PW

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	1215611.2	94.48	%	0.541				0.57%
Y 371.029 Radial	1162273.9	94.09	%	0.577				0.61%
Ag 338.289†	15.5	-0.375	ug/L	0.6677	-0.375	ug/L	0.6677	178.18%
QC value within limits for Ag 338.289 Recovery = Not calculated								
Al 308.215†	25409.1	97930	ug/L	1308.2	97930	ug/L	1308.2	1.34%
QC value within limits for Al 308.215 Recovery = 97.93%								
As 188.979†	-45.2	-0.388	ug/L	2.7590	-0.388	ug/L	2.7590	710.59%
QC value within limits for As 188.979 Recovery = Not calculated								
B†	-1670.0	-43.41	ug/L	0.837	-43.41	ug/L	0.837	1.93%
QC value within limits for B Recovery = Not calculated								
Ba 233.527†	1207.5	2.361	ug/L	0.0960	2.361	ug/L	0.0960	4.07%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	11.7	0.690	ug/L	0.0304	0.690	ug/L	0.0304	4.40%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 315.887†	125668.0	97510	ug/L	1194.0	97510	ug/L	1194.0	1.22%
QC value within limits for Ca 315.887 Recovery = 97.51%								
Cd 214.440†	510.7	0.581	ug/L	0.1402	0.581	ug/L	0.1402	24.13%
QC value within limits for Cd 214.440 Recovery = Not calculated								
Co 228.616†	337.6	0.638	ug/L	0.1994	0.638	ug/L	0.1994	31.25%
QC value within limits for Co 228.616 Recovery = Not calculated								
Cr 267.716†	-3.0	1.354	ug/L	0.1197	1.354	ug/L	0.1197	8.84%
QC value within limits for Cr 267.716 Recovery = Not calculated								
Cu 327.393†	-510.7	-0.067	ug/L	0.8214	-0.067	ug/L	0.8214	>999.9%
QC value within limits for Cu 327.393 Recovery = Not calculated								
Fe 273.955†	1446955.5	93500	ug/L	324.4	93500	ug/L	324.4	0.35%
QC value within limits for Fe 273.955 Recovery = 93.50%								
K 766.490†	-16.4	-80.35	ug/L	31.387	-80.35	ug/L	31.387	39.06%
QC value within limits for K 766.490 Recovery = Not calculated								
Mg 285.213†	199960.4	97960	ug/L	1284.6	97960	ug/L	1284.6	1.31%
QC value within limits for Mg 285.213 Recovery = 97.96%								
Mn 257.610†	-37.9	-1.842	ug/L	0.4285	-1.842	ug/L	0.4285	23.26%
QC value within limits for Mn 257.610 Recovery = Not calculated								
Mo 202.031†	-157.0	-1.709	ug/L	0.3358	-1.709	ug/L	0.3358	19.65%
QC value within limits for Mo 202.031 Recovery = Not calculated								
Na 589.592†	4.6	104.0	ug/L	7.28	104.0	ug/L	7.28	7.00%
QC value within limits for Na 589.592 Recovery = Not calculated								
Ni 231.604†	55.2	-0.952	ug/L	0.2343	-0.952	ug/L	0.2343	24.61%
QC value within limits for Ni 231.604 Recovery = Not calculated								
P 213.617†	-57.3	-16.81	ug/L	0.805	-16.81	ug/L	0.805	4.79%
QC value within limits for P 213.617 Recovery = Not calculated								
Pb 220.353†	-125.4	-0.122	ug/L	2.3633	-0.122	ug/L	2.3633	>999.9%
QC value within limits for Pb 220.353 Recovery = Not calculated								
Sb 206.836†	-10.0	-2.576	ug/L	0.4548	-2.576	ug/L	0.4548	17.65%
QC value within limits for Sb 206.836 Recovery = Not calculated								
Se 196.026†	-118.8	-3.580	ug/L	1.4005	-3.580	ug/L	1.4005	39.12%
QC value within limits for Se 196.026 Recovery = Not calculated								
Sn 189.927†	-47.3	-1.719	ug/L	0.4986	-1.719	ug/L	0.4986	29.01%
QC value within limits for Sn 189.927 Recovery = Not calculated								
Sr 421.552†	104.3	-0.227	ug/L	0.3107	-0.227	ug/L	0.3107	136.70%
QC value within limits for Sr 421.552 Recovery = Not calculated								
Ti 337.279†	0.5	-1.914	ug/L	1.5413	-1.914	ug/L	1.5413	80.51%
QC value within limits for Ti 337.279 Recovery = Not calculated								
Tl 190.801†	-21.0	1.717	ug/L	1.7200	1.717	ug/L	1.7200	100.16%
QC value within limits for Tl 190.801 Recovery = Not calculated								
V 292.402†	2875.1	0.920	ug/L	0.2791	0.920	ug/L	0.2791	30.34%
QC value within limits for V 292.402 Recovery = Not calculated								
Zn 206.200†	268.9	2.508	ug/L	1.8010	2.508	ug/L	1.8010	71.81%
QC value within limits for Zn 206.200 Recovery = Not calculated								

All analyte(s) passed QC.

Sequence No.: 12
Sample ID: ICSAB 191119 I:PB O:PWV
Analyst:
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:

Autosampler Location: 7
Date Collected: 11/19/19 10:01:34 AM
Data Type: Reprocessed on 11/20/19 10:04:39 AM
Initial Sample Vol:
Sample Prep Vol:

Mean Data: ICSAB 191119 I:PB O:PWV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	1192801.1	92.70	%	0.181				0.19%
Y 371.029 Radial	1139714.2	92.26	%	0.181				0.20%
Ag 338.289†	41407.9	539.7	ug/L	2.07	539.7	ug/L	2.07	0.38%
QC value within limits for Ag 338.289 Recovery = 107.95%								
Al 308.215†	27515.3	106100	ug/L	590.6	106100	ug/L	590.6	0.56%
QC value within limits for Al 308.215 Recovery = 106.05%								
As 188.979†	754.1	251.6	ug/L	0.29	251.6	ug/L	0.29	0.12%
QC value within limits for As 188.979 Recovery = 100.66%								
B†	-1809.3	-47.03	ug/L	0.658	-47.03	ug/L	0.658	1.40%
QC value within limits for B Recovery = Not calculated								
Ba 233.527†	30198.8	267.9	ug/L	0.89	267.9	ug/L	0.89	0.33%
QC value within limits for Ba 233.527 Recovery = 107.16%								
Be 313.107†	16787.2	262.3	ug/L	1.69	262.3	ug/L	1.69	0.65%
QC value within limits for Be 313.107 Recovery = 104.92%								
Ca 315.887†	133496.8	103600	ug/L	803.2	103600	ug/L	803.2	0.78%
QC value within limits for Ca 315.887 Recovery = 103.59%								
Cd 214.440†	67554.9	503.4	ug/L	0.79	503.4	ug/L	0.79	0.16%
QC value within limits for Cd 214.440 Recovery = 100.69%								
Co 228.616†	12326.9	256.5	ug/L	0.88	256.5	ug/L	0.88	0.34%
QC value within limits for Co 228.616 Recovery = 102.59%								
Cr 267.716†	19867.1	264.6	ug/L	0.87	264.6	ug/L	0.87	0.33%
QC value within limits for Cr 267.716 Recovery = 105.84%								
Cu 327.393†	22542.0	266.1	ug/L	1.43	266.1	ug/L	1.43	0.54%
QC value within limits for Cu 327.393 Recovery = 106.44%								
Fe 273.955†	1535456.4	99190	ug/L	392.5	99190	ug/L	392.5	0.40%
QC value within limits for Fe 273.955 Recovery = 99.19%								
K 766.490†	-79.7	-120.3	ug/L	26.89	-120.3	ug/L	26.89	22.35%
QC value within limits for K 766.490 Recovery = Not calculated								
Mg 285.213†	213652.9	104700	ug/L	1069.6	104700	ug/L	1069.6	1.02%
QC value within limits for Mg 285.213 Recovery = 104.67%								
Mn 257.610†	1425.6	254.7	ug/L	1.20	254.7	ug/L	1.20	0.47%
QC value within limits for Mn 257.610 Recovery = 101.86%								
Mo 202.031†	6305.7	245.6	ug/L	0.39	245.6	ug/L	0.39	0.16%
QC value within limits for Mo 202.031 Recovery = 98.24%								
Na 589.592†	7.2	112.2	ug/L	15.47	112.2	ug/L	15.47	13.79%
QC value within limits for Na 589.592 Recovery = Not calculated								
Ni 231.604†	19054.2	501.3	ug/L	1.51	501.3	ug/L	1.51	0.30%
QC value within limits for Ni 231.604 Recovery = 100.26%								
P 213.617†	-83.4	-24.48	ug/L	1.026	-24.48	ug/L	1.026	4.19%
QC value within limits for P 213.617 Recovery = Not calculated								
Pb 220.353†	4841.9	503.7	ug/L	1.04	503.7	ug/L	1.04	0.21%
QC value within limits for Pb 220.353 Recovery = 100.74%								
Sb 206.836†	989.3	255.7	ug/L	1.11	255.7	ug/L	1.11	0.43%
QC value within limits for Sb 206.836 Recovery = 102.29%								
Se 196.026†	558.6	253.2	ug/L	1.23	253.2	ug/L	1.23	0.49%
QC value within limits for Se 196.026 Recovery = 101.29%								
Sn 189.927†	-44.6	-1.197	ug/L	0.7012	-1.197	ug/L	0.7012	58.58%
QC value within limits for Sn 189.927 Recovery = Not calculated								
Sr 421.552†	136.7	-0.048	ug/L	0.1201	-0.048	ug/L	0.1201	251.22%
QC value within limits for Sr 421.552 Recovery = Not calculated								
Ti 337.279†	-8.9	-3.421	ug/L	0.7932	-3.421	ug/L	0.7932	23.19%
QC value within limits for Ti 337.279 Recovery = Not calculated								
Tl 190.801†	1005.3	252.5	ug/L	2.55	252.5	ug/L	2.55	1.01%
QC value within limits for Tl 190.801 Recovery = 101.01%								
V 292.402†	38902.7	264.7	ug/L	0.86	264.7	ug/L	0.86	0.33%
QC value within limits for V 292.402 Recovery = 105.88%								
Zn 206.200†	23013.6	519.1	ug/L	2.77	519.1	ug/L	2.77	0.53%
QC value within limits for Zn 206.200 Recovery = 103.82%								

All analyte(s) passed QC.

Sequence No.: 18
Sample ID: CCV2 191119 I:PB O:PW
Analyst:
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:

Autosampler Location: 8
Date Collected: 11/19/19 10:30:00 AM
Data Type: Reprocessed on 11/20/19 10:04:45 AM
Initial Sample Vol:
Sample Prep Vol:

Mean Data: CCV2 191119 I:PB O:PW

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	1247793.9	96.98	%	0.442				0.46%
Y 371.029 Radial	1195917.0	96.81	%	0.481				0.50%
Ag 338.289†	14259.9	188.5	ug/L	1.06	188.5	ug/L	1.06	0.56%
QC value within limits for Ag 338.289 Recovery = 100.53%								
Al 308.215†	1945.2	7501	ug/L	29.5	7501	ug/L	29.5	0.39%
QC value within limits for Al 308.215 Recovery = 100.02%								
As 188.979†	1196.7	379.6	ug/L	1.76	379.6	ug/L	1.76	0.46%
QC value within limits for As 188.979 Recovery = 101.22%								
B†	14519.7	377.5	ug/L	0.33	377.5	ug/L	0.33	0.09%
QC value within limits for B Recovery = 100.65%								
Ba 233.527†	41024.1	376.0	ug/L	0.74	376.0	ug/L	0.74	0.20%
QC value within limits for Ba 233.527 Recovery = 100.28%								
Be 313.107†	24566.9	384.2	ug/L	7.54	384.2	ug/L	7.54	1.96%
QC value within limits for Be 313.107 Recovery = 102.44%								
Ca 315.887†	24108.3	18710	ug/L	130.6	18710	ug/L	130.6	0.70%
QC value within limits for Ca 315.887 Recovery = 99.77%								
Cd 214.440†	50680.6	380.2	ug/L	1.19	380.2	ug/L	1.19	0.31%
QC value within limits for Cd 214.440 Recovery = 101.37%								
Co 228.616†	17765.8	378.5	ug/L	1.20	378.5	ug/L	1.20	0.32%
QC value within limits for Co 228.616 Recovery = 100.93%								
Cr 267.716†	28331.2	375.3	ug/L	1.29	375.3	ug/L	1.29	0.34%
QC value within limits for Cr 267.716 Recovery = 100.07%								
Cu 327.393†	32307.3	374.7	ug/L	1.05	374.7	ug/L	1.05	0.28%
QC value within limits for Cu 327.393 Recovery = 99.93%								
Fe 273.955†	116864.9	7518	ug/L	19.3	7518	ug/L	19.3	0.26%
QC value within limits for Fe 273.955 Recovery = 100.24%								
K 766.490†	13665.5	7294	ug/L	57.6	7294	ug/L	57.6	0.79%
QC value within limits for K 766.490 Recovery = 97.25%								
Mg 285.213†	39260.3	19220	ug/L	169.0	19220	ug/L	169.0	0.88%
QC value within limits for Mg 285.213 Recovery = 102.50%								
Mn 257.610†	2146.6	375.4	ug/L	3.21	375.4	ug/L	3.21	0.85%
QC value within limits for Mn 257.610 Recovery = 100.12%								
Mo 202.031†	9834.6	376.1	ug/L	1.49	376.1	ug/L	1.49	0.40%
QC value within limits for Mo 202.031 Recovery = 100.30%								
Na 589.592†	27436.8	9216	ug/L	136.1	9216	ug/L	136.1	1.48%
QC value within limits for Na 589.592 Recovery = 98.31%								
Ni 231.604†	14405.1	379.3	ug/L	0.99	379.3	ug/L	0.99	0.26%
QC value within limits for Ni 231.604 Recovery = 101.15%								
P 213.617†	6438.3	1889	ug/L	6.0	1889	ug/L	6.0	0.32%
QC value within limits for P 213.617 Recovery = 100.76%								
Pb 220.353†	3799.1	385.6	ug/L	1.58	385.6	ug/L	1.58	0.41%
QC value within limits for Pb 220.353 Recovery = 102.82%								
Sb 206.836†	1467.9	379.4	ug/L	1.54	379.4	ug/L	1.54	0.41%
QC value within limits for Sb 206.836 Recovery = 101.18%								
Se 196.026†	1011.9	382.9	ug/L	2.28	382.9	ug/L	2.28	0.60%
QC value within limits for Se 196.026 Recovery = 102.12%								
Sn 189.927†	3349.3	382.1	ug/L	1.90	382.1	ug/L	1.90	0.50%
QC value within limits for Sn 189.927 Recovery = 101.90%								
Sr 421.552†	48631.3	364.8	ug/L	3.55	364.8	ug/L	3.55	0.97%
QC value within limits for Sr 421.552 Recovery = 97.27%								
Ti 337.279†	2546.7	374.7	ug/L	4.10	374.7	ug/L	4.10	1.09%
QC value within limits for Ti 337.279 Recovery = 99.93%								
Tl 190.801†	1593.1	392.8	ug/L	2.48	392.8	ug/L	2.48	0.63%
QC value within limits for Tl 190.801 Recovery = 104.75%								
V 292.402†	51712.6	378.8	ug/L	0.40	378.8	ug/L	0.40	0.11%
QC value within limits for V 292.402 Recovery = 101.02%								
Zn 206.200†	16732.8	382.9	ug/L	1.09	382.9	ug/L	1.09	0.29%
QC value within limits for Zn 206.200 Recovery = 102.10%								

All analyte(s) passed QC.

Sequence No.: 19
Sample ID: CCB 191119 I:PB O:PW
Analyst:
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 11/19/19 10:34:40 AM
Data Type: Reprocessed on 11/20/19 10:04:47 AM

Initial Sample Vol:
Sample Prep Vol:

Mean Data: CCB 191119 I:PB O:PW

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	1296184.8	100.7	%	1.04				1.03%
Y 371.029 Radial	1244220.5	100.7	%	1.12				1.12%
Ag 338.289†	1.0	0.016	ug/L	0.4953	0.016	ug/L	0.4953	>999.9%
QC value within limits for Ag 338.289 Recovery = Not calculated								
Al 308.215†	2.5	9.432	ug/L	25.0625	9.432	ug/L	25.0625	265.71%
QC value within limits for Al 308.215 Recovery = Not calculated								
As 188.979†	5.1	1.594	ug/L	1.3599	1.594	ug/L	1.3599	85.31%
QC value within limits for As 188.979 Recovery = Not calculated								
B†	243.7	6.335	ug/L	0.2191	6.335	ug/L	0.2191	3.46%
QC value within limits for B Recovery = Not calculated								
Ba 233.527†	9.8	0.088	ug/L	0.0724	0.088	ug/L	0.0724	81.99%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-0.8	-0.012	ug/L	0.1132	-0.012	ug/L	0.1132	928.79%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 315.887†	-6.8	-5.295	ug/L	4.9318	-5.295	ug/L	4.9318	93.13%
QC value within limits for Ca 315.887 Recovery = Not calculated								
Cd 214.440†	2.7	0.021	ug/L	0.0927	0.021	ug/L	0.0927	452.05%
QC value within limits for Cd 214.440 Recovery = Not calculated								
Co 228.616†	5.0	0.107	ug/L	0.1535	0.107	ug/L	0.1535	142.98%
QC value within limits for Co 228.616 Recovery = Not calculated								
Cr 267.716†	-4.9	-0.067	ug/L	0.1740	-0.067	ug/L	0.1740	257.89%
QC value within limits for Cr 267.716 Recovery = Not calculated								
Cu 327.393†	120.2	1.390	ug/L	0.7718	1.390	ug/L	0.7718	55.51%
QC value within limits for Cu 327.393 Recovery = Not calculated								
Fe 273.955†	9.4	0.635	ug/L	0.5992	0.635	ug/L	0.5992	94.30%
QC value within limits for Fe 273.955 Recovery = Not calculated								
K 766.490†	-75.8	-40.53	ug/L	102.444	-40.53	ug/L	102.444	252.74%
QC value within limits for K 766.490 Recovery = Not calculated								
Mg 285.213†	3.8	1.874	ug/L	1.6673	1.874	ug/L	1.6673	88.96%
QC value within limits for Mg 285.213 Recovery = Not calculated								
Mn 257.610†	-0.3	-0.059	ug/L	0.7482	-0.059	ug/L	0.7482	>999.9%
QC value within limits for Mn 257.610 Recovery = Not calculated								
Mo 202.031†	15.3	0.586	ug/L	0.2197	0.586	ug/L	0.2197	37.53%
QC value within limits for Mo 202.031 Recovery = Not calculated								
Na 589.592†	-44.1	-14.78	ug/L	25.090	-14.78	ug/L	25.090	169.75%
QC value within limits for Na 589.592 Recovery = Not calculated								
Ni 231.604†	-2.0	-0.057	ug/L	0.5239	-0.057	ug/L	0.5239	925.17%
QC value within limits for Ni 231.604 Recovery = Not calculated								
P 213.617†	2.1	0.622	ug/L	1.8943	0.622	ug/L	1.8943	304.57%
QC value within limits for P 213.617 Recovery = Not calculated								
Pb 220.353†	0.4	0.045	ug/L	1.4836	0.045	ug/L	1.4836	>999.9%
QC value within limits for Pb 220.353 Recovery = Not calculated								
Sb 206.836†	0.4	0.111	ug/L	1.1694	0.111	ug/L	1.1694	>999.9%
QC value within limits for Sb 206.836 Recovery = Not calculated								
Se 196.026†	-1.7	-0.637	ug/L	3.8500	-0.637	ug/L	3.8500	604.01%
QC value within limits for Se 196.026 Recovery = Not calculated								
Sn 189.927†	-2.5	-0.278	ug/L	0.4012	-0.278	ug/L	0.4012	144.07%
QC value within limits for Sn 189.927 Recovery = Not calculated								
Sr 421.552†	-29.6	-0.222	ug/L	0.0742	-0.222	ug/L	0.0742	33.40%
QC value within limits for Sr 421.552 Recovery = Not calculated								
Ti 337.279†	0.5	0.077	ug/L	0.1966	0.077	ug/L	0.1966	255.38%
QC value within limits for Ti 337.279 Recovery = Not calculated								
Tl 190.801†	9.2	2.209	ug/L	0.8516	2.209	ug/L	0.8516	38.56%
QC value within limits for Tl 190.801 Recovery = Not calculated								
V 292.402†	-39.5	-0.278	ug/L	0.4243	-0.278	ug/L	0.4243	152.85%
QC value within limits for V 292.402 Recovery = Not calculated								
Zn 206.200†	6.7	0.142	ug/L	0.0541	0.142	ug/L	0.0541	38.00%
QC value within limits for Zn 206.200 Recovery = Not calculated								

All analyte(s) passed QC.

METALS

Raw Data

Sequence No.: 17
Sample ID: BA02525W24 DF5
Analyst: PW
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution: 5X

Autosampler Location: 42
Date Collected: 11/19/19 10:25:02 AM
Data Type: Reprocessed on 11/20/19 10:04:44 AM
Initial Sample Vol:
Sample Prep Vol:

Mean Data: BA02525W24 DF5

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	1290175.1	100.3	%	0.87				0.87%
Y 371.029 Radial	1238463.8	100.3	%	0.89				0.89%
Ag 338.289†	22.5	0.257	ug/L	1.0216	1.286	ug/L	5.1081	397.09%
Al 308.215†	6.9	25.92	ug/L	34.544	129.6	ug/L	172.72	133.26%
As 188.979†	0.4	0.105	ug/L	0.8898	0.523	ug/L	4.4492	851.39%
B†	427.8	11.12	ug/L	0.536	55.61	ug/L	2.681	4.82%
Ba 233.527†	127.5	1.160	ug/L	0.1039	5.802	ug/L	0.5194	8.95%
Be 313.107†	1.5	0.027	ug/L	0.1508	0.134	ug/L	0.7539	564.40%
Ca 315.887†	3834.0	2975	ug/L	174.5	14880	ug/L	872.6	5.87%
Cd 214.440†	-52.9	-0.405	ug/L	0.0617	-2.023	ug/L	0.3085	15.25%
Co 228.616†	-2.1	-0.072	ug/L	0.0814	-0.361	ug/L	0.4070	112.69%
Cr 267.716†	79.5	1.026	ug/L	0.3061	5.132	ug/L	1.5306	29.82%
Cu 327.393†	164.2	1.756	ug/L	0.3983	8.778	ug/L	1.9917	22.69%
Fe 273.955†	544.0	34.14	ug/L	1.833	170.7	ug/L	9.17	5.37%
K 766.490†	866.6	462.8	ug/L	64.87	2314	ug/L	324.4	14.02%
Mg 285.213†	6499.9	3179	ug/L	188.3	15890	ug/L	941.3	5.92%
Mn 257.610†	-1.5	-0.400	ug/L	1.0431	-2.000	ug/L	5.2155	260.84%
Mo 202.031†	11.9	0.321	ug/L	0.1238	1.606	ug/L	0.6188	38.53%
Na 589.592†	25396.9	8522	ug/L	439.7	42610	ug/L	2198.4	5.16%
Ni 231.604†	-1.2	-0.052	ug/L	0.2019	-0.262	ug/L	1.0097	384.69%
P 213.617†	40.6	11.93	ug/L	2.554	59.63	ug/L	12.769	21.41%
Pb 220.353†	1.6	0.098	ug/L	1.2558	0.489	ug/L	6.2791	>999.9%
Sb 206.836†	3.6	0.941	ug/L	0.5161	4.703	ug/L	2.5803	54.86%
Se 196.026†	-7.0	-2.755	ug/L	2.2049	-13.77	ug/L	11.024	80.04%
Sn 189.927†	-7.9	-0.784	ug/L	0.2076	-3.920	ug/L	1.0378	26.48%
Sr 421.552†	2702.8	20.25	ug/L	1.069	101.3	ug/L	5.34	5.28%
Ti 337.279†	0.0	-0.038	ug/L	0.4551	-0.191	ug/L	2.2754	>999.9%
Tl 190.801†	2.7	0.755	ug/L	0.6777	3.774	ug/L	3.3886	89.78%
V 292.402†	450.8	3.268	ug/L	0.5923	16.34	ug/L	2.961	18.13%
Zn 206.200†	75.7	1.707	ug/L	0.3342	8.536	ug/L	1.6712	19.58%

Sequence No.: 13
Sample ID: 191108A BLK
Analyst: PW
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:

Autosampler Location: 38
Date Collected: 11/19/19 10:06:13 AM
Data Type: Reprocessed on 11/20/19 10:04:40 AM

Initial Sample Vol:
Sample Prep Vol:

Mean Data: 191108A BLK

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	1319580.2	102.6	%	0.30				0.29%
Y 371.029 Radial	1268003.3	102.6	%	0.33				0.32%
Ag 338.289†	88.0	1.176	ug/L	0.4688	1.176	ug/L	0.4688	39.88%
Al 308.215†	3.1	12.01	ug/L	25.004	12.01	ug/L	25.004	208.24%
As 188.979†	-3.3	-1.024	ug/L	0.8459	-1.024	ug/L	0.8459	82.58%
B†	97.2	2.526	ug/L	0.1134	2.526	ug/L	0.1134	4.49%
Ba 233.527†	2.5	0.022	ug/L	0.0774	0.022	ug/L	0.0774	359.12%
Be 313.107†	8.5	0.138	ug/L	0.0929	0.138	ug/L	0.0929	67.51%
Ca 315.887†	51.6	40.02	ug/L	5.049	40.02	ug/L	5.049	12.62%
Cd 214.440†	20.7	0.156	ug/L	0.1655	0.156	ug/L	0.1655	106.13%
Co 228.616†	6.7	0.141	ug/L	0.2241	0.141	ug/L	0.2241	159.44%
Cr 267.716†	9.9	0.127	ug/L	0.1197	0.127	ug/L	0.1197	93.88%
Cu 327.393†	197.1	2.286	ug/L	0.1924	2.286	ug/L	0.1924	8.42%
Fe 273.955†	114.2	7.414	ug/L	0.2201	7.414	ug/L	0.2201	2.97%
K 766.490†	-103.3	-55.21	ug/L	47.301	-55.21	ug/L	47.301	85.68%
Mg 285.213†	41.6	20.34	ug/L	3.117	20.34	ug/L	3.117	15.32%
Mn 257.610†	4.4	0.761	ug/L	0.4799	0.761	ug/L	0.4799	63.03%
Mo 202.031†	21.2	0.811	ug/L	0.1969	0.811	ug/L	0.1969	24.28%
Na 589.592†	158.8	53.31	ug/L	9.178	53.31	ug/L	9.178	17.22%
Ni 231.604†	-11.3	-0.303	ug/L	0.4917	-0.303	ug/L	0.4917	162.28%
P 213.617†	0.1	0.040	ug/L	1.4731	0.040	ug/L	1.4731	>999.9%
Pb 220.353†	-9.0	-0.907	ug/L	0.3141	-0.907	ug/L	0.3141	34.65%
Sb 206.836†	7.1	1.840	ug/L	0.5863	1.840	ug/L	0.5863	31.87%
Se 196.026†	-2.1	-0.780	ug/L	1.6014	-0.780	ug/L	1.6014	205.35%
Sn 189.927†	3.8	0.442	ug/L	0.6843	0.442	ug/L	0.6843	154.88%
Sr 421.552†	-4.0	-0.031	ug/L	0.3680	-0.031	ug/L	0.3680	>999.9%
Ti 337.279†	11.7	1.729	ug/L	0.8563	1.729	ug/L	0.8563	49.53%
Tl 190.801†	-0.9	-0.200	ug/L	1.8038	-0.200	ug/L	1.8038	902.11%
V 292.402†	-44.9	-0.314	ug/L	0.1536	-0.314	ug/L	0.1536	48.87%
Zn 206.200†	46.7	1.055	ug/L	0.1091	1.055	ug/L	0.1091	10.34%

Sequence No.: 14
Sample ID: 191108A LCS
Analyst: PW
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:

Autosampler Location: 39
Date Collected: 11/19/19 10:10:59 AM
Data Type: Reprocessed on 11/20/19 10:04:41 AM
Initial Sample Vol:
Sample Prep Vol:

Mean Data: 191108A LCS

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	1263703.8	98.22	%	1.217				1.24%
Y 371.029 Radial	1212518.9	98.15	%	1.298				1.32%
Ag 338.289†	7546.1	99.82	ug/L	0.796	99.82	ug/L	0.796	0.80%
Al 308.215†	541.0	2085	ug/L	65.2	2085	ug/L	65.2	3.13%
As 188.979†	811.3	256.5	ug/L	2.16	256.5	ug/L	2.16	0.84%
B†	9803.6	254.9	ug/L	0.12	254.9	ug/L	0.12	0.05%
Ba 233.527†	28605.7	262.5	ug/L	0.39	262.5	ug/L	0.39	0.15%
Be 313.107†	3264.4	51.67	ug/L	1.124	51.67	ug/L	1.124	2.17%
Ca 315.887†	33186.7	25750	ug/L	410.3	25750	ug/L	410.3	1.59%
Cd 214.440†	6889.4	51.81	ug/L	0.466	51.81	ug/L	0.466	0.90%
Co 228.616†	12644.7	269.6	ug/L	3.02	269.6	ug/L	3.02	1.12%
Cr 267.716†	19922.0	263.7	ug/L	0.98	263.7	ug/L	0.98	0.37%
Cu 327.393†	22642.8	261.3	ug/L	0.28	261.3	ug/L	0.28	0.11%
Fe 273.955†	16585.5	1045	ug/L	2.2	1045	ug/L	2.2	0.21%
K 766.490†	9302.3	4964	ug/L	164.9	4964	ug/L	164.9	3.32%
Mg 285.213†	52230.0	25550	ug/L	712.5	25550	ug/L	712.5	2.79%
Mn 257.610†	1477.2	257.5	ug/L	2.62	257.5	ug/L	2.62	1.02%
Mo 202.031†	6920.5	264.1	ug/L	2.86	264.1	ug/L	2.86	1.08%
Na 589.592†	75547.9	25360	ug/L	684.0	25360	ug/L	684.0	2.70%
Ni 231.604†	10013.3	263.5	ug/L	3.05	263.5	ug/L	3.05	1.16%
P 213.617†	7058.2	2071	ug/L	21.2	2071	ug/L	21.2	1.02%
Pb 220.353†	2582.9	261.3	ug/L	3.48	261.3	ug/L	3.48	1.33%
Sb 206.836†	964.6	249.3	ug/L	2.25	249.3	ug/L	2.25	0.90%
Se 196.026†	659.0	247.4	ug/L	4.66	247.4	ug/L	4.66	1.88%
Sn 189.927†	2287.1	261.4	ug/L	3.03	261.4	ug/L	3.03	1.16%
Sr 421.552†	33107.8	248.2	ug/L	6.83	248.2	ug/L	6.83	2.75%
Ti 337.279†	1769.9	260.3	ug/L	4.79	260.3	ug/L	4.79	1.84%
Tl 190.801†	1042.5	257.3	ug/L	1.63	257.3	ug/L	1.63	0.63%
V 292.402†	36303.9	266.9	ug/L	1.00	266.9	ug/L	1.00	0.37%
Zn 206.200†	22650.0	515.6	ug/L	1.26	515.6	ug/L	1.26	0.24%

Sequence No.: 15
Sample ID: 191108A LCSD
Analyst: PW
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:

Autosampler Location: 40
Date Collected: 11/19/19 10:15:38 AM
Data Type: Reprocessed on 11/20/19 10:04:42 AM
Initial Sample Vol:
Sample Prep Vol:

Mean Data: 191108A LCSD

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	1255973.3	97.61	%	1.223				1.25%
Y 371.029 Radial	1204174.9	97.48	%	1.296				1.33%
Ag 338.289†	7478.6	98.92	ug/L	0.120	98.92	ug/L	0.120	0.12%
Al 308.215†	536.2	2066	ug/L	9.7	2066	ug/L	9.7	0.47%
As 188.979†	800.8	253.2	ug/L	5.02	253.2	ug/L	5.02	1.98%
B†	9753.3	253.5	ug/L	2.12	253.5	ug/L	2.12	0.84%
Ba 233.527†	28332.2	260.0	ug/L	1.16	260.0	ug/L	1.16	0.44%
Be 313.107†	3241.1	51.30	ug/L	0.957	51.30	ug/L	0.957	1.86%
Ca 315.887†	32863.0	25500	ug/L	322.5	25500	ug/L	322.5	1.26%
Cd 214.440†	6840.7	51.45	ug/L	0.729	51.45	ug/L	0.729	1.42%
Co 228.616†	12532.8	267.2	ug/L	4.19	267.2	ug/L	4.19	1.57%
Cr 267.716†	19766.4	261.6	ug/L	0.68	261.6	ug/L	0.68	0.26%
Cu 327.393†	22202.8	256.2	ug/L	1.52	256.2	ug/L	1.52	0.59%
Fe 273.955†	16351.9	1030	ug/L	5.4	1030	ug/L	5.4	0.53%
K 766.490†	9451.4	5044	ug/L	151.9	5044	ug/L	151.9	3.01%
Mg 285.213†	52170.4	25520	ug/L	526.1	25520	ug/L	526.1	2.06%
Mn 257.610†	1463.0	255.1	ug/L	3.46	255.1	ug/L	3.46	1.36%
Mo 202.031†	6869.3	262.2	ug/L	4.34	262.2	ug/L	4.34	1.66%
Na 589.592†	75713.1	25410	ug/L	544.0	25410	ug/L	544.0	2.14%
Ni 231.604†	9919.6	261.0	ug/L	4.30	261.0	ug/L	4.30	1.65%
P 213.617†	6980.7	2048	ug/L	35.0	2048	ug/L	35.0	1.71%
Pb 220.353†	2575.3	260.5	ug/L	3.06	260.5	ug/L	3.06	1.18%
Sb 206.836†	950.5	245.7	ug/L	5.91	245.7	ug/L	5.91	2.41%
Se 196.026†	643.2	241.4	ug/L	2.36	241.4	ug/L	2.36	0.98%
Sn 189.927†	2281.3	260.7	ug/L	3.97	260.7	ug/L	3.97	1.52%
Sr 421.552†	33069.5	247.9	ug/L	5.78	247.9	ug/L	5.78	2.33%
Ti 337.279†	1757.2	258.4	ug/L	2.63	258.4	ug/L	2.63	1.02%
Tl 190.801†	1037.3	256.0	ug/L	1.75	256.0	ug/L	1.75	0.68%
V 292.402†	35846.2	263.5	ug/L	1.56	263.5	ug/L	1.56	0.59%
Zn 206.200†	22542.9	513.2	ug/L	3.78	513.2	ug/L	3.78	0.74%

ICP-OES Calibration Standard Prep

Prepared: 11/19/19
Expires: 11/26/19
1% HNO3 / 5% HCl Prep: 11/19/19
Prepared By (Initials): PW

Calibration Standard 3

Initial Standard Information						Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier Part No.	Conc. Range (ug/mL)	Lot Number - QA Number/ APPL Prep Date	Exp Date	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. Range (ug/L)
Solution A	Texas Scientific	HP1810-250	200 - 5,000	m2meb662248-38391	10/11/20	500uL	100mL	1% HNO3 / 5% HCl	1000 - 25,000
Solution B	Texas Scientific	HP1810-250	4000 - 10,000	m2meb662249-38389	10/11/20	500uL			2000 - 50,000
Solution C	Texas Scientific	HP1810-250	100 - 200	m2meb662250-38394	10/11/20	500uL			500 - 1000
Calibration Standard 2									
ICP-OES Calib Standard 3	Texas Scientific	Standard 2/CCV1	0.5 - 50	Prepared 11/19/19	11/26/19	25mL	50mL	1% HNO3 / 5% HCl	250 - 25,000
Calibration Standard 1									
200.7 LDL	O2SI	160634-01-01	0.05 - 100	10080366-3-41267	02/07/21	250uL	50mL	1% HNO3 / 5% HCl	0.25 - 200

ICP-OES ICV (SS)

Prepared: 11/18/19
Expires: 08/09/19
1% HNO3 / 5% HCl Prep: 11/15/19
Prepared By (Initials): PW

ICP-OES ICV 1

Initial Standard Information						Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier Part No.	Conc. Range (ug/mL)	Lot Number - QA Number	Exp Date	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. Range (ug/mL)
QCS ICV Soln A	CPI	4400-070615RH01	50 - 500	10062445-11-49481	05/14/21	250uL	50mL	1% HNO3 / 5% HCl	0.25 - 2.5
QCS ICV Soln B	CPI	4400-070615RH01	2,500	10062445-12-49482	05/14/21	250uL			12.5

ICP-OES ICV Ba

Initial Standard Information						Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier Part No.	Conc. Range (ug/mL)	Lot Number - QA Number	Exp Date	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. Range (ug/mL)
Custom 23 Element Mix #314	O2SI	161314-01-03	5 - 25,00	1064561-8-38870	08/09/19	1mL	50mL	1% HNO3 / 5% HCl	0.1 - 50
Custom 23 Element Mix #315	O2SI	161314-01-03	10 - 25	1064561-7-38869	08/09/19	1mL			0.2 - 0.5

ICP-OES CCV2

Initial Standard Information						Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier Part No.	Conc. Range (ug/mL)	APPL Prep Date	Exp Date	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. Range (ug/mL)
ICP-OES Calib Standard 3	Texas Scientific	CCV2	0.5 - 50	Prepared 11/19/19	11/26/19	15mL	40mL	1% HNO3 / 5% HCl	0.15 - 15

ICP-OES Low Levels (LLICV)

Prepared: 11/15/19
Expires: 11/29/19
1% HNO3 / 5% HCl Prep: 11/15/19
Prepared By (Initials): PW

LLICV

Initial Standard Information						Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier Part No.	Conc. Range ug/mL	Lot Number - QA Number	Exp Date	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. Range (ug/L)
200.7 LDL	O2SI	160634-01-01	0.05 - 100	10080366-3-41267	02/07/21	250uL	50mL	1% HNO3 / 5% HCl	0.25 - 200
LLICVX2									
200.7 LDL	O2SI	160634-01-01	0.05 - 100	10080366-3-41267	02/07/21	500uL	50mL	1% HNO3 / 5% HCl	0.50 - 400
LLICVX6									
200.7 LDL	O2SI	160634-01-01	0 05 - 100	10080366-3-41267	02/07/21	1.5mL	50mL	1% HNO3 / 5% HCl	1.5 - 1,200
LLICVX10									
200.7 LDL	O2SI	160634-01-01	0.05 - 100	10080366-3-41267	02/07/21	2.5mL	50mL	1% HNO3 / 5% HCl	2.5 - 2,000
LLICV 10									
ICP-OES Calib Standard 3	Texas Scientific	HP1810-250	0.5 - 50	10080366-3-41267	11/26/19	500uL	50mL	1% HNO3 / 5% HCl	5 - 500
LLICV 50									
ICP-OES Calib Standard 3	Texas Scientific	HP1810-250	0.5 - 50	10080366-3-41267	11/26/19	2.5mL	50mL	1% HNO3 / 5% HCl	25 - 2,500

ICP-OES Interference Check Solution A

Prepared: 11/13/19
Expires: 11/27/19
1% HNO3 / 5% HCl Prep: 11/12/19
Prepared By (Initials): PW

Initial Standard Information						Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier Part No.	Conc. (ug/mL)	Lot Number - QA Number	Exp Date	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (ug/mL)
Aluminum	Inorganic Ventures	35-APPLTSP-6010ICSA	10,000	N2-MEB670092-39414	07/25/22	500uL	50mL	1% HNO3 / 5% HCl	100
Calcium			10,000						100
Magnesium			10,000						100
Iron			10,000						100
ICP-OES Interference Check Solution AB									
Aluminum	Inorganic Ventures	35-APPLTSP-6010ICSA	10,000	N2-MEB670092-39414	07/25/22	500uL	50mL	1% HNO3 / 5% HCl	100
Calcium			10,000						100
Magnesium			10,000						100
Iron			10,000						100
Special Mix (Interference)	O2SI	160495-01-01	100	10081266-39276	12/13/19	250uL			0.5

ICP-OES Internal Standards

Prepared: 11/14/18
Expires: 12/15/18
1% HNO3 / 5% HCl Prep: 11/14/18
Prepared By (Initials): PW

Initial Standard Information						Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier Part No.	Conc. (mg/L)	Lot Number - QA Number	Exp Date	Aliquot From Stock	Final Volume	Solvent	Final Standard Conc. (mg/L)
Yttrium	O2SI	060039-04-03	1,000	10083563-39466	01/27/20	4mL	2L	1% HNO3 / 5% HCl	2

Metals Digestion Worksheet

Method Name 3010A Digestion **Prep Method** M3010 **Set** 191108A **Units** mL

Spikes	
Spiked ID 1	LCSW LOT# 10064561-11-41208 Pipette AP-21
Spiked ID 2	LCSW LOT# 10064561-12-41210
Spiked ID 3	
Spiked ID 4	I
Spiked By	NM Date: 11/08/19 7:50:00 AM
Witnessed By	EV Date: 11/21/19 11/8/19 7:50

Starting Temp:	SLOT 21 THERM:MT1 95.2C
Ending Temp:	SLOT 21 93.2C
Temperature Type:	Mod Block
Sufficient Vol for Matrix QC:	YES
End Date/Time	11/08/19 12:07

	Sample	Sample Container	Spike Amount	Spike ID	Digested Amount	Final Volume	Start Date/Time	Comments
1	191108A Blk				50mL	50mL	11/08/19 7:50	equip: Modblock2
2	191108A LCS		500uL	1+2	50mL	50mL	11/08/19 7:50	equip: Modblock2
3	191108A LCSD		500uL	1+2	50mL	50mL	11/08/19 7:50	equip: Modblock2
4	BA01939	BA01939W14			50mL	50mL	11/08/19 7:50	equip: Modblock2
5	BA01939 MS	BA01939W14	500uL	1+2	50mL	50mL	11/08/19 7:50	equip: Modblock2
6	BA01939 MSD	BA01939W14	500uL	1+2	50mL	50mL	11/08/19 7:50	equip: Modblock2
7	BA01940	BA01940W13			50mL	50mL	11/08/19 7:50	equip: Modblock2
8	BA01940 MS	BA01940W13	500uL	1+2	50mL	50mL	11/08/19 7:50	equip: Modblock2
9	BA01940 MSD	BA01940W13	500uL	1+2	50mL	50mL	11/08/19 7:50	equip: Modblock2
10	BA01941	BA01941W07			50mL	50mL	11/08/19 7:50	equip: Modblock2
11	BA01988	BA01988W18			50mL	50mL	11/08/19 7:50	equip: Modblock2 90564
12	BA01988 DUP	BA01988W18			50mL	50mL	11/08/19 7:50	equip: Modblock2
13	BA01988 FF	BA01988W17			50mL	50mL	11/08/19 7:50	equip: Modblock2
14	BA01988 FF DUP	BA01988W17			50mL	50mL	11/08/19 7:50	equip: Modblock2
15	BA01988 FF MS	BA01988W17	500uL	1+2	50mL	50mL	11/08/19 7:50	equip: Modblock2
16	BA01988 MS	BA01988W18	500uL	1+2	50mL	50mL	11/08/19 7:50	equip: Modblock2
17	BA01989	BA01989W09			50mL	50mL	11/08/19 7:50	equip: Modblock2 90564
18	BA01989 FF	BA01989W08			50mL	50mL	11/08/19 7:50	equip: Modblock2
19	BA01990	BA01990W17			50mL	50mL	11/08/19 7:50	equip: Modblock2 90564
20	BA01990 DUP	BA01990W17			50mL	50mL	11/08/19 7:50	equip: Modblock2
21	BA01990 FF	BA01990W18			50mL	50mL	11/08/19 7:50	equip: Modblock2
22	BA01990 FF DUP	BA01990W18			50mL	50mL	11/08/19 7:50	equip: Modblock2
23	BA01990 FF MS	BA01990W18	500uL	1+2	50mL	50mL	11/08/19 7:50	equip: Modblock2

Solvent and Lot#
HNO3 BDH 1119060 18569
1:1 HCL 10-22-19
50mL vessel 190916

Sample COC Transfer	
Sample prep employee Initials	nm
Analyst's initials	PW
Date	11/21/19
Time	1050
Moved to	METALS

Technician's Initials	
Scanned By	nm
Sample Preparation	nm
Digestion	nm
Bring up to volume	
Modified	11/08/19 7:19:27 AM

Reviewed By: PW **Date:** 11/21/19

Metals Digestion Worksheet

Method Name 3010A Digestion **Prep Method** M3010 **Set** 191108A **Units** mL

Spikes	
Spiked ID 1	LCSW LOT# 10064561-11-41208 Pipette AP-21
Spiked ID 2	LCSW LOT# 10064561-12-41210
Spiked ID 3	
Spiked ID 4	I
Spiked By	NM Date: 11/08/19 7:50:00 AM
Witnessed By	EV Date: 11/21/19 11/8/19 7:50

Starting Temp:	SLOT 21 THERM:MT1 95.2C
Ending Temp:	SLOT 21 93.2C
Temperature Type:	Mod Block
Sufficient Vol for Matrix QC:	YES
End Date/Time	11/08/19 12:07

	Sample	Sample Container	Spike Amount	Spike ID	Digested Amount	Final Volume	Start Date/Time	Comments
24	BA01990 MS	BA01990W17	500uL	1+2	50mL	50mL	11/08/19 7:50	equip: Modblock2
25	BA01992	BA01992W09			50mL	50mL	11/08/19 7:50	equip: Modblock2 90564
26	BA01992 FF	BA01992W08			50mL	50mL	11/08/19 7:50	equip: Modblock2
27	BA01993	BA01993W09			50mL	50mL	11/08/19 7:50	equip: Modblock2 90564
28	BA01993 FF	BA01993W08			50mL	50mL	11/08/19 7:50	equip: Modblock2
29	BA01995	BA01995W09			50mL	50mL	11/08/19 7:50	equip: Modblock2 90564
30	BA01995 FF	BA01995W08			50mL	50mL	11/08/19 7:50	equip: Modblock2
31	BA01996	BA01996W08			50mL	50mL	11/08/19 7:50	equip: Modblock2 90564
32	BA01996 FF	BA01996W09			50mL	50mL	11/08/19 7:50	equip: Modblock2
33	BA02466	BA02466W24			50mL	50mL	11/08/19 7:50	equip: Modblock2 90648
34	BA02525	BA02525W24			50mL	50mL	11/08/19 7:50	equip: Modblock2 90657

Solvent and Lot#
HNO3 BDH 1119060 18569
1:1 HCL 10-22-19
50mL vessel 190916

Sample COC Transfer	
Sample prep employee Initials	nm
Analyst's initials	EV
Date	11/21/19
Time	1050
Moved to	METALS

Technician's Initials	
Scanned By	nm
Sample Preparation	nm
Digestion	nm
Bring up to volume	
Modified	11/08/19 7:19:27 AM

Reviewed By: EV **Date:** 11/21/19

6010C/3010A Injection Log

Directory: K:\ICAP PHOEBE\Backup Excel\

RunID	Injected		Sample Name	Misc Info	FileName	Multiplier
1	19 Nov 2019	09:00	CalBlk 191119 I:PB O:PW		191119A200	1.
2	19 Nov 2019	09:06	STD 1 191119 I:PB O:PW		191119A200	1.
3	19 Nov 2019	09:11	STD 2 191119 I:PB O:PW		191119A200	1.
4	19 Nov 2019	09:15	STD 3 191119 I:PB O:PW		191119A200	1.
5	19 Nov 2019	09:19	ICV 191119 I:PB O:PW		191119A200	1.
6	19 Nov 2019	09:32	ICB 191119 I:PB O:PW		191119A200	1.
7	19 Nov 2019	09:37	LLICV 191119 I:PB O:PW		191119A200	1.
8	19 Nov 2019	09:42	LLICVX2 191119 I:PB O:PW		191119A200	1.
9	19 Nov 2019	09:47	LLICVX6 191119 I:PB O:PW		191119A200	1.
11	19 Nov 2019	09:56	ICSA 191119 I:PB O:PW		191119A200	1.
12	19 Nov 2019	10:01	ICSAB 191119 I:PB O:PWV		191119A200	1.
13	19 Nov 2019	10:06	191108A BLK		191119A200	1.
14	19 Nov 2019	10:10	191108A LCS		191119A200	1.
15	19 Nov 2019	10:15	191108A LCSD		191119A200	1.
17	19 Nov 2019	10:25	BA02525W24 DF5		191119A200	5.
18	19 Nov 2019	10:30	CCV2 191119 I:PB O:PW		191119A200	1.
19	19 Nov 2019	10:34	CCB 191119 I:PB O:PW		191119A200	1.

INORGANIC ANALYSIS
Calibration Data

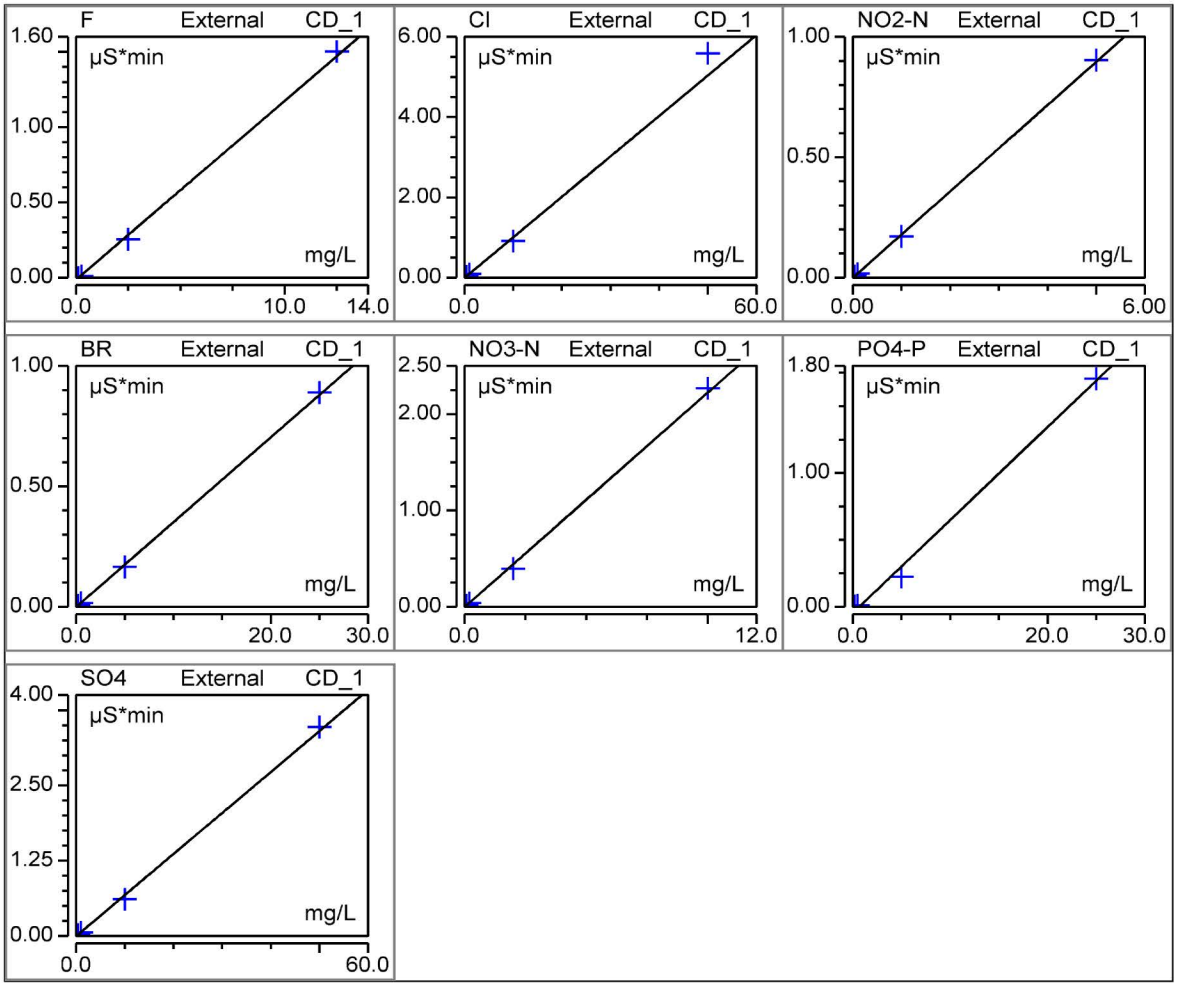
Calibration Batch Report

Sequence:	**191030iCal**	*Injection Volume:*	**25.00**
Instrument Method:	**Anions IM**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**30-Oct-2019 / 18:44**	*Run Time:*	**5.1**

Calibration Summary

Peak Name	Eval.Type	Cal.Type	Points	Offset (C0)	Slope (C1)	Curve (C2)	Coeff.Det. %
F	Area	Lin, WithOffset, 1/A	4.000	-0.014	0.119	0.000	99.7003
Cl	Area	Lin, WithOffset, 1/A²	4.000	-0.007	0.101	0.000	99.0220
NO2-N	Area	Lin, WithOffset, 1/A	4.000	-0.001	0.179	0.000	99.9623
BR	Area	Lin, WithOffset, 1/A	4.000	-0.001	0.035	0.000	99.9272
NO3-N	Area	Lin, WithOffset, 1/A	4.000	-0.005	0.223	0.000	99.7595
PO4-P	Area	Lin, WithOffset	4.000	-0.047	0.069	0.000	99.5917
SO4	Area	Lin, WithOffset, 1/A	4.000	-0.007	0.068	0.000	99.7957

Injection Name	Amount mg/L CD_1 F	Amount mg/L CD_1 Cl	Amount mg/L CD_1 NO2-N	Amount mg/L CD_1 BR	Amount mg/L CD_1 NO3-N	Amount mg/L CD_1 PO4-P	Amount mg/L CD_1 SO4
ICAL1 191030	0.125	0.4074	0.0426	0.2137	0.0909	0.7550	0.4460
ICAL2 191030	0.206	0.9606	0.0968	0.4887	0.1893	0.8434	0.9617
ICAL5 191030	2.259	9.1156	0.9605	4.7141	1.7941	3.8911	9.0418
ICAL8 191030	12.760	55.4700	5.0402	25.2835	10.2057	25.2105	50.9505

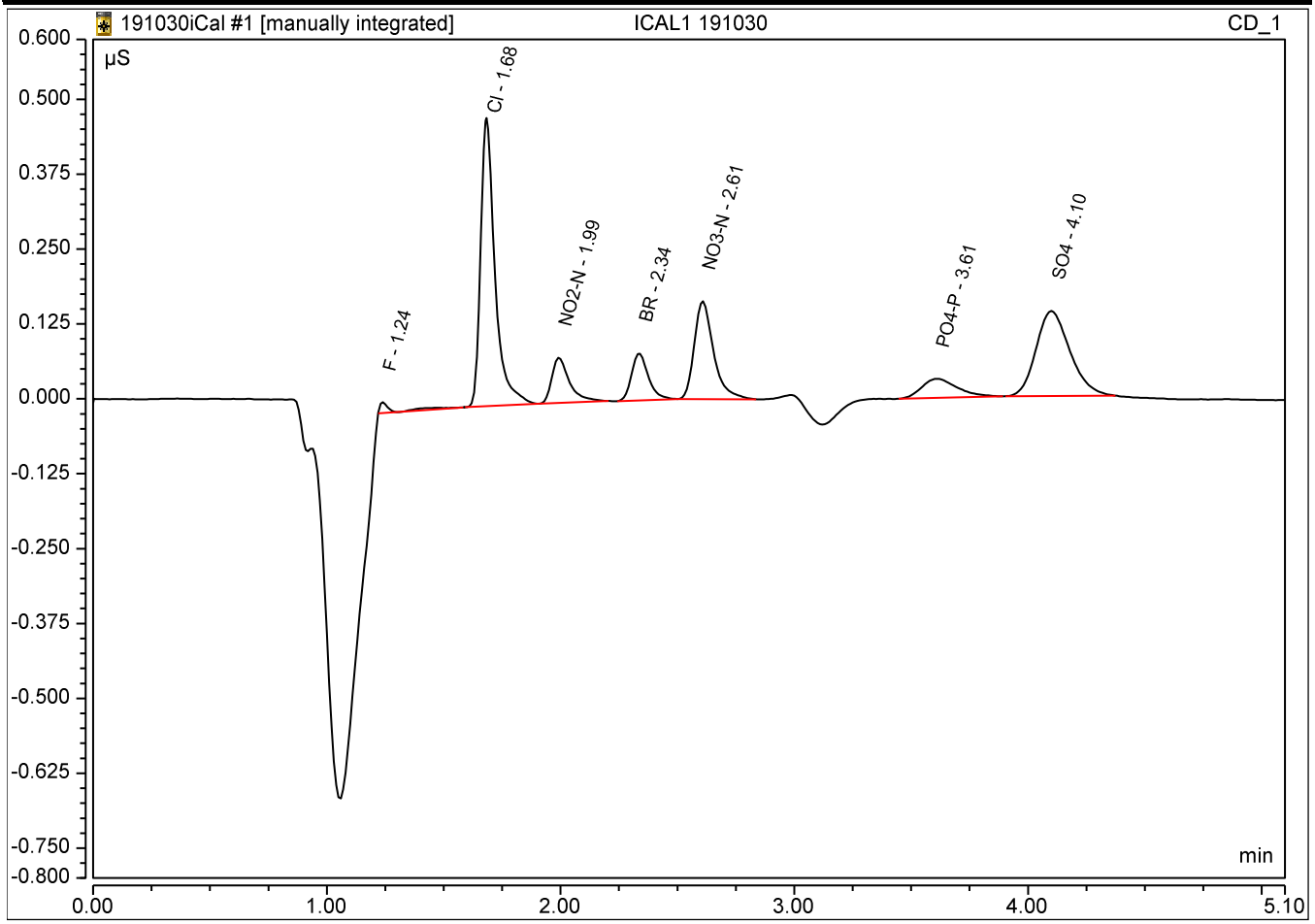


Logged on User: BW
Instrument: Charlie System_1
Sequence: 191030iCal

Peak Integration Report

Sample Name:	**ICAL1 191030**	*Inj. Vol.:*	**25uL**
Injection Type:	**Calibration Standard**	*Dilution Factor:*	**1.00**
Program:	**Anion APM 191030**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**30-Oct-2019 / 18:22**	*Run Time:*	**5.10**

No.	Time (min) min	Peak Name	Peak Type	Area (µS*min) µS*min	Height (µS) µS	Amount mg/L	Spike Level mg/L	Recovery
1	1.24	**F**	M *	0.001	0.018	0.13	0.1	125.3%
2	1.68	**Cl**	bMB*	0.034	0.481	0.41	0.4	101.8%
3	1.99	**NO2-N**	BMB	0.007	0.076	0.04	0.04	106.4%
4	2.34	**BR**	BMB	0.007	0.078	0.21	0.2	106.8%
5	2.61	**NO3-N**	BMB	0.016	0.163	0.09	0.08	113.6%
6	3.61	**PO4-P**	BMB*	0.006	0.032	0.76	0.2	377.5%
7	4.10	**SO4**	BMB	0.024	0.142	0.45	0.4	111.5%

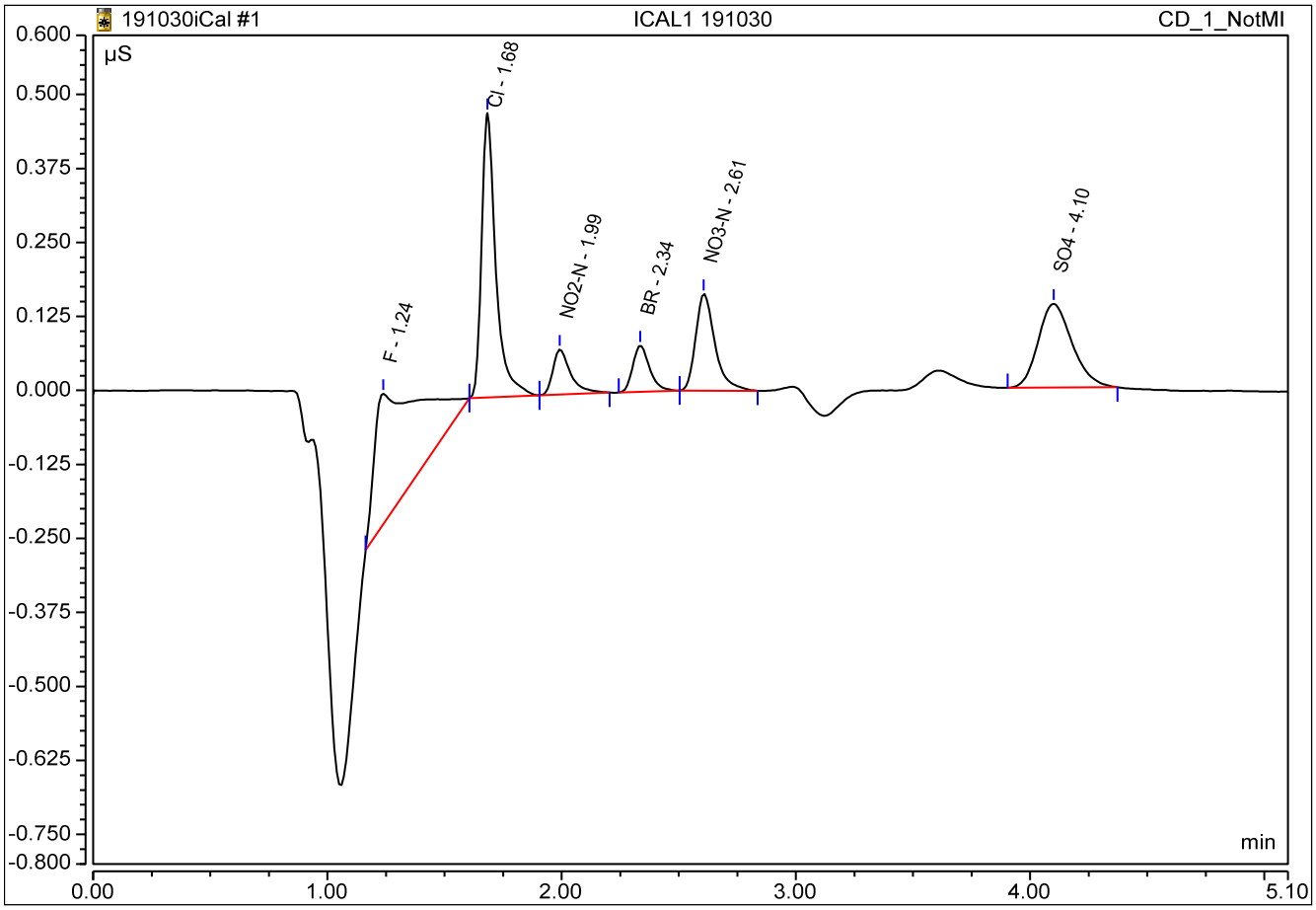


MI1 BW 191031

Not Manipulated Peak Integration Report

Sample Name:	**ICAL1 191030**	*Inj. Vol.:*	**25uL**
Injection Type:	**Calibration Standard**	*Dilution Factor:*	**1.0000**
Program:	**Anion APM 191030**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**30-Oct-2019 / 18:22**	*Run Time:*	**5.10**

No.	Time min	Peak Name	Peak Type	Area µS*min	Height µS	Ammount mg/L
1	1.24	**F**	M *	0.048	0.221	0.0926
2	1.68	**Cl**	bMB*	0.034	0.480	0.4073
3	1.99	**NO2-N**	BMB	0.007	0.076	0.0426
4	2.34	**BR**	BMB	0.007	0.078	0.2137
5	2.61	**NO3-N**	BMB	0.016	0.163	0.0909
6	n.a.	**PO4-P**	BMB*	n.a.	n.a.	n.a.
7	4.10	**SO4**	BMB	0.024	0.142	0.4460

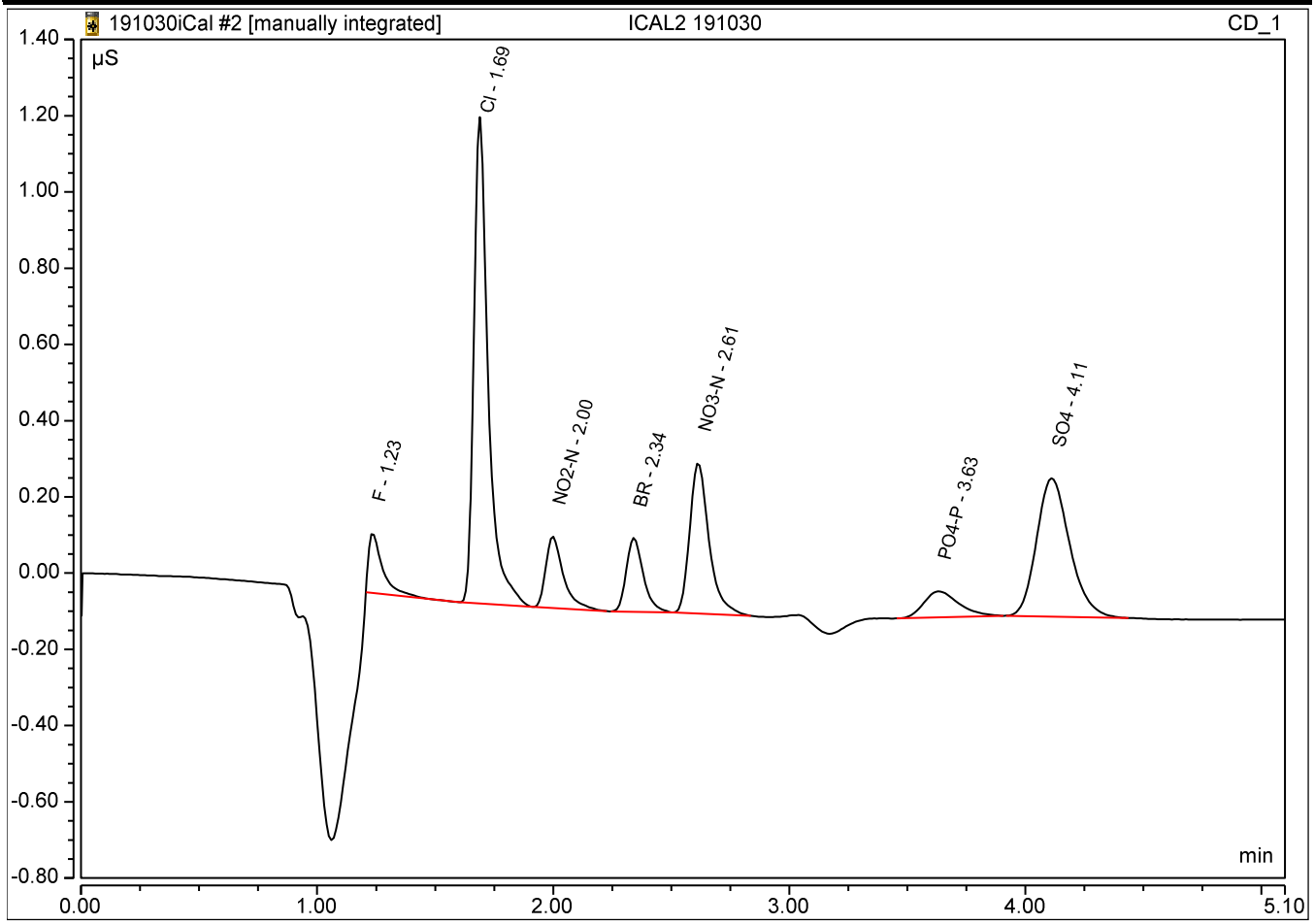


Logged on User: BW
Instrument: Charlie System_1
Sequence: 191030iCal

Peak Integration Report

Sample Name:	**ICAL2 191030**	*Inj. Vol.:*	**25uL**
Injection Type:	**Calibration Standard**	*Dilution Factor:*	**1.00**
Program:	**Anion APM 191030**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**30-Oct-2019 / 18:29**	*Run Time:*	**5.10**

No.	Time (min) min	Peak Name	Peak Type	Area (µS*min) µS*min	Height (µS) µS	Amount mg/L	Spike Level mg/L	Recovery
1	1.23	**F**	Mb*	0.011	0.157	0.21	0.25	82.3%
2	1.69	**Cl**	bMB*	0.090	1.276	0.96	1	96.1%
3	2.00	**NO2-N**	BMB	0.016	0.188	0.10	0.1	96.8%
4	2.34	**BR**	BMB	0.016	0.194	0.49	0.5	97.7%
5	2.61	**NO3-N**	BMB	0.038	0.395	0.19	0.2	94.6%
6	3.63	**PO4-P**	BMB*	0.012	0.068	0.84	0.5	168.7%
7	4.11	**SO4**	BMB	0.059	0.363	0.96	1	96.2%

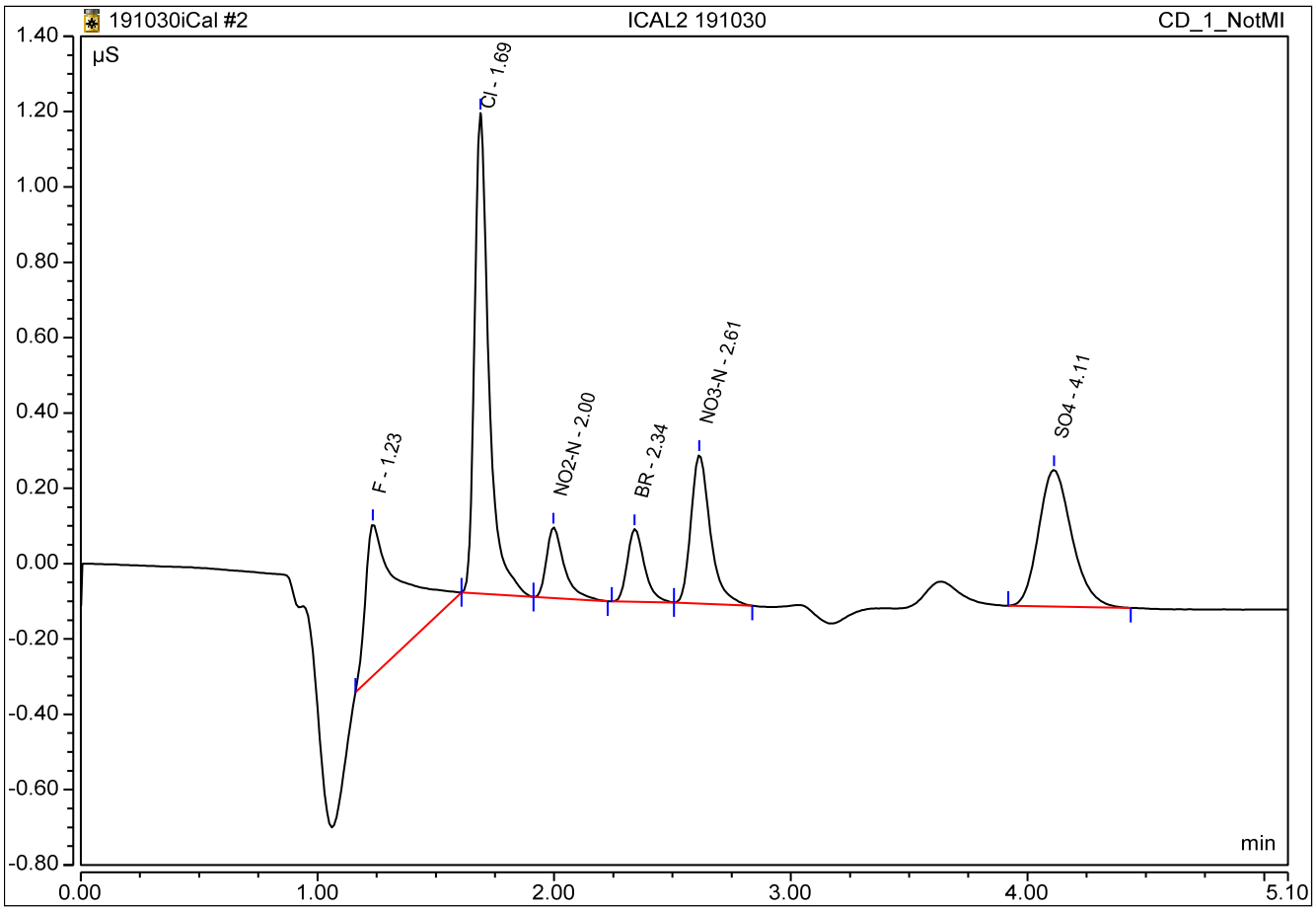


MI1 BW 190931

Not Manipulated Peak Integration Report

Sample Name:	**ICAL2 191030**	*Inj. Vol.:*	**25uL**
Injection Type:	**Calibration Standard**	*Dilution Factor:*	**1.0000**
Program:	**Anion APM 191030**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**30-Oct-2019 / 18:29**	*Run Time:*	**5.10**

No.	Time min	Peak Name	Peak Type	Area µS*min	Height µS	Ammount mg/L
1	1.23	**F**	Mb*	0.069	0.404	0.2711
2	1.69	**Cl**	bMB*	0.090	1.276	0.9610
3	2.00	**NO2-N**	BMB	0.016	0.188	0.0968
4	2.34	**BR**	BMB	0.016	0.194	0.4887
5	2.61	**NO3-N**	BMB	0.038	0.395	0.1893
6	n.a.	**PO4-P**	BMB*	n.a.	n.a.	n.a.
7	4.11	**SO4**	BMB	0.059	0.363	0.9617

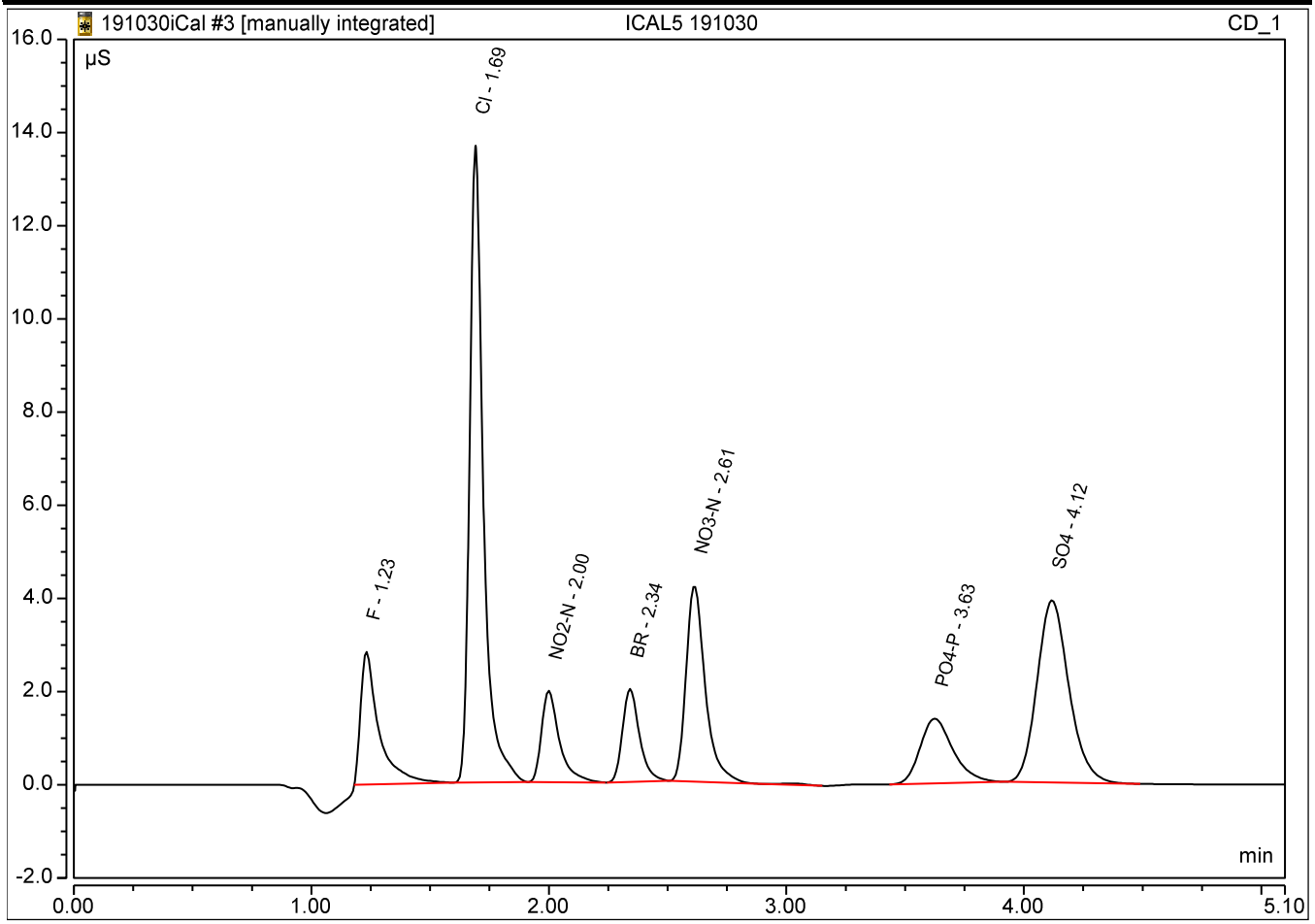


Logged on User: BW
Instrument: Charlie System_1
Sequence: 191030iCal

Peak Integration Report

Sample Name:	**ICAL5 191030**	*Inj. Vol.:*	**25uL**
Injection Type:	**Calibration Standard**	*Dilution Factor:*	**1.00**
Program:	**Anion APM 191030**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**30-Oct-2019 / 18:37**	*Run Time:*	**5.10**

No.	Time (min) min	Peak Name	Peak Type	Area (µS*min) µS*min	Height (µS) µS	Amount mg/L	Spike Level mg/L	Recovery
1	1.23	**F**	MB*	0.255	2.859	2.26	2.5	90.4%
2	1.69	**Cl**	BMB	0.913	13.668	9.12	10	91.2%
3	2.00	**NO2-N**	BMB	0.171	1.960	0.96	1	96.1%
4	2.34	**BR**	BMB	0.165	1.998	4.71	5	94.3%
5	2.61	**NO3-N**	BMB	0.395	4.211	1.79	2	89.7%
7	3.63	**PO4-P**	BMB	0.223	1.389	3.89	5	77.8%
8	4.12	**SO4**	BMB	0.610	3.910	9.04	10	90.4%

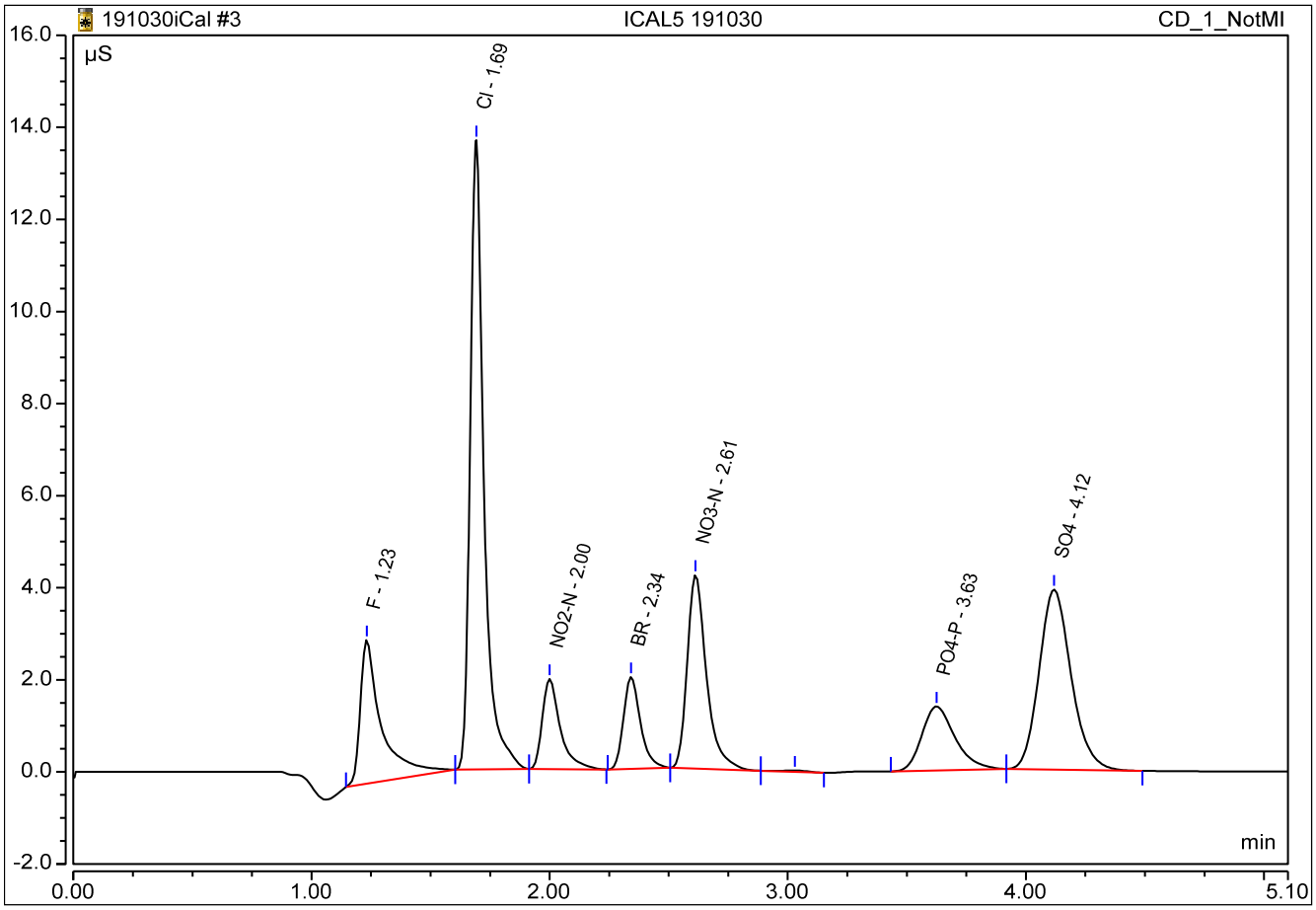


MI1 BW 190931

Not Manipulated Peak Integration Report

Sample Name:	**ICAL5 191030**	*Inj. Vol.:*	**25uL**
Injection Type:	**Calibration Standard**	*Dilution Factor:*	**1.0000**
Program:	**Anion APM 191030**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**30-Oct-2019 / 18:37**	*Run Time:*	**5.10**

No.	Time min	Peak Name	Peak Type	Area µS*min	Height µS	Ammount mg/L
1	1.23	**F**	MB*	0.321	3.121	2.4710
2	1.69	**Cl**	BMB	0.913	13.668	9.1151
3	2.00	**NO2-N**	BMB	0.171	1.960	0.9605
4	2.34	**BR**	BMB	0.165	1.998	4.7141
5	2.61	**NO3-N**	BMB	0.395	4.211	1.7941
7	3.63	**PO4-P**	BMB	0.223	1.389	5.0000
8	4.12	**SO4**	BMB	0.610	3.910	9.0418

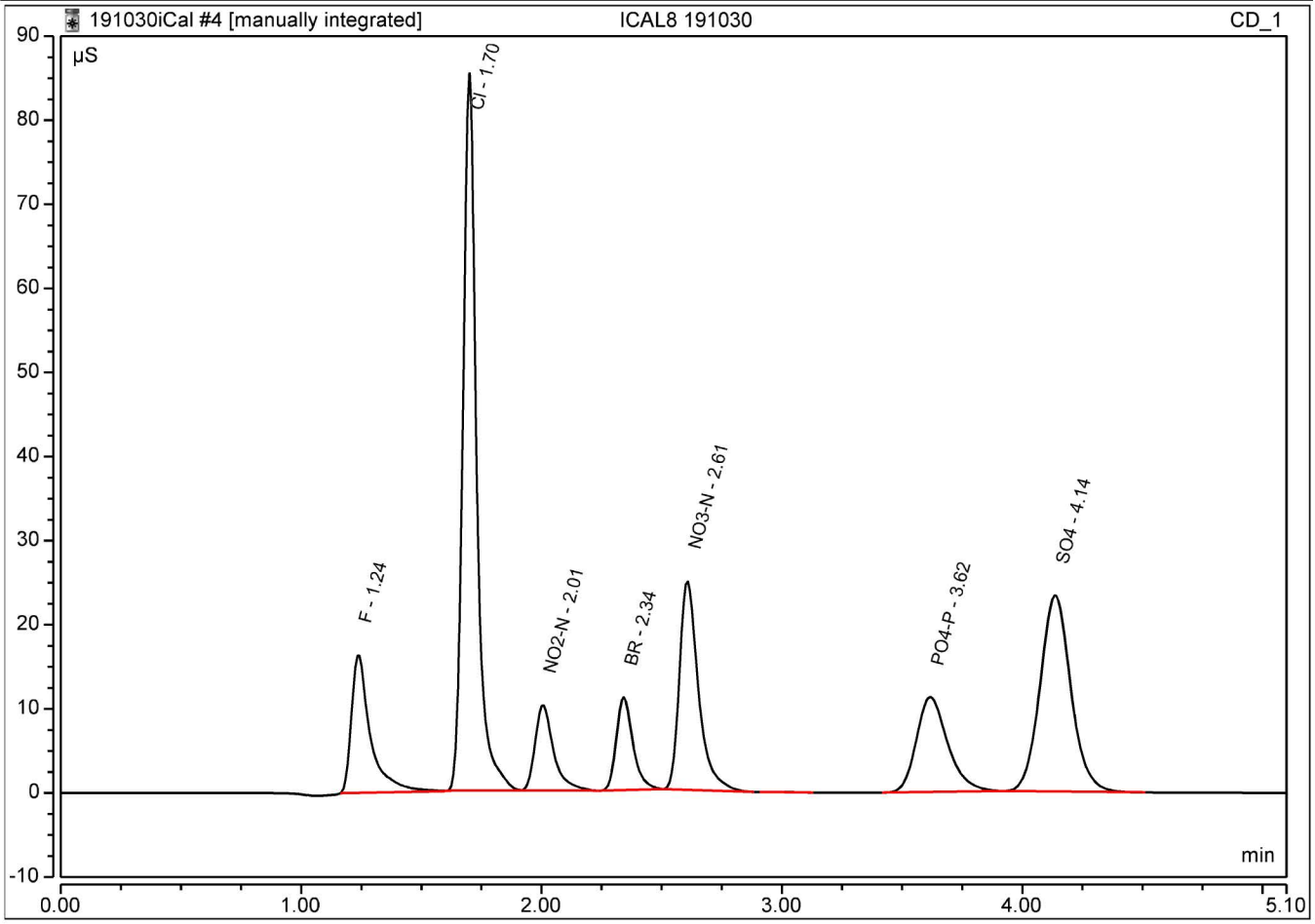


Logged on User: BW
Instrument: Charlie System_1
Sequence: 191030iCal

Peak Integration Report

Sample Name:	**ICAL8 191030**	*Inj. Vol.:*	**25uL**
Injection Type:	**Calibration Standard**	*Dilution Factor:*	**1.00**
Program:	**Anion APM 191030**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**30-Oct-2019 / 18:44**	*Run Time:*	**5.10**

No.	Time (min) min	Peak Name	Peak Type	Area (µS*min) µS*min	Height (µS) µS	Amount mg/L	Spike Level mg/L	Recovery
1	1.24	**F**	BM *	1.503	16.491	12.76	12.5	102.1%
2	1.70	**Cl**	BMB	5.591	85.358	55.47	50	110.9%
3	2.01	**NO2-N**	BMB	0.903	10.178	5.04	5	100.8%
4	2.34	**BR**	BMB	0.890	11.073	25.28	25	101.1%
5	2.61	**NO3-N**	BMB	2.269	24.891	10.21	10	102.1%
7	3.62	**PO4-P**	BMB	1.704	11.286	25.21	25	100.8%
8	4.14	**SO4**	BMB	3.469	23.343	50.95	50	101.9%

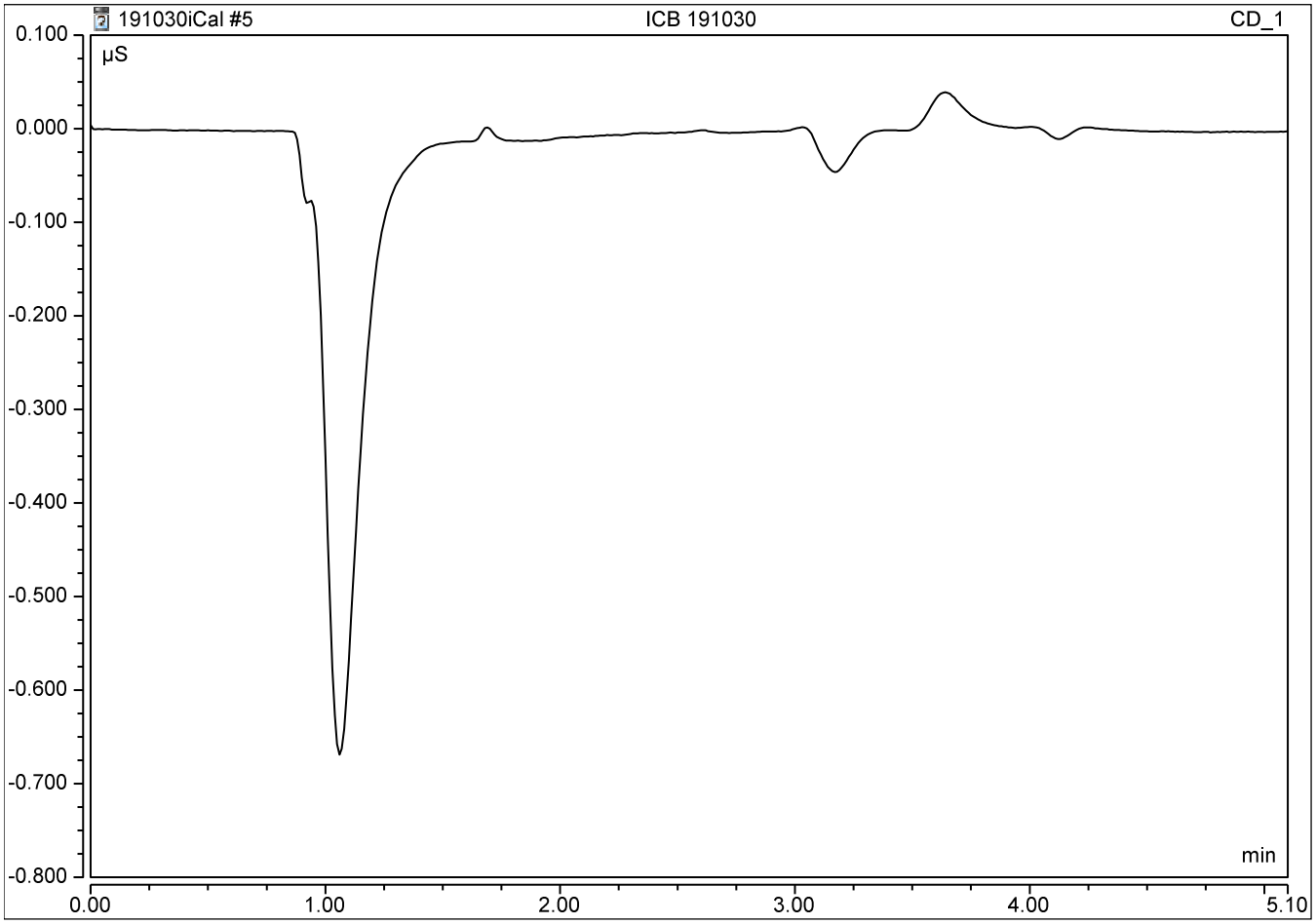


Logged on User: BW
Instrument: Charlie System_1
Sequence: 191030iCal

Peak Integration Report

Sample Name:	**ICB 191030**	*Inj. Vol.:*	**25uL**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.00**
Program:	**Anion APM 191030**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**30-Oct-2019 / 18:52**	*Run Time:*	**5.10**

No.	Time (min) min	Peak Name	Peak Type	Area (µS*min) µS*min	Height (µS) µS	Amount mg/L	Spike Level mg/L	Recovery

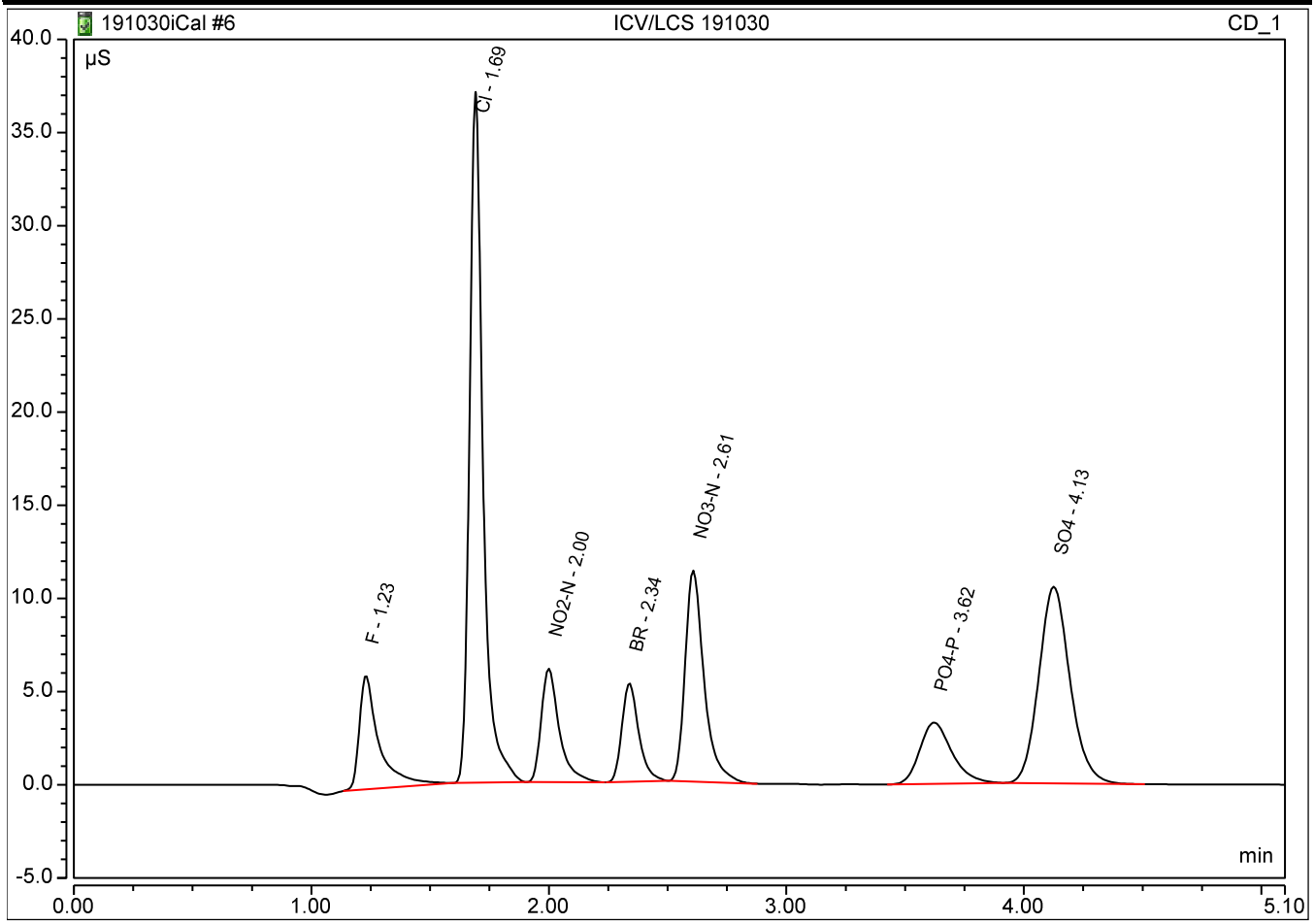


Logged on User: BW
Instrument: Charlie System_1
Sequence: 191030iCal

Peak Integration Report

Sample Name:	**ICV/LCS 191030**	*Inj. Vol.:*	**25uL**
Injection Type:	**Check Standard**	*Dilution Factor:*	**1.00**
Program:	**Anion APM 191030**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**30-Oct-2019 / 18:59**	*Run Time:*	**5.10**

No.	Time (min) min	Peak Name	Peak Type	Area (µS*min) µS*min	Height (µS) µS	Amount mg/L	Spike Level mg/L	Recovery
1	1.23	**F**	BMB	0.589	6.116	5.07	5	101.5%
2	1.69	**Cl**	BMB	2.435	37.074	24.19	25	96.8%
3	2.00	**NO2-N**	BMB	0.539	6.101	3.01	3.04	99.1%
4	2.34	**BR**	BMB	0.435	5.293	12.37	12.5	99.0%
5	2.61	**NO3-N**	BMB	1.049	11.325	4.73	5	94.5%
6	3.62	**PO4-P**	BMB	0.517	3.291	8.12	10	81.2%
7	4.13	**SO4**	BMB	1.608	10.548	23.67	25	94.7%



Algorithm Check
y = Peak Area
x = mg/L S04

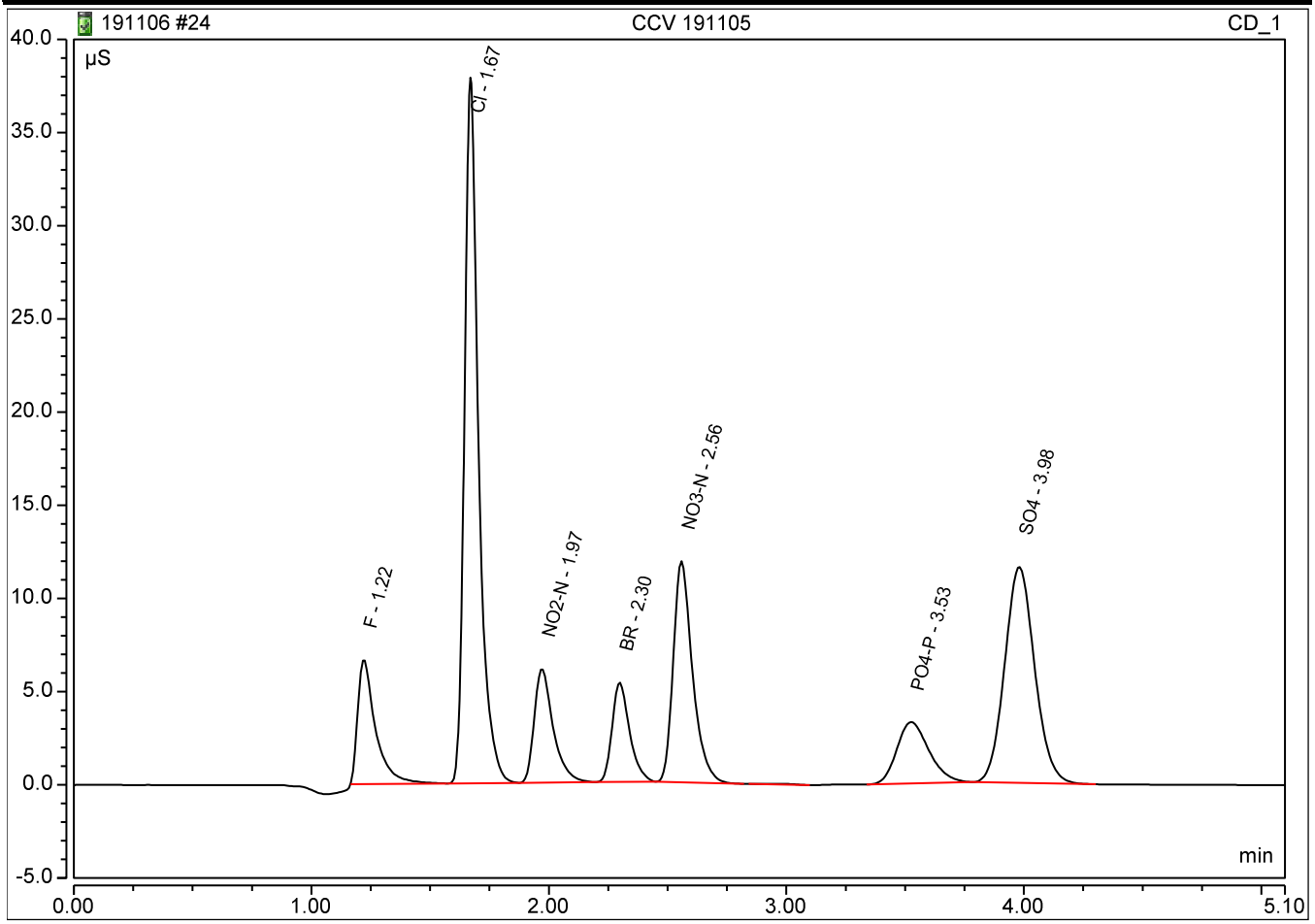
y = 0.0682 x + -0.0066
y = 1.6082 therefor x =

Logged on User: BW
Instrument: Charlie System_1
Sequence: 191106

Peak Integration Report

Sample Name:	**CCV 191105**	*Inj. Vol.:*	**25uL**
Injection Type:	**Check Standard**	*Dilution Factor:*	**1.00**
Program:	**Anion APM 191030**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**06-Nov-2019 / 15:27**	*Run Time:*	**5.10**

No.	Time (min) min	Peak Name	Peak Type	Area (µS*min) µS*min	Height (µS) µS	Amount mg/L	Spike Level mg/L	Recovery
1	1.22	**F**	BMB	0.578	6.689	4.98	5	99.6%
2	1.67	**Cl**	BMB	2.590	37.862	25.73	25	102.9%
3	1.97	**NO2-N**	BMB	0.565	6.117	3.16	3.04	103.9%
4	2.30	**BR**	BMB	0.455	5.335	12.93	12.5	103.5%
5	2.56	**NO3-N**	BMB	1.115	11.858	5.03	5	100.5%
7	3.53	**PO4-P**	BMB	0.516	3.300	8.11	10	81.1%
8	3.98	**SO4**	BMB	1.696	11.591	24.96	25	99.8%

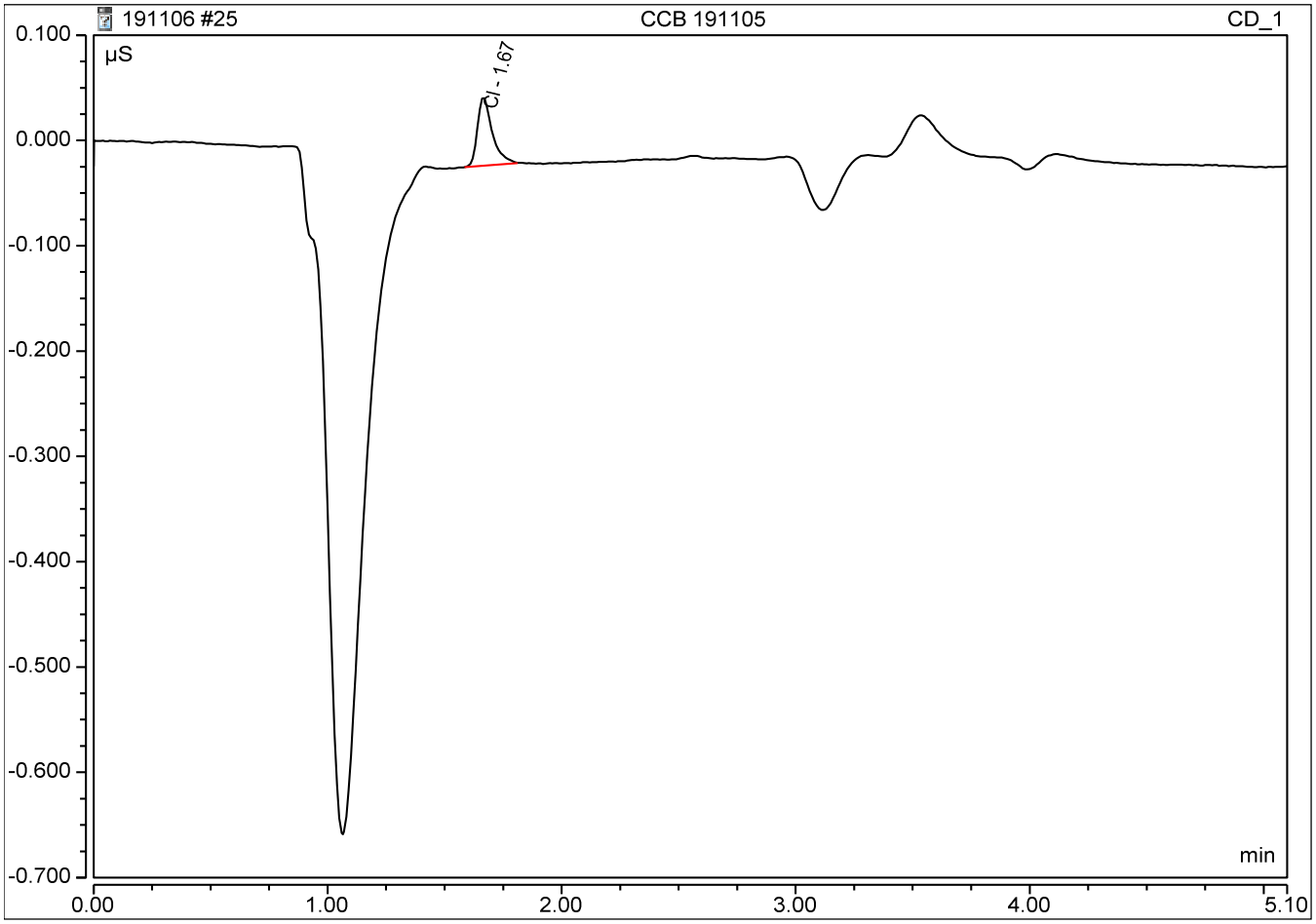


Logged on User: BW
Instrument: Charlie System_1
Sequence: 191106

Peak Integration Report

Sample Name:	**CCB 191105**	*Inj. Vol.:*	**25uL**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.00**
Program:	**Anion APM 191030**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**06-Nov-2019 / 15:34**	*Run Time:*	**5.10**

No.	Time (min) min	Peak Name	Peak Type	Area (µS*min) µS*min	Height (µS) µS	Amount mg/L	Spike Level mg/L	Recovery
1	1.67	**Cl**	BMB	0.005	0.065	0.12		

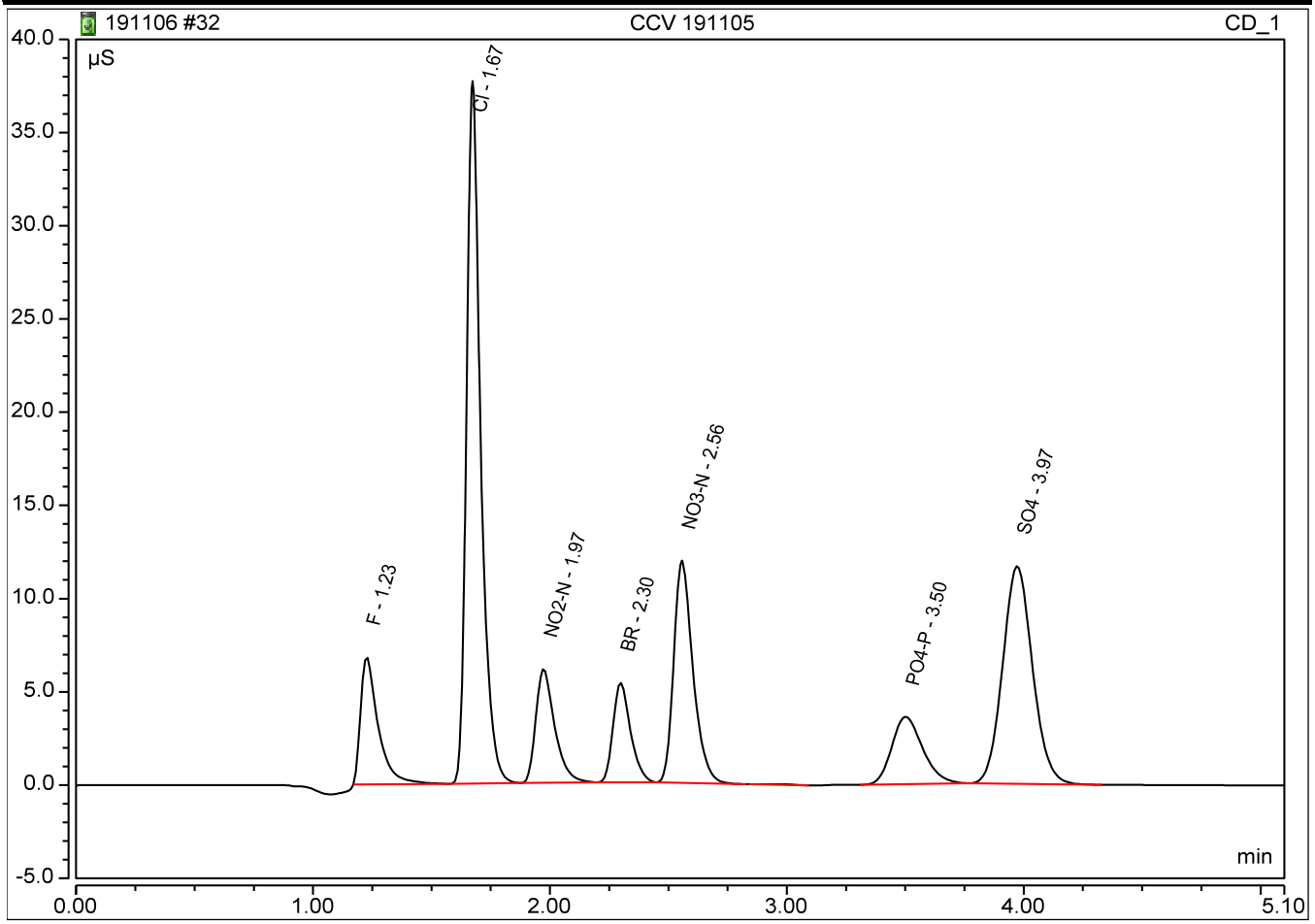


Logged on User: BW
Instrument: Charlie System_1
Sequence: 191106

Peak Integration Report

Sample Name:	**CCV 191105**	*Inj. Vol.:*	**25uL**
Injection Type:	**Check Standard**	*Dilution Factor:*	**1.00**
Program:	**Anion APM 191030**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**06-Nov-2019 / 16:29**	*Run Time:*	**5.10**

No.	Time (min) min	Peak Name	Peak Type	Area (µS*min) µS*min	Height (µS) µS	Amount mg/L	Spike Level mg/L	Recovery
1	1.23	**F**	BMB	0.588	6.855	5.06	5	101.2%
2	1.67	**Cl**	BMB	2.595	37.685	25.78	25	103.1%
3	1.97	**NO2-N**	BMB	0.565	6.114	3.16	3.04	103.8%
4	2.30	**BR**	BMB	0.457	5.349	13.01	12.5	104.1%
5	2.56	**NO3-N**	BMB	1.120	11.921	5.05	5	100.9%
7	3.50	**PO4-P**	BMB	0.547	3.613	8.55	10	85.5%
8	3.97	**SO4**	BMB	1.705	11.684	25.09	25	100.4%

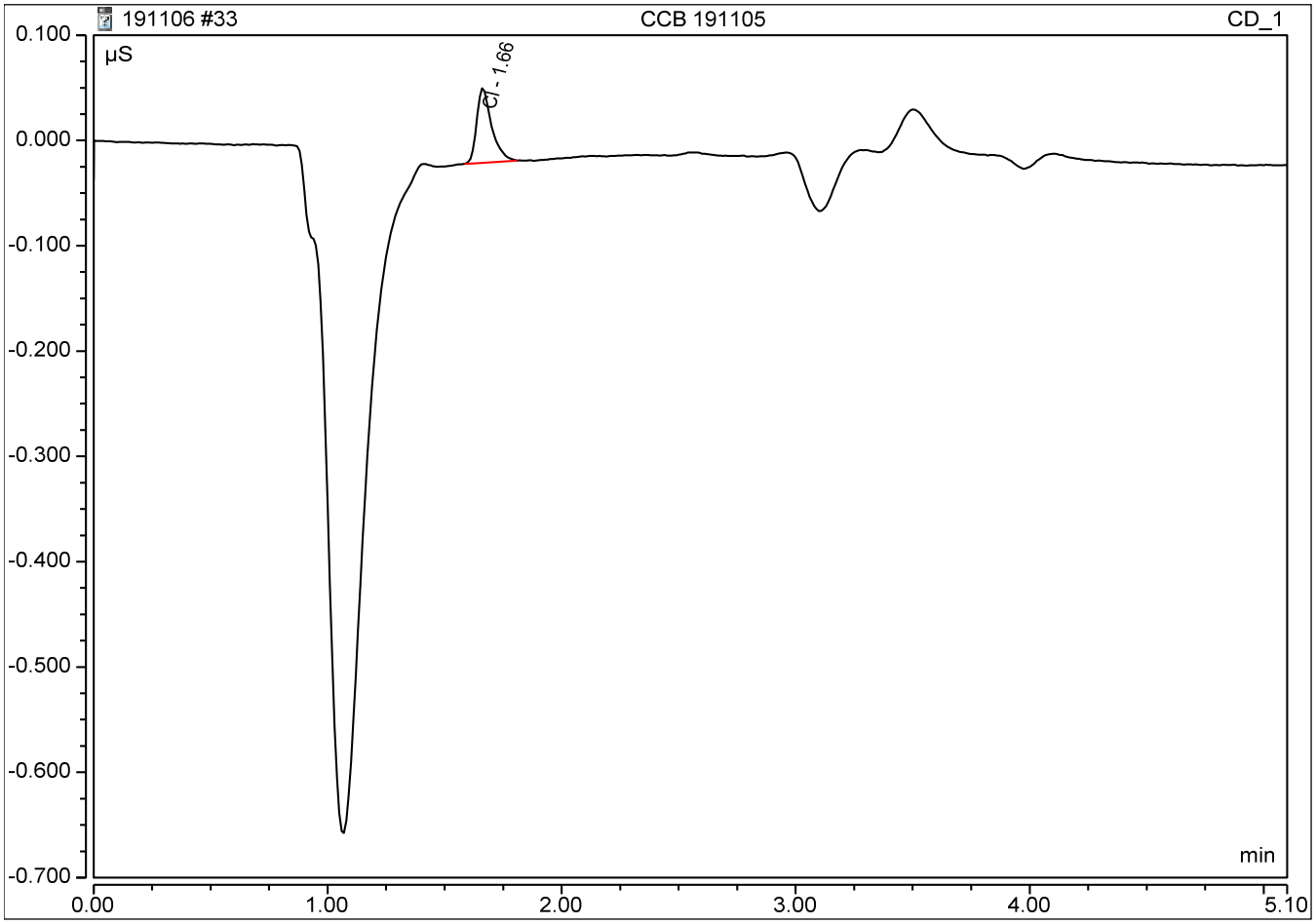


Logged on User: BW
Instrument: Charlie System_1
Sequence: 191106

Peak Integration Report

Sample Name:	**CCB 191105**	*Inj. Vol.:*	**25uL**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.00**
Program:	**Anion APM 191030**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**06-Nov-2019 / 16:36**	*Run Time:*	**5.10**

No.	Time (min) min	Peak Name	Peak Type	Area (µS*min) µS*min	Height (µS) µS	Amount mg/L	Spike Level mg/L	Recovery
1	1.66	**Cl**	BMB	0.005	0.071	0.12		

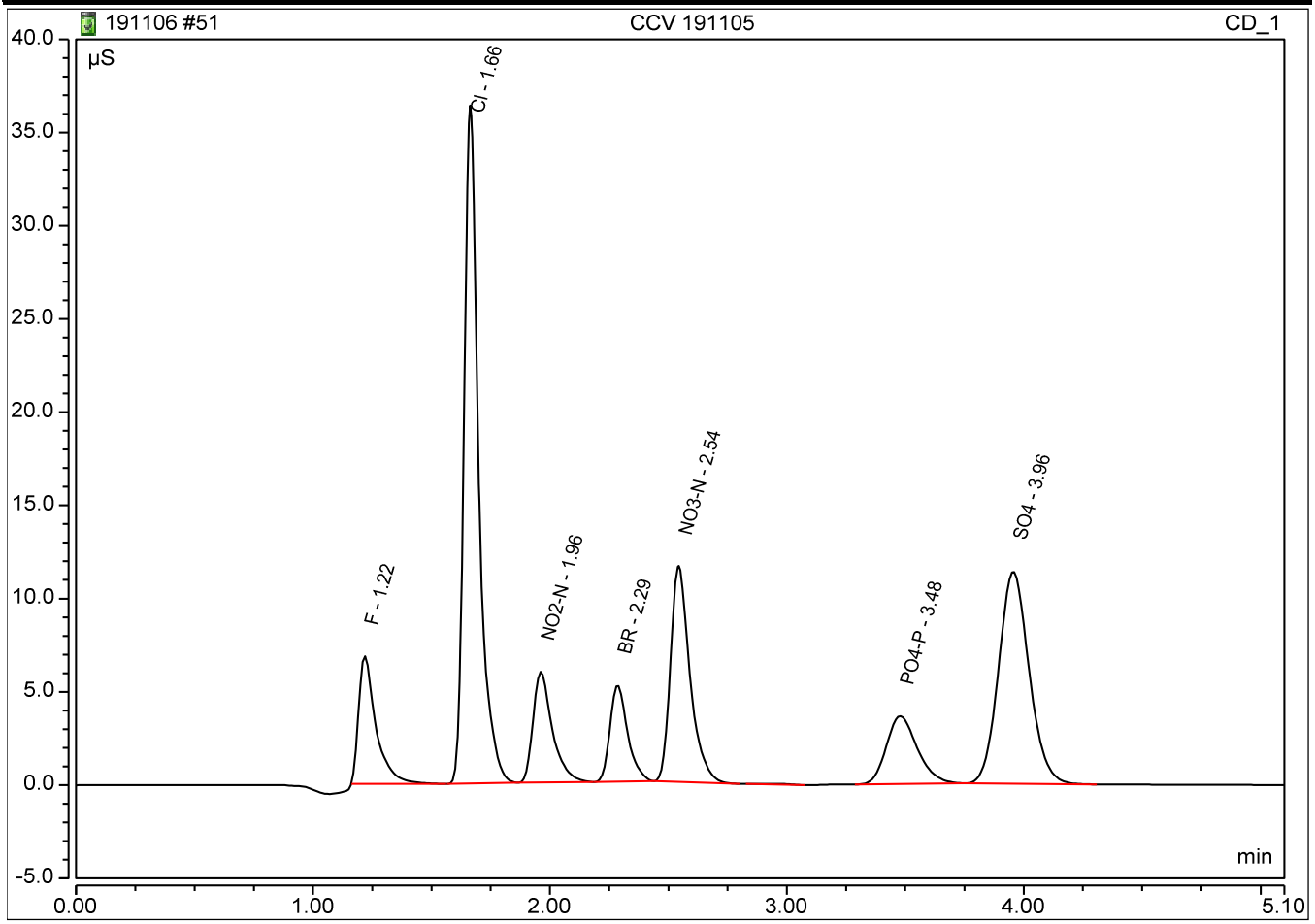


Logged on User: BW
Instrument: Charlie System_1
Sequence: 191106

Peak Integration Report

Sample Name:	**CCV 191105**	*Inj. Vol.:*	**25uL**
Injection Type:	**Check Standard**	*Dilution Factor:*	**1.00**
Program:	**Anion APM 191030**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**06-Nov-2019 / 18:51**	*Run Time:*	**5.10**

No.	Time (min) min	Peak Name	Peak Type	Area (µS*min) µS*min	Height (µS) µS	Amount mg/L	Spike Level mg/L	Recovery
1	1.22	**F**	BMB	0.582	6.860	5.01	5	100.2%
2	1.66	**Cl**	BMB	2.570	36.365	25.53	25	102.1%
3	1.96	**NO2-N**	BMB	0.560	5.947	3.13	3.04	102.9%
4	2.29	**BR**	BMB	0.448	5.185	12.74	12.5	101.9%
5	2.54	**NO3-N**	BMB	1.105	11.585	4.98	5	99.6%
7	3.48	**PO4-P**	BMB	0.552	3.645	8.62	10	86.2%
8	3.96	**SO4**	BMB	1.700	11.387	25.01	25	100.1%

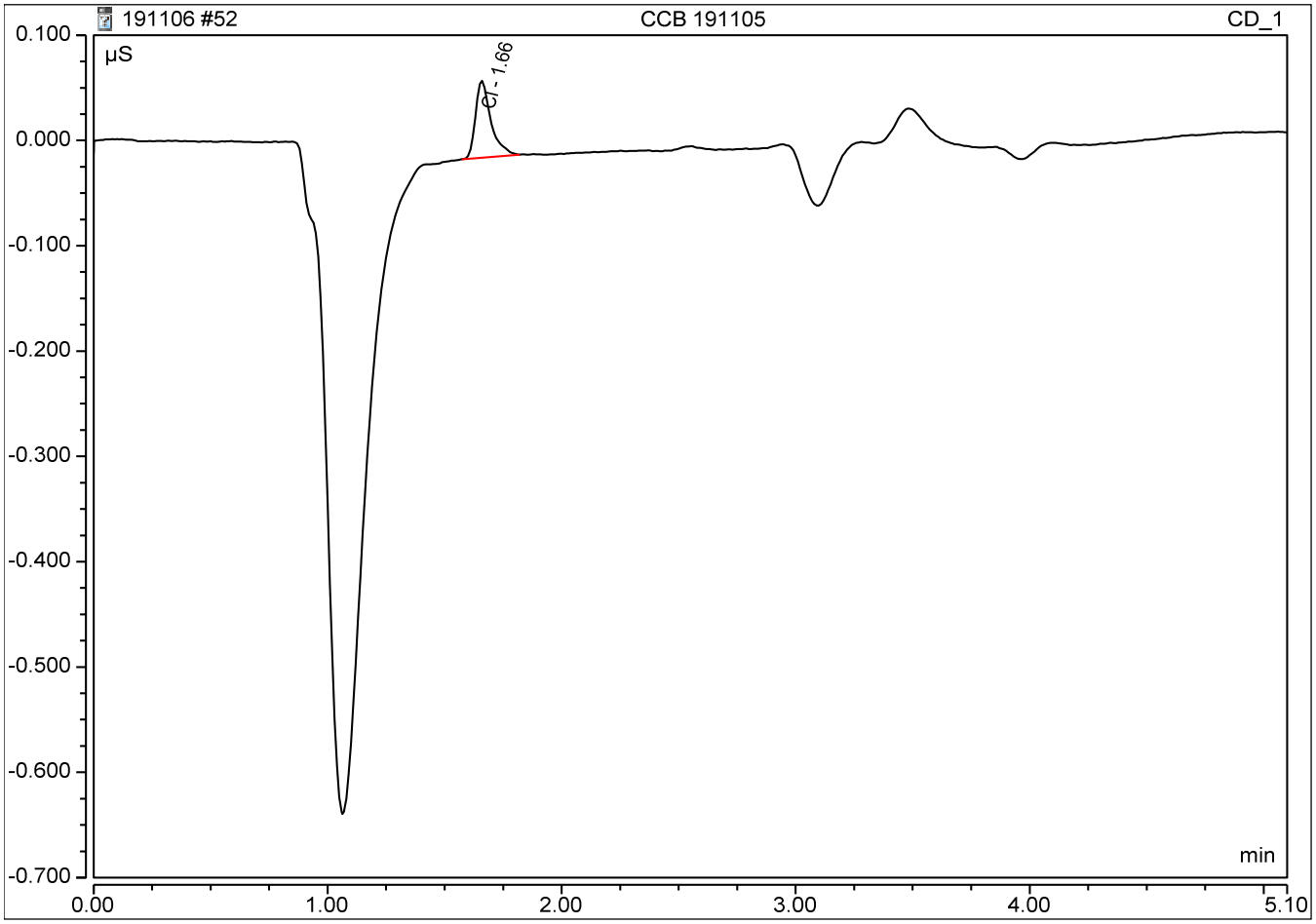


Logged on User: BW
Instrument: Charlie System_1
Sequence: 191106

Peak Integration Report

Sample Name:	**CCB 191105**	*Inj. Vol.:*	**25uL**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.00**
Program:	**Anion APM 191030**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**06-Nov-2019 / 18:58**	*Run Time:*	**5.10**

No.	Time (min) min	Peak Name	Peak Type	Area (µS*min) µS*min	Height (µS) µS	Amount mg/L	Spike Level mg/L	Recovery
1	1.66	**Cl**	BMB	0.006	0.073	0.13		

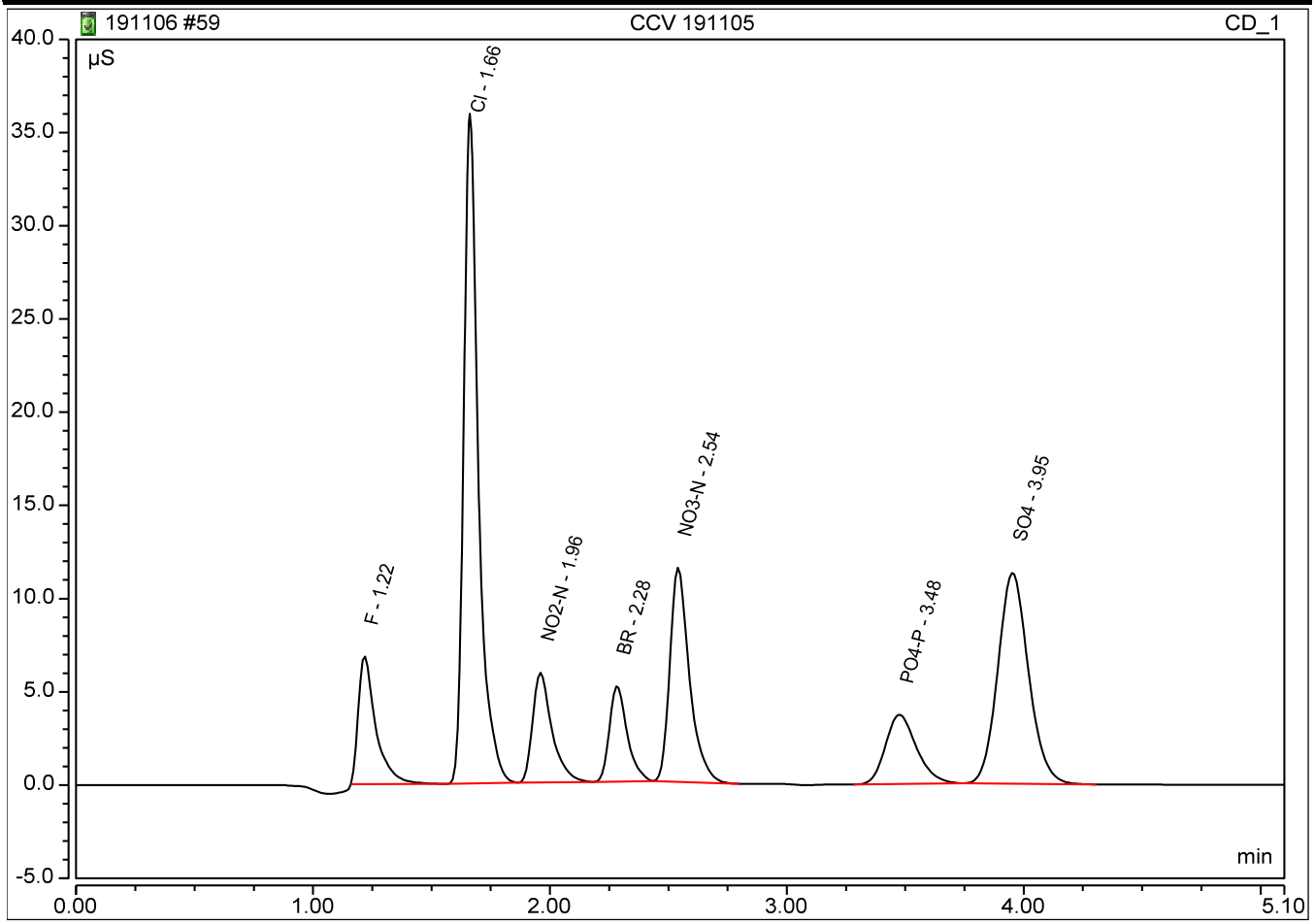


Logged on User: BW
Instrument: Charlie System_1
Sequence: 191106

Peak Integration Report

Sample Name:	**CCV 191105**	*Inj. Vol.:*	**25uL**
Injection Type:	**Check Standard**	*Dilution Factor:*	**1.00**
Program:	**Anion APM 191030**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**06-Nov-2019 / 19:51**	*Run Time:*	**5.10**

No.	Time (min) min	Peak Name	Peak Type	Area (µS*min) µS*min	Height (µS) µS	Amount mg/L	Spike Level mg/L	Recovery
1	1.22	**F**	BMB	0.588	6.884	5.06	5	101.2%
2	1.66	**Cl**	BMB	2.563	35.934	25.46	25	101.8%
3	1.96	**NO2-N**	BMB	0.557	5.888	3.11	3.04	102.3%
4	2.28	**BR**	BMB	0.445	5.135	12.66	12.5	101.3%
5	2.54	**NO3-N**	BMB	1.102	11.484	4.96	5	99.3%
6	3.48	**PO4-P**	BMB	0.564	3.720	8.79	10	87.9%
7	3.95	**SO4**	BMB	1.697	11.316	24.97	25	99.9%

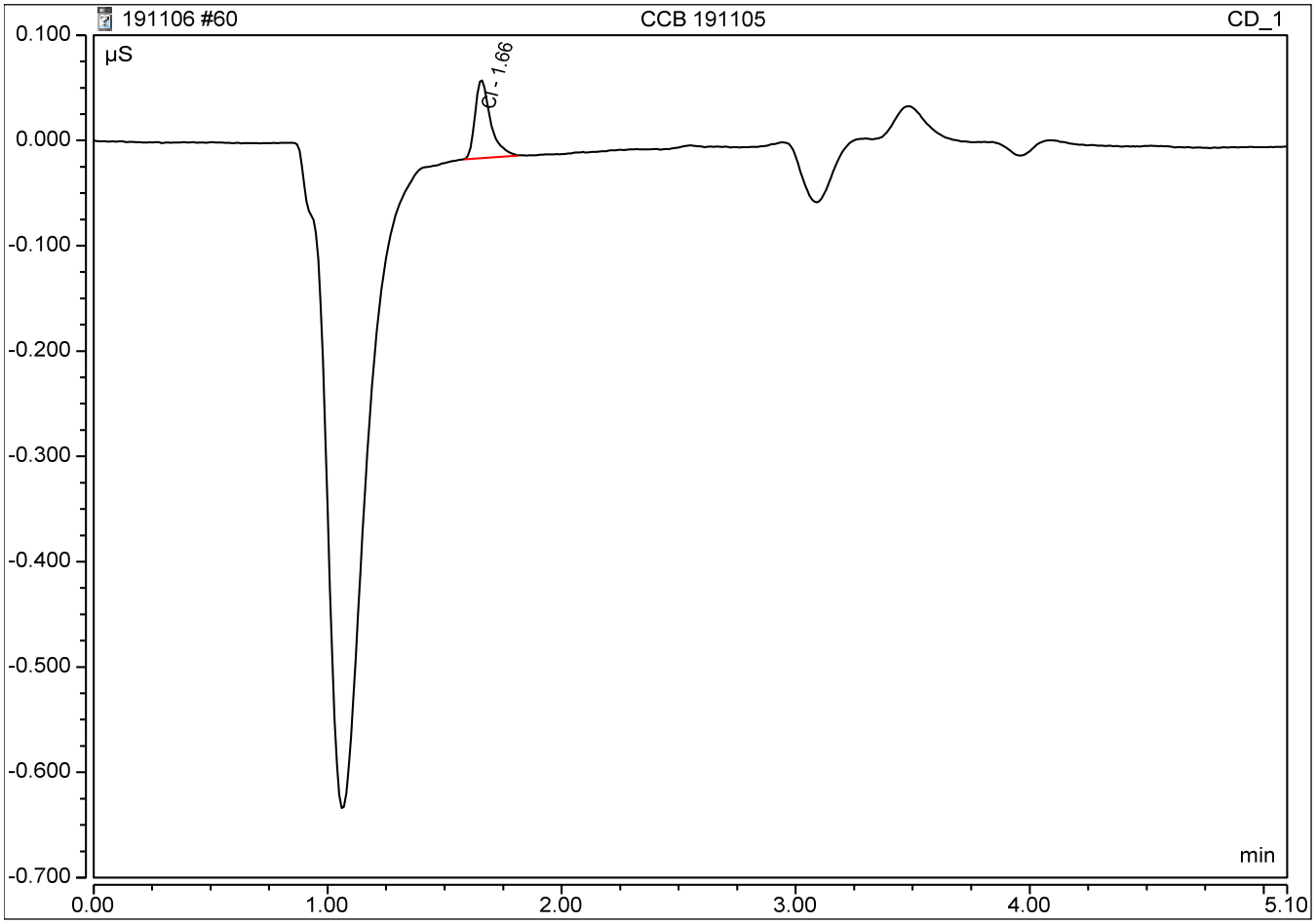


Logged on User: BW
Instrument: Charlie System_1
Sequence: 191106

Peak Integration Report

Sample Name:	**CCB 191105**	*Inj. Vol.:*	**25uL**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.00**
Program:	**Anion APM 191030**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**06-Nov-2019 / 19:58**	*Run Time:*	**5.10**

No.	Time (min) min	Peak Name	Peak Type	Area (µS*min) µS*min	Height (µS) µS	Amount mg/L	Spike Level mg/L	Recovery
1	1.66	**Cl**	BMB	0.006	0.075	0.13		



A.P.P.L. INC.
2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: A.P.P.L. INC. Contract: AECOM
ARF No: 90657 SDG: 90657
Initial Calibration Source: Inorganic Ventures
Continuing Calibration Source: o2si
Analysis Date: 11/06/19

Analyte	Calibration Verification									M
	True ICV	Found 17:01	%R(1)	True CCV1	Found 17:20	%R(1)	True	Found	%R(1)	
TOXN	3	3.2156	107	3	2.9835	99.5				

(1) Control Limits: 90-110

ILM02.0

A.P.P.L. INC.
3
BLANKS

Lab Name: A.P.P.L. INC. Contract: AECOM

ARF No.: 90657 SDG: 90657

Preparation Blank Matrix (soil/water): water

Preparation Blank Concentration Units (ug/L or mg/kg): mg/L

Analyte	Calibration Blanks										M
	ICB 11/06/19 17:03	C	CCB 11/06/19 17:21	C		C		C		C	
TOXN	.100	U	.100	U							

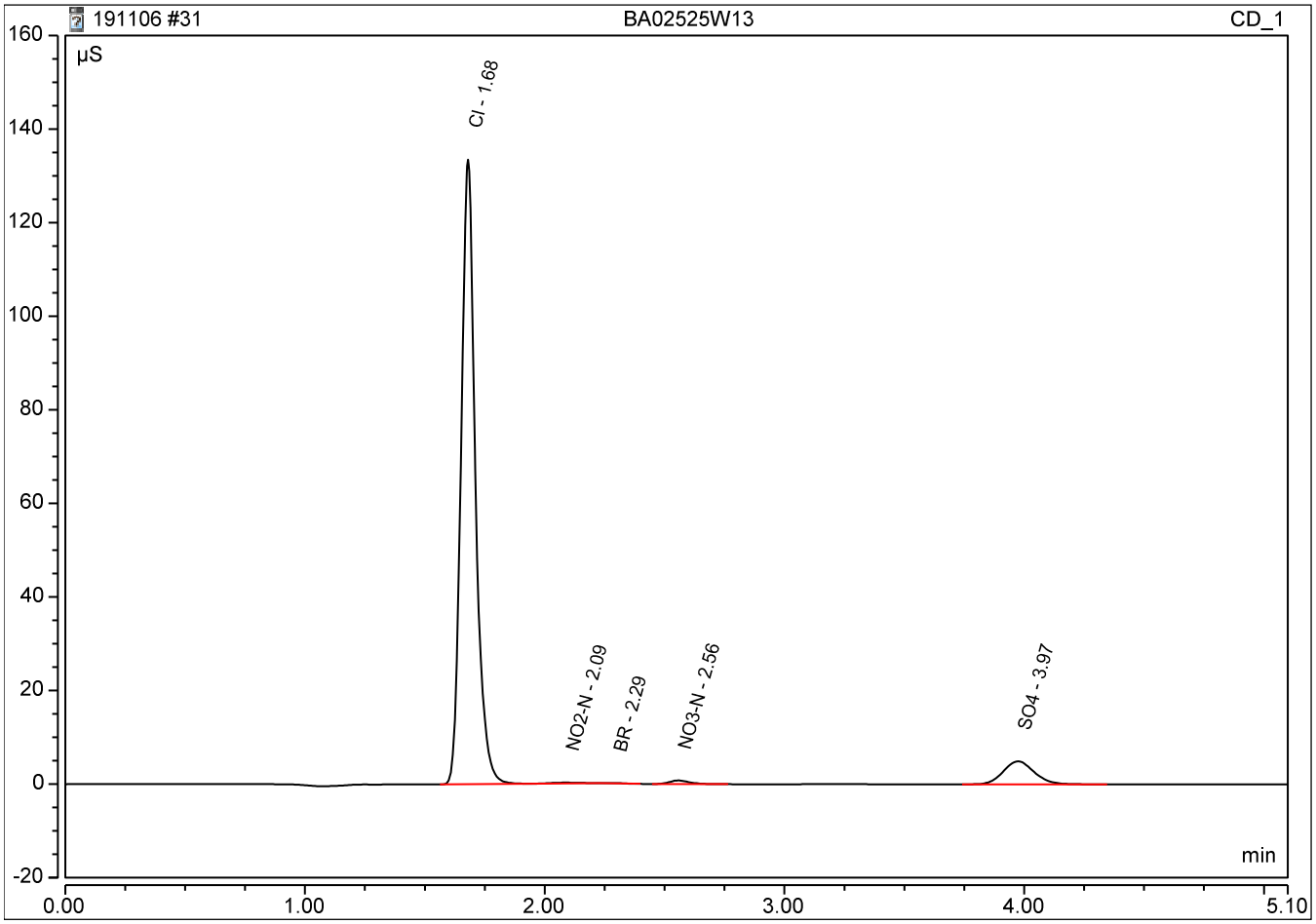
INORGANIC ANALYSIS
Raw Data

Logged on User: BW
Instrument: Charlie System_1
Sequence: 191106

Peak Integration Report

Sample Name:	**BA02525W13**	*Inj. Vol.:*	**25uL**
Injection Type:	**Unknown**	*Dilution Factor:*	**1.00**
Program:	**Anion APM 191030**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**06-Nov-2019 / 16:21**	*Run Time:*	**5.10**

No.	Time (min) min	Peak Name	Peak Type	Area (µS*min) µS*min	Height (µS) µS	Amount mg/L	Spike Level mg/L	Recovery
1	1.68	**Cl**	BMB	9.188	133.497	91.11		
2	2.09	**NO2-N**	BMB	0.027	0.182	0.16		
3	2.29	**BR**	BMB	0.007	0.086	0.22		
4	2.56	**NO3-N**	BMB	0.075	0.774	0.36		
5	3.97	**SO4**	BMB	0.738	4.918	10.92		

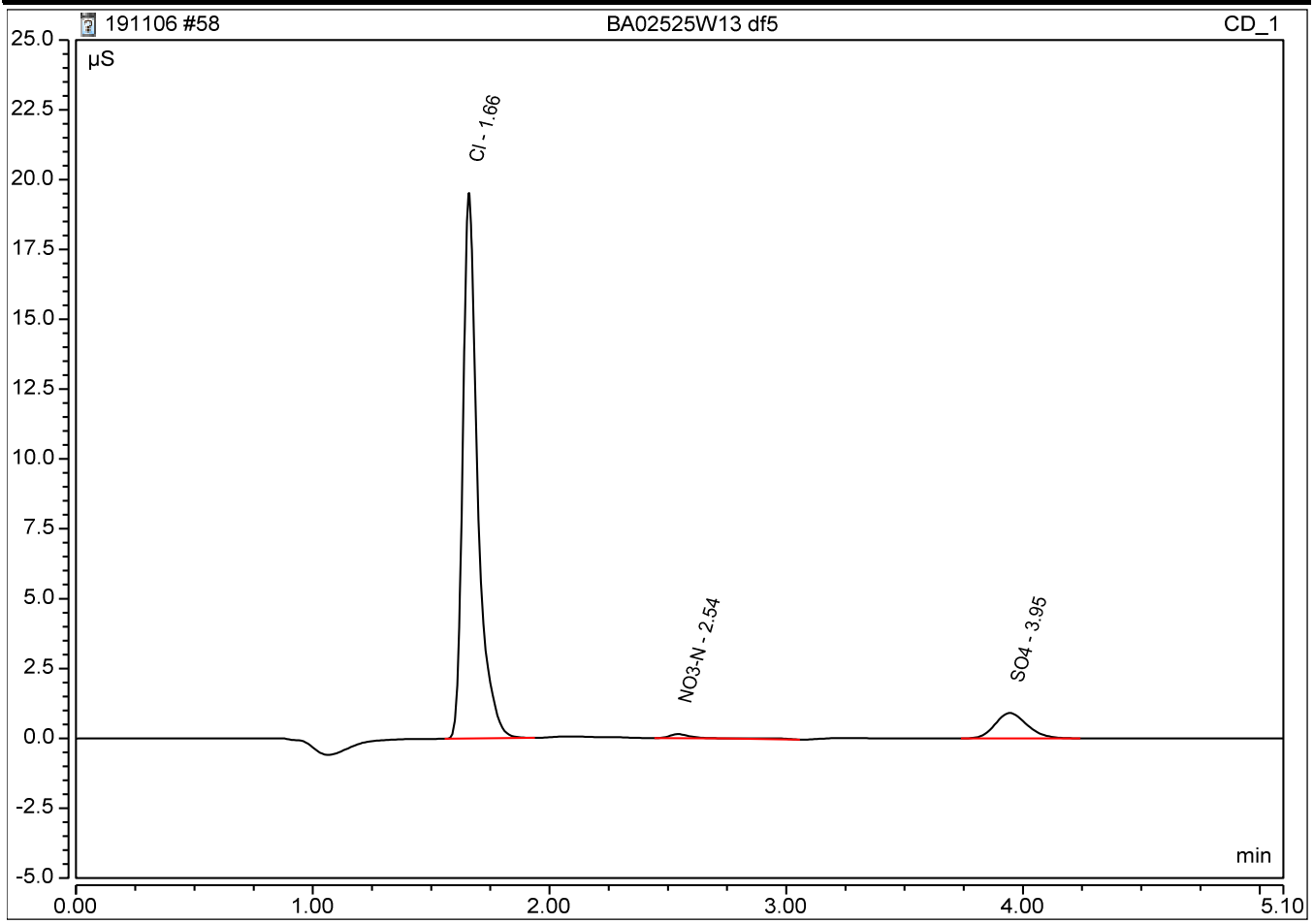


Logged on User: BW
Instrument: Charlie System_1
Sequence: 191106

Peak Integration Report

Sample Name:	**BA02525W13 df5**	*Inj. Vol.:*	**25uL**
Injection Type:	**Unknown**	*Dilution Factor:*	**5.00**
Program:	**Anion APM 191030**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**06-Nov-2019 / 19:43**	*Run Time:*	**5.10**

No.	Time (min) min	Peak Name	Peak Type	Area (µS*min) µS*min	Height (µS) µS	Amount mg/L	Spike Level mg/L	Recovery
1	1.66	**Cl**	BMB	1.414	19.525	70.42		
2	2.54	**NO3-N**	BMB	0.014	0.145	0.42		
4	3.95	**SO4**	BMB	0.143	0.909	10.96		

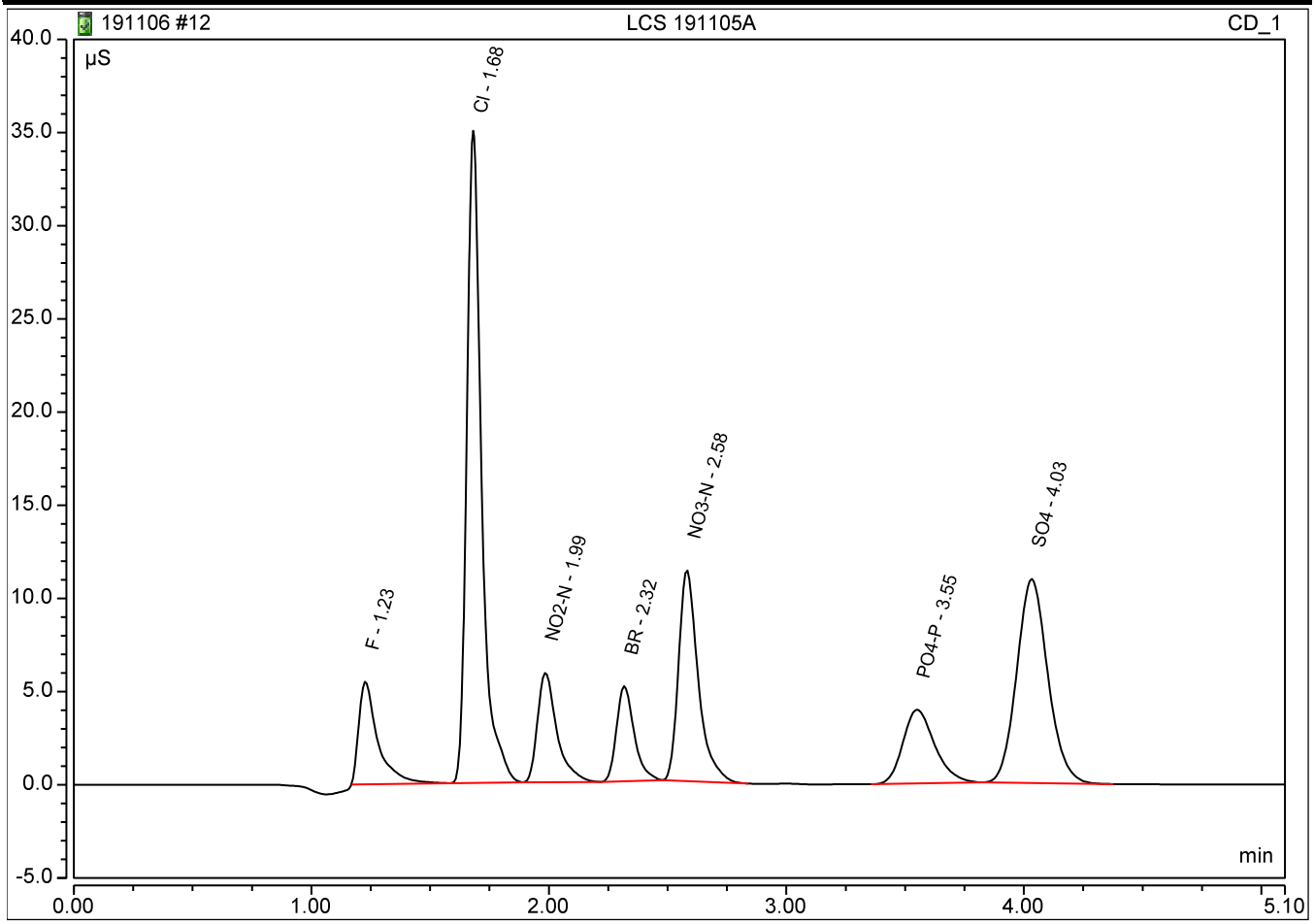


Logged on User: BW
Instrument: Charlie System_1
Sequence: 191106

Peak Integration Report

Sample Name:	**LCS 191105A**	*Inj. Vol.:*	**25uL**
Injection Type:	**Check Standard**	*Dilution Factor:*	**1.00**
Program:	**Anion APM 191030**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**06-Nov-2019 / 13:57**	*Run Time:*	**5.10**

No.	Time (min) min	Peak Name	Peak Type	Area (µS*min) µS*min	Height (µS) µS	Amount mg/L	Spike Level mg/L	Recovery
1	1.23	**F**	BMB	0.513	5.528	4.43	5	88.6%
2	1.68	**Cl**	BMB	2.507	34.987	24.91	25	99.6%
3	1.99	**NO2-N**	BMB	0.555	5.871	3.10	3.04	102.0%
4	2.32	**BR**	BMB	0.439	5.103	12.50	12.5	100.0%
5	2.58	**NO3-N**	BMB	1.087	11.328	4.90	5	98.0%
6	3.55	**PO4-P**	BMB	0.614	3.965	9.52	10	95.2%
7	4.03	**SO4**	BMB	1.663	10.947	24.48	25	97.9%



Algorithm Check
y = Peak Area
x = mg/L S04

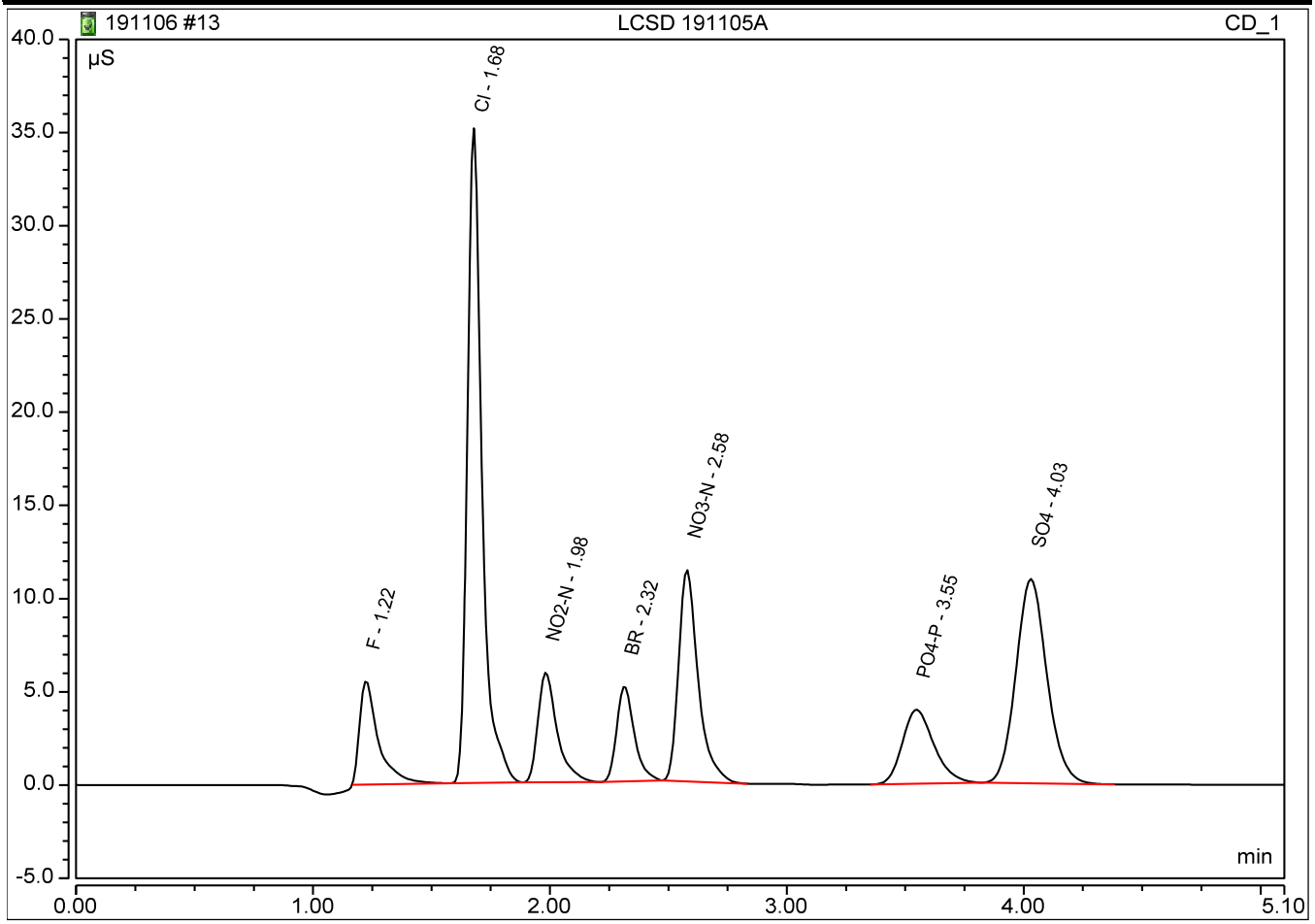
y = 0.0682 x + -0.0066
y = 1.6634 therefor x =

Logged on User: BW
Instrument: Charlie System_1
Sequence: 191106

Peak Integration Report

Sample Name:	**LCSD 191105A**	*Inj. Vol.:*	**25uL**
Injection Type:	**Check Standard**	*Dilution Factor:*	**1.00**
Program:	**Anion APM 191030**	*Operator:*	**chemist_wetlab**
Inj. Date / Time:	**06-Nov-2019 / 14:05**	*Run Time:*	**5.10**

No.	Time (min) min	Peak Name	Peak Type	Area (µS*min) µS*min	Height (µS) µS	Amount mg/L	Spike Level mg/L	Recovery
1	1.22	**F**	BMB	0.514	5.572	4.44	5	88.7%
2	1.68	**Cl**	BMB	2.507	35.126	24.91	25	99.6%
3	1.98	**NO2-N**	BMB	0.556	5.890	3.11	3.04	102.2%
4	2.32	**BR**	BMB	0.440	5.116	12.51	12.5	100.1%
5	2.58	**NO3-N**	BMB	1.088	11.357	4.90	5	98.1%
6	3.55	**PO4-P**	BMB	0.615	3.972	9.52	10	95.2%
7	4.03	**SO4**	BMB	1.664	10.966	24.48	25	97.9%



Anion Chromatography Working Standard

Prep Date: 10/30/19

Exp Date: 10/30/19

Prep'd By (Initials): BW

Initial Standard Information						Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier Part No.	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date	Aliquot from Stock	Final Volume	Solvent	Final Standard Conc (µg/mL)
Ion Chromatography Standard Fluoride 1000 µg/mL in H2O	o2si	O2SI-062002-01-01	1000	687393-38-40744	10/30/20	312.5 µL	25 mL	Millipore Water	12.5
Ion Chromatography Standard Nitrite 1000 µg/mL in H2O	Inorganic Ventures	ICN021	1000	N2-NOX672889-40759	05/01/20	411 µL	25 mL	Millipore Water	5 as NO2-N
Ion Chromatography Standard Chloride 5000 µg/mL in H2O	o2si	062001-08-03	5000	10084781-1-39578	02/21/20	250 µL	25 mL	Millipore Water	50
Ortho-Phosphate as P Standard	Ultra Scientific	ICC-005A	1000	G34-CP-3323-39057	08/31/23	625 µL	25 mL	Millipore Water	25
Ion Chromatography Standard Nitrate as N 1000 µg/mL in H2O	o2si	062003-01-03	1000	880117-4-39577	02/21/20	250 µL	25 mL	Millipore Water	10
Bromide Standard	Ultra Scientific	ICC-001	1000	CR-5372-39521	12/31/21	625 µL	25 mL	Millipore Water	25
Sulfate Standard	Agilent	ICC-006	1000	CS-0688-41050	03/31/22	1250 µL	25 mL	Millipore Water	50

Anion Chromatography Calibration Curve

Prep Date: 10/30/19

Exp Date: 10/30/19

Prep'd By (Initials): BW

Initial Standard Information						Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	APPL Mix Name	Conc. Range (ug/mL)	Reference To APPL Prep Date	Exp. Date	Aliquot from Stock	Final Volume	Solvent	Final Standard Conc. Range (µg/mL)
Anion Chromatography Working Standard	Varies	ICal1	5.0-50.0	Prepared 10/30/19	10/30/19	200 µL	25000 µL	Millipore Water	0.04-0.40
Anion Chromatography Working Standard	Varies	ICal2	5.0-50.0	Prepared 10/30/19	10/30/19	20 µL	1000 µL	Millipore Water	0.1-1.0
Anion Chromatography Working Standard	Varies	ICal5	5.0-50.0	Prepared 10/30/19	10/30/19	200 µL	1000 µL	Millipore Water	1.0-10.0
Anion Chromatography Working Standard	Varies	ICal8	5.0-50.0	Prepared 10/30/19	10/30/19	1000 µL	1000 µL	Millipore Water	5.0-50.0

Anion Chromatography LCS/ICV

Prep Date: See injection Log

Exp Date: 24 hours after prep

Prep'd By (Initials): BW

Initial Standard Information						Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier Part No.	Conc. Range (ug/mL)	Lot Number - QA Number	Exp. Date	Aliquot from Stock	Final Volume	Solvent	Final Standard Conc (µg/mL)
Flouride	Inorganic Ventures	ICF1	993-999	K-F652018-39801	10/23/19	125 µL	25 mL	Millipore Water	5
Nitrite	Inorganic Ventures	ICNO21	993-1001	M2-NOX660562-40468	08/25/21	250 µL	25 mL	Millipore Water	10
Chloride	Inorganic Ventures	ICCL1	995-1001	N2-CL664868-39905	11/26/19	625 µL	25 mL	Millipore Water	25
O-Phosphate as P	Inorganic Ventures	ICPPO41	1001-1009	M2-POX655826-39803	10/23/19	250 µL	25 mL	Millipore Water	10
Nitrate as N	Inorganic Ventures	ICNNO31	997-1005	P2-NOX675324-49391	02/14/23	125 µL	25 mL	Millipore Water	5
Ion Chromatography Standard Bromide, 1000 µg/mL in H2O	CPI International	4400-IC8M	995-1005	161681-8-39539	02/06/20	312.5 µL	25 mL	Millipore Water	12.5
Sulfate	Inorganic Ventures	ICSO41	998-1006	N2-SOX664928-39507	11/27/19	625 µL	25 mL	Millipore Water	25

Anion Chromatography CCV

Prep Date: See injection Log

Exp Date: 24 hours after prep

Prep'd By (Initials): BW

Initial Standard Information						Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Supplier Part No.	Conc. (ug/mL)	Lot Number - QA Number	Exp. Date	Aliquot from Stock	Final Volume	Solvent	Final Standard Conc (µg/mL)
Ion Chromatography Standard Fluoride 1000 µg/mL in H2O	o2si	O2SI-062002-01-01	1000	687393-38-40744	10/30/20	125 µL	25 mL	Millipore Water	5
Ion Chromatography Standard Nitrite 1000 µg/mL in H2O	Inorganic Ventures	ICN021	1000	N2-NOX672889-40759	05/01/20	250 µL	25 mL	Millipore Water	10
Ion Chromatography Standard Chloride 5000 µg/mL in H2O	o2si	062001-08-03	5000	10084781-1-39578	02/21/20	125 µL	25 mL	Millipore Water	25
Ortho-Phosphate as P Standard	Ultra Scientific	ICC-005A	1000	G34-CP-3323-39057	08/31/23	250 µL	25 mL	Millipore Water	10
Ion Chromatography Standard Nitrate as N 1000 µg/mL in H2O	o2si	062003-01-03	1000	880117-4-39577	02/21/20	125 µL	25 mL	Millipore Water	5
Bromide Standard	Ultra Scientific	ICC-001	1000	CR-5372-39521	12/31/21	312.5 µL	25 mL	Millipore Water	12.5
Sulfate Standard	Agilent	ICC-006	1000	CS-0688-41050	03/31/22	625 µL	25 mL	Millipore Water	25

Method 300 and 9056 Injection Log

No.	Position	Injection Description	Inject Time		Type	Comment
1	GE1	ICAL1 191030	30/Oct/2019	18:22	Calibration Standard	
2	GE2	ICAL2 191030	30/Oct/2019	18:29	Calibration Standard	
3	GE3	ICAL5 191030	30/Oct/2019	18:37	Calibration Standard	
4	GE4	ICAL8 191030	30/Oct/2019	18:44	Calibration Standard	
5	R1	ICB 191030	30/Oct/2019	18:52	Unknown	
6	R3	ICV/LCS 191030	30/Oct/2019	18:59	Check Standard	
7	R3	LCSD 191030A	30/Oct/2019	19:07	Check Standard	
8	BA1	BA01825W07	30/Oct/2019	19:14	Unknown	filtered
9	BA2	BA02090	30/Oct/2019	19:22	Unknown	
10	BA3	BA02160	30/Oct/2019	19:29	Unknown	
11	BA4	BA02049W12	30/Oct/2019	19:37	Unknown	filtered
12	BA5	BA02050W07	30/Oct/2019	19:44	Unknown	filtered
13	BA6	BA02053W08	30/Oct/2019	19:52	Unknown	filtered
14	BA7	BA02054W08	30/Oct/2019	19:59	Unknown	filtered
15	BA8	BA01390W01 DF20	30/Oct/2019	20:07	Unknown	NDF20 Cl
16	BB1	BA01390W01 DF5	30/Oct/2019	20:14	Unknown	NDF5 SO4
17	BB2	BA01391W01 DF5	30/Oct/2019	20:22	Unknown	NDF5 Cl SO4
18	BB3	BA01391W01 DF2	30/Oct/2019	20:29	Unknown	NDF2 NO3-N
19	BB4	BA01392W01 DF20	30/Oct/2019	20:37	Unknown	NDF20 Cl
20	R2	CCV 191030	30/Oct/2019	20:44	Check Standard	
21	R1	CCB 191030	30/Oct/2019	20:52	Unknown	
22	BB5	BA01393W01 DF10	30/Oct/2019	20:59	Unknown	NDF10 Cl SO4 NO3-N
23	BB6	BA01459W01 DF10	30/Oct/2019	21:07	Unknown	NDF10 Cl
24	BB7	BA01459W01 DF5	30/Oct/2019	21:14	Unknown	NDF5 SO4
25	BB8	BA01460W01 DF10	30/Oct/2019	21:22	Unknown	NDF10 Cl
26	BC1	BA01460W01 DF5	30/Oct/2019	21:29	Unknown	NDF5 SO4
27	BC2	BA01461W01 DF50	30/Oct/2019	21:37	Unknown	NDF50 Cl
28	BC3	BA01461W01 DF5	30/Oct/2019	21:44	Unknown	NDF5 SO4
29	BC4	BA01875 DF2	30/Oct/2019	21:52	Unknown	SO4 NO3 NO2 Cl filtered; NDF2 SC
30	BC5	BA01876 DF2	30/Oct/2019	21:59	Unknown	SO4 NO3 NO2 Cl filtered; NDF2 SC
31	R2	CCV 191030	30/Oct/2019	22:06	Check Standard	
32	R1	CCB 191030	30/Oct/2019	22:14	Unknown	
33	BC2	Stop	n.a.		Unknown	

Logged on User: BW
Instrument: Charlie System_1
Sequence: 191106

Method 300 and 9056 Injection Log

No.	Position	Injection Description	Inject Time		Type	Comment
1	R2	CCV 191105	06/Nov/2019	12:25	Check Standard	
2	R1	CCB 191105	06/Nov/2019	12:33	Unknown	
3	RA1	DOC1 EM	06/Nov/2019	12:40	Check Standard	
4	R2	CCV 191105	06/Nov/2019	12:54	Check Standard	
5	R1	CCB 191105	06/Nov/2019	13:01	Unknown	
6	RA1	DOC1 EM	06/Nov/2019	13:09	Check Standard	
7	RA2	DOC2 KB	06/Nov/2019	12:46	Unknown	
8	RA3	DOC3 RM	06/Nov/2019	13:16	Check Standard	
9	R2	CCV 191105	06/Nov/2019	13:24	Check Standard	
10	R1	CCB 191105	06/Nov/2019	13:31	Unknown	
11	RA2	DOC2 KB	06/Nov/2019	13:42	Check Standard	
12	R3	LCS 191105A	06/Nov/2019	13:57	Check Standard	
13	R3	LCSD 191105A	06/Nov/2019	14:05	Check Standard	
14	RB1	BA02495W05	06/Nov/2019	14:12	Unknown	
15	RB2	BA02498W05	06/Nov/2019	14:20	Unknown	
16	RB3	BA02499W05	06/Nov/2019	14:27	Unknown	
17	RB4	BA02500W04	06/Nov/2019	14:35	Unknown	
18	RB5	BA02501W04	06/Nov/2019	14:42	Unknown	
19	RB6	BA02502W05	06/Nov/2019	14:50	Unknown	
20	RB7	BA02503W04	06/Nov/2019	14:57	Unknown	
21	RB8	BA02504W05	06/Nov/2019	15:05	Unknown	
22	RC1	BA02507W05	06/Nov/2019	15:12	Unknown	
23	RC2	BA02508W05	06/Nov/2019	15:20	Unknown	
24	R2	CCV 191105	06/Nov/2019	15:27	Check Standard	
25	R1	CCB 191105	06/Nov/2019	15:34	Unknown	
26	RC3	BA02510W05	06/Nov/2019	15:42	Unknown	
27	RC4	BA02513W04	06/Nov/2019	15:51	Unknown	
28	RC5	BA02514W04	06/Nov/2019	15:58	Unknown	
29	RC6	BA02515W04	06/Nov/2019	16:06	Unknown	
30	RC7	BA02516W05	06/Nov/2019	16:13	Unknown	
31	RC8	BA02525W13	06/Nov/2019	16:21	Unknown	
32	R2	CCV 191105	06/Nov/2019	16:29	Check Standard	
33	R1	CCB 191105	06/Nov/2019	16:36	Unknown	
34	RA4	DOC 3 EM	06/Nov/2019	16:44	Unknown	
35	RA5	DOC 4 KB	06/Nov/2019	16:51	Unknown	
36	RA6	DOC 5 RM	06/Nov/2019	16:58	Unknown	
37	R2	CCV 191105	06/Nov/2019	17:06	Check Standard	
38	R1	CCB 191105	06/Nov/2019	17:13	Unknown	
39	RD1	BA02495W05 df5	06/Nov/2019	17:21	Unknown	
40	RA7	BA02495W05 df5 MS	06/Nov/2019	17:28	Unknown	
41	RA8	BA02495W05 df5 MSD	06/Nov/2019	17:36	Unknown	
42	RD2	BA02498W05 df5	06/Nov/2019	17:43	Unknown	
43	RD3	BA02499W05 df5	06/Nov/2019	17:51	Unknown	
44	RD4	BA02500W04 df5	06/Nov/2019	17:58	Unknown	
45	RD5	BA02501W04 df5	06/Nov/2019	18:06	Unknown	
46	RD6	BA02502W05 df5	06/Nov/2019	18:13	Unknown	
47	RD7	BA02503W04 df5	06/Nov/2019	18:21	Unknown	
48	RD8	BA02504W05 df5	06/Nov/2019	18:28	Unknown	
49	RE1	BA02507W05 df5	06/Nov/2019	18:36	Unknown	
50	RE2	BA02508W05 df5	06/Nov/2019	18:43	Unknown	
51	R2	CCV 191105	06/Nov/2019	18:51	Check Standard	
52	R1	CCB 191105	06/Nov/2019	18:58	Unknown	
53	RE3	BA02510W05 df5	06/Nov/2019	19:06	Unknown	
54	RE4	BA02513W04 df5	06/Nov/2019	19:13	Unknown	
55	RE5	BA02514W04 df5	06/Nov/2019	19:21	Unknown	
56	RE6	BA02515W04 df5	06/Nov/2019	19:28	Unknown	
57	RE7	BA02516W05 df5	06/Nov/2019	19:36	Unknown	
58	RE8	BA02525W13 df5	06/Nov/2019	19:43	Unknown	
59	R2	CCV 191105	06/Nov/2019	19:51	Check Standard	
60	R1	CCB 191105	06/Nov/2019	19:58	Unknown	
61	BE5	191105A BLK	06/Nov/2019	20:06	Unknown	Heya brandy, eve wanted these inje
62	BE6	191105A LCS	06/Nov/2019	20:13	Unknown	30mg/L NO3 and 7.3 mg/L NO2
63	BE7	BA02318S01	06/Nov/2019	20:20	Unknown	
64	BE8	BA02319S01	06/Nov/2019	20:28	Unknown	-Hart 191106
65	R2	CCV 191105	06/Nov/2019	20:35	Check Standard	
66	R1	CCB 191105	06/Nov/2019	20:43	Unknown	
67	R2	STOP	06/Nov/2019	20:48	Unknown	

AQ2 Report

Serial Number:	190170
Software Version:	2.1.0
Report Requested By:	Eve V
Date & Time:	2019-11-07 09:19:30
Tray Number:	1
Tray Name:	191106A NO2 NO3 TOXN

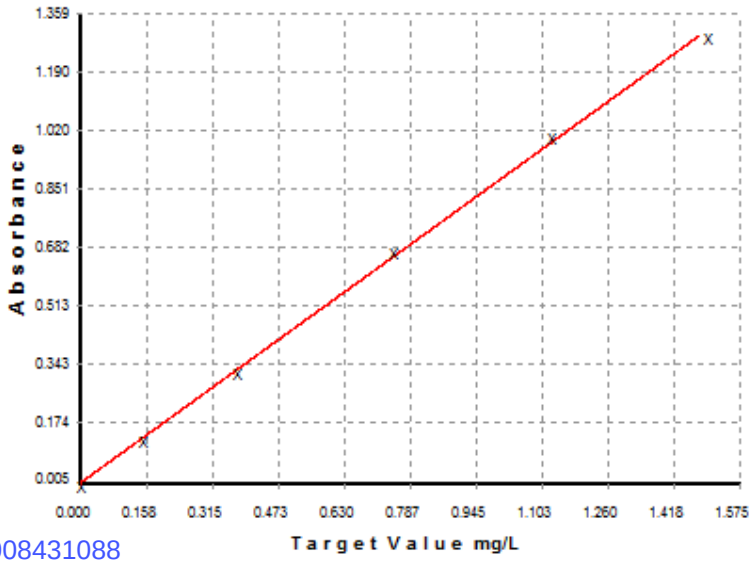
Nitrite-N

Calibration Chart

Type	Absorbance	Calc mg/L	Target mg/L	% Error
S1	0.0050	-0.0027	0.0000	
S90	0.1349	0.1468	0.1500	-2.13
S91	0.3256	0.3661	0.3750	-2.37
S92	0.6720	0.7646	0.7500	1.95
S93	1.0023	1.1447	1.1250	1.75
S94	1.2942	1.4805	1.5000	-1.30
S0	0.0153	0.0092	0.0000	

Polynomial Order:	1
Correlation Coefficient:	0.9997
Carryover(%):	0.8
Calibration equation:	y = bx + a
y =:	Concentration mg/L
x =:	Measured absorbance
a =:	-8.431088E-003
b =:	1.150461E+000
Date & Time:	2019-11-06 16:11:13

Calibration Graph



Algorithm check
y = 1.15061(0.636002)-0.008431088
y = 0.723
EV 11/07/19

Reagents

Name	Batch	Prepared By	Expiry Date
Sulfa-NEDD		Joel	
NO2 Buffer		Joel	

Cup	Type	ID	Result	Units	QC Pro	Raw Data	Auto Dil.	Man Dil.	User	Time/Date
	S1	Standard 1	0.0050			0.004995			Ev	2019-11-06 16:03:50
	S90	Standard 90	0.1349			0.134927			Ev	2019-11-06 16:05:03
	S91	Standard 91	0.3256			0.325551			Ev	2019-11-06 16:06:16
	S92	Standard 92	0.6720			0.671957			Ev	2019-11-06 16:07:30
	S93	Standard 93	1.0023			1.002322			Ev	2019-11-06 16:08:44
	S94	Standard 94	1.2942			1.294164			Ev	2019-11-06 16:09:58
	S0	Standard 0	0.0153			0.015341			Ev	2019-11-06 16:11:13
	CCV	CCV .75	0.7528	mg/L		0.661640			Ev	2019-11-06 16:12:27
	CCB	CCB	0.0042	mg/L		0.010953			Ev	2019-11-06 16:13:41
3	U1	✓ICV NO2	0.7233	mg/L		0.636002			Ev	2019-11-06 16:14:54
4	U2	ICV NO3 TOXN	0.0043	mg/L		0.011104			Ev	2019-11-06 16:16:09
5	U3	ICB NO2 NO3 TOXN	-0.0031	mg/L		0.004616			Ev	2019-11-06 16:16:48
14	U12	1ppm NO2	0.9999	mg/L		0.876442			Ev	2019-11-06 16:18:57
16	U14	1901106A BLK S	0.0597	mg/L		0.012521		x 10.000	Ev	2019-11-06 16:21:10
17	U15	1901106A LCS S	7.3656	mg/L		0.647560		x 10.000	Ev	2019-11-06 16:23:28
18	U16	BA02318S01	0.3650	mg/L		0.039052		x 10.000	Ev	2019-11-06 16:25:45
19	U17	BA02319S01	40.3098	mg/L		3.511121		x 10.000	Ev	2019-11-06 16:28:03
	CCV	CCV .75	0.8102	mg/L		0.711574			Ev	2019-11-06 16:30:20

CCB	CCB	0.0058	mg/L	0.012328	Ev	2019-11-06 16:32:32

TOXN

Calibration Chart

Type	Absorbance	Calc mg/L	Target mg/L	% Error
S1	0.0086	0.0100	0.0000	
S90	0.0145	0.1111	0.1000	11.09
S91	0.0745	1.1501	1.2000	-4.16
S92	0.1823	3.0169	3.0000	0.56
S93	0.2884	4.8529	4.8000	1.10
S94	0.3523	5.9590	6.0000	-0.68
S0	0.0100	0.0346	0.0000	

Polynomial Order:	1
Correlation Coefficient:	0.9999
Carryover(%):	0.4
Calibration equation:	y = bx + a
y =:	Concentration mg/L
x =:	Measured absorbance
a =:	-1.391001E-001
b =:	1.730908E+001
Date & Time:	2019-11-06 16:54:27

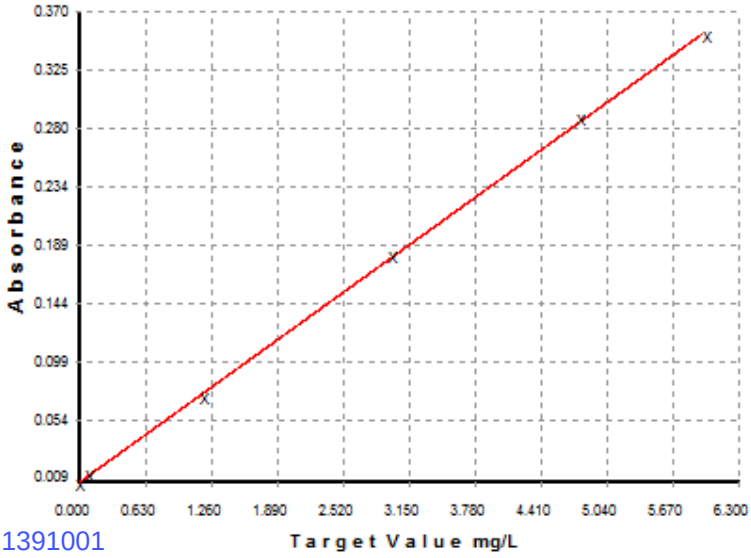
Algorithm check

y = 17.30908(0.193810)-0.1391001

y = 3.22

EV 11/07/19

Calibration Graph



Reagents

Name	Batch	Prepared By	Expiry Date
NO3 W Buffer		Joel	
Sulfa-NEDD		Joel	

Cup	Type	ID	Result	Units	QC Pro	Raw Data	Auto Dil.	Man Dil.	User	Time/Date
	S1	Standard 1	0.0086			0.008612			Ev	2019-11-06 16:41:18
	S90	Standard 90	0.0145			0.014454			Ev	2019-11-06 16:43:30
	S91	Standard 91	0.0745			0.074481			Ev	2019-11-06 16:45:41
	S92	Standard 92	0.1823			0.182334			Ev	2019-11-06 16:47:53
	S93	Standard 93	0.2884			0.288405			Ev	2019-11-06 16:50:04
	S94	Standard 94	0.3523			0.352306			Ev	2019-11-06 16:52:16
	S0	Standard 0	0.0100			0.010034			Ev	2019-11-06 16:54:27
	CCV	CCV	3.1575	mg/L		0.190456			Ev	2019-11-06 16:56:39
	CCB	CCB	0.0036	mg/L		0.008243			Ev	2019-11-06 16:58:51
4	U2	✓ICV NO3 TOXN	3.2156	mg/L		0.193810			Ev	2019-11-06 17:01:02
5	U3	ICB NO2 NO3 TOXN	0.0022	mg/L		0.008162			Ev	2019-11-06 17:03:14
6	U4	191106A BLK TOXN	-0.0176	mg/L		0.007017			Ev	2019-11-06 17:05:27
7	U5	191106A LCS TOXN	3.1863	mg/L		0.192119			Ev	2019-11-06 17:07:39
8	U6	191106A LCSD TOXN	2.9460	mg/L		0.178238			Ev	2019-11-06 17:09:51
9	U7	BA02301W12	0.3736	mg/L		0.029621			Ev	2019-11-06 17:12:03
10	U8	BA02301W12 MS	4.0247	mg/L		0.240559			Ev	2019-11-06 17:14:15
11	U9	BA02301W12 MSD	3.9497	mg/L		0.236225			Ev	2019-11-06 17:16:27
12	U10	BA02466W15	0.4104	mg/L		0.031747			Ev	2019-11-06 17:18:40
13	U11	BA02525W15	0.4059	mg/L		0.031488			Ev	2019-11-06 17:19:18
	CCV	CCV	2.9835	mg/L		0.180403			Ev	2019-11-06 17:20:22
	CCB	CCB	0.0178	mg/L		0.009063			Ev	2019-11-06 17:21:19
15	U13	1ppm NO3	1.0068	mg/L		0.066202			Ev	2019-11-06 17:22:15
16	U14	1901106A BLK S	0.6762	mg/L		0.011943		x 10.000	Ev	2019-11-06 17:23:11
17	U15	1901106A LCS S	34.6363	mg/L		0.208141		x 10.000	Ev	2019-11-06 17:24:07
18	U16	BA02318S01	97.7210	mg/L		0.572601		x 10.000	Ev	2019-11-06 17:25:03
	CCV	CCV	3.0212	mg/L		0.182578			Ev	2019-11-06 17:25:59
	CCB	CCB	0.0017	mg/L		0.008134			Ev	2019-11-06 17:26:56

Nitrite-N

Cup	Type	ID	Result	Units	QC Pro	Raw Data	Auto Dil.	Man Dil.	User	Time/Date
	CCV	CCV .75	0.7706	mg/L		0.677146				2019-11-06 17:40:58
	CCB	CCB	0.0034	mg/L		0.010281				2019-11-06 17:43:16

19	U17	BA02319S01	155.9956	mg/L	3.397178	x 4.000	x 10.000	Ev	2019-11-06 17:45:29
	CCV	CCV .75	0.7842	mg/L	0.688953				2019-11-06 17:47:43
	CCB	CCB	0.0045	mg/L	0.011269				2019-11-06 17:48:51

TOXN

Cup	Type	ID	Result	Units	QC Pro	Raw Data	Auto Dil.	Man Dil.	User	Time/Date
	CCV	CCV	3.1694	mg/L		0.191141				2019-11-06 17:52:06
	CCB	CCB	0.0102	mg/L		0.008626				2019-11-06 17:53:02
18	U16	BA02318S01	93.2150	mg/L		0.061890	x 10.000	x 10.000	Ev	2019-11-06 17:53:59
	CCV	CCV	3.0540	mg/L		0.184478				2019-11-06 17:54:55
	CCB	CCB	0.0000	mg/L		0.008039				2019-11-06 17:55:51

Nitrite-N

Cup	Type	ID	Result	Units	QC Pro	Raw Data	Auto Dil.	Man Dil.	User	Time/Date
	CCV	CCV .75	0.7738	mg/L		0.679891				2019-11-06 18:06:21
	CCB	CCB	0.0038	mg/L		0.010624				2019-11-06 18:07:17
19	U17	BA02319S01	251.7005	mg/L		1.429414	x 15.385	x 10.000	Ev	2019-11-06 18:08:14
	CCV	CCV .75	0.7924	mg/L		0.696075				2019-11-06 18:09:11
	CCB	CCB	0.0040	mg/L		0.010830				2019-11-06 18:10:07

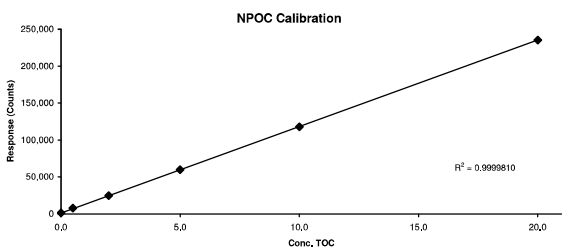
TOTAL ORGANIC CARBON

Method: WetChem | Units mg/L | Instrument: Tic Toc

Analyte: TOC | QCG: 191111B

Analyist: AR | Final Volume: 40mL

Date	Time	Appl ID	[TOC]	Raw	% Recovery
10/31/19	19:20	QC blank	0.00	1130	
10/31/19	19:56	Ical 1	0.50	7935	
10/31/19	20:28	Ical 2	2.00	24866	
10/31/19	21:02	Ical 3	5.00	59510	
10/31/19	21:35	Ical 4	10.00	118117	
10/31/19	22:08	Ical 5	20.00	235471	
11/01/19	10:03	ICB	0.08	883	
11/01/19	10:39	ICV	10.40	121613	104.0%



Date	Time	Appl ID	DF	Raw Result	SubSample Amount	Filter Blank Subtract	Calc Conc	Result	Range (mg/L)	QC True	% Recovery
2019-11-15	12:37 AM	CCV	1		40mL	0.000	5.083	5.08	0.03	5.00	101.7%
2019-11-15	01:13 AM	CCB	1	432	40mL	0.000	0	0.00	0.00		
2019-11-15	01:50 AM	191111B LCS	1	61472	40mL	0.000	5.18	5.18	0.01	5.00	103.6%
2019-11-15	02:27 AM	191111B LCSD	1	61238	40mL	0.000	5.16	5.16	0.02	5.00	103.2%
2019-11-15	03:03 AM	BA02466W11	1	15768	40mL	0.000	1.344	1.34	0.00		
2019-11-15	03:37 AM	BA02525W11	1	3423	40mL	0.000	0.288	0.29	0.01		
2019-11-15	04:10 AM	BA02715W17	1	7532	40mL	0.000	0.64	0.64	0.01		
2019-11-15	04:43 AM	BA02713W10	1	1933	40mL	0.000	0.161	0.16	0.02		
2019-11-15	05:16 AM	BA02433W01	1	30344	40mL	0.000	2.591	2.59	0.02		
2019-11-15	05:50 AM	BA02434W01	1	52915	40mL	0.000	4.521	4.52	0.05		
2019-11-15	06:23 AM	BA02435W01	1	31867	40mL	0.000	2.721	2.72	0.02		
2019-11-15	06:57 AM	BA02436W01	1	38500	40mL	0.000	3.289	3.29	0.07		
2019-11-15	07:30 AM	BA02437W01	1	52522	40mL	0.000	4.488	4.49	0.06		
2019-11-15	08:04 AM	CCV	1	58539	40mL	0.000	4.929	4.93	0.00	5.00	98.6%
2019-11-15	08:41 AM	CCB	1	561	40mL	0.000	0	0.00	0.00		

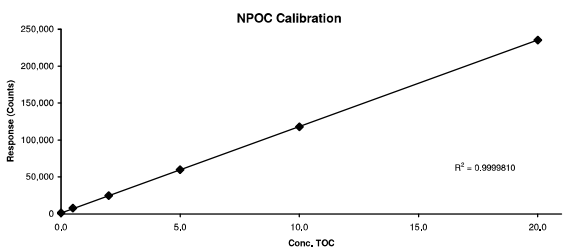
TOTAL ORGANIC CARBON

Method: WetChem | Units mg/L | Instrument: Tic Toc

Analyte: DOC | QCG: 191111A

Analyist: AR | Final Volume: 40mL

Date	Time	Appl ID	[TOC]	Raw	% Recovery
10/31/19	19:20	QC blank	0.00	1130.000	
10/31/19	19:56	Ical 1	0.50	7935.000	
10/31/19	20:28	Ical 2	2.00	24866.000	
10/31/19	21:02	Ical 3	5.00	59510.000	
10/31/19	21:35	Ical 4	10.00	118117.000	
10/31/19	22:08	Ical 5	20.00	235471.000	
11/01/19	10:03	ICB	0.08	883.000	
11/01/19	10:39	ICV	10.40	121613.000	104.0%



Date	Time	Appl ID	DF	Raw Result	SubSample Amount	Filter Blank Subtract	Calc Conc	Result	Range (mg/L)	QC True	% Recovery
2019-11-14	04:55 PM	CCV	1		40mL	0.000	5.228	5.23	0.35	5.00	104.6%
2019-11-14	05:40 PM	CCB	1	690	40mL	0.000	0	0.00	0.00		
2019-11-14	06:16 PM	191111A LCS	1	62265	40mL	0.000	5.248	5.25	0.01	5.00	105.0%
2019-11-14	06:52 PM	191111A LCSD	1	63163	40mL	0.000	5.325	5.33	0.11	5.00	106.5%
2019-11-14	07:29 PM	BA01741W09 DF 2	2	150473	40mL	0.000	12.865	25.73	0.54		
2019-11-14	08:03 PM	BA01752W09 DF 2	2	219179	40mL	0.000	18.741	37.48	0.38		
2019-11-14	08:38 PM	BA01874W13 DF 2	2	146621	40mL	0.000	12.535	25.07	0.05		
2019-11-14	09:11 PM	BA02466W08	1	6522	40mL	0.000	0.553	0.55	0.07		
2019-11-14	09:44 PM	BA02525W09	1	5211	40mL	0.000	0.442	0.44	0.00		
2019-11-14	10:17 PM	BA02713W08	1	4132	40mL	0.000	0.349	0.35	0.00		
2019-11-14	10:51 PM	BA02715W15	1	14979	40mL	0.000	1.277	1.28	0.03		
2019-11-14	11:24 PM	CCV	1	61793	40mL	0.000	5.207	5.21	0.05	5.00	104.1%
2019-11-15	12:01 AM	CCB	1	549	40mL	0.000	0	0.00	0.00		

Silica

Rev 2, 04/05/19 controlled copy

Method SM4500SiD | Units mg/L | Instrument: Genisis Spectrometer

Analyte Silica | QCG: 191106A | Wavelength: 410 nm

Analyist FJR | Final Volume: 25mL | Units: mg/L

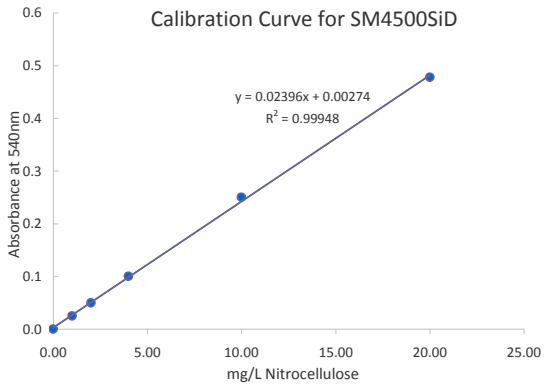
Date	Time	Appl ID	[SiO2]	Absorbance	% Recovery
11/06/19	21:16	ICB	0.00	0.000	
11/06/19	21:16	Ical 1	1.00	0.025	92.9%
11/06/19	21:17	Ical 2	2.00	0.050	98.6%
11/06/19	21:17	Ical 3	4.00	0.100	95.2%
11/06/19	21:18	Ical 4	10.00	0.250	103.2%
11/06/19	21:18	Ical 5	20.00	0.478	99.2%
11/06/19	21:19	ICV	4.00	0.097	98.3%
11/06/19	21:20	ICB	0.00	0.001	

Slope	0.023960729
Intercept	0.002742174
Coefficient of Determination	0.999482494

Algortithm Check:	Appl ID	Absorbance	Result
	191106A 4 LCS	0.094	3.81

Result = (Absorbance-Raw Blk-Intercept)/ Slope

Test:	11/06/19	FJR	3.810



	Date	Time	Appl ID	DF	Raw Result	Sample Amount	Raw BLK	Calc Conc	Result	QC True	% Recovery
id	11/06/19	21:16	ICB	1	0.000	25.0mL		-0.11	-0.11		
id	11/06/19	21:16	Ical 1	1	0.025	25.0mL		0.93	0.93	1.00	92.9%
id	11/06/19	21:17	Ical 2	1	0.050	25.0mL		1.97	1.97	2.00	98.6%
id	11/06/19	21:17	Ical 3	1	0.094	25.0mL		3.81	3.81	4.00	95.2%
id	11/06/19	21:18	Ical 4	1	0.250	25.0mL		10.32	10.32	10.00	103.2%
id	11/06/19	21:18	Ical 5	1	0.478	25.0mL		19.83	19.83	20.00	99.2%
id	11/06/19	21:19	ICV	1	0.097	25.0mL		3.93	3.93	4.00	98.3%
id	11/06/19	21:20	ICB	1	0.001	25.0mL		-0.07	-0.07		
	11/06/19	21:20	191106A CCV1 4	1	0.245	25mL		10.11	10.11	10.00	101.1%
	11/06/19	21:21	191106A CCB	1	0.002	25mL		-0.03	-0.03		
	11/06/19	21:22	191106A BLK	1	0.001	25mL		-0.07	-0.07		
	11/06/19	21:22	191106A 4 LCS	1	0.094	25mL		3.81	3.81	4.00	95.2%
	11/06/19	21:23	191106A 4 LCSD	1	0.095	25mL		3.85	3.85	4.00	96.3%
	11/06/19	21:23	BA02090W09 Total DF5	5	0.238	25mL		9.82	49.09		
	11/06/19	21:24	BA02214W14 Total DF5	5	0.218	25mL		8.98	44.92		
	11/06/19	21:25	BA02301W09 Total DF5	5	0.224	25mL		9.23	46.17		
	11/06/19	21:25	BA02466W14 Total DF5	5	0.211	25mL		8.69	43.46		
	11/06/19	21:26	BA02525W14 Total DF5	5	0.216	25mL		8.90	44.50		
	11/06/19	21:27	BA02525W14 MS Total	5	0.297	25mL		12.28	61.40		
	11/06/19	21:27	BA02525W14 MSD Tot	5	0.298	25mL		12.32	61.61		
	11/06/19	21:28	BA02090w08 Dissolved	5	0.219	25mL		9.03	45.13		
	11/06/19	21:28	BA02214W12 Dissolve	5	0.193	25mL		7.94	39.70		
	11/06/19	21:29	BA02301w08 Dissolved	5	0.207	25mL		8.52	42.62		
	11/06/19	21:29	BA02466W13 Dissolved	5	0.193	25mL		7.94	39.70		
	11/06/19	21:30	BA02525w12 Dissolved	5	0.201	25mL		8.27	41.37		
	11/06/19	21:30	BA02525w12 MS Dissolv	5	0.286	25mL		11.82	59.11		
	11/06/19	21:31	BA02525w12 MSD Diss	5	0.287	25mL		11.86	59.32		
	11/06/19	21:31	191106A CCV1 3	1	0.096	25mL		3.89	3.89	4.00	97.3%
	11/06/19	21:32	191106A CCB	1	-0.001	25mL		-0.16	-0.16		

Ferrous Iron — Rev 2, 04-05-19

Method SM3500Fe | Units mg/L | Instrument: Genisis Spectrometer
Analyte Fe2+ | QCG: 191107 | Wavelength: 510 nm
Analyist fjr | Final Volume: 50mL | Units: mg/L

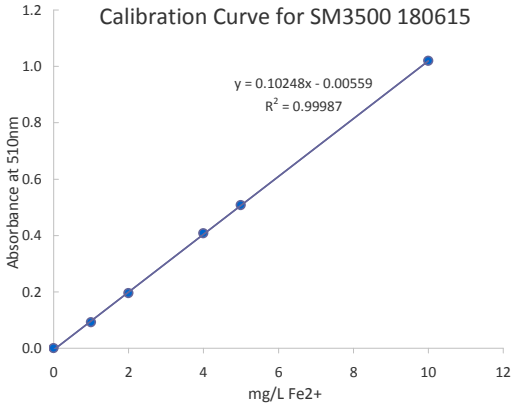
Date	Time	Appl ID	[Fe2+]	Absorbance	% Recovery
06/28/19	12:48	ICB	0.00	0.000	
06/28/19	12:49	Ical 1	1.00	0.092	95.2%
06/28/19	12:50	Ical 2	2.00	0.195	97.9%
06/28/19	12:51	Ical 3	4.00	0.408	100.9%
06/28/19	12:51	Ical 4	5.00	0.507	100.0%
06/28/19	12:52	Ical 5	10.00	1.019	100.0%
06/28/19	13:08	ICV	3.00	0.326	107.9%
06/28/19	12:53	ICB	0.00	0.002	

Slope	0.102479592
Intercept	-0.005591837
Coefficient of Determination	0.999872044

Algortithm Check:	Appl ID	Absorbance	Result
	ICV/LCS 191107A	0.306	3.04

Result = (Absorbance-Raw Blk-Intercept)/ Slope

Test:	FJR	11/07/19	3.04



Date	Time	Appl ID	DF	Raw Result	SubSample Amount	Raw BLK	Calc Conc	Result	QC True	% Recovery
11/07/19	10:40	CCV 4.0 191107	1	0.413	25mL		4.08	4.08	4.00	102.1%
11/07/19	10:39	CCB 191107	1	0.000	25mL		0.05	0.05		
11/07/19	10:41	ICV/LCS 191107A	1	0.306	25mL		3.04	3.04	3.00	101.4%
11/07/19	10:42	ICV/LCSD 191107A	1	0.305	25mL		3.03	3.03	3.00	101.0%
11/07/19	10:43	BA02525W16	1	0.009	25mL		0.14	0.14		
11/07/19	10:44	BA02525W16 MS	1	0.306	25mL		3.04	3.04		
11/07/19	10:44	BA02525W16 MSD	1	0.306	25mL		3.04	3.04		
11/07/19	10:45	CCV 4.0 191107	1	0.418	25mL		4.13	4.13	4.00	103.3%
11/07/19	10:46	CCB 191107	1	0.002	25mL		0.07	0.07		

Metrohm 814/809 Titrando Data

Sample ID	Analysis Date/Time	Method	Titration Volume (to 8.3)	Titration Volume (total)	OH	CO3	HCO3	Total Alk	Unit	Sample Vol	N	Batch	Initials
BA02525W13	2019-11-11 12:09:52 UTC-8	Alkalinity	0.000	1.264	0.00	0.00	52.58	52.58	mg/L	25 mL	0.0208	191111A	CD
191111A LCSD	2019-11-11 11:04:23 UTC-8	Alkalinity	0.238	5.866	0.00	19.80	224.22	244.03	mg/L	25 mL	0.0208	191111A	CD
191111A LCS	2019-11-11 10:54:16 UTC-8	Alkalinity	0.224	5.858	0.00	18.64	225.06	243.69	mg/L	25 mL	0.0208	191111A	CD
191111A BLK	2019-11-11 10:51:28 UTC-8	Alkalinity	0.000	0.032	0.00	0.00	1.33	1.33	mg/L	25 mL	0.0208	191111A	CD

Nitrite

High Point @ 1.5 mg/L
0.2463 mL NO2 Inorganic Ventures lot N2-NOX672889-40759 exp: 05/01/20
50 mL DI Water

CCV @ 0.75 mg/L
0.1232 mL NO2 Inorganic Ventures lot N2-NOX672889-40759 exp: 05/01/20
50 mL DI Water

ICV/LCS @ 0.73 mg/L
0.120 mL NO2 Inorganic Ventures lot M2-NOX660562-40468 exp: 08/25/21
50 mL DI Water

1 mg/L NO2
400 uL of High point and 200 uL of DI made directly into a sample cup

Prep 11/06/19
Exp 11/13/19
EV

Nitrate/TOXN

High Point @ 6 mg/L
0.300 mL NO3 O2Si lot 880117-4-39577 exp: 2/21/20
50 mL DI Water

CCV @ 3.0 mg/L
0.150 mL NO3 O2Si lot 880117-4-39577 exp: 2/21/20
50 mL DI Water

ICV/LCS @ 3.0 mg/L
0.150 mL NO3 Inorganic Ventures lot P2-NOX675324-49391 exp: 02/14/23
50 mL DI Water

1 mg/L NO3
100 uL of High point and 500 uLof DI made directly into a sample cup

MS @ 0.73 mg/L NO2 and 2.5 mg/L NO3
0.120 mL NO2 Inorganic Ventures lot M2-NOX660562-40468 exp: 08/25/21and
0.125 mL NO3 Inorganic Ventures lot P2-NOX675324-49391 exp: 02/14/23
Final volume 50 mL of sample

Prep 11/06/19
Exp 11/13/19
EV

Tiamo Alkalinity Standard Prep

Prep Date:

Exp Date:

Prep'd By (Initials): AR

Initial Standard Information							Final Standard Information			
Name of Initial Standard (QAU Label)	Supplier	Unit	Conc	Lot Number - QA Number	Prep/Opened	Exp. Date	Aliquot from Stock	Final Volume	Solvent	Final Standard Conc
Sulfuric Acid (H2SO4)	J.T.Baker	NA	NA	167828	NA	NA	PURCHASED	NA	NA	NA
0.10N Sulfuric Acid (H2SO4)	J.T.Baker	Normality	0.1N	167828	05/24/19	05/24/20	3ml	1L	DI	0.10N
0.02N Sulfuric Acid (H2SO4)	J.T.Baker	Normality	0.02N	167828	05/24/19	05/24/20	200mL	1L	DI	0.02N
Inorganic Spike(NaHCO3)	BDH	NA	NA	1575C510	10/18/18	08/14/20	PURCHASED	NA	NA	NA
Inorganic Spike Solution	BDH	Milligrams/Liters	250mg/L	1575C510	09/17/19	03/17/20	3.5g	500mL	DI	250mg/L
Standarizing Solution(NaCO3)	J.T.Baker	Normality	1N	178494	07/25/17	07/25/19	PURCHASED	NA	NA	NA

Standard Prep

	Ferrous Iron Standards		Prep'd By (Initials)		FJR		
Prep Date	06/28/18						
Exp Date	06/28/19						
Stock Label	Supplier	Batch Number	Exp Date	Aliquot from Stock	Final Volume	Solvent	Ferrous Iron Concentration
Ferrous Ammonium Sulfate	J.T.Baker	0000184592	08/21/20	0.351	250mL	5ml H2SO4 (0000167828) Diluted with water	200ug/L
Ferrous Sulfate	Mallinckrodt	Lot 5056 KDRX	NA	0.250	250mL	5ml H2SO4 (0000167828) Diluted with water	200ug/L
Ferrous Iron CCV/LCS/MS/ICV			Prep'd By (Initials)		FJR		
Prep Date	See Injection Log						
Exp Date	24 Hours						
Initial Standard Information	Supplier	Batch Number	Exp Date	Final Standard Information			
Ferrous Iron CCV	J.T.Baker	0000184592	06/14/19	500uL	25mL	Deionized water	4mg/L
Ferrous Iron ICV/LCS	Mallinckrodt	Lot 5056 KDRX	06/14/19	375uL	25mL	Deionized water	3mg/L
	Ferrous Iron Calibration Curve		Prep'd By (Initials)		FJR		
Prep Date	06/28/18						
Exp Date	06/28/19						
Final Standard Information							
Point Label	Supplier	Batch Number	Exp Date	Aliquot from Stock (mL)	Final Volume	Solvent	Ferrous Iron Concentration
CCB	J.T.Baker	0000184592	06/14/19	0	25mL	Deionized water	0mg/L
Ical 1	J.T.Baker	0000184592	06/14/19	0.125	25mL	Deionized water	1mg/L
Ical 2	J.T.Baker	0000184592	06/14/19	0.25	25mL	Deionized water	2mg/L
Ical 3	J.T.Baker	0000184592	06/14/19	0.5	25mL	Deionized water	4mg/L
Ical 4	J.T.Baker	0000184592	06/14/19	0.625	25mL	Deionized water	5mg/L
Ical 5	J.T.Baker	0000184592	06/14/19	1.25	25mL	Deionized water	10mg/L
ICV	Mallinckrodt	Lot 5056 KDRX	06/14/19	0.375	25mL	Deionized water	3mg/L

Reagent Prep

Reagent	Chemical Lot #	Chemical	Chemical Expiration Date	Amount	Date Prep
Colorizer	0747C107	1,10-phenanthroline	na	1.00g 1L DI	10/24/19
		10% HCL conc	na	enough to dissolve	01/15/19
Buffer	Z28B018	Ammonia Acetate	na	248.2G	09/26/19
	2018071399	Glacial Acetic Acid	06/27/20	700mL	

Silica Standard Prep

Spike Amount (uL)*	Final Volume (mL)	Final Concentration (ppm)
25	25	1
50	25	2
100 (CCV2)	25	4
250 (CCV1)	25	10
500	25	20

*Curve Spiked with 1000 ppm SiO_2 o2si lot 1098096-37186 (exp: 4/29/18)

ICV/LCS = 4ppm SiO_2
100 uL of 1000 ppm SiO_2 Ultra Scientific Lot P01064-32895 (exp: 11/30/19) brought up to 25mL with DI

MS = 4ppm SiO_2
100 uL of 1000 ppm SiO_2 Ultra Scientific Lot P01064-32895 (exp: 11/30/19) brought up to 25mL with sample

Prep: 10/25/19
Exp: 10/25/19

Initials: FJR

Name of Final Standard TOC Calibration Curve — **Prep'd By (Initials)** AR

Prep Date 06/11/19

Exp Date 07/09/19

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from contianer Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
Total Organic Carbon (TOC) Standard	Agilent	IQC-1 06-5	1000 mg/L	CS-5157-40233	11/30/20	20 uL	40 mL	DI Water	0.5 ppm
Total Organic Carbon (TOC) Standard	Agilent	IQC-1 06-5	1000 mg/L	CS-5157-40233	11/30/20	50 uL	40 mL	DI Water	1.25 ppm
Total Organic Carbon (TOC) Standard	Agilent	IQC-1 06-5	1000 mg/L	CS-5157-40233	11/30/20	100 uL	40 mL	DI Water	2.5 ppm
Total Organic Carbon (TOC) Standard	Agilent	IQC-1 06-5	1000 mg/L	CS-5157-40233	11/30/20	150 uL	40 mL	DI Water	3.75 ppm
Total Organic Carbon (TOC) Standard	Agilent	IQC-1 06-5	1000 mg/L	CS-5157-40233	11/30/20	200 uL	40 mL	DI Water	5 ppm

Name of Final Standard ICV (TOC) — **Prep'd By (Initials)** AR

Prep Date 06/11/19

Exp Date 07/09/19

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from contianer Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
1000 PPM ICV TOC Intermediate	APPL Inc.	Prep: 2/11/19	1000 mg/L	Prep: 2/11/19	07/09/19	100 uL	40mL	DI Water	2.5 ppm

Name of Final Standard CCV (TOC) — **Prep'd By (Initials)** AR

Prep Date See Data

Exp Date 1 year

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from contianer Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
Total Organic Carbon (TOC) Standard	Agilent	IQC-1 06-5	1000 mg/L	CS-5157-40233	11/30/20	100 uL	40 mL	DI Water	2.5 ppm

Name of Final Standard TOC_LCS/LCSD — **Prep'd By (Initials)** AR

Prep Date See Data

Exp Date 1 year

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from contianer Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
Total Organic Carbon (TOC) Standard	ULTRA Scientific	IQC-106-5	1000 mg/L	CR-0328-37639	02/28/19	100 uL	40 mL	DI Water	2.5 ppm

Name of Final Standard TOC_MS/MSD — **Prep'd By (Initials)** AR

Prep Date See Data

Exp Date 1 year

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from contianer Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
Total Organic Carbon (TOC) Standard	ULTRA Scientific	IQC-106-5	1000 mg/L	CR-0328-37639	02/28/19	100 uL	40 mL	sample	2.5 ppm

EPA 353.2 Injection Log

Directory: I:\EVE\Export\2019\

RunID	Injected		Sample Name	Misc Info	FileName	Multiplier
1	06 Nov 2019	16:41	Standard 1 TOXN/NO3		191107A NO	1.
2	06 Nov 2019	16:43	Standard 90 TOXN/NO3		191107A NO	1.
3	06 Nov 2019	16:45	Standard 91 TOXN/NO3		191107A NO	1.
4	06 Nov 2019	16:47	Standard 92 TOXN/NO3		191107A NO	1.
5	06 Nov 2019	16:50	Standard 93 TOXN/NO3		191107A NO	1.
6	06 Nov 2019	16:52	Standard 94 TOXN/NO3		191107A NO	1.
7	06 Nov 2019	16:54	Standard 0 TOXN/NO3		191107A NO	1.
10	06 Nov 2019	17:01	ICV NO3 TOXN		191107A NO	1.
11	06 Nov 2019	17:03	ICB NO2 NO3 TOXN		191107A NO	1.
12	06 Nov 2019	17:05	191106A BLK TOXN		191107A NO	1.
13	06 Nov 2019	17:07	191106A LCS TOXN		191107A NO	1.
14	06 Nov 2019	17:09	191106A LCSD TOXN		191107A NO	1.
19	06 Nov 2019	17:19	BA02525W15 TOXN/NO3		191107A NO	1.
20	06 Nov 2019	17:20	CCV TOXN/NO3		191107A NO	1.
21	06 Nov 2019	17:21	CCB TOXN/NO3		191107A NO	1.

908 North Temperance Ave. ∇ Clovis, CA 93611 ∇ Phone 559-275-2175 ∇ Fax 559-275-4422

Certification Number: CA1312
NELAP Certification number: CA00046
DoD-ELAP Certificate number: 4064.01

Data Validatable Report

December 11, 2019

AECOM
1001 Bishop Street, Suite 1600
Honolulu, Hawaii 96813

Attn: Margie Pascua

Title: Report of Data: Case 90700

Project: 60571032 CV18F0126 Red Hill Fuel Storage. HI

Contract #: Prime contract # for DoD: NAVY CLEAN N62742-17-F-1800, CV18F0126
Subcontract: 18S-22209-HI27

Dear Ms. Pascua:

Five water samples were received November 08, 2019. Written results for the requested analyses are being provided on this December 11, 2019.

Results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

If you have any questions or require further information, please contact your APPL Project Manager, Libby Cheeseborough, libby@applinc.com, at your convenience. Thank you for choosing APPL, Inc.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. These test results meet all requirements of NELAC and DoD QSM. Release of the hard copy has been authorized by the Laboratory Manager or her designee, as verified by the following signature.

Paula McCartney, Laboratory Director
APPL, Inc.

PM/lac
Enclosure
cc: File

Data Validation Package
for
60481245 CIV 0053 Red Hill Fuel Storage
APPL SDG 90700
TABLE OF CONTENTS

LABORATORY NAME: *APPL, Inc.*

CASE NARRATIVE

Case Narrative

ARF: 90700

Project: 60571032 CV18F0126 Red Hill Fuel Storage. HI

Sample Receipt Information:

Five water samples were received November 08, 2019, at 2.4°C, 1.3°C, and 3.4°C. The sample group was assigned Analytical Request Form (ARF) number 90700.

Sample Preparation and Analysis Information:

For the EPA 8011 analysis, the samples were extracted according to APPL SOP method MWE012.

For the EPA 8015B analysis, the samples were extracted according to EPA method 3520C. The sample extracts were silica gel cleaned according to APPL's SOP CLN004 and placed on hold.

For the EPA 8270D SIM analysis, the samples were extracted according to EPA method 3520C.

For the EPA 8270D Phenol analysis, the samples were extracted according to EPA method 3520C.

For the APPL SOP ANA2MEE analysis, the samples were extracted according to EPA method 3535.

For the EPA 8260B analysis, the samples were purged according to EPA method 5030B.

For the RSK-175 analysis, the samples were allowed to equilibrate for 10 minutes at 40°C and a portion of the headspace was analyzed.

For the EPA 6010C analysis, the samples were digested according to EPA method 3010A.

For the EPA 9060A, 300.0, 353.2, SM 2320B, SM 4500-SiD and SM 3500FeB analyses, the samples were prepared according to the methods.

Only the portion of the injection log relative to these samples is included. A full sequence log is available upon request. Measurement uncertainty can be reported upon request.

Analytical Exceptions, Deviations and Abnormalities.

EPA 8015B:. Manual integrations were performed in accordance with APPL's SOP. Chromatograms of before and after manual integration are enclosed.

In the 191111A LCS, Oil recovered above the upper control limit. Corrective action: None, Oil was not detected in the associated samples.

In the MS/MSD performed on sample ERH963, the surrogate Octacosane recovered below the control limits. The spike recovery for the target analytes recovered within the control limits. The client was notified.

EPA 8270D Phenol: One surrogate recovered above the higher control limit in the blank and LCS. Phenol recovered above the higher control limit in the LCSD. Corrective action: None, phenol was not detected in the associated samples

EPA 6010C: In the MS/MSD performed on sample ERH963, four compounds recovered outside their control limits. Corrective action: the client was notified.

SAMPLE RECORDS MANAGEMENT

CHAIN OF CUSTODY,

ARF, CRF, AND

CLIENT COMMUNICATION

APPL - Analysis Request Form 90700

Client: AECOM
Address: 1001 Bishop Street, Suite 1600
Honolulu, HI 96813
Attn: Margie Pascua
Phone: 808-356-5373 Fax: 808-523-8950
Job: 60571032 CV18F0126 Red Hill Fuel Storage
PO #: 18S-22209-HI27 PO# 102604
Chain of Custody (Y/N): Y # 120,122-5
RAD Screen (Y/N): Y pH (Y/N): Y
Turn Around Type: 1 WEEK

Received by: MDA
Date Received: 11/08/19 Time: 10:00
Delivered by: FEDEX
Shuttle Custody Seals (Y/N): Y Time Zone: -10
Chest Temp(s): 2.4,1.4,3.4°C
Color: VFRG/M-PurPk/NM-BkTl
Samples Chilled until Placed in Refrig/Freezer: Y
Project Manager: Libby Cheesebor
QC Report Type: DVP4DOD/EQUIS/HI
Due Date:

Comments:
PM: login and F1s to Margie.Pascua@aecom.com
AN: 7 day TAT for Form 1s; 21 day TAT for PKG STYLE 1; DOD v5.1; DOD Forms: LOD database
MS/MSD for 8260,8011,8015,8270 ONLY
Wetlab: Nitrate by EPA 300 and 353.2
8270 SIM: 1-methylnaphthalene, 2-methylnaphthalene & naphthalene only.
TPH D & O both with and w/o SGC, reverse surrogate for the SGC; analyze SGC if detections
RSK: Methane only; 8011: EDB only; $87DC53W5: report phenol ONLY
FR: 2 labeled CDs to Margie AFTER validation; email ftp info to Margie, Stella, trommelfanger@lab-data

EDD: AECOM EQuIS EDD 2.5.3 Red Hill 87DMEE->3535A to Margie.Pascua@aecom.com & jecklund@lab-data.com

Sample Distribution:
GC: 5-$8011, 3-$87DC53W5, 3-$87DMEEW5, 3-$DOC53W5LIQ, 3-$SIM53LIQ51
Extractions: 5-_MWE012, 3-_LIQ003, 3-_LIQ005, 3-_MWE2MEE
VOA: 5-$86BTOTXDCAW, 5-$GASBL, 5-$GRO86BW, 4-$RSKMETH
Metals: 2-$61CDOD5W(Ca,Mg,Mn,K,Na)
Wetlab: 2-$232W(HCO3,CO3,ALK), 2-$300W(NO3,BR,CL,F,SO4), 2-$35FE, 2-$35OF, 2-$DOCW53, 2-$SIO2, 2-$SIO2D, 2-$TOCW53
Other: 2-_M3010

Charges:

Invoice To:
ACCOUNTS PAYABLE
1001 Bishop Street, Ste 1600
USAPImaging@aecom.com
mary.basano@aecom.com

	Client ID	APPL ID	Sampled	Analyses Requested
1.	ERH958	BA02712W LCSD	11/07/19 07:20	$8011, $86BTOTXDCAW, $GASBL, $GRO86BW, $RSKMETH
2.	ERH959	BA02713W LCSD	11/07/19 08:15	$232W(HCO3,CO3,ALK), $300W(NO3,BR,CL,F,SO4), $35FE, $35OF, $61CDOD5W(Ca,Mg,Mn,K,Na), $8011, $86BTOTXDCAW, $87DC53W5, $87DMEEW5, $DOC53W5LIQ, $DOCW53, $GASBL, $GRO86BW, $RSKMETH, $SIM53LIQ51, $SIO2, $SIO2D, $TOCW53 -- see comments

Note: All times, excluding sample collection times, are Pacific Time Zone unless noted otherwise. Collection times are in: -10 UTC

3.	ERH962	LCSD	BA02714W 11/06/19 07:10	$8011, $86BTOTXDCAW, $GASBL, $GRO86BW, $RSKMETH
4.	ERH963	MS/MSD	BA02715W 11/06/19 07:55	$232W(HCO3,CO3,ALK), $300W(NO3,BR,CL,F,SO4), $35FE, $35OF, $61CDOD5W(Ca,Mg,Mn,K,Na), $8011, $86BTOTXDCAW, $87DC53W5, $87DMEEW5, $DOC53W5LIQ, $DOCW53, $GASBL, $GRO86BW, $RSKMETH, $SIM53LIQ51, $SIO2, $SIO2D, $TOCW53 -- see comments
5.	ERH964	LCSD	BA02716W 11/06/19 07:55	$8011, $86BTOTXDCAW, $87DC53W5, $87DMEEW5, $DOC53W5LIQ, $GASBL, $GRO86BW, $SIM53LIQ51

APPL Sample Receipt Form

ARF# **90700**

Sample	Container Type	Count	p
BA02712	[13] VOAs - HCL	4	NA
	[15] VOAs - NP	3	NA
BA02713	[3] PL 250mL	3	NA
	[6] PL 500mL - HNO3	1	1.7
	[10] PL 250mL - H2SO4	1	1.7
	[13] VOAs - HCL	4	NA
	[15] VOAs - NP	3	NA
	[17] Amber Liter	4	NA
	[32] Clear VOA - H2SO4	4	NA
	[38] 250mL brn poly, HCl prsvd	1	1.7
	[40] 500mL Amber, unprsrvd	3	NA
BA02714	[13] VOAs - HCL	4	NA
	[15] VOAs - NP	3	NA
BA02715	[3] PL 250mL	3	NA
	[6] PL 500mL - HNO3	1	1.7
	[10] PL 250mL - H2SO4	1	1.7
	[13] VOAs - HCL	8	NA
	[15] VOAs - NP	9	NA
	[17] Amber Liter	8	NA
	[32] Clear VOA - H2SO4	4	NA
	[38] 250mL brn poly, HCl prsvd	1	1.7
	[40] 500mL Amber, unprsrvd	9	NA
BA02716	[13] VOAs - HCL	4	NA
	[15] VOAs - NP	3	NA
	[17] Amber Liter	4	NA
	[40] 500mL Amber, unprsrvd	3	NA

Sample	Container Type	Count	p

90700

APPL LABS

APPL, Inc.
908 N Temperance Ave
Clovis, CA 93611
www.applinc.com

Phone: (559) 275-2175
Fax: (559) 275-4422
coc@applinc.com

CHAIN OF CUSTODY RECORD

C.O.C. 123

Report to: PLEASE PRINT

Company Name: AECOM Phone: 808-356-5373

Address: 1001 Bishop St, Suite 1600 Fax: 808-523-8950
Honolulu, HI 96813

Attn: Margie Pascua

Email: margie.pascua@aecom.com

Invoice to: PLEASE PRINT

Company Name: AECOM Phone: 808-529-7249

Address: 1001 Bishop St, Suite 1600 Fax: 808-523-8950
Honolulu, HI 96813

Attn: Mary Basano

Email: mary.basano@aecom.com; usapimaging@aecom.com

Project Name/Number: CV18F0126 / 60571032

Purchase Order Number: 102604

Sampler (Print):

Sampler (Signature):

Date Shipped: MM/DD/YY

Carrier: FedEx

Waybill No.:

Comments:

Sample Identification	Location	Date Collected	Time Collected	Time Zone	No. of Containers	Matrix: Aq	Sed.	Soil	8260C BTEX,TPH-g	8260C DCA 8011 EDB	8015C TPH-d/o	3630/8015C TPH-d/o w/ SGT	8270DSIM PAHs short list	8270D Phenol, Me Naphth	8270D 2-(2-methoxy ethoxy)-ethanol	RSK175M Methane	SM3500-Fe Ferrous Iron	353.2 Nitrate-Nitrite N	SM2320B Alkalinity 300.0 Nitrate,Sulfate,Chloride	300.0 Bromide/Fluoride 6010 Total Ca,Mg,Mn,K,Na SM4500 Total & Dissolved Silica	9060A TOC	8260C DOC	
ERH9163	RHMW15-05	11/6/19	0755	HST	9	X			X	X	X	X	X	X	X	X	X	X	X	X	X	X	See other containers
																							⊙ MS/MSD

EB 11/07/19

3.5/3.9 2.5/2.9
3.5/3.9 2.5/2.9

*Analyze TPH w/SGT only if TPH-d/o detected.

TPH-d/o & PAHs need liquid-liquid extraction.

Shuttle Temperature: 2.0/2.4 1.0/1.4 3.0/3.4

Turnaround Requested: Check one
☐ Standard 2-3 wk ☒ One week ☐ 3 days ☐ 24/48 Hrs. ☐ Other:

Sample Disposal:
☐ Return to client ☒ Disposal by Lab (30-day retention)

Relinquished by sampler: AECOM Estella BONNY	Date 11/07/19	Time 1040	Received by:	Relinquished by:	Date	Time	Received by:
Relinquished by:	Date	Time	Received by:	Relinquished by:	Date 11-8-19	Time 1000	Received at lab by:

See page 2 for Container Preservative and Sampling Information

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Phone: (559) 275-2175
Fax: (559) 275-4422
coc@applinc.com

CHAIN OF CUSTODY RECORD

C.O.C. 124

Report to: PLEASE PRINT

Company Name: AECOM Phone: 808-356-5373

Address: 1001 Bishop St, Suite 1600
Honolulu, HI 96813 Fax: 808-523-8950

Attn: Margie Pascua

Email: margie.pascua@aecom.com

Invoice to: PLEASE PRINT

Company Name: AECOM Phone: 808-529-7249

Address: 1001 Bishop St, Suite 1600
Honolulu, HI 96813 Fax: 808-523-8950

Attn: Mary Basano

Email: mary.basano@aecom.com; usapimaging@aecom.com

Project Name/Number: CV18F0126 / 60571032

Purchase Order Number: 102604

Sampler (Print): GM, BM, TV

Sampler (Signature): MW for GM, BM, TV

Date Shipped: MM/DD/YY

Carrier: FedEx

Waybill No.:

Comments:

Sample Identification	Location	Date Collected	Time Collected	Time Zone	No. of Containers	Matrix: Aq	Sed.	Soil	8260C BTEX,TPH-g	8260C DCA 8011 EDB	8015C TPH-d/o	3630/8015C TPH-d/o ± w/ SGT	8270DSIM PAHs short list	8270D Phenol, TICs MW w/ SIM	8270D 2-(2-methoxy ethoxy)-ethanol	RSK175M Methane	SM3500-Fe Ferrous Iron	353.2 Nitrate-Nitrite N	SM2320B Alkalinity 300.0 Nitrate,Sulfate,Chloride	300.0 Bromide/Fluoride 6010 Total Ca,Mg,Mn,K,Na SM4500 Total & Dissolved Silica	9060A TOC	4500 DOC	
ERH963	RHMW15-05	11/06/19	0755	HST	8	X			X*	X*	X*	X	X*	X*	X*	X	X	X	X	X	X	X	See other orders

EB 11/07/19

① MS/MSD

*Analyze TPH w/SGT only if TPH-d/o detected.

TPH-d/o & PAHs need liquid-liquid extraction.

Shuttle Temperature:

Turnaround Requested: Check one
☐ Standard 2-3 wk ☒ One week ☐ 3 days ☐ 24/48 Hrs. ☐ Other:

Sample Disposal:
☐ Return to client ☒ Disposal by Lab (30-day retention)

Relinquished by sampler: AECOM	Date	Time	Received by:	Relinquished by:	Date	Time	Received by:
Estelle Bonny	11/07/19	1035					
Relinquished by:	Date	Time	Received by:	Relinquished by:	Date	Time	Received at lab by:
					11-8-19	1400	

See page 2 for Container Preservative and Sampling Information

APPL LABS

APPL, Inc.
908 N Temperance Ave
Clovis, CA 93611
www.applinc.com

Phone: (559) 275-2175
Fax: (559) 275-4422
coc@applinc.com

CHAIN OF CUSTODY RECORD

C.O.C. 125

Report to: PLEASE PRINT

Company Name: AECOM Phone: 808-356-5373

Address: 1001 Bishop St, Suite 1600
Honolulu, HI 96813 Fax: 808-523-8950

Attn: Margie Pascua

Email: margie.pascua@aecom.com

Invoice to: PLEASE PRINT

Company Name: AECOM Phone: 808-529-7249

Address: 1001 Bishop St, Suite 1600
Honolulu, HI 96813 Fax: 808-523-8950

Attn: Mary Basano

Email: mary.basano@aecom.com; usapimaging@aecom.com

Project Name/Number: CV18F0126 / 60571032

Purchase Order Number: 102604

Sampler (Print): GM, BM, TV

Sampler (Signature): WP for GM, BM, TV

Date Shipped: MM/DD/YY

Carrier: FedEx

Waybill No.:

Comments:

Sample Identification	Location	Date Collected	Time Collected	Time Zone	No. of Containers	Matrix: Aq	Matrix: Sed.	Matrix: Soil	8260C BTEX,TPH-g	8260C DCA 8011 EDB	8015C TPH-d/o	3630/8015C TPH-d/o w/ SGT	8270DSIM PAHs short list	8270D Phenol, TCLP	8270D 2-(2-methoxy ethoxy)-ethanol	RSK175M Methane	SM3500-Fe Ferrous Iron	353.2 Nitrate-Nitrite N	SM2320B Alkalinity 300.0 Nitrate,Sulfate,Chloride	300.0 Bromide/Fluoride 6010 Total Ca,Mg,Mn,Na SM4500 Total & Dissolved Silica	9060A TOC	8260C DDL	
ERH964	RHMW15-05	11/06/19	0755	HST	7	X			X	X	X	X*	X	X	X	X								See other coolers for VOAs
							EB	11/07/19															

*Analyze TPH w/SGT only if TPH-d/o detected.

TPH-d/o & PAHs need liquid-liquid extraction.

Shuttle Temperature:

Turnaround Requested: Check one
☐ Standard 2-3 wk ☒ One week ☐ 3 days ☐ 24/48 Hrs. ☐ Other:

Sample Disposal:
☐ Return to client ☒ Disposal by Lab (30-day retention)

Relinquished by sampler: AECOM	Date	Time	Received by:	Relinquished by:	Date	Time	Received by:
Estelle BONNY	11/08/19 (EB)	1020					
Relinquished by:	Date	Time	Received by:	Relinquished by:	Date	Time	Received at lab by:
					11-6-19	1600	

See page 2 for Container Preservative and Sampling Information

APPL LABS

APPL, Inc.
908 N Temperance Ave
Clovis, CA 93611
www.applinc.com

Phone: (559) 275-2175
Fax: (559) 275-4422
coc@applinc.com

CHAIN OF CUSTODY RECORD

C.O.C. 120

Report to: PLEASE PRINT	Invoice to: PLEASE PRINT
Company Name: AECOM Phone: 808-356-5373	Company Name: AECOM Phone: 808-529-7249
Address: 1001 Bishop St, Suite 1600 Honolulu, HI 96813 Fax: 808-523-8950	Address: 1001 Bishop St, Suite 1600 Honolulu, HI 96813 Fax: 808-523-8950
Attn: Margie Pascua	Attn: Mary Basano
Email: margie.pascua@aecom.com	Email: mary.basano@aecom.com; usapimaging@aecom.com

Project Name/Number	Sampler (Print)	Purchase Order Number	Sampler (Signature)
CV18F0126 / 60571032	GM, BM, TV	102604	MP for GM, BM, TV

Date Shipped: MM/DD/YY
Carrier: FedEx
Waybill No.:
Comments:

Sample Identification	Location	Date Collected	Time Collected	Time Zone	No. of Containers	Matrix: Aq	Matrix: Sed.	Matrix: Soil	8260C BTEX,TPH-g	8260C DCA 8011 EDB	8015C TPH-d/o	3630/8015C TPH-d/o w/ SGT	8270DSIM PAHs short list	8270D Phenol, TPH MP/ZR	8270D 2-(2-methoxy ethoxy)-ethanol	RSK175M Methane	SM3500-Fe Ferrous Iron	353.2 Nitrate-Nitrite N	SM2320B Alkalinity 300.0 Nitrate,Sulfate,Chloride	300.0 Bromide/Fluoride 6010 Total Ca,Mg,Mn,K,Na SM4500 Total & Dissolved Silica	9060A TOC	8260C 1,2-DCA
ERH958	Trip Blank	11/07/19	0720	HST	7	X			X	X						X						
ERH959	RHMW15-03	11/07/19	0815	HST	24	X			X	X	X	X*	X	X	X	X	X	X	X	X	X	X

*Analyze TPH w/SGT only if TPH-d/o detected.

TPH-d/o & PAHs need liquid-liquid extraction.

EB 11/07/19

Shuttle Temperature:	Turnaround Requested: Check one ☐ Standard 2-3 wk ☒ One week ☐ 3 days ☐ 24/48 Hrs. ☐ Other:	Sample Disposal: ☐ Return to client ☒ Disposal by Lab (30-day retention)

Relinquished by sampler: AECOM Estelle BONNY	Date 11/07/19	Time 1245	Received by:	Relinquished by:	Date	Time	Received by:
Relinquished by:	Date	Time	Received by:	Relinquished by:	Date 11-8-19	Time 1000	Received at lab by:

See page 2 for Container Preservative and Sampling Information

APPL LABS

APPL, Inc.
908 N Temperance Ave
Clovis, CA 93611
www.applinc.com

Phone: (559) 275-2175
Fax: (559) 275-4422
coc@applinc.com

CHAIN OF CUSTODY RECORD

C.O.C. 122

Report to: PLEASE PRINT

Company Name: AECOM Phone: 808-356-5373

Address: 1001 Bishop St, Suite 1600
Honolulu, HI 96813 Fax: 808-523-8950

Attn: Margie Pascua

Email: margie.pascua@aecom.com

Invoice to: PLEASE PRINT

Company Name: AECOM Phone: 808-529-7249

Address: 1001 Bishop St, Suite 1600
Honolulu, HI 96813 Fax: 808-523-8950

Attn: Mary Basano

Email: mary.basano@aecom.com; usapimaging@aecom.com

Project Name/Number: CV18F0126 / 60571032

Purchase Order Number: 102604

Sampler (Print): GM, BM, TV

Sampler (Signature): MP for GM, BM, TV

Date Shipped: MM/DD/YY

Carrier: FedEx

Waybill No.:

Comments:

Sample Identification	Location	Date Collected	Time Collected	Time Zone	No. of Containers	Matrix: Aq	Sed.	Soil	8260C BTEX,TPH-g	8260C DCA 8011 EDB	8015C TPH-d/o	3630/8015C TPH-d/o w/ SGT	8270DSIM PAHs short list	8270D Phenol, THPS w/ d/o*	8270D 2-(2-methoxy ethoxy)-ethanol	RSK175M Methane	SM3500-Fe Ferrous Iron	353.2 Nitrate-Nitrite N	SM2320B Alkalinity 300.0 Nitrate,Sulfate,Chloride	300.0 Bromide/Fluoride 6010 Total Ca,Mg,Mn,K,Na SM4500 Total & Dissolved Silica	9060A TOC	Filter DIC	
ERH 962	Trip Blank	11/06/19	0710	HST	2	X			X	X						X							
ERH 963	RHMW15-05	11/06/19	0755	HST	27	X			X①	X①	X①	X*	X①	X①	X①	X	X	X	X	X	X	X	See other coolers
ERH 964	RHMW15-05	11/06/19	0755	HST	2	X			X	X													See other cooler
																							① MS/MSD

EB 11/07/19

*Analyze TPH w/SGT only if TPH-d/o detected.

TPH-d/o & PAHs need liquid-liquid extraction.

Shuttle Temperature:

Turnaround Requested: Check one
☐ Standard 2-3 wk ☒ One week ☐ 3 days ☐ 24/48 Hrs. ☐ Other:

Sample Disposal:
☐ Return to client ☒ Disposal by Lab (30-day retention)

Relinquished by sampler: AECOM	Date	Time	Received by:	Relinquished by:	Date	Time	Received by:
Estelle BONNY	11/07/19	1030					
Relinquished by:	Date	Time	Received by:	Relinquished by:	Date	Time	Received at lab by:
					11-8-19	1000	

See page 926 for Container Preservative and Sampling Information

COOLER RECEIPT FORM **ARF: 90700**

1) Project: 60571032 CV18F0126 Red Hill Fuel Storage Date Received: 11/08/19

2) Coolers: Number of Coolers: 5

3) YES Were custody seals present and intact?
How many? 10 Name/Date on seal? see below

4) YES Was there a shipping slip? Carrier name: FEDEX

5) Type of packing in cooler: X bubble wrap __ popcorn __ foam X plastic bags __ other
X wet ice __ dry ice __ no ice __ gel ice

6) YES Were cooler temperatures acceptable?

7) Serial number of certified NIST thermometer use R1 @ +0.4°C

8) Cooler temp(s): In °C. Thermometer Temp / Corrected Temp

1:	3.5°C/ 3.9°C	2:	2.5°C/ 2.9°C	3:	2.0°C/ 2.4°C	4:	1.0°C/ 1.4°C	5:	3.0°C/ 3.4°C	6:	
7:		8:		9:		10:		11:		12:	

Chain of custody:

9) YES Was a chain of custody received?

10) YES Were the custody papers complete/signed in the appropriate places?

Sample Labels:

11) YES Were all sample labels complete (sample ID, date/time of sampling, etc.)?

12) YES Did all container labels agree with custody papers?

Sample Containers:

13) YES Were all containers sealed in separate bags?

14) YES Did all containers arrive in good condition:(unbroken, no leakage, no cracked/broken lids)?

15) YES Were correct containers and preservatives used for the tests indicated?

16) YES Was a sufficient amount of sample sent for tests indicated?

17) NA Were bubbles present in volatile samples?
If yes, the following were received with air bubbles:
Larger than a pea:
Smaller than a pea:

Preservation Hold time:

18) Yes Was a sufficient amount of holding time remaining to analyze the samples?

19) Yes Was the pH taken of all non-VOA preserved samples and written on the sample container?

20) Yes Was the pH of acid preserved non-VOA samples < 2?

21) NA Was the pH of sodium hydroxide preserved samples for Cyanide > 12 and Sulfide >9?

22) NO Were unpreserved VOA Vials received?

23) NA Are unpreserved VOA vials noted in the ADD TEST FIELD on the ARF?
pH strip lot number: 90b2031
Lab notified if pH was not adequate:

Notes/Deficiencies:

CUSTODY SEAL
AECOM (808) 521-3051
mc Date 11/7

Personnel receiving samples: ZG Second reviewer: AA
Personnel labeling samples: ZG
Project manager notified: ZG Date/Time of notification 11/08/19
Name of client notified: Date/Time of notification

Revision: 22, November 5, 2013

SDG	Received	Client ID	APPL ID	Collected DateTime	Matrix	Method	Method Description
90700	11/08/19	ERH958	BA02712	11/07/19 7:20:00 AM	WATER	8011	EPA 8011
90700	11/08/19	ERH958	BA02712	11/07/19 7:20:00 AM	WATER	EPA 8260B	EPA 8260B BTEX & 1,2-DCA WATER
90700	11/08/19	ERH958	BA02712	11/07/19 7:20:00 AM	WATER	EPA 8260-GAS	EPA 8260 with GAS
90700	11/08/19	ERH958	BA02712	11/07/19 7:20:00 AM	WATER	EPA 8260B	EPA 8260B GRO WATER
90700	11/08/19	ERH958	BA02712	11/07/19 7:20:00 AM	WATER	RSK 175	METHANE BY RSK 175
90700	11/08/19	ERH959	BA02713	11/07/19 8:15:00 AM	WATER	SM 2320B	Wetlab 2320B - Water
90700	11/08/19	ERH959	BA02713	11/07/19 8:15:00 AM	WATER	EPA 300.0	Wetlab 300.0 - Water
90700	11/08/19	ERH959	BA02713	11/07/19 8:15:00 AM	WATER	SM3500FeB	Ferrous Iron
90700	11/08/19	ERH959	BA02713	11/07/19 8:15:00 AM	WATER	EPA 353.2	EPA 353.2 - WATER
90700	11/08/19	ERH959	BA02713	11/07/19 8:15:00 AM	WATER	6010C/3010A	EPA 6010C TOTAL
90700	11/08/19	ERH959	BA02713	11/07/19 8:15:00 AM	WATER	8011	EPA 8011
90700	11/08/19	ERH959	BA02713	11/07/19 8:15:00 AM	WATER	EPA 8260B	EPA 8260B BTEX & 1,2-DCA WATER
90700	11/08/19	ERH959	BA02713	11/07/19 8:15:00 AM	WATER	EPA 8270D	EPA 8270D WATER
90700	11/08/19	ERH959	BA02713	11/07/19 8:15:00 AM	WATER	EPA 8270D	EPA 8270D MODIFIED WATER
90700	11/08/19	ERH959	BA02713	11/07/19 8:15:00 AM	WATER	EPA 8015B-eLL	EPA 8015B TPH LIQ-LIQ
90700	11/08/19	ERH959	BA02713	11/07/19 8:15:00 AM	WATER	SW846 9060A	9060A DOC
90700	11/08/19	ERH959	BA02713	11/07/19 8:15:00 AM	WATER	EPA 8260-GAS	EPA 8260 with GAS
90700	11/08/19	ERH959	BA02713	11/07/19 8:15:00 AM	WATER	EPA 8260B	EPA 8260B GRO WATER
90700	11/08/19	ERH959	BA02713	11/07/19 8:15:00 AM	WATER	RSK 175	METHANE BY RSK 175
90700	11/08/19	ERH959	BA02713	11/07/19 8:15:00 AM	WATER	8270D-SIM	EPA 8270D SIM LIQ-LIQ
90700	11/08/19	ERH959	BA02713	11/07/19 8:15:00 AM	WATER	SM 4500-Si D	Silica W
90700	11/08/19	ERH959	BA02713	11/07/19 8:15:00 AM	WATER	SM 4500-Si D	SILICA W - DISSOLVED
90700	11/08/19	ERH959	BA02713	11/07/19 8:15:00 AM	WATER	SW846 9060A	9060A TOC
90700	11/08/19	ERH962	BA02714	11/06/19 7:10:00 AM	WATER	8011	EPA 8011
90700	11/08/19	ERH962	BA02714	11/06/19 7:10:00 AM	WATER	EPA 8260B	EPA 8260B BTEX & 1,2-DCA WATER
90700	11/08/19	ERH962	BA02714	11/06/19 7:10:00 AM	WATER	EPA 8260-GAS	EPA 8260 with GAS
90700	11/08/19	ERH962	BA02714	11/06/19 7:10:00 AM	WATER	EPA 8260B	EPA 8260B GRO WATER
90700	11/08/19	ERH962	BA02714	11/06/19 7:10:00 AM	WATER	RSK 175	METHANE BY RSK 175
90700	11/08/19	ERH963	BA02715	11/06/19 7:55:00 AM	WATER	SM 2320B	Wetlab 2320B - Water
90700	11/08/19	ERH963	BA02715	11/06/19 7:55:00 AM	WATER	EPA 300.0	Wetlab 300.0 - Water
90700	11/08/19	ERH963	BA02715	11/06/19 7:55:00 AM	WATER	SM3500FeB	Ferrous Iron
90700	11/08/19	ERH963	BA02715	11/06/19 7:55:00 AM	WATER	EPA 353.2	EPA 353.2 - WATER
90700	11/08/19	ERH963	BA02715	11/06/19 7:55:00 AM	WATER	6010C/3010A	EPA 6010C TOTAL
90700	11/08/19	ERH963	BA02715	11/06/19 7:55:00 AM	WATER	8011	EPA 8011
90700	11/08/19	ERH963	BA02715	11/06/19 7:55:00 AM	WATER	EPA 8260B	EPA 8260B BTEX & 1,2-DCA WATER
90700	11/08/19	ERH963	BA02715	11/06/19 7:55:00 AM	WATER	EPA 8270D	EPA 8270D WATER
90700	11/08/19	ERH963	BA02715	11/06/19 7:55:00 AM	WATER	EPA 8270D	EPA 8270D MODIFIED WATER
90700	11/08/19	ERH963	BA02715	11/06/19 7:55:00 AM	WATER	EPA 8015B-eLL	EPA 8015B TPH LIQ-LIQ
90700	11/08/19	ERH963	BA02715	11/06/19 7:55:00 AM	WATER	SW846 9060A	9060A DOC
90700	11/08/19	ERH963	BA02715	11/06/19 7:55:00 AM	WATER	EPA 8260-GAS	EPA 8260 with GAS
90700	11/08/19	ERH963	BA02715	11/06/19 7:55:00 AM	WATER	EPA 8260B	EPA 8260B GRO WATER
90700	11/08/19	ERH963	BA02715	11/06/19 7:55:00 AM	WATER	RSK 175	METHANE BY RSK 175
90700	11/08/19	ERH963	BA02715	11/06/19 7:55:00 AM	WATER	RSK 175	MEE BY RSK 175
90700	11/08/19	ERH963	BA02715	11/06/19 7:55:00 AM	WATER	8270D-SIM	EPA 8270D SIM LIQ-LIQ
90700	11/08/19	ERH963	BA02715	11/06/19 7:55:00 AM	WATER	SM 4500-Si D	Silica W
90700	11/08/19	ERH963	BA02715	11/06/19 7:55:00 AM	WATER	SM 4500-Si D	SILICA W - DISSOLVED
90700	11/08/19	ERH963	BA02715	11/06/19 7:55:00 AM	WATER	SW846 9060A	9060A TOC
90700	11/08/19	ERH964	BA02716	11/06/19 7:55:00 AM	WATER	8011	EPA 8011
90700	11/08/19	ERH964	BA02716	11/06/19 7:55:00 AM	WATER	EPA 8260B	EPA 8260B BTEX & 1,2-DCA WATER
90700	11/08/19	ERH964	BA02716	11/06/19 7:55:00 AM	WATER	EPA 8270D	EPA 8270D WATER
90700	11/08/19	ERH964	BA02716	11/06/19 7:55:00 AM	WATER	EPA 8270D	EPA 8270D MODIFIED WATER
90700	11/08/19	ERH964	BA02716	11/06/19 7:55:00 AM	WATER	EPA 8015B-eLL	EPA 8015B TPH LIQ-LIQ
90700	11/08/19	ERH964	BA02716	11/06/19 7:55:00 AM	WATER	EPA 8260-GAS	EPA 8260 with GAS
90700	11/08/19	ERH964	BA02716	11/06/19 7:55:00 AM	WATER	EPA 8260B	EPA 8260B GRO WATER

90700	11/08/19	ERH964	BA02716	11/06/19 7:55:00 AM	WATER	8270D-SIM	EPA 8270D SIM LIQ-LIQ	

SAMPLE RESULTS

EPA 8011

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

Attn: Margie Pascua
Project: 60571032 CV18F0126 Red Hill Fuel Storage
Sample ID: ERH958
Sample Collection Date: 11/07/19

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

ARF: 90700
APPL ID: BA02712
QCG: #8011-191111A-248057

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
8011	EDB	0.019 U	0.02	0.019	0.010	ug/L	11/11/19	11/13/19
8011	SURROGATE: 1,3-DIBROMOPROPANE	101	70-132			%	11/11/19	11/13/19

Quant Method: 8011106A.M
Run #: 1025162
Instrument: Herbie
Sequence: 191025
Dilution Factor: 1
Initials: GAG

Printed: 12/09/19 2:10:03 PM
APPL-F1-SC-NoMC-REG MDLs-DOD

EPA 8011

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

Sample ID: ERH959

Sample Collection Date: 11/07/19

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

ARF: 90700

APPL ID: BA02713

QCG: #8011-191111A-248057

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
8011	EDB	0.019 U	0.02	0.019	0.010	ug/L	11/11/19	11/13/19
8011	SURROGATE: 1,3-DIBROMOPROPANE	101	70-132			%	11/11/19	11/13/19

Quant Method: 8011106A.M
Run #: 1025163
Instrument: Herbie
Sequence: 191025
Dilution Factor: 1
Initials: GAG

Printed: 12/09/19 2:10:03 PM
APPL-F1-SC-NoMC-REG MDLs-DOD

EPA 8011

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

Sample ID: ERH962

Sample Collection Date: 11/06/19

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

ARF: 90700

APPL ID: BA02714

QCG: #8011-191111A-248057

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
8011	EDB	0.019 U	0.02	0.019	0.010	ug/L	11/11/19	11/13/19
8011	SURROGATE: 1,3-DIBROMOPROPANE	105	70-132			%	11/11/19	11/13/19

Quant Method: 8011106A.M
Run #: 1025164
Instrument: Herbie
Sequence: 191025
Dilution Factor: 1
Initials: GAG

Printed: 12/09/19 2:10:03 PM
APPL-F1-SC-NoMC-REG MDLs-DOD

EPA 8011

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

Sample ID: ERH963

Sample Collection Date: 11/06/19

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

ARF: 90700

APPL ID: BA02715

QCG: #8011-191111A-248057

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
8011	EDB	0.019 U	0.02	0.019	0.010	ug/L	11/11/19	11/13/19
8011	SURROGATE: 1,3-DIBROMOPROPANE	109	70-132			%	11/11/19	11/13/19

Quant Method: 8011106A.M
Run #: 1025165
Instrument: Herbie
Sequence: 191025
Dilution Factor: 1
Initials: GAG

Printed: 12/09/19 2:10:03 PM
APPL-F1-SC-NoMC-REG MDLs-DOD

EPA 8011

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

Sample ID: ERH964

Sample Collection Date: 11/06/19

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

ARF: 90700

APPL ID: BA02716

QCG: #8011-191111A-248057

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
8011	EDB	0.019 U	0.02	0.019	0.010	ug/L	11/11/19	11/13/19
8011	SURROGATE: 1,3-DIBROMOPROPANE	103	70-132			%	11/11/19	11/13/19

Quant Method: 8011106A.M
Run #: 1025166
Instrument: Herbie
Sequence: 191025
Dilution Factor: 1
Initials: GAG

Printed: 12/09/19 2:10:03 PM
APPL-F1-SC-NoMC-REG MDLs-DOD

EPA 8015B TPH LIQ-LIQ

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

Sample ID: ERH959

Sample Collection Date: 11/07/19

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

ARF: 90700

APPL ID: BA02713

QCG: #DOC53W5L-191111-24803

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8015B-eL	DIESEL (C10-C24)	25.00 U	40.0	25.00	13.07	ug/L	11/11/19	11/21/19
EPA 8015B-eL	OIL (C24-C40)	40.00 U	40.0	40.00	5.54	ug/L	11/11/19	11/21/19
EPA 8015B-eL	SURROGATE: OCTACOSANE (S)	99.1	60-142			%	11/11/19	11/21/19
EPA 8015B-eL	SURROGATE: ORTHO-TERPHENYL (S)	103	56-125			%	11/11/19	11/21/19

Quant Method: DOC1114.M
Run #: 1121029
Instrument: Apollo
Sequence: 191121
Dilution Factor: 1
Initials: LPO

Printed: 12/09/19 1:32:20 PM
APPL-F1-SC-NoMC-REG MDLs-DOD

EPA 8015B TPH LIQ-LIQ

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 90700

Sample ID: ERH963

APPL ID: BA02715

Sample Collection Date: 11/06/19

QCG: #DOC53W5L-191111-24803

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8015B-eL	DIESEL (C10-C24)	25.00 U	40.0	25.00	13.07	ug/L	11/11/19	11/21/19
EPA 8015B-eL	OIL (C24-C40)	40.00 U	40.0	40.00	5.54	ug/L	11/11/19	11/21/19
EPA 8015B-eL	SURROGATE: OCTACOSANE (S)	103	60-142			%	11/11/19	11/21/19
EPA 8015B-eL	SURROGATE: ORTHO-TERPHENYL (S)	103	56-125			%	11/11/19	11/21/19

Quant Method:	DOC1114.M
Run #:	1121030
Instrument:	Apollo
Sequence:	191121
Dilution Factor:	1
Initials:	LPO

Printed: 12/09/19 1:32:20 PM

APPL-F1-SC-NoMC-REG MDLs-DOD

EPA 8015B TPH LIQ-LIQ

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 90700

Sample ID: ERH964

APPL ID: BA02716

Sample Collection Date: 11/06/19

QCG: #DOC53W5L-191111-24803

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8015B-eL	DIESEL (C10-C24)	25.00 U	40.0	25.00	13.07	ug/L	11/11/19	11/21/19
EPA 8015B-eL	OIL (C24-C40)	40.00 U	40.0	40.00	5.54	ug/L	11/11/19	11/21/19
EPA 8015B-eL	SURROGATE: OCTACOSANE (S)	109	60-142			%	11/11/19	11/21/19
EPA 8015B-eL	SURROGATE: ORTHO-TERPHENYL (S)	105	56-125			%	11/11/19	11/21/19

Quant Method:	DOC1114.M
Run #:	1121031
Instrument:	Apollo
Sequence:	191121
Dilution Factor:	1
Initials:	LPO

Printed: 12/09/19 1:32:20 PM

APPL-F1-SC-NoMC-REG MDLs-DOD

EPA 8270D SIM LIQ-LIQ

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 90700

Sample ID: ERH959

APPL ID: BA02713

Sample Collection Date: 11/07/19

QCG: #SIM53-191111A-247241

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
8270D-SIM	1-METHYLNAPHTHALENE	0.10 U	0.2	0.10	0.04	ug/L	11/11/19	11/15/19
8270D-SIM	2-METHYLNAPHTHALENE	0.10 U	0.2	0.10	0.04	ug/L	11/11/19	11/15/19
8270D-SIM	NAPHTHALENE	0.10 U	0.2	0.10	0.04	ug/L	11/11/19	11/15/19
8270D-SIM	SURROGATE: 2-METHYLNAPHTHALEN	84.3	39-114			%	11/11/19	11/15/19
8270D-SIM	SURROGATE: FLUORANTHENE-D10 (S	98.2	58-120			%	11/11/19	11/15/19

Quant Method: L1028.M
Run #: 1115L009
Instrument: Linus
Sequence: L191115
Dilution Factor: 1
Initials: MA

Printed: 11/18/19 11:28:02 AM
APPL-F1-SC-NoMC-REG MDLs-DOD

EPA 8270D SIM LIQ-LIQ

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 90700

Sample ID: ERH963

APPL ID: BA02715

Sample Collection Date: 11/06/19

QCG: #SIM53-191111A-247241

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
8270D-SIM	1-METHYLNAPHTHALENE	0.10 U	0.2	0.10	0.04	ug/L	11/11/19	11/15/19
8270D-SIM	2-METHYLNAPHTHALENE	0.10 U	0.2	0.10	0.04	ug/L	11/11/19	11/15/19
8270D-SIM	NAPHTHALENE	0.10 U	0.2	0.10	0.04	ug/L	11/11/19	11/15/19
8270D-SIM	SURROGATE: 2-METHYLNAPHTHALEN	86.2	39-114			%	11/11/19	11/15/19
8270D-SIM	SURROGATE: FLUORANTHENE-D10 (S	99.7	58-120			%	11/11/19	11/15/19

Quant Method: L1028.M
Run #: 1115L010
Instrument: Linus
Sequence: L191115
Dilution Factor: 1
Initials: MA

Printed: 11/18/19 11:28:02 AM
APPL-F1-SC-NoMC-REG MDLs-DOD

EPA 8270D SIM LIQ-LIQ

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 90700

Sample ID: ERH964

APPL ID: BA02716

Sample Collection Date: 11/06/19

QCG: #SIM53-191111A-247241

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
8270D-SIM	1-METHYLNAPHTHALENE	0.10 U	0.2	0.10	0.04	ug/L	11/11/19	11/15/19
8270D-SIM	2-METHYLNAPHTHALENE	0.10 U	0.2	0.10	0.04	ug/L	11/11/19	11/15/19
8270D-SIM	NAPHTHALENE	0.10 U	0.2	0.10	0.04	ug/L	11/11/19	11/15/19
8270D-SIM	SURROGATE: 2-METHYLNAPHTHALEN	86.0	39-114			%	11/11/19	11/15/19
8270D-SIM	SURROGATE: FLUORANTHENE-D10 (S	102	58-120			%	11/11/19	11/15/19

Quant Method: L1028.M
Run #: 1115L011
Instrument: Linus
Sequence: L191115
Dilution Factor: 1
Initials: MA

Printed: 11/18/19 11:28:02 AM
APPL-F1-SC-NoMC-REG MDLs-DOD

EPA 8270D WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 90700

Sample ID: ERH959

APPL ID: BA02713

Sample Collection Date: 11/07/19

QCG: #87DC5-191111A-247901

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8270D	PHENOL	4.00 U	5.0	4.00	1.00	ug/L	11/11/19	11/27/19
EPA 8270D	SURROGATE: 2,4,6-TRIBROMOPHENO	87.7	43-140			%	11/11/19	11/27/19
EPA 8270D	SURROGATE: 2-FLUORBIPHENYL (S)	81.8	44-119			%	11/11/19	11/27/19
EPA 8270D	SURROGATE: 2-FLUOROPHENOL (S)	85.6	19-119			%	11/11/19	11/27/19
EPA 8270D	SURROGATE: NITROBENZENE-D5 (S)	102	44-120			%	11/11/19	11/27/19
EPA 8270D	SURROGATE: PHENOL-D6 (S)	96.6	10-115			%	11/11/19	11/27/19
EPA 8270D	SURROGATE: TERPHENYL-D14 (S)	100	50-134			%	11/11/19	11/27/19

Quant Method: Not detected.M
Run #: 1121Y169
Instrument: Yoda
Sequence: Y191121
Dilution Factor: 1
Initials: MA

Printed: 12/04/19 1:53:36 PM
APPL-F1-SC-NoMC-REG MDLs-DOD

EPA 8270D WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

Sample ID: ERH963

Sample Collection Date: 11/06/19

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

ARF: 90700

APPL ID: BA02715

QCG: #87DC5-191111A-247901

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8270D	PHENOL	4.00 U	5.0	4.00	1.00	ug/L	11/11/19	11/27/19
EPA 8270D	SURROGATE: 2,4,6-TRIBROMOPHENO	73.4	43-140			%	11/11/19	11/27/19
EPA 8270D	SURROGATE: 2-FLUORBIPHENYL (S)	78.6	44-119			%	11/11/19	11/27/19
EPA 8270D	SURROGATE: 2-FLUOROPHENOL (S)	76.7	19-119			%	11/11/19	11/27/19
EPA 8270D	SURROGATE: NITROBENZENE-D5 (S)	91.9	44-120			%	11/11/19	11/27/19
EPA 8270D	SURROGATE: PHENOL-D6 (S)	86.3	10-115			%	11/11/19	11/27/19
EPA 8270D	SURROGATE: TERPHENYL-D14 (S)	97.8	50-134			%	11/11/19	11/27/19

Quant Method: Not detected.M
Run #: 1121Y170
Instrument: Yoda
Sequence: Y191121
Dilution Factor: 1
Initials: MA

Printed: 12/04/19 1:53:36 PM
APPL-F1-SC-NoMC-REG MDLs-DOD

EPA 8270D WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

Sample ID: ERH964

Sample Collection Date: 11/06/19

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

ARF: 90700

APPL ID: BA02716

QCG: #87DC5-191111A-247901

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8270D	PHENOL	4.00 U	5.0	4.00	1.00	ug/L	11/11/19	11/27/19
EPA 8270D	SURROGATE: 2,4,6-TRIBROMOPHENO	85.9	43-140			%	11/11/19	11/27/19
EPA 8270D	SURROGATE: 2-FLUORBIPHENYL (S)	85.5	44-119			%	11/11/19	11/27/19
EPA 8270D	SURROGATE: 2-FLUOROPHENOL (S)	93.3	19-119			%	11/11/19	11/27/19
EPA 8270D	SURROGATE: NITROBENZENE-D5 (S)	103	44-120			%	11/11/19	11/27/19
EPA 8270D	SURROGATE: PHENOL-D6 (S)	104	10-115			%	11/11/19	11/27/19
EPA 8270D	SURROGATE: TERPHENYL-D14 (S)	103	50-134			%	11/11/19	11/27/19

Quant Method: Not detected.M
Run #: 1121Y171
Instrument: Yoda
Sequence: Y191121
Dilution Factor: 1
Initials: MA

Printed: 12/04/19 1:53:36 PM
APPL-F1-SC-NoMC-REG MDLs-DOD

EPA 8270D MODIFIED WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

Sample ID: ERH959

Sample Collection Date: 11/07/19

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

ARF: 90700

APPL ID: BA02713

QCG: #87DME-191111A-247177

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8270D	2-(2-METHOXYETHOXY)-ETHANOL	80.0 U	100	80.0	40.0	ug/L	11/11/19	11/13/19

Quant Method: YMEE1030.M
Run #: 1030L070
Instrument: Linus
Sequence: L191030M
Dilution Factor: 1
Initials: MA

Printed: 11/15/19 1:14:32 PM
APPL-F1-SC-NoMC-REG MDLs-DOD

EPA 8270D MODIFIED WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

Sample ID: ERH963

Sample Collection Date: 11/06/19

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

ARF: 90700

APPL ID: BA02715

QCG: #87DME-191111A-247177

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8270D	2-(2-METHOXYETHOXY)-ETHANOL	80.0 U	100	80.0	40.0	ug/L	11/11/19	11/13/19

Quant Method:	YMEE1030.M
Run #:	1030L071
Instrument:	Linus
Sequence:	L191030M
Dilution Factor:	1
Initials:	MA

Printed: 11/15/19 1:14:33 PM
APPL-F1-SC-NoMC-REG MDLs-DOD

EPA 8270D MODIFIED WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 90700

Sample ID: ERH964

APPL ID: BA02716

Sample Collection Date: 11/06/19

QCG: #87DME-191111A-247177

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8270D	2-(2-METHOXYETHOXY)-ETHANOL	80.0 U	100	80.0	40.0	ug/L	11/11/19	11/13/19

Quant Method: YMEE1030.M
Run #: 1030L072
Instrument: Linus
Sequence: L191030M
Dilution Factor: 1
Initials: MA

Printed: 11/15/19 1:14:33 PM
APPL-F1-SC-NoMC-REG MDLs-DOD

EPA 8260B BTEX & 1,2-DCA WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 90700

Sample ID: ERH958

APPL ID: BA02712

Sample Collection Date: 11/07/19

QCG: #86BTO-191113AL-247162

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8260B	1,2-DICHLOROETHANE	0.30 U	1.0	0.30	0.14	ug/L	11/14/19	11/14/19
EPA 8260B	BENZENE	0.30 U	1.0	0.30	0.15	ug/L	11/14/19	11/14/19
EPA 8260B	ETHYLBENZENE	0.50 U	1.0	0.50	0.23	ug/L	11/14/19	11/14/19
EPA 8260B	TOLUENE	0.30 U	1.0	0.30	0.15	ug/L	11/14/19	11/14/19
EPA 8260B	XYLENES (TOTAL)	0.30 U	2.0	0.30	0.15	ug/L	11/14/19	11/14/19
EPA 8260B	SURROGATE: 1,2-DICHLOROETHANE-	98.6	81-118			%	11/14/19	11/14/19
EPA 8260B	SURROGATE: 4-BROMOFLUOROBENZ	94.4	85-114			%	11/14/19	11/14/19
EPA 8260B	SURROGATE: DIBROMOFLUOROMETH	101	80-119			%	11/14/19	11/14/19
EPA 8260B	SURROGATE: TOLUENE-D8 (S)	98.5	89-112			%	11/14/19	11/14/19

Quant Method: L1113W.M
Run #: 1113L38
Instrument: Loki
Sequence: 191113
Dilution Factor: 1
Initials: DPO

Printed: 11/15/19 10:15:54 AM
APPL-F1-SC-NoMC-REG MDLs-DOD

EPA 8260B BTEX & 1,2-DCA WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

Sample ID: ERH959

Sample Collection Date: 11/07/19

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

ARF: 90700

APPL ID: BA02713

QCG: #86BTO-191113AL-247162

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8260B	1,2-DICHLOROETHANE	0.30 U	1.0	0.30	0.14	ug/L	11/14/19	11/14/19
EPA 8260B	BENZENE	0.30 U	1.0	0.30	0.15	ug/L	11/14/19	11/14/19
EPA 8260B	ETHYLBENZENE	0.50 U	1.0	0.50	0.23	ug/L	11/14/19	11/14/19
EPA 8260B	TOLUENE	0.30 U	1.0	0.30	0.15	ug/L	11/14/19	11/14/19
EPA 8260B	XYLENES (TOTAL)	0.30 U	2.0	0.30	0.15	ug/L	11/14/19	11/14/19
EPA 8260B	SURROGATE: 1,2-DICHLOROETHANE-	95.7	81-118			%	11/14/19	11/14/19
EPA 8260B	SURROGATE: 4-BROMOFLUOROBENZ	94.8	85-114			%	11/14/19	11/14/19
EPA 8260B	SURROGATE: DIBROMOFLUOROMETH	101	80-119			%	11/14/19	11/14/19
EPA 8260B	SURROGATE: TOLUENE-D8 (S)	96.7	89-112			%	11/14/19	11/14/19

Quant Method: L1113W.M
Run #: 1113L49
Instrument: Loki
Sequence: 191113
Dilution Factor: 1
Initials: DPO

Printed: 11/15/19 10:15:55 AM
APPL-F1-SC-NoMC-REG MDLs-DOD

EPA 8260B BTEX & 1,2-DCA WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 90700

Sample ID: ERH962

APPL ID: BA02714

Sample Collection Date: 11/06/19

QCG: #86BTO-191113AL-247162

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8260B	1,2-DICHLOROETHANE	0.30 U	1.0	0.30	0.14	ug/L	11/14/19	11/14/19
EPA 8260B	BENZENE	0.30 U	1.0	0.30	0.15	ug/L	11/14/19	11/14/19
EPA 8260B	ETHYLBENZENE	0.50 U	1.0	0.50	0.23	ug/L	11/14/19	11/14/19
EPA 8260B	TOLUENE	0.30 U	1.0	0.30	0.15	ug/L	11/14/19	11/14/19
EPA 8260B	XYLENES (TOTAL)	0.30 U	2.0	0.30	0.15	ug/L	11/14/19	11/14/19
EPA 8260B	SURROGATE: 1,2-DICHLOROETHANE-	102	81-118			%	11/14/19	11/14/19
EPA 8260B	SURROGATE: 4-BROMOFLUOROBENZ	93.0	85-114			%	11/14/19	11/14/19
EPA 8260B	SURROGATE: DIBROMOFLUOROMETH	105	80-119			%	11/14/19	11/14/19
EPA 8260B	SURROGATE: TOLUENE-D8 (S)	97.4	89-112			%	11/14/19	11/14/19

Quant Method: L1113W.M
Run #: 1113L39
Instrument: Loki
Sequence: 191113
Dilution Factor: 1
Initials: DPO

Printed: 11/15/19 10:15:55 AM
APPL-F1-SC-NoMC-REG MDLs-DOD

EPA 8260B BTEX & 1,2-DCA WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

Sample ID: ERH963

Sample Collection Date: 11/06/19

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

ARF: 90700

APPL ID: BA02715

QCG: #86BTO-191113AL-247162

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8260B	1,2-DICHLOROETHANE	0.30 U	1.0	0.30	0.14	ug/L	11/14/19	11/14/19
EPA 8260B	BENZENE	0.30 U	1.0	0.30	0.15	ug/L	11/14/19	11/14/19
EPA 8260B	ETHYLBENZENE	0.50 U	1.0	0.50	0.23	ug/L	11/14/19	11/14/19
EPA 8260B	TOLUENE	0.30 U	1.0	0.30	0.15	ug/L	11/14/19	11/14/19
EPA 8260B	XYLENES (TOTAL)	0.30 U	2.0	0.30	0.15	ug/L	11/14/19	11/14/19
EPA 8260B	SURROGATE: 1,2-DICHLOROETHANE-	96.8	81-118			%	11/14/19	11/14/19
EPA 8260B	SURROGATE: 4-BROMOFLUOROBENZ	97.4	85-114			%	11/14/19	11/14/19
EPA 8260B	SURROGATE: DIBROMOFLUOROMETH	101	80-119			%	11/14/19	11/14/19
EPA 8260B	SURROGATE: TOLUENE-D8 (S)	99.4	89-112			%	11/14/19	11/14/19

Quant Method: L1113W.M
Run #: 1113L50
Instrument: Loki
Sequence: 191113
Dilution Factor: 1
Initials: DPO

Printed: 11/15/19 10:15:55 AM
APPL-F1-SC-NoMC-REG MDLs-DOD

EPA 8260B BTEX & 1,2-DCA WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

Sample ID: ERH964

Sample Collection Date: 11/06/19

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

ARF: 90700

APPL ID: BA02716

QCG: #86BTO-191113AL-247162

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8260B	1,2-DICHLOROETHANE	0.30 U	1.0	0.30	0.14	ug/L	11/14/19	11/14/19
EPA 8260B	BENZENE	0.30 U	1.0	0.30	0.15	ug/L	11/14/19	11/14/19
EPA 8260B	ETHYLBENZENE	0.50 U	1.0	0.50	0.23	ug/L	11/14/19	11/14/19
EPA 8260B	TOLUENE	0.30 U	1.0	0.30	0.15	ug/L	11/14/19	11/14/19
EPA 8260B	XYLENES (TOTAL)	0.30 U	2.0	0.30	0.15	ug/L	11/14/19	11/14/19
EPA 8260B	SURROGATE: 1,2-DICHLOROETHANE-	97.8	81-118			%	11/14/19	11/14/19
EPA 8260B	SURROGATE: 4-BROMOFLUOROBENZ	96.3	85-114			%	11/14/19	11/14/19
EPA 8260B	SURROGATE: DIBROMOFLUOROMETH	103	80-119			%	11/14/19	11/14/19
EPA 8260B	SURROGATE: TOLUENE-D8 (S)	100	89-112			%	11/14/19	11/14/19

Quant Method: L1113W.M
Run #: 1113L51
Instrument: Loki
Sequence: 191113
Dilution Factor: 1
Initials: DPO

Printed: 12/11/2019 2:04:32 PM
APPL-F1-SC-NoMC-REG MDLs-DOD

EPA 8260B GRO WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 90700

Sample ID: ERH958

APPL ID: BA02712

Sample Collection Date: 11/07/19

QCG: #GRO86-191113AL-247166

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8260B	GASOLINE RANGE ORGANICS	18.0 U	20	18.0	8.6	ug/L	11/14/19	11/14/19
EPA 8260B	SURROGATE: 4-BROMOFLUOROBENZ	94.4	85-114			%	11/14/19	11/14/19

Quant Method: LGAS1113.M
Run #: 1113L38
Instrument: Loki
Sequence: 191113
Dilution Factor: 1
Initials: DPO

Printed: 11/15/19 10:45:36 AM
APPL-F1-SC-NoMC-REG MDLs-DOD

EPA 8260B GRO WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

Attn: Margie Pascua
Project: 60571032 CV18F0126 Red Hill Fuel Storage
Sample ID: ERH959
Sample Collection Date: 11/07/19

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

ARF: 90700
APPL ID: BA02713
QCG: #GRO86-191113AL-247166

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8260B	GASOLINE RANGE ORGANICS	18.0 U	20	18.0	8.6	ug/L	11/14/19	11/14/19
EPA 8260B	SURROGATE: 4-BROMOFLUOROBENZ	94.8	85-114			%	11/14/19	11/14/19

Quant Method: LGAS1113.M
Run #: 1113L49
Instrument: Loki
Sequence: 191113
Dilution Factor: 1
Initials: DPO

Printed: 11/15/19 10:45:36 AM
APPL-F1-SC-NoMC-REG MDLs-DOD

EPA 8260B GRO WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

Sample ID: ERH962

Sample Collection Date: 11/06/19

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

ARF: 90700

APPL ID: BA02714

QCG: #GRO86-191113AL-247166

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8260B	GASOLINE RANGE ORGANICS	18.0 U	20	18.0	8.6	ug/L	11/14/19	11/14/19
EPA 8260B	SURROGATE: 4-BROMOFLUOROBENZ	93.0	85-114			%	11/14/19	11/14/19

Quant Method: LGAS1113.M
Run #: 1113L39
Instrument: Loki
Sequence: 191113
Dilution Factor: 1
Initials: DPO

Printed: 11/15/19 10:45:37 AM
APPL-F1-SC-NoMC-REG MDLs-DOD

EPA 8260B GRO WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

Sample ID: ERH963

Sample Collection Date: 11/06/19

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

ARF: 90700

APPL ID: BA02715

QCG: #GRO86-191113AL-247166

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8260B	GASOLINE RANGE ORGANICS	18.0 U	20	18.0	8.6	ug/L	11/14/19	11/14/19
EPA 8260B	SURROGATE: 4-BROMOFLUOROBENZ	97.4	85-114			%	11/14/19	11/14/19

Quant Method:	LGAS1113.M
Run #:	1113L50
Instrument:	Loki
Sequence:	191113
Dilution Factor:	1
Initials:	DPO

Printed: 11/15/19 10:45:37 AM

APPL-F1-SC-NoMC-REG MDLs-DOD

EPA 8260B GRO WATER

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

Attn: Margie Pascua
Project: 60571032 CV18F0126 Red Hill Fuel Storage
Sample ID: ERH964
Sample Collection Date: 11/06/19

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

ARF: 90700
APPL ID: BA02716
QCG: #GRO86-191113AL-247166

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8260B	GASOLINE RANGE ORGANICS	18.0 U	20	18.0	8.6	ug/L	11/14/19	11/14/19
EPA 8260B	SURROGATE: 4-BROMOFLUOROBENZ	96.3	85-114			%	11/14/19	11/14/19

Quant Method: LGAS1113.M
Run #: 1113L51
Instrument: Loki
Sequence: 191113
Dilution Factor: 1
Initials: DPO

Printed: 11/15/19 10:45:37 AM
APPL-F1-SC-NoMC-REG MDLs-DOD

METHANE

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

Sample ID: ERH958

Sample Collection Date: 11/07/19

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

ARF: 90700

APPL ID: BA02712

QCG: #RSKME-191113A-247088

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
RSK 175	METHANE	1.00 U	5.0	1.00	0.25	ug/L	11/13/19	11/13/19

Quant Method:	RSK1002.M
Run #:	1113R06
Instrument:	Rocky
Sequence:	191002
Dilution Factor:	1
Initials:	GAG

Printed: 12/06/19 3:58:31 PM
APPL-F1-SC-NoMC-REG MDLs-DOD

METHANE

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

Attn: Margie Pascua
Project: 60571032 CV18F0126 Red Hill Fuel Storage
Sample ID: ERH959
Sample Collection Date: 11/07/19

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

ARF: 90700
APPL ID: BA02713
QCG: #RSKME-191113A-247088

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
RSK 175	METHANE	1.00 U	5.0	1.00	0.25	ug/L	11/13/19	11/13/19

Quant Method:	RSK1002.M
Run #:	1113R07
Instrument:	Rocky
Sequence:	191002
Dilution Factor:	1
Initials:	GAG

Printed: 12/06/19 3:58:31 PM
APPL-F1-SC-NoMC-REG MDLs-DOD

METHANE

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

Sample ID: ERH962

Sample Collection Date: 11/06/19

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

ARF: 90700

APPL ID: BA02714

QCG: #RSKME-191113A-247088

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
RSK 175	METHANE	1.00 U	5.0	1.00	0.25	ug/L	11/13/19	11/13/19

Quant Method:	RSK1002.M
Run #:	1113R08
Instrument:	Rocky
Sequence:	191002
Dilution Factor:	1
Initials:	GAG

Printed: 12/06/19 3:58:31 PM
APPL-F1-SC-NoMC-REG MDLs-DOD

METHANE

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

Attn: Margie Pascua
Project: 60571032 CV18F0126 Red Hill Fuel Storage
Sample ID: ERH963
Sample Collection Date: 11/06/19

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

ARF: 90700
APPL ID: BA02715
QCG: #RSKME-191113A-247088

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
RSK 175	METHANE	32	5.0	1.00	0.25	ug/L	11/13/19	11/13/19

Quant Method:	RSK1002.M
Run #:	1113R09
Instrument:	Rocky
Sequence:	191002
Dilution Factor:	1
Initials:	GAG

Printed: 12/06/19 3:58:31 PM
APPL-F1-SC-NoMC-REG MDLs-DOD

MEE

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

ARF: 90700

Sample ID: ERH963

APPL ID: BA02715

Sample Collection Date: 11/06/19

QCG: #RSKWR-191120A-247502

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
RSK 175	METHANE	12	5.0	1.00	0.25	ug/L	11/20/19	11/20/19

Quant Method: RSK1002.M
Run #: 1120R07
Instrument: Rocky
Sequence: 191002
Dilution Factor: 1
Initials: GAG

Printed: 12/06/19 3:58:31 PM
APPL-F1-SC-NoMC-REG MDLs-DOD

Metals Analysis

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua
Project: 60571032 CV18F0126 Red Hill Fuel Storage
Sample ID: ERH959
Sample Collection Date: 11/07/19

ARF: 90700
APPL ID: BA02713

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
6010C/3010A	CALCIUM (CA)	13200	1000	75.0	27.5	ug/L	1	11/12/19	11/19/19
6010C/3010A	MAGNESIUM (MG)	13800	500	30.0	12.9	ug/L	1	11/12/19	11/19/19
6010C/3010A	MANGANESE (MN)	3.0 J	10.0	4.00	1.23	ug/L	1	11/12/19	11/19/19
6010C/3010A	POTASSIUM (K)	2070 J	3000	500.0	220.0	ug/L	1	11/12/19	11/19/19
6010C/3010A	SODIUM (NA)	35300	5000	500.0	111.1	ug/L	1	11/12/19	11/19/19

J = Estimated value.

Printed: 12/02/19 11:59:33 AM
APPL-F1-SC-NoMC-REG MDLs

Metals Analysis

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua
Project: 60571032 CV18F0126 Red Hill Fuel Storage
Sample ID: ERH963
Sample Collection Date: 11/06/19

ARF: 90700
APPL ID: BA02715

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
6010C/3010A	CALCIUM (CA)	13800	1000	75.0	27.5	ug/L	1	11/12/19	11/19/19
6010C/3010A	MAGNESIUM (MG)	10600	500	30.0	12.9	ug/L	1	11/12/19	11/19/19
6010C/3010A	MANGANESE (MN)	191	10.0	4.00	1.23	ug/L	1	11/12/19	11/19/19
6010C/3010A	POTASSIUM (K)	1610 J	3000	500.0	220.0	ug/L	1	11/12/19	11/19/19
6010C/3010A	SODIUM (NA)	39600	5000	500.0	111.1	ug/L	1	11/12/19	11/19/19

J = Estimated value.

Printed: 12/02/19 11:59:33 AM
APPL-F1-SC-NoMC-REG MDLs

Wet Lab Analysis

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

Sample ID: ERH959

Sample Collection Date: 11/07/19

APPL ID: BA02713

ARF: 90700

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
EPA 300.0	BROMIDE	0.22 J	0.5	0.16	0.05	mg/L	1	11/08/19	11/08/19
EPA 300.0	FLUORIDE	0.09 U	0.1	0.09	0.08	mg/L	1	11/08/19	11/08/19
EPA 300.0	NITRATE	1.6	0.5	0.18	0.04	mg/L	1	11/08/19	11/08/19
EPA 300.0	SULFATE	10.7	1.0	0.20	0.09	mg/L	1	11/08/19	11/08/19
EPA 300.0	CHLORIDE	75.4	5.0	1.00	0.40	mg/L	5	11/08/19	11/08/19

J = Estimated value.

Printed: 12/11/19 8:44:50 AM

APPL-F1-SC-NoMC-REG MDLs

Wet Lab Analysis

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

Sample ID: ERH963

Sample Collection Date: 11/06/19

APPL ID: BA02715

ARF: 90700

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
EPA 300.0	BROMIDE	0.19 J	0.5	0.16	0.05	mg/L	1	11/08/19	11/08/19
EPA 300.0	FLUORIDE	0.09 U	0.1	0.09	0.08	mg/L	1	11/08/19	11/08/19
EPA 300.0	NITRATE	0.17 J	0.5	0.18	0.04	mg/L	1	11/08/19	11/08/19
EPA 300.0	SULFATE	3.8	1.0	0.20	0.09	mg/L	1	11/08/19	11/08/19
EPA 300.0	CHLORIDE	57.3	5.0	1.00	0.40	mg/L	5	11/08/19	11/08/19

J = Estimated value.

Printed: 12/11/19 8:44:50 AM

APPL-F1-SC-NoMC-REG MDLs

Wet Lab Analysis

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

Sample ID: ERH959

APPL ID: BA02713

Sample Collection Date: 11/07/19

ARF: 90700

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
EPA 353.2	NITRATE-NITRITE-N	0.42	0.10	0.090	0.028	mg/L	1	11/13/19	11/13/19
SM 2320B	BICARBONATE AS CACO3	51.1	2.0	1.70	0.85	mg/L	1	11/19/19	11/19/19
SM 2320B	CARBONATE AS CACO3	1.70 U	2.0	1.70	0.85	mg/L	1	11/19/19	11/19/19
SM 2320B	TOTAL ALKALINITY AS CACO	51.1	2.0	1.70	0.85	mg/L	1	11/19/19	11/19/19
SM 4500-Si D	SILICA W	45.3	5.0	4.00	2.65	mg/L	5	11/19/19	11/19/19
SM 4500-Si D	DISSOLVED SILICA	44.9	5.0	4.00	2.65	mg/L	5	11/19/19	11/19/19
SM3500FeB	FERROUS IRON	0.32 U	1.0	0.32	0.16	mg/L	1	11/11/19	11/11/19
SW846 9060A	DISSOLVED ORGANIC CARB	0.35 J	0.93	0.350	0.130	mg/L	1	11/14/19	11/14/19
SW846 9060A	TOTAL ORGANIC CARBON	0.16 J	0.93	0.350	0.130	mg/L	1	11/15/19	11/15/19

J = Estimated value.

Printed: 12/11/19 8:41:01 AM

APPL-F1-SC-NoMC-REG MDLs

Wet Lab Analysis

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

Sample ID: ERH963

APPL ID: BA02715

Sample Collection Date: 11/06/19

ARF: 90700

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
EPA 353.2	NITRATE-NITRITE-N	0.043 J	0.10	0.090	0.028	mg/L	1	11/13/19	11/13/19
SM 2320B	BICARBONATE AS CACO3	66.5	2.0	1.70	0.85	mg/L	1	11/19/19	11/19/19
SM 2320B	CARBONATE AS CACO3	1.70 U	2.0	1.70	0.85	mg/L	1	11/19/19	11/19/19
SM 2320B	TOTAL ALKALINITY AS CACO	66.5	2.0	1.70	0.85	mg/L	1	11/19/19	11/19/19
SM 4500-Si D	SILICA W	14.6	5.0	4.00	2.65	mg/L	5	11/19/19	11/19/19
SM 4500-Si D	DISSOLVED SILICA	13.7	5.0	4.00	2.65	mg/L	5	11/19/19	11/19/19
SM3500FeB	FERROUS IRON	0.32 U	1.0	0.32	0.16	mg/L	1	11/11/19	11/11/19
SW846 9060A	DISSOLVED ORGANIC CARB	1.3	0.93	0.350	0.130	mg/L	1	11/14/19	11/14/19
SW846 9060A	TOTAL ORGANIC CARBON	0.64 J	0.93	0.350	0.130	mg/L	1	11/15/19	11/15/19

J = Estimated value.

Printed: 12/11/19 8:41:01 AM

APPL-F1-SC-NoMC-REG MDLs

QC FORMS

8011

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 90700

Case No: 90700 Date Analyzed: 11/12/19

Matrix: WATER Instrument: Herbie

APPL ID.	Client Sample No.	SURROGATE: 1,3-DIBROMOPROPANE (S)					
		Limits	Result	Qualifier	Limits	Result	Qualifier
191111A-BLK	Blank	70-132	107				
191111A-LCS	Lab Control Spike	70-132	100				
191111A-LCSD	Lab Control SpikeD	70-132	101				
BA02712	ERH958	70-132	101				
BA02713	ERH959	70-132	101				
BA02714	ERH962	70-132	105				
BA02715	ERH963	70-132	109				
BA02716	ERH964	70-132	103				
BA02715-MS	Matrix Spike	70-132	108				
BA02715-MSD	Matrix SpikeD	70-132	106				

Comments: Batch: #8011-191111A

8011

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 90700

Case No: 90700 Date Analyzed: 11/12/19

Matrix: WATER Instrument: Herbie

Blank ID: 191111A-BLK Time Analyzed: 2209

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191111A-BLK	Blank	1025154	11/12/19 2209
191111A-LCS	Lab Control Spike	1025155	11/12/19 2230
191111A-LCSD	Lab Control SpikeD	1025156	11/12/19 2250
BA02712	ERH958	1025162	11/13/19 0050
BA02713	ERH959	1025163	11/13/19 0110
BA02714	ERH962	1025164	11/13/19 0130
BA02715	ERH963	1025165	11/13/19 0150
BA02716	ERH964	1025166	11/13/19 0210
191111A-MS	Matrix Spike	1126094	12/06/19 2235
191111A-MSD	Matrix SpikeD	1126095	12/06/19 2255

Comments: Batch: #8011-191111A

Method Blank

EPA 8011

Blank Name/QCG: **191111W-02715 - 248057**
Batch ID: #8011-191111A

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	EDB	0.019 U	0.02	0.019	0.010	ug/L	11/11/19	11/12/19
BLANK	SURROGATE: 1,3-DIBROMOPRO	107	70-132			%	11/11/19	11/12/19

Quant Method:8011106A.M
Run #:1025154
Instrument:Herbie
Sequence:191025
Initials:GAG

GC SC-Blank-REG MDLs-DOD
Printed: 12/09/19 2:10:02 PM

8011

Form 4

LCS Summary

Lab Name: APPL, Inc. SDG No: 90700

Case No: 90700 Date Analyzed: 11/12/19

Matrix: WATER Instrument: Herbie

LCS ID: 191111A-LCS Time Analyzed: 2230

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191111A-BLK	Blank	1025154	11/12/19 2209
191111A-LCS	Lab Control Spike	1025155	11/12/19 2230
191111A-LCSD	Lab Control SpikeD	1025156	11/12/19 2250
BA02712	ERH958	1025162	11/13/19 0050
BA02713	ERH959	1025163	11/13/19 0110
BA02714	ERH962	1025164	11/13/19 0130
BA02715	ERH963	1025165	11/13/19 0150
BA02716	ERH964	1025166	11/13/19 0210
191111A-MS	Matrix Spike	1126094	12/06/19 2235
191111A-MSD	Matrix SpikeD	1126095	12/06/19 2255

Comments: Batch: #8011-191111A

Laboratory Control Spike Recoveries

EPA 8011

APPL ID: **191111W-02715 LCS - 248057**
Batch ID: #8011-191111A

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Lvl ug/L	SPK Result ug/L	DUP Result ug/L	SPK % Recovery	DUP % Recovery	Recovery Limits	RPD %	RPD Limits
EDB	0.250	0.251	0.247	100	98.8	60-140	1.6	25
SURROGATE: 1,3-DIBROMOPROPANE (	0.250	0.251	0.252	100	101	70-132		

Comments: _____

Primary	SPK	DUP
Quant Method :	8011106A.M	8011106A.M
Extraction Date :	11/11/19	11/11/19
Analysis Date :	11/12/19	11/12/19
Instrument :	Herbie	Herbie
Run :	1025155	1025156
Initials :	GAG	

Printed: 12/09/19 2:10:09 PM
APPL Standard LCSD

Matrix Spike Recoveries

EPA 8011

APPL ID: **191111W-02715 MS - 248057**
Batch ID: #8011-191111A
Sample ID: BA02715
Client ID: ERH963

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Lvl ug/L	Matrix Result ug/L	SPK Result ug/L	DUP Result ug/L	SPK % Recovery	DUP % Recovery	Recovery Limits	RPD %	RPD Limits
EDB	0.250	ND	0.279	0.260	112	104	60-140	7.1	25
SURROGATE: 1,3-DIBROMOPROPANE (	0.250	NA	0.270	0.266	108	106	70-132		

Comments: _____

Primary	SPK	DUP
Quant Method :	8011106A.M	8011106A.M
Extraction Date :	11/11/19	11/11/19
Analysis Date :	12/06/19	12/06/19
Instrument :	Herbie	Herbie
Run :	1126094	1126095
Initials :	GAG	

Printed: 12/09/19 2:10:18 PM
APPL MSD SCII

EPA 8015B-eLL

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 90700

Case No: 90700 Date Analyzed: 11/21/19

Matrix: WATER Instrument: Apollo

APPL ID.	Client Sample No.	SURROGATE: OCTACOSANE (S)			SURROGATE: ORTHO-TERPHENYL (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
191111-BLK	Blank	60-142	94.9		56-125	100	
191111-LCS	Lab Control Spike	60-142	84.3		56-125	107	
191111-LCSD	Lab Control SpikeD	60-142	84.0		56-125	106	
BA02713	ERH959	60-142	99.1		56-125	103	
BA02715	ERH963	60-142	103		56-125	103	
BA02716	ERH964	60-142	109		56-125	105	
BA02715-MS	Matrix Spike	60-142	43.5	*	56-125	105	
BA02715-MSD	Matrix SpikeD	60-142	42.5	*	56-125	113	

Comments: Batch: #DOC53W5L-1911

* = Recovery outside of Control Limits on QC Sample.

EPA 8015B-eL

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 90700

Case No: 90700 Date Analyzed: 11/21/19

Matrix: WATER Instrument: Apollo

Blank ID: 191111-BLK Time Analyzed: 1653

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191111-BLK	Blank	1121024	11/21/19 1653
191111-LCS	Lab Control Spike	1121025	11/21/19 1713
191111-LCSD	Lab Control SpikeD	1121026	11/21/19 1733
BA02713	ERH959	1121029	11/21/19 1832
BA02715	ERH963	1121030	11/21/19 1852
BA02716	ERH964	1121031	11/21/19 1912
191111-MS	Matrix Spike	1206036	12/07/19 0926
191111-MSD	Matrix SpikeD	1206037	12/07/19 0945

Comments: Batch: #DOC53W5L-1911

Printed: 12/09/19 1:32:41 PM
Form 4, Blank Summary

Method Blank

EPA 8015B TPH LIQ-LIQ

Blank Name/QCG: **191111W-02715 - 248034**
Batch ID: #DOC53W5L-191111

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	DIESEL (C10-C24)	25.00 U	40.0	25.00	13.07	ug/L	11/11/19	11/21/19
BLANK	OIL (C24-C40)	40.00 U	40.0	40.00	5.54	ug/L	11/11/19	11/21/19
BLANK	SURROGATE: OCTACOSANE (S)	94.9	60-142			%	11/11/19	11/21/19
BLANK	SURROGATE: ORTHO-TERPHEN	100	56-125			%	11/11/19	11/21/19

Quant Method: DOC1114.M
Run #: 1121024
Instrument: Apollo
Sequence: 191121
Initials: LPO

GC SC-Blank-REG MDLs-DOD
Printed: 12/09/19 1:32:20 PM

EPA 8015B-eL

Form 4

LCS Summary

Lab Name: APPL, Inc. SDG No: 90700

Case No: 90700 Date Analyzed: 11/21/19

Matrix: WATER Instrument: Apollo

LCS ID: 191111-LCS Time Analyzed: 1713

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191111-BLK	Blank	1121024	11/21/19 1653
191111-LCS	Lab Control Spike	1121025	11/21/19 1713
191111-LCSD	Lab Control SpikeD	1121026	11/21/19 1733
BA02713	ERH959	1121029	11/21/19 1832
BA02715	ERH963	1121030	11/21/19 1852
BA02716	ERH964	1121031	11/21/19 1912
191111-MS	Matrix Spike	1206036	12/07/19 0926
191111-MSD	Matrix SpikeD	1206037	12/07/19 0945

Comments: Batch: #DOC53W5L-1911

Printed: 12/09/19 1:32:42 PM
Form 4, LCS Summary

Laboratory Control Spike Recoveries

EPA 8015B TPH LIQ-LIQ

APPL ID: **191111W-02715 LCS - 248034**
Batch ID: #DOC53W5L-191111

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Lvl ug/L	SPK Result ug/L	DUP Result ug/L	SPK % Recovery	DUP % Recovery	Recovery Limits	RPD %	RPD Limits
DIESEL (C10-C24)	1250	1170	1080	93.6	86.4	36-132	8.0	30
OIL (C24-C40)	1250	1200	1220	96.0	97.6	41-113	1.7	30
SURROGATE: OCTACOSANE (S)	75.0	63.2	63.0	84.3	84.0	60-142		
SURROGATE: ORTHO-TERPHENYL (S)	75.0	80.6	79.3	107	106	56-125		

Comments: _____

Primary	SPK	DUP
Quant Method :	DOC1114.M	DOC1114.M
Extraction Date :	11/11/19	11/11/19
Analysis Date :	11/21/19	11/21/19
Instrument :	Apollo	Apollo
Run :	1121025	1121026
Initials :	LPO	

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APPL Standard LCSD

Matrix Spike Recoveries

EPA 8015B TPH LIQ-LIQ

APPL ID: **191205W-02715 MS - 248034**
Batch ID: #DOC53W5L-191111
Sample ID: BA02715
Client ID: ERH963

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Lvl ug/L	Matrix Result ug/L	SPK Result ug/L	DUP Result ug/L	SPK % Recovery	DUP % Recovery	Recovery Limits	RPD %	RPD Limits
DIESEL (C10-C24)	1250	ND	1190	1290	95.2	103	36-132	8.1	30
OIL (C24-C40)	1250	ND	1090	1160	87.2	92.8	41-113	6.2	30
SURROGATE: OCTACOSANE (S)	75.0	NA	32.6	31.9	43.5 #	42.5 #	60-142		
SURROGATE: ORTHO-TERPHENYL (S)	75.0	NA	79.1	84.5	105	113	56-125		

= Recovery is outside QC limits.

Comments:

Primary	SPK	DUP
Quant Method :	DOC1114.M	DOC1114.M
Extraction Date :	12/05/19	12/05/19
Analysis Date :	12/07/19	12/07/19
Instrument :	Apollo	Apollo
Run :	1206036	1206037
Initials :	LPO	

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APPL MSD SCII

8270D-SIM

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 90700

Case No: 90700 Date Analyzed: 12/09/19

Matrix: WATER Instrument: Linus

APPL ID.	Client Sample No.	SURROGATE: 2-METHYLNAPHTHALENE-D10 (S)			SURROGATE: FLUORANTHENE-D10 (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
BA02715-MS	Matrix Spike	39-114	70.4		58-120	89.3	
BA02715-MSD	Matrix SpikeD	39-114	75.0		58-120	92.5	
191111A-BLK	Blank	39-114	80.0		58-120	94.5	
191111A-LCS	Lab Control Spike	39-114	85.1		58-120	95.4	
191111A-LCSD	Lab Control SpikeD	39-114	88.8		58-120	101	
BA02713	ERH959	39-114	84.3		58-120	98.2	
BA02715	ERH963	39-114	86.2		58-120	99.7	
BA02716	ERH964	39-114	86.0		58-120	102	

Comments: Batch: #SIM53-191111A

8270D-SIM

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 90700

Case No: 90700 Date Analyzed: 11/15/19

Matrix: WATER Instrument: Linus

Blank ID: 191111A-BLK Time Analyzed: 1657

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191111A-MS	Matrix Spike	0808L014	12/09/19 1212
191111A-MSD	Matrix SpikeD	0808L015	12/09/19 1248
191111A-BLK	Blank	1115L004	11/15/19 1657
191111A-LCS	Lab Control Spike	1115L005	11/15/19 1719
191111A-LCSD	Lab Control SpikeD	1115L006	11/15/19 1741
BA02713	ERH959	1115L009	11/15/19 1847
BA02715	ERH963	1115L010	11/15/19 1909
BA02716	ERH964	1115L011	11/15/19 1931

Comments: Batch: #SIM53-191111A

Method Blank
EPA 8270D SIM LIQ-LIQ

Blank Name/QCG: **191111W-02715 - 247241**
Batch ID: #SIM53-191111A

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	1-METHYLNAPHTHALENE	0.10 U	0.2	0.10	0.04	ug/L	11/11/19	11/15/19
BLANK	2-METHYLNAPHTHALENE	0.10 U	0.2	0.10	0.04	ug/L	11/11/19	11/15/19
BLANK	NAPHTHALENE	0.10 U	0.2	0.10	0.04	ug/L	11/11/19	11/15/19
BLANK	SURROGATE: 2-METHYLNAPHT	80.0	39-114			%	11/11/19	11/15/19
BLANK	SURROGATE: FLUORANTHENE-	94.5	58-120			%	11/11/19	11/15/19

Quant Method:L1028.M
Run #:1115L004
Instrument:Linus
Sequence:L191115
Initials:MA

GC SC-Blank-REG MDLs-DOD
Printed: 12/09/19 3:05:20 PM

8270D-SIM

Form 4

LCS Summary

Lab Name: APPL, Inc. SDG No: 90700

Case No: 90700 Date Analyzed: 11/15/19

Matrix: WATER Instrument: Linus

LCS ID: 191111A-LCS Time Analyzed: 1719

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191111A-MS	Matrix Spike	0808L014	12/09/19 1212
191111A-MSD	Matrix SpikeD	0808L015	12/09/19 1248
191111A-BLK	Blank	1115L004	11/15/19 1657
191111A-LCS	Lab Control Spike	1115L005	11/15/19 1719
191111A-LCSD	Lab Control SpikeD	1115L006	11/15/19 1741
BA02713	ERH959	1115L009	11/15/19 1847
BA02715	ERH963	1115L010	11/15/19 1909
BA02716	ERH964	1115L011	11/15/19 1931

Comments: Batch: #SIM53-191111A

Printed: 12/09/19 3:05:29 PM
Form 4, LCS Summary

Laboratory Control Spike Recoveries

EPA 8270D SIM LIQ-LIQ

APPL ID: **191111W-02715 LCS - 247241**
Batch ID: #SIM53-191111A

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Lvl ug/L	SPK Result ug/L	DUP Result ug/L	SPK % Recovery	DUP % Recovery	Recovery Limits	RPD %	RPD Limits
1-METHYLNAPHTHALENE	6.25	6.03	6.30	96.5	101	41-115	4.4	20
2-METHYLNAPHTHALENE	6.25	6.14	6.36	98.2	102	39-114	3.5	20
NAPHTHALENE	6.25	6.18	6.44	98.9	103	43-114	4.1	20
SURROGATE: 2-METHYLNAPHTHALEN	6.25	5.32	5.55	85.1	88.8	39-114		
SURROGATE: FLUORANTHENE-D10 (S)	6.25	5.96	6.34	95.4	101	58-120		

Comments: _____

Primary	SPK	DUP
Quant Method :	L1028.M	L1028.M
Extraction Date :	11/11/19	11/11/19
Analysis Date :	11/15/19	11/15/19
Instrument :	Linus	Linus
Run :	1115L005	1115L006
Initials :	MA	

Printed: 12/09/19 3:05:22 PM
APPL Standard LCSD

Matrix Spike Recoveries

EPA 8270D SIM LIQ-LIQ

APPL ID: **191111W-02715 MS - 247241**
Batch ID: #SIM53-191111A
Sample ID: BA02715
Client ID: ERH963

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Lvl ug/L	Matrix Result ug/L	SPK Result ug/L	DUP Result ug/L	SPK % Recovery	DUP % Recovery	Recovery Limits	RPD %	RPD Limits
1-METHYLNAPHTHALENE	6.25	ND	3.27	3.48	52.3	55.7	41-115	6.2	20
2-METHYLNAPHTHALENE	6.25	ND	3.36	3.58	53.8	57.3	39-114	6.3	20
NAPHTHALENE	6.25	ND	3.82	4.05	61.1	64.8	43-114	5.8	20
SURROGATE: 2-METHYLNAPHTHALEN	6.25	NA	4.40	4.69	70.4	75.0	39-114		
SURROGATE: FLUORANTHENE-D10 (S)	6.25	NA	5.58	5.78	89.3	92.5	58-120		

Comments: _____

Primary	SPK	DUP
Quant Method :	L0808R.M	L0808R.M
Extraction Date :	11/11/19	11/11/19
Analysis Date :	12/09/19	12/09/19
Instrument :	Linus	Linus
Run :	0808L014	0808L015
Initials :	MA	

Printed: 12/09/19 3:05:25 PM
APPL MSD SCII

Form 5
Tune Summary

Lab Name: APPL Inc.
Case No:
Matrix: Water
ID: 1028L002.D

SDG No:
Date Analyzed: 10/28/19
Instrument: Linus
Time Analyzed: 10:20

	Client Sample No.	APPL ID.	File ID.	Date Analyzed
1		5 SIM 10/28/19(2)	1028L004.D	10/28/19 12:26
2		0.1 SIM 10/28/19	1028L005.D	10/28/19 12:51
3		0.2 SIM 10/28/19	1028L006.D	10/28/19 13:13
4		0.5 SIM 10/28/19	1028L007.D	10/28/19 13:35
5		1 SIM 10/28/19	1028L008.D	10/28/19 13:57
6		20 SIM 10/28/19	1028L009.D	10/28/19 14:19
7		50 SIM 10/28/19	1028L010.D	10/28/19 14:42
8		100 SIM 10/28/19	1028L011.D	10/28/19 15:04
9		SS SIM 10/28/19	1028L012.D	10/28/19 15:55
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				

m/e		
51	9.95 - 80.1% of mass 198	44.0
68	0 - 2.05% of mass 69	0.0
70	0 - 2% of mass 69	0.3
127	10 - 80% of mass 198	66.3
197	0 - 2% of mass 198	0.0
198	100 - 100% of mass 198	100.0
199	5 - 9% of mass 198	6.8
275	10 - 60% of mass 198	23.0
365	1 - 100% of mass 198	3.1
441	0.01 - 24% of mass 442	15.5
442	50 - 500% of mass 198	95.8
443	15 - 24% of mass 442	19.6

Form 5
Tune Summary

Lab Name: APPL Inc.
Case No: 90700
Matrix: Water
ID: 1115L002.D

SDG No: 90700
Date Analyzed: 11/15/19
Instrument: Linus
Time Analyzed: 15:42

	Client Sample No.	APPL ID.	File ID.	Date Analyzed
1		5ug/mL SIM 10/28/19	1115L003.D	11/15/19 16:26
2	Blank	191111A BLK 1/800	1115L004.D	11/15/19 16:57
3	Lab Control Spike	191111A LCS-2 1/800	1115L005.D	11/15/19 17:19
4	Lab Control SpikeD	191111A LCSD-2 1/800	1115L006.D	11/15/19 17:41
5	ERH959	BA02713W19 1/800	1115L009.D	11/15/19 18:47
6	ERH963	BA02715W29 1/800	1115L010.D	11/15/19 19:09
7	ERH964	BA02716W12 1/800	1115L011.D	11/15/19 19:31
8		5ug/mL SIM 10/28/19	1115L028.D	11/16/19 1:44
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				

m/e		
51	9.95 - 80.1% of mass 198	53.1
68	0 - 2.05% of mass 69	0.0
70	0 - 2% of mass 69	0.5
127	10 - 80% of mass 198	64.8
197	0 - 2% of mass 198	0.0
198	100 - 100% of mass 198	100.0
199	5 - 9% of mass 198	6.6
275	10 - 60% of mass 198	21.8
365	1 - 100% of mass 198	3.3
441	0.01 - 24% of mass 442	17.9
442	50 - 500% of mass 198	73.6
443	15 - 24% of mass 442	20.2

Form 5
Tune Summary

Lab Name: APPL Inc.
Case No:
Matrix: Water
ID: 0808L002.D

SDG No:
Date Analyzed: 08/08/19
Instrument: Linus
Time Analyzed: 11:48

	Client Sample No.	APPL ID.	File ID.	Date Analyzed
1		0.1 SIM 07/10/19	0808L003.D	08/08/19 12:11
2		0.2 SIM 07/10/19	0808L004.D	08/08/19 12:49
3		0.5 SIM 07/10/19	0808L005.D	08/08/19 13:26
4		1 SIM 07/10/19	0808L006.D	08/08/19 14:04
5		5 SIM 07/10/19	0808L007.D	08/08/19 14:42
6		10 SIM 07/10/19	0808L008.D	08/08/19 15:20
7		50 SIM 07/10/19	0808L009.D	08/08/19 15:58
8		100 SIM 07/10/19	0808L010.D	08/08/19 16:36
9		SS SIM 07/10/19	0808L011.D	08/08/19 17:24
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				

m/e		
51	9.95 - 80% of mass 198	11.3
68	0 - 2.05% of mass 69	0.0
70	0 - 2% of mass 69	0.5
127	10 - 80% of mass 198	32.9
197	0 - 2% of mass 198	0.0
198	100 - 100% of mass 198	100.0
199	5 - 9% of mass 198	6.5
275	10 - 60% of mass 198	34.4
365	1 - 100% of mass 198	4.4
441	0.01 - 24% of mass 442	15.6
442	50 - 500% of mass 198	233.6
443	15 - 24% of mass 442	19.4

Form 5
Tune Summary

Lab Name: APPL Inc.
Case No:
Matrix: Water
ID: 0808L012.D

SDG No:
Date Analyzed: 12/09/19
Instrument: Linus
Time Analyzed: 10:22

	Client Sample No.	APPL ID.	File ID.	Date Analyzed
1		5 SIM 07/10/19	0808L013.D	12/09/19 11:36
2		BA02715W MS-2 1/800	0808L014.D	12/09/19 12:12
3		BA02715W MSD2 1/800	0808L015.D	12/09/19 12:48
4		5 SIM 07/10/19	0808L016.D	12/09/19 13:23
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				

m/e		
51	9.95 - 80% of mass 198	16.3
68	0 - 2.05% of mass 69	0.0
70	0 - 2% of mass 69	0.3
127	10 - 80% of mass 198	37.2
197	0 - 2% of mass 198	0.0
198	100 - 100% of mass 198	100.0
199	5 - 9% of mass 198	6.5
275	10 - 60% of mass 198	32.7
365	1 - 100% of mass 198	4.5
441	0.01 - 24% of mass 442	14.8
442	50 - 500% of mass 198	221.3
443	15 - 24% of mass 442	18.6

INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: APPL Inc. Contract: _____

Lab Code: _____ SDG No.: _____

Lab File ID (Standard): 1115L003.D Date Analyzed: 11/15/19

Instrument ID: Linus Time Analyzed: 16:26

GC Column: _____ ID: Heated Purge: (Y/N) _____

		Napthalene-D8(IS)		Acenaphthene-D10(IS)		Phenanthrene-D10(IS)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	47408	4.26	19373	6.27	34698	7.98
	UPPER LIMIT	94816	4.43	38746	6.44	69396	8.15
	LOWER LIMIT	23704	4.09	9687	6.10	17349	7.81
	SAMPLE NO.						
01	191111A BLK 1/800	43082	4.27	17760	6.27	32390	7.98
02	191111A LCS-2 1/800	41644	4.27	17380	6.27	31866	7.98
03	191111A LCSD-2 1/800	37842	4.27	15467	6.27	28725	7.98
04	BA02713W19 1/800	42910	4.27	17700	6.27	32089	7.98
05	BA02715W29 1/800	41682	4.27	17301	6.27	31165	7.98
06	BA02716W12 1/800	44054	4.27	18010	6.27	32295	7.98
07	5ug/mL SIM 10/28/19 (1	46505	4.27	17348	6.27	32880	7.98
08							
09							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = -50% of internal standard area.
RT UPPER LIMIT = +0.17 minutes of internal standard RT
RT LOWER LIMIT = -0.17 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

8A
INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: APPL Inc. Contract: _____

Lab Code: _____ SDG No.: _____

Lab File ID (Standard): 1115L003.D Date Analyzed: 11/15/19

Instrument ID: Linus Time Analyzed: 16:26

GC Column: _____ ID: Heated Purge: (Y/N) _____

		Chrysene-D12(IS)		Perylene-D12(IS)			
		AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	41639	11.10	42127	13.53		
	UPPER LIMIT	83278	11.27	84254	13.70		
	LOWER LIMIT	20820	10.93	21064	13.36		
	SAMPLE NO.						
01	191111A BLK 1/800	37756	11.10	38374	13.53		
02	191111A LCS-2 1/800	37644	11.10	37962	13.53		
03	191111A LCSD-2 1/800	34085	11.10	32663	13.53		
04	BA02713W19 1/800	37343	11.10	38663	13.53		
05	BA02715W29 1/800	36801	11.10	38617	13.53		
06	BA02716W12 1/800	38353	11.10	40592	13.53		
07	5ug/mL SIM 10/28/19 (1	40911	11.10	40547	13.53		
08							
09							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = -50% of internal standard area.
RT UPPER LIMIT = +0.17 minutes of internal standard RT
RT LOWER LIMIT = -0.17 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: APPL Inc. Contract: _____

Lab Code: _____ SDG No.: _____

Lab File ID (Standard): 0808L013.D Date Analyzed: 9 Dec 19 11:36

Instrument ID: Linus Time Analyzed: 9 Dec 19 11:36

GC Column: _____ ID: Heated Purge: (Y/N) _____

		Napthalene-D8(IS)		Acenaphthene-D10(IS)		Phenanthrene-D10(IS)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	140295	8.25	78263	10.77	163111	13.04
	UPPER LIMIT	280590	8.42	156526	10.94	326222	13.21
	LOWER LIMIT	70148	8.08	39132	10.60	81556	12.87
	SAMPLE NO.						
01	BA02715W34 MS-2 1/8(	152849	8.24	83637	10.77	149819	13.04
02	BA02715W30 MSD2 1/8	145152	8.24	79222	10.77	145935	13.04
03	5 SIM 07/10/19	161493	8.24	82862	10.77	168650	13.04
04							
05							
06							
07							
08							
09							
10							
11							
12							
13							
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18							
19							
20							
21							
22							

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = -50% of internal standard area.
RT UPPER LIMIT = +0.17 minutes of internal standard RT
RT LOWER LIMIT = -0.17 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

8A
INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: APPL Inc. Contract: _____

Lab Code: _____ SDG No.: _____

Lab File ID (Standard): 0808L013.D Date Analyzed: 9 Dec 19 11:36

Instrument ID: Linus Time Analyzed: 9 Dec 19 11:36

GC Column: _____ ID: Heated Purge: (Y/N) _____

		Chrysene-D12(IS)		Perylene-D12(IS)			
		AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	191832	18.97	192733	24.11		
	UPPER LIMIT	383664	19.14	385466	24.28		
	LOWER LIMIT	95916	18.80	96367	23.94		
	SAMPLE NO.						
01	BA02715W34 MS-2 1/8(	169772	18.96	180760	24.11		
02	BA02715W30 MSD2 1/8	162869	18.96	160521	24.10		
03	5 SIM 07/10/19	188213	18.96	200841	24.10		
04							
05							
06							
07							
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21							
22							

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = -50% of internal standard area.
RT UPPER LIMIT = +0.17 minutes of internal standard RT
RT LOWER LIMIT = -0.17 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

EPA 8270D

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 90700

Case No: 90700 Date Analyzed: 11/27/19

Matrix: WATER Instrument: Yoda

APPL ID.	Client Sample No.	SURROGATE: 2,4,6-TRIBROMOPHENOL (S)			SURROGATE: 2-FLUORBIPHENYL (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
191111A-BLK	Blank	43-140	96.2		44-119	88.1	
191111A-LCS	Lab Control Spike	43-140	99.2		44-119	90.4	
191111A-LCSD	Lab Control SpikeD	43-140	90.0		44-119	81.6	
BA02713	ERH959	43-140	87.7		44-119	81.8	
BA02715	ERH963	43-140	73.4		44-119	78.6	
BA02716	ERH964	43-140	85.9		44-119	85.5	
BA02715-MS	Matrix Spike	43-140	71.2		44-119	76.9	
BA02715-MSD	Matrix SpikeD	43-140	74.0		44-119	75.9	

Comments: Batch: #87DC5-191111A

EPA 8270D

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 90700

Case No: 90700 Date Analyzed: 11/27/19

Matrix: WATER Instrument: Yoda

APPL ID.	Client Sample No.	SURROGATE: 2-FLUOROPHENOL (S)			SURROGATE: NITROBENZENE-D5 (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
191111A-BLK	Blank	19-119	116		44-120	116	
191111A-LCS	Lab Control Spike	19-119	112		44-120	115	
191111A-LCSD	Lab Control SpikeD	19-119	94.0		44-120	102	
BA02713	ERH959	19-119	85.6		44-120	102	
BA02715	ERH963	19-119	76.7		44-120	91.9	
BA02716	ERH964	19-119	93.3		44-120	103	
BA02715-MS	Matrix Spike	19-119	83.2		44-120	92.0	
BA02715-MSD	Matrix SpikeD	19-119	85.2		44-120	88.8	

Comments: Batch: #87DC5-191111A

EPA 8270D

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 90700

Case No: 90700 Date Analyzed: 11/27/19

Matrix: WATER Instrument: Yoda

APPL ID.	Client Sample No.	SURROGATE: PHENOL-D6 (S)			SURROGATE: TERPHENYL-D14 (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
191111A-BLK	Blank	10-115	127	#	50-134	109	
191111A-LCS	Lab Control Spike	10-115	128	*	50-134	90.4	
191111A-LCSD	Lab Control SpikeD	10-115	109		50-134	84.0	
BA02713	ERH959	10-115	96.6		50-134	100	
BA02715	ERH963	10-115	86.3		50-134	97.8	
BA02716	ERH964	10-115	104		50-134	103	
BA02715-MS	Matrix Spike	10-115	90.8		50-134	69.1	
BA02715-MSD	Matrix SpikeD	10-115	96.0		50-134	69.4	

Comments: Batch: #87DC5-191111A

* = Recovery outside of Control Limits on QC Sample.

= Recovery outside of Control Limits on Sample.

EPA 8270D

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 90700

Case No: 90700 Date Analyzed: 11/27/19

Matrix: WATER Instrument: Yoda

Blank ID: 191111A-BLK Time Analyzed: 0129

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191111A-BLK	Blank	1121Y164	11/27/19 0129
191111A-LCS	Lab Control Spike	1121Y165	11/27/19 0157
191111A-LCSD	Lab Control SpikeD	1121Y166	11/27/19 0225
BA02713	ERH959	1121Y169	11/27/19 0348
BA02715	ERH963	1121Y170	11/27/19 0416
BA02716	ERH964	1121Y171	11/27/19 0444
191111A-MS	Matrix Spike	1204Y155	12/09/19 1020
191111A-MSD	Matrix SpikeD	1204Y156	12/09/19 1048

Comments: Batch: #87DC5-191111A

Method Blank
EPA 8270D WATER

Blank Name/QCG: **191111W-02466 - 247901**
Batch ID: #87DC5-191111A

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	PHENOL	4.00 U	5.0	4.00	1.00	ug/L	11/11/19	11/27/19
BLANK	SURROGATE: 2,4,6-TRIBROMOP	96.2	43-140			%	11/11/19	11/27/19
BLANK	SURROGATE: 2-FLUORBIPHENY	88.1	44-119			%	11/11/19	11/27/19
BLANK	SURROGATE: 2-FLUOROPHENO	116	19-119			%	11/11/19	11/27/19
BLANK	SURROGATE: NITROBENZENE-	116	44-120			%	11/11/19	11/27/19
BLANK	SURROGATE: PHENOL-D6 (S)	127 #	10-115			%	11/11/19	11/27/19
BLANK	SURROGATE: TERPHENYL-D14 (	109	50-134			%	11/11/19	11/27/19

= Recovery (or RPD) is outside QC limits.

Quant Method:Not detected.
Run #:1121Y164
Instrument:Yoda
Sequence:Y191121
Initials:MA

GC SC-Blank-REG MDLs-DOD
Printed: 12/04/19 1:53:34 PM

EPA 8270D

Form 4

LCS Summary

Lab Name: APPL, Inc. SDG No: 90700

Case No: 90700 Date Analyzed: 11/27/19

Matrix: WATER Instrument: Yoda

LCS ID: 191111A-LCS Time Analyzed: 0157

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191111A-BLK	Blank	1121Y164	11/27/19 0129
191111A-LCS	Lab Control Spike	1121Y165	11/27/19 0157
191111A-LCSD	Lab Control SpikeD	1121Y166	11/27/19 0225
BA02713	ERH959	1121Y169	11/27/19 0348
BA02715	ERH963	1121Y170	11/27/19 0416
BA02716	ERH964	1121Y171	11/27/19 0444
191111A-MS	Matrix Spike	1204Y155	12/09/19 1020
191111A-MSD	Matrix SpikeD	1204Y156	12/09/19 1048

Comments: Batch: #87DC5-191111A

Printed: 12/09/19 3:12:17 PM
Form 4, LCS Summary

Matrix Spike Recoveries

EPA 8270D WATER

APPL ID: **191111W-02715 MS - 247901**
Batch ID: #87DC5-191111A
Sample ID: BA02715
Client ID: ERH963

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Lvl ug/L	Matrix Result ug/L	SPK Result ug/L	DUP Result ug/L	SPK % Recovery	DUP % Recovery	Recovery Limits	RPD %	RPD Limits
PHENOL	62.5	ND	57.9	62.0	92.6	99.2	10-115	6.8	20
SURROGATE: 2,4,6-TRIBROMOPHENOL	250	NA	178	185	71.2	74.0	43-140		
SURROGATE: 2-FLUORBIPHENYL (S)	125	NA	96.1	94.9	76.9	75.9	44-119		
SURROGATE: 2-FLUOROPHENOL (S)	250	NA	208	213	83.2	85.2	19-119		
SURROGATE: NITROBENZENE-D5 (S)	125	NA	115	111	92.0	88.8	44-120		
SURROGATE: PHENOL-D6 (S)	250	NA	227	240	90.8	96.0	10-115		
SURROGATE: TERPHENYL-D14 (S)	125	NA	86.4	86.7	69.1	69.4	50-134		

Comments: _____

Primary	SPK	DUP
Quant Method :	Not detected.M	Not detected.M
Extraction Date :	11/11/19	11/11/19
Analysis Date :	12/09/19	12/09/19
Instrument :	Yoda	Yoda
Run :	1204Y155	1204Y156
Initials :	MA	

Printed: 12/09/19 3:12:19 PM
APPL MSD SCII

Form 5
Tune Summary

Lab Name: APPL Inc.
Case No:
Matrix: Soil
ID: 1121Y002.D

SDG No:
Date Analyzed: 11/21/19
Instrument: Yoda
Time Analyzed: 13:52

	Client Sample No.	APPL ID.	File ID.	Date Analyzed
1		4ug/ml 8270 11/21/19	1121Y003.D	11/21/19 14:07
2		5ug/ml 8270 11/21/19	1121Y004.D	11/21/19 14:35
3		10ug/ml 8270 11/21/1	1121Y005.D	11/21/19 15:37
4		20ug/ml 8270 11/21/1	1121Y006.D	11/21/19 16:05
5		40ug/ml 8270 11/21/1	1121Y007.D	11/21/19 16:33
6		50ug/ml 8270 11/21/1	1121Y008.D	11/21/19 17:01
7		60ug/ml 8270 11/21/1	1121Y009.D	11/21/19 17:30
8		80ug/ml 8270 11/21/1	1121Y010.D	11/21/19 17:58
9		100ug/ml 8270 11/21/	1121Y011.D	11/21/19 18:26
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				

m/e		
51	9.95 - 80.04% of mass 198	27.9
68	0 - 2% of mass 69	0.0
70	0 - 2% of mass 69	0.7
127	10 - 80% of mass 198	43.6
197	0 - 2% of mass 198	0.0
198	100 - 100% of mass 198	100.0
199	5 - 9% of mass 198	6.9
275	10 - 60% of mass 198	32.2
365	1 - 100% of mass 198	3.9
441	0.01 - 24% of mass 442	16.6
442	50 - 500% of mass 198	139.4
443	15 - 24% of mass 442	19.7

Form 5
Tune Summary

Lab Name: APPL Inc.
Case No:
Matrix: Soil
ID: 1121Y030.D

SDG No:
Date Analyzed: 11/22/19
Instrument: Yoda
Time Analyzed: 13:23

	Client Sample No.	APPL ID.	File ID.	Date Analyzed
1		SS 8270 11/22/19	1121Y031.D	11/22/19 13:38
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				

m/e		
51	9.95 - 80.04% of mass 198	26.5
68	0 - 2% of mass 69	0.0
70	0 - 2% of mass 69	0.4
127	10 - 80% of mass 198	41.9
197	0 - 2% of mass 198	0.0
198	100 - 100% of mass 198	100.0
199	5 - 9% of mass 198	6.7
275	10 - 60% of mass 198	33.3
365	1 - 100% of mass 198	4.2
441	0.01 - 24% of mass 442	16.3
442	50 - 500% of mass 198	154.9
443	15 - 24% of mass 442	19.0

Form 5
Tune Summary

Lab Name: APPL Inc.
Case No: 90700
Matrix: Water
ID: 1121Y148.D

SDG No: 90700
Date Analyzed: 11/26/19
Instrument: Yoda
Time Analyzed: 18:16

	Client Sample No.	APPL ID.	File ID.	Date Analyzed
1		50ug/ml 8270 11/21/1	1121Y154.D	11/26/19 20:50
2	Blank	191111A BLK 1/800	1121Y164.D	11/27/19 1:29
3	Lab Control Spike	191111A LCS-1 1/800	1121Y165.D	11/27/19 1:57
4	Lab Control SpikeD	191111A LCSD-1 1/800	1121Y166.D	11/27/19 2:25
5	ERH959	BA02713W19 1/800	1121Y169.D	11/27/19 3:48
6	ERH963	BA02715W29 1/800	1121Y170.D	11/27/19 4:16
7	ERH964	BA02716W12 1/800	1121Y171.D	11/27/19 4:44
8		50ug/ml 8270 11/21/1	1121Y172.D	11/27/19 5:11
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				

m/e		
51	9.95 - 80.04% of mass 198	30.7
68	0 - 2% of mass 69	0.0
70	0 - 2% of mass 69	0.2
127	10 - 80% of mass 198	45.8
197	0 - 2% of mass 198	0.0
198	100 - 100% of mass 198	100.0
199	5 - 9% of mass 198	7.0
275	10 - 60% of mass 198	30.9
365	1 - 100% of mass 198	3.6
441	0.01 - 24% of mass 442	16.2
442	50 - 500% of mass 198	125.7
443	15 - 24% of mass 442	19.6

Form 5
Tune Summary

Lab Name: APPL Inc.
Case No:
Matrix: Water
ID: 1204Y153.D

SDG No:
Date Analyzed: 12/09/19
Instrument: Yoda
Time Analyzed: 9:34

	Client Sample No.	APPL ID.	File ID.	Date Analyzed
1		50ug/ml 8270 11/21/1	1204Y154.D	12/09/19 9:50
2		BA02715W36 MS-1 1/80	1204Y155.D	12/09/19 10:20
3		BA02715W31 MSD-1 1/8	1204Y156.D	12/09/19 10:48
4		50ug/ml 8270 11/21/1	1204Y170.D	12/09/19 17:24
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				

m/e		
51	9.95 - 80.04% of mass 198	36.5
68	0 - 2% of mass 69	0.0
70	0 - 2% of mass 69	0.9
127	10 - 80% of mass 198	49.7
197	0 - 2% of mass 198	0.0
198	100 - 100% of mass 198	100.0
199	5 - 9% of mass 198	6.9
275	10 - 60% of mass 198	30.0
365	1 - 100% of mass 198	3.8
441	0.01 - 24% of mass 442	11.5
442	50 - 500% of mass 198	116.6
443	15 - 24% of mass 442	19.4

8A
INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: APPL Inc. Contract: _____

Lab Code: _____ SDG No.: _____

Lab File ID (Standard): 1121Y154.D Date Analyzed: 11/26/19

Instrument ID: Yoda Time Analyzed: 20:50

GC Column: _____ ID: Heated Purge: (Y/N) _____

		1,4-dichlorobenzene-D4(IS)		Napthalene-D8(IS)		Acenaphthene-D10(IS)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	179473	5.47	719514	6.91	453439	8.93
	UPPER LIMIT	358946	5.64	1439028	7.08	906878	9.10
	LOWER LIMIT	89737	5.30	359757	6.74	226720	8.76
	SAMPLE NO.						
01	191111A BLK 1/800	133788	5.47	594780	6.91	454257	8.93
02	191111A LCS-1 1/800	134054	5.47	567906	6.91	425107	8.93
03	191111A LCSD-1 1/800	154723	5.47	625632	6.91	456389	8.93
04	BA02713W19 1/800	150253	5.47	607225	6.91	437625	8.92
05	BA02715W29 1/800	160319	5.47	680464	6.91	462650	8.93
06	BA02716W12 1/800	149471	5.47	639687	6.90	455201	8.93
07	50ug/ml 8270 11/21/19 (	184992	5.47	734252	6.91	456477	8.93
08							
09							
10							
11							
12							
13							
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20							
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22							

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = -50% of internal standard area.
RT UPPER LIMIT = +0.17 minutes of internal standard RT
RT LOWER LIMIT = -0.17 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

8A
INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: APPL Inc. Contract: _____

Lab Code: _____ SDG No.: _____

Lab File ID (Standard): 1121Y154.D Date Analyzed: 11/26/19

Instrument ID: Yoda Time Analyzed: 20:50

GC Column: _____ ID: Heated Purge: (Y/N) _____

		Phenanthrene-D10(IS)		Chrysene-D12(IS)		Perylene-D12(IS)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	869953	10.67	1038490	13.76	946185	15.62
	UPPER LIMIT	1739906	10.84	2076980	13.93	1892370	15.79
	LOWER LIMIT	434977	10.50	519245	13.59	473093	15.45
	SAMPLE NO.						
01	191111A BLK 1/800	942208	10.66	873632	13.75	931720	15.61
02	191111A LCS-1 1/800	864030	10.67	985653	13.75	912241	15.62
03	191111A LCSD-1 1/800	901564	10.67	1040400	13.75	954594	15.62
04	BA02713W19 1/800	877151	10.66	841750	13.75	904746	15.62
05	BA02715W29 1/800	892402	10.66	854751	13.75	920010	15.62
06	BA02716W12 1/800	912699	10.66	877618	13.74	937187	15.62
07	50ug/ml 8270 11/21/19 (	870891	10.67	1025140	13.76	935612	15.62
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AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = -50% of internal standard area.
RT UPPER LIMIT = +0.17 minutes of internal standard RT
RT LOWER LIMIT = -0.17 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

8A
INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: APPL Inc. Contract: _____

Lab Code: _____ SDG No.: _____

Lab File ID (Standard): 1204Y154.D Date Analyzed: 9 Dec 19 9:50

Instrument ID: Yoda Time Analyzed: 9 Dec 19 9:50

GC Column: _____ ID: Heated Purge: (Y/N) _____

		1,4-dichlorobenzene-D4(IS)		Napthalene-D8(IS)		Acenaphthene-D10(IS)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	164311	5.43	645403	6.86	390759	8.89
	UPPER LIMIT	328622	5.60	1290806	7.03	781518	9.06
	LOWER LIMIT	82156	5.26	322702	6.69	195380	8.72
	SAMPLE NO.						
01	BA02715W36 MS-1 1/8(	149640	5.43	646513	6.86	426454	8.88
02	BA02715W31 MSD-1 1/	150875	5.43	650133	6.86	427205	8.89
03	50ug/ml 8270 11/21/19 (	164428	5.43	665052	6.86	408482	8.89
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05							
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AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = -50% of internal standard area.
RT UPPER LIMIT = +0.17 minutes of internal standard RT
RT LOWER LIMIT = -0.17 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

8A
INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: APPL Inc. Contract: _____

Lab Code: _____ SDG No.: _____

Lab File ID (Standard): 1204Y154.D Date Analyzed: 9 Dec 19 9:50

Instrument ID: Yoda Time Analyzed: 9 Dec 19 9:50

GC Column: _____ ID: Heated Purge: (Y/N) _____

		Phenanthrene-D10(IS)		Chrysene-D12(IS)		Perylene-D12(IS)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	760625	10.61	879806	13.70	812676	15.55
	UPPER LIMIT	1521250	10.78	1759612	13.87	1625352	15.72
	LOWER LIMIT	380313	10.44	439903	13.53	406338	15.38
	SAMPLE NO.						
01	BA02715W36 MS-1 1/8(	840654	10.61	957503	13.70	910723	15.55
02	BA02715W31 MSD-1 1/	829206	10.61	1057830	13.70	901865	15.55
03	50ug/ml 8270 11/21/19 (	792172	10.61	935595	13.70	843975	15.55
04							
05							
06							
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AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = -50% of internal standard area.
RT UPPER LIMIT = +0.17 minutes of internal standard RT
RT LOWER LIMIT = -0.17 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

EPA 8270D

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 90700

Case No: 90700 Date Analyzed: 11/13/19

Matrix: WATER Instrument: Linus

Blank ID: 191111A-BLK Time Analyzed: 1621

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191111A-BLK	Blank	1030L065	11/13/19 1621
BA02713	ERH959	1030L070	11/13/19 1754
BA02715	ERH963	1030L071	11/13/19 1812
BA02716	ERH964	1030L072	11/13/19 1831
191111A-LCS	Lab Control Spike	1030L077	11/14/19 1009
191111A-LCSD	Lab Control SpikeD	1030L078	11/14/19 1027
191111A-MS	Matrix Spike	1205L041	12/07/19 0758
191111A-MSD	Matrix SpikeD	1205L042	12/07/19 0816

Comments: Batch: #87DME-191111A

Method Blank
EPA 8270D MODIFIED WATER

Blank Name/QCG: **191111W-02715 - 247177**
Batch ID: #87DME-191111A

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	2-(2-METHOXYETHOXY)-ETHAN	80.0 U	100	80.0	40.0	ug/L	11/11/19	11/13/19

Quant Method:YMEE1030.M
Run #:1030L065
Instrument:Linus
Sequence:L191030M
Initials:MA

GC SC-Blank-REG MDLs-DOD
Printed: 12/09/19 1:50:29 PM

EPA 8270D

Form 4

LCS Summary

Lab Name: APPL, Inc. SDG No: 90700

Case No: 90700 Date Analyzed: 11/14/19

Matrix: WATER Instrument: Linus

LCS ID: 191111A-LCS Time Analyzed: 1009

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191111A-BLK	Blank	1030L065	11/13/19 1621
BA02713	ERH959	1030L070	11/13/19 1754
BA02715	ERH963	1030L071	11/13/19 1812
BA02716	ERH964	1030L072	11/13/19 1831
191111A-LCS	Lab Control Spike	1030L077	11/14/19 1009
191111A-LCSD	Lab Control SpikeD	1030L078	11/14/19 1027
191111A-MS	Matrix Spike	1205L041	12/07/19 0758
191111A-MSD	Matrix SpikeD	1205L042	12/07/19 0816

Comments: Batch: #87DME-191111A

Laboratory Control Spike Recoveries
EPA 8270D MODIFIED WATER

APPL ID: **191111W-02715 LCS - 247177**
Batch ID: #87DME-191111A

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Lvl ug/L	SPK Result ug/L	DUP Result ug/L	SPK % Recovery	DUP % Recovery	Recovery Limits	RPD %	RPD Limits
2-(2-METHOXYETHOXY)-ETHANOL	80.0	87.4	90.4	109	113	30-130	3.4	20

Comments:

Primary	SPK	DUP
Quant Method :	YMEE1030.M	YMEE1030.M
Extraction Date :	11/11/19	11/11/19
Analysis Date :	11/14/19	11/14/19
Instrument :	Linus	Linus
Run :	1030L077	1030L078
Initials :	MA	

Printed: 12/09/19 1:50:36 PM
APPL Standard LCSD

Matrix Spike Recoveries

EPA 8270D MODIFIED WATER

APPL ID: **191111W-02715 MS - 247177**
Batch ID: #87DME-191111A
Sample ID: BA02715
Client ID: ERH963

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Lvl ug/L	Matrix Result ug/L	SPK Result ug/L	DUP Result ug/L	SPK % Recovery	DUP % Recovery	Recovery Limits	RPD %	RPD Limits
2-(2-METHOXYETHOXY)-ETHANOL	80.0	ND	97.6	95.1	122	119	30-130	2.6	20

Comments: _____

Primary	SPK	DUP
Quant Method :	LMEE1205.M	LMEE1205.M
Extraction Date :	11/11/19	11/11/19
Analysis Date :	12/07/19	12/07/19
Instrument :	Linus	Linus
Run :	1205L041	1205L042
Initials :	MA	

Printed: 12/09/19 1:50:47 PM
APPL MSD SCII

Form 5
Tune Summary

Lab Name: APPL Inc.
Case No:
Matrix: Water
ID: 1030L002.D

SDG No:
Date Analyzed: 10/31/19
Instrument: Linus
Time Analyzed: 9:39

	Client Sample No.	APPL ID.	File ID.	Date Analyzed
1		50 2MEE 4/30/19	1030L004.D	10/31/19 11:50
2		100 2MEE 4/30/19	1030L005.D	10/31/19 12:10
3		200 2MEE 4/30/19	1030L006.D	10/31/19 12:29
4		500 2MEE 4/30/19	1030L008.D	10/31/19 13:07
5		600 2MEE 4/30/19	1030L009.D	10/31/19 13:25
6		800 2MEE 4/30/19	1030L010.D	10/31/19 13:43
7		1000 2MEE 4/30/19	1030L011.D	10/31/19 14:02
8				
9				
10				
11				
12				
14				
15				
16				
17				
18				
19				
20				
21				
22				

m/e		
51	9.95 - 80.04% of mass 198	47.5
68	0 - 2.04% of mass 69	0.0
70	0 - 2.04% of mass 69	0.6
127	10 - 80% of mass 198	64.9
197	0 - 2% of mass 198	0.0
198	100 - 100% of mass 198.1	100.0
199	5 - 9% of mass 198	6.2
275	10 - 60% of mass 198	21.7
365	1 - 100% of mass 198	3.2
441	0.01 - 24% of mass 442	14.5
442	50 - 500% of mass 198.1	95.4
443	15 - 24% of mass 442	18.6

Form 5

Form 5
Tune Summary

Lab Name: APPL Inc.
Case No:
Matrix: Water
ID: 1030L014.D

SDG No:
Date Analyzed: 11/01/19
Instrument: Linus
Time Analyzed: 15:17

	Client Sample No.	APPL ID.	File ID.	Date Analyzed
1		SS 2MEE 11/1/19	1030L016.D	11/01/19 17:11
2				
3				
4				
5				
6				
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8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				

m/e		
51	9.95 - 80.04% of mass 198	50.2
68	0 - 2.04% of mass 69	0.0
70	0 - 2.04% of mass 69	0.7
127	10 - 80% of mass 198	65.2
197	0 - 2% of mass 198	0.0
198	100 - 100% of mass 198	100.0
199	5 - 9% of mass 198	7.0
275	10 - 60% of mass 198	22.3
365	1 - 100% of mass 198	3.1
441	0.01 - 24% of mass 442	18.5
442	50 - 500% of mass 198	81.1
443	15 - 24% of mass 442	19.7

Form 5
Tune Summary

Lab Name: APPL Inc.
Case No: 90700
Matrix: Water
ID: 1030L062.D

SDG No: 90700
Date Analyzed: 11/13/19
Instrument: Linus
Time Analyzed: 14:33

	Client Sample No.	APPL ID.	File ID.	Date Analyzed
1		500 2MEE 4/30/19	1030L063.D	11/13/19 15:30
2	Blank	191111A BLK 2/500	1030L065.D	11/13/19 16:21
3	ERH959	BA02713W23 2/500	1030L070.D	11/13/19 17:54
4	ERH963	BA02715W28 2/500	1030L071.D	11/13/19 18:12
5	ERH964	BA02716W09 2/500	1030L072.D	11/13/19 18:31
6		500 2MEE 4/30/19	1030L074.D	11/13/19 19:07
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19				
20				
21				
22				

m/e		
51	9.95 - 80.04% of mass 198	45.9
68	0 - 2.04% of mass 69	0.0
70	0 - 2.04% of mass 69	0.7
127	10 - 80% of mass 198	61.9
197	0 - 2% of mass 198	0.0
198	100 - 100% of mass 198	100.0
199	5 - 9% of mass 198	6.6
275	10 - 60% of mass 198	22.0
365	1 - 100% of mass 198	3.1
441	0.01 - 24% of mass 442	16.9
442	50 - 500% of mass 198	82.0
443	15 - 24% of mass 442	19.1

Form 5
Tune Summary

Lab Name: APPL Inc.
Case No:
Matrix: Water
ID: 1030L075.D

SDG No:
Date Analyzed: 11/14/19
Instrument: Linus
Time Analyzed: 9:32

	Client Sample No.	APPL ID.	File ID.	Date Analyzed
1		500 2MEE 4/30/19	1030L076.D	11/14/19 9:48
2	Lab Control Spike	191111A LCS-1 2/500	1030L077.D	11/14/19 10:09
3	Lab Control SpikeD	191111A LCSD-1 2/500	1030L078.D	11/14/19 10:27
4		500 2MEE 4/30/19	1030L079.D	11/14/19 10:46
5				
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13				
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19				
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21				
22				

m/e		
51	9.95 - 80.04% of mass 198	56.2
68	0 - 2.04% of mass 69	0.0
70	0 - 2.04% of mass 69	0.5
127	10 - 80% of mass 198	66.8
197	0 - 2% of mass 198	0.0
198	100 - 100% of mass 198	100.0
199	5 - 9% of mass 198	6.8
275	10 - 60% of mass 198	22.3
365	1 - 100% of mass 198	3.0
441	0.01 - 24% of mass 442	16.1
442	50 - 500% of mass 198	78.3
443	15 - 24% of mass 442	19.2

Form 5
Tune Summary

Lab Name: APPL Inc.
Case No:
Matrix: Water
ID: 1205L032.D

SDG No:
Date Analyzed: 12/07/19
Instrument: Linus
Time Analyzed: 5:16

	Client Sample No.	APPL ID.	File ID.	Date Analyzed
1		MEE 50 04/30/19	1205L033.D	12/07/19 5:35
2		MEE 100 04/30/19	1205L034.D	12/07/19 5:53
3		MEE 500 04/30/19	1205L036.D	12/07/19 6:29
4		MEE 800 04/30/19	1205L038.D	12/07/19 7:05
5		MEE 1000 04/30/19	1205L039.D	12/07/19 7:22
6		SS 04/30/19	1205L040.D	12/07/19 7:40
7		BA02715W41 MS-1 2/50	1205L041.D	12/07/19 7:58
8		BA02715W43 MSD-1 2/5	1205L042.D	12/07/19 8:16
9		MEE 500 04/30/19	1205L043.D	12/07/19 8:34
10				
11				
12				
13				
14				
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17				
18				
19				
20				
21				
22				

m/e		
51	9.95 - 80.04% of mass 198	16.0
68	0 - 2.04% of mass 69	0.0
70	0 - 2.04% of mass 69	0.1
127	10 - 80% of mass 198	37.3
197	0 - 2% of mass 198	0.0
198	100 - 100% of mass 198	100.0
199	5 - 9% of mass 198	6.3
275	10 - 60% of mass 198	30.8
365	1 - 100% of mass 198	4.0
441	0.01 - 24% of mass 442	14.3
442	50 - 500% of mass 198	207.7
443	15 - 24% of mass 442	19.6

INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: APPL Inc. Contract: _____

Lab Code: _____ SDG No.: _____

Lab File ID (Standard): 1030L063.D Date Analyzed: 11/13/19

Instrument ID: Linus Time Analyzed: 15:30

GC Column: _____ ID: Heated Purge: (Y/N) _____

		1,4-dichlorobenzene-D4(IS)		Napthalene-D8(IS)		Acenaphthene-D10(IS)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	842982	3.67	4206280	4.62	2023920	6.01
	UPPER LIMIT	1685964	3.84	8412560	4.79	4047840	6.18
	LOWER LIMIT	421491	3.50	2103140	4.45	1011960	5.84
	SAMPLE NO.						
01	191111A BLK 2/500	670685	3.66	2651750	4.62	1349830	6.01
02	BA02713W23 2/500	678803	3.67	2606330	4.62	1395210	6.01
03	BA02715W28 2/500	598573	3.66	2347800	4.62	1303610	6.01
04	BA02716W09 2/500	620238	3.66	2390540	4.61	1372800	6.01
05	500 2MEE 4/30/19	851144	3.66	4152420	4.61	2141060	6.01
06							
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22							

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = -50% of internal standard area.
RT UPPER LIMIT = +0.17 minutes of internal standard RT
RT LOWER LIMIT = -0.17 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

8A
INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: APPL Inc. Contract: _____

Lab Code: _____ SDG No.: _____

Lab File ID (Standard): 1030L063.D Date Analyzed: 11/13/19

Instrument ID: Linus Time Analyzed: 15:30

GC Column: _____ ID: Heated Purge: (Y/N) _____

		Phenanthrene-D10(IS)		Chrysene-D12(IS)		Perylene-D12(IS)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	3817620	7.22	3523260	9.41	3518020	10.62
	UPPER LIMIT	7635240	7.39	7046520	9.58	7036040	10.79
	LOWER LIMIT	1908810	7.05	1761630	9.24	1759010	10.45
	SAMPLE NO.						
01	191111A BLK 2/500	2568680	7.22	1874030	9.39	1925340	10.58
02	BA02713W23 2/500	2619030	7.22	1725140 *	9.38	2013460	10.56
03	BA02715W28 2/500	2518690	7.22	1830520	9.39	1850270	10.57
04	BA02716W09 2/500	2607770	7.22	1816830	9.38	1880050	10.55
05	500 2MEE 4/30/19	3885960	7.22	3430660	9.38	3542620	10.56
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AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = -50% of internal standard area.
RT UPPER LIMIT = +0.17 minutes of internal standard RT
RT LOWER LIMIT = -0.17 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits. Not used for target quantitation HA 12/9/19

8A
INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: APPL Inc. Contract: _____

Lab Code: _____ SDG No.: _____

Lab File ID (Standard): 1030L076.D Date Analyzed: 11/14/19

Instrument ID: Linus Time Analyzed: 9:48

GC Column: _____ ID: Heated Purge: (Y/N) _____

		1,4-dichlorobenzene-D4(IS)		Napthalene-D8(IS)		Acenaphthene-D10(IS)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	613947	3.66	3527580	4.61	1898690	6.01
	UPPER LIMIT	1227894	3.83	7055160	4.78	3797380	6.18
	LOWER LIMIT	306974	3.49	1763790	4.44	949345	5.84
	SAMPLE NO.						
01	191111A LCS-1 2/500	585581	3.66	2515560	4.61	1292550	6.01
02	191111A LCSD-1 2/500	553463	3.66	2363890	4.61	1415380	6.01
03	500 2MEE 4/30/19	594041	3.66	3382470	4.61	1914430	6.01
04							
05							
06							
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AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = -50% of internal standard area.
RT UPPER LIMIT = +0.17 minutes of internal standard RT
RT LOWER LIMIT = -0.17 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: APPL Inc. Contract: _____

Lab Code: _____ SDG No.: _____

Lab File ID (Standard): 1030L076.D Date Analyzed: 11/14/19

Instrument ID: Linus Time Analyzed: 9:48

GC Column: _____ ID: Heated Purge: (Y/N) _____

		Phenanthrene-D10(IS)		Chrysene-D12(IS)		Perylene-D12(IS)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	3181700	7.21	2583690	9.39	2808490	10.60
	UPPER LIMIT	6363400	7.38	5167380	9.56	5616980	10.77
	LOWER LIMIT	1590850	7.04	1291845	9.22	1404245	10.43
	SAMPLE NO.						
01	191111A LCS-1 2/500	2266880	7.21	1700280	9.39	1846710	10.59
02	191111A LCSD-1 2/500	2408570	7.21	1766990	9.38	2006250	10.57
03	500 2MEE 4/30/19	3204830	7.22	2739210	9.40	2639200	10.60
04							
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AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = -50% of internal standard area.
RT UPPER LIMIT = +0.17 minutes of internal standard RT
RT LOWER LIMIT = -0.17 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: APPL Inc. Contract: _____

Lab Code: _____ SDG No.: _____

Lab File ID (Standard): 1205L033.D Date Analyzed: 7 Dec 19 5:35

Instrument ID: Linus Time Analyzed: 7 Dec 19 5:35

GC Column: _____ ID: Heated Purge: (Y/N) _____

		1,4-dichlorobenzene-D4(IS)		Napthalene-D8(IS)		Acenaphthene-D10(IS)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	1010700	5.65	4233940	6.59	2261080	7.98
	UPPER LIMIT	2021400	5.82	8467880	6.76	4522160	8.15
	LOWER LIMIT	505350	5.48	2116970	6.42	1130540	7.81
	SAMPLE NO.						
01	MEE 100 04/30/19	1038290	5.66	5062960	6.60	2792120	7.98
02	MEE 500 04/30/19	982548	5.65	3862250	6.59	2301430	7.98
03	MEE 800 04/30/19	1034210	5.65	5333900	6.59	2953350	7.98
04	MEE 1000 04/30/19	1153720	5.65	5574650	6.60	3044990	7.98
05	SS 04/30/19	908068	5.65	3947580	6.59	2420320	7.98
06	BA02715W41 MS-1 2/5(	1001740	5.65	4145050	6.59	2184540	7.98
07	BA02715W43 MSD-1 2/	1087520	5.65	4514340	6.60	2393210	7.98
08	MEE 500 04/30/19	1098020	5.66	4265090	6.59	2553010	7.98
09							
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AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = -50% of internal standard area.
RT UPPER LIMIT = +0.17 minutes of internal standard RT
RT LOWER LIMIT = -0.17 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: APPL Inc. Contract: _____

Lab Code: _____ SDG No.: _____

Lab File ID (Standard): 1205L033.D Date Analyzed: 7 Dec 19 5:35

Instrument ID: Linus Time Analyzed: 7 Dec 19 5:35

GC Column: _____ ID: Heated Purge: (Y/N) _____

		Phenanthrene-D10(IS)					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	4103150	9.15				
	UPPER LIMIT	8206300	9.32				
	LOWER LIMIT	2051575	8.98				
	SAMPLE NO.						
01	MEE 100 04/30/19	5207200	9.15				
02	MEE 500 04/30/19	4201630	9.15				
03	MEE 800 04/30/19	5489130	9.15				
04	MEE 1000 04/30/19	5673250	9.15				
05	SS 04/30/19	4493770	9.15				
06	BA02715W41 MS-1 2/5(	4155270	9.15				
07	BA02715W43 MSD-1 2/	4591300	9.15				
08	MEE 500 04/30/19	4647490	9.15				
09							
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AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = -50% of internal standard area.
RT UPPER LIMIT = +0.17 minutes of internal standard RT
RT LOWER LIMIT = -0.17 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

EPA 8260B

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 90700

Case No: 90700 Date Analyzed: 11/14/19

Matrix: WATER Instrument: Loki

APPL ID.	Client Sample No.	SURROGATE: 1,2-DICHLOROETHANE-D4 (S)			SURROGATE: 4-BROMOFLUOROBENZENE (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
191113AL-LCS	Lab Control Spike	81-118	98.8		85-114	102	
191113AL-LCSD	Lab Control SpikeD	81-118	98.0		85-114	103	
191113AL-BLK	Blank	81-118	98.7		85-114	92.7	
BA02712	ERH958	81-118	98.6		85-114	94.4	
BA02714	ERH962	81-118	102		85-114	93.0	
BA02713	ERH959	81-118	95.7		85-114	94.8	
BA02715	ERH963	81-118	96.8		85-114	97.4	
BA02716	ERH964	81-118	97.8		85-114	96.3	
BA02715-MS	Matrix Spike	81-118	95.2		85-114	100	
BA02715-MSD	Matrix SpikeD	81-118	99.2		85-114	97.2	

Comments: Batch: #86BTO-191113AL

EPA 8260B

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 90700

Case No: 90700 Date Analyzed: 11/14/19

Matrix: WATER Instrument: Loki

APPL ID.	Client Sample No.	SURROGATE: DIBROMOFLUOROMETHANE (S)			SURROGATE: TOLUENE-D8 (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
191113AL-LCS	Lab Control Spike	80-119	101		89-112	100	
191113AL-LCSD	Lab Control SpikeD	80-119	100		89-112	103	
191113AL-BLK	Blank	80-119	104		89-112	96.2	
BA02712	ERH958	80-119	101		89-112	98.5	
BA02714	ERH962	80-119	105		89-112	97.4	
BA02713	ERH959	80-119	101		89-112	96.7	
BA02715	ERH963	80-119	101		89-112	99.4	
BA02716	ERH964	80-119	103		89-112	100	
BA02715-MS	Matrix Spike	80-119	101		89-112	98.4	
BA02715-MSD	Matrix SpikeD	80-119	100		89-112	95.2	

Comments: Batch: #86BTO-191113AL

EPA 8260B

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 90700

Case No: 90700 Date Analyzed: 11/14/19

Matrix: WATER Instrument: Loki

Blank ID: 191113AL-BLK Time Analyzed: 0809

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191113AL-LCS	Lab Control Spike	1113L29	11/14/19 0422
191113AL-LCSD	Lab Control SpikeD	1113L30	11/14/19 0450
191113AL-BLK	Blank	1113L37	11/14/19 0809
BA02712	ERH958	1113L38	11/14/19 0837
BA02714	ERH962	1113L39	11/14/19 0905
BA02713	ERH959	1113L49	11/14/19 1349
BA02715	ERH963	1113L50	11/14/19 1417
BA02716	ERH964	1113L51	11/14/19 1446
191113AL-MS	Matrix Spike	1114L10	11/14/19 2114
191113AL-MSD	Matrix SpikeD	1114L11	11/14/19 2143

Comments: Batch: #86BTO-191113AL

Method Blank

EPA 8260B BTEX & 1,2-DCA WATER

Blank Name/QCG: **191113W-02715 - 247162**
Batch ID: #86BTO-191113AL

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	1,2-DICHLOROETHANE	0.30 U	1.0	0.30	0.14	ug/L	11/14/19	11/14/19
BLANK	BENZENE	0.30 U	1.0	0.30	0.15	ug/L	11/14/19	11/14/19
BLANK	ETHYLBENZENE	0.50 U	1.0	0.50	0.23	ug/L	11/14/19	11/14/19
BLANK	TOLUENE	0.30 U	1.0	0.30	0.15	ug/L	11/14/19	11/14/19
BLANK	XYLENES (TOTAL)	0.30 U	2.0	0.30	0.15	ug/L	11/14/19	11/14/19
BLANK	SURROGATE: 1,2-DICHLOROET	98.7	81-118			%	11/14/19	11/14/19
BLANK	SURROGATE: 4-BROMOFLUORO	92.7	85-114			%	11/14/19	11/14/19
BLANK	SURROGATE: DIBROMOFLUOR	104	80-119			%	11/14/19	11/14/19
BLANK	SURROGATE: TOLUENE-D8 (S)	96.2	89-112			%	11/14/19	11/14/19

Quant Method:L1113W.M
Run #:1113L37
Instrument:Loki
Sequence:191113
Initials:DPO

GC SC-Blank-REG MDLs-DOD
Printed: 11/15/19 10:16:04 AM

EPA 8260B

Form 4

LCS Summary

Lab Name: APPL, Inc. SDG No: 90700

Case No: 90700 Date Analyzed: 11/14/19

Matrix: WATER Instrument: Loki

LCS ID: 191113AL-LCS Time Analyzed: 0422

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191113AL-LCS	Lab Control Spike	1113L29	11/14/19 0422
191113AL-LCSD	Lab Control SpikeD	1113L30	11/14/19 0450
191113AL-BLK	Blank	1113L37	11/14/19 0809
BA02712	ERH958	1113L38	11/14/19 0837
BA02714	ERH962	1113L39	11/14/19 0905
BA02713	ERH959	1113L49	11/14/19 1349
BA02715	ERH963	1113L50	11/14/19 1417
BA02716	ERH964	1113L51	11/14/19 1446
191113AL-MS	Matrix Spike	1114L10	11/14/19 2114
191113AL-MSD	Matrix SpikeD	1114L11	11/14/19 2143

Comments: Batch: #86BTO-191113AL

Laboratory Control Spike Recoveries
EPA 8260B BTEX & 1,2-DCA WATER

APPL ID: **191114W-02715 LCS - 247162**
Batch ID: #86BTO-191113AL

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Lvl ug/L	SPK Result ug/L	DUP Result ug/L	SPK % Recovery	DUP % Recovery	Recovery Limits	RPD %	RPD Limits
1,2-DICHLOROETHANE	10.00	10.6	10.8	106	108	73-128	1.9	20
BENZENE	10.00	10.6	10.4	106	104	79-120	1.9	20
ETHYLBENZENE	10.00	10.7	10.8	107	108	79-121	0.93	20
TOLUENE	10.00	10.9	10.9	109	109	80-121	0.0	20
XYLENES (TOTAL)	30.0	29.5	29.5	98.3	98.3	79-121	0.0	20
SURROGATE: 1,2-DICHLOROETHANE-D	25.0	24.7	24.5	98.8	98.0	81-118		
SURROGATE: 4-BROMOFLUOROBENZE	25.0	25.4	25.8	102	103	85-114		
SURROGATE: DIBROMOFLUOROMETH	25.0	25.2	25.0	101	100	80-119		
SURROGATE: TOLUENE-D8 (S)	25.0	25.1	25.7	100	103	89-112		

Comments:

Primary	SPK	DUP
Quant Method :	L1113W.M	L1113W.M
Extraction Date :	11/14/19	11/14/19
Analysis Date :	11/14/19	11/14/19
Instrument :	Loki	Loki
Run :	1113L29	1113L30
Initials :	DPO	

Printed: 11/15/19 10:16:00 AM
APPL Standard LCSD

Matrix Spike Recoveries

EPA 8260B BTEX & 1,2-DCA WATER

APPL ID: **191114W-02715 MS - 247162**
Batch ID: #86BTO-191113AL
Sample ID: BA02715
Client ID: ERH963

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Lvl ug/L	Matrix Result ug/L	SPK Result ug/L	DUP Result ug/L	SPK % Recovery	DUP % Recovery	Recovery Limits	RPD %	RPD Limits
1,2-DICHLOROETHANE	10.00	ND	10.4	11.1	104	111	73-128	6.5	20
BENZENE	10.00	ND	10.2	11.0	102	110	79-120	7.5	20
ETHYLBENZENE	10.00	ND	10.5	10.3	105	103	79-121	1.9	20
TOLUENE	10.00	ND	11.0	11.3	110	113	80-121	2.7	20
XYLENES (TOTAL)	30.0	ND	28.5	27.9	95.0	93.0	79-121	2.1	20
SURROGATE: 1,2-DICHLOROETHANE-D	25.0	NA	23.8	24.8	95.2	99.2	81-118		
SURROGATE: 4-BROMOFLUOROBENZE	25.0	NA	25.1	24.3	100	97.2	85-114		
SURROGATE: DIBROMOFLUOROMETH	25.0	NA	25.3	25.1	101	100	80-119		
SURROGATE: TOLUENE-D8 (S)	25.0	NA	24.6	23.8	98.4	95.2	89-112		

Comments: _____

Primary	SPK	DUP
Quant Method :	L1113W.M	L1113W.M
Extraction Date :	11/14/19	11/14/19
Analysis Date :	11/14/19	11/14/19
Instrument :	Loki	Loki
Run :	1114L10	1114L11
Initials :	DPO	

Printed: 11/15/19 10:15:58 AM
APPL MSD SCII

Form 5
Tune Summary

Lab Name: APPL Inc.
Case No: 90700
Matrix: Water
ID: 1113L04.D

SDG No: 90700
Date Analyzed: 11/13/19
Instrument: Loki
Time Analyzed: 16:38

	Client Sample No.	APPL ID.	File ID.	Date Analyzed
1		0.3ug/L VOC STD 11/1	1113L07.D	11/13/19 17:58
2		0.5ug/L VOC STD 11/1	1113L08.D	11/13/19 18:26
3		1.0ug/L VOC STD 11/1	1113L09.D	11/13/19 18:54
4		2.0ug/L VOC STD 11/1	1113L10.D	11/13/19 19:23
5		5.0ug/L VOC STD 11/1	1113L11.D	11/13/19 19:51
6		10ug/L VOC STD 11/13	1113L12.D	11/13/19 20:19
7		20ug/L VOC STD 11/13	1113L13.D	11/13/19 20:48
8		40ug/L VOC STD 11/13	1113L14.D	11/13/19 21:16
9		100ug/L VOC STD 11/1	1113L15.D	11/13/19 21:45
10		(SS) 10ug/L VOC STD	1113L17.D	11/13/19 22:42
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				

m/e		
50	15 - 40% of mass 95	16.4
75	30 - 60% of mass 95	45.6
95	100 - 100% of mass 95	100.0
96	5 - 9% of mass 95	6.2
173	0 - 2% of mass 174	0.0
174	50 - 200% of mass 95	88.8
175	5 - 9% of mass 174	7.6
176	94.95 - 101% of mass 174	95.5
177	5 - 9% of mass 176	5.6

Form 5
Tune Summary

Lab Name: APPL Inc.
Case No: 90700
Matrix: Water
ID: 1113L27.D

SDG No: 90700
Date Analyzed: 11/14/19
Instrument: Loki
Time Analyzed: 3:25

	Client Sample No.	APPL ID.	File ID.	Date Analyzed
1	Lab Control Spike	191113 CCV/LCS 10ug/	1113L29.D	11/14/19 4:22
2	Lab Control SpikeD	191113 LCSD 10ug/L	1113L30.D	11/14/19 4:50
3	Blank	191113 BLK	1113L37.D	11/14/19 8:09
4	ERH958	BA02712W01	1113L38.D	11/14/19 8:37
5	ERH962	BA02714W01	1113L39.D	11/14/19 9:05
6	ERH959	BA02713W01	1113L49.D	11/14/19 13:49
7	ERH963	BA02715W01	1113L50.D	11/14/19 14:17
8	ERH964	BA02716W01	1113L51.D	11/14/19 14:46
9		Ending CCV 10ug/L 11	1113L53.D	11/14/19 15:43
10				
11				
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14				
15				
16				
17				
18				
19				
20				
21				
22				

m/e		
50	15 - 40% of mass 95	17.0
75	30 - 60% of mass 95	47.0
95	100 - 100% of mass 95	100.0
96	5 - 9% of mass 95	6.7
173	0 - 2% of mass 174	1.0
174	50 - 200% of mass 95	89.9
175	5 - 9% of mass 174	7.2
176	94.95 - 101% of mass 174	97.4
177	5 - 9% of mass 176	7.3

Form 5
Tune Summary

Lab Name: APPL Inc.
Case No: 90700
Matrix: Water
ID: 1114L00.D

SDG No: 90700
Date Analyzed: 11/14/19
Instrument: Loki
Time Analyzed: 16:37

	Client Sample No.	APPL ID.	File ID.	Date Analyzed
1		191114 CCV 10ug/L	1114L01.D	11/14/19 16:59
2		BA02715W01,2,3 MS 10	1114L10.D	11/14/19 21:14
3		BA02715W01,2,3 MSD 1	1114L11.D	11/14/19 21:43
4		Ending CCV 10ug/L 11	1114L25.D	11/15/19 4:20
5				
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9				
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12				
13				
14				
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16				
17				
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19				
20				
21				
22				

m/e		
50	15 - 40% of mass 95	17.1
75	30 - 60% of mass 95	46.7
95	100 - 100% of mass 95	100.0
96	5 - 9% of mass 95	7.0
173	0 - 2% of mass 174	0.7
174	50 - 200% of mass 95	86.4
175	5 - 9% of mass 174	8.0
176	94.95 - 101% of mass 174	98.5
177	5 - 9% of mass 176	6.9

8A
INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: APPL Inc. Contract: _____

Lab Code: _____ SDG No.: _____

Lab File ID (Standard): 1113L12.D Date Analyzed: 11/13/19

Instrument ID: Loki Time Analyzed: 20:19

GC Column: _____ ID: Heated Purge: (Y/N) _____

		Fluorobenzene (IS)		Chlorobenzene-D5 (IS)		1,4-Dichlorobenzene-D (IS)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	844928	5.18	817088	8.78	426752	11.32
	UPPER LIMIT	1689856	5.35	1634176	8.95	853504	11.49
	LOWER LIMIT	422464	5.01	408544	8.61	213376	11.15
	SAMPLE NO.						
01	(SS) 10ug/L VOC STD 1	837824	5.18	797440	8.78	425344	11.32
02							
03							
04							
05							
06							
07							
08							
09							
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12							
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22							

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = -50% of internal standard area.
RT UPPER LIMIT = +0.17 minutes of internal standard RT
RT LOWER LIMIT = -0.17 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

8A
INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: APPL Inc. Contract:

Lab Code: SDG No.:

Lab File ID (Standard): 1113L29.D Date Analyzed: 11/14/19

Instrument ID: Loki Time Analyzed: 4:22

GC Column: ID: Heated Purge: (Y/N)

		Fluorobenzene (IS)		Chlorobenzene-D5 (IS)		1,4-Dichlorobenzene-D (IS)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	838784	5.18	803776	8.78	431232	11.32
	UPPER LIMIT	1677568	5.35	1607552	8.95	862464	11.49
	LOWER LIMIT	419392	5.01	401888	8.61	215616	11.15
	SAMPLE NO.						
01	191113 LCSD 10ug/L	826432	5.18	772352	8.78	433408	11.32
02	191113 BLK	794688	5.18	779136	8.78	381952	11.32
03	BA02712W01	773184	5.18	735744	8.78	376768	11.32
04	BA02714W01	801152	5.18	795008	8.78	406720	11.32
05	BA02713W01	838656	5.18	828928	8.78	408896	11.32
06	BA02715W01	798400	5.18	772480	8.78	400896	11.32
07	BA02716W01	814272	5.18	784064	8.78	400128	11.32
08	Ending CCV 10ug/L 11/1	820480	5.18	799808	8.78	443456	11.32
09							
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20							
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22							

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = -50% of internal standard area.
RT UPPER LIMIT = +0.17 minutes of internal standard RT
RT LOWER LIMIT = -0.17 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: APPL Inc. Contract: _____

Lab Code: _____ SDG No.: _____

Lab File ID (Standard): 1114L01.D Date Analyzed: 11/14/19

Instrument ID: Loki Time Analyzed: 16:59

GC Column: _____ ID: Heated Purge: (Y/N) _____

		Fluorobenzene (IS)		Chlorobenzene-D5 (IS)		1,4-Dichlorobenzene-D (IS)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	823168	5.18	800256	8.78	435712	11.32
	UPPER LIMIT	1646336	5.35	1600512	8.95	871424	11.49
	LOWER LIMIT	411584	5.01	400128	8.61	217856	11.15
	SAMPLE NO.						
01	BA02715W01,2,3 MS 1(	803136	5.18	787392	8.78	430272	11.32
02	BA02715W01,2,3 MSD	815936	5.18	839488	8.78	428032	11.32
03	Ending CCV 10ug/L 11/1	796736	5.18	773184	8.78	423744	11.32
04							
05							
06							
07							
08							
09							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = -50% of internal standard area.
RT UPPER LIMIT = +0.17 minutes of internal standard RT
RT LOWER LIMIT = -0.17 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

EPA 8260B

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 90700

Case No: 90700 Date Analyzed: 11/14/19

Matrix: WATER Instrument: Loki

APPL ID.	Client Sample No.	SURROGATE: 4-BROMOFLUOROBENZENE (S)					
		Limits	Result	Qualifier	Limits	Result	Qualifier
191113AL-LCS	Lab Control Spike	85-114	98.4				
191113AL-LCSD	Lab Control SpikeD	85-114	96.8				
191113AL-BLK	Blank	85-114	92.7				
BA02712	ERH958	85-114	94.4				
BA02714	ERH962	85-114	93.0				
BA02713	ERH959	85-114	94.8				
BA02715	ERH963	85-114	97.4				
BA02716	ERH964	85-114	96.3				
BA02715-MS	Matrix Spike	85-114	98.0				
BA02715-MSD	Matrix SpikeD	85-114	98.4				

Comments: Batch: #GRO86-191113AL

EPA 8260B

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 90700

Case No: 90700 Date Analyzed: 11/14/19

Matrix: WATER Instrument: Loki

Blank ID: 191113AL-BLK Time Analyzed: 0809

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191113AL-LCS	Lab Control Spike	1113L33	11/14/19 0615
191113AL-LCSD	Lab Control SpikeD	1113L34	11/14/19 0644
191113AL-BLK	Blank	1113L37	11/14/19 0809
BA02712	ERH958	1113L38	11/14/19 0837
BA02714	ERH962	1113L39	11/14/19 0905
BA02713	ERH959	1113L49	11/14/19 1349
BA02715	ERH963	1113L50	11/14/19 1417
BA02716	ERH964	1113L51	11/14/19 1446
191113AL-MS	Matrix Spike	1114L12	11/14/19 2211
191113AL-MSD	Matrix SpikeD	1114L13	11/14/19 2240

Comments: Batch: #GRO86-191113AL

Method Blank

EPA 8260B GRO WATER

Blank Name/QCG: **191113W-02715 - 247166**

Batch ID: #GRO86-191113AL

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	GASOLINE RANGE ORGANICS	18.0 U	20	18.0	8.6	ug/L	11/14/19	11/14/19
BLANK	SURROGATE: 4-BROMOFLUORO	92.7	85-114			%	11/14/19	11/14/19

Quant Method:LGAS1113.M
Run #:1113L37
Instrument:Loki
Sequence:191113
Initials:DPO

GC SC-Blank-REG MDLs-DOD
Printed: 11/15/19 10:45:45 AM

EPA 8260B

Form 4

LCS Summary

Lab Name: APPL, Inc. SDG No: 90700

Case No: 90700 Date Analyzed: 11/14/19

Matrix: WATER Instrument: Loki

LCS ID: 191113AL-LCS Time Analyzed: 0615

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191113AL-LCS	Lab Control Spike	1113L33	11/14/19 0615
191113AL-LCSD	Lab Control SpikeD	1113L34	11/14/19 0644
191113AL-BLK	Blank	1113L37	11/14/19 0809
BA02712	ERH958	1113L38	11/14/19 0837
BA02714	ERH962	1113L39	11/14/19 0905
BA02713	ERH959	1113L49	11/14/19 1349
BA02715	ERH963	1113L50	11/14/19 1417
BA02716	ERH964	1113L51	11/14/19 1446
191113AL-MS	Matrix Spike	1114L12	11/14/19 2211
191113AL-MSD	Matrix SpikeD	1114L13	11/14/19 2240

Comments: Batch: #GRO86-191113AL

Laboratory Control Spike Recoveries
EPA 8260B GRO WATER

APPL ID: **191114W-02715 LCS - 247166**
Batch ID: #GRO86-191113AL

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Lvl ug/L	SPK Result ug/L	DUP Result ug/L	SPK % Recovery	DUP % Recovery	Recovery Limits	RPD %	RPD Limits
GASOLINE RANGE ORGANICS	300	311	328	104	109	78-122	5.3	20
SURROGATE: 4-BROMOFLUOROBENZE	25.0	24.6	24.2	98.4	96.8	85-114		

Comments: _____

Primary	SPK	DUP
Quant Method :	LGAS1113.M	LGAS1113.M
Extraction Date :	11/14/19	11/14/19
Analysis Date :	11/14/19	11/14/19
Instrument :	Loki	Loki
Run :	1113L33	1113L34
Initials :	DPO	

Printed: 11/15/19 10:45:42 AM
APPL Standard LCSD

Matrix Spike Recoveries
EPA 8260B GRO WATER

APPL ID: **191114W-02715 MS - 247166**
Batch ID: #GRO86-191113AL
Sample ID: BA02715
Client ID: ERH963

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Lvl ug/L	Matrix Result ug/L	SPK Result ug/L	DUP Result ug/L	SPK % Recovery	DUP % Recovery	Recovery Limits	RPD %	RPD Limits
GASOLINE RANGE ORGANICS	300	ND	333	326	111	109	78-122	2.1	20
SURROGATE: 4-BROMOFLUOROBENZE	25.0	NA	24.5	24.6	98.0	98.4	85-114		

Comments:

Primary	SPK	DUP
Quant Method :	LGAS1113.M	LGAS1113.M
Extraction Date :	11/14/19	11/14/19
Analysis Date :	11/14/19	11/14/19
Instrument :	Loki	Loki
Run :	1114L12	1114L13
Initials :	DPO	

Printed: 11/15/19 10:45:41 AM
APPL MSD SCII

RSK 175

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 90700

Case No: 90700 Date Analyzed: 11/13/19

Matrix: WATER Instrument: Rocky

Blank ID: 191113A-BLK Time Analyzed: 1411

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191113A-LCS	Lab Control Spike	1113R02	11/13/19 1401
191113A-LCSD	Lab Control SpikeD	1113R04	11/13/19 1408
191113A-BLK	Blank	1113R05	11/13/19 1411
BA02712	ERH958	1113R06	11/13/19 1415
BA02713	ERH959	1113R07	11/13/19 1419
BA02714	ERH962	1113R08	11/13/19 1423
BA02715	ERH963	1113R09	11/13/19 1426
191113A-MS	Matrix Spike	1113R10	11/13/19 1430
191113A-MSD	Matrix SpikeD	1113R11	11/13/19 1434

Comments: Batch: #RSKME-191113A

RSK 175

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 90700

Case No: 90700 Date Analyzed: 11/20/19

Matrix: WATER Instrument: Rocky

Blank ID: 191120A-BLK Time Analyzed: 1909

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191120A-LCS	Lab Control Spike	1120R05	11/20/19 1902
191120A-BLK	Blank	1120R06	11/20/19 1909
BA02715	ERH963	1120R07	11/20/19 1913
191120A-LCSD	Lab Control SpikeD	1120R08	11/20/19 1917

Comments: Batch: #RSKWR-191120A

Method Blank
METHANE

Blank Name/QCG: **191113W-02715 - 247088**
Batch ID: #RSKME-191113A

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	METHANE	1.00 U	5.0	1.00	0.25	ug/L	11/13/19	11/13/19

Quant Method:RSK1002.M
Run #:1113R05
Instrument:Rocky
Sequence:191002
Initials:GAG

GC SC-Blank-REG MDLs-DOD
Printed: 12/06/19 3:58:31 PM

Method Blank

MEE

Blank Name/QCG: **191120W-02715 - 247502**

Batch ID: #RSKWR-191120A

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	METHANE	1.00 U	5.0	1.00	0.25	ug/L	11/20/19	11/20/19

Quant Method: RSK1002.M
Run #: 1120R06
Instrument: Rocky
Sequence: 191002
Initials: GAG

GC SC-Blank-REG MDLs-DOD
Printed: 12/06/19 3:58:31 PM

RSK 175

Form 4

LCS Summary

Lab Name: APPL, Inc. SDG No: 90700

Case No: 90700 Date Analyzed: 11/13/19

Matrix: WATER Instrument: Rocky

LCS ID: 191113A-LCS Time Analyzed: 1401

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191113A-LCS	Lab Control Spike	1113R02	11/13/19 1401
191113A-LCSD	Lab Control SpikeD	1113R04	11/13/19 1408
191113A-BLK	Blank	1113R05	11/13/19 1411
BA02712	ERH958	1113R06	11/13/19 1415
BA02713	ERH959	1113R07	11/13/19 1419
BA02714	ERH962	1113R08	11/13/19 1423
BA02715	ERH963	1113R09	11/13/19 1426
191113A-MS	Matrix Spike	1113R10	11/13/19 1430
191113A-MSD	Matrix SpikeD	1113R11	11/13/19 1434

Comments: Batch: #RSKME-191113A

RSK 175

Form 4

LCS Summary

Lab Name: APPL, Inc. SDG No: 90700

Case No: 90700 Date Analyzed: 11/20/19

Matrix: WATER Instrument: Rocky

LCS ID: 191120A-LCS Time Analyzed: 1902

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191120A-LCS	Lab Control Spike	1120R05	11/20/19 1902
191120A-BLK	Blank	1120R06	11/20/19 1909
BA02715	ERH963	1120R07	11/20/19 1913
191120A-LCSD	Lab Control SpikeD	1120R08	11/20/19 1917

Comments: Batch: #RSKWR-191120A

Laboratory Control Spike Recoveries
METHANE

APPL ID: **191113W-02715 LCS - 247088**
Batch ID: #RSKME-191113A

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Lvl ug/L	SPK Result ug/L	DUP Result ug/L	SPK % Recovery	DUP % Recovery	Recovery Limits	RPD %	RPD Limits
METHANE	83.4	83.3	68.2	99.9	81.8	72-125	19.9	30

Comments:

Primary	SPK	DUP
Quant Method :	RSK1002.M	RSK1002.M
Extraction Date :	11/13/19	11/13/19
Analysis Date :	11/13/19	11/13/19
Instrument :	Rocky	Rocky
Run :	1113R02	1113R04
Initials :	GAG	

Printed: 12/06/19 3:58:32 PM
APPL Standard LCSD

Laboratory Control Spike Recoveries

MEE

APPL ID: **191120W-02715 LCS - 247502**
Batch ID: #RSKWR-191120A

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Lvl ug/L	SPK Result ug/L	DUP Result ug/L	SPK % Recovery	DUP % Recovery	Recovery Limits	RPD %	RPD Limits
METHANE	83.4	72.3	69.6	86.7	83.5	72-125	3.8	30

Comments:

Primary	SPK	DUP
Quant Method :	RSK1002.M	RSK1002.M
Extraction Date :	11/20/19	11/20/19
Analysis Date :	11/20/19	11/20/19
Instrument :	Rocky	Rocky
Run :	1120R05	1120R08
Initials :	GAG	

Printed: 12/06/19 3:58:32 PM
APPL Standard LCSD

Matrix Spike Recoveries

METHANE

APPL ID: **191113W-02715 MS - 247088**
Batch ID: #RSKME-191113A
Sample ID: BA02715
Client ID: ERH963

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Lvl ug/L	Matrix Result ug/L	SPK Result ug/L	DUP Result ug/L	SPK % Recovery	DUP % Recovery	Recovery Limits	RPD %	RPD Limits
METHANE	83.4	32	158	150	151 #	141 #	72-125	5.2	30

= Recovery is outside QC limits.

Comments:

Primary	SPK	DUP
Quant Method :	RSK1002.M	RSK1002.M
Extraction Date :	11/13/19	11/13/19
Analysis Date :	11/13/19	11/13/19
Instrument :	Rocky	Rocky
Run :	1113R10	1113R11
Initials :	GAG	

Printed: 12/06/19 3:58:33 PM
APPL MSD SCII

6010C/3010A

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 90700

Case No: 90700 Date Analyzed: 11/19/19

Matrix: WATER Instrument: Phoebe

Blank ID: 191112A1-BLK Time Analyzed: 1627

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191112A1-MSD	Matrix SpikeD	191119A	11/19/19 1812
191112A1-MS	Matrix Spike	191119A	11/19/19 1807
191112A1-LCSD	Lab Control SpikeD	191119A	11/19/19 1636
191112A1-LCS	Lab Control Spike	191119A	11/19/19 1631
191112A1-BLK	Blank	191119A	11/19/19 1627
BA02715	ERH963	191119A	11/19/19 1753
BA02713	ERH959	191119A	11/19/19 1749

Comments: Batch: #61CDO-191112A1

METALS BLANK

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Method	Analyte	Result	LOQ	LOD	DL	Units	Prep Date	Analysis Date	QC Group
6010C	CALCIUM (CA)	75.0 U	1000	75.0	27.5	ug/L	11/12/19	11/19/19	#61CDO-191112A1-BA02715
6010C	MAGNESIUM (MG)	30.0 U	500	30.0	12.9	ug/L	11/12/19	11/19/19	#61CDO-191112A1-BA02715
6010C	MANGANESE (MN)	4.00 U	10.0	4.00	1.23	ug/L	11/12/19	11/19/19	#61CDO-191112A1-BA02715
6010C	POTASSIUM (K)	500.0 U	3000	500.0	220.0	ug/L	11/12/19	11/19/19	#61CDO-191112A1-BA02715
6010C	SODIUM (NA)	500.0 U	5000	500.0	111.1	ug/L	11/12/19	11/19/19	#61CDO-191112A1-BA02715

6010C/3010A

Form 4

LCS Summary

Lab Name: APPL, Inc. SDG No: 90700

Case No: 90700 Date Analyzed: 11/19/19

Matrix: WATER Instrument: Phoebe

LCS ID: 191112A1-LCS Time Analyzed: 1631

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191112A1-MSD	Matrix SpikeD	191119A	11/19/19 1812
191112A1-MS	Matrix Spike	191119A	11/19/19 1807
191112A1-LCSD	Lab Control SpikeD	191119A	11/19/19 1636
191112A1-LCS	Lab Control Spike	191119A	11/19/19 1631
191112A1-BLK	Blank	191119A	11/19/19 1627
BA02715	ERH963	191119A	11/19/19 1753
BA02713	ERH959	191119A	11/19/19 1749

Comments: Batch: #61CDO-191112A1

Laboratory Control Spike Recoveries

METALS

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Method	Compound Name	Spike Lvl ug/L	SPK Res ug/L	DUP Res ug/L	SPK % Recov	DUP % Recov	RPD	RPD Max	QC Limits	Extract Date-Spk	Analysis Date-Spk	Extract Date-Dup	Analysis Date-Dup	QC Group
EPA 6010C	CALCIUM (CA)	25000	26400	25100	106	100	5.0	20	87-113	11/12/19	11/19/19	11/12/19	11/19/19	#61CDO-191112A1-BA027
EPA 6010C	MAGNESIUM (MG)	25000	26400	25600	106	102	3.1	20	85-113	11/12/19	11/19/19	11/12/19	11/19/19	#61CDO-191112A1-BA027
EPA 6010C	MANGANESE (MN)	250	266	260	106	104	2.3	20	90-114	11/12/19	11/19/19	11/12/19	11/19/19	#61CDO-191112A1-BA027
EPA 6010C	POTASSIUM (K)	5000	5040	4940	101	98.8	2.0	20	86-114	11/12/19	11/19/19	11/12/19	11/19/19	#61CDO-191112A1-BA027
EPA 6010C	SODIUM (NA)	25000	26000	25200	104	101	3.1	20	87-115	11/12/19	11/19/19	11/12/19	11/19/19	#61CDO-191112A1-BA027

Comments: _____

Matrix Spike Recoveries

METALS

APPL ID: **191112W-02715 MS - 247707**

Sample ID: BA02715

Client ID: ERH963

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Method	Compound Name	Spike Lvl ug/L	Matrix Res ug/L	SPK Res ug/L	DUP Res ug/L	SPK % Recovery	DUP % Recovery	RPD	RPD Max	Recovery Limits	Extract Date-Spk	Analysis Date-Spk	Extract Date-Dup	Analysis Date-Dup	QC Group	QC Sample
EPA 6010C	CALCIUM (CA)	25000	13800	42500	42300	115 #	114 #	0.5	20	87-113	11/12/19	11/19/19	11/12/19	11/19/19	247707	BA02715
EPA 6010C	MAGNESIUM (MG)	25000	10600	40000	39900	118 #	117 #	0.3	20	85-113	11/12/19	11/19/19	11/12/19	11/19/19	247707	BA02715
EPA 6010C	MANGANESE (MN)	250	191	475	482	114	116 #	1.5	20	90-114	11/12/19	11/19/19	11/12/19	11/19/19	247707	BA02715
EPA 6010C	POTASSIUM (K)	5000	1610	7130	7230	110	112	1.4	20	86-114	11/12/19	11/19/19	11/12/19	11/19/19	247707	BA02715
EPA 6010C	SODIUM (NA)	25000	39600	68600	68600	116 #	116 #	0.0	20	87-115	11/12/19	11/19/19	11/12/19	11/19/19	247707	BA02715

= Recovery is outside QC limits.

Comments:

EPA 300.0

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 90700

Case No: 90700 Date Analyzed: 11/08/19

Matrix: WATER Instrument: Charlie

Blank ID: 191108Aa-BLK Time Analyzed: 1303

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191108Aa-BLK	Blank	3	11/08/19 1303
191108Aa-LCS	Lab Control Spike	4	11/08/19 1310
191108Aa-LCSD	Lab Control SpikeD	5	11/08/19 1318
BA02715	ERH963	6	11/08/19 1535
BA02713	ERH959	7	11/08/19 1542
BA02715	ERH963	8	11/08/19 1553
BA02713	ERH959	9	11/08/19 1600

Comments: Batch: #300W-191108Aa

Printed: 12/11/19 8:37:52 AM
Form 4, Blank Summary

WETLAB BLANK

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Method	Analyte	Result	LOQ	LOD	DL	Units	Prep Date	Analysis Date	QC Group
EPA 300.0	BROMIDE	0.16 U	0.5	0.16	0.05	mg/L	11/08/19	11/08/19	#300W-191108Aa-BA02713
EPA 300.0	CHLORIDE	0.20 U	1.0	0.20	0.08	mg/L	11/08/19	11/08/19	#300W-191108Aa-BA02713
EPA 300.0	FLUORIDE	0.09 U	0.1	0.09	0.08	mg/L	11/08/19	11/08/19	#300W-191108Aa-BA02713
EPA 300.0	NITRATE	0.18 U	0.5	0.18	0.04	mg/L	11/08/19	11/08/19	#300W-191108Aa-BA02713
EPA 300.0	SULFATE	0.20 U	1.0	0.20	0.09	mg/L	11/08/19	11/08/19	#300W-191108Aa-BA02713

Wetlab SC-Blank-REG MDLs
Printed: 12/11/19 8:37:29 AM

EPA 300.0

Form 4

LCS Summary

Lab Name: APPL, Inc. SDG No: 90700

Case No: 90700 Date Analyzed: 11/08/19

Matrix: WATER Instrument: Charlie

LCS ID: 191108Aa-LCS Time Analyzed: 1310

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191108Aa-BLK	Blank	3	11/08/19 1303
191108Aa-LCS	Lab Control Spike	4	11/08/19 1310
191108Aa-LCSD	Lab Control SpikeD	5	11/08/19 1318
BA02715	ERH963	6	11/08/19 1535
BA02713	ERH959	7	11/08/19 1542
BA02715	ERH963	8	11/08/19 1553
BA02713	ERH959	9	11/08/19 1600

Comments: Batch: #300W-191108Aa

Printed: 12/11/19 8:37:52 AM
Form 4, LCS Summary

Laboratory Control Spike Recoveries

WETLAB

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Method	Compound Name	Spike Lvl mg/L	SPK Res mg/L	DUP Res mg/L	SPK % Recov	DUP % Recov	RPD	RPD Max	QC Limits	Extract Date-Spk	Analysis Date-Spk	Extract Date-Dup	Analysis Date-Dup	QC Group
EPA 300.0	BROMIDE	12.5	13.4	13.4	107	107	0.0	20	90-110	11/08/19	11/08/19	11/08/19	11/08/19	#300W-191108Aa-BA0271
EPA 300.0	CHLORIDE	25.0	26.6	26.6	106	106	0.0	20	90-110	11/08/19	11/08/19	11/08/19	11/08/19	#300W-191108Aa-BA0271
EPA 300.0	FLUORIDE	5.0	4.83	4.81	96.6	96.2	0.41	20	90-110	11/08/19	11/08/19	11/08/19	11/08/19	#300W-191108Aa-BA0271
EPA 300.0	NITRATE	22.1	23.1	23.1	105	105	0.0	20	90-110	11/08/19	11/08/19	11/08/19	11/08/19	#300W-191108Aa-BA0271
EPA 300.0	SULFATE	25.0	24.8	24.8	99.2	99.2	0.0	20	90-110	11/08/19	11/08/19	11/08/19	11/08/19	#300W-191108Aa-BA0271

Comments: _____

_____

_____

Printed: 12/11/19 8:37:38 AM
APPL Standard LCSD

EPA 353.2

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 90700

Case No: 90700 Date Analyzed: 11/13/19

Matrix: WATER Instrument: EVE

Blank ID: 191113B-BLK Time Analyzed: 1241

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191113B-BLK	Blank	22	11/13/19 1241
191113B-LCS	Lab Control Spike	23	11/13/19 1242
191113B-LCSD	Lab Control SpikeD	24	11/13/19 1243
BA02713	ERH959	25	11/13/19 1244
BA02715	ERH963	26	11/13/19 1245
191113B-MS	Matrix Spike	27	11/13/19 1246
191113B-MSD	Matrix SpikeD	28	11/13/19 1247

Comments: Batch: #35OF-191113B

Printed: 12/11/19 8:40:57 AM
Form 4, Blank Summary

SM 2320B

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 90700

Case No: 90700 Date Analyzed: 11/19/19

Matrix: WATER Instrument: Tiamo

Blank ID: 191119B-BLK Time Analyzed: 1536

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191119B-BLK	Blank	1	11/19/19 1536
191119B-LCS	Lab Control Spike	2	11/19/19 1540
191119B-LCSD	Lab Control SpikeD	3	11/19/19 1548
BA02713	ERH959	4	11/19/19 1558
191119B-DUP	Duplicate	5	11/19/19 1606
BA02715	ERH963	5	11/19/19 1601
191119B-MS	Matrix Spike	7	11/19/19 1611
191119B-MSD	Matrix SpikeD	8	11/19/19 1621

Comments: Batch: #232W-191119B

Printed: 12/11/19 8:40:57 AM
Form 4, Blank Summary

SM 4500-Si D

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 90700

Case No: 90700 Date Analyzed: 11/19/19

Matrix: WATER Instrument: Manual Spec

Blank ID: 191119A-BLK Time Analyzed: 2120

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191119A-BLK	Blank	61	11/19/19 2120
191119A-LCS	Lab Control Spike	63	11/19/19 2121
191119A-LCSD	Lab Control SpikeD	64	11/19/19 2121
BA02715	ERH963	69	11/19/19 2124
BA02713	ERH959	70	11/19/19 2124

Comments: Batch: #SIO2-191119A

Printed: 12/11/19 8:40:57 AM
Form 4, Blank Summary

SM 4500-Si D

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 90700

Case No: 90700 Date Analyzed: 11/19/19

Matrix: WATER Instrument: Manual Spec

Blank ID: 191119A-BLK Time Analyzed: 2120

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191119A-BLK	Blank	61	11/19/19 2120
191119A-LCS	Lab Control Spike	63	11/19/19 2121
191119A-LCSD	Lab Control SpikeD	64	11/19/19 2121
BA02715	ERH963	65	11/19/19 2122
BA02713	ERH959	66	11/19/19 2122

Comments: Batch: #SIO2D-191119A

Printed: 12/11/19 8:40:57 AM
Form 4, Blank Summary

SM3500FeB

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 90700

Case No: 90700 Date Analyzed: 11/11/19

Matrix: WATER Instrument: Manual Spec

Blank ID: A191111-BLK Time Analyzed: 1606

APPL ID.	Client Sample No.	File ID.	Date Analyzed
A191111-BLK	Blank	31	11/11/19 1606
A191111-LCSD	Lab Control SpikeD	33	11/11/19 1608
A191111-LCS	Lab Control Spike	34	11/11/19 1608
BA02713	ERH959	35	11/11/19 1609
BA02715	ERH963	36	11/11/19 1610

Comments: Batch: #35FE-A191111

Printed: 12/11/19 8:40:57 AM
Form 4, Blank Summary

SW846 9060A

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 90700

Case No: 90700 Date Analyzed: 11/14/19

Matrix: WATER Instrument: TICTOC

Blank ID: 191111A-BLK Time Analyzed: 1740

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191111A-BLK	Blank	29	11/14/19 1740
191111A-LCS	Lab Control Spike	30	11/14/19 1816
191111A-LCSD	Lab Control SpikeD	31	11/14/19 1852
BA02713	ERH959	37	11/14/19 2217
BA02715	ERH963	38	11/14/19 2251

Comments: Batch: #DOCW5-191111A

Printed: 12/11/19 8:40:57 AM
Form 4, Blank Summary

SW846 9060A

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 90700

Case No: 90700 Date Analyzed: 11/15/19

Matrix: WATER Instrument: TICTOC

Blank ID: 191111B-BLK Time Analyzed: 0113

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191111B-BLK	Blank	27	11/15/19 0113
191111B-LCS	Lab Control Spike	28	11/15/19 0150
191111B-LCSD	Lab Control SpikeD	29	11/15/19 0227
BA02715	ERH963	32	11/15/19 0410
BA02713	ERH959	33	11/15/19 0443

Comments: Batch: #TOCW5-191111B

Printed: 12/11/19 8:40:57 AM
Form 4, Blank Summary

WETLAB BLANK

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Method	Analyte	Result	LOQ	LOD	DL	Units	Prep Date	Analysis Date	QC Group
SW846 90	DISSOLVED ORGA	0.350 U	0.93	0.350	0.130	mg/L	11/14/19	11/14/19	#DOCW5-191111A-BA02466
SW846 90	TOTAL ORGANIC C	0.350 U	0.93	0.350	0.130	mg/L	11/15/19	11/15/19	#TOCW5-191111B-BA02466
SM 2320B	BICARBONATE AS	3.2	2.0	1.70	0.85	mg/L	11/19/19	11/19/19	#232W-191119B-BA02715
SM 2320B	CARBONATE AS C	1.70 U	2.0	1.70	0.85	mg/L	11/19/19	11/19/19	#232W-191119B-BA02715
SM 2320B	TOTAL ALKALINITY	3.2	2.0	1.70	0.85	mg/L	11/19/19	11/19/19	#232W-191119B-BA02715
SM3500Fe	FERROUS IRON	0.32 U	1.0	0.32	0.16	mg/L	11/11/19	11/11/19	#35FE-A191111-BA02715
EPA 353.2	NITRATE-NITRITE-	0.090 U	0.10	0.090	0.028	mg/L	11/13/19	11/13/19	#35OF-191113B-BA02715
SM 4500-S	SILICA W	0.80 U	1.0	0.80	0.53	mg/L	11/19/19	11/19/19	#SIO2-191119A-BA02715
SM 4500-S	DISSOLVED SILICA	0.80 U	1.0	0.80	0.53	mg/L	11/19/19	11/19/19	#SIO2D-191119A-BA02715

Wetlab SC-Blank-REG MDLs
Printed: 12/11/19 8:47:31 AM

EPA 353.2

Form 4

LCS Summary

Lab Name: APPL, Inc. SDG No: 90700

Case No: 90700 Date Analyzed: 11/13/19

Matrix: WATER Instrument: EVE

LCS ID: 191113B-LCS Time Analyzed: 1242

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191113B-BLK	Blank	22	11/13/19 1241
191113B-LCS	Lab Control Spike	23	11/13/19 1242
191113B-LCSD	Lab Control SpikeD	24	11/13/19 1243
BA02713	ERH959	25	11/13/19 1244
BA02715	ERH963	26	11/13/19 1245
191113B-MS	Matrix Spike	27	11/13/19 1246
191113B-MSD	Matrix SpikeD	28	11/13/19 1247

Comments: Batch: #35OF-191113B

Printed: 12/11/19 8:40:49 AM
Form 4, LCS Summary

SM 2320B

Form 4

LCS Summary

Lab Name: APPL, Inc. SDG No: 90700

Case No: 90700 Date Analyzed: 11/19/19

Matrix: WATER Instrument: Tiamo

LCS ID: 191119B-LCS Time Analyzed: 1540

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191119B-BLK	Blank	1	11/19/19 1536
191119B-LCS	Lab Control Spike	2	11/19/19 1540
191119B-LCSD	Lab Control SpikeD	3	11/19/19 1548
BA02713	ERH959	4	11/19/19 1558
191119B-DUP	Duplicate	5	11/19/19 1606
BA02715	ERH963	5	11/19/19 1601
191119B-MS	Matrix Spike	7	11/19/19 1611
191119B-MSD	Matrix SpikeD	8	11/19/19 1621

Comments: Batch: #232W-191119B

SM 4500-Si D

Form 4

LCS Summary

Lab Name: APPL, Inc. SDG No: 90700

Case No: 90700 Date Analyzed: 11/19/19

Matrix: WATER Instrument: Manual Spec

LCS ID: 191119A-LCS Time Analyzed: 2121

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191119A-BLK	Blank	61	11/19/19 2120
191119A-LCS	Lab Control Spike	63	11/19/19 2121
191119A-LCSD	Lab Control SpikeD	64	11/19/19 2121
BA02715	ERH963	69	11/19/19 2124
BA02713	ERH959	70	11/19/19 2124

Comments: Batch: #SIO2-191119A

SM 4500-Si D

Form 4

LCS Summary

Lab Name: APPL, Inc. SDG No: 90700

Case No: 90700 Date Analyzed: 11/19/19

Matrix: WATER Instrument: Manual Spec

LCS ID: 191119A-LCS Time Analyzed: 2121

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191119A-BLK	Blank	61	11/19/19 2120
191119A-LCS	Lab Control Spike	63	11/19/19 2121
191119A-LCSD	Lab Control SpikeD	64	11/19/19 2121
BA02715	ERH963	65	11/19/19 2122
BA02713	ERH959	66	11/19/19 2122

Comments: Batch: #SIO2D-191119A

Printed: 12/11/19 8:40:49 AM
Form 4, LCS Summary

SM3500FeB

Form 4

LCS Summary

Lab Name: APPL, Inc. SDG No: 90700

Case No: 90700 Date Analyzed: 11/11/19

Matrix: WATER Instrument: Manual Spec

LCS ID: A191111-LCS Time Analyzed: 1608

APPL ID.	Client Sample No.	File ID.	Date Analyzed
A191111-BLK	Blank	31	11/11/19 1606
A191111-LCSD	Lab Control SpikeD	33	11/11/19 1608
A191111-LCS	Lab Control Spike	34	11/11/19 1608
BA02713	ERH959	35	11/11/19 1609
BA02715	ERH963	36	11/11/19 1610

Comments: Batch: #35FE-A191111

Printed: 12/11/19 8:40:49 AM
Form 4, LCS Summary

SW846 9060A

Form 4

LCS Summary

Lab Name: APPL, Inc. SDG No: 90700

Case No: 90700 Date Analyzed: 11/14/19

Matrix: WATER Instrument: TICTOC

LCS ID: 191111A-LCS Time Analyzed: 1816

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191111A-BLK	Blank	29	11/14/19 1740
191111A-LCS	Lab Control Spike	30	11/14/19 1816
191111A-LCSD	Lab Control SpikeD	31	11/14/19 1852
BA02713	ERH959	37	11/14/19 2217
BA02715	ERH963	38	11/14/19 2251

Comments: Batch: #DOCW5-191111A

Printed: 12/11/19 8:40:49 AM
Form 4, LCS Summary

SW846 9060A

Form 4

LCS Summary

Lab Name: APPL, Inc. SDG No: 90700

Case No: 90700 Date Analyzed: 11/15/19

Matrix: WATER Instrument: TICTOC

LCS ID: 191111B-LCS Time Analyzed: 0150

APPL ID.	Client Sample No.	File ID.	Date Analyzed
191111B-BLK	Blank	27	11/15/19 0113
191111B-LCS	Lab Control Spike	28	11/15/19 0150
191111B-LCSD	Lab Control SpikeD	29	11/15/19 0227
BA02715	ERH963	32	11/15/19 0410
BA02713	ERH959	33	11/15/19 0443

Comments: Batch: #TOCW5-191111B

Printed: 12/11/19 8:40:49 AM
Form 4, LCS Summary

Laboratory Control Spike Recoveries

WETLAB

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Method	Compound Name	Spike Lvl mg/L	SPK Res mg/L	DUP Res mg/L	SPK % Recov	DUP % Recov	RPD	RPD Max	QC Limits	Extract Date-Spk	Analysis Date-Spk	Extract Date-Dup	Analysis Date-Dup	QC Group
SW846 90	DISSOLVED ORGANIC CA	5.00	5.25	5.33	105	107	1.5	20	90-110	11/14/19	11/14/19	11/14/19	11/14/19	#DOCW5-191111A-BA024
SW846 90	TOTAL ORGANIC CARBO	5.00	5.18	5.16	104	103	0.39	20	80-120	11/15/19	11/15/19	11/15/19	11/15/19	#TOCW5-191111B-BA024

Comments:

Printed: 12/11/19 9:06:40 AM
APPL Standard LCSD

Laboratory Control Spike Recoveries

WETLAB

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Method	Compound Name	Spike Lvl mg/L	SPK Res mg/L	DUP Res mg/L	SPK % Recov	DUP % Recov	RPD	RPD Max	QC Limits	Extract Date-Spk	Analysis Date-Spk	Extract Date-Dup	Analysis Date-Dup	QC Group
EPA 353.2	NITRATE-NITRITE-N	3.00	3.07	3.07	102	102	0.0	20	90-110	11/13/19	11/13/19	11/13/19	11/13/19	#35OF-191113B-BA02715
SM 2320B	TOTAL ALKALINITY AS CA	250	245	248	98.0	99.2	1.2	20	90-110	11/19/19	11/19/19	11/19/19	11/19/19	#232W-191119B-BA02715
SM 4500-Si	SILICA W	4.00	3.97	4.01	99.3	100	1.0	20	80-120	11/19/19	11/19/19	11/19/19	11/19/19	#SIO2-191119A-BA02715
SM 4500-Si	DISSOLVED SILICA	4.00	3.97	4.01	99.3	100	1.0	20	80-120	11/19/19	11/19/19	11/19/19	11/19/19	#SIO2D-191119A-BA02715
SM3500Fe	FERROUS IRON	3.00	2.92	2.90	97.3	96.7	0.69	20	80-120	11/11/19	11/11/19	11/11/19	11/11/19	#35FE-A191111-BA02715

Comments:

Printed: 12/11/19 9:06:40 AM
APPL Standard LCSD

Matrix Spike Recoveries

WETLAB

APPL ID: **191113W-02715 MS - 247081**

Sample ID: BA02715

Client ID: ERH963

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Method	Compound Name	Spike Lvl mg/L	Matrix Res mg/L	SPK Res mg/L	DUP Res mg/L	SPK % Recovery	DUP % Recovery	RPD	RPD Max	Recovery Limits	Extract Date-Spk	Analysis Date-Spk	Extract Date-Dup	Analysis Date-Dup	QC Group	QC Sample
EPA 353.2	NITRATE-NITRITE-N	3.23	0.043	3.30	3.45	101	105	4.4	20	90-110	11/13/19	11/13/19	11/13/19	11/13/19	247081	BA02715
SM 2320B	TOTAL ALKALINITY A	250	66.5	310	308	97.4	96.6	0.65	20	90-110	11/19/19	11/19/19	11/19/19	11/19/19	247341	BA02715

Comments: _____

Printed: 12/11/19 8:44:15 AM
APPL MSD SCII

WETLAB

Sample/Sample Duplicate Results

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813

Attn: Margie Pascua

Project: 60571032 CV18F0126 Red Hill Fuel Storage

Sample ID: BA02715
Client ID: ERH963

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

ARF: 90700

Method	Analyte	Sample ID	Sample Result	Sample Dup Result	RPD	RPD Max	MDL	PQL	Units	Sample Extract Date	Sample Analysis Date	Sample Dup Extract Date	Sample Dup Analysis Date
SM 2320B	BICARBONATE A	BA02715	66.5	68.0	2.2	20	0.85	2.0	mg/L	11/19/19	11/19/19	11/19/19	11/19/19
SM 2320B	CARBONATE AS	BA02715	Not detected	Not detected	0.0	20	0.85	2.0	mg/L	11/19/19	11/19/19	11/19/19	11/19/19
SM 2320B	TOTAL ALKALINIT	BA02715	66.5	68.0	2.2	20	0.85	2.0	mg/L	11/19/19	11/19/19	11/19/19	11/19/19

Printed: 12/11/19 8:40:30 AM
Dup-SCII (NoMC)

Matrix Spike Recoveries

WETLAB

APPL ID: **191111W-02715 MS - 247367**

Sample ID: BA02715

Client ID: ERH963

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Method	Compound Name	Spike Lvl mg/L	Matrix Res mg/L	SPK Res mg/L	DUP Res mg/L	SPK % Recovery	DUP % Recovery	RPD	RPD Max	Recovery Limits	Extract Date-Spk	Analysis Date-Spk	Extract Date-Dup	Analysis Date-Dup	QC Group	QC Sample
SM 4500-Si	SILICA W	20.0	14.6	37.4	36.7	114	111	1.9	20	80-120	11/11/19	11/11/19	11/11/19	11/11/19	247367	BA02715
SM 4500-Si	DISSOLVED SILICA	20.0	13.7	34.0	33.5	102	99.0	1.5	20	80-120	11/11/19	11/11/19	11/11/19	11/11/19	247368	BA02715
SM3500Fe	FERROUS IRON	3.00	0.084	3.18	3.16	103	103	0.63	20	80-120	11/11/19	11/11/19	11/11/19	11/11/19	247082	BA02715

Comments: _____

ORGANICS
Calibration Data

DBCP/EDB/1,2,3-TCP Analysis by
504 8011

Form 6
Initial Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Initial Cal. Date: 11/08/19
Matrix: Water Instrument: Herbie
Initials:

		Compound	1025122.D 1	1025123.D 2	1025124.D 3	1025125.D 4	1025126.D 5	1025127.D 6					Avg	%RSD	Type	r^2	Q
1	TM	EDB	884525	804465	739004	692297	694324	679871					749081	11	TM		
2	TML	1,2,3-TCP	430975	262120	240364	218305	208006	202514					260381	33	TM	0.999	
3	S	1,3-DIBROMOPROPANE(S)		1033715	901976	824027	801433	770343					866299	12	S		
4	TM	DBCP	3286575	2895745	2909434	2762260	2691157	2691364					2872756	7.8	TM		
5		Signal #2											0	0			
6																	
7																	
8																	
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1.82706

DBCP/EDB/1,2,3-TCP Analysis by
504 8011

Form 6
Initial Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Initial Cal. Date: 11/08/19
Matrix: Water Instrument: Herbie
Initials:

			1025122.D	1025123.D	1025124.D	1025125.D	1025126.D	1025127.D									
		Compound	1	2	3	4	5	6					Avg	%RSD	Type	r^2	Q
36	TM	EDB #2	3885200	3439110	3226410	3017715	2931621	2953985					3242340	11	TM		
37	TM	1,2,3-TCP #2	680875	640785	619024	559442	550172	525478					595963	10	TM		
38	S	1,3-DIBROMOPROPANE(S) #2	2491825	2354260	2198168	2062581	1972708	1929604					2168191	10	S		
39	TM	DBCP #2	10635375	9133015	9102064	9256497	9091623	9154474					9395508	6.5	TM		
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1.092579

Quantitation Report (Not Reviewed)

Signal #1 : G:\HERBIE\DATA\191025\1025122.D\ECD1A.CH Vial: 20
Signal #2 : G:\HERBIE\DATA\191025\1025122.D\ECD2B.CH
Acq On : 11-08-19 16:07:44 Operator: MA,SS
Sample : 8011 1 11/06/19 Inst : Herbie
Misc : water Multiplr: 1.00
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Nov 12 14:22 2019 Quant Results File: 8011106A.RES

Quant Method : G:\HERBIE\DATA\190814\8011106A.M (RTE Integrator)
Title : 504.1 OR 8011
Last Update : Tue Nov 12 13:30:16 2019
Response via : Initial Calibration
DataAcq Meth : DOHS504.M

Volume Inj. : 2µL
Signal #1 Phase : DB-35MS Signal #2 Phase: DB-XLB
Signal #1 Info : 0.25 Signal #2 Info : 0.50

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
	System Monitoring Compounds						
3) S	1,3-DIBROMOPROPA	10.02	11.03	54908	99673	0.032	0.023 #
Spiked Amount	0.350			Recovery	=	9.14%	6.57%
	Target Compounds						
1) TM	EDB	5.79	7.21	35381	155408	0.024	0.024
2) TM	1,2,3-TCP	9.22	10.44	17239	27235	0.005	0.023 #
4) TM	DBCP	13.35	14.08	131463	425415	0.023	0.023

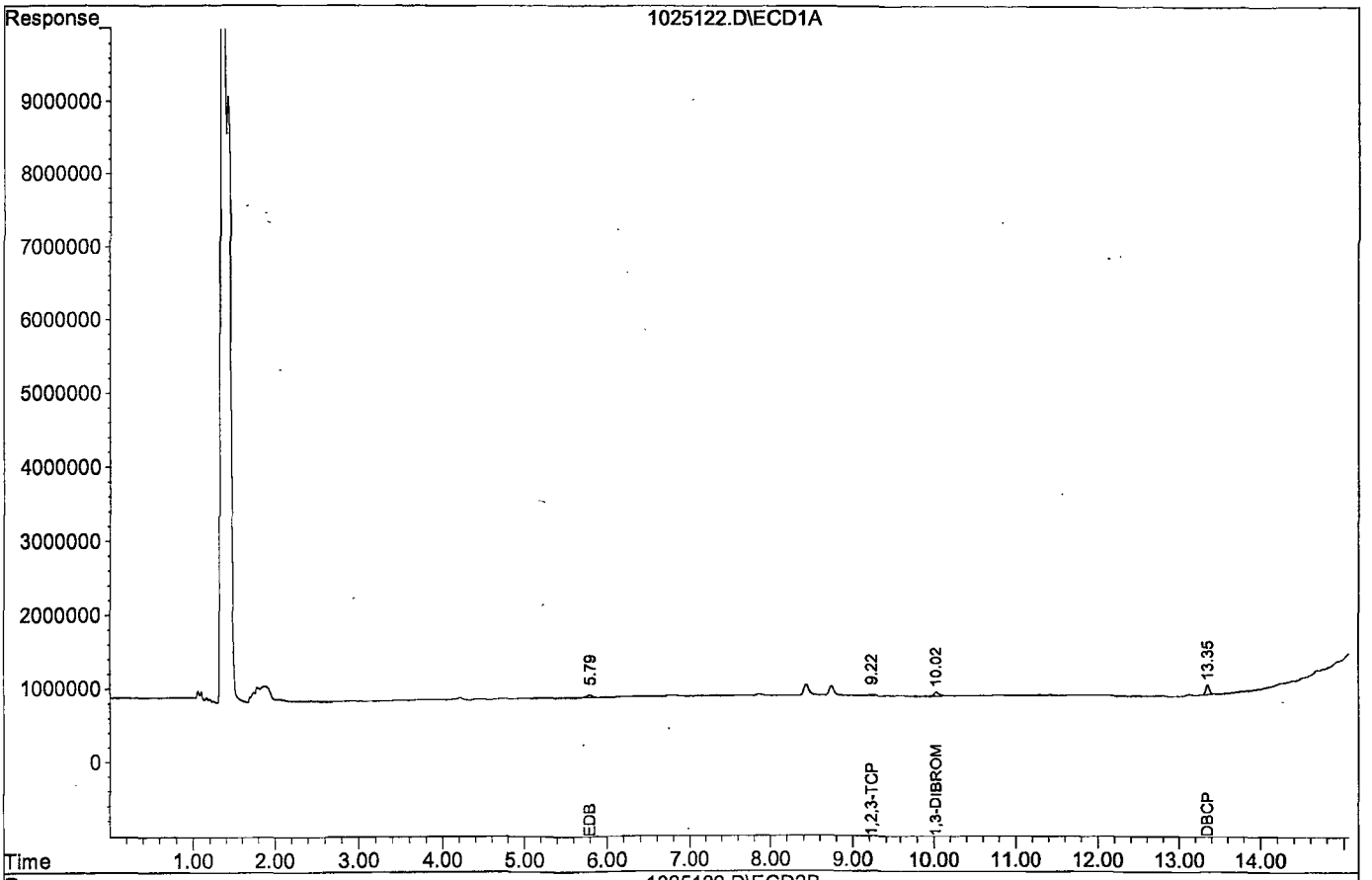
Target Compounds

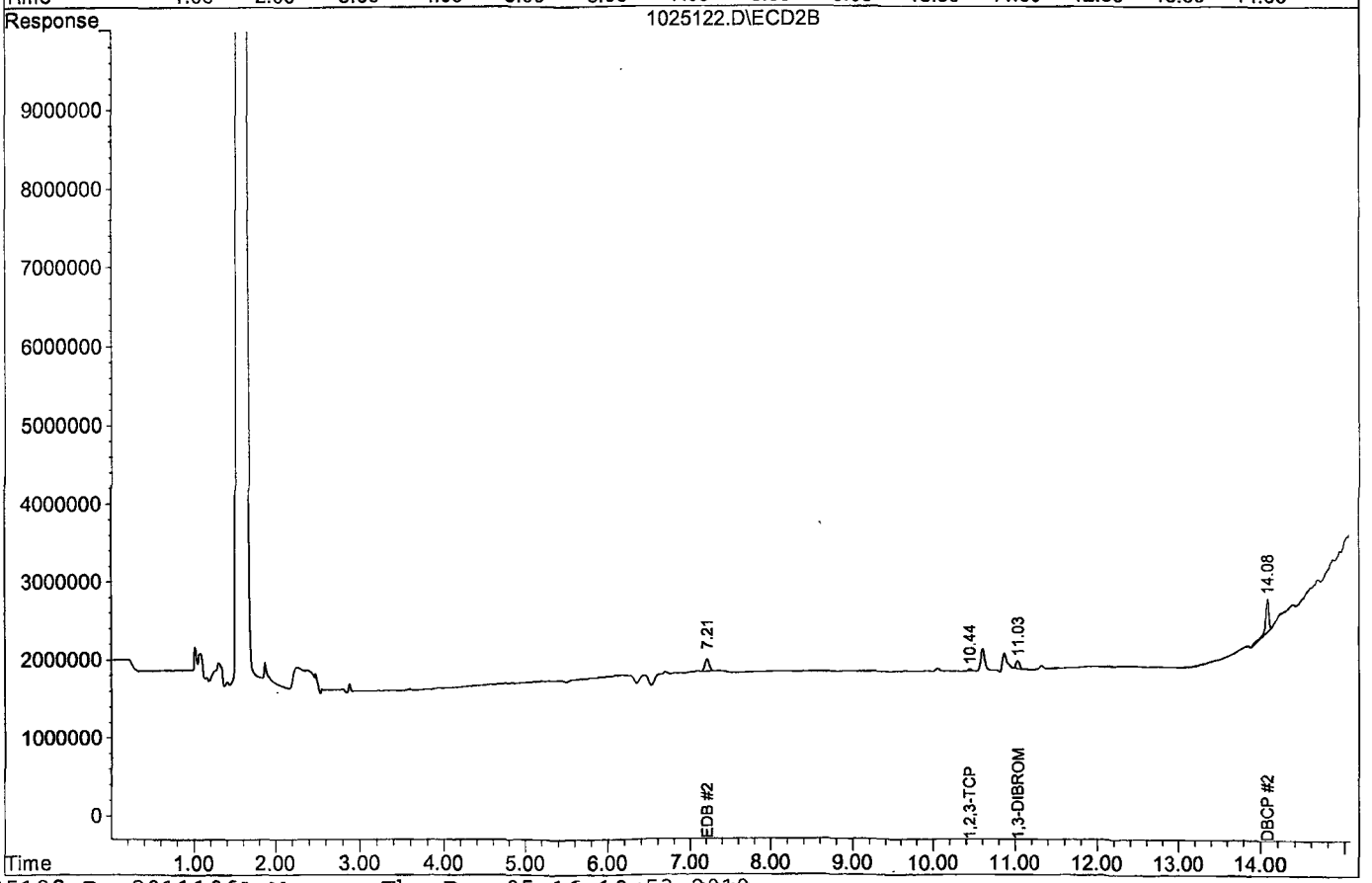
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (Not Reviewed)

Data File : G:\HERBIE\DATA\191025\1025122.D
Acq On : 11-08-19 16:07:44
Sample : 8011 1 11/06/19
Misc : water
Quant Method : G:\HERBIE\DATA\190814\8011106A.M

Vial: 20
Operator: MA,SS
Inst : Herbie
Multiplr: 1.00





Quantitation Report (Not Reviewed)

Signal #1 : G:\HERBIE\DATA\191025\1025123.D\ECD1A.CH Vial: 21
Signal #2 : G:\HERBIE\DATA\191025\1025123.D\ECD2B.CH
Acq On : 11-08-19 16:28:04 Operator: MA,SS
Sample : 8011 2 11/06/19 Inst : Herbie
Misc : water Multiplr: 1.00
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Nov 12 14:22 2019 Quant Results File: 8011106A.RES

Quant Method : G:\HERBIE\DATA\190814\8011106A.M (RTE Integrator)
Title : 504.1 OR 8011
Last Update : Tue Nov 12 13:30:16 2019
Response via : Initial Calibration
DataAcq Meth : DOHS504.M

Volume Inj. : 2µL
Signal #1 Phase : DB-35MS Signal #2 Phase: DB-XLB
Signal #1 Info : 0.25 Signal #2 Info : 0.50

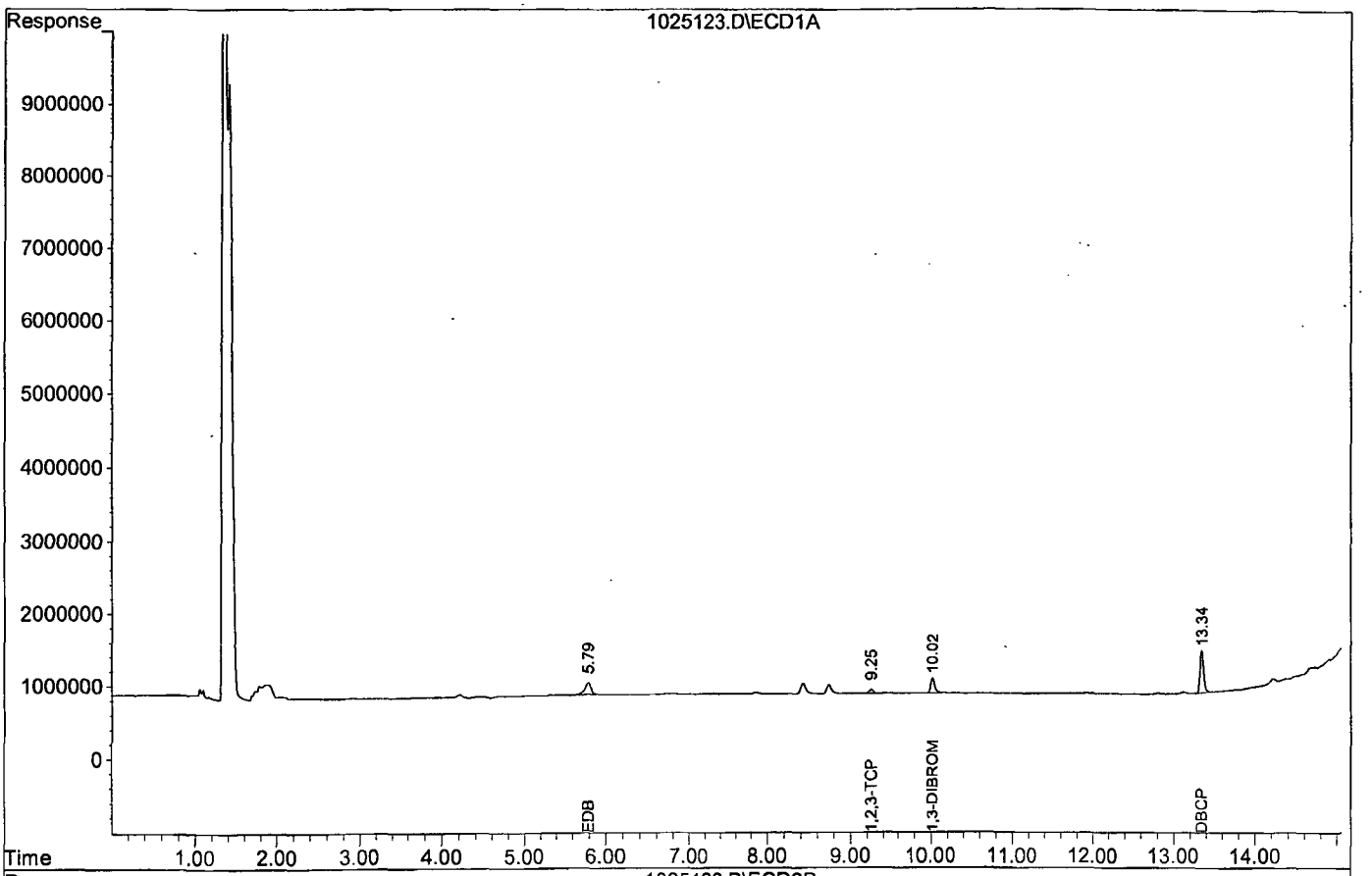
	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
	System Monitoring Compounds						
3) S	1,3-DIBROMOPROPA	10.02	11.03	206743	470852	0.119	0.109
Spiked Amount	0.350			Recovery	=	34.00%	31.14%
	Target Compounds						
1) TM	EDB	5.79	7.21	160893	687822	0.107	0.106
2) TM	1,2,3-TCP	9.25	10.44	52424	128157	0.094	0.108
4) TM	DBCP	13.34	14.08	579149	1826603	0.101	0.097
	Target Compounds						

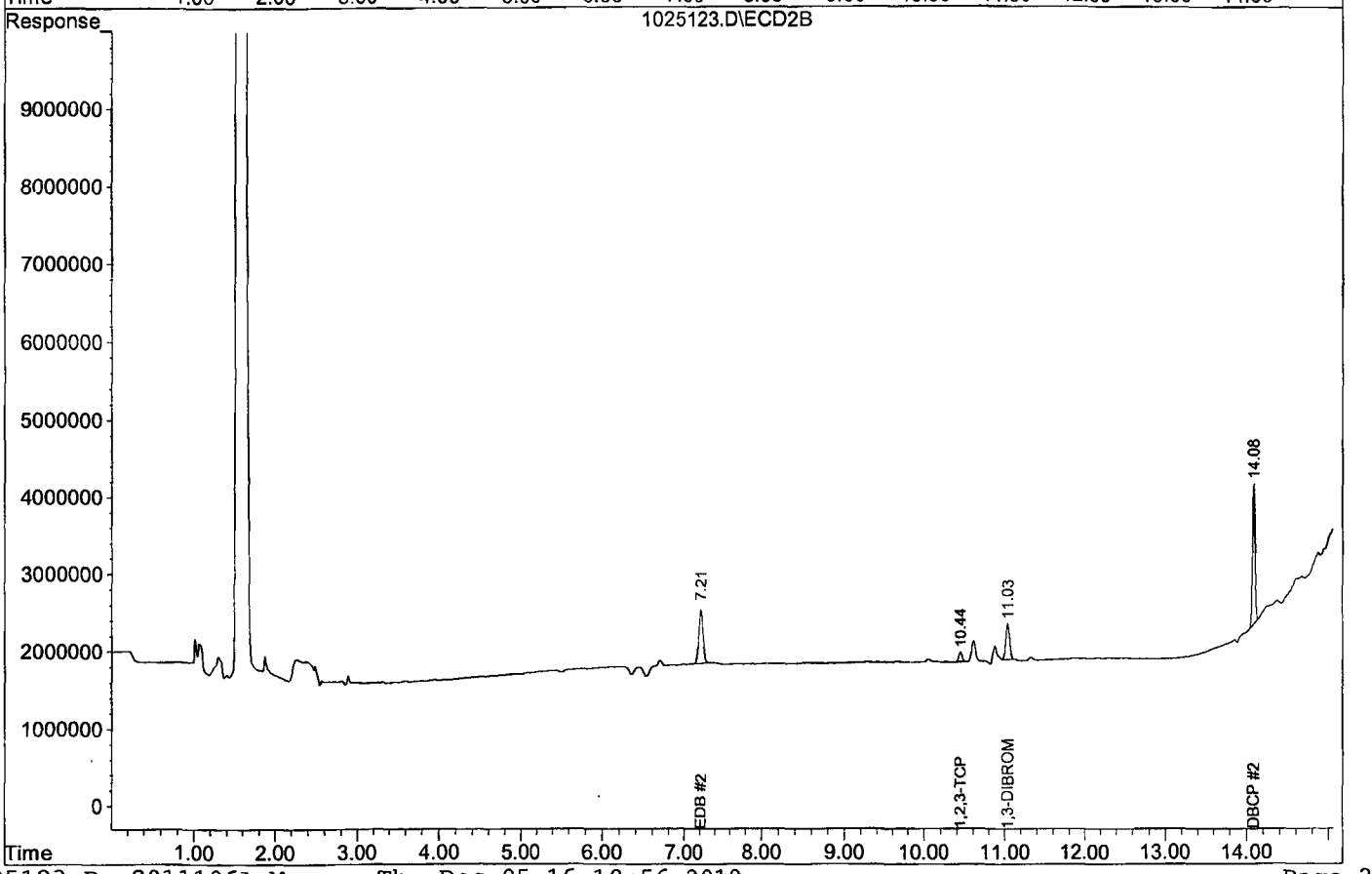
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (Not Reviewed)

Data File : G:\HERBIE\DATA\191025\1025123.D
Acq On : 11-08-19 16:28:04
Sample : 8011 2 11/06/19
Misc : water
Quant Method : G:\HERBIE\DATA\190814\8011106A.M

Vial: 21
Operator: MA,SS
Inst : Herbie
Multiplr: 1.00





Quantitation Report (Not Reviewed)

Signal #1 : G:\HERBIE\DATA\191025\1025124.D\ECD1A.CH Vial: 22
Signal #2 : G:\HERBIE\DATA\191025\1025124.D\ECD2B.CH
Acq On : 11-08-19 16:48:46 Operator: MA,SS
Sample : 8011 3 11/06/19 Inst : Herbie
Misc : water Multiplr: 1.00
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Nov 12 14:22 2019 Quant Results File: 8011106A.RES

Quant Method : G:\HERBIE\DATA\190814\8011106A.M (RTE Integrator)
Title : 504.1 OR 8011
Last Update : Tue Nov 12 13:30:16 2019
Response via : Initial Calibration
DataAcq Meth : DOHS504.M

Volume Inj. : 2µL
Signal #1 Phase : DB-35MS Signal #2 Phase: DB-XLB
Signal #1 Info : 0.25 Signal #2 Info : 0.50

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
	System Monitoring Compounds						
3) S	1,3-DIBROMOPROPA	10.02	11.03	450988	1099084	0.260	0.253
Spiked Amount	0.350			Recovery	=	74.29%	72.29%
	Target Compounds						
1) TM	EDB	5.79	7.21	369502	1613205	0.247	0.249
2) TM	1,2,3-TCP	9.25	10.44	120182	309512	0.266	0.260
4) TM	DBCP	13.34	14.09	1454717	4551032	0.253	0.242

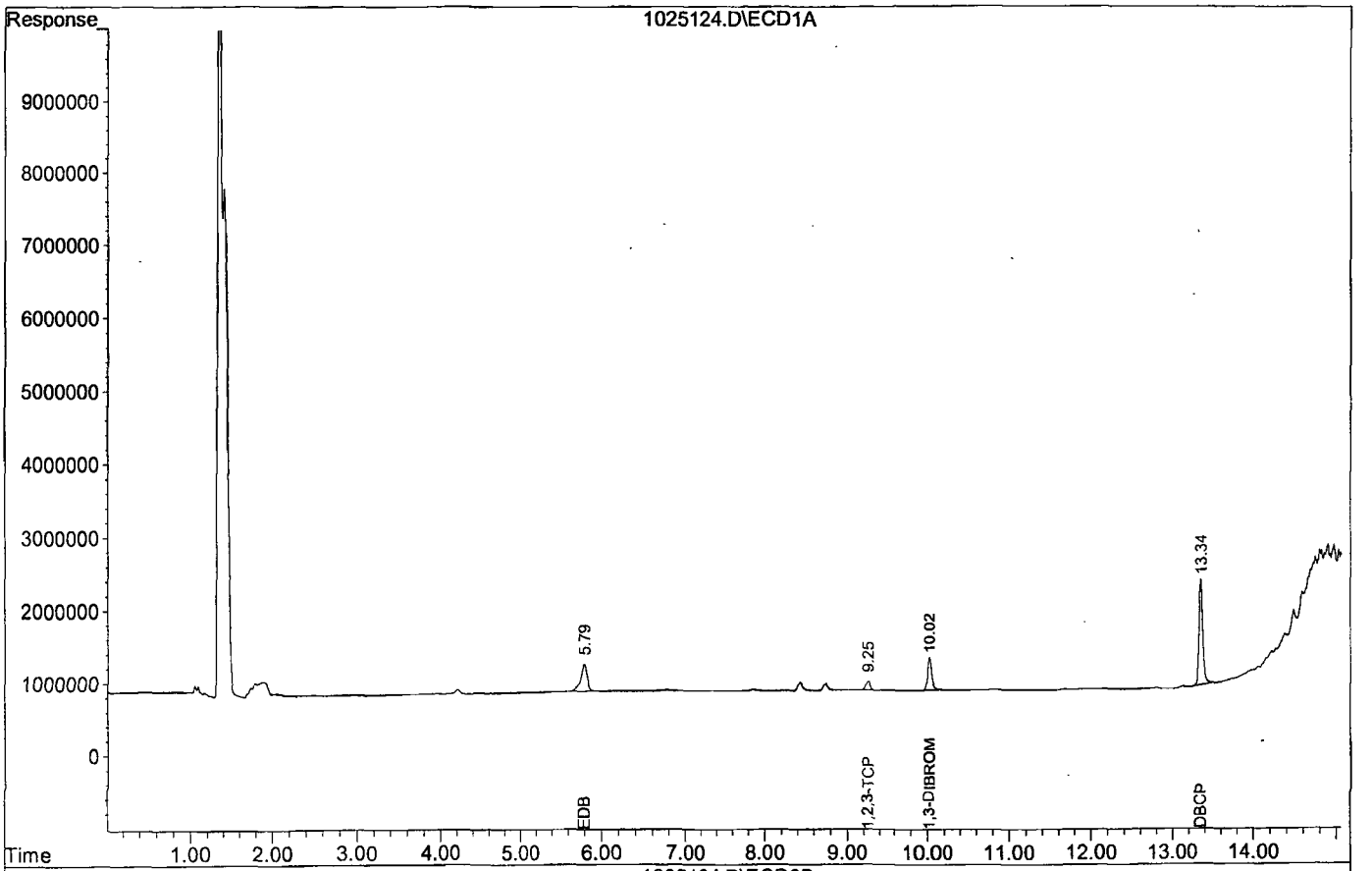
Target Compounds

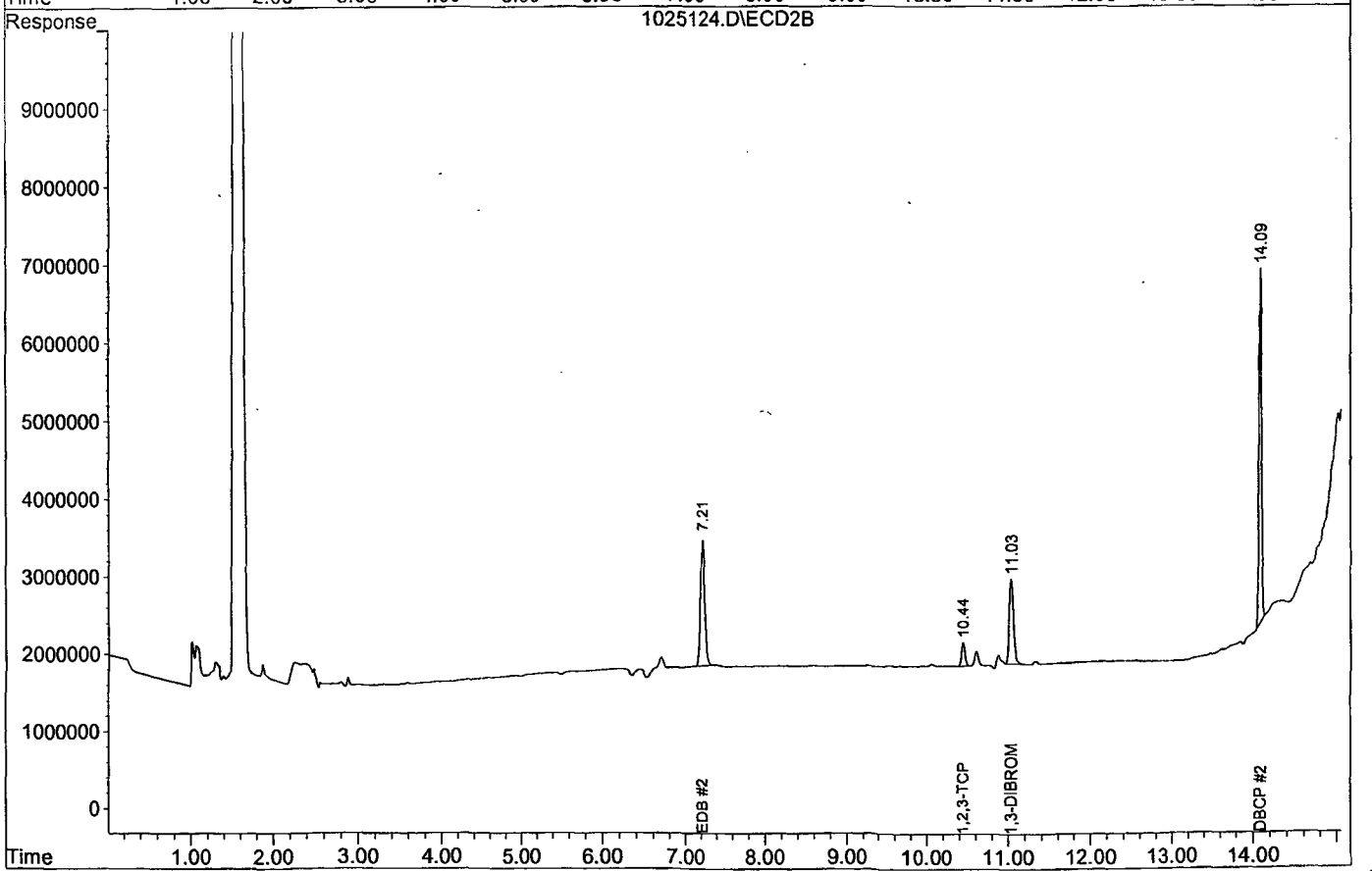
(f)=RT Delta > 1/2 Window (#)=Amounts differ by >20% (m)=manual int.

Quantitation Report (Not Reviewed)

Data File : G:\HERBIE\DATA\191025\1025124.D
Acq On : 11-08-19 16:48:46
Sample : 8011 3 11/06/19
Misc : water
Quant Method : G:\HERBIE\DATA\190814\8011106A.M

Vial: 22
Operator: MA,SS
Inst : Herbie
Multiplr: 1.00





Quantitation Report (Not Reviewed)

Signal #1 : G:\HERBIE\DATA\191025\1025125.D\ECD1A.CH Vial: 23
Signal #2 : G:\HERBIE\DATA\191025\1025125.D\ECD2B.CH
Acq On : 11-08-19 17:09:07 Operator: MA,SS
Sample : 8011 4 11/06/19 Inst : Herbie
Misc : water Multiplr: 1.00
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Nov 12 14:22 2019 Quant Results File: 8011106A.RES

Quant Method : G:\HERBIE\DATA\190814\8011106A.M (RTE Integrator)
Title : 504.1 OR 8011
Last Update : Tue Nov 12 13:30:16 2019
Response via : Initial Calibration
DataAcq Meth : DOHS504.M

Volume Inj. : 2µL
Signal #1 Phase : DB-35MS Signal #2 Phase: DB-XLB
Signal #1 Info : 0.25 Signal #2 Info : 0.50

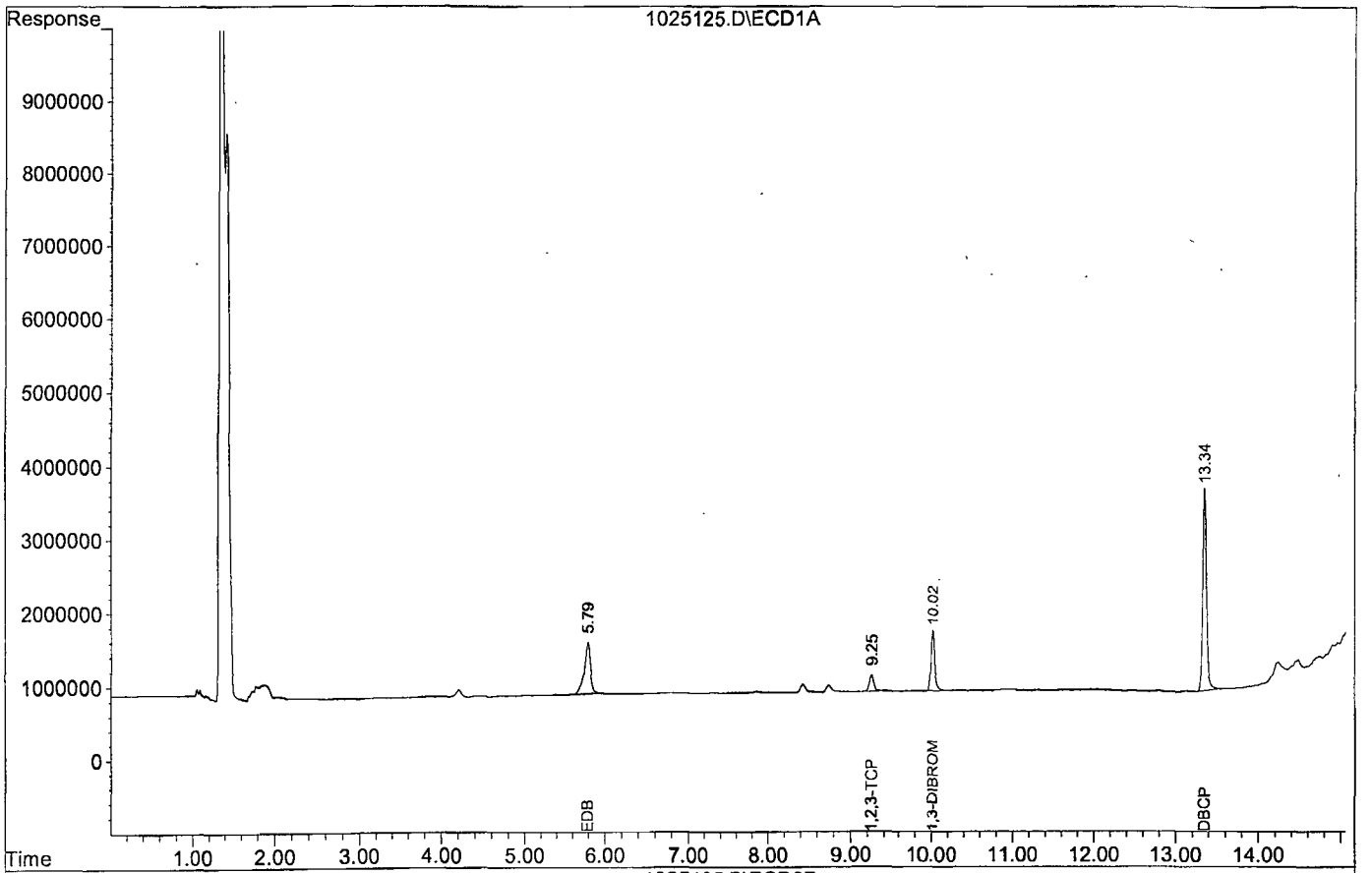
	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
	System Monitoring Compounds						
3) S	1,3-DIBROMOPROPA	10.02	11.03	824027	2062581	0.476	0.476
Spiked Amount	0.350			Recovery	=	136.00%	136.00%
	Target Compounds						
1) TM	EDB	5.79	7.21	692297	3017715	0.462	0.465
2) TM	1,2,3-TCP	9.25	10.44	218305	559442	0.515	0.469
4) TM	DBCP	13.34	14.08	2762260	9256497	0.481	0.493
	Target Compounds						

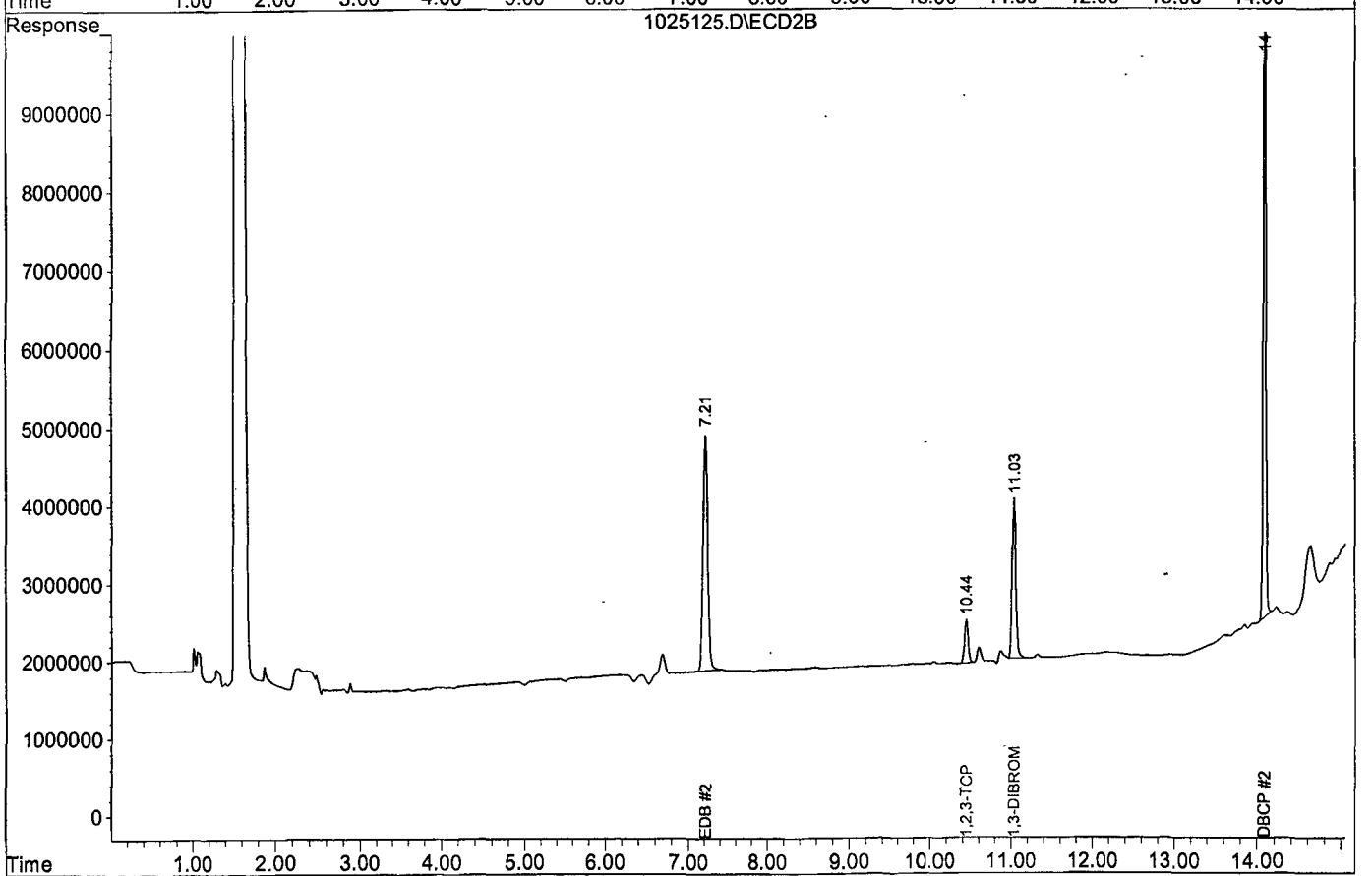
(f)=RT Delta > 1/2 Window (#)=Amounts differ by >25% (m)=manual int.

Quantitation Report (Not Reviewed)

Data File : G:\HERBIE\DATA\191025\1025125.D
Acq On : 11-08-19 17:09:07
Sample : 8011 4 11/06/19
Misc : water
Quant Method : G:\HERBIE\DATA\190814\8011106A.M

Vial: 23
Operator: MA,SS
Inst : Herbie
Multiplr: 1.00





Quantitation Report (Not Reviewed)

Signal #1 : G:\HERBIE\DATA\191025\1025126.D\ECD1A.CH Vial: 24
Signal #2 : G:\HERBIE\DATA\191025\1025126.D\ECD2B.CH
Acq On : 11-08-19 17:29:40 Operator: MA,SS
Sample : 8011 5 11/06/19 Inst : Herbie
Misc : water Multiplr: 1.00
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Nov 12 14:22 2019 Quant Results File: 8011106A.RES

Quant Method : G:\HERBIE\DATA\190814\8011106A.M (RTE Integrator)
Title : 504.1 OR 8011
Last Update : Tue Nov 12 13:30:16 2019
Response via : Initial Calibration
DataAcq Meth : DOHS504.M

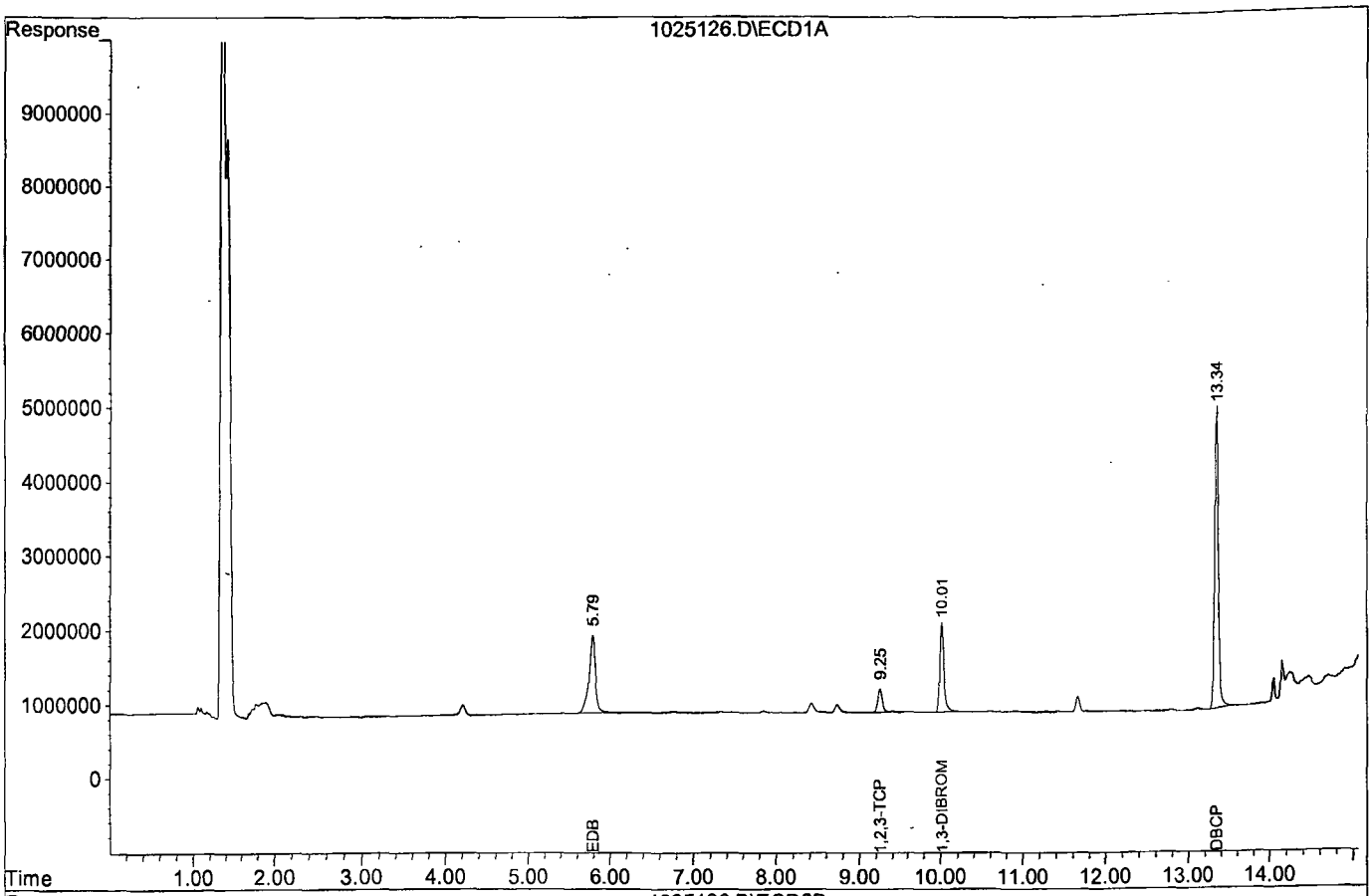
Volume Inj. : 2µL
Signal #1 Phase : DB-35MS Signal #2 Phase: DB-XLB
Signal #1 Info : 0.25 Signal #2 Info : 0.50

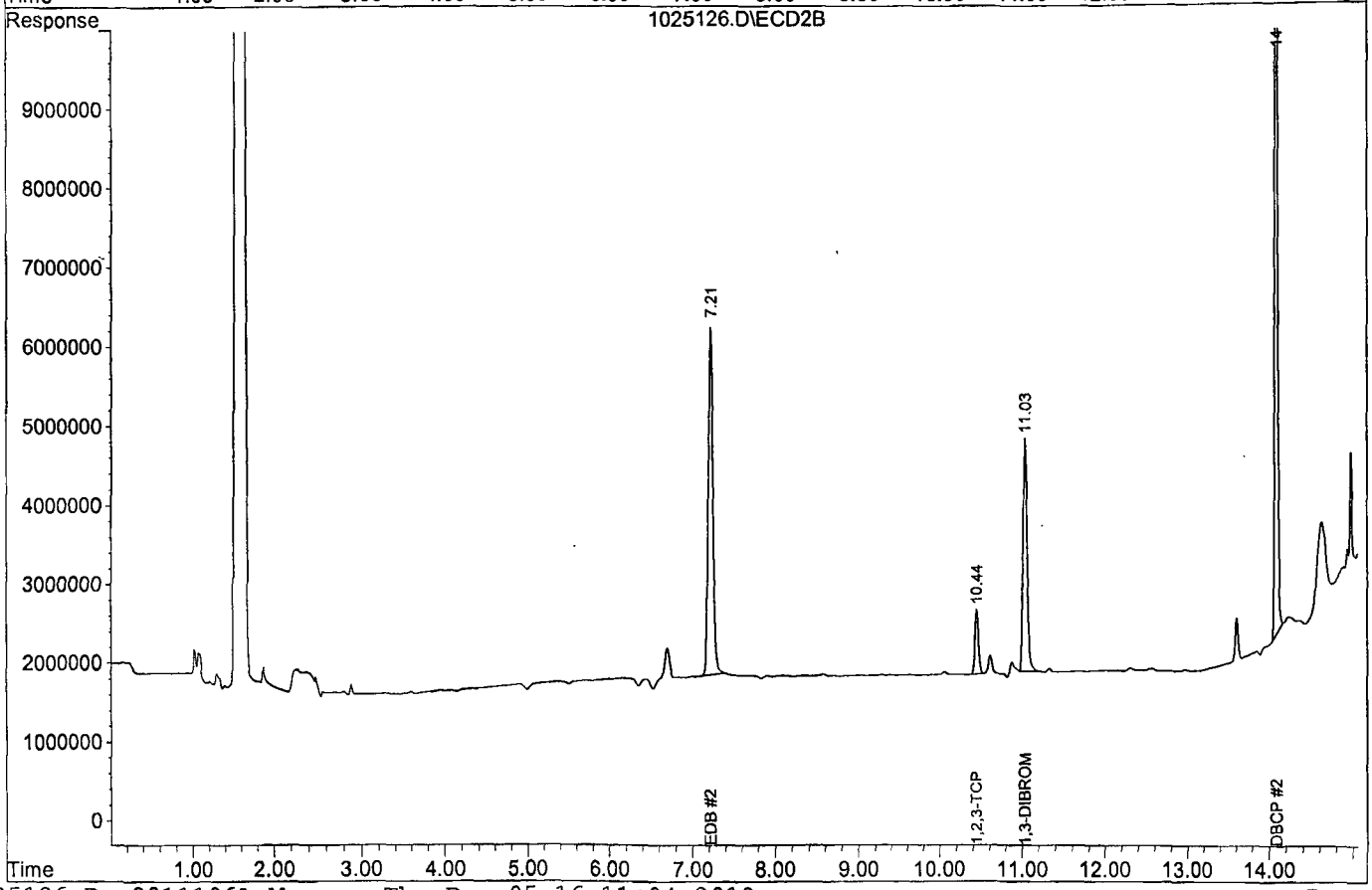
	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
	System Monitoring Compounds						
3) S	1,3-DIBROMOPROPA	10.01	11.03	1202149	2959062	0.694	0.682
Spiked Amount	0.350			Recovery	=	198.29%	194.86%
	Target Compounds						
1) TM	EDB	5.79	7.21	1041486	4397431	0.695	0.678
2) TM	1,2,3-TCP	9.25	10.44	312009	825258	0.752	0.692
4) TM	DBCP	13.34	14.09	4036736	13637434	0.703	0.726
	Target Compounds						

Quantitation Report (Not Reviewed)

Data File : G:\HERBIE\DATA\191025\1025126.D
Acq On : 11-08-19 17:29:40
Sample : 8011 5 11/06/19
Misc : water
Quant Method : G:\HERBIE\DATA\190814\8011106A.M

Vial: 24
Operator: MA,SS
Inst : Herbie
Multiplr: 1.00





Quantitation Report (Not Reviewed)

Signal #1 : G:\HERBIE\DATA\191025\1025127.D\ECD1A.CH Vial: 25
Signal #2 : G:\HERBIE\DATA\191025\1025127.D\ECD2B.CH
Acq On : 11-08-19 17:50:18 Operator: MA,SS
Sample : 8011 6 11/06/19 Inst : Herbie
Misc : water Multiplr: 1.00
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Nov 12 14:22 2019 Quant Results File: 8011106A.RES

Quant Method : G:\HERBIE\DATA\190814\8011106A.M (RTE Integrator)
Title : 504.1 OR 8011
Last Update : Tue Nov 12 13:30:16 2019
Response via : Initial Calibration
DataAcq Meth : DOHS504.M

Volume Inj. : 2µL
Signal #1 Phase : DB-35MS Signal #2 Phase: DB-XLB
Signal #1 Info : 0.25 Signal #2 Info : 0.50

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
	System Monitoring Compounds						
3) S	1,3-DIBROMOPROPA	10.02	11.03	1540685	3859208	0.889	0.890
Spiked Amount	0.350			Recovery	=	254.00%	254.29%
	Target Compounds						
1) TM	EDB	5.79	7.21	1359742	5907969	0.908	0.911
2) TM	1,2,3-TCP	9.25	10.44	405028	1050955	0.988	0.882
4) TM	DBCP	13.34	14.08	5382727	18308947	0.937	0.974

Target Compounds

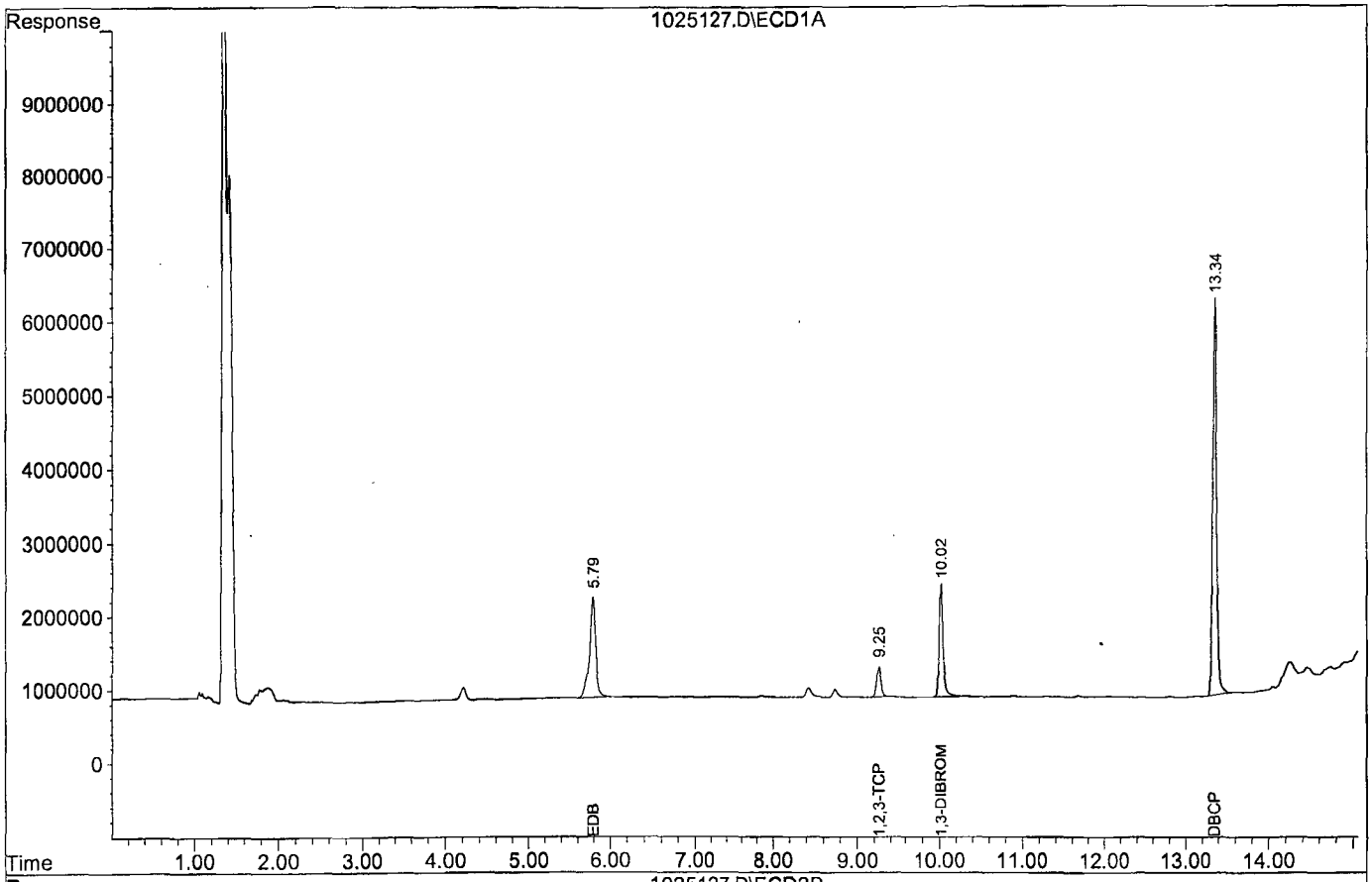
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

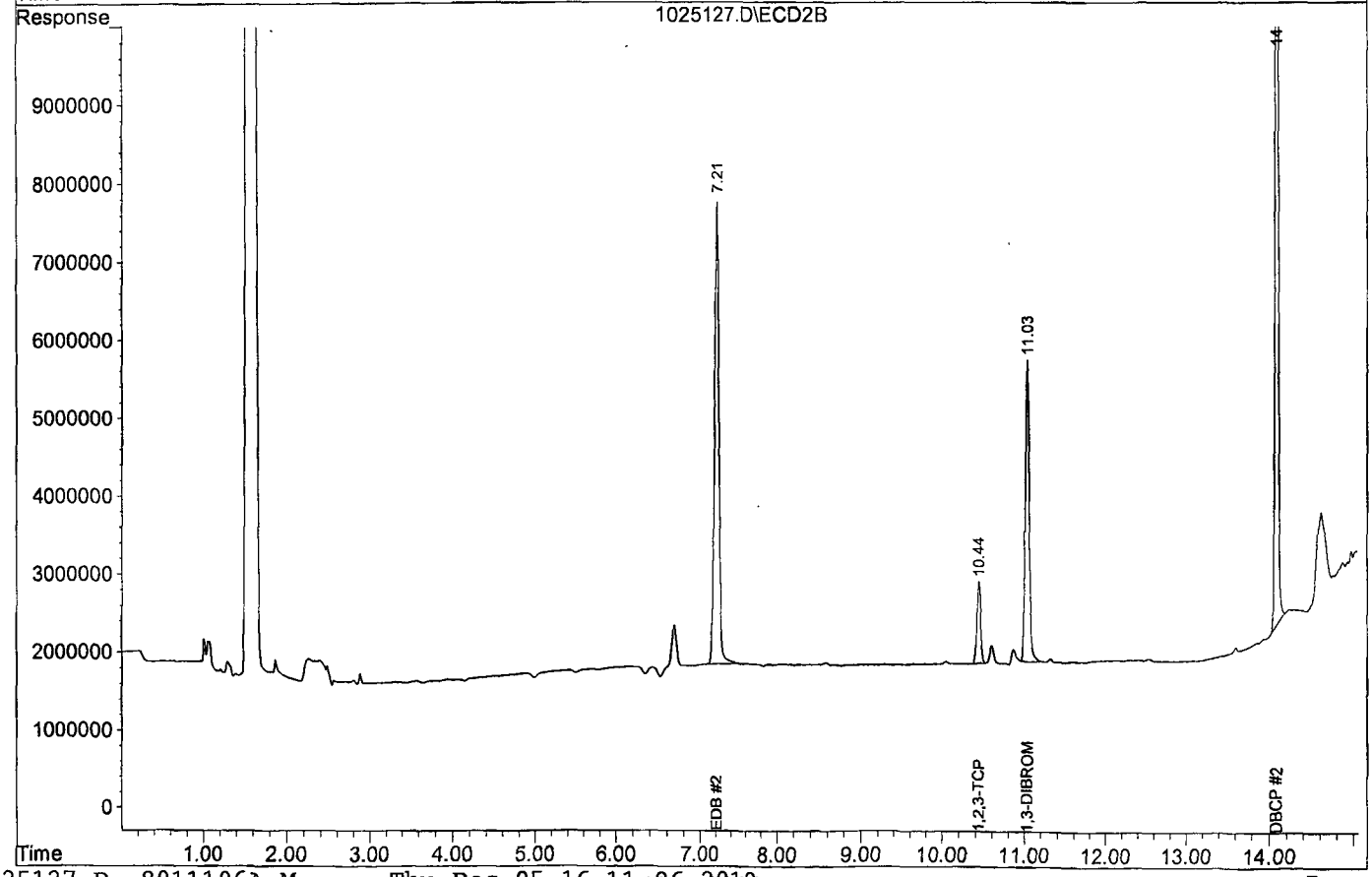
1025127.D 8011106A.M Thu Dec 05 16:11:05 2019 Page 1

Quantitation Report (Not Reviewed)

Data File : G:\HERBIE\DATA\191025\1025127.D
Acq On : 11-08-19 17:50:18
Sample : 8011 6 11/06/19
Misc : water
Quant Method : G:\HERBIE\DATA\190814\8011106A.M

Vial: 25
Operator: MA,SS
Inst : Herbie
Multiplr: 1.00





DBCP/EDB/1,2,3-TCP Analysis by
504 8011

Form 7

Second Source Calibration

Lab Name: APPL, Inc.
Case No:
Matrix: Water

SDG No:
Date Analyzed: 11/08/19
Instrument: Herbie
Initial Cal. Date: 11/08/19
Data File: 1025128.D

		Compound	MEAN	CCRF	%D		%Drift
1	TM	EDB	749081	757325	1.1	TM	
2	TML	1,2,3-TCP	260381	248020	4.7	TML	13
3	TM	DBCP	2872760	2982060	3.8	TM	
4							
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40							
		Average			3.2		

DBCP/EDB/1,2,3-TCP Analysis by
504 8011

Form 7

Second Source Calibration

Lab Name: APPL, Inc.
Case No:
Matrix: Water

SDG No:
Date Analyzed: 11/08/19
Instrument: Herbie
Cal. Date: 11/08/19
Data File: 1025128.D

		Compound	MEAN	CCRF	%D	%Drift	
41	TM	EDB	3242340	3336070	2.9	TM	
42	TM	1,2,3-TCP	595963	605250	1.6	TM	
43	TM	DBCP	9395510	9282470	1.2	TM	
44							
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		Average			1.9		

Quantitation Report (Not Reviewed)

Signal #1 : G:\HERBIE\DATA\191025\1025128.D\ECD1A.CH Vial: 26
Signal #2 : G:\HERBIE\DATA\191025\1025128.D\ECD2B.CH
Acq On : 11-08-19 18:10:46 Operator: MA,SS
Sample : 8011 SS 11/06/19 Inst : Herbie
Misc : water Multiplr: 1.00
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Nov 12 14:22 2019 Quant Results File: 8011106A.RES

Quant Method : G:\HERBIE\DATA\190814\8011106A.M (RTE Integrator)
Title : 504.1 OR 8011
Last Update : Tue Nov 12 13:30:16 2019
Response via : Initial Calibration
DataAcq Meth : DOHS504.M

Volume Inj. : 2µL
Signal #1 Phase : DB-35MS Signal #2 Phase: DB-XLB
Signal #1 Info : 0.25 Signal #2 Info : 0.50

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
	System Monitoring Compounds						
3) S	1,3-DIBROMOPROPA	10.02	11.03	645848	1574249	0.373	0.363
Spiked Amount	0.350			Recovery	=	106.57%	103.71%
	Target Compounds						
1) TM	EDB	5.79	7.21	151465	667214	0.101	0.103
2) TM	1,2,3-TCP	9.24	10.44	49604	121050	0.087	0.102
4) TM	DBCP	13.34	14.08	596411	1856493	0.104	0.099

Target Compounds

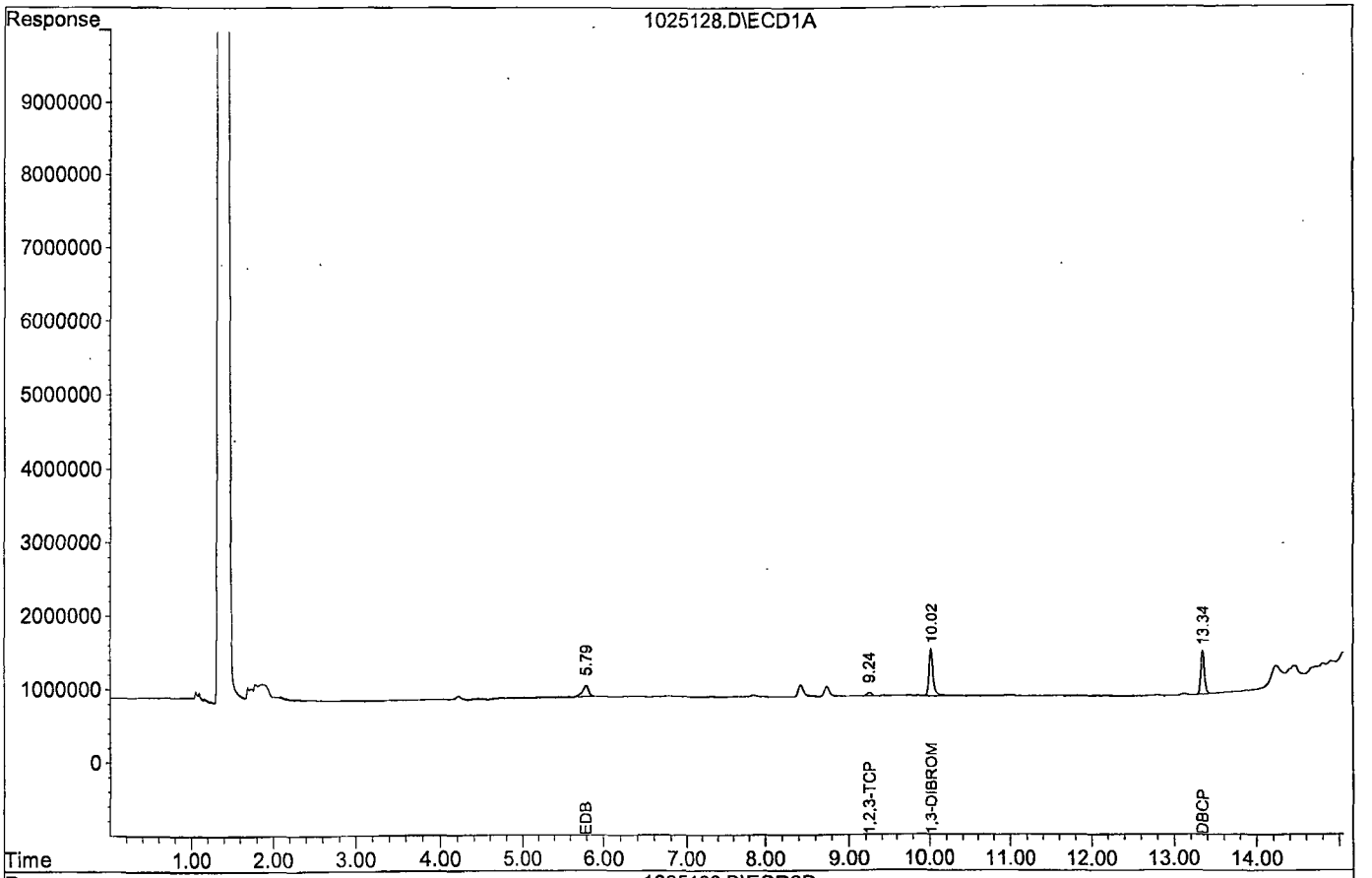
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

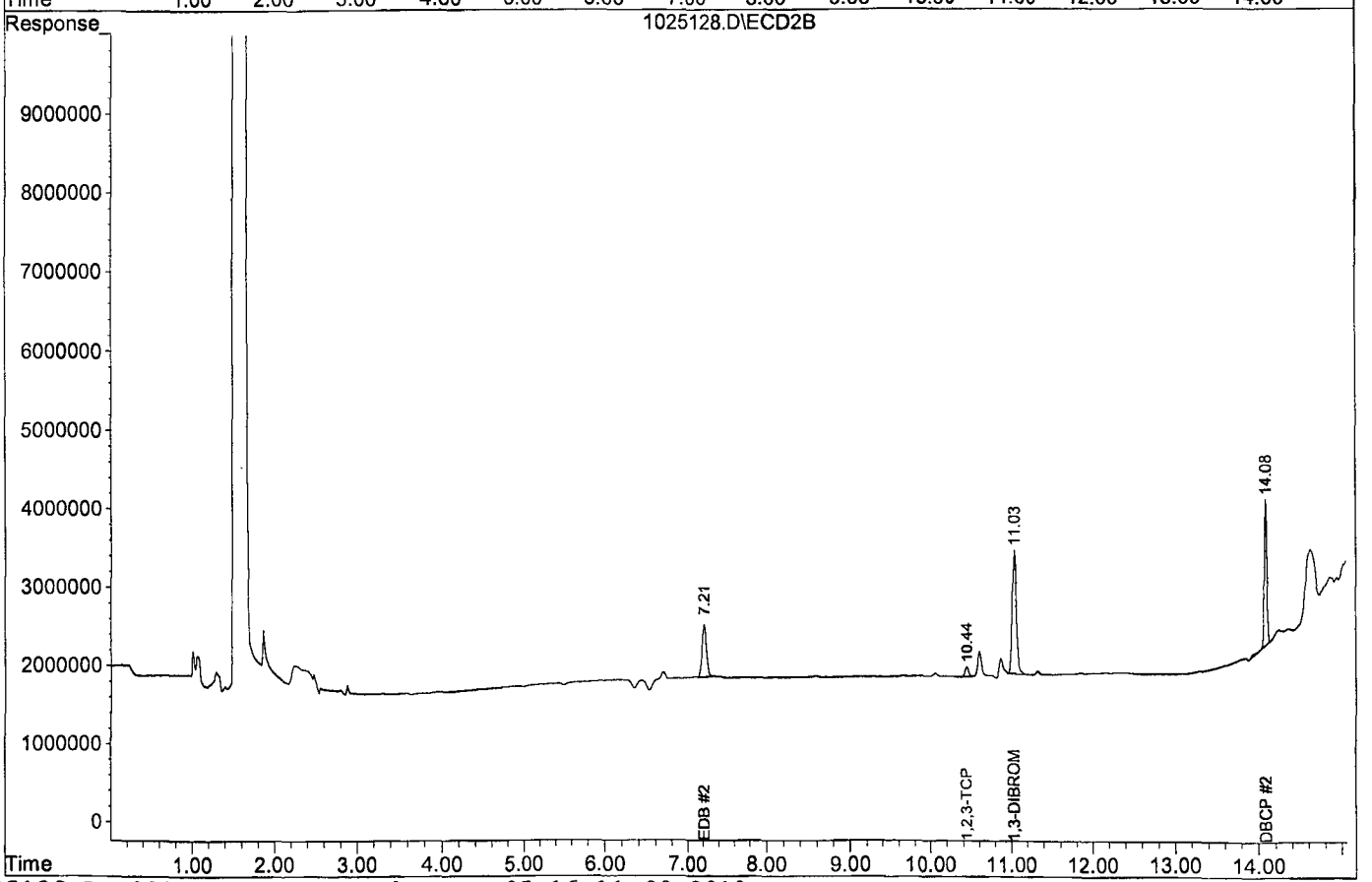
1025128.D 8011106A.M Thu Dec 05 16:11:08 2019 Page 1

Quantitation Report (Not Reviewed)

Data File : G:\HERBIE\DATA\191025\1025128.D
Acq On : 11-08-19 18:10:46
Sample : 8011 SS 11/06/19
Misc : water
Quant Method : G:\HERBIE\DATA\190814\8011106A.M

Vial: 26
Operator: MA,SS
Inst : Herbie
Multiplr: 1.00





DBCP/EDB/1,2,3-TCP Analysis by
504 8011

Form 7

Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix: Water

SDG No:
Date Analyzed: 11/12/19
Instrument: Herbie
Initial Cal. Date: 11/08/19
Data File: 1025153.D

		Compound	MEAN	CCRF	%D		%Drift
1	TM	EDB	749081	712606	4.9	TM	
2	TML	1,2,3-TCP	260381	249210	4.3	TML	11
3	S	1,3-DIBROMOPROPANE(S)	866299	957806	11	S	
4	TM	DBCP	2872760	3060590	6.5	TM	
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38							
39							
40							
		Average			6.7		

DBCP/EDB/1,2,3-TCP Analysis by
504 8011

Form 7

Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix: Water

SDG No:
Date Analyzed: 11/12/19
Instrument: Herbie
Cal. Date: 11/08/19
Data File: 1025153.D

		Compound	MEAN	CCRF	%D		%Drift
41	TM	EDB	3242340	3251130	0.27	TM	
42	TM	1,2,3-TCP	595963	636896	6.9	TM	
43	S	1,3-DIBROMOPROPANE(S)	2168190	2279170	5.1	S	
44	TM	DBCP	9395510	9852730	4.9	TM	
45							
46							
47							
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		Average			4.3		

Quantitation Report (Not Reviewed)

Data File : G:\HERBIE\DATA\191025\1025153.D\ECD1A.CH Vial: 53
Acq On : 11-12-19 21:49:51 Operator: MA,SS
Sample : 8011 4 11/06/19 Inst : Herbie
Misc : water Multiplr: 1.00
IntFile : rteint.p

Data File : G:\HERBIE\DATA\191025\1025153.D\ECD2B.CH Vial: 53
Acq On : 11-12-19 21:49:50 Operator: MA,SS
Sample : 8011 4 11/06/19 Inst : Herbie
Misc : water Multiplr: 1.00
IntFile : rteint2.p
Quant Time: Nov 13 9:23 2019 Quant Results File: 8011106A.RES

Quant Method : G:\HERBIE\DATA\190814\8011106A.M (RTE Integrator)
Title : 504.1 OR 8011
Last Update : Tue Nov 12 13:30:16 2019
Response via : Initial Calibration
DataAcq Meth : DOHS504.M

Volume Inj. : 2µL
Signal #1 Phase : DB-35MS Signal #2 Phase: DB-XLB
Signal #1 Info : 0.25 Signal #2 Info : 0.50

Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
System Monitoring Compounds						
3) S 1,3-DIBROMOPROPA	10.02	11.03	478903	1139585	0.276	0.263
Spiked Amount 0.350			Recovery =		78.86%	75.14%
Target Compounds						
1) TM EDB	5.79	7.21	356303	1625567	0.238	0.251
2) TM 1,2,3-TCP	9.25	10.44	124605	318448	0.277	0.267
4) TM DBCP	13.34	14.08	1530294	4926363	0.266	0.262

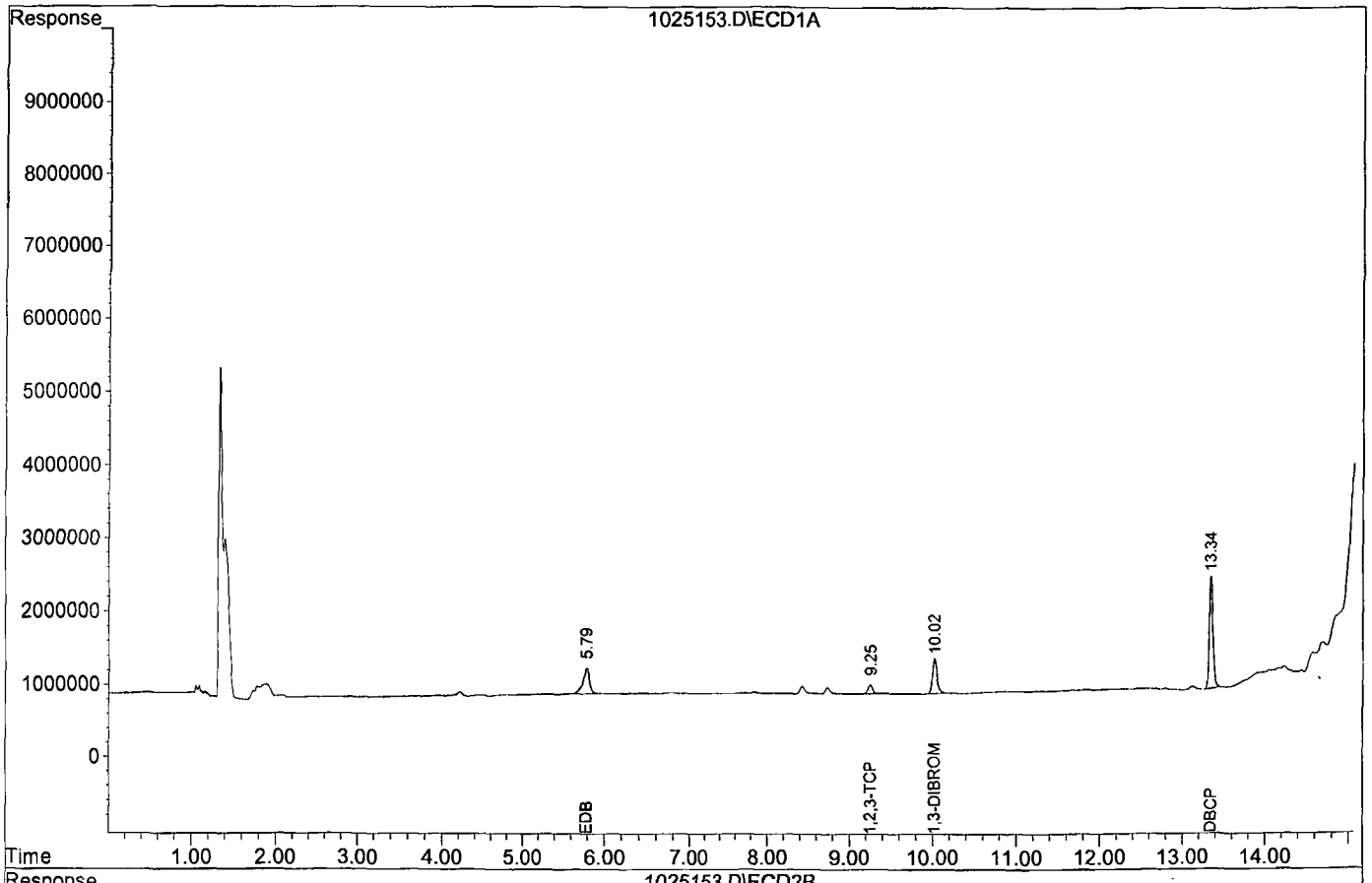
Target Compounds

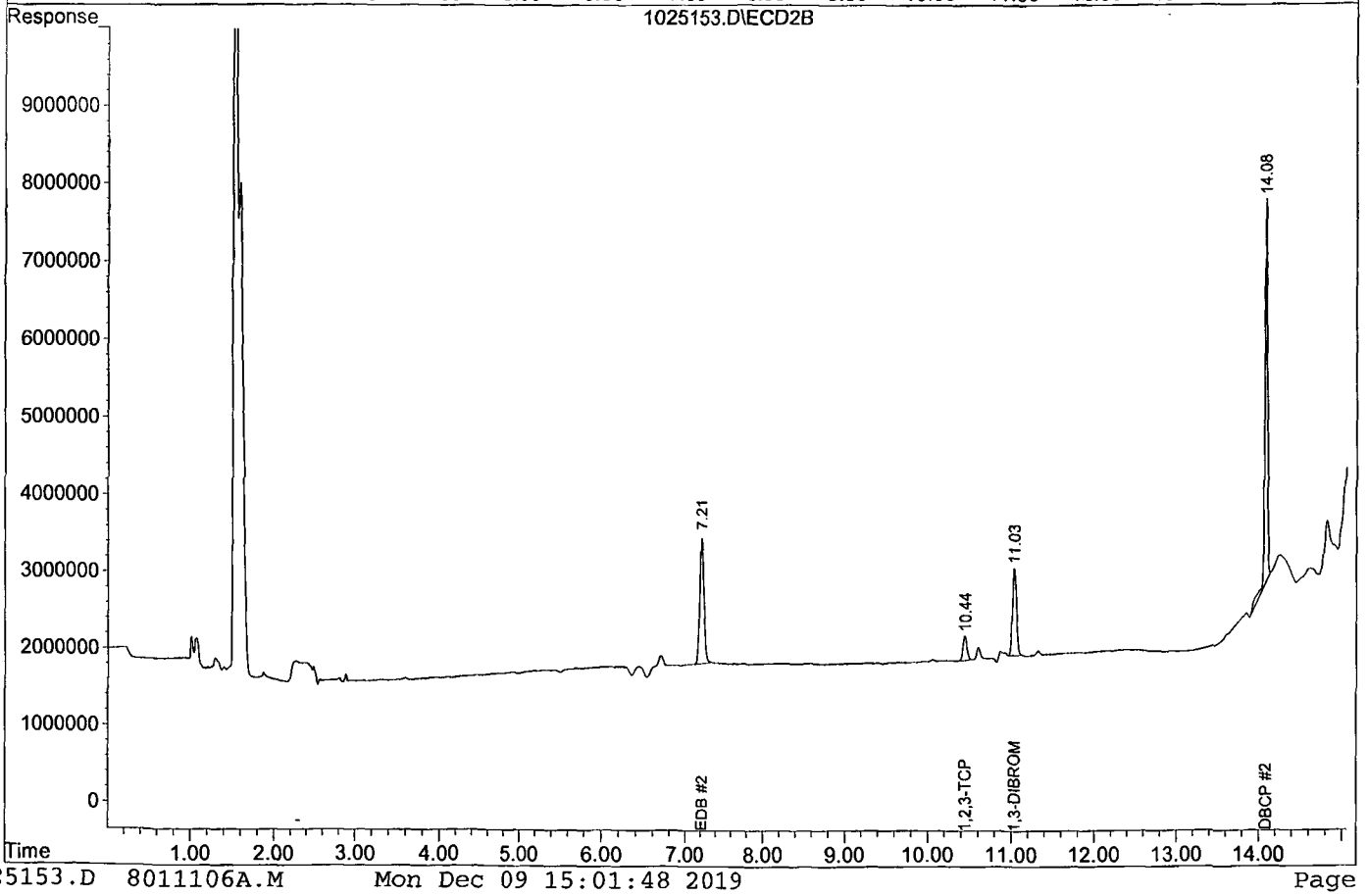
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (Not Reviewed)

Data File : G:\HERBIE\DATA\191025\1025153.D
Acq On : 11-12-19 21:49:51
Sample : 8011 4 11/06/19
Misc : water
Quant Method : G:\HERBIE\DATA\190814\8011106A.M

Vial: 53
Operator: MA,SS
Inst : Herbie
Multiplr: 1.00





DBCP/EDB/1,2,3-TCP Analysis by
504 8011

Form 7

Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix: Water

SDG No:
Date Analyzed: 11/13/19
Instrument: Herbie
Initial Cal. Date: 11/08/19
Data File: 1025169.D

		Compound	MEAN	CCRF	%D		%Drift
1	TM	EDB	749081	707002	5.6	TM	
2	TML	1,2,3-TCP	260381	249514	4.2	TML	11
3	S	1,3-DIBROMOPROPANE(S)	866299	947448	9.4	S	
4	TM	DBCP	2872760	3139920	9.3	TM	
5							
6							
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35							
36							
37							
38							
39							
40							
		Average			7.1		

DBCP/EDB/1,2,3-TCP Analysis by 504 8011

Form 7

Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix: Water

SDG No:
Date Analyzed: 11/13/19
Instrument: Herbie
Cal. Date: 11/08/19
Data File: 1025169.D

		Compound	MEAN	CCRF	%D		%Drift
41	TM	EDB	3242340	3272910	0.94	TM	
42	TM	1,2,3-TCP	595963	646568	8.5	TM	
43	S	1,3-DIBROMOPROPANE(S)	2168190	2326090	7.3	S	
44	TM	DBCP	9395510	10161900	8.2	TM	
45							
46							
47							
48							
49							
50							
51							
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79							
80							
		Average			6.2		

Quantitation Report (Not Reviewed)

Signal #1 : G:\HERBIE\DATA\191025\1025169.D\ECD1A.CH Vial: 69
Signal #2 : G:\HERBIE\DATA\191025\1025169.D\ECD2B.CH
Acq On : 11-13-19 3:10:49 Operator: MA,SS
Sample : 8011 4 11/06/19 Inst : Herbie
Misc : water Multiplr: 1.00
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Nov 13 9:26 2019 Quant Results File: 8011106A.RES

Quant Method : G:\HERBIE\DATA\190814\8011106A.M (RTE Integrator)
Title : 504.1 OR 8011
Last Update : Tue Nov 12 13:30:16 2019
Response via : Initial Calibration
DataAcq Meth : DOHS504.M

Volume Inj. : 2µL
Signal #1 Phase : DB-35MS Signal #2 Phase: DB-XLB
Signal #1 Info : 0.25 Signal #2 Info : 0.50

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
	System Monitoring Compounds						
3) S	1,3-DIBROMOPROPA	10.02	11.03	473724	1163047	0.273	0.268
Spiked Amount	0.350			Recovery	=	78.00%	76.57%
	Target Compounds						
1) TM	EDB	5.79	7.21	353501	1636457	0.236	0.252
2) TM	1,2,3-TCP	9.25	10.44	124757	323284	0.278	0.271
4) TM	DBCP	13.34	14.08	1569959	5080932	0.273	0.270

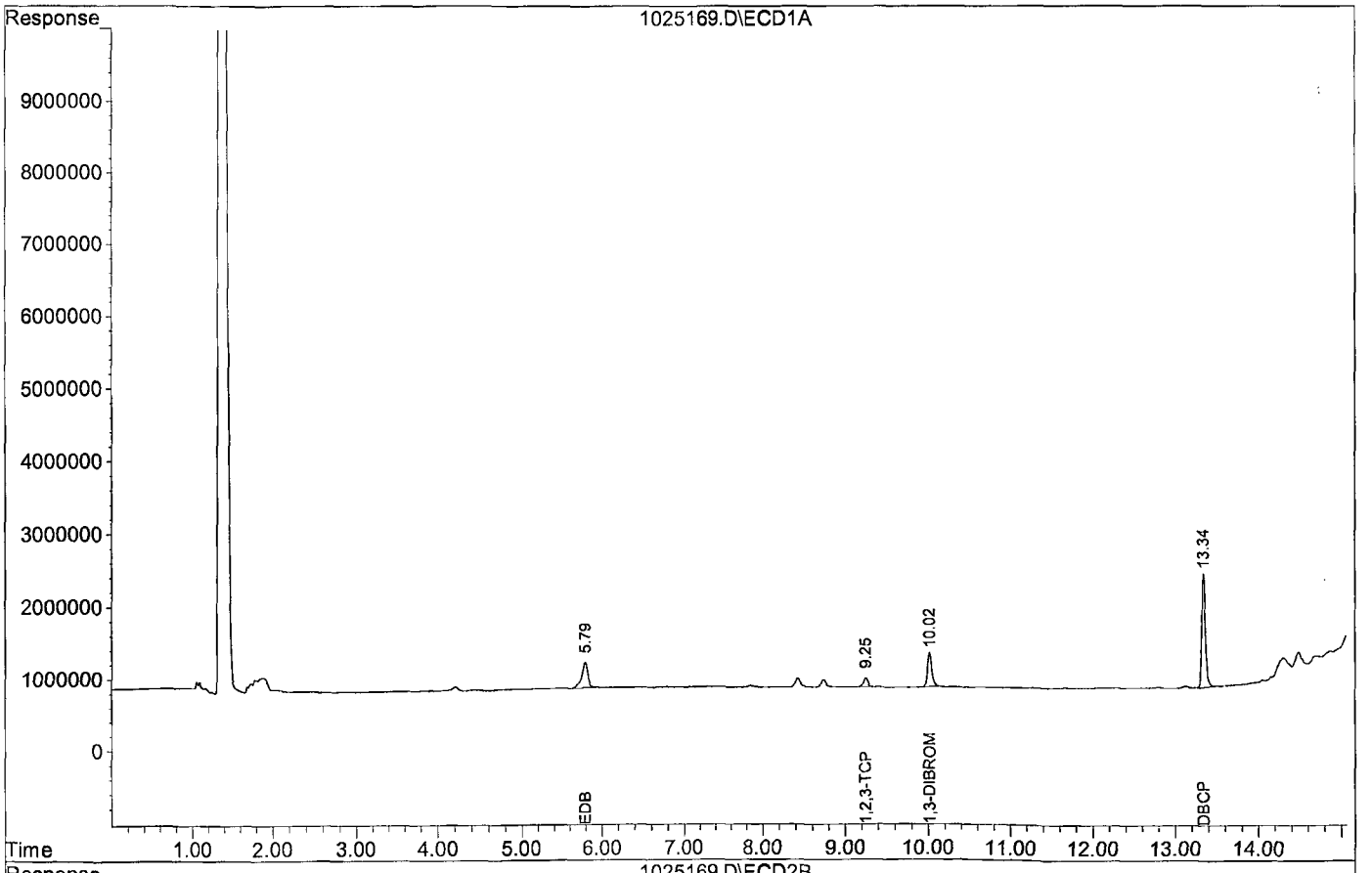
Target Compounds

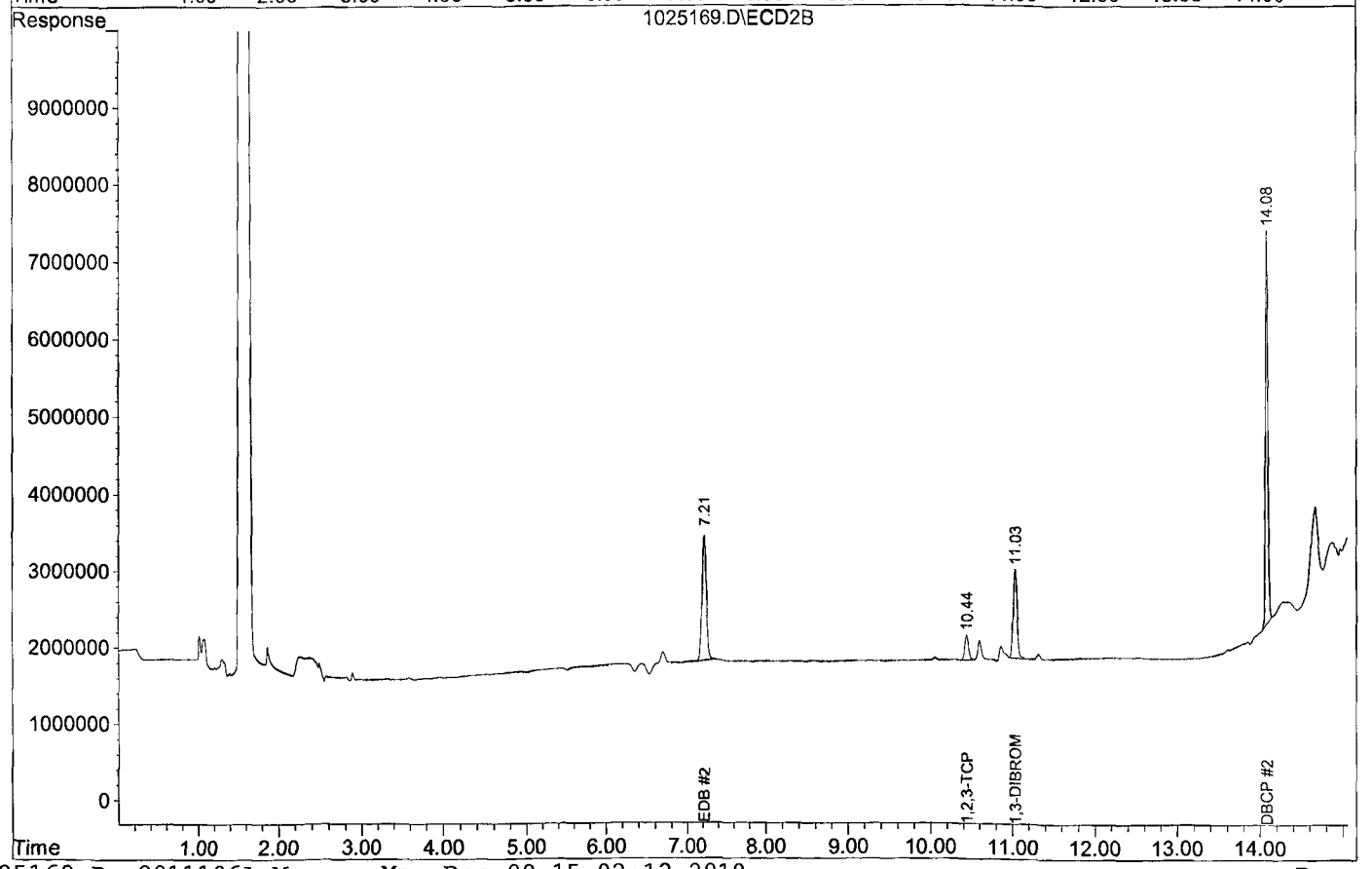
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (Not Reviewed)

Data File : G:\HERBIE\DATA\191025\1025169.D
Acq On : 11-13-19 3:10:49
Sample : 8011 4 11/06/19
Misc : water
Quant Method : G:\HERBIE\DATA\190814\8011106A.M

Vial: 69
Operator: MA,SS
Inst : Herbie
Multiplr: 1.00





DBCP/EDB/1,2,3-TCP Analysis by
504 8011

Form 7

Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix: Water

SDG No:
Date Analyzed: 12/06/19
Instrument: Herbie
Initial Cal. Date: 11/08/19
Data File: 1126093.D

		Compound	MEAN	CCRF	%D		%Drift
1	TM	EDB	749081	828295	11	TM	
2	TML	1,2,3-TCP	260381	262170	0.69	TML	5.7
3	S	1,3-DIBROMOPROPANE(S)	866299	964805	11	S	
4	TM	DBCP	2872760	2950450	2.7	TM	
5							
6							
7							
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39							
40							
		Average			6.3		

DBCP/EDB/1,2,3-TCP Analysis by
504 8011

Form 7

Continuing Calibration

Lab Name: APPL, Inc. SDG No:

Case No: Date Analyzed: 12/06/19

Matrix: Water Instrument: Herbie

Cal. Date: 11/08/19

Data File: 1126093.D

		Compound	MEAN	CCRF	%D	%Drift		
41	TM	EDB	3242340	3885900	20	TM		
42	TM	1,2,3-TCP	595963	752290	26	TM		* NT
43	S	1,3-DIBROMOPROPANE(S)	2168190	2802860	29	S		* See front
44	TM	DBCP	9395510	11799300	26	TM		* NT
45								
46								
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80								
		Average			25.3			

Quantitation Report (Not Reviewed)

Signal #1 : G:\HERBIE\DATA\191126\1126093.D\ECD1A.CH Vial: 93
Signal #2 : G:\HERBIE\DATA\191126\1126093.D\ECD2B.CH
Acq On : 12-06-19 22:15:45 Operator: MA,SS
Sample : 8011 2 11/6/19 Inst : Herbie
Misc : water Multiplr: 1.00
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Dec 9 12:46 2019 Quant Results File: 8011106A.RES

Quant Method : G:\HERBIE\DATA\190814\8011106A.M (RTE Integrator)
Title : 504.1 OR 8011
Last Update : Tue Nov 12 13:30:16 2019
Response via : Initial Calibration
DataAcq Meth : DOHS504.M

Volume Inj. : 2µL
Signal #1 Phase : DB-35MS Signal #2 Phase: DB-XLB
Signal #1 Info : 0.25 Signal #2 Info : 0.50

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L	
	System Monitoring Compounds							
3) S	1,3-DIBROMOPROPA	10.02	11.03	192961	560571	0.111	0.129	
Spiked Amount	0.350			Recovery	=	31.71%	36.86%	
	Target Compounds							
1) TM	EDB	5.78	7.22	165659	777180	0.111	0.120	
2) TM	1,2,3-TCP	9.25	10.44	52434	150458	0.094	0.126	#
4) TM	DBCP	13.34	14.08	590089	2359853	0.103	0.126	

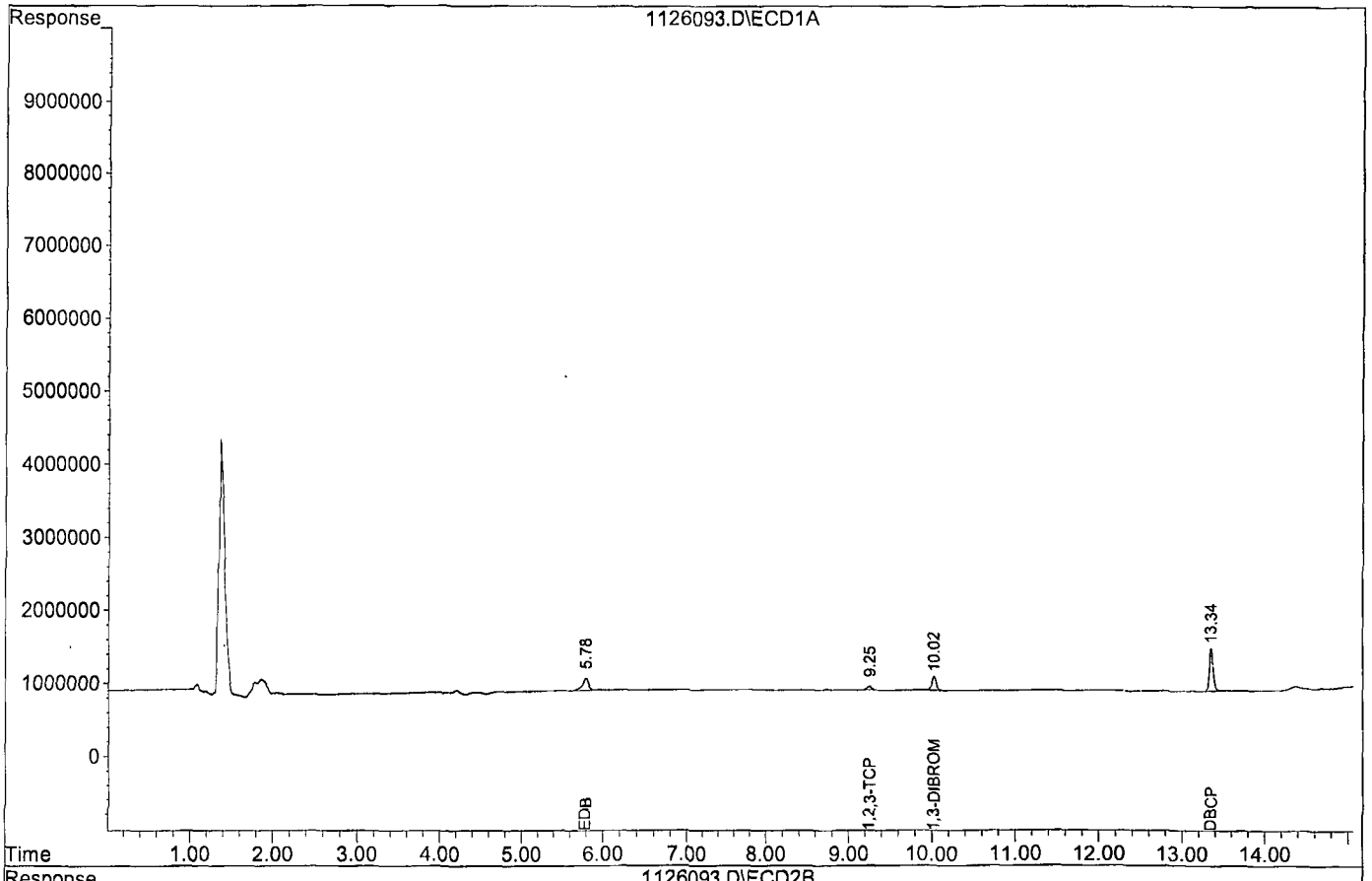
Target Compounds

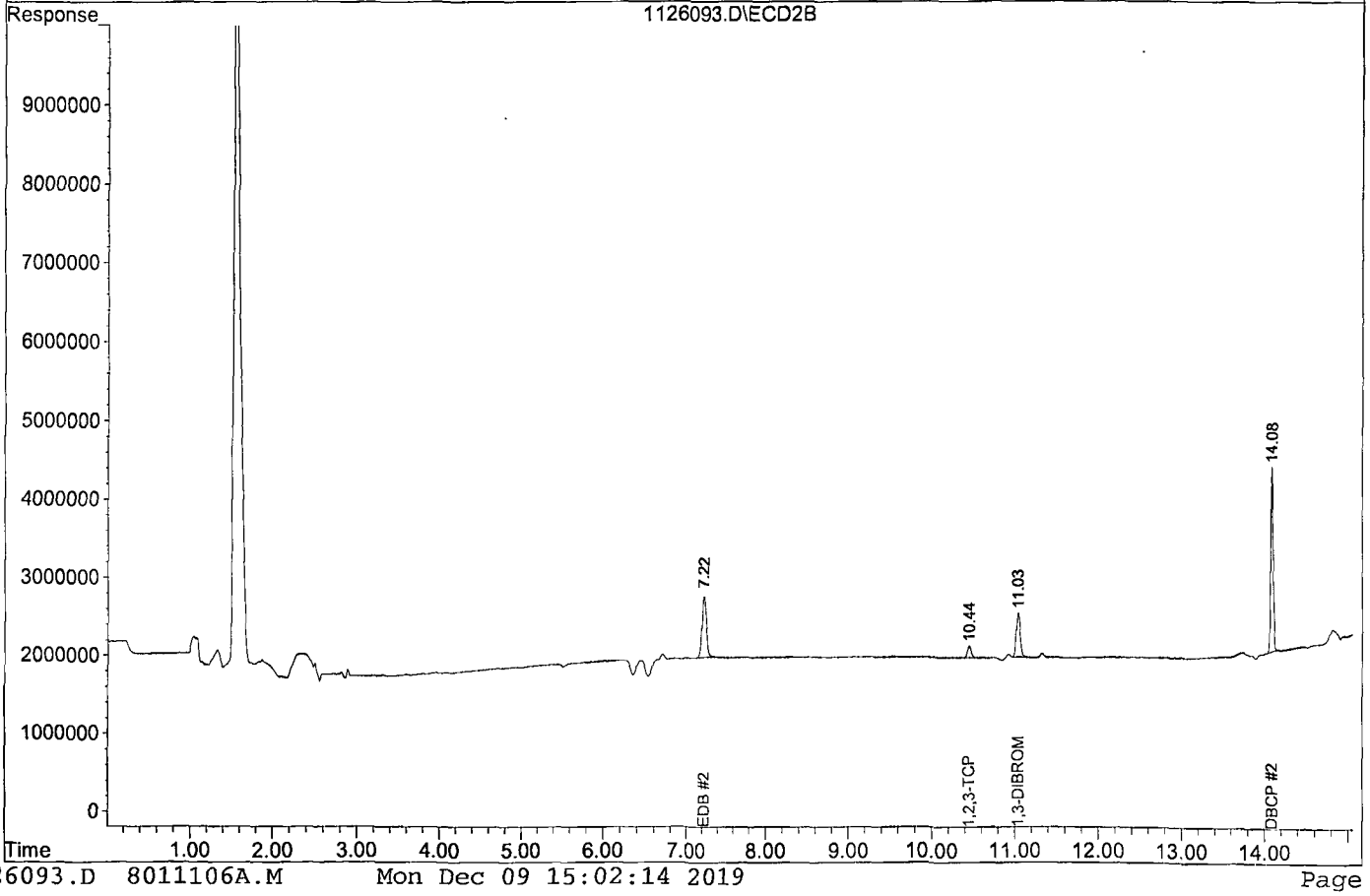
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (Not Reviewed)

Data File : G:\HERBIE\DATA\191126\1126093.D
Acq On : 12-06-19 22:15:45
Sample : 8011 2 11/6/19
Misc : water
Quant Method : G:\HERBIE\DATA\190814\8011106A.M

Vial: 93
Operator: MA,SS
Inst : Herbie
Multiplr: 1.00





DBCP/EDB/1,2,3-TCP Analysis by 504 8011

Form 7

Continuing Calibration

Lab Name: APPL, Inc.
Case No:
Matrix: Water

SDG No:
Date Analyzed: 12/06/19
Instrument: Herbie
Initial Cal. Date: 11/08/19
Data File: 1126096.D

		Compound	MEAN	CCRF	%D		%Drift
1	TM	EDB	749081	899080	20	TM	
2	TML	1,2,3-TCP	260381	254975	2.1	TML	9.4
3	S	1,3-DIBROMOPROPANE(S)	866299	983350	14	S	
4	TM	DBCP	2872760	2805940	2.3	TM	
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39							
40							
		Average			9.6		

DBCP/EDB/1,2,3-TCP Analysis by
504 8011

Form 7

Continuing Calibration

Lab Name: APPL, Inc. SDG No:
Case No: Date Analyzed: 12/06/19
Matrix: Water Instrument: Herbie
Cal. Date: 11/08/19
Data File: 1126096.D

		Compound	MEAN	CCRF	%D	%Drift		
41	TM	EDB	3242340	3827650	18	TM		
42	TM	1,2,3-TCP	595963	740845	24	TM		*
43	S	1,3-DIBROMOPROPANE(S)	2168190	2789260	29	S		*
44	TM	DBCP	9395510	11463000	22	TM		*
45								
46								
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80								
		Average			23.3			

Quantitation Report (Not Reviewed)

Signal #1 : G:\HERBIE\DATA\191126\1126096.D\ECD1A.CH Vial: 93
Signal #2 : G:\HERBIE\DATA\191126\1126096.D\ECD2B.CH
Acq On : 12-06-19 23:16:01 Operator: MA,SS
Sample : 8011 2 11/6/19 Inst : Herbie
Misc : water Multiplr: 1.00
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Dec 9 12:53 2019 Quant Results File: 8011106A.RES

Quant Method : G:\HERBIE\DATA\190814\8011106A.M (RTE Integrator)
Title : 504.1 OR 8011
Last Update : Tue Nov 12 13:30:16 2019
Response via : Initial Calibration
DataAcq Meth : DOHS504.M

Volume Inj. : 2µL
Signal #1 Phase : DB-35MS Signal #2 Phase: DB-XLB
Signal #1 Info : 0.25 Signal #2 Info : 0.50

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L	
	System Monitoring Compounds							
3) S	1,3-DIBROMOPROPA	10.02	11.03	196670	557851	0.114	0.129	
Spiked Amount	0.350			Recovery	=	32.57%	36.86%	
	Target Compounds							
1) TM	EDB	5.78	7.22	179816	765529	0.120	0.118	
2) TM	1,2,3-TCP	9.25	10.44	50995	148169	0.091	0.124	#
4) TM	DBCP	13.35	14.08	561187	2292597	0.098	0.122	

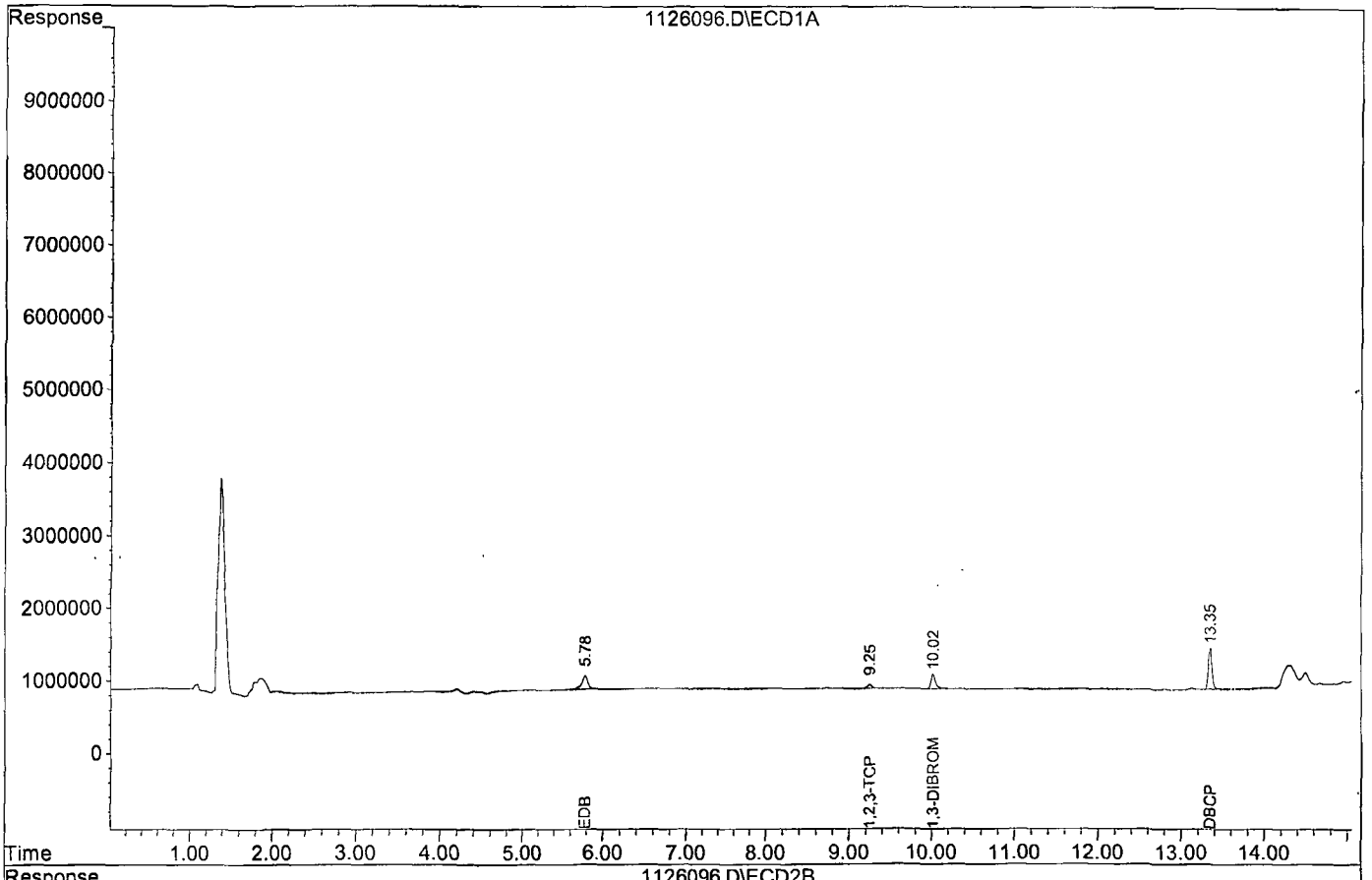
Target Compounds

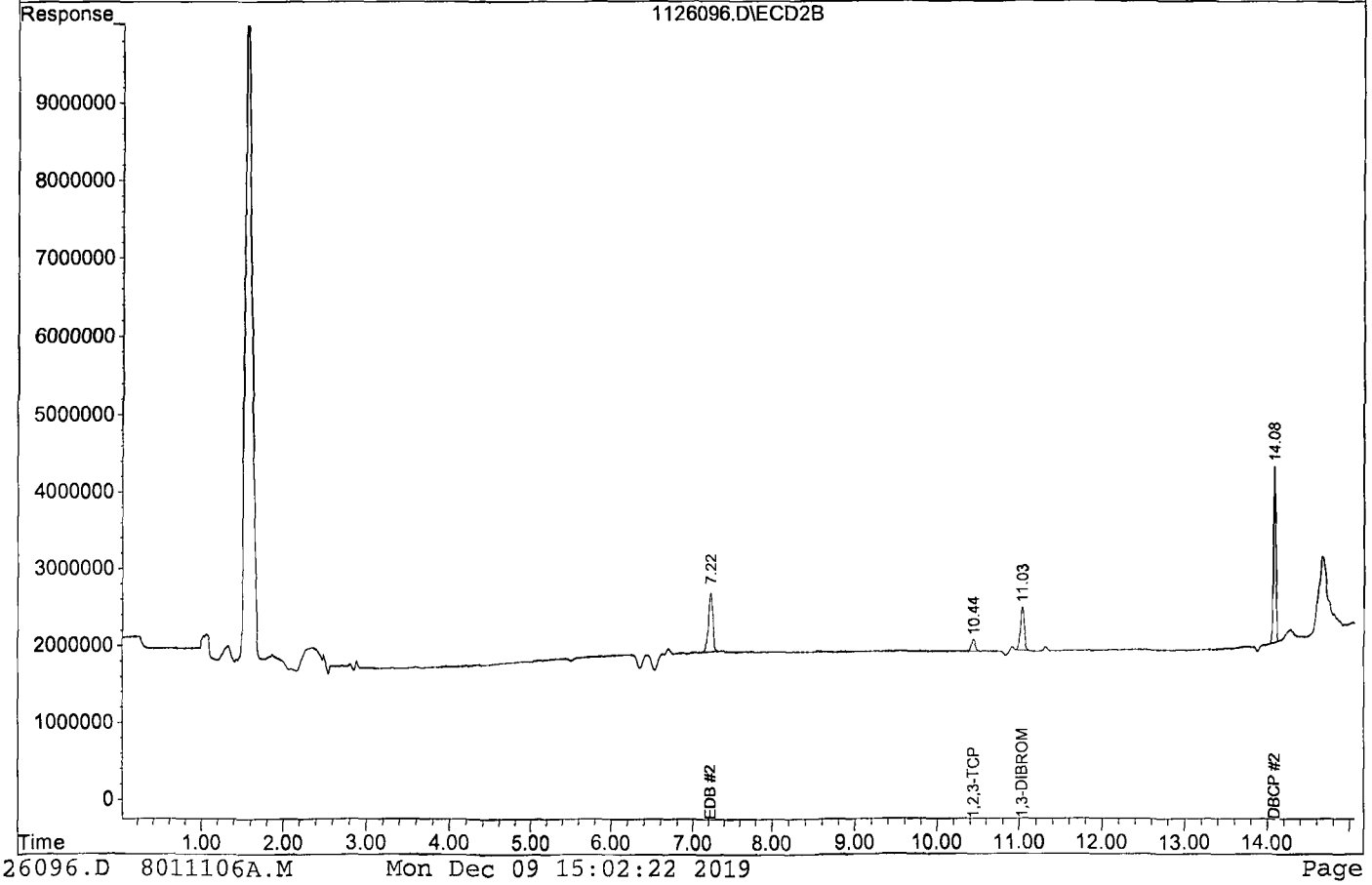
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (Not Reviewed)

Data File : G:\HERBIE\DATA\191126\1126096.D
Acq On : 12-06-19 23:16:01
Sample : 8011 2 11/6/19
Misc : water
Quant Method : G:\HERBIE\DATA\190814\8011106A.M

Vial: 93
Operator: MA,SS
Inst : Herbie
Multiplr: 1.00





ORGANICS
Raw Data

Quantitation Report (QT Reviewed)

Signal #1 : G:\HERBIE\DATA\191025\1025162.D\ECD1A.CH Vial: 62
Signal #2 : G:\HERBIE\DATA\191025\1025162.D\ECD2B.CH
Acq On : 11-13-19 0:50:36 Operator: MA,SS
Sample : BA02712W05 2/35.04G Inst : Herbie
Misc : water Multiplr: 1.00
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Nov 13 9:54 2019 Quant Results File: 8011106A.RES

Quant Method : G:\HERBIE\DATA\190814\8011106A.M (RTE Integrator)
Title : 504.1 OR 8011
Last Update : Tue Nov 12 13:30:16 2019
Response via : Initial Calibration
DataAcq Meth : DOHS504.M

Volume Inj. : 2µL
Signal #1 Phase : DB-35MS Signal #2 Phase: DB-XLB
Signal #1 Info : 0.25 Signal #2 Info : 0.50

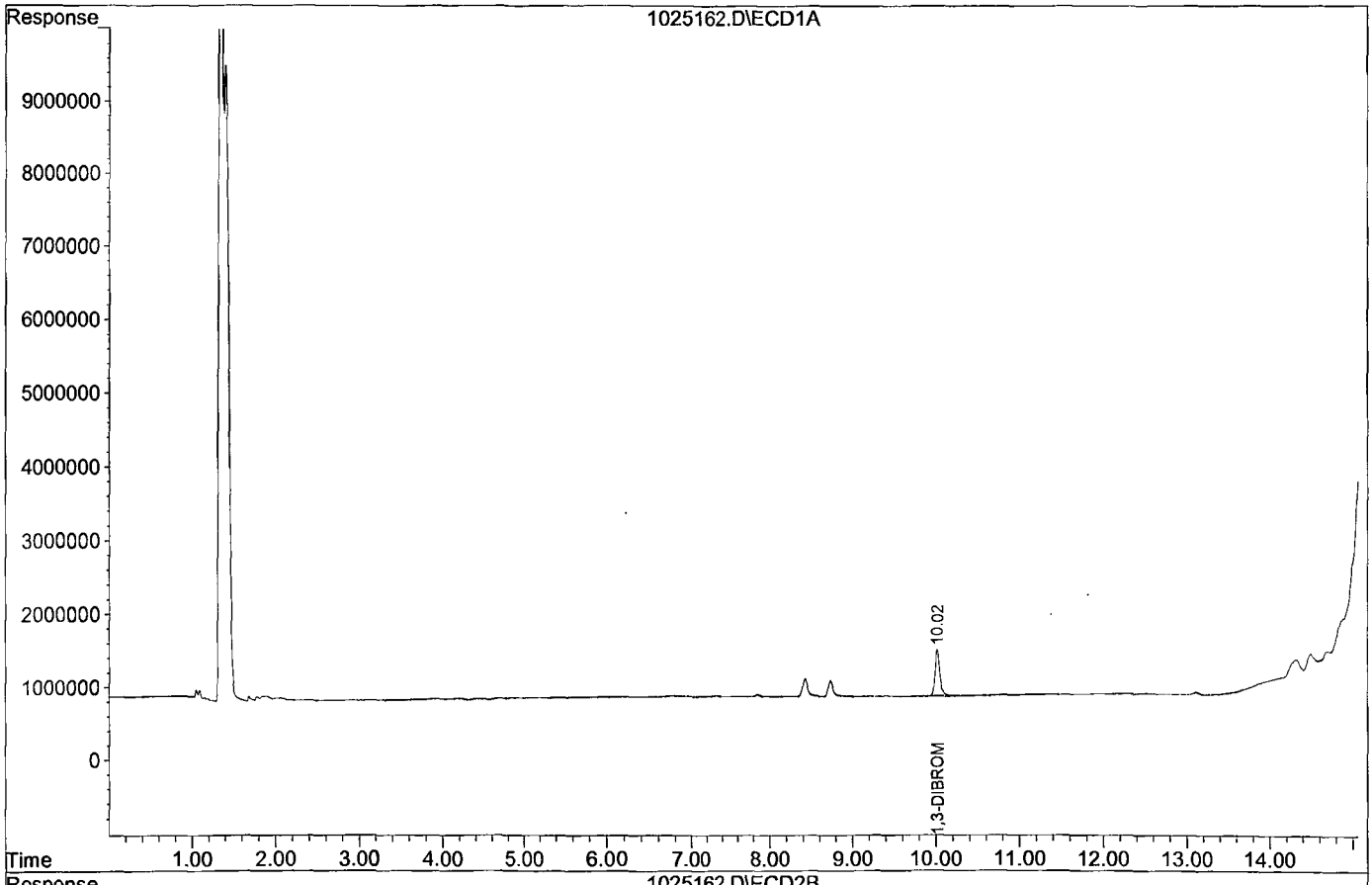
	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
	System Monitoring Compounds						
3) S	1,3-DIBROMOPROPA	10.02	11.03	634237	1527586	0.366	0.352
Spiked Amount	0.350			Recovery	=	104.69%	100.69%
	Target Compounds						
	Target Compounds						
1) TM	EDB	0.00	0.00	0	0	N.D. d	N.D. d
2) TM	1,2,3-TCP	0.00	0.00	0	0	N.D. d	N.D. d
4) TM	DBCP	0.00	0.00	0	0	N.D. d	N.D. d

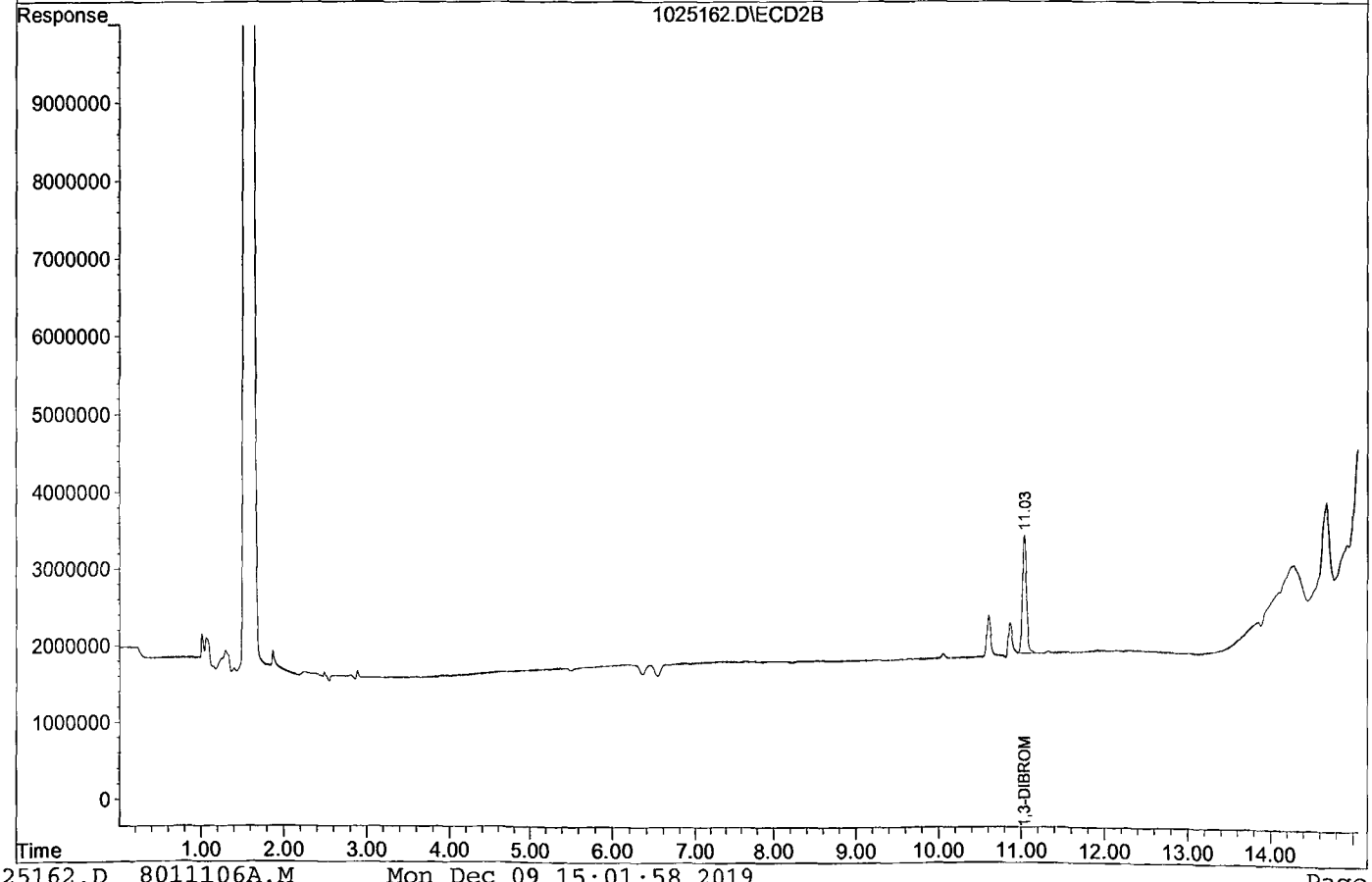
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : G:\HERBIE\DATA\191025\1025162.D
Acq On : 11-13-19 0:50:36
Sample : BA02712W05 2/35.04G
Misc : water
Quant Method : G:\HERBIE\DATA\190814\8011106A.M

Vial: 62
Operator: MA,SS
Inst : Herbie
Multiplr: 1.00





Quantitation Report (QT Reviewed)

Signal #1 : G:\HERBIE\DATA\191025\1025163.D\ECD1A.CH Vial: 63
Signal #2 : G:\HERBIE\DATA\191025\1025163.D\ECD2B.CH
Acq On : 11-13-19 1:10:37 Operator: MA,SS
Sample : BA02713W06 2/35.44G Inst : Herbie
Misc : water Multiplr: 0.99
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Nov 13 9:55 2019 Quant Results File: 8011106A.RES

Quant Method : G:\HERBIE\DATA\190814\8011106A.M (RTE Integrator)
Title : 504.1 OR 8011
Last Update : Tue Nov 12 13:30:16 2019
Response via : Initial Calibration
DataAcq Meth : DOHS504.M

Volume Inj. : 2µL
Signal #1 Phase : DB-35MS Signal #2 Phase: DB-XLB
Signal #1 Info : 0.25 Signal #2 Info : 0.50

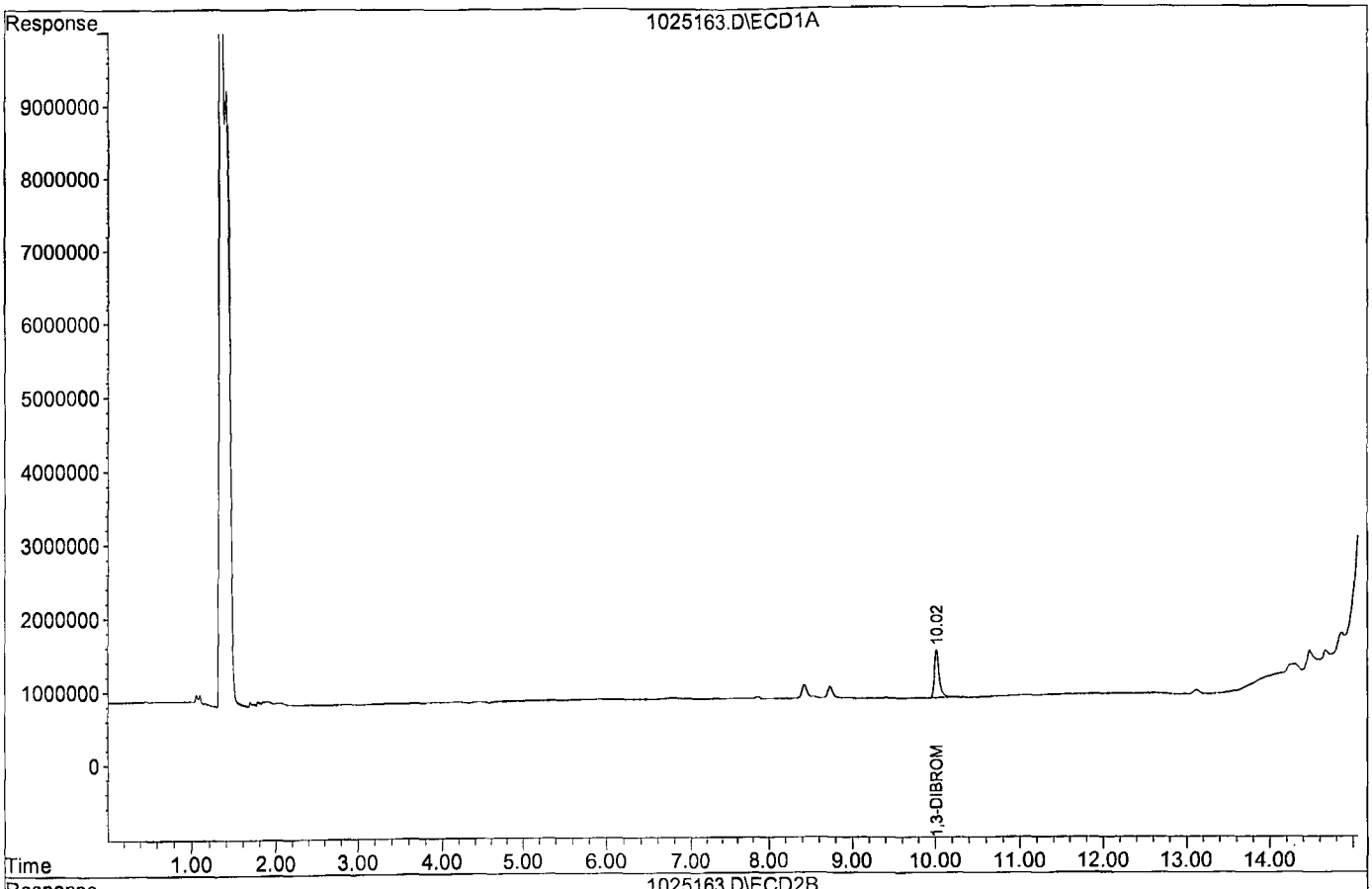
	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
	System Monitoring Compounds						
3) S	1,3-DIBROMOPROPA	10.02	11.03	647674	1535394	0.369	0.350
	Spiked Amount 0.346			Recovery	=	106.75%	101.26%
	Target Compounds						
	Target Compounds						
1) TM	EDB	0.00	0.00	0	0	N.D. d	N.D. d
2) TM	1,2,3-TCP	0.00	0.00	0	0	N.D. d	N.D. d
4) TM	DBCP	0.00	0.00	0	0	N.D. d	N.D. d

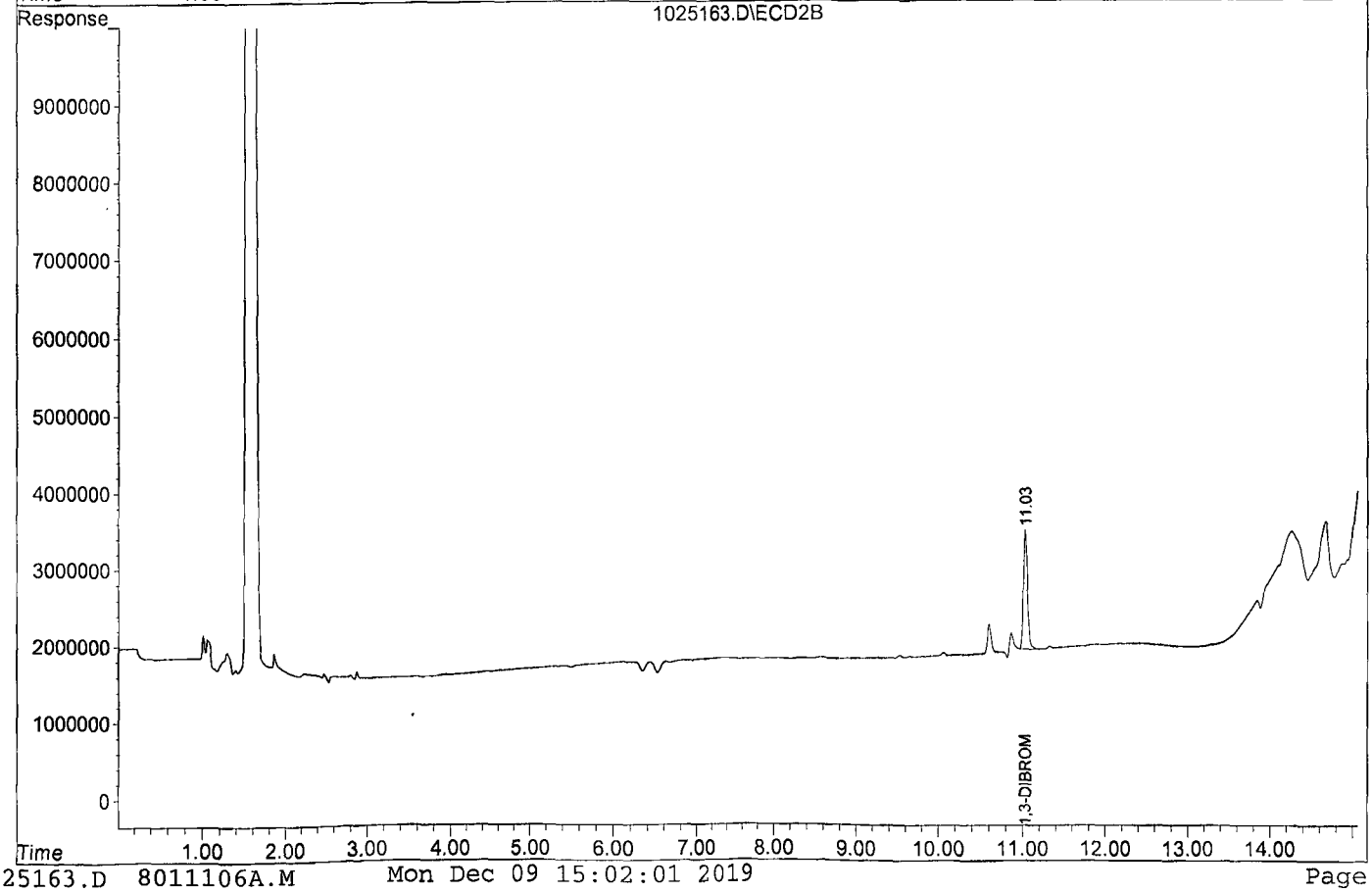
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : G:\HERBIE\DATA\191025\1025163.D
Acq On : 11-13-19 1:10:37
Sample : BA02713W06 2/35.44G
Misc : water
Quant Method : G:\HERBIE\DATA\190814\8011106A.M

Vial: 63
Operator: MA,SS
Inst : Herbie
Multiplr: 0.99





Quantitation Report (QT Reviewed)

Signal #1 : G:\HERBIE\DATA\191025\1025164.D\ECD1A.CH Vial: 64
Signal #2 : G:\HERBIE\DATA\191025\1025164.D\ECD2B.CH
Acq On : 11-13-19 1:30:37 Operator: MA,SS
Sample : BA02714W06 2/35.51G Inst : Herbie
Misc : water Multiplr: 0.99
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Nov 13 9:55 2019 Quant Results File: 8011106A.RES

Quant Method : G:\HERBIE\DATA\190814\8011106A.M (RTE Integrator)
Title : 504.1 OR 8011
Last Update : Tue Nov 12 13:30:16 2019
Response via : Initial Calibration
DataAcq Meth : DOHS504.M

Volume Inj. : 2µL
Signal #1 Phase : DB-35MS Signal #2 Phase: DB-XLB
Signal #1 Info : 0.25 Signal #2 Info : 0.50

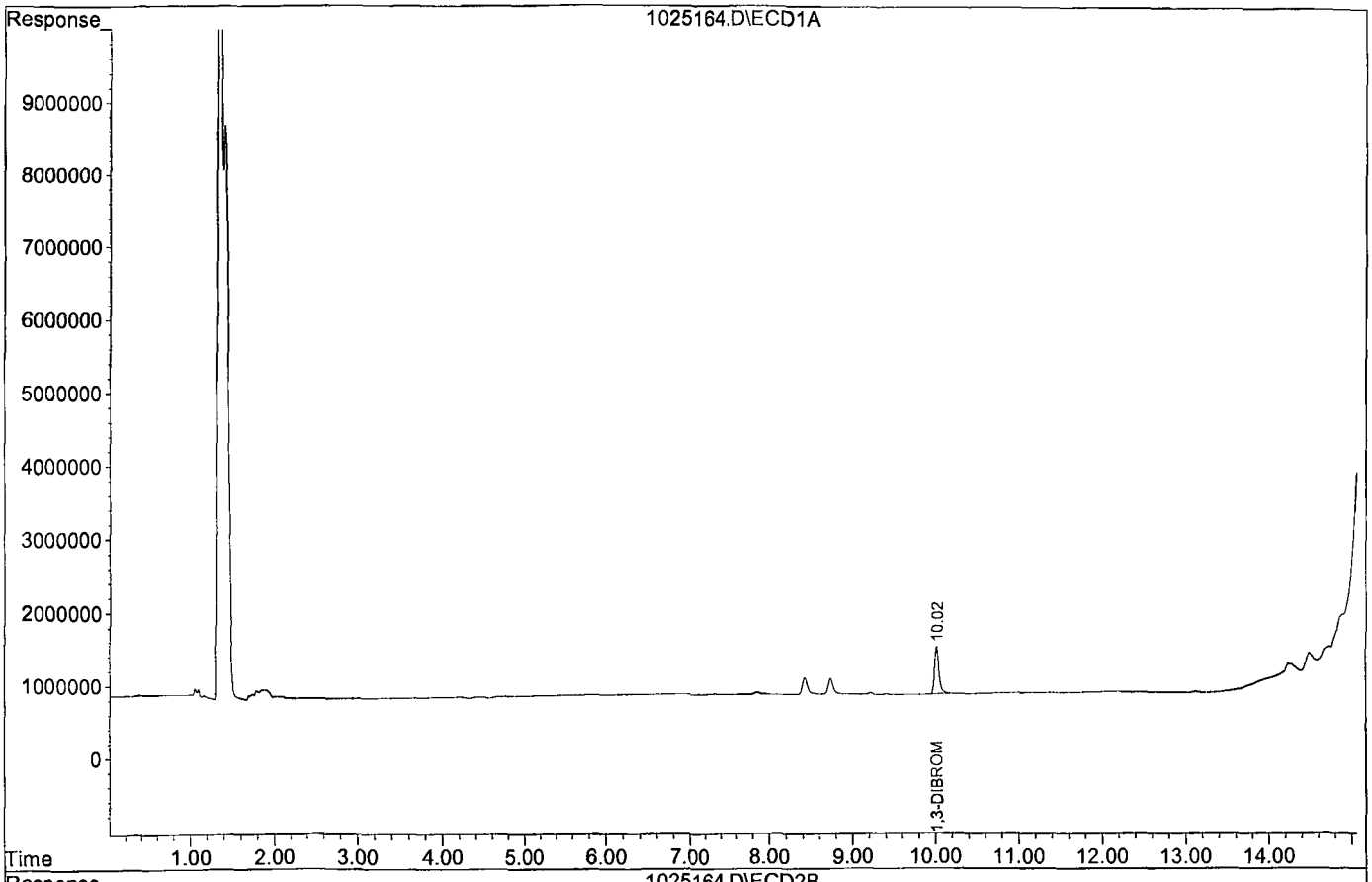
	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
	System Monitoring Compounds						
3) S	1,3-DIBROMOPROPA	10.02	11.03	650605	1597590	0.370	0.363
Spiked Amount	0.345			Recovery	=	107.25%	105.23%
	Target Compounds						
	Target Compounds						
1) TM	EDB	0.00	0.00	0	0	N.D. d	N.D. d
2) TM	1,2,3-TCP	0.00	0.00	0	0	N.D. d	N.D. d
4) TM	DBCP	0.00	0.00	0	0	N.D. d	N.D. d

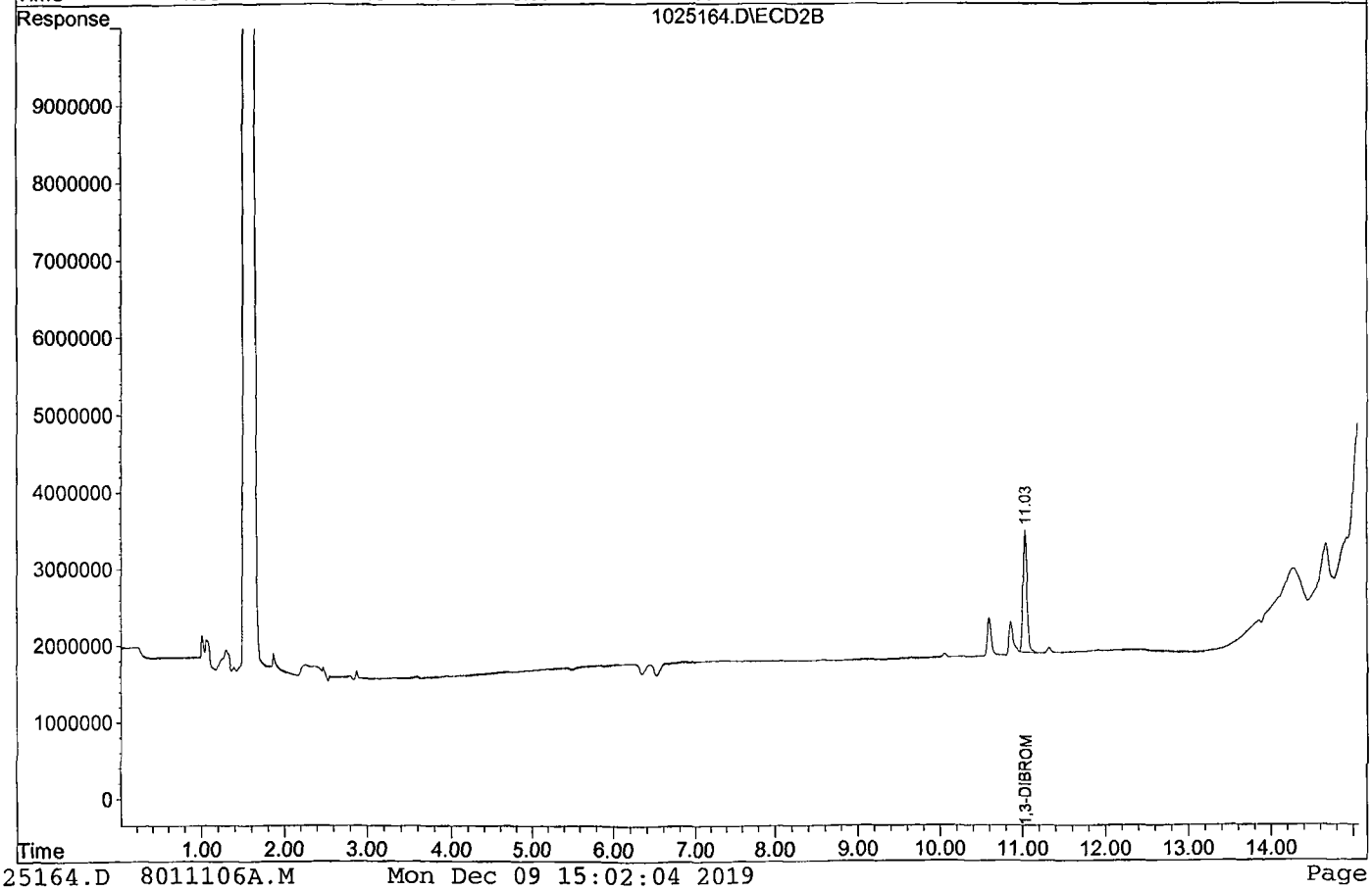
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : G:\HERBIE\DATA\191025\1025164.D
Acq On : 11-13-19 1:30:37
Sample : BA02714W06 2/35.51G
Misc : water
Quant Method : G:\HERBIE\DATA\190814\8011106A.M

Vial: 64
Operator: MA,SS
Inst : Herbie
Multiplr: 0.99





Quantitation Report (QT Reviewed)

Signal #1 : G:\HERBIE\DATA\191025\1025165.D\ECD1A.CH Vial: 65
Signal #2 : G:\HERBIE\DATA\191025\1025165.D\ECD2B.CH
Acq On : 11-13-19 1:50:39 Operator: MA,SS
Sample : BA02715W14 2/35.23G Inst : Herbie
Misc : water Multiplr: 0.99
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Nov 13 9:56 2019 Quant Results File: 8011106A.RES

Quant Method : G:\HERBIE\DATA\190814\8011106A.M (RTE Integrator)
Title : 504.1 OR 8011
Last Update : Tue Nov 12 13:30:16 2019
Response via : Initial Calibration
DataAcq Meth : DOHS504.M

Volume Inj. : 2µL
Signal #1 Phase : DB-35MS Signal #2 Phase: DB-XLB
Signal #1 Info : 0.25 Signal #2 Info : 0.50

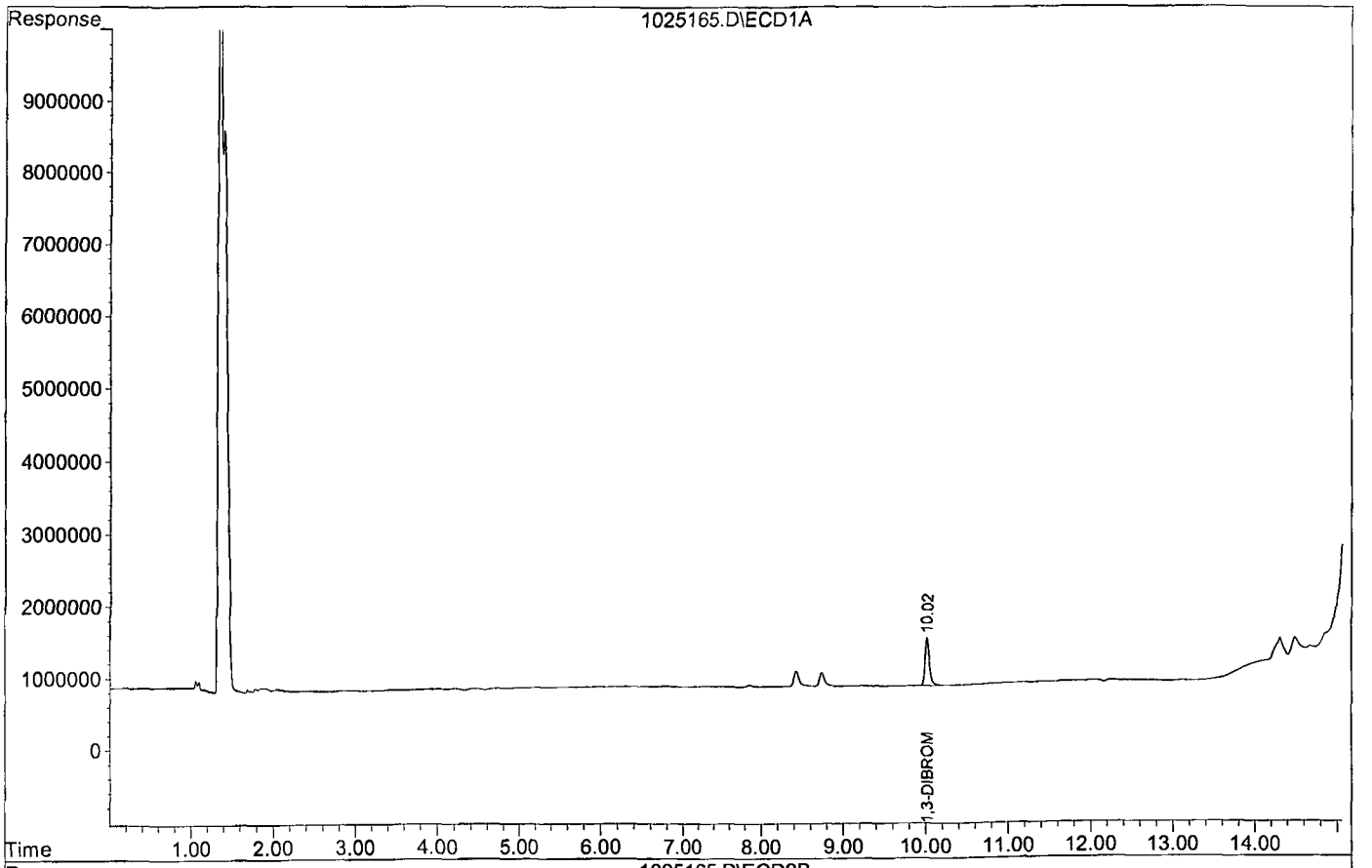
	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
	System Monitoring Compounds						
3) S	1,3-DIBROMOPROPA	10.02	11.03	663243	1658280	0.380	0.380
	Spiked Amount 0.348			Recovery =		109.28%	109.28%
	Target Compounds						
	Target Compounds						
1) TM	EDB	0.00	0.00	0	0	N.D. d	N.D. d
2) TM	1,2,3-TCP	0.00	0.00	0	0	N.D. d	N.D. d
4) TM	DBCP	0.00	0.00	0	0	N.D. d	N.D. d

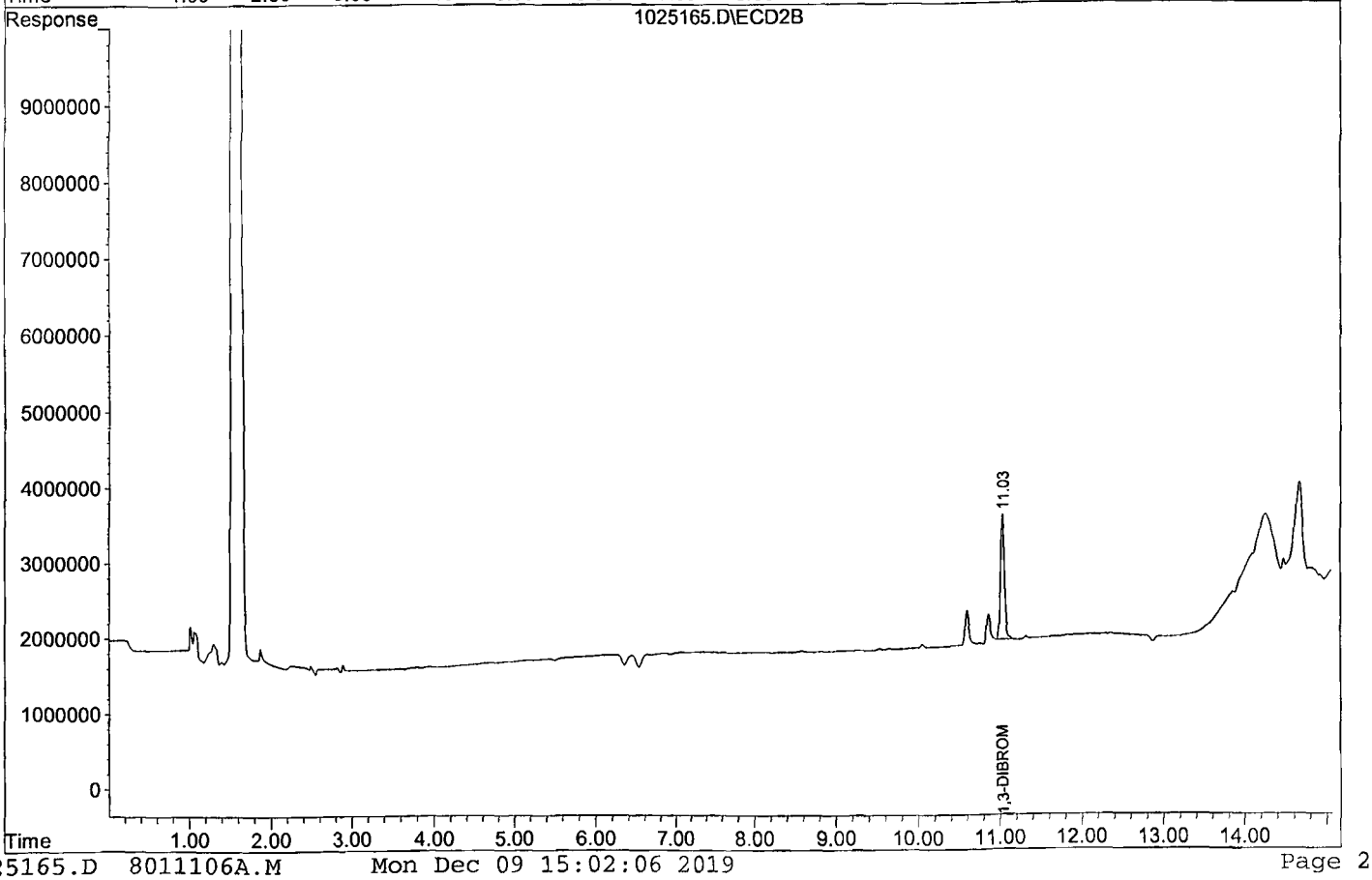
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : G:\HERBIE\DATA\191025\1025165.D
Acq On : 11-13-19 1:50:39
Sample : BA02715W14 2/35.23G
Misc : water
Quant Method : G:\HERBIE\DATA\190814\8011106A.M

Vial: 65
Operator: MA,SS
Inst : Herbie
Multiplr: 0.99





Quantitation Report (QT Reviewed)

Signal #1 : G:\HERBIE\DATA\191025\1025166.D\ECD1A.CH Vial: 66
Signal #2 : G:\HERBIE\DATA\191025\1025166.D\ECD2B.CH
Acq On : 11-13-19 2:10:38 Operator: MA,SS
Sample : BA02716W07 2/35.06G Inst : Herbie
Misc : water Multiplr: 1.00
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Nov 13 9:56 2019 Quant Results File: 8011106A.RES

Quant Method : G:\HERBIE\DATA\190814\8011106A.M (RTE Integrator)
Title : 504.1 OR 8011
Last Update : Tue Nov 12 13:30:16 2019
Response via : Initial Calibration
DataAcq Meth : DOHS504.M

Volume Inj. : 2µL
Signal #1 Phase : DB-35MS Signal #2 Phase: DB-XLB
Signal #1 Info : 0.25 Signal #2 Info : 0.50

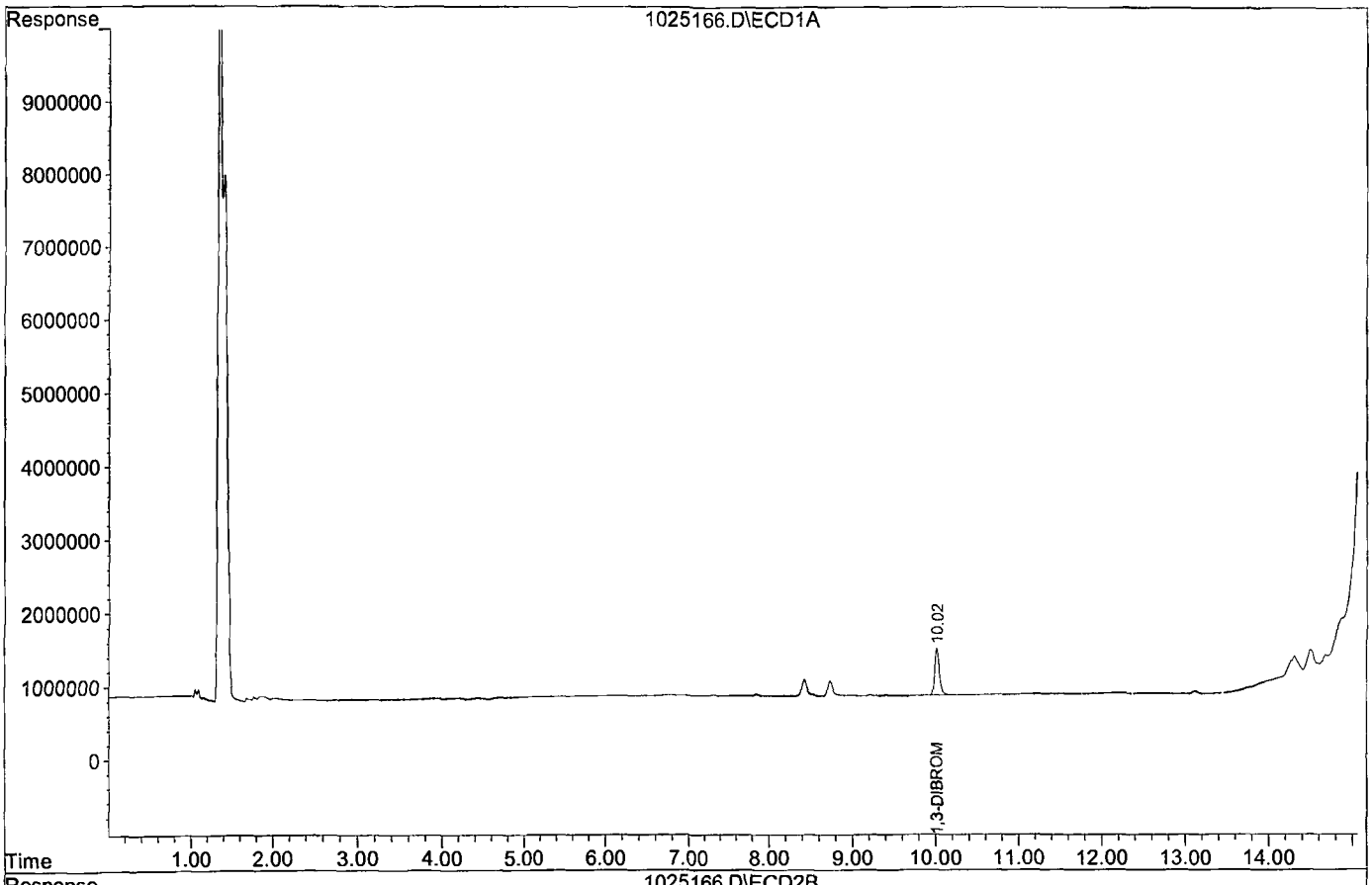
	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
	System Monitoring Compounds						
3) S	1,3-DIBROMOPROPA	10.02	11.03	637371	1565568	0.367	0.360
	Spiked Amount 0.349			Recovery	=	105.04%	103.03%
	Target Compounds						
	Target Compounds						
1) TM	EDB	0.00	0.00	0	0	N.D. d	N.D. d
2) TM	1,2,3-TCP	0.00	0.00	0	0	N.D. d	N.D. d
4) TM	DBCP	0.00	0.00	0	0	N.D. d	N.D. d

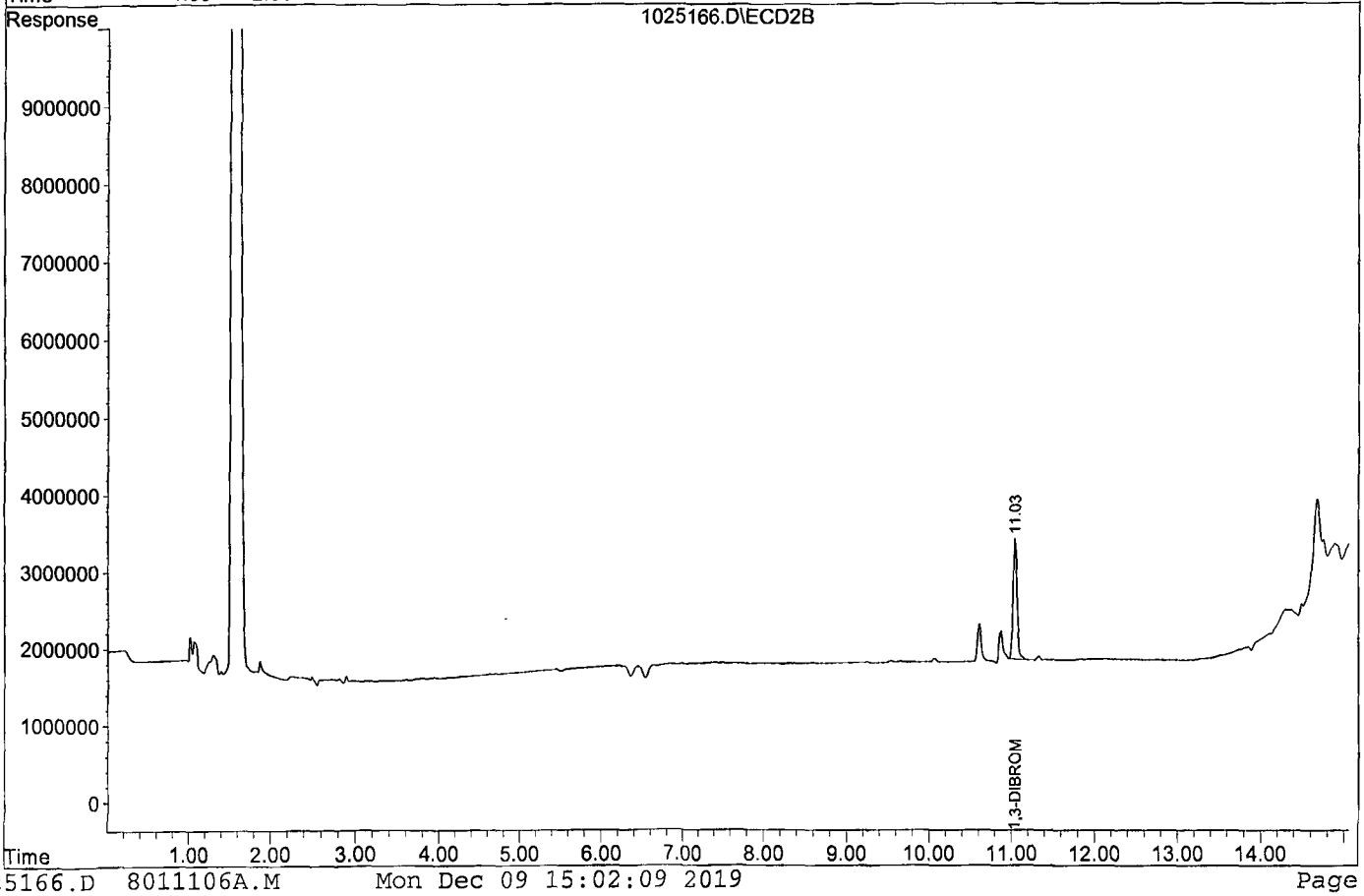
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : G:\HERBIE\DATA\191025\1025166.D
Acq On : 11-13-19 2:10:38
Sample : BA02716W07 2/35.06G
Misc : water
Quant Method : G:\HERBIE\DATA\190814\8011106A.M

Vial: 66
Operator: MA,SS
Inst : Herbie
Multiplr: 1.00





Quantitation Report (QT Reviewed)

Signal #1 : G:\HERBIE\DATA\191025\1025154.D\ECD1A.CH Vial: 54
Signal #2 : G:\HERBIE\DATA\191025\1025154.D\ECD2B.CH
Acq On : 11-12-19 22:09:58 Operator: MA,SS
Sample : 191111A BLK 2/35.20G Inst : Herbie
Misc : water Multiplr: 0.99
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Nov 13 9:34 2019 Quant Results File: 8011106A.RES

Quant Method : G:\HERBIE\DATA\190814\8011106A.M (RTE Integrator)
Title : 504.1 OR 8011
Last Update : Tue Nov 12 13:30:16 2019
Response via : Initial Calibration
DataAcq Meth : DOHS504.M

Volume Inj. : 2µL
Signal #1 Phase : DB-35MS Signal #2 Phase: DB-XLB
Signal #1 Info : 0.25 Signal #2 Info : 0.50

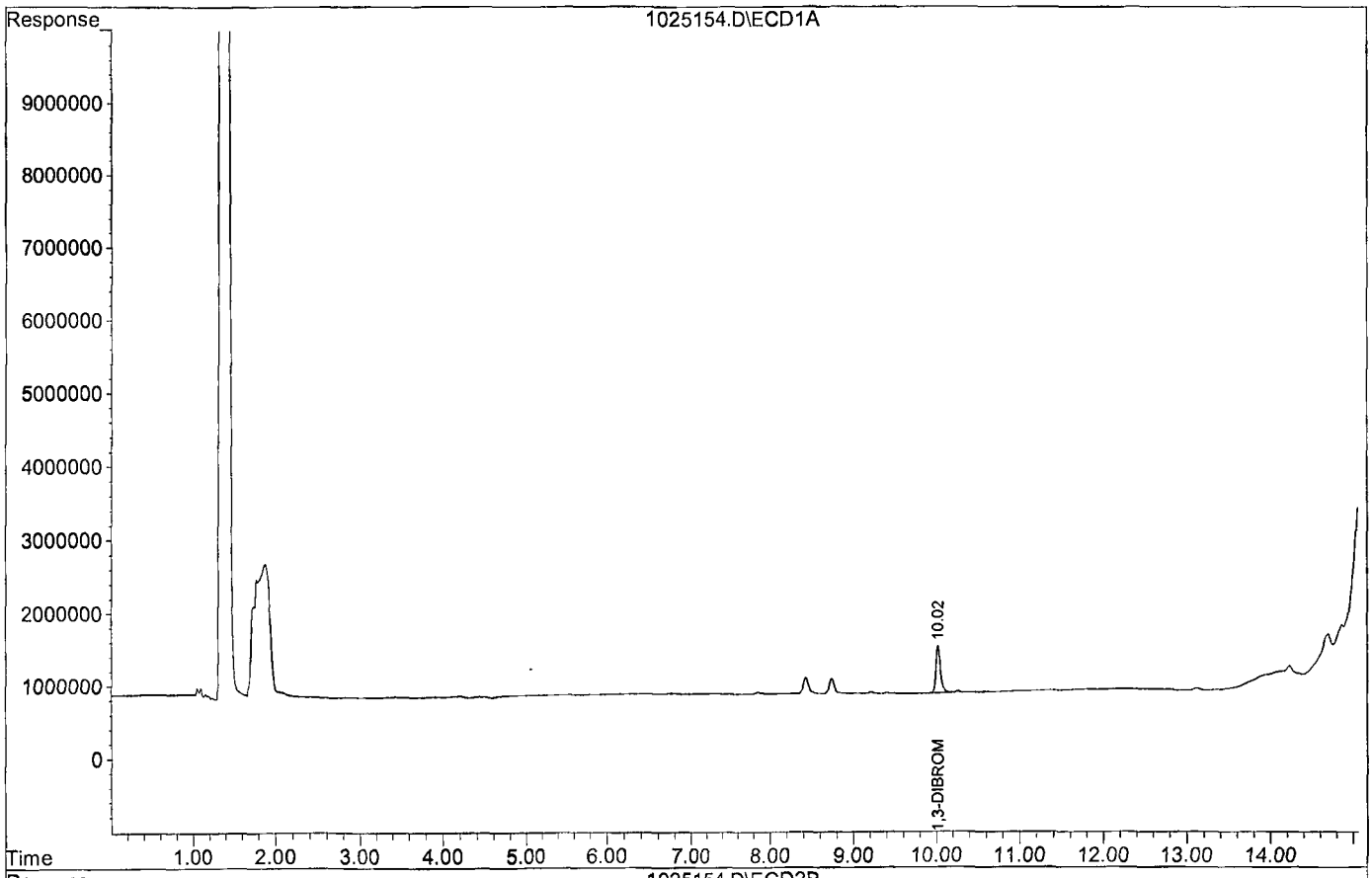
	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
	System Monitoring Compounds						
3) S	1,3-DIBROMOPROPA	10.02	11.03	657606	1621621	0.377	0.372
	Spiked Amount 0.348			Recovery	=	108.33%	106.89%
	Target Compounds						
	Target Compounds						
1) TM	EDB	0.00	0.00	0	0	N.D. d	N.D. d
2) TM	1,2,3-TCP	0.00	0.00	0	0	N.D. d	N.D. d
4) TM	DBCP	0.00	0.00	0	0	N.D. d	N.D. d

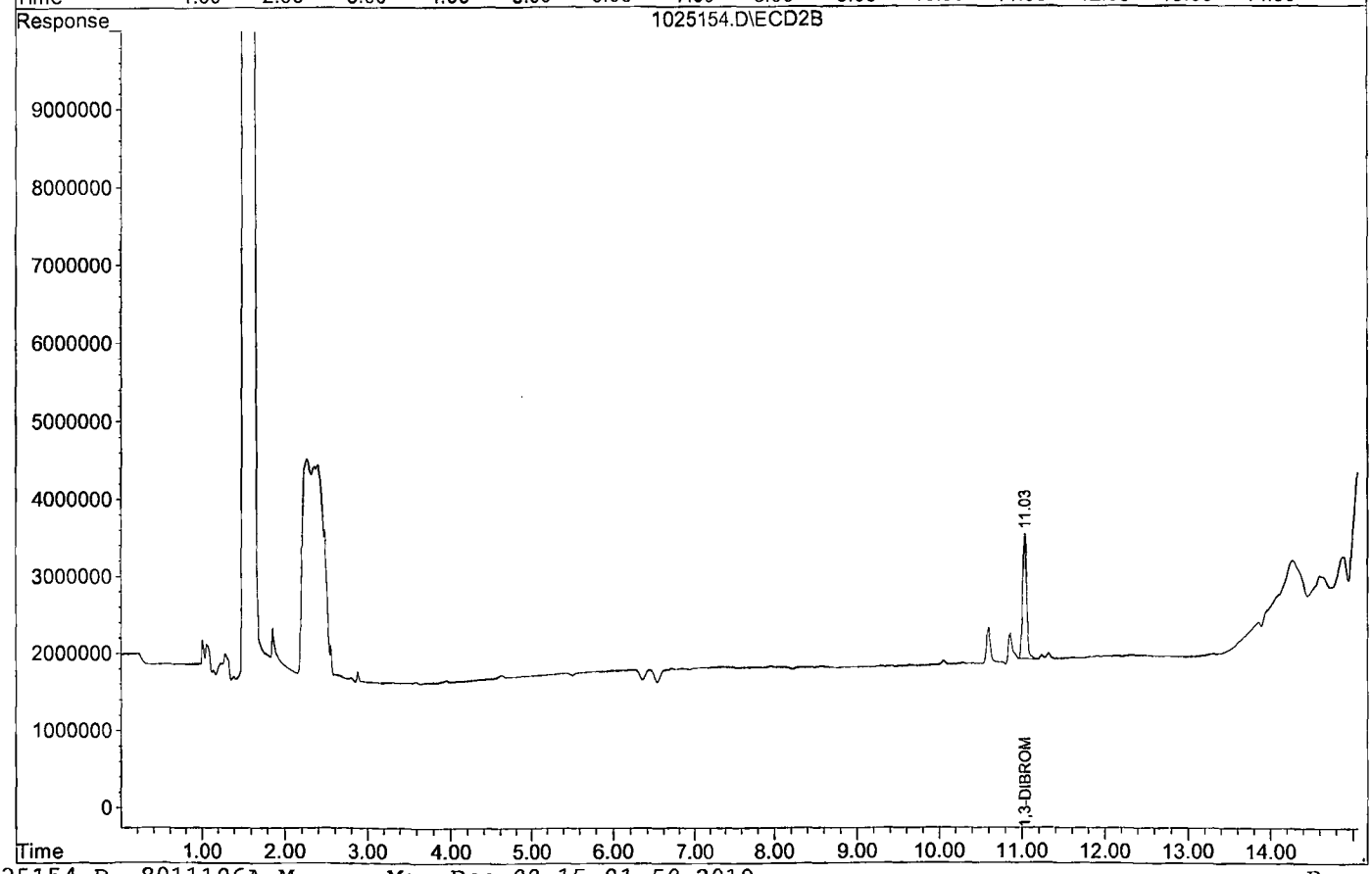
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : G:\HERBIE\DATA\191025\1025154.D
Acq On : 11-12-19 22:09:58
Sample : 191111A BLK 2/35.20G
Misc : water
Quant Method : G:\HERBIE\DATA\190814\8011106A.M

Vial: 54
Operator: MA,SS
Inst : Herbie
Multiplr: 0.99





Quantitation Report (Not Reviewed)

Signal #1 : G:\HERBIE\DATA\191025\1025155.D\ECD1A.CH Vial: 55
Signal #2 : G:\HERBIE\DATA\191025\1025155.D\ECD2B.CH
Acq On : 11-12-19 22:30:04 Operator: MA,SS
Sample : 191111A LCS-1 2/35.18G Inst : Herbie
Misc : water Multiplr: 0.99
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Nov 13 9:33 2019 Quant Results File: 8011106A.RES

Quant Method : G:\HERBIE\DATA\190814\8011106A.M (RTE Integrator)
Title : 504.1 OR 8011
Last Update : Tue Nov 12 13:30:16 2019
Response via : Initial Calibration
DataAcq Meth : DOHS504.M

Volume Inj. : 2µL
Signal #1 Phase : DB-35MS Signal #2 Phase: DB-XLB
Signal #1 Info : 0.25 Signal #2 Info : 0.50

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
	System Monitoring Compounds						
3) S	1,3-DIBROMOPROPA	10.02	11.03	455041	1094942	0.261	0.251
	Spiked Amount 0.348			Recovery =		74.95%	72.08%
	Target Compounds						
1) TM	EDB	5.79	7.21	348751	1635019	0.232	0.251
2) TM	1,2,3-TCP	9.25	10.44	126619	324997	0.281	0.271
4) TM	DBCP	13.34	14.08	1559272	4909189	0.270	0.260

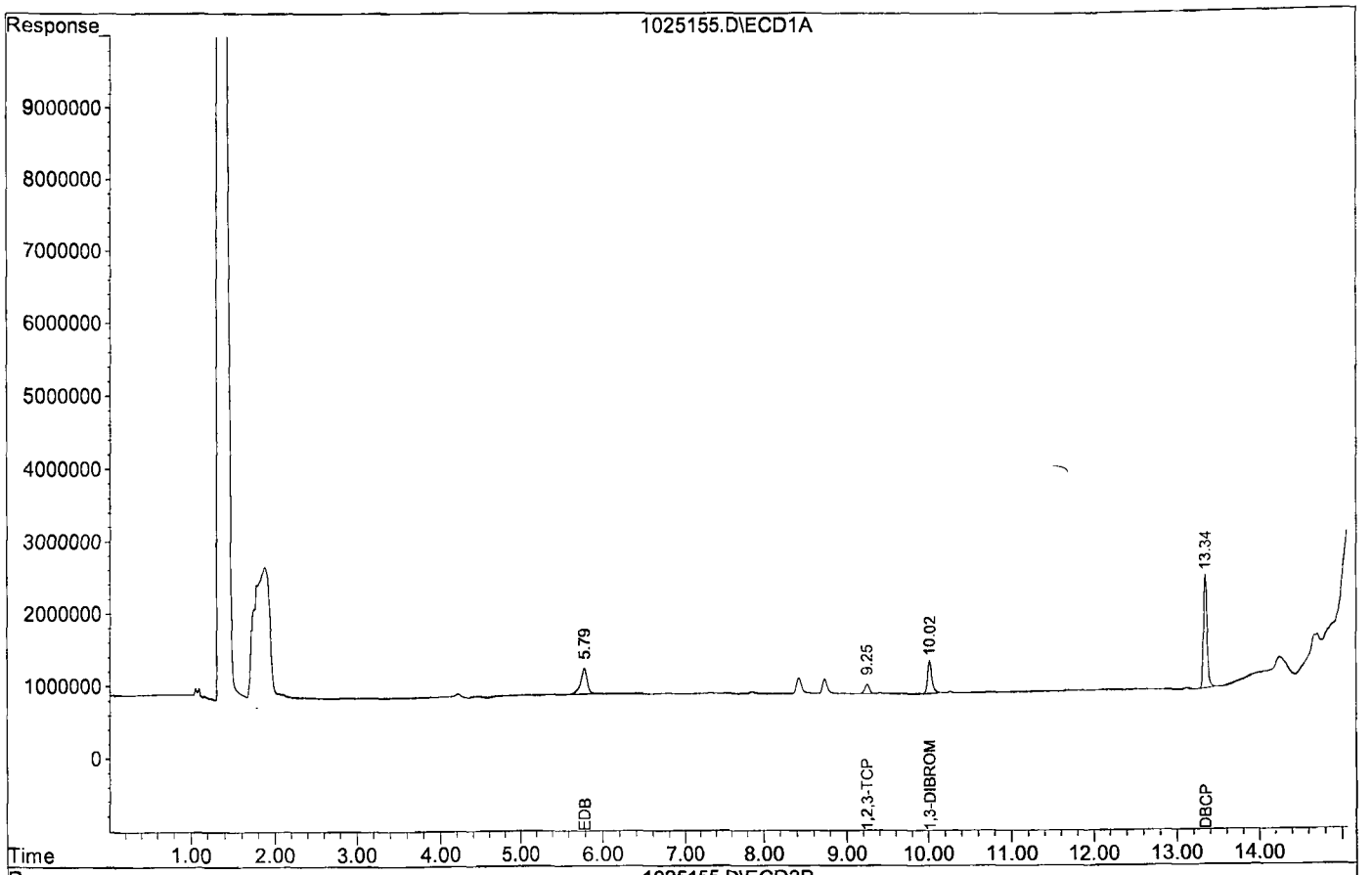
Target Compounds

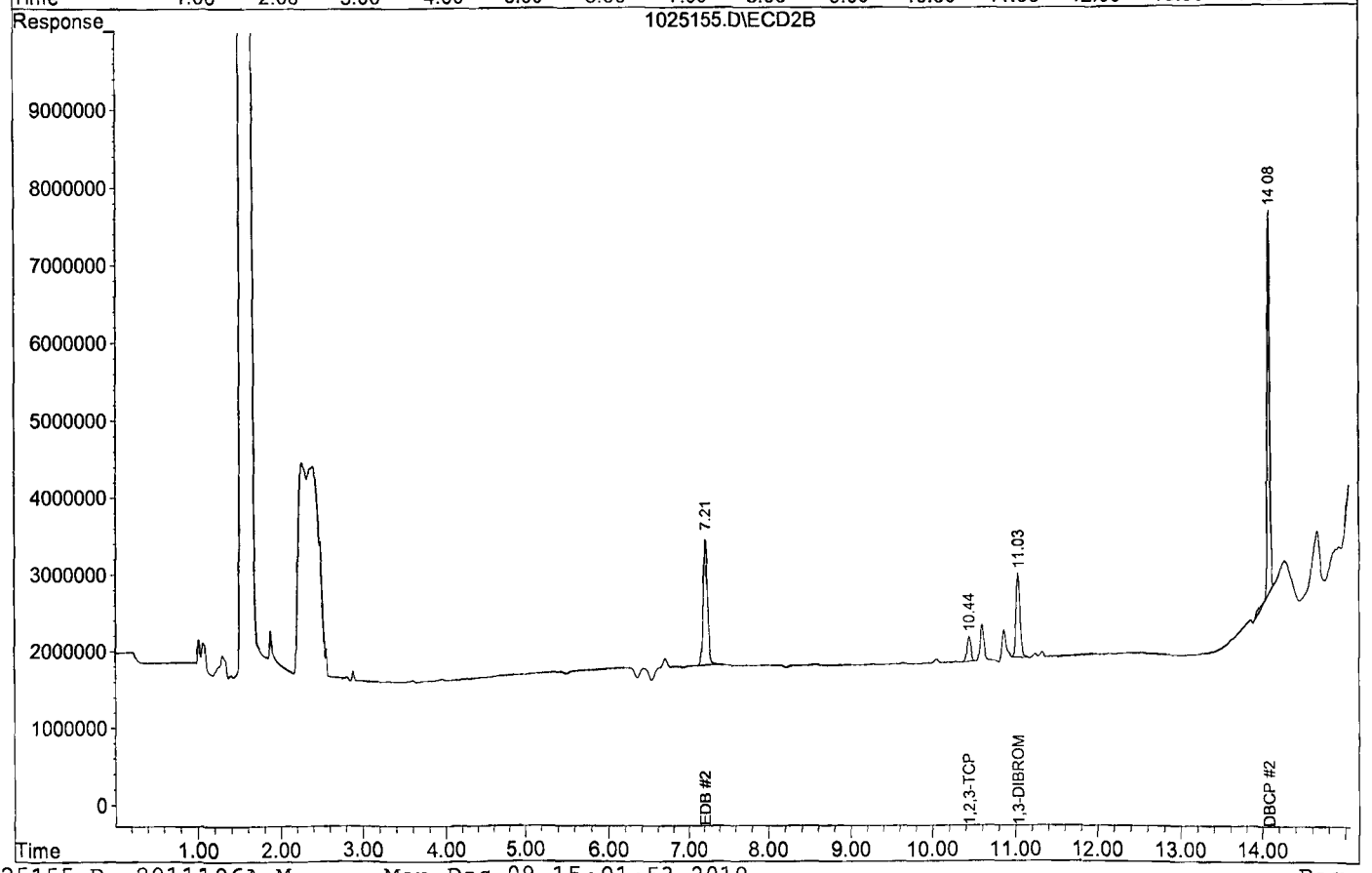
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (Not Reviewed)

Data File : G:\HERBIE\DATA\191025\1025155.D
Acq On : 11-12-19 22:30:04
Sample : 191111A LCS-1 2/35.18G
Misc : water
Quant Method : G:\HERBIE\DATA\190814\8011106A.M

Vial: 55
Operator: MA,SS
Inst : Herbie
Multiplr: 0.99





Quantitation Report (Not Reviewed)

Signal #1 : G:\HERBIE\DATA\191025\1025156.D\ECD1A.CH Vial: 56
Signal #2 : G:\HERBIE\DATA\191025\1025156.D\ECD2B.CH
Acq On : 11-12-19 22:50:16 Operator: MA,SS
Sample : 191111A LCSD-1 2/35.24G Inst : Herbie
Misc : water Multiplr: 0.99
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Nov 13 9:33 2019 Quant Results File: 8011106A.RES

Quant Method : G:\HERBIE\DATA\190814\8011106A.M (RTE Integrator)
Title : 504.1 OR 8011
Last Update : Tue Nov 12 13:30:16 2019
Response via : Initial Calibration
DataAcq Meth : DOHS504.M

Volume Inj. : 2µL
Signal #1 Phase : DB-35MS Signal #2 Phase: DB-XLB
Signal #1 Info : 0.25 Signal #2 Info : 0.50

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
	System Monitoring Compounds						
3) S	1,3-DIBROMOPROPA	10.02	11.03	462809	1101122	0.265	0.252
Spiked Amount	0.348			Recovery	=	76.23%	72.49%
	Target Compounds						
1) TM	EDB	5.79	7.21	344631	1610878	0.228	0.247
2) TM	1,2,3-TCP	9.25	10.44	128978	323683	0.286	0.270
4) TM	DBCP	13.35	14.09	1527252	4874043	0.264	0.258

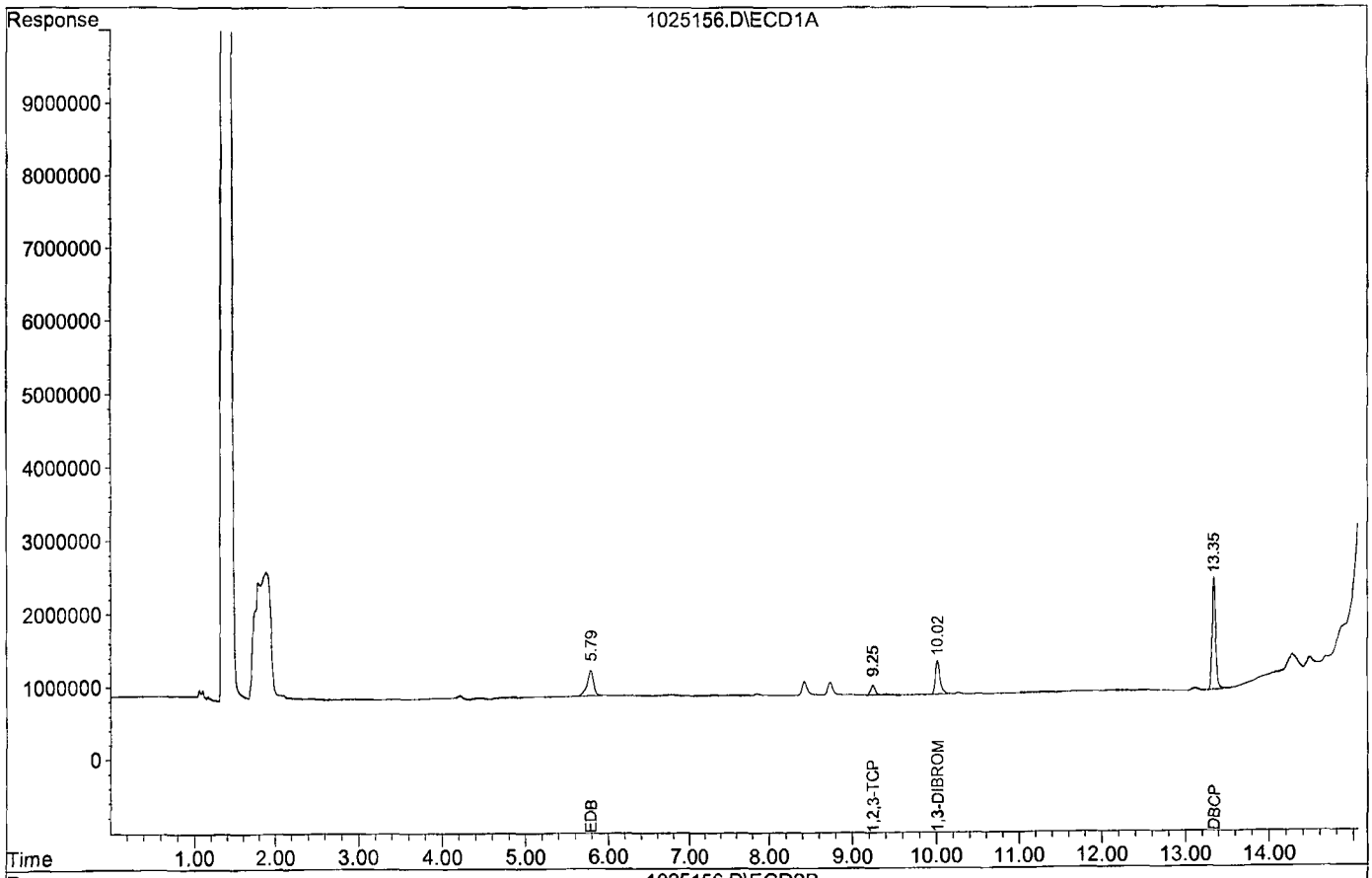
Target Compounds

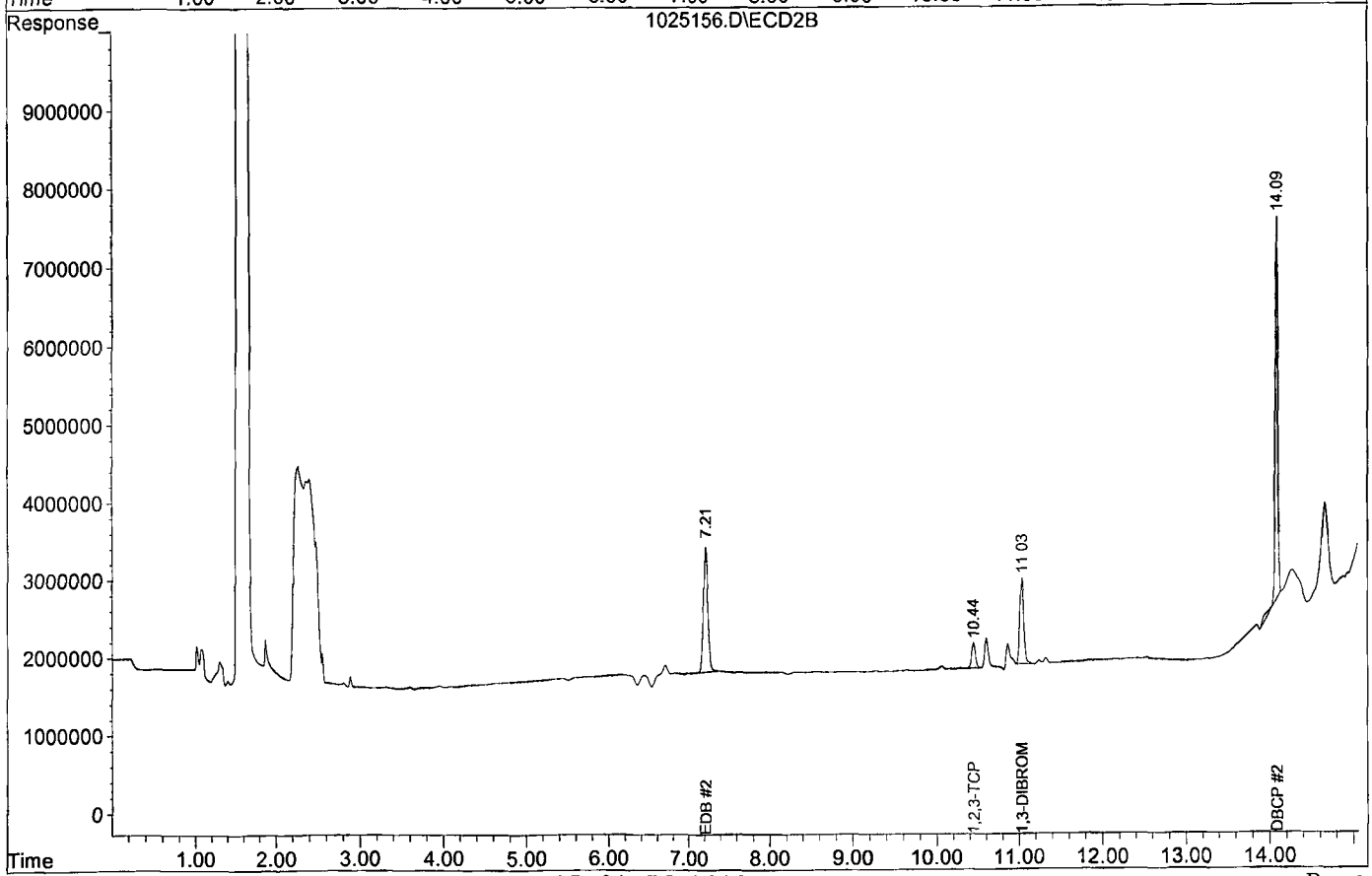
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (Not Reviewed)

Data File : G:\HERBIE\DATA\191025\1025156.D
Acq On : 11-12-19 22:50:16
Sample : 191111A LCSD-1 2/35.24G
Misc : water
Quant Method : G:\HERBIE\DATA\190814\8011106A.M

Vial: 56
Operator: MA,SS
Inst : Herbie
Multiplr: 0.99





Quantitation Report (Not Reviewed)

Signal #1 : G:\HERBIE\DATA\191126\1126094.D\ECD1A.CH Vial: 94
Signal #2 : G:\HERBIE\DATA\191126\1126094.D\ECD2B.CH
Acq On : 12-06-19 22:35:54 Operator: MA,SS
Sample : BA02715W38 MS-1 2/35.00g Inst : Herbie
Misc : water Multiplr: 0.99
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Dec 9 13:20 2019 Quant Results File: 8011106A.RES

Quant Method : G:\HERBIE\DATA\190814\8011106A.M (RTE Integrator)
Title : 504.1 OR 8011
Last Update : Tue Nov 12 13:30:16 2019
Response via : Initial Calibration
DataAcq Meth : DOHS504.M

Volume Inj. : 2µL
Signal #1 Phase : DB-35MS Signal #2 Phase: DB-XLB
Signal #1 Info : 0.25 Signal #2 Info : 0.50

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
	System Monitoring Compounds						
3) S	1,3-DIBROMOPROPA	10.02	11.03	471547	1272245	0.270	0.291
Spiked Amount	0.347			Recovery	=	77.89%	83.95%
	Target Compounds						
1) TM	EDB	5.78	7.22	422069	1898314	0.279	0.290
2) TM	1,2,3-TCP	9.25	10.44	120854	381821	0.265	0.317
4) TM	DBCP	13.34	14.08	1566459	6173573	0.270	0.325

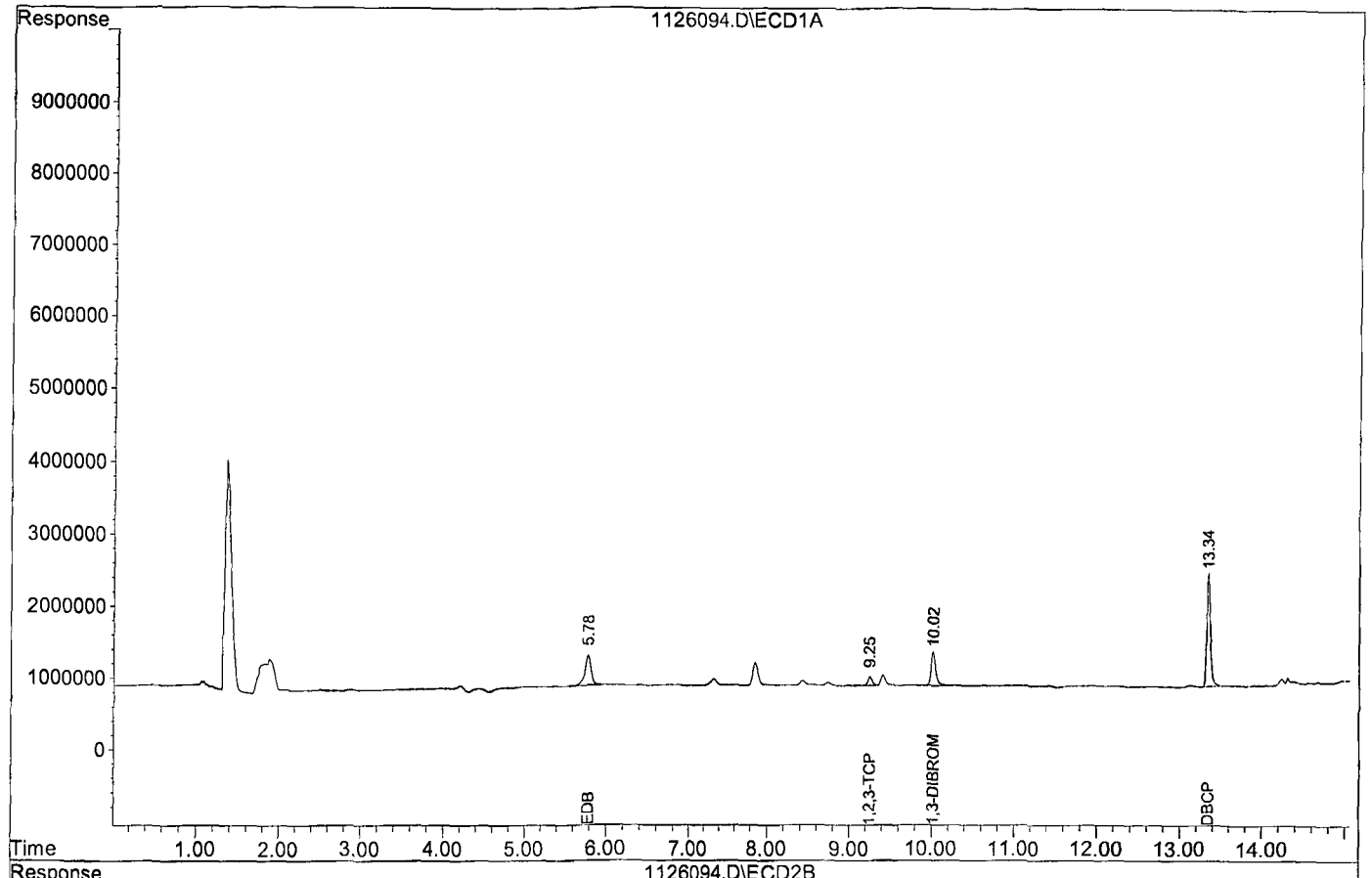
Target Compounds

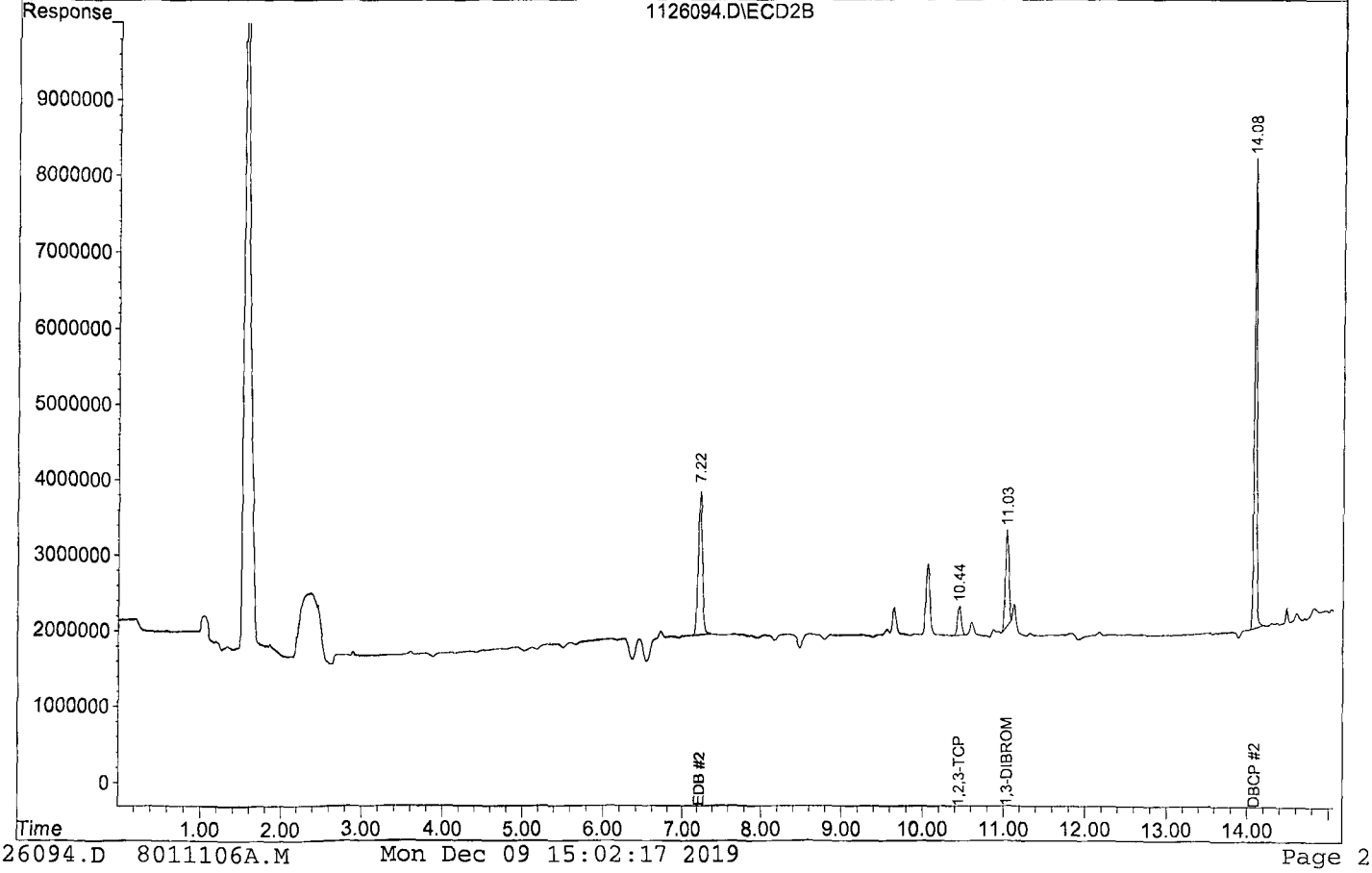
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (Not Reviewed)

Data File : G:\HERBIE\DATA\191126\1126094.D
Acq On : 12-06-19 22:35:54
Sample : BA02715W38 MS-1 2/35.00g
Misc : water
Quant Method : G:\HERBIE\DATA\190814\8011106A.M

Vial: 94
Operator: MA,SS
Inst : Herbie
Multiplr: 0.99





Quantitation Report (Not Reviewed)

Signal #1 : G:\HERBIE\DATA\191126\1126095.D\ECD1A.CH Vial: 95
Signal #2 : G:\HERBIE\DATA\191126\1126095.D\ECD2B.CH
Acq On : 12-06-19 22:55:57 Operator: MA,SS
Sample : BA02715W38 MSD-1 2/35.00g Inst : Herbie
Misc : water Multiplr: 0.99
IntFile Signal #1: rteint.p IntFile Signal #2: rteint2.p
Quant Time: Dec 9 13:20 2019 Quant Results File: 8011106A.RES

Quant Method : G:\HERBIE\DATA\190814\8011106A.M (RTE Integrator)
Title : 504.1 OR 8011
Last Update : Tue Nov 12 13:30:16 2019
Response via : Initial Calibration
DataAcq Meth : DOHS504.M

Volume Inj. : 2µL
Signal #1 Phase : DB-35MS Signal #2 Phase: DB-XLB
Signal #1 Info : 0.25 Signal #2 Info : 0.50

	Compound	RT#1	RT#2	Resp#1	Resp#2	ug/L	ug/L
	System Monitoring Compounds						
3) S	1,3-DIBROMOPROPA	10.02	11.03	464785	1262832	0.266	0.289
Spiked Amount	0.347			Recovery	=	76.63%	83.26%
	Target Compounds						
1) TM	EDB	5.79	7.22	393399	1878180	0.260	0.287
2) TM	1,2,3-TCP	9.25	10.44	118700	385686	0.260	0.321
4) TM	DBCP	13.35	14.08	1586516	6229708	0.274	0.329

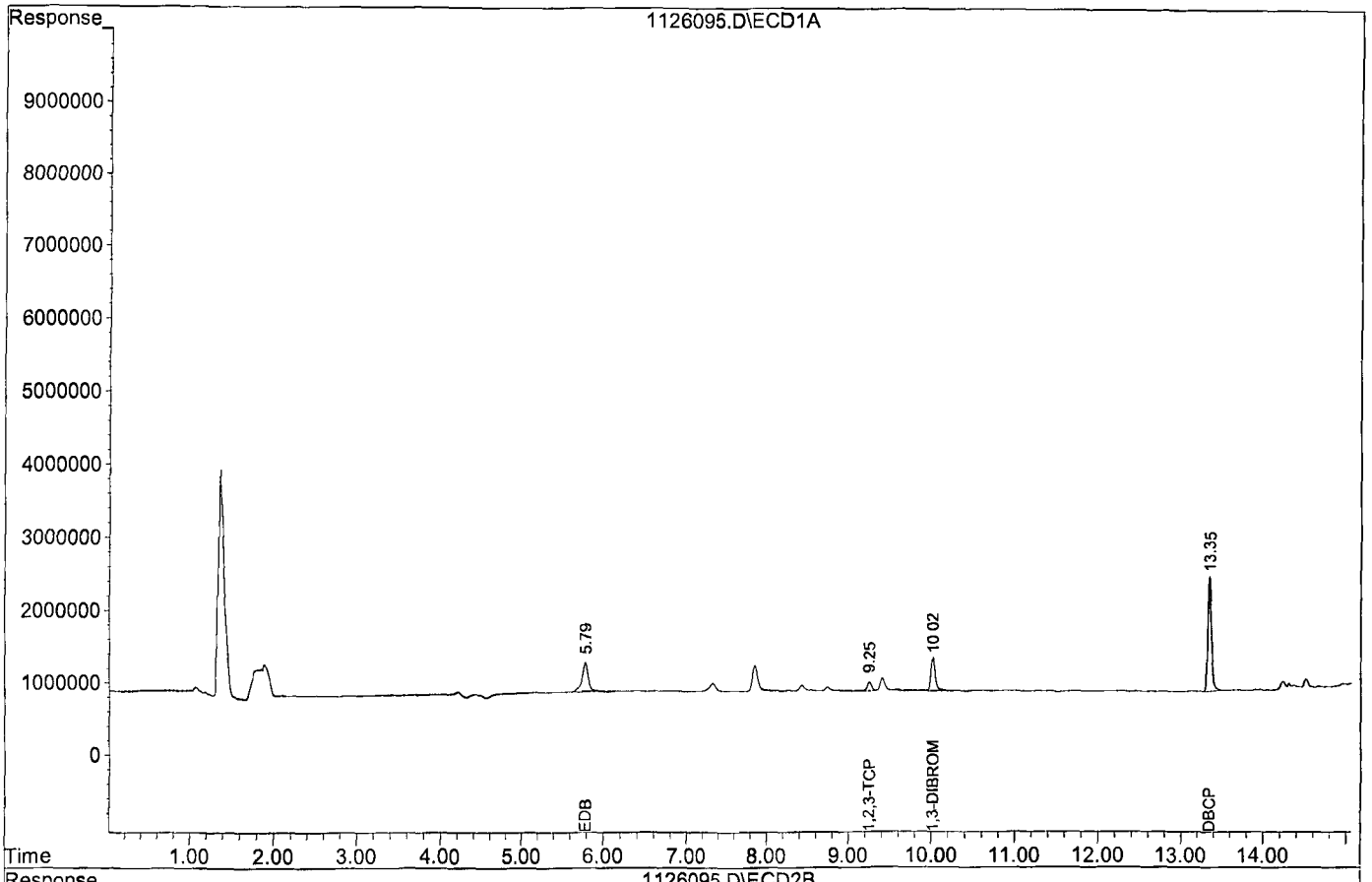
Target Compounds

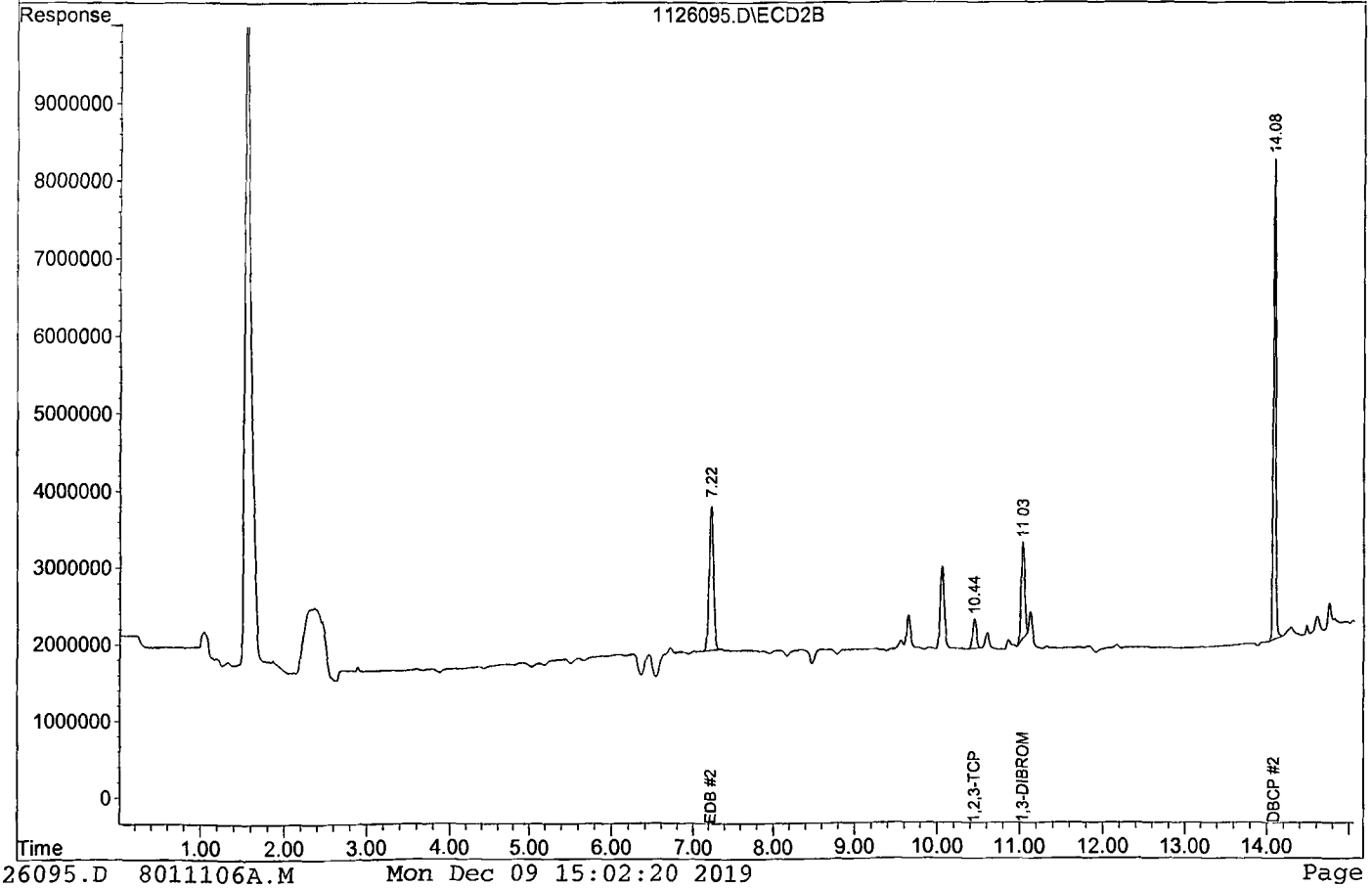
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (Not Reviewed)

Data File : G:\HERBIE\DATA\191126\1126095.D
Acq On : 12-06-19 22:55:57
Sample : BA02715W38 MSD-1 2/35.00g
Misc : water
Quant Method : G:\HERBIE\DATA\190814\8011106A.M

Vial: 95
Operator: MA,SS
Inst : Herbie
Multiplr: 0.99





Name of Final Standard: **504/8011 Spike** Prep'd By (Initials): GA

Prep Date: 10/31/19

Exp Date: 01/06/20

Initial Standard Information						Final Standard Information			
Name of Initial Standard (from container Label)	Supplier	Supplier P/N# (or APPL Mix Name)	Conc.(range)	Lot # with QA # (or reference to APPL prep date)	Exp Date	Aliquot from Stock	Final Volume	Final Solvent + Lot# (or APPL Prep Date)	Final Standard Conc (range)
504/8011 Stock	APPL	504/8011 Stock	0.35 ug/mL	09/09/19	01/06/20	1000 uL	10 mL	Methanol #208858	0.035 ug/mL

Name of Final Standard: **504/8011 SS SPK** Prep'd By (Initials): GA

Prep Date: 08/07/19

Exp Date: 12/07/19

Initial Standard Information						Final Standard Information			
(from container Label)	Supplier	APPL Mix Name)	Conc.(range)	to APPL prep date)	Exp Date	Stock	Volume	(or APPL Prep Date)	Conc (range)
504/8011 SS Stock	APPL	504/8011 SS Stock	0.35 ug/mL	01/22/19	01/06/20	1 mL	10 mL	Methanol #042317C	0.035 ug/mL

Name of Final Standard: **504/8011 Surrogate** Prep'd By (Initials): GA

Prep Date: 09/04/19

Exp Date: 01/06/19

Initial Standard Information						Final Standard Information			
(from container Label)	Supplier	APPL Mix Name)	Conc.(range)	to APPL prep date)	Exp Date	Stock	Volume	(or APPL Prep Date)	Conc (range)
1,3 DBP	APPL	1,3 DBP Stock	100 ug/mL	05/07/19	01/06/20	35 uL	10 mL	Methanol #208858	0.35ug/ml

_MWE012

Organic Extraction Worksheet

Method	EPA Method 8011 DBCP/EDB	Extraction Set	191111A	Extraction Method	MWE012	Units	mL

Spiked ID 1	504.1 M. SPIKE 10/31/19 EXP 01/06/20		Surrogate ID 1	504.1 Surrogate 09/04/19 EXP 01/06/20	
Spiked ID 2	504.1 SS 08/07/19 EXP 12/17/19		Surrogate ID 2		
Spiked ID 3			Surrogate ID 3		
Spiked ID 4			Surrogate ID 4		
Spiked ID 5			Surrogate ID 5		
Spiked ID 6			Sufficient Vol for Matrix QC:		
Spiked ID 7			Ext. Start Time:	11/11/19 14:35	
Spiked ID 8			Ext. End Time:	11/12/19 9:30	
			GC Requires Extract By:		

pH1			Water Bath Temp 1 °C	
pH2			Water Bath Temp 2 °C	
pH3			Water Bath Temp 3 °C	

Spiked By: DL **Date** 11/11/19 **Witnessed By:** YL **Date** 11/11/19

	Sample	Sample Container	Spike Amount	Spike ID	Surrogate Amount	Surrogate ID	Extract Amount	Final Volume	pH	Extract Date/Time	Comments
1	191111A Blk				0.035	1 equip	35.20g	2	7	11/11/19 14:35	
2	191111A LCS-1		0.250	1	NA	NA equip	35.18g	2	7	11/11/19 14:35	
3	191111A LCSD-1		0.250	1	NA	NA equip	35.24g	2	7	11/11/19 14:35	
4	BA02465	BA02465W06			0.035	1 equip	35.32g	2	7	11/11/19 14:35	90648
5	BA02466	BA02466W07			0.035	1 equip	35.16g	2	7	11/11/19 14:35	90648
6	BA02524	BA02524W05			0.035	1 equip	35.21g	2	7	11/11/19 14:35	90657
7	BA02525	BA02525W06			0.035	1 equip	35.19g	2	7	11/11/19 14:35	90657
8	BA02649	BA02649W01			0.035	1 equip	35.47g	2	7	11/11/19 14:35	90642 PT
9	BA02712	BA02712W05			0.035	1 equip	35.04g	2	7	11/11/19 14:35	90700
10	BA02713	BA02713W06			0.035	1 equip	35.44g	2	7	11/11/19 14:35	90700
11	BA02714	BA02714W06			0.035	1 equip	35.51g	2	7	11/11/19 14:35	90700
12	BA02715 MS-1	BA02715W38	0.250	1	NA	NA equip		2	7	12/06/19 8:45	
13	BA02715 MSD-1	BA02715W39	0.250	1	NA	NA equip		2	7	12/06/19 8:45	
14	BA02715	BA02715W14			0.035	1 equip	35.23g	2	7	11/11/19 14:35	90700
15	BA02716	BA02716W07			0.035	1 equip	35.06g	2	7	11/11/19 14:35	90700
16	M STD 1		0.020	1	NA	NA equip	35.21g	2	7	11/11/19 14:35	

Solvent and Lot#	
ph strip	HC863463
Sod. Thiosulfate	1016C241
NaCL	19A035211
GC2 Hexane (2mLs)	DT947

Extraction COC Transfer	
Extraction lab employee Initials	DL
GC analyst's initials	GA
Date	11/22/19
Time	13:30
Refrigerator	Hobart

	Technician's Initials
Scanned By	DL
Sample Preparation	DL
Extraction	DL
Concentration	DL

Modified	12/09/19 1:25:42 PM

Reviewed By: GA **Date** 11/22/19

Organic Extraction Worksheet

Method	EPA Method 8011 DBCP/EDB	Extraction Set	191111A	Extraction Method	MWE012	Units	mL
Spiked ID 1	504.1 M. SPIKE 10/31/19 EXP 01/06/20		Surrogate ID 1	504.1 Surrogate 09/04/19 EXP 01/06/20			
Spiked ID 2	504.1 SS 08/07/19 EXP 12/17/19		Surrogate ID 2				
Spiked ID 3			Surrogate ID 3				
Spiked ID 4			Surrogate ID 4				
Spiked ID 5			Surrogate ID 5				
Spiked ID 6			Sufficient Vol for Matrix QC:				
Spiked ID 7			Ext. Start Time:	11/11/19 14:35			
Spiked ID 8			Ext. End Time:	11/12/19 9:30			
			GC Requires Extract By:				
			pH1		Water Bath Temp 1 °C		
			pH2		Water Bath Temp 2 °C		
			pH3		Water Bath Temp 3 °C		

Spiked By: DL **Date** 11/11/19 **Witnessed By:** YL **Date** 11/11/19

	Sample	Sample Container	Spike Amount	Spike ID	Surrogate Amount	Surrogate ID	Extract Amount	Final Volume	pH	Extract Date/Time	Comments
17	SS		0.100	2	0.035	1	35.15g	2	7	11/11/19 14:35	
						equip					

GA 12/9/19

Solvent and Lot#	
ph strip	HC863463
Sod. Thiosulfate	1016C241
NaCL	19A035211
GC2 Hexane (2mLs)	DT947

Extraction COC Transfer	
Extraction lab employee Initials	DL
GC analyst's initials	GA
Date	
Time	
Refrigerator	Hobart

	Technician's Initials
Scanned By	DL
Sample Preparation	DL
Extraction	DL
Concentration	DL

Modified	12/09/19 1:25:42 PM

Reviewed By: GA **Date** 11/22/19

Injection Log

Directory: G:\HERBIE\DATA\191025\

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	20	1025122.D	1	8011 1 11/06/19	water	11-08-19 16:07:44
2	21	1025123.D	1	8011 2 11/06/19	water	11-08-19 16:28:04
3	22	1025124.D	1	8011 3 11/06/19	water	11-08-19 16:48:46
4	23	1025125.D	1	8011 4 11/06/19	water	11-08-19 17:09:07
5	24	1025126.D	1	8011 5 11/06/19	water	11-08-19 17:29:40
6	25	1025127.D	1	8011 6 11/06/19	water	11-08-19 17:50:18
7	26	1025128.D	1	8011 SS 11/06/19	water	11-08-19 18:10:46
8	53	1025153.D	1	8011 4 11/06/19	water	11-12-19 21:49:51
9	54	1025154.D	0.994318	191111A BLK 2/35.20G	water	11-12-19 22:09:58
10	55	1025155.D	0.99488	191111A LCS-1 2/35.18G	water	11-12-19 22:30:04
11	56	1025156.D	0.99319	191111A LCSD-1 2/35.24G	water	11-12-19 22:50:16
12	62	1025162.D	0.998858	BA02712W05 2/35.04G	water	11-13-19 0:50:36
13	63	1025163.D	0.98758	BA02713W06 2/35.44G	water	11-13-19 1:10:37
14	64	1025164.D	0.98564	BA02714W06 2/35.51G	water	11-13-19 1:30:37
15	65	1025165.D	0.993471	BA02715W14 2/35.23G	water	11-13-19 1:50:39
16	66	1025166.D	0.998289	BA02716W07 2/35.06G	water	11-13-19 2:10:38
17	69	1025169.D	1	8011 4 11/06/19	water	11-13-19 3:10:49
18	93	1126093.D	1	8011 2 11/6/19	water	12-06-19 22:15:45
19	94	1126094.D	0.99038	BA02715W38 MS-1 2/35.00g	water	12-06-19 22:35:54
20	95	1126095.D	0.991782	BA02715W38 MSD-1 2/35.00g	water	12-06-19 22:55:57
21	93	1126096.D	1	8011 2 11/6/19	water	12-06-19 23:16:01